YOU

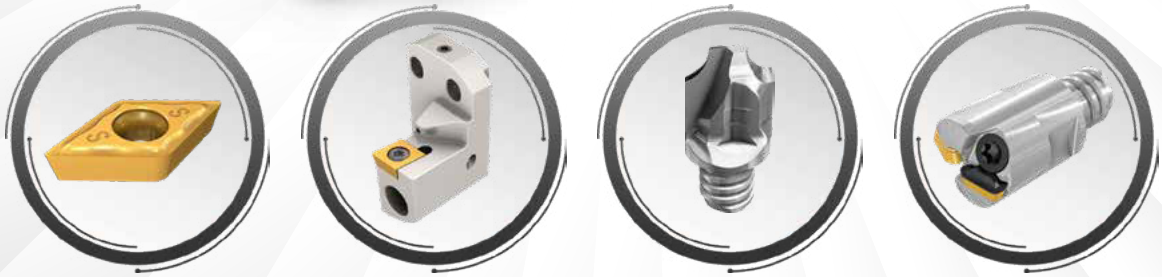
Metric · Imperial

INTELLIGENTLY?

MACHINING

ISCAR TOOLS FOR MINIATURE PARTS





TURNING | HOLEMAKING | MILLING | TOOL-HOLDERS

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PART 1



CERTIFIED QMS AS 9100 THE STANDARDS INSTITUTION OF ISRAEL

CERTIFIED QMS SI ISO 9001: 2015 THE STANDARDS INSTITUTION OF ISRAEL

CERTIFIED EMS SI ISO 14001: 2015 THE STANDARDS INSTITUTION OF ISRAEL

CERTIFIED OHS SYSTEM SI ISO 45001:2018 THE STANDARDS INSTITUTION OF ISRAEL

CERTIFIED ENERGY MANAGEMENT SYSTEM SI ISO 50001 THE STANDARDS INSTITUTION OF ISRAEL

CERTIFIED ISMS SI ISO 27001 2022 THE STANDARDS INSTITUTION OF ISRAEL

Quality Standard

ISCAR has been certified by the prestigious Standards Institution, as being in full compliance to ensure delivery of the finest quality goods. Quality control facilities include the metallurgical laboratory, raw metal testing, an online testing procedure and a machining center for tool performance testing and final product inspection. Only the finest products are packaged for entry into ISCAR's inventory.

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TOOLHOLDERS 1239

ALPHABETICAL INDEX 1259

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TURNING TOOLS AND INSERTS

Miniature

YOU

INTELLIGENTLY?

TURNING









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INTERNAL THREADING 737
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EXTERNAL ISO TURNING



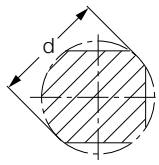
Toolholder Identification System

Toolholder				M	W	L	N	R	25	25	M	-	08	W
				4	5	6	7	8	9	10	3		11	12
Boring Bar	S	25	S	M	W	L	N	R				-	08	W
	1	2	3	4	5	6	7	8					11	12

1 Boring Bar

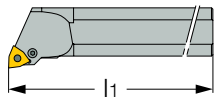
S	Steel Shank
A	Coolant Through Steel Shank
C	Solid Carbide Shank
E	Coolant Through Carbide Shank

2 Bar Diameter



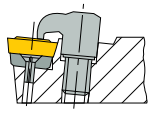
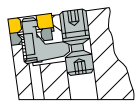
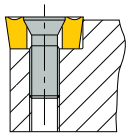
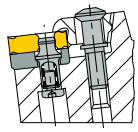
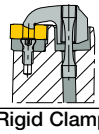
3 Tool Length



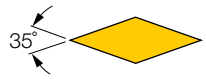
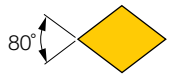
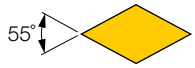
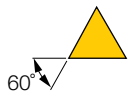
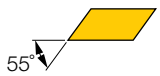


A	=	32	H	=	100	Q	= 180
B	=	40	J	=	110	R	= 200
C	=	50	K	=	125	S	= 250
D	=	60	L	=	140	T	= 300
E	=	70	M	=	150	U	= 350
F	=	80	N	=	160	V	= 400
G	=	90	P	=	170	W	= 450
						Y	= 500
						X	= Special

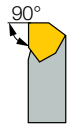
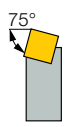
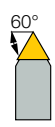
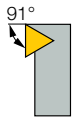
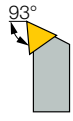
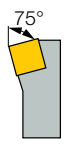
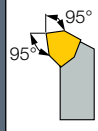
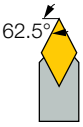
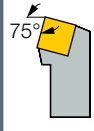
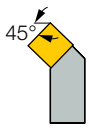
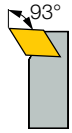
4 Clamping System

C	 Top Clamp Iscadex	P	 Lever Lock
S	 SC-Screw Clamping	M...W	 Top Wedge Lock
D	 Rigid Clamp		

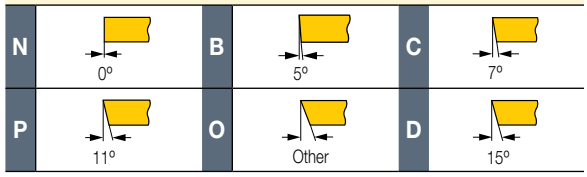
5 Insert Shape

W		V	
C		D	
T		S	
R		K	
L		Q	

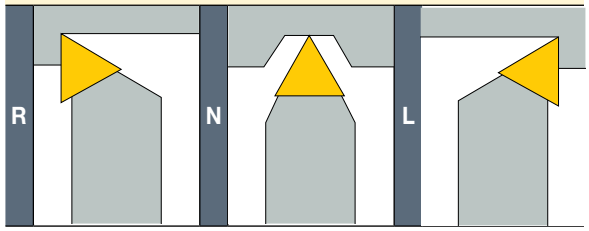
6 Approach Angle

A		B		D		E	
F		G		J		K	
L		N		Q		R	
S		U		V		X	

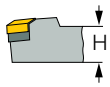
7 Insert Clearance Angle



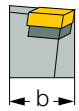
8 Hand of Tool



9 Shank Height

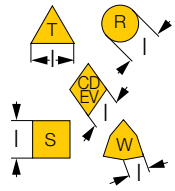


10 Shank Width

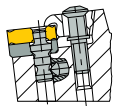
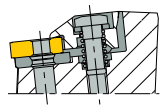


11 Insert Size

Cutting edge length



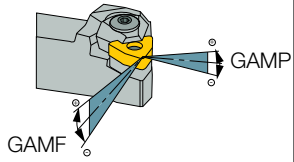
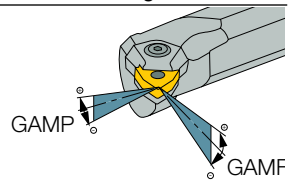
12 Wedge Lock

W-Top Wedge	MW-Multi-Wedge
	

S- for Swiss-Type Machines



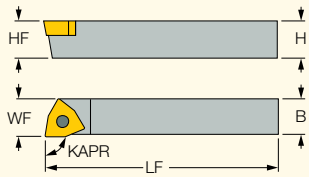
Axial GAMP and Radial GAMF Rake Angles

Toolholder	Boring Bar
	

ISOTURN

SWAPR/L-S

90° Lead Angle Screw Lock Tools Carrying Trigon Inserts for Swiss Automatic Machines



Right hand tool shown

	M E T R I C						
Designation	**H**	**HF**	**B**	**LF**	**WF**	**KAPR(1)**	**MIID(2)**
SWAPR/L 0808-04	8.0	8.0	8.0	140.00	8.10	90.0	WPEB/X 04..
SWAPR 1010-04	10.0	10.0	10.0	150.00	10.10	90.0	WPEB/X 04..
SWAPR/L 1010-05	10.0	10.0	10.0	150.00	10.10	90.0	WPEB/X 05..
SWAPL 1212-05	12.0	12.0	12.0	150.00	12.10	90.0	WPEB/X 05..
SWAPR/L 1212-06	12.0	12.0	12.0	150.00	12.10	90.0	WPEB/X 06..
SWAPR 1414-06	14.0	14.0	14.0	150.00	14.10	90.0	WPEB/X 06..
SWAPR/L 1616-06	16.0	16.0	16.0	150.00	16.10	90.0	WPEB/X 06..

- For R.H. tool use -R screw, for L.H. tool use -L screw

(1) Tool cutting edge angle

(2) Master insert identification

For inserts, see pages: WPEX (141)

For holders, see pages: SBTH-JHP (833)

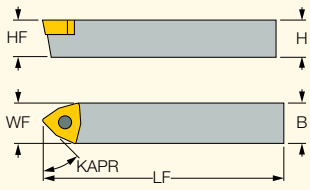
Spare Parts

Designation		
SWAPL 0808-04	T-8/5	SR M3.0L
SWAPR 0808-04	T-8/5	SR M3.0R
SWAPR 1010-04	T-8/5	SR M3.0R
SWAPL 1010-05	T-8/5	SR M3.5L
SWAPR 1010-05	T-8/5	SR M3.5R
SWAPL 1212-05	T-8/5	SR M3.5L
SWAPL 1212-06	T-8/5	SR M3.5L
SWAPR 1212-06	T-8/5	SR M3.5R
SWAPR 1414-06	T-8/5	SR M3.5R
SWAPL 1616-06	T-8/5	SR M3.5L
SWAPR 1616-06	T-8/5	SR M3.5R

ISOTURN

SWDPR/L

45° Lead Angle Screw Lock Tools Carrying Trigon Inserts for Swiss Automatic Machines



	M E T R I C						
Designation	**H**	**HF**	**B**	**LF**	**WF**	**KAPR(1)**	**MIID(2)**
SWDPR 1010-04	10.0	10.0	10.0	150.00	10.10	45.0	WPEB/X 04..
SWDPR/L 1212-05	12.0	12.0	12.0	150.00	12.10	45.0	WPEB/X 05..
SWDPR 1616-06	16.0	16.0	16.0	150.00	16.10	45.0	WPEB/X 06..

- For R.H. tool use -R screw, for L.H. tool use -L screw

(1) Tool cutting edge angle

(2) Master insert identification

For inserts, see pages: WPEX (141)

For holders, see pages: SBTH-JHP (833)

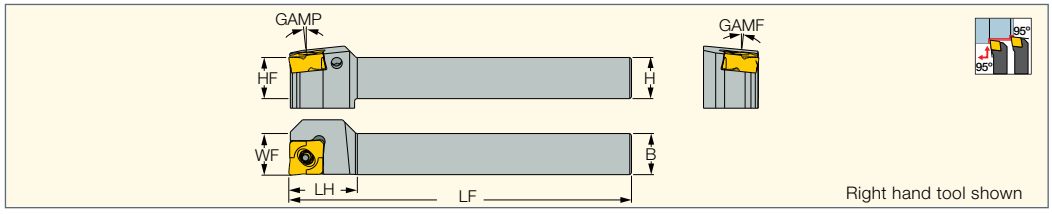
Spare Parts

Designation		
SWDPR 1010-04	T-8/5	SR M3.0R
SWDPL 1212-05	T-8/5	SR M3.5L
SWDPR 1212-05	T-8/5	SR M3.5R
SWDPR 1616-06	T-8/5	SR M3.5R

LOGIQ4TURN

PCLXR/L-S

Lever Lock Tools Carrying CXMG 80° Rhombic Inserts for Swiss-Type Automatic Lathes



M E T R I C									
Designation	**B**	**H**	**HF**	**LF**	**LH**	**WF**	**GAMP(1)**	**GAMF(2)**	**MIID(3)**
PCLXR/L 1212H-09XS	12.0	12.0	12.0	100.00	20.0	12.15	6.0	6.0	CXMG 090402-F3P
PCLXR/L 1616K-09XS	16.0	16.0	16.0	125.00	20.0	16.15	6.0	6.0	CXMG 090402-F3P

(1) Rake angle axial
(2) Rake angle radial
(3) Master insert identification

For inserts, see pages: CXMG-F3M (144) • CXMG-F3P (143) • CXMG-M3M (145) • CXMG-M3P (144)
For holders, see pages: SBTH-JHP (833)

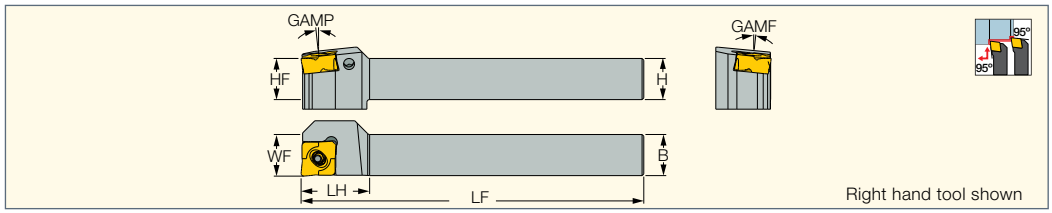
Spare Parts

Designation				
PCLXR/L-S	LR 3X SET	SR-SW-M4X0.7	T-8/5	PIN-SW LR-3X-D4.15

LOGIQ4TURN

PCLXR/L-S

Lever Lock Tools Carrying CXMG 80° Rhombic Inserts for Swiss type Automatic Lathes



I N C H									
Designation	**B**	**H**	**HF**	**LF**	**LH**	**WF**	**GAMP(1)**	**GAMF(2)**	**MIID(3)**
PCLXR/L 08-3XS	.500	.500	.500	3.990	.787	.510	6.0	6.0	CXMG 090402-F3P
PCLXR/L 10-3XS	.625	.625	.625	5.000	.787	.630	6.0	6.0	CXMG 090402-F3P

(1) Rake angle axial
(2) Rake angle radial
(3) Master insert identification

For inserts, see pages: CXMG-F3M (144) • CXMG-F3P (143) • CXMG-M3M (145) • CXMG-M3P (144)

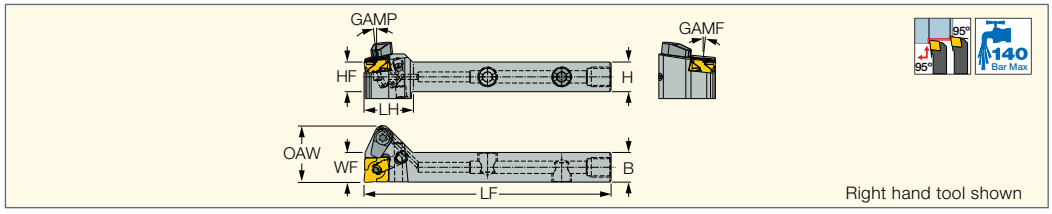
Spare Parts

Designation				
PCLXR/L-S	LR 3X SET	SR-SW-M4X0.7	T-8/5	PIN-SW LR-3X-D4.15

LOGIQ4TURN

PCLXR/L-S-JHP

Lever Lock Tools with JET-CUT Coolant System Carrying CXMG 80° Rhombic Inserts for Swiss-Type Automatic Lathes



M E T R I C										
Designation	**B**	**H**	**HF**	**LF**	**LH**	**WF**	**OAW**	**GAMP(1)**	**GAMF(2)**	**MIID(3)**
PCLXR/L 1212H-09XS-JHP	12.0	12.0	12.0	100.00	20.0	12.15	23.00	6.0	6.0	CXMG 090402-F3P
PCLXR/L 1616K-09XS-JHP	16.0	16.0	16.0	125.00	20.0	16.15	23.00	6.0	6.0	CXMG 090402-F3P

- For user guide, see pages 6-7, 67-68, 72

(1) Rake angle axial

(2) Rake angle radial

(3) Master insert identification

For inserts, see pages: CXMG-F3M (144) • CXMG-F3P (143) • CXMG-M3M (145) • CXMG-M3P (144)

For holders, see pages: SBTH-JHP (833)

Spare Parts

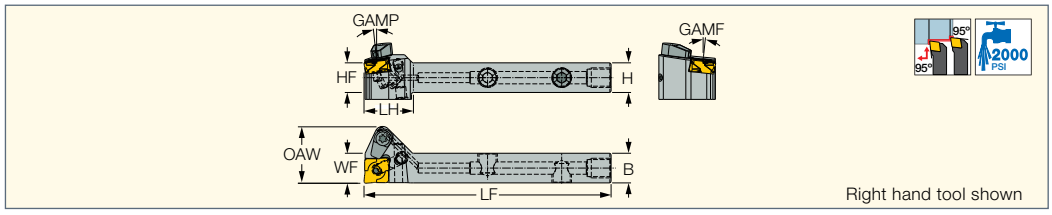
Designation									
PCLXR/L-S-JHP	LR 3X SET	SR-SW-M4X0.7	SR M5X5 SPR*	SR 5/16UNF TL360	T-8/5	SPRING-.55X2.9X6X6.8*	CH-1.9D-JHP-A SET	SR M3X3 DIN913 TL360	PIN-SW LR-3X-D4.15

* Optional, to be ordered separately

LOGIQ4TURN

PCLXR/L-S-JHP

Lever Lock Tools with JET-CUT Coolant System Carrying CXMG 80° Rhombic Inserts for Swiss-Type Automatic Lathes



I N C H									
Designation	**B**	**H**	**HF**	**LF**	**LH**	**WF**	**GAMP(1)**	**GAMF(2)**	**MIID(3)**
PCLXR/L 08-3XS-JHP	.500	.500	.500	3.990	.787	.510	6.0	6.0	CXMG 090402-F3P
PCLXR/L 10-3XS-JHP	.625	.625	.625	5.000	.787	.630	6.0	6.0	CXMG 090402-F3P

(1) Rake angle axial

(2) Rake angle radial

(3) Master insert identification

For inserts, see pages: CXMG-F3M (145) • CXMG-F3P (143) • CXMG-M3M (145) • CXMG-M3P (144)

Spare Parts

Designation					
PCLXR/L 08-3XS-JHP	SR-SW-M4X0.7	SR M5X5 SPR*	SR M3X3 DIN913 TL360	SR 5/16UNF TL360	CH-1.9D-JHP-A SET
PCLXL 10-3XS-JHP	SR-SW-M4X0.7	SR M5X5 SPR*	SR M3X3 DIN913 TL360	SR 5/16UNF TL360	CH-1.9D-JHP-A SET
PCLXR 10-3XS-JHP		SR M5X5 SPR*	SR M3X3 DIN913 TL360	SR 5/16UNF TL360	CH-1.9D-JHP-A SET

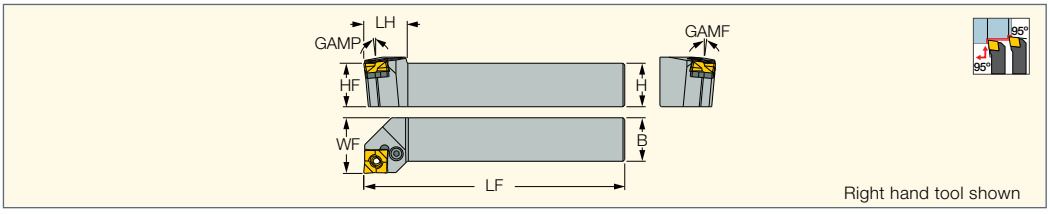
Designation					
PCLXR/L 08-3XS-JHP	LR 3X SET		T-8/5	SPRING-.55X2.9X6X6.8*	PIN-SW LR-3X-D4.15
PCLXL 10-3XS-JHP	LR 3X SET	HW 5/32"	T-8/5	SPRING-.55X2.9X6X6.8*	PIN-SW LR-3X-D4.15
PCLXR 10-3XS-JHP	LR 3X SET	HW 5/32"	T-8/5	SPRING-.55X2.9X6X6.8*	PIN-SW LR-3X-D4.15

* Optional, to be ordered separately

LOGIQ4TURN

PCLXR/L

Lever Lock Tools Carrying
CXMG 80° Rhombic Inserts



Right hand tool shown

METRIC									
Designation	**B**	**H**	**HF**	**LF**	**LH**	**WF**	**GAMP(1)**	**GAMF(2)**	**MIID(3)**
PCLXR/L 1212F-09X	12.0	12.0	12.0	80.00	19.0	16.00	6.0	6.0	CXMG 09...
PCLXR/L 1616H-09X	16.0	16.0	16.0	100.00	19.0	20.00	6.0	6.0	CXMG 09...

(1) Rake angle axial
(2) Rake angle radial
(3) Master insert identification

For inserts, see pages: CXMG-F3M (144) • CXMG-F3P (143) • CXMG-M3M (145) • CXMG-M3P (144)
For holders, see pages: SBTH-JHP (833)

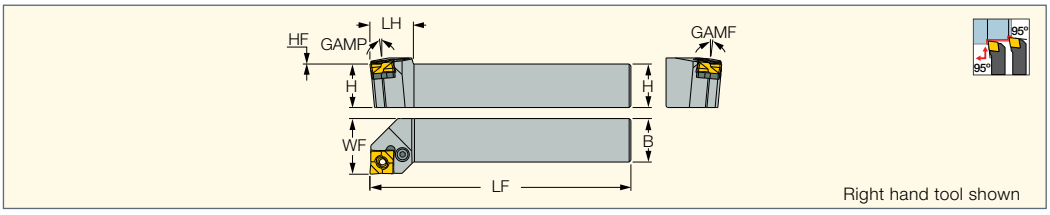
Spare Parts

Designation			
PCLXR/L	LR 3X SET	SR M6XL11.5V	T-8/5

LOGIQ4TURN

PCLXR/L

Lever Lock Tools Carrying
CXMG 80° Rhombic Inserts



Right hand tool shown

INCH							
Designation	**B**	**HF**	**LF**	**LH**	**WF**	**GAMP(1)**	**GAMF(2)**	**MIID(3)**
PCLXR/L 08-3X	.500	.500	3.250	.875	.625	6.0	6.0	CXMG 09..
PCLXR/L 10-3X	.625	.625	4.000	.800	.800	6.0	6.0	CXMG 09..

(1) Rake angle axial
(2) Rake angle radial
(3) Master insert identification

For inserts, see pages: CXMG-F3M (144) • CXMG-F3P (143) • CXMG-M3M (145) • CXMG-M3P (144)

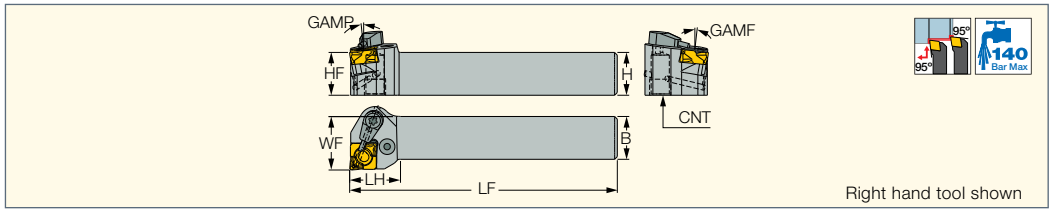
Spare Parts

Designation			
PCLXR/L	LR 3X SET	SR M6XL11.5V	T-8/5

LOGIQ4TURN

PCLXR/L-JHP

Lever Lock Tools with Channels for High-Pressure Coolant Carrying CXMG 80° Rhombic Inserts



M E T R I C

Designation	B	H	HF	LF	LH	WF	GAMP(1)	GAMF(2)	MIID(3)	CNT
PCLXR/L 1212F-09X-JHP	12.0	12.0	12.0	80.00	20.0	16.00	6.0	6.0	CXMG 09...	UNF 5/16-24
PCLXR/L 1616H-09X-JHP	16.0	16.0	16.0	100.00	20.0	20.00	6.0	6.0	CXMG 09...	UNF 5/16-24

- For user guide, see pages 6-7, 67-68, 72

(1) Rake angle axial

(2) Rake angle radial

(3) Master insert identification

For inserts, see pages: CXMG-F3M (144) • CXMG-F3P (143) • CXMG-M3M (145) • CXMG-M3P (144)

For holders, see pages: SBTH-JHP (833)

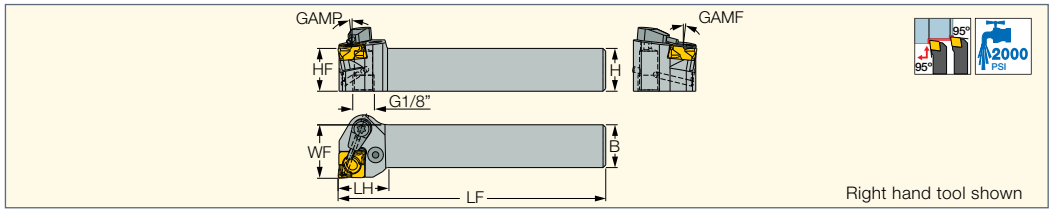
Spare Parts

Designation				
PCLXR/L-JHP	LR 3X SET	SR M6XL11.5V	T-8/5	S-CU-JHP-A SET

LOGIQ4TURN

PCLXR/L-JHP

Lever Lock Tools with Channels for High-Pressure Coolant Carrying CXMG 80° Rhombic Inserts



I N C H

Designation	B	H	HF	LF	LH	WF	GAMP(1)	GAMF(2)	MIID(3)
PCLXR/L 08-3X-JHP	.500	.500	.500	3.250	.787	.625	6.0	6.0	CXMG 09..
PCLXR/L 10-3X-JHP	.625	.625	.625	4.500	.787	.750	6.0	6.0	CXMG 09..

- For user guide, see pages 6-7, 67-68, 72

(1) Rake angle axial

(2) Rake angle radial

(3) Master insert identification

For inserts, see pages: CXMG-F3M (144) • CXMG-F3P (143) • CXMG-M3M (145) • CXMG-M3P (144)

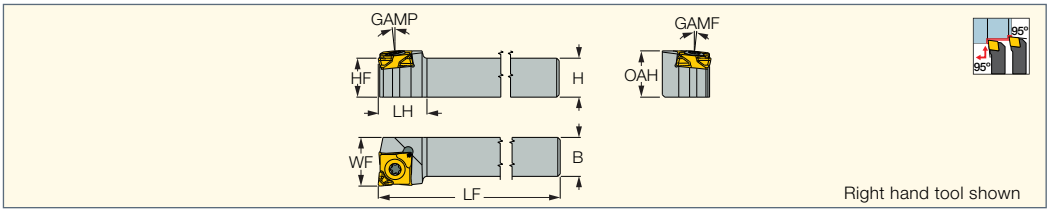
Spare Parts

Designation				
PCLXR/L-JHP	LR 3X SET	SR M6XL11.5V	T-8/5	S-CU-JHP-A SET

LOGIQ4TURN

SCLXR/L 06X

Screw Lock Carrying CXMU
80° Rhombic Inserts



M E T R I C										
Designation	**B**	**H**	**HF**	**LF**	**LH**	**WF**	**OAH**	**GAMP(1)**	**GAMF(2)**	**MIID(3)**
SCLXR/L 0808F-06X	8.0	8.0	8.0	80.00	10.0	10.00	9.50	6.0	6.0	CXMU 060204

- For user guide, see pages 6-7, 67-68, 72

(1) Rake angle axial
(2) Rake angle radial
(3) Master insert identification

For inserts, see pages: CXMU-F3M (142) • CXMU-F3P (142)

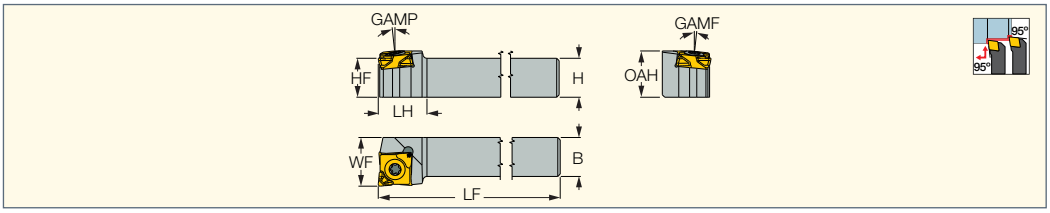
Spare Parts

Designation		
SCLXR/L 06X	SR M2.5-T8-MT	T-8/5

LOGIQ4TURN

SCLXR/L 2X

Screw Lock Carrying CXMU
80° Rhombic Inserts



I N C H										
Designation	**B**	**H**	**HF**	**LF**	**LH**	**WF**	**OAH**	**GAMP(1)**	**GAMF(2)**	**MIID(3)**
SCLXR/L 05-2X	.312	.312	.312	2.500	.394	.375	.371	6.0	6.0	CXMU 060204

(1) Rake angle axial
(2) Rake angle radial
(3) Master insert identification

For inserts, see pages: CXMU-F3M (142) • CXMU-F3P (142)

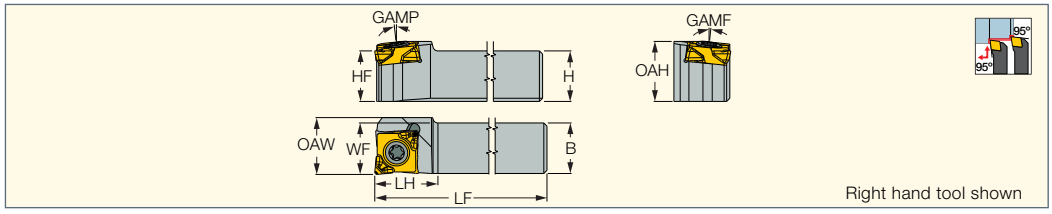
Spare Parts

Designation		
SCLXR/L 2X	SR M2.5-T8-MT	T-8/5

LOGIQ4TURN

SCLXR/L 06XS

Screw Lock Carrying CXMU 80° Rhombic Inserts for Swiss-Type Automatic Lathes



M E T R I C											
Designation	**B**	**H**	**HF**	**LF**	**LH**	**WF**	**OAW**	**OAH**	**GAMP(1)**	**GAMF(2)**	**MIID(3)**
SCLXR/L 0808K-06XS	8.0	8.0	8.0	125.00	10.0	8.15	9.00	9.50	6.0	6.0	CXMU 060204

(1) Rake angle axial
(2) Rake angle radial
(3) Master insert identification

For inserts, see pages: CXMU-F3M (142) • CXMU-F3P (142)

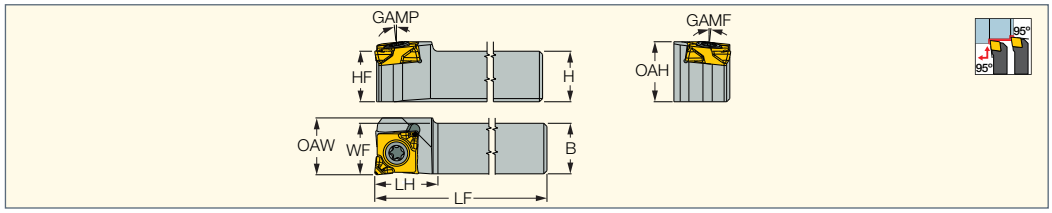
Spare Parts

Designation		
SCLXR/L 06XS	SR M2.5-T8-MT	T-8/5

LOGIQ4TURN

SCLXR/L 2XS

Screw Lock Carrying CXMU 80° Rhombic Inserts for Swiss-Type Automatic Lathes



I N C H											
Designation	**B**	**H**	**HF**	**LF**	**LH**	**WF**	**OAW**	**OAH**	**GAMP(1)**	**GAMF(2)**	**MIID(3)**
SCLXR/L 05-2XS	.312	.312	.312	5.000	.394	.318	.371	.354	6.0	6.0	CXMU 060204

(1) Rake angle axial
(2) Rake angle radial
(3) Master insert identification

For inserts, see pages: CXMU-F3M (142) • CXMU-F3P (142)

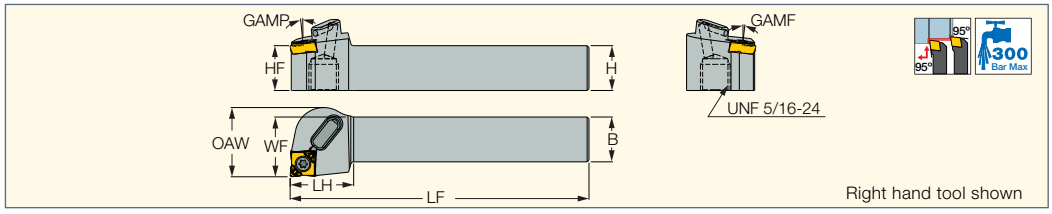
Spare Parts

Designation		
SCLXR/L 2XS	SR M2.5-T8-MT	T-8/5

LOGIQ4TURN

SCLXR/L 06X-JHP

Screw Lock Tools with
Channel for High-Pressure
Coolant Carrying CXMU
80° Rhombic Inserts



M E T R I C										
Designation	**B**	**H**	**HF**	**LF**	**LH**	**WF**	**OAW**	**GAMP(1)**	**GAMF(2)**	**MIID(3)**
SCLXR/L 1010F-06X-JHP	10.0	10.0	10.0	80.00	17.0	12.00	18.50	6.0	6.0	CXMU 060208
SCLXR/L 1212F-06X-JHP	12.0	12.0	12.0	80.00	17.0	16.00	18.50	6.0	6.0	CXMU 060208
SCLXR/L 1616H-06X-JHP	16.0	16.0	16.0	100.00	17.0	20.00	20.00	6.0	6.0	CXMU 060208

• For user guide, see pages 6-7, 67-68, 72

(1) Rake angle axial

(2) Rake angle radial

(3) Master insert identification

For inserts, see pages: CXMU-F3M (142) • CXMU-F3P (142)

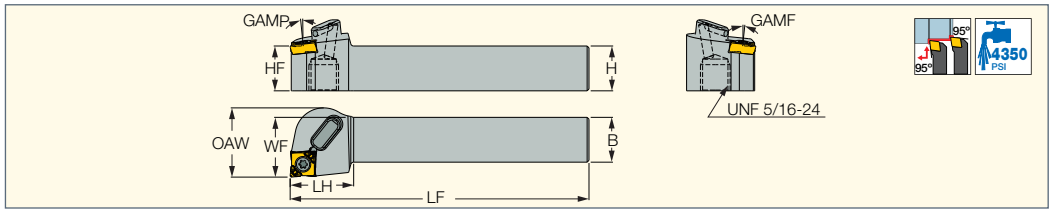
Spare Parts

Designation		
SCLXR/L 06X-JHP	SR M2.5-T8-MT	T-8/5

LOGIQ4TURN

SCLXR/L 2X-JHP

Screw Lock Tools with
Channel for High-Pressure
Coolant Carrying CXMG
80° Rhombic Inserts



I N C H										
Designation	**B**	**H**	**HF**	**LF**	**LH**	**WF**	**OAW**	**GAMP(1)**	**GAMF(2)**	**MIID(3)**
SCLXR/L 06-2X-JHP	.375	.375	.375	2.500	.670	.500	.730	6.0	6.0	CXMU 060208
SCLXR/L 08-2X-JHP	.500	.500	.500	3.500	.670	.625	.730	6.0	6.0	CXMU 060208

(1) Rake angle axial

(2) Rake angle radial

(3) Master insert identification

For inserts, see pages: CXMU-F3M (142) • CXMU-F3P (142)

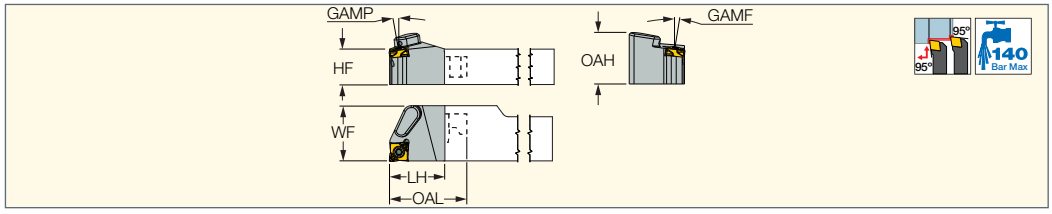
Spare Parts

Designation		
SCLXR/L 2X-JHP	SR M2.5-T8-MT	T-8/5

LOGIQ4TURN

NQCH-SCLXR/L-JHP

Screw Lock JET-CUT Modular Heads Carrying Positive Double-Sided 80° Rhombic Inserts for Swiss-Type Machines



M E T R I C							
Designation	**WF**	**HF**	**LF**	**OAH**	**GAMP(1)**	**GAMF(2)**	**MIID(3)**
NQCH10-SCLXR/L-06X-JHP	10.20	10.0	20.00	14.20	6.0	6.0	CXMU 060208
NQCH12-SCLXR/L-06X-JHP	12.20	12.0	20.00	18.60	6.0	6.0	CXMU 060208

- For user guide, see pages 6-7, 67-68, 72

(1) Rake angle axial

(2) Rake angle radial

(3) Master insert identification

For inserts, see pages: CXMU-F3M (142) • CXMU-F3P (142)

For holders, see pages: NQCH-JHP (63)

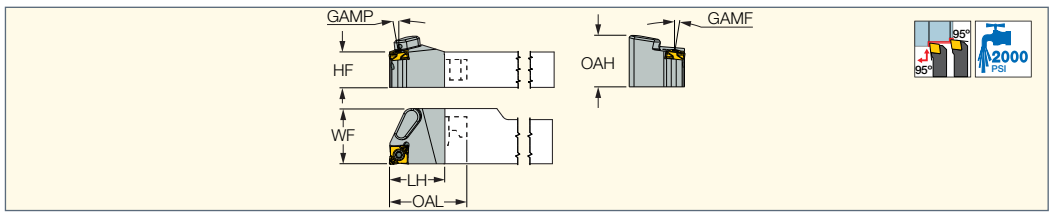
Spare Parts

Designation		
NQCH-SCLXR/L-JHP	SR M2.5-T8-MT	T-8/5

LOGIQ4TURN

NQCH-SCLXR/L-JHP

Screw Lock JET-CUT Modular Heads Carrying Positive Double-Sided 80° Rhombic Inserts for Swiss-Type Machines



I N C H							
Designation	**WF**	**HF**	**LF**	**OAH**	**GAMP(1)**	**GAMF(2)**	**MIID(3)**
NQCH10-SCLXR/L-06X-JHP	.402	.394	.787	.559	6.0	6.0	CXMU 060208
NQCH12-SCLXR/L-06X-JHP	.480	.472	.787	.732	6.0	6.0	CXMU 060208

- For user guide, see pages 6-7, 67-68, 72

(1) Rake angle axial

(2) Rake angle radial

(3) Master insert identification

For inserts, see pages: CXMU-F3M (142) • CXMU-F3P (142)

For holders, see pages: NQCH-JHP (63)

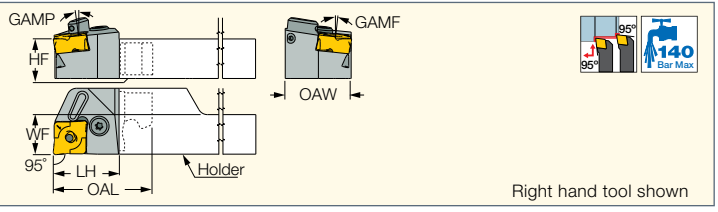
Spare Parts

Designation		
NQCH-SCLXR/L-JHP	SR M2.5-T8-MT	T-8/5

LOGIQ4TURN

NQCH-PCLXR/L-S-JHP

Lever Lock JET-CUT Modular Heads Carrying Positive Double-Sided 80° Rhombic Inserts for Swiss-Type Machines



Right hand tool shown

M E T R I C								
Designation	**WF**	**HF**	**LH**	**OAL**	**OAW**	**GAMP(1)**	**GAMF(2)**	**MIID(3)**
NQCH12-PCLXR/L-09XS-JHP	12.15	12.0	20.0	28.80	20.15	6.0	6.0	CXMG.. 0904
NQCH16-PCLXR/L-09XS-JHP	16.15	16.0	20.0	28.80	20.15	6.0	6.0	CXMG.. 0904

- Use only RH Shank with RH Head and LH Shank with LH Head

(1) Rake angle axial

(2) Rake angle radial

(3) Master insert identification

For inserts, see pages: CXMG-F3M (144) • CXMG-F3P (143) • CXMG-M3M (145) • CXMG-M3P (144)
For holders, see pages: C#-NQCH-JHP (65) • NQCH-JHP (63)

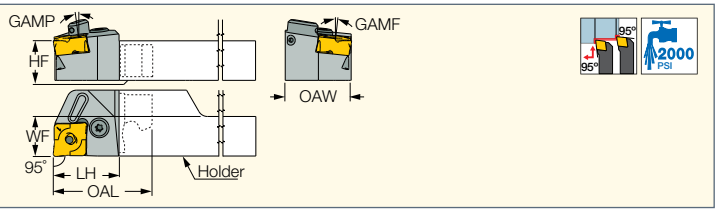
Spare Parts

Designation			
NQCH-PCLXR/L-S-JHP	LR 3X SET	SR M6XL11.5V	T-8/5

LOGIQ4TURN

NQCH-PCLXR/L-S-JHP

Lever Lock JET-CUT Modular Heads Carrying Positive Double-Sided 80° Rhombic Inserts for Swiss-Type Machines



I N C H								
Designation	**WF**	**HF**	**LH**	**OAL**	**OAW**	**GAMP(1)**	**GAMF(2)**	**MIID(3)**
NQCH12-PCLXR/L-09XS-JHP	.478	.472	.787	1.134	.793	6.0	6.0	CXMG 0904#
NQCH16-PCLXR/L-09XS-JHP	.636	.630	.787	1.134	.793	6.0	6.0	CXMG 0904#

- Use only RH Shank with RH Head and LH Shank with LH Head

(1) Rake angle axial

(2) Rake angle radial

(3) Master insert identification

For inserts, see pages: CXMG-F3M (144) • CXMG-F3P (143) • CXMG-M3M (145) • CXMG-M3P (144)
For holders, see pages: C#-NQCH-JHP (65) • NQCH-JHP (63)

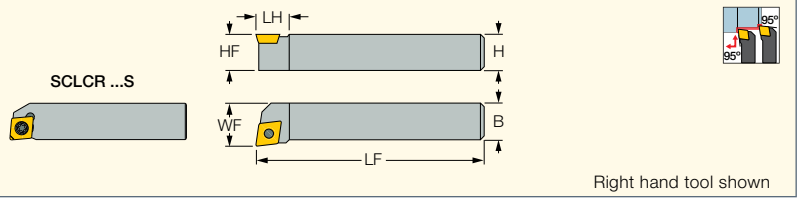
Spare Parts

Designation			
NQCH-PCLXR/L-S-JHP	LR 3X SET	SR M6XL11.5V	T-8/5

ISOTURN

SCLCR/L

Screw Lock Tools Carrying
80° Diamond Inserts with
7° Clearance Angle



Right hand tool shown

M E T R I C

Designation	H	HF	B	LF	LH	WF	MIID[2]		
SCLCR/L 0808F-06	8.0	8.0	8.0	80.00	10.0	10.00	CC.. 0602	SR 14-548	T-7/5
SCLCR/L 1010F-06	10.0	10.0	10.0	80.00	10.0	12.00	CC.. 0602	SR 14-548	T-7/5
SCLCR/L 1212F-09	12.0	12.0	12.0	80.00	14.0	16.00	CC.. 09T3	SR 16-236	T-15/5
SCLCR 1212M-09S [1]	12.0	12.0	12.0	150.00	11.5	12.15	CC.. 09T3	SR 16-236	T-15/5
SCLCR/L 1616H-09	16.0	16.0	16.0	100.00	14.0	20.00	CC.. 09T3	SR 16-236	T-15/5
SCLCR 1616M-09S [1]	16.0	16.0	16.0	150.00	11.5	16.15	CC.. 09T3	SR 16-236	T-15/5

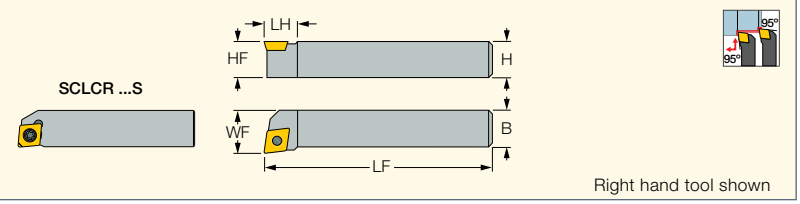
[1] For Swiss-type machines
[2] Master insert identification

For inserts, see pages: CCET-WF (158) • CCGW/CCMT (CBN) (162) • CCGW/CCMW-2 (CBN) (163) • CCMT-14 (152) • CCMT-CERMET (161) • CCMT-F3M (148) • CCMT-F3P (146) • CCMT-M3M (149) • CCMT-M3P (147) • CCMT-PF (153) • CCMT-WG (154) • CCMT/CCGT (150) • CCMT/CCGT-SM (151)

ISOTURN

SCLCR/L

Screw Lock Tools Carrying
80° Diamond Inserts with
7° Clearance Angle



Right hand tool shown

I N C H

Designation	H	HF	B	LF	LH	WF	MIID[2]		
SCLCR/L 06-2	.375	.375	.375	2.500	.500	.500	CC.. 2	SR 14-548	T-7/5
SCLCR/L 06-3	.375	.375	.375	2.500	.560	.500	CC.. 3	SR 16-236	T-15/5
SCLCR/L 08-3	.500	.500	.500	3.500	.560	.630	CC.. 3	SR 16-236	T-15/5
SCLCR 08-3S [1]	.500	.500	.500	5.906	.460	.506	CC.. 3	SR 16-236	T-15/5
SCLCR/L 10-3	.625	.625	.625	4.500	.560	.750	CC.. 3	SR 16-236	T-15/5

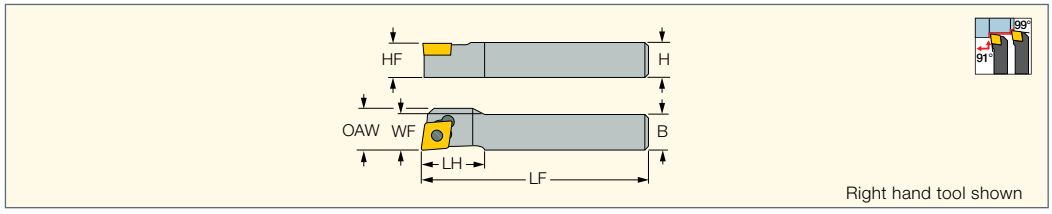
[1] For Swiss-type machines
[2] Master insert identification

For inserts, see pages: CCGT-F1M-12P (155) • CCGT-F1M-20P (156) • CCMT-CERMET (161) • CCMT-F3P (146) • CCMT-M3P (147) • CCMT-F3M (148) • CCMT-M3M (149) • CCMT-PF (153) • CCMT/CCGT-SM (151) • CCET-WF (158) • CCMT-WG (154) • CCGT-AS (160) • CCGT-AF (159) • CCMT-14 (152) • CCMT/CCGT (150) • CCGW/CCMT (CBN) (162) • CCGW/CCMW-2 (CBN) (163)

ISOTURN

SCACR/L-S

Screw Lock Tools Carrying 80° Diamond Inserts with 7° Clearance Angle for Swiss-Type Machines



Right hand tool shown

M E T R I C

Designation	H	HF	B	LF	LH	WF	OAW	MIID[1]		
SCACR/L 0808K-06S	8.0	8.0	8.0	125.00	8.0	8.20	-	CCMT 060204-14	SR 14-548	T-7/5
SCACR 1010K-06S	10.0	10.0	10.0	150.00	-	10.00	-	CCMT 060204-14	SR 14-548	T-7/5
SCACR/L 1616K-06S	16.0	16.0	16.0	125.00	-	16.20	-	CCMT 060204-14	SR 14-548	T-7/5
SCACR/L 1010K-09S	10.0	10.0	10.0	125.00	15.2	10.20	-	CCMT 09T304-14	SR 16-236	T-15/5
SCACR 1212K-09S	12.0	12.0	12.0	125.00	14.0	12.15	12.50	CCMT 09T304-14	SR 16-236	T-15/5
SCACR/L 1616K-09S	16.0	16.0	16.0	125.00	-	16.20	-	CCMT 09T304-14	SR 16-236	T-15/5

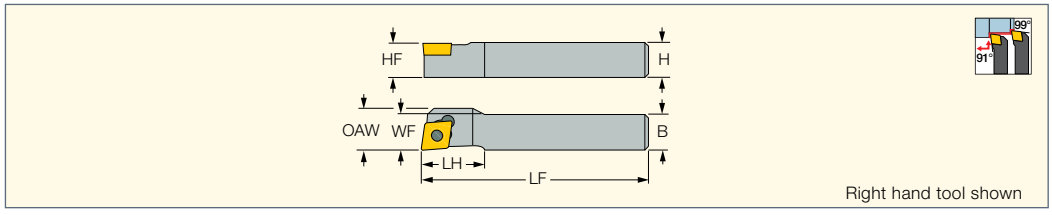
[1] Master insert identification

For inserts, see pages: CCET-WF (158) • CCGT-AS (160) • CCGT-F1M-12P (155) • CCGT-F1M-20P (156) • CCGW/CCMT (CBN) (162) • CCGW/CCMW-2 (CBN) (163) • CCMT-14 (152) • CCMT-CERMET (161) • CCMT-F3M (148) • CCMT-F3P (146) • CCMT-M3M (149) • CCMT-M3P (147) • CCMT-PF (153) • CCMT/CCGT (150) • CCMT/CCGT-SM (151)

ISOTURN

SCACR/L-S

Screw Lock Tools Carrying 80° Diamond Inserts with 7° Clearance Angle for Swiss-Type Machines



Right hand tool shown

I N C H

Designation	H	HF	B	LF	LH	WF	OAW	MIID[1]		
SCACR/L 0808K-06S	.315	.315	.315	4.921	.315	.323	-	CC..2	SR 14-548	T-7/5
SCACR 1010K-06S	.394	.394	.394	5.906	-	.394	-	CC..2	SR 14-548	T-7/5
SCACR/L 1616K-06S	.630	.630	.630	4.921	-	.638	-	CC..2	SR 14-548	T-7/5
SCACR/L 1010K-09S	.394	.394	.394	4.921	.598	.402	-	CC..3	SR 16-236	T-15/5
SCACR 1212K-09S	.472	.472	.472	4.921	.551	.478	.492	CC..3	SR 16-236	T-15/5
SCACR/L 1616K-09S	.630	.630	.630	4.921	-	.638	-	CC..3	SR 16-236	T-15/5

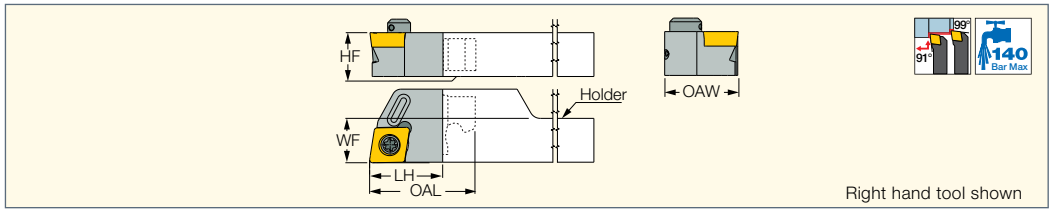
[1] Master insert identification

For inserts, see pages: CCET-WF (158) • CCGT-AS (160) • CCGT-F1M-12P (155) • CCGT-F1M-20P (156) • CCGW/CCMT (CBN) (162) • CCGW/CCMW-2 (CBN) (163) • CCMT-14 (152) • CCMT-CERMET (161) • CCMT-F3M (148) • CCMT-F3P (146) • CCMT-M3M (149) • CCMT-M3P (147) • CCMT-PF (153) • CCMT/CCGT (150) • CCMT/CCGT-SM (151)

NEOSWISS

NQCH-SCACR/L-S-JHP

Screw Lock JET-CUT Modular Heads Carrying 7° Clearance 80° Rhombic Inserts for Swiss-Type Machines



M E T R I C

Designation	WF	HF	LH	OAL	OAW	MIID[1]		
NQCH12-SCACR/L-09S-JHP	12.15	12.0	20.0	28.80	20.15	CC.. 09T3	SR 16-236	T-15/5
NQCH16-SCACR/L-09S-JHP	16.15	16.0	20.0	28.80	20.15	CC.. 09T3	SR 16-236	T-15/5

- Use only RH Shank with RH Head and LH Shank with LH Head

[1] Master insert identification

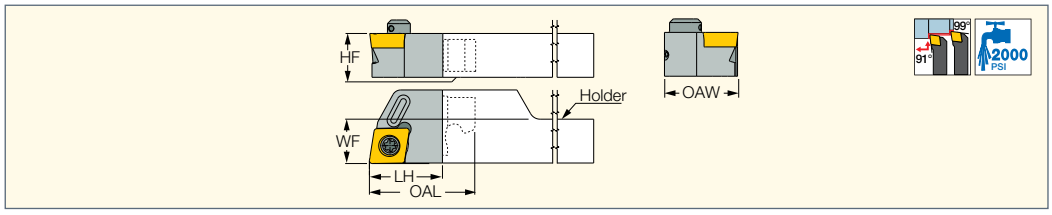
For inserts, see pages: CCET-WF (158) • CCGT-AS (160) • CCGT-F1M-12P (155) • CCGT-F1M-20P (156) • CCGW/CCMT (CBN) (162) • CCGW/CCMW-2 (CBN) (163) • CCMT-14 (152) • CCMT-CERMET (161) • CCMT-F3M (148) • CCMT-F3P (146) • CCMT-M3M (149) • CCMT-M3P (147) • CCMT-PF (153) • CCMT/CCGT (150) • CCMT/CCGT-SM (151)

For holders, see pages: C#-NQCH-JHP (65) • NQCH-JHP (63)

NEOSWISS

NQCH-SCACR/L-S-JHP

Screw Lock JET-CUT Modular Heads Carrying 7° Clearance 80° Rhombic Inserts for Swiss-Type Machines



I N C H

Designation	WF	HF	LH	OAL	OAW	MIID[1]		
NQCH12-SCACR/L-09S-JHP	.478	.472	.787	1.134	.793	CC..3..	SR 16-236	T-15/5
NQCH16-SCACR/L-09S-JHP	.636	.630	.787	1.134	.793	CC..3..	SR 16-236	T-15/5

- Use only RH Shank with RH Head and LH Shank with LH Head

[1] Master insert identification

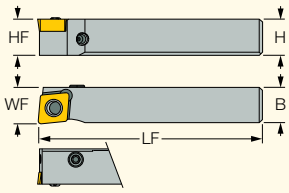
For inserts, see pages: CCET-WF (158) • CCGT-AS (160) • CCGT-F1M-12P (155) • CCGT-F1M-20P (156) • CCGW/CCMT (CBN) (162) • CCGW/CCMW-2 (CBN) (163) • CCMT-14 (152) • CCMT-CERMET (161) • CCMT-F3M (148) • CCMT-F3P (146) • CCMT-M3M (149) • CCMT-M3P (147) • CCMT-PF (153) • CCMT/CCGT (150) • CCMT/CCGT-SM (151)

For holders, see pages: C#-NQCH-JHP (65) • NQCH-JHP (63)

ISOTURN

PCLCR/L-S

Side Lever Lock Tools Carrying 80° Positive Rhombic Inserts for Swiss Automatic Machines





Right hand tool shown

M E T R I C

Designation	H	HF	B	LF	WF	MIID[1]				
PCLCR 0808M-06S	8.0	8.0	8.0	150.00	8.00	CC.. 0602	SL LV-2	SL PI-2 PIN	SR 10400611	HW 2.0/5
PCLCR/L 1010M-06S	10.0	10.0	10.0	150.00	10.20	CC.. 0602	SL LV-2	SL PI-2 PIN	SR 10400611	HW 2.0/5
PCLCR/L 1212M-06S	12.0	12.0	12.0	150.00	12.20	CC.. 0602	SL LV-2	SL PI-2 PIN	SR 10400611	HW 2.0/5
PCLCR/L 1616M-06S	16.0	16.0	16.0	150.00	16.20	CC.. 0602	SL LV-2	SL PI-2 PIN	SR 10400611	HW 2.0/5
PCLCR/L 1012M-09S	10.0	10.0	12.0	150.00	12.20	CC.. 09T3	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5
PCLCR/L 1212M-09S	12.0	12.0	12.0	150.00	12.20	CC.. 09T3	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5
PCLCR/L 1616M-09S	16.0	16.0	16.0	150.00	16.20	CC.. 09T3	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5
PCLCR/L 2020K-09S	20.0	20.0	20.0	125.00	20.20	CC.. 09T3	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5

- The clamping screw may by transferred to the opposite side if needed

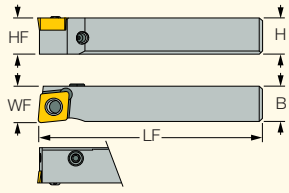
(1) Master insert identification

For inserts, see pages: CCGT-F1M-12P (155) • CCGT-F1M-20P (156) • CCMT-CERMET (161) • CCMT-F3P (146) • CCMT-M3P (147) • CCMT-F3M (148) • CCMT-M3M (149) • CCMT-PF (153) • CCMT/CCGT-SM (151) • CCET-WF (158) • CCMT-WG (154) • CCGT-AS (160) • CCGT-AF (159) • CCMT-14 (152) • CCMT/CCGT (150) • CCGW/CCMT (CBN) (162) • CCGW/CCMW-2 (CBN) (163)

ISOTURN

PCLCR/L-S

Side Lever Lock Tools Carrying 80° Positive Rhombic Inserts for Swiss Automatic Machines





Right hand tool shown

I N C H

Designation	H	HF	B	LF	WF	MIID[1]				
PCLCR 06-3S	.375	.375	.500	5.900	.510	CC.. 3	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5
PCLCR 08-3S	.500	.500	.500	5.900	.500	CC.. 3	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5
PCLCR/L 10-3S	.625	.625	.625	5.900	.630	CC.. 3	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5
PCLCR 12-3S	.750	.750	.750	5.900	.756	CC.. 3	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5

- The clamping screw may by transferred to the opposite side if needed

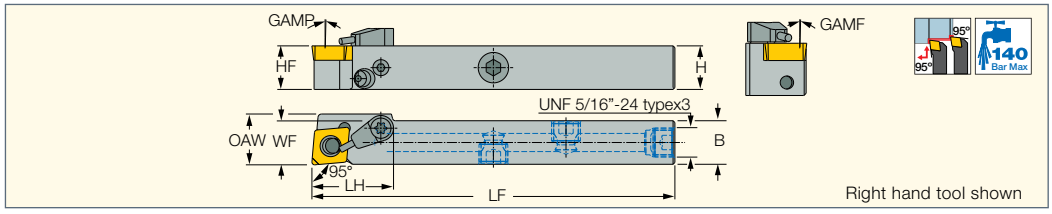
(1) Master insert identification

For inserts, see pages: CCGT-F1M-12P (155) • CCGT-F1M-20P (156) • CCMT-CERMET (161) • CCMT-F3P (146) • CCMT-M3P (147) • CCMT-F3M (148) • CCMT-M3M (149) • CCMT-PF (153) • CCMT/CCGT-SM (151) • CCET-WF (158) • CCMT-WG (154) • CCGT-AS (160) • CCGT-AF (159) • CCMT-14 (152) • CCMT/CCGT (150) • CCGW/CCMT (CBN) (162) • CCGW/CCMW-2 (CBN) (163)

ISOTURN

PCLCR/L-S-JHP

Tools with Channels for High Pressure Coolant Carrying 80° Positive Rhombic Inserts for Swiss Automatic Machines



M E T R I C

Designation	H	HF	B	LF	LH	WF	OAW	GAMP(1)	GAMF(2)	MIID(3)
PCLCR/L 1010H-06S-JHP	10.0	10.0	10.0	100.00	22.3	10.20	-	0.0	0.0	CC.. 0602
PCLCR/L 1212H-09S-JHP	12.0	12.0	12.0	100.00	22.3	12.20	14.00	0.0	0.0	CC.. 09T3
PCLCR/L 1616K-09S-JHP	16.0	16.0	16.0	125.00	22.3	16.20	-	0.0	0.0	CC.. 09T3
PCLCR/L 2020K-09S-JHP	20.0	20.0	20.0	125.00	22.3	20.20	-	0.0	0.0	CC.. 09T3

- For user guide, see pages 6-7, 67-68, 72

(1) Rake angle axial

(2) Rake angle radial

(3) Master insert identification

For inserts, see pages: CCGT-AF (159) • CCGT-F1M-12P (155) • CCGT-F1M-20P (156) • CCGW/CCMW-2 (CBN) (163) • CCMT-CERMET (161) • CCMT-M3M (149) • CCMT-M3P (147) • CCMT-WG (154) • CCMT/CCGT (150) • CCMT/CCGT-SM (151) • CCGT-AS (160) • CCMT-14 (152) • CCMT-F3M (148) • CCMT-F3P (146) • CCET-WF (158) • CCMT-PF (153) • CCGW/CCMT (CBN) (162)

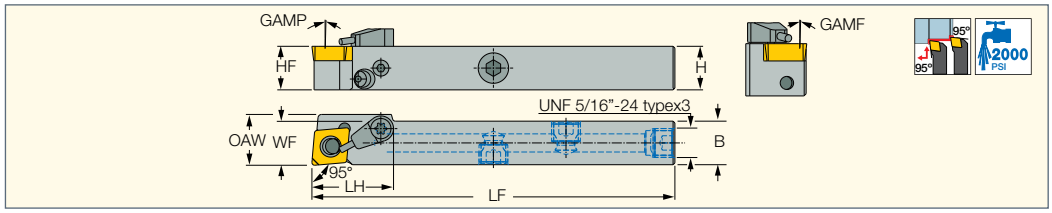
Spare Parts

Designation						
PCLCR/L 1010H-06S-JHP	SL LV-2	SL PI-2 PIN	SR 10400611	HW 2.0/5	SR 5/16XUNF-TL-S	S-CU-JHP-A SET
PCLCR/L 1212H-09S-JHP	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5	SR 5/16UNF TL360	S-CU-JHP-A SET
PCLCR/L 1616K-09S-JHP	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5	SR 5/16UNF TL360	S-CU-JHP-A SET
PCLCR/L 2020K-09S-JHP	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5	SR 5/16UNF TL360	S-CU-JHP-A SET

ISOTURN

PCLCR/L-S-JHP

Tools with Channels for High-Pressure Coolant Carrying 80° Positive Rhombic Inserts for Swiss Automatic Machines



I N C H

Designation	H	HF	B	LF	LH	WF	OAW	GAMP(1)	GAMF(2)	MIID(3)
PCLCR/L 08-3S-JHP	.500	.500	.500	4.000	.900	.510	.550	0	0	CC.. 3
PCLCR/L 10-3S-JHP	.625	.625	.625	4.000	.900	.630	-	0	0	CC.. 3
PCLCR 12-3S-JHP	.750	.750	.750	4.000	.900	.760	-	0	0	CC.. 3

- For user guide see pages 6-7, 67-68, 72

(1) Rake angle axial

(2) Rake angle radial

(3) Master insert identification

For inserts, see pages: CCGT-F1M-12P (155) • CCGT-F1M-20P (156) • CCMT-CERMET (161) • CCMT-F3P (146) • CCMT-M3P (147) • CCMT-F3M (148) • CCMT-M3M (149) • CCMT-PF (153) • CCMT/CCGT-SM (151) • CCET-WF (158) • CCMT-WG (154) • CCGT-AS (160) • CCGT-AF (159) • CCMT-14 (152) • CCMT/CCGT (150) • CCGW/CCMT (CBN) (162) • CCGW/CCMW-2 (CBN) (163)

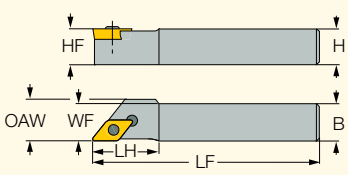
Spare Parts

Designation						
PCLCR/L-S-JHP	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5	SR 5/16UNF TL360	S-CU-JHP-A SET

ISOTURN

SDACR/L-S

Screw Lock Tools Carrying
55° Diamond Inserts with
7° Clearance Angle





Right hand tool shown

M E T R I C

Designation	H	HF	B	LF	LH	WF	OAW	MIID[1]		
SDACR/L 1010K-07S	10.0	10.0	10.0	125.00	12.0	10.20	10.20	DC..0702	SR 14-548	T-7/5
SDACR/L 1212K-07S	12.0	12.0	12.0	125.00	12.0	12.20	12.20	DC..0702	SR 14-548	T-7/5
SDACR/L 1212K-11S	12.0	12.0	12.0	125.00	17.6	12.20	12.20	DC..11T3	SR 16-236 P	T-15/5
SDACR/L 1616K-11S	16.0	16.0	16.0	125.00	17.6	16.20	16.20	DC..11T3	SR 16-236 P	T-15/5

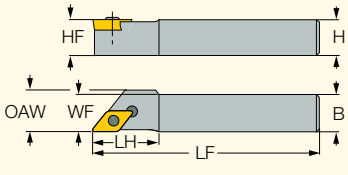
[1] Master insert identification

For inserts, see pages: DCGT-F1M-12P (177) • DCGT-F1M-20P (178) • DCMT-CERMET (175) • DCMT-F3P (164) • DCMT-M3P (166) • DCMT-M3M (167) • DCMT/DCGT-PF (171) • DCMT/DCGT-SM (169) • DCET-WF (180) • DCGT-AS (181) • DCGT-AF (179) • DCMT-14 (173) • DCMT/DCGT (174) • DCGW/DCMW-2 (CBN) (182) • DCMT (CBN) (183)

ISOTURN

SDACR/L-S

Screw Lock Tools Carrying
55° Diamond Inserts with
7° Clearance Angle





Right hand tool shown

I N C H

Designation	H	HF	B	LF	LH	WF	OAW	MIID[1]		
SDACR 06-2S	.375	.375	.375	5.905	.320	.381	.381	DC.. 2	SR 14-548	T-7/5
SDACR/L 1010K-07S	.394	.394	.394	4.921	.472	.402	.402	DC.. 2	SR 14-548	T-7/5
SDACR/L 1212K-07S	.472	.472	.472	4.921	.472	.480	.480	DC.. 2	SR 14-548	T-7/5
SDACR/L 1212K-11S	.472	.472	.472	4.921	.693	.480	.480	DC.. 3	SR 16-236 P	T-15/5
SDACR 08-3S	.500	.500	.500	5.905	.460	.505	.505	DC.. 3	SR 16-236 P	T-15/5
SDACR/L 1616K-11S	.630	.630	.630	4.921	.693	.638	.638	DC.. 3	SR 16-236 P	T-15/5

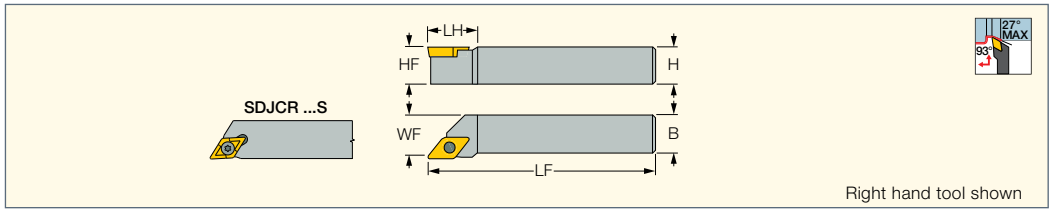
[1] Master insert identification

For inserts, see pages: DCGT-F1M-12P (177) • DCGT-F1M-20P (178) • DCMT-CERMET (175) • DCMT-F3P (164) • DCMT-M3P (166) • DCMT-M3M (167) • DCMT/DCGT-PF (171) • DCMT/DCGT-SM (169) • DCET-WF (180) • DCGT-AS (181) • DCGT-AF (179) • DCMT-14 (173) • DCMT/DCGT (174) • DCGW/DCMW-2 (CBN) (182) • DCMT (CBN) (183)

ISOTURN

SDJCR/L

Screw Lock Tools Carrying
55° Diamond Inserts with
7° Clearance Angle



M E T R I C

Designation	H	HF	B	LF	LH	WF	MIID[2]		
SDJCR/L 0808F-07	8.0	8.0	8.0	80.00	11.5	10.00	DC..0702	SR 14-548	T-7/5
SDJCR/L 0808K-07S [1]	8.0	8.0	8.0	125.00	10.6	8.15	DC..0702	SR 14-548	T-7/5
SDJCR/L 1010F-07	10.0	10.0	10.0	80.00	11.5	12.00	DC..0702	SR 14-548	T-7/5
SDJCR/L 1010M-07S [1]	10.0	10.0	10.0	150.00	10.6	10.15	DC..0702	SR 14-548	T-7/5
SDJCR/L 1212K-07S [1]	12.0	12.0	12.0	125.00	10.6	12.15	DC..0702	SR 14-548	T-7/5
SDJCR/L 1616K-07S [1]	16.0	16.0	16.0	125.00	10.6	16.15	DC..0702	SR 14-548	T-7/5
SDJCR/L 1010K-11S [1]	10.0	10.0	10.0	125.00	20.5	10.15	DC..11T3	SR 16-236	T-15/5
SDJCR/L 1212F-11	12.0	12.0	12.0	80.00	20.0	16.00	DC..11T3	SR 16-236 P	T-15/5
SDJCR/L 1212M-11S [1]	12.0	12.0	12.0	150.00	12.5	12.15	DC..11T3	SR 16-236 P	T-15/5
SDJCR/L 1616H-11	16.0	16.0	16.0	100.00	20.0	20.00	DC..11T3	SR 16-236 P	T-15/5
SDJCR/L 1616M-11S [1]	16.0	16.0	16.0	150.00	12.5	16.15	DC..11T3	SR 16-236 P	T-15/5

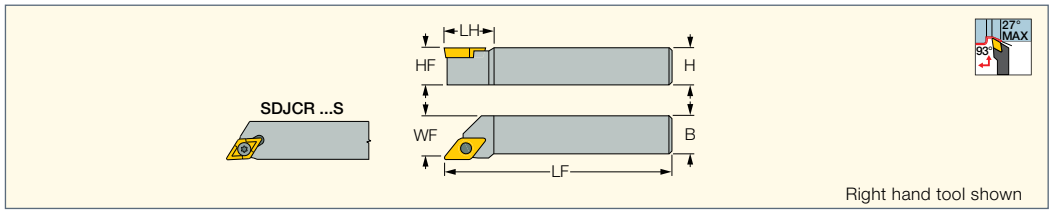
[1] For Swiss-type machines
[2] Master insert identification

For inserts, see pages: DCET-WF (180) • DCGT-AF (179) • DCGT-AS (181) • DCGT-F1M-12P (177) • DCGT-F1M-20P (178) • DCGW/DCMW-2 (CBN) (182) • DCMT (CBN) (183) • DCMT-14 (173) • DCMT-CERMET (175) • DCMT-F3P (164) • DCMT-M3M (167) • DCMT-M3P (166) • DCMT/DCGT (174) • DCMT/DCGT-PF (171) • DCMT/DCGT-SM (169)

ISOTURN

SDJCR/L

Screw Lock Tools Carrying
55° Diamond Inserts with
7° Clearance Angle



I N C H

Designation	H	HF	B	LF	LH	WF	MIID[2]		
SDJCR 06-2	.375	.375	.375	3.000	.400	.440	DC.. 2	SR 14-548	T-7/5
SDJCR 06-2S [1]	.375	.375	.375	5.900	.420	.380	DC.. 2	SR 14-548	T-7/5
SDJCR/L 08-3	.500	.500	.500	3.500	.780	.630	DC.. 3	SR 16-236 P	T-15/5
SDJCR 08-3S [1]	.500	.500	.500	5.900	.500	.506	DC.. 3	SR 16-236 P	T-15/5
SDJCR/L 10-3	.625	.625	.625	4.500	.780	W.750	DC.. 3	SR 16-236 P	T-15/5

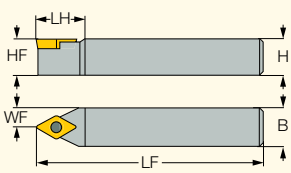
[1] For Swiss-type machines
[2] Master insert identification

For inserts, see pages: DCGT-F1M-12P (177) • DCGT-F1M-20P (178) • DCMT/DCGT-PF (171) • DCMT/DCGT-SM (169) • DCET-WF (180) • DCGT-AS (181) • DCGT-AF (179) • DCMT-14 (173) • DCMT/DCGT (174) • DCGW/DCMW-2 (CBN) (182) • DCMT (CBN) (183)

ISOTURN

SDNCN

Screw Lock Tools Carrying 55° Diamond Inserts with 7° Clearance Angle





M E T R I C

Designation	H	HF	B	LF	LH	WF	MIID[2]		
SDNCN 0808F-07	8.0	8.0	8.0	80.00	14.0	4.00	DC..0702	SR 14-548	T-7/5
SDNCN 1010F-07	10.0	10.0	10.0	80.00	14.5	5.00	DC..0702	SR 14-548	T-7/5
SDNCN 1010K-11S [1]	10.0	10.0	10.0	120.00	20.0	5.00	DC..11T3	SR 16-236	T-15/5
SDNCN 1212F-11	12.0	12.0	12.0	80.00	21.3	6.00	DC..11T3	SR 16-236 P	T-15/5
SDNCN 1616H-11	16.0	16.0	16.0	100.00	21.0	8.00	DC..11T3	SR 16-236 P	T-15/5

[1] For Swiss-type machines

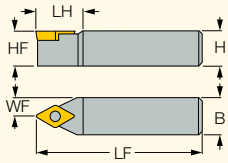
[2] Master insert identification

For inserts, see pages: DCGT-AF (179) • DCGT-AS (181) • DCGT-F1M-12P (177) • DCGT-F1M-20P (178) • DCGW/DCMW-2 (CBN) (182) • DCMT (CBN) (183) • DCMT-14 (173) • DCMT-CERMET (175) • DCMT-F3P (164) • DCMT-M3M (167) • DCMT-M3P (166) • DCMT/DCGT (174) • DCMT/DCGT-PF (171) • DCMT/DCGT-SM (169)

ISOTURN

SDPCN

Screw Lock Holders for 7° Clearance 55° Diamond Inserts





I N C H

Designation	H	HF	B	LF	LH	WF	MIID[1]		
SDPCN 08-3	.500	.500	.500	3.500	.980	.250	DC.. 3	SR 16-236 P	T-15/5
SDPCN 10-3	.625	.625	.625	4.500	.980	.310	DC.. 3	SR 16-236 P	T-15/5

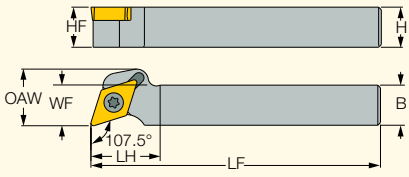
[1] Master insert identification

For inserts, see pages: DCGT-F1M-12P (177) • DCGT-F1M-20P (178) • DCMT/DCGT-PF (171) • DCMT/DCGT-SM (169) • DCGT-AS (181) • DCGT-AF (179) • DCMT-14 (173) • DCMT/DCGT (174) • DCGW/DCMW-2 (CBN) (182) • DCMT (CBN) (183)

ISOTURN

SDHCR/L-S

Screw Lock Tools Carrying 55° Diamond Inserts with 7° Clearance Angle for Swiss-Type Machines





Right hand tool shown

M E T R I C

Designation	H	HF	B	LF	LH	WF	OAW	MIID[1]		
SDHCR/L 1010K-07S	10.0	10.0	10.0	125.00	12.5	10.20	-	DC..0702	SR 14-548	T-7/5
SDHCR/L 1212K-07S	12.0	12.0	12.0	125.00	12.0	12.20	-	DC..0702	SR 14-548	T-7/5
SDHCR/L 1616K-07S	16.0	16.0	16.0	125.00	12.0	16.20	-	DC..0702	SR 14-548	T-7/5
SDHCR/L 1212K-11S	12.0	12.0	12.0	125.00	19.0	12.20	17.00	DC..11T3	SR 16-236	T-15/5
SDHCR/L 1616K-11S	16.0	16.0	16.0	125.00	20.0	16.20	-	DC..11T3	SR 16-236	T-15/5

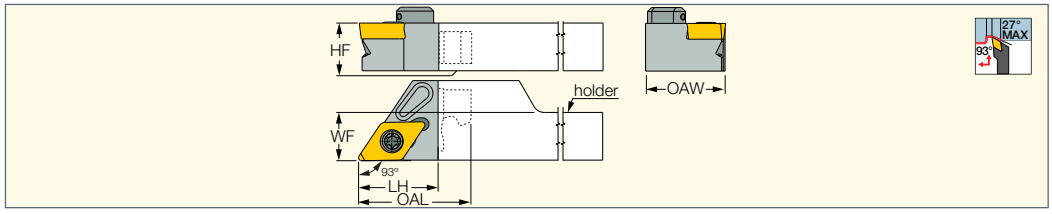
[1] Master insert identification

For inserts, see pages: DCGT-F1M-12P (177) • DCGT-F1M-20P (178) • DCMT-CERMET (175) • DCMT-F3P (164) • DCMT-M3P (166) • DCMT-M3M (167) • DCMT/DCGT-PF (171) • DCMT/DCGT-SM (169) • DCET-WF (180) • DCGT-AS (181) • DCGT-AF (179) • DCMT-14 (173) • DCMT/DCGT (174) • DCGW/DCMW-2 (CBN) (182) • DCMT (CBN) (183)

NEOSWISS

NQCH-SDJCR/L-S-JHP

Screw Lock JET-CUT Modular Heads Carrying 7° Clearance 55° Rhombic Inserts for Swiss-Type Machines



M E T R I C

Designation	WF	LH	HF	OAL	OAW	MIID[1]		
NQCH10-SDJCR/L-07S-JHP	10.15	20.0	10.0	28.80	20.00	DC..0702..	SR 14-548	T-7/5
NQCH12-SDJCR/L-11S-JHP	12.15	20.0	12.0	28.80	20.00	DC..11T3..	SR 16-236 P	T-15/5
NQCH16-SDJCR/L-11S-JHP	16.15	20.0	16.0	28.80	20.00	DC..11T3..	SR 16-236 P	T-15/5
NQCH12R-SDJCL-11S-JHP	20.15	20.0	12.0	28.80	20.00	DC..11T3..	SR 16-236 P	T-15/5
NQCH16R-SDJCL-11S-JHP	20.15	20.0	16.0	28.80	20.00	DC..11T3..	SR 16-236 P	T-15/5

- Use only RH Shank with RH Head and LH Shank with LH Head

[1] Master insert identification

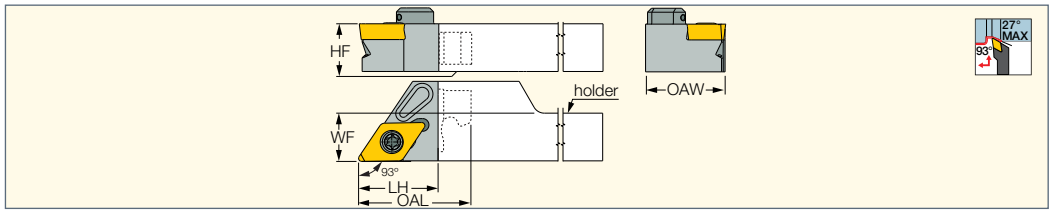
For inserts, see pages: DCET-WF (180) • DCGT-AF (179) • DCGT-AS (181) • DCGT-F1M-12P (177) • DCGT-F1M-20P (178) • DCGW/DCMW-2 (CBN) (182) • DCMT (CBN) (183) • DCMT-14 (173) • DCMT-CERMET (175) • DCMT-F3P (164) • DCMT-M3M (167) • DCMT/DCGT (174) • DCMT/DCGT-PF (171) • DCMT/DCGT-SM (169)

For holders, see pages: C#-NQCH-JHP (65) • NQCH-JHP (63)

NEOSWISS

NQCH-SDJCR/L-S-JHP

Screw Lock JET-CUT Modular Heads Carrying 7° Clearance 55° Rhombic Inserts for Swiss-Type Machines



I N C H

Designation	WF	LH	HF	OAL	OAW	MIID[1]		
NQCH10-SDJCR/L-07S-JHP	.400	.787	.394	1.134	.787	DC..2..	SR 14-548	T-7/5
NQCH12-SDJCR/L-11S-JHP	.478	.787	.472	1.134	.787	DC..3..	SR 16-236 P	T-15/5
NQCH16-SDJCR/L-11S-JHP	.636	.787	.630	1.134	.787	DC..3..	SR 16-236 P	T-15/5
NQCH12R-SDJCL-11S-JHP	.793	.787	.472	1.134	.787	DC..3..	SR 16-236 P	T-15/5
NQCH16R-SDJCL-11S-JHP	.793	.787	.630	1.134	.787	DC..3..	SR 16-236 P	T-15/5

- Use only RH Shank with RH Head and LH Shank with LH Head

[1] Master insert identification

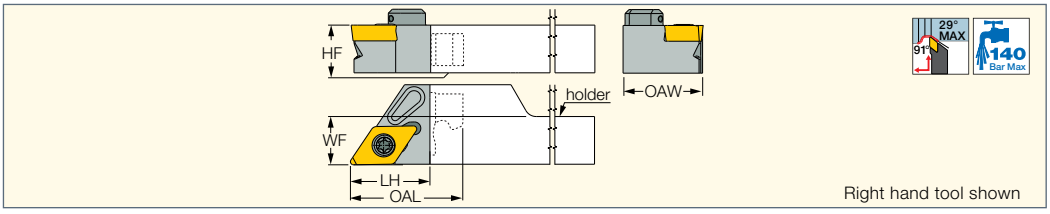
For inserts, see pages: DCET-WF (180) • DCGT-AF (179) • DCGT-AS (181) • DCGT-F1M-12P (177) • DCGT-F1M-20P (178) • DCGW/DCMW-2 (CBN) (182) • DCMT (CBN) (183) • DCMT-14 (173) • DCMT-CERMET (175) • DCMT-F3P (164) • DCMT-M3M (167) • DCMT/DCGT (174) • DCMT/DCGT-PF (171) • DCMT/DCGT-SM (169)

For holders, see pages: C#-NQCH-JHP (65) • NQCH-JHP (63)

NEOSWISS

NQCH-SDACR/L-S-JHP

Screw Lock JET-CUT Modular Heads Carrying 7° Clearance 55° Rhombic Inserts for Swiss-Type Machines



Right hand tool shown

M E T R I C

Designation	WF	HF	LH	OAL	OAW	MIID(1)		
NQCH10-SDACR-11S-JHP	10.15	10.0	20.0	28.80	20.15	DC.. 11T3	SR 16-236 P	T-15/5
NQCH12-SDACR/L-11S-JHP	12.15	12.0	20.0	28.80	20.15	DC.. 11T3	SR 16-236 P	T-15/5
NQCH16-SDACR/L-11S-JHP	16.15	16.0	20.0	28.80	20.15	DC.. 11T3	SR 16-236 P	T-15/5

- Use only RH Shank with RH Head and LH Shank with LH Head

(1) Master insert identification

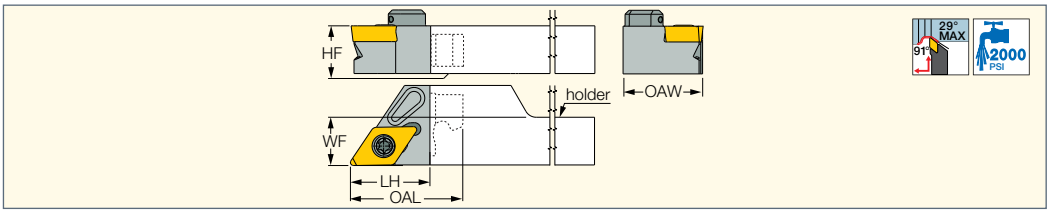
For inserts, see pages: DCET-WF (180) • DCGT-AF (179) • DCGT-AS (181) • DCGT-F1M-12P (177) • DCGT-F1M-20P (178) • DCGW/DCMW-2 (CBN) (182) • DCMT (CBN) (183) • DCMT-14 (173) • DCMT-CERMET (175) • DCMT-F3P (164) • DCMT-M3M (167) • DCMT-M3P (166) • DCMT/DCGT (174) • DCMT/DCGT-PF (171) • DCMT/DCGT-SM (169)

For holders, see pages: C#-NQCH-JHP (65) • NQCH-JHP (63)

NEOSWISS

NQCH-SDACR/L-S-JHP

Screw Lock JET-CUT Modular Heads Carrying 7° Clearance 55° Rhombic Inserts for Swiss-Type Machines



I N C H

Designation	WF	HF	LH	OAL	OAW	MIID(1)		
NQCH10-SDACR-11S-JHP	.400	.394	.787	1.134	.793	DC..3..	SR 16-236 P	T-15/5
NQCH12-SDACR/L-11S-JHP	.478	.472	.787	1.134	.793	DC..3..	SR 16-236 P	T-15/5
NQCH16-SDACR/L-11S-JHP	.636	.630	.787	1.134	.793	DC..3..	SR 16-236 P	T-15/5

- Use only RH Shank with RH Head and LH Shank with LH Head

(1) Master insert identification

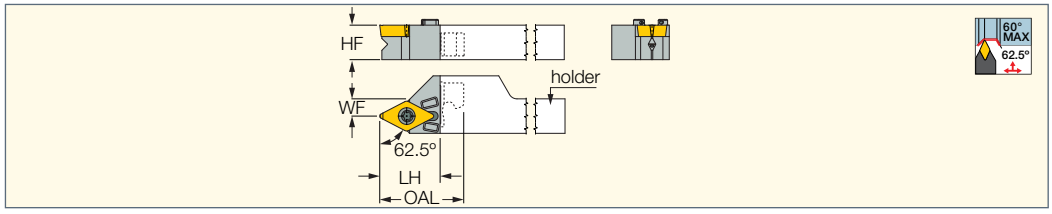
For inserts, see pages: DCET-WF (180) • DCGT-AF (179) • DCGT-AS (181) • DCGT-F1M-12P (177) • DCGT-F1M-20P (178) • DCGW/DCMW-2 (CBN) (182) • DCMT (CBN) (183) • DCMT-14 (173) • DCMT-CERMET (175) • DCMT-F3P (164) • DCMT-M3M (167) • DCMT-M3P (166) • DCMT/DCGT (174) • DCMT/DCGT-PF (171) • DCMT/DCGT-SM (169)

For holders, see pages: C#-NQCH-JHP (65) • NQCH-JHP (63)

NEOSWISS

NQCH-SDNCN-S-JHP

Screw Lock JET-CUT Modular Heads Carrying 7° Clearance 55° Rhombic Inserts for Swiss-Type Machines



M E T R I C

Designation	WF	HF	LH	OAL	MIID[1]		
NQCH12R/L-SDNCN-11S-JHP	6.00	12.0	21.0	28.80	DC..11T3..	SR 16-236 P	T-15/5
NQCH16R/L-SDNCN-11S-JHP	8.00	16.0	21.0	28.80	DC..11T3..	SR 16-236 P	T-15/5

- Use only RH Shank with RH Head and LH Shank with LH Head

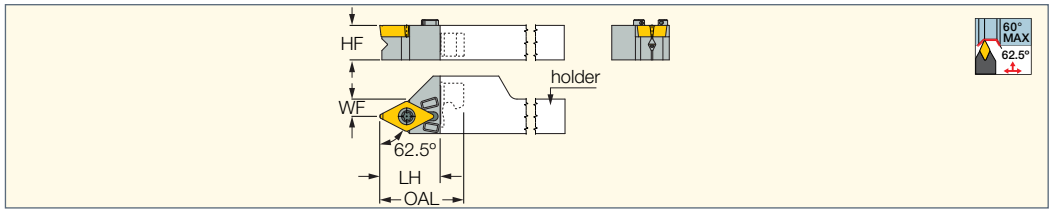
[1] Master insert identification

For inserts, see pages: DCGT-AF (179) • DCGT-AS (181) • DCGT-F1M-12P (177) • DCGT-F1M-20P (178) • DCGW/DCMW-2 (CBN) (182) • DCMT (CBN) (183) • DCMT-14 (173) • DCMT-CERMET (175) • DCMT-F3P (164) • DCMT-M3M (167) • DCMT-M3P (166) • DCMT/DCGT (174) • DCMT/DCGT-PF (171) • DCMT/DCGT-SM (169)
For holders, see pages: C#-NQCH-JHP (65) • NQCH-JHP (63)

NEOSWISS

NQCH-SDNCN-S-JHP

Screw Lock JET-CUT Modular Heads Carrying 7° Clearance 55° Rhombic Inserts for Swiss-Type Machines



I N C H

Designation	WF	HF	LH	OAL	MIID[1]		
NQCH12R/L-SDNCN-11S-JHP	.236	.472	.827	1.134	DC..3..	SR 16-236 P	T-15/5
NQCH16R/L-SDNCN-11S-JHP	.315	.630	.827	1.134	DC..3..	SR 16-236 P	T-15/5

- Use only RH Shank with RH Head and LH Shank with LH Head

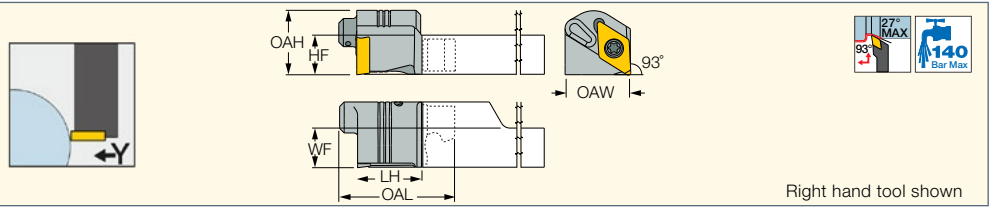
[1] Master insert identification

For inserts, see pages: DCGT-AF (179) • DCGT-AS (181) • DCGT-F1M-12P (177) • DCGT-F1M-20P (178) • DCGW/DCMW-2 (CBN) (182) • DCMT (CBN) (183) • DCMT-14 (173) • DCMT-CERMET (175) • DCMT-F3P (164) • DCMT-M3M (167) • DCMT-M3P (166) • DCMT/DCGT (174) • DCMT/DCGT-PF (171) • DCMT/DCGT-SM (169)
For holders, see pages: C#-NQCH-JHP (65) • NQCH-JHP (63)

NEOSWISS

NQCH-Y-SDJCR-S-JHP

Y-Axis Screw Lock JET-CUT Modular Heads Carrying 55° Rhombic Inserts with 7° Clearance Angle for Swiss-Type Machines



Right hand tool shown

M E T R I C

Designation	WF	HF	LH	OAL	OAW	OAH	MIID[1]		
NQCH12-Y-SDJCR-11S-JHP	12.15	12.2	20.0	34.30	20.00	19.60	DC.. 11T3	SR 16-236 P	T-15/5
NQCH16-Y-SDJCR-11S-JHP	16.15	16.2	20.0	34.30	20.00	18.20	DC.. 11T3	SR 16-236 P	T-15/5

- Use only RH Shank with RH Head and LH Shank with LH Head

(1) Master insert identification

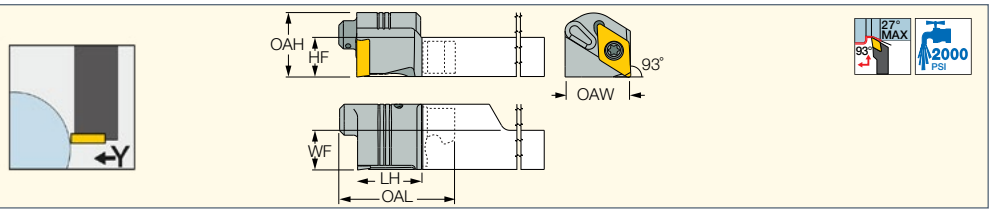
For inserts, see pages: DCET-WF (180) • DCGW/DCMW-2 (CBN) (182) • DCMT (CBN) (183) • DCMT-14 (173) • DCMT-CERMET (175) • DCMT-F3P (164) • DCMT-M3M (167) • DCMT-M3P (166) • DCMT/DCGT (174) • DCMT/DCGT-PF (171) • DCMT/DCGT-SM (169)

For holders, see pages: C#-NQCH-JHP (65) • NQCH-JHP (63)

NEOSWISS

NQCH-Y-SDJCR-S-JHP

Y-Axis Screw Lock JET-CUT Modular Heads Carrying 55° Rhombic Inserts with 7° Clearance Angle for Swiss-Type Machines



I N C H

Designation	WF	HF	LH	OAL	OAW	OAH	MIID[1]		
NQCH12-Y-SDJCR-11S-JHP	.478	.480	.787	1.350	.787	.772	DC..3..	SR 16-236 P	T-15/5
NQCH16-Y-SDJCR-11S-JHP	.636	.638	.787	1.350	.787	.717	DC..3..	SR 16-236 P	T-15/5

- Use only RH Shank with RH Head and LH Shank with LH Head

(1) Master insert identification

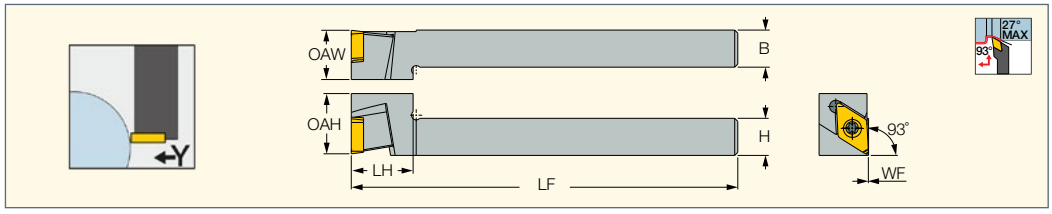
For inserts, see pages: DCET-WF (180) • DCGT-AF (179) • DCGT-AS (181) • DCGT-F1M-12P (177) • DCGT-F1M-20P (178) • DCGW/DCMW-2 (CBN) (182) • DCMT (CBN) (183) • DCMT-14 (173) • DCMT-CERMET (175) • DCMT-F3P (164) • DCMT-M3M (167) • DCMT-M3P (166) • DCMT/DCGT (174) • DCMT/DCGT-PF (171) • DCMT/DCGT-SM (169)

For holders, see pages: C#-NQCH-JHP (65) • NQCH-JHP (63)

NEOYSWISS Y AXIS

Y-SDJCR-S

Y-Axis Screw Lock Integral Tools Carrying 55° Rhombic Inserts with 7° Clearance Angle for Swiss-Type Machines.



M E T R I C

Designation	H	B	LF	LH	OAH	OAW	WF	MIID[1]		
Y-SDJCR 1212K-11S	12.0	12.0	125.00	21.0	20.00	16.00	0.00	DCMT 11T3##	SR 35080I	T-15/5
Y-SDJCR 1616K-11S	16.0	16.0	125.00	21.0	20.00	16.00	0.00	DCMT 11T3##	SR 35080I	T-15/5

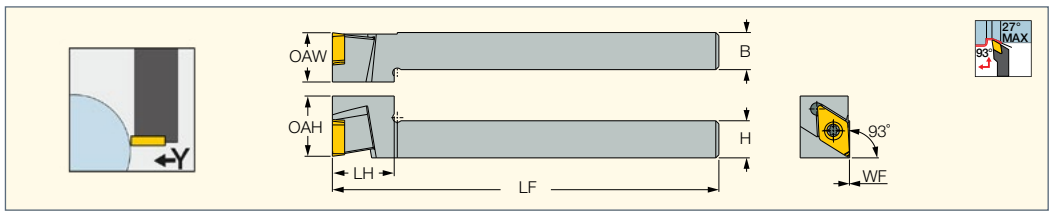
[1] Master insert identification

For inserts, see pages: DCET-WF (180) • DCGT-AF (179) • DCGT-AS (181) • DCGT-F1M-12P (177) • DCGT-F1M-20P (178) • DCGW/DCMW-2 (CBN) (182) • DCMT (CBN) (183) • DCMT-14 (173) • DCMT-CERMET (175) • DCMT-F3P (164) • DCMT-M3M (167) • DCMT/DCGT (174) • DCMT/DCGT-PF (171) • DCMT/DCGT-SM (169)

NEOYSWISS Y AXIS

Y-SDJCR-S

Y-Axis Screw Lock Integral Tools Carrying 55° Rhombic Inserts with 7° Clearance Angle for Swiss-Type Machines.



I N C H

Designation	H	B	LF	LH	OAH	OAW	WF	MIID[1]		
Y-SDJCR 08-3S	.500	.500	5.000	.827	.787	.630	0	DC..3..	SR 35080I	T-15/5
Y-SDJCR 1616K-11S	.630	.630	4.921	.827	.787	.630	0	DC..3..	SR 35080I	T-15/5

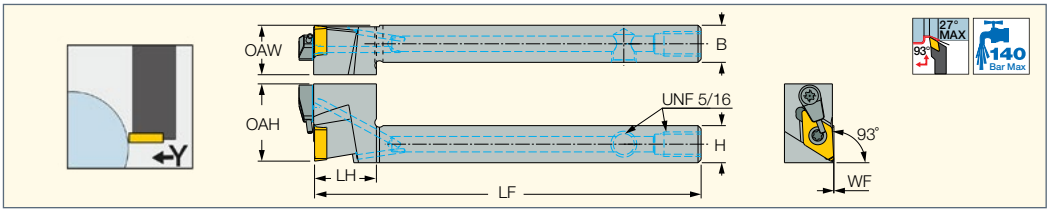
[1] Master insert identification

For inserts, see pages: DCET-WF (180) • DCGT-AF (179) • DCGT-AS (181) • DCGT-F1M-12P (177) • DCGT-F1M-20P (178) • DCGW/DCMW-2 (CBN) (182) • DCMT (CBN) (183) • DCMT-14 (173) • DCMT-CERMET (175) • DCMT-F3P (164) • DCMT-M3M (167) • DCMT/DCGT (174) • DCMT/DCGT-PF (171) • DCMT/DCGT-SM (169)

NEOYSWISS AXIS

Y-SDJCR-S-JHP

Y-Axis Screw Lock JET-CUT
Integral Tools Carrying
55° Rhombic Inserts with
7° Clearance Angle



M E T R I C

Designation	H	B	LF	LH	OAH	OAW	WF	MIID(1)					
Y-SDJCR 1212K-11S-JHP	12.0	12.0	125.00	21.0	25.50	16.00	0.00	DCMT 11T3##	SR 35080I	T-15/5	HW 5/32"	SR 5/16UNF TL360	S-CU-JHP-A SET
Y-SDJCR 1616K-11S-JHP	16.0	16.0	125.00	21.0	25.50	16.00	0.00	DCMT 11T3##	SR 35080I	T-15/5	HW 5/32"	SR 5/16UNF TL360	S-CU-JHP-A SET

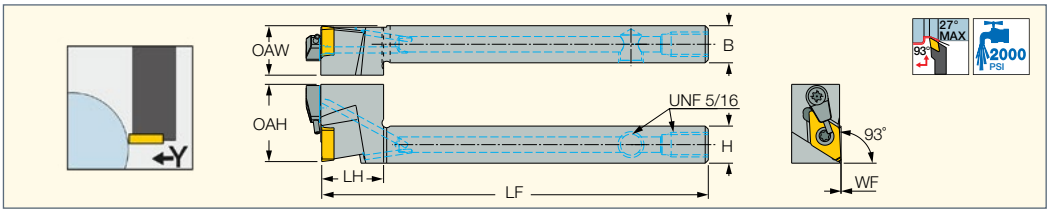
(1) Master insert identification

For inserts, see pages: DCET-WF (180) • DCGT-AF (179) • DCGT-AS (181) • DCGT-F1M-12P (177) • DCGT-F1M-20P (178) • DCGW/DCMW-2 (CBN) (182) • DCMT (CBN) (183) • DCMT-14 (173) • DCMT-CERMET (175) • DCMT-F3P (164) • DCMT-M3M (167) • DCMT/DCGT (174) • DCMT/DCGT-PF (171) • DCMT/DCGT-SM (169)

NEOYSWISS AXIS

Y-SDJCR-S-JHP

Y-Axis Screw Lock JET-CUT
Integral Tools Carrying
55° Rhombic Inserts with
7° Clearance Angle



I N C H

Designation	H	B	LF	LH	OAH	OAW	WF	MIID(1)					
Y-SDJCR 08-3S-JHP	.500	.500	5.000	.827	1.004	.630	0	DC..3..	SR 35080I	T-15/5	HW 5/32"	SR 5/16UNF TL360	S-CU-JHP-A SET
Y-SDJCR 1616K-11S-JHP	.630	.630	4.921	.827	1.004	.630	0	DC..3..	SR 35080I	T-15/5	HW 5/32"	SR 5/16UNF TL360	S-CU-JHP-A SET

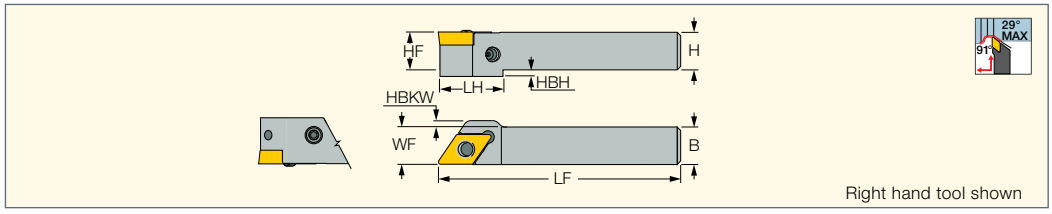
(1) Master insert identification

For inserts, see pages: DCET-WF (180) • DCGT-AF (179) • DCGT-AS (181) • DCGT-F1M-12P (177) • DCGT-F1M-20P (178) • DCGW/DCMW-2 (CBN) (182) • DCMT (CBN) (183) • DCMT-14 (173) • DCMT-CERMET (175) • DCMT-F3P (164) • DCMT-M3M (167) • DCMT/DCGT (174) • DCMT/DCGT-PF (171) • DCMT/DCGT-SM (169)

ISOTURN

PDACR/L-S

Side Lever Lock Tools Carrying 55° Positive Rhombic Inserts for Swiss Automatic Machines



M E T R I C

Designation	H	HF	LH	HBH	B	LF	WF	HBKW	MIID[1]				
PDACR/L 0808M-07S	8.0	8.0	16.0	2.0	8.0	150.00	8.00	-	DC..0702	SL LV-2	SL PI-2 PIN	SR 10400611	HW 2.0/5
PDACR/L 1010M-07S	10.0	10.0	-	-	10.0	150.00	10.00	-	DC..0702	SL LV-2	SL PI-2 PIN	SR 10400611	HW 2.0/5
PDACR/L 1212M-07S	12.0	12.0	-	-	12.0	150.00	12.00	-	DC..0702	SL LV-2	SL PI-2 PIN	SR 10400611	HW 2.0/5
PDACR/L 1616M-07S	16.0	16.0	-	-	16.0	150.00	16.00	-	DC..0702	SL LV-2	SL PI-2 PIN	SR 10400611	HW 2.0/5
PDACR/L 1012M-11S	10.0	10.0	22.0	2.5	12.0	150.00	12.00	2.00	DC..11T3	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5
PDACR/L 1212M-11S	12.0	12.0	-	-	12.0	150.00	12.00	2.00	DC..11T3	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5
PDACR/L 1616M-11S	16.0	16.0	-	-	16.0	150.00	16.00	-	DC..11T3	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5
PDACR/L 2020K-11S	20.0	20.0	-	-	20.0	125.00	20.00	-	DC..11T3	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5

- The clamping screw may by transferred to the opposite side if needed

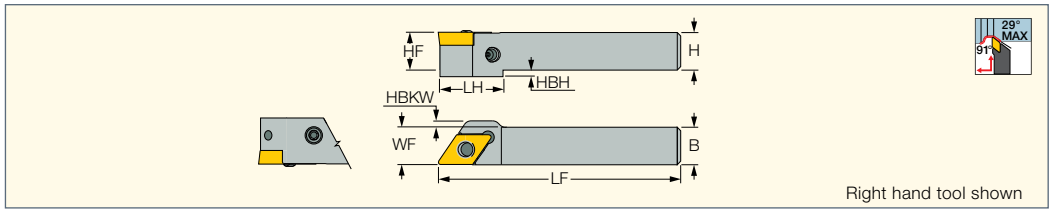
(1) Master insert identification

For inserts, see pages: DCGT-F1M-12P (177) • DCGT-F1M-20P (178) • DCMT-CERMET (175) • DCMT-F3P (164) • DCMT-M3P (166) • DCMT-M3M (167) • DCMT/DCGT-PF (171) • DCMT/DCGT-SM (169) • DCET-WF (180) • DCGT-AS (181) • DCGT-AF (179) • DCMT-14 (173) • DCMT/DCGT (174) • DCGW/DCMW-2 (CBN) (182) • DCMT (CBN) (183)

ISOTURN

PDACR/L-S

Side Lever Lock Tools Carrying 55° Positive Rhombic Inserts for Swiss Automatic Machines



I N C H

Designation	H	HF	LH	HBH	B	LF	WF	HBKW	MIID[1]				
PDACR 06-3S	.375	.375	.830	.12	.500	5.900	.510	.0800	DC.. 3	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5
PDACR/L 08-3S	.500	.500	-	-	.500	5.900	.510	.0800	DC.. 3	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5
PDACR/L 10-3S	.625	.625	-	-	.625	5.900	.630	-	DC.. 3	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5
PDACR 12-3S	.750	.750	-	-	.750	5.900	.790	-	DC.. 3	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5

- The clamping screw may by transferred to the opposite side if needed

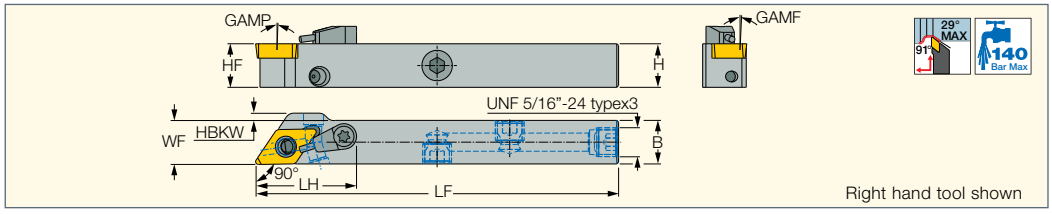
(1) Master insert identification

For inserts, see pages: DCGT-F1M-12P (177) • DCGT-F1M-20P (178) • DCMT/DCGT-PF (171) • DCMT/DCGT-SM (169) • DCET-WF (180) • DCGT-AS (181) • DCGT-AF (179) • DCMT-14 (173) • DCMT/DCGT (174) • DCGW/DCMW-2 (CBN) (182) • DCMT (CBN) (183)

ISOTURN

PDACR/L-S-JHP

Tools with Channels for High-Pressure Coolant Carrying 55° Positive Rhombic Inserts for Swiss Automatic Machines



M E T R I C										
Designation	**H**	**HF**	**B**	**LF**	**LH**	**WF**	**HBKW**	**GAMP(1)**	**GAMF(2)**	**MIID(3)**
PDACR/L 1010H-07S-JHP	10.0	10.0	10.0	100.00	20.4	10.20	6.10	0.0	0.0	DC..0702
PDACR 1616K-07S-JHP	16.0	16.0	16.0	125.00	20.4	16.15	-	0.0	0.0	DC..0702
PDACR/L 1212H-11S-JHP	12.0	12.0	12.0	100.00	28.0	12.20	2.00	0.0	0.0	DC..11T3
PDACR/L 1616K-11S-JHP	16.0	16.0	16.0	125.00	28.0	16.20	-	0.0	0.0	DC..11T3
PDACR/L 2020K-11S-JHP	20.0	20.0	20.0	125.00	28.0	20.20	-	0.0	0.0	DC..11T3

- For user guide, see pages 6-7, 67-68, 72

(1) Rake angle axial

(2) Rake angle radial

(3) Master insert identification

For inserts, see pages: DCGT-F1M-12P (177) • DCGT-F1M-20P (178) • DCMT-CERMET (175) • DCMT-F3P (164) • DCMT-M3P (166) • DCMT-M3M (167) • DCMT/DCGT-PF (171) • DCMT/DCGT-SM (169) • DCET-WF (180) • DCGT-AS (181) • DCGT-AF (179) • DCMT-14 (173) • DCMT/DCGT (174) • DCGW/DCMW-2 (CBN) (182) • DCMT (CBN) (183)

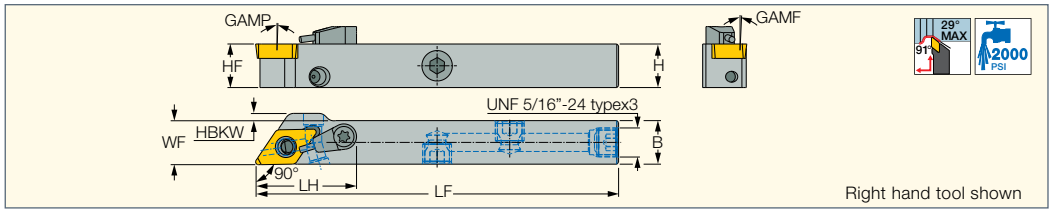
Spare Parts

Designation						
PDACR/L 1010H-07S-JHP	SL LV-2	SL PI-2 PIN	SR 10400611	HW 2.0/5	SR 5/16XUNF-TL-S	S-CU-JHP-A SET
PDACR 1616K-07S-JHP	SL LV-2	SL PI-2 PIN	SR 10400611	HW 2.0/5	SR 5/16UNF TL360	S-CU-JHP-A SET
PDACR/L 1212H-11S-JHP	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5	SR 5/16UNF TL360	S-CU-JHP-A SET
PDACR/L 1616K-11S-JHP	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5	SR 5/16UNF TL360	S-CU-JHP-A SET
PDACR/L 2020K-11S-JHP	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5	SR 5/16UNF TL360	S-CU-JHP-A SET

ISOTURN

PDACR/L-JHP

Tools with Channels for High-Pressure Coolant Carrying 55° Positive Rhombic Inserts for Swiss Automatic Machines



I N C H										
Designation	**H**	**HF**	**B**	**LF**	**LH**	**WF**	**HBKW**	**GAMP(1)**	**GAMF(2)**	**MIID(3)**
PDACR/L 08-3S-JHP	.500	.500	.500	4.000	1.100	.510	.1200	0	0	DCMT 3..
PDACR/L 10-3S-JHP	.625	.625	.625	4.000	1.100	.630	-	0	0	DCMT 3..
PDACR 12-3S-JHP	.750	.750	.750	4.750	1.100	.790	-	0	0	DCMT 3..

- For user guide see pages 6-7, 67-68, 72

(1) Rake angle axial

(2) Rake angle radial

(3) Master insert identification

For inserts, see pages: DCGT-F1M-12P (177) • DCGT-F1M-20P (178) • DCMT/DCGT-PF (171) • DCMT/DCGT-SM (169) • DCET-WF (180) • DCGT-AS (181) • DCGT-AF (179) • DCMT-14 (173) • DCMT/DCGT (174) • DCGW/DCMW-2 (CBN) (182) • DCMT (CBN) (183)

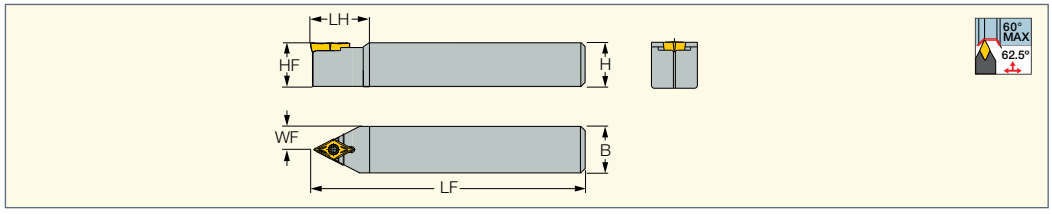
Spare Parts

Designation						
PDACR/L-JHP	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5	SR 5/16UNF TL360	S-CU-JHP-A SET

T-LOCK

SDNCN-13-SL

Screw Lock Tools Carrying 55° Diamond Inserts with 7° Clearance Angle for High Rigidity in Profiling Applications



M E T R I C

Designation	H	HF	B	LF	LH	WF	MIID(1)		
SDNCN 1616H-13-SL	16.0	16.0	16.0	100.00	25.0	8.00	DCMT 13T5-SL	SR M4X0.7-L9.6 IP15	TORX PLUS IP15X45 GREEN

- Insert clamping torque 3 Nxm

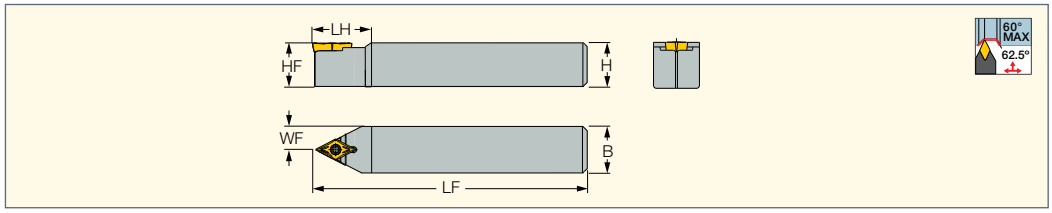
(1) Master insert identification

For inserts, see pages: DCMT-F3P-SL (165) • DCMT-M3M-SL (168) • DCMT-PF-SL (172) • DCMT-SM-SL (170)

T-LOCK

SDNCN-13-SL

Screw Lock Tools Carrying 55° Diamond Inserts with 7° Clearance Angle for High Rigidity in Profiling Applications



I N C H

Designation	H	HF	B	LF	LH	WF	MIID(1)		
SDNCN 10-13-SL	.625	.625	.625	4.000	.980	.310	DCMT 13T5-SL	SR M4X0.7-L9.6 IP15	TORX PLUS IP15X45 GREEN

- Insert clamping torque 27 lbfxin

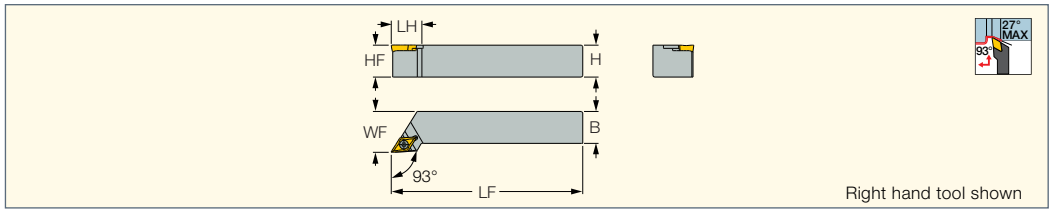
(1) Master insert identification

For inserts, see pages: DCMT-F3P-SL (165) • DCMT-M3M-SL (168) • DCMT-PF-SL (172) • DCMT-SM-SL (170)

T-LOCK

SDJCR/L-13-SL

Screw Lock Tools Carrying 55° Diamond Inserts with 7° Clearance Angle for High Rigidity in Profiling Applications



M E T R I C

Designation	H	HF	B	LF	LH	WF	MIID(1)		
SDJCR/L 1616H-13-SL	16.0	16.0	16.0	100.00	24.0	20.00	DCMT 13T5-SL	SR M4X0.7-L9.6 IP15	TORX PLUS IP15X45 GREEN

- Insert clamping torque 3 Nxm

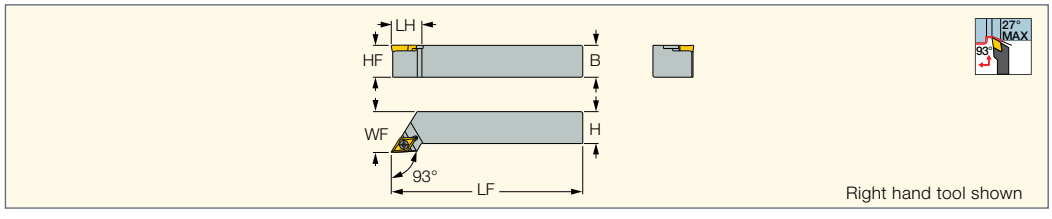
(1) Master insert identification

For inserts, see pages: DCMT-F3P-SL (165) • DCMT-M3M-SL (168) • DCMT-PF-SL (172) • DCMT-SM-SL (170)

T-LOCK

SDJCR/L-13-SL

Screw Lock Tools Carrying 55° Diamond Inserts with 7° Clearance Angle for High Rigidity in Profiling Applications



I N C H

Designation	H	HF	B	LF	LH	WF	MIID(1)		
SDJCR/L 10-13-SL	.625	.625	.625	4.000	.940	.830	DCMT 13T5-SL	SR M4X0.7-L9.6 IP15	TORX PLUS IP15X45 GREEN

- Insert clamping torque 27 lbfxin

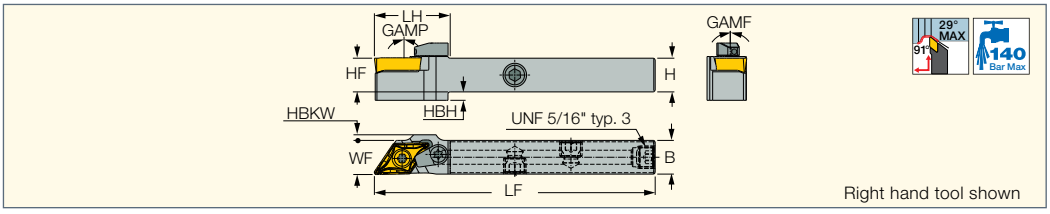
(1) Master insert identification

For inserts, see pages: DCMT-F3P-SL (165) • DCMT-M3M-SL (168) • DCMT-PF-SL (172) • DCMT-SM-SL (170)

T-LOCK

SDACR/L-S-SL-JHP

Tools with Channels for High-Pressure Coolant Carrying 55° Positive Rhombic Inserts for Swiss Automatic Machines



Right hand tool shown

M E T R I C

Designation	H	HF	B	LF	LH	WF	HBKW	HBH	GAMP(1)	GAMF(2)	MIID(3)	CNT
SDACR/L 1212H-13S-SL-JHP	12.0	12.0	12.0	100.00	27.0	12.15	2.35	3.0	0.0	0.0	DCMT 13T5-SL	UNF 5/16 "
SDACR/L 1616K-13S-SL-JHP	16.0	16.0	16.0	125.00	27.0	16.15	-	-	0.0	0.0	DCMT 13T5-SL	UNF 5/16 "

- For user guide, see pages 6-7, 67-68, 72

(1) Rake angle axial

(2) Rake angle radial

(3) Master insert identification

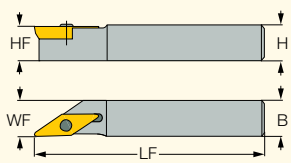
For inserts, see pages: DCMT-F3P-SL (165) • DCMT-M3M-SL (168) • DCMT-PF-SL (172) • DCMT-SM-SL (170)

For holders, see pages: SBTH-JHP (833)

ISOTURN

SVACR/L-S

91° Lead Angle Screw Lock Tools Carrying 35° Diamond Inserts with 7° Clearance Angle





Right hand tool shown

M E T R I C

Designation	H	B	HF	LF	WF	MIID(1)		
SVACR 1010M-11S	10.0	10.0	10.0	150.00	10.15	VC..11..	SR 14-560	T-8/5
SVACR/L 1212K-11S	12.0	12.0	12.0	125.00	12.00	VC..11..	SR 14-560	T-8/5
SVACR 1616K-11S	16.0	16.0	16.0	125.00	16.00	VC..11..	SR 14-560	T-8/5
SVACR/L 1212K-13S	12.0	12.0	12.0	125.00	12.00	VC..13..	SR 14-513	T-8/5
SVACR/L 1616K-13S	16.0	16.0	16.0	125.00	16.00	VC..13..	SR 14-513	T-8/5
SVACR/L 2020K-13S	20.0	20.0	20.0	125.00	20.00	VC..13..	SR 14-513	T-8/5

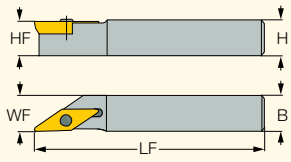
(1) Master insert identification

For inserts, see pages: VCGT-F1M-12P (192) • VCGT-F1M-20P (193) • VCMT-F3P (184) • VCMT-M3P (185) • VCMT-F3M (186) • VCGT-MD/PF (193) • VCMT-SM (188) • VCET-WF (194) • VCGT-AS (191)

ISOTURN

SVACR/L-S

91° Lead Angle Screw Lock Tools Carrying 35° Diamond Inserts with 7° Clearance Angle





Right hand tool shown

I N C H

Designation	H	B	HF	LF	WF	MIID(1)		
SVACR 06-2S	.375	.375	.375	5.906	.381	VC..2..	SR 14-560	T-8/5
SVACR 1010M-11S	.394	.394	.394	5.906	.400	VC..2..	SR 14-560	T-8/5
SVACR/L 1212K-11S	.472	.472	.472	4.921	.472	VC..2..	SR 14-560	T-8/5
SVACR 08-2S	.500	.500	.500	5.906	.506	VC..2..	SR 14-560	T-8/5
SVACR 1616K-11S	.630	.630	.630	4.921	.630	VC..2..	SR 14-560	T-8/5
SVACR/L 1212K-13S	.472	.472	.472	4.921	.472	VC..2.5..	SR 14-513	T-8/5
SVACR/L 1616K-13S	.630	.630	.630	4.921	.630	VC..2.5..	SR 14-513	T-8/5
SVACR/L 2020K-13S	.787	.787	.787	4.921	.790	VC..2.5..	SR 14-513	T-8/5

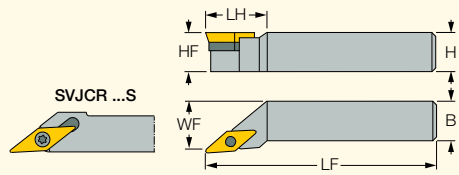
(1) Master insert identification

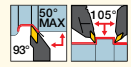
For inserts, see pages: VCGT-F1M-12P (192) • VCGT-F1M-20P (193) • VCMT-F3P (184) • VCMT-M3P (185) • VCMT-F3M (186) • VCGT-MD/PF (193) • VCMT-SM (188) • VCET-WF (194) • VCGT-AS (191)

ISOTURN

SVJCR/L

93° Lead Angle Screw Lock
Tools Carrying 35° Diamond
Inserts with 7° Clearance Angle





Right hand tool shown

M E T R I C

Designation	H	HF	B	LF	LH	WF	MIID[2]		
SVJCR/L 0808K-11S [1]	8.0	8.0	8.0	125.00	11.5	8.20	VC..1103	SR 14-560	T-8/5
SVJCR/L 1010K-11S [1]	10.0	10.0	10.0	125.00	22.0	10.20	VC..1103	SR 14-560	T-8/5
SVJCR/L 1212K-11S [1]	12.0	12.0	12.0	125.00	-	12.20	VC..1103	SR 14-560	T-8/5
SVJCR/L 1616K-11	16.0	16.0	16.0	125.00	25.0	20.00	VC..1103	SR 14-560	T-8/5

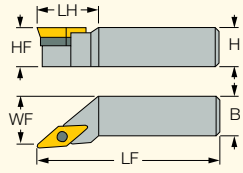
[1] For Swiss-type machines
[2] Master insert identification

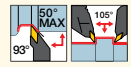
For inserts, see pages: VCET-WF (194) • VCGT-AS (191) • VCGT-DW (PCD) (196) • VCGT-F1M-12P (192) • VCGT-F1M-20P (193) • VCGW-2 (CBN) (195) • VCMT (CBN) (195) • VCMT-14 (189) • VCMT-F3M (186) • VCMT-F3P (184) • VCMT-FPC-CERMET (190) • VCMT-M3M (187) • VCMT-M3P (185) • VCMT-SM (188) • VCMW (189)

ISOTURN

SVJCR/L

93° Lead Angle Screw Lock
Tools Carrying 35° Diamond
Inserts with 7° Clearance Angle





Right hand tool shown

I N C H

Designation	H	HF	B	LF	LH	WF	MIID[1]		
SVJCR 10-3	.625	.625	.625	2.900	1.430	.750	VC.. 3	SR 16-236 P	T-15/5

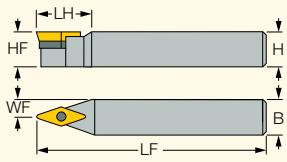
[1] Master insert identification

For inserts, see pages: VCMT-FPC-CERMET (190) • VCMT-F3P (184) • VCGW-2 (CBN) (195) • VCMT-M3P (185) • VCMT-F3M (186) • VCMT-M3M (187) • VCMT-SM (188) • VCGT-AS (191) • VCMT-14 (189) • VCMW (189) • VCMT (CBN) (195) • VCGT-DW (PCD) (196)

ISOTURN

SVVCN

72.5° Lead Angle Screw Lock
Tools Carrying 35° Diamond
Inserts with 7° Clearance Angle





M E T R I C

Designation	H	HF	B	LF	LH	WF	MIID[2]		
SVVCN 0808K-11S [1]	8.0	8.0	8.0	125.00	-	4.30	VC..1103	SR 14-560	T-8/5
SVVCN 1010K-11S [1]	10.0	10.0	10.0	125.00	-	5.30	VC..1103	SR 14-560	T-8/5
SVVCN 1212K-11S [1]	12.0	12.0	12.0	125.00	-	6.30	VC..1103	SR 14-560	T-8/5
SVVCN 1616K-11S [1]	16.0	16.0	16.0	125.00	-	8.00	VC..1103	SR 14-560	T-8/5

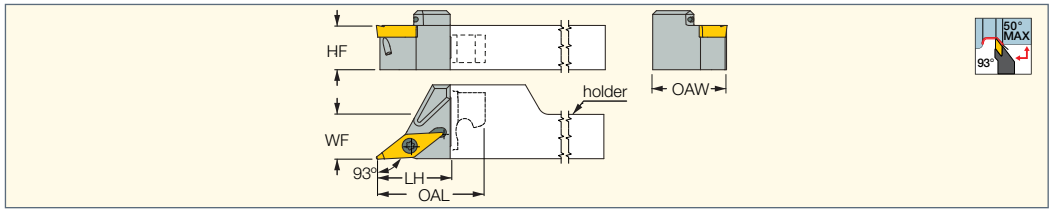
[1] For Swiss-type machines
[2] Master insert identification

For inserts, see pages: VCGT-AS (191) • VCGT-DW (PCD) (196) • VCGT-F1M-12P (192) • VCGT-F1M-20P (193) • VCGW-2 (CBN) (195) • VCMT (CBN) (195) • VCMT-14 (189) • VCMT-F3M (186) • VCMT-F3P (184) • VCMT-FPC-CERMET (190) • VCMT-M3M (187) • VCMT-M3P (185) • VCMT-SM (188) • VCMW (189)

NEOSWISS

NQCH-SVJCR/L-S-JHP

Screw Lock JET-CUT Modular Heads Carrying 35° Rhombic Inserts with 7° Clearance Angle for Swiss-Type Machines



M E T R I C

Designation	WF	LH	HF	OAW	OAL	MIID[1]		
NQCH10-SVJCR/L-11S-JHP	10.15	20.0	10.0	20.15	28.80	VC..1103..	SR 14-560	T-8/5
NQCH12-SVJCR/L-11S-JHP	12.15	20.0	12.0	20.15	28.80	VC..1103..	SR 14-560	T-8/5
NQCH12R-SVJCL-11S-JHP	12.15	20.0	12.0	20.15	28.80	VC..1103..	SR 14-560	T-8/5
NQCH16-SVJCR/L-11S-JHP	16.15	20.0	16.0	20.15	28.80	VC..1103..	SR 14-560	T-8/5
NQCH16R-SVJCL-11S-JHP	16.15	20.0	16.0	20.15	28.80	VC..1103..	SR 14-560	T-8/5

- Use only RH Shank with RH Head and LH Shank with LH Head

[1] Master insert identification

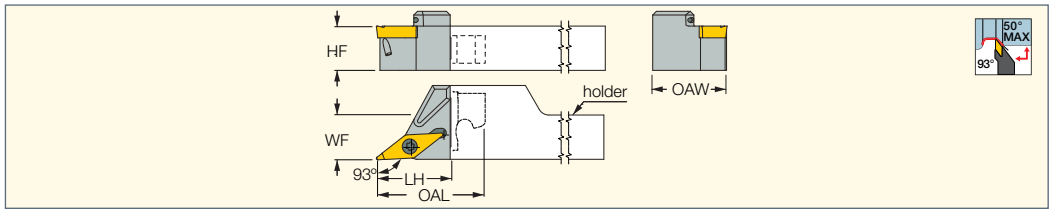
For inserts, see pages: VCGT-AS (191) • VCGT-F1M-12P (192) • VCGT-F1M-20P (193) • VCMT-F3M (186) • VCMT-F3P (184) • VCMT-M3P (185) • VCMT-SM (188)

For holders, see pages: C#-NQCH-JHP (65) • NQCH-JHP (63)

NEOSWISS

NQCH-SVJCR/L-S-JHP

Screw Lock JET-CUT Modular Heads Carrying 35° Rhombic Inserts with 7° Clearance Angle for Swiss-Type Machines



I N C H

Designation	WF	LH	HF	OAW	OAL	MIID[1]		
NQCH10-SVJCR/L-11S-JHP	.400	.787	.394	.793	1.134	VC..22..	SR 14-560	T-8/5
NQCH12-SVJCR/L-11S-JHP	.478	.787	.472	.793	1.134	VC..22..	SR 14-560	T-8/5
NQCH12R-SVJCL-11S-JHP	.478	.787	.472	.793	1.134	VC..22..	SR 14-560	T-8/5
NQCH16-SVJCR/L-11S-JHP	.636	.787	.630	.793	1.134	VC..22..	SR 14-560	T-8/5
NQCH16R-SVJCL-11S-JHP	.636	.787	.630	.793	1.134	VC..22..	SR 14-560	T-8/5

- Use only RH Shank with RH Head and LH Shank with LH Head

[1] Master insert identification

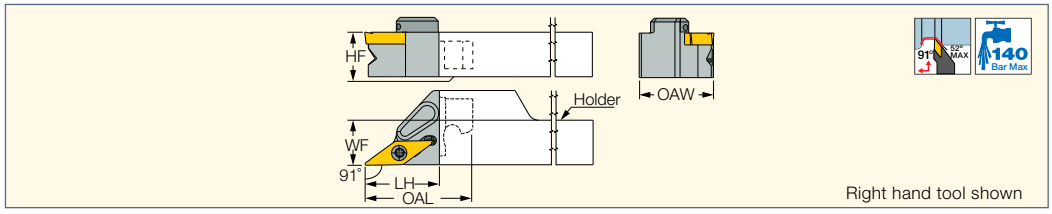
For inserts, see pages: VCET-WF (194) • VCGT-AS (191) • VCGT-F1M-12P (192) • VCGT-F1M-20P (193) • VCMT-F3M (186) • VCMT-F3P (184) • VCMT-M3P (185) • VCMT-SM (188)

For holders, see pages: C#-NQCH-JHP (65) • NQCH-JHP (63)

NEOSWISS

NQCH-SVACR/L-S-JHP

Screw Lock JET-CUT Modular Heads Carrying 35° Rhombic Inserts with 7° Clearance Angle for Swiss-Type Machines



M E T R I C

Designation	WF	HF	LH	OAL	OAW	MIID[1]		
NQCH12-SVACR/L-11S-JHP	12.15	12.0	20.0	28.80	20.15	VC.. 1103..	SR 14-560	T-8/5
NQCH16-SVACR/L-11S-JHP	16.15	16.0	20.0	28.80	20.15	VC.. 1103..	SR 14-560	T-8/5

- Use only RH Shank with RH Head and LH Shank with LH Head

(1) Master insert identification

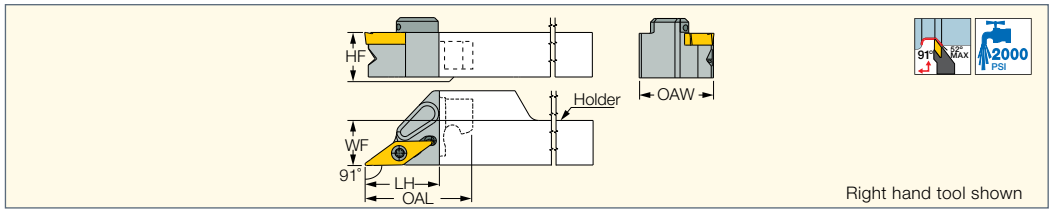
For inserts, see pages: VCGT-AS (191) • VCGT-F1M-12P (192) • VCGT-F1M-20P (193) • VCGT-MD/PF (193) • VCMT-F3M (186) • VCMT-F3P (184) • VCMT-M3P (185) • VCMT-SM (188)

For holders, see pages: C#-NQCH-JHP (65) • NQCH-JHP (63)

NEOSWISS

NQCH-SVACR/L-S-JHP

Screw Lock JET-CUT Modular Heads Carrying 35° Rhombic Inserts with 7° Clearance Angle for Swiss-Type Machines



I N C H

Designation	WF	HF	LH	OAL	OAW	MIID[1]		
NQCH12-SVACR/L-11S-JHP	.478	.472	.787	1.134	.793	VC..22..	SR 14-560	T-8/5
NQCH16-SVACR/L-11S-JHP	.636	.630	.787	1.134	.793	VC..22..	SR 14-560	T-8/5

- Use only RH Shank with RH Head and LH Shank with LH Head

(1) Master insert identification

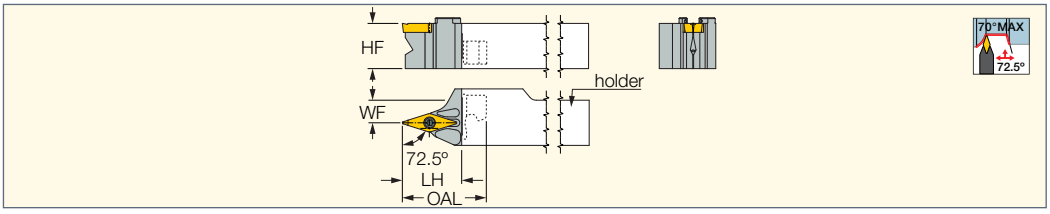
For inserts, see pages: VCET-WF (194)• VCGT-AS (191) • VCGT-F1M-12P (192) • VCGT-F1M-20P (193) • VCGT-MD/PF (193) • VCMT-F3M (186) • VCMT-F3P (184) • VCMT-M3P (185) • VCMT-SM (188)

For holders, see pages: C#-NQCH-JHP (65) • NQCH-JHP (63)

NEOSWISS

NQCH-SVVCN-S-JHP

Screw Lock JET-CUT Modular Heads Carrying 35° Rhombic Inserts with 7° Clearance Angle for Swiss-Type Machines



M E T R I C

Designation	WF	HF	LH	OAL	MIID(1)		
NQCH12L-SVVCN-11S-JHP	6.00	12.0	21.0	28.80	VC..1103..	SR 14-560	T-8/5
NQCH12R-SVVCN-11S-JHP	8.00	16.0	21.0	28.80	VC..1103..	SR 14-560	T-8/5
NQCH16L-SVVCN-11S-JHP	8.00	16.0	21.0	28.80	VC..1103..	SR 14-560	T-8/5
NQCH16R-SVVCN-11S-JHP	6.00	12.0	21.0	28.80	VC..1103..	SR 14-560	T-8/5

- Use only RH Shank with RH Head and LH Shank with LH Head

(1) Master insert identification

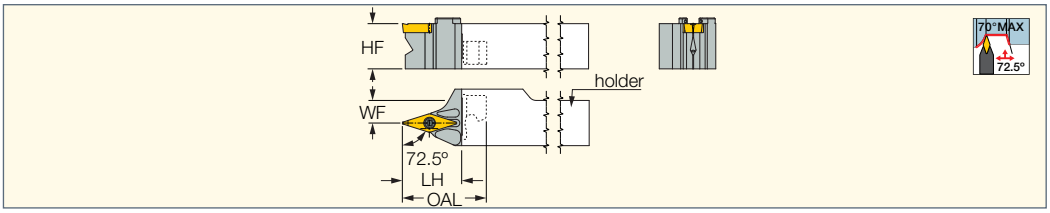
For inserts, see pages: VCGT-AS (191) • VCGT-F1M-12P (192) • VCGT-F1M-20P (193) • VCMT-F3M (186) • VCMT-F3P (184) • VCMT-M3P (185) • VCMT-SM (188)

For holders, see pages: C#-NQCH-JHP (65) • NQCH-JHP (63)

NEOSWISS

NQCH-SVVCN-S-JHP

Screw Lock JET-CUT Modular Heads Carrying 35° Rhombic Inserts with 7° Clearance Angle for Swiss-Type Machines



I N C H

Designation	WF	HF	LH	OAL	MIID(1)		
NQCH12L-SVVCN-11S-JHP	.236	.472	.827	1.134	VC..22..	SR 14-560	T-8/5
NQCH12R-SVVCN-11S-JHP	.236	.472	.827	1.134	VC..22..	SR 14-560	T-8/5
NQCH16L-SVVCN-11S-JHP	.315	.630	.827	1.134	VC..22..	SR 14-560	T-8/5
NQCH16R-SVVCN-11S-JHP	.315	.630	.827	1.134	VC..22..	SR 14-560	T-8/5

- Use only RH Shank with RH Head and LH Shank with LH Head

(1) Master insert identification

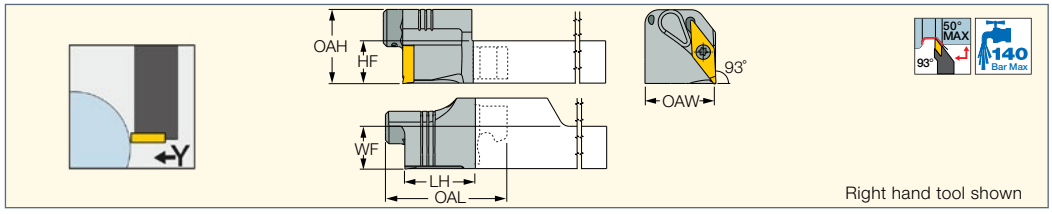
For inserts, see pages: VCGT-AS (191) • VCGT-F1M-12P (192) • VCGT-F1M-20P (193) • VCMT-F3M (186) • VCMT-F3P (184) • VCMT-M3P (185) • VCMT-SM (188)

For holders, see pages: C#-NQCH-JHP (65) • NQCH-JHP (63)

NEOSWISS

NQCH-Y-SVJCR-S-JHP

Y-Axis Screw Lock JET-CUT Modular Heads Carrying 35° Rhombic Inserts with 7° Clearance Angle for Swiss-Type Machines



Right hand tool shown

M E T R I C

Designation	WF	HF	LH	OAL	OAW	OAH	MIID[1]		
NQCH12-Y-SVJCR-11S-JHP	12.15	12.2	20.0	34.30	20.15	21.90	VC.. 1103	SR 14-560	T-8/5
NQCH16-Y-SVJCR-11S-JHP	16.15	16.2	20.0	34.30	20.15	21.10	VC.. 1103	SR 14-560	T-8/5

- Use only RH Shank with RH Head and LH Shank with LH Head

[1] Master insert identification

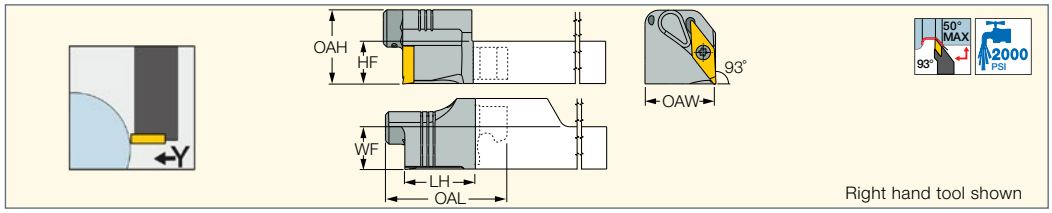
For inserts, see pages: VCET-WF (194) • VCGT-AS (191) • VCGT-F1M-12P (192) • VCGT-F1M-20P (193) • VCMT-F3M (186) • VCMT-F3P (184) • VCMT-M3P (185) • VCMT-SM (188)

For holders, see pages: C#-NQCH-JHP (65) • NQCH-JHP (63)

NEOSWISS

NQCH-Y-SVJCR-S-JHP

Y-Axis Screw Lock JET-CUT Modular Heads Carrying 35° Rhombic Inserts with 7° Clearance Angle for Swiss-Type Machines



Right hand tool shown

I N C H

Designation	WF	HF	LH	OAL	OAW	OAH	MIID[1]		
NQCH12-Y-SVJCR-11S-JHP	.478	.480	.787	1.350	.793	.862	VC..22..	SR 14-560	T-8/5
NQCH16-Y-SVJCR-11S-JHP	.636	.638	.787	1.350	.793	.831	VC..22..	SR 14-560	T-8/5

- Use only RH Shank with RH Head and LH Shank with LH Head

[1] Master insert identification

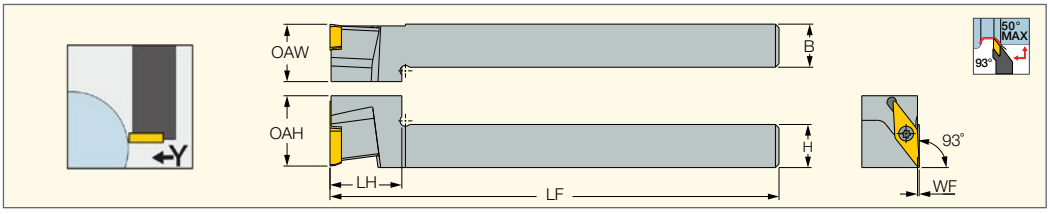
For inserts, see pages: VCET-WF (194) • VCGT-AS (191) • VCGT-F1M-12P (192) • VCGT-F1M-20P (193) • VCMT-F3M (186) • VCMT-F3P (184) • VCMT-M3P (185) • VCMT-SM (188)

For holders, see pages: C#-NQCH-JHP (65) • NQCH-JHP (63)

NEOYSWISS AXIS

Y-SVJCR-S

Y-Axis Screw Lock Integral Tools Carrying 7° Clearance 35° Rhombic Inserts for Swiss-Type Machines



M E T R I C

Designation	H	B	LF	LH	OAH	OAW	WF	MIID[1]		
Y-SVJCR 1212K-11S	12.0	12.0	125.00	21.0	20.00	16.00	0.00	VCMT 1103##	T-7/5	SO 250651
Y-SVJCR 1616K-11S	16.0	16.0	125.00	21.0	20.00	16.00	0.00	VCMT 1103##	T-7/5	SO 250651

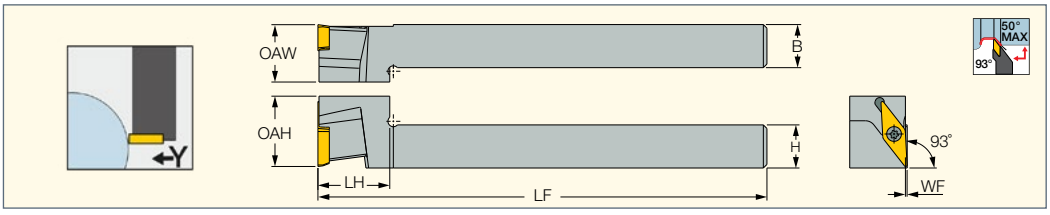
(1) Master insert identification

For inserts, see pages: VCET-WF (194) • VCGT-AS (191) • VCGT-F1M-12P (192) • VCGT-F1M-20P (193) • VCMT-F3M (186) • VCMT-F3P (184) • VCMT-M3P (185) • VCMT-SM (188)

NEOYSWISS AXIS

Y-SVJCR-S

Y-Axis Screw Lock Integral Tools Carrying 7° Clearance 35° Rhombic Inserts for Swiss-Type Machines



I N C H

Designation	H	B	LF	LH	OAH	OAW	WF	MIID[1]		
Y-SVJCR 08-2S	.500	.500	5.000	.827	.787	.630	0	VC..22..	T-7/5	SO 250651
Y-SVJCR 1616K-11S	.630	.630	4.921	.827	.787	.630	0	VC..22..	T-7/5	SO 250651

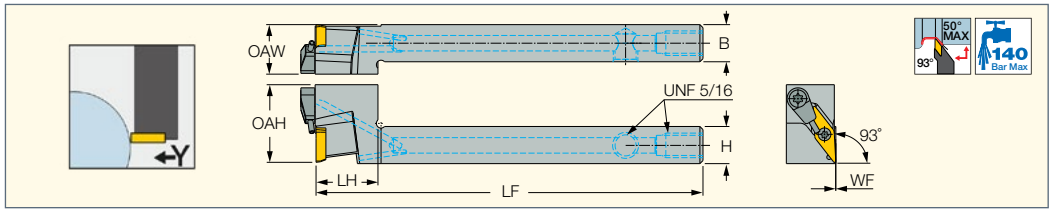
(1) Master insert identification

For inserts, see pages: VCET-WF (194) • VCGT-AS (191) • VCGT-F1M-12P (192) • VCGT-F1M-20P (193) • VCMT-F3M (186) • VCMT-F3P (184) • VCMT-M3P (185) • VCMT-SM (188)

NEOYSWISS AXIS

Y-SVJCR-S-JHP

Y-Axis Screw Lock JET-CUT Integral Tools Carrying 7° Clearance 35° Rhombic Inserts for Swiss-Type Machines



M E T R I C

Designation	H	B	LF	LH	OAH	OAW	WF	MIID[1]					
Y-SVJCR 1212K-11S-JHP	12.0	12.0	125.00	21.0	25.50	16.00	0.00	VCMT 1103..	T-7/5	HW 5/32"	SR 5/16UNF TL360	S-CU-JHP-A SET	SO 250651
Y-SVJCR 1616K-11S-JHP	16.0	16.0	125.00	21.0	25.50	16.00	0.00	VCMT 1103..	T-7/5	HW 5/32"	SR 5/16UNF TL360	S-CU-JHP-A SET	SO 250651

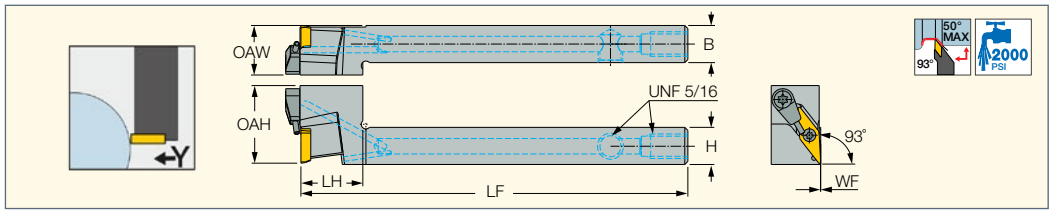
[1] Master insert identification

For inserts, see pages: VCET-WF (194) • VCGT-AS (191) • VCGT-F1M-12P (192) • VCGT-F1M-20P (193) • VCMT-F3M (186) • VCMT-F3P (184) • VCMT-M3P (185) • VCMT-SM (188)

NEOYSWISS AXIS

Y-SVJCR-S-JHP

Y-Axis Screw Lock JET-CUT Integral Tools Carrying 7° Clearance 35° Rhombic Inserts for Swiss-Type Machines



I N C H

Designation	H	B	LF	LH	OAH	OAW	WF	MIID[1]					
Y-SVJCR 08-2S-JHP	.500	.500	5.000	.827	1.004	.630	0	VC.. 2	T-7/5	HW 5/32"	SR 5/16UNF TL360	S-CU-JHP-A SET	SO 250651
Y-SVJCR 1616K-11S-JHP	.630	.630	4.921	.827	1.004	.630	0	VC.. 2	T-7/5	HW 5/32"	SR 5/16UNF TL360	S-CU-JHP-A SET	SO 250651

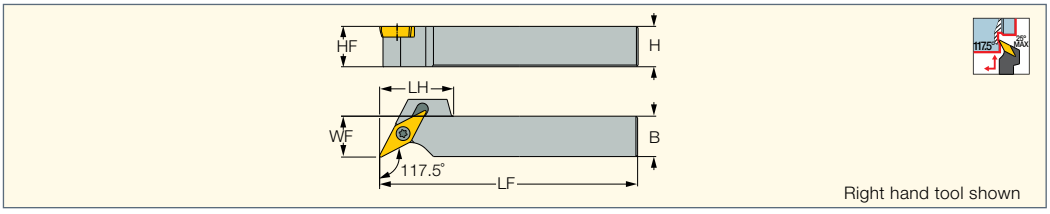
[1] Master insert identification

For inserts, see pages: VCET-WF (194) • VCGT-AS (191) • VCGT-F1M-12P (192) • VCGT-F1M-20P (193) • VCMT-F3M (186) • VCMT-F3P (184) • VCMT-M3P (185) • VCMT-SM (188)

ISOTURN

SVPCR/L-S

117° Lead Angle Screw Lock Tools Carrying 35° Diamond Inserts with 7° Clearance Angle



M E T R I C

Designation	H	HF	B	LF	LH	WF	MIID[1]		
SVPCR/L 1212K-11S	12.0	12.0	12.0	125.00	19.0	12.20	VC..1103	SR 14-560	T-8/5
SVPCR/L 1616K-11S	16.0	16.0	16.0	125.00	-	16.20	VC..1103	SR 14-560	T-8/5

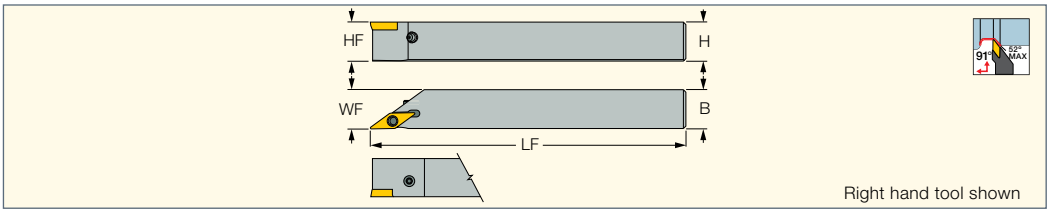
(1) Master insert identification

For inserts, see pages: VCGT-F1M-12P (192) • VCGT-F1M-20P (193) • VCMT-F3P (184) • VCMT-M3P (185) • VCMT-F3M (186) • VCMT-SM (188) • VCGT-AS (191)

ISOTURN

PVACR/L-S

Side Lever Lock Tools Carrying 35° Positive Rhombic Inserts for Swiss Automatic Machines



M E T R I C

Designation	H	HF	B	LF	WF	MIID[1]				
PVACR/L 0808M-11S	8.0	8.0	8.0	150.00	8.00	VC..1103	SL LV-2	SL PI-2 PIN	SR 10400611	HW 2.0/5
PVACR/L 1010M-11S	10.0	10.0	10.0	150.00	10.20	VC..1103	SL LV-2	SL PI-2 PIN	SR 10400611	HW 2.0/5
PVACR/L 1212M-11S	12.0	12.0	12.0	150.00	12.20	VC..1103	SL LV-2	SL PI-2 PIN	SR 10400611	HW 2.0/5
PVACR/L 1616M-11S	16.0	16.0	16.0	150.00	16.20	VC..1103	SL LV-2	SL PI-2 PIN	SR 10400611	HW 2.0/5
PVACR 2020K-11S	20.0	20.0	20.0	125.00	20.20	VC..1103	SL LV-2	SL PI-2 PIN	SR 10400611	HW 2.0/5

- The clamping screw may by transferred to the opposite side if needed

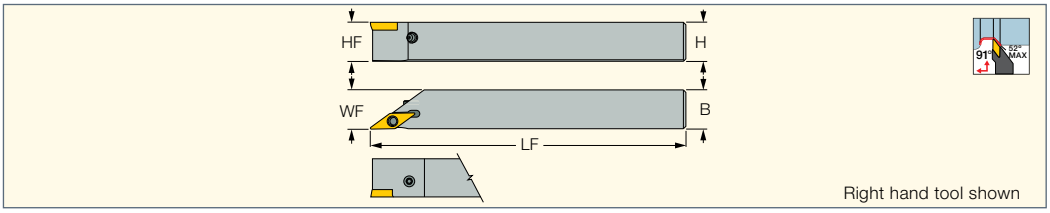
(1) Master insert identification

For inserts, see pages: VCGT-F1M-12P (192) • VCGT-F1M-20P (193) • VCMT-F3P (184) • VCMT-M3P (185) • VCMT-F3M (186) • VCMT-SM (188) • VCET-WF (194) • VCGT-AS (191)

ISOTURN

PVACR-S

Side Lever Lock Tools for 35° Positive Rhombic Inserts intended for Swiss Automatic Machines



I N C H

Designation	H	HF	B	LF	WF	MIID[1]				
PVACR 06-2S	.375	.375	.375	5.905	.400	VC.. 2	SL LV-2	SL PI-2 PIN	SR 10400611	HW 2.0/5
PVACR 08-2S	.500	.500	.500	5.905	.506	VC.. 2	SL LV-2	SL PI-2 PIN	SR 10400611	HW 2.0/5
PVACR 10-2S	.625	.625	.625	5.905	.650	VC.. 2	SL LV-2	SL PI-2 PIN	SR 10400611	HW 2.0/5
PVACR 12-2S	.750	.750	.750	5.905	.760	VC.. 2	SL LV-2	SL PI-2 PIN	SR 10400611	HW 2.0/5

- The clamping screw may by transferred to the opposite side if needed

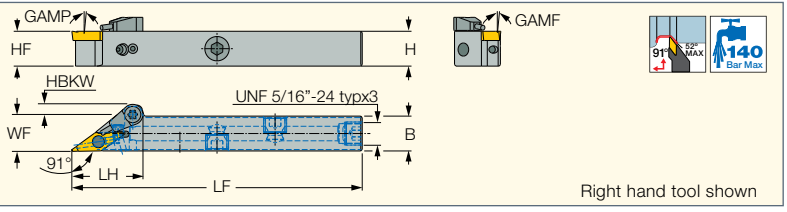
(1) Master insert identification

For inserts, see pages: VCGT-F1M-12P (192) • VCGT-F1M-20P (193) • VCMT-F3P (184) • VCMT-M3P (185) • VCMT-F3M (186) • VCMT-SM (188) • VCET-WF (194) • VCGT-AS (191)

ISOTURN

PVACR/L-S-JHP

Tools with Channels for High Pressure Coolant Carrying 35° Positive Rhombic Inserts for Swiss Automatic Machines



M E T R I C

Designation	H	HF	B	LF	LH	WF	HBKW	GAMP(1)	GAMF(2)	MIID(3)
PVACR 1010H-11S-JHP	10.0	10.0	10.0	100.00	20.0	10.20	5.80	0.0	0.0	VC..1103
PVACR/L 1212H-11S-JHP	12.0	12.0	12.0	100.00	20.0	12.20	3.80	0.0	0.0	VC..1103
PVACR/L 1616K-11S-JHP	16.0	16.0	16.0	125.00	20.0	16.20	-	0.0	0.0	VC..1103
PVACR/L 2020K-11S-JHP	20.0	20.0	20.0	125.00	25.0	20.20	-	0.0	0.0	VC..1103

- For user guide, see pages 6-7, 67-68, 72

(1) Rake angle axial

(2) Rake angle radial

(3) Master insert identification

For inserts, see pages: VCGT-F1M-12P (192) • VCGT-F1M-20P (193) • VCMT-F3P (184) • VCMT-M3P (185) • VCMT-F3M (186) • VCMT-SM (188) • VCET-WF (194) • VCGT-AS (191)

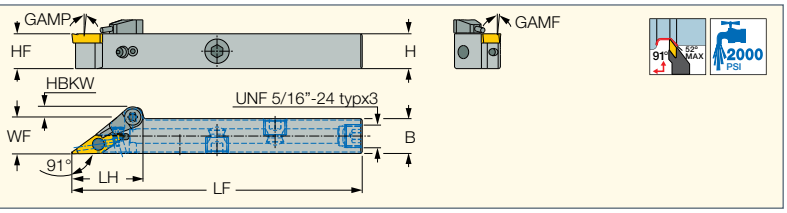
Spare Parts

Designation						
PVACR 1010H-11S-JHP	SL LV-2	SL PI-2 PIN	SR 10400611	HW 2.0/5		S-CU-JHP-A SET
PVACR/L 1212H-11S-JHP	SL LV-2	SL PI-2 PIN	SR 10400611	HW 2.0/5	SR 5/16UNF TL360	S-CU-JHP-A SET
PVACR/L 1616K-11S-JHP	SL LV-2	SL PI-2 PIN	SR 10400611	HW 2.0/5	SR 5/16UNF TL360	S-CU-JHP-A SET
PVACL 2020K-11S-JHP	SL LV-2	SL PI-2 PIN	SR 10400611	HW 2.0/5	SR 5/16UNF TL360	S-CU-JHP-A SET
PVACR 2020K-11S-JHP	SL LV-2	SL PI-2 PIN	SR 10400611	HW 2.5/5	SR 5/16UNF TL360	S-CU-JHP-A SET

ISOTURN

PVACR/L-S-JHP

Tools with Channels for High-Pressure Coolant Carrying 35° Positive Rhombic Inserts for Swiss Automatic Machines



I N C H

Designation	H	HF	B	LF	LH	WF	HBKW	GAMP(1)	GAMF(2)	MIID(3)
PVACR/L 08-2S-JHP	.500	.500	.500	4.000	1.000	.510	.1200	0	0	VC..22
PVACR/L 10-2S-JHP	.625	.625	.625	4.750	1.000	.630	-	0	0	VC..22
PVACR 12-2S-JHP	.750	.750	.750	4.000	1.000	.760	-	0	0	VC..22

- For user guide see pages 6-7, 67-68, 72

(1) Rake angle axial

(2) Rake angle radial

(3) Master insert identification

For inserts, see pages: VCGT-F1M-12P (192) • VCGT-F1M-20P (193) • VCMT-F3P (184) • VCMT-M3P (185) • VCMT-F3M (186) • VCMT-SM (188) • VCET-WF (194) • VCGT-AS (191)

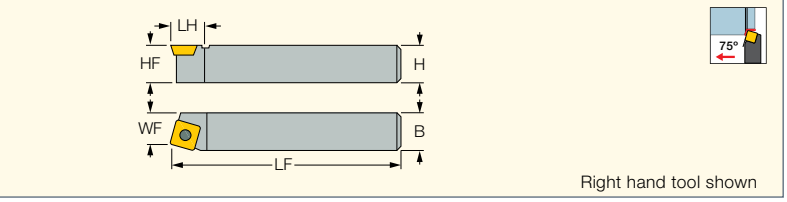
Spare Parts

Designation						
PVACR/L-JHP	SL LV-2	SL PI-2 PIN	SR 10400611	HW 2.0/5	SR 5/16UNF TL360	S-CU-JHP-A SET

ISOTURN

SSBCR/L

75° Lead Angle Screw Lock Tools Carrying Square Inserts with 7° Clearance Angle



M E T R I C

Designation	H	HF	B	LF	LH	WF	MIID(1)		
SSBCR/L 1616H-09	16.0	16.0	16.0	100.00	15.0	13.00	SC.. 09T3	SR 16-236	T-15/5

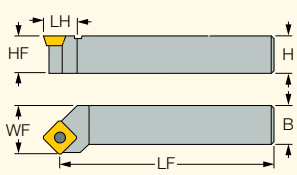
(1) Master insert identification

For inserts, see pages: • SCMT-F3P (198) • SCMT-M3P (200) • SCMT-F3M (199) • SCMT-M3M (199) • SCMT-SM (201) • SCGT-AS (202) • SCMT-14 (202) • SCMW (203)

ISOTURN

SSSCR/L

45° Lead Angle Screw Lock Tools Carrying Square Inserts with 7° Clearance Angle





Right hand tool shown

M E T R I C

Designation	H	HF	B	LF	LH	WF	MIID[1]		
SSSCR/L 1212F-09	12.0	12.0	12.0	80.00	18.0	16.00	SC.. 09T3	SR 16-236	T-15/5
SSSCR/L 1616H-09	16.0	16.0	16.0	100.00	18.0	20.00	SC.. 09T3	SR 16-236	T-15/5

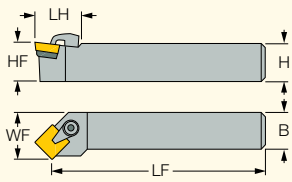
(1) Master insert identification

For inserts, see pages: SCMT-F3P (198) • SCMT-M3P (200) • SCMT-F3M (199) • SCMT-M3M (199) • SCMT-SM (201) • SCGT-AS (202) • SCMT-14 (202) • SCMW (203)

ISOTURN

CSSPR/L

Clamp Lock Tools Carrying 11° Clearance Square Inserts for Longitudinal and Face Turning





Right hand tool shown

M E T R I C

Designation	H	HF	B	LF	LH	WF	MIID[2]				
CSSPR 1212F-09	12.0	12.0	12.0	80.00	21.0	16.00	SPMR 090304			LC 15 SET 1	HW 2.5
CSSPR 1616H-12 (1)	16.0	16.0	16.0	100.00	26.0	20.00	SPMR 120304	ISQP 162	SP 16	LC 30 SET 2	HW 3.0

(1) ISQP 163 for inserts with corner radii 1.6-2.4 mm.

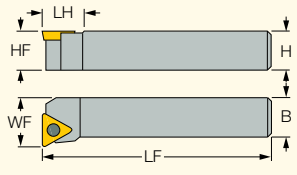
(2) Master insert identification

For inserts, see pages: SPMR (203)

ISOTURN

STFCR/L

Screw Lock Tools Carrying Triangular Inserts with 7° Clearance Angle for Face Turning





Right hand tool shown

M E T R I C

Designation	H	HF	B	LF	LH	WF	MIID[1]		
STFCR/L 1212F-11	12.0	12.0	12.0	80.00	13.0	16.00	TC.. 1102	SR 14-548	T-7/5

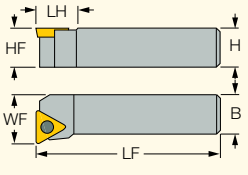
(1) Master insert identification

For inserts, see pages: TCMT-19 (207) • TCMT-F3P (204) • TCMT-M3M (205) • TCMT-PF (205) • TCMT-SM (206) • TCGT-AS (207) • TCMT (CBN) (208)

ISOTURN

STFCR/L

Screw Lock Tools Carrying Triangular Inserts with 7° Clearance Angle for Face Turning





Right hand tool shown

I N C H

Designation	H	HF	B	LF	LH	WF	MIID[1]		
STFCR/L 08-2	.500	.500	.500	3.500	.500	.630	TC.. 2	SR 14-548	T-7/5
STFCR 10-2	.625	.625	.625	4.500	.500	.750	TC.. 2	SR 14-548	T-7/5

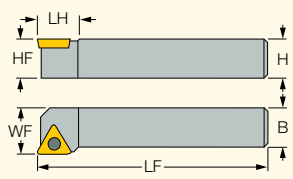
(1) Master insert identification

For inserts, see pages: TCMT-19 (207) • TCMT-F3P (204) • TCMT-M3M (205) • TCMT-PF (205) • TCMT-SM (206) • TCGT-AS (207) • TCMT (CBN) (208)

ISOTURN

STGCR/L

91° Lead Angle Screw Lock Tools Carrying Triangular Inserts with 7° Clearance Angle





Right hand tool shown

M E T R I C

Designation	H	HF	B	LF	LH	WF	MIID[1]		
STGCR/L 1212F-11	12.0	12.0	12.0	80.00	13.0	16.00	TC.. 1102	SR 14-548	T-7/5
STGCR/L 1616H-11	16.0	16.0	16.0	100.00	13.0	20.00	TC.. 1102	SR 14-548	T-7/5

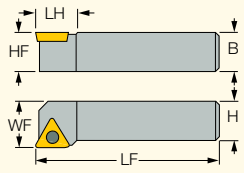
(1) Master insert identification

For inserts, see pages: TCMT-19 (207) • TCMT-F3P (204) • TCMT-M3M (205) • TCMT-PF (205) • TCMT-SM (206) • TCGT-AS (207) • TCMT (CBN) (208)

ISOTURN

STGCR/L

91° Lead Angle Screw Lock Tools Carrying Triangular Inserts with 7° Clearance Angle





Right hand tool shown

I N C H

Designation	H	HF	B	LF	LH	WF	MIID[1]		
STGCR 06-2	.375	.375	.375	2.500	.500	.500	TC.. 2	SR 14-548	T-7/5
STGCR/L 08-2	.500	.500	.500	3.500	.500	.630	TC.. 2	SR 14-548	T-7/5
STGCR 10-2	.625	.625	.625	4.500	.500	.750	TC.. 2	SR 14-548	T-7/5

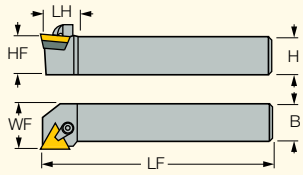
(1) Master insert identification

For inserts, see pages: TCMT-19 (207) • TCMT-F3P (204) • TCMT-M3M (205) • TCMT-PF (205) • TCMT-SM (206) • TCGT-AS (207) • TCMT (CBN) (208)

ISOTURN

CTGPR/L

Clamp Lock Tools Carrying 11° Clearance Triangular Inserts





Right hand tool shown

M E T R I C

Designation	H	HF	B	LF	LH	WF	MIID[1]		
CTGPR/L 1212F-11	12.0	12.0	12.0	80.00	17.0	16.00	TPMR/TPGN 1103	LC 15 SET 1	HW 2.5
CTGPR 1616H-11	16.0	16.0	16.0	100.00	16.0	20.00	TPMR/TPGN 1103	LC 15 SET 1	HW 2.5

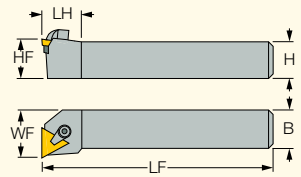
(1) Master insert identification

For inserts, see pages: TPGN (CER) (216) • TPMR (210) • TPMR-FTF (211) • TPMR-PF (211)

ISOTURN

CTFPR/L

Clamp Lock Tools Carrying 11° Clearance Triangular Inserts for Face Turning





Right hand tool shown

M E T R I C

Designation	H	HF	B	LF	LH	WF	MIID[1]		
CTFPR 1212F-11	12.0	12.0	12.0	80.00	16.0	16.00	TPMR/TPGN 1103	LC 15 SET 1	HW 2.5
CTFPR/L 1616H-11	16.0	16.0	16.0	100.00	16.0	20.00	TPMR/TPGN 1103	LC 15 SET 1	HW 2.5

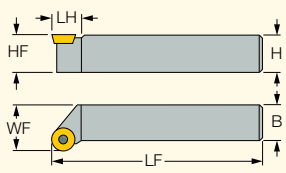
(1) Master insert identification

For inserts, see pages: TPGN (CER) (216) • TPMR (210) • TPMR-FTF (211) • TPMR-PF (211)

ISOTURN

SRGCR/L

Screw Lock Tools Carrying Round Inserts with 7° Clearance Angle





Right hand tool shown

M E T R I C

Designation	H	HF	B	LF	LH	WF	MIID[1]		
SRGCR/L 1616H-08	16.0	16.0	16.0	100.00	11.0	20.00	RCMT 0803MO	SR 14-513	T-8/5

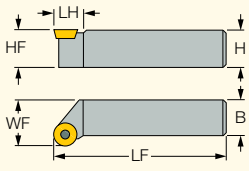
[1] Master insert identification

For inserts, see pages: RCGT-AS (219) • RCMT-14 (217) • RCMT-SR (218)

ISOTURN

SRGCR/L

Screw Lock Tools Carrying Round Inserts with 7° Clearance Angle





Right hand tool shown

I N C H

Designation	H	HF	B	LF	LH	WF	MIID[1]		
SRGCR/L 08-08	.500	.500	.500	3.500	.440	.630	RC.. 08	SR 14-513	T-8/5

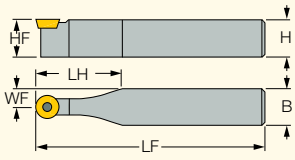
[1] Master insert identification

For inserts, see pages: RCGT-AS (219) • RCMT-14 (217) • RCMT-SR (218)

ISOTURN

SRDCN

Screw Lock Neutral Tools Carrying Round Inserts with 7° Clearance Angle





M E T R I C

Designation	H	HF	B	LF	LH	WF	MIID[1]		
SRDCN 1616H-08	16.0	16.0	16.0	100.00	33.0	8.00	RCMT 0803MO	SR 14-513	T-8/5

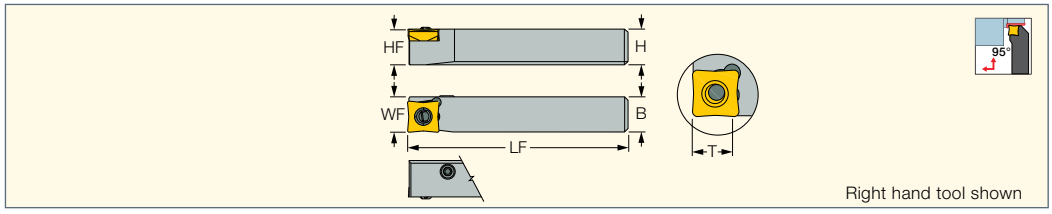
[1] Master insert identification

For inserts, see pages: RCGT-AS (219) • RCMT-14 (217) • RCMT-SR (218)

ISOTURN

PQLCR/L-S

Side Lever Lock Tools Carrying 80° Positive 4-Cornered Inserts for Swiss Automatic Machines



M E T R I C

Designation	H	B	HF	LF	WF	T	MIID[1]				
PQLCR/L 1212M-09S	12.0	12.0	12.0	150.00	12.00	8.5	QCMT 09T3	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5

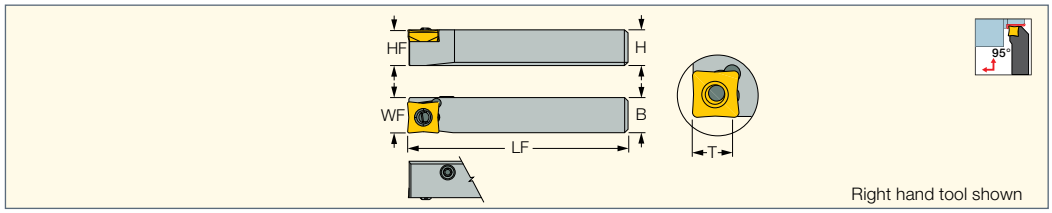
[1] Master insert identification

For inserts, see pages: QCMT-PF (219) • QCMT-SM (220)
For holders, see pages: SBTH-JHP (833)

ISOTURN

PQLCR-S

Side Lever Lock Tools Carrying the 80° Positive 4-Cornered Inserts for Swiss Automatic Machines



I N C H

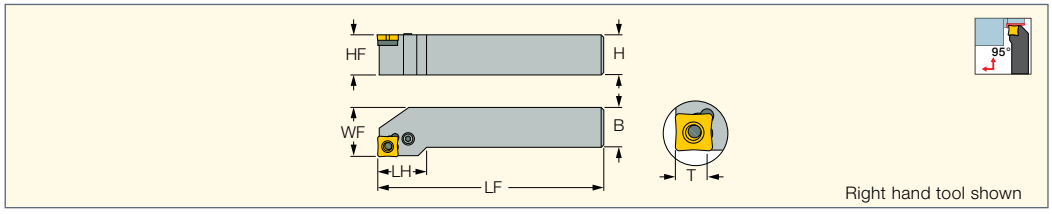
Designation	H	HF	B	OAL	LH	T	WF				
PQLCR 08-3S	.500	.500	.500	.590	.790	.335	.500	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5
PQLCR 10-3S	.625	.500	.625	.590	.790	.335	.500	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5

For inserts, see pages: QCMT-PF (219) • QCMT-SM (220)

ISOTURN

PQLCR/L

Lever Lock Tools Carrying 80°
Positive 4-Cornered Inserts



M E T R I C								
Designation	**H**	**HF**	**B**	**LF**	**LH**	**WF**	**T**	**MIID[1]**
PQLCR/L 1616H-09	16.0	16.0	16.0	100.00	22.0	20.00	8.5	QCMT 09T304-SM

[1] Master insert identification **For inserts, see pages:** QCMT-PF (219) • QCMT-SM (220)

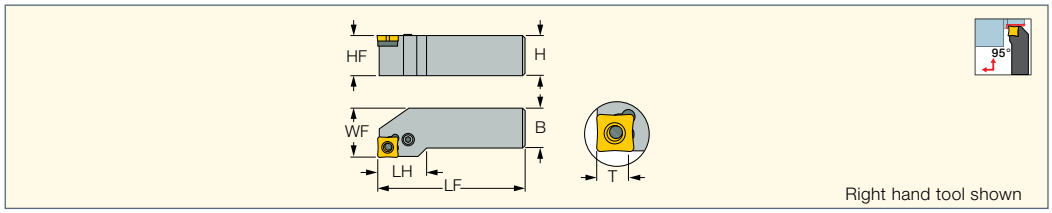
Spare Parts

Designation						
PQLCR/L	TXC 322	SP 3	PN 3-4	LR 3	SR 117-2014	HW 2.5/5

ISOTURN

PQLCR/L

Lever Lock Tools Carrying 80°
Positive 4-Cornered Inserts



I N C H							
Designation	**H**	**HF**	**B**	**LF**	**LH**	**WF**	**MIID[1]**
PQLCL 10-3	.625	.625	.625	4.000	1.000	.880	QCMT 3-1-SM

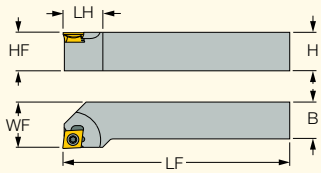
[1] Master insert identification **For inserts, see pages:** QCMT-PF (219) • QCMT-SM (220)

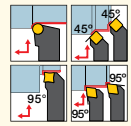
Spare Parts

Designation						
PQLCR/L	TXC 322	SP 3	PN 3-4	LR 3	SR 117-2014	HW 2.5/5

CHAMTURN

SUXCR/L-CM
Screw Lock Tools
Carrying Four Different 7°
Clearance Geometries





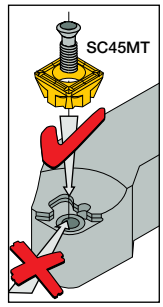
Right hand tool shown

M E T R I C

Designation	H	HF	B	LF	LH	WF		
SUXCR/L 1616H-10 CM	16.0	16.0	16.0	100.00	24.0	20.00	SR 14-544/S	T-15/5

For inserts, see pages: CC95MT-SM (151) • SC45MT-SM (201)

Designation	H	HF	LF	LH	WF	MIID
SUXCR/L 1616H-10 CM	16.0	16.0	100.00	24.0	20 21.2	CC95MT... SC45MT...



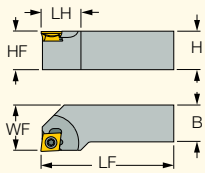
Clamping direction for SC45MT...

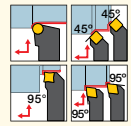
Multifunction Tool
Can Carry Two Different Inserts

- Unique, versatile **ISCAR** pocket
- For external applications
- Covers most common operations
- Simplifies tool selection
- Simple screw clamping
- Minimum spare parts

CHAMTURN

SUXCR-CM
Screw Lock Toolholders for
Four Different 7° Clearance
Geometric Shapes





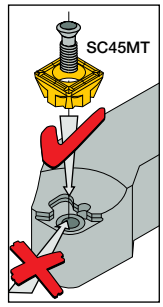
Right hand tool shown

I N C H

Designation	H	HF	B	LF	LH	WF		
SUXCR 10-10 CM	.625	.625	.625	4.000	1.000	.750	SR 14-544/S	T-15/5

For inserts, see pages: CC95MT-SM (151) • SC45MT-SM (201)

Designation	H	HF	LF	LH	WF	MIID
SUXCR 10-10 CM	.625	.625	4.000	1.00	.75 .797	CC95MT... SC45MT...



Clamping direction for SC45MT...

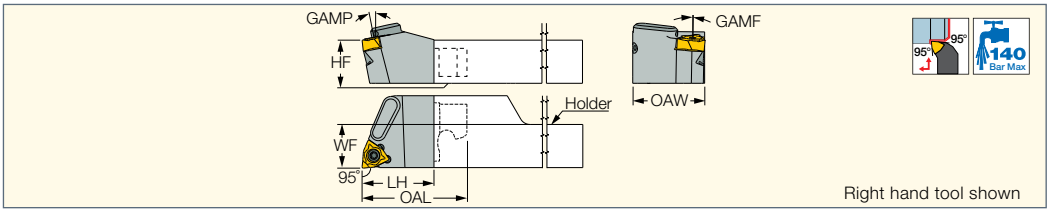
Multifunction Tool
Can Carry Two Different Inserts

- Unique, versatile **ISCAR** pocket
- For external applications
- Covers most common operations
- Simplifies tool selection
- Simple screw clamping
- Minimum spare parts

MINIPTURN POSITIVE DOUBLE SIDED

NQCH-SWLNR/L-S-JHP

Screw Lock JET-CUT Modular Heads Carrying Positive Double-Sided Trigon Inserts for Swiss-Type Machines



M E T R I C

Designation	WF	HF	LH	OAL	OAW	GAMP(1)	GAMF(2)	MIID(3)
NQCH12-SWLNR/L-04S-JHP	12.15	12.0	20.0	28.80	20.15	11.0	1.0	WNGP 0403
NQCH16-SWLNR/L-04S-JHP	16.15	16.0	20.0	28.80	20.15	11.0	1.0	WNGP 0403

• Use only RH Shank with RH Head and LH Shank with LH Head • Use a left-hand insert on a right-hand tool and vice versa

(1) Rake angle axial

(2) Rake angle radial

(3) Master insert identification

For inserts, see pages: WNGP-F2M (232) • WNGP-F2P (232)

For holders, see pages: C#-NQCH-JHP (65) • NQCH-JHP (63)

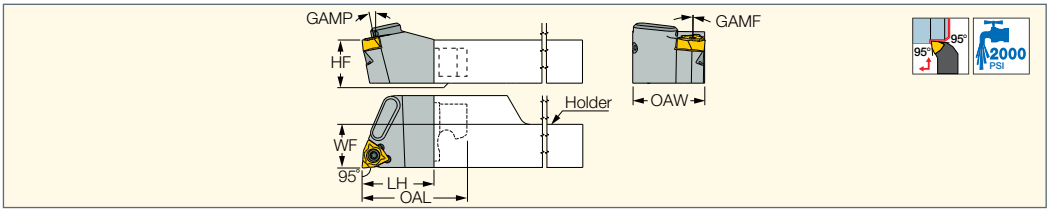
Spare Parts

Designation		
NQCH-SWLNR/L-S-JHP	SR 34-514	T-7/5

MINIPTURN POSITIVE DOUBLE SIDED

NQCH-SWLNR/L-S-JHP

Screw Lock JET-CUT Modular Heads Carrying Positive Double-Sided Trigon Inserts for Swiss-Type Machines



I N C H

Designation	WF	HF	LH	OAL	OAW	GAMP(1)	GAMF(2)	MIID(3)
NQCH12-SWLNR/L-04S-JHP	.478	.472	.787	1.134	.793	11.0	1.0	WNGP 220.5
NQCH16-SWLNR/L-04S-JHP	.636	.630	.787	1.134	.793	11.0	1.0	WNGP 220.5

• Use only RH Shank with RH Head and LH Shank with LH Head • Use a left-hand insert on a right-hand tool and vice versa

(1) Rake angle axial

(2) Rake angle radial

(3) Master insert identification

For inserts, see pages: WNGP-F2M (232) • WNGP-F2P (232)

For holders, see pages: C#-NQCH-JHP (65) • NQCH-JHP (63)

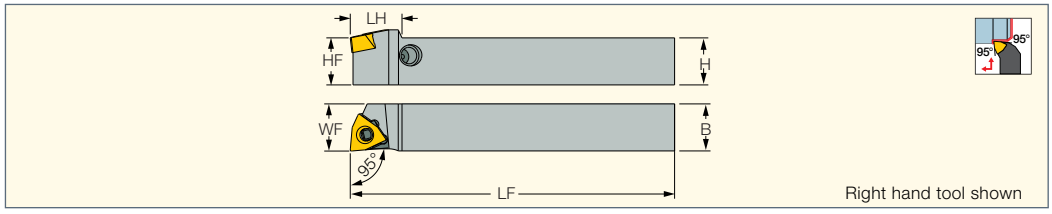
Spare Parts

Designation		
NQCH-SWLNR/L-S-JHP	SR 34-514	T-7/5

MINIPTURN POSITIVE DOUBLE SIDED

PWLNR/L-S

Lever Lock External Turning
Tools Carrying WNGP 0403..
Double-Sided Trigon Inserts



M E T R I C							
Designation	**H**	**HF**	**B**	**LF**	**LH**	**WF**	**MIID[1]**
PWLNR/L 1010X-04S	10.0	10.0	10.0	120.00	11.0	10.00	WNGP 04
PWLNR/L 1212F-04S	12.0	12.0	12.0	85.00	11.0	12.00	WNGP 04
PWLNR/L 1212X-04S	12.0	12.0	12.0	120.00	11.0	12.00	WNGP 04
PWLNR/L 1616X-04S	16.0	16.0	16.0	120.00	13.0	16.00	WNGP 04

• Use a left-hand insert on a right-hand tool and vice versa.
[1] Master insert identification

For inserts, see pages: WNGP-F2M (232) • WNGP-F2P (232)
For holders, see pages: SBTH-JHP (833)

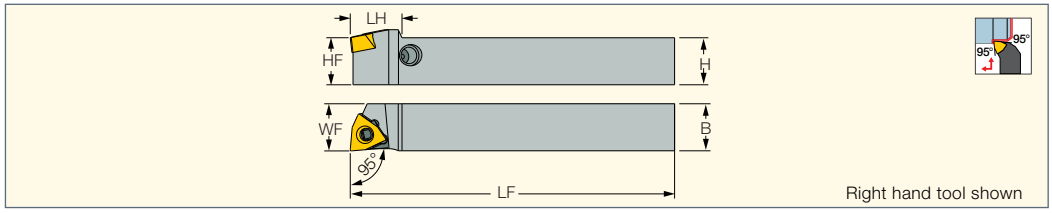
Spare Parts

Designation				
PWLNR/L-S	SR 10400611	HW 2.0/5	SL LV-2	SL PI-2 PIN

MINIPTURN POSITIVE DOUBLE SIDED

PWLNR/L-S

Lever Lock External Turning
Tools Carrying WNGP 22..
Double-Sided Trigon Inserts



I N C H							
Designation	**H**	**HF**	**B**	**LF**	**LH**	**WF**	**MIID[1]**
PWLNR/L 1010X-04S	.394	.394	.394	4.724	.433	.394	WNGP 220
PWLNR/L 1212F-04S	.472	.472	.472	3.346	.433	.472	WNGP 220
PWLNR/L 1212X-04S	.472	.472	.472	4.724	.433	.472	WNGP 220
PWLNR/L 1616X-04S	.630	.630	.630	4.724	.512	.630	WNGP 220

• Use a left-hand insert on a right-hand tool and vice versa.
[1] Master insert identification

For inserts, see pages: WNGP-F2M (232) • WNGP-F2P (232)
For holders, see pages: SBTH-JHP (833)

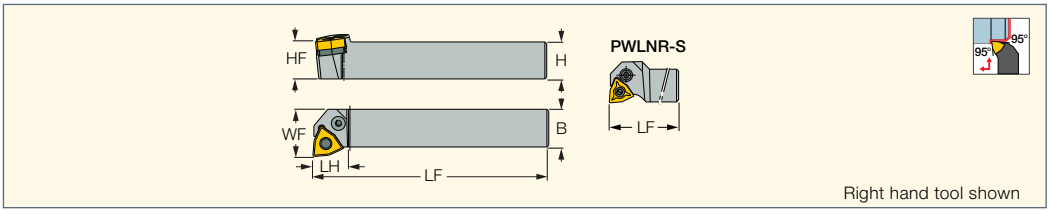
Spare Parts

Designation				
PWLNR/L-S	SR 10400611	HW 2.0/5	SL LV-2	SL PI-2 PIN

ISOTURN

PWLNR/L

Lever Lock External
Turning Tools Carrying 80°
Negative Trigon Inserts



M E T R I C							
Designation	**H**	**HF**	**B**	**LF**	**LH**	**WF**	**MIID[1]**
PWLNR/L 1616H-06	16.0	16.0	16.0	100.00	16.0	20.00	WN..06T3
PWLNR/L 1616H-06S	16.0	16.0	16.0	100.00	20.3	16.00	WN..06T3

(1) Master insert identification

For inserts, see pages: WNMG-F3S (222) • WNMG-F3P (221) • WNMG-M3P (224) • WNMG-F3M (221) • WNMG-M3M (223) • WNMG-TF (226) • WNMG-PP (228) • WNMG-VL (227) • WNMG-SF (226) • WNMG-NF (225) • WNMG-WF (229) • WNMG-WG (230) • WNGA-M3 (CBN) (233) • WNGA-MC/M6 (CBN) (234) • WNMG-CERMET (231)

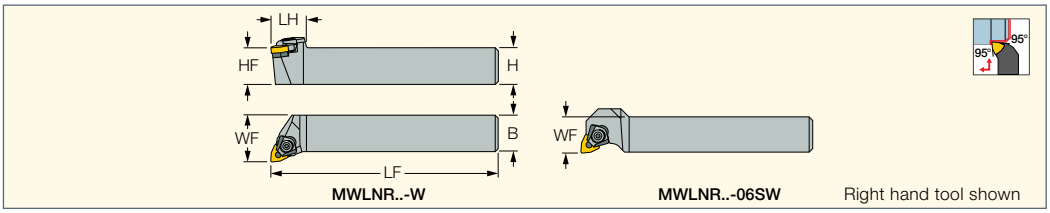
Spare Parts

Designation						
PWLNR/L	TWN 322	SP 3	PN 3-4	HW 2.5/5	SR 117-2014	LR 3

ISOTURN

MWLNR/L-W

Top Wedge Lock External
Tools Carrying Trigon Inserts



M E T R I C							
Designation	**H**	**HF**	**B**	**LF**	**LH**	**WF**	**MIID[2]**
MWLNR/L 1616H-06SW [1]	16.0	16.0	16.0	100.00	23.0	16.00	WNMG 06T3

(1) Supplied with IWSN 322W seat for WNMG 06T3.. inserts and IWSN 3-2W seat for WNMG 0604.. inserts.
(2) Master insert identification

For inserts, see pages: WNGG-F3N (233) • WNMG-CERMET (231) • WNMG-F3S (222) • WNMG-F3P (221) • WNMG-M3P (224) • WNMG-F3M (221) • WNMG-M3M (223) • WNMG-TF (226) • WNMG-PP (228) • WNMG-VL (227) • WNMG-SF (226) • WNMG-NF (225) • WNMG-WF (229) • WNMG-WG (230) • WNGA-M3 (CBN) (233) • WNGA-MC/M6 (CBN) (234)

Spare Parts

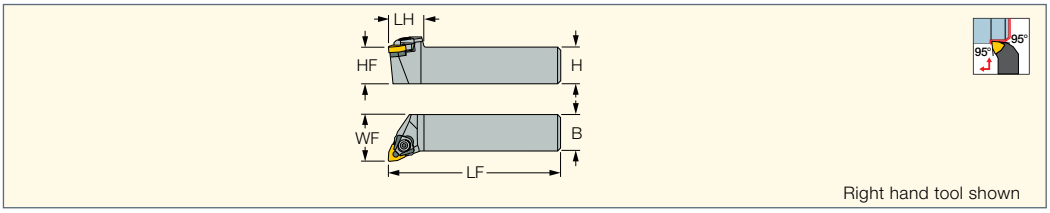
Designation						
MWLNR/L 1616H-06SW	IWSN 322W	IWSN 3-2W*	ZNW 3W	SR 14-564	LC 250 SET 1	HW 2.5

* Optional, to be ordered separately

ISOTURN

MWLNR/L-W

Top Wedge Lock External
Tools Carrying Trigon Inserts



I N C H							
Designation	**H**	**HF**	**B**	**LF**	**LH**	**WF**	**MIID[1]**
MWLNR/L 10-3W	.625	.625	.625	4.000	1.000	.880	WN.. 3

(1) Master insert identification

For inserts, see pages: WNGG-F3N (233) • WNMG-CERMET (231) • WNMG-F3S (222) • WNMG-F3P (221) • WNMG-M3P (224) • WNMG-F3M (221) • WNMG-M3M (223) • WNMG-TF (226) • WNMG-PP (228) • WNMG-VL (227) • WNMG-SF (226) • WNMG-NF (225) • WNMG-WF (229) • WNMG-WG (230) • WNGA-M3 (CBN) (233) • WNGA-MC/M6 (CBN) (234)

Spare Parts

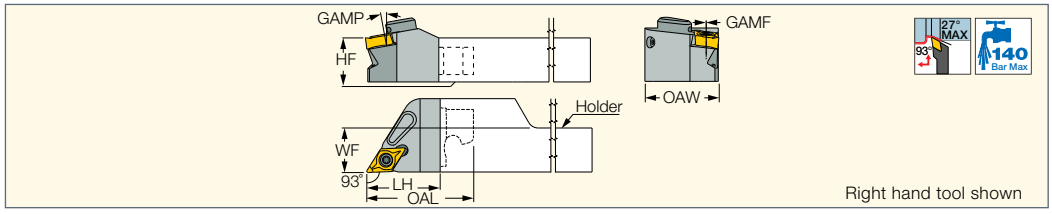
Designation						
MWLNR/L 10-3W	IWSN 322W	IWSN 3-2W*	ZNW 3W	SR 14-564	LC 250 SET 1	HW 2.5

* Optional, to be ordered separately

MINIPTURN POSITIVE DOUBLE SIDED

NQCH-SDJNR/L-S-JHP

Screw Lock JET-CUT Modular Heads Carrying Positive Double-Sided 55° Rhombic Inserts for Swiss-Type Machines



M E T R I C

Designation	WF	HF	LH	OAL	OAW	GAMP(1)	GAMF(2)	MIID(3)		
NQCH12-SDJNR/L-07S-JHP	12.15	12.0	20.0	28.80	20.15	10.0	0.0	DNGP 0703..	SR 34-514	T-7/5
NQCH12R-SDJNL-07S-JHP	12.15	12.0	20.0	28.80	20.15	10.0	0.0	DNGP 0703..	SR 34-514	T-7/5
NQCH16-SDJNR/L-07S-JHP	16.15	16.0	20.0	28.80	20.15	10.0	0.0	DNGP 0703..	SR 34-514	T-7/5
NQCH16R-SDJNL-07S-JHP	16.15	16.0	20.0	28.80	20.15	10.0	0.0	DNGP 0703..	SR 34-514	T-7/5

• Use only RH Shank with RH Head and LH Shank with LH Head • Use a left-hand insert on a right-hand tool and vice versa

(1) Rake angle axial

(2) Rake angle radial

(3) Master insert identification

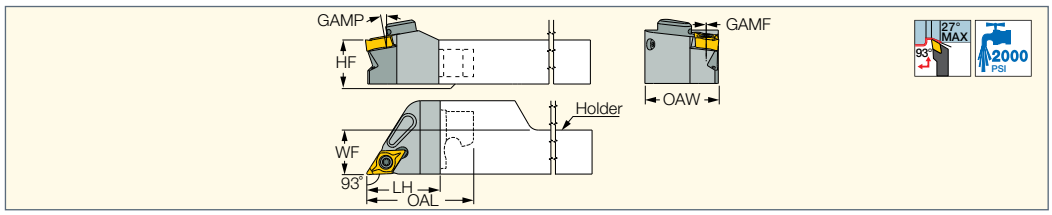
For inserts, see pages: DNGP-F2M (264) • DNGP-F2P (265)

For holders, see pages: C#-NQCH-JHP (65) • NQCH-JHP (63)

MINIPTURN POSITIVE DOUBLE SIDED

NQCH-SDJNR/L-S-JHP

Screw Lock JET-CUT Modular Heads Carrying Positive Double-Sided 55° Rhombic Inserts for Swiss-Type Machines



I N C H

Designation	WF	HF	LH	OAL	OAW	GAMP(1)	GAMF(2)	MIID(3)		
NQCH12-SDJNR/L-07S-JHP	.478	.472	.787	1.134	.793	10.0	0	DNGP 22..	SR 34-514	T-7/5
NQCH12R-SDJNL-07S-JHP	.478	.472	.787	1.134	.793	10.0	0	DNGP 22..	SR 34-514	T-7/5
NQCH16-SDJNR/L-07S-JHP	.636	.630	.787	1.134	.793	10.0	0	DNGP 22..	SR 34-514	T-7/5
NQCH16R-SDJNL-07S-JHP	.636	.630	.787	1.134	.793	10.0	0	DNGP 22..	SR 34-514	T-7/5

• Use only RH Shank with RH Head and LH Shank with LH Head • Use a left-hand insert on a right-hand tool and vice versa

(1) Rake angle axial

(2) Rake angle radial

(3) Master insert identification

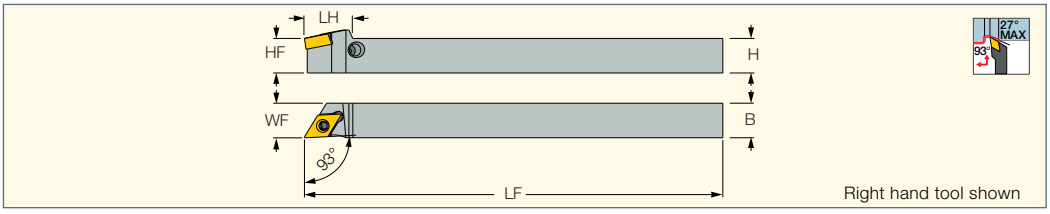
For inserts, see pages: DNGP-F2M (264) • DNGP-F2P (265)

For holders, see pages: C#-NQCH-JHP (65) • NQCH-JHP (63)

MINIPTURN POSITIVE DOUBLE SIDED

PDJNR/L-S

Lever Lock Tools Carrying
DNGP 0703.. Double-Sided
55° Rhombic Inserts



M E T R I C

Designation	H	HF	B	LF	LH	WF	MIID[1]				
PDJNR/L 1010X-07S	10.0	10.0	10.0	120.00	14.0	10.00	DNGP 07	SR 10400611	HW 2.0/5	SL LV-2	SL PI-2 PIN
PDJNR/L 1212F-07S	12.0	12.0	12.0	85.00	14.0	12.00	DNGP 07	SR 10400611	HW 2.0/5	SL LV-2	SL PI-2 PIN
PDJNR/L 1212X-07S	12.0	12.0	12.0	120.00	14.0	12.00	DNGP 07	SR 10400611	HW 2.0/5	SL LV-2	SL PI-2 PIN
PDJNR/L 1616X-07S	16.0	16.0	16.0	120.00	18.0	16.00	DNGP 07	SR 10400611	HW 2.0/5	SL LV-2	SL PI-2 PIN

- Use a left-hand insert on a right-hand tool and vice versa.

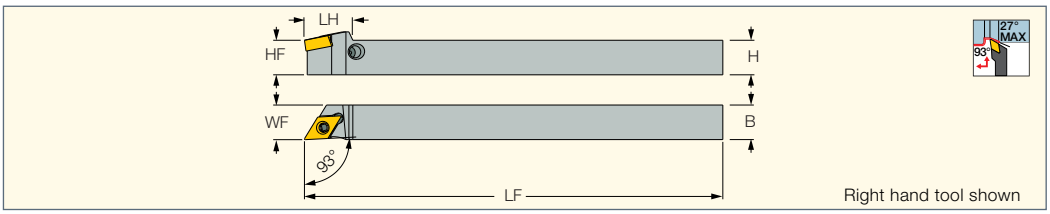
[1] Master insert identification

For inserts, see pages: DNGP-F2M (264) • DNGP-F2P (265)
For holders, see pages: SBTH-JHP (833)

MINIPTURN POSITIVE DOUBLE SIDED

PDJNR/L-S

Lever Lock Tools Carrying
DNGP 22.. Double-Sided
55° Rhombic Inserts



I N C H

Designation	H	HF	B	LF	LH	WF	MIID[1]				
PDJNR/L 1010X-07S	.394	.394	.394	4.724	.551	.394	DNGP 2..	SR 10400611	HW 2.0/5	SL LV-2	SL PI-2 PIN
PDJNR/L 1212F-07S	.472	.472	.472	3.346	.551	.472	DNGP 2..	SR 10400611	HW 2.0/5	SL LV-2	SL PI-2 PIN
PDJNR/L 1212X-07S	.472	.472	.472	4.724	.551	.472	DNGP 2..	SR 10400611	HW 2.0/5	SL LV-2	SL PI-2 PIN
PDJNR/L 1616X-07S	.630	.630	.630	4.724	.709	.630	DNGP 2..	SR 10400611	HW 2.0/5	SL LV-2	SL PI-2 PIN

- Use a left-hand insert on a right-hand tool and vice versa.

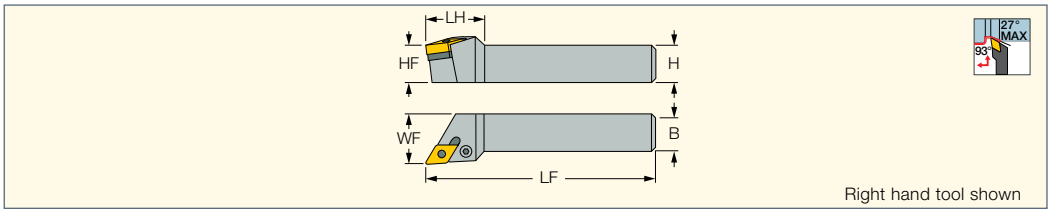
[1] Master insert identification

For inserts, see pages: DNGP-F2M (264) • DNGP-F2P (265)
For holders, see pages: SBTH-JHP (833)

ISOTURN

PDJNR/L

Lever Lock Tools Carrying 55°
Negative Rhombic Inserts



M E T R I C

Designation	H	HF	B	LF	LH	WF	MIID[1]
PDJNR/L 1616H-11	16.0	16.0	16.0	100.00	30.0	20.00	DNMG 1104

[1] Master insert identification

For inserts, see pages: DNGG-M3N (263) • DNMG-CERMET (262) • DNMG-F3S (255) • DNMG-F3P (254) • DNMG-M3P (256) • DNMG-F3M (255) • DNMG-M3M (257) • DNMG/DNGG-TF (261) • DNMG/DNGG-PP (260) • DNMG-VL (259) • DNMG-PF (258) • DNMG/DNGG-SF (259) • DNMG-NF (257)

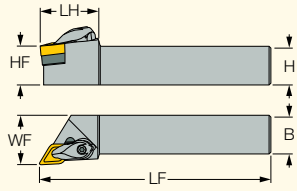
Spare Parts

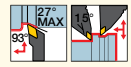
Designation						
PDJNR/L 1616H-11	TDN 322	SP 3	PN 3-4	LR 3D	SR 117-2014	HW 2.5/5

ISOTURN

DDJNR/L

R-CLAMP Tools with 93° Lead Angle Carrying 55° Negative Rhombic Inserts





Right hand tool shown

M E T R I C							
Designation	**H**	**HF**	**B**	**LF**	**LH**	**WF**	**MIID[1]**
DDJNR/L 1616H-11	16.0	16.0	16.0	100.00	30.0	20.00	DNMG 1104

[1] Master insert identification

For inserts, see pages: DNMG-F3S (255) • DNMG-F3P (254) • DNMG-M3P (256) • DNMG-CERMET (262) • DNGG-M3N (263) • DNMG-F3M (255) • DNMG-M3M (257) • DNMG/DNGG-TF (261)• DNMG/DNGG-PP (260) • DNMG-VL (259) • DNMG-PF (258) • DNMG/DNGG-SF (259) • DNMG-NF (257)

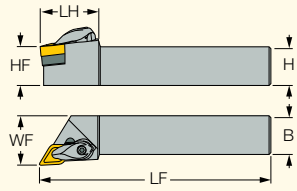
Spare Parts

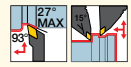
Designation						
DDJNR/L 1616H-11	RDT 3-2	SR 40085I	LCGR-3	SR RC3	HW 2.5	KSP 3

ISOTURN

DDJNR/L

R-CLAMP Tools with 93° Lead Angle Carrying 55° Negative Rhombic Inserts





Right hand tool shown

I N C H							
Designation	**H**	**HF**	**B**	**LF**	**LH**	**WF**	**MIID[1]**
DDJNR 10-3A	.625	.625	.625	4.000	1.180	.750	DNMG 33.

[1] Master insert identification

For inserts, see pages: DNMG-F3S (255) • DNMG-F3P (254) • DNMG-M3P (256) • DNMG-CERMET (262) • DNGG-M3N (263) • DNMG-F3M (255) • DNMG-M3M (257) • DNMG/DNGG-TF (261) • DNMG/DNGG-PP (260) • DNMG-VL (259) • DNMG-PF (258) • DNMG/DNGG-SF (259) • DNMG-NF (257)

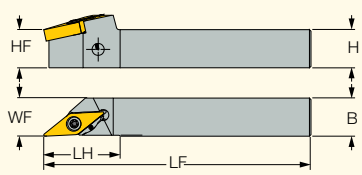
Spare Parts

Designation						
DDJNR 10-3A	RDT 3-2	SR 40085I	LCGR-3	SR RC3	HW 2.5	KSP 3

ISOTURN

SVANR/L-FS

Screw Lock Holders for Negative, 35° Inserts with a Wedge for High Rigidity in Profiling Applications





Right hand tool shown

M E T R I C

Designation	H	HF	B	LF	LH	WF	MIID[1]				
SVANR/L 1212K-12FS	12.0	12.0	12.0	125.00	25.4	12.20	VN.. 12T..	AV 12	PA 12	SR 14-551	T-9/5
SVANR/L 1616K-12FS	16.0	16.0	16.0	125.00	25.4	16.20	VN.. 12T..	AV 12	PA 12	SR 14-551	T-9/5

[1] Master insert identification

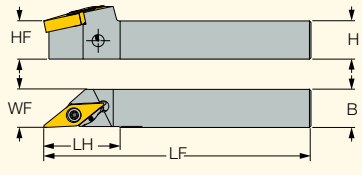
For inserts, see pages: VNMG-F3M (266) • VNMG-F3P (265) • VNMG-FNF-CERMET (269) • VNMG-M3M (267) • VNMG-SF (267) • VNMG/VNGG-NF (269) • VNMM-PP (268)

For holders, see pages: SBTH-JHP (833)

ISOTURN

SVANR/L-FS

Screw Lock Holders for Negative, 35° Inserts with a Wedge for High Rigidity in Profiling Applications





Right hand tool shown

I N C H

Designation	H	HF	B	LF	LH	WF	MIID[1]				
SVANR/L 08-2.5FS	.500	.500	.500	5.000	1.000	.500	VN.. 2.5	AV 12	PA 12	SR 14-551	T-9/5
SVANR/L 10-2.5FS	.625	.625	.625	5.000	1.000	.630	VN.. 2.5	AV 12	PA 12	SR 14-551	T-9/5

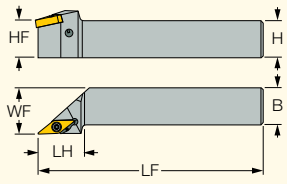
[1] Master insert identification

For inserts, see pages: VNMG-F3M (266) • VNMG-F3P (265) • VNMG-FNF-CERMET (269) • VNMG-M3M (267) • VNMG-SF (267) • VNMG/VNGG-NF (269) • VNMM-PP (268)

ISOTURN

SVJNR/L-F

Screw Lock Tools with a Wedge for High Rigidity Carrying 35° Negative Inserts for Profiling Applications





Right hand tool shown

M E T R I C

Designation	H	HF	B	LF	LH	WF	MIID[1]				
SVJNR/L 1616H-12F	16.0	16.0	16.0	100.00	25.0	20.00	VNMG 12T3	SR 14-551	T-9/5	AV 12	PA 12

- Repeatability: for VNMG is ±0.06 mm, for VNGG is ±0.02 mm

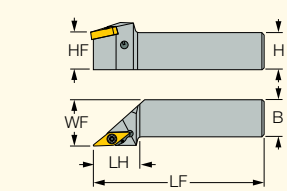
[1] Master insert identification

For inserts, see pages: VNMG-F3M (266) • VNMG-F3P (265) • VNMG-FNF-CERMET (269) • VNMG-M3M (267) • VNMG-SF (267) • VNMG/VNGG-NF (269) • VNMM-PP (268)

ISOTURN

SVJNR/L-F

Screw Lock Tools with a Wedge for High Rigidity Carrying 35° Negative Inserts for Profiling Applications





Right hand tool shown

I N C H

Designation	H	HF	B	LF	LH	WF	MIID[1]				
SVJNR/L 10-2.5F	.625	.625	.625	4.000	1.000	.800	VN.. 2.5	SR 14-551	T-9/5	AV 12	PA 12

- Repeatability: For VNMG IS ±.0024", for VNGG IS ±.0008"

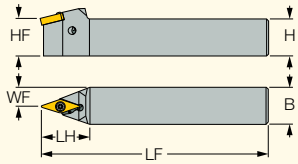
[1] Master insert identification

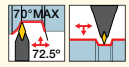
For inserts, see pages: VNMG-F3M (266) • VNMG-F3P (265) • VNMG-FNF-CERMET (269) • VNMG-M3M (267) • VNMG-SF (267) • VNMG/VNGG-NF (269) • VNMM-PP (268)

ISOTURN

SVVNN-F

Screw Lock Tools with a Wedge for High Rigidity in Profiling Applications Carrying 35° Negative Inserts





M E T R I C

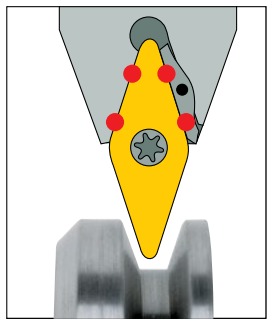
Designation	H	HF	B	LF	LH	WF	MIID(1)				
SVVNN 1616H-12F	16.0	16.0	16.0	100.00	26.0	8.00	VNMG 12T3	SR 14-551	T-9/5	PA 12	AV 12

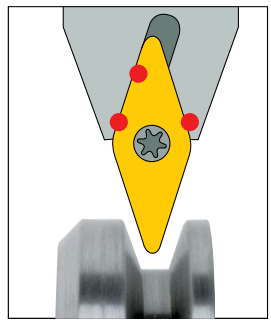
- Repeatability: for VNMG is ±0.06 mm, for VNGG is ± 0.02 mm

(1) Master insert identification

For inserts, see pages: VNMG-F3M (266) • VNMG-F3P (265) • VNMG-FNF-CERMET (269) • VNMG-M3M (267) • VNMG-SF (267) • VNMG/VNGG-NF (269) • VNMM-PP (268)

4 contact points ensure secure and precise clamping



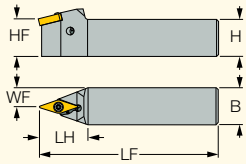


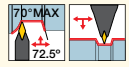
Conventional clamping

ISOTURN

SVVNN-F

Screw Lock Tools with a Wedge for High Rigidity in Profiling Applications Carrying 35° Negative Inserts





I N C H

Designation	H	HF	B	LF	LH	WF	MIID(1)				
SVVNN 10-2.5F	.625	.625	.625	4.000	1.030	.310	VN.. 2.5	SR 14-551	T-9/5	PA 12	AV 12

- Repeatability: For VNMG IS ±.0024",for VNGG IS ± .0008"

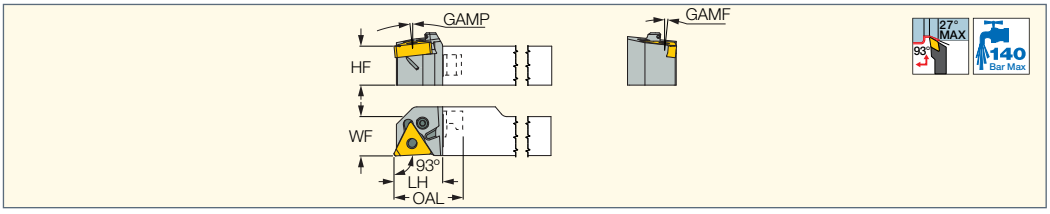
(1) Master insert identification

For inserts, see pages: VNMG-F3M (266) • VNMG-F3P (265) • VNMG-FNF-CERMET (269) • VNMG-M3M (267) • VNMG-SF (267) • VNMG/VNGG-NF (269) • VNMM-PP (268)

NEOSWISS

NQCH-PTJNR/L-S-JHP

Lever Lock JET-CUT Modular Heads Carrying Negative Double-Sided Triangular Inserts for Swiss-Type Machines



M E T R I C

Designation	HF	WF	LH	OAL	GAMP(1)	GAMF(2)	MIID(3)
NQCH16-PTJNR/L-16S-JHP	16.0	16.15	20.0	28.80	6.0	6.0	TNM..1604..

- Use only RH Shank with RH Head and LH Shank with LH Head exept NQCH12R/16R... heads.

(1) Rake angle axial
(2) Rake angle radial
(3) Master insert identification

For inserts, see pages: D6NMG-F3P (270) • D6NMG-M3M (271) • D6NMG-M3P (271) • TNMG-F3S (273) • TNMG-FFG-CERMET (280) • TNMG-F3P (272) • TNMG-M3P (274) • TNMG-F3M (273) • TNMG-M3M (275) • TNMG-TF (277) • TNMG-VL (278) • TNMG-PF (276) • TNMG-SF (277) • TNMG-NF (275) • TNMS-12 (279) • TNGA-MC/M6 (CBN) (283) • TNMA (CBN) (281)

For holders, see pages: C#-NQCH-JHP (65) • NQCH-JHP (63)

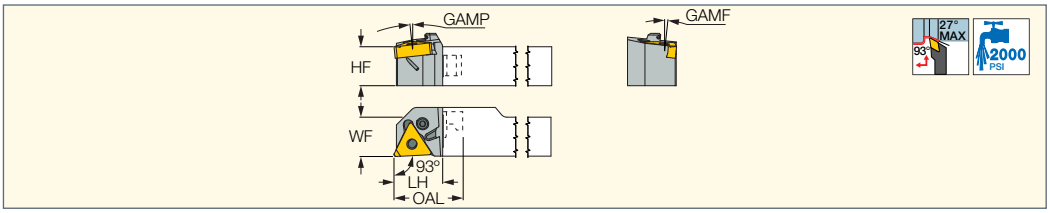
Spare Parts

Designation			
NQCH-PTJNR/L-S-JHP	SR 117-2009	LR 3S	HW 2.0

NEOSWISS

NQCH-PTJNR/L-S-JHP

Lever Lock JET-CUT Modular Heads Carrying Negative Double-Sided Triangular Inserts for Swiss-Type Machines



I N C H

Designation	HF	WF	LH	OAL	GAMP(1)	GAMF(2)	MIID(3)
NQCH16-PTJNR/L-16S-JHP	.630	.636	.787	1.134	6.0	6.0	TNM..1604..

- Use only RH Shank with RH Head and LH Shank with LH Head exept NQCH12R/16R... heads.

(1) Rake angle axial
(2) Rake angle radial
(3) Master insert identification

For inserts, see pages: D6NMG-F3P (270) • D6NMG-M3M (271) • D6NMG-M3P (271) • TNMG-F3S (273) • TNMG-FFG-CERMET (280) • TNMG-F3P (272) • TNMG-M3P (274) • TNMG-F3M (273) • TNMG-M3M (275) • TNMG-TF (277) • TNMG-VL (278) • TNMG-PF (276) • TNMG-SF (277) • TNMG-NF (275) • TNMS-12 (279) • TNGA-MC/M6 (CBN) (283) • TNMA (CBN) (281)

For holders, see pages: C#-NQCH-JHP (65) • NQCH-JHP (63)

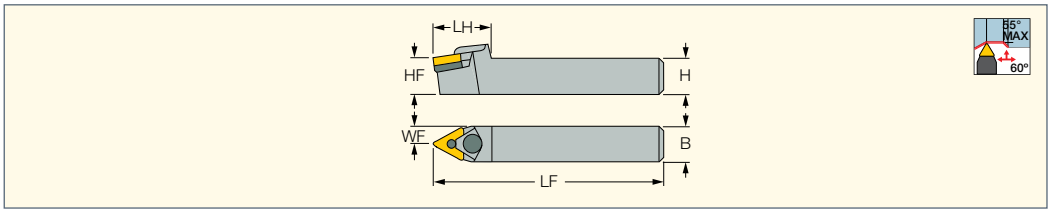
Spare Parts

Designation			
NQCH-PTJNR/L-S-JHP	SR 117-2009	LR 3S	HW 2.0

ISOTURN

MTENN-W

Neutral Wedge Lock Turning Tools Carrying Negative Triangular Inserts



M E T R I C

Designation	H	HF	B	LF	LH	WF	MIID(1)
MTENN 1618H-16W-M	16.0	16.0	18.0	100.00	32.0	9.00	TNMG 1604

(1) Master insert identification

For inserts, see pages: D6NMG-F3P (270) • D6NMG-M3M (271) • D6NMG-M3P (271) • TNGA-J(CBN) (282) • TNGG-M3N (281) • TNMG-F3S (273) • TNMG-FFG-CERMET (280) • TNMG-F3P (272) • TNMG-M3P (274) • TNMG-F3M (273) • TNMG-M3M (275) • TNMG-TF (277) • TNMG/TNGG-PP (279) • TNMG-VL (278) • TNMG-PF (276) • TNMG-SF (277) • TNMG-NF (275) • TNGA-M3 (CBN) (283) • TNGA-MC/M6 (CBN) (283) • TNMA (CBN) (281)

Spare Parts

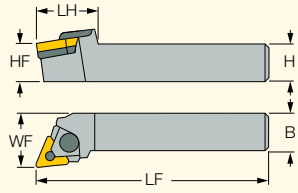
Designation							
MTENN 1618H-16W-M	TTT 322N	TTT 332N*	ZNW 3WNS	LC 291N CLAMP	E RING N	SR 17-317NS	HW 3.0

* Optional, to be ordered separately

ISOTURN

MTJNR/L-W

93° Lead Angle Wedge Lock Turning Tools Carrying Negative Triangular Inserts





Right hand tool shown

M E T R I C

Designation	H	HF	B	LF	LH	WF	MIID[1]
MTJNR/L 1616H-16W-M	16.0	16.0	16.0	100.00	32.0	20.00	TNMG 1604

[1] Master insert identification

For inserts, see pages: D6NMG-F3P (270) • D6NMG-M3M (271) • D6NMG-M3P (271) • TNGA-J(CBN) (282) • TNGG-M3N (281) • TNMG-F3S (273) • TNMG-FFG-CERMET (280) • TNMG-F3P (272) • TNMG-M3P (274) • TNMG-F3M (273) • TNMG-M3M (275) • TNMG-TF (277) • TNMG/TNGG-PP (279) • TNMG-VL (278) • TNMG-PF (276) • TNMG-SF (277) • TNMG-NF (275) • TNGA-M3 (CBN) (283) • TNGA-MC/M6 (CBN) (283) • TNMA (CBN) (281)

Spare Parts

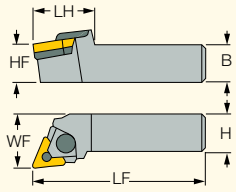
Designation							
MTJNR/L 1616H-16W-M	TTT 322N	TTT 332N*	ZNW 3WNS	LC 291N CLAMP	E RING N	SR 17-317NS	HW 3.0

* Optional, to be ordered separately

ISOTURN

MTJNR/L-W

93° Lead Angle Wedge Lock Turning Tools Carrying Negative Triangular Inserts





Right hand tool shown

I N C H

Designation	H	HF	B	LF	LH	WF	MIID[1]
MTJNR/L 10-3W-M	.625	.625	.625	4.000	1.250	.750	TNMG 33..

[1] Master insert identification

For inserts, see pages: D6NMG-F3P (270) • D6NMG-M3M (271) • D6NMG-M3P (271) • TNGA-J(CBN) (282) • TNMG-F3S (273) • TNMG-F3P (272) • TNMG-M3P (274) • TNMG-F3M (273) • TNMG-M3M (275) • TNMG-TF (277) • TNMG/TNGG-PP (279) • TNMG-VL (278) • TNMG-PF (276) • TNMG-SF (277) • TNMG-NF (275) • TNGA-M3 (CBN) (283) • TNGA-MC/M6 (CBN) (283) • TNMA (CBN) (281) • TNGG-M3N (281) • TNMG-FFG-CERMET (280)

Spare Parts

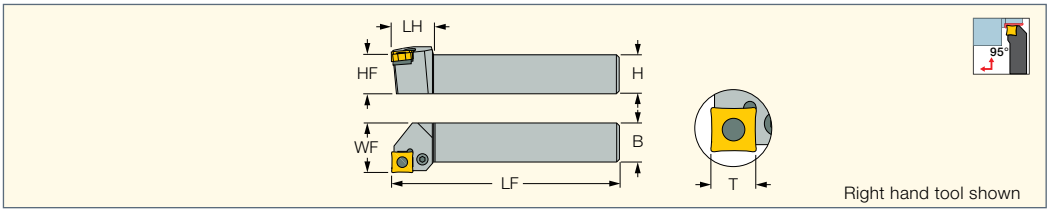
Designation							
MTJNR/L 10-3W-M	TTT 322N	TTT 332N*	ZNW 3WN	LC 291N CLAMP	E RING N	SR 17-317NS	HW 3.0

* Optional, to be ordered separately

ISOTURN

PQLNR/L

Lever Lock Tools Carrying
Negative Inserts with
Four 80° Corners



M E T R I C								
Designation	**H**	**HF**	**B**	**LF**	**LH**	**WF**	**T(1)**	**MIID(2)**
PQLNR/L 1616H-09	16.0	16.0	16.0	100.00	21.0	20.00	8	QNMG 0904

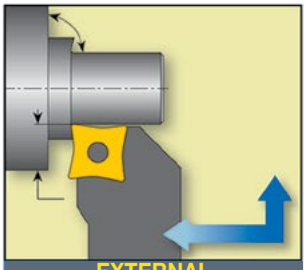
(1) T for r 0.8

(2) Master insert identification

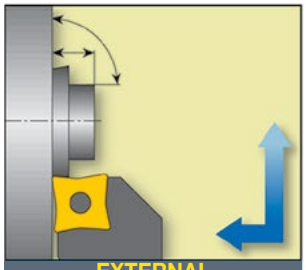
For inserts, see pages: QNMG-NF (284) • QNMG-PP (285) • QNMG-TF (285)

Spare Parts

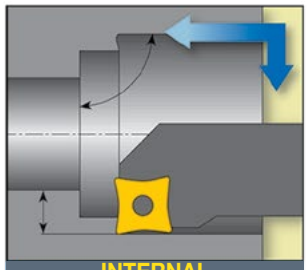
Designation						
PQLNR/L 1616H-09	TXC 322	SP 3	PN 3-4	LR 3	SR 117-2014	HW 2.5



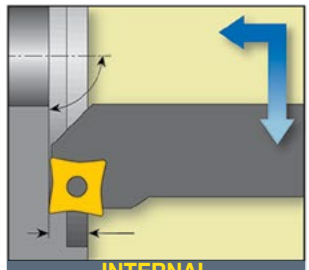
EXTERNAL LONGITUDINAL TURNING
PQLNR/L PQLCR/L TOOLHOLDERS



EXTERNAL FACE TURNING
PQFNR/L TOOLHOLDERS



INTERNAL LONGITUDINAL TURNING
S...PQLNR/L S...SQLCR/L BORING BARS



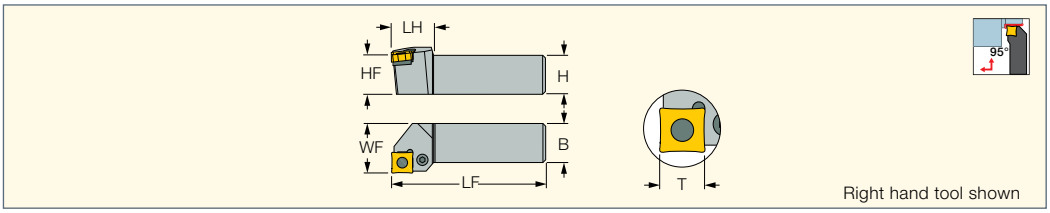
INTERNAL FACE TURNING
S...PQFNR/L BORING BARS

Depth of shoulder T with angles over 92° is unlimited in both directions.

ISOTURN

PQLNR/L

Lever Lock Tools Carrying
Negative Inserts with
Four 80° Corners



I N C H								
Designation	**H**	**HF**	**B**	**LF**	**LH**	**WF**	**T(1)**	**MIID(2)**
PQLNR 10-3	.625	.625	.625	4.000	.830	.880	.315	QNMG 3

(1) T for r.0315

(2) Master insert identification

For inserts, see pages: QNMG-NF (284) • QNMG-PP (285) • QNMG-TF (285)

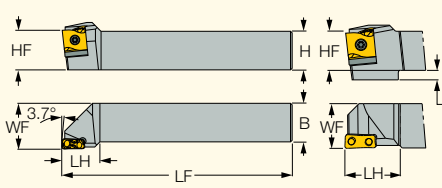
Spare Parts

Designation						
PQLNR 10-3	TXC 322	SP 3	PN 3-4	LR 3	SR 117-2014	HW 2.5

HELITURN TANGENTIAL LINE

SLANR/L-TANG

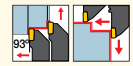
Screw-Lock Tools Carrying the LNMX.. Tangentially Clamped Inserts



16 mm Shank Configuration

SLANR/L 1616M-11S

Right hand tool shown



M E T R I C

Designation	H	HF	B	LF	LH	WF	MIID(1)	HBH
SLANR/L 1616H-11 TANG	16.0	16.0	16.0	100.00	20.0	20.00	LNMX 1104..	4.0
SLANR/L 1616M-11S TANG	16.0	16.0	16.0	150.00	20.0	16.20	LNMX 1104..	4.0

- a_p max for facing: LNMX 11-2.8 mm

(1) Master insert identification

For inserts, see pages: LNMX-HM (287) • LNMX-HT (286)

The **HELI-TURN** system features a unique, double-sided insert with 4 cutting edges for Fast Metal Removal (FMR) turning.
HELI-TURN is a tangentially clamped insert with a unique helical shaped cutting edge, useful for large depths of cut and higher than normal feed rates.
The LNMX...-HT **HELI-TURN** insert is a screw clamped into the SLANR toolholder and supported by the TLN ..-HT carbide seat. This seat has ground surfaces on the top and bottom to ensure perfect contact of the insert with the toolholder.
The upper rake face of this insert is mounted level with the top of the toolholder to enable chips to flow across the insert without being disturbed by clamps or the toolholder body. The 4 curved helical cutting edges ensure positive radial rake angles and soft penetration into the material being cut.

The lower forces and smaller loads ensure better tool life, higher stability and the ability to use very large depths of cut and higher feeds.
The chipformer (with small bumps), deforms and breaks the chip into rib type curved segments which can easily be removed from the cutting area.
The insert has a frontal clearance angle of 3.7° with a 6° side clearance angle to enable machining at a 90° shoulder.
Depths of cut up to 8mm (.315″) and facing depths up to 3.2mm (.126″) and up to 1.2mm/rev (.047IPR) are achievable with **HELI-TURN**.
The high positive rake angle of these tools allows 10-15% less power usage than conventional tools with the same parameters.
By using **HELI-TURN** tools, huge cost savings and profitability in lathe operations are guaranteed.

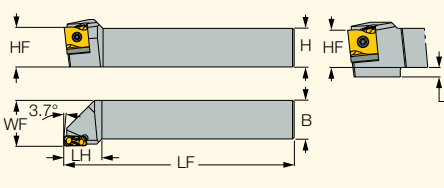
Spare Parts

Designation						
SLANR/L 1616H-11 TANG	TLN 11R/L-HT	SR RS4	T-6/5	SR 34-550-C	BLD T10/S7	SW6-SD
SLANR/L 1616M-11S TANG	TLN 11R/L-HT	SR RS4	T-6/5	SR 34-550-C	BLD T10/S7	SW6-SD

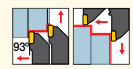
HELITURN TANGENTIAL LINE

SLANR/L-TANG

Screw-Lock Tools Carrying the LNMX.. Tangentially Clamped Inserts



.625" shank configuration



I N C H

Designation	H	HF	B	LF	LH	WF	MIID(1)
SLANR/L 10-11 TANG	.625	.625	.625	4.000	.790	.750	LNMX 11

- a_p max for facing: LNMX 11-.110"

(1) Master insert identification

For inserts, see pages: LNMX-HM (287) • LNMX-HT (286)

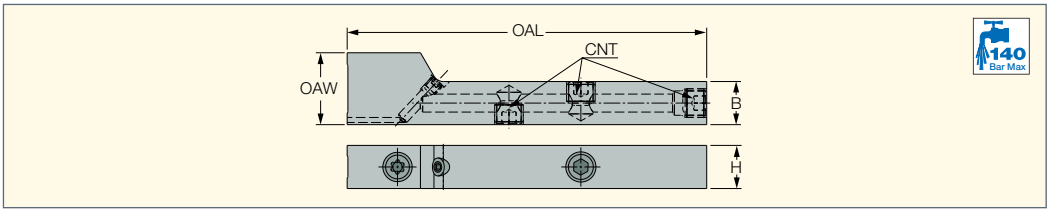
Spare Parts

Designation						
SLANR/L 10-11 TANG	TLN 11R/L-HT	SR RS4	T-6/5	SR 34-550-C	BLD T10/S7	SW6-SD

NEOSWISS

NQCH-JHP

JETCUT Square Shanks for NEOSWISS Modular Heads intended for Swiss-Type Machines



Designation	B	H	OAL	OAW	CNT	Range(2)
METRIC						
NQCH-1010-JHP (1)	10.0	10.0	100.00	20.00	UNF 5/16-24	5-6
NQCH-1212-JHP (1)	12.0	12.0	100.00	20.00	UNF 5/16-24	7-8
NQCH-1616-JHP (1)	16.0	16.0	100.00	20.00	UNF 5/16-24	7-8

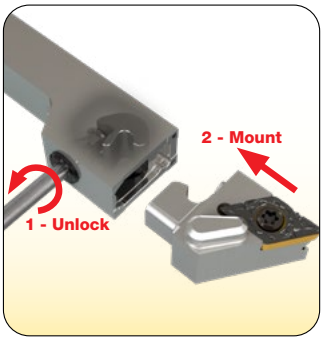
- Replacing the clamping screw should be performed by an ISCAR qualified technician

(1) The shank is neutral and can be used for both left and right hand head

(2) Recommended torque for clamping screw

For tools, see pages: NQCH-DGTR/L-D22-SH-JHP (500) • NQCH-GHSR/L-JHP (330) • NQCH-PCHR/L-24-JHP (552) • NQCH-PCHR/L-S-JHP (536) • NQCH-PCLXR/L-S-JHP (17) • NQCH-PTJNR/L-S-JHP (59) • NQCH-SCACR/L-S-JHP (20) • NQCH-SCHR/L-BF-JHP (305) • NQCH-SCLXR/L-JHP (16) • NQCH-SDACR/L-S-JHP (27) • NQCH-SDJCR/L-S-JHP (26) • NQCH-SDJNR/L-S-JHP (54) • NQCH-SDNCN-S-JHP (28) • NQCH-SER/L-JHP (648) • NQCH-SVACR/L-S-JHP (38) • NQCH-SVJCR/L-S-JHP (37) • NQCH-SVVCN-S-JHP (39) • NQCH-SWLNR/L-S-JHP (51) • NQCH-TGVR/L-JHP (493) • NQCH-Y-SCHR-BF-JHP (306) • NQCH-Y-SDJCR-S-JHP (29) • NQCH-Y-SVJCR-S-JHP (40)

Clamping Operational Steps





Recommended Torque
5-6 Nm (44-53 lbf•in)
for: NQCH-1010/9.5
7-8 Nm (62-70.8 lbf•in)
for the rest NQCH shanks

- **Replacing clamping screw should be performed by an ISCAR qualified technician.**
- **To avoid damage, avoid excessive force when opening or clamping.**
- **Do not disassemble the tool to avoid damage to the clamping mechanism.**

Supplied Accessories NQCH-1010/9.5	**Item No: 3426741** L-KEY TORX PLUS IP20 62MM	
Supplied Accessories rest NQCH shanks	**Item No: 7003805** SW6-T-SH	
	Item No: 7002553 BLD IP20/S7	
Recommended Accessories (optional)	**Item No: 7007221** TSA 6 5-14 Nm (TSA 6 44.1-123.5LBF.IN)	
	Item No: 7007027 BLD 6 T20IP	

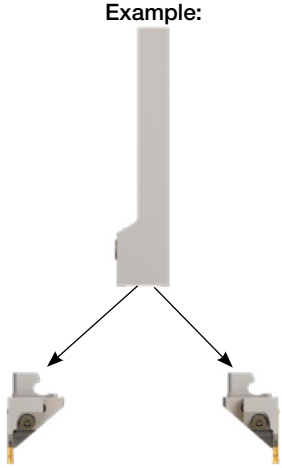


Shank's left-hand orientation for the left-hand tool machine
Example:



Left hand head

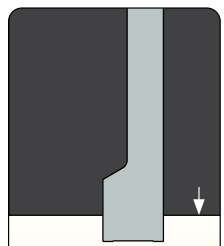
Shank's right-hand orientation for the right-hand tool machine
Example:



Left hand head for Shank's right-hand orientation

Right hand head

GANG / TOOL POST



1-2 mm (.039-.079″)

Tool shank overhang (excluding its head) from the tool post should be set at a maximum distance of 1-2mm (.039-.079″).

Spare Parts

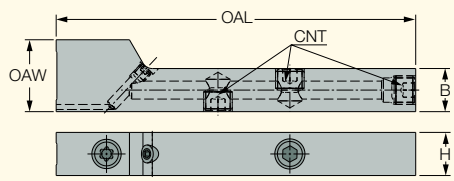
Designation						
NQCH-1010-JHP	SR 5/16UNF TL360	L-KEY TORX PLUS IP20 62MM			NQCH PLUG*	NQCH12-16 LOCK SCREW
NQCH-1212-JHP	SR 5/16UNF TL360		SW6-T-SH	BLD IP20/S7	NQCH PLUG*	NQCH12-16 LOCK SCREW
NQCH-1616-JHP	SR 5/16UNF TL360		SW6-T-SH	BLD IP20/S7	NQCH PLUG*	NQCH12-16 LOCK SCREW

* Optional, to be ordered separately

NEOSWISS

NQCH-JHP

JETCUT Square Shanks for NEOSWISS Modular Heads intended for Swiss-Type Machines



INCH						
Designation	B	H	OAL	OAW	CNT	Range[3]
NQCHL-9.5-JHP [1]	.394	.374	3.937	.787	UNF 5/16-24	44-53
NQCHR-9.5-JHP [1]	.394	.374	3.937	.787	UNF 5/16-24	44-53
NQCH-1010-JHP [2]	.394	.394	3.937	.787	UNF 5/16-24	44-53
NQCH-1212-JHP [2]	.472	.472	3.937	.787	UNF 5/16-24	62-70
NQCHL-12.7-JHP [1]	.500	.500	3.937	.787	UNF 5/16-24	62-70
NQCHR-12.7-JHP [1]	.500	.500	3.937	.787	UNF 5/16-24	62-70
NQCH-1616-JHP [2]	.630	.630	3.937	.787	UNF 5/16-24	62-70

- Replacing the clamping screw should be performed by an ISCAR qualified technician

[1] NQCHR shank is for the right hand head only, and NQCHL is for the left hand head only

[2] The shank is neutral and can be used for both left and right hand head

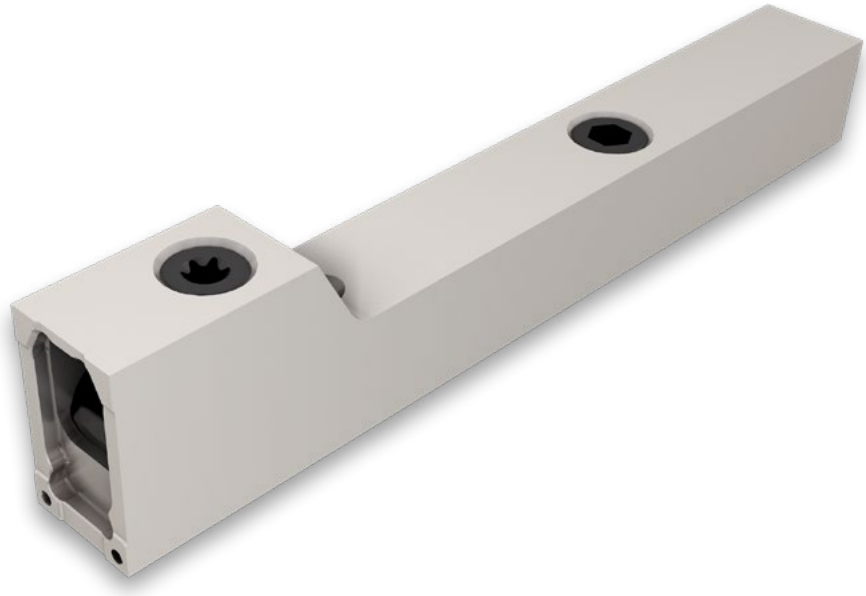
[3] Recommended torque for clamping screw

For tools, see pages: NQCH-DGTR/L-D22-SH-JHP (500) • NQCH-GHSR/L-JHP (330) • NQCH-PCHR/L-24-JHP (552) • NQCH-PCHR/L-S-JHP (536) • NQCH-PCLXR/L-S-JHP (17) • NQCH-PTJNR/L-S-JHP (59) • NQCH-SCACR/L-S-JHP (20) • NQCH-SCHR/L-BF-JHP (305) • NQCH-SCLXR/L-JHP (16) • NQCH-SDACR/L-S-JHP (27) • NQCH-SDJCR/L-S-JHP (26) • NQCH-SDJNR/L-S-JHP (54) • NQCH-SDNCN-S-JHP (28) • NQCH-SER/L-JHP (648) • NQCH-SVACR/L-S-JHP (38) • NQCH-SVJCR/L-S-JHP (37) • NQCH-SVVCN-S-JHP (39) • NQCH-SWLNR/L-S-JHP (51) • NQCH-TGVR/L-JHP (493) • NQCH-Y-SCHR-BF-JHP (306) • NQCH-Y-SDJCR-S-JHP (29) • NQCH-Y-SVJCR-S-JHP (40)

Spare Parts

Designation						
NQCHL-9.5-JHP	SR 5/16UNF TL360	L-KEY TORX PLUS IP20 62MM				NQCH12-16 LOCK SCREW
NQCHR-9.5-JHP	SR 5/16UNF TL360	L-KEY TORX PLUS IP20 62MM				NQCH12-16 LOCK SCREW
NQCH-1010-JHP	SR 5/16UNF TL360	L-KEY TORX PLUS IP20 62MM			NQCH PLUG*	NQCH12-16 LOCK SCREW
NQCH-1212-JHP	SR 5/16UNF TL360		SW6-T-SH	BLD IP20/S7	NQCH PLUG*	NQCH12-16 LOCK SCREW
NQCHL-12.7-JHP	SR 5/16UNF TL360		SW6-T-SH	BLD IP20/S7	NQCH PLUG*	NQCH12-16 LOCK SCREW
NQCHR-12.7-JHP	SR 5/16UNF TL360		SW6-T-SH	BLD IP20/S7	NQCH PLUG*	NQCH12-16 LOCK SCREW
NQCH-1616-JHP	SR 5/16UNF TL360		SW6-T-SH	BLD IP20/S7	NQCH PLUG*	NQCH12-16 LOCK SCREW

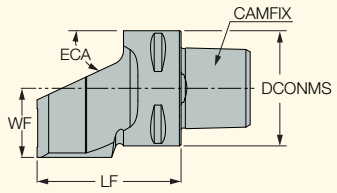
* Optional, to be ordered separately



NEOSWISS

C#-NQCH-JHP

JETCUT Capto Holders for
NEOSWISS Modular Heads



140 Bar Max

M E T R I C

Designation	DCONMS	LF	WF	ECA				
C3 NQCHR16	32.00	50.00	20.00	25.0	NQCH12-16 LOCK SCREW	BLD IP20/S7	SW6-T-SH	SR M3X3 DIN913 TL360
C4 NQCHR16	40.00	50.00	24.00	25.0	NQCH12-16 LOCK SCREW	BLD IP20/S7	SW6-T-SH	SR M3X3 DIN913 TL360
C5 NQCHR16	50.00	50.00	29.00	25.0	NQCH12-16 LOCK SCREW	BLD IP20/S7	SW6-T-SH	SR M3X3 DIN913 TL360

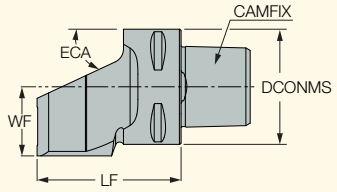
• Recommended torque for clamping screw 7-8 N*m • Replacing the clamping screw should be performed by an ISCAR qualified technician

For tools, see pages: NQCH-DGTR/L-D22-SH-JHP (500) • NQCH-GHSR/L-JHP (330) • NQCH-PCHR/L-24-JHP (552) • NQCH-PCHR/L-S-JHP (536)
• NQCH-PCLXR/L-S-JHP (17) • NQCH-PTJNR/L-S-JHP (59) • NQCH-SCACR/L-S-JHP (20) • NQCH-SCHR/L-BF-JHP (305) • NQCH-SDACR/L-S-JHP (27)
• NQCH-SDJCR/L-S-JHP (26) • NQCH-SDJNR/L-S-JHP (54) • NQCH-SDNCN-S-JHP (28) • NQCH-SER/L-JHP (648) • NQCH-SVACR/L-S-JHP (38)
• NQCH-SVJCR/L-S-JHP (37) • NQCH-SVVCN-S-JHP (39) • NQCH-SWLNR/L-S-JHP (51) • NQCH-TGVR/L-JHP (493) • NQCH-Y-SCHR-BF-JHP (306)
• NQCH-Y-SDJCR-S-JHP (29) • NQCH-Y-SVJCR-S-JHP (40)

NEOSWISS

C#-NQCH-JHP

JETCUT Capto Holders for
NEOSWISS Modular Heads



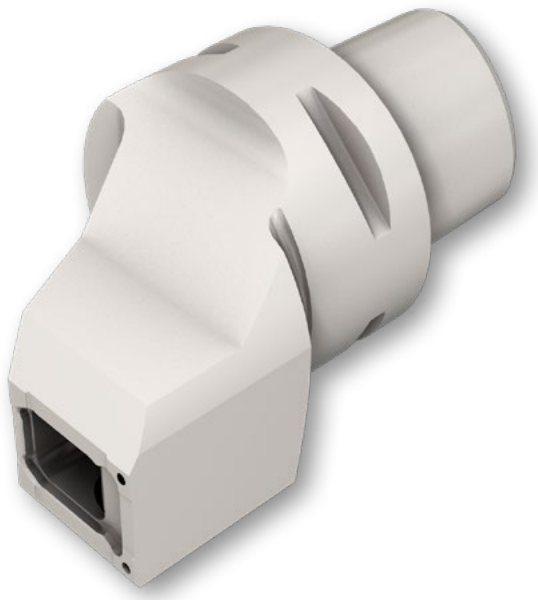
2000 PSI

I N C H

Designation	DCONMS	LF	WF	ECA				
C3 NQCHR16	1.260	1.968	.787	25.0	NQCH12-16 LOCK SCREW	BLD IP20/S7	SW6-T-SH	SR M3X3 DIN913 TL360
C4 NQCHR16	1.575	1.968	.945	25.0	NQCH12-16 LOCK SCREW	BLD IP20/S7	SW6-T-SH	SR M3X3 DIN913 TL360
C5 NQCHR16	1.968	1.968	1.142	25.0	NQCH12-16 LOCK SCREW	BLD IP20/S7	SW6-T-SH	SR M3X3 DIN913 TL360

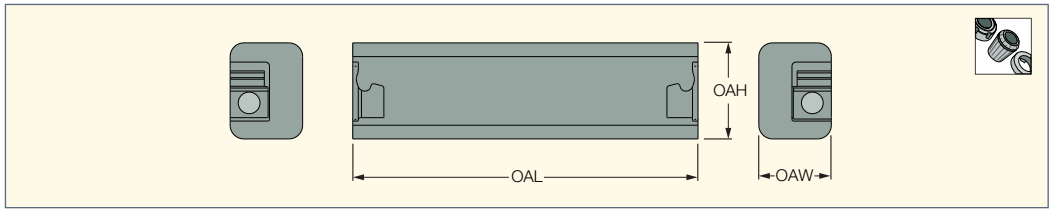
• Recommended torque for clamping screw 62-70 lbf*in • Replacing the clamping screw should be performed by an ISCAR qualified technician

For tools, see pages: NQCH-DGTR/L-D22-SH-JHP (500) • NQCH-GHSR/L-JHP (330) • NQCH-PCHR/L-24-JHP (552) • NQCH-PCHR/L-S-JHP (536)
• NQCH-PCLXR/L-S-JHP (17) • NQCH-PTJNR/L-S-JHP (59) • NQCH-SCACR/L-S-JHP (20) • NQCH-SCHR/L-BF-JHP (305) • NQCH-SDACR/L-S-JHP (27)
• NQCH-SDJCR/L-S-JHP (26) • NQCH-SDJNR/L-S-JHP (54) • NQCH-SDNCN-S-JHP (28) • NQCH-SER/L-JHP (648) • NQCH-SVACR/L-S-JHP (38)
• NQCH-SVJCR/L-S-JHP (37) • NQCH-SVVCN-S-JHP (39) • NQCH-SWLNR/L-S-JHP (51) • NQCH-TGVR/L-JHP (493) • NQCH-Y-SCHR-BF-JHP (306)
• NQCH-Y-SDJCR-S-JHP (29) • NQCH-Y-SVJCR-S-JHP (40)



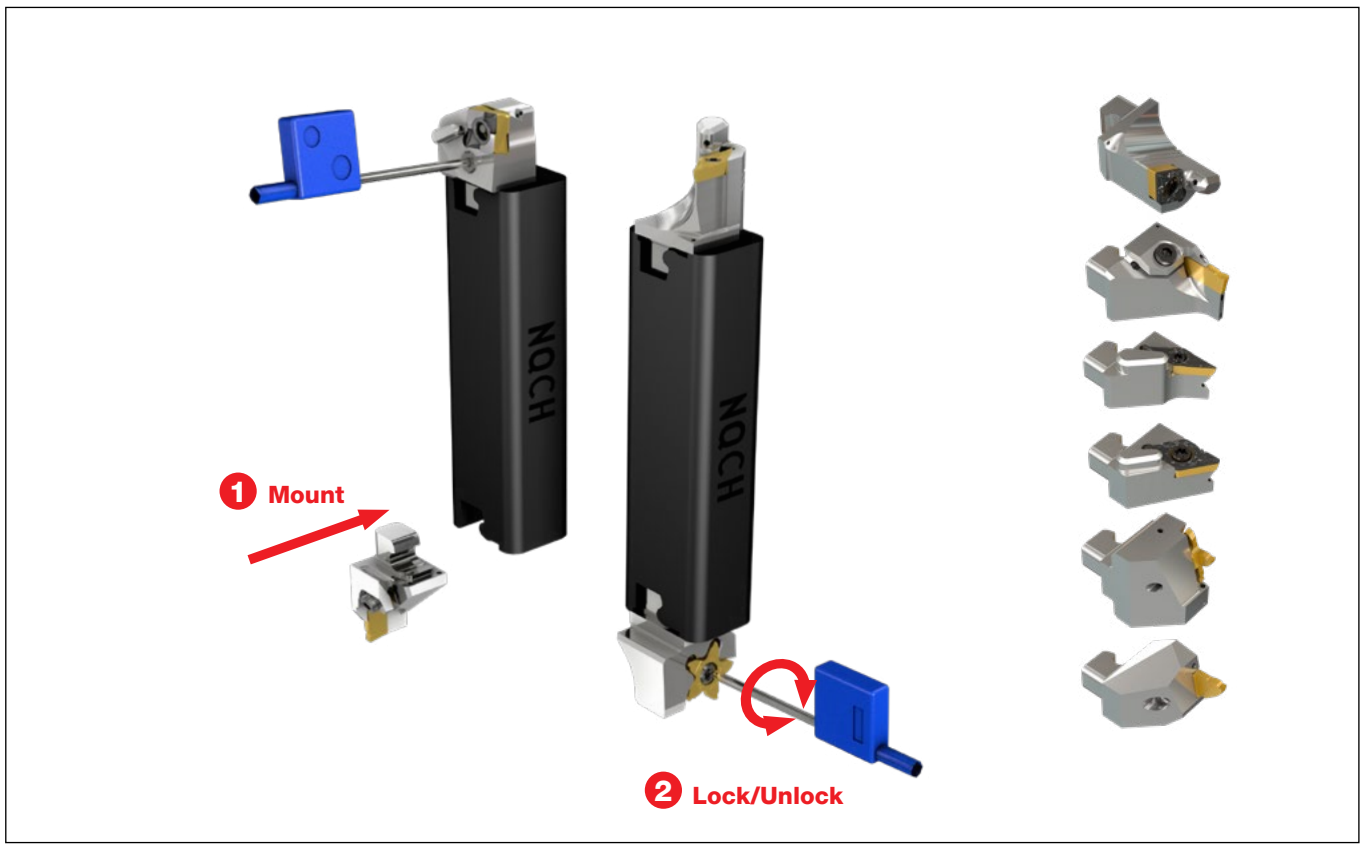
Accessories

NQCH FIXTURE
Auxiliary Handle for Easy
Insert Replacement



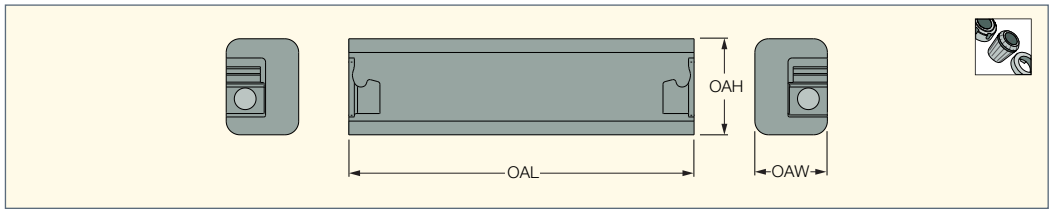
M E T R I C			
Designation	**OAL**	**OAH**	**OAW**
NQCH UNI.INS.REP.ADAPTER	100.00	28.00	21.00

Auxiliary Handle for Easy NQCH Head Maintenance
Double-Sided Handle, for 10, 12 and 16 Head Sizes



Accessories

NQCH FIXTURE
Auxiliary Handle for Easy
Insert Replacement



I N C H			
Designation	**OAL**	**OAH**	**OAW**
NQCH UNI.INS.REP.ADAPTER	3.937	1.102	.827

JET HIGH-PRESSURE TOOLS

The usage of high pressure coolant is growing as manufacturers are looking for ways to reduce cutting time, improve machining process reliability and achieve longer tool life.

ISCAR's JHP tools provide all of these advantages.

The coolant channels of the JHP tools feature outlets very close to the cutting edges, thus gaining the following advantages:

- Shorter machining time – The cutting speed may be increased by up to 200% when machining titanium and heat resistant alloys.
- Longer tool life – tool life increases by up to 100% not only on titanium and heat resistant alloys, but also on stainless and alloy steels.
- Improved chip control – even on the most ductile and problematic materials, small chips can be obtained.
- Very effective cooling down of the cutting edge, which reduces sensitivity to heat fluctuations
- Safer and more stable process
  JHP tools provide advantageous performance also when conventional pressure is applied.

General Information

Pressure Ranges:

Up to 30 bar - Low pressure (LP) provides improvement in tool life. Usually will not have an effect on chip control.

30 - 120 bar - High pressure (HP) the most commonly used pressure range used with JHP tools.

Increase in tool life, increase in cutting speeds, improved chip control.

120 - 400 bar - Ultra high pressure (UHP)

Minor increase in tool life compared to HP range.

ISCAR standard JHP tools were designed for up to 150 bar coolant pressure.Ultra high pressure coolant is usually implemented for machining titanium and heat resistant alloys when there is a need for very small chips and higher machining rates.

ISCAR has provided hundreds of special tools featuring ultra high pressure coolant capability, for various customers and applications.

- **Pressure vs. Flow**
  Each JHP tool is designed to work at a certain flow rate, depending on the pressure. The flow rates are listed in the catalog pages for each tool. The user should verify that his pump can supply the required flow in order to achieve the optimal results. The pump data sheet will usually list the maximum flow rate for each pressure range.
- **Chips and Pressure**
  The coolant flow will start to break the chips at a certain pressure, depending on the specific tool and the workpiece material. If the chips are not breaking, the pressure should be increased until chip control is achieved. Above this pressure, as it is increased, the chips become smaller and smaller. It is possible to control the size of the chips by modifying the pressure in order to achieve the desired chip size.
- **ISCAR** can provide different specially tailored tools for ultra high pressure coolant.

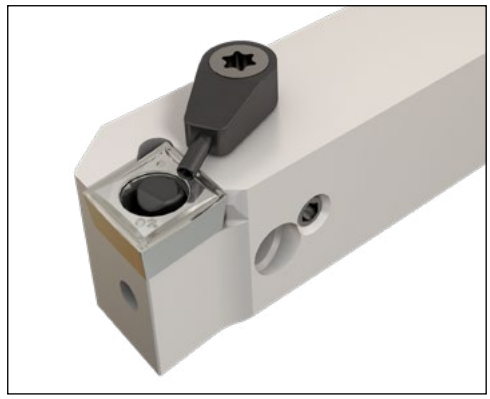
Recommended Speed Correction for High Pressure Coolant vs. External Low Pressure Coolant

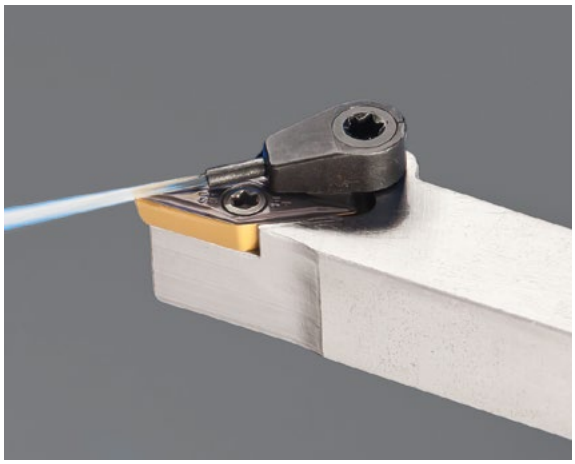
Material	RoughTurning	Finish Turning	Grooving	Contouring With Full Radius Insert
Titanium Ti64				
80 bar	+ 50%	+ 70%	+ 70%	+ 100%
150 bar	+ 75%	+ 120%	+ 100%	+ 130%
Inconel 718				
80 bar	+ 40%	+ 60%	+ 50%	+ 50%
150 bar	+ 60%	+ 90%	+ 75%	+ 80%
Steel				
80 bar	+ 50%	+ 50%	+ 100%	+ 50%
150 bar	+ 50%	+ 50%	+ 100%	+ 50%
Stainless Steel				
80 bar	+ 50%	+ 50%	+ 100%	+ 50%
150 bar	+ 50%	+ 50%	+ 100%	+ 50%

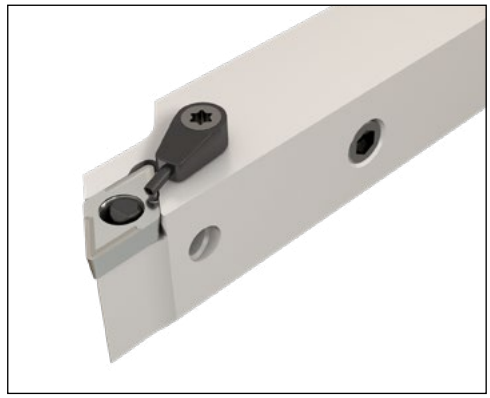
Example: If current rough turning cutting speed of Ti64 is 30 m/min, when JHP tool is used with 150 bar coolant, cutting speed can be raised up to about 55 m/min.

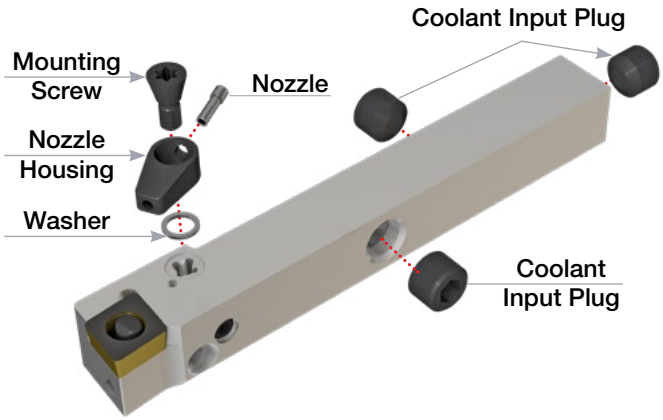
SWISSTURN Toolholders

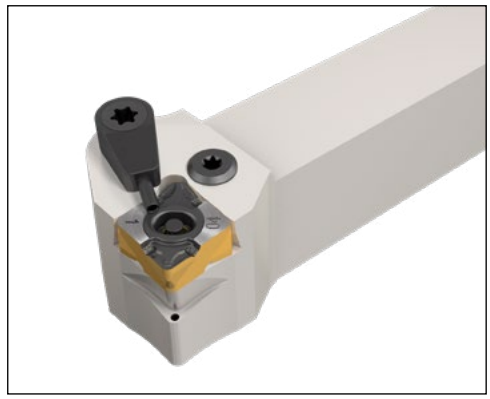
The new tools were designed for Swiss-type automatics and CNC machines. They include tools for ISO standard screw-clamped and lever-lock rhombic 80º (C-type), 55º (D-type) and 35º (V-type) inserts, all with 7º positive flank relief inclination.





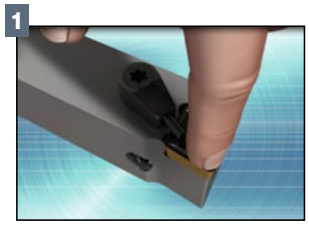


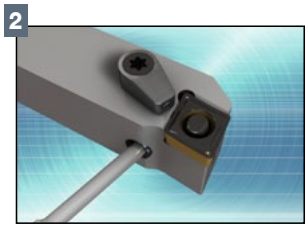


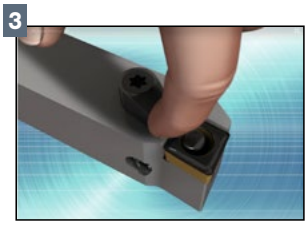


Insert Indexing Procedure

Press on the telescopic tube in a backward direction.
After indexing the insert cutting edge,
starting the coolant flow will extract the tube
automatically to its operating position.



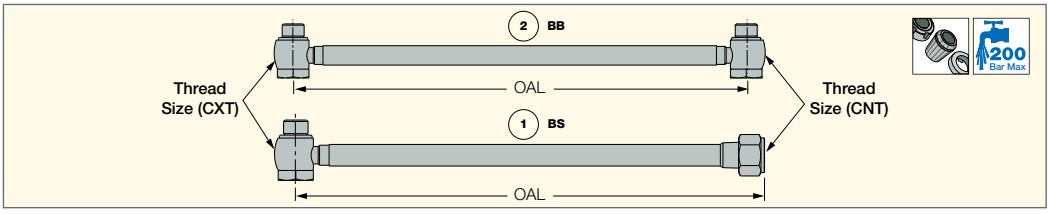






Accessories

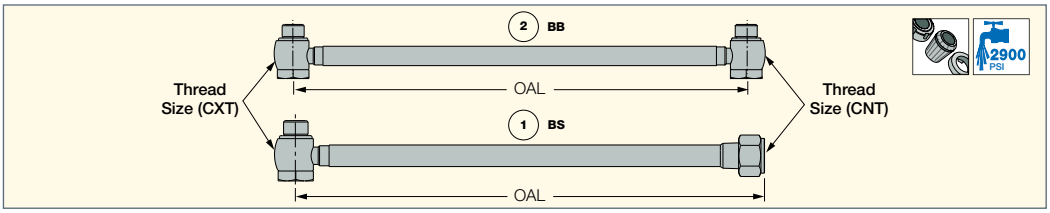
JHP HOSE
High-Pressure Coolant Hose



M E T R I C				
Designation	**OAL**	**Fig.**	**CXT**	**CNT**
JHP HOSE G1/8-7/16-200BS	200.00	1	G1/8"-28 BSPP	UNF7/16"-20FLARE 37°
JHP HOSE 5/16-G1/8-200BS	200.00	1	5/16"-24 UNF	G1/8"-28 BSPP
JHP HOSE 5/16-7/16-200BS	200.00	1	5/16"-24 UNF	UNF7/16"-20FLARE 37°
JHP HOSE G1/8-G1/8-200BB	200.00	2	G1/8"-28 BSPP	G1/8"-28 BSPP
JHP HOSE G1/8-7/16-250BS	250.00	1	G1/8"-28 BSPP	UNF7/16"-20FLARE 37°
JHP HOSE G1/8-G1/8-250BB	250.00	2	G1/8"-28 BSPP	G1/8"-28 BSPP

Accessories

JHP HOSE
High-Pressure Coolant Hose



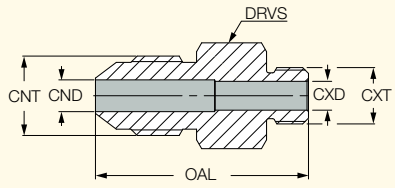
I N C H				
Designation	**OAL**	**Fig.**	**CXT**	**CNT**
JHP HOSE G1/8-7/16-200BS	7.874	1.	G1/8"-28 BSPP	UNF7/16"-20FLARE 37°
JHP HOSE 5/16-G1/8-200BS	7.874	1.	5/16"-24 UNF	G1/8"-28 BSPP
JHP HOSE 5/16-7/16-200BS	7.874	1.	5/16"-24 UNF	UNF7/16"-20FLARE 37°
JHP HOSE G1/8-G1/8-200BB	7.874	2.	G1/8"-28 BSPP	G1/8"-28 BSPP
JHP HOSE G1/8-7/16-250BS	9.843	1.	G1/8"-28 BSPP	UNF7/16"-20FLARE 37°
JHP HOSE G1/8-G1/8-250BB	9.843	2.	G1/8"-28 BSPP	G1/8"-28 BSPP



Accessories

JHP NIPPLE
High-Pressure Adaptation Nipple







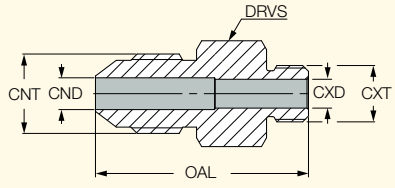
M E T R I C						
Designation	**CXT**	**CNT**	**OAL**	**CND(1)**	**CXD**	**DRVS(2)**
JHP NIPPLE G1/8"-7/16"UNF	1/8"-28 BSPP	7/16"-20 UNF	28.75	4.00	4.00	14.3
JHP NIPPLE 1/8NPT-7/16UNF	1/8"-27 NPT	7/16"-20 UNF	31.00	4.80	4.40	12.7
JHP NIPPLE 1/4NPT-7/16UNF	1/4"-18 NPT	7/16"-20 UNF	36.00	4.40	4.40	14.3
JHP NIPPLE5/16UNF-7/16UNF	5/16"-24 UNF	7/16"-20 UNF	29.50	4.40	4.00	12.7

(1) Coolant entry diameter
(2) Torque key size

Accessories

JHP NIPPLE
High-Pressure Adaptation Nipple







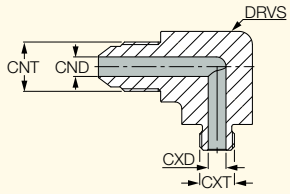
I N C H						
Designation	**CXT**	**CNT**	**OAL**	**CND(1)**	**CXD**	**DRVS(2)**
JHP NIPPLE G1/8"-7/16"UNF	1/8"-28 BSPP	7/16"-20 UNF	1.132	.157	.157	.563
JHP NIPPLE 1/8NPT-7/16UNF	1/8"-27 NPT	7/16"-20 UNF	1.220	.189	.173	.500
JHP NIPPLE 1/4NPT-7/16UNF	1/4"-18 NPT	7/16"-20 UNF	1.417	.173	.173	.563
JHP NIPPLE5/16UNF-7/16UNF	5/16"-24 UNF	7/16"-20 UNF	1.161	.173	.157	.500

(1) Coolant entry diameter
(2) Torque key size

Accessories

JHP ELBOW
High-Pressure Adaptation Elbow







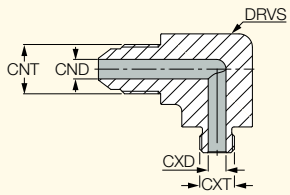
M E T R I C					
Designation	**CNT**	**CND(2)**	**CXT**	**CXD**	**DRVS(3)**
JHP ELBOW TUB3/16-5/16UNF (1)	-	3.10	5/16"-24 UNF	4.00	12.7
JHP ELBOW 90-5/16-7/16UNF	7/16"-20 UNF	4.40	5/16"-24 UNF	4.00	12.7
JHP ELBOW 90-G1/8-7/16UNF	7/16"-20 UNF	4.40	1/8"-28 BSPP	4.00	15.9

(1) For connection to a simple 3/16" stainless or copper tube
(2) Coolant entry diameter
(3) Torque key size

Accessories

JHP ELBOW
High-Pressure Adaptation Elbow







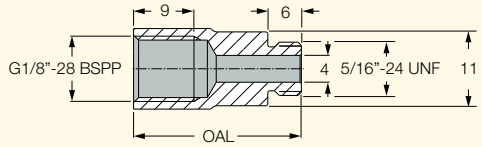
I N C H					
Designation	**CNT**	**CND(2)**	**CXT**	**CXD**	**DRVS(3)**
JHP ELBOW TUB3/16-5/16UNF (1)	-	.122	5/16"-24 UNF	.157	.500
JHP ELBOW 90-5/16-7/16UNF	7/16"-20 UNF	.173	5/16"-24 UNF	.157	.500
JHP ELBOW 90-G1/8-7/16UNF	7/16"-20 UNF	.173	1/8"-28 BSPP	.157	.626

(1) For connection to a simple 3/16" stainless or copper tube
(2) Coolant entry diameter
(3) Torque key size

Accessories

JHP CONNECTOR
High-Pressure Connector





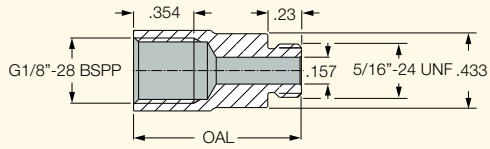
M E T R I C		
Designation	**OAL**	**DRVS(1)**
JHP CONECTOR 5/16"-G1/8"	25.00	12.0

(1) Torque key size

Accessories

JHP CONNECTOR
High-Pressure Connector





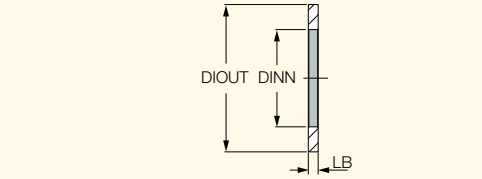
I N C H		
Designation	**OAL**	**DRVS(1)**
JHP CONECTOR 5/16"-G1/8"	.984	.472

(1) Torque key size

Accessories

JHP COPPER SEAL
High-Pressure Copper Seal



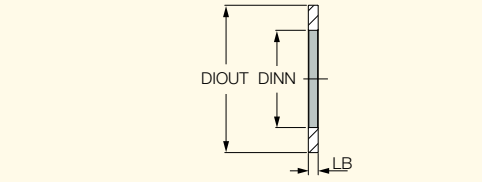


M E T R I C			
Designation	**DIOUT**	**DINN**	**LB**
JHP COPPER SEAL 5/16"-2.5	9.40	8.00	2.50
JHP COPPER SEAL 5/16"	11.90	8.15	1.35
JHP COPPER SEAL 1/8"	15.00	10.00	1.00

Accessories

JHP COPPER SEAL
High-Pressure Copper Seal



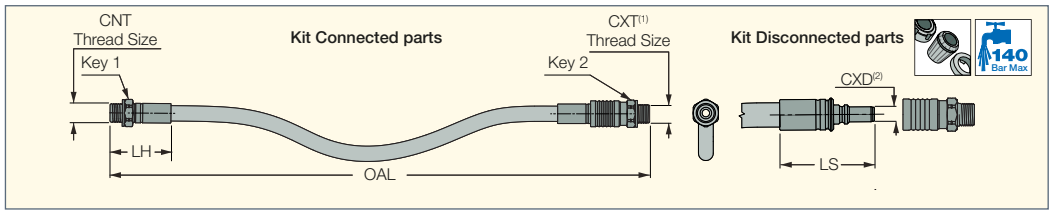


I N C H			
Designation	**DIOUT**	**DINN**	**LB**
JHP COPPER SEAL 5/16"-2.5	.370	.315	.098
JHP COPPER SEAL 5/16"	.469	.321	.053
JHP COPPER SEAL 1/8"	.591	.394	.039

JHP Quick Connection Accessories

Accessories

JHP QC KIT
High-Pressure Quick Connection Kit



M E T R I C								
Designation	**CNT**	**CXT(1)**	**CXD(2)**	**LH**	**LS**	**Key 1**	**Key 2**	**OAL**
JHP QC KIT G1/8-CP5/16-2	G1/8"-28 BSPP	5/16"-24 UNF	4.00	25.0	36.0	13.00	10.00	263.00
JHP QC KIT G1/8-CP1/8-2	G1/8"-28 BSPP	G1/8"-28 BSPP	5.60	32.0	48.0	13.00	13.00	281.00

• JHP QC KIT G1/8-CP5/16-2 for 10, 12 & 16 mm shanks • JHP QC KIT G1/8-CP1/8-2 for 20, 25 & 32 mm shanks

(1) Goes into the toolholder

(2) Coolant outlet diameter

Connected Quick Change Hose with Straight Connector



Disconnected Quick Change Hose with Straight Connector



Connected Quick Change Hose with 90° Elbow



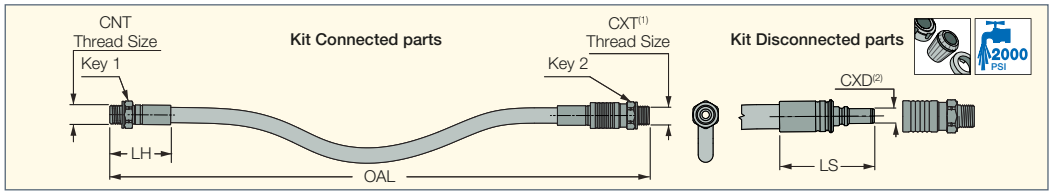
Disconnected Quick Change Hose with 90° Elbow





Accessories

JHP QC KIT
High-Pressure Quick Connection Kit



INCH							
Designation	**CNT**	**CXT(1)**	**CXD(2)**	**LH**	**LS**	**Key 1**	**Key 2**	**OAL**
JHP QC KIT G1/8-CP5/16-2	G1/8"-28 BSPP	5/16"-24 UNF	.157	.984	1.417	.512	.394	10.354
JHP QC KIT G1/8-CP1/8-2	G1/8"-28 BSPP	G1/8"-28 BSPP	.220	1.260	1.890	.512	.512	11.063

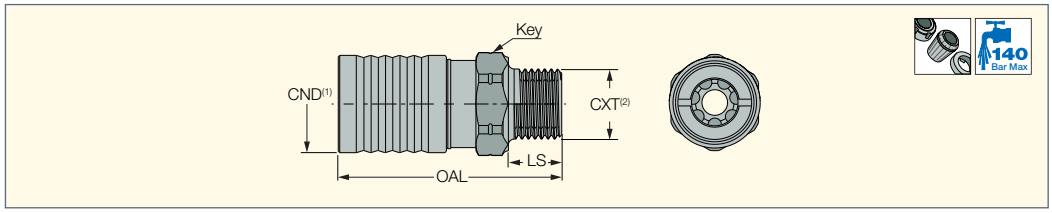
- JHP QC KIT G1/8-CP5/16-2 for 3/8",1/2"&5/8" shanks • JHP QC KIT G1/8-CP1/8-28for 3/4",1.00"&1.25" shanks

(1) Goes into the toolholder

(2) Coolant outlet diameter

Accessories

JHP QC CONNECTOR
High-Pressure Quick Connector



METRIC					
Designation	**CND(1)**	**CXT(2)**	**LS**	**Key**	**OAL**
JHP QC STR-5/16UNF	9.80	5/16"-24 UNF	6.5	10.00	23.85
JHP QC STR-G1/8	13.50	G1/8"-28 BSPP	7.4	13.00	30.40
JHP QC STR-M8x1	9.80	M8 x1	6.5	10.00	23.85

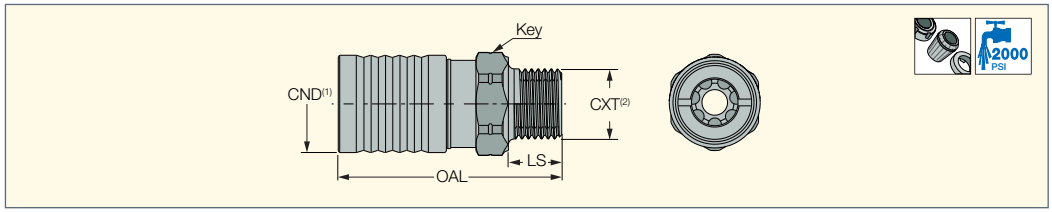
- JHP QC STR-5/16UNF for 10, 12 & 16 mm shanks • JHP QC STR-G1/8 for 20, 25 & 32 mm shanks
- JHP QC STR-M8x1 for the QUICK-SWISS Modular Tooling System

(1) Coolant inlet diameter

(2) Goes into the toolholder

Accessories

JHP QC CONNECTOR
High-Pressure Quick Connector



INCH					
Designation	**CND(1)**	**CXT(2)**	**LS**	**Key**	**OAL**
JHP QC STR-5/16UNF	.386	5/16"-24 UNF	.256	.394	.939
JHP QC STR-G1/8	.531	G1/8"-28 BSPP	.291	.512	1.197
JHP QC STR-M8x1	.386	M8 x1	.256	.394	.939

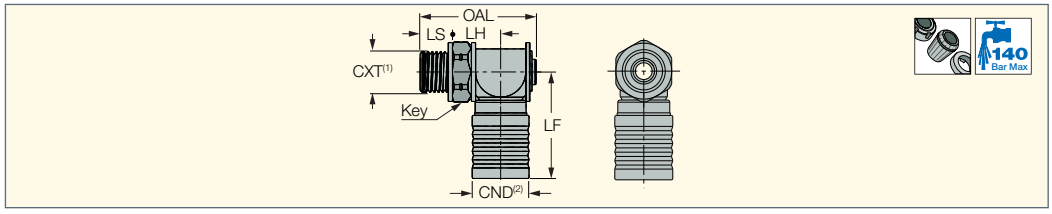
- JHP QC STR-5/16UNF for 3/8", 1/2" & 5/8" shanks • JHP QC STR-G1/8 for 3/4", 1.00" & 1.25" shanks
- JHP QC STR-M8x1 for the QUICK-SWISS Modular Tooling System

(1) Coolant inlet diameter

(2) Goes into the toolholder

Accessories

JHP QC ELBOW
High-Pressure Quick Connector Elbow



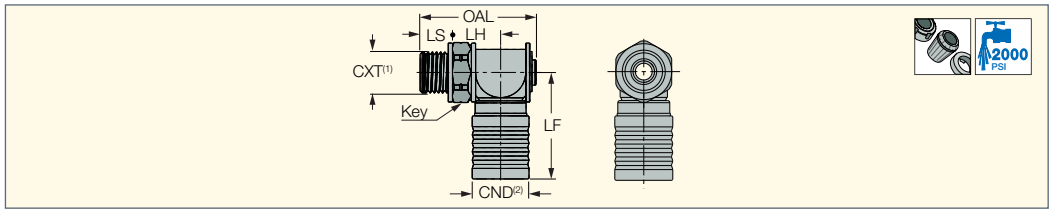
M E T R I C							
Designation	**CXT(1)**	**CND(2)**	**LH**	**LS**	**LF**	**Key**	**OAL**
JHP QC ELBOW 90-5/16UNF	5/16"-24 UNF	9.80	9.6	6.7	18.00	11.00	23.80
JHP QC ELBOW 90-G1/8	G1/8"-28 BSPP	13.50	12.3	7.5	24.00	13.00	29.50
JHP QC ELBOW 90-M8x1	M8x1	9.80	9.6	6.7	18.00	11.00	23.80

- JHP QC ELBOW 90-5/16UNF for 10, 12 & 16 mm shanks • JHP QC ELBOW 90-G1/8 for 20, 25 & 32 mm shanks
- JHP QC ELBOW 90-M8x1 for the QUICK-SWISS Modular Tooling System

(1) Goes into the toolholder
(2) Coolant inlet diameter

Accessories

JHP QC ELBOW
High-Pressure Quick Connector Elbow



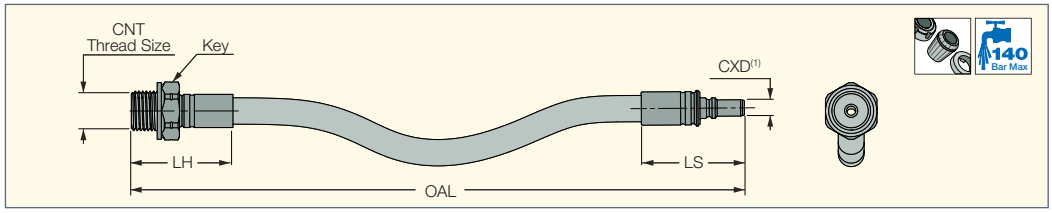
I N C H							
Designation	**CXT(1)**	**CND(2)**	**LH**	**LS**	**LF**	**Key**	**OAL**
JHP QC ELBOW 90-5/16UNF	5/16"-24 UNF	.386	.378	.264	.709	.433	.937
JHP QC ELBOW 90-G1/8	G1/8"-28 BSPP	.531	.484	.295	.945	.512	1.161
JHP QC ELBOW 90-M8x1	M8x1	.386	.378	.264	.709	.433	.937

- JHP QC ELBOW 90-5/16UNF for 3/8",1/2"&5/8" shanks • JHP QC ELBOW 90-G1/8 for 3/4",1.00"&1.25" shanks • JHP QC ELBOW 90-M8x1 for the QUICK-SWISS Modular Tooling System

(1) Goes into the toolholder
(2) Coolant inlet diameter

Accessories

JHP QC HOSE
High-Pressure Quick Connection Coolant Hose



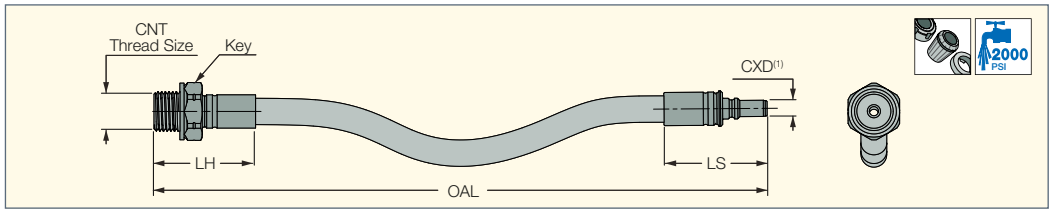
M E T R I C						
Designation	**CNT**	**CXD(1)**	**LH**	**LS**	**Key**	**OAL**
JHP QC HOS G1/8-CPM5/16-1	G1/8"-28 BSPP	4.00	25.0	25.0	13.00	150.00
JHP QC HOS G1/8-CPM5/16-2	G1/8"-28 BSPP	4.00	25.0	25.0	13.00	250.00
JHP QC HOSE G1/8-CPM1/8-2	G1/8"-28 BSPP	5.60	32.0	36.0	13.00	268.00

- The JHP QC HOSE must be connected to either the JHP QC CONNECTOR or the JHP QC ELBOW and should not be connected directly to the TOOL or HOLDER
- JHP QC HOS G1/8-CPM5/16-1 and JHP QC HOS G1/8-CPM5/16-2 for 10, 12 & 16 mm shanks • JHP QC HOSE G1/8-CPM1/8-2 for 20, 25 & 32 mm shanks

(1) Coolant outlet diameter

Accessories

JHP QC HOSE
High-Pressure Coolant Hose



I N C H						
Designation	**CNT**	**CXD(1)**	**LH**	**LS**	**Key**	**OAL**
JHP QC HOS G1/8-CPM5/16-1	G1/8"-28 BSPP	.157	.984	.984	.512	5.906
JHP QC HOS G1/8-CPM5/16-2	G1/8"-28 BSPP	.157	.984	.984	.512	9.843
JHP QC HOSE G1/8-CPM1/8-2	G1/8"-28 BSPP	.220	1.260	1.417	.512	10.551

- The JHP QC HOSE must be connected to either the JHP QC CONNECTOR or the JHP QC ELBOW and should not be connected directly to the TOOL or HOLDER
- JHP QC HOS G1/8-CPM5/16-1 and JHP QC HOS G1/8-CPM5/16-2 for 3/8", 1/2" & 5/8" shanks • JHP QC HOSE G1/8-CPM1/8-2 for 3/4", 1.00" & 1.25" shanks

(1) Coolant outlet diameter

INTERNAL ISO TURNING

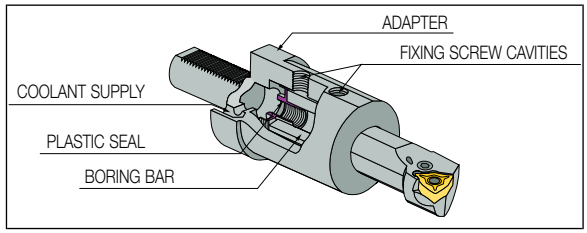


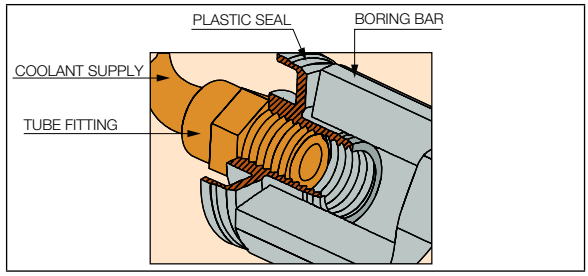
ISOTURN Boring Bars

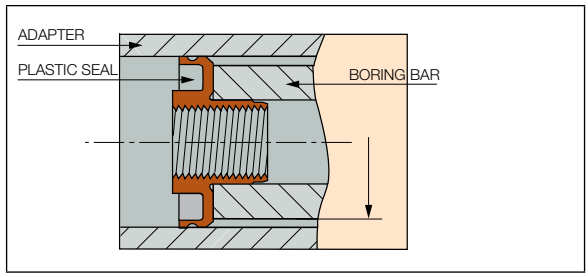
ISCAR boring bars are equipped with internal coolant. A unique plastic seal is supplied for insertion into the channel which:

- Features a threaded tube fitting connection
- Performs a sealing role while clamped in a cylindrical adapter
- Requires no re-threading after shortening the bar

This unique design is a simple and versatile solution for installing coolant supply and extends tool life, improves chip flow and machining reliability.





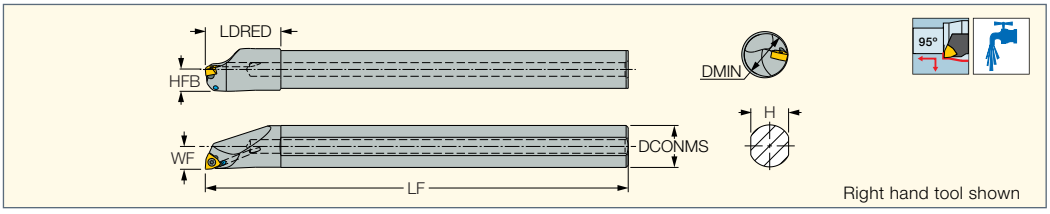




MINIPTURN POSITIVE DOUBLE SIDED

A/E-SWLNR/L-04

Boring Bars Carrying
WNGP 0403.. Double-Sided
Trigon Inserts for Small Diameters



M E T R I C									
Designation	**DCONMS**	**LF**	**LDRED**	**H**	**HFB**	**WF**	**DMIN**	**CSP(1)**	**MIID(2)**
A10K SWLNR/L-04	10.00	125.00	20.0	9.0	5.5	6.00	12.00	1	WNGP 04
A12M SWLNR/L-04	12.00	150.00	24.0	11.0	6.5	7.00	14.00	1	WNGP 04
A16Q SWLNR/L-04	16.00	180.00	32.0	15.0	8.5	9.00	18.00	1	WNGP 04
A20R SWLNR/L-04	20.00	200.00	36.0	18.0	10.5	11.00	22.00	1	WNGP 04
E10M SWLNR/L-04	10.00	150.00	25.0	9.0	5.5	6.00	12.00	1	WNGP 04
E12Q SWLNR/L-04	12.00	180.00	27.0	11.0	6.5	7.00	14.00	1	WNGP 04
E16R SWLNR/L-04	16.00	200.00	32.0	15.0	8.5	9.00	18.00	1	WNGP 04
E20S SWLNR/L-04	20.00	250.00	36.0	18.0	10.5	11.00	22.00	1	WNGP 04

• Use left-hand inserts on right-hand bars and vice versa. • A - steel shank with coolant hole, E - carbide shank with coolant hole.
(1) 0 - Without coolant supply, 1 - With coolant supply
(2) Master insert identification

For inserts, see pages: WNGP-F2M (232) • WNGP-F2P (232)

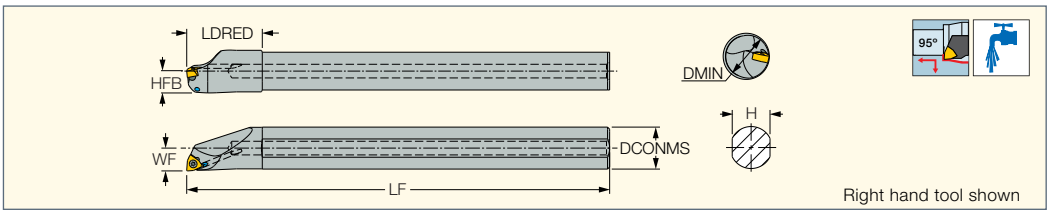
Spare Parts

Designation	
A/E-SWLNR/L-04	SR 34-514

MINIPTURN POSITIVE DOUBLE SIDED

A/E-SWLNR/L-04

Boring Bars Carrying
WNGP 0403.. Double-Sided
Trigon Inserts for Small Diameters



I N C H									
Designation	**DCONMS**	**LF**	**LDRED**	**H**	**HFB**	**WF**	**DMIN**	**CSP(1)**	**MIID(2)**
A10K SWLNR/L-04	.394	4.921	.787	.354	.217	.236	.472	1	WNGP 04
A12M SWLNR/L-04	.472	5.906	.945	.433	.256	.276	.551	1	WNGP 04
A16Q SWLNR/L-04	.630	7.087	1.260	.591	.335	.354	.709	1	WNGP 04
A20R SWLNR/L-04	.787	7.874	1.417	.709	.413	.433	.866	1	WNGP 04
E10M SWLNR/L-04	.394	5.906	.984	.354	.217	.236	.472	1	WNGP 04
E12Q SWLNR/L-04	.472	7.087	1.063	.433	.256	.276	.551	1	WNGP 04
E16R SWLNR/L-04	.630	7.874	1.260	.591	.335	.354	.709	1	WNGP 04
E20S SWLNR/L-04	.787	9.843	1.417	.709	.413	.433	.866	1	WNGP 04

• Use left-hand inserts on right-hand bars and vice versa. • A - steel shank with coolant hole, E - carbide shank with coolant hole.
(1) 0 - Without coolant supply, 1 - With coolant supply
(2) Master insert identification

For inserts, see pages: WNGP-F2M (232) • WNGP-F2P (232)

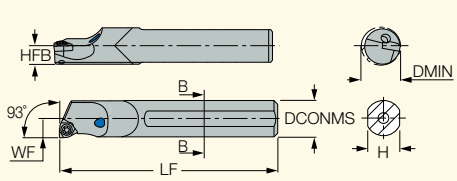
Spare Parts

Designation	
A/E-SWLNR/L-04	SR 34-514

ISOTURN

A/E-SWUCR

Boring Bars Carrying WCGT Trigon Inserts for Small Diameters



Right hand tool shown

M E T R I C

Designation	DCONMS	LF	H	HFB	WF	DMIN	Shank m.(1)	MIID(2)		
A06H SWUCR-02	6.00	100.00	5.4	2.7	3.30	6.60	S	WCGT 0201	SR 14-299	T-6/5
A08J SWUCR-02	8.00	110.00	7.2	3.6	4.25	8.70	S	WCGT 0201	SR 14-299	T-6/5
A10K SWUCR-02	10.00	125.00	9.0	4.5	5.20	10.90	S	WCGT 0201	SR 14-299	T-6/5
E06H SWUCR-02	6.00	100.00	5.4	2.7	3.30	6.60	C	WCGT 0201	SR 14-299	T-6/5
E08K SWUCR-02	8.00	125.00	7.2	3.6	4.30	8.70	C	WCGT 0201	SR 14-299	T-6/5
E10M SWUCR-02	10.00	150.00	9.0	4.5	5.20	10.90	C	WCGT 0201	SR 14-299	T-6/5

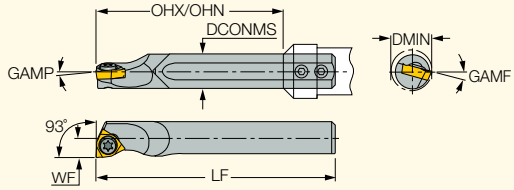
(1) S-Steel, C-Carbide
(2) Master insert identification

For inserts, see pages: WCGT (140)

ISOTURN

MG-SWUCR

Solid Carbide Boring Bars Carrying WCGT Trigon Inserts for Small Diameters



Right hand tool shown

M E T R I C

Designation	DCONMS	LF	OHN(1)	OHX(2)	WF	GAMP(3)	GAMF(4)	CSP(5)	DMIN	MIID(6)		
MG 06-SWUCR-02	6.00	60.00	16.0	42.0	3.30	0.0	15.0	1	6.60	WCGT 0201	SR 14-299	T-6/5
MG 08-SWUCR-02	8.00	75.70	20.0	56.0	4.30	0.0	12.0	1	8.80	WCGT 0201	SR 14-299	T-6/5

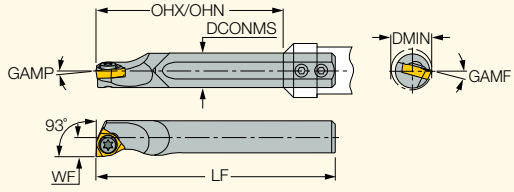
(1) Minimum overhang in adjustment range
(2) Maximum overhang in adjustment range
(3) Rake angle axial
(4) Rake angle radial
(5) 0 - Without coolant supply, 1 - With coolant supply
(6) Master insert identification

For inserts, see pages: WCGT (140)
For holders, see pages: SC-PICCO (836)

ISOTURN

MG-SWUCR

Solid Carbide Boring Bars Carrying WCGT Trigon Inserts for Small Diameters



Right hand tool shown

I N C H

Designation	DCONMS	LF	OHN(1)	OHX(2)	WF	GAMP(3)	GAMF(4)	CSP(5)	DMIN	MIID(6)		
MG 06-SWUCR-02	.236	2.362	.63	1.654	.130	0	15.0	1	.260	WCGT 0201	SR 14-299	T-6/5
MG 08-SWUCR-02	.315	2.980	.79	2.205	.169	0	12.0	1	.346	WCGT 0201	SR 14-299	T-6/5

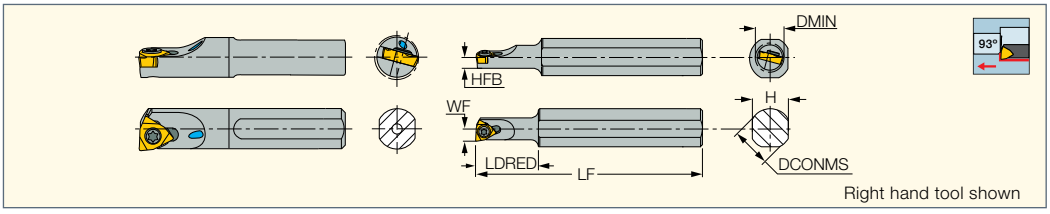
(1) Minimum overhang in adjustment range
(2) Maximum overhang in adjustment range
(3) Rake angle axial
(4) Rake angle radial
(5) 0 - Without coolant supply, 1 - With coolant supply
(6) Master insert identification

For inserts, see pages: WCGT (140)
For holders, see pages: SC-PICCO (836)

ISOTURN

E/S-SWUBR/L

Screw Clamp Miniature
Boring Bars Carrying Small
WBMT Trigon Inserts



Right hand tool shown

M E T R I C

Designation	DCONMS	LF	LDRED	H	HFB	WF	DMIN	CSP(1)	Shank m.(2)	MIID(3)
E06H SWUBL-06	6.00	100.00	-	5.2	2.6	3.30	6.50	1	C	WBMT 060101R
E06H SWUBR-06	6.00	100.00	-	5.2	2.6	3.30	6.50	1	C	WBMT 060101L
E08K SWUBR-06	8.00	125.00	-	7.6	3.8	4.30	8.70	1	C	WBMT 060101L
E10M SWUBR-06	10.00	150.00	-	9.0	4.5	5.20	10.90	1	C	WBMT 060101L
S0606H SWUBR-06	6.00	100.00	-	5.2	2.6	3.30	6.50	0	S	WBMT 060101L
S0610H SWUBL-06	10.00	100.00	20.0	9.0	4.5	3.00	6.00	0	S	WBMT 060101R
S0610H SWUBR-06	10.00	100.00	20.0	9.0	4.5	3.00	6.00	0	S	WBMT 060101L
S0710H SWUBL-06	10.00	100.00	24.0	9.0	4.5	3.50	7.00	0	S	WBMT 060101R
S0710H SWUBR-06	10.00	100.00	24.0	9.0	4.5	3.50	7.00	0	S	WBMT 060101L
S0808J SWUBR-06	8.00	100.00	-	7.4	3.7	4.30	8.50	0	S	WBMT 060101L
S0812J SWUBL-06	12.00	110.00	32.0	11.0	5.5	4.00	8.00	0	S	WBMT 060101R
S0812J SWUBR-06	12.00	110.00	32.0	11.0	5.5	4.00	8.00	0	S	WBMT 060101L
S1010K SWUBL-06	10.00	125.00	-	9.0	4.5	5.20	11.00	0	S	WBMT 060101R
S1010K SWUBR-06	10.00	125.00	-	9.0	4.5	5.20	11.00	0	S	WBMT 060101L

- Use right-hand WBMT 06...R inserts on left-hand tools and left-hand WBMT 06...L inserts on right-hand tools.

(1) 0 - Without coolant supply, 1 - With coolant supply
(2) S-Steel, C-Carbide
(3) Master insert identification

For inserts, see pages: WBGT (139) • WBMT (139)

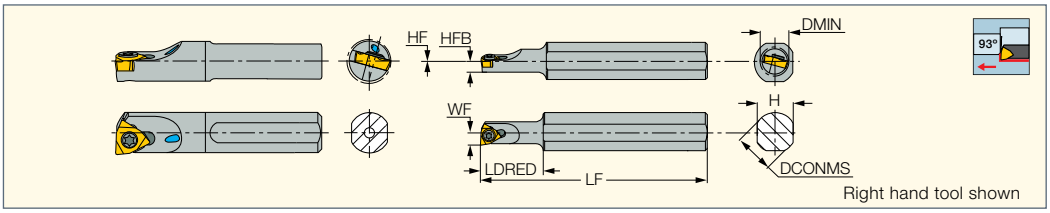
Spare Parts

Designation		
E/S-SWUBR/L	SR 14-552	T-6/5

ISOTURN

E/S-SWUBR/L

Screw Clamp Miniature
Boring Bars Carrying Small
WBMT Trigon Inserts



Right hand tool shown

I N C H

Designation	DCONMS	LF	LDRED	H	HFB	WF	DMIN	CSP(1)	MIID(2)	Shank m.(3)
E-SWUBR 4-5	.250	4.000	-	.220	.109	.140	.275	1	WB.. 520L	C
E-SWUBR 5-5	.312	5.000	-	.291	.148	.160	.330	1	WB.. 520L	C
E-SWUBR 6-5	.375	6.000	-	.342	.175	.210	.413	1	WB.. 520L	C
S-SWUBR 4-5	.250	4.000	-	.230	.118	.140	.275	0	WB.. 520L	S
S-SWUBR 5-5	.312	4.500	-	.293	.150	.170	.330	0	WB.. 520L	S
S-SWUBR 6-5	.375	5.000	-	.354	.181	.210	.413	0	WB.. 520L	S
S6 SWUBR/L-065	.375	4.000	.781	.354	.181	.120	.236	0	WB.. 520L/R	S
S7 SWUBR/L-065	.375	4.000	.937	.354	.181	.140	.276	0	WB.. 520L/R	S

(1) 0 - Without coolant supply, 1 - With coolant supply
(2) Master insert identification
(3) S-Steel, C-Carbide

For inserts, see pages: WBGT (139) • WBMT (139)

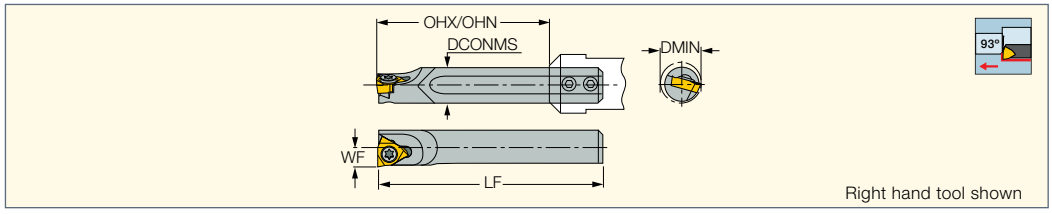
Spare Parts

Designation		
E/S-SWUBR/L	SR 14-552	T-6/5

ISOTURN

MG-SWUBR/L

Solid Carbide Bars for Internal Turning



M E T R I C

Designation	DCONMS	LF	OHN(1)	OHX(2)	WF	DMIN	CSP(3)	MIID(4)		
MG 06-SWUBR/L-06	6.00	59.00	16.0	42.0	3.30	6.60	0	WBMT 020102L/R	SR 14-552	T-6/5
MG 08-SWUBR/L-06	8.00	72.00	20.0	56.0	4.30	8.70	0	WBMT 020102L/R	SR 14-552	T-6/5

- Use right-hand WBMT 06...R inserts on left-hand tools and left-hand WBMT 06...L inserts on right-hand tools

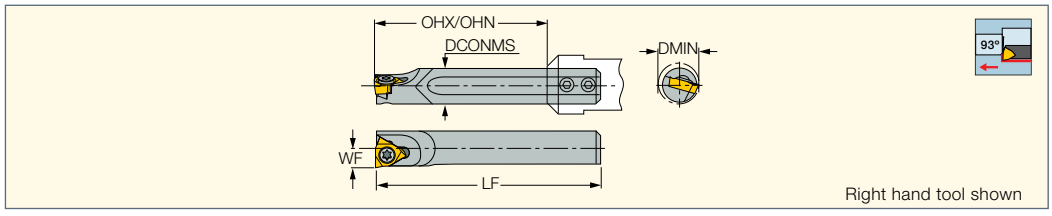
(1) Minimum overhang in adjustment range
(2) Maximum overhang in adjustment range
(3) 0 - Without coolant supply, 1 - With coolant supply
(4) Master insert identification

For inserts, see pages: WBGT (139) • WBMT (139)
For holders, see pages: SC-PICCO (836)

ISOTURN

MG-SWUBR/L

Solid Carbide Bars for Internal Turning



I N C H

Designation	DCONMS	LF	OHN(1)	OHX(2)	WF	DMIN	CSP(3)	MIID(4)		
MG 06-SWUBR/L-06	.236	2.323	.63	1.654	.130	.260	0	WBMT 020102L/R	SR 14-552	T-6/5
MG 08-SWUBR/L-06	.315	2.835	.79	2.205	.169	.343	0	WBMT 020102L/R	SR 14-552	T-6/5

- Use right-hand WBMT 52...R inserts on left-hand tools and left-hand WBMT 52...L inserts on right-hand tools

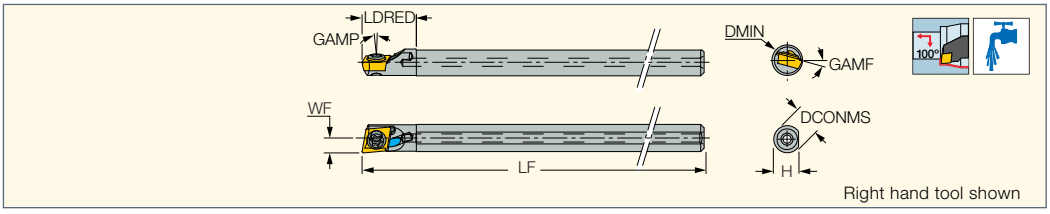
(1) Minimum overhang in adjustment range
(2) Maximum overhang in adjustment range
(3) 0 - Without coolant supply, 1 - With coolant supply
(4) Master insert identification

For inserts, see pages: WBGT (139) • WBMT (139)
For holders, see pages: SC-PICCO (836)

ISOTURN

A/E-SEXPR/L-03

Screw Lock Boring Bars Carrying 75° Rhombic Inserts with 11° Clearance for 4.5 mm Minimum Bore Diameter



M E T R I C

Designation	DCONMS	LF	LDRED	H	WF	DMIN	GAMP(1)	GAMF(2)	MIID(3)	
A04F SEXPR/L-03	4.00	80.00	8.0	3.8	2.30	4.50	0.0	-15.0	EPGT03	CSTA-1.6
E04G SEXPR/L-03	4.00	90.00	9.0	3.8	2.30	4.50	0.0	-15.0	EPGT03	CSTA-1.6

- A - steel shank with coolant hole, E - carbide shank with coolant hole

(1) Rake angle axial

(2) Rake angle radial

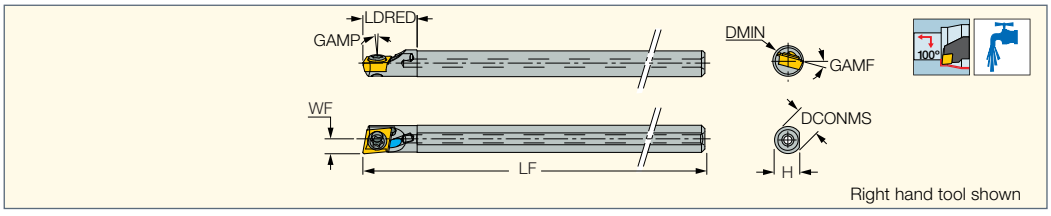
(3) Master insert identification

For inserts, see pages: EPGT-F1P (146)

ISOTURN

A/E-SEXPR/L-03

Screw Lock Boring Bars Carrying 75° Rhombic Inserts with 11° Clearance for .177" Minimum Bore Diameter



I N C H

Designation	DCONMS	LF	LDRED	H	WF	DMIN	GAMP(1)	GAMF(2)	MIID(3)	
A04F SEXPR/L-03	.157	3.150	.315	.150	.091	.177	0	-15.0	EPGT 03	CSTA-1.6
E04G SEXPR/L-03	.157	3.543	.354	.150	.091	.177	0	-15.0	EPGT 03	CSTA-1.6

- A - steel shank with coolant hole, E - carbide shank with coolant hole

(1) Rake angle axial

(2) Rake angle radial

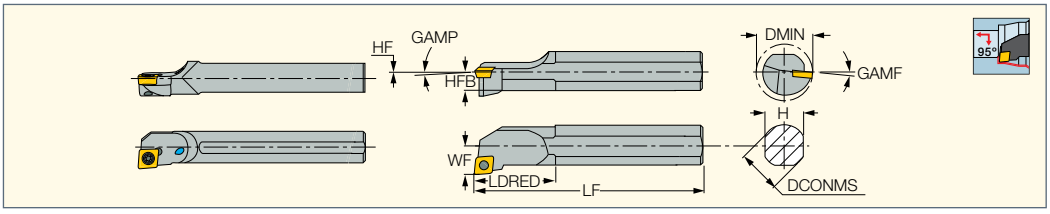
(3) Master insert identification

For inserts, see pages: EPGT-F1P (146)

ISOTURN

A/E/S-SCLCR/L

Screw Lock Boring Bars
Carrying 80° Rhombic Inserts
with 7° Clearance for 20 mm
Minimum Bore Diameter



M E T R I C												
Designation	**DCONMS**	**LF**	**LDRED**	**WF**	**H**	**HFB**	**HF**	**DMIN**	**CSP(1)**	**GAMP(2)**	**GAMF(3)**	**MIID(4)**
A04F SCLCR/L-03	4.00	80.00	8.0	2.50	3.8	1.9	0.0	5.00	1	0.0	-15.0	CCGT 03X102-F1P
A05F SCLCR/L-03	5.00	80.00	9.0	3.00	4.8	2.4	0.0	6.00	1	0.0	-13.0	CCGT 03X102-F1P
A06G SCLCR/L-04	6.00	90.00	11.0	3.50	5.8	2.9	0.0	7.00	1	0.0	-13.0	CCGT 04T102-F1P
A07G SCLCR/L-04	7.00	90.00	12.0	4.00	6.8	3.4	0.0	8.00	1	0.0	-11.0	CCGT 04T102-F1P
A10K SCLCR/L-06	10.00	125.00	18.0	7.00	9.0	4.5	0.0	12.30	1	-3.0	-7.0	CCMT 060204-14
A12M SCLCR/L-06	12.00	150.00	20.0	9.00	11.0	5.5	0.0	15.80	1	0.0	-7.0	CCMT 060204-14
A16M SCLCR/L-09	16.00	150.00	30.0	11.00	15.0	7.5	0.0	20.00	1	0.0	-7.0	CCMT 09T304-14
A20R SCLCR/L-09	20.00	200.00	35.0	13.00	18.0	9.0	0.0	25.00	1	0.0	-4.0	CCMT 09T304-14
A25S SCLCR/L-09	25.00	250.00	35.0	17.00	23.0	11.5	0.0	32.00	1	0.0	-4.0	CCMT 09T304-14
E04G SCLCR/L-03	4.00	90.00	9.0	2.50	3.8	1.9	0.0	5.00	1	0.0	-15.0	CCGT 03X102-F1P
E05G SCLCR/L-03	5.00	90.00	10.0	3.00	4.8	2.4	0.0	6.00	1	0.0	-13.0	CCGT 03X102-F1P
E06H SCLCR/L-04	6.00	100.00	12.0	3.50	5.8	2.9	0.0	7.00	1	0.0	-13.0	CCGT 04T102-F1P
E07H SCLCR/L-04	7.00	100.00	14.0	4.00	6.8	3.4	0.0	8.00	1	0.0	-11.0	CCGT 04T102-F1P
E08K SCLCL-06	8.00	125.00	20.0	5.00	7.6	3.8	0.0	10.00	1	3.0	-11.0	CCMT 060204-14
E08K SCLCR-06	8.00	125.00	20.0	5.00	7.2	3.8	0.0	10.00	1	3.0	-11.0	CCMT 060204-14
E10M SCLCL-06	10.00	150.00	24.3	6.00	9.0	4.6	0.0	12.00	1	3.0	-7.0	CCMT 060204-14
E10M SCLCR-06	10.00	150.00	24.3	6.00	9.2	4.6	0.0	12.00	1	3.0	-7.0	CCMT 060204-14
E12Q SCLCL-06	12.00	180.00	26.5	9.00	11.0	5.5	0.0	16.00	1	0.0	-7.0	CCMT 060204-14
E12Q SCLCR-06	12.00	180.00	24.0	9.00	11.0	5.5	0.0	16.00	1	0.0	-7.0	CCMT 060204-14
E16R SCLCR/L-06	16.00	200.00	32.5	11.00	14.0	7.0	0.0	20.00	1	0.0	-7.0	CCMT 060204-14
E16R SCLCR/L-09	16.00	200.00	32.6	11.00	15.0	7.5	0.0	20.00	1	0.0	-9.0	CCMT 09T304-14
S08K SCLCL-06	8.00	125.00	14.5	5.00	8.0	3.8	0.0	10.50	0	0.0	-11.0	CCMT 060204-14
S08K SCLCR-06	8.00	125.00	12.0	5.00	8.0	3.8	0.0	10.50	0	0.0	-11.0	CCMT 060204-14
S10L SCLCL-06	10.00	140.00	20.0	7.00	9.0	4.5	0.0	13.00	0	0.0	-7.0	CCMT 060204-14
S10L SCLCR-06	10.00	140.00	20.0	7.00	9.0	4.5	0.0	13.00	0	3.0	-7.0	CCMT 060204-14
S12M SCLCL-06	12.00	150.00	24.0	9.00	11.0	5.5	0.0	16.00	0	0.0	-7.0	CCMT 060204-14
S12M SCLCR-06	12.00	150.00	25.0	9.00	12.0	5.5	0.0	16.00	0	0.0	-7.0	CCMT 060204-14
S16Q SCLCR/L-09	16.00	180.00	45.0	11.00	15.0	7.5	0.0	20.00	0	0.0	-9.0	CCMT 09T304-14
S20R SCLCR/L-09	20.00	200.00	50.0	13.00	18.0	9.0	0.0	25.00	0	0.0	-4.0	CCMT 09T304-14
S25S SCLCR/L-09	25.00	250.00	55.0	17.00	23.0	11.5	0.0	35.00	0	0.0	-4.0	CCMT 09T304-14

- S - steel shank, A - steel shank with coolant hole, E - carbide shank with coolant hole

(1) 0 - Without coolant supply, 1 - With coolant supply

(2) Rake angle axial

(3) Rake angle radial

(4) Master insert identification

For inserts, see pages: CCGT-F1M-12P (155) • CCGT-F1M-20P (156) • CCMT-CERMET (161) • CCGT-F1P (157) • CCMT-F3P (146) • CCMT-M3P (147) • CCMT-F3M (148) • CCMT-M3M (149) • CCMT-PF (153) • CCMT/CCGT-SM (151) • CCET-WF (158) • CCMT-WG (154) • CCGT-AS (160) • CCGT-AF (159) • CCMT-14 (152) • CCMT/CCGT (150) • CCGW/CCMT (CBN) (162) • CCGW/CCMW-2 (CBN) (163)

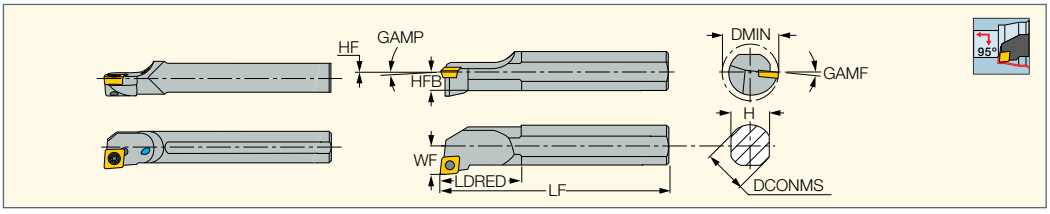




ISOTURN

A/E/S-SCLCR/L

Screw Lock Boring Bars
Carrying 80° Rhombic Inserts
with 7° Clearance for 20 mm
Minimum Bore Diameter



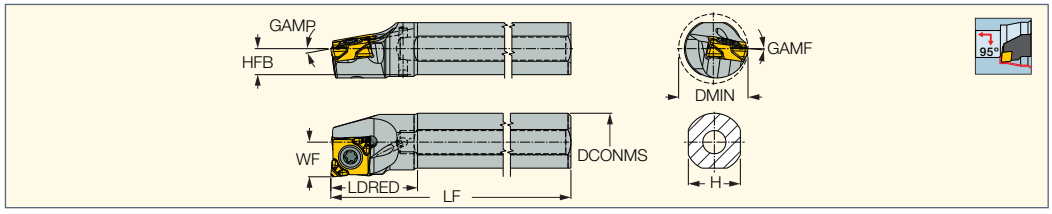
Spare Parts

Designation				
A04F SCLCR/L-03	CSTA-1.6	T-6/5		
A05F SCLCR/L-03	CSTA-1.6	T-6/5		
A06G SCLCR/L-04	CSTB-2	T-6/5		
A07G SCLCR/L-04	CSTB-2	T-6/5		
A10K SCLCR/L-06	SR 14-548	T-7/5		
A12M SCLCR/L-06	SR 14-548	T-7/5		
A16M SCLCR/L-09	SR 16-236/L8.6	T-15/5	HW 2.0	PL 16
A20R SCLCR/L-09	SR 16-236	T-15/5	HW 2.0	PL 20
A25S SCLCR/L-09	SR 16-236	T-15/5	HW 2.0	PL 25
E04G SCLCR/L-03	CSTA-1.6	T-6/5		
E05G SCLCR/L-03	CSTA-1.6	T-6/5		
E06H SCLCR/L-04	CSTB-2	T-6/5		
E07H SCLCR/L-04	CSTB-2	T-6/5		
E08K SCLCR/L-06	SR 14-548	T-7/5		
E10M SCLCR/L-06	SR 14-548	T-7/5		
E12Q SCLCR/L-06	SR 14-548	T-7/5		
E16R SCLCR/L-06	SR 14-548	T-7/5		
E16R SCLCR/L-09	SR 16-236	T-15/5		
S08K SCLCR/L-06	SR 14-548	T-7/5		
S10L SCLCR/L-06	SR 14-548	T-7/5		
S12M SCLCR/L-06	SR 14-548	T-7/5		
S16Q SCLCR/L-09	SR 16-236/L8.6	T-15/5		
S20R SCLCR/L-09	SR 16-236	T-15/5		
S25S SCLCR/L-09	SR 16-236	T-15/5		

LOGIQ4TURN

A/E-SCLXR/L-06X

Screw Lock Boring Bars on which CXMU 80° Rhombic Inserts are Mounted



M E T R I C

Designation	DCONMS	LF	LDRED	H	HFB	WF	DMIN	GAMP(1)	GAMF(2)	MIID(3)
A08H SCLXR/L-06X	8.00	100.00	12.0	7.2	3.6	5.00	10.00	8.0	10.0	CXMU 060208
E08K SCLXR/L-06X	8.00	125.00	19.0	7.2	3.6	5.00	10.00	8.0	10.0	CXMU 060208
A10K SCLXR/L-06X	10.00	125.00	15.0	9.0	4.5	6.00	12.00	8.0	8.0	CXMU 060208
E10M SCLXR/L-06X	10.00	150.00	21.5	9.0	4.5	6.00	12.00	8.0	8.0	CXMU 060208
A12M SCLXR/L-06X	12.00	150.00	18.0	11.0	5.5	9.00	16.00	8.0	8.0	CXMU 060208
E12Q SCLXR/L-06X	12.00	180.00	25.0	11.0	5.5	9.00	16.00	8.0	8.0	CXMU 060208

- A - steel shank with coolant hole, E - carbide shank with coolant hole

(1) Rake angle axial

(2) Rake angle radial

(3) Master insert identification

For inserts, see pages: CXMU-F3M (142) • CXMU-F3P (142)

For holders, see pages: SC-PICCO (836)

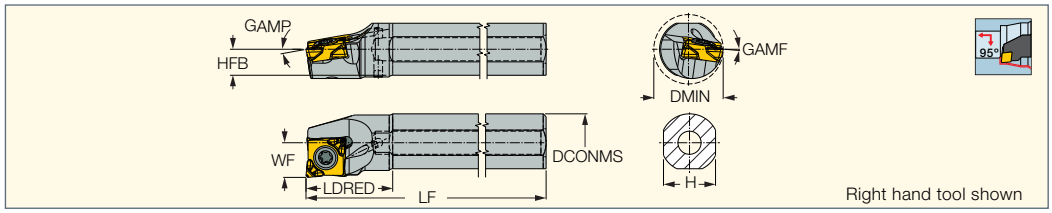
Spare Parts

Designation		
A/E-SCLXR/L-06X	SR M2.5-T8-MT	T-8/5

LOGIQ4TURN

A/E-SCLXR-2X

Screw Lock Boring Bars on which CXMU 80° Rhombic Inserts are Mounted



I N C H

Designation	DCONMS	LF	LDRED	H	HFB	WF	GAMP(1)	GAMF(2)	DMIN	MIID(3)
A-SCLXR 5-2X	.313	4.000	.469	.280	.140	.217	8.0	10.0	.413	CXMU 060208
E-SCLXR 5-2X	.313	5.000	.750	.280	.140	.217	8.0	10.0	.413	CXMU 060208
A-SCLXR 6-2X	.375	5.000	.559	.337	.169	.250	8.0	8.0	.480	CXMU 060208
E-SCLXR 6-2X	.375	6.000	.847	.337	.169	.250	8.0	8.0	.480	CXMU 060208
A-SCLXR 8-2X	.500	6.000	.750	.460	.230	.312	8.0	8.0	.598	CXMU 060208
E-SCLXR 8-2X	.500	7.000	.980	.460	.230	.312	8.0	8.0	.598	CXMU 060208

(1) Rake angle axial

(2) Rake angle radial

(3) Master insert identification

For inserts, see pages: CXMU-F3M (142) • CXMU-F3P (142)

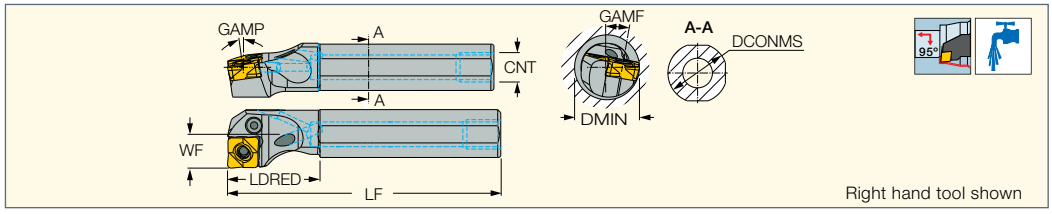
Spare Parts

Designation		
A/E-SCLXR-2X	SR M2.5-T8-MT	T-8/5

LOGIQ4TURN

A-PCLXR/L

Lever Lock Boring Bars Carrying CXMG 80° Rhombic Inserts



M E T R I C									
Designation	**DCONMS**	**LF**	**LDRED**	**WF**	**GAMP(1)**	**GAMF(2)**	**DMIN**	**CNT**	**MIID(3)**
A16Q PCLXR/L-09X	16.00	180.00	30.0	11.00	8.0	10.0	20.00	UNC 3/8"-16	CXMG 09..
A20R PCLXR/L-09X	20.00	200.00	30.0	13.00	5.0	10.0	25.00	UNC 3/8"-24	CXMG 09..
A25S PCLXR/L-09X	25.00	250.00	40.0	17.00	5.0	10.0	32.00	UNC 1/2"-20	CXMG 09..
A25R PCLXR/L-12X	25.00	200.00	40.0	17.00	6.0	9.0	32.00	UNF-2B 1/2"-20	CXMG 12..

(1) Rake angle axial
(2) Rake angle radial
(3) Master insert identification

For inserts, see pages: CXMG-F3M (144) • CXMG-F3P (143) • CXMG-M3M (145) • CXMG-M3P (144)

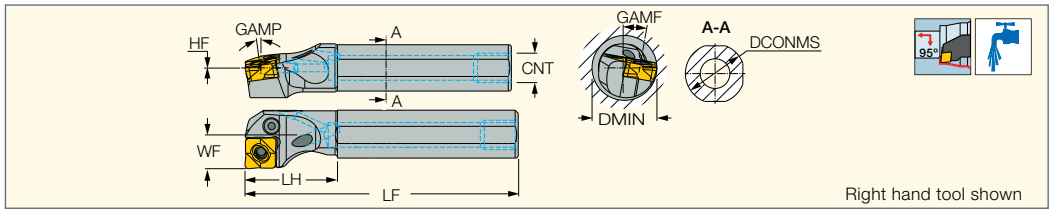
Spare Parts

Designation					
A16Q PCLXR/L-09X	LR 3X SET	PL 16	SR M6XL11.5V	T-8/5	
A20R PCLXR/L-09X	LR 3X SET	PL 20	SR M6XL11.5V	T-8/5	
A25S PCLXR/L-09X	LR 3X SET	PL 25	SR M6XL11.5V	T-8/5	
A25R PCLXR/L-12X	LR 4MX	PL 25	SR 117-2010-S		HW 3.0

LOGIQ4TURN

A-PCLXR/L

Lever Lock Boring Bars Carrying CXMG 80° Rhombic Inserts



I N C H											
Designation	**DCONMS**	**LF**	**LH**	**WF**	**HF**	**GAMP(1)**	**GAMF(2)**	**DMIN**	**CNT**	**CSP(3)**	**MIID(4)**
A-PCLXR/L 10-3X	.625	6.000	1.180	.433	0	8.0	10.0	.750	UNF-2B 3/8"-24	1	CXMG 09..
A-PCLXR/L 12-3X	.750	7.000	1.180	.512	0	8.0	10.0	1.000	UNF-2B 3/8"-24	1	CXMG 09..
A-PCLXR/L 16-3X	1.000	8.000	1.570	.640	0	5.0	8.0	1.250	UNF-2B 3/8"-24	1	CXMG 09..
A-PCLXL 16-4X	1.000	8.000	1.570	.640	0	6.0	9.0	1.250	UNF-2B 1/2"-20	1	CXMG 12..
A-PCLXR 16-4X	1.000	8.000	1.570	.640	0	6.0	9.0	1.250	UNF-2B 1/2"-20	1	CXMG 12..

(1) Rake angle axial
(2) Rake angle radial
(3) 0 - Without coolant supply, 1 - With coolant supply
(4) Master insert identification

For inserts, see pages: CXMG-F3M (144) • CXMG-F3P (143) • CXMG-M3M (145) • CXMG-M3P (144)

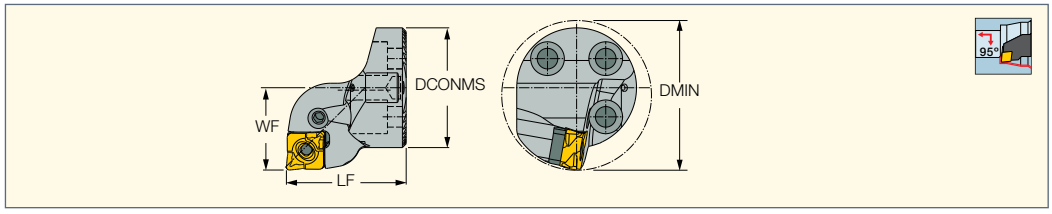
Spare Parts

Designation					
A-PCLXR/L 10-3X	LR 3X SET	SR M6XL11.5V	PL 062	T-8/5	
A-PCLXR/L 12-3X	LR 3X SET	SR M6XL11.5V	PL 075	T-8/5	
A-PCLXR/L 16-3X	LR 3X SET	SR M6XL11.5V	PL 100	T-8/5	
A-PCLXR/L 16-4X	LR 4MX	SR 117-2010-S	PL 100		HW 3.0

LOGIQ4TURN

AVC-PCLXR/L

Interchangeable Boring Heads
Carrying 80° Rhombic Inserts



M E T R I C

Designation	WF	DCONMS	DMIN	LF	CSP(1)	MIID(2)
AVC-D20-PCLXR/L-09X	13.00	20.00	25.00	26.00	0	CXMG 09
AVC-D25-PCLXR/L-09X	17.00	25.00	32.00	28.00	1	CXMG 09

(1) 0 - Without coolant supply, 1 - With coolant supply
(2) Master insert identification

For inserts, see pages: CXMG-F3M (144) • CXMG-F3P (143) • CXMG-M3M (145) • CXMG-M3P (144)
For holders, see pages: SH-D (125)

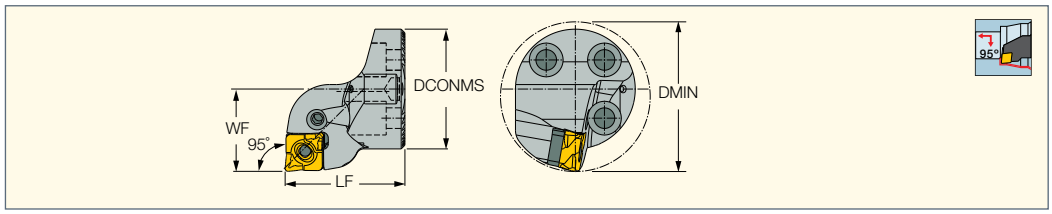
Spare Parts

Designation			
AVC-D20-PCLXR/L-09X	LR 3X SET	SR M6XL11.5V	T-8/5
AVC-D25-PCLXR/L-09X	LR 3X SET	SR M6XL11.5V	T-8/5

LOGIQ4TURN

AVC-PCLXR/L

Interchangeable Boring Heads
Carrying 80° Rhombic Inserts



I N C H

Designation	WF	DCONMS	DMIN	LF	CSP(1)	MIID(2)
AVC-D20-PCLXR/L-09X	.512	.787	.984	1.024	0	CXMG 09
AVC-D25-PCLXR/L-09X	.669	.984	1.260	1.102	1	CXMG 09

(1) 0 - Without coolant supply, 1 - With coolant supply
(2) Master insert identification

For inserts, see pages: CXMG-F3M (144) • CXMG-F3P (143) • CXMG-M3M (145) • CXMG-M3P (144)
For holders, see pages: SH-D (125)

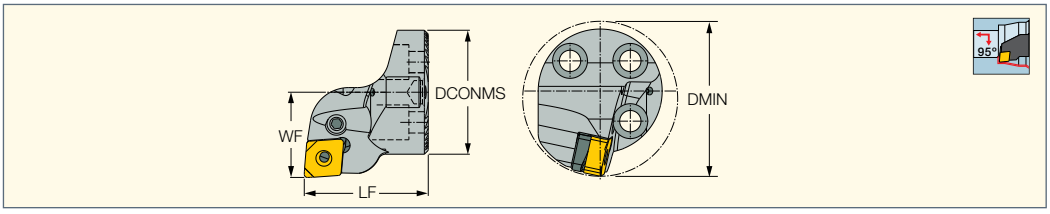
Spare Parts

Designation			
AVC-D20-PCLXR/L-09X	LR 3X SET	SR M6XL11.5V	T-8/5
AVC-D25-PCLXR/L-09X	LR 3X SET	SR M6XL11.5V	T-8/5

WHISPERLINE

AVC-PCLNR/L

Interchangeable Boring Heads
Carrying 80° Rhombic Inserts



M E T R I C						
Designation	**WF**	**DCONMS**	**DMIN**	**LF**	**CSP(1)**	**MIID(2)**
AVC-D20-PCLNR/L-09	13.00	20.00	25.00	26.00	0	CNMG 09
AVC-D25-PCLNR/L-09	17.00	25.00	32.00	28.00	1	CNMG 09

(1) 0 - Without coolant supply, 1 - With coolant supply
(2) Master insert identification

For inserts, see pages: CNMG-F3S (239) • CNGG-F3N (239) • CNMG-F3M (237) • CNMG-F3P (235) • CNMG-M3M (238) • CNMG-M3P (236)
For holders, see pages: SH-D (125)

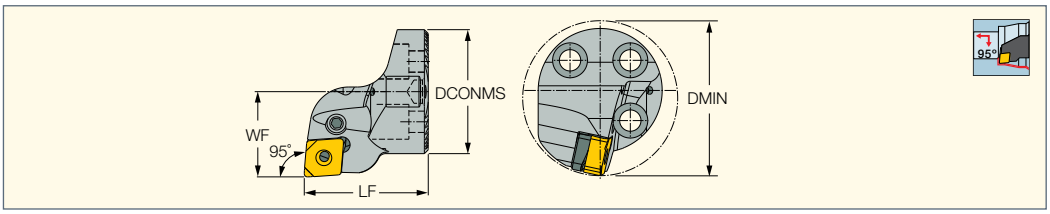
Spare Parts

Designation			
AVC-D20-PCLNR/L-09	LR 3S	SR 117-2009	HW 2.0
AVC-D25-PCLNR/L-09	LR 3S	SR 117-2009	HW 2.0

WHISPERLINE

AVC-PCLNR/L

Interchangeable Boring Heads
Carrying 80° Rhombic Inserts



I N C H						
Designation	**WF**	**DCONMS**	**DMIN**	**LF**	**CSP(1)**	**MIID(2)**
AVC-D20-PCLNR/L-09	.512	.787	.984	1.024	0	CNMG 09
AVC-D25-PCLNR/L-09	.669	.984	1.260	1.102	1	CNMG 09

(1) 0 - Without coolant supply, 1 - With coolant supply
(2) Master insert identification

For inserts, see pages: CNMG-F3S (239) • CNGG-F3N (239) • CNMG-F3M (237) • CNMG-F3P (235) • CNMG-M3M (238) • CNMG-M3P (236)
For holders, see pages: SH-D (125)

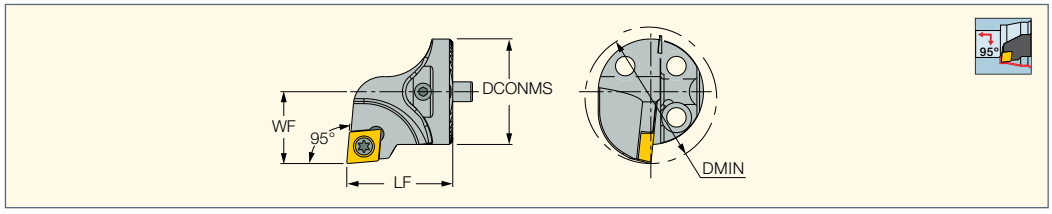
Spare Parts

Designation			
AVC-D20-PCLNR/L-09	LR 3S	SR 117-2009	HW 2.0
AVC-D25-PCLNR/L-09	LR 3S	SR 117-2009	HW 2.0

WHISPERLINE

AVC-SCLCR/L

Interchangeable Boring Heads Carrying 80° Rhombic Inserts with 7° Clearance



Designation	WF	DCONMS	DMIN	LF	CSP(1)	MIID(2)
M E T R I C						
AVC-D16-SCLCR/L-06	11.00	16.00	20.00	20.00	0	CCMT 2-1-14
AVC-D20-SCLCR/L-09	13.00	20.00	25.00	20.00	0	CCMT 3-2-M3M
AVC-D25-SCLCR/L-09	17.00	25.00	32.00	20.00	1	CCMT 3-2-M3M

(1) 0 - Without coolant supply, 1 - With coolant supply

(2) Master insert identification

For inserts, see pages: CCGT-F1M-12P (155) • CCGT-F1M-20P (156) • CCET-WF (158) • CCGT-AF (159) • CCGT-AS (160) • CCGW/CCMT (CBN) (162) • CCGW/CCMW-2 (CBN) (163) • CCMT-14 (152) • CCMT-F3M (148) • CCMT-M3M (149) • CCMT-M3P (147) • CCMT-PF (153) • CCMT-WG (154) • CCMT/CCGT (150) • CCMT/CCGT-SM (151)

For holders, see pages: SH-D (125)

Spare Parts

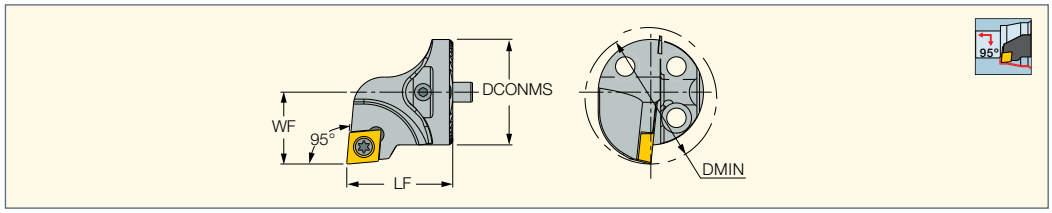
Designation		
AVC-D16-SCLCR/L-06	SR 14-548*	T-7/5*
AVC-D20-SCLCR/L-09	SR 16-236*	T-15/5*
AVC-D25-SCLCR/L-09	SR 16-236*	T-15/5*

* Optional, to be ordered separately

WHISPERLINE

AVC-SCLCR/L

Interchangeable Boring Heads Carrying 80° Rhombic Inserts with 7° Clearance



Designation	WF	DCONMS	DMIN	LF	CSP(1)	MIID(2)
I N C H						
AVC-D16-SCLCR/L-06	.433	.630	.787	.787	0	CCMT 2-1-14
AVC-D20-SCLCR/L-09	.512	.787	.984	.787	0	CCMT 3-2-M3M
AVC-D25-SCLCR/L-09	.669	.984	1.260	.787	1	CCMT 3-2-M3M

(1) 0 - Without coolant supply, 1 - With coolant supply

(2) Master insert identification

For inserts, see pages: CCGT-F1M-12P (155) • CCGT-F1M-20P (156) • CCET-WF (158) • CCGT-AF (159) • CCGT-AS (160) • CCGW/CCMT (CBN) (162) • CCGW/CCMW-2 (CBN) (163) • CCMT-14 (152) • CCMT-F3M (148) • CCMT-M3M (149) • CCMT-M3P (147) • CCMT-PF (153) • CCMT-WG (154) • CCMT/CCGT (150) • CCMT/CCGT-SM (151)

For holders, see pages: SH-D (125)

Spare Parts

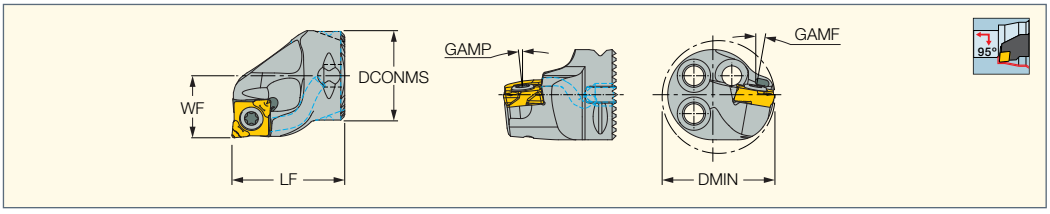
Designation		
AVC-D16-SCLCR/L-06	SR 14-548*	T-7/5*
AVC-D20-SCLCR/L-09	SR 16-236*	T-15/5*
AVC-D25-SCLCR/L-09	SR 16-236*	T-15/5*

* Optional, to be ordered separately

LOGIQ4TURN

AVC-SCLXR/L-06X

Screw Lock Tools Carrying
CXMU 80° Rhombic Inserts



M E T R I C								
Designation	**WF**	**DCONMS**	**DMIN**	**LF**	**CSP(1)**	**GAMP(2)**	**GAMF(3)**	**MIID(4)**
AVC-D16-SCLXR/L-06X	11.00	16.00	20.00	20.00	1	6.0	10.0	CXMU 060204

(1) 0 - Without coolant supply, 1 - With coolant supply
(2) Rake angle axial
(3) Rake angle radial
(4) Master insert identification

For inserts, see pages: CXMU-F3M (142) • CXMU-F3P (142)
For holders, see pages: SH-D (125)

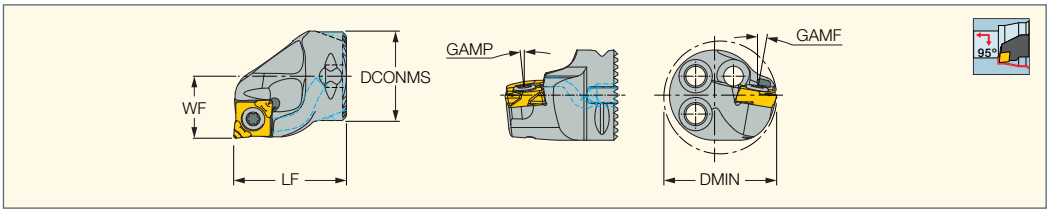
Spare Parts

Designation		
AVC-SCLXR/L-06X	SR M2.5-T8-MT	T-8/5

LOGIQ4TURN

AVC-SCLXR/L-06X

Screw Lock Tools Carrying
CXMU 80° Rhombic Inserts



I N C H								
Designation	**WF**	**DCONMS**	**DMIN**	**LF**	**CSP(1)**	**GAMP(2)**	**GAMF(3)**	**MIID(4)**
AVC-D16-SCLXR/L-06X	.433	.630	.787	.787	1	6.0	10.0	CXMU 060204

(1) 0 - Without coolant supply, 1 - With coolant supply
(2) Rake angle axial
(3) Rake angle radial
(4) Master insert identification

For inserts, see pages: CXMU-F3M (142) • CXMU-F3P (142)
For holders, see pages: SH-D (125)

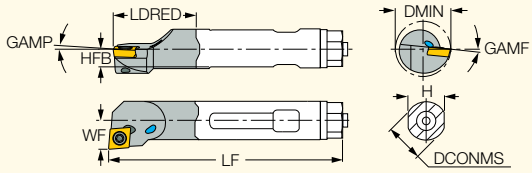
Spare Parts

Designation		
AVC-SCLXR/L-06X	SR M2.5-T8-MT	T-8/5

ISOTURN

E-SCLCR/L-HEAD

Screw Clamped Boring Heads
Carrying 80° Rhombic Inserts
with Positive 7° Clearance
Mounted on Carbide Bars



Right hand tool shown

M E T R I C

Designation	DCONMS	LF	LDRED	H	HFB	WF	GAMP(1)	GAMF(2)	DMIN	MIID(3)
E12 SCLCR/L-06 HEAD	12.00	179.00	24.8	11.0	5.5	9.00	0.0	-7.0	15.80	CCMT/CCGT 0602
E16 SCLCR-09 HEAD	16.00	200.00	37.0	15.0	7.5	11.00	0.0	-6.0	20.00	CCMT/CCGT 09T3

(1) Rake angle axial
(2) Rake angle radial
(3) Master insert identification

For inserts, see pages: CCGT-F1M-12P (155) • CCGT-F1M-20P (156) • CCMT-CERMET (161) • CCMT-F3P (146) • CCMT-M3P (147) • CCMT-F3M (148) • CCMT-M3M (149) • CCMT-PF (153) • CCMT/CCGT-SM (151) • CCET-WF (158) • CCMT-WG (154) • CCGT-AS (160) • CCGT-AF (159) • CCMT-14 (152) • CCMT/CCGT (150) • CCGW/CCMT (CBN) (162) • CCGW/CCMW-2 (CBN) (163)

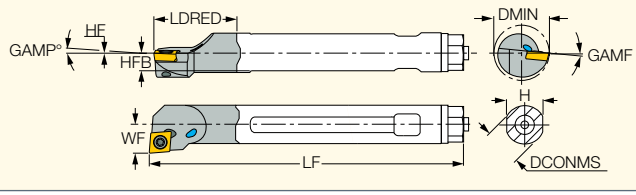
Spare Parts

Designation		
E12 SCLCR/L-06 HEAD	SR 14-548	T-7/5
E16 SCLCR-09 HEAD	SR 16-236	T-15/5

ISOTURN

E-SCLCR/L-HEAD

Screw Clamped Boring Heads
Carrying 80° Rhombic Inserts
with Positive 7° Clearance
Mounted on Carbide Bars



Right hand tool shown

I N C H

Designation	DCONMS	LF	LDRED	H	HFB	WF	GAMP(1)	GAMF(2)	CSP(3)	DMIN	MIID(4)
E-SCLCR/L 8-2 HEAD	.500	7.000	.980	.460	.230	.350	0	-7.0	1	.630	CCMT/CCGT 2
E-SCLCR 10-3 HEAD	.625	7.000	1.170	.590	.295	.430	0	-6.0	1	.787	CCMT/CCGT 3

(1) Rake angle axial
(2) Rake angle radial
(3) 0 - Without coolant supply, 1 - With coolant supply
(4) Master insert identification

For inserts, see pages: CCGT-F1M-12P (155) • CCGT-F1M-20P (156) • CCMT-CERMET (161) • CCMT-F3P (146) • CCMT-M3P (147) • CCMT-F3M (148) • CCMT-M3M (149) • CCMT-PF (153) • CCMT/CCGT-SM (151) • CCET-WF (158) • CCMT-WG (154) • CCGT-AS (160) • CCGT-AF (159) • CCMT-14 (152) • CCMT/CCGT (150) • CCGW/CCMT (CBN) (162) • CCGW/CCMW-2 (CBN) (163)

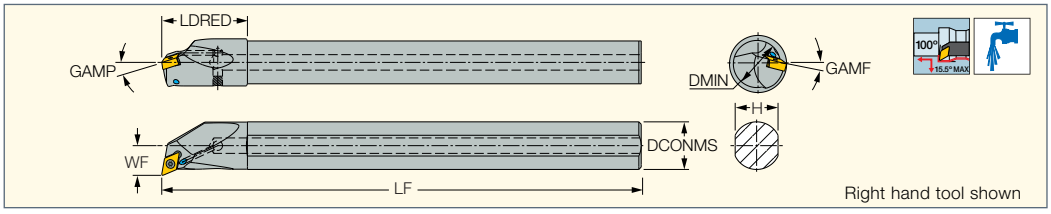
Spare Parts

Designation		
E-SCLCR/L 8-2 HEAD	SR 14-548	T-7/5
E-SCLCR 10-3 HEAD	SR 16-236	T-15/5

MINIPTURN POSITIVE DOUBLE SIDED

A/E-SDXNR/L-07

Boring Bars Carrying DNGP 0703.. Double-Sided 55° Rhombic Inserts for Small Diameters



M E T R I C

Designation	DCONMS	LF	LDRED	H	WF	DMIN	CSP(1)	MIID(2)	
A10K SDXNR/L-07	10.00	125.00	20.0	9.0	7.60	13.00	1	DNGP 07	SR 34-514
A12M SDXNR/L-07	12.00	150.00	24.0	11.0	8.60	16.00	1	DNGP 07	SR 34-514
A16Q SDXNR/L-07	16.00	180.00	32.0	15.0	10.60	20.00	1	DNGP 07	SR 34-514
A20R SDXNR/L-07	20.00	200.00	36.0	18.0	12.60	24.00	1	DNGP 07	SR 34-514
E10M SDXNR/L-07	10.00	150.00	20.0	9.0	7.60	13.00	1	DNGP 07	SR 34-514
E12Q SDXNR/L-07	12.00	180.00	24.0	11.0	8.60	16.00	1	DNGP 07	SR 34-514
E16R SDXNR/L-07	16.00	200.00	32.0	15.0	10.60	20.00	1	DNGP 07	SR 34-514
E20S SDXNR/L-07	20.00	250.00	36.0	18.0	12.60	24.00	1	DNGP 07	SR 34-514

• Use left-hand inserts on right-hand bars and vice versa. • A - steel shank with coolant hole, E - carbide shank with coolant hole.

(1) 0 - Without coolant supply, 1 - With coolant supply

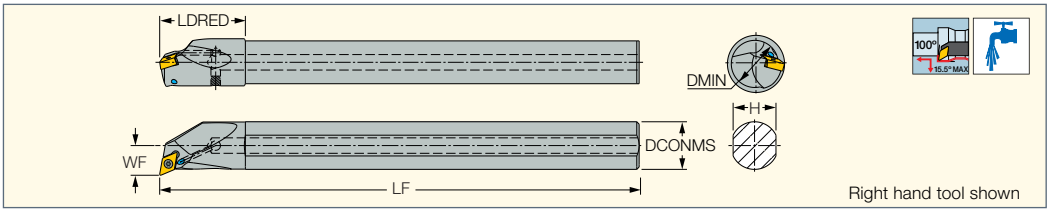
(2) Master insert identification

For inserts, see pages: DNGP-F2M (264) • DNGP-F2P (265)

MINIPTURN POSITIVE DOUBLE SIDED

A/E-SDXNR/L-07

Boring Bars Carrying DNGP 22.. Double-Sided 55° Rhombic Inserts for Small Diameters



I N C H

Designation	DCONMS	LF	LDRED	H	WF	DMIN	CSP(1)	MIID(2)	
A10K SDXNR/L-07	.394	4.921	.787	.354	.299	.512	1	DNGP 22..	SR 34-514
A12M SDXNR/L-07	.472	5.906	.945	.433	.339	.630	1	DNGP 22..	SR 34-514
A16Q SDXNR/L-07	.630	7.087	1.260	.591	.417	.787	1	DNGP 22..	SR 34-514
A20R SDXNR/L-07	.787	7.874	1.417	.709	.496	.945	1	DNGP 22..	SR 34-514
E10M SDXNR/L-07	.394	5.906	.787	.354	.299	.512	1	DNGP 22..	SR 34-514
E12Q SDXNR/L-07	.472	7.087	.945	.433	.339	.630	1	DNGP 22..	SR 34-514
E16R SDXNR/L-07	.630	7.874	1.260	.591	.417	.787	1	DNGP 22..	SR 34-514
E20S SDXNR/L-07	.787	9.843	1.417	.709	.496	.945	1	DNGP 22..	SR 34-514

• Use left-hand inserts on right-hand bars and vice versa. • A - steel shank with coolant hole, E - carbide shank with coolant hole.

(1) 0 - Without coolant supply, 1 - With coolant supply

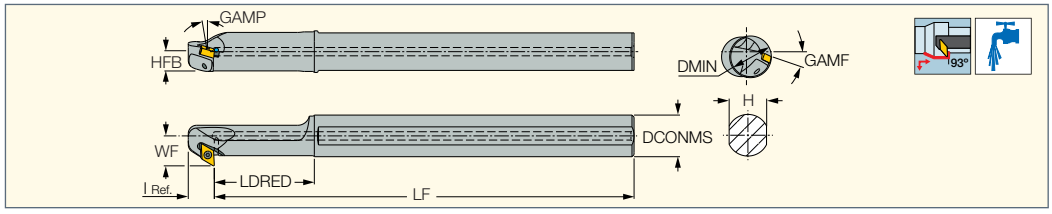
(2) Master insert identification

For inserts, see pages: DNGP-F2M (264) • DNGP-F2P (265)

MINIPTURN POSITIVE DOUBLE SIDED

A/E-SDZNR/L-07

Back Turning Boring Bars
Carrying DNGP 0703..
Double-Sided 55° Rhombic
Inserts for Small Diameters



M E T R I C

Designation	DCONMS	LF	LDRED	l Ref.	H	HFB	WF	DMIN	CSP(1)	MIID(2)	
A12M SDZNR/L-07	12.00	150.00	38.0	13.00	11.0	5.5	10.50	14.00	1	DNGP 07	SR 34-514
A16Q SDZNR/L-07	16.00	180.00	43.0	13.00	15.0	7.5	12.50	16.00	1	DNGP 07	SR 34-514
A20R SDZNR/L-07	20.00	200.00	48.0	12.50	18.0	9.0	14.50	20.00	1	DNGP 07	SR 34-514
E12Q SDZNR/L-07	12.00	180.00	-	13.00	11.0	5.5	10.50	18.00	1	DNGP 07	SR 34-514
E16R SDZNR/L-07	16.00	200.00	-	13.00	15.0	7.5	12.50	22.00	1	DNGP 07	SR 34-514

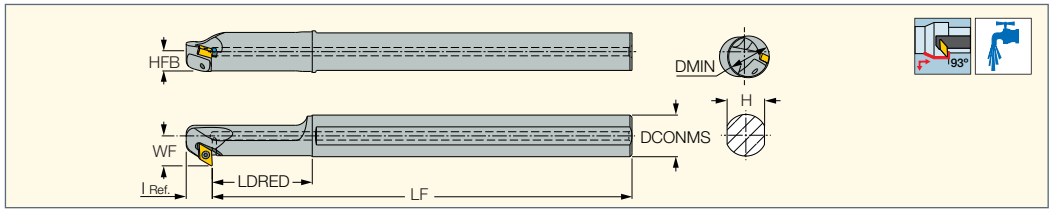
• Use right-hand inserts on right-hand bars and vice versa. • A - steel shank with coolant hole, E - carbide shank with coolant hole.
(1) 0 - Without coolant supply, 1 - With coolant supply
(2) Master insert identification

For inserts, see pages: DNGP-F2M (264) • DNGP-F2P (265)

MINIPTURN POSITIVE DOUBLE SIDED

A/E-SDZNR/L-07

Back Turning Boring Bars
Carrying DNGP 22..
Double-Sided 55° Rhombic
Inserts for Small Diameters



I N C H

Designation	DCONMS	LF	LDRED	l Ref.	H	HFB	WF	DMIN	CSP(1)	MIID(2)	
A12M SDZNR/L-07	.472	5.906	1.496	.512	.433	.217	.413	.551	1	DNGP 22..	SR 34-514
A16Q SDZNR/L-07	.630	7.087	1.693	.512	.591	.295	.492	.630	1	DNGP 22..	SR 34-514
A20R SDZNR/L-07	.787	7.874	1.890	.492	.709	.354	.571	.787	1	DNGP 22..	SR 34-514
E12Q SDZNR/L-07	.472	7.087	-	.512	.433	.217	.413	.709	1	DNGP 22..	SR 34-514
E16R SDZNR/L-07	.630	7.874	-	.512	.591	.295	.492	.866	1	DNGP 22..	SR 34-514

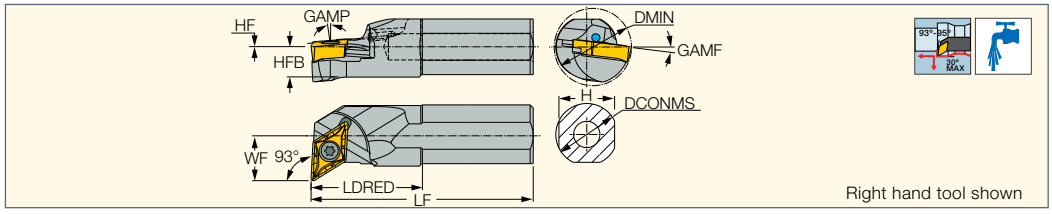
• Use right-hand inserts on right-hand bars and vice versa. • A - steel shank with coolant hole, E - carbide shank with coolant hole.
(1) 0 - Without coolant supply, 1 - With coolant supply
(2) Master insert identification

For inserts, see pages: DNGP-F2M (264) • DNGP-F2P (265)

SAFE-T-LOCK

A-SDUCR/L-13-SL

Boring Bars Carrying 55°
Rhombic Inserts with 7°
Clearance Angle for High
Rigidity in Profiling Applications



M E T R I C

Designation	DCONMS	LF	LDRED	H	HFB	WF	HF	DMIN	GAMP(1)	GAMF(2)	Shank m.(3)	MIID(4)
A20R SDUCR/L-13-SL	20.00	200.00	36.0	18.0	9.1	14.50	0.1	25.00	0.0	-7.0	S	DCMT 13T5-SL
A25S SDUCR/L-13-SL	25.00	250.00	45.0	23.0	11.5	17.00	0.0	32.00	0.0	-6.0	S	DCMT 13T5-SL

(1) Rake angle axial
(2) Rake angle radial
(3) S-Steel
(4) Master insert identification

For inserts, see pages: DCMT-F3P-SL (165) • DCMT-M3M-SL (168) • DCMT-PF-SL (172) • DCMT-SM-SL (170)

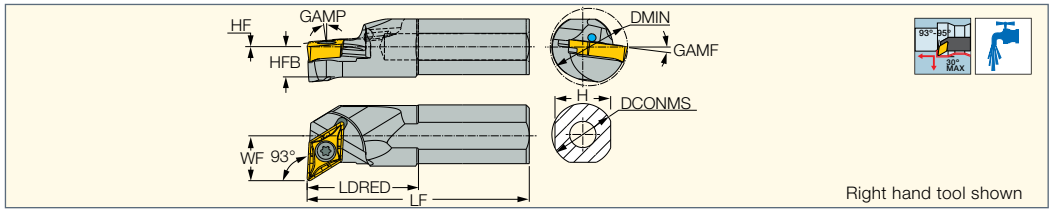
Spare Parts

Designation			
A20R SDUCR/L-13-SL	SR M4X0.7-L9.6 IP15	TORX PLUS IP15X45 GREEN	PL 20
A25S SDUCR/L-13-SL	SR M4X0.7-L9.6 IP15	TORX PLUS IP15X45 GREEN	PL 25

SAFE-T-LOCK

A-SDUCR/L-13-SL

Boring Bars Carrying 55°
Rhombic Inserts with 7°
Clearance Angle for High
Rigidity in Profiling Applications



I N C H

Designation	DCONMS	LF	LDRED	H	HFB	WF	DMIN	GAMP(1)	GAMF(2)	Shank m.	CSP(3)	MIID(4)
A-SDUCR/L 12-13-SL	.750	10.000	1.400	.670	.339	.570	1.000	0	-7.0	S	1	DCMT 13T5-SL
A-SDUCR/L 16-13-SL	1.000	12.000	1.800	.920	.460	.670	1.250	0	-6.0	S	1	DCMT 13T5-SL

(1) Rake angle axial
(2) Rake angle radial
(3) 0 - Without coolant supply, 1 - With coolant supply
(4) Master insert identification

For inserts, see pages: DCMT-F3P-SL (165) • DCMT-M3M-SL (168) • DCMT-PF-SL (172) • DCMT-SM-SL (170)

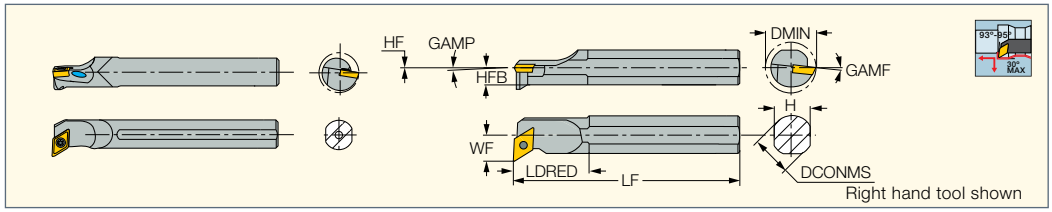
Spare Parts

Designation			
A-SDUCR/L 12-13-SL	SR M4X0.7-L9.6 IP15	TORX PLUS IP15X45 GREEN	PL 20
A-SDUCR/L 16-13-SL	SR M4X0.7-L9.6 IP15	TORX PLUS IP15X45 GREEN	PL 25

ISOTURN

A/E/S-SDUCR/L

Screw Lock Boring Bars
Carrying 55° Rhombic
Inserts with 7° Clearance



				M	E	T	R	I	C					
Designation	DCONMS	LF	LDRED	H	HFB	WF	HF	DMIN	GAMP[1]	GAMF[2]	Shank m.[3]	CSP[4]	MIID[5]	
A20R SDUCR/L-11	20.00	200.00	50.0	18.0	8.5	14.50	0.5	25.00	0.0	-6.0	S	1	DC.. 11T3	
A25S SDUCR/L-11	25.00	250.00	45.0	23.0	12.0	17.00	0.5	32.00	0.0	-5.0	S	1	DC.. 11T3	
E10M SDUCR/L-07	10.00	150.00	25.0	9.2	5.1	8.00	0.5	14.00	3.0	-7.0	C	1	DC.. 0702	
E12Q SDUCR/L-07	12.00	180.00	24.0	11.0	5.5	9.00	0.0	16.00	0.0	-7.0	C	1	DC.. 0702	
E16R SDUCR/L-07	16.00	200.00	29.0	15.0	8.1	11.00	0.6	20.00	0.0	-8.0	C	1	DC.. 0702	
S10L SDUCR/L-07	10.00	140.00	18.0	9.2	5.0	8.00	0.4	14.00	-3.0	-9.0	S	0	DC.. 0702	
S12M SDUCR/L-07	12.00	150.00	20.0	12.0	5.5	9.00	0.5	16.00	-7.0	-9.0	S	0	DC.. 0702	
S16Q SDUCR/L-07	16.00	180.00	25.0	15.0	8.0	11.00	0.5	20.00	0.0	-8.0	S	0	DC.. 0702	
S20R SDUCR/L-11	20.00	200.00	50.0	18.0	8.5	13.00	0.5	25.00	0.0	-6.0	S	0	DC.. 11T3	
S25S SDUCR/L-11	25.00	250.00	55.0	23.0	12.0	17.00	0.5	32.00	0.0	-5.0	S	0	DC.. 11T3	
A10K SDUCR/L-07	10.00	125.00	20.0	9.0	4.5	7.00	0.4	13.00	0.0	-10.0	A	1	DC.. 0702	
A12M-SDUCR/L-07	12.00	150.00	24.0	11.0	5.5	9.30	0.5	16.00	0.0	-6.0	A	1	DC.. 0702	
A16Q-SDUCR/L-07	16.00	180.00	32.0	15.0	7.5	11.30	0.5	20.00	0.0	-5.0	A	1	DC.. 0702	

[1] Rake angle axial
[2] Rake angle radial
[3] S-Steel, C-carbide
[4] 0 - Without coolant supply, 1 - With coolant supply
[5] Master insert identification

For inserts, see pages: DCGT-F1M-12P (177) • DCGT-F1M-20P (178) • DCMT-F3P (164) • DCMT-M3P (166) • DCMT-M3M (167) • DCMT/DCGT-PF (171) • DCMT/DCGT-SM (169) • DCET-WF (180) • DCGT-AS (181) • DCGT-AF (179) • DCMT-14 (173) • DCMT/DCGT (174) • DCGW/DCMW-2 (CBN) (182) • DCMT (CBN) (183) • DCMT-CERMET (175)

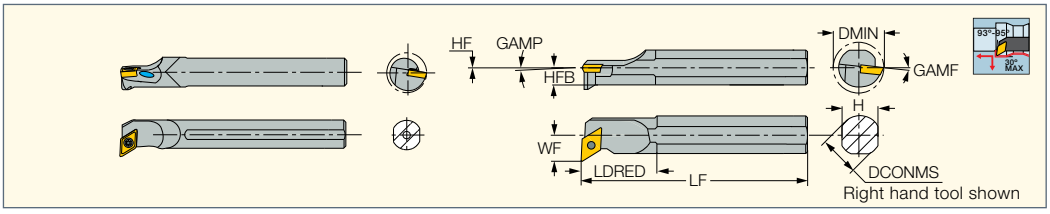
Spare Parts

Designation						
A20R SDUCR/L-11			HW 2.0	SR 16-236 P	T-15/5	PL 20
A25S SDUCR/L-11				SR 16-236 P	T-15/5	PL 25
E10M SDUCR/L-07				SR 14-548	T-7/5	
E12Q SDUCR/L-07				SR 14-548	T-7/5	
E16R SDUCR/L-07				SR 14-548	T-7/5	
S10L SDUCR/L-07				SR 14-548	T-7/5	
S12M SDUCR/L-07				SR 14-548	T-7/5	
S16Q SDUCR/L-07				SR 14-548	T-7/5	
S20R SDUCR/L-11				SR 16-236 P	T-15/5	
S25S SDUCR/L-11	TDC 3-1P	SR TC-3P	HW 4.0	SR 16-236 P	T-15/5	
A10K SDUCR/L-07				SR 11201753-3S	T-8/5	
A12M-SDUCR/L-07				SR 11201753-3S	T-8/5	
A16Q-SDUCR/L-07				SR 11201753-3	T-8/5	

ISOTURN

A/E/S-SDUCR/L

Screw Lock Boring Bars
for 55° Rhombic Inserts
with 7° Clearance



					I N C H								
Designation	**DCONMS**	**WF**	**LF**	**LDRED**	**H**	**HFB**	**HF**	**DMIN**	**GAMP[1]**	**GAMF[2]**	**CSP[3]**	**Shank m.(4)**	**MIID[5]**
A-SDUCR 6-2	.375	.406	5.000	.750	.350	.175	0	.625	3.0	-8.0	1	S	DC.. 2
A-SDUCR/L 8-2	.500	.406	5.000	1.000	.475	.237	0	.688	3.0	-6.0	1	S	DC.. 2
A-SDUCR 10-2	.625	.531	7.000	1.250	.600	.300	0	.875	0	-4.0	1	S	DC.. 2
E-SDUCR 6-2	.375	.350	6.000	-	.330	.165	0	.562	3.0	-9.0	1	C	DC.. 2
E-SDUCR 8-2	.500	.350	7.000	-	.456	.228	0	.629	3.0	-9.0	1	C	DC.. 2
E-SDUCR 10-2	.625	.430	8.000	-	.591	.295	0	.787	0	-8.0	1	C	DC.. 2
S-SDUCR 6-2	.375	.350	6.000	.882	.330	.165	0	.562	0	-9.0	0	S	DC.. 2
S-SDUCR 8-2	.500	.350	6.000	1.000	.460	.230	0	.629	0	-9.0	0	S	DC.. 2
S-SDUCR 10-2	.625	.430	8.000	1.250	.575	.287	0	.787	0	-8.0	0	S	DC.. 2
S-SDUCR 12-3	.750	.500	10.000	1.770	.670	.335	0	.985	0	-6.0	0	S	DC.. 3
S-SDUCL 16-3	1.000	.630	11.810	2.170	.920	.460	0	1.220	0	-5.0	0	S	DC.. 3
S-SDUCR 16-3	1.000	.630	12.000	2.170	.920	.460	0	1.220	0	-5.0	0	S	DC.. 3

[1] Rake angle axial
[2] Rake angle radial
[3] 0 - Without coolant supply, 1 - With coolant supply
[4] S-Steel, C-carbide
[5] Master insert identification

For inserts, see pages: DCGT-F1M-12P (177) • DCGT-F1M-20P (178) • DCMT-F3P (164) • DCMT/DCGT-PF (171) • DCMT/DCGT-SM (169) • DCET-WF (180) • DCGT-AS (181) • DCGT-AF (179) • DCMT-14 (173) • DCMT/DCGT (174) • DCGW/DCMW-2 (CBN) (182) • DCMT (CBN) (183)

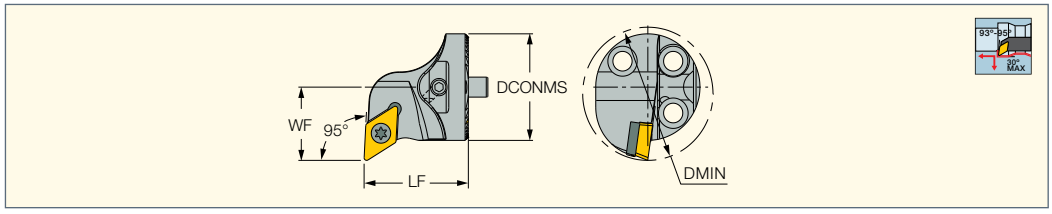
Spare Parts

Designation					
A-SDUCR 6-2				SR 11201753-3	T-8/5
A-SDUCR/L 8-2				11201753-3B	T-8/5
A-SDUCR 10-2				SR 11201753-3	T-8/5
E-SDUCR 6-2				SR 14-548	T-7/5
E-SDUCR 8-2				SR 14-548	T-7/5
E-SDUCR 10-2				SR 14-548	T-7/5
S-SDUCR 6-2				SR 14-548	T-7/5
S-SDUCR 8-2				SR 14-548	T-7/5
S-SDUCR 10-2				SR 14-548	T-7/5
S-SDUCR 12-3				SR 16-236 P	T-15/5
S-SDUCR/L 16-3	TDC 3-1P	SR TC-3P	HW 4.0	SR 16-236 P	T-15/5

WHISPERLINE

AVC-SDUCR/L

Interchangeable Boring Heads Carrying 55° Rhombic Inserts with 7° Clearance



Designation	WF	DCONMS	DMIN	LF	CSP(1)	MIID(2)
METRIC						
AVC-D16-SDUCR/L-07	11.00	16.00	20.00	20.00	0	DCMT 2-1
AVC-D20-SDUCR/L-11	13.00	20.00	25.00	20.00	0	DCMT 3-2-14
AVC-D25-SDUCR/L-11	17.00	25.00	32.00	20.00	1	DCMT 3-2-14

(1) 0 - Without coolant supply, 1 - With coolant supply

(2) Master insert identification

For inserts, see pages: DCET-WF (180) • DCGT-AF (179) • DCGT-AS (181) • DCGT-F1M-12P (177) • DCGT-F1M-20P (178) • DCGW/DCMW-2 (CBN) (182) • DCMT (CBN) (183) • DCMT-14 (173) • DCMT-CERMET (175) • DCMT-F3P (164) • DCMT-M3M (167) • DCMT-M3P (166) • DCMT/DCGT (174) • DCMT/DCGT-PF (171) • DCMT/DCGT-SM (169)

For holders, see pages: SH-D (125)

Spare Parts

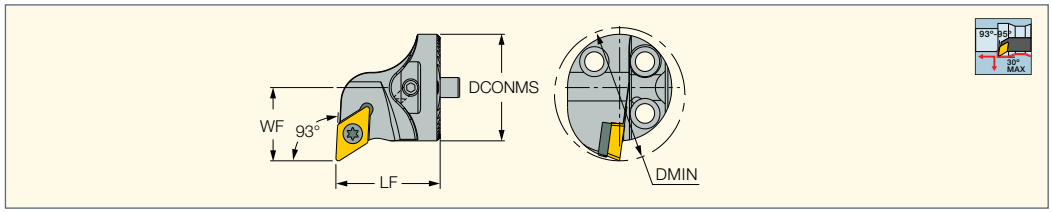
Designation		
AVC-D16-SDUCR/L-07	SR 14-548*	T-7/5*
AVC-D20-SDUCL-11	SR 16-236 P*	T-15/5*
AVC-D20-SDUCR-11	SR 16-236 P	T-15/5
AVC-D25-SDUCL-11	SR 16-236 P*	T-15/5*
AVC-D25-SDUCR-11	SR 16-236 P	T-15/5

* Optional, to be ordered separately

WHISPERLINE

AVC-SDUCR/L

Interchangeable Boring Heads Carrying 55° Rhombic Inserts with 7° Clearance



Designation	WF	DCONMS	DMIN	LF	CSP(1)	MIID(2)
INCH						
AVC-D16-SDUCR/L-07	.433	.630	.787	.787	0	DCMT 2-1
AVC-D20-SDUCR/L-11	.512	.787	.984	.787	0	DCMT 3-2-14
AVC-D25-SDUCR/L-11	.669	.984	1.260	.787	1	DCMT 3-2-14

(1) 0 - Without coolant supply, 1 - With coolant supply

(2) Master insert identification

For inserts, see pages: DCET-WF (180) • DCGT-AF (179) • DCGT-AS (181) • DCGT-F1M-12P (177) • DCGT-F1M-20P (178) • DCGW/DCMW-2 (CBN) (182) • DCMT (CBN) (183) • DCMT-14 (173) • DCMT-CERMET (175) • DCMT-F3P (164) • DCMT-M3M (167) • DCMT-M3P (166) • DCMT/DCGT (174) • DCMT/DCGT-PF (171) • DCMT/DCGT-SM (169)

For holders, see pages: SH-D (125)

Spare Parts

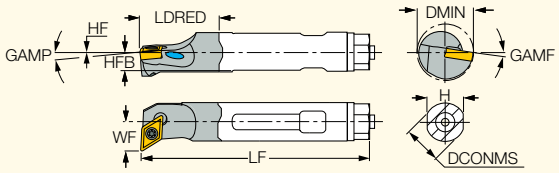
Designation		
AVC-D16-SDUCR/L-07	SR 14-548*	T-7/5*
AVC-D20-SDUCL-11	SR 16-236 P*	T-15/5*
AVC-D20-SDUCR-11	SR 16-236 P	T-15/5
AVC-D25-SDUCL-11	SR 16-236 P*	T-15/5*
AVC-D25-SDUCR-11	SR 16-236 P	T-15/5

* Optional, to be ordered separately

ISOTURN

E-SDUCR/L-HEAD

Interchangeable Screw Clamped Boring Heads Carrying 55° Rhombic Inserts with Positive 7° Clearance Mounted on Carbide



Right hand tool shown

M E T R I C

Designation	DCONMS	LF	LDRED	H	HFB	WF	HF	GAMP(1)	GAMF(2)	DMIN	MIID(3)
E12 SDUCR/L-07 HEAD	12.00	179.00	24.8	11.0	5.5	9.00	0.0	0.0	-9.0	15.80	DCMT 070201-PF
E16 SDUCR/L-07 HEAD	16.00	200.00	29.7	15.0	8.0	11.00	0.5	0.0	-9.0	20.00	DCMT 070201-PF

(1) Rake angle axial
(2) Rake angle radial
(3) Master insert identification

For inserts, see pages: • DCGT-F1M-12P (177) • DCGT-F1M-20P (178) • DCMT-F3P (164) • DCMT-M3P (166) • DCMT-M3M (167) • DCMT/DCGT-PF (171) • DCMT/DCGT-SM (169) • DCET-WF (180) • DCGT-AS (181) • DCMT/DCGT (174) • DCGW/DCMW-2 (CBN) (182)

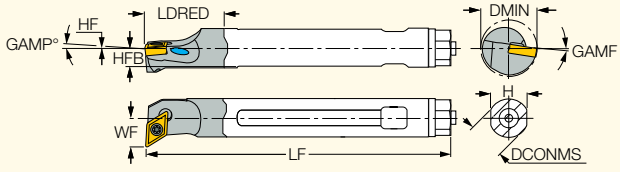
Spare Parts

Designation		
E-SDUCR-HEAD	SR 14-548	T-7/5

ISOTURN

E-SDUCR-HEAD

Interchangeable Screw Clamped Boring Heads Carrying Positive 7° Clearance 55° Rhombic Inserts Mounted on Carbide Bars



Right hand tool shown

I N C H

Designation	DCONMS	LF	LDRED	H	HFB	WF	GAMP(1)	GAMF(2)	DMIN	MIID(3)	CSP(4)
E-SDUCR 10-2 HEAD	.625	7.000	1.170	.590	.295	.430	0	-8.0	.787	DCMT 2-0-PF	1

(1) Rake angle axial
(2) Rake angle radial
(3) Master insert identification
(4) 0 - Without coolant supply, 1 - With coolant supply

For inserts, see pages: • DCGT-F1M-12P (177) • DCGT-F1M-20P (178) • DCMT-F3P (164) • DCMT-M3P (166) • DCMT-M3M (167) • DCMT/DCGT-PF (171) • DCMT/DCGT-SM (169) • DCET-WF (180) • DCGT-AS (181) • DCMT/DCGT (174) • DCGW/DCMW-2 (CBN) (182)
For holders, see pages: E-SHANK (125)

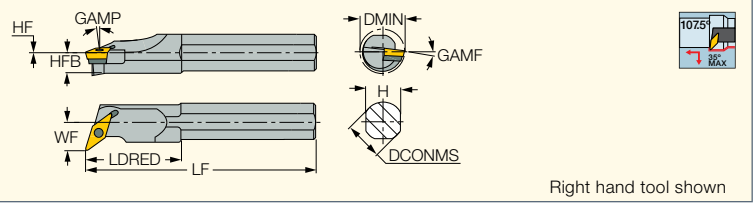
Spare Parts

Designation		
E-SDUCR-HEAD	SR 14-548	T-7/5

ISOTURN

A/S-SVQCR/L

Screw Lock Boring Bars
Carrying 35° Rhombic
Inserts with 7° Clearance



Right hand tool shown

M E T R I C												
Designation	**DCONMS**	**LF**	**LDRED**	**H**	**HFB**	**WF**	**HF**	**DMIN**	**GAMP(1)**	**GAMF(2)**	**CSP(3)**	**MIID(4)**
S25S SVQCR/L-16	25.00	250.00	61.0	23.0	12.0	17.00	0.5	32.00	0.0	-5.0	0	VC.. 1604

(1) Rake angle axial
(2) Rake angle radial
(3) 0 - Without coolant supply, 1 - With coolant supply
(4) Master insert identification

For inserts, see pages: VCMT-FPC-CERMET (190) • VCMT-F3P (184) • VCGW-2 (CBN) (195) • VCMT-M3P (185) • VCMT-F3M (186) • VCMT-M3M (187) • VCMT-SM (188) • VCGT-AS (191) • VCMT-14 (189) • VCMW (189) • VCMT (CBN) (195) • VCGT-DW (PCD) (196)

Spare Parts

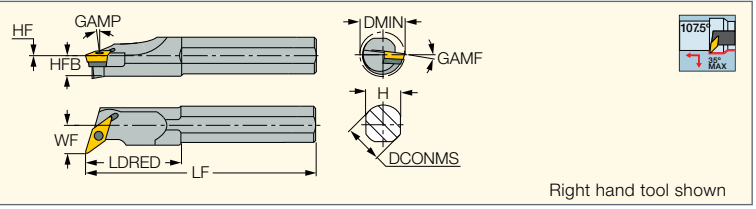
Designation		
S25S SVQCR/L-16	SR 16-236 P	T-15/5

* Optional, to be ordered separately

ISOTURN

A/S-SVQCR/L

Screw Lock Boring Bars
Carrying 35° Rhombic
Inserts with 7° Clearance



Right hand tool shown

I N C H											
Designation	**DCONMS**	**LF**	**LDRED**	**H**	**HFB**	**WF**	**DMIN**	**CSP(1)**	**GAMP(2)**	**GAMF(3)**	**MIID(4)**
S-SVQCR/L 16-3	1.000	12.000	2.440	.920	.480	.630	1.220	0	0	-5.0	VC..33..

(1) 0 - Without coolant supply, 1 - With coolant supply
(2) Rake angle axial
(3) Rake angle radial
(4) Master insert identification

For inserts, see pages: VCMT-F3P (184) • VCGW-2 (CBN) (195) • VCMT-M3P (185) • VCMT-F3M (186) • VCMT-M3M (187) • VCMT-FPC-CERMET (190) • VCMT-SM (188) • VCGT-AS (191) • VCMT-14 (189) • VCMW (189) • VCMT (CBN) (195) • VCGT-DW (PCD) (196)

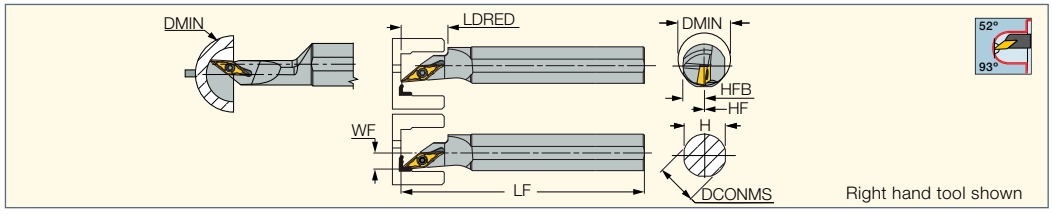
Spare Parts

Designation					
S-SVQCR/L 16-3	SR 16-236 P	T-15/5	TVC 3-1P	SR TC-3P	HW 4.0

ISOTURN

S/A-SVJCR/L

Screw Lock Boring Bars
Carrying 35° Rhombic
Inserts with 7° Clearance



M E T R I C										
Designation	**DCONMS**	**LF**	**LDRED**	**H**	**HFB**	**WF**	**HF**	**DMIN**	**CSP(2)**	**MIID(3)**
A16R SVJCR/L-11	16.00	200.00	47.5	15.0	7.5	8.50	0.0	20.00	1	VC.. 1103
S16R SVJCR/L-11 (1)	16.00	200.00	20.0	15.0	8.0	7.00	0.5	19.00	0	VC.. 1103
A20R SVJCR/L-11	20.00	200.00	43.0	18.0	9.0	11.00	0.0	25.00	1	VC.. 1103
S20R SVJCR/L-11	20.00	200.00	37.0	19.0	9.5	2.00	0.0	25.00	0	VC.. 1103

(1) Cannot be used for internal sphere turning • Center height - 0.5mm above the center
(2) 0 - Without coolant supply, 1 - With coolant supply
(3) Master insert identification

For inserts, see pages: VCGT-F1M-12P (192) • VCGT-F1M-20P (193) • VCMT-F3P (184) • VCMT-M3P (185) • VCMT-F3M (186) • VCMT-SM (188) • VCET-WF (194) • VCGT-AS (191)

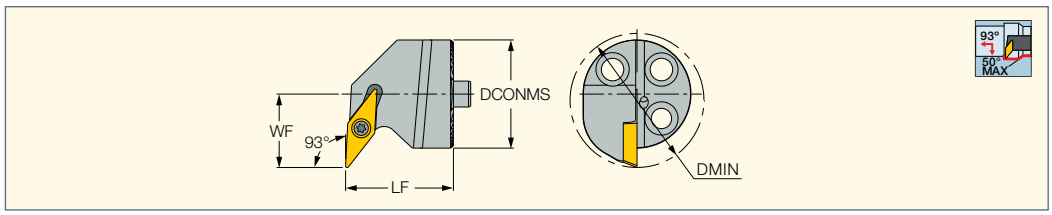
Spare Parts

Designation			
A16R SVJCR/L-11	SR 14-560/S M2.5X0.45	T-8/5	PL 16
S16R SVJCR/L-11	SR 14-560/S M2.5X0.45	T-8/5	
A20R SVJCR/L-11	SR 14-560	T-8/5	PL 20
S20R SVJCR/L-11	SR 14-560	T-8/5	

WHISPERLINE

AVC-SVUCR/L

Interchangeable Boring
Heads Carrying 35° Rhombic
Inserts with 7° Clearance



M E T R I C								
Designation	**WF**	**DCONMS**	**DMIN**	**LF**	**CSP(1)**	**MIID(2)**		
AVC-D20-SVUCR/L-11	16.00	20.00	27.00	20.00	0	VCMT 221-F3P	SR 14-560*	T-8/5*
AVC-D25-SVUCR/L-11	17.00	25.00	32.00	25.00	1	VCMT 221-F3P	SR 14-560*	T-8/5*

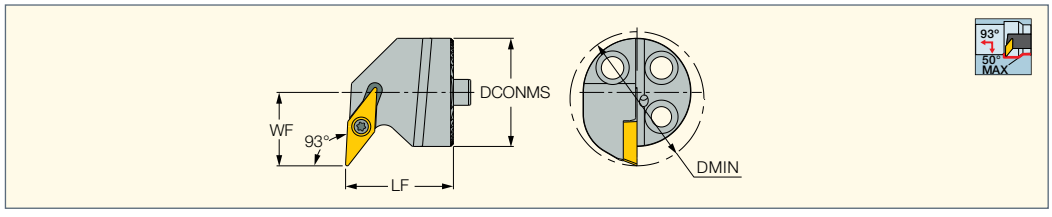
(1) 0 - Without coolant supply, 1 - With coolant supply
(2) Master insert identification
* Optional, to be ordered separately

For inserts, see pages: VCGT-AS (191) • VCGT-F1M-12P (192) • VCGT-F1M-20P (193) • VCMT-F3M (186) • VCMT-M3P (185) • VCMT-SM (188)
For holders, see pages: SH-D (125)

WHISPERLINE

AVC-SVUCR/L

Interchangeable Boring
Heads Carrying 35° Rhombic
Inserts with 7° Clearance



I N C H								
Designation	**WF**	**DCONMS**	**DMIN**	**LF**	**CSP(1)**	**MIID(2)**		
AVC-D20-SVUCR/L-11	.630	.787	1.063	.787	0	VCMT 221-F3P	SR 14-560*	T-8/5*
AVC-D25-SVUCR/L-11	.669	.984	1.260	.984	1	VCMT 221-F3P	SR 14-560*	T-8/5*

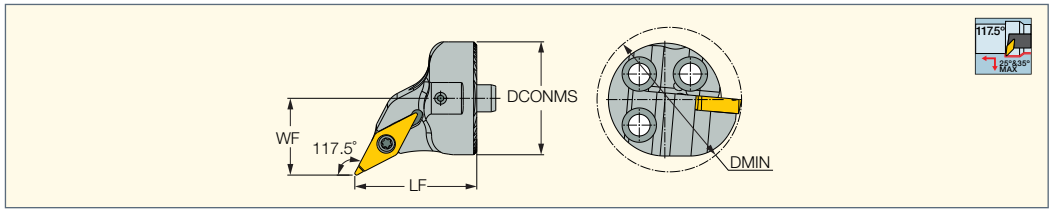
(1) 0 - Without coolant supply, 1 - With coolant supply
(2) Master insert identification
* Optional, to be ordered separately

For inserts, see pages: VCGT-AS (191) • VCGT-F1M-12P (192) • VCGT-F1M-20P (193) • VCMT-F3M (186) • VCMT-M3P (185) • VCMT-SM (188)
For holders, see pages: SH-D (125)

WHISPERLINE

AVC-SVPCR/L

Interchangeable Boring Heads Carrying 35° Rhombic Inserts with 7° Clearance and 117.5° Approach Angle



M E T R I C

Designation	WF	DCONMS	DMIN	LF	CSP(1)	MIID(2)
AVC-D20-SVPCR/L-11	14.00	20.00	25.00	23.00	0	VCMT 221-F3P

(1) 0 - Without coolant supply, 1 - With coolant supply

(2) Master insert identification

For inserts, see pages: VCGT-F1M-12P (192) • VCGT-F1M-20P (193) • VCGT-AS (191) • VCGT-DW (PCD) (196) • VCGW-2 (CBN) (195) • VCMT (CBN) (195) • VCMT-14 (189) • VCMT-F3M (186) • VCMT-F3P (184) • VCMT-FPC-CERMET (190) • VCMT-M3M (187) • VCMT-M3P (185) • VCMT-SM (188) • VCMW (189)

For holders, see pages: SH-D (125)

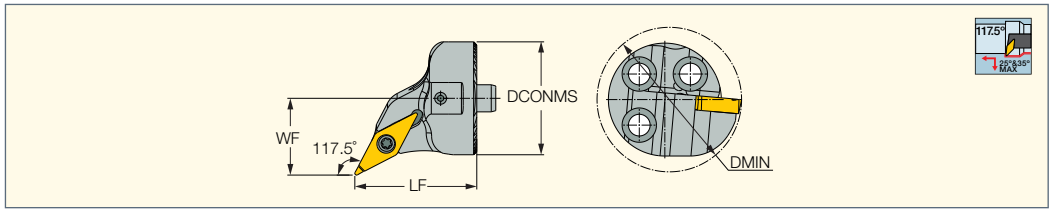
Spare Parts

Designation			
AVC-D20-SVPCR/L-11	FT39 D6-5X8	T-8/5	SR 14-560

WHISPERLINE

AVC-SVPCR/L

Interchangeable Boring Heads Carrying 35° Rhombic Inserts with 7° Clearance and 117.5° Approach Angle



I N C H

Designation	WF	DCONMS	DMIN	LF	CSP(1)	MIID(2)
AVC-D20-SVPCR/L-11	.551	.787	.984	.906	0	VCMT 221-F3P

(1) 0 - Without coolant supply, 1 - With coolant supply

(2) Master insert identification

For inserts, see pages: VCGT-F1M-12P (192) • VCGT-F1M-20P (193) • VCGT-AS (191) • VCGT-DW (PCD) (196) • VCGW-2 (CBN) (195) • VCMT (CBN) (195) • VCMT-14 (189) • VCMT-F3M (186) • VCMT-F3P (184) • VCMT-FPC-CERMET (190) • VCMT-M3M (187) • VCMT-M3P (185) • VCMT-SM (188) • VCMW (189)

For holders, see pages: SH-D (125)

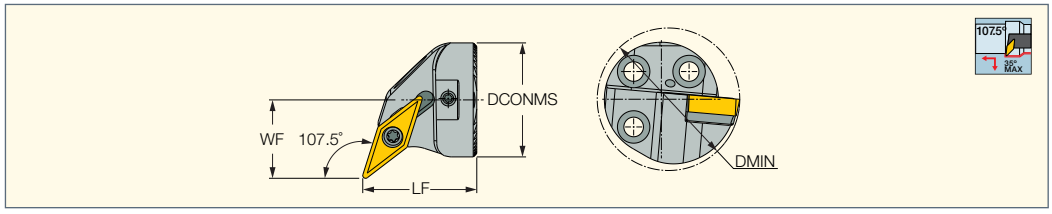
Spare Parts

Designation			
AVC-D20-SVPCR/L-11	FT39 D6-5X8	T-8/5	SR 14-560

WHISPERLINE

AVC-SVQCR/L

Interchangeable Boring Heads Carrying 35° Rhombic Inserts with 7° Clearance and 107.5° Approach Angle



M E T R I C

Designation	WF	DCONMS	DMIN	LF	CSP(1)	MIID(2)				
AVC-D25-SVQCR/L-11	17.00	25.00	32.00	30.00	1	VCMT 221-F3P	FT39 D6-5X8	SR 14-560	T-8/5	SR M2.5X2.5 DIN913 TL360

(1) 0 - Without coolant supply, 1 - With coolant supply

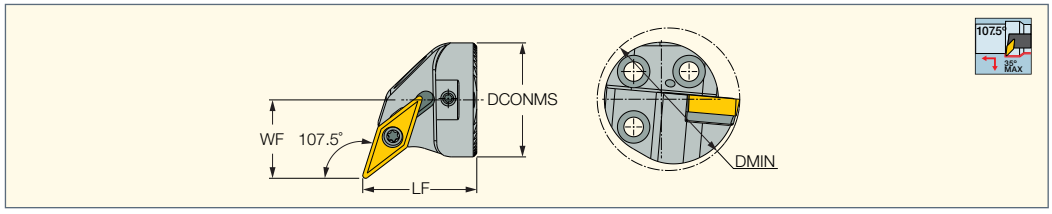
(2) Master insert identification

For inserts, see pages: VCGT-F1M-12P (192) • VCGT-F1M-20P (193) • VCGT-AS (191) • VCGT-DW (PCD) (196) • VCGW-2 (CBN) (195) • VCMT (CBN) (195) • VCMT-14 (189) • VCMT-F3M (186) • VCMT-F3P (184) • VCMT-FPC-CERMET (190) • VCMT-M3M (187) • VCMT-M3P (185) • VCMT-SM (188) • VCMW (189)
For holders, see pages: SH-D (125)

WHISPERLINE

AVC-SVQCR/L

Interchangeable Boring Heads Carrying 35° Rhombic Inserts with 7° Clearance and 107.5° Approach Angle



I N C H

Designation	WF	DCONMS	DMIN	LF	CSP(1)	MIID(2)				
AVC-D25-SVQCR/L-11	.669	.984	1.260	1.181	1	VCMT 221-F3P	FT39 D6-5X8	SR 14-560	T-8/5	SR M2.5X2.5 DIN913 TL360

(1) 0 - Without coolant supply, 1 - With coolant supply

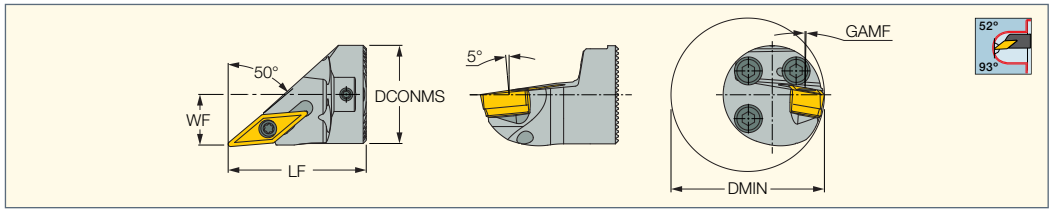
(2) Master insert identification

For inserts, see pages: VCGT-F1M-12P (192) • VCGT-F1M-20P (193) • VCGT-AS (191) • VCGT-DW (PCD) (196) • VCGW-2 (CBN) (195) • VCMT (CBN) (195) • VCMT-14 (189) • VCMT-F3M (186) • VCMT-F3P (184) • VCMT-FPC-CERMET (190) • VCMT-M3M (187) • VCMT-M3P (185) • VCMT-SM (188) • VCMW (189)
For holders, see pages: SH-D (125)

WHISPERLINE

AVC-SVMCR/L

Interchangeable Boring Heads Carrying 35° Rhombic Inserts with 7° Clearance and 50° Approach Angle



M E T R I C

Designation	WF	DCONMS	DMIN	LF	GAMF(1)	CSP(2)	MIID(3)
AVC-D25-SVMCR/L-16T	13.00	25.00	35.00	40.00	3.0	1	VCMT 160408

(1) Rake angle radial
(2) 0 - Without coolant supply, 1 - With coolant supply
(3) Master insert identification

For inserts, see pages: VCMT-FPC-CERMET (190) • VCMT-F3P (184) • VCMT-M3P (185) • VCMT-F3M (186) • VCMT-M3M (187) • VCMT-SM (188) • VCGT-AS (191)
For holders, see pages: SH-D (125)

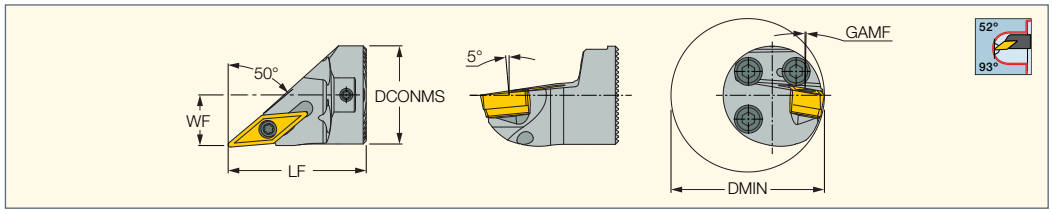
Spare Parts

Designation				
AVC-D25-SVMCR/L-16T	FT39 D6-5X8	SR 16-236 P	T-15/5	SR M3X3 DIN913 TL360

WHISPERLINE

AVC-SVMCR/L

Interchangeable Boring Heads Carrying 35° Rhombic Inserts with 7° Clearance and 50° Approach Angle



I N C H

Designation	WF	DCONMS	DMIN	LF	GAMF(1)	CSP(2)	MIID(3)
AVC-D25-SVMCR/L-16T	.512	.984	1.378	1.575	3.0	1	VCMT 160408

(1) Rake angle radial
(2) 0 - Without coolant supply, 1 - With coolant supply
(3) Master insert identification

For inserts, see pages: VCMT-FPC-CERMET (190) • VCMT-F3P (184) • VCMT-M3P (185) • VCMT-F3M (186) • VCMT-M3M (187) • VCMT-SM (188) • VCGT-AS (191)
For holders, see pages: SH-D (125)

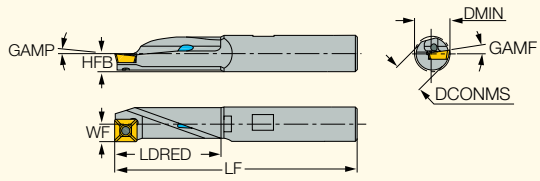
Spare Parts

Designation				
AVC-D25-SVMCR/L-16T	FT39 D6-5X8	SR 16-236 P	T-15/5	SR M3X3 DIN913 TL360

ISOTURN

A-SXFOR/L

Boring Bars with Coolant Holes Carrying XOMT Inserts



Right hand tool shown

M E T R I C

Designation	DCONMS	LF	LDRED	HFB	WF	GAMP(1)	GAMF(2)	DMIN	MIID(3)
A10J SXFOR/L-06	10.00	110.00	28.5	5.0	4.90	6.0	1.8	10.00	XOMT 0602
A12K SXFOR/L-06	12.00	125.00	28.5	5.0	4.90	6.0	1.8	10.00	XOMT 0602

(1) Rake angle axial
(2) Rake angle radial
(3) Master insert identification

For inserts, see pages: XOMT-DT (197)

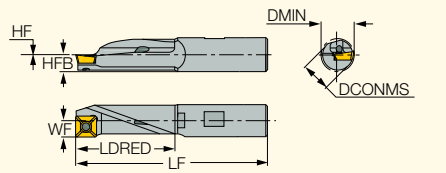
Spare Parts

Designation		
A-SXFOR	SR 34-508 M2.2X0.45	T-7/5

ISOTURN

A-SXFOR

Boring Bars with Coolant Holes Using XOMT Inserts



Right hand tool shown

I N C H

Designation	DCONMS	WF	LF	LDRED	HFB	DMIN	CSP(1)
A06J SXFOR-2	.375	.190	4.500	1.125	.193	.395	1
A08K SXFOR-2	.500	.190	5.000	1.125	.255	.395	1

(1) 0 - Without coolant supply, 1 - With coolant supply

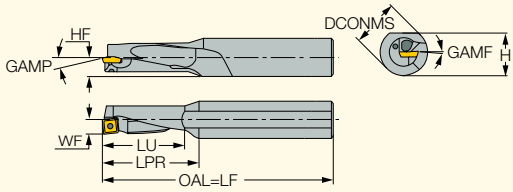
For inserts, see pages: XOMT-DT (197)

Spare Parts

Designation		
A-SXFOR	SR 34-508 M2.2X0.45	T-7/5

Multifunction Tools

A-SXFOR-DR
Boring and Drilling Bars
with Coolant Holes
Carrying XOMT Inserts

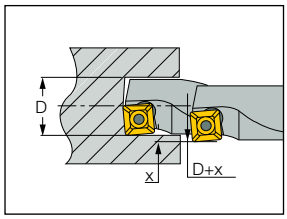


Right hand tool shown

M E T R I C											
Designation	**DCONMS**	**LF**	**LPR**	**LU**	**WF**	**HF**	**GAMP(1)**	**GAMF(2)**	**H**	**DCN(3)**	**MIID(4)**
A1612M SXFOR-06DR	16.00	180.00	31.0	21.0	6.00	8.5	0.0	0.0	15.0	12.50	XOMT 06..

(1) Rake angle axial
(2) Rake angle radial
(3) Cutting diameter minimum
(4) Master insert identification

For inserts, see pages: XOMT-DT (197)



Drilling Solid Material

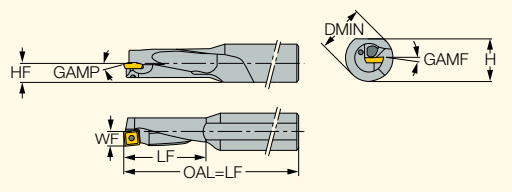
Range:
Dmin=12.5 mm
Dmax=14 mm
To achieve required diameter øD, position tool as shown at D + x (x=0.10) to compensate for tool deflection.
Use pecking cycle, pulling back 0.1 mm after each 1 mm of DOC.
Maximum feed for steel: 0.05 mm/rev;
For stainless steel: 0.03 mm/rev

Spare Parts

Designation			
A-SXFOR-DR	SR 34-508 M2.2X0.45	T-7/51	PL 16

Multifunction Tools

A-SXFOR-DR
Boring and Drilling Bars
with Coolant Holes
Carrying XOMT Inserts

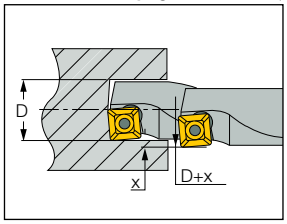


Right hand tool shown

I N C H												
Designation	**DCONMS**	**LF**	**LPR**	**LU**	**WF**	**HF**	**GAMP(1)**	**GAMF(2)**	**H**	**DCN(3)**	**CSP(4)**	**MIID(5)**
A12 SXFOR-105DR	.625	7.000	.83	.750	.240	.320	0	0	.550	.492	1	XOMT 06..

(1) Rake angle axial
(2) Rake angle radial
(3) Cutting diameter minimum
(4) 0 - Without coolant supply, 1 - With coolant supply
(5) Master insert identification

For inserts, see pages: XOMT-DT (197)



Drilling Solid Range:
Dmin=.492″
Dmax=.551″
To achieve required diameter øD, position tool as shown at D + x (x=.004″)
to compensate for tool deflection.
Use pecking cycle, pulling back .004″ after each .039″ of DOC.
Maximum feed for steel: .002 IPR;
For stainless steel: .0012 IPR

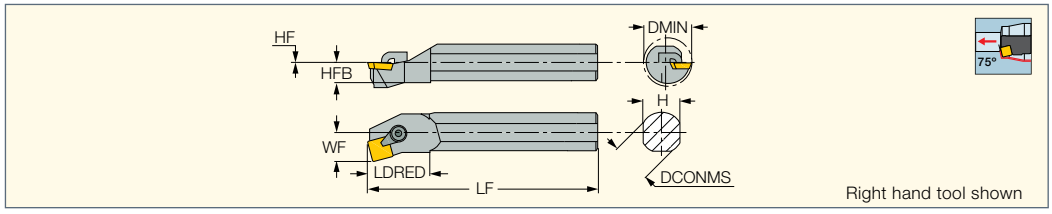
Spare Parts

Designation			
A-SXFOR-DR	SR 34-508 M2.2X0.45	T-7/51	PL 062

ISOTURN

S-CSKPR

Clamp Lock Boring Bars
Carrying 11° Clearance
Square Inserts



M E T R I C

Designation	DCONMS	LF	LDRED	H	HFB	WF	HF	DMIN	MIID[1]		
S16Q CSKPR-09	16.00	180.00	34.0	15.0	8.0	11.00	0.5	20.00	SPMR 090304	LC 15 SET 1	HW 2.5
S25S CSKPR-12	25.00	250.00	48.0	23.0	11.5	17.00	0.0	30.00	SPMR 120304	LC 30 SET 2	HW 3.0

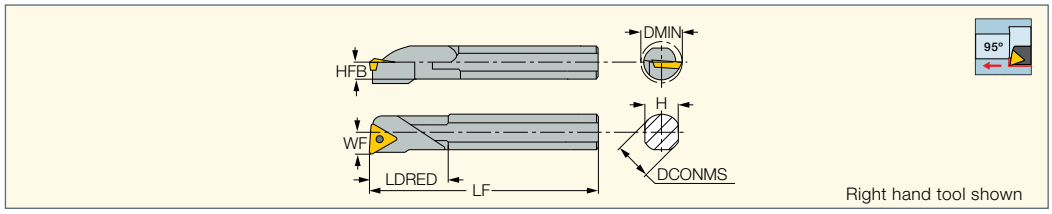
[1] Master insert identification

For inserts, see pages: SPMR (203)

ISOTURN

S-STLCR/L

Screw Clamp Boring Bars
Carrying 7° Clearance
Triangular Inserts



M E T R I C

Designation	DCONMS	LF	LDRED	H	HFB	WF	DMIN	MIID[1]		
S16Q STLCR/L-11	16.00	180.00	45.0	15.0	7.5	11.00	20.00	TC.. 1102	SR 14-548	T-7/5
S20R STLCR/L-16	20.00	200.00	50.0	18.0	9.0	13.00	25.00	TC.. 16T3	SR 16-236	T-15/5

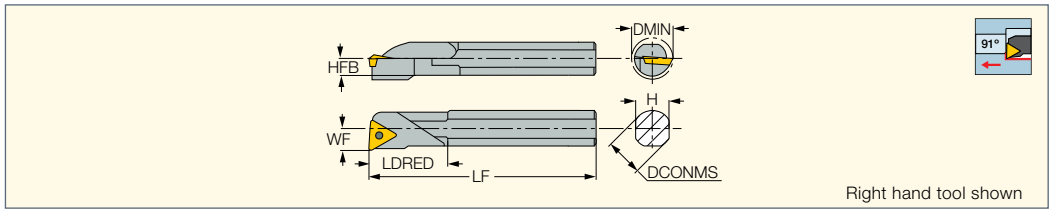
[1] Master insert identification

For inserts, see pages: TCMT-19 (207) • TCMT-F3P (204) • TCMT-M3M (205) • TCMT-PF (205) • TCMT-SM (206) • TCGT-AS (207) • TCMT (CBN) (208)

ISOTURN

S-STFCR/L

Screw Lock Boring Bars
Carrying 7° Clearance
Triangular Inserts



M E T R I C

Designation	DCONMS	LF	LDRED	H	HFB	WF	DMIN	MIID[1]		
S10K STFCR/L-11	10.00	125.00	29.0	9.0	4.5	7.00	13.00	TC.. 1102	SR 14-548	T-7/5
S12M STFCR/L-11	12.00	150.00	30.0	11.0	5.5	9.00	15.80	TC.. 1102	SR 14-548	T-7/5

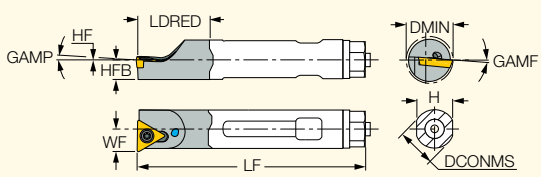
[1] Master insert identification

For inserts, see pages: TCMT-19 (207) • TCMT-F3P (204) • TCMT-M3M (205) • TCMT-PF (205) • TCMT-SM (206) • TCGT-AS (207) • TCMT (CBN) (208)

ISOTURN

E-STFCR-HEAD

Interchangeable Screw Clamped Boring Heads Carrying Positive 7° Clearance Triangular Inserts Mounted on Carbide Bars



Right hand tool shown

M E T R I C

Designation	DCONMS	LF	LDRED	H	HFB	WF	HF	GAMP(1)	GAMF(2)	DMIN	MIID(3)		
E12 STFCR-11 HEAD	12.00	179.00	24.8	11.0	6.0	6.80	0.0	0.0	-6.0	13.80	TCMT 1102	SR 14-548	T-7/5
E16 STFCR-11 HEAD	16.00	200.00	37.0	15.0	8.0	9.00	0.0	0.0	-6.0	20.00	TCMT 1102	SR 14-548	T-7/5

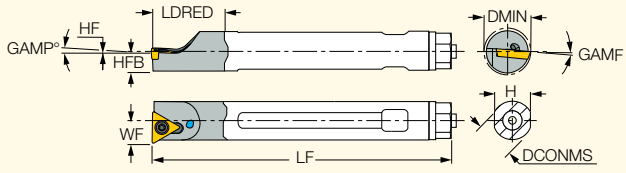
(1) Rake angle axial
(2) Rake angle radial
(3) Master insert identification

For inserts, see pages: TCMT-19 (207) • TCMT-F3P (204) • TCMT-M3M (205) • TCMT-PF (205) • TCMT-SM (206) • TCGT-AS (207) • TCMT (CBN) (208)

ISOTURN

E-STFCR-HEAD

Interchangeable Screw Clamped Boring Heads Carrying Positive 7° Clearance Triangular Inserts Mounted on Carbide Bars



Right hand tool shown

I N C H

Designation	DCONMS	LF	LDRED	H	HFB	WF	GAMP(1)	GAMF(2)	CSP(3)	DMIN	MIID(4)		
E-STFCR 10-2 HEAD	.625	7.000	1.170	.590	.295	.350	0	-6.0	1	.689	TC.. 2	SR 14-548	T-7/5

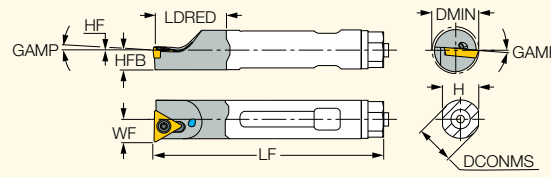
(1) Rake angle axial
(2) Rake angle radial
(3) 0 - Without coolant supply, 1 - With coolant supply
(4) Master insert identification

For inserts, see pages: TCMT-19 (207) • TCMT-F3P (204) • TCMT-M3M (205) • TCMT-PF (205) • TCMT-SM (206) • TCGT-AS (207) • TCMT (CBN) (208)
For holders, see pages: E-SHANK (125)

ISOTURN

E-STFPR-HEAD

Interchangeable Boring Heads Carrying Positive 11° Clearance Triangular Inserts on a Carbide Bar



Right hand tool shown

M E T R I C

Designation	DCONMS	LF	LDRED	H	HFB	WF	HF	GAMP(1)	GAMF(2)	DMIN	MIID(3)		
E12 STFPR-11 HEAD	12.00	179.00	24.8	11.0	6.0	6.80	0.0	4.0	-6.0	13.00	TPMT/TPGH 1102	SR 14-505	T-7/5
E16 STFPR-11 HEAD	16.00	200.00	37.0	15.0	8.0	8.80	0.5	4.0	-6.0	20.00	TPGB 1102	SR 14-505	T-7/5

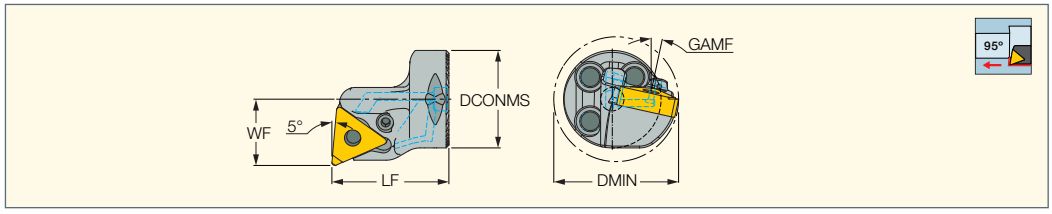
(1) Rake angle axial
(2) Rake angle radial
(3) Master insert identification

For inserts, see pages: TPMT-PF (209) • TPGT-SP (215) • TPGB-XL (213) • TPGH-XL (214) • TPGB (212) • TPMT (209)

WHISPERLINE

AVC-PTLNR/L

Interchangeable Boring Heads
Carrying 60° Triangular Inserts



M E T R I C

Designation	WF	DCONMS	DMIN	GAMF(1)	LF	CSP(2)	MIID(3)
AVC-D25-PTLNR/L-16	17.00	25.00	32.00	-12.0	30.00	1	TNMG 160408

(1) Rake angle radial
(2) 0 - Without coolant supply, 1 - With coolant supply
(3) Master insert identification

For inserts, see pages: D6NMG-F3P (270) • D6NMG-M3M (271) • D6NMG-M3P (271) • TNGA-J(CBN) (282) • TNGG-M3N (281) • TNMG-F3S (273) • TNMG-FFG-CERMET (280) • TNMG-F3P (272) • TNMG-M3P (274) • TNMG-F3M (273) • TNMG-M3M (275) • TNMG-TF (277) • TNMG/TNGG-PP (279) • TNMG-VL (278) • TNMG-PF (276) • TNMG-SF (277) • TNMG-NF (275) • TNGA-M3 (CBN) (283) • TNGA-MC/M6 (CBN) (283) • TNMA (CBN) (281)
For holders, see pages: SH-D (125)

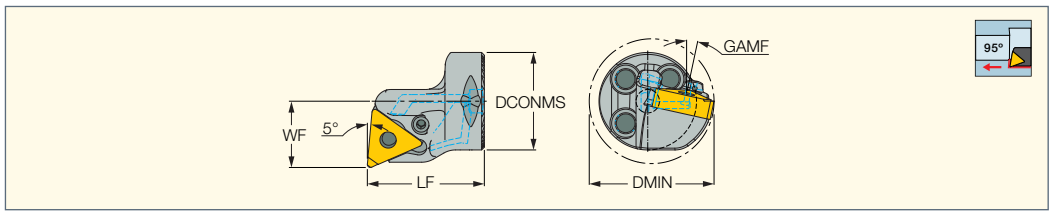
Spare Parts

Designation				
AVC-D25-PTLNR/L-16	SR 117-2009	HW 2.0	FT39 D6-5X8	LR 3S

WHISPERLINE

AVC-PTLNR/L

Interchangeable Boring Heads
Carrying 60° Triangular Inserts



I N C H

Designation	WF	DCONMS	DMIN	GAMF(1)	LF	CSP(2)	MIID(3)
AVC-D25-PTLNR/L-16	.669	.984	1.260	-12.0	1.181	1	TN..3..

(1) Rake angle radial
(2) 0 - Without coolant supply, 1 - With coolant supply
(3) Master insert identification

For inserts, see pages: D6NMG-F3P (270) • D6NMG-M3M (271) • D6NMG-M3P (271) • TNGA-J(CBN) (282) • TNGG-M3N (281) • TNMG-F3S (273) • TNMG-FFG-CERMET (280) • TNMG-F3P (272) • TNMG-M3P (274) • TNMG-F3M (273) • TNMG-M3M (275) • TNMG-TF (277) • TNMG/TNGG-PP (279) • TNMG-VL (278) • TNMG-PF (276) • TNMG-SF (277) • TNMG-NF (275) • TNGA-M3 (CBN) (283) • TNGA-MC/M6 (CBN) (283) • TNMA (CBN) (281)
For holders, see pages: • SH-D (125)

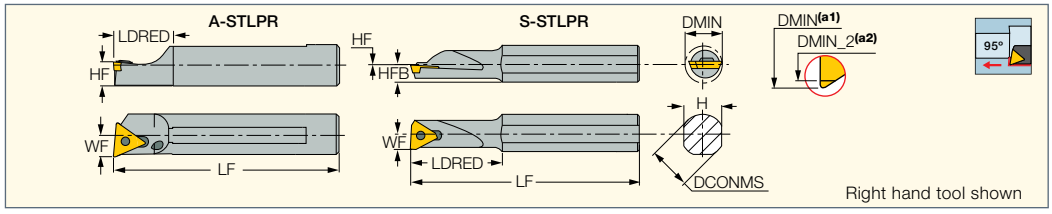
Spare Parts

Designation				
AVC-D25-PTLNR/L-16	SR 117-2009	HW 2.0	FT39 D6-5X8	LR 3S

ISOTURN

A/S-STLPR/L

Screw Lock Boring Bars
Carrying Triangular Inserts
with 11° Clearance



Designation	DCONMS	LF	LDRED	H	HFB	HF	WF	DMIN	DMIN_2	CSP(1)	MIID(2)
METRIC											
A10K STLPR-11	10.00	125.00	18.0	9.5	5.8	1.1	6.00	12.00	11.00	1	TPMT 110204-PF
A12Q STLPR-11	12.00	180.00	18.0	11.5	6.0	0.3	7.00	14.00	13.00	1	TPMT 110204-PF
S12K STLPR/L-11	12.00	125.00	35.0	11.0	6.3	0.8	5.60	11.00	9.70	0	TPMT 110204-PF
S12M STLPR/L-11	12.00	150.00	27.0	11.0	6.3	0.8	7.00	15.00	14.00	0	TPMT 110204-PF
S16Q STLPR-11	16.00	180.00	27.0	15.0	8.0	0.5	9.00	18.00	17.00	0	TPMT 110204-PF
S20R STLPR-16	20.00	200.00	63.0	18.0	10.0	1.0	10.20	21.50	21.50	0	TPMT 160304

• (a1) When used with insert TP.. 110204-.. (a2) When used with insert TPG. 110204-XL

(1) 0 - Without coolant supply, 1 - With coolant supply

(2) Master insert identification

For inserts, see pages: TPMT-PF (209) • TPGB-XL (213) • TPGH-R/L (213) • TPGH-XL (214) • TPGB (212) • TPMT (209)

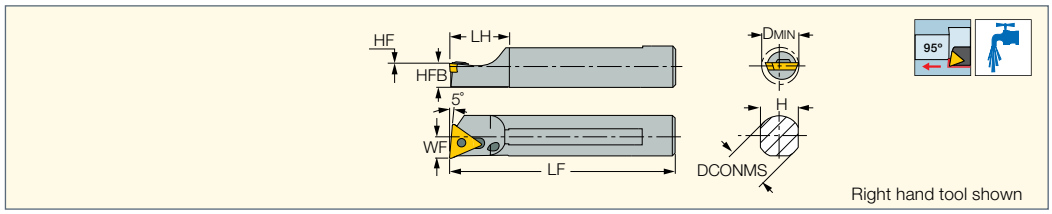
Spare Parts

Designation		
A10K STLPR-11	SR 14-505	T-7/5
A12Q STLPR-11	SR 14-505	T-7/5
S12K STLPR/L-11	SR 14-505	T-7/5
S12M STLPR/L-11	SR 14-505	T-7/5
S16Q STLPR-11	SR 14-505	T-7/5
S20R STLPR-16	SR 14-541	T-15/5

ISOTURN

E-STLPR

Screw Lock Boring Bars for
11° Clearance Triangular
Inserts, Carbide Shank
with Coolant Holes



Designation	DCONMS	WF	LF	HFB	DMIN	CSP(1)	MIID(2)		
INCH									
E-STLPR 12-3	.750	.420	10.000	.395	.815	1	TPMT 321	SR 14-541	T-15/5

(1) 0 - Without coolant supply, 1 - With coolant supply

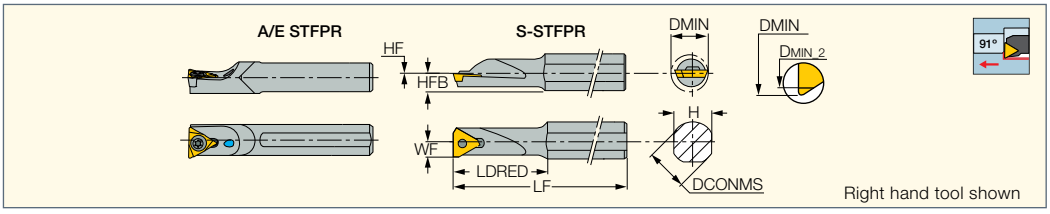
(2) Master insert identification

For inserts, see pages: TPGH-R/L (213) • TPGB (212) • TPMT (209)

ISOTURN

A/E/S-STFPR/L

Screw Lock Boring Bars
Carrying Triangular Inserts
with 11° Clearance



M E T R I C

Designation	DCONMS	LF	LDRED	H	HFB	HF	WF	DMIN	DMIN_2	MIID(1)	CSP(2)	Shank m.(3)		
A10K STFPR-11	10.00	125.00	-	9.0	5.3	0.8	6.00	11.00	12.00	TPMT 11..	1	S	SR 14-505	T-7/5
A12Q STFPR-11	12.00	180.00	-	11.0	6.3	0.8	7.00	13.00	14.00	TPMT 11..	1	S	SR 14-505	T-7/5
E10M STFPR-11	10.00	150.00	-	9.0	5.3	0.8	6.00	12.00	12.00	TPMT 11..	1	C	SR 14-505	T-7/5
E12Q STFPR/L-11	12.00	180.00	-	11.0	6.3	0.8	7.00	14.00	14.00	TPMT 11..	1	C	SR 14-505	T-7/5
S12K STFPR/L-11	12.00	125.00	35.0	11.0	6.3	0.8	5.60	11.00	11.00	TPMT 11..	0	S	SR 14-505	T-7/5
S12M STFPR/L-11	12.00	150.00	27.0	11.0	6.3	0.8	7.00	15.00	15.00	TPMT 11..	0	S	SR 14-505	T-7/5
S16Q STFPR/L-11	16.00	180.00	27.0	15.0	8.0	0.5	9.20	18.00	18.00	TPMT 11..	0	S	SR 14-505	T-7/5
S20R STFPR/L-16	20.00	200.00	63.0	18.0	10.0	1.0	10.20	21.50	21.50	TPMT 16..	0	S	SR 14-541	T-15/5

• (a1) When used with insert TPG. 110204-XL (a2) When used with insert TP.. 110204-..

(1) Master insert identification

(2) 0 - Without coolant supply, 1 - With coolant supply

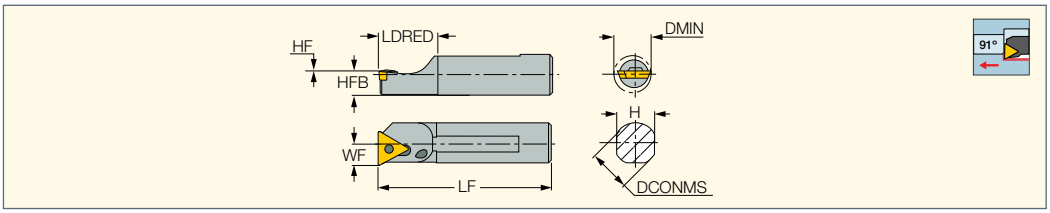
(3) S-Steel, C-Carbide

For inserts, see pages: TPMT-PF (209) • TPGB-XL (213) • TPGH-R/L (213) • TPGH-XL (214) • TPGB (212) • TPMT (209)

ISOTURN

E-STFPR

Screw Lock Boring Bars for 11°
Clearance Triangular Inserts



I N C H

Designation	DCONMS	LF	H	HFB	WF	DMIN	CSP(1)		
E-STFPR 6-2	.375	6.000	.342	.201	.240	.448	1	SR 14-505	T-7/5
E-STFPR 8-2	.500	7.000	.464	.264	.290	.555	1	SR 14-505	T-7/5
E-STFPR 10-2	.625	8.000	.574	.287	.350	.689	1	SR 14-505	T-7/5

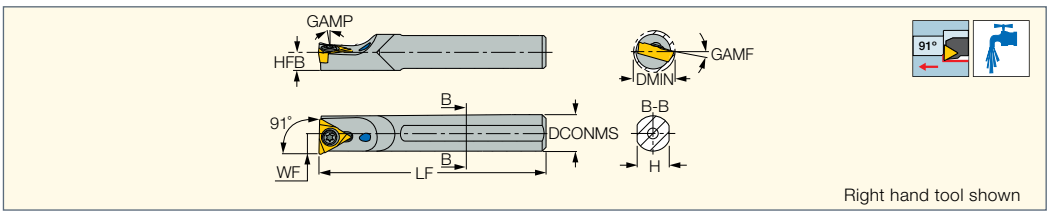
(1) 0 - Without coolant supply, 1 - With coolant supply

For inserts, see pages: TPMT-PF (209) • TPGT-SP (215) • TPGB-XL (213) • TPGH-XL (214) • TPGB (212) • TPMT (209) • TPGW-M3 (CBN) (217)

ISOTURN

A/E-STFPR-X

Boring Bars Carrying Triangular
TPGX 11° Clearance Inserts
for Small Diameters



M E T R I C

Designation	DCONMS	LF	WF	H	HFB	DMIN	GAMP(1)	GAMF(2)	Shank m.(3)	MIID(4)		
A08J STFPR-09X	8.00	110.00	5.00	7.2	3.6	9.50	5.0	-15.0	S	TPGX 0902	SR 14-298	T-8/5
A10K STFPR-09X	10.00	125.00	5.70	9.0	4.5	10.90	5.0	-8.0	S	TPGX 0902	SR 14-298	T-8/5
A12M STFPR-09X	12.00	150.00	6.70	11.0	5.5	13.00	5.0	-8.0	S	TPGX 0902	SR 14-298	T-8/5
A10K STFPR-11X	10.00	125.00	6.00	9.0	4.5	11.40	3.0	-15.0	S	TPGX 1103	SR 10400052	T-8/5
A12M STFPR-11X	12.00	150.00	6.80	11.0	5.5	13.50	3.0	-10.0	S	TPGX 1103	SR 10400052	T-8/5
A16Q STFPR-11X	16.00	180.00	8.80	14.0	7.0	17.30	3.0	-5.0	S	TPGX 1103	SR 10400052	T-8/5
E08K STFPR-09X	8.00	125.00	5.00	7.2	3.6	9.50	5.0	-15.0	C	TPGX 0902	SR 14-298	T-8/5
E10M STFPR-09X	10.00	150.00	5.70	9.0	4.5	10.90	5.0	-8.0	C	TPGX 0902	SR 14-298	T-8/5
E12Q STFPR-09X	12.00	180.00	6.70	11.0	5.5	13.00	5.0	-8.0	C	TPGX 0902	SR 14-298	T-8/5
E10M STFPR-11X	10.00	150.00	6.00	9.0	4.5	11.40	3.0	-15.0	C	TPGX 1103	SR 10400052	T-8/5
E12Q STFPR-11X	12.00	180.00	6.80	11.0	5.5	13.50	3.0	-10.0	C	TPGX 1103	SR 10400052	T-8/5
E16R STFPR-11X	16.00	200.00	8.80	14.0	7.0	17.30	3.0	-5.0	C	TPGX 1103	SR 10400052	T-8/5

(1) Rake angle axial

(2) Rake angle radial

(3) S-Steel, C-Carbide

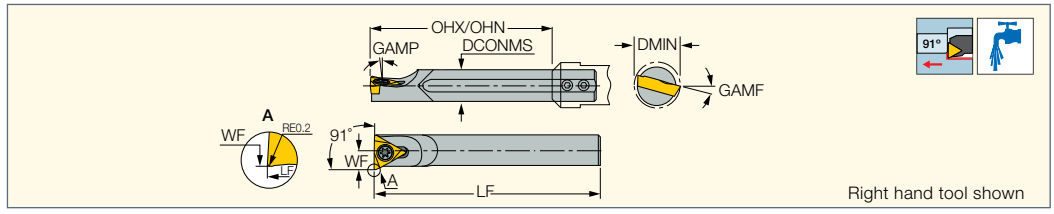
(4) Master insert identification

For inserts, see pages: TPGW-M3 (CBN) (217) • TPGX (215)

ISOTURN

MG STFPR-X

Solid Carbide Boring Bar
Carrying TPGX Inserts
for Small Diameters



M E T R I C

Designation	DCONMS	LF	OHN(1)	OHX(2)	WF	GAMP(3)	GAMF(4)	DMIN	CSP(5)	MIID(6)		
MG 08-STFPR-09X	8.00	79.00	20.0	56.0	4.90	5.0	-15.0	9.50	1	TPGX 0902	SR 14-298	T-8/5

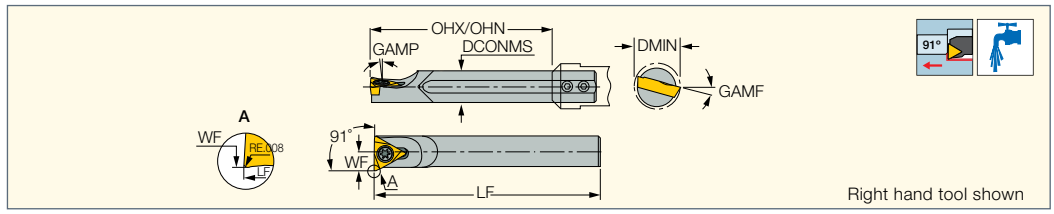
(1) Minimum overhang in adjustment range
(2) Maximum overhang in adjustment range
(3) Rake angle axial
(4) Rake angle radial
(5) 0 - Without coolant supply, 1 - With coolant supply
(6) Master insert identification

For inserts, see pages: TPGX (215)
For holders, see pages: SC-PICCO (836)

ISOTURN

MG STFPR-X

Solid Carbide Boring Bar
Carrying TPGX Inserts
for Small Diameters



I N C H

Designation	DCONMS	LF	OHN(1)	OHX(2)	WF	GAMP(3)	GAMF(4)	DMIN	CSP(5)	MIID(6)		
MG 08-STFPR-09X	.315	3.110	.79	2.205	.193	5.0	-15.0	.374	1	TPGX 73...	SR 14-298	T-8/5

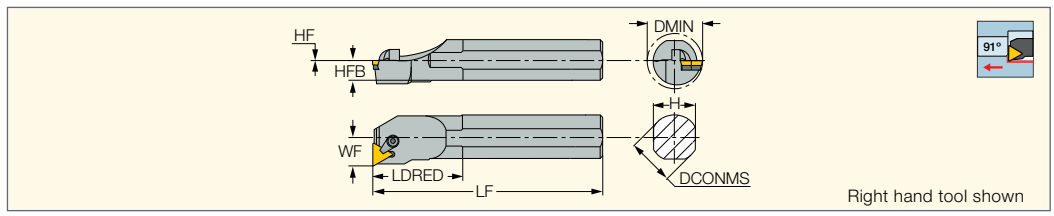
(1) Minimum overhang in adjustment range
(2) Maximum overhang in adjustment range
(3) Rake angle axial
(4) Rake angle radial
(5) 0 - Without coolant supply, 1 - With coolant supply
(6) Master insert identification

For inserts, see pages: TPGX (215)
For holders, see pages: SC-PICCO (836)

ISOTURN

S-CTFPR/L

Clamp Lock Boring Bars Carrying
11° Clearance Triangular Inserts



M E T R I C

Designation	DCONMS	LF	LDRED	H	HFB	WF	HF	DMIN	MIID(1)
S12L CTFPR/L-09	12.00	140.00	34.0	11.0	6.0	9.00	0.5	15.60	TPMR 0902
S16Q CTFPR/L-11	16.00	180.00	38.0	15.0	8.0	11.00	0.5	20.00	TPMR 1103
S20Q CTFPR-16	20.00	180.00	38.0	18.0	9.5	13.00	0.5	24.00	TPMR 1603
S20R CTFPR/L-16	20.00	200.00	46.0	18.0	9.5	13.00	0.5	24.00	TPMR 1603
S25R CTFPR-16	25.00	200.00	48.0	23.0	11.5	17.00	0.0	31.00	TPMR 1603
S25S CTFPR-16	25.00	250.00	48.0	23.0	11.5	17.00	0.0	31.00	TPMR 1603

(1) Master insert identification

For inserts, see pages: TPGN (CER) (216) • TPMR (210) • TPMR-FTF (211) • TPMR-PF (211)

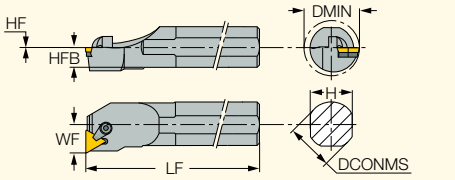
Spare Parts

Designation		
S12L CTFPR/L-09	LC12 SET1	HW 2.5
S16Q CTFPR/L-11	LC 15 SET 1	HW 2.5
S20Q CTFPR-16	LC 30 SET 2	HW 3.0
S20R CTFPR/L-16	LC 30 SET 2	HW 3.0
S25R CTFPR-16	LC 30 SET 2	HW 3.0
S25S CTFPR-16	LC 30 SET 2	HW 3.0

ISOTURN

S-CTFPR

Clamp Lock Boring Bars for 11° Clearance Triangular Inserts



Right hand tool shown

I N C H

Designation	DCONMS	WF	H	HFB	LF	DMIN	CSP(1)	MIID(2)
S-CTFPR 12-3	.750	.520	.669	.354	10.000	.945	0	TPMR 321
S-CTFPR 16-3	1.000	.580	.921	.461	12.000	1.156	0	TPMR 321

(1) 0 - Without coolant supply, 1 - With coolant supply

(2) Master insert identification

For inserts, see pages: TPG (CER) (216) • TPMR (210) • TPMR-FTF (211) • TPMR-PF (211)

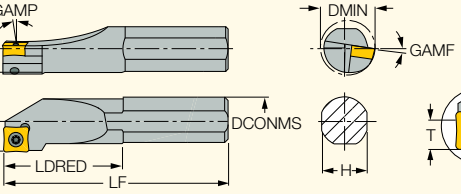
Spare Parts

Designation		
S-CTFPR 12-3	LC 30 SET 2A	HW 1/8"
S-CTFPR 16-3	LC 30 SET 2A	HW 1/8"

ISOTURN

S/A-SQLCR/L

Screw Lock Boring Bars Carrying 80° Square Inserts with 7° Clearance



Right hand tool shown

M E T R I C

Designation	DCONMS	LF	LDRED	H	HFB	WF	T	GAMP(1)	GAMF(2)	DMIN	CSP(3)	MIID(4)
S16Q SQLCR/L-09	16.00	180.00	45.0	15.0	7.5	11.00	8.5	0.0	-12.0	20.00	0	QCMT 09T304
S20R SQLCR-09	20.00	200.00	45.0	15.0	7.5	13.00	8.5	0.0	-6.0	25.00	0	QCMT 09T304
S25S SQLCR-09	25.00	250.00	55.0	15.0	7.5	17.00	8.5	0.0	-6.0	32.00	0	QCMT 09T304

(1) Rake angle axial

(2) Rake angle radial

(3) 0 - Without coolant supply, 1 - With coolant supply

(4) Master insert identification

For inserts, see pages: QCMT-PF (219) • QCMT-SM (220)

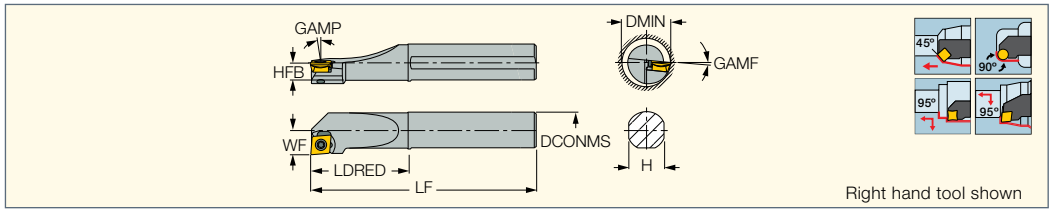
Spare Parts

Designation		
S/A-SQLCR/L	SR 16-236	T-15/5

CHAMTURN

S-SUXCR/L-CM

Screw Lock Boring Bars
Carrying Four Different 7°
Clearance Geometries



Right hand tool shown

M E T R I C

Designation	DCONMS	LF	LDRED	H	HFB	DMIN	GAMP(1)	GAMF(2)	WF	MIID(3)
S16Q SUXCR/L-10 CM	16.00	180.00	45.0	15.0	7.5	20.00	0.0	-12.0	11.00	CC95MT 10..
S20R SUXCR/L-10 CM	20.00	200.00	52.0	18.0	9.0	25.00	0.0	-6.0	13.00	CC95MT 10..
S25S SUXCR/L-10 CM	25.00	250.00	55.0	23.0	11.5	32.00	0.0	-4.0	17.00	CC95MT 10..

(1) Rake angle axial
(2) Rake angle radial
(3) Master insert identification

For inserts, see pages: CC95MT-SM (151) • SC45MT-SM (201)

Designation	DCONMS	LF	LDRED	H	HFB	DMIN	GAMP	GAMF	WF	MIID
S16Q SUXCR/L-10 CM	16.00	180.00	45.0	15.0	7.5	20.00	0	-12	11 12.14	CC95MT... SC45MT...
S20R SUXCR/L-10 CM	20.00	200.00	52.0	18.0	9.0	25.00	0	-6	13 14.14	CC95MT... SC45MT...
S25S SUXCR/L-10 CM	25.00	250.00	55.0	23.0	11.5	32.00	0	-4	17 18.14	CC95MT... SC45MT...

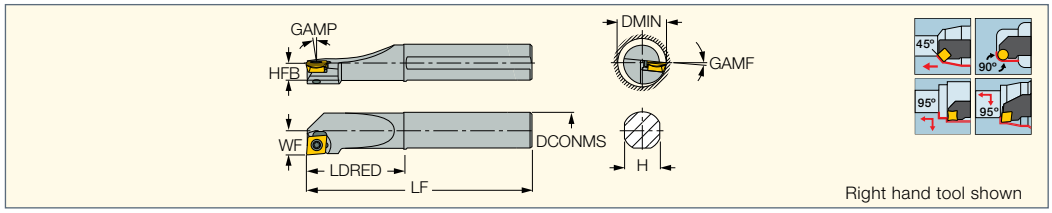
Spare Parts

Designation		
S-SUXCR/L-CM	SR 14-544/S	T-15/5

CHAMTURN

S-SUXCR/L-CM

Screw Lock Boring Bars
Carrying Four Different 7°
Clearance Geometries



Right hand tool shown

I N C H

Designation	DCONMS	LF	LDRED	H	HFB	DMIN	GAMP(1)	GAMF(2)	WF	CSP(3)	MIID(4)
S-SUXCR 10-10 CM	.625	10.000	1.750	.590	.300	.780	0	-12.0	.406	0	CC95MT 10..
S-SUXCR 12-10 CM	.750	10.000	2.000	.670	.340	1.000	0	-6.0	.500	0	CC95MT 10..
S-SUXCR/L 16-10 CM	1.000	12.000	2.000	.910	.460	1.260	0	-4.0	.640	0	CC95MT 10..

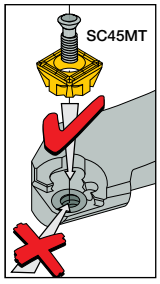
(1) Rake angle axial
(2) Rake angle radial
(3) 0 - Without coolant supply, 1 - With coolant supply
(4) Master insert identification

For inserts, see pages: CC95MT-SM (151) • SC45MT-SM (201)

Designation	DCONMS	LF	LDRED	H	HFB	DMIN	GAMP	GAMF	WF	MIID
S-SUXCR 10-10 CM	.625	10.000	1.75	.590	.300	.780	0	-12	.406 .451	CC95MT... SC45MT...
S-SUXCR 12-10 CM	.750	10.000	2.00	.670	.340	1.00	0	-6	.500 .545	CC95MT... SC45MT...
S-SUXCR/L 16-10 CM	1.000	12.000	2.00	.910	.460	1.260	0	-4	.640 .685	CC95MT... SC45MT...

Spare Parts

Designation		
S-SUXCR/L-CM	SR 14-544/S	T-15/5



Clamping direction for SC45MT...

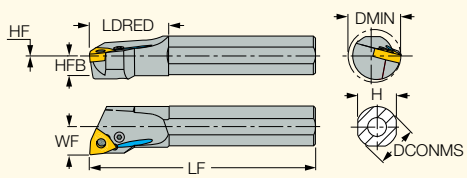
Multifunction Tool Can Carry Two Different Inserts

- Unique, versatile **ISCAR** pocket
- For external applications
- Covers most common operations
- Simplifies tool selection
- Simple screw clamping
- Minimum spare parts

ISOTURN

A/S-PWLNR/L

Lever Lock Boring Bars Carrying Double-Sided Trigon Inserts



Right hand tool shown

M E T R I C										
Designation	**DCONMS**	**LF**	**LDRED**	**H**	**HFB**	**WF**	**DMIN**	**HF**	**CSP[1]**	**MIID[2]**
A16M PWLNR/L-06	16.00	150.00	27.0	15.0	8.0	11.00	20.00	0.5	1	WNMG 06T3
A20Q PWLNR/L-06	20.00	180.00	36.0	18.0	9.2	13.00	27.00	0.2	1	WNMG 06T3
A25R PWLNR/L-06	25.00	200.00	35.0	23.0	11.7	17.00	32.00	0.2	1	WNMG 06T3
S16Q PWLNR/L-06	16.00	180.00	27.0	15.0	8.0	11.00	20.00	0.5	0	WNMG 06T3
S20R PWLNR/L-06	20.00	200.00	36.0	18.0	9.0	13.00	27.00	0.0	0	WNMG 06T3
S25S PWLNR/L-06	25.00	250.00	40.4	23.0	11.5	17.00	32.00	0.0	0	WNMG 06T3
A25R PWLNR/L-08	25.00	200.00	47.0	23.0	11.5	17.00	32.00	0.5	1	WNMG 0804
S25S PWLNR/L-08	25.00	250.00	47.0	23.0	11.5	17.00	32.00	0.0	0	WNMG 0804

[1] 0 - Without coolant supply, 1 - With coolant supply

[2] Master insert identification

For inserts, see pages: • WNMG-F3S (222) • WNMG-F3P (221) • WNMG-M3P (224) • WNMG-F3M (221) • WNMG-M3M (223) • WNMG-TF (226) • WNMG-PP (228) • WNMG-VL (227) • WNMG-SF (226) • WNMG-NF (225) • WNMG-WF (229) • WNGA-M3 (CBN) (233) • WNGA-MC/M6 (CBN) (234) • WNMG-CERMET (231)

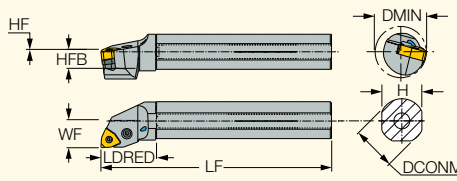
Spare Parts

Designation							
A16M PWLNR/L-06				LR 3S	SR 117-2009	PL 16	HW 2.0/5
A20Q PWLNR/L-06	TWN 322	SP 3	PN 3-4	LR 3W	SR 117-2014	PL 20	HW 2.5/5
A25R PWLNR/L-06	TWN 322	SP 3	PN 3-4	LR 3	SR 117-2014	PL 25	HW 2.5/5
S16Q PWLNR/L-06				LR 3S	SR 117-2009		HW 2.0/5
S20R PWLNR/L-06	TWN 322	SP 3	PN 3-4	LR 3W	SR 117-2014		HW 2.5/5
S25S PWLNR/L-06	TWN 322	SP 3	PN 3-4	LR 3	SR 117-2014		HW 2.5/5
A25R PWLNR/L-08				LR 4M	SR 117-2011	PL 25	HW 2.5/5
S25S PWLNR/L-08				LR 4M	SR 117-2011		HW 2.5/5

HELITURN LD

A-PWLNR/L-X/G

Lever Lock Boring Bars with Coolant Holes Carrying HELI-TURN LD WNMX or WNMG Trigon Inserts



Right hand tool shown

M E T R I C									
Designation	**DCONMS**	**H**	**HFB**	**LF**	**LDRED**	**WF**	**DMIN**	**HF**	**MIID[2]**
A16M PWLNR/L-06G [1]	16.00	15.0	8.0	150.00	30.0	11.00	25.00	0.5	WNMG 0604
A20Q PWLNR/L-06G [1]	20.00	18.0	9.2	180.00	35.0	13.00	25.00	0.2	WNMG 0604
A25R PWLNR-06G [1]	25.00	23.0	11.5	200.00	35.0	17.00	32.00	0.0	WNMG 0604

[1] For WNMG 0604.. inserts only

[2] Master insert identification

For inserts, see pages: WNGG-F3N (233) • WNMG-F3M (221) • WNMG-F3P (221) • WNMG-F3S (222) • WNMG-M3M (223) • WNMG-M3P (224) • WNMG-NF (225) • WNMG-PP (228) • WNMG-TF (226) • WNMG-WF (229) • WNMG-WG (230)

Spare Parts

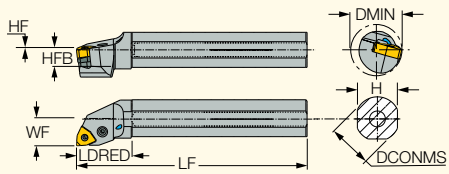
Designation							
A16M PWLNR/L-06G				LR 3S	SR 117-2009	PL 16	HW 2.0
A20Q PWLNR/L-06G				LR 3S	SR 117-2009	PL 20	HW 2.0
A25R PWLNR-06G	TWN 3	SP 3	PN 3-4	LR 3W	SR 117-2014	PL 25	HW 2.5

* Optional, to be ordered separately

HELITURN LD

A-PWLNR/L-X/G

Lever Lock Boring Bars with Coolant Holes Carrying HELI-TURN LD WNMX or WNMG Trigon Inserts



Right hand tool shown

I N C H									
Designation	**DCONMS**	**H**	**HFB**	**LF**	**LH**	**WF**	**DMIN**	**CSP[3]**	**MIID[4]**
A-PWLNR/L 10-3G [1]	.625	.570	.285	6.000	1.300	.430	.780	1	WNMG 33.
A-PWLNR/L 12-3G [1]	.750	.680	.340	7.090	1.200	.500	1.000	1	WNMG 33.
A-PWLNR/L 16-3G [1]	1.000	.920	.460	8.000	1.500	.640	1.250	1	WNMG 33.
A-PWLNR 16-4X [2]	1.000	.905	.452	12.000	2.000	.650	1.970	1	WNMX 45. WNMG 43.

[1] For WNMG 33.. inserts only

[2] Supplied with TWX 4 seat for WNMX 45. inserts and TWN 443 seat for WNMG 43. inserts

[3] 0 - Without coolant supply, 1 - With coolant supply

[4] Master insert identification

For inserts, see pages: WNGG-F3N (233) • WNMG-F3M (221) • WNMG-F3P (221) • WNMG-F3S (222) • WNMG-M3M (223) • WNMG-M3P (224) • WNMG-NF (225) • WNMG-PP (228) • WNMG-TF (226) • WNMG-WF (229) • WNMG-WG (230)

Spare Parts

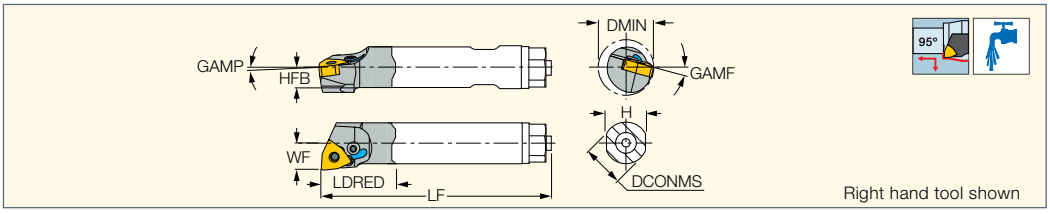
Designation									
A-PWLNR/L 10-3G				LR 3S	SR 117-2009	HW 2.0		PL 062	
A-PWLNR/L 12-3G				LR 3S	SR 117-2009	HW 2.0		PL 075	
A-PWLNR/L 16-3G		TWN 3	SP 3	LR 3W	SR 117-2014	HW 2.5	PN 3-4	PL 100	
A-PWLNR 16-4X	TWX 4	TWN 443	SP 4	LR 4DH	SR 117-2010	HW 3.0	PN 3-4L	PL 100	LR 4DHTL (MR INJ)*

* Optional, to be ordered separately

ISOTURN

E-PWLNR/L-HEAD

Lever Lock Interchangeable Boring Heads Clamped on a Solid Carbide Shank Carrying Negative WNMG Trigon Inserts



M E T R I C										
Designation	**DCONMS**	**LF**	**LDRED**	**H**	**HFB**	**WF**	**GAMP(1)**	**GAMF(2)**	**DMIN**	**MIID(3)**
E16 PWLNR-06 HEAD	16.00	200.00	37.0	15.0	8.0	11.00	-14.0	-6.0	20.00	WNMG/WNGG 06T3

(1) Rake angle axial
(2) Rake angle radial
(3) Master insert identification

For inserts, see pages: WNMG-CERMET (231) • WNMG-M3P (224) • WNMG-TF (226) • WNMG-PP (228) • WNMG-VL (227) • WNMG-SF (226) • WNMG-NF (225) • WNMG-WG (230)

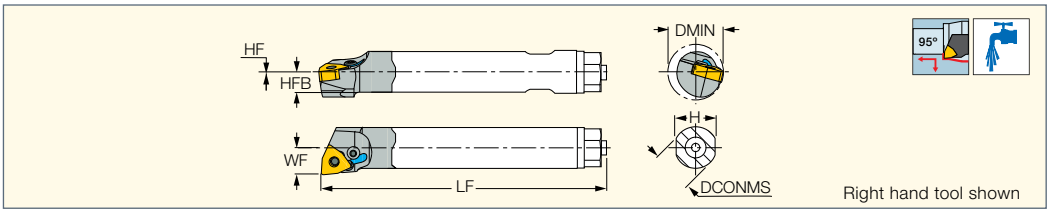
Spare Parts

Designation			
E-PWLNR/L-HEAD	LR 3S	SR 117-2009	HW 2.0/5

ISOTURN

E-PWLNR-HEAD

Lever Lock Interchangeable Boring Heads for Negative WNMG Trigon Inserts, Clamped on a Solid Carbide Shank



I N C H									
Designation	**DCONMS**	**LF**	**LDRED**	**H**	**HFB**	**WF**	**DMIN**	**CSP(1)**	**MIID(2)**
E-PWLNR 10-3 HEAD	.625	7.000	1.170	.590	.295	.430	.866	1	WNMG 3-1-GN

(1) 0 - Without coolant supply, 1 - With coolant supply
(2) Master insert identification

For inserts, see pages: WNMG-CERMET (231) • WNMG-M3P (224) • WNMG-TF (226) • WNMG-PP (228) • WNMG-VL (227) • WNMG-SF (226) • WNMG-NF (225) • WNMG-WG (230)

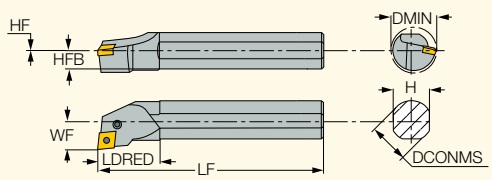
Spare Parts

Designation			
E-PWLNR-HEAD	LR 3S	SR 117-2009	HW 2.0/5

ISOTURN

A/S-PCLNR/L

Lever Lock Boring Bars Carrying Negative 80° Rhombic Inserts



Right hand tool shown

M E T R I C

Designation	DCONMS	LF	LDRED	H	HFB	WF	HF	CSP(1)	DMIN	MIID(2)
A25R PCLNR/L-12	25.00	200.00	40.0	23.0	11.5	17.00	0.0	1	32.00	CNMG 1204..
S25S PCLNR/L-12	25.00	250.00	48.0	23.0	11.5	17.00	0.0	0	32.00	CNMG 1204..

(1) 0 - Without coolant supply, 1 - With coolant supply

(2) Master insert identification

For inserts, see pages: • CNGA-J(CBN) (250) • CNGG-J(CBN) (251) • CNMG-CERMET (247) • CNMG-F3S (239) • CNMG-F3P (235) • CNMG-M3P (236) • CNMG-F3M (237) • CNMG-M3M (238) • CNMG/CNGG-TF (246) • CNMG/CNGG-PP (245) • CNMG-VL (242) • CNMG/CNGG-SF (244) • CNMG-NF (241) • CNMG-WF (243) • CNMS-12 (241) • CNGA-2 (CBN) (248) • CNGA-4 (CBN) (249) • CNGG-M4HF/M4HM (CBN) (251) • CNMA-MW2 (CBN) (252) • CNMA-MW4 (CBN) (253) • CNMA-T/M1/WG (CBN) (253)

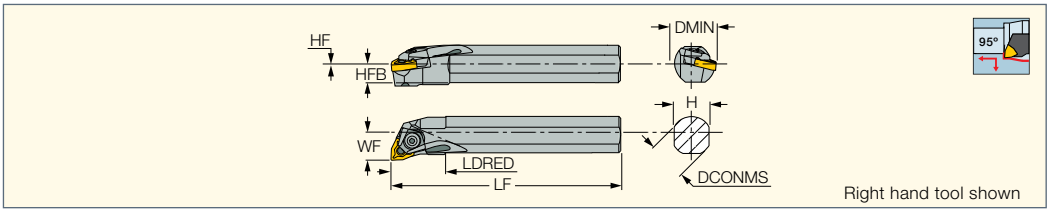
Spare Parts

Designation					
A25R PCLNR/L-12	LR 4M	SR 117-2011	HW 2.5/5	HW 2.0	PL 25
S25S PCLNR/L-12	LR 4M	SR 117-2011	HW 2.5/5		

ISOTURN

A/S-MWLNR/L-W

Top Wedge Lock Boring Bars
Carrying Double-Sided
Trigon Inserts



M E T R I C

Designation	DCONMS	LF	LDRED	H	HFB	WF	DMIN	HF	CSP[3]	MIID[4]
A20Q MWLNR/L-06W	20.00	180.00	28.0	18.0	9.2	13.00	25.00	0.2	1	WNMG 06T3
A20 MWLNR/L-06W-AD [1]	20.00	100.00	28.0	18.0	9.0	13.00	25.00	0.0	1	WNMG 06T3
A25R MWLNR/L-06W [2]	25.00	200.00	34.0	23.0	11.7	17.00	32.00	0.2	1	WNMG 06T3
S20S MWLNR/L-06W	20.00	250.00	28.0	18.0	9.2	13.00	25.00	0.2	0	WNMG 06T3
S25T MWLNR/L-06W [2]	25.00	300.00	28.0	23.0	11.7	17.00	32.00	0.2	0	WNMG 06T3
A25R MWLNR/L-08W	25.00	200.00	40.0	23.0	11.7	17.00	32.00	0.2	1	WNMG 0804
A25 MWLNR-08W-AD [1]	25.00	120.00	35.0	23.0	11.7	17.00	32.00	0.2	1	WNMG 0804
S25T MWLNR/L-08W	25.00	300.00	35.0	23.0	11.7	17.00	32.00	0.2	0	WNMG 0804

[1] AD - short tool for adapter holders
[2] Supplied with IWSN 322W seat for WNMG 06T3.. inserts and IWSN 3-2W seat for WNMG 0604.. inserts.
[3] 0 - Without coolant supply, 1 - With coolant supply
[4] Master insert identification

For inserts, see pages: • WNMG-F3P (221) • WNMG-M3P (224) • WNMG-F3S (222) • WNMG-F3M (221) • WNMG-M3M (223) • WNMG-TF (226) • WNMG-PP (228) • WNMG-VL (227) • WNMG-SF (226) • WNMG-NF (225) • WNMG-WF (229) • WNGA-M3 (CBN) (233) • WNGA-MC/M6 (CBN) (234) • WNMG-CERMET (231) • WNGG-F3N (233)

Spare Parts

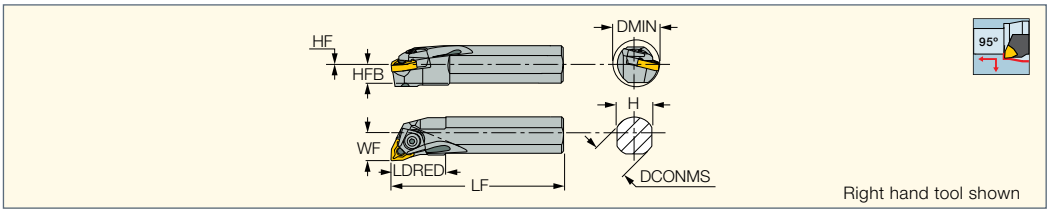
Designation						
A20 MWLNR/L-06W-AD			ZNW 3WI	LC 250 SET 1	HW 2.5	PL 20
A20Q MWLNR/L-06W			ZNW 3WI	LC 250 SET 1	HW 2.5	PL 20
A25R MWLNR/L-06W	IWSN 322W	IWSN 3-2W*	ZNW 3W	LC 250 SET 1	HW 2.5	PL 25
S20S MWLNR/L-06W			ZNW 3WI	LC 250 SET 1	HW 2.5	
S25T MWLNR/L-06W	IWSN 322W	IWSN 3-2W*	ZNW 3W	LC 250 SET 1	HW 2.5	
A25R MWLNR/L-08W	TWN 423		ZNW-4WI	LC 252 SET 2	HW 3.0	PL 25
A25 MWLNR-08W-AD	TWN 423		ZNW-4WI	LC 252 SET 2	HW 3.0	PL 25
S25T MWLNR/L-08W	TWN 423		ZNW-4WI	LC 252 SET 2	HW 3.0	

* Optional, to be ordered separately

ISOTURN

A/S-MWLNR/L-W

Top Wedge Lock Boring Bars
Carrying Double-Sided
Trigon Inserts



I N C H

Designation	DCONMS	LF	LDRED	WF	H	HFB	DMIN	MIID[1]	CSP[2]
A-MWLNR/L 12-3W	.750	10.000	1.100	.500	.670	.340	1.000	WNMG 3..	1
A-MWLNR/L 16-3W	1.000	12.000	1.380	.640	.910	.460	1.180	WNMG 3..	1
S-MWLNR/L 12-3W	.750	10.000	1.100	.500	.670	.340	1.000	WNMG 3..	0
S-MWLNR/L 16-3W	1.000	12.000	1.380	.640	.910	.460	1.180	WNMG 3..	0
A-MWLNR/L 16-4W	1.000	12.000	1.380	.640	.910	.460	1.220	WNMG 43..	1
S-MWLNR/L 16-4W	1.000	12.000	1.380	.640	.910	.460	1.220	WNMG 43..	0

[1] Master insert identification
[2] 0 - Without coolant supply, 1 - With coolant supply

For inserts, see pages: • WNMG-F3S (222) • WNMG-F3P (221) • WNMG-M3P (224) • WNMG-F3M (221) • WNMG-M3M (223) • WNMG-TF (226) • WNMG-PP (228) • WNMG-VL (227) • WNMG-SF (226) • WNMG-NF (225) • WNMG-WF (229) • WNGA-M3 (CBN) (233) • WNGA-MC/M6 (CBN) (234) • WNMG-CERMET (231) • WNGG-F3N (233)

Spare Parts

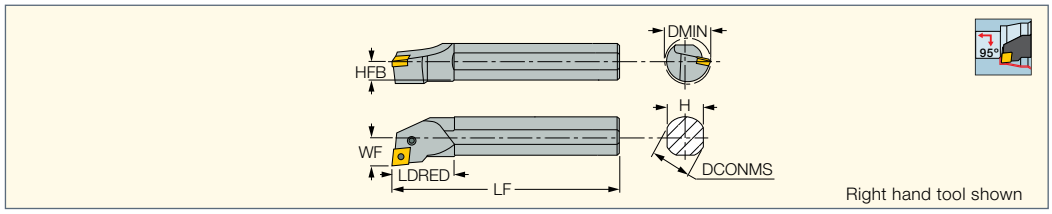
Designation						
A-MWLNR/L 12-3W			ZNW 3WI	LC 250 SET 1	HW 2.5	PL 075
A-MWLNR/L 16-3W	IWSN 322W	IWSN 3-2W*	ZNW 3W	LC 250 SET 1	HW 2.5	PL 100
S-MWLNR/L 12-3W			ZNW 3WI	LC 250 SET 1	HW 2.5	
S-MWLNR/L 16-3W	IWSN 322W	IWSN 3-2W*	ZNW 3W	LC 250 SET 1	HW 2.5	
A-MWLNR/L 16-4W	TWN 423		ZNW-4WI	LC 252 SET 2	HW 3.0	PL 100
S-MWLNR/L 16-4W	TWN 423		ZNW-4WI	LC 252 SET 2	HW 3.0	

* Optional, to be ordered separately

HELITURN LD

A/S-PCLNR/L-X/G

Lever Lock Boring Bars Carrying Negative CNMX/CNMG 80° Rhombic Inserts



	M E T R I C								
Designation	**DCONMS**	**LF**	**LDRED**	**H**	**HFB**	**WF**	**DMIN**	**CSP[3]**	**MIID[4]**
A16M PCLNR/L-09G [1]	16.00	150.00	30.0	15.0	7.5	11.00	21.00	1	CNMG 0904..
A20Q PCLNR/L-09G [1]	20.00	180.00	30.0	18.0	9.0	13.00	25.00	1	CNMG 0904..
A25R PCLNR/L-09X [2]	25.00	200.00	35.0	23.0	11.5	17.00	32.00	1	CNMX 0906, CNMG 0904

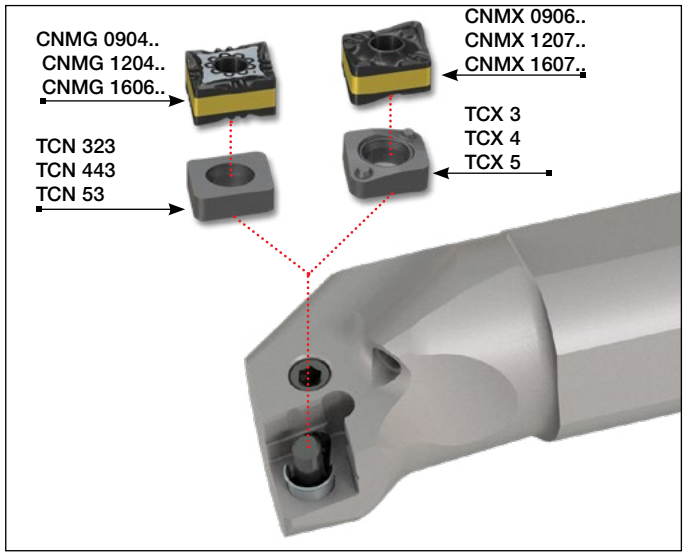
[1] For CNMG 0904.. inserts only

[2] Supplied with TCX 3 seat for CNMX 0906.. inserts and TCN 323 seat for CNMG 0904.. inserts.

[3] 0 - Without coolant supply, 1 - With coolant supply

[4] Master insert identification

For inserts, see pages: CNGA-J(CBN) (250) • CNGG-J(CBN) (251) • CNGX-M3N (240) • CNMG-F3S (239) • CNMG-F3P (235) • CNMG-M3P (236) • CNMG-F3M (237) • CNMG-M3M (238) • CNGA-2 (CBN) (248) • CNGA-4 (CBN) (249) • CNGG-M4HF/M4HM (CBN) (251) • CNMA-MW2 (CBN) (252) • CNMA-MW4 (CBN) (253) • CNMA-T/M1/WG (CBN) (253) • CNMG-NF (241) • CNMG-VL (242) • CNMG-WF (243) • CNMG/CNGG-PP (245) • CNMG/CNGG-SF (244) • CNMG/CNGG-TF (246) • CNMS-12 (241) • CNGG-F3N (239) • CNMG-CERMET (247)



Spare Parts

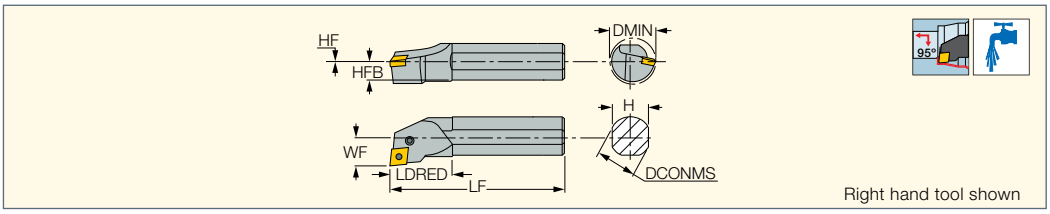
Designation								
A16M PCLNR/L-09G					LR 3S	SR 117-2009	HW 2.0	PL 16
A20Q PCLNR/L-09G					LR 3S	SR 117-2009	HW 2.0	PL 20
A25R PCLNR/L-09X	TCX 3	TCN 323	SP 3	PN 3-4	LR 3	SR 117-2014	HW 2.5	PL 25

* Optional, to be ordered separately

HELITURN LD

A-PCLNR/L-X/G

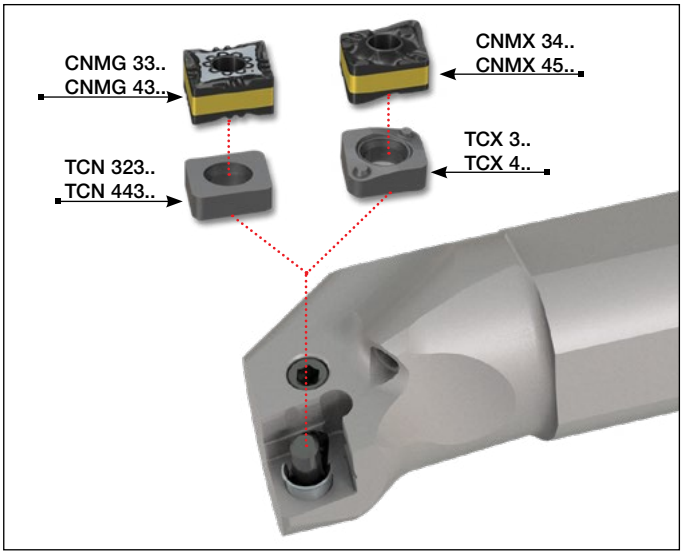
Lever Lock Boring Bars
for CNMX Inserts



	I N C H								
Designation	**DCONMS**	**LF**	**LDRED**	**H**	**HFB**	**WF**	**DMIN**	**CSP[4]**	**MIID[5]**
A-PCLNR/L 10-3G [1]	.625	6.000	1.181	.570	.285	.430	.830	1	CNMG 33.
A-PCLNR/L 12-3G [1]	.750	7.000	1.181	.680	.340	.500	1.000	1	CNMG 33.
A-PCLNR/L 16-3X [2]	1.000	8.000	1.378	.920	.460	.640	1.250	1	CNMX 34. CNMG 33.
A-PCLNR 16-4X [3]	1.000	12.000	2.000	.910	.450	.650	1.970	1	CNMX 45. CNMG 43.

[1] For CNMG 33.. inserts only
[2] Supplied with TCX 3 seat for CNMX 34. inserts and TCN 323 seat for CNMG 33. inserts
[3] Supplied with TCX 4 seat for CNMX 45. inserts and TCN 443 seat for CNMG 43. inserts
[4] 0 - Without coolant supply, 1 - With coolant supply
[5] Master insert identification

For inserts, see pages: CNGA-J(CBN) (250) • CNGG-F3N (239) • CNGG-J(CBN) (251) • CNGX-M3N (240) • CNMG-CERMET (247) • CNMG-F3S (239) • CNMG-F3P (235) • CNMG-M3P (236) • CNMG-F3M (237) • CNMG-M3M (238) • CNGA-2 (CBN) (248) • CNGA-4 (CBN) (249) • CNGG-M4HF/M4HM (CBN) (251) • CNMA-MW2 (CBN) (252) • CNMA-MW4 (CBN) (253) • CNMA-T/M1/WG (CBN) (253) • CNMG-NF (241) • CNMG-VL (242) • CNMG-WF (243) • CNMG/CNGG-PP (245) • CNMG/CNGG-SF (244) • CNMG/CNGG-TF (246) • CNMS-12 (241)



Spare Parts

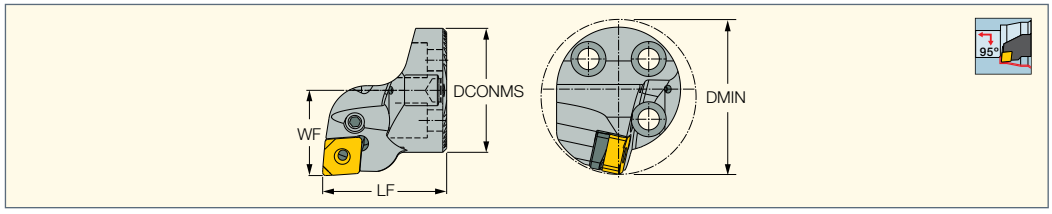
Designation									
A-PCLNR/L 10-3G					LR 3S	SR 117-2009	HW 2.0	PL 062	
A-PCLNR/L 12-3G					LR 3S	SR 117-2009	HW 2.0	PL 075	
A-PCLNR/L 16-3X	TCX 3	TCN 323	SP 3	PN 3-4	LR 3	SR 117-2014	HW 2.5	PL 100	
A-PCLNR 16-4X	TCX 4	TCN 443	SP 4	PN 3-4L	LR 4DH	SR 117-2010	HW 3.0	PL 100	LR 4DHTL (MR INJ)*

* Optional, to be ordered separately

WHISPERLINE

AVC-PCLNR/L

Interchangeable Boring Heads
Carrying 80° Rhombic Inserts



M E T R I C

Designation	WF	DCONMS	DMIN	LF	CSP(1)	MIID(2)
AVC-D20-PCLNR/L-09	13.00	20.00	25.00	26.00	0	CNMG 09
AVC-D25-PCLNR/L-09	17.00	25.00	32.00	28.00	1	CNMG 09

(1) 0 - Without coolant supply, 1 - With coolant supply
(2) Master insert identification

For inserts, see pages: CNMG-F3S (239) • CNGG-F3N (239) • CNMG-F3M (237) • CNMG-F3P (235) • CNMG-M3M (238) • CNMG-M3P (236)
For holders, see pages: SH-D (125)

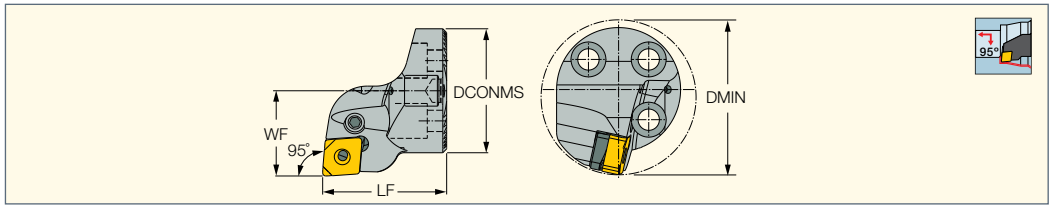
Spare Parts

Designation			
AVC-D20-PCLNR/L-09	LR 3S	SR 117-2009	HW 2.0
AVC-D25-PCLNR/L-09	LR 3S	SR 117-2009	HW 2.0

WHISPERLINE

AVC-PCLNR/L

Interchangeable Boring Heads
Carrying 80° Rhombic Inserts



I N C H

Designation	WF	DCONMS	DMIN	LF	CSP(1)	MIID(2)
AVC-D20-PCLNR/L-09	.512	.787	.984	1.024	0	CNMG 09
AVC-D25-PCLNR/L-09	.669	.984	1.260	1.102	1	CNMG 09

(1) 0 - Without coolant supply, 1 - With coolant supply
(2) Master insert identification

For inserts, see pages: CNMG-F3S (239) • CNGG-F3N (239) • CNMG-F3M (237) • CNMG-F3P (235) • CNMG-M3M (238) • CNMG-M3P (236)
For holders, see pages: SH-D (125)

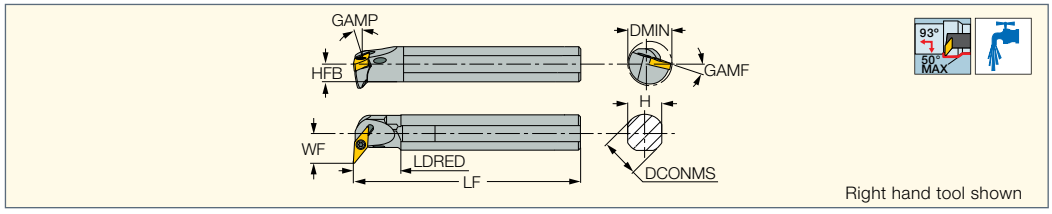
Spare Parts

Designation			
AVC-D20-PCLNR/L-09	LR 3S	SR 117-2009	HW 2.0
AVC-D25-PCLNR/L-09	LR 3S	SR 117-2009	HW 2.0

ISOTURN

A-SVUNR/L

Boring Bars with Internal Coolant Holes Carrying 35° Negative Rhombic Inserts



Right hand tool shown

M E T R I C

Designation	DCONMS	LF	LDRED	H	HFB	WF	DMIN	GAMP(1)	GAMF(2)	MIID(3)			
A20Q SVUNR/L-12	20.00	180.00	38.0	18.0	9.0	16.00	26.50	-6.5	-14.0	VNMG 2.5..	SR 14-551	T-9/5	PL 20
A25R SVUNR/L-12	25.00	200.00	35.0	23.0	11.5	18.50	31.50	-6.5	-14.0	VNMG 2.5..	SR 14-551	T-9/5	PL 25

- For inserts with corner radius of 0.8 mm and larger, seat needs to be modified to ensure clearance.

(1) Rake angle axial

(2) Rake angle radial

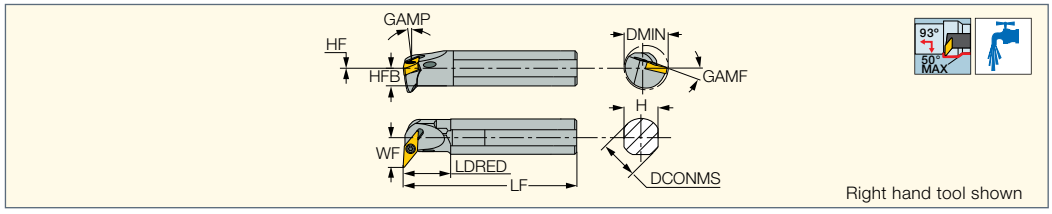
(3) Master insert identification

For inserts, see pages: VNMG-F3M (266) • VNMG-F3P (265) • VNMG-FNF-CERMET (269) • VNMG-M3M (267) • VNMG-SF (267) • VNMG/VNGG-NF (269) • VNMM-PP (268)

ISOTURN

A-SVUNR/L

Boring Bars with Internal Coolant Holes Carrying 35° Negative Rhombic Inserts



Right hand tool shown

I N C H

Designation	DCONMS	H	HFB	WF	LF	LDRED	DMIN	GAMP(1)	GAMF(2)	CSP(3)	MIID(4)			
A-SVUNR/L 12-2.5	.750	.677	.339	.630	7.000	1.200	1.040	-6.0	-14.0	1	VNMG 2.5..	SR 14-551	T-9/5	PL 075
A-SVUNR/L 16-2.5	1.000	.921	.461	.730	8.000	1.380	1.240	-6.0	-14.0	1	VNMG 2.5..	SR 14-551	T-9/5	PL 100

- For inserts with corner radius of .031" and larger, seat needs to be modified to ensure clearance.

(1) Rake angle axial

(2) Rake angle radial

(3) 0 - Without coolant supply, 1 - With coolant supply

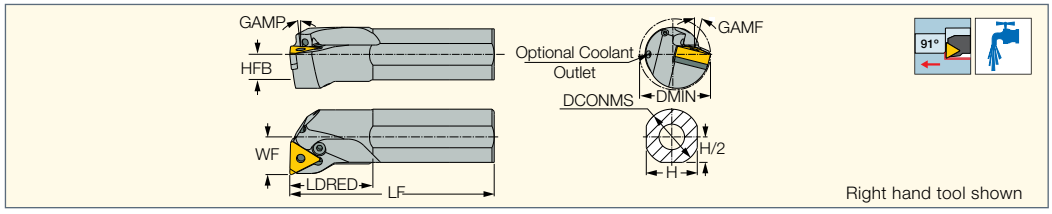
(4) Master insert identification

For inserts, see pages: VNMG-F3M (266) • VNMG-F3P (265) • VNMG-FNF-CERMET (269) • VNMG-M3M (267) • VNMG-SF (267) • VNMG/VNGG-NF (269) • VNMM-PP (268)

HELITURN LD

A-PTFNR/L-X/G

91° Lead Angle Lever Lock
Boring Bars Carrying Negative
TNMX or TNMG Triangular Inserts



M E T R I C

Designation	DCONMS	LF	LDRED	H	HFB	WF	CSP(1)	GAMP(2)	GAMF(3)	DMIN	MIID(4)
A16M PTFNR/L-16G	16.00	150.00	31.0	15.0	7.5	11.00	1	-12.0	-16.0	20.00	TNMG 1604
A20Q PTFNR/L-16G	20.00	180.00	31.0	18.0	9.0	13.00	1	-6.0	-14.0	25.00	TNMG 1604
A25S PTFNR/L-16X	25.00	250.00	37.5	23.0	11.5	17.00	1	-6.0	-14.0	32.00	TNMX 1606, TNMG 1604

- Use TTX 3 seat for TNMX 1606.. inserts and TTN 3 seat for TNMG 1604.. inserts

(1) 0 - Without coolant supply, 1 - With coolant supply
(2) Rake angle axial
(3) Rake angle radial
(4) Master insert identification

For inserts, see pages: D6NMG-F3P (270) • D6NMG-M3M (271) • D6NMG-M3P (271) • TNGA-J(CBN) (282) • TNMG-F3S (273) • TNMG-F3P (272) • TNMG-M3P (274) • TNMG-F3M (273) • TNMG-M3M (275) • TNMG-FFG-CERMET (280) • TNGG-M3N (281) • TNMG-TF (277) • TNMG/TNGG-PP (279) • TNMG-VL (278) • TNMG-PF (276) • TNMG-SF (277) • TNMG-NF (275) • TNMS-12 (279) • TNGA-M3 (CBN) (283) • TNGA-MC/M6 (CBN) (283) • TNMA (CBN) (281)

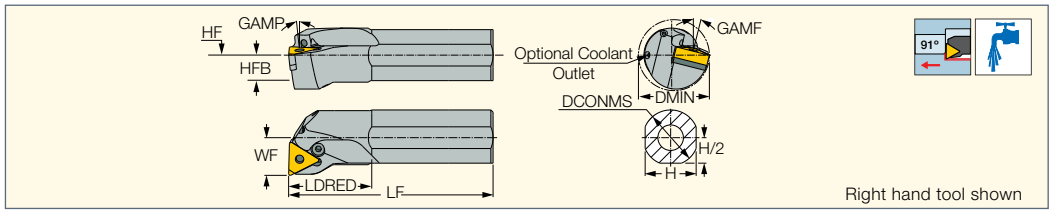
Spare Parts

Designation									
A16M PTFNR/L-16G					LR 3S	SR 117-2009		HW 2.0	PL 16
A20Q PTFNR/L-16G					LR 3S	SR 117-2009	SR M4X4 DIN913 TL360	HW 2.0	PL 20
A25S PTFNR/L-16X	TTX 3	TTN 3	SP 3	PN 3-4	LR 3	SR 117-2014	SR M4X4 DIN913 TL360	HW 2.5	PL 25

HELITURN LD

A-PTFNR/L-X/G

91° Lead Angle Lever Lock
Boring Bars Carrying Negative
TNMX or TNMG Triangular Inserts



I N C H

Designation	DCONMS	LF	LDRED	H	HFB	WF	CSP(1)	GAMP(2)	GAMF(3)	DMIN	MIID(4)
A-PTFNR/L 10-3G	.630	6.000	1.100	.600	.300	.400	1	-12.0	-16.0	.780	TNMG 33.
A-PTFNR/L 12-3G	.750	7.000	1.100	.700	.300	.500	1	-6.0	-14.0	1.000	TNMG 33.
A-PTFNR/L 16-3X	1.000	8.000	1.500	.900	.500	.600	1	-6.0	-14.0	1.250	TNMX 34. TNMG 33.

- Use TTX 3 seat for TNMX 34. inserts and TTN 3 seat for TNMG 33. inserts

(1) 0 - Without coolant supply, 1 - With coolant supply
(2) Rake angle axial
(3) Rake angle radial
(4) Master insert identification

For inserts, see pages: D6NMG-F3P (270) • D6NMG-M3M (271) • D6NMG-M3P (271) • TNGA-J(CBN) (282) • TNMG-F3S (273) • TNMG-F3P (272) • TNMG-M3P (274) • TNMG-F3M (273) • TNMG-M3M (275) • TNMG-FFG-CERMET (280) • TNGG-M3N (281) • TNMG-TF (277) • TNMG/TNGG-PP (279) • TNMG-VL (278) • TNMG-PF (276) • TNMG-SF (277) • TNMG-NF (275) • TNMS-12 (279) • TNGA-M3 (CBN) (283) • TNGA-MC/M6 (CBN) (283) • TNMA (CBN) (281)

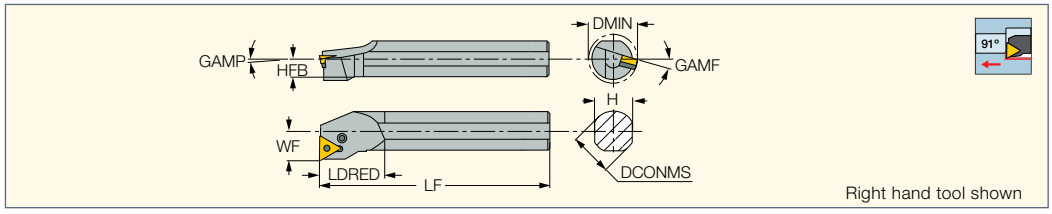
Spare Parts

Designation									
A-PTFNR/L 10-3G					LR 3S	SR 117-2009		HW 2.0	PL 062
A-PTFNR/L 12-3G					LR 3S	SR 117-2009	SR M4X4 DIN913 TL360	HW 2.0	PL 075
A-PTFNR/L 16-3X	TTX 3	TTN 3	SP 3	PN 3-4	LR 3	SR 117-2014	SR M4X4 DIN913 TL360	HW 2.5	PL 100

ISOTURN

S-PTFNR/L

91° Lead Angle Lever Lock Boring Bars Carrying Negative Triangular Inserts



M E T R I C										
Designation	**DCONMS**	**LF**	**LDRED**	**H**	**HFB**	**WF**	**GAMP(1)**	**GAMF(2)**	**DMIN**	**MIID(3)**
S20R PTFNR/L-11	20.00	200.00	32.0	18.0	9.0	13.00	-6.0	-14.0	24.00	TNMG 1103
S25S PTFNR/L-16	25.00	250.00	48.0	23.0	11.5	17.00	-6.0	-13.0	32.50	TNMG 1604

(1) Rake angle axial
(2) Rake angle radial
(3) Master insert identification

For inserts, see pages: D6NMG-F3P (270) • D6NMG-M3M (271) • D6NMG-M3P (271) • TNGA-J(CBN) (282) • TNGG-M3N (281) • TNMG-F3S (273) • TNMG-FFG-CERMET (280) • TNMG-F3P (272) • TNMG-M3P (274) • TNMG-F3M (273) • TNMG-M3M (275) • TNMG-TF (277) • TNMG/TNGG-PP (279) • TNMG-VL (278) • TNMG-PF (276) • TNMG-SF (277) • TNMG-NF (275) • TNMS-12 (279) • TNGA-M3 (CBN) (283) • TNGA-MC/M6 (CBN) (283) • TNMA (CBN) (281)

Spare Parts

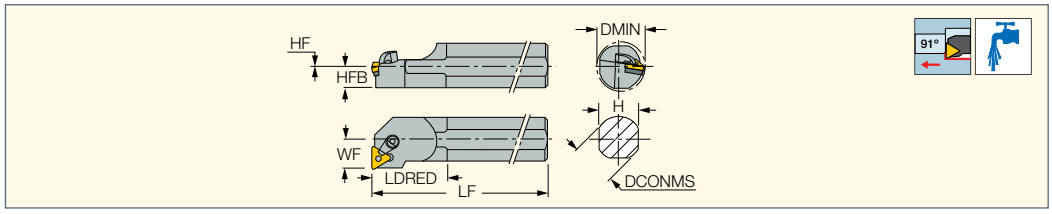
Designation							
S20R PTFNR/L-11				LR 2	SR 117-2015	HW 2.0/5	
S25S PTFNR/L-16	TTN 322	TTN 332*	SP 3	LR 3	SR 117-2014	HW 2.5/5	PN 3-4

* Optional, to be ordered separately

ISOTURN

A-MTFNR

Comlock Boring Bars for Negative Triangular Inserts



I N C H						
Designation	**DCONMS**	**WF**	**LF**	**DMIN**	**CSP(1)**	**MIID(2)**
A-MTFNR 16-3	1.000	.640	10.000	1.280	1	TN..32..

(1) 0 - Without coolant supply, 1 - With coolant supply
(2) Master insert identification

For inserts, see pages: D6NMG-F3P (270) • TNGA-J(CBN) (282) • TNGG-M3N (281) • TNMG-F3S (273) • TNMG-FFG-CERMET (280) • TNMG-F3P (272) • TNMG-M3P (274) • TNMG-F3M (273) • TNMG-M3M (275) • TNMG-TF (277) • TNMG/TNGG-PP (279) • TNMG-VL (278) • TNMG-PF (276) • TNMG-SF (277) • TNMG-NF (275) • TNGA-M3 (CBN) (283) • TNGA-MC/M6 (CBN) (283) • TNMA (CBN) (281)

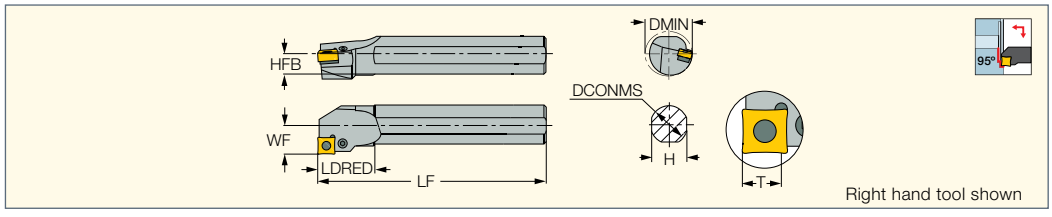
Spare Parts

Designation		
A-MTFNR 16-3	CL 7	XNS 35 COM

ISOTURN

S-PQFNR/L

Lever Lock Boring Bars Carrying Negative Square Inserts with 80° Corners for Internal Facing



M E T R I C									
Designation	**DCONMS**	**LF**	**LDRED**	**H**	**HFB**	**WF**	**T**	**DMIN**	**MIID(1)**
S20Q PQFNR/L-09	20.00	180.00	40.0	18.0	9.0	13.00	7.5	28.00	QNMG 0904...
S25R PQFNL-12	25.00	200.00	40.0	23.0	11.5	17.00	9.0	32.00	QNMG 1204...

(1) Master insert identification

For inserts, see pages: QNMG-NF (284) • QNMG-PP (285) • QNMG-TF (285)

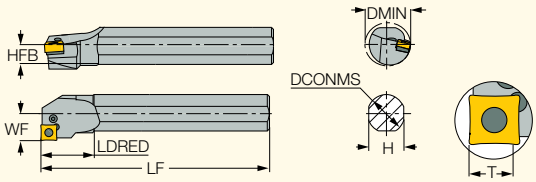
Spare Parts

Designation			
S20Q PQFNR/L-09	LR 3S	SR 117-2016	HW 2.0
S25R PQFNL-12	LR 4M	SR 117-2011	HW 2.5/5

ISOTURN

S-PQLNR/L

Lever Lock Boring Bars
Carrying Negative Square
Inserts with 80° Corners



M E T R I C									
Designation	**DCONMS**	**LF**	**LDRED**	**H**	**HFB**	**WF**	**T**	**DMIN**	**MIID[1]**
S20S PQLNR/L-09	20.00	250.00	40.0	18.0	9.0	13.00	6.5	25.00	QNMG 0904
S25T PQLNR-09	25.00	300.00	40.0	23.0	11.5	17.00	6.5	32.00	QNMG 0904
S25T PQLNR/L-12	25.00	300.00	40.0	23.0	11.5	17.00	8.5	32.00	QNMG 1204

[1] Master insert identification

For inserts, see pages: QNMG-NF (284) • QNMG-PP (285) • QNMG-TF (285)

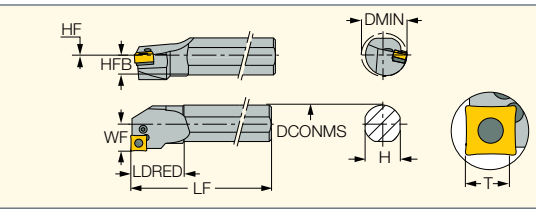
Spare Parts

Designation			
S20S PQLNR/L-09	LR 3S	SR 117-2016	HW 2.0
S25T PQLNR-09	LR 3S	SR 117-2016	HW 2.0
S25T PQLNR/L-12	LR 4M	SR 117-2011	HW 2.5/5

ISOTURN

S-PQLNR

Lever Lock Boring Bars for
Negative Square Inserts
with 80° Corners



I N C H										
Designation	**DCONMS**	**LF**	**LDRED**	**H**	**HFB**	**WF**	**T**	**DMIN**	**CSP[1]**	**MIID[2]**
S-PQLNR 12-3	.750	10.000	1.500	.670	.340	.500	.315	1.000	0	QNMG 3..

[1] 0 - Without coolant supply, 1 - With coolant supply

[2] Master insert identification

For inserts, see pages: QNMG-PP (285) • QNMG-TF (285)

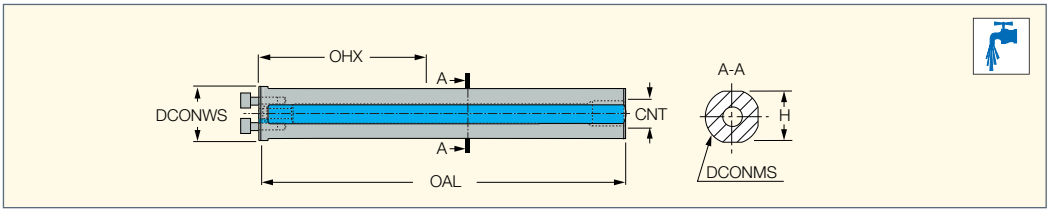
Spare Parts

Designation			
S-PQLNR	LR 3S	SR 117-2016	HW 2.0

Straight Shank

ISOTURN

SH-D
Steel Boring Bars With Serrated Connection For AVC Heads



M E T R I C							
Designation	**DCONWS**	**DCONMS**	**OAL**	**OHX(1)**	**CNT**	**H**	**BMC(2)**
SH-D16-4D-A	16.00	16.00	105.00	44.0	UNC-2B 3/8"-16	15.0	S
SH-D20-4D-A	20.00	20.00	140.00	60.0	UNFC-2B 3/8"-24	18.0	S
SH-D25-4D-A	25.00	25.00	200.00	80.0	UNF-2B 1/2"-20	23.0	S

(1) Maximum overhang
(2) S-steel body, H-solid carbide body

For tools, see pages: AVC-PCLNR/L (120) • AVC-PCLXR/L (86) • AVC-PTLNR/L (107) • AVC-SCLCR/L (88) • AVC-SCLXR/L-06X (89) • AVC-SDUCR/L (96) • AVC-SVMCR/L (102) • AVC-SVPCR/L (100) • AVC-SVQCR/L (101) • AVC-SVUCR/L (99)

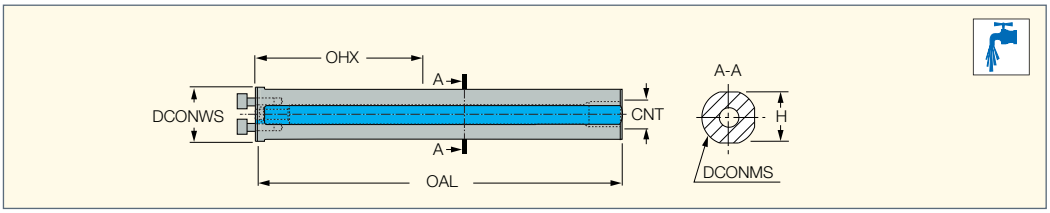
Spare Parts

Designation				
SH-D16-4D-A	SR M3X10DIN912	HW 2.5	PL 16	O-RING 4X1 NBR
SH-D20-4D-A	SR M3.5XL10-D5.5	HW 2.5	PL 20	OR 5.6X1.8 NBR
SH-D25-4D-A	SR M4X12DIN912	HW 3.0	PL 25	OR 5.6X1.8 NBR

Straight Shank

ISOTURN

SH-D
Steel Boring Bars With Serrated Connection For AVC Heads



I N C H							
Designation	**DCONWS**	**DCONMS**	**OAL**	**OHX(1)**	**CNT**	**H**	**BMC(2)**
SH-D.625-4D-A	.6250	.625	4.210	1.700	UNC-2B 3/8"-16	.574	S
SH-D.75-4D-A	.7500	.750	5.228	2.300	UNFC-2B 3/8"-24	.677	S
SH-D1.0-4D-A	1.0000	1.000	7.200	3.100	UNF-2B 1/2"-20	.921	S

(1) Maximum overhang
(2) S-steel body, H-solid carbide body

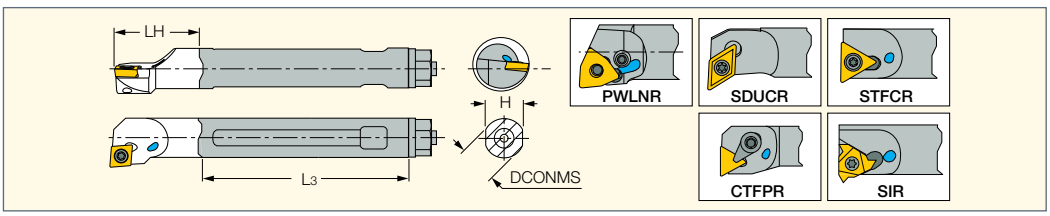
For tools, see pages: AVC-PCLNR/L (120) • AVC-PCLXR/L (86) • AVC-PTLNR/L (107) • AVC-SCLCR/L (88) • AVC-SCLXR/L-06X (89) • AVC-SDUCR/L (96) • AVC-SVMCR/L (102) • AVC-SVPCR/L (100) • AVC-SVQCR/L (101) • AVC-SVUCR/L (99)

Spare Parts

Designation				
SH-D.625-4D-A	SR M3X10DIN912	HW 2.5	PL 062	OR 5.6X1.8 NBR
SH-D.75-4D-A	SR M3.5XL10-D5.5	HW 2.5	PL 075	OR 5.6X1.8 NBR
SH-D1.0-4D-A	SR M4X12DIN912	HW 3.0	PL 100	OR 5.6X1.8 NBR

ISOTURN

E-SHANK
Solid Carbide Shanks for Economical Boring with Various Interchangeable Heads



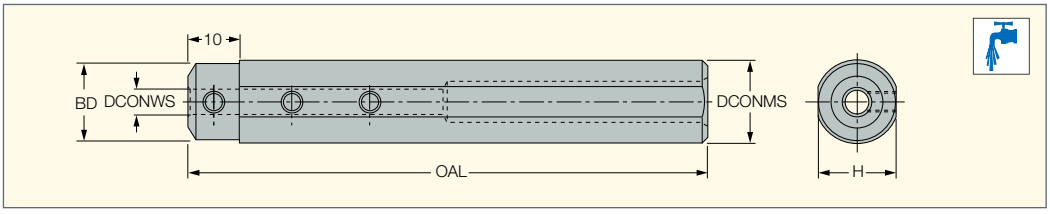
M E T R I C							
Designation	**DCONMS**	**L3**	**LH**	**H**	**TQ**		
E12 SHANK	12.00	146.00	24.8	11.0	18.0	SR 14-19/2 SCREW*	SR 14-19/4*
E16 SHANK	16.00	171.50	37.0	15.0	30.0	SR 10400197-2 SCREW*	SR 10400197-3 NUT*

• Screw and nut should be ordered separately
* Optional, to be ordered separately

For tools, see pages: E-GEHIR / E-GHIR (425) • E-PWLNR/L-HEAD (115) • E-SCLCR/L-HEAD (90) • E-SDUCR/L-HEAD (97) • E-SIR-HEAD (740) • E-STFCR-HEAD (106) • E-STFPR-HEAD (106)

ISOTURN

SBB
Holders for Small
Diameter Boring Bars



M E T R I C

Designation	DCONMS	DCONWS	BD	H	OAL			
SBB D16-4	16.00	4.00	15.00	15.0	100.00	SR M4X4 DIN913	HW 2.0	PL 16*
SBB D16-5	16.00	5.00	15.00	15.0	100.00	SR M4X4 DIN913	HW 2.0	PL 16*
SBB D16-6	16.00	6.00	15.00	15.0	100.00	SR M4X4 DIN913	HW 2.0	PL 16*
SBB D16-7	16.00	7.00	15.00	15.0	100.00	SR M4X4 DIN913	HW 2.0	PL 16*
SBB D20-4	20.00	4.00	13.00	19.0	100.00	SR M4X4 DIN913	HW 2.0	PL 16*
SBB D20-5	20.00	5.00	14.00	19.0	100.00	SR M4X4 DIN913	HW 2.0	PL 16*
SBB D20-6	20.00	6.00	15.00	19.0	100.00	SR M4X4 DIN913	HW 2.0	PL 16*
SBB D20-7	20.00	7.00	16.00	19.0	100.00	SR M4X4 DIN913	HW 2.0	PL 16*
SBB D22-4	22.00	4.00	13.00	21.0	125.00	SR M4X4 DIN913	HW 2.0	PL 16*
SBB D22-5	22.00	5.00	14.00	21.0	125.00	SR M4X4 DIN913	HW 2.0	PL 16*
SBB D22-6	22.00	6.00	15.00	21.0	125.00	SR M4X4 DIN913	HW 2.0	PL 16*
SBB D22-7	22.00	7.00	16.00	21.0	125.00	SR M4X4 DIN913	HW 2.0	PL 16*
SBB D25-4	25.00	4.00	13.00	24.0	125.00	SR M4X4 DIN913	HW 2.0	
SBB D25-5	25.00	5.00	14.00	24.0	125.00	SR M4X4 DIN913	HW 2.0	
SBB D25-6	25.00	6.00	15.00	24.0	125.00	SR M4X4 DIN913	HW 2.0	
SBB D25-7	25.00	7.00	16.00	24.0	125.00	SR M4X4 DIN913	HW 2.0	

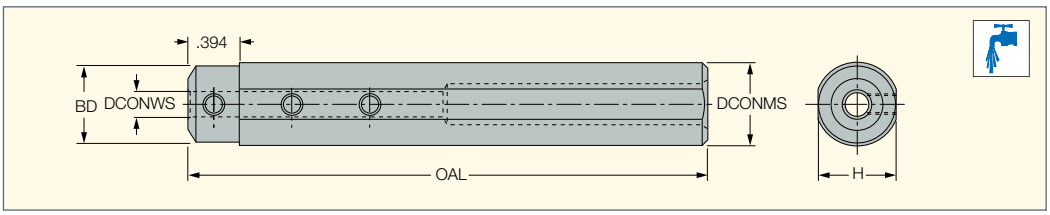
- Holders are suitable for right- and left-hand inserts, and boring bars

* Optional, to be ordered separately

For tools, see pages: A/E-SEXPR/L-03 (81) • A/E-SWUCR (78) • A/E/S-SCLCR/L (82) • E/S-SWUBR/L (79) • MG-SWUBR/L (80) • MG-SWUCR (78) • MGCH (408) • MGSIR/L (740)

ISOTURN

SBB
Holders for Small
Diameter Boring Bars



I N C H

Designation	DCONMS	DCONWS	BD	H	OAL			
SBB D159-4	.625	.157	.591	.591	3.937	SR M4X4 DIN913	HW 2.0	PL 16*
SBB D159-5	.625	.197	.591	.591	3.937	SR M4X4 DIN913	HW 2.0	PL 16*
SBB D159-6	.625	.236	.591	.591	3.937	SR M4X4 DIN913	HW 2.0	PL 16*
SBB D159-7	.625	.276	.591	.591	3.937	SR M4X4 DIN913	HW 2.0	PL 16*
SBB D19-4	.750	.157	.709	.709	3.937	SR M4X4 DIN913	HW 2.0	PL 16*
SBB D19-5	.750	.197	.709	.709	3.937	SR M4X4 DIN913	HW 2.0	PL 16*
SBB D19-6	.750	.236	.709	.709	3.937	SR M4X4 DIN913	HW 2.0	PL 16*
SBB D19-7	.750	.276	.709	.709	3.937	SR M4X4 DIN913	HW 2.0	PL 16*
SBB D25.4-4	1.000	.157	.512	.945	4.921	SR M4X4 DIN913	HW 2.0	
SBB D25.4-5	1.000	.197	.551	.945	4.921	SR M4X4 DIN913	HW 2.0	
SBB D25.4-6	1.000	.236	.591	.945	4.921	SR M4X4 DIN913	HW 2.0	
SBB D25.4-7	1.000	.276	.630	.945	4.921	SR M4X4 DIN913	HW 2.0	

- Holders are suitable for left- and right-hand inserts, and boring bars

* Optional, to be ordered separately

For tools, see pages: A/E-SEXPR/L-03 (81) • A/E-SWUCR (78) • A/E/S-SCLCR/L (82) • E/S-SWUBR/L (79) • MG-SWUBR/L (80) • MG-SWUCR (78) • MGCH (408) • MGSIR/L (740)

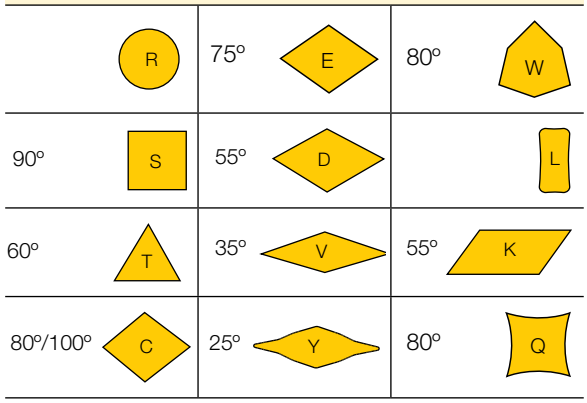
ISO TURN INSERTS



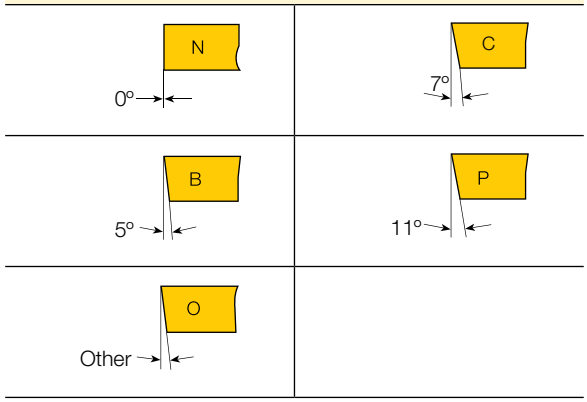
Insert Identification System - Metric

W	N	M	G	08	04	08	E	GN
1	2	3	4	5	6	7	8	9

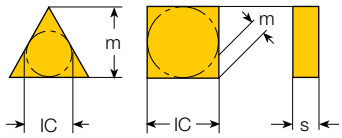
1. Shape



2. Clearance Angle



3. Tolerance



	M		S	IC	
E		±0.025	±0.025		±0.025
G		±0.025	±0.13		±0.025
M	from	±0.08	±0.13	from	±0.05
	to	±0.18(1)		to	±0.13(1)
U	from	±0.13	±0.13	from	±0.08
	to	±0.38(1)		to	±0.25(1)

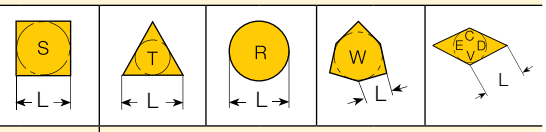
(1) Exact tolerance depends on insert size

IC	Tolerance in mm			
	On m		On IC	
IC	Class M	Class U	Class M	Class U
6.35	±0.08	±0.13	±0.05	±0.08
9.52	±0.08	±0.13	±0.05	±0.08
12.70	±0.13	±0.20	±0.08	±0.13
15.87	±0.15	±0.27	±0.10	±0.18
19.05	±0.15	±0.27	±0.10	±0.18
25.40	±0.18	±0.38	±0.13	±0.25

4. Type

	A	Without chipbreaker, with hole
	G	Chipbreaker on both sides, with hole
	M, S	Chipbreaker on one side, with hole
	R	Chipbreaker on one side, without hole
	B, W	Countersink on one side, with hole
	T, H	Chipbreaker on one side, with hole and countersink
	P	Neg./pos. on one or both sides, with hole
	Z, X	Special

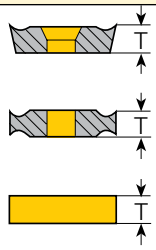
5. Cutting Edge Length



IC		Symbol (L)							
Inch	mm	C	D	R	S	T	V	W	Q
5/32	3.97		04		03	06	06	02(1)	
7/32	5.56	05				09			
1/4	6.35	06	07			11	11		
9/32	7.15						12		
	8.00			08					
3/8	9.52	09	11		09	16	16	06	09
	10.00			10					
	12.00			12					
1/2	12.70	12	15		12	22	22	08	12
5/8	15.88	16			15	27			
	16.00			16					
3/4	19.05	19			19	33		13	
	20.00			20					
	25.00			25					
1	25.40				25				

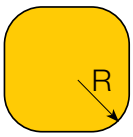
(1) WBMT 06...

6. Thickness



01	=	1.59 mm
T1	=	1.98 mm
02	=	2.38 mm
03	=	3.18 mm
T3	=	3.97 mm
04	=	4.76 mm
06	=	6.35 mm
07	=	7.94 mm

7. Corner Radius



02	=	0.2 mm
04	=	0.4 mm
08	=	0.8 mm
12	=	1.2 mm
16	=	1.6 mm
20	=	2.0 mm
24	=	2.4 mm

8. Cutting Edge (Optional)

F	Sharp
E	Honed (Rounded)
T	Chamfered (Negative Land)
S	Chamfered + Honed

9. Chipformer Designation

SF	AS/AF	TF
PF	../Z-RF/LF	PP
NF	WF	
SM	WG	
14	VL	

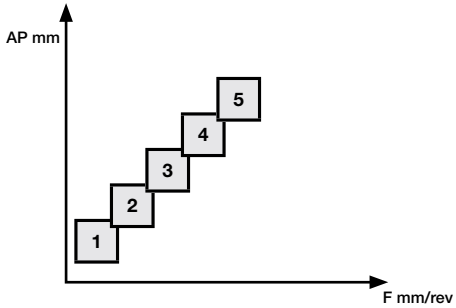
ISO Standard Designation

DCMT	11	T3	04

-

New Chipbreaker Designation

1	2	3
F	3	P



1. Application

F	Finishing
M	Medium
R	Roughing

2. Chip Load

1.2	For Lower Range
3	For General Range
4.5	For Higher Range

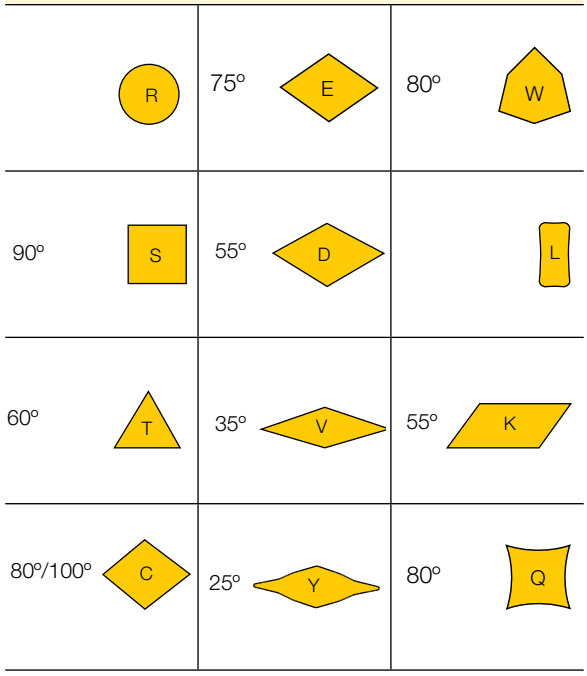
3. Workpiece Material Group

P	Steel
M	Stainless Steel
N	Nonferrous & Aluminum
S	High Temperature Alloys

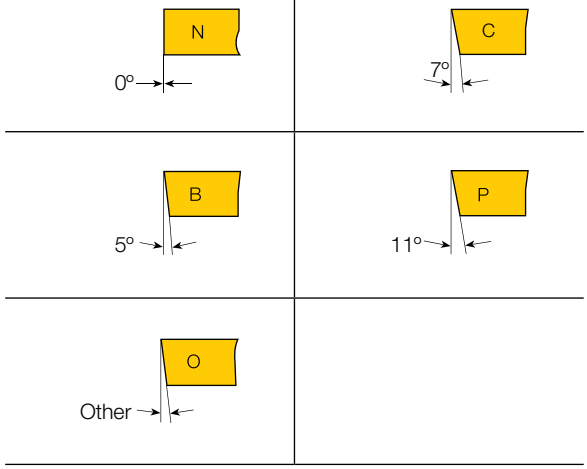
Insert Identification System - Imperial

W	N	M	G	4	3	2	E	GN
1	2	3	4	5	6	7	8	9

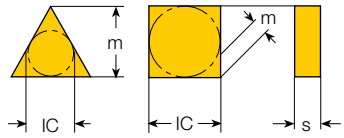
1. Shape



2. Clearance Angle



3. Tolerance



	M		T	IC	
E		±.001	±.001		±.001
G		±.001	±.005		±.001
M	fr.	±.003	±.005	fr.	±.002
	to	±.007(1)		to	±.005(1)
U	fr.	±.005	±.005	fr.	±.003
	to	±.015(1)		to	±.010(1)

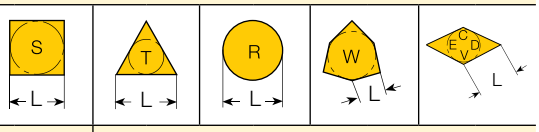
(1) Exact tolerance depends on insert size

Di	Tolerance in Inch			
	On m		On Di	
	Class M	Class U	Class M	Class U
1/4	±.003	±.005	±.002	±.003
3/8	±.003	±.005	±.002	±.003
1/2	±.005	±.008	±.003	±.005
5/8	±.006	±.011	±.004	±.007
3/4	±.006	±.011	±.004	±.007
1	±.007	±.015	±.005	±.010

4. Type

	**A**	Without chipbreaker, with hole
	**G**	Chipbreaker on both sides, with hole
	**M, S**	Chipbreaker on one side, with hole
	**R**	Chipbreaker on one side, without hole
	**B, W**	Countersink on one side, with hole
	**T, H**	Chipbreaker on one side, with hole and countersink
	**P**	Neg./pos. on one or both sides, with hole
	Z, X	Special

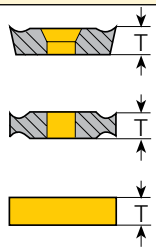
5. Cutting Edge Length



IC		Symbol (L)							
Inch	mm	C	D	R	S	T	V	W	Q
5/32	3.97		04		03	06	06	02(1)	
7/32	5.56	05				09			
1/4	6.35	06	07			11	11		
9/32	7.15						12		
	8.00			08					
3/8	9.52	09	11		09	16	16	06	09
	10.00			10					
	12.00			12					
1/2	12.70	12	15		12	22	22	08	12
5/8	15.88	16			15	27			
	16.00			16					
3/4	19.05	19			19	33		13	
	20.00			20					
	25.00			25					
1	25.40				25				

(1) WBMT 06...

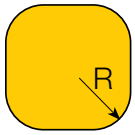
6. Thickness



Symbol ANSI	ISO	Thickness Inch
1(2)*	01	.063
– (3)**	02	.094
2	03	.125
–	T3	.156
3	04	.187
–	05	.218
4	06	.250
5	07	.312

* For WBMT 520
** For TPMR 731
Note: Inch symbol in parentheses
for small inserts (under .25" IC)

7. Corner Radius



given in 1/64"

0 = .000-.005
1 = 1/64
2 = 1/32
3 = 3/64
4 = 1/16
5 = 5/64
6 = 3/32

8. Cutting Edge (Optional)

	F	Sharp
	E	Honed (Rounded)
	T	Chamfered (Negative Land)
	S	Chamfered + Honed

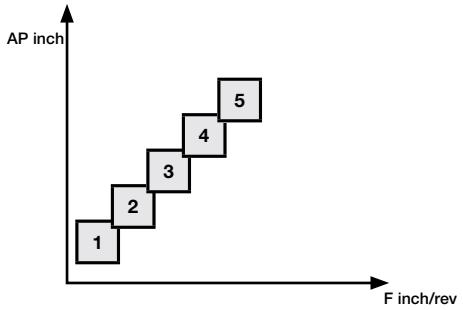
9. Chipformer Designation

SF	AS/AF	TF
PF	../Z-RF/LF	PP
NF	WF	
SM	WG	
14	VL	

ISO Standard Designation			
DCMT	3	-	1

-

New Chipbreaker Designation		
1	2	3
F	1	P



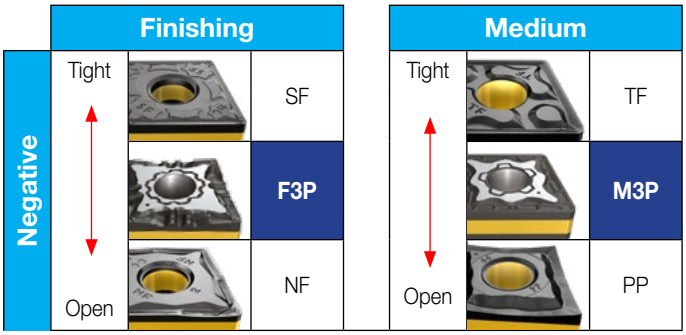
1. Application	
F	Finishing
M	Medium
R	Roughing

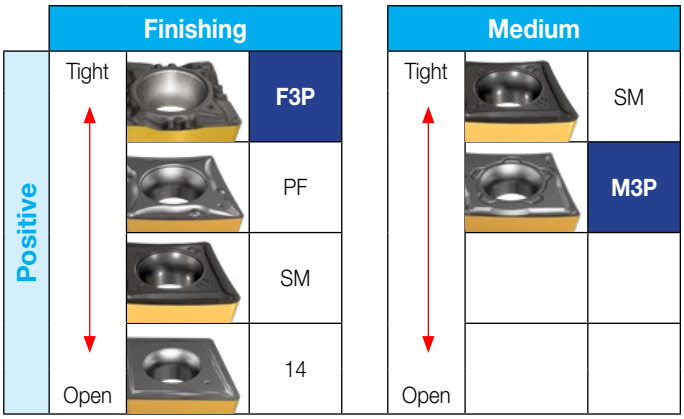
2. Chip Load	
1.2	For Lower Range
3	For General Range
4.5	For Higher Range

3. Workpiece Material Group	
P	Steel
M	Stainless Steel
N	Nonferrous & Aluminum
S	High Temperature Alloys

Selection Guide for Chipformers and Grades

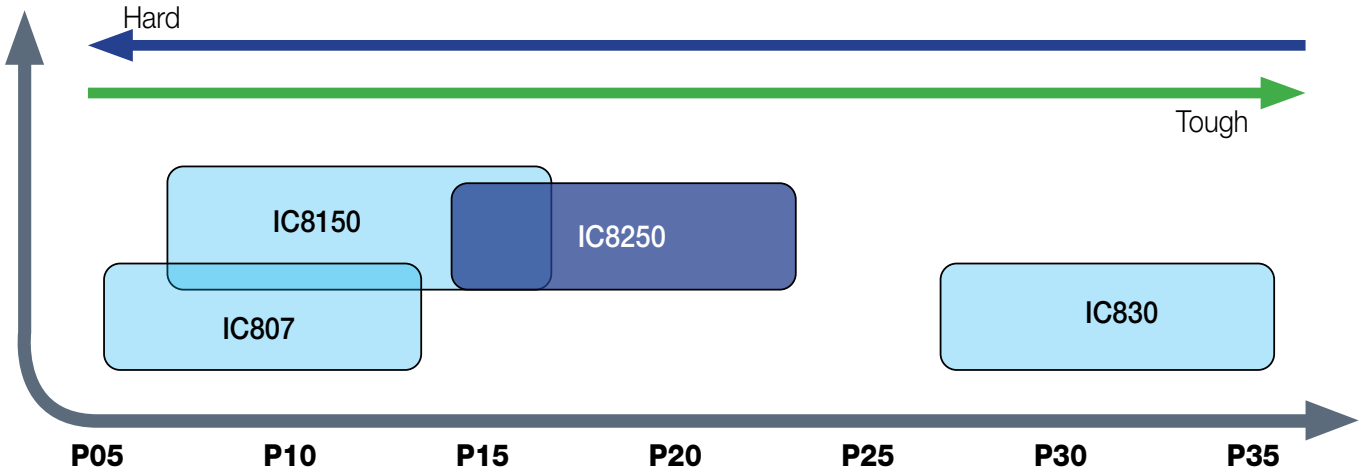
ISO P-Steel





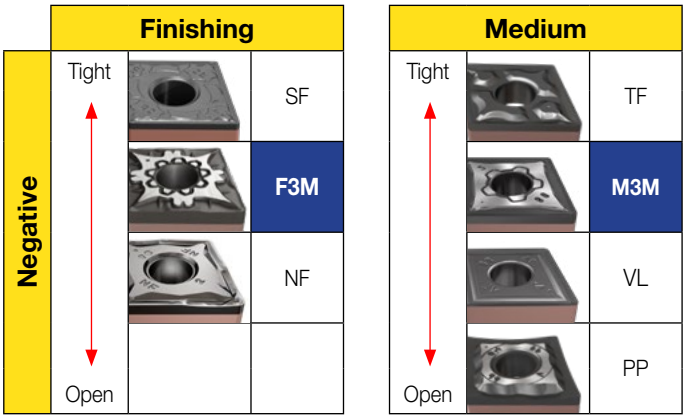
First Choice

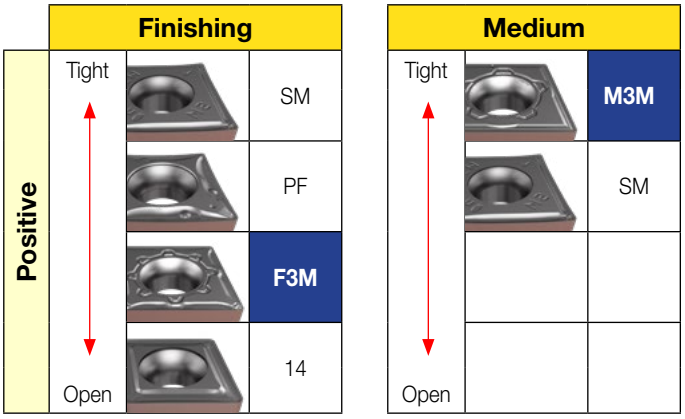
Recommended Carbide Grades



*For complete information regarding ISCAR's ceramic and CBN grades, please refer to ISCAR's catalog on the subject.

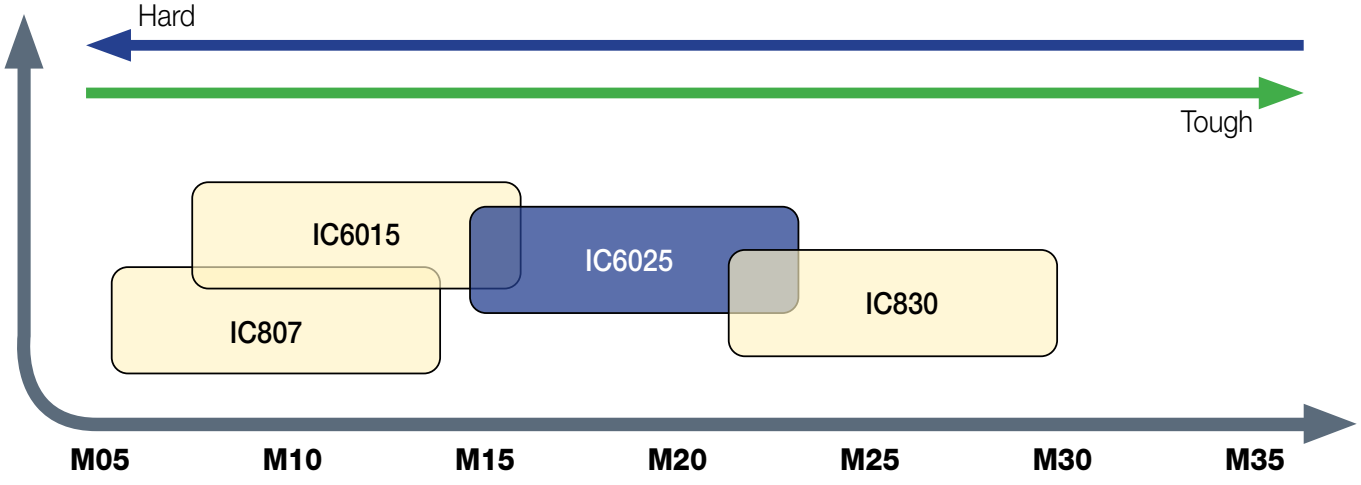
ISO M- Stainless Steel





First Choice

Recommended Carbide Grades



Selection Guide for Chipformers and Grades

ISO S-High Temperature Alloys

Negative

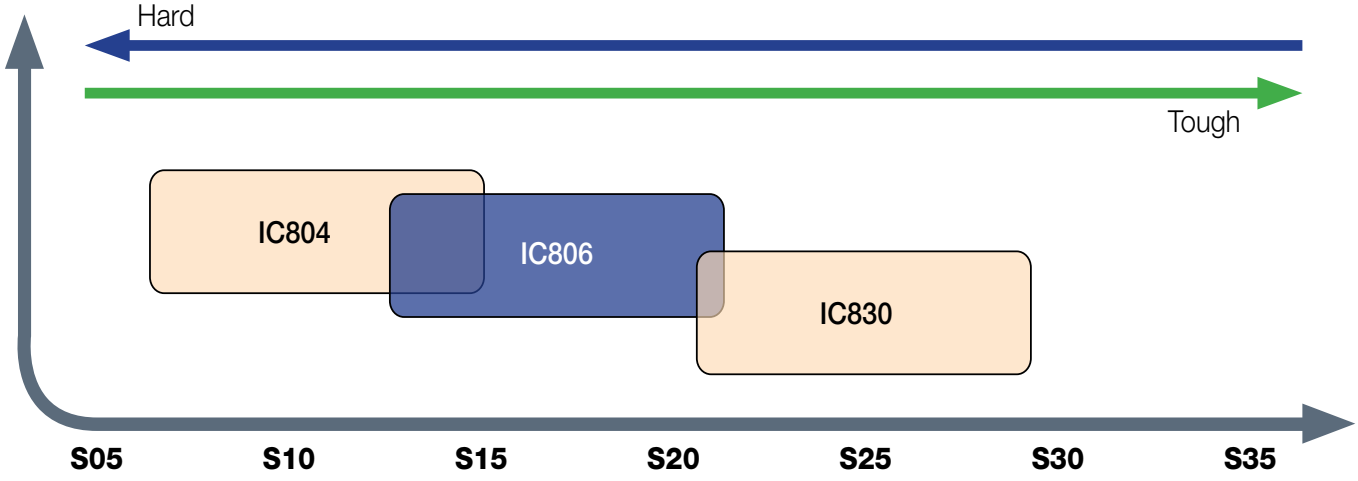
	Finishing	Medium
Tight	F3M	TF
	F3S	**M3M**
		VL
Open		PP

Positive

	Finishing	Medium
Tight	SM	**M3M**
	PF	SM
	F3M	
Open	14	

First Choice

Recommended Carbide Grades



*For complete information regarding ISCAR's ceramic and CBN grades, please refer to ISCAR's catalog on the subject.

Selection Guide for Chipformers and Grades

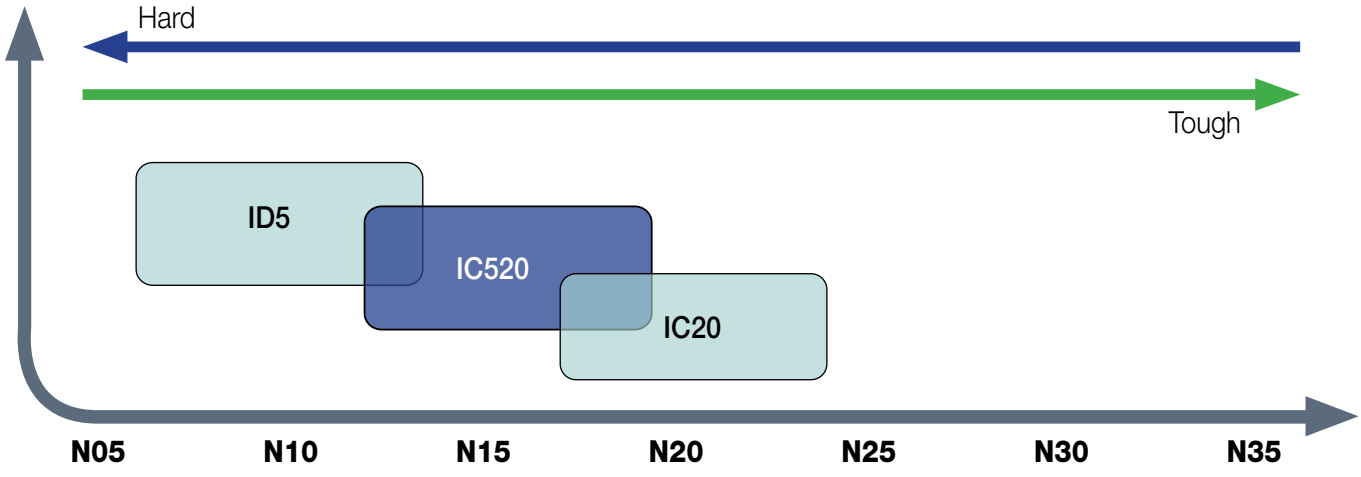
ISO N-Aluminum

	Finishing	Medium	Roughing
Negative	Tight ↕ Open	Tight ↕ Open	Tight ↕ Open
	 NF	 PP	 NMS12
	 **F3N**	 **M3N**	

	Finishing
Positive	Tight ↕ Open
	 AS

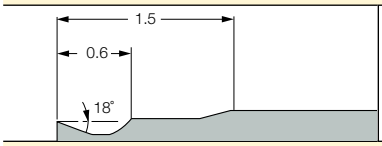
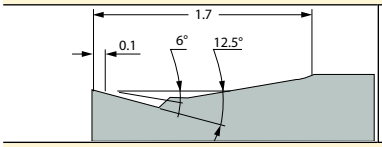
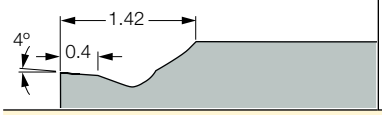
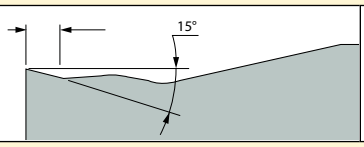
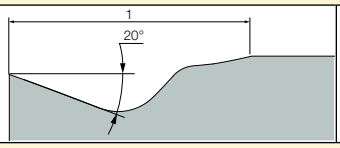
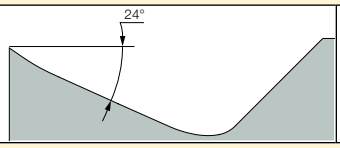
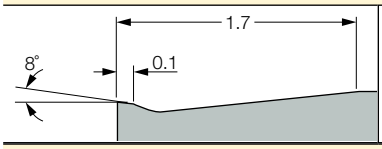
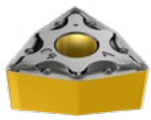
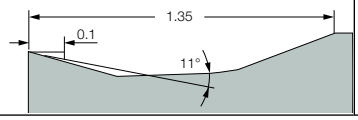
First Choice

Recommended Carbide Grades

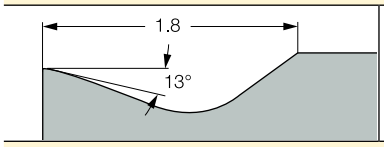
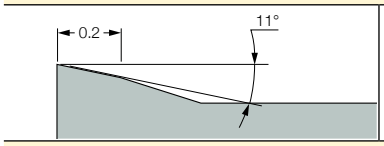
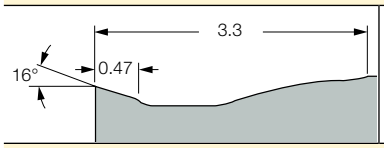
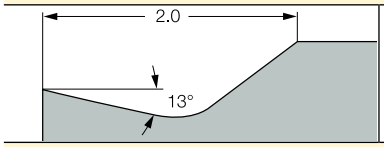
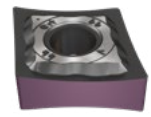
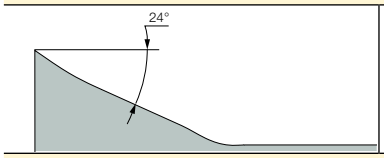
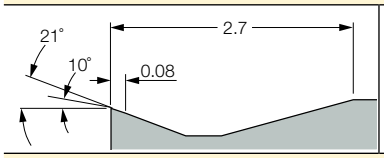
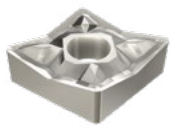
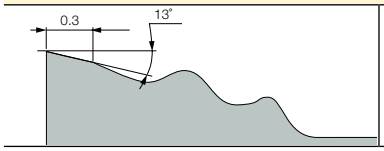


Chipformers

Negative Chipformers

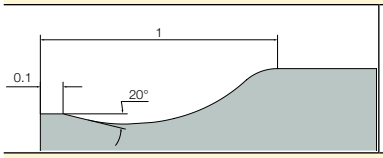
SF Chipformer		
		A unique super finishing chipformer that controls chip flow at very low feeds and cutting depths. Designed to reduce crater wear.
F3P Chipformer		
		Double-sided insert with a positive rake angle to reduce cutting forces for finish machining on steel.
NF Chipformer		
		Double-sided for semi-finishing and finishing applications. Low cutting forces are due to a very sharp edge and positive rake.
F3M Chipformer		
		Double-sided insert with a positive rake angle for finish machining on stainless steel. Its unique deflector geometry with a wavy surface prevents chip hammering.
F3S Chipformer		
		Chipbreaker with positive rake angle for finish machining superalloys and exotic materials.
F3N Chipformer		
		Polished and extra sharp positive insert for machining aluminum and non-ferrous materials for finishing applications.
WF Chipformer		
		Wiper geometry for high feed finishing on soft and gummy materials. Small depths of cut.
M3P Chipformer		
		Double-sided insert for medium machining on steel with a reinforced cutting edge to increase tool life.

Negative Chipformers

TF Chipformer		
		Double-sided positive rake angles to prevent strain hardening. The rake angle varies along the edge to a negative angle which prevents chipping. Special design reduces cratering. Used for carbon and alloy steel, stainless steel and high-temp alloys.
M3M Chipformer		
		Double-sided insert for medium machining on stainless steel with a reinforced cutting edge that prevents notch wear at tight radii to increase tool life.
VL Chipformer		
		High positive rake and a special edge preparation used for rough and finish turning on high temperature alloys. Excellent performance on parts such as automotive valves.
PP Chipformer		
		Double-sided, very positive rake, sharp- and positive radial edge for heat-resistant alloys, stainless steel, aluminum alloys and soft, low carbon steel.
M3N Chipformer		
		Polished and extra sharp positive insert for machining aluminum and non-ferrous materials for medium applications.
12 Chipformer		
		Single-sided for medium to rough machining on aluminum and soft materials.
HM Chipformer		
		Feed range: 0.08 mm/rev to 0.75 mm/rev. Depth of cut from 1.5 mm to 8.0 mm. Feed range: .003 to .03 in/rev. Depth of cut from .06 to .32″

Positive Chipformers

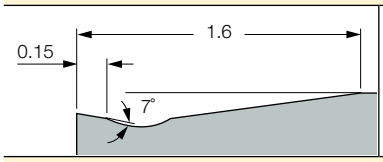
F3P Chipformer





Super finishing and finishing applications, mainly on positive inserts. Feed range: 0.03-0.20 mm/rev. DOC 0.25-3.0 mm.
Feed range: .001-.008 in/rev. DOC .01-.118″

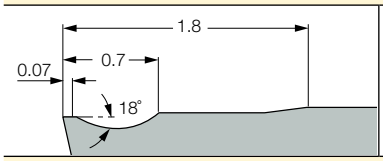
PF Chipformer





Super finishing and finishing applications, mainly on positive inserts. Feed range: 0.03-0.20 mm/rev. DOC 0.25-3.0 mm.
Feed range: .001-.008 in/rev. DOC .01-.118″

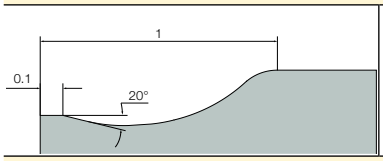
SM Chipformer

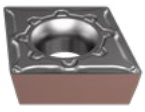




Finishing and boring applications. Feed range: 0.06-0.25 mm/rev. DOC 0.5-2.5 mm.
Feed range: .002-.01 in/rev. DOC .02 -.1″.

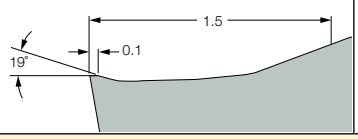
F3M Chipformer





Chipbreaker with positive rake angle for finishing machining of stainless steel, also suitable for superalloys and exotic materials.

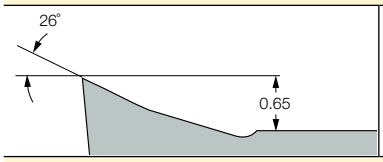
14 Chipformer





Semi-finishing and finishing. Medium feeds.

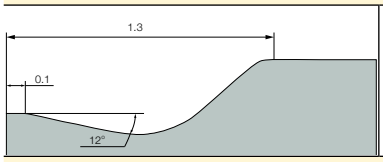
AS Chipformer

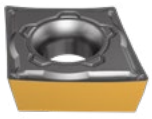




For general use machining on aluminum and soft materials.

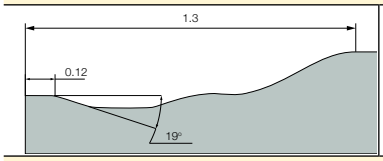
M3P Chipformer

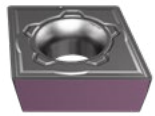




Chipbreaker with reinforced cutting edge and positive rake angles for medium machining steel conditions.

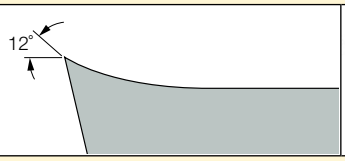
M3M Chipformer





Chipbreaker with reinforced cutting edge and positive rake angles for medium machining stainless steel conditions.

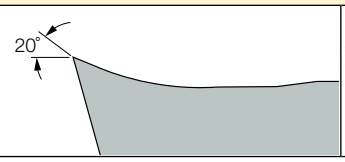
F1M-12P Chipformer





For finish machining. Excellent surface quality.
For steels, stainless steels, high temp alloys, titanium alloys and non-ferrous materials.

F1M-20P Chipformer





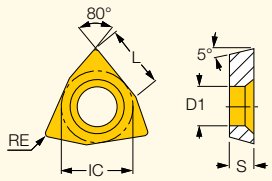
For semi-finish and finish applications. Suitable for stainless steel, high-temp alloys, titanium alloys and non-ferrous materials.

ISOTURN

WBGT

Trigon Inserts with a 5°
Positive Flank Ground
Chipformer for Finish Turning







M E T R I C

Designation	Dimensions L	IC	S	D1	RE	Tough ↔ Hard IC830	IC908	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
WBGT 060102L	2.18	3.97	1.59	2.24	0.20	•	•	•	•	0.10-1.00	0.05-0.10

- For user guide and cutting speed recommendations, see pages 128-138,288-294

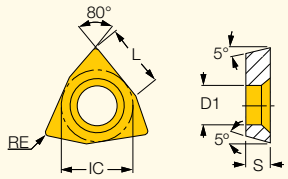
For tools, see pages: E/S-SWUBR/L (79) • MG-SWUBR/L (80) • PICIN-A-SWUBR/L (478) • PICIN-SWUBR/L (479)

ISOTURN

WBGT

Trigon Inserts with a 5°
Positive Flank Ground
Chipformer for Finish Turning







I N C H

Designation	Dimensions L	IC	S	D1	RE	Tough ↔ Hard IC830	IC908	IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
WBGT 520L	.086	.156	.063	.088	.0079	•	•	•	•	.004-.039	.0020-.0039

- For user guide and cutting speed recommendations, see pages 128-138,288-294

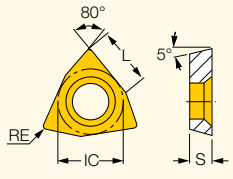
For tools, see pages: E/S-SWUBR/L (79) • MG-SWUBR/L (80) • PICIN-A-SWUBR/L (478) • PICIN-SWUBR/L (479)

ISOTURN

WBMT

Trigon Inserts with a 5°
Positive Flank Ground
Chipformer for Finish Turning







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC354	IC350	IC908	IC30N	IC530N	IC20N	IC520N	Recommended Machining Data a_p (mm)	f (mm/rev)
WBMT 060101R/L	2.18	3.97	1.59	0.10				•					0.40-2.00	0.10-0.15
WBMT 060102L	2.18	3.97	1.59	0.20	•	•	•		•	•	•	•	0.40-2.00	0.10-0.15
WBMT 060102R	2.18	3.97	1.59	0.20		•	•			•		•	0.40-2.00	0.10-0.15

- WBMT 06...R right-hand inserts used on left-hand tools and WBMT 06...L left-hand inserts used on right-hand tools
- For user guide and cutting speed recommendations, see pages 128-138,288-294

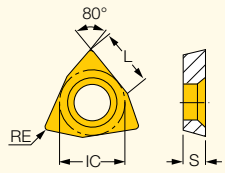
For tools, see pages: E/S-SWUBR/L (79) • MG-SWUBR/L (80) • PICIN-A-SWUBR/L (478) • PICIN-SWUBR/L (479)

ISOTURN

WBMT

Trigon Inserts with a 5° Positive Flank Ground Chipformer for Finish Turning







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC354	IC350	IC908	IC30N	IC530N	IC20N	IC520N	Recommended Machining Data a_p (inch)	f (IPR)
WBMT 52.004R/L	.086	.156	.063	.0039				●					.016-.079	.0039-.0059
WBMT 520L	.086	.156	.063	.0079	●	●	●		●	●	●	●	.016-.079	.0039-.0059
WBMT 520R	.086	.156	.063	.0079		●	●			●		●	.016-.079	.0039-.0059

- WBMT 06...R right-hand inserts used on left-hand tools and WBMT 06...L left-hand inserts used on right-hand tools
- For user guide and cutting speed recommendations, see pages 128-138,288-294

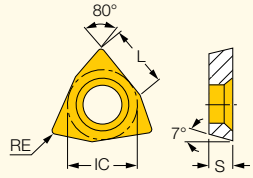
For tools, see pages: E/S-SWUBR/L (79) • MG-SWUBR/L (80) • PICIN-A-SWUBR/L (478) • PICIN-SWUBR/L (479)

ISOTURN

WCGT

Trigon Inserts with a 7° Positive Flank and Chipformer for Finish Turning







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC908	IC30N	Recommended Machining Data a_p (mm)	f (mm/rev)
WCGT 020102L	2.18	3.97	1.59	0.20	●	●	0.40-2.00	0.05-0.10
WCGT 020104L	2.18	3.97	1.59	0.40	●	●	0.40-2.00	0.10-0.15

- For user guide and cutting speed recommendations, see pages 128-138,288-294

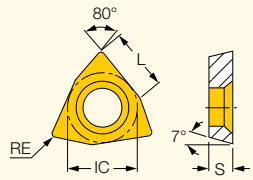
For tools, see pages: A/E-SWUCR (78) • MG-SWUCR (78)

ISOTURN

WCGT

Trigon Inserts with a 7° Positive Flank and Chipformer for Finish Turning







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC908	IC30N	Recommended Machining Data a_p (inch)	f (IPR)
WCGT 020102L	.086	.156	.063	.0079	●	●	.016-.079	.0020-.0039
WCGT 020104L	.086	.156	.063	.0157	●	●	.016-.079	.0039-.0059

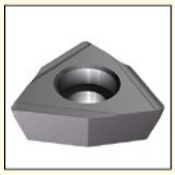
- For user guide and cutting speed recommendations, see pages 128-138,288-294

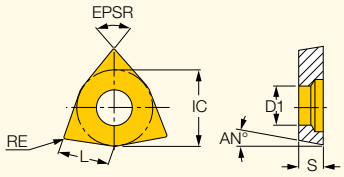
For tools, see pages: A/E-SWUCR (78) • MG-SWUCR (78)

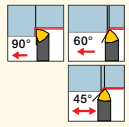
ISOTURN

WPEX

80° and 84° Precision Trigon Inserts with Positive 8° and 12° Clearance for Finishing Applications







M E T R I C

Designation	Dimensions L	S	RE	IC	D1	EPSR	AN	Tough ↔ Hard IC08	IC908	Recommended Machining Data a_p (mm)	f (mm/rev)
WPEX 040200R/L08	4.00	2.50	0.00	6.60	3.20	84.0	8.0	•		0.20-2.00	0.05-0.20
WPEX 040200R12	4.00	2.50	0.00	6.60	3.20	84.0	12.0	•		0.20-2.00	0.05-0.20
WPEX 040202R/L08	4.00	2.50	0.20	6.60	3.20	84.0	8.0	•		0.20-2.00	0.05-0.20
WPEX 050300R/L08	5.00	3.18	0.00	7.94	3.70	80.0	8.0	•	•	0.20-2.50	0.05-0.20
WPEX 050300R12	5.00	3.18	0.00	7.94	3.70	80.0	12.0	•	•	0.20-2.50	0.05-0.20
WPEX 050302R/L08	5.00	3.18	0.20	7.94	3.70	80.0	8.0	•	•	0.20-2.50	0.05-0.20
WPEX 050302R12	5.00	3.18	0.20	7.94	3.70	80.0	12.0		•	0.20-2.50	0.05-0.20
WPEX 050304R/L08	5.00	3.18	0.40	7.94	3.70	80.0	8.0	•	•	0.20-2.50	0.05-0.20
WPEX 050304R12	5.00	3.18	0.40	7.94	3.70	80.0	12.0		•	0.20-2.50	0.05-0.20
WPEX 060400R/L08	6.00	4.00	0.00	9.52	3.70	80.0	8.0	•	•	0.20-3.00	0.05-0.20
WPEX 060400R/L12	6.00	4.00	0.00	9.52	3.70	80.0	12.0	•	•	0.20-3.00	0.05-0.20
WPEX 060402R/L08	6.00	4.00	0.20	9.52	3.70	80.0	8.0	•	•	0.20-3.00	0.05-0.20
WPEX 060402R/L12	6.00	4.00	0.20	9.52	3.70	80.0	12.0	•	•	0.20-3.00	0.05-0.20
WPEX 060404R/L08	6.00	4.00	0.40	9.52	3.70	80.0	8.0	•	•	0.20-3.00	0.05-0.20
WPEX 060404R12	6.00	4.00	0.40	9.52	3.70	80.0	12.0	•	•	0.20-3.00	0.05-0.20

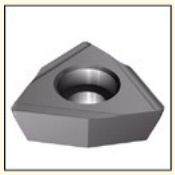
• For user guide and cutting speed recommendations, see pages 128-138,288-294

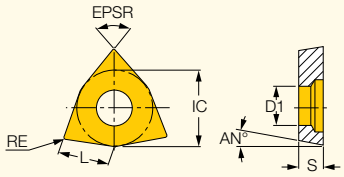
For tools, see pages: SWAPR/L-S (8) • SWDPR/L (8)

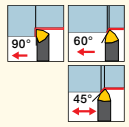
ISOTURN

WPEX

80° and 84° Precision Trigon Inserts with Positive 8° and 12° Clearance for Finishing Applications







I N C H

Designation	Dimensions L	S	RE	IC	D1	EPSR	AN	Tough ↔ Hard IC08	IC908	Recommended Machining Data a_p (inch)	f (IPR)
WPEX 040200R/L08	.157	.098	.0000	.260	.126	84.0	8.0	•		.008-.079	.0020-.0079
WPEX 040200R12	.157	.098	.0000	.260	.126	84.0	12.0	•		.008-.079	.0020-.0079
WPEX 040202R/L08	.157	.098	.0079	.260	.126	84.0	8.0	•		.008-.079	.0020-.0079
WPEX 050300R/L08	.197	.125	.0000	.313	.146	80.0	8.0	•	•	.008-.098	.0020-.0079
WPEX 050300R12	.197	.125	.0000	.313	.146	80.0	12.0	•	•	.008-.098	.0020-.0079
WPEX 050302R/L08	.197	.125	.0079	.313	.146	80.0	8.0	•	•	.008-.098	.0020-.0079
WPEX 050302R12	.197	.125	.0079	.313	.146	80.0	12.0		•	.008-.098	.0020-.0079
WPEX 050304R/L08	.197	.125	.0157	.313	.146	80.0	8.0	•	•	.008-.098	.0020-.0079
WPEX 050304R12	.197	.125	.0157	.313	.146	80.0	12.0		•	.008-.098	.0020-.0079
WPEX 060400R/L08	.236	.157	.0000	.375	.146	80.0	8.0	•	•	.008-.118	.0020-.0079
WPEX 060400R/L12	.236	.157	.0000	.375	.146	80.0	12.0	•	•	.008-.118	.0020-.0079
WPEX 060402R/L08	.236	.157	.0079	.375	.146	80.0	8.0	•	•	.008-.118	.0020-.0079
WPEX 060402R/L12	.236	.157	.0079	.375	.146	80.0	12.0	•	•	.008-.118	.0020-.0079
WPEX 060404R/L08	.236	.157	.0157	.375	.146	80.0	8.0	•	•	.008-.118	.0020-.0079
WPEX 060404R12	.236	.157	.0157	.375	.146	80.0	12.0	•	•	.008-.118	.0020-.0079

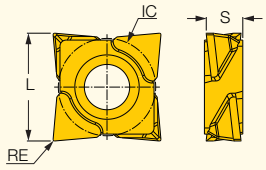
• For user guide and cutting speed recommendations, see pages 128-138,288-294

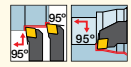
For tools, see pages: SWAPR/L-S (8) • SWDPR/L (8)

LOGIQ4TURN

CXMU-F3P
80° Double-Sided and Double-Positive Inserts with a Positive Rake for Finishing Alloyed Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8250	IC1008	IC8150	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
CXMU 060202-F3P	7.00	6.34	2.38	0.20	•	•	•	•	0.30-2.00	0.05-0.25
CXMU 060204-F3P	6.96	6.34	2.38	0.40	•	•	•	•	0.50-2.00	0.05-0.25
CXMU 060208-F3P	6.88	6.34	2.38	0.80	•	•	•	•	0.80-2.00	0.07-0.25

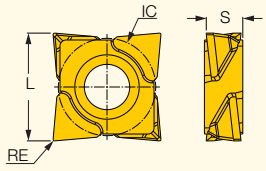
• For user guide and cutting speed recommendations, see pages 128-138,288-294

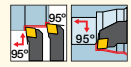
For tools, see pages: A/E-SCLXR/L-06X (84) • AVC-SCLXR/L-06X (89) • NQCH-SCLXR/L-JHP (16) • SCLXR/L 06X (13) • SCLXR/L 06X-JHP (15) • SCLXR/L 06XS (14)

LOGIQ4TURN

CXMU-F3P
80° Double-Sided and Double-Positive Inserts with a Positive Rake for Finishing Alloyed Steel







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8250	IC1008	IC8150	IC807	Recommended Machining Data a_p (inch)	f (IPR)
CXMU 060202-F3P	.276	.250	.094	.0079	•	•	•	•	.012-.079	.0020-.0098
CXMU 060204-F3P	.274	.250	.094	.0157	•	•	•	•	.020-.079	.0020-.0098
CXMU 060208-F3P	.271	.250	.094	.0315	•	•	•	•	.031-.079	.0027-.0098

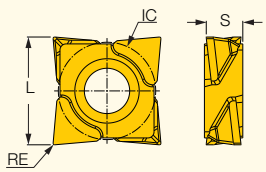
• For user guide and cutting speed recommendations, see pages 128-138,288-294

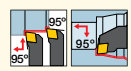
For tools, see pages: A/E-SCLXR-2X (84) • A/E-SCLXR/L-06X (84) • AVC-SCLXR/L-06X (89) • NQCH-SCLXR/L-JHP (16) • SCLXR/L 06X (13) • SCLXR/L 06X-JHP (15) • SCLXR/L 06XS (14) • SCLXR/L 2X (13) • SCLXR/L 2X-JHP (15) • SCLXR/L 2XS (14)

LOGIQ4TURN

CXMU-F3M
80° Double-Sided and Double-Positive Inserts with a Positive Rake for Finishing Stainless Steel and H.T.A.







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC6025	IC1008	IC6015	IC806	IC807	IC706	Recommended Machining Data a_p (mm)	f (mm/rev)
CXMU 060202-F3M	7.00	6.34	2.38	0.20	•	•	•	•	•	•	0.30-2.00	0.05-0.25
CXMU 060204-F3M	6.96	6.34	2.38	0.40	•	•	•	•	•	•	0.50-2.00	0.05-0.25
CXMU 060208-F3M	6.88	6.34	2.38	0.80	•	•	•	•	•	•	0.80-2.00	0.07-0.25

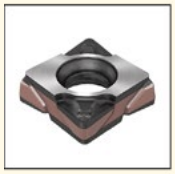
• For user guide and cutting speed recommendations, see pages 128-138,288-294

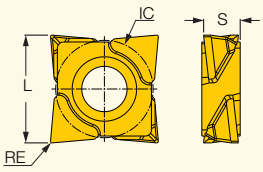
For tools, see pages: A/E-SCLXR/L-06X (84) • AVC-SCLXR/L-06X (89) • NQCH-SCLXR/L-JHP (16) • SCLXR/L 06X (13) • SCLXR/L 06X-JHP (15) • SCLXR/L 06XS (14)

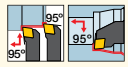
LOGIQ4TURN

CXMU-F3M

80° Double-Sided and Double-Positive Inserts with a Positive Rake for Finishing Stainless Steel and H.T.A.







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC6025	IC1008	IC6015	IC806	IC807	IC706	Recommended Machining Data a_p (inch)	f (IPR)
CXMU 060202-F3M	.276	.250	.094	.0079	●	●	●	●	●	●	.012-.079	.0020-.0098
CXMU 060204-F3M	.274	.250	.094	.0157	●	●	●	●	●	●	.020-.079	.0020-.0098
CXMU 060208-F3M	.271	.250	.094	.0315	●	●	●	●	●	●	.031-.079	.0027-.0098

• For user guide and cutting speed recommendations, see pages 128-138,288-294

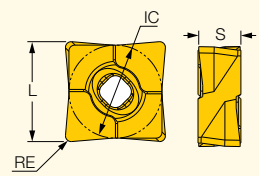
For tools, see pages: A/E-SCLXR-2X (84) • A/E-SCLXR/L-06X (84) • AVC-SCLXR/L-06X (89) • NQCH-SCLXR/L-JHP (16) • SCLXR/L 06X (13) • SCLXR/L 06X-JHP (15) • SCLXR/L 06XS (14) • SCLXR/L 2X (13) • SCLXR/L 2X-JHP (15) • SCLXR/L 2XS (14)

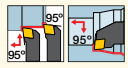
LOGIQ4TURN

CXMG-F3P

80° Double-Sided and Double-Positive Inserts with a Positive Rake for Finishing on Alloyed Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8150	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
CXMG 090401-F3P	10.40	9.35	4.66	0.10		●	0.20-2.00	0.02-0.15
CXMG 090402-F3P	10.40	9.35	4.66	0.20	●	●	0.30-2.00	0.03-0.15
CXMG 090404-F3P	10.40	9.35	4.66	0.40	●		0.40-2.00	0.05-0.25
CXMG 12T504-F3P	13.83	12.50	5.80	0.40	●	●	0.40-2.00	0.05-0.25
CXMG 12T508-F3P	13.75	12.50	5.80	0.80	●	●	0.80-2.00	0.05-0.25

• For user guide and cutting speed recommendations, see pages 128-138,288-294

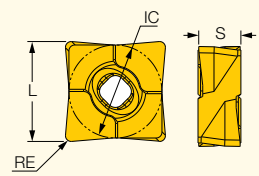
For tools, see pages: A-PCLXR/L (85) • AVC-PCLXR/L (86) • NQCH-PCLXR/L-S-JHP (17) • PCLXR/L (11) • PCLXR/L-JHP (12) • PCLXR/L-S (9) • PCLXR/L-S-JHP (10) • SBTT-PCLXR/L09-JHP (823)

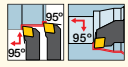
LOGIQ4TURN

CXMG-F3P

80° Double-Sided and Double-Positive Inserts with a Positive Rake for Finishing on Alloyed Steel







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8150	IC807	Recommended Machining Data a_p (inch)	f (IPR)
CXMG 090401-F3P	.409	.368	.183	.0039		●	.008-.079	.0008-.0059
CXMG 090402-F3P	.409	.368	.183	.0079	●	●	.012-.079	.0012-.0059
CXMG 090404-F3P	.409	.368	.183	.0157	●		.016-.079	.0020-.0098
CXMG 12T504-F3P	.544	.492	.228	.0157	●	●	.016-.079	.0020-.0098
CXMG 12T508-F3P	.541	.492	.228	.0315	●	●	.031-.079	.0020-.0098

• For user guide and cutting speed recommendations, see pages 128-138,288-294

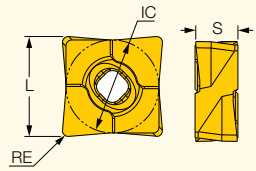
For tools, see pages: A-PCLXR/L (85) • AVC-PCLXR/L (86) • NQCH-PCLXR/L-S-JHP (17) • PCLXR/L (11) • PCLXR/L-JHP (12) • PCLXR/L-S (9) • PCLXR/L-S-JHP (10) • SBTT-PCLXR/L09-JHP (823)

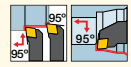
LOGIQ4TURN

CXMG-M3P

80° Double-Sided and Double-Positive Inserts with a Positive Rake for Medium Machining on Alloyed Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8250	IC8150	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
CXMG 090408-M3P	10.32	9.35	4.65	0.80	●	●	●	0.80-3.00	0.10-0.50
CXMG 12T508-M3P	13.75	12.50	5.80	0.80	●	●	●	0.80-5.00	0.10-0.50
CXMG 12T512-M3P	13.68	12.50	5.80	1.20	●	●	●	1.20-5.00	0.10-0.50

• For user guide and cutting speed recommendations, see pages 128-138,288-294

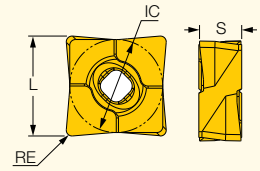
For tools, see pages: A-PCLXR/L (85) • AVC-PCLXR/L (86) • NQCH-PCLXR/L-S-JHP (17) • PCLXR/L (11) • PCLXR/L-JHP (12) • PCLXR/L-S (9) • PCLXR/L-S-JHP (10) • SBTT-PCLXR/L09-JHP (823)

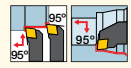
LOGIQ4TURN

CXMG-M3P

80° Double-Sided and Double-Positive Inserts with a Positive Rake for Medium Machining on Alloyed Steel







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8250	IC8150	IC807	Recommended Machining Data a_p (inch)	f (IPR)
CXMG 090408-M3P	.406	.368	.183	.0315	●	●	●	.031-.118	.0039-.0197
CXMG 12T508-M3P	.541	.492	.228	.0315	●	●	●	.031-.197	.0039-.0197
CXMG 12T512-M3P	.539	.492	.228	.0472	●	●	●	.047-.197	.0039-.0197

• For user guide and cutting speed recommendations, see pages 128-138,288-294

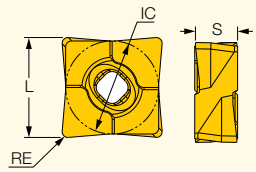
For tools, see pages: A-PCLXR/L (85) • AVC-PCLXR/L (86) • NQCH-PCLXR/L-S-JHP (17) • PCLXR/L (11) • PCLXR/L-JHP (12) • PCLXR/L-S (9) • PCLXR/L-S-JHP (10) • SBTT-PCLXR/L09-JHP (823)

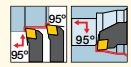
LOGIQ4TURN

CXMG-F3M

80° Double-Sided and Double-Positive Inserts with a Positive Rake for Finishing on Stainless Steel and H.T.A.







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC6025	IC6015	IC806	IC1017	IC807	IC706	Recommended Machining Data a_p (mm)	f (mm/rev)
CXMG 090401-F3M	10.40	9.35	4.66	0.10					●		0.20-2.00	0.02-0.15
CXMG 090402-F3M	10.40	9.35	4.66	0.20		●	●	●	●	●	0.30-2.00	0.03-0.15
CXMG 090404-F3M	10.40	9.35	4.66	0.40	●	●	●	●	●	●	0.40-2.00	0.05-0.25
CXMG 12T504-F3M	13.83	12.50	5.80	0.40	●		●		●	●	0.40-2.00	0.05-0.25
CXMG 12T508-F3M	13.75	12.50	5.80	0.80	●		●		●	●	0.80-2.00	0.05-0.25

• For user guide and cutting speed recommendations, see pages 128-138,288-294

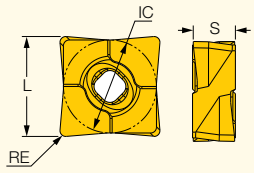
For tools, see pages: A-PCLXR/L (85) • AVC-PCLXR/L (86) • NQCH-PCLXR/L-S-JHP (17) • PCLXR/L (11) • PCLXR/L-JHP (12) • PCLXR/L-S (9) • PCLXR/L-S-JHP (10) • SBTT-PCLXR/L09-JHP (823)

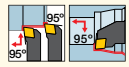
LOGIQ4TURN

CXMG-F3M

80° Double-Sided and Double-Positive Inserts with a Positive Rake for Finishing on Stainless Steel and H.T.A.







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC6025	IC6015	IC806	IC1017	IC807	IC706	Recommended Machining Data a_p (inch)	f (IPR)
CXMG 090401-F3M	.409	.368	.183	.0039					●		.008-.079	.0008-.0059
CXMG 090402-F3M	.409	.368	.183	.0079		●	●	●	●	●	.012-.079	.0012-.0059
CXMG 090404-F3M	.409	.368	.183	.0157	●	●	●	●	●	●	.016-.079	.0020-.0098
CXMG 12T504-F3M	.544	.492	.228	.0157	●		●		●	●	.016-.079	.0020-.0098
CXMG 12T508-F3M	.541	.492	.228	.0315	●		●		●	●	.031-.079	.0020-.0098

• For user guide and cutting speed recommendations, see pages 128-138,288-294

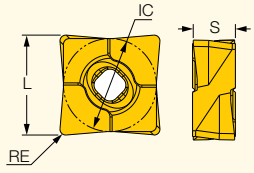
For tools, see pages: A-PCLXR/L (85) • AVC-PCLXR/L (86) • NQCH-PCLXR/L-S-JHP (17) • PCLXR/L (11) • PCLXR/L-JHP (12) • PCLXR/L-S (9) • PCLXR/L-S-JHP (10) • SBTT-PCLXR/L09-JHP (823)

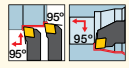
LOGIQ4TURN

CXMG-M3M

80° Double-Sided and Double-Positive Inserts with a Positive Rake for Medium Machining on Stainless Steel and H.T.A.







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC6025	IC806	IC807	IC706	Recommended Machining Data a_p (mm)	f (mm/rev)
CXMG 090408-M3M	10.32	9.35	4.66	0.80	●	●	●	●	0.80-3.00	0.15-0.50
CXMG 12T508-M3M	13.75	12.50	5.80	0.80	●	●	●	●	0.80-5.00	0.15-0.50
CXMG 12T512-M3M	13.68	12.50	5.80	1.20	●	●	●		1.20-5.00	0.15-0.50

• For user guide and cutting speed recommendations, see pages 128-138,288-294

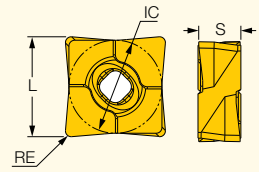
For tools, see pages: A-PCLXR/L (85) • AVC-PCLXR/L (86) • NQCH-PCLXR/L-S-JHP (17) • PCLXR/L (11) • PCLXR/L-JHP (12) • PCLXR/L-S (9) • PCLXR/L-S-JHP (10) • SBTT-PCLXR/L09-JHP (823)

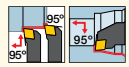
LOGIQ4TURN

CXMG-M3M

80° Double-Sided and Double-Positive Inserts with a Positive Rake for Medium Machining on Stainless Steel and H.T.A.







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC6025	IC806	IC807	IC706	Recommended Machining Data a_p (inch)	f (IPR)
CXMG 090408-M3M	.406	.368	.183	.0315	●	●	●	●	.031-.118	.0059-.0197
CXMG 12T508-M3M	.541	.492	.228	.0315	●	●	●	●	.031-.197	.0059-.0197
CXMG 12T512-M3M	.539	.492	.228	.0472	●	●	●		.047-.197	.0059-.0197

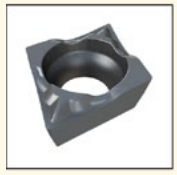
• For user guide and cutting speed recommendations, see pages 128-138,288-294

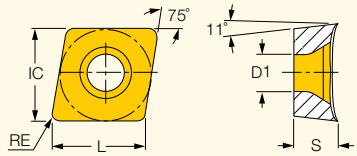
For tools, see pages: A-PCLXR/L (85) • AVC-PCLXR/L (86) • NQCH-PCLXR/L-S-JHP (17) • PCLXR/L (11) • PCLXR/L-JHP (12) • PCLXR/L-S (9) • PCLXR/L-S-JHP (10) • SBTT-PCLXR/L09-JHP (823)

ISOTURN

EPGT-F1P

75° Rhombic Inserts with a Positive Flank for Very Low Finish Turning Conditions on Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	IC908	Recommended Machining Data a_p (mm)	f (mm/rev)
EPGT 03X101-F1P	3.70	3.57	1.39	0.10	1.90	●	0.10-0.50	0.01-0.05
EPGT 03X102-F1P	3.70	3.57	1.39	0.20	1.90	●	0.10-0.50	0.02-0.10
EPGT 03X104-F1P	3.70	3.57	1.39	0.40	1.90	●	0.10-0.50	0.05-0.15

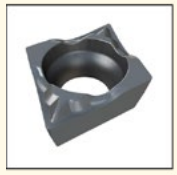
• For user guide and cutting speed recommendations, see pages 128-138,288-294

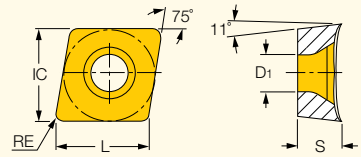
For tools, see pages: A/E-SEXPR/L-03 (81)

ISOTURN

EPGT-F1P

75° Rhombic Inserts with a Positive Flank for Very Low Finish Turning Conditions on Steel







I N C H

Designation	Dimensions L	IC	S	RE	D1	IC908	Recommended Machining Data a_p (inch)	f (IPR)
EPGT 03X101-F1P	.146	.141	.055	.0039	.075	●	.004-.020	.0004-.0020
EPGT 03X102-F1P	.146	.141	.055	.0079	.075	●	.004-.020	.0008-.0039
EPGT 03X104-F1P	.146	.141	.055	.0157	.075	●	.004-.020	.0020-.0059

• For user guide and cutting speed recommendations, see pages 128-138,288-294

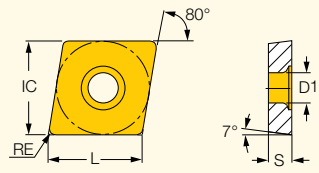
For tools, see pages: A/E-SEXPR/L-03 (81)

ISOTURN

CCMT-F3P

80° Rhombic Positive Flank Inserts for Semi-Finishing and Finishing Turning of Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC8250	IC8150	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
CCMT 060202-F3P	6.45	6.35	2.38	0.20	2.80	●	●	●	0.06-1.70	0.03-0.12
CCMT 060204-F3P	6.45	6.35	2.38	0.40	2.80	●	●	●	0.10-1.70	0.05-0.18
CCMT 09T302-F3P	9.70	9.52	3.97	0.20	4.40	●	●	●	0.08-2.00	0.04-0.16
CCMT 09T304-F3P	9.70	9.52	3.97	0.40	4.40	●	●	●	0.11-2.00	0.06-0.25
CCMT 09T308-F3P	9.70	9.52	3.97	0.80	4.40	●	●	●	0.15-2.00	0.08-0.32

• For user guide and cutting speed recommendations, see pages 128-138,288-294

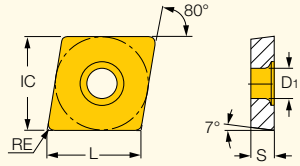
For tools, see pages: A/E/S-SCLCR/L (82) • E-SCLCR/L-HEAD (90) • NQCH-SCACR/L-S-JHP (20) • PCLCR/L-S (21) • PCLCR/L-S-JHP (22) • SBTT#-SCLCR/L-JHP (822) • SCACR/L-S (19) • SCLCR/L (18)

ISOTURN

CCMT-F3P

80° Rhombic Positive Flank Inserts for Semi-Finishing and Finishing Turning of Steel







I N C H

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC8250	IC8150	IC807	Recommended Machining Data a_p (inch)	f (IPR)
CCMT 2-0-F3P	.254	.250	.094	.0079	.110	●	●	●	.002-.067	.0012-.0047
CCMT 2-1-F3P	.254	.250	.094	.0157	.110	●	●	●	.004-.067	.0020-.0071
CCMT 3-0-F3P	.382	.375	.156	.0079	.173	●	●	●	.003-.079	.0016-.0063
CCMT 3-1-F3P	.382	.375	.156	.0157	.173	●	●	●	.004-.079	.0024-.0098
CCMT 3-2-F3P	.382	.375	.156	.0315	.173	●	●	●	.006-.079	.0031-.0126

• For user guide and cutting speed recommendations, see pages 128-138,288-294

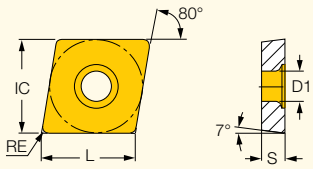
For tools, see pages: A/E/S-SCLCR/L (82) • E-SCLCR/L-HEAD (90) • NQCH-SCACR/L-S-JHP (20) • PCLCR/L-S (21) • PCLCR/L-S-JHP (22) • SBTT#-SCLCR/L-JHP (822) • SCACR/L-S (19) • SCLCR/L (18)

ISOTURN

CCMT-M3P

80° Rhombic Positive Flank Inserts for Medium Machining Conditions on Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC8250	IC8150	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
CCMT 060204-M3P	6.45	6.35	2.38	0.40	2.80	●	●	●	0.50-2.00	0.10-0.25
CCMT 060208-M3P	6.45	6.35	2.38	0.80	2.80	●	●	●	1.00-4.00	0.10-0.30
CCMT 09T304-M3P	9.70	9.52	3.97	0.40	4.40	●	●	●	0.50-3.00	0.10-0.20
CCMT 09T308-M3P	9.70	9.52	3.97	0.80	4.40	●	●	●	1.00-4.00	0.10-0.30

• For user guide and cutting speed recommendations, see pages 128-138,288-294

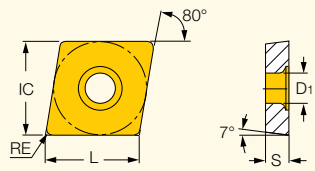
For tools, see pages: A/E/S-SCLCR/L (82) • E-SCLCR/L-HEAD (90) • NQCH-SCACR/L-S-JHP (20) • PCLCR/L-S (21) • PCLCR/L-S-JHP (22) • SBTT#-SCLCR/L-JHP (822) • SCACR/L-S (19) • SCLCR/L (18) • AVC-SCLCR/L (88)

ISOTURN

CCMT-M3P

80° Rhombic Positive Flank Inserts for Medium Machining Conditions on Steel







I N C H

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC8250	IC8150	IC807	Recommended Machining Data a_p (inch)	f (IPR)
CCMT 2-1-M3P	.254	.250	.094	.0157	.110	●	●	●	.020-.079	.0039-.0098
CCMT 2-2-M3P	.254	.250	.094	.0315	.110	●	●	●	.039-.157	.0039-.0118
CCMT 3-1-M3P	.382	.375	.156	.0157	.173	●	●	●	.020-.118	.0039-.0079
CCMT 3-2-M3P	.382	.375	.156	.0315	.173	●	●	●	.039-.157	.0039-.0118

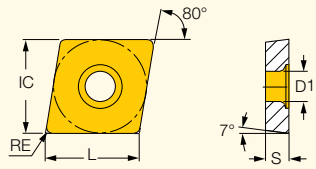
• For user guide and cutting speed recommendations, see pages 128-138,288-294

For tools, see pages: A/E/S-SCLCR/L (82) • E-SCLCR/L-HEAD (90) • NQCH-SCACR/L-S-JHP (20) • PCLCR/L-S (21) • PCLCR/L-S-JHP (22) • SBTT#-SCLCR/L-JHP (822) • SCACR/L-S (19) • SCLCR/L (18) • AVC-SCLCR/L (88)

ISOTURN

CCMT-F3M
80° Rhombic Positive Flank
Inserts for Stainless Steel
Finishing Applications







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC6025	IC6015	IC806	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
CCMT 060202-F3M	6.45	6.35	2.38	0.20	2.80	•	•	•	•	0.06-1.70	0.03-0.12
CCMT 060204-F3M	6.45	6.35	2.38	0.40	2.80	•	•	•	•	0.10-1.70	0.05-0.18
CCMT 060208-F3M	6.45	6.35	2.38	0.80	2.80	•	•	•	•	0.12-1.70	0.08-0.22
CCMT 09T302-F3M	9.70	9.52	3.97	0.20	4.40	•	•	•	•	0.08-2.00	0.04-0.16
CCMT 09T304-F3M	9.70	9.52	3.97	0.40	4.40	•	•	•	•	0.11-2.00	0.06-0.25
CCMT 09T308-F3M	9.70	9.52	3.97	0.80	4.40	•	•	•	•	0.15-2.00	0.08-0.32

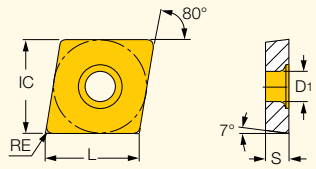
• For user guide and cutting speed recommendations, see pages 128-138,288-294

For tools, see pages: A/E/S-SCLCR/L (82) • E-SCLCR/L-HEAD (90) • NQCH-SCACR/L-S-JHP (20) • PCLCR/L-S (21) • PCLCR/L-S-JHP (22) • SBTT#-SCLCR/L-JHP (822) • SCACR/L-S (19) • SCLCR/L (18) • AVC-SCLCR/L (88)

ISOTURN

CCMT-F3M
80° Rhombic Positive Flank
Inserts for Stainless Steel
Finishing Applications







I N C H

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC6025	IC6015	IC806	IC807	Recommended Machining Data a_p (inch)	f (IPR)
CCMT 2-0-F3M	.254	.250	.094	.0079	.110	•	•	•	•	.002-.067	.0012-.0047
CCMT 2-1-F3M	.254	.250	.094	.0157	.110	•	•	•	•	.004-.067	.0020-.0071
CCMT 2-2-F3M	.254	.250	.094	.0315	.110	•	•	•	•	.005-.067	.0031-.0087
CCMT 3-0-F3M	.382	.375	.156	.0079	.173	•	•	•	•	.003-.079	.0016-.0063
CCMT 3-1-F3M	.382	.375	.156	.0157	.173	•	•	•	•	.004-.079	.0024-.0098
CCMT 3-2-F3M	.382	.375	.156	.0315	.173	•	•	•	•	.006-.079	.0031-.0126

• For user guide and cutting speed recommendations, see pages 128-138,288-294

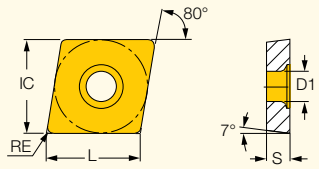
For tools, see pages: A/E/S-SCLCR/L (82) • E-SCLCR/L-HEAD (90) • NQCH-SCACR/L-S-JHP (20) • PCLCR/L-S (21) • PCLCR/L-S-JHP (22) • SBTT#-SCLCR/L-JHP (822) • SCACR/L-S (19) • SCLCR/L (18) • AVC-SCLCR/L (88)

ISOTURN

CCMT-M3M

80° Rhombic Positive Flank Inserts for Machining Stainless and Low Carbon Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC6025	IC6015	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
CCMT 060204-M3M	6.45	6.35	2.38	0.40	2.80	●	●	●	0.40-2.50	0.07-0.23
CCMT 060208-M3M	6.45	6.35	2.38	0.80	2.80	●	●	●	0.80-2.50	0.10-0.25
CCMT 09T304-M3M	9.70	9.52	3.97	0.40	4.40	●	●	●	0.40-3.00	0.07-0.25
CCMT 09T308-M3M	9.70	9.52	3.97	0.80	4.40	●	●	●	0.80-3.00	0.10-0.30

• For user guide and cutting speed recommendations, see pages 128-138,288-294

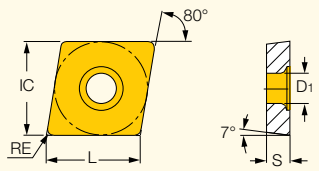
For tools, see pages: A/E/S-SCLCR/L (82) • E-SCLCR/L-HEAD (90) • NQCH-SCACR/L-S-JHP (20) • PCLCR/L-S (21) • PCLCR/L-S-JHP (22) • SBTT#-SCLCR/L-JHP (822) • SCACR/L-S (19) • SCLCR/L (18) • AVC-SCLCR/L (88)

ISOTURN

CCMT-M3M

80° Rhombic Positive Flank Inserts for Machining Stainless and Low Carbon Steel







I N C H

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC6025	IC6015	IC807	Recommended Machining Data a_p (inch)	f (IPR)
CCMT 2-1-M3M	.254	.250	.094	.0157	.110	●	●	●	.016-.098	.0027-.0091
CCMT 2-2-M3M	.254	.250	.094	.0315	.110	●	●	●	.031-.098	.0039-.0098
CCMT 3-1-M3M	.382	.375	.156	.0157	.173	●	●	●	.016-.118	.0027-.0098
CCMT 3-2-M3M	.382	.375	.156	.0315	.173	●	●	●	.031-.118	.0039-.0118

• For user guide and cutting speed recommendations, see pages 128-138,288-294

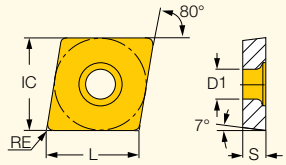
For tools, see pages: A/E/S-SCLCR/L (82) • E-SCLCR/L-HEAD (90) • NQCH-SCACR/L-S-JHP (20) • PCLCR/L-S (21) • PCLCR/L-S-JHP (22) • SBTT#-SCLCR/L-JHP (822) • SCACR/L-S (19) • SCLCR/L (18) • AVC-SCLCR/L (88)

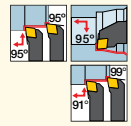
ISOTURN

CCMT/CCGT

80° Rhombic Inserts with a 7° Positive Flank for Semi-Finish and Finish Turning







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC8250	IC30N	IC20	IC20N	IC520N	Recommended Machining Data a_p (mm)	f (mm/rev)
CCGT 060202	6.45	6.35	2.38	0.20	2.80		•				0.50-2.00	0.10-0.20
CCGT 060202L (1)	6.45	6.35	2.38	0.20	2.80		•	•			0.50-2.00	0.10-0.20
CCGT 060204	6.45	6.35	2.38	0.40	2.80		•				0.50-2.00	0.10-0.20
CCGT 060204L (1)	6.45	6.35	2.38	0.40	2.80		•				0.50-2.00	0.10-0.20
CCMT 060202	6.45	6.35	2.38	0.20	2.80	•			•		0.50-2.00	0.10-0.20
CCMT 060204	6.45	6.35	2.38	0.40	2.80		•		•	•	0.50-2.00	0.12-0.22
CCMT 09T302	9.70	9.52	3.97	0.20	4.40				•	•	0.50-2.50	0.12-0.25
CCMT 09T304	9.70	9.52	3.97	0.40	4.40				•	•	0.50-2.50	0.12-0.25
CCMT 09T308	9.70	9.52	3.97	0.80	4.40				•	•	0.80-3.00	0.14-0.25

• Use left-hand inserts for left-hand external tools and for right-hand internal tools

(1) Left-hand insert

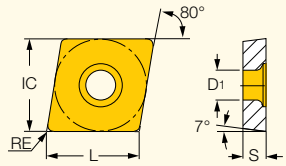
For tools, see pages: A/E/S-SCLCR/L (82) • AVC-SCLCR/L (88) • E-SCLCR/L-HEAD (90) • NQCH-SCACR/L-S-JHP (20) • PCLCR/L-S (21) • PCLCR/L-S-JHP (22) • SBTT#-SCLCR/L-JHP (822) • SCACR/L-S (19) • SCLCR/L (18)

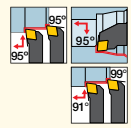
ISOTURN

CCMT/CCGT

80° Rhombic Inserts with a 7° Positive Flank for Semi-Finish and Finish Turning







I N C H

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC8250	IC30N	IC20	IC20N	IC520N	Recommended Machining Data a_p (inch)	f (IPR)
CCGT 2-0	.254	.250	.094	.0079	.110		•				.020-.079	.0039-.0079
CCGT 2-0L (1)	.254	.250	.094	.0079	.110		•	•			.020-.079	.0039-.0079
CCGT 2-1	.254	.250	.094	.0157	.110		•				.020-.079	.0039-.0079
CCGT 2-1L (1)	.254	.250	.094	.0157	.110		•				.020-.079	.0039-.0079
CCMT 2-0	.254	.250	.094	.0079	.110	•			•		.020-.079	.0039-.0079
CCMT 2-1	.254	.250	.094	.0157	.110		•		•	•	.020-.079	.0047-.0087
CCMT 3-0	.382	.375	.156	.0079	.173				•	•	.020-.098	.0047-.0098
CCMT 3-1	.382	.375	.156	.0157	.173				•	•	.020-.098	.0047-.0098
CCMT 3-2	.382	.375	.156	.0315	.173				•	•	.031-.118	.0055-.0098

• Use left-hand inserts for left-hand external tools and for right-hand internal tools

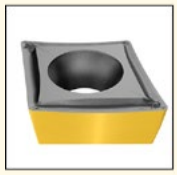
(1) Left-hand insert

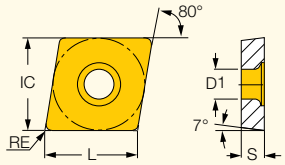
For tools, see pages: A/E/S-SCLCR/L (82) • AVC-SCLCR/L (88) • E-SCLCR/L-HEAD (90) • NQCH-SCACR/L-S-JHP (20) • PCLCR/L-S (21) • PCLCR/L-S-JHP (22) • SBTT#-SCLCR/L-JHP (822) • SCACR/L-S (19) • SCLCR/L (18)

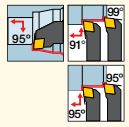
ISOTURN

CCMT/CCGT-SM

Single-Sided Turning Inserts for Semi-Finishing and Finishing on Soft Materials and Exotic Alloys







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC6025	IC8250	IC6015	IC8150	IC20	IC428	IC806	IC1017	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
CCGT 060201-SM	6.45	6.35	2.38	0.10	2.80										●	0.25-2.00	0.05-0.20
CCGT 060202-SM	6.45	6.35	2.38	0.20	2.80										●	0.25-2.00	0.05-0.25
CCMT 060202-SM	6.45	6.35	2.38	0.20	2.80		●		●			●				0.25-2.00	0.05-0.25
CCMT 060204-SM	6.45	6.35	2.38	0.40	2.80	●	●	●	●			●		●	●	0.50-2.50	0.07-0.25
CCMT 060208-SM	6.45	6.35	2.38	0.80	2.80	●		●						●	●	0.50-2.50	0.07-0.25
CCMT 09T302-SM	9.70	9.52	3.97	0.20	4.40	●	●	●				●	●	●	●	0.50-2.50	0.06-0.25
CCMT 09T304-SM	9.70	9.52	3.97	0.40	4.40	●	●		●	●	●	●		●	●	0.50-2.50	0.06-0.25
CCMT 09T308-SM	9.70	9.52	3.97	0.80	4.40	●	●	●	●			●		●	●	0.50-3.00	0.07-0.25

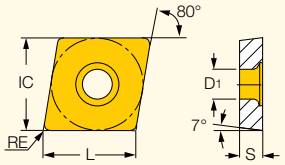
For tools, see pages: A/E/S-SCLCR/L (82) • AVC-SCLCR/L (88) • E-SCLCR/L-HEAD (90) • NQCH-SCACR/L-S-JHP (20) • PCLCR/L-S (21) • PCLCR/L-S-JHP (22) • SBTT#-SCLCR/L-JHP (822) • SCACR/L-S (19) • SCLCR/L (18)

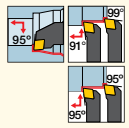
ISOTURN

CCMT/CCGT-SM

Single-Sided Turning Inserts for Semi-Finishing and Finishing on Soft Materials and Exotic Alloys







I N C H

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC6025	IC8250	IC6015	IC8150	IC20	IC428	IC806	IC1017	IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
CCGT 2-.004-SM	.254	.250	.094	.0039	.110										●	.010-.079	.0020-.0079
CCGT 2-0-SM	.254	.250	.094	.0079	.110										●	.010-.079	.0020-.0098
CCMT 2-0-SM	.254	.250	.094	.0079	.110		●		●			●				.010-.079	.0020-.0098
CCMT 2-1-SM	.254	.250	.094	.0157	.110	●	●	●	●			●		●	●	.020-.098	.0027-.0098
CCMT 2-2-SM	.254	.250	.094	.0315	.110	●		●						●	●	.020-.098	.0027-.0098
CCMT 3-0-SM	.382	.375	.156	.0079	.173	●	●	●				●	●	●	●	.020-.098	.0024-.0098
CCMT 3-1-SM	.382	.375	.156	.0157	.173	●	●		●	●	●	●		●	●	.020-.098	.0024-.0098
CCMT 3-2-SM	.382	.375	.156	.0315	.173	●	●	●	●			●		●	●	.020-.118	.0027-.0098

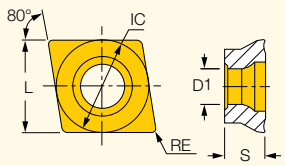
For tools, see pages: A/E/S-SCLCR/L (82) • AVC-SCLCR/L (88) • E-SCLCR/L-HEAD (90) • NQCH-SCACR/L-S-JHP (20) • PCLCR/L-S (21) • PCLCR/L-S-JHP (22) • SBTT#-SCLCR/L-JHP (822) • SCACR/L-S (19) • SCLCR/L (18)

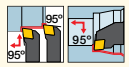
CHAMTURN

CC95MT-SM

Single-Sided 80° Rhombic Inserts for Finishing (CHAMELEON MULTI-FUNCTION Pocket System)







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC8250	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
CC95MT 100504-SM	9.50	9.52	5.00	0.40	4.50	●	●	●	0.50-3.00	0.07-0.24

• For user guide and cutting speed recommendations, see pages 128-138,288-294

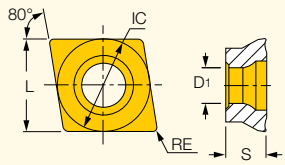
For tools, see pages: S-SUXCR/L-CM (112) • SUXCR/L-CM (50)

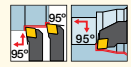
CHAMTURN

CC95MT-SM

Single-Sided 80° Rhombic Inserts for Finishing (CHAMELEON MULTI-FUNCTION Pocket System)







I N C H

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC8250	IC8150	Recommended Machining Data a_p (inch)	f (IPR)
CC95MT 100504-SM	.374	.375	.197	.0157	.177	●	●	●	.020-.118	.0027-.0094

• For user guide and cutting speed recommendations, see pages 128-138,288-294

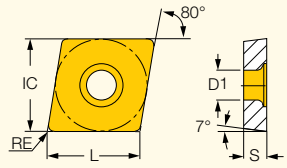
For tools, see pages: S-SUXCR/L-CM (112) • SUXCR-CM (50) • SUXCR/L-CM (50)

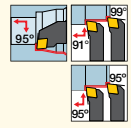
ISOTURN

CCMT-14

80° Rhombic Inserts with a 7° Positive Flank for Semi-Finish and Finish Turning







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC8250	IC20	IC428	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
CCMT 060204-14	6.45	6.35	2.38	0.40	2.80	●		●	●	●	●	0.50-2.50	0.14-0.25
CCMT 09T304-14	9.70	9.52	3.97	0.40	4.40		●			●	●	0.50-3.00	0.14-0.25
CCMT 09T308-14	9.70	9.52	3.97	0.80	4.40	●	●	●	●			0.80-3.00	0.14-0.30

• For user guide and cutting speed recommendations, see pages 128-138,288-294

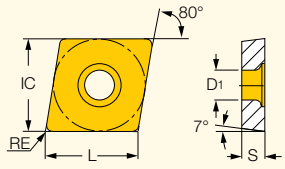
For tools, see pages: A/E/S-SCLCR/L (82) • AVC-SCLCR/L (88) • E-SCLCR/L-HEAD (90) • NQCH-SCACR/L-S-JHP (20) • PCLCR/L-S (21) • PCLCR/L-S-JHP (22) • SBTT#-SCLCR/L-JHP (822) • SCACR/L-S (19) • SCLCR/L (18)

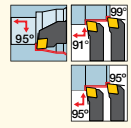
ISOTURN

CCMT-14

80° Rhombic Inserts with a 7° Positive Flank for Semi-Finish and Finish Turning







I N C H

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC8250	IC20	IC428	IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
CCMT 2-1-14	.254	.250	.094	.0157	.110	●		●	●	●	●	.020-.098	.0055-.0098
CCMT 3-1-14	.382	.375	.156	.0157	.173		●			●	●	.020-.118	.0055-.0098
CCMT 3-2-14	.382	.375	.156	.0315	.173	●	●	●	●			.031-.118	.0055-.0118

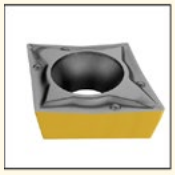
• For user guide and cutting speed recommendations, see pages 128-138,288-294

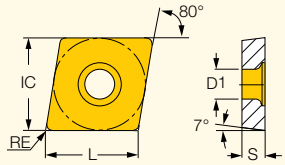
For tools, see pages: A/E/S-SCLCR/L (82) • AVC-SCLCR/L (88) • E-SCLCR/L-HEAD (90) • NQCH-SCACR/L-S-JHP (20) • PCLCR/L-S (21) • PCLCR/L-S-JHP (22) • SBTT#-SCLCR/L-JHP (822) • SCACR/L-S (19) • SCLCR/L (18)

ISOTURN

CCMT-PF

80° Rhombic Inserts with a Positive Flank for Semi-Finishing and Finishing on Soft Materials and Exotic Alloys







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC6025	IC6015	IC806	IC1017	IC807	IC907	IC804	Recommended Machining Data a_p (mm)	f (mm/rev)
CCMT 060202-PF	6.45	6.35	2.38	0.20	2.80	●	●	●			●	●	●	0.20-2.50	0.04-0.25
CCMT 060204-PF	6.45	6.35	2.38	0.40	2.80	●	●	●	●		●	●		0.40-2.50	0.04-0.30
CCMT 09T302-PF	9.70	9.52	3.97	0.20	4.40	●			●	●	●	●	●	0.50-3.00	0.05-0.30
CCMT 09T304-PF	9.70	9.52	3.97	0.40	4.40	●	●	●	●	●	●	●	●	0.50-3.50	0.05-0.35

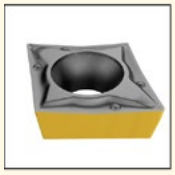
• For user guide and cutting speed recommendations, see pages 128-138,288-294

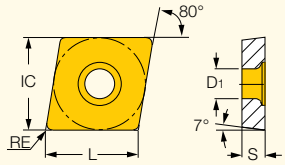
For tools, see pages: A/E/S-SCLCR/L (82) • E-SCLCR/L-HEAD (90) • NQCH-SCACR/L-S-JHP (20) • PCLCR/L-S (21) • PCLCR/L-S-JHP (22) • SBTT#-SCLCR/L-JHP (822) • SCACR/L-S (19) • SCLCR/L (18) • AVC-SCLCR/L (88)

ISOTURN

CCMT-PF

80° Rhombic Inserts with a Positive Flank for Semi-Finishing and Finishing on Soft Materials and Exotic Alloys







I N C H

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC6025	IC6015	IC806	IC1017	IC807	IC907	IC804	Recommended Machining Data a_p (inch)	f (IPR)
CCMT 2-0-PF	.254	.250	.094	.0079	.110	●	●	●			●	●	●	.008-.098	.0016-.0098
CCMT 2-1-PF	.254	.250	.094	.0157	.110	●	●	●	●		●	●		.016-.098	.0016-.0118
CCMT 3-0-PF	.382	.375	.156	.0079	.173	●			●	●	●	●	●	.020-.118	.0020-.0118
CCMT 3-1-PF	.382	.375	.156	.0157	.173	●	●	●	●	●	●	●	●	.020-.138	.0020-.0138

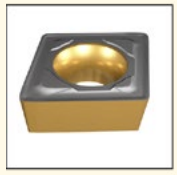
• For user guide and cutting speed recommendations, see pages 128-138,288-294

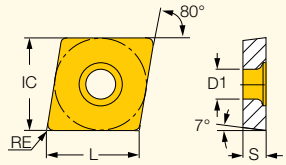
For tools, see pages: A/E/S-SCLCR/L (82) • E-SCLCR/L-HEAD (90) • NQCH-SCACR/L-S-JHP (20) • PCLCR/L-S (21) • PCLCR/L-S-JHP (22) • SBTT#-SCLCR/L-JHP (822) • SCACR/L-S (19) • SCLCR/L (18) • AVC-SCLCR/L (88)

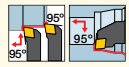
ISOTURN

CCMT-WG

80° Rhombic Inserts with a 7° Positive Flank and a Wiper Near the Corner for High Feed Finishing







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC8250	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
CCMT 060204-WG	6.45	6.35	2.38	0.40	2.80		●	●	0.40-2.00	0.10-0.35
CCMT 09T304-WG	9.70	9.52	3.97	0.40	4.40	●			0.40-2.00	0.14-0.30
CCMT 09T308-WG	9.70	9.52	3.97	0.80	4.40	●			0.50-2.50	0.20-0.38

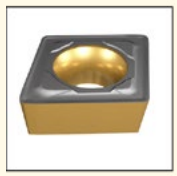
• For user guide and cutting speed recommendations, see pages 128-138,288-294

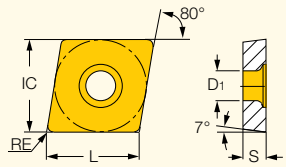
For tools, see pages: A/E/S-SCLCR/L (82) • AVC-SCLCR/L (88) • E-SCLCR/L-HEAD (90) • PCLCR/L-S (21) • PCLCR/L-S-JHP (22) • SBTT#-SCLCR/L-JHP (822) • SCLCR/L (18)

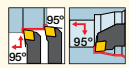
ISOTURN

CCMT-WG

80° Rhombic Inserts with a 7° Positive Flank and a Wiper Near the Corner for High Feed Finishing







I N C H

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC8250	IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
CCMT 2-1-WG	.254	.250	.094	.0157	.110		●	●	.016-.079	.0039-.0138
CCMT 3-1-WG	.382	.375	.156	.0157	.173	●			.016-.079	.0055-.0118
CCMT 3-2-WG	.382	.375	.156	.0315	.173	●			.020-.098	.0079-.0150

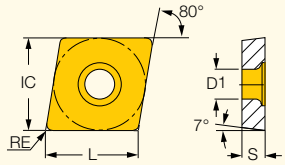
• For user guide and cutting speed recommendations, see pages 128-138,288-294

For tools, see pages: A/E/S-SCLCR/L (82) • AVC-SCLCR/L (88) • E-SCLCR/L-HEAD (90) • PCLCR/L-S (21) • PCLCR/L-S-JHP (22) • SBTT#-SCLCR/L-JHP (822) • SCLCR/L (18)

SWISSTURN

CCGT-F1M-12P
80° Rhombic Inserts with a 7° Positive Flank for Finish Turning on Soft Materials and High-Temp. Alloys







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	IC1008	Recommended Machining Data a_p (mm)	f (mm/rev)
CCGT 0602005-F1M-12P	6.45	6.35	2.38	0.05	2.80	•	0.04-2.50	0.03-0.18
CCGT 060201-F1M-12P	6.45	6.35	2.38	0.10	2.80	•	0.07-2.50	0.03-0.18
CCGT 060202-F1M-12P	6.45	6.35	2.38	0.20	2.80	•	0.15-2.50	0.03-0.18
CCGT 060204-F1M-12P	6.45	6.35	2.38	0.40	2.80	•	0.30-2.50	0.03-0.18
CCGT 09T3005-F1M-12P	9.67	9.52	3.97	0.05	4.40	•	0.04-4.50	0.03-0.18
CCGT 09T301-F1M-12P	9.67	9.52	3.97	0.10	4.40	•	0.07-4.50	0.03-0.18
CCGT 09T302-F1M-12P	9.67	9.52	3.97	0.20	4.40	•	0.15-4.50	0.03-0.18
CCGT 09T304-F1M-12P	9.67	9.52	3.97	0.40	4.40	•	0.30-4.50	0.03-0.18

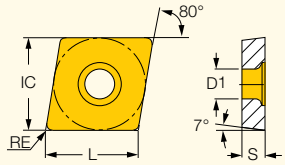
• For user guide and cutting speed recommendations, see pages 128-138,288-294

For tools, see pages: A/E/S-SCLCR/L (82) • AVC-SCLCR/L (88) • E-SCLCR/L-HEAD (90) • NQCH-SCACR/L-S-JHP (20) • PCLCR/L-S (21) • PCLCR/L-S-JHP (22) • SBTT#-SCLCR/L-JHP (822) • SCACR/L-S (19) • SCLCR/L (18)

SWISSTURN

CCGT-F1M-12P
80° Rhombic Inserts with a 7° Positive Flank for Finish Turning on Soft Materials and High-Temp. Alloys







I N C H

Designation	Dimensions L	IC	S	RE	D1	IC1008	Recommended Machining Data a_p (inch)	f (IPR)
CCGT 2-.002-F1M-12P	.254	.250	.094	.0020	.110	•	.002-.098	.0012-.0071
CCGT 2-.004-F1M-12P	.254	.250	.094	.0039	.110	•	.003-.098	.0012-.0071
CCGT 2-0-F1M-12P	.254	.250	.094	.0079	.110	•	.006-.098	.0012-.0071
CCGT 2-1-F1M-12P	.254	.250	.094	.0157	.110	•	.012-.098	.0012-.0071
CCGT 3-.002-F1M-12P	.381	.375	.156	.0020	.173	•	.002-.177	.0012-.0071
CCGT 3-.004-F1M-12P	.381	.375	.156	.0039	.173	•	.003-.177	.0012-.0071
CCGT 3-0-F1M-12P	.381	.375	.156	.0079	.173	•	.006-.177	.0012-.0071
CCGT 3-1-F1M-12P	.381	.375	.156	.0157	.173	•	.012-.177	.0012-.0071

• For user guide and cutting speed recommendations, see pages 128-138,288-294

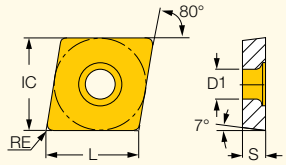
For tools, see pages: A/E/S-SCLCR/L (82) • AVC-SCLCR/L (88) • E-SCLCR/L-HEAD (90) • NQCH-SCACR/L-S-JHP (20) • PCLCR/L-S (21) • PCLCR/L-S-JHP (22) • SBTT#-SCLCR/L-JHP (822) • SCACR/L-S (19) • SCLCR/L (18)

SWISSTURN

CCGT-F1M-20P

80° Rhombic Inserts with a 7° Positive Flank for Semi-Finish and Finish Turning on Soft Materials and High-Temp. Alloys







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	IC1008	Recommended Machining Data a_p (mm)	f (mm/rev)
CCGT 0602005-F1M-20P	6.45	6.35	2.38	0.05	2.80	●	0.04-4.00	0.03-0.15
CCGT 060201-F1M-20P	6.45	6.35	2.38	0.10	2.80	●	0.07-4.00	0.03-0.15
CCGT 060202-F1M-20P	6.45	6.35	2.38	0.20	2.80	●	0.15-4.00	0.03-0.15
CCGT 060204-F1M-20P	6.45	6.35	2.38	0.40	2.80	●	0.30-4.00	0.03-0.15
CCGT 09T3005-F1M-20P	9.67	9.52	3.97	0.05	4.40	●	0.04-4.00	0.03-0.15
CCGT 09T301-F1M-20P	9.67	9.52	3.97	0.10	4.40	●	0.07-4.00	0.03-0.15
CCGT 09T302-F1M-20P	9.67	9.52	3.97	0.20	4.40	●	0.15-4.00	0.03-0.15
CCGT 09T304-F1M-20P	9.67	9.52	3.97	0.40	4.40	●	0.30-4.00	0.03-0.15

• For user guide and cutting speed recommendations, see pages 128-138,288-294

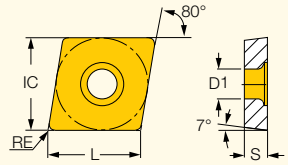
For tools, see pages: A/E/S-SCLCR/L (82) • AVC-SCLCR/L (88) • E-SCLCR/L-HEAD (90) • NQCH-SCACR/L-S-JHP (20) • PCLCR/L-S (21) • PCLCR/L-S-JHP (22) • SBTT#-SCLCR/L-JHP (822) • SCACR/L-S (19) • SCLCR/L (18)

SWISSTURN

CCGT-F1M-20P

80° Rhombic Inserts with a 7° Positive Flank for Semi-Finish and Finish Turning on Soft Materials and High-Temp. Alloys







I N C H

Designation	Dimensions L	IC	S	RE	D1	IC1008	Recommended Machining Data a_p (inch)	f (IPR)
CCGT 2-.002-F1M-20P	.254	.250	.094	.0020	.110	●	.002-.157	.0012-.0059
CCGT 2-.004-F1M-20P	.254	.250	.094	.0039	.110	●	.003-.157	.0012-.0059
CCGT 2-0-F1M-20P	.254	.250	.094	.0079	.110	●	.006-.157	.0012-.0059
CCGT 2-1-F1M-20P	.254	.250	.094	.0157	.110	●	.012-.157	.0012-.0059
CCGT 3-.002-F1M-20P	.381	.375	.156	.0020	.173	●	.002-.157	.0012-.0059
CCGT 3-.004-F1M-20P	.381	.375	.156	.0039	.173	●	.003-.157	.0012-.0059
CCGT 3-0-F1M-20P	.381	.375	.156	.0079	.173	●	.006-.157	.0012-.0059
CCGT 3-1-F1M-20P	.381	.375	.156	.0157	.173	●	.012-.157	.0012-.0059

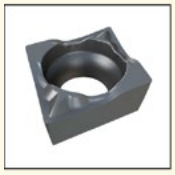
• For user guide and cutting speed recommendations, see pages 128-138,288-294

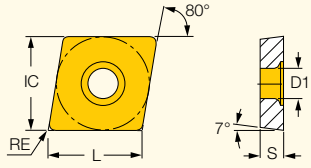
For tools, see pages: A/E/S-SCLCR/L (82) • AVC-SCLCR/L (88) • E-SCLCR/L-HEAD (90) • NQCH-SCACR/L-S-JHP (20) • PCLCR/L-S (21) • PCLCR/L-S-JHP (22) • SBTT#-SCLCR/L-JHP (822) • SCACR/L-S (19) • SCLCR/L (18)

ISOTURN

CCGT-F1P

80° Rhombic Inserts with a Positive Flank for Very Low Finish Turning Conditions on Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	IC908	Recommended Machining Data a_p (mm)	f (mm/rev)
CCGT 03X101-F1P	3.60	3.57	1.39	0.10	1.90	●	0.10-0.50	0.01-0.05
CCGT 03X102-F1P	3.60	3.57	1.39	0.20	1.90	●	0.10-0.50	0.02-0.10
CCGT 03X104-F1P	3.60	3.57	1.39	0.40	1.90	●	0.10-0.50	0.05-0.15
CCGT 04T101-F1P	4.40	4.37	1.79	0.10	2.30	●	0.10-0.50	0.01-0.05
CCGT 04T102-F1P	4.40	4.37	1.79	0.20	2.30	●	0.10-0.50	0.02-0.10
CCGT 04T104-F1P	4.40	4.37	1.79	0.40	2.30	●	0.10-0.50	0.05-0.15

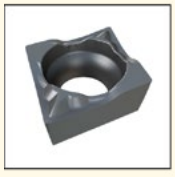
• For user guide and cutting speed recommendations, see pages 128-138,288-294

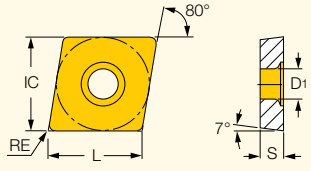
For tools, see pages: A/E/S-SCLCR/L (82) • PICIN-A-SCLCR/L (476) • PICIN-SCLCR/L (477)

ISOTURN

CCGT-F1P

80° Rhombic Inserts with a Positive Flank for Very Low Finish Turning Conditions on Steel







I N C H

Designation	Dimensions L	IC	S	RE	D1	IC908	Recommended Machining Data a_p (inch)	f (IPR)
CCGT 03X101-F1P	.142	.141	.055	.0039	.075	●	.004-.020	.0004-.0020
CCGT 03X102-F1P	.142	.141	.055	.0079	.075	●	.004-.020	.0008-.0039
CCGT 03X104-F1P	.142	.141	.055	.0157	.075	●	.004-.020	.0020-.0059
CCGT 04T101-F1P	.173	.172	.070	.0039	.091	●	.004-.020	.0004-.0020
CCGT 04T102-F1P	.173	.172	.070	.0079	.091	●	.004-.020	.0008-.0039
CCGT 04T104-F1P	.173	.172	.070	.0157	.091	●	.004-.020	.0020-.0059

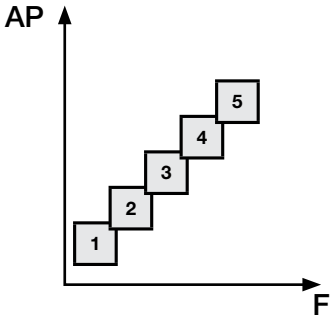
• For user guide and cutting speed recommendations, see pages 128-138,288-294

For tools, see pages: A/E/S-SCLCR/L (82) • PICIN-A-SCLCR/L (476) • PICIN-SCLCR/L (477)

ISO Standard Designation			
CCGT	04	T1	04

-

New Chipbreaker Designation		
1	2	3
F	1	P



1. Application	
F	Finishing
M	Medium
R	Roughing

2. Chip Load	
1.2	For Lower Range
3	For General Range
4.5	For Higher Range

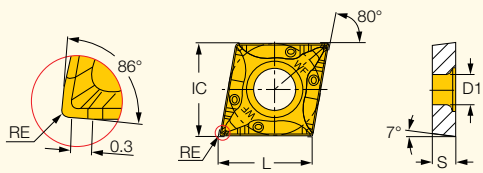
3. Workpiece Material Group	
P	Steel
M	Stainless Steel
N	Nonferrous & Aluminum
S	High Temperature Alloys

ISOTURN

CCET-WF

80° Rhombic Inserts with a 7° Positive Flank and a Wiper Near the Corner for High Feed Finishing





M E T R I C

Designation	Dimensions L	IC	S	RE	D1	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
CCET 0602005-WF	6.30	6.35	2.38	0.05	2.80	●	0.05-2.00	0.01-0.20
CCET 09T3005-WF	9.50	9.52	3.97	0.05	4.40	●	0.05-2.00	0.01-0.20

- For user guide and cutting speed recommendations, see pages 128-138,288-294

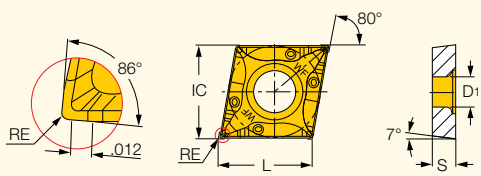
For tools, see pages: A/E/S-SCLCR/L (82) • AVC-SCLCR/L (88) • E-SCLCR/L-HEAD (90) • NQCH-SCACR/L-S-JHP (20) • PCLCR/L-S (21) • PCLCR/L-S-JHP (22) • SBTT#-SCLCR/L-JHP (822) • SCACR/L-S (19) • SCLCR/L (18)

ISOTURN

CCET-WF

80° Rhombic Inserts with a 7° Positive Flank and a Wiper Near the Corner for High Feed Finishing





I N C H

Designation	Dimensions L	IC	S	RE	D1	IC907	Recommended Machining Data a_p (inch)	f (IPR)
CCET 2-.002-WF	.248	.250	.094	.0020	.110	●	.002-.079	.0004-.0079
CCET 3-.002-WF	.374	.375	.156	.0020	.173	●	.002-.079	.0004-.0079

- For user guide and cutting speed recommendations, see pages 128-138,288-294

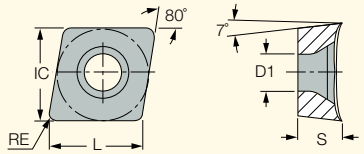
For tools, see pages: A/E/S-SCLCR/L (82) • AVC-SCLCR/L (88) • E-SCLCR/L-HEAD (90) • NQCH-SCACR/L-S-JHP (20) • PCLCR/L-S (21) • PCLCR/L-S-JHP (22) • SBTT#-SCLCR/L-JHP (822) • SCACR/L-S (19) • SCLCR/L (18)

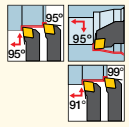
ISOTURN

CCGT-AF

80° Rhombic Inserts with a 7° Positive Flank, Very Positive Rake Angle and Sharp Cutting Edge for Machining Aluminum







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
CCGT 09T308-AF	9.70	9.52	3.97	0.80	4.40	●	0.80-3.00	0.15-0.25

- For user guide and cutting speed recommendations, see pages 128-138,288-294

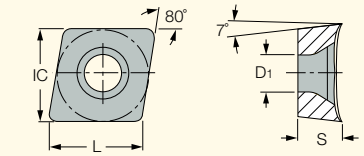
For tools, see pages: A/E/S-SCLCR/L (82) • AVC-SCLCR/L (88) • E-SCLCR/L-HEAD (90) • PCLCR/L-S (21) • PCLCR/L-S-JHP (22) • SBTT#-SCLCR/L-JHP (822) • SCLCR/L (18)

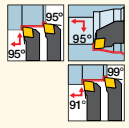
ISOTURN

CCGT-AF

80° Rhombic Inserts with a 7° Positive Flank, Very Positive Rake Angle and Sharp Cutting Edge for Machining Aluminum







I N C H

Designation	Dimensions L	IC	S	RE	D1	IC20	Recommended Machining Data a_p (inch)	f (IPR)
CCGT 3-2-AF	.382	.375	.156	.0315	.173	●	.031-.118	.0059-.0098

- For user guide and cutting speed recommendations, see pages 128-138,288-294

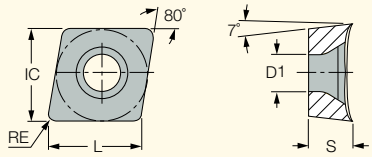
For tools, see pages: A/E/S-SCLCR/L (82) • AVC-SCLCR/L (88) • E-SCLCR/L-HEAD (90) • PCLCR/L-S (21) • PCLCR/L-S-JHP (22) • SBTT#-SCLCR/L-JHP (822) • SCLCR/L (18)

ISOTURN

CCGT-AS

80° Rhombic Inserts with a 7° Positive Flank, Very Positive Rake Angle and Sharp Cutting Edge for Machining Aluminum





M E T R I C

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC1520	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
CCGT 060201-AS	6.40	6.35	2.38	0.10	2.80	●	●	0.50-2.00	0.10-0.20
CCGT 060202-AS	6.40	6.35	2.38	0.20	2.80	●	●	0.50-2.00	0.10-0.20
CCGT 060204-AS	6.40	6.35	2.38	0.40	2.80	●	●	0.50-2.00	0.10-0.25
CCGT 09T301-AS	9.70	9.52	3.97	0.10	4.40	●	●	0.50-2.50	0.10-0.25
CCGT 09T302-AS	9.70	9.52	3.97	0.20	4.40	●	●	0.50-2.50	0.10-0.25
CCGT 09T304-AS	9.70	9.52	3.97	0.40	4.40	●	●	0.50-2.50	0.10-0.25
CCGT 09T308-AS	9.70	9.52	3.97	0.80	4.40	●	●	0.80-3.00	0.10-0.30

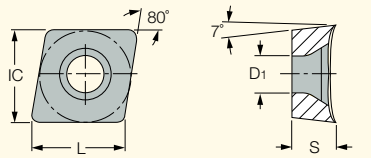
For tools, see pages: A/E/S-SCLCR/L (82) • AVC-SCLCR/L (88) • E-SCLCR/L-HEAD (90) • NQCH-SCACR/L-S-JHP (20) • PCLCR/L-S (21) • PCLCR/L-S-JHP (22) • SBTT#-SCLCR/L-JHP (822) • SCACR/L-S (19) • SCLCR/L (18)

ISOTURN

CCGT-AS

80° Rhombic Inserts with a 7° Positive Flank, Very Positive Rake Angle and Sharp Cutting Edge for Machining Aluminum





I N C H

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC1520	IC20	Recommended Machining Data a_p (inch)	f (IPR)
CCGT 2-.004-AS	.252	.250	.094	.0039	.110	●	●	.020-.079	.0039-.0079
CCGT 2-0-AS	.252	.250	.094	.0079	.110	●	●	.020-.079	.0039-.0079
CCGT 2-1-AS	.252	.250	.094	.0157	.110	●	●	.020-.079	.0039-.0098
CCGT 3-.004-AS	.382	.375	.156	.0039	.173	●	●	.020-.098	.0039-.0098
CCGT 3-0-AS	.382	.375	.156	.0079	.173	●	●	.020-.098	.0039-.0098
CCGT 3-1-AS	.382	.375	.156	.0157	.173	●	●	.020-.098	.0039-.0098
CCGT 3-2-AS	.382	.375	.156	.0315	.173	●	●	.031-.118	.0039-.0118

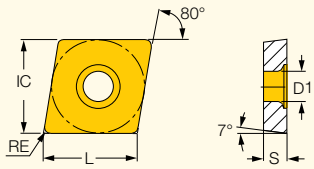
For tools, see pages: A/E/S-SCLCR/L (82) • AVC-SCLCR/L (88) • E-SCLCR/L-HEAD (90) • NQCH-SCACR/L-S-JHP (20) • PCLCR/L-S (21) • PCLCR/L-S-JHP (22) • SBTT#-SCLCR/L-JHP (822) • SCACR/L-S (19) • SCLCR/L (18)

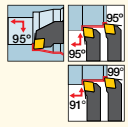
ISOTURN

CCMT-CERMET

Single-Sided 80° Rhombic Cermet Grade Inserts for Semi-Finishing and Finishing Applications







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	IC520N	Recommended Machining Data a_p (mm)	f (mm/rev)
CCMT 09T302-FFA	9.70	9.52	3.97	0.20	4.40	●	0.03-2.00	0.04-0.15
CCMT 09T304-FPC	9.70	9.52	3.97	0.40	4.40	●	0.50-2.50	0.03-0.20
CCMT 09T308-FPC	9.70	9.52	3.97	0.80	4.40	●	0.50-2.80	0.03-0.22

• For user guide and cutting speed recommendations, see pages 128-138,288-294

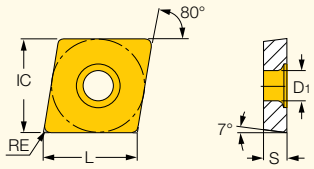
For tools, see pages: A/E/S-SCLCR/L (82) • E-SCLCR/L-HEAD (90) • NQCH-SCACR/L-S-JHP (20) • PCLCR/L-S (21) • PCLCR/L-S-JHP (22) • SBTT#-SCLCR/L-JHP (822) • SCACR/L-S (19) • SCLCR/L (18)

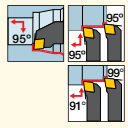
ISOTURN

CCMT-CERMET

Single-Sided 80° Rhombic Cermet Grade Inserts for Semi-Finishing and Finishing Applications





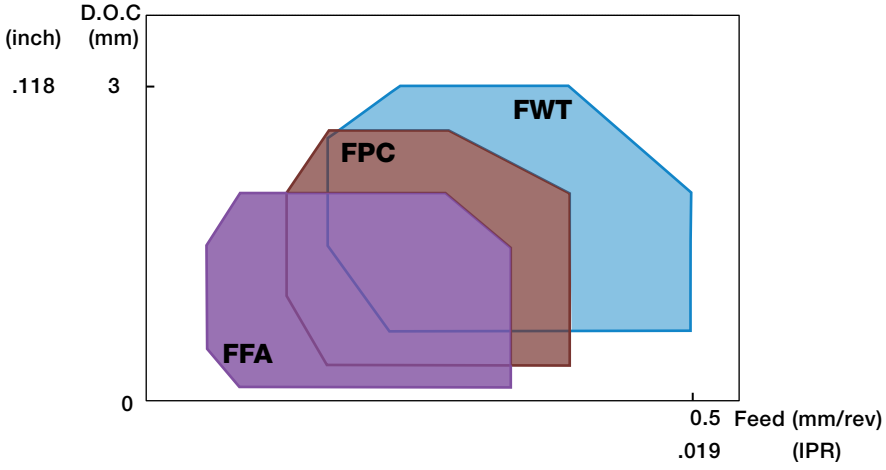


I N C H

Designation	Dimensions L	IC	S	RE	D1	IC520N	Recommended Machining Data a_p (inch)	f (IPR)
CCMT 3-0-FFA	.382	.375	.156	.0079	.173	●	.001-.079	.0016-.0059
CCMT 3-1-FPC	.382	.375	.156	.0157	.173	●	.020-.098	.0012-.0079
CCMT 3-2-FPC	.382	.375	.156	.0315	.173	●	.020-.110	.0012-.0087

• For user guide and cutting speed recommendations, see pages 128-138,288-294

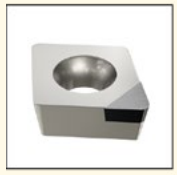
For tools, see pages: A/E/S-SCLCR/L (82) • E-SCLCR/L-HEAD (90) • NQCH-SCACR/L-S-JHP (20) • PCLCR/L-S (21) • PCLCR/L-S-JHP (22) • SBTT#-SCLCR/L-JHP (822) • SCACR/L-S (19) • SCLCR/L (18)

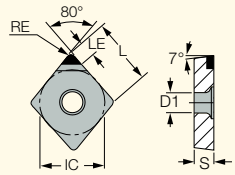


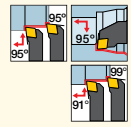
ISOTURN

CCGW/CCMT (CBN)

80° Rhombic Inserts with a Single CBN Top Corner Tip and 7° Clearance for Machining Hardened Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	LE	D1	Tough ↔ Hard IB05H	IB10H	IB55	Recommended Machining Data a_p (mm)	f (mm/rev)
CCGW 03X102T01015-1	3.63	3.57	1.39	0.20	2.0	1.90	●	●		0.05-0.50	0.05-0.20
CCGW 03X104T01015-1	3.63	3.57	1.39	0.40	2.3	1.90	●	●		0.05-0.50	0.05-0.20
CCGW 04T102T01015-1	4.44	4.37	1.79	0.20	2.0	2.30	●	●		0.05-0.50	0.05-0.20
CCGW 04T104T01015-1	4.44	4.37	1.79	0.40	2.3	2.30	●	●		0.05-0.50	0.05-0.20
CCMT 060202T	6.30	6.35	2.38	0.20	2.6	2.80			●	0.05-0.50	0.05-0.20
CCMT 060204T	6.30	6.35	2.38	0.40	2.7	2.80			●	0.05-0.50	0.05-0.20
CCMT 09T304T	9.70	9.52	3.97	0.40	2.9	4.40			●	0.05-0.50	0.05-0.20
CCMT 09T308T	9.70	9.52	3.97	0.80	3.6	4.40			●	0.05-0.50	0.05-0.20

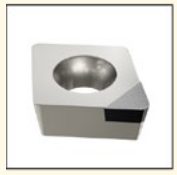
• For user guide and cutting speed recommendations, see pages 128-138,288-294

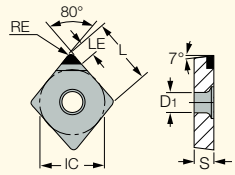
For tools, see pages: A/E/S-SCLCR/L (82) • AVC-SCLCR/L (88) • E-SCLCR/L-HEAD (90) • NQCH-SCACR/L-S-JHP (20) • PCLCR/L-S (21) • PCLCR/L-S-JHP (22) • PICIN-A-SCLCR/L (476) • PICIN-SCLCR/L (477) • SBTT#-SCLCR/L-JHP (822) • SCACR/L-S (19) • SCLCR/L (18)

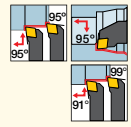
ISOTURN

CCGW/CCMT (CBN)

80° Rhombic Inserts with a Single CBN Top Corner Tip and 7° Clearance for Machining Hardened Steel







I N C H

Designation	Dimensions L	IC	S	RE	LE	D1	Tough ↔ Hard IB05H	IB10H	IB55	Recommended Machining Data a_p (inch)	f (IPR)
CCGW 03X102T01015-1	.143	.141	.055	.0079	.08	.075	●	●		.002-.020	.0020-.0079
CCGW 03X104T01015-1	.143	.141	.055	.0157	.09	.075	●	●		.002-.020	.0020-.0079
CCGW 04T102T01015-1	.175	.172	.070	.0079	.08	.091	●	●		.002-.020	.0020-.0079
CCGW 04T104T01015-1	.175	.172	.070	.0157	.09	.091	●	●		.002-.020	.0020-.0079
CCMT 2-0T	.248	.250	.094	.0079	.10	.110			●	.002-.020	.0020-.0079
CCMT 2-1T	.248	.250	.094	.0157	.11	.110			●	.002-.020	.0020-.0079
CCMT 3-1T	.382	.375	.156	.0157	.11	.173			●	.002-.020	.0020-.0079
CCMT 3-2T	.382	.375	.156	.0315	.14	.173			●	.002-.020	.0020-.0079

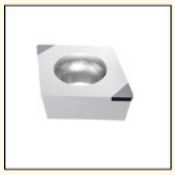
• For user guide and cutting speed recommendations, see pages 128-138,288-294

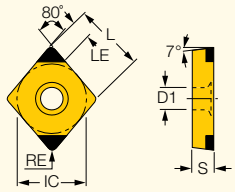
For tools, see pages: A/E/S-SCLCR/L (82) • AVC-SCLCR/L (88) • E-SCLCR/L-HEAD (90) • NQCH-SCACR/L-S-JHP (20) • PCLCR/L-S (21) • PCLCR/L-S-JHP (22) • PICIN-A-SCLCR/L (476) • PICIN-SCLCR/L (477) • SBTT#-SCLCR/L-JHP (822) • SCACR/L-S (19) • SCLCR/L (18)

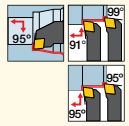
ISOTURN

CCGW/CCMW-2 (CBN)

80° Positive Rhombic Inserts with 2 CBN Tips for Machining Hardened Steel, Sintered Metals and High Temperature Alloys







M E T R I C

Designation	Dimensions IC	L	S	RE	LE	D1	Tough ↔ Hard IB10H	IB10HC	IB20H	IB20HC	IB05S	Recommended Machining Data a_p (mm)	f (mm/rev)
CCGW 060202-F2	6.35	6.30	2.38	0.20	2.3	2.80		●		●		0.05-0.50	0.05-0.20
CCGW 060204-F2	6.35	6.30	2.38	0.40	2.3	2.80		●		●		0.05-0.50	0.05-0.20
CCGW 09T304-F2	9.52	9.70	3.97	0.40	2.3	4.40		●		●		0.05-0.50	0.05-0.20
CCGW 09T308-F2	9.52	9.70	3.97	0.80	2.2	4.40		●		●		0.05-0.50	0.05-0.20
CCGW 060202-M2	6.35	6.30	2.38	0.20	2.3	2.80		●				0.05-0.50	0.05-0.20
CCGW 060204-M2	6.35	6.30	2.38	0.40	2.3	2.80		●			●	0.05-0.50	0.05-0.20
CCMW 060202-M2	6.35	6.30	2.38	0.20	2.3	2.80	●					0.05-0.50	0.05-0.20
CCMW 060204-M2	6.35	6.30	2.38	0.40	2.3	2.80	●		●			0.05-0.50	0.05-0.20
CCMW 060202S-2MT	6.35	6.30	2.38	0.20	2.3	2.80			●			0.05-0.50	0.05-0.20
CCGW 09T304-M2	9.52	9.70	3.97	0.40	2.3	4.40		●			●	0.05-0.50	0.05-0.30
CCGW 09T308-M2	9.52	9.70	3.97	0.80	2.2	4.40		●		●	●	0.05-0.50	0.05-0.30
CCMW 09T304-M2	9.52	9.70	3.97	0.40	2.3	4.40	●		●			0.05-0.50	0.05-0.15
CCMW 09T308-M2	9.52	9.70	3.97	0.80	2.2	4.40	●		●			0.05-0.50	0.05-0.30
CCGW 060204-R2	6.35	6.30	2.38	0.40	2.3	2.80				●		0.05-0.50	0.05-0.20
CCGW 09T304-R2	9.52	9.70	3.97	0.40	2.3	4.40				●		0.05-0.50	0.05-0.20
CCGW 09T308-R2	9.52	9.70	3.97	0.80	2.2	4.40				●		0.05-0.50	0.05-0.20

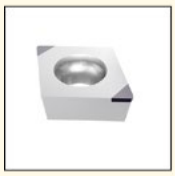
• For user guide and cutting speed recommendations, see pages 128-138,288-294

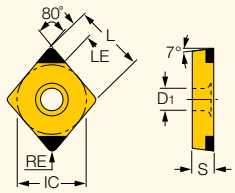
For tools, see pages: A/E/S-SCLCR/L (82) • E-SCLCR/L-HEAD (90) • NQCH-SCACR/L-S-JHP (20) • PCLCR/L-S (21) • PCLCR/L-S-JHP (22) • SBTT#-SCLCR/L-JHP (822) • SCACR/L-S (19) • SCLCR/L (18) • AVC-SCLCR/L (88)

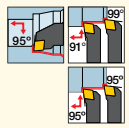
ISOTURN

CCGW/CCMW-2 (CBN)

80° Positive Rhombic Inserts with 2 CBN Tips for Machining Hardened Steel, Sintered Metals and High Temperature Alloys







I N C H

Designation	Dimensions IC	L	S	RE	LE	D1	Tough ↔ Hard IB10H	IB10HC	IB20H	IB20HC	IB05S	Recommended Machining Data a_p (inch)	f (IPR)
CCGW 2-0-F2	.250	.248	.094	.0079	.09	.110		●		●		.002-.020	.0020-.0079
CCGW 2-1-F2	.250	.248	.094	.0157	.09	.110		●		●		.002-.020	.0020-.0079
CCGW 3-1-F2	.375	.382	.156	.0157	.09	.173		●		●		.002-.020	.0020-.0079
CCGW 3-2-F2	.375	.382	.156	.0315	.09	.173		●		●		.002-.020	.0020-.0079
CCGW 2-0-M2	.250	.248	.094	.0079	.09	.110		●				.002-.020	.0020-.0079
CCGW 2-1-M2	.250	.248	.094	.0157	.09	.110		●			●	.002-.020	.0020-.0079
CCMW 2-0-M2	.250	.248	.094	.0079	.09	.110	●					.002-.020	.0020-.0079
CCMW 2-1-M2	.250	.248	.094	.0157	.09	.110	●		●			.002-.020	.0020-.0079
CCMW 21.50.5S-2MT	.250	.248	.094	.0079	.09	.110			●			.002-.020	.0020-.0079
CCGW 3-1-M2	.375	.382	.156	.0157	.09	.173		●			●	.002-.020	.0020-.0118
CCGW 3-2-M2	.375	.382	.156	.0315	.09	.173		●		●	●	.002-.020	.0020-.0118
CCMW 3-1-M2	.375	.382	.156	.0157	.09	.173	●		●			.002-.020	.0020-.0059
CCMW 3-2-M2	.375	.382	.156	.0315	.09	.173	●		●			.002-.020	.0020-.0118
CCGW 2-1-R2	.250	.248	.094	.0157	.09	.110				●		.002-.020	.0020-.0079
CCGW 3-1-R2	.375	.382	.156	.0157	.09	.173				●		.002-.020	.0020-.0079
CCGW 3-2-R2	.375	.382	.156	.0315	.09	.173				●		.002-.020	.0020-.0079

• For user guide and cutting speed recommendations, see pages 128-138,288-294

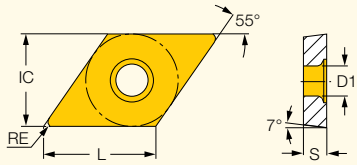
For tools, see pages: A/E/S-SCLCR/L (82) • E-SCLCR/L-HEAD (90) • NQCH-SCACR/L-S-JHP (20) • PCLCR/L-S (21) • PCLCR/L-S-JHP (22) • SBTT#-SCLCR/L-JHP (822) • SCACR/L-S (19) • SCLCR/L (18) • AVC-SCLCR/L (88)

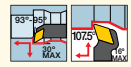
ISOTURN

DCMT-F3P

55° Rhombic Inserts with a Positive Flank for Semi-Finishing and Finish Turning on Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC8250	IC8150	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
DCMT 070202-F3P	7.70	6.35	2.38	0.20	2.80	●	●	●	●	0.06-1.50	0.03-0.12
DCMT 070204-F3P	7.70	6.35	2.38	0.40	2.80	●	●	●	●	0.08-1.50	0.05-0.18
DCMT 11T302-F3P	11.60	9.52	3.97	0.20	4.40	●	●	●	●	0.08-2.00	0.04-0.16
DCMT 11T304-F3P	11.60	9.52	3.97	0.40	4.40	●	●	●	●	0.11-2.00	0.06-0.25
DCMT 11T308-F3P	11.60	9.52	3.97	0.80	4.40	●	●	●	●	0.15-2.00	0.08-0.32

• For user guide and cutting speed recommendations, see pages 128-138,288-294

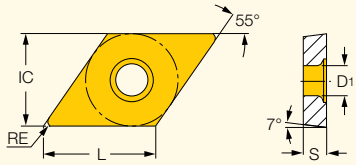
For tools, see pages: A/E/S-SDUCR/L (94) • AVC-SDUCR/L (96) • E-SDUCR/L-HEAD (97) • NQCH-SDACR/L-S-JHP (27) • NQCH-SDJCR/L-S-JHP (26) • NQCH-SDNCN-S-JHP (28) • NQCH-Y-SDJCR-S-JHP (29) • PDACR/L-S (32) • PDACR/L-S-JHP (33) • SBTT#-SDJCR/L-JHP (824) • SBTT-SDNCN-JHP (825) • SDACR/L-S (23) • SDHCR/L-S (25) • SDJCR/L (24) • SDNCN (25) • Y-SDJCR-S (30) • Y-SDJCR-S-JHP (31)

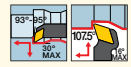
ISOTURN

DCMT-F3P

55° Rhombic Inserts with a Positive Flank for Semi-Finishing and Finish Turning on Steel







I N C H

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC8250	IC8150	IC807	Recommended Machining Data a_p (inch)	f (IPR)
DCMT 2-0-F3P	.303	.250	.094	.0079	.110	●	●	●	●	.002-.059	.0012-.0047
DCMT 2-1-F3P	.303	.250	.094	.0157	.110	●	●	●	●	.003-.059	.0020-.0071
DCMT 3-0-F3P	.457	.375	.156	.0079	.173	●	●	●	●	.003-.079	.0016-.0063
DCMT 3-1-F3P	.457	.375	.156	.0157	.173	●	●	●	●	.004-.079	.0024-.0098
DCMT 3-2-F3P	.457	.375	.156	.0315	.173	●	●	●	●	.006-.079	.0031-.0126

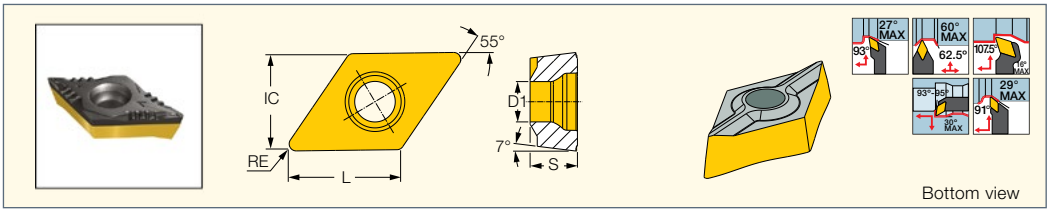
• For user guide and cutting speed recommendations, see pages 128-138,288-294

For tools, see pages: A/E/S-SDUCR/L (94) • AVC-SDUCR/L (96) • E-SDUCR-HEAD (97) • E-SDUCR/L-HEAD (97) • NQCH-SDACR/L-S-JHP (27) • NQCH-SDJCR/L-S-JHP (26) • NQCH-SDNCN-S-JHP (28) • NQCH-Y-SDJCR-S-JHP (29) • PDACR/L-S (32) • PDACR/L-S-JHP (33) • SBTT#-SDJCR/L-JHP (824) • SBTT-SDNCN-JHP (825) • SDACR/L-S (23) • SDJCR/L (24) • SDNCN (25) • Y-SDJCR-S (30) • Y-SDJCR-S-JHP (31)

T-LOCK

DCMT-F3P-SL

55° Rhombic Inserts with a Positive Flank with a Locating Bottom Ridge for Semi-Finishing and Finishing on Steel



M E T R I C

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC8250	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
DCMT 13T504-F3P-SL	13.40	11.00	5.11	0.40	4.50	•	•	0.50-3.00	0.05-0.25
DCMT 13T508-F3P-SL	13.40	11.00	5.11	0.80	4.50	•	•	0.90-3.50	0.10-0.25

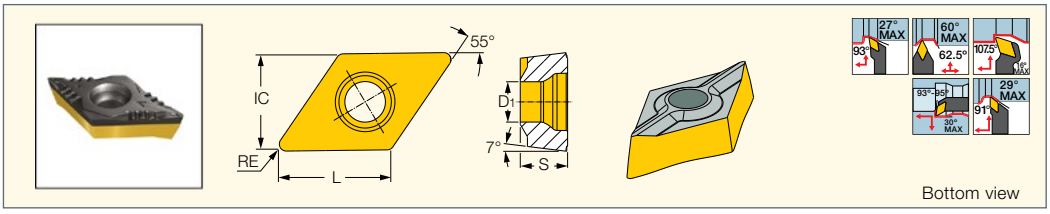
• For user guide and cutting speed recommendations, see pages 128-138,288-294

For tools, see pages: A-SDUCR/L-13-SL (93) • SDACR/L-S-SL-JHP (35) • SDJCR/L-13-SL (34) • SDNCN-13-SL (34)

T-LOCK

DCMT-F3P-SL

55° Rhombic Inserts with a Positive Flank with a Locating Bottom Ridge for Semi-Finishing and Finishing on Steel

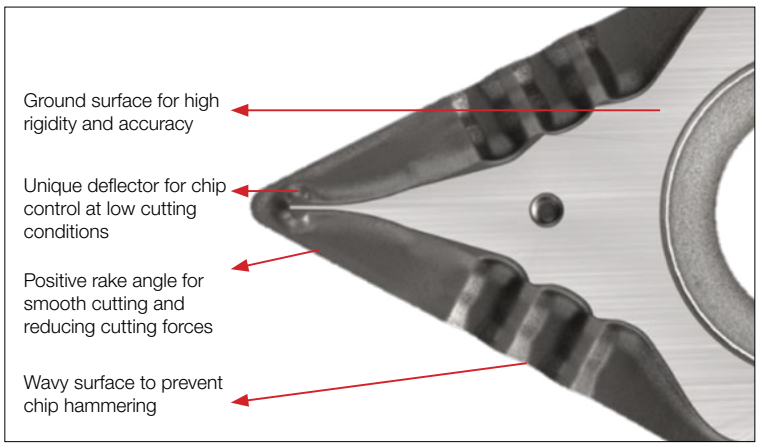


I N C H

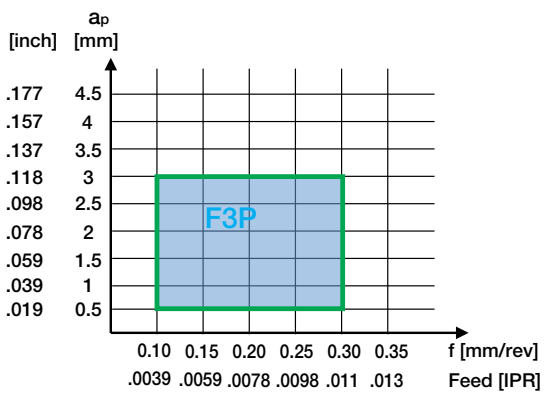
Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC8250	IC8150	Recommended Machining Data a_p (inch)	f (IPR)
DCMT 13T504-F3P-SL	.528	.433	.201	.0157	.177	•	•	.020-.118	.0020-.0098
DCMT 13T508-F3P-SL	.528	.433	.201	.0315	.177	•	•	.035-.138	.0039-.0098

• For user guide and cutting speed recommendations, see pages 128-138,288-294

For tools, see pages: A-SDUCR/L-13-SL (93) • SDACR/L-S-SL-JHP (35) • SDJCR/L-13-SL (34) • SDNCN-13-SL (34)



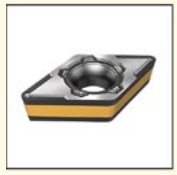
DCMT 13T504-F3P-SL
Application Range

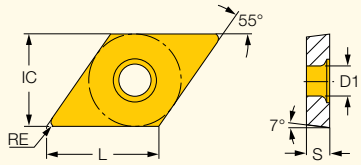


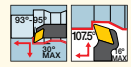
ISOTURN

DCMT-M3P

55° Rhombic Positive Flank Inserts, for Medium Machining Conditions on Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC8250	IC8150	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
DCMT 070204-M3P	7.70	6.35	2.38	0.40	2.80	●	●	●	0.50-2.50	0.10-0.30
DCMT 070208-M3P	7.70	6.35	2.38	0.80	2.80	●	●	●	0.80-2.50	0.10-0.30
DCMT 11T304-M3P	11.60	9.52	3.97	0.40	4.40	●	●	●	0.50-3.00	0.10-0.30
DCMT 11T308-M3P	11.60	9.52	3.97	0.80	4.40	●	●	●	0.80-3.00	0.10-0.30
DCMT 11T312-M3P	11.60	9.52	3.97	1.20	4.40	●	●	●	1.00-3.50	0.10-0.30

• For user guide and cutting speed recommendations, see pages 128-138,288-294

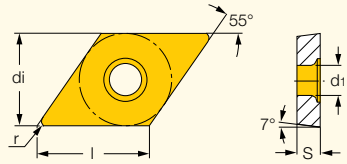
For tools, see pages: A/E/S-SDUCR/L (94) • AVC-SDUCR/L (96) • E-SDUCR/L-HEAD (97) • NQCH-SDACR/L-S-JHP (27) • NQCH-SDNCN-S-JHP (28) • NQCH-Y-SDJCR-S-JHP (29) • PDACR/L-S (32) • PDACR/L-S-JHP (33) • SBTT#-SDJCR/L-JHP (824) • SBTT-SDNCN-JHP (825) • SDACR/L-S (23) • SDHCR/L-S (25) • SDJCR/L (24) • SDNCN (25)

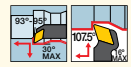
ISOTURN

DCMT-M3P

55° Rhombic Positive Flank Inserts, for Medium Machining Conditions on Steel







I N C H

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC8250	IC8150	IC807	Recommended Machining Data a_p (inch)	f (IPR)
DCMT 2-1-M3P	.303	.250	.094	.0157	.110	●	●	●	.020-.098	.0039-.0118
DCMT 2-2-M3P	.303	.250	.094	.0315	.110	●	●	●	.032-.098	.0039-.0118
DCMT 3-1-M3P	.457	.375	.156	.0157	.173	●	●	●	.020-.118	.0039-.0118
DCMT 3-2-M3P	.457	.375	.156	.0315	.173	●	●	●	.032-.118	.0039-.0118
DCMT 3-3-M3P	.457	.375	.156	.0472	.173	●	●	●	.039-.138	.0039-.0118

• For user guide and cutting speed recommendations, see pages 128-138,288-294

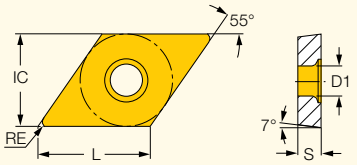
For tools, see pages: A/E/S-SDUCR/L (94) • AVC-SDUCR/L (96) • E-SDUCR-HEAD (97) • E-SDUCR/L-HEAD (97) • NQCH-SDACR/L-S-JHP (27) • NQCH-SDNCN-S-JHP (28) • NQCH-Y-SDJCR-S-JHP (29) • PDACR/L-S (32) • PDACR/L-S-JHP (33) • SBTT#-SDJCR/L-JHP (824) • SBTT-SDNCN-JHP (825) • SDACR/L-S (23) • SDJCR/L (24) • SDNCN (25)

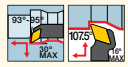
ISOTURN

DCMT-M3M

55° Rhombic Positive Flank Inserts for Machining Stainless and Low Carbon Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC6025	IC6015	IC806	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
DCMT 070204-M3M	7.70	6.35	2.38	0.40	2.80	●	●		●		0.40-2.50	0.07-0.23
DCMT 070208-M3M	7.70	6.35	2.38	0.80	2.80	●	●		●		0.80-2.50	0.10-0.25
DCMT 11T304-M3M	11.60	9.52	3.97	0.40	4.40	●	●		●		0.40-3.00	0.07-0.25
DCMT 11T308-M3M	11.60	9.52	3.97	0.80	4.40	●	●	●	●	●	0.80-3.00	0.10-0.30

• For user guide and cutting speed recommendations, see pages 128-138,288-294

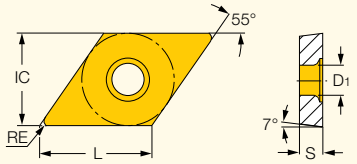
For tools, see pages: A/E/S-SDUCR/L (94) • AVC-SDUCR/L (96) • E-SDUCR/L-HEAD (97) • NQCH-SDACR/L-S-JHP (27) • NQCH-SDJCR/L-S-JHP (26) • NQCH-SDNCN-S-JHP (28) • NQCH-Y-SDJCR-S-JHP (29) • PDACR/L-S (32) • PDACR/L-S-JHP (33) • SBTT#-SDJCR/L-JHP (824) • SBTT-SDNCN-JHP (825) • SDACR/L-S (23) • SDHCR/L-S (25) • SDJCR/L (24) • SDNCN (25) • Y-SDJCR-S (30) • Y-SDJCR-S-JHP (31)

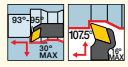
ISOTURN

DCMT-M3M

55° Rhombic Positive Flank Inserts for Machining Stainless and Low Carbon Steel







I N C H

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC6025	IC6015	IC806	IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
DCMT 2-1-M3M	.303	.250	.094	.0157	.110	●	●		●		.016-.098	.0027-.0091
DCMT 2-2-M3M	.303	.250	.094	.0315	.110	●	●		●		.031-.098	.0039-.0098
DCMT 3-1-M3M	.457	.375	.156	.0157	.173	●	●		●		.016-.118	.0027-.0098
DCMT 3-2-M3M	.457	.375	.156	.0315	.173	●	●	●	●	●	.031-.118	.0039-.0118

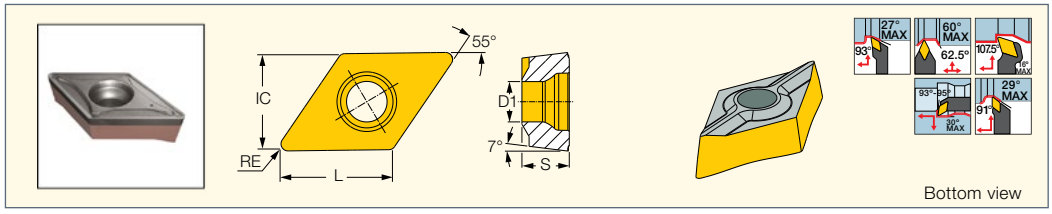
• For user guide and cutting speed recommendations, see pages 128-138,288-294

For tools, see pages: A/E/S-SDUCR/L (94) • AVC-SDUCR/L (96) • E-SDUCR-HEAD (97) • E-SDUCR/L-HEAD (97) • NQCH-SDACR/L-S-JHP (27) • NQCH-SDJCR/L-S-JHP (26) • NQCH-SDNCN-S-JHP (28) • NQCH-Y-SDJCR-S-JHP (29) • PDACR/L-S (32) • PDACR/L-S-JHP (33) • SBTT#-SDJCR/L-JHP (824) • SBTT-SDNCN-JHP (825) • SDACR/L-S (23) • SDJCR/L (24) • SDNCN (25) • Y-SDJCR-S (30) • Y-SDJCR-S-JHP (31)

T-LOCK

DCMT-M3M-SL

55° Rhombic Inserts with a Positive Flank and Locating Bottom Ridge for Machining Stainless and Low Carbon Steel



M E T R I C

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC6025	IC6015	Recommended Machining Data a_p (mm)	f (mm/rev)
DCMT 13T508-M3M-SL	13.40	11.00	5.11	0.80	4.50	●	●	0.90-3.50	0.10-0.25
DCMT 13T512-M3M-SL	13.40	11.00	5.11	1.20	4.50	●	●	0.90-3.50	0.15-0.30

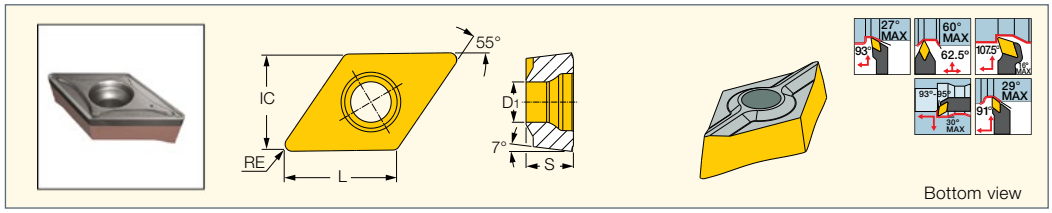
• For user guide and cutting speed recommendations, see pages 128-138,288-294

For tools, see pages: A-SDUCR/L-13-SL (93) • SDACR/L-S-SL-JHP (35) • SDJCR/L-13-SL (34) • SDNCN-13-SL (34)

T-LOCK

DCMT-M3M-SL

55° Rhombic Inserts with a Positive Flank and Locating Bottom Ridge for Machining Stainless and Low Carbon Steel



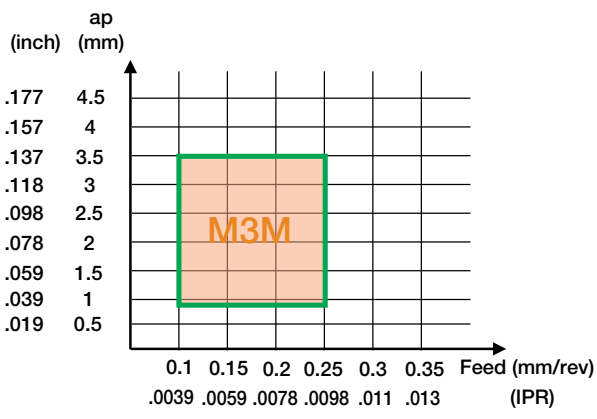
I N C H

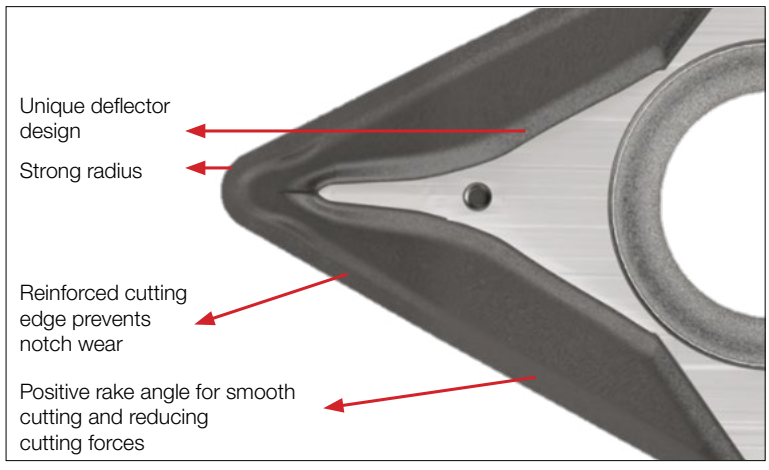
Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC6025	IC6015	Recommended Machining Data a_p (inch)	f (IPR)
DCMT 13T508-M3M-SL	.528	.433	.201	.0315	.177	●	●	.035-.138	.0039-.0098
DCMT 13T512-M3M-SL	.528	.433	.201	.0472	.177	●	●	.035-.138	.0059-.0118

• For user guide and cutting speed recommendations, see pages 128-138,288-294

For tools, see pages: A-SDUCR/L-13-SL (93) • SDACR/L-S-SL-JHP (35) • SDJCR/L-13-SL (34) • SDNCN-13-SL (34)

DCMT 13T508-M3M-SL Application Range



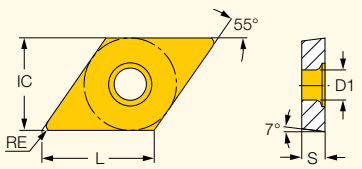


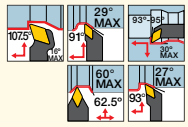
ISOTURN

DCMT/DCGT-SM

55° Rhombic Inserts with a 7° Positive Flank for Semi-Finishing and Finish Turning on Soft Materials and Exotic Alloys







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	IC6025	IC8250	IC530N	IC6015	IC8150	IC520N	IC806	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
DCMT 070202-SM	7.70	6.35	2.38	0.20	2.80	●			●				●	●	0.50-2.00	0.04-0.20
DCMT 070204-SM	7.70	6.35	2.38	0.40	2.80	●	●		●	●		●	●	●	0.50-2.50	0.05-0.25
DCMT 070208-SM	7.70	6.35	2.38	0.80	2.80		●								0.50-3.00	0.07-0.25
DCGT 11T302-SM	11.60	9.52	3.97	0.20	4.40									●	0.50-2.50	0.05-0.25
DCGT 11T304-SM	11.60	9.52	3.97	0.40	4.40									●	0.50-2.50	0.05-0.25
DCMT 11T302-SM	11.60	9.52	3.97	0.20	4.40	●	●	●	●				●	●	0.50-2.50	0.05-0.25
DCMT 11T304-SM	11.60	9.52	3.97	0.40	4.40	●	●	●		●		●	●	●	0.50-2.50	0.07-0.25
DCMT 11T308-SM	11.60	9.52	3.97	0.80	4.40	●	●	●	●	●			●	●	1.00-3.00	0.07-0.25
DCMT 11T312-SM	11.60	9.52	3.97	1.20	4.40						●				1.00-3.50	0.10-0.28

- For user guide and cutting speed recommendations, see pages 128-138,288-294

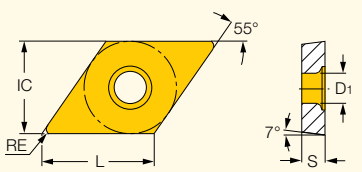
For tools, see pages: A/E/S-SDUCR/L (94) • AVC-SDUCR/L (96) • E-SDUCR/L-HEAD (97) • NQCH-SDACR/L-S-JHP (27) • NQCH-SDJCR/L-S-JHP (26) • NQCH-SDNCN-S-JHP (28) • NQCH-Y-SDJCR-S-JHP (29) • PDACR/L-S (32) • PDACR/L-S-JHP (33) • SBTT#-SDJCR/L-JHP (824) • SBTT-SDNCN-JHP (825) • SDACR/L-S (23) • SDHCR/L-S (25) • SDJCR/L (24) • SDNCN (25) • Y-SDJCR-S (30) • Y-SDJCR-S-JHP (31)

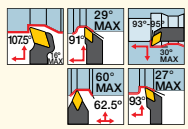
ISOTURN

DCMT/DCGT-SM

55° Rhombic Inserts with a 7° Positive Flank for Semi-Finishing and Finish Turning on Soft Materials and Exotic Alloys







I N C H

Designation	Dimensions L	IC	S	RE	D1	IC6025	IC8250	IC530N	IC6015	IC8150	IC520N	IC806	IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
DCMT 2-0-SM	.303	.250	.094	.0079	.110	●			●				●	●	.020-.079	.0016-.0079
DCMT 2-1-SM	.303	.250	.094	.0157	.110	●	●		●	●		●	●	●	.020-.098	.0020-.0098
DCMT 2-2-SM	.303	.250	.094	.0315	.110		●								.020-.118	.0027-.0098
DCGT 3-0-SM	.457	.375	.156	.0079	.173									●	.020-.098	.0020-.0098
DCGT 3-1-SM	.457	.375	.156	.0157	.173									●	.020-.098	.0020-.0098
DCMT 3-0-SM	.457	.375	.156	.0079	.173	●	●	●	●				●	●	.020-.098	.0020-.0098
DCMT 3-1-SM	.457	.375	.156	.0157	.173	●	●	●		●		●	●	●	.020-.098	.0027-.0098
DCMT 3-2-SM	.457	.375	.156	.0315	.173	●	●	●	●	●			●	●	.039-.118	.0027-.0098
DCMT 3-3-SM	.457	.375	.156	.0472	.173						●				.039-.138	.0039-.0110

- For user guide and cutting speed recommendations, see pages 128-138,288-294

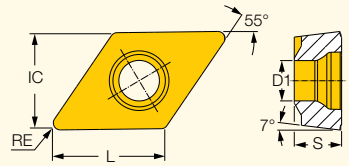
For tools, see pages: A/E/S-SDUCR/L (94) • AVC-SDUCR/L (96) • E-SDUCR-HEAD (97) • E-SDUCR/L-HEAD (97) • NQCH-SDACR/L-S-JHP (27) • NQCH-SDJCR/L-S-JHP (26) • NQCH-SDNCN-S-JHP (28) • NQCH-Y-SDJCR-S-JHP (29) • PDACR/L-JHP (33) • PDACR/L-S (32) • PDACR/L-S-JHP (33) • SBTT#-SDJCR/L-JHP (824) • SBTT-SDNCN-JHP (825) • SDACR/L-S (23) • SDJCR/L (24) • SDNCN (25) • SDPCN (25) • Y-SDJCR-S (30) • Y-SDJCR-S-JHP (31)

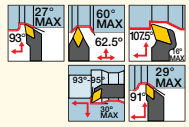
T-LOCK

DCMT-SM-SL

55° Rhombic Inserts with a Positive Flank and Locating Bottom Ridge for Semi-Finishing and Finishing







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
DCMT 13T504-SM-SL	13.40	11.00	5.11	0.40	4.50	●	0.50-2.50	0.07-0.27
DCMT 13T508-SM-SL	13.40	11.00	5.11	0.80	4.50	●	1.00-3.00	0.07-0.27

• For user guide and cutting speed recommendations, see pages 128-138,288-294

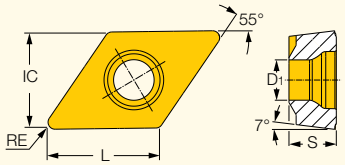
For tools, see pages: A-SDUCR/L-13-SL (93) • SDACR/L-S-SL-JHP (35) • SDJCR/L-13-SL (34) • SDNCN-13-SL (34)

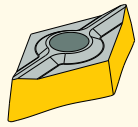
T-LOCK

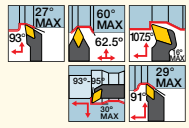
DCMT-SM-SL

55° Rhombic Inserts with a Positive Flank and Locating Bottom Ridge for Finish Turning on Soft Materials & Exotic Alloys









I N C H

Designation	Dimensions L	IC	S	RE	D1	IC8150	Recommended Machining Data a_p (inch)	f (IPR)
DCMT 13T504-SM-SL	.528	.433	.201	.0157	.177	●	.020-.098	.0027-.0106
DCMT 13T508-SM-SL	.528	.433	.201	.0315	.177	●	.039-.118	.0027-.0106

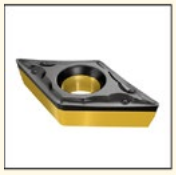
• For user guide and cutting speed recommendations, see pages 128-138,288-294

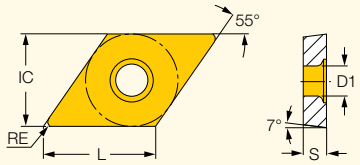
For tools, see pages: A-SDUCR/L-13-SL (93) • SDACR/L-S-SL-JHP (35) • SDJCR/L-13-SL (34) • SDNCN-13-SL (34)

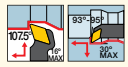
ISOTURN

DCMT/DCGT-PF

55° Rhombic Inserts with a Positive Flank for Semi-Finish and Finishing on Soft Materials and Exotic Alloys







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC6025	IC8250	IC908	IC6015	IC806	IC807	IC907	IC804	Recommended Machining Data a_p (mm)	f (mm/rev)
DCGT 070201-PF	7.70	6.35	2.38	0.10	2.80				●						0.30-3.00	0.02-0.25
DCGT 070202-PF	7.70	6.35	2.38	0.20	2.80				●						0.40-3.00	0.03-0.25
DCGT 070204-PF	7.70	6.35	2.38	0.40	2.80				●						0.50-3.00	0.05-0.25
DCMT 070201-PF	7.70	6.35	2.38	0.10	2.80							●	●		0.30-3.00	0.02-0.25
DCMT 070202-PF	7.70	6.35	2.38	0.20	2.80	●									0.40-3.00	0.03-0.25
DCMT 070204-PF	7.70	6.35	2.38	0.40	2.80	●									0.50-3.00	0.05-0.25
DCMT 070208-PF	7.70	6.35	2.38	0.80	2.80							●	●		0.70-3.00	0.08-0.25
DCGT 11T301-PF	11.60	9.52	3.97	0.10	4.40				●						0.30-3.00	0.03-0.25
DCGT 11T302-PF	11.60	9.52	3.97	0.20	4.40				●						0.40-3.00	0.04-0.25
DCGT 11T304-PF	11.60	9.52	3.97	0.40	4.40				●						0.50-3.00	0.05-0.25
DCGT 11T308-PF	11.60	9.52	3.97	0.80	4.40				●						0.70-3.00	0.10-0.25
DCMT 11T302-PF	11.60	9.52	3.97	0.20	4.40	●					●	●	●	●	0.30-3.00	0.04-0.25
DCMT 11T304-PF	11.60	9.52	3.97	0.40	4.40	●	●	●		●	●	●	●	●	0.50-3.00	0.05-0.25
DCMT 11T308-PF	11.60	9.52	3.97	0.80	4.40	●	●	●		●	●	●	●	●	0.70-3.00	0.10-0.25

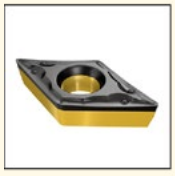
• For user guide and cutting speed recommendations, see pages 128-138,288-294

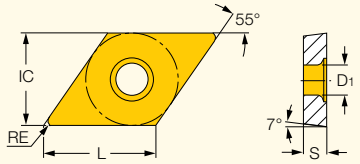
For tools, see pages: A/E/S-SDUCR/L (94) • AVC-SDUCR/L (96) • E-SDUCR/L-HEAD (97) • NQCH-SDACR/L-S-JHP (27) • NQCH-SDJCR/L-S-JHP (26) • NQCH-SDNCN-S-JHP (28) • NQCH-Y-SDJCR-S-JHP (29) • PDACR/L-S (32) • PDACR/L-S-JHP (33) • SBTT#-SDJCR/L-JHP (824) • SBTT-SDNCN-JHP (825) • SDACR/L-S (23) • SDHCR/L-S (25) • SDJCR/L (24) • SDNCN (25) • Y-SDJCR-S (30) • Y-SDJCR-S-JHP (31)

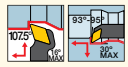
ISOTURN

DCMT/DCGT-PF

55° Rhombic Inserts with a Positive Flank for Semi-Finish and Finishing on Soft Materials and Exotic Alloys







I N C H

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC6025	IC8250	IC908	IC6015	IC806	IC807	IC907	IC804	Recommended Machining Data a_p (inch)	f (IPR)
DCGT 2-.004-PF	.303	.250	.094	.0039	.110				●						.012-.118	.0008-.0098
DCGT 2-0-PF	.303	.250	.094	.0079	.110				●						.016-.118	.0012-.0098
DCGT 2-1-PF	.303	.250	.094	.0157	.110				●						.020-.118	.0020-.0098
DCMT 2-.004-PF	.303	.250	.094	.0039	.110							●	●		.012-.118	.0008-.0098
DCMT 2-0-PF	.303	.250	.094	.0079	.110	●									.016-.118	.0012-.0098
DCMT 2-1-PF	.303	.250	.094	.0157	.110	●									.020-.118	.0020-.0098
DCMT 2-2-PF	.303	.250	.094	.0315	.110							●	●		.028-.118	.0031-.0098
DCGT 3-.004-PF	.457	.375	.156	.0039	.173				●						.012-.118	.0012-.0098
DCGT 3-0-PF	.457	.375	.156	.0079	.173				●						.016-.118	.0016-.0098
DCGT 3-1-PF	.457	.375	.156	.0157	.173				●						.020-.118	.0020-.0098
DCGT 3-2-PF	.457	.375	.156	.0315	.173				●						.028-.118	.0039-.0098
DCMT 3-0-PF	.457	.375	.156	.0079	.173	●					●	●	●	●	.012-.118	.0016-.0098
DCMT 3-1-PF	.457	.375	.156	.0157	.173	●	●	●		●	●	●	●	●	.020-.118	.0020-.0098
DCMT 3-2-PF	.457	.375	.156	.0315	.173	●	●	●		●	●	●	●	●	.028-.118	.0039-.0098

• For user guide and cutting speed recommendations, see pages 128-138,288-294

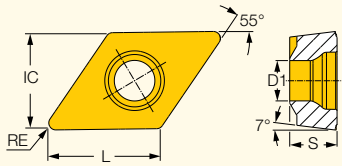
For tools, see pages: A/E/S-SDUCR/L (94) • AVC-SDUCR/L (96) • E-SDUCR-HEAD (97) • E-SDUCR/L-HEAD (97) • NQCH-SDACR/L-S-JHP (27) • NQCH-SDJCR/L-S-JHP (26) • NQCH-SDNCN-S-JHP (28) • NQCH-Y-SDJCR-S-JHP (29) • PDACR/L-JHP (33) • PDACR/L-S (32) • PDACR/L-S-JHP (33) • SBTT#-SDJCR/L-JHP (824) • SBTT-SDNCN-JHP (825) • SDACR/L-S (23) • SDJCR/L (24) • SDNCN (25) • SDPCN (25) • Y-SDJCR-S (30) • Y-SDJCR-S-JHP (31)

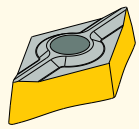
T-LOCK

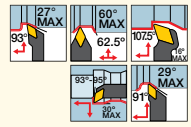
DCMT-PF-SL

55° Rhombic Inserts with a Positive Flank and Locating Bottom Ridge for Semi-Finishing and Finishing









M E T R I C

Designation	Dimensions L	IC	S	RE	D1	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
DCMT 13T504-PF-SL	13.40	11.00	5.11	0.40	4.50	●	0.50-3.00	0.05-0.25
DCMT 13T508-PF-SL	13.40	11.00	5.11	0.80	4.50	●	0.70-3.00	0.05-0.25

• For user guide and cutting speed recommendations, see pages 128-138,288-294

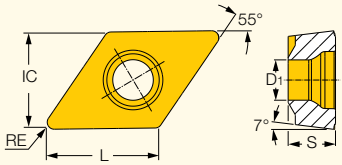
For tools, see pages: A-SDUCR/L-13-SL (93) • SDACR/L-S-SL-JHP (35) • SDJCR/L-13-SL (34) • SDNCN-13-SL (34)

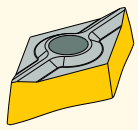
T-LOCK

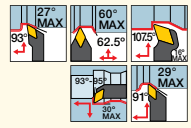
DCMT-PF-SL

55° Rhombic Inserts with a Positive Flank and Locating Bottom Ridge for Finish Turning on Soft Materials & Exotic Alloys









I N C H

Designation	Dimensions L	IC	S	RE	D1	IC8150	Recommended Machining Data a_p (inch)	f (IPR)
DCMT 13T504-PF-SL	.528	.433	.201	.0157	.177	●	.020-.118	.0020-.0098
DCMT 13T508-PF-SL	.528	.433	.201	.0315	.177	●	.028-.118	.0020-.0098

• For user guide and cutting speed recommendations, see pages 128-138,288-294

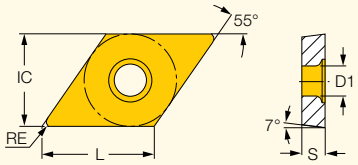
For tools, see pages: A-SDUCR/L-13-SL (93) • SDACR/L-S-SL-JHP (35) • SDJCR/L-13-SL (34) • SDNCN-13-SL (34)

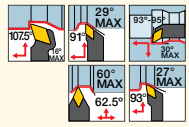
ISOTURN

DCMT-14

55° Rhombic Inserts with a Positive Flank for Semi-Finish and Finish Turning on Soft Materials and Exotic Alloys







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC8150	IC20	IC428	Recommended Machining Data a_p (mm)	f (mm/rev)
DCMT 11T304-14	11.60	9.52	3.97	0.40	4.40	●	●	●		1.00-2.50	0.14-0.25
DCMT 11T308-14	11.60	9.52	3.97	0.80	4.40		●	●	●	1.50-3.00	0.14-0.29

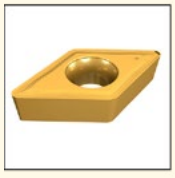
- For user guide and cutting speed recommendations, see pages 128-138,288-294

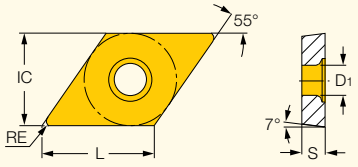
For tools, see pages: A/E/S-SDUCR/L (94) • AVC-SDUCR/L (96) • NQCH-SDACR/L-S-JHP (27) • NQCH-SDJCR/L-S-JHP (26) • NQCH-SDNCN-S-JHP (28) • NQCH-Y-SDJCR-S-JHP (29) • PDACR/L-S (32) • PDACR/L-S-JHP (33) • SBTT#-SDJCR/L-JHP (824) • SBTT-SDNCN-JHP (825) • SDACR/L-S (23) • SDHCR/L-S (25) • SDJCR/L (24) • SDNCN (25) • Y-SDJCR-S (30) • Y-SDJCR-S-JHP (31)

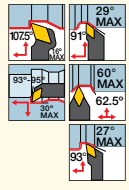
ISOTURN

DCMT-14

55° Rhombic Inserts with a Positive Flank for Semi-Finish and Finish Turning on Soft Materials and Exotic Alloys







I N C H

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC8150	IC20	IC428	Recommended Machining Data a_p (inch)	f (IPR)
DCMT 3-1-14	.457	.375	.156	.0157	.173	●	●	●		.039-.098	.0055-.0098
DCMT 3-2-14	.457	.375	.156	.0315	.173		●	●	●	.059-.118	.0055-.0114

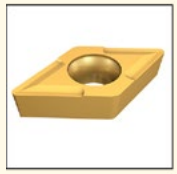
- For user guide and cutting speed recommendations, see pages 128-138,288-294

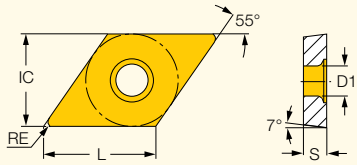
For tools, see pages: A/E/S-SDUCR/L (94) • AVC-SDUCR/L (96) • NQCH-SDACR/L-S-JHP (27) • NQCH-SDJCR/L-S-JHP (26) • NQCH-SDNCN-S-JHP (28) • NQCH-Y-SDJCR-S-JHP (29) • PDACR/L-JHP (33) • PDACR/L-S (32) • PDACR/L-S-JHP (33) • SBTT#-SDJCR/L-JHP (824) • SBTT-SDNCN-JHP (825) • SDACR/L-S (23) • SDJCR/L (24) • SDNCN (25) • SDPCN (25) • Y-SDJCR-S (30) • Y-SDJCR-S-JHP (31)

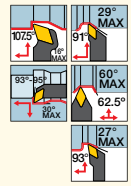
ISOTURN

DCMT/DCGT

55° Rhombic Inserts with a 7° Positive Clearance for Finishing Applications







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC8250	IC908	IC30N	IC530N	IC8150	IC20N	IC520N	Recommended Machining Data a_p (mm)	f (mm/rev)
DCGT 070201R (1)	7.70	6.35	2.38	0.10	2.80			•						0.25-1.50	0.05-0.15
DCGT 070202	7.70	6.35	2.38	0.20	2.80				•					0.50-2.00	0.08-0.20
DCGT 070204	7.70	6.35	2.38	0.40	2.80				•					0.80-2.50	0.10-0.25
DCMT 070202	7.70	6.35	2.38	0.20	2.80	•	•				•	•	•	0.50-2.00	0.08-0.20
DCMT 070204	7.70	6.35	2.38	0.40	2.80	•			•		•	•	•	0.50-2.00	0.08-0.22
DCGT 11T302	11.60	9.52	3.97	0.20	4.40				•					0.50-2.00	0.08-0.20
DCGT 11T304	11.60	9.52	3.97	0.40	4.40				•			•		1.00-2.50	0.12-0.25
DCMT 11T302	11.60	9.52	3.97	0.20	4.40				•	•		•	•	0.50-2.00	0.08-0.20
DCMT 11T304	11.60	9.52	3.97	0.40	4.40				•			•	•	0.50-2.00	0.12-0.25
DCMT 11T308	11.60	9.52	3.97	0.80	4.40	•						•	•	1.50-3.00	0.14-0.29

• Right-hand inserts for right-hand external tools and for left-hand internal tools • For user guide and cutting speed recommendations, see pages 128-138,288-294

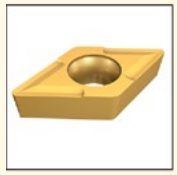
(1) Right-hand insert

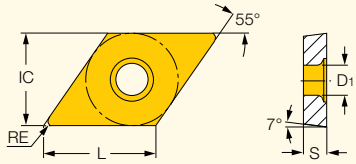
For tools, see pages: A/E/S-SDUCR/L (94) • AVC-SDUCR/L (96) • E-SDUCR/L-HEAD (97) • NQCH-SDACR/L-S-JHP (27) • NQCH-SDJCR/L-S-JHP (26) • NQCH-SDNCN-S-JHP (28) • NQCH-Y-SDJCR-S-JHP (29) • PDACR/L-S (32) • PDACR/L-S-JHP (33) • SBTT#-SDJCR/L-JHP (824) • SBTT-SDNCN-JHP (825) • SDACR/L-S (23) • SDHCR/L-S (25) • SDJCR/L (24) • SDNCN (25) • Y-SDJCR-S (30) • Y-SDJCR-S-JHP (31)

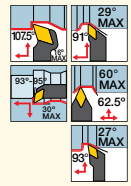
ISOTURN

DCMT/DCGT

55° Rhombic Inserts with a 7° Positive Clearance for Finishing Applications







I N C H

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC8250	IC908	IC30N	IC530N	IC8150	IC20N	IC520N	Recommended Machining Data a_p (inch)	f (IPR)
DCGT 2-.004R (1)	.303	.250	.094	.0039	.110			•						.010-.059	.0020-.0059
DCGT 2-0	.303	.250	.094	.0079	.110				•					.020-.079	.0031-.0079
DCGT 2-1	.303	.250	.094	.0157	.110				•					.031-.098	.0039-.0098
DCMT 2-0	.303	.250	.094	.0079	.110	•	•				•	•	•	.020-.079	.0031-.0079
DCMT 2-1	.303	.250	.094	.0157	.110	•			•		•	•	•	.020-.079	.0031-.0087
DCGT 3-0	.457	.375	.156	.0079	.173				•					.020-.079	.0031-.0079
DCGT 3-1	.457	.375	.156	.0157	.173				•			•		.039-.098	.0047-.0098
DCMT 3-0	.457	.375	.156	.0079	.173				•	•		•	•	.020-.079	.0031-.0079
DCMT 3-1	.457	.375	.156	.0157	.173				•			•	•	.020-.079	.0047-.0098
DCMT 3-2	.457	.375	.156	.0315	.173	•						•	•	.059-.118	.0055-.0114

• Right-hand inserts for right-hand external tools and for left-hand internal tools • For user guide and cutting speed recommendations, see pages 128-138,288-294

(1) Right-hand insert

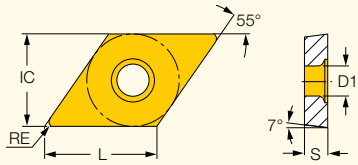
For tools, see pages: A/E/S-SDUCR/L (94) • AVC-SDUCR/L (96) • E-SDUCR-HEAD (97) • E-SDUCR/L-HEAD (97) • NQCH-SDACR/L-S-JHP (27) • NQCH-SDJCR/L-S-JHP (26) • NQCH-SDNCN-S-JHP (28) • NQCH-Y-SDJCR-S-JHP (29) • PDACR/L-JHP (33) • PDACR/L-S (32) • PDACR/L-S-JHP (33) • SBTT#-SDJCR/L-JHP (824) • SBTT-SDNCN-JHP (825) • SDACR/L-S (23) • SDJCR/L (24) • SDNCN (25) • SDPCN (25) • Y-SDJCR-S (30) • Y-SDJCR-S-JHP (31)

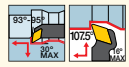
ISOTURN

DCMT-CERMET

Single-Sided 55° Rhombic Cermet Grade Inserts for Semi-Finishing and Finishing Applications





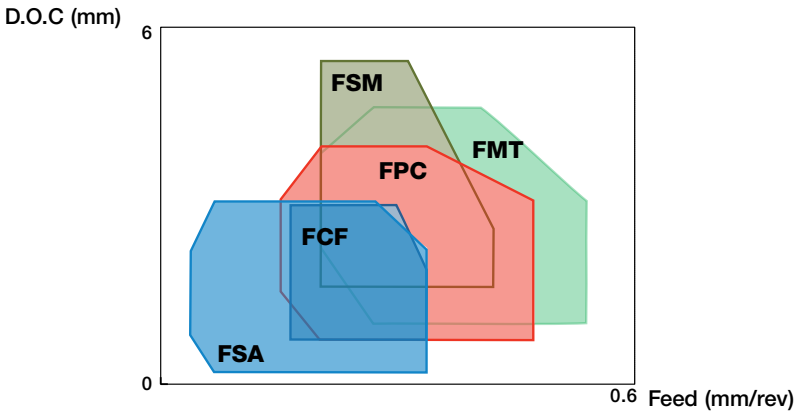


M E T R I C

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC20N	IC520N	Recommended Machining Data a_p (mm)	f (mm/rev)
DCGT 11T302-FSA	11.60	9.52	3.97	0.20	4.40	●		0.30-2.00	0.02-0.15
DCGT 11T304-FSA	11.60	9.52	3.97	0.40	4.40	●		0.40-2.00	0.03-0.15
DCMT 11T302-FCF	11.60	9.52	3.97	0.20	4.40		●	0.50-2.50	0.07-0.22
DCMT 11T302-FSM	11.60	9.52	3.97	0.20	4.40		●	0.50-3.00	0.05-0.22
DCMT 11T304-FPC	11.60	9.52	3.97	0.40	4.40	●	●	0.50-2.70	0.04-0.25
DCMT 11T304-FSM	11.60	9.52	3.97	0.40	4.40		●	0.50-3.00	0.07-0.25
DCMT 11T308-FPC	11.60	9.52	3.97	0.80	4.40		●	0.50-2.70	0.04-0.25
DCMT 11T312-FMT	11.60	9.52	3.97	1.20	4.40		●	1.50-5.00	0.15-0.50

• For user guide and cutting speed recommendations, see pages 128-138,288-294

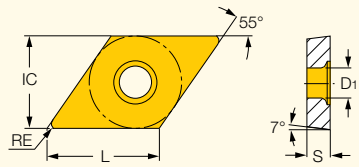
For tools, see pages: A/E/S-SDUCR/L (94) • AVC-SDUCR/L (96) • NQCH-SDACR/L-S-JHP (27) • NQCH-SDJCR/L-S-JHP (26) • NQCH-SDNCN-S-JHP (28) • NQCH-Y-SDJCR-S-JHP (29) • PDACR/L-S (32) • PDACR/L-S-JHP (33) • SBTT#-SDJCR/L-JHP (824) • SBTT-SDNCN-JHP (825) • SDACR/L-S (23) • SDHCR/L-S (25) • SDJCR/L (24) • SDNCN (25) • Y-SDJCR-S (30) • Y-SDJCR-S-JHP (31)

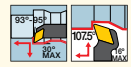


ISOTURN

DCMT-CERMET
Single-Sided 55° Rhombic Cermet Grade Inserts for Semi-Finishing and Finishing Applications





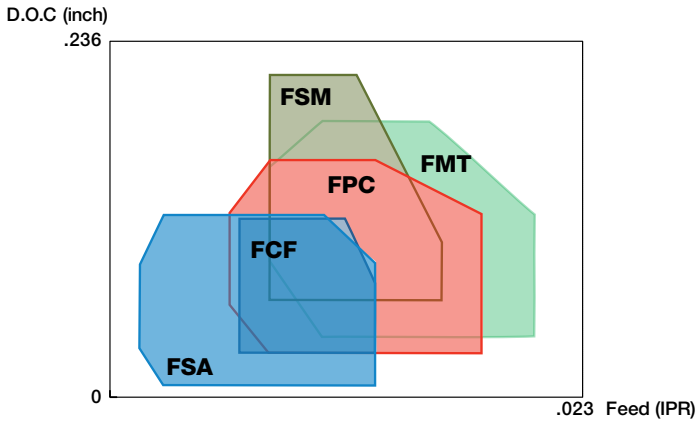


I N C H

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC20N	IC520N	Recommended Machining Data a_p (inch)	f (IPR)
DCGT 3-0-FSA	.457	.375	.156	.0079	.173	●		.012-.079	.0008-.0059
DCGT 3-1-FSA	.457	.375	.156	.0157	.173	●		.016-.079	.0012-.0059
DCMT 3-0-FCF	.457	.375	.156	.0079	.173		●	.020-.098	.0027-.0087
DCMT 3-0-FSM	.457	.375	.156	.0079	.173		●	.020-.118	.0020-.0087
DCMT 3-1-FPC	.457	.375	.156	.0157	.173	●	●	.020-.106	.0016-.0098
DCMT 3-1-FSM	.457	.375	.156	.0157	.173		●	.020-.118	.0027-.0098
DCMT 3-2-FPC	.457	.375	.156	.0315	.173		●	.020-.106	.0016-.0098
DCMT 3-3-FMT	.457	.375	.156	.0472	.173		●	.059-.197	.0059-.0197

• For user guide and cutting speed recommendations, see pages 128-138,288-294

For tools, see pages: A/E/S-SDUCR/L (94) • AVC-SDUCR/L (96) • NQCH-SDACR/L-S-JHP (27) • NQCH-SDJCR/L-S-JHP (26) • NQCH-SDNCN-S-JHP (28) • NQCH-Y-SDJCR-S-JHP (29) • PDACR/L-S (32) • PDACR/L-S-JHP (33) • SBTT#-SDJCR/L-JHP (824) • SBTT-SDNCN-JHP (825) • SDACR/L-S (23) • SDJCR/L (24) • SDNCN (25) • Y-SDJCR-S (30) • Y-SDJCR-S-JHP (31)

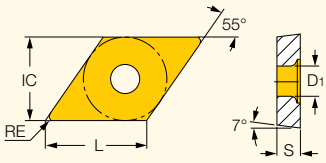


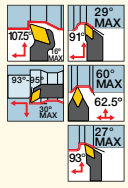
SWISSTURN

DCGT-F1M-12P

55° Rhombic Inserts with a 7° Positive Flank for Finish Turning on Soft Materials and High-Temp. Alloys







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	IC1008	Recommended Machining Data a_p (mm)	f (mm/rev)
DCGT 0702005-F1M-12P	7.75	6.35	2.38	0.05	2.80	•	0.04-4.50	0.03-0.18
DCGT 070201-F1M-12P	7.75	6.35	2.38	0.10	2.80	•	0.07-4.50	0.03-0.18
DCGT 070202-F1M-12P	7.75	6.35	2.38	0.20	2.80	•	0.15-4.50	0.03-0.18
DCGT 070204-F1M-12P	7.75	6.35	2.38	0.40	2.80	•	0.30-4.50	0.03-0.18
DCGT 11T3005-F1M-12P	11.63	9.52	3.97	0.05	4.40	•	0.04-4.50	0.03-0.18
DCGT 11T301-F1M-12P	11.63	9.52	3.97	0.10	4.40	•	0.07-4.50	0.03-0.18
DCGT 11T302-F1M-12P	11.63	9.52	3.97	0.20	4.40	•	0.15-4.50	0.03-0.18
DCGT 11T304-F1M-12P	11.63	9.52	3.97	0.40	4.40	•	0.30-4.50	0.03-0.18

• For user guide and cutting speed recommendations, see pages 128-138,288-294

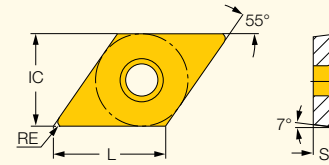
For tools, see pages: A/E/S-SDUCR/L (94) • AVC-SDUCR/L (96) • E-SDUCR/L-HEAD (97) • NQCH-SDACR/L-S-JHP (27) • NQCH-SDJCR/L-S-JHP (26) • NQCH-SDNCN-S-JHP (28) • NQCH-Y-SDJCR-S-JHP (29) • PDACR/L-S (32) • PDACR/L-S-JHP (33) • SBTT#-SDJCR/L-JHP (824) • SBTT-SDNCN-JHP (825) • SDACR/L-S (23) • SDHCR/L-S (25) • SDJCR/L (24) • SDNCN (25) • Y-SDJCR-S (30) • Y-SDJCR-S-JHP (31)

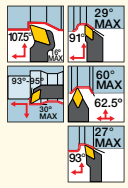
SWISSTURN

DCGT-F1M-12P

55° Rhombic Inserts with a 7° Positive Flank for Finish Turning on Soft Materials and High-Temp. Alloys







I N C H

Designation	Dimensions L	IC	S	RE	D1	IC1008	Recommended Machining Data a_p (inch)	f (IPR)
DCGT 2-.002-F1M-12P	.305	.250	.094	.0020	.110	•	.002-.177	.0012-.0071
DCGT 2-.004-F1M-12P	.305	.250	.094	.0039	.110	•	.003-.177	.0012-.0071
DCGT 2-0-F1M-12P	.305	.250	.094	.0079	.110	•	.006-.177	.0012-.0071
DCGT 2-1-F1M-12P	.305	.250	.094	.0157	.110	•	.012-.177	.0012-.0071
DCGT 3-.002-F1M-12P	.458	.375	.156	.0020	.173	•	.002-.177	.0012-.0071
DCGT 3-.004-F1M-12P	.458	.375	.156	.0039	.173	•	.003-.177	.0012-.0071
DCGT 3-0-F1M-12P	.458	.375	.156	.0079	.173	•	.006-.177	.0012-.0071
DCGT 3-1-F1M-12P	.458	.375	.156	.0157	.173	•	.012-.177	.0012-.0071

• For user guide and cutting speed recommendations, see pages 128-138,288-294

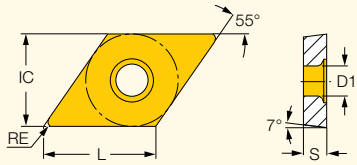
For tools, see pages: A/E/S-SDUCR/L (94) • AVC-SDUCR/L (96) • E-SDUCR-HEAD (97) • E-SDUCR/L-HEAD (97) • NQCH-SDACR/L-S-JHP (27) • NQCH-SDJCR/L-S-JHP (26) • NQCH-SDNCN-S-JHP (28) • NQCH-Y-SDJCR-S-JHP (29) • PDACR/L-JHP (33) • PDACR/L-S (32) • PDACR/L-S-JHP (33) • SBTT#-SDJCR/L-JHP (824) • SBTT-SDNCN-JHP (825) • SDACR/L-S (23) • SDJCR/L (24) • SDNCN (25) • SDPCN (25) • Y-SDJCR-S (30) • Y-SDJCR-S-JHP (31)

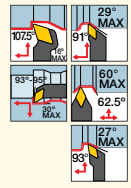
SWISSTURN

DCGT-F1M-20P

55° Rhombic Inserts with a 7° Positive Flank for Semi-Finish and Finish Turning on Soft Materials and High-Temp. Alloys







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	IC1008	Recommended Machining Data a_p (mm)	f (mm/rev)
DCGT 0702005-F1M-20P	7.75	6.35	2.38	0.05	2.80	•	0.04-4.00	0.03-0.15
DCGT 070201-F1M-20P	7.75	6.35	2.38	0.10	2.80	•	0.07-4.00	0.03-0.15
DCGT 070202-F1M-20P	7.75	6.35	2.38	0.20	2.80	•	0.15-4.00	0.03-0.15
DCGT 070204-F1M-20P	7.75	6.35	2.38	0.40	2.80	•	0.30-4.00	0.03-0.15
DCGT 11T3005-F1M-20P	11.63	9.52	3.97	0.05	4.40	•	0.04-4.00	0.03-0.15
DCGT 11T301-F1M-20P	11.63	9.52	3.97	0.10	4.40	•	0.07-4.00	0.03-0.15
DCGT 11T302-F1M-20P	11.63	9.52	3.97	0.20	4.40	•	0.15-4.00	0.03-0.15
DCGT 11T304-F1M-20P	11.63	9.52	3.97	0.40	4.40	•	0.30-4.00	0.03-0.15

• For user guide and cutting speed recommendations, see pages 128-138,288-294

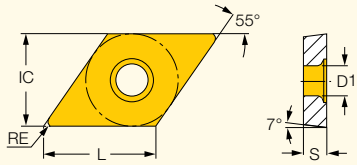
For tools, see pages: A/E/S-SDUCR/L (94) • AVC-SDUCR/L (96) • E-SDUCR/L-HEAD (97) • NQCH-SDACR/L-S-JHP (27) • NQCH-SDJCR/L-S-JHP (26) • NQCH-SDNCN-S-JHP (28) • NQCH-Y-SDJCR-S-JHP (29) • PDACR/L-S (32) • PDACR/L-S-JHP (33) • SBTT#-SDJCR/L-JHP (824) • SBTT-SDNCN-JHP (825) • SDACR/L-S (23) • SDHCR/L-S (25) • SDJCR/L (24) • SDNCN (25) • Y-SDJCR-S (30) • Y-SDJCR-S-JHP (31)

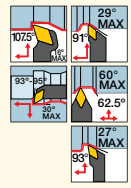
SWISSTURN

DCGT-F1M-20P

55° Rhombic Inserts with a 7° Positive Flank for Semi-Finish and Finish Turning on Soft Materials and High-Temp. Alloys







I N C H

Designation	Dimensions L	IC	S	RE	D1	IC1008	Recommended Machining Data a_p (inch)	f (IPR)
DCGT 2-.002-F1M-20P	.305	.250	.094	.0020	.110	•	.002-.157	.0012-.0059
DCGT 2-.004-F1M-20P	.305	.250	.094	.0039	.110	•	.003-.157	.0012-.0059
DCGT 2-0-F1M-20P	.305	.250	.094	.0079	.110	•	.006-.157	.0012-.0059
DCGT 2-1-F1M-20P	.305	.250	.094	.0157	.110	•	.012-.157	.0012-.0059
DCGT 3-.002-F1M-20P	.458	.375	.156	.0020	.173	•	.002-.157	.0012-.0059
DCGT 3-.004-F1M-20P	.458	.375	.156	.0039	.173	•	.003-.157	.0012-.0059
DCGT 3-0-F1M-20P	.458	.375	.156	.0079	.173	•	.006-.157	.0012-.0059
DCGT 3-1-F1M-20P	.458	.375	.156	.0157	.173	•	.012-.157	.0012-.0059

• For user guide and cutting speed recommendations, see pages 128-138,288-294

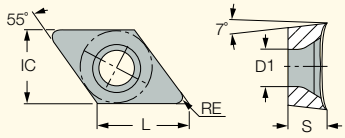
For tools, see pages: A/E/S-SDUCR/L (94) • AVC-SDUCR/L (96) • E-SDUCR/L-HEAD (97) • E-SDUCR/L-HEAD (97) • NQCH-SDACR/L-S-JHP (27) • NQCH-SDJCR/L-S-JHP (26) • NQCH-SDNCN-S-JHP (28) • NQCH-Y-SDJCR-S-JHP (29) • PDACR/L-JHP (33) • PDACR/L-S (32) • PDACR/L-S-JHP (33) • SBTT#-SDJCR/L-JHP (824) • SBTT-SDNCN-JHP (825) • SDACR/L-S (23) • SDJCR/L (24) • SDNCN (25) • SDPCN (25) • Y-SDJCR-S (30) • Y-SDJCR-S-JHP (31)

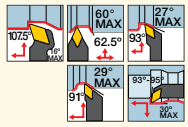
ISOTURN

DCGT-AF

Inserts with a Positive Rake Angle and Sharp Cutting Edge for Semi-Finishing and Finishing Aluminum







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
DCGT 11T304-AF	11.60	9.52	3.97	0.40	4.40	●	0.50-2.50	0.05-0.25

- For user guide and cutting speed recommendations, see pages 128-138,288-294

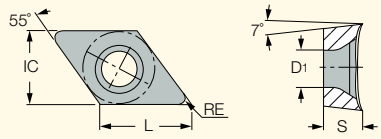
For tools, see pages: A/E/S-SDUCR/L (94) • AVC-SDUCR/L (96) • NQCH-SDACR/L-S-JHP (27) • NQCH-SDJCR/L-S-JHP (26) • NQCH-SDNCN-S-JHP (28) • NQCH-Y-SDJCR-S-JHP (29) • PDACR/L-S (32) • PDACR/L-S-JHP (33) • SBTT#-SDJCR/L-JHP (824) • SBTT-SDNCN-JHP (825) • SDACR/L-S (23) • SDHCR/L-S (25) • SDJCR/L (24) • SDNCN (25) • Y-SDJCR-S (30) • Y-SDJCR-S-JHP (31)

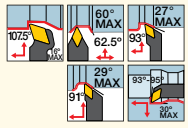
ISOTURN

DCGT-AF

Inserts with a Positive Rake Angle and Sharp Cutting Edge for Semi-Finishing and Finishing Aluminum







I N C H

Designation	Dimensions L	IC	S	RE	D1	IC20	Recommended Machining Data a_p (inch)	f (IPR)
DCGT 3-1-AF	.457	.375	.156	.0157	.173	●	.020-.098	.0020-.0098

- For user guide and cutting speed recommendations, see pages 128-138,288-294

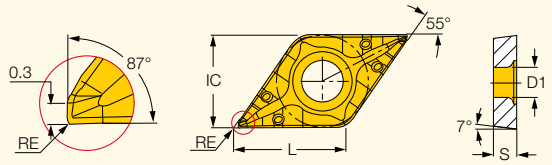
For tools, see pages: A/E/S-SDUCR/L (94) • AVC-SDUCR/L (96) • NQCH-SDACR/L-S-JHP (27) • NQCH-SDJCR/L-S-JHP (26) • NQCH-SDNCN-S-JHP (28) • NQCH-Y-SDJCR-S-JHP (29) • PDACR/L-JHP (33) • PDACR/L-S (32) • PDACR/L-S-JHP (33) • SBTT#-SDJCR/L-JHP (824) • SBTT-SDNCN-JHP (825) • SDACR/L-S (23) • SDJCR/L (24) • SDNCN (25) • SDPCN (25) • Y-SDJCR-S (30) • Y-SDJCR-S-JHP (31)

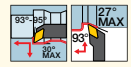
ISOTURN

DCET-WF

55° Rhombic Wiper Inserts
for Finishing Operations
at High Feeds







Right-hand shown

M E T R I C

Designation	Dimensions L	IC	S	RE	D1	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
DCET 0702005R/L-WF	7.70	6.35	2.38	0.05	2.80	●	0.05-3.00	0.01-0.20
DCET 11T3005R/L-WF	11.60	9.52	3.97	0.05	4.40	●	0.05-3.00	0.01-0.20

- For user guide and cutting speed recommendations, see pages 128-138,288-294

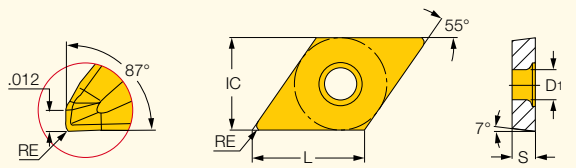
For tools, see pages: A/E/S-SDUCR/L (94) • AVC-SDUCR/L (96) • E-SDUCR/L-HEAD (97) • NQCH-SDACR/L-S-JHP (27) • NQCH-SDJCR/L-S-JHP (26) • NQCH-Y-SDJCR-S-JHP (29) • PDACR/L-S (32) • PDACR/L-S-JHP (33) • SDACR/L-S (23) • SDHCR/L-S (25) • SDJCR/L (24) • Y-SDJCR-S (30) • Y-SDJCR-S-JHP (31)

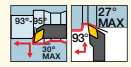
ISOTURN

DCET-WF

55° Rhombic Wiper Inserts
for Finishing Operations
at High Feeds







Right-hand shown

I N C H

Designation	Dimensions L	IC	S	RE	D1	IC907	Recommended Machining Data a_p (inch)	f (IPR)
DCET 2-.002R/L-WF	.303	.250	.094	.0020	.110	●	.002-.118	.0004-.0079
DCET 3-.002R/L-WF	.457	.375	.156	.0020	.173	●	.002-.118	.0004-.0079

- For user guide and cutting speed recommendations, see pages 128-138,288-294

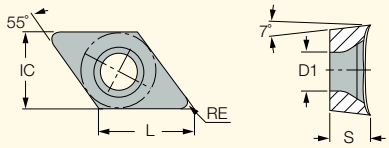
For tools, see pages: A/E/S-SDUCR/L (94) • AVC-SDUCR/L (96) • E-SDUCR-HEAD (97) • E-SDUCR/L-HEAD (97) • NQCH-SDACR/L-S-JHP (27) • NQCH-SDJCR/L-S-JHP (26) • NQCH-Y-SDJCR-S-JHP (29) • PDACR/L-JHP (33) • PDACR/L-S (32) • PDACR/L-S-JHP (33) • SDACR/L-S (23) • SDJCR/L (24) • Y-SDJCR-S (30) • Y-SDJCR-S-JHP (31)

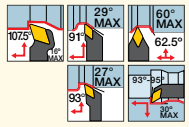
ISOTURN

DCGT-AS

55° Rhombic Inserts with a 7° Positive Flank, Very Positive Rake Angle and Sharp Cutting Edge for Machining Aluminum







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC1520	IC20	IC920	IC320	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
DCGT 070201-AS	7.75	6.35	2.38	0.10	2.80		●				0.50-2.00	0.03-0.20
DCGT 070202-AS	7.75	6.35	2.38	0.20	2.80	●	●	●			0.50-2.00	0.05-0.20
DCGT 070204-AS	7.75	6.35	2.38	0.40	2.80	●	●				0.50-2.50	0.05-0.25
DCGT 11T301-AS	11.60	9.52	3.97	0.10	4.40		●				0.50-2.50	0.05-0.25
DCGT 11T302-AS	11.60	9.52	3.97	0.20	4.40	●	●		●	●	0.50-2.50	0.05-0.26
DCGT 11T304-AS	11.60	9.52	3.97	0.40	4.40	●	●		●	●	0.50-2.50	0.05-0.25
DCGT 11T308-AS	11.60	9.52	3.97	0.80	4.40	●	●		●		0.80-3.00	0.08-0.30

• For user guide and cutting speed recommendations, see pages 128-138,288-294

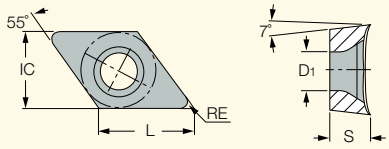
For tools, see pages: A/E/S-SDUCR/L (94) • AVC-SDUCR/L (96) • E-SDUCR/L-HEAD (97) • NQCH-SDACR/L-S-JHP (27) • NQCH-SDJCR/L-S-JHP (26) • NQCH-SDNCN-S-JHP (28) • NQCH-Y-SDJCR-S-JHP (29) • PDACR/L-S (32) • PDACR/L-S-JHP (33) • SBTT#-SDJCR/L-JHP (824) • SBTT-SDNCN-JHP (825) • SDACR/L-S (23) • SDHCR/L-S (25) • SDJCR/L (24) • SDNCN (25) • Y-SDJCR-S (30) • Y-SDJCR-S-JHP (31)

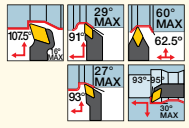
ISOTURN

DCGT-AS

55° Rhombic Inserts with a 7° Positive Flank, Very Positive Rake Angle and Sharp Cutting Edge for Machining Aluminum







I N C H

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC1520	IC20	IC920	IC320	IC907	Recommended Machining Data a_p (inch)	f (IPR)
DCGT 2-.004-AS	.305	.250	.094	.0039	.110		●				.020-.079	.0012-.0079
DCGT 2-0-AS	.305	.250	.094	.0079	.110	●	●	●			.020-.079	.0020-.0079
DCGT 2-1-AS	.305	.250	.094	.0157	.110	●	●				.020-.098	.0020-.0098
DCGT 3-.004-AS	.457	.375	.156	.0039	.173		●				.020-.098	.0020-.0098
DCGT 3-0-AS	.457	.375	.156	.0079	.173	●	●		●	●	.020-.098	.0020-.0102
DCGT 3-1-AS	.457	.375	.156	.0157	.173	●	●		●	●	.020-.098	.0020-.0098
DCGT 3-2-AS	.457	.375	.156	.0315	.173	●	●		●		.031-.118	.0031-.0118

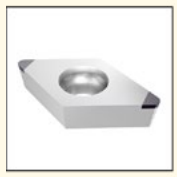
• For user guide and cutting speed recommendations, see pages 128-138,288-294

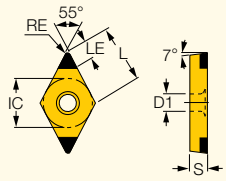
For tools, see pages: A/E/S-SDUCR/L (94) • AVC-SDUCR/L (96) • E-SDUCR-HEAD (97) • E-SDUCR/L-HEAD (97) • NQCH-SDACR/L-S-JHP (27) • NQCH-SDJCR/L-S-JHP (26) • NQCH-SDNCN-S-JHP (28) • NQCH-Y-SDJCR-S-JHP (29) • PDACR/L-JHP (33) • PDACR/L-S (32) • PDACR/L-S-JHP (33) • SBTT#-SDJCR/L-JHP (824) • SBTT-SDNCN-JHP (825) • SDACR/L-S (23) • SDJCR/L (24) • SDNCN (25) • SDPCN (25) • Y-SDJCR-S (30) • Y-SDJCR-S-JHP (31)

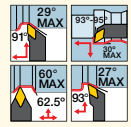
ISOTURN

DCGW/DCMW-2 (CBN)

55° Positive Rhombic Inserts with 2 CBN Tips for Machining Hardened Steel, Sintered Metals and High Temperature Alloys







M E T R I C

Designation	Dimensions L	IC	S	RE	LE	D1	Tough ↔ Hard IB10H	IB10HC	IB20H	IB20HC	IB05S	Recommended Machining Data a_p (mm)	f (mm/rev)
DCGW 070202-F2	7.70	6.35	2.38	0.20	2.5	2.80		●		●		0.05-0.50	0.05-0.30
DCGW 070204-F2	7.70	6.35	2.38	0.40	2.5	2.80		●		●		0.05-0.50	0.05-0.30
DCGW 11T302-F2	11.60	9.52	3.97	0.20	2.5	4.40		●		●		0.05-0.50	0.05-0.30
DCGW 11T304-F2	11.60	9.52	3.97	0.40	2.5	4.40		●		●		0.05-0.50	0.05-0.30
DCGW 11T308-F2	11.60	9.52	3.97	0.80	2.1	4.40		●		●		0.05-0.50	0.05-0.30
DCGW 070202-M2	7.70	6.35	2.38	0.20	2.5	2.80		●		●		0.05-0.50	0.05-0.30
DCGW 070204-M2	7.70	6.35	2.38	0.40	2.5	2.80		●		●	●	0.05-0.50	0.05-0.30
DCGW 070208-M2	7.70	6.35	2.38	0.80	2.5	2.80					●	0.05-0.50	0.05-0.30
DCGW 11T302-M2	11.60	9.52	3.97	0.20	2.5	4.40				●		0.05-0.50	0.05-0.30
DCMW 11T304-M2	11.60	9.52	3.97	0.40	2.5	4.40	●	●	●			0.05-0.50	0.05-0.12
DCGW 11T308-M2	11.60	9.52	3.97	0.80	2.1	4.40					●	0.05-0.50	0.05-0.30
DCMW 11T308-M2	11.60	9.52	3.97	0.80	2.1	4.40	●	●	●			0.05-0.50	0.05-0.15
DCGW 11T304T01315	11.60	9.52	3.97	0.40	2.5	4.40					●	0.05-0.50	0.05-0.30
DCGW 11T304-S2	11.60	9.52	3.97	0.40	2.5	4.40					●	0.05-0.50	0.05-0.30

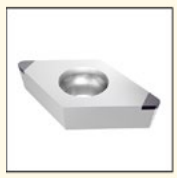
- For user guide and cutting speed recommendations, see pages 128-138,288-294

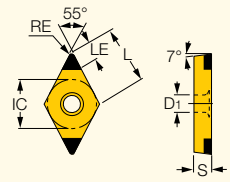
For tools, see pages: A/E/S-SDUCR/L (94) • AVC-SDUCR/L (96) • E-SDUCR/L-HEAD (97) • NQCH-SDACR/L-S-JHP (27) • NQCH-SDJCR/L-S-JHP (26) • NQCH-SDNCN-S-JHP (28) • NQCH-Y-SDJCR-S-JHP (29) • PDACR/L-S (32) • PDACR/L-S-JHP (33) • SBTT#-SDJCR/L-JHP (824) • SBTT-SDNCN-JHP (825) • SDACR/L-S (23) • SDHCR/L-S (25) • SDJCR/L (24) • SDNCN (25) • Y-SDJCR-S (30) • Y-SDJCR-S-JHP (31)

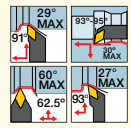
ISOTURN

DCGW/DCMW-2 (CBN)

55° Positive Rhombic Inserts with 2 CBN Tips for Machining Hardened Steel, Sintered Metals and High Temperature Alloys







I N C H

Designation	Dimensions L	IC	S	RE	LE	D1	Tough ↔ Hard IB10H	IB10HC	IB20H	IB20HC	IB05S	Recommended Machining Data a_p (inch)	f (IPR)
DCGW 2-0-F2	.303	.250	.094	.0079	.10	.110		●		●		.002-.020	.0020-.0118
DCGW 2-1-F2	.303	.250	.094	.0157	.10	.110		●		●		.002-.020	.0020-.0118
DCGW 3-0-F2	.457	.375	.156	.0079	.10	.173		●		●		.002-.020	.0020-.0118
DCGW 3-1-F2	.457	.375	.156	.0157	.10	.173		●		●		.002-.020	.0020-.0118
DCGW 3-2-F2	.457	.375	.156	.0315	.08	.173		●		●		.002-.020	.0020-.0118
DCGW 2-0-M2	.303	.250	.094	.0079	.10	.110		●		●		.002-.020	.0020-.0118
DCGW 2-1-M2	.303	.250	.094	.0157	.10	.110		●		●	●	.002-.020	.0020-.0118
DCGW 2-2-M2	.303	.250	.094	.0315	.10	.110					●	.002-.020	.0020-.0118
DCGW 3-0-M2	.457	.375	.156	.0079	.10	.173				●		.002-.020	.0020-.0118
DCMW 3-1-M2	.457	.375	.156	.0157	.10	.173	●	●	●			.002-.020	.0020-.0047
DCGW 3-2-M2	.457	.375	.156	.0315	.08	.173					●	.002-.020	.0020-.0118
DCMW 3-2-M2	.457	.375	.156	.0315	.08	.173	●	●	●			.002-.020	.0020-.0059
DCGW 3-1T01315	.457	.375	.156	.0157	.10	.173					●	.002-.020	.0020-.0118
DCGW 3-1-S2	.457	.375	.156	.0157	.10	.173					●	.002-.020	.0020-.0118

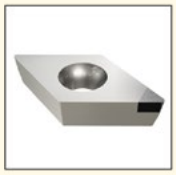
- For user guide and cutting speed recommendations, see pages 128-138,288-294

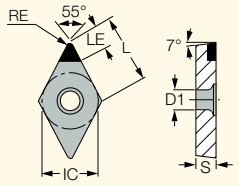
For tools, see pages: A/E/S-SDUCR/L (94) • AVC-SDUCR/L (96) • E-SDUCR-HEAD (97) • E-SDUCR/L-HEAD (97) • NQCH-SDACR/L-S-JHP (27) • NQCH-SDJCR/L-S-JHP (26) • NQCH-SDNCN-S-JHP (28) • NQCH-Y-SDJCR-S-JHP (29) • PDACR/L-JHP (33) • PDACR/L-S (32) • PDACR/L-S-JHP (33) • SBTT#-SDJCR/L-JHP (824) • SBTT-SDNCN-JHP (825) • SDACR/L-S (23) • SDJCR/L (24) • SDNCN (25) • SDPCN (25) • Y-SDJCR-S (30) • Y-SDJCR-S-JHP (31)

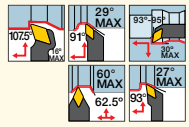
ISOTURN

DCMT (CBN)

55° Rhombic Inserts with a Single CBN Top Corner Tip and 7° Clearance for Machining Hardened Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	LE	D1	IB55	Recommended Machining Data a_p (mm)	f (mm/rev)
DCMT 11T304T	11.60	9.52	3.97	0.40	3.4	4.40	●	0.05-0.50	0.05-0.20
DCMT 11T308T	11.60	9.52	3.97	0.80	3.1	4.40	●	0.05-0.50	0.05-0.20

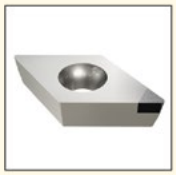
- For user guide and cutting speed recommendations, see pages 128-138,288-294

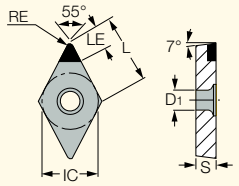
For tools, see pages: A/E/S-SDUCR/L (94) • AVC-SDUCR/L (96) • NQCH-SDACR/L-S-JHP (27) • NQCH-SDJCR/L-S-JHP (26) • NQCH-SDNCN-S-JHP (28) • NQCH-Y-SDJCR-S-JHP (29) • PDACR/L-S (32) • PDACR/L-S-JHP (33) • SBTT#-SDJCR/L-JHP (824) • SBTT-SDNCN-JHP (825) • SDACR/L-S (23) • SDHCR/L-S (25) • SDJCR/L (24) • SDNCN (25) • Y-SDJCR-S (30) • Y-SDJCR-S-JHP (31)

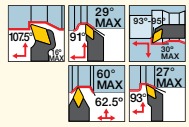
ISOTURN

DCMT (CBN)

55° Rhombic Inserts with a Single CBN Top Corner Tip and 7° Clearance for Machining Hardened Steel







I N C H

Designation	Dimensions L	IC	S	RE	LE	D1	IB55	Recommended Machining Data a_p (inch)	f (IPR)
DCMT 3-1T	.457	.375	.156	.0157	.13	.173	●	.002-.020	.0020-.0079
DCMT 3-2T	.457	.375	.156	.0315	.12	.173	●	.002-.020	.0020-.0079

- For user guide and cutting speed recommendations, see pages 128-138,288-294

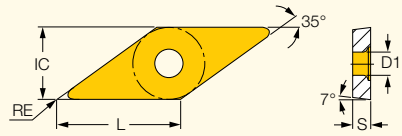
For tools, see pages: A/E/S-SDUCR/L (94) • AVC-SDUCR/L (96) • NQCH-SDACR/L-S-JHP (27) • NQCH-SDJCR/L-S-JHP (26) • NQCH-SDNCN-S-JHP (28) • NQCH-Y-SDJCR-S-JHP (29) • PDACR/L-JHP (33) • PDACR/L-S (32) • PDACR/L-S-JHP (33) • SBTT#-SDJCR/L-JHP (824) • SBTT-SDNCN-JHP (825) • SDACR/L-S (23) • SDJCR/L (24) • SDNCN (25) • SDPCN (25) • Y-SDJCR-S (30) • Y-SDJCR-S-JHP (31)

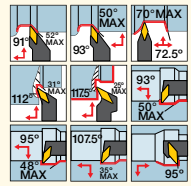
ISOTURN

VCMT-F3P

35° Rhombic Positive Flank Inserts for Semi-Finishing and Finish Turning of Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC8250	IC8150	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
VCMT 110302-F3P	11.10	6.35	3.18	0.20	2.80	●	●	●	0.06-1.70	0.03-0.14
VCMT 110304-F3P	11.10	6.35	3.18	0.40	2.80	●	●	●	0.10-1.70	0.05-0.20
VCMT 110308-F3P	11.10	6.35	3.18	0.80	2.80	●	●	●	0.13-1.70	0.07-0.28
VCMT 110312-F3P	11.10	6.35	3.18	1.20	2.80	●	●	●	0.13-1.70	0.08-0.33
VCMT 160402-F3P	16.60	9.52	4.76	0.20	4.40	●	●	●	0.07-1.80	0.04-0.15
VCMT 160404-F3P	16.60	9.52	4.76	0.40	4.40	●	●	●	0.10-1.80	0.05-0.20
VCMT 160408-F3P	16.60	9.52	4.76	0.80	4.40	●	●	●	0.14-1.80	0.07-0.29
VCMT 160412-F3P	16.60	9.52	4.76	1.20	4.40	●	●	●	0.14-1.80	0.09-0.34

• For user guide and cutting speed recommendations, see pages 128-138,288-294

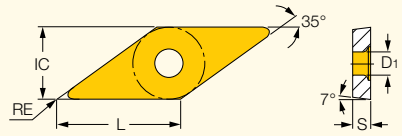
For tools, see pages: A/S-SVQCR/L (98) • AVC-SVMCR/L (102) • AVC-SVPCR/L (100) • AVC-SVQCR/L (101) • NQCH-SVACR/L-S-JHP (38) • NQCH-SVJCR/L-S-JHP (37) • NQCH-SVVCN-S-JHP (39) • NQCH-Y-SVJCR-S-JHP (40) • PVACR/L-S (43) • PVACR/L-S-JHP (44) • S/A-SVJCR/L (99) • SBTT#-SVJCR/L-JHP (827) • SBTT#-SVQCR/L-JHP (829) • SBTT#-SVUCR/L-JHP (828) • SBTT-SVVCN-JHP (828) • SVACR/L-S (35) • SVJCR/L (36) • SVPCR/L-S (43) • SVVCN (36) • Y-SVJCR-S (41) • Y-SVJCR-S-JHP (42)

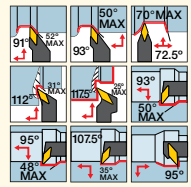
ISOTURN

VCMT-F3P

35° Rhombic Positive Flank Inserts for Semi-Finishing and Finish Turning of Steel







I N C H

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC8250	IC8150	IC807	Recommended Machining Data a_p (inch)	f (IPR)
VCMT 220-F3P	.437	.250	.125	.0079	.110	●	●	●	.002-.067	.0012-.0055
VCMT 221-F3P	.437	.250	.125	.0157	.110	●	●	●	.004-.067	.0020-.0079
VCMT 222-F3P	.437	.250	.125	.0315	.110	●	●	●	.005-.067	.0027-.0110
VCMT 223-F3P	.437	.250	.125	.0472	.110	●	●	●	.005-.067	.0031-.0130
VCMT 330-F3P	.654	.375	.187	.0079	.173	●	●	●	.003-.071	.0016-.0059
VCMT 331-F3P	.654	.375	.187	.0157	.173	●	●	●	.004-.071	.0020-.0079
VCMT 332-F3P	.654	.375	.187	.0315	.173	●	●	●	.006-.071	.0027-.0114
VCMT 333-F3P	.654	.375	.187	.0472	.173	●	●	●	.006-.071	.0035-.0134

• For user guide and cutting speed recommendations, see pages 128-138,288-294

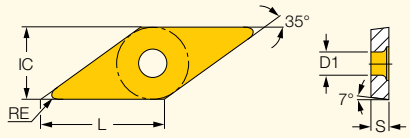
For tools, see pages: A/S-SVQCR/L (98) • AVC-SVMCR/L (102) • AVC-SVPCR/L (100) • AVC-SVQCR/L (101) • NQCH-SVACR/L-S-JHP (38) • NQCH-SVJCR/L-S-JHP (37) • NQCH-SVVCN-S-JHP (39) • NQCH-Y-SVJCR-S-JHP (40) • PVACR-S (43) • PVACR/L-S (43) • PVACR/L-S-JHP (44) • S/A-SVJCR/L (99) • SBTT#-SVJCR/L-JHP (827) • SBTT#-SVQCR/L-JHP (829) • SBTT#-SVUCR/L-JHP (828) • SBTT-SVVCN-JHP (828) • SVACR/L-S (35) • SVJCR/L (36) • SVVCN (36) • Y-SVJCR-S (41) • Y-SVJCR-S-JHP (42)

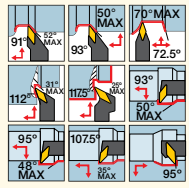
ISOTURN

VCMT-M3P

35° Rhombic Positive Flank Inserts, for Medium Machining Conditions on Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC8250	IC8150	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
VCMT 110304-M3P	11.10	6.35	3.18	0.40	2.80	●	●	●	0.50-3.00	0.07-0.24
VCMT 110308-M3P	11.10	6.35	3.18	0.80	2.80	●	●	●	0.50-2.00	0.07-0.25
VCMT 160404-M3P	16.60	9.52	4.76	0.40	4.40	●	●	●	0.50-2.50	0.05-0.25
VCMT 160408-M3P	16.60	9.52	4.76	0.80	4.40		●	●	0.90-2.50	0.10-0.25
VCMT 160412-M3P	16.60	9.52	4.76	1.20	4.40	●	●	●	0.50-3.00	0.10-0.25

• For user guide and cutting speed recommendations, see pages 128-138,288-294

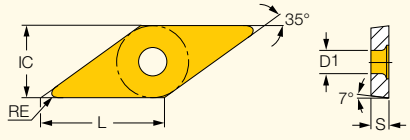
For tools, see pages: A/S-SVQCR/L (98) • AVC-SVMCR/L (102) • AVC-SVPCR/L (100) • AVC-SVQCR/L (101) • AVC-SVUCR/L (99) • NQCH-SVACR/L-S-JHP (38) • NQCH-SVJCR/L-S-JHP (37) • NQCH-SVVCN-S-JHP (39) • NQCH-Y-SVJCR-S-JHP (40) • PVACR/L-S (43) • PVACR/L-S-JHP (44) • S/A-SVJCR/L (99) • SBTT#-SVJCR/L-JHP (827) • SBTT#-SVQCR/L-JHP (829) • SBTT#-SVUCR/L-JHP (828) • SBTT-SVVCN-JHP (828) • SVACR/L-S (35) • SVJCR/L (36) • SVPCR/L-S (43) • SVVCN (36) • Y-SVJCR-S (41) • Y-SVJCR-S-JHP (42)

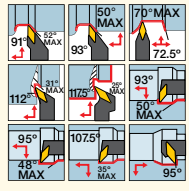
ISOTURN

VCMT-M3P

35° Rhombic Positive Flank Inserts, for Medium Machining Conditions on Steel







I N C H

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC8250	IC8150	IC807	Recommended Machining Data a_p (inch)	f (IPR)
VCMT 221-M3P	.437	.250	.125	.0157	.110	●	●	●	.020-.118	.0027-.0094
VCMT 222-M3P	.437	.250	.125	.0315	.110	●	●	●	.020-.079	.0027-.0098
VCMT 331-M3P	.654	.375	.187	.0157	.173	●	●	●	.020-.098	.0020-.0098
VCMT 332-M3P	.654	.375	.187	.0315	.173		●	●	.035-.098	.0039-.0098
VCMT 333-M3P	.654	.375	.187	.0472	.173	●	●	●	.020-.118	.0039-.0098

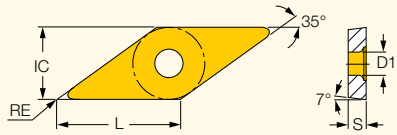
• For user guide and cutting speed recommendations, see pages 128-138,288-294

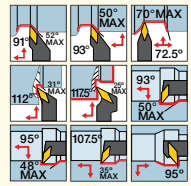
For tools, see pages: A/S-SVQCR/L (98) • AVC-SVMCR/L (102) • AVC-SVPCR/L (100) • AVC-SVQCR/L (101) • AVC-SVUCR/L (99) • NQCH-SVACR/L-S-JHP (38) • NQCH-SVJCR/L-S-JHP (37) • NQCH-SVVCN-S-JHP (39) • NQCH-Y-SVJCR-S-JHP (40) • PVACR-S (43) • PVACR/L-S (43) • PVACR/L-S-JHP (44) • S/A-SVJCR/L (99) • SBTT#-SVJCR/L-JHP (827) • SBTT#-SVQCR/L-JHP (829) • SBTT#-SVUCR/L-JHP (828) • SBTT-SVVCN-JHP (828) • SVACR/L-S (35) • SVJCR/L (36) • SVVCN (36) • Y-SVJCR-S (41) • Y-SVJCR-S-JHP (42)

ISOTURN

VCMT-F3M
35° Rhombic Positive Flank
Inserts for Stainless Steel
Finishing Applications







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC6025	IC6015	IC806	IC1017	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
VCMT 110302-F3M	11.10	6.35	3.18	0.20	2.85	●	●	●		●	0.06-1.70	0.03-0.14
VCMT 110304-F3M	11.10	6.35	3.18	0.40	2.85	●	●	●		●	0.10-1.70	0.05-0.20
VCMT 110308-F3M	11.10	6.35	3.18	0.80	2.85	●	●	●		●	0.13-1.70	0.07-0.28
VCMT 160402-F3M	16.60	9.52	4.76	0.20	4.50	●	●	●	●	●	0.06-1.80	0.03-0.14
VCMT 160404-F3M	16.60	9.52	4.76	0.40	4.50	●	●	●	●	●	0.10-1.80	0.05-0.20
VCMT 160408-F3M	16.60	9.52	4.76	0.80	4.50	●	●	●	●	●	0.13-1.80	0.07-0.28

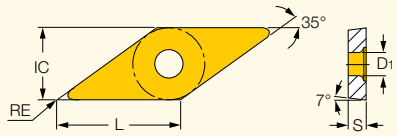
• For user guide and cutting speed recommendations, see pages 128-138,288-294

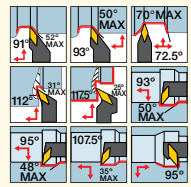
For tools, see pages: A/S-SVQCR/L (98) • AVC-SVMCR/L (102) • AVC-SVPCR/L (100) • AVC-SVQCR/L (101) • AVC-SVUCR/L (99) • NQCH-SVACR/L-S-JHP (38) • NQCH-SVJCR/L-S-JHP (37) • NQCH-SVVCN-S-JHP (39) • NQCH-Y-SVJCR-S-JHP (40) • PVACR/L-S (43) • PVACR/L-S-JHP (44) • S/A-SVJCR/L (99) • SBTT#-SVJCR/L-JHP (827) • SBTT#-SVQCR/L-JHP (829) • SBTT#-SVUCR/L-JHP (828) • SBTT-SVVCN-JHP (828) • SVACR/L-S (35) • SVJCR/L (36) • SVPCR/L-S (43) • SVVCN (36) • Y-SVJCR-S (41) • Y-SVJCR-S-JHP (42)

ISOTURN

VCMT-F3M
35° Rhombic Positive Flank
Inserts for Stainless Steel
Finishing Applications







I N C H

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC6025	IC6015	IC806	IC1017	IC807	Recommended Machining Data a_p (inch)	f (IPR)
VCMT 220-F3M	.437	.250	.125	.0079	.112	●	●	●		●	.002-.067	.0012-.0055
VCMT 221-F3M	.437	.250	.125	.0157	.112	●	●	●		●	.004-.067	.0020-.0079
VCMT 222-F3M	.437	.250	.125	.0315	.112	●	●	●		●	.005-.067	.0027-.0110
VCMT 330-F3M	.654	.375	.187	.0079	.177	●	●	●	●	●	.002-.071	.0012-.0055
VCMT 331-F3M	.654	.375	.187	.0157	.177	●	●	●	●	●	.004-.071	.0020-.0079
VCMT 332-F3M	.654	.375	.187	.0315	.177	●	●	●	●	●	.005-.071	.0027-.0110

• For user guide and cutting speed recommendations, see pages 128-138,288-294

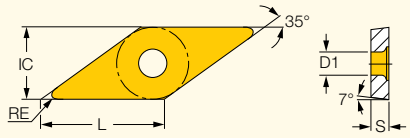
For tools, see pages: A/S-SVQCR/L (98) • AVC-SVMCR/L (102) • AVC-SVPCR/L (100) • AVC-SVQCR/L (101) • AVC-SVUCR/L (99) • NQCH-SVACR/L-S-JHP (38) • NQCH-SVJCR/L-S-JHP (37) • NQCH-SVVCN-S-JHP (39) • NQCH-Y-SVJCR-S-JHP (40) • PVACR-S (43) • PVACR/L-S (43) • PVACR/L-S-JHP (44) • S/A-SVJCR/L (99) • SBTT#-SVJCR/L-JHP (827) • SBTT#-SVQCR/L-JHP (829) • SBTT#-SVUCR/L-JHP (828) • SBTT-SVVCN-JHP (828) • SVACR/L-S (35) • SVJCR/L (36) • SVVCN (36) • Y-SVJCR-S (41) • Y-SVJCR-S-JHP (42)

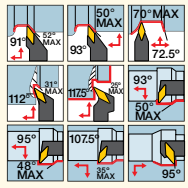
ISOTURN

VCMT-M3M

35° Rhombic Positive Flank Inserts for Machining Stainless and Low Carbon Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC6025	IC6015	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
VCMT 160404-M3M	16.60	9.52	4.76	0.40	4.40	●	●	●	1.00-5.00	0.07-0.25
VCMT 160408-M3M	16.60	9.52	4.76	0.80	4.40	●	●	●	1.00-5.00	0.10-0.30
VCMT 160412-M3M	16.60	9.52	4.76	1.20	4.40	●	●	●	1.00-5.00	0.13-0.35

• For user guide and cutting speed recommendations, see pages 128-138,288-294

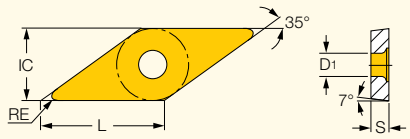
For tools, see pages: A/S-SVQCR/L (98) • AVC-SVMCR/L (102) • AVC-SVPCR/L (100) • AVC-SVQCR/L (101) • SVJCR/L (36) • SVVCN (36)

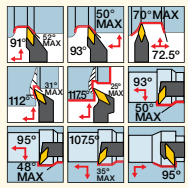
ISOTURN

VCMT-M3M

35° Rhombic Positive Flank Inserts for Machining Stainless and Low Carbon Steel







I N C H

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC6025	IC6015	IC807	Recommended Machining Data a_p (inch)	f (IPR)
VCMT 331-M3M	.654	.375	.187	.0157	.173	●	●	●	.039-.197	.0027-.0098
VCMT 332-M3M	.654	.375	.187	.0315	.173	●	●	●	.039-.197	.0039-.0118
VCMT 333-M3M	.654	.375	.187	.0472	.173	●	●	●	.039-.197	.0051-.0138

• For user guide and cutting speed recommendations, see pages 128-138,288-294

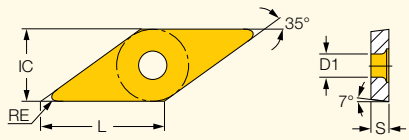
For tools, see pages: A/S-SVQCR/L (98) • AVC-SVMCR/L (102) • AVC-SVPCR/L (100) • AVC-SVQCR/L (101) • SVJCR/L (36) • SVVCN (36)

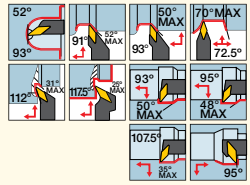
ISOTURN

VCMT-SM

35° Rhombic Inserts with a 7° Positive Flank for Semi-Finishing and Finish Turning on Soft Materials and Exotic Alloys







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC6025	IC8250	IC908	IC6015	IC8150	IC806	IC807	IC907	IC4	IC804	Recommended Machining Data a_p (mm)	f (mm/rev)
VCMT 110302-SM	11.10	6.35	3.18	0.20	2.90				●				●	●			0.20-2.50	0.04-0.20
VCMT 110304-SM	11.10	6.35	3.18	0.40	2.90		●		●	●		●	●	●			0.50-3.00	0.07-0.24
VCMT 110308-SM	11.10	6.35	3.18	0.80	2.90				●								0.50-2.00	0.07-0.25
VCMT 160402-SM	16.60	9.52	4.76	0.20	4.40		●			●			●	●			0.50-2.50	0.05-0.20
VCMT 160404-SM	16.60	9.52	4.76	0.40	4.40		●	●			●	●	●	●		●	0.50-2.50	0.05-0.25
VCMT 160408-SM	16.60	9.52	4.76	0.80	4.40	●	●	●		●	●	●	●	●	●	●	0.90-2.50	0.07-0.25
VCMT 160412-SM	16.60	9.52	4.76	1.20	4.40								●	●			0.50-3.00	0.10-0.25

- For user guide and cutting speed recommendations, see pages 128-138,288-294

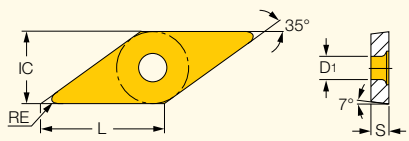
For tools, see pages: A/S-SVQCR/L (98) • AVC-SVMCR/L (102) • AVC-SVPCR/L (100) • AVC-SVQCR/L (101) • AVC-SVUCR/L (99) • NQCH-SVACR/L-S-JHP (38) • NQCH-SVJCR/L-S-JHP (37) • NQCH-SVVCN-S-JHP (39) • NQCH-Y-SVJCR-S-JHP (40) • PVACR/L-S (43) • PVACR/L-S-JHP (44) • S/A-SVJCR/L (99) • SBTT#-SVJCR/L-JHP (827) • SBTT#-SVQCR/L-JHP (829) • SBTT#-SVUCR/L-JHP (828) • SBTT-SVVCN-JHP (828) • SVACR/L-S (35) • SVJCR/L (36) • SVPCR/L-S (43) • SVVCN (36) • Y-SVJCR-S (41) • Y-SVJCR-S-JHP (42)

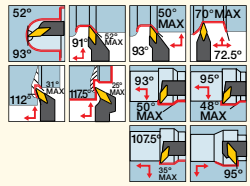
ISOTURN

VCMT-SM

35° Rhombic Inserts with a 7° Positive Flank for Semi-Finishing and Finish Turning on Soft Materials and Exotic Alloys







I N C H

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC6025	IC8250	IC908	IC6015	IC8150	IC806	IC807	IC907	IC4	IC804	Recommended Machining Data a_p (inch)	f (IPR)
VCMT 220-SM	.437	.250	.125	.0079	.114				●				●	●			.008-.098	.0016-.0079
VCMT 221-SM	.437	.250	.125	.0157	.114		●		●	●		●	●	●			.020-.118	.0027-.0094
VCMT 222-SM	.437	.250	.125	.0315	.114				●								.020-.079	.0027-.0098
VCMT 330-SM	.654	.375	.187	.0079	.173		●			●			●	●			.020-.098	.0020-.0079
VCMT 331-SM	.654	.375	.187	.0157	.173		●	●			●	●	●	●		●	.020-.098	.0020-.0098
VCMT 332-SM	.654	.375	.187	.0315	.173	●	●	●		●	●	●	●	●	●	●	.035-.098	.0027-.0098
VCMT 333-SM	.654	.375	.187	.0472	.173								●	●			.020-.118	.0039-.0098

- For user guide and cutting speed recommendations, see pages 128-138,288-294

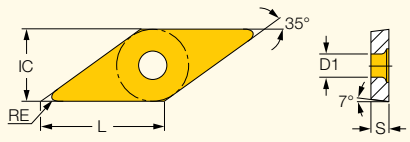
For tools, see pages: A/S-SVQCR/L (98) • AVC-SVMCR/L (102) • AVC-SVPCR/L (100) • AVC-SVQCR/L (101) • AVC-SVUCR/L (99) • NQCH-SVACR/L-S-JHP (38) • NQCH-SVJCR/L-S-JHP (37) • NQCH-SVVCN-S-JHP (39) • NQCH-Y-SVJCR-S-JHP (40) • PVACR-S (43) • PVACR/L-S (43) • PVACR/L-S-JHP (44) • S/A-SVJCR/L (99) • SBTT#-SVJCR/L-JHP (827) • SBTT#-SVQCR/L-JHP (829) • SBTT#-SVUCR/L-JHP (828) • SBTT-SVVCN-JHP (828) • SVACR/L-S (35) • SVJCR/L (36) • SVVCN (36) • Y-SVJCR-S (41) • Y-SVJCR-S-JHP (42)

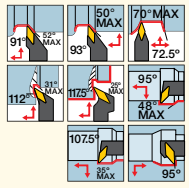
ISOTURN

VCMT-14

35° Rhombic Inserts with a 7° Positive Flank for Semi-Finish and Finish Turning on Soft Materials and Exotic Alloys







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC20	IC20N	IC520N	Recommended Machining Data a_p (mm)	f (mm/rev)
VCMT 160404-14	16.60	9.52	4.76	0.40	4.40	●	●	●	●	1.00-5.00	0.12-0.25
VCMT 160408-14	16.60	9.52	4.76	0.80	4.40	●	●		●	1.00-5.00	0.12-0.30

• For user guide and cutting speed recommendations, see pages 128-138,288-294

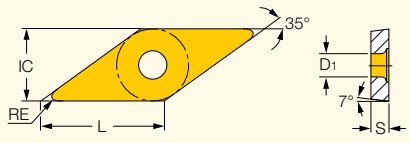
For tools, see pages: A/S-SVQCR/L (98) • AVC-SVPCR/L (100) • AVC-SVQCR/L (101) • SVJCR/L (36) • SVVCN (36)

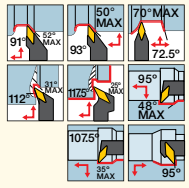
ISOTURN

VCMT-14

35° Rhombic Inserts with a 7° Positive Flank for Semi-Finish and Finish Turning on Soft Materials and Exotic Alloys







I N C H

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC20	IC20N	IC520N	Recommended Machining Data a_p (inch)	f (IPR)
VCMT 331-14	.654	.375	.187	.0157	.173	●	●	●	●	.039-.197	.0047-.0098
VCMT 332-14	.654	.375	.187	.0315	.173	●	●		●	.039-.197	.0047-.0118

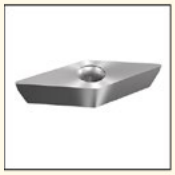
• For user guide and cutting speed recommendations, see pages 128-138,288-294

For tools, see pages: A/S-SVQCR/L (98) • AVC-SVPCR/L (100) • AVC-SVQCR/L (101) • SVJCR/L (36) • SVVCN (36)

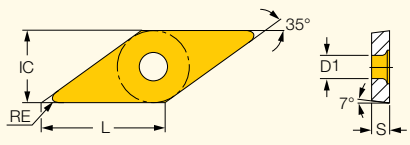
ISOTURN

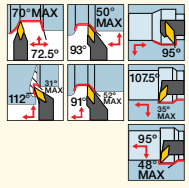
VCMW

35° Rhombic Inserts with a 7° Positive Flank for Short Chipping Materials such as Cast Iron



Tolerances:
IC= ±0.05
S= ±0.13





M E T R I C

Designation	Dimensions L	IC	S	RE	D1	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
VCMW 160404	16.60	9.52	4.76	0.40	4.40	●	0.70-4.00	0.05-0.25
VCMW 160408	16.60	9.52	4.76	0.80	4.40	●	1.00-5.00	0.05-0.25

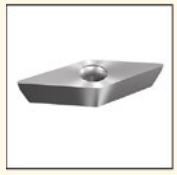
• For user guide and cutting speed recommendations, see pages 128-138,288-294

For tools, see pages: A/S-SVQCR/L (98) • AVC-SVPCR/L (100) • AVC-SVQCR/L (101) • SVJCR/L (36) • SVVCN (36)

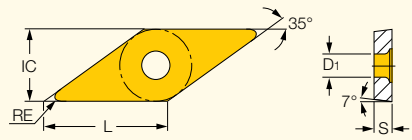
ISOTURN

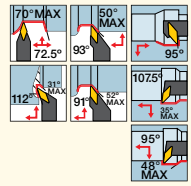
VCMW

35° Rhombic Inserts with a 7° Positive Flank for Short Chipping Materials such as Cast Iron



Tolerances:
IC= ±.002
S= ±.005





I N C H

Designation	Dimensions L	IC	S	RE	D1	IC20	Recommended Machining Data a_p (inch)	f (IPR)
VCMW 331	.654	.375	.187	.0157	.173	●	.028-.157	.0020-.0098
VCMW 332	.654	.375	.187	.0315	.173	●	.039-.197	.0020-.0098

• For user guide and cutting speed recommendations, see pages 128-138,288-294

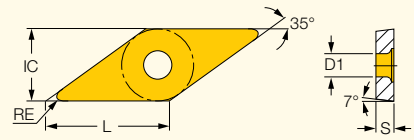
For tools, see pages: A/S-SVQCR/L (98) • AVC-SVPCR/L (100) • AVC-SVQCR/L (101) • SVJCR/L (36) • SVVCN (36)

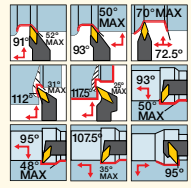
ISOTURN

VCMT-FPC-CERMET

35° Rhombic 7° Cermet Positive Flank Inserts for Semi-Finishing Turning of Steel and Automotive Components







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	IC520N	Recommended Machining Data a_p (mm)	f (mm/rev)
VCMT 160404-FPC	16.60	9.52	4.76	0.40	4.40	●	0.70-2.00	0.04-0.22
VCMT 160408-FPC	16.60	9.52	4.76	0.80	4.40	●	0.70-2.00	0.04-0.22

• For user guide and cutting speed recommendations, see pages 128-138,288-294

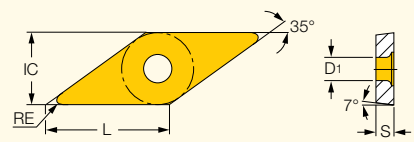
For tools, see pages: A/S-SVQCR/L (98) • AVC-SVMCR/L (102) • AVC-SVPCR/L (100) • AVC-SVQCR/L (101) • SVJCR/L (36) • SVVCN (36)

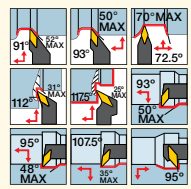
ISOTURN

VCMT-FPC-CERMET

35° Rhombic 7° Cermet Positive Flank Inserts for Semi-Finishing Turning of Steel and Automotive Components







I N C H

Designation	Dimensions L	IC	S	RE	D1	IC520N	Recommended Machining Data a_p (inch)	f (IPR)
VCMT 331-FPC	.654	.375	.187	.0157	.173	●	.028-.079	.0016-.0087
VCMT 332-FPC	.654	.375	.187	.0315	.173	●	.028-.079	.0016-.0087

• For user guide and cutting speed recommendations, see pages 128-138,288-294

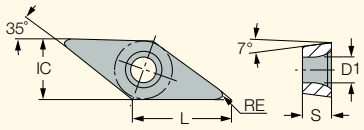
For tools, see pages: A/S-SVQCR/L (98) • AVC-SVMCR/L (102) • AVC-SVPCR/L (100) • AVC-SVQCR/L (101) • SVJCR/L (36) • SVVCN (36)

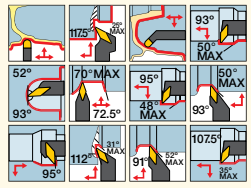
ISOTURN

VCGT-AS

35° Rhombic Inserts with a 7° Positive Flank, Very Positive Rake Angle and Sharp Cutting Edge for Machining Aluminum







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC1520	IC20	IC920	Recommended Machining Data a_p (mm)	f (mm/rev)
VCGT 110302-AS	11.10	6.35	3.18	0.20	2.90	●	●	●	0.20-2.50	0.05-0.20
VCGT 110304-AS	11.10	6.35	3.18	0.40	2.90	●	●		0.50-3.00	0.05-0.25
VCGT 160401-AS	16.60	9.52	4.76	0.10	4.40		●		0.20-2.50	0.05-0.20
VCGT 160402-AS	16.60	9.52	4.76	0.20	4.40	●	●		0.50-2.50	0.05-0.25
VCGT 160404-AS	16.60	9.52	4.76	0.40	4.40	●	●		0.50-3.00	0.05-0.25
VCGT 160408-AS	16.60	9.52	4.76	0.80	4.40	●	●		0.50-3.00	0.10-0.25
VCGT 160412-AS	16.60	9.52	4.76	1.20	4.40	●	●		0.50-3.00	0.10-0.25

• For user guide and cutting speed recommendations, see pages 128-138,288-294

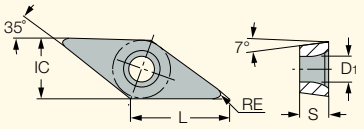
For tools, see pages: A/S-SVQCR/L (98) • AVC-SVMCR/L (102) • AVC-SVPCR/L (100) • AVC-SVQCR/L (101) • AVC-SVUCR/L (99) • NQCH-SVACR/L-S-JHP (38) • NQCH-SVJCR/L-S-JHP (37) • NQCH-SVVCN-S-JHP (39) • NQCH-Y-SVJCR-S-JHP (40) • PVACR/L-S (43) • PVACR/L-S-JHP (44) • S/A-SVJCR/L (99) • SBTT#-SVJCR/L-JHP (827) • SBTT#-SVQCR/L-JHP (829) • SBTT#-SVUCR/L-JHP (828) • SBTT-SVVCN-JHP (828) • SVACR/L-S (35) • SVJCR/L (36) • SVPCR/L-S (43) • SVVCN (36) • Y-SVJCR-S (41) • Y-SVJCR-S-JHP (42)

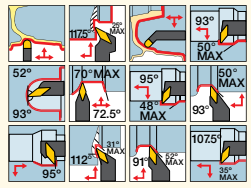
ISOTURN

VCGT-AS

35° Rhombic Inserts with a 7° Positive Flank, Very Positive Rake Angle and Sharp Cutting Edge for Machining Aluminum







I N C H

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC1520	IC20	IC920	Recommended Machining Data a_p (inch)	f (IPR)
VCGT 220-AS	.437	.250	.125	.0079	.114	●	●	●	.008-.098	.0020-.0079
VCGT 221-AS	.437	.250	.125	.0157	.114	●	●		.020-.118	.0020-.0098
VCGT 33-.004-AS	.654	.375	.187	.0039	.173		●		.008-.098	.0020-.0079
VCGT 330-AS	.654	.375	.187	.0079	.173	●	●		.020-.098	.0020-.0098
VCGT 331-AS	.654	.375	.187	.0157	.173	●	●		.020-.118	.0020-.0098
VCGT 332-AS	.654	.375	.187	.0315	.173	●	●		.020-.118	.0039-.0098
VCGT 333-AS	.654	.375	.187	.0472	.173	●	●		.020-.118	.0039-.0098

• For user guide and cutting speed recommendations, see pages 128-138,288-294

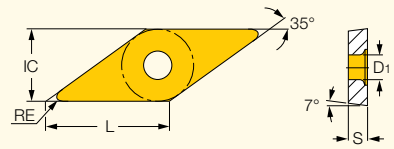
For tools, see pages: A/S-SVQCR/L (98) • AVC-SVMCR/L (102) • AVC-SVPCR/L (100) • AVC-SVQCR/L (101) • AVC-SVUCR/L (99) • NQCH-SVACR/L-S-JHP (38) • NQCH-SVJCR/L-S-JHP (37) • NQCH-SVVCN-S-JHP (39) • NQCH-Y-SVJCR-S-JHP (40) • PVACR-S (43) • PVACR/L-S (43) • PVACR/L-S-JHP (44) • S/A-SVJCR/L (99) • SBTT#-SVJCR/L-JHP (827) • SBTT#-SVQCR/L-JHP (829) • SBTT#-SVUCR/L-JHP (828) • SBTT-SVVCN-JHP (828) • SVACR/L-S (35) • SVJCR/L (36) • SVVCN (36) • Y-SVJCR-S (41) • Y-SVJCR-S-JHP (42)

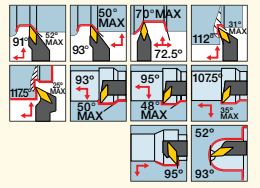
SWISSTURN

VCGT-F1M-12P

35° Rhombic Inserts with a 7° Positive Flank for Finish Turning on Soft Materials and High-Temp. Alloys







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	IC1008	Recommended Machining Data a_p (mm)	f (mm/rev)
VCGT 1103005-F1M-12P	11.07	6.35	3.18	0.05	2.90	●	0.04-4.50	0.03-0.18
VCGT 110301-F1M-12P	11.07	6.35	3.18	0.10	2.90	●	0.15-4.50	0.03-0.18
VCGT 110302-F1M-12P	11.07	6.35	3.18	0.20	2.90	●	0.04-4.00	0.03-0.15
VCGT 110304-F1M-12P	11.07	6.35	3.18	0.40	2.90	●	0.15-4.00	0.03-0.15

• For user guide and cutting speed recommendations, see pages 128-138,288-294

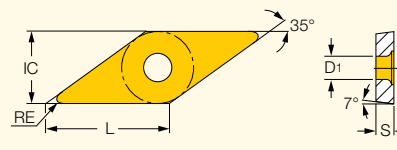
For tools, see pages: AVC-SVPCR/L (100) • AVC-SVQCR/L (101) • AVC-SVUCR/L (99) • NQCH-SVACR/L-S-JHP (38) • NQCH-SVJCR/L-S-JHP (37) • NQCH-SVVCN-S-JHP (39) • NQCH-Y-SVJCR-S-JHP (40) • PVACR/L-S (43) • PVACR/L-S-JHP (44) • S/A-SVJCR/L (99) • SBTT#-SVJCR/L-JHP (827) • SBTT#-SVQCR/L-JHP (829) • SBTT#-SVUCR/L-JHP (828) • SBTT-SVVCN-JHP (828) • SVACR/L-S (35) • SVJCR/L (36) • SVPCR/L-S (43) • SVVCN (36) • Y-SVJCR-S (41) • Y-SVJCR-S-JHP (42)

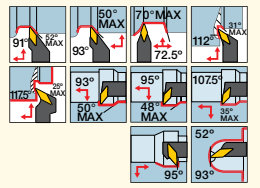
SWISSTURN

VCGT-F1M-12P

35° Rhombic Inserts with a 7° Positive Flank for Finish Turning on Soft Materials and High-Temp. Alloys







I N C H

Designation	Dimensions L	IC	S	RE	D1	IC1008	Recommended Machining Data a_p (inch)	f (IPR)
VCGT 22.002-F1M-12P	.436	.250	.125	.0020	.114	●	.002-.177	.0012-.0071
VCGT 22.004-F1M-12P	.436	.250	.125	.0039	.114	●	.006-.177	.0012-.0071
VCGT 220-F1M-12P	.436	.250	.125	.0079	.114	●	.002-.157	.0012-.0059
VCGT 221-F1M-12P	.436	.250	.125	.0158	.114	●	.006-.157	.0012-.0059

• For user guide and cutting speed recommendations, see pages 128-138,288-294

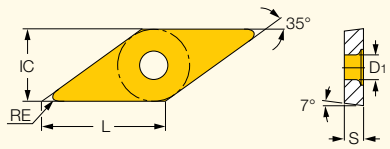
For tools, see pages: AVC-SVPCR/L (100) • AVC-SVQCR/L (101) • AVC-SVUCR/L (99) • NQCH-SVACR/L-S-JHP (38) • NQCH-SVJCR/L-S-JHP (37) • NQCH-SVVCN-S-JHP (39) • NQCH-Y-SVJCR-S-JHP (40) • PVACR-S (43) • PVACR/L-S (43) • PVACR/L-S-JHP (44) • S/A-SVJCR/L (99) • SBTT#-SVJCR/L-JHP (827) • SBTT#-SVQCR/L-JHP (829) • SBTT#-SVUCR/L-JHP (828) • SBTT-SVVCN-JHP (828) • SVACR/L-S (35) • SVJCR/L (36) • SVVCN (36) • Y-SVJCR-S (41) • Y-SVJCR-S-JHP (42)

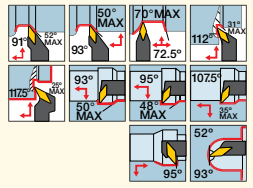
SWISSTURN

VCGT-F1M-20P

35° Rhombic Inserts with a 7° Positive Flank for Semi-Finish and Finish Turning on Soft Materials and High-Temp. Alloys







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	IC1008	Recommended Machining Data a_p (mm)	f (mm/rev)
VCGT 1103005-F1M-20P	11.07	6.35	3.18	0.05	2.90	●	0.07-4.50	0.03-0.18
VCGT 110301-F1M-20P	11.07	6.35	3.18	0.10	2.90	●	0.30-4.50	0.03-0.18
VCGT 110302-F1M-20P	11.07	6.35	3.18	0.20	2.90	●	0.07-4.00	0.03-0.15
VCGT 110304-F1M-20P	11.07	6.35	3.18	0.40	2.90	●	0.30-4.00	0.03-0.15

• For user guide and cutting speed recommendations, see pages 128-138,288-294

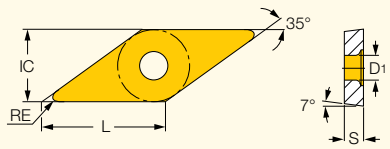
For tools, see pages: AVC-SVPCR/L (100) • AVC-SVQCR/L (101) • AVC-SVUCR/L (99) • NQCH-SVACR/L-S-JHP (38) • NQCH-SVJCR/L-S-JHP (37) • NQCH-SVVCN-S-JHP (39) • NQCH-Y-SVJCR-S-JHP (40) • PVACR/L-S (43) • PVACR/L-S-JHP (44) • S/A-SVJCR/L (99) • SBTT#-SVJCR/L-JHP (827) • SBTT#-SVQCR/L-JHP (829) • SBTT#-SVUCR/L-JHP (828) • SBTT-SVVCN-JHP (828) • SVACR/L-S (35) • SVJCR/L (36) • SVPCR/L-S (43) • SVVCN (36) • Y-SVJCR-S (41) • Y-SVJCR-S-JHP (42)

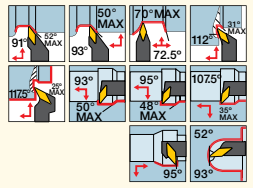
SWISSTURN

VCGT-F1M-20P

35° Rhombic Inserts with a 7° Positive Flank for Semi-Finish and Finish Turning on Soft Materials and High-Temp. Alloys







I N C H

Designation	Dimensions L	IC	S	RE	D1	IC1008	Recommended Machining Data a_p (inch)	f (IPR)
VCGT 22.002-F1M-20P	.436	.250	.125	.0020	.114	●	.003-.177	.0012-.0071
VCGT 22.004-F1M-20P	.436	.250	.125	.0039	.114	●	.012-.177	.0012-.0071
VCGT 220-F1M-20P	.436	.250	.125	.0079	.114	●	.003-.157	.0012-.0059
VCGT 221-F1M-20P	.436	.250	.125	.0157	.114	●	.012-.157	.0012-.0059

• For user guide and cutting speed recommendations, see pages 128-138,288-294

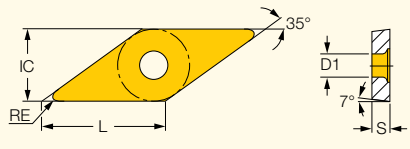
For tools, see pages: AVC-SVPCR/L (100) • AVC-SVQCR/L (101) • AVC-SVUCR/L (99) • NQCH-SVACR/L-S-JHP (38) • NQCH-SVJCR/L-S-JHP (37) • NQCH-SVVCN-S-JHP (39) • NQCH-Y-SVJCR-S-JHP (40) • PVACR-S (43) • PVACR/L-S (43) • PVACR/L-S-JHP (44) • S/A-SVJCR/L (99) • SBTT#-SVJCR/L-JHP (827) • SBTT#-SVQCR/L-JHP (829) • SBTT#-SVUCR/L-JHP (828) • SBTT-SVVCN-JHP (828) • SVACR/L-S (35) • SVJCR/L (36) • SVVCN (36) • Y-SVJCR-S (41) • Y-SVJCR-S-JHP (42)

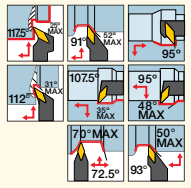
ISOTURN

VCGT-MD/PF

35° Rhombic Inserts with a Positive Flank for Semi-Finishing and Finishing on Soft Materials and Exotic Alloys







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	IC830	Recommended Machining Data a_p (mm)	f (mm/rev)
VCGT 110301-PF	11.10	6.35	3.18	0.10	2.90	●	0.20-2.50	0.03-0.25
VCGT 110302-PF	11.40	6.35	3.18	0.20	2.90	●	0.30-2.50	0.03-0.25
VCGT 110304-PF	11.40	6.35	3.18	0.40	2.90	●	0.50-3.00	0.05-0.25
VCGT 130304-PF	13.00	7.94	3.18	0.40	3.40	●	0.50-3.00	0.05-0.25

• For user guide and cutting speed recommendations, see pages 128-138,288-294

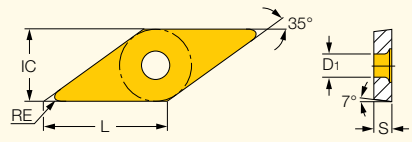
For tools, see pages: NQCH-SVACR/L-S-JHP (38) • SVACR/L-S (35)

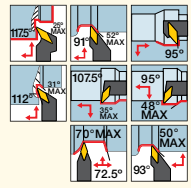
ISOTURN

VCGT-MD/PF

35° Rhombic Inserts with a Positive Flank for Semi-Finishing and Finishing on Soft Materials and Exotic Alloys







I N C H

Designation	Dimensions L	IC	S	RE	D1	IC830	Recommended Machining Data a_p (inch)	f (IPR)
VCGT 22.004-PF	.437	.250	.125	.0039	.114	●	.008-.098	.0012-.0098
VCGT 220-PF	.449	.250	.125	.0079	.114	●	.012-.098	.0012-.0098
VCGT 221-PF	.449	.250	.125	.0157	.114	●	.020-.118	.0020-.0098
VCGT 130304-PF	.512	.313	.125	.0157	.134	●	.020-.118	.0020-.0098

• For user guide and cutting speed recommendations, see pages 128-138,288-294

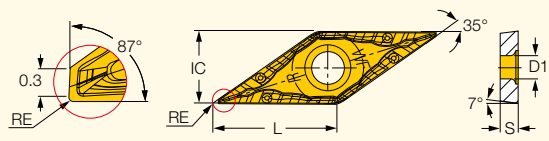
For tools, see pages: NQCH-SVACR/L-S-JHP (38) • SVACR/L-S (35)

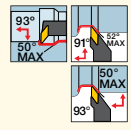
ISOTURN

VCET-WF

35° Rhombic Wiper Inserts for Finishing Operations at High Feeds







Right-hand shown

M E T R I C

Designation	Dimensions L	IC	S	RE	D1	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
VCET 1103005R/L-WF	11.10	6.35	3.18	0.05	2.90	●	0.05-4.00	0.01-0.20

• For user guide and cutting speed recommendations, see pages 128-138,288-294

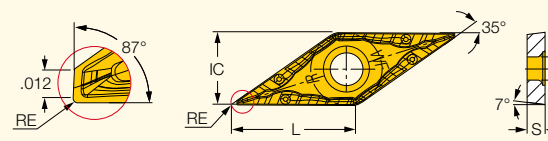
For tools, see pages: NQCH-SVACR/L-S-JHP (38) • NQCH-SVJCR/L-S-JHP (37) • NQCH-Y-SVJCR-S-JHP (40) • PVACR/L-S (43) • PVACR/L-S-JHP (44) • S/A-SVJCR/L (99) • SVACR/L-S (35) • SVJCR/L (36) • Y-SVJCR-S (41) • Y-SVJCR-S-JHP (42)

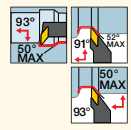
ISOTURN

VCET-WF

35° Rhombic Wiper Inserts for Finishing Operations at High Feeds







Right-hand shown

I N C H

Designation	Dimensions L	IC	S	RE	D1	IC907	Recommended Machining Data a_p (inch)	f (IPR)
VCET 22.002R/L-WF	.437	.250	.125	.0020	.114	●	.002-.157	.0004-.0079

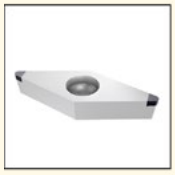
• For user guide and cutting speed recommendations, see pages 128-138,288-294

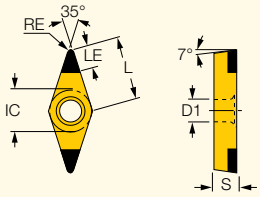
For tools, see pages: NQCH-SVACR/L-S-JHP (38) • NQCH-SVJCR/L-S-JHP (37) • NQCH-Y-SVJCR-S-JHP (40) • PVACR-S (43) • PVACR/L-S (43) • PVACR/L-S-JHP (44) • S/A-SVJCR/L (99) • SVACR/L-S (35) • SVJCR/L (36) • Y-SVJCR-S (41) • Y-SVJCR-S-JHP (42)

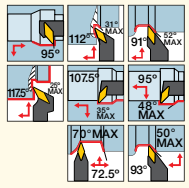
ISOTURN

VCGW-2 (CBN)

35° Positive Rhombic Inserts with 2 CBN Tips for Machining Hardened Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	LE	D1	Tough ↔ Hard IB10HC	IB20HC	Recommended Machining Data a_p (mm)	f (mm/rev)
VCGW 160404-F2	16.60	9.52	4.76	0.40	3.1	4.40	•	•	0.10-0.50	0.05-0.30
VCGW 160404-M2	16.60	9.52	4.76	0.40	3.1	4.40	•	•	0.10-0.50	0.05-0.30
VCGW 160408-F2	16.60	9.52	4.76	0.80	2.2	4.40	•	•	0.10-0.50	0.05-0.30
VCGW 160408-M2	16.60	9.52	4.76	0.80	2.2	4.40	•	•	0.10-0.50	0.05-0.30

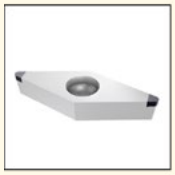
• For user guide and cutting speed recommendations, see pages 128-138,288-294

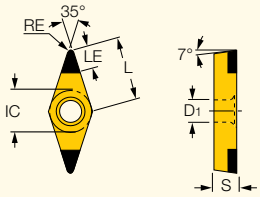
For tools, see pages: AVC-SVPCR/L (100) • AVC-SVQCR/L (101) • A/S-SVQCR/L (98) • SVJCR/L (36) • SVVCN (36)

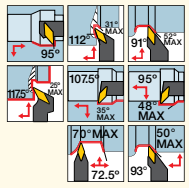
ISOTURN

VCGW-2 (CBN)

35° Positive Rhombic Inserts with 2 CBN Tips for Machining Hardened Steel







I N C H

Designation	Dimensions L	IC	S	RE	LE	D1	Tough ↔ Hard IB10HC	IB20HC	Recommended Machining Data a_p (inch)	f (IPR)
VCGW 331-F2	.654	.375	.187	.0157	.12	.173	•	•	.004-.020	.0020-.0118
VCGW 331-M2	.654	.375	.187	.0157	.12	.173	•	•	.004-.020	.0020-.0118
VCGW 332-F2	.654	.375	.187	.0315	.09	.173	•	•	.004-.020	.0020-.0118
VCGW 332-M2	.654	.375	.187	.0315	.09	.173	•	•	.004-.020	.0020-.0118

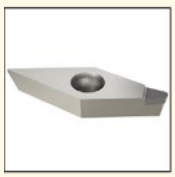
• For user guide and cutting speed recommendations, see pages 128-138,288-294

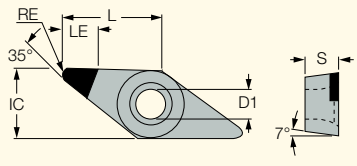
For tools, see pages: AVC-SVPCR/L (100) • AVC-SVQCR/L (101) • A/S-SVQCR/L (98) • SVJCR/L (36) • SVVCN (36)

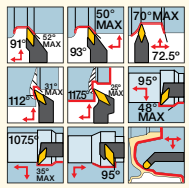
ISOTURN

VCMT (CBN)

35° Rhombic Single Brazed Tip Corner Inserts for Finishing Cast Iron







M E T R I C

Designation	Dimensions IC	S	RE	L	LE	D1	IB55	Recommended Machining Data a_p (mm)	f (mm/rev)
VCMT 160404T	9.52	4.76	0.40	16.60	4.40	4.40	•	0.10-3.00	0.05-0.30
VCMT 160408T	9.52	4.76	0.80	16.60	4.00	4.40	•	0.10-3.00	0.05-0.30

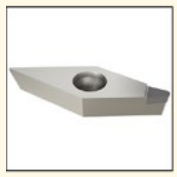
• For user guide and cutting speed recommendations, see pages 128-138,288-294

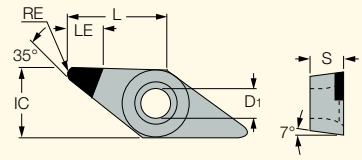
For tools, see pages: A/S-SVQCR/L (98) • AVC-SVPCR/L (100) • AVC-SVQCR/L (101) • SVJCR/L (36) • SVVCN (36)

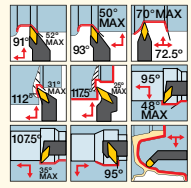
ISOTURN

VCMT (CBN)

35° Rhombic Single Brazed Tip Corner Inserts for Finishing Cast Iron







I N C H

Designation	Dimensions IC	S	RE	L	LE	D1	IB55	Recommended Machining Data a_p (inch)	f (IPR)
VCMT 331T	.375	.187	.0157	.654	.173	.173	●	.004-.118	.0020-.0118
VCMT 332T	.375	.187	.0315	.654	.157	.173	●	.004-.118	.0020-.0118

- For user guide and cutting speed recommendations, see pages 128-138,288-294

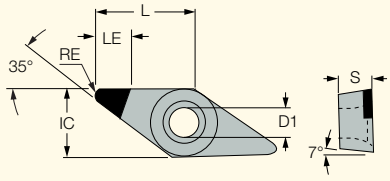
For tools, see pages: A/S-SVQCR/L (98) • AVC-SVPCR/L (100) • AVC-SVQCR/L (101) • SVJCR/L (36) • SVVCN (36)

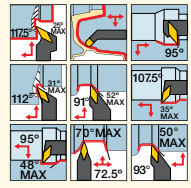
ISOTURN

VCGT-DW (PCD)

Inserts with 7° Clearance and a Single PCD Top Corner Tip Chipformer for Machining Aluminum







M E T R I C

Designation	Dimensions L	IC	S	RE	LE	D1	ID5	Recommended Machining Data a_p (mm)	f (mm/rev)
VCGT 160404-DW	16.60	9.52	4.76	0.40	6.60	4.40	●	0.10-3.00	0.05-0.30
VCGT 160408-DW	16.60	9.52	4.76	0.80	6.40	4.40	●	0.10-3.00	0.05-0.30
VCGT 160412-DW	16.60	9.52	4.76	1.20	6.30	4.40	●	0.10-3.00	0.05-0.30

- For user guide and cutting speed recommendations, see pages 128-138,288-294

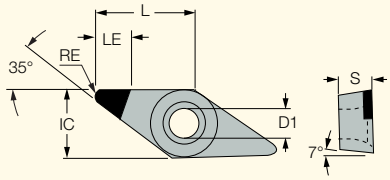
For tools, see pages: A/S-SVQCR/L (98) • AVC-SVPCR/L (100) • AVC-SVQCR/L (101) • SVJCR/L (36) • SVVCN (36)

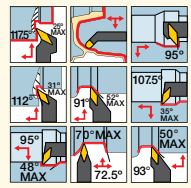
ISOTURN

VCGT-DW (PCD)

Inserts with 7° Clearance and a Single PCD Top Corner Tip Chipformer for Machining Aluminum







I N C H

Designation	Dimensions L	IC	S	RE	LE	D1	ID5	Recommended Machining Data a_p (inch)	f (IPR)
VCGT 331-DW	.654	.375	.187	.0157	.260	.173	●	.004-.118	.0020-.0118
VCGT 332-DW	.654	.375	.187	.0315	.252	.173	●	.004-.118	.0020-.0118
VCGT 333-DW	.654	.375	.187	.0472	.248	.173	●	.004-.118	.0020-.0118

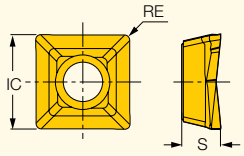
- For user guide and cutting speed recommendations, see pages 128-138,288-294

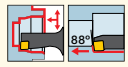
For tools, see pages: A/S-SVQCR/L (98) • AVC-SVPCR/L (100) • AVC-SVQCR/L (101) • SVJCR/L (36) • SVVCN (36)

Multifunction Tools

XOMT-DT
Inserts for DR Drills
and Boring Bars







M E T R I C

Designation	Dimensions IC	S	RE	Tough ↔ Hard IC28	IC328	IC250	IC350	IC908	IC520M
XOMT 060204-DT	6.16	2.56	0.40	•	•	•	•	•	•

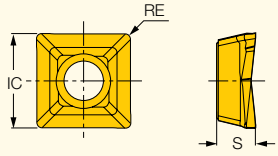
• Two cutting edges • For hard materials and interrupted cut

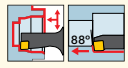
For tools, see pages: A-SXFOR-DR (104) • A-SXFOR/L (103)

Multifunction Tools

XOMT-DT
Inserts for DR Drills
and Boring Bars







I N C H

Designation	Dimensions IC	S	RE	Tough ↔ Hard IC28	IC328	IC250	IC350	IC908	IC520M
XOMT 060204-DT	.243	.101	.0157	•	•	•	•	•	•

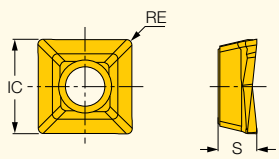
• Two cutting edges • For hard materials and interrupted cut

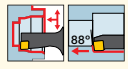
For tools, see pages: A-SXFOR (103) • A-SXFOR-DR (104) • A-SXFOR/L (103)

Multifunction Tools

XOMT-GF
Inserts for DR Drills and
A-SXFOR/L Boring Bars,
for Ductile Materials







M E T R I C

Designation	Dimensions IC	S	RE	Tough ↔ Hard IC328	IC350	IC908
XOMT 060204-GF	6.00	2.56	0.40	•	•	•

• Two cutting edges • Low cutting forces due to high cutting edges and positive angles

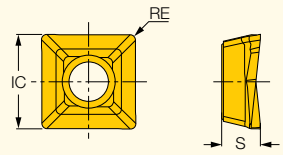
For tools, see pages: A-SXFOR-DR (104) • A-SXFOR/L (103)

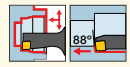
Multifunction Tools

XOMT-GF

Inserts for DR Drills and
A-SXFOR/L Boring Bars,
for Ductile Materials







I N C H

Designation	Dimensions IC	S	RE	Tough ↔ Hard IC328	IC350	IC908
XOMT 060204-GF	.236	.101	.0157	•	•	•

• Two cutting edges • Low cutting forces due to high cutting edges and positive angles

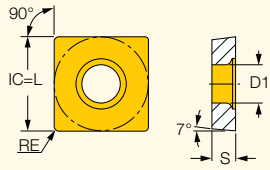
For tools, see pages: A-SXFOR (103) • A-SXFOR-DR (104) • A-SXFOR/L (103)

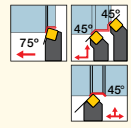
ISOTURN

SCMT-F3P

Square Positive Flank Inserts
for Semi-Finishing and
Finish Turning of Steel







M E T R I C

Designation	Dimensions L	S	RE	D1	Tough ↔ Hard IC8250	IC8150	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
SCMT 09T304-F3P	9.52	3.97	0.40	4.40	•	•	•	0.11-2.00	0.06-0.25
SCMT 09T308-F3P	9.52	3.97	0.80	4.40	•	•	•	0.15-2.00	0.08-0.32

• For user guide and cutting speed recommendations, see pages 128-138,288-294

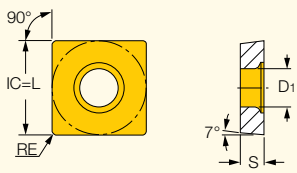
For tools, see pages: SSBCR/L (44) • SSSCR/L (45)

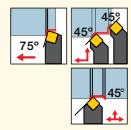
ISOTURN

SCMT-F3P

Square Positive Flank Inserts
for Semi-Finishing and
Finish Turning of Steel







I N C H

Designation	Dimensions L	S	RE	D1	Tough ↔ Hard IC8250	IC8150	IC807	Recommended Machining Data a_p (inch)	f (IPR)
SCMT 3-1-F3P	.375	.156	.0157	.173	•	•	•	.004-.079	.0024-.0098
SCMT 3-2-F3P	.375	.156	.0315	.173	•	•	•	.006-.079	.0031-.0126

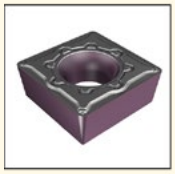
• For user guide and cutting speed recommendations, see pages 128-138,288-294

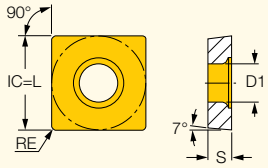
For tools, see pages: SSBCR/L (44) • SSSCR/L (45)

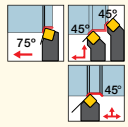
ISOTURN

SCMT-F3M

Square Positive Flank
Inserts for Stainless Steel
Finishing Applications







M E T R I C

Designation	Dimensions L	S	RE	D1	Tough ↔ Hard IC6025	IC6015	IC806	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
SCMT 09T302-F3M	9.52	3.97	0.20	4.40	•	•	•	•	0.08-2.00	0.04-0.16
SCMT 09T304-F3M	9.52	3.97	0.40	4.40	•	•	•	•	0.11-2.00	0.06-0.25
SCMT 09T308-F3M	9.52	3.97	0.80	4.40	•	•	•	•	0.15-2.00	0.08-0.32

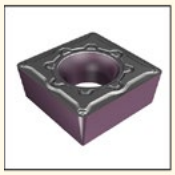
• For user guide and cutting speed recommendations, see pages 128-138,288-294

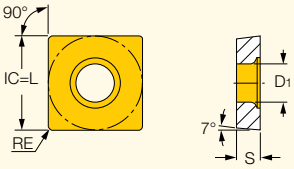
For tools, see pages: SSBCR/L (44) • SSSCR/L (45)

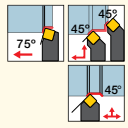
ISOTURN

SCMT-F3M

Square Positive Flank
Inserts for Stainless Steel
Finishing Applications







I N C H

Designation	Dimensions L	S	RE	D1	Tough ↔ Hard IC6025	IC6015	IC806	IC807	Recommended Machining Data a_p (inch)	f (IPR)
SCMT 3-0-F3M	.375	.156	.0079	.173	•	•	•	•	.003-.079	.0016-.0063
SCMT 3-1-F3M	.375	.156	.0157	.173	•	•	•	•	.004-.079	.0024-.0098
SCMT 3-2-F3M	.375	.156	.0315	.173	•	•	•	•	.006-.079	.0031-.0126

• For user guide and cutting speed recommendations, see pages 128-138,288-294

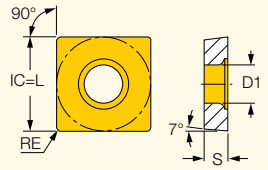
For tools, see pages: SSBCR/L (44) • SSSCR/L (45)

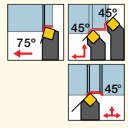
ISOTURN

SCMT-M3M

Square Positive Flank Inserts,
for Machining Stainless
and Low Carbon Steel







M E T R I C

Designation	Dimensions L	S	RE	D1	Tough ↔ Hard IC6025	IC6015	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
SCMT 09T304-M3M	9.52	3.97	0.40	4.40	•	•	•	0.40-3.80	0.07-0.25
SCMT 09T308-M3M	9.52	3.97	0.80	4.40	•	•	•	0.80-3.80	0.10-0.30

• For user guide and cutting speed recommendations, see pages 128-138,288-294

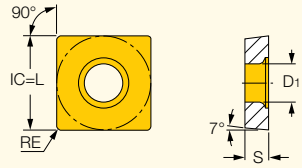
For tools, see pages: SSBCR/L (44) • SSSCR/L (45)

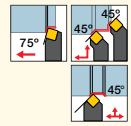
ISOTURN

SCMT-M3M

Square Positive Flank Inserts, for Machining Stainless and Low Carbon Steel







I N C H

Designation	Dimensions L	S	RE	D1	Tough ↔ Hard IC6025	IC6015	IC807	Recommended Machining Data a_p (inch)	f (IPR)
SCMT 3-1-M3M	.375	.156	.0157	.173	●	●	●	.016-.150	.0027-.0098
SCMT 3-2-M3M	.375	.156	.0315	.173	●	●	●	.031-.150	.0039-.0118

• For user guide and cutting speed recommendations, see pages 128-138,288-294

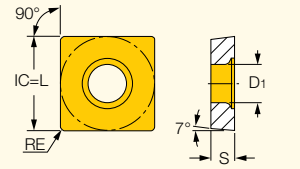
For tools, see pages: SSBCR/L (44) • SSSCR/L (45)

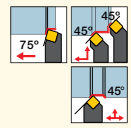
ISOTURN

SCMT-M3P

Square Positive Flank Inserts for Medium Machining Conditions on Steel







M E T R I C

Designation	Dimensions L	S	RE	D1	Tough ↔ Hard IC8250	IC8150	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
SCMT 09T304-M3P	9.52	3.97	0.40	4.40	●	●	●	0.50-3.00	0.07-0.25
SCMT 09T308-M3P	9.52	3.97	0.80	4.40	●	●	●	0.50-3.00	0.10-0.30

• For user guide and cutting speed recommendations, see pages 128-138,288-294

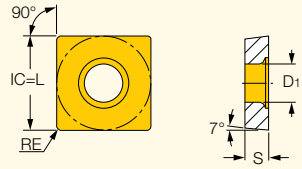
For tools, see pages: SSBCR/L (44) • SSSCR/L (45)

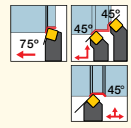
ISOTURN

SCMT-M3P

Square Positive Flank Inserts for Medium Machining Conditions on Steel







I N C H

Designation	Dimensions L	S	RE	D1	Tough ↔ Hard IC8250	IC8150	IC807	Recommended Machining Data a_p (inch)	f (IPR)
SCMT 3-1-M3P	.375	.156	.0157	.173	●	●	●	.020-.118	.0027-.0098
SCMT 3-2-M3P	.375	.156	.0315	.173	●	●	●	.020-.118	.0039-.0118

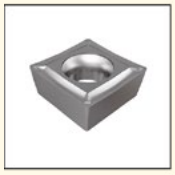
• For user guide and cutting speed recommendations, see pages 128-138,288-294

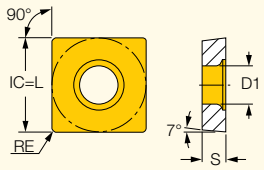
For tools, see pages: SSBCR/L (44) • SSSCR/L (45)

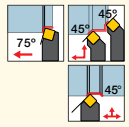
ISOTURN

SCMT-SM

Square Inserts with a 7° Positive Flank for Semi-Finishing and Finish Turning on Soft Materials and Exotic Alloys







M E T R I C

Designation	Dimensions L	S	RE	D1	Tough ↔ Hard IC830	IC6025	IC8250	IC8150	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
SCMT 09T304-SM	9.52	3.97	0.40	4.40			●	●	●	●	0.50-3.00	0.07-0.25
SCMT 09T308-SM	9.52	3.97	0.80	4.40	●	●	●	●	●	●	0.50-3.00	0.10-0.30

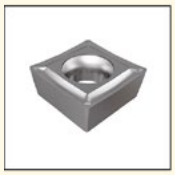
• For user guide and cutting speed recommendations, see pages 128-138,288-294

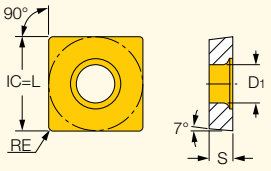
For tools, see pages: SSBCR/L (44) • SSSCR/L (45)

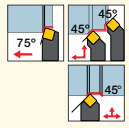
ISOTURN

SCMT-SM

Square Inserts with a 7° Positive Flank for Semi-Finishing and Finish Turning on Soft Materials and Exotic Alloys







I N C H

Designation	Dimensions L	S	RE	D1	Tough ↔ Hard IC830	IC6025	IC8250	IC8150	IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
SCMT 3-1-SM	.375	.156	.0157	.173			●	●	●	●	.020-.118	.0027-.0098
SCMT 3-2-SM	.375	.156	.0315	.173	●	●	●	●	●	●	.020-.118	.0039-.0118

• For user guide and cutting speed recommendations, see pages 128-138,288-294

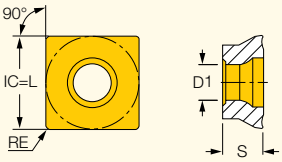
For tools, see pages: SSBCR/L (44) • SSSCR/L (45)

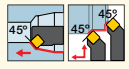
CHAMTURN

SC45MT-SM

Single-Sided Square Inserts for Finishing Applications (CHAMELEON MULTI-FUNCTION Pocket System)







M E T R I C

Designation	Dimensions L	S	RE	D1	Tough ↔ Hard IC830	IC8250	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
SC45MT 100508-SM	9.53	5.00	0.80	4.50	●	●	●	0.50-3.00	0.10-0.30

• For user guide and cutting speed recommendations, see pages 128-138,288-294

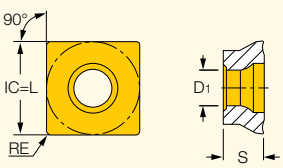
For tools, see pages: S-SUXCR/L-CM (112) • SUXCR/L-CM (50)

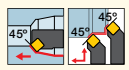
CHAMTURN

SC45MT-SM

Single-Sided Square Inserts for Finishing Applications (CHAMELEON MULTI-FUNCTION Pocket System)







I N C H

Designation	Dimensions L	S	RE	D1	Tough ↔ Hard IC830	IC8250	IC8150	Recommended Machining Data a_p (inch)	f (IPR)
SC45MT 100508-SM	.375	.197	.0315	.177	●	●	●	.020-.118	.0039-.0118

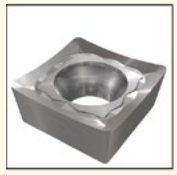
• For user guide and cutting speed recommendations, see pages 128-138,288-294

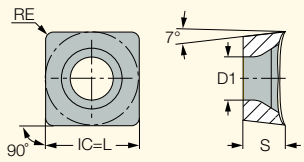
For tools, see pages: S-SUXCR/L-CM (112) • SUXCR-CM (50) • SUXCR/L-CM (50)

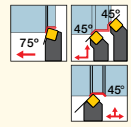
ISOTURN

SCGT-AS

Square Inserts with a 7° Positive Flank, Very Positive Rake Angle and Sharp Cutting Edge for Machining Aluminum







M E T R I C

Designation	Dimensions IC	S	RE	D1	Tough ↔ Hard IC1520	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
SCGT 09T308-AS	9.52	3.97	0.80	4.40	•	•	0.50-3.00	0.10-0.30

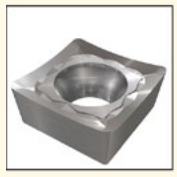
• For user guide and cutting speed recommendations, see pages 128-138,288-294

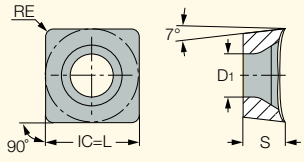
For tools, see pages: SSBCR/L (44) • SSSCR/L (45)

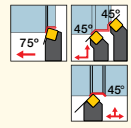
ISOTURN

SCGT-AS

Square Inserts with a 7° Positive Flank, Very Positive Rake Angle and Sharp Cutting Edge for Machining Aluminum







I N C H

Designation	Dimensions IC	S	RE	D1	Tough ↔ Hard IC1520	IC20	Recommended Machining Data a_p (inch)	f (IPR)
SCGT 3-2-AS	.375	.156	.0315	.173	•	•	.020-.118	.0039-.0118

• For user guide and cutting speed recommendations, see pages 128-138,288-294

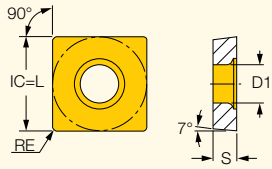
For tools, see pages: SSBCR/L (44) • SSSCR/L (45)

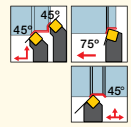
ISOTURN

SCMT-14

Square Inserts with a 7° Positive Flank for Semi-Finishing and Finish Turning on Soft Materials and Exotic Alloys







M E T R I C

Designation	Dimensions L	S	RE	D1	Tough ↔ Hard IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
SCMT 09T304-14	9.52	3.97	0.40	4.40	•	•	1.00-3.50	0.12-0.30

• For user guide and cutting speed recommendations, see pages 128-138,288-294

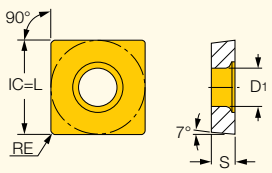
For tools, see pages: SSBCR/L (44) • SSSCR/L (45)

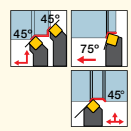
ISOTURN

SCMT-14

Square Inserts with a 7° Positive Flank for Semi-Finishing and Finish Turning on Soft Materials and Exotic Alloys







I N C H

Designation	Dimensions L	S	RE	D1	Tough ↔ Hard IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
SCMT 3-1-14	.375	.156	.0157	.173	•	•	.039-.138	.0047-.0118

• For user guide and cutting speed recommendations, see pages 128-138,288-294

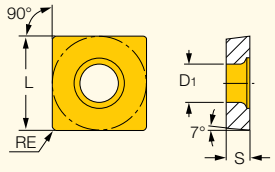
For tools, see pages: SSBCR/L (44) • SSSCR/L (45)

ISOTURN

SCMW

Square 7° Positive Flank, Flat Rake Inserts, for Short Chipping Materials





M E T R I C

Designation	Dimensions L	S	RE	D1	IC20
SCMW 09T304	9.52	3.97	0.40	4.40	●

• For user guide and cutting speed recommendations, see pages 128-138,288-294

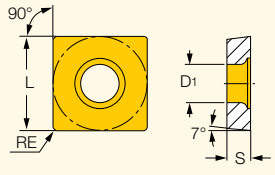
For tools, see pages: SSBCR/L (44) • SSSCR/L (45)

ISOTURN

SCMW

Square 7° Positive Flank, Flat Rake Inserts, for Short Chipping Materials





I N C H

Designation	Dimensions L	S	RE	D1	IC20
SCMW 3-1	.375	.156	.0157	.173	●

• For user guide and cutting speed recommendations, see pages 128-138,288-294

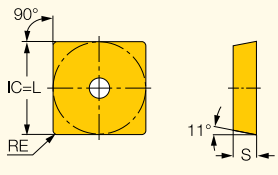
For tools, see pages: SSBCR/L (44) • SSSCR/L (45)

ISOTURN

SPMR

Square Inserts with a Positive Chipformer Exerting Low Cutting Forces for Semi-Finishing and Finishing Applications





M E T R I C

Designation	Dimensions L	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	IC20N	Recommended Machining Data a_p (mm)	f (mm/rev)
SPMR 090304	9.52	3.18	0.40		●		●	1.50-5.00	0.15-0.30
SPMR 090308	9.52	3.18	0.80	●	●			1.50-6.00	0.16-0.35
SPMR 120304	12.70	3.18	0.40	●	●			1.50-5.00	0.15-0.35
SPMR 120308	12.70	3.18	0.80		●			1.50-6.00	0.16-0.40
SPMR 120312	12.70	3.18	1.20			●		1.50-6.00	0.20-0.45

• For user guide and cutting speed recommendations, see pages 128-138,288-294

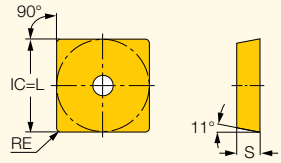
For tools, see pages: CSSPR/L (45) • S-CSKPR (105)

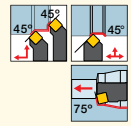
ISOTURN

SPMR

Square Inserts with a Positive Chipformer Exerting Low Cutting Forces for Semi-Finishing and Finishing Applications







I N C H

Designation	Dimensions L	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	IC20N	Recommended Machining Data a_p (inch)	f (IPR)
SPMR 321	.375	.125	.0157		•		•	.059-.197	.0059-.0118
SPMR 322	.375	.125	.0315	•	•			.059-.236	.0063-.0138
SPMR 421	.500	.125	.0157	•	•			.059-.197	.0059-.0138
SPMR 422	.500	.125	.0315		•			.059-.236	.0063-.0157
SPMR 423	.500	.125	.0472			•		.059-.236	.0079-.0177

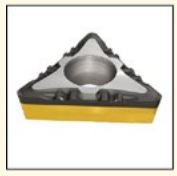
• For user guide and cutting speed recommendations, see pages 128-138,288-294

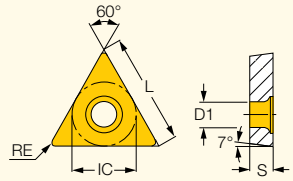
For tools, see pages: CSSPR/L (45) • S-CSKPR (105)

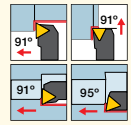
ISOTURN

TCMT-F3P

Triangular Inserts with a Positive Flank for Semi-Finishing and Finish Turning on Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC8250	IC8150	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
TCMT 090202-F3P	9.60	5.56	2.38	0.20	2.50	•	•	•	•	0.06-1.70	0.03-0.14
TCMT 090204-F3P	9.60	5.56	2.38	0.40	2.50	•	•	•	•	0.10-1.70	0.05-0.20
TCMT 110202-F3P	11.00	6.35	2.38	0.20	2.80	•	•	•	•	0.06-1.70	0.03-0.14
TCMT 110204-F3P	11.00	6.35	2.38	0.40	2.80	•	•	•	•	0.10-1.70	0.05-0.20
TCMT 110208-F3P	11.00	6.35	2.38	0.80	2.80	•	•	•	•	0.13-1.70	0.07-0.28
TCMT 16T304-F3P	16.50	9.52	3.97	0.40	4.40	•	•	•	•	0.10-1.70	0.05-0.20

• For user guide and cutting speed recommendations, see pages 128-138,288-294

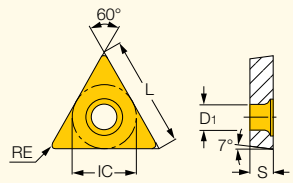
For tools, see pages: E-STFCR-HEAD (106) • S-STFCR/L (105) • S-STLCR/L (105) • STFCR/L (45) • STGCR/L (46)

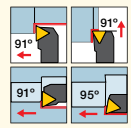
ISOTURN

TCMT-F3P

Triangular Inserts with a Positive Flank for Semi-Finishing and Finish Turning on Steel







I N C H

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC8250	IC8150	IC807	Recommended Machining Data a_p (inch)	f (IPR)
TCMT 730-F3P	.378	.219	.094	.0080	.098	•	•	•	•	.002-.067	.0012-.0055
TCMT 731-F3P	.378	.219	.094	.0160	.098	•	•	•	•	.004-.067	.0020-.0079
TCMT 2-0-F3P	.433	.250	.094	.0080	.110	•	•	•	•	.002-.067	.0012-.0055
TCMT 2-1-F3P	.433	.250	.094	.0160	.110	•	•	•	•	.004-.067	.0020-.0079
TCMT 2-2-F3P	.433	.250	.094	.0315	.110	•	•	•	•	.005-.067	.0028-.0110
TCMT 3-1-F3P	.650	.375	.156	.0160	.173	•	•	•	•	.004-.067	.0020-.0079

• For user guide and cutting speed recommendations, see pages 128-138,288-294

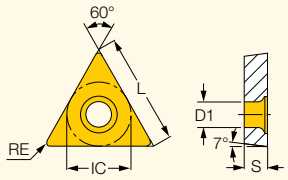
For tools, see pages: E-STFCR-HEAD (106) • S-STFCR/L (105) • S-STLCR/L (105) • STFCR/L (45) • STGCR/L (46)

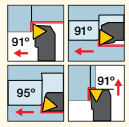
ISOTURN

TCMT-M3M

Triangular Positive Flank Inserts, for Machining Stainless and Low Carbon Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC6025	IC6015	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
TCMT 110204-M3M	11.00	6.35	2.38	0.40	2.80	•	•	•	0.40-2.50	0.07-0.23
TCMT 110208-M3M	11.00	6.35	2.38	0.80	2.80	•	•	•	0.80-2.50	0.10-0.25
TCMT 16T304-M3M	16.50	9.52	3.97	0.40	4.40	•	•	•	0.40-3.00	0.07-0.25
TCMT 16T308-M3M	16.50	9.52	3.97	0.80	4.40	•	•	•	0.80-3.00	0.10-0.30

• For user guide and cutting speed recommendations, see pages 128-138,288-294

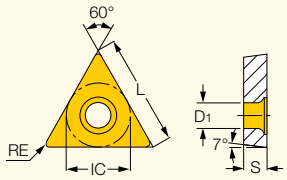
For tools, see pages: E-STFCR-HEAD (106) • S-STFCR/L (105) • S-STLCR/L (105) • STFCR/L (45) • STGCR/L (46)

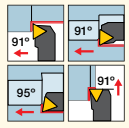
ISOTURN

TCMT-M3M

Triangular Positive Flank Inserts, for Machining Stainless and Low Carbon Steel







I N C H

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC6025	IC6015	IC807	Recommended Machining Data a_p (inch)	f (IPR)
TCMT 2-1-M3M	.433	.250	.094	.0157	.110	•	•	•	.016-.098	.0027-.0091
TCMT 2-2-M3M	.433	.250	.094	.0315	.110	•	•	•	.031-.098	.0039-.0098
TCMT 3-1-M3M	.650	.375	.156	.0157	.173	•	•	•	.016-.118	.0027-.0098
TCMT 3-2-M3M	.650	.375	.156	.0315	.173	•	•	•	.031-.118	.0039-.0118

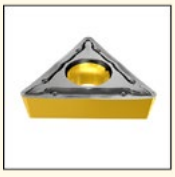
• For user guide and cutting speed recommendations, see pages 128-138,288-294

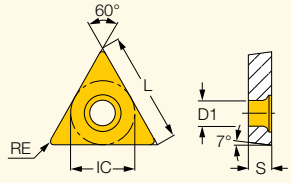
For tools, see pages: E-STFCR-HEAD (106) • S-STFCR/L (105) • S-STLCR/L (105) • STFCR/L (45) • STGCR/L (46)

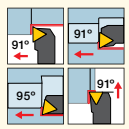
ISOTURN

TCMT-PF

Triangular Inserts with a Positive Flank for Semi-Finishing and Finishing on Soft Materials and Exotic Alloys







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
TCMT 110202-PF	11.00	6.35	2.38	0.20	2.85	•	•	0.20-3.00	0.05-0.25
TCMT 110204-PF	11.00	6.35	2.38	0.40	2.85		•	0.20-3.00	0.05-0.25

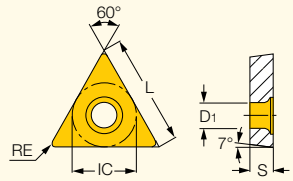
• For user guide and cutting speed recommendations, see pages 128-138,288-294

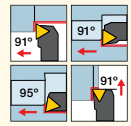
For tools, see pages: E-STFCR-HEAD (106) • S-STFCR/L (105) • S-STLCR/L (105) • STFCR/L (45) • STGCR/L (46)

ISOTURN

TCMT-PF
Triangular Inserts with a Positive Flank for Semi-Finishing and Finishing on Soft Materials and Exotic Alloys







I N C H

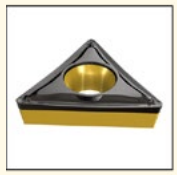
Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
TCMT 2-0-PF	.433	.250	.094	.0079	.112	•	•	.008-.118	.0020-.0098
TCMT 2-1-PF	.433	.250	.094	.0157	.112		•	.008-.118	.0020-.0098

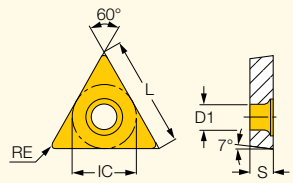
• For user guide and cutting speed recommendations, see pages 128-138,288-294

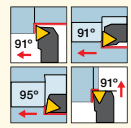
For tools, see pages: E-STFCR-HEAD (106) • S-STFCR/L (105) • S-STLCR/L (105) • STFCR/L (45) • STGCR/L (46)

ISOTURN

TCMT-SM
Triangular Inserts with a 7° Positive Flank for Semi-Finishing and Finish Turning on Soft Materials and Exotic Alloys







M E T R I C

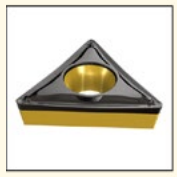
Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC8250	IC908	IC8150	IC428	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
TCMT 110204-SM	11.00	6.35	2.38	0.40	2.80		•	•	•		•	•	0.20-3.00	0.05-0.25
TCMT 110208-SM	11.00	6.35	2.38	0.80	2.80						•	•	0.50-2.50	0.07-0.25
TCMT 16T304-SM	16.50	9.52	3.97	0.40	4.40	•	•		•	•	•	•	0.50-3.00	0.06-0.25
TCMT 16T308-SM	16.50	9.52	3.97	0.80	4.40	•	•		•		•	•	0.50-3.00	0.08-0.28

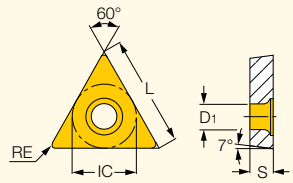
• For user guide and cutting speed recommendations, see pages 128-138,288-294

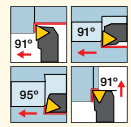
For tools, see pages: E-STFCR-HEAD (106) • S-STFCR/L (105) • S-STLCR/L (105) • STFCR/L (45) • STGCR/L (46)

ISOTURN

TCMT-SM
Triangular Inserts with a 7° Positive Flank for Semi-Finishing and Finish Turning on Soft Materials and Exotic Alloys







I N C H

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC8250	IC908	IC8150	IC428	IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
TCMT 2-1-SM	.433	.250	.094	.0157	.110		•	•	•		•	•	.008-.118	.0020-.0098
TCMT 2-2-SM	.433	.250	.094	.0315	.110						•	•	.020-.098	.0027-.0098
TCMT 3-1-SM	.650	.375	.156	.0157	.173	•	•		•	•	•	•	.020-.118	.0024-.0098
TCMT 3-2-SM	.650	.375	.156	.0315	.173	•	•		•		•	•	.020-.118	.0031-.0110

• For user guide and cutting speed recommendations, see pages 128-138,288-294

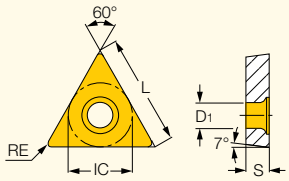
For tools, see pages: E-STFCR-HEAD (106) • S-STFCR/L (105) • S-STLCR/L (105) • STFCR/L (45) • STGCR/L (46)

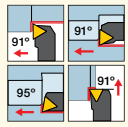
ISOTURN

TCMT-19

Triangular Inserts with a 7° Positive Flat Rake for Semi-Roughing Applications at Medium to High Feeds







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC50M	IC8150	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
TCMT 110204-19	11.00	6.35	2.38	0.40	2.80		●	●	●	0.50-3.00	0.10-0.30
TCMT 16T308-19	16.50	9.52	3.97	0.80	4.40	●	●		●	1.00-4.00	0.20-0.35

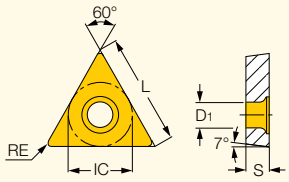
For tools, see pages: E-STFCR-HEAD (106) • S-STFCR/L (105) • S-STLCR/L (105) • STFCR/L (45) • STGCR/L (46)

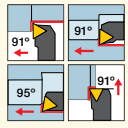
ISOTURN

TCMT-19

Triangular Inserts with a 7° Positive Flat Rake for Semi-Roughing Applications at Medium to High Feeds







I N C H

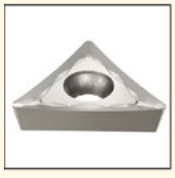
Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC50M	IC8150	IC20	Recommended Machining Data a_p (inch)	f (IPR)
TCMT 2-1-19	.433	.250	.094	.0157	.110		●	●	●	.020-.118	.0039-.0118
TCMT 3-2-19	.650	.375	.156	.0315	.173	●	●		●	.039-.157	.0079-.0138

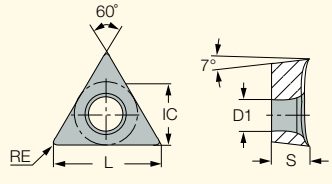
For tools, see pages: E-STFCR-HEAD (106) • S-STFCR/L (105) • S-STLCR/L (105) • STFCR/L (45) • STGCR/L (46)

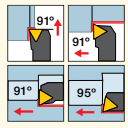
ISOTURN

TCGT-AS

Triangular Inserts with a 7° Positive Flank, Very Positive Rake Angle and Sharp Cutting Edge for Machining Aluminum







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC1520	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
TCGT 110204-AS	11.00	6.35	2.38	0.40	2.80	●	●	0.20-3.00	0.05-0.30
TCGT 16T304-AS	16.50	9.52	3.97	0.40	4.40	●	●	0.50-3.00	0.05-0.30
TCGT 16T308-AS	16.50	9.52	3.97	0.80	4.40	●	●	0.50-3.00	0.10-0.30

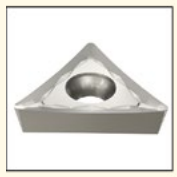
• For user guide and cutting speed recommendations, see pages 128-138,288-294

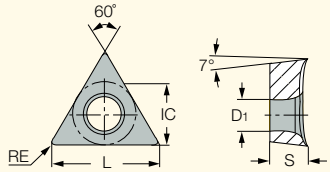
For tools, see pages: E-STFCR-HEAD (106) • S-STFCR/L (105) • S-STLCR/L (105) • STFCR/L (45) • STGCR/L (46)

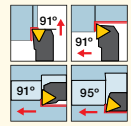
ISOTURN

TCGT-AS

Triangular Inserts with a 7° Positive Flank, Very Positive Rake Angle and Sharp Cutting Edge for Machining Aluminum







I N C H

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC1520	IC20	Recommended Machining Data a_p (inch)	f (IPR)
TCGT 2-1-AS	.433	.250	.094	.0157	.110	•	•	.008-.118	.0020-.0118
TCGT 3-1-AS	.650	.375	.156	.0157	.173	•	•	.020-.118	.0020-.0118
TCGT 3-2-AS	.650	.375	.156	.0315	.173	•	•	.020-.118	.0039-.0118

• For user guide and cutting speed recommendations, see pages 128-138,288-294

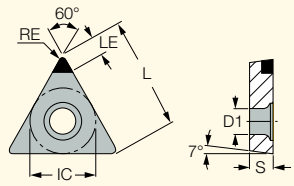
For tools, see pages: E-STFCR-HEAD (106) • S-STFCR/L (105) • S-STLCR/L (105) • STFCR/L (45) • STGCR/L (46)

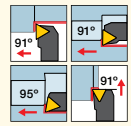
ISOTURN

TCMT (CBN)

Triangular Positive Inserts with a Single CBN Flat Rake Tip for Machining Hardened Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	LE	D1	Tough ↔ Hard IB50	IB55	Recommended Machining Data a_p (mm)	f (mm/rev)
TCMT 110204T	11.00	6.35	2.38	0.40	3.5	2.85	•	•	0.05-0.50	0.05-0.13

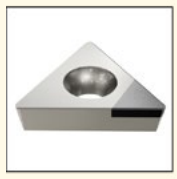
• For user guide and cutting speed recommendations, see pages 128-138,288-294

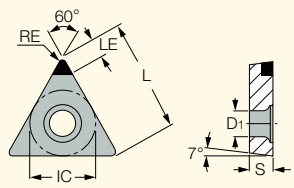
For tools, see pages: E-STFCR-HEAD (106) • S-STFCR/L (105) • S-STLCR/L (105) • STFCR/L (45) • STGCR/L (46)

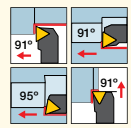
ISOTURN

TCMT (CBN)

Triangular Positive Inserts with a Single CBN Flat Rake Tip for Machining Hardened Steel







I N C H

Designation	Dimensions L	IC	S	RE	LE	D1	Tough ↔ Hard IB50	IB55	Recommended Machining Data a_p (inch)	f (IPR)
TCMT 2-1T	.433	.250	.094	.0157	.14	.112	•	•	.002-.020	.0020-.0051

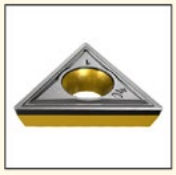
• For user guide and cutting speed recommendations, see pages 128-138,288-294

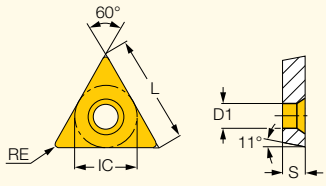
For tools, see pages: E-STFCR-HEAD (106) • S-STFCR/L (105) • S-STLCR/L (105) • STFCR/L (45) • STGCR/L (46)

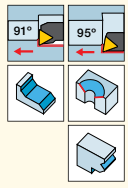
ISOTURN

TPMT

Triangular 11° Positive Inserts with a Positive Chipformer Exerts Low Cutting Forces for Internal Finish Turning







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC635	IC50M	IC8250	IC8150	IC520M	IC20	IC70	IC806	IC807	IC907	Recommended Machining Data a_p (mm)(1)	f (mm/rev)(2)
TPMT 110202	11.00	6.35	2.38	0.20	3.00	•									•	•	0.20-2.00	0.05-0.25
TPMT 110204	11.00	6.35	2.38	0.40	3.00	•				•		•	•		•	•	1.00-3.00	0.12-0.30
TPMT 110208	11.00	6.35	2.38	0.80	3.00	•				•		•					1.00-4.00	0.15-0.30
TPMT 160304	16.50	9.52	3.18	0.40	4.30	•			•			•	•		•	•	1.00-4.00	0.12-0.30
TPMT 160308	16.50	9.52	3.18	0.80	4.30	•	•	•			•	•		•	•	•	5.00-12.00	0.15-0.35

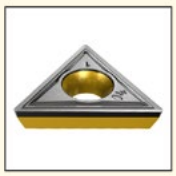
• For cutting speed recommendations, see pages 128-138,288-294
(1) For turning
(2) For turning

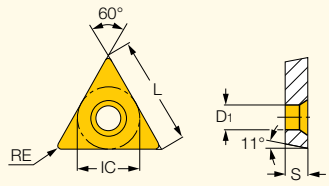
For tools, see pages: A/E/S-STFPR/L (109) • A/S-STLPR/L (108) • E-STFPR-HEAD (106)

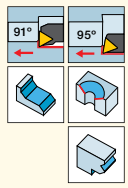
ISOTURN

TPMT

Triangular 11° Positive Inserts with a Positive Chipformer Exerts Low Cutting Forces for Internal Finish Turning







I N C H

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC635	IC50M	IC8250	IC8150	IC520M	IC20	IC70	IC806	IC807	IC907	Recommended Machining Data a_p (inch)(1)	f (IPR)(2)
TPMT 2-0	.433	.250	.094	.0079	.118	•									•	•	.008-.079	.0020-.0098
TPMT 2-1	.433	.250	.094	.0157	.118	•				•		•	•		•	•	.039-.118	.0047-.0118
TPMT 2-2	.433	.250	.094	.0315	.118	•				•		•					.039-.157	.0059-.0118
TPMT 321	.650	.375	.125	.0157	.169	•			•			•	•		•	•	.039-.157	.0047-.0118
TPMT 322	.650	.375	.125	.0315	.169	•	•	•			•	•		•	•	•	.197-.472	.0059-.0138

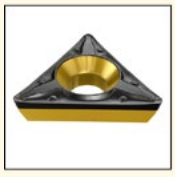
• For cutting speed recommendations, see pages 128-138,288-294
(1) For turning
(2) For turning

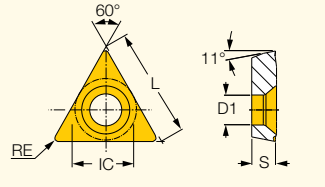
For tools, see pages: A/E/S-STFPR/L (109) • A/S-STLPR/L (108) • E-STFPR (109) • E-STFPR-HEAD (106) • E-STLPR (108)

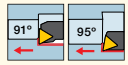
ISOTURN

TPMT-PF

Triangular 11° Positive Inserts for Semi-Finishing and Finishing Applications







M E T R I C

Designation	Dimensions L	IC(1)	S	RE	D1	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
TPMT 110204-PF	11.00	6.35	2.38	0.40	3.00	•	0.50-3.00	0.10-0.30

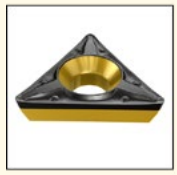
• For user guide and cutting speed recommendations, see pages 128-138,288-294
(1) Actual IC=6.28, to be used in 6.35mm pocket size

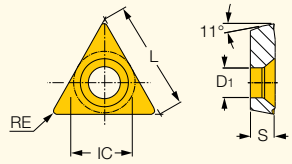
For tools, see pages: A/E/S-STFPR/L (109) • A/S-STLPR/L (108) • E-STFPR-HEAD (106)

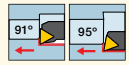
ISOTURN

TPMT-PF

Triangular 11° Positive Inserts for Semi-Finishing and Finishing Applications







I N C H

Designation	Dimensions L	IC[1]	S	RE	D1	IC8150	Recommended Machining Data a_p (inch)	f (IPR)
TPMT 2-1-PF	.433	.250	.094	.0157	.118	●	.020-.118	.0039-.0118

• For user guide and cutting speed recommendations, see pages 128-138,288-294

(1) Actual di=.247" to be used in .250" pocket size

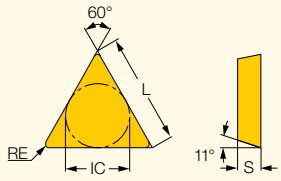
For tools, see pages: A/E/S-STFPR/L (109) • A/S-STLPR/L (108) • E-STFPR (109) • E-STFPR-HEAD (106)

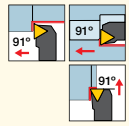
ISOTURN

TPMR

Triangular 11° Positive Inserts with a Positive Chipformer Exerting Low Cutting Forces for Internal Finish Turning







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC20N	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
TPMR 090202	9.60	5.56	2.38	0.20					●	1.00-3.00	0.10-0.20
TPMR 090204	9.60	5.56	2.38	0.40		●				1.00-3.50	0.15-0.20
TPMR 110304	11.00	6.35	3.18	0.40	●		●			1.00-3.50	0.15-0.25
TPMR 110308	11.00	6.35	3.18	0.80	●					1.00-3.50	0.15-0.30
TPMR 160304	16.50	9.52	3.18	0.40	●		●	●	●	1.00-4.00	0.15-0.33
TPMR 160308	16.50	9.52	3.18	0.80	●		●	●	●	1.00-4.00	0.15-0.35

• For user guide and cutting speed recommendations, see pages 128-138,288-294

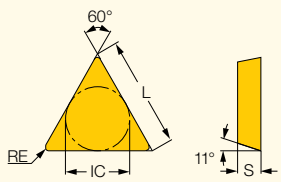
For tools, see pages: CTFPR/L (46) • CTGPR/L (46) • S-CTFPR/L (110)

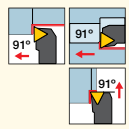
ISOTURN

TPMR

Triangular 11° Positive Inserts with a Positive Chipformer Exerting Low Cutting Forces for Internal Finish Turning







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC20N	IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
TPMR 730	.378	.219	.094	.0079					●	.039-.118	.0039-.0079
TPMR 731	.378	.219	.094	.0157		●				.039-.138	.0059-.0079
TPMR 221	.433	.250	.125	.0157	●		●			.039-.138	.0059-.0098
TPMR 222	.433	.250	.125	.0315	●					.039-.138	.0059-.0118
TPMR 321	.650	.375	.125	.0157	●		●	●	●	.039-.157	.0059-.0130
TPMR 322	.650	.375	.125	.0315	●		●	●	●	.039-.157	.0059-.0138

• For user guide and cutting speed recommendations, see pages 128-138,288-294

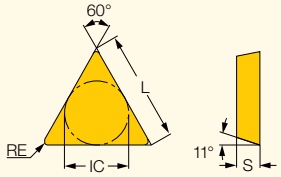
For tools, see pages: S-CTFPR (111) • S-CTFPR/L (110)

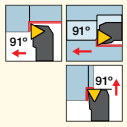
ISOTURN

TPMR-PF

Triangular 11° Positive Inserts with a Positive Chipformer Exerting Low Cutting Forces for Internal Finish Turning







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8250	IC8150	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
TPMR 110304-PF	11.00	6.35	3.18	0.40	•		•	•	0.40-3.00	0.08-0.25
TPMR 110308-PF	11.00	6.35	3.18	0.80	•			•	0.50-3.50	0.07-0.28
TPMR 160304-PF	16.50	9.52	3.18	0.40	•	•	•	•	0.50-3.50	0.06-0.25
TPMR 160308-PF	16.50	9.52	3.18	0.80	•	•		•	0.80-3.00	0.08-0.28

• For user guide and cutting speed recommendations, see pages 128-138,288-294

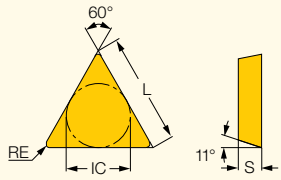
For tools, see pages: CTFPR/L (46) • CTGPR/L (46) • S-CTFPR/L (110)

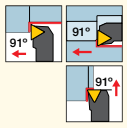
ISOTURN

TPMR-PF

Triangular 11° Positive Inserts with a Positive Chipformer Exerting Low Cutting Forces for Internal Finish Turning







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8250	IC8150	IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
TPMR 221-PF	.433	.250	.125	.0157	•		•	•	.016-.118	.0031-.0098
TPMR 222-PF	.433	.250	.125	.0315	•			•	.020-.138	.0027-.0110
TPMR 321-PF	.650	.375	.125	.0157	•	•	•	•	.020-.138	.0024-.0098
TPMR 322-PF	.650	.375	.125	.0315	•	•		•	.031-.118	.0031-.0110

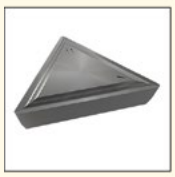
• For user guide and cutting speed recommendations, see pages 128-138,288-294

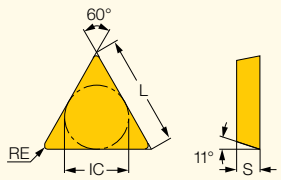
For tools, see pages: S-CTFPR (111) • S-CTFPR/L (110)

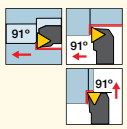
ISOTURN

TPMR-FTF

Triangular 11° Positive Inserts with a Positive Chipformer Exerting, Low Cutting Forces for Finish Turning Applications







M E T R I C

Designation	Dimensions L	IC	S	RE	IC20N	Recommended Machining Data a_p (mm)	f (mm/rev)
TPMR 110304-FTF	11.00	6.35	3.18	0.40	•	0.50-3.00	0.07-0.25
TPMR 160304-FTF	16.50	9.52	3.18	0.40	•	0.50-3.00	0.07-0.25

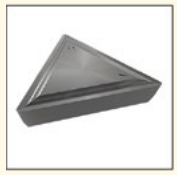
• For user guide and cutting speed recommendations, see pages 128-138,288-294

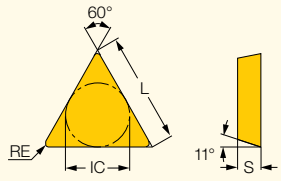
For tools, see pages: CTFPR/L (46) • CTGPR/L (46) • S-CTFPR/L (110)

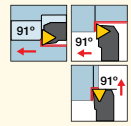
ISOTURN

TPMR-FTF

Triangular 11° Positive Inserts with a Positive Chipformer Exerting, Low Cutting Forces for Finish Turning Applications







I N C H

Designation	Dimensions L	IC	S	RE	IC20N	Recommended Machining Data a_p (inch)	f (IPR)
TPMR 221-FTF	.433	.250	.125	.0157	•	.020-.118	.0027-.0098
TPMR 321-FTF	.650	.375	.125	.0157	•	.020-.118	.0027-.0098

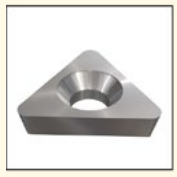
• For user guide and cutting speed recommendations, see pages 128-138,288-294

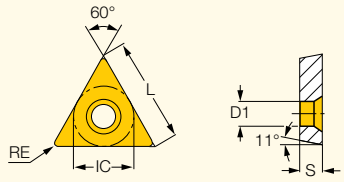
For tools, see pages: S-CTFPR (111) • S-CTFPR/L (110)

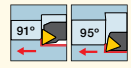
ISOTURN

TPGB

Triangular Inserts with an 11° Positive Flank for Short Chipping Materials







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
TPGB 110204	11.00	6.35	2.38	0.40	3.00	•	1.00-3.00	0.05-0.25

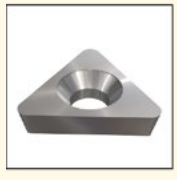
• For user guide and cutting speed recommendations, see pages 128-138,288-294

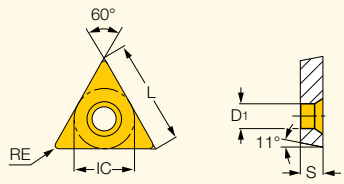
For tools, see pages: A/E/S-STFPR/L (109) • A/S-STLPR/L (108) • E-STFPR-HEAD (106)

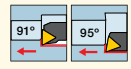
ISOTURN

TPGB

Triangular Inserts with an 11° Positive Flank for Short Chipping Materials







I N C H

Designation	Dimensions L	IC	S	RE	D1	IC20	Recommended Machining Data a_p (inch)	f (IPR)
TPGB 2-1	.433	.250	.094	.0157	.118	•	.039-.118	.0020-.0098

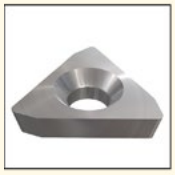
• For user guide and cutting speed recommendations, see pages 128-138,288-294

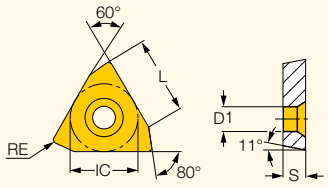
For tools, see pages: A/E/S-STFPR/L (109) • A/S-STLPR/L (108) • E-STFPR (109) • E-STFPR-HEAD (106) • E-STLPR (108)

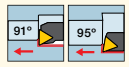
ISOTURN

TPGB-XL

Triangular Inserts with an 11° Positive Flank for Short Chipping Materials







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
TPGB 110204-XL	11.00	6.35	2.38	0.40	3.00	●	1.00-3.00	0.05-0.25

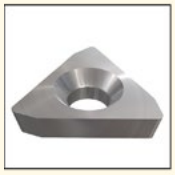
• For user guide and cutting speed recommendations, see pages 128-138,288-294

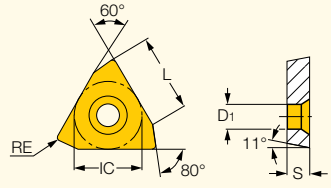
For tools, see pages: A/E/S-STFPR/L (109) • A/S-STLPR/L (108) • E-STFPR-HEAD (106)

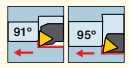
ISOTURN

TPGB-XL

Triangular Inserts with an 11° Positive Flank for Short Chipping Materials







I N C H

Designation	Dimensions L	IC	S	RE	D1	IC20	Recommended Machining Data a_p (inch)	f (IPR)
TPGB 2-1-XL	.433	.250	.094	.0157	.118	●	.039-.118	.0020-.0098

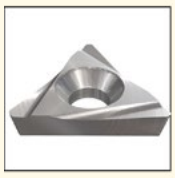
• For user guide and cutting speed recommendations, see pages 128-138,288-294

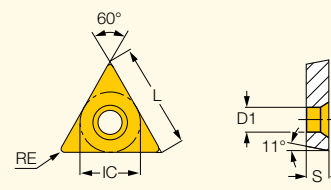
For tools, see pages: A/E/S-STFPR/L (109) • A/S-STLPR/L (108) • E-STFPR (109) • E-STFPR-HEAD (106)

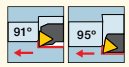
ISOTURN

TPGH-R/L

Triangular Inserts with an 11° Positive and Ground Chipformer for Finish Turning







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC908	IC20	IC70	Recommended Machining Data a_p (mm)	f (mm/rev)
TPGH 110204-L	11.00	6.35	2.38	0.40	3.00		●	●	1.00-3.00	0.05-0.25
TPGH 110208-L	11.00	6.35	2.38	0.80	3.00	●			1.00-3.00	0.05-0.25
TPGH 160304-L	16.50	9.52	3.18	0.40	4.30		●	●	1.00-4.00	0.05-0.30
TPGH 160304-R	16.50	9.52	3.18	0.40	4.30			●	1.00-4.00	0.05-0.30
TPGH 160308-L	16.50	9.52	3.18	0.80	4.30		●	●	1.00-4.00	0.05-0.30

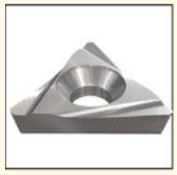
• For user guide and cutting speed recommendations, see pages 128-138,288-294

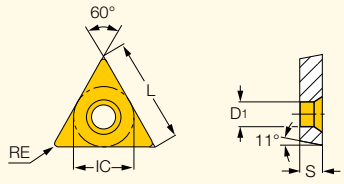
For tools, see pages: A/E/S-STFPR/L (109) • A/S-STLPR/L (108)

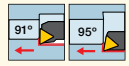
ISOTURN

TPGH-R/L

Triangular Inserts with an 11° Positive and Ground Chipformer for Finish Turning







I N C H

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC908	IC20	IC70	Recommended Machining Data a_p (inch)	f (IPR)
TPGH 2-1-L	.433	.250	.094	.0157	.118		•	•	.039-.118	.0020-.0098
TPGH 2-2-L	.433	.250	.094	.0315	.118	•			.039-.118	.0020-.0098
TPGH 321-L	.650	.375	.125	.0157	.169		•	•	.039-.157	.0020-.0118
TPGH 321-R	.650	.375	.125	.0157	.169			•	.039-.157	.0020-.0118
TPGH 322-L	.650	.375	.125	.0315	.169		•	•	.039-.157	.0020-.0118

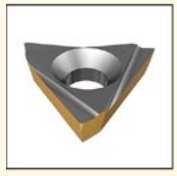
• For user guide and cutting speed recommendations, see pages 128-138,288-294

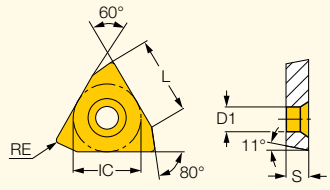
For tools, see pages: A/E/S-STFPR/L (109) • A/S-STLPR/L (108) • E-STLPR (108)

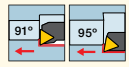
ISOTURN

TPGH-XL

Triangular Inserts with an 11° Positive and Ground Chipformer for Finish Turning







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC20	IC70	Recommended Machining Data a_p (mm)	f (mm/rev)
TPGH 110204-XL	11.00	6.35	2.38	0.40	3.00	•	•	1.00-3.00	0.05-0.25

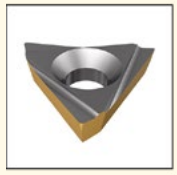
• For user guide and cutting speed recommendations, see pages 128-138,288-294

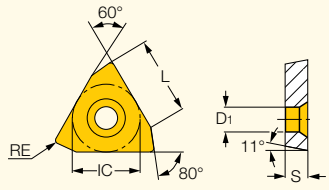
For tools, see pages: A/E/S-STFPR/L (109) • A/S-STLPR/L (108) • E-STFPR-HEAD (106)

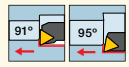
ISOTURN

TPGH-XL

Triangular Inserts with an 11° Positive and Ground Chipformer for Finish Turning







I N C H

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC20	IC70	Recommended Machining Data a_p (inch)	f (IPR)
TPGH 2-1-XL	.433	.250	.094	.0157	.118	•	•	.039-.118	.0020-.0098

• For user guide and cutting speed recommendations, see pages 128-138,288-294

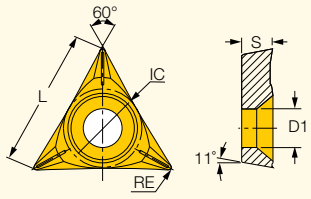
For tools, see pages: A/E/S-STFPR/L (109) • A/S-STLPR/L (108) • E-STFPR (109) • E-STFPR-HEAD (106)

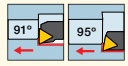
ISOTURN

TPGT-SP

Super Positive Triangular Inserts with 11° Clearance for Fine Boring and Finish Turning







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC908	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
TPGT 110202-SP	11.00	6.35	2.38	0.20	3.00	●	●	0.40-1.00	0.05-0.15

• For user guide and cutting speed recommendations, see pages 128-138,288-294

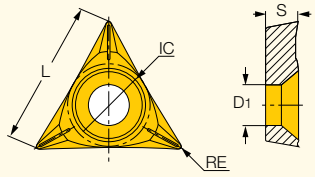
For tools, see pages: E-STFPR-HEAD (106)

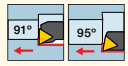
ISOTURN

TPGT-SP

Super Positive Triangular Inserts with 11° Clearance for Fine Boring and Finish Turning







I N C H

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC908	IC907	Recommended Machining Data a_p (inch)	f (IPR)
TPGT 2-0-SP	.433	.250	.094	.0079	.118	●	●	.016-.039	.0020-.0059

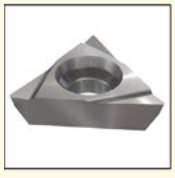
• For user guide and cutting speed recommendations, see pages 128-138,288-294

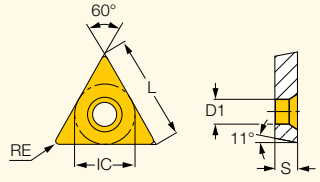
For tools, see pages: E-STFPR (109) • E-STFPR-HEAD (106)

ISOTURN

TPGX

Triangular Inserts with an 11° Positive Flank and Ground Chipformer for Finish Turning







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC54	IC908	IC20	IC20N	IC520N	Recommended Machining Data a_p (mm)	f (mm/rev)
TPGX 090202-L	9.60	5.56	2.38	0.20	3.00		●	●	●	●	1.00-2.00	0.10-0.20
TPGX 090204-L	9.60	5.56	2.38	0.40	3.00	●	●	●	●	●	1.00-2.50	0.15-0.20
TPGX 110302-L	11.00	6.35	3.18	0.20	3.50		●	●	●	●	1.00-2.50	0.10-0.20
TPGX 110304-L	11.00	6.35	3.18	0.40	3.50	●	●	●	●	●	1.00-3.00	0.15-0.20
TPGX 110308-L	11.00	6.35	3.18	0.80	3.50			●			1.00-3.50	0.15-0.25

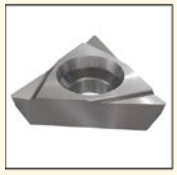
• For user guide and cutting speed recommendations, see pages 128-138,288-294

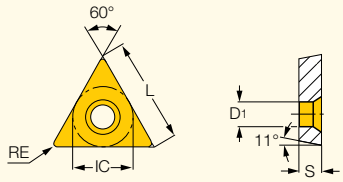
For tools, see pages: A/E-STFPR-X (109) • MG STFPR-X (110)

ISOTURN

TPGX

Triangular Inserts with an 11° Positive Flank and Ground Chipformer for Finish Turning





I N C H

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC54	IC908	IC20	IC20N	IC520N	Recommended Machining Data a_p (inch)	f (IPR)
TPGX 730-L	.378	.219	.094	.0079	.118		●	●	●	●	.039-.079	.0039-.0079
TPGX 731-L	.378	.219	.094	.0157	.118	●	●	●	●	●	.039-.098	.0059-.0079
TPGX 220-L	.433	.250	.125	.0079	.138		●	●	●	●	.039-.098	.0039-.0079
TPGX 221-L	.433	.250	.125	.0157	.138	●	●	●	●	●	.039-.118	.0059-.0079
TPGX 222-L	.433	.250	.125	.0315	.138			●			.039-.138	.0059-.0098

• For user guide and cutting speed recommendations, see pages 128-138,288-294

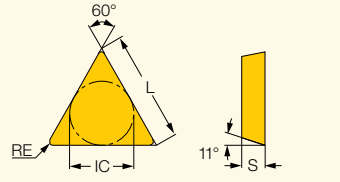
For tools, see pages: A/E-STFPR-X (109) • MG STFPR-X (110)

ISCAR CERLINE

TPGN (CER)

Positive 60° Triangular Ceramic Inserts for Machining Cast Iron and Hardened Steel





M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IN10	IN18	Recommended Machining Data a_p (mm)	f (mm/rev)
TPGN 110304 T01020	11.00	6.35	3.18	0.40	●	●	0.10-2.00	0.04-0.32
TPGN 160304 T01020	16.50	9.52	3.18	0.40	●	●	0.10-2.50	0.05-0.34
TPGN 160308 T01020	16.50	9.52	3.18	0.80	●	●	0.20-2.50	0.05-0.40
TPGN 160312 T01020	16.50	9.52	3.18	1.20	●	●	0.30-2.50	0.06-0.44

• For user guide and cutting speed recommendations, see pages 128-138,288-294

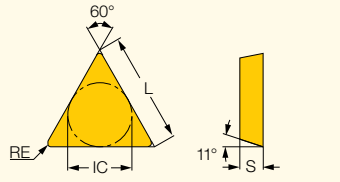
For tools, see pages: CTFPR/L (46) • CTGPR/L (46) • S-CTFPR/L (110)

ISCAR CERLINE

TPG (CER)

Positive 60° Triangular Ceramic Inserts for Machining Cast Iron and Hardened Steel





I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IN10	IN18	Recommended Machining Data a_p (inch)	f (IPR)
TPG 221 T0420	.433	.250	.125	.0157	●	●	.004-.079	.0016-.0126
TPG 321 T0420	.650	.375	.125	.0157	●	●	.004-.098	.0020-.0134
TPG 322 T0420	.650	.375	.125	.0315	●	●	.008-.098	.0020-.0157
TPG 323 T0420	.650	.375	.125	.0472	●	●	.012-.098	.0024-.0173

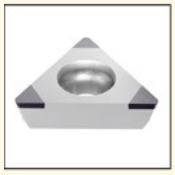
• For user guide and cutting speed recommendations, see pages 128-138,288-294

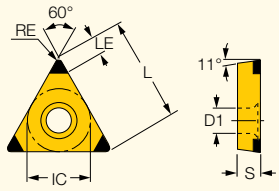
For tools, see pages: S-CTFPR (111) • S-CTFPR/L (110)

ISOTURN

TPGW-M3 (CBN)

Triangular Positive Inserts with 3 CBN Tips for Machining Sintered Metals and High Temperature Alloys







M E T R I C

Designation	Dimensions L	IC	S	RE	LE	D1	Tough ↔ Hard IB10HC	IB05S	Recommended Machining Data a_p (mm)	f (mm/rev)
TPGW 110204-M3	11.00	6.35	2.38	0.40	2.2	2.80		•	0.05-0.50	0.05-0.30
TPGW 110208-M3	11.00	6.35	2.38	0.80	2.2	2.80		•	0.05-0.50	0.05-0.30
TPGW 110304-M3	11.00	6.35	3.18	0.40	2.2	3.40	•	•	0.05-0.50	0.05-0.30
TPGW 110308-M3	11.00	6.35	3.18	0.80	2.1	3.40		•	0.05-0.50	0.05-0.30

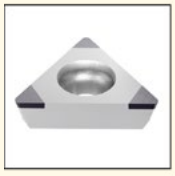
• For user guide and cutting speed recommendations, see pages 128-138,288-294

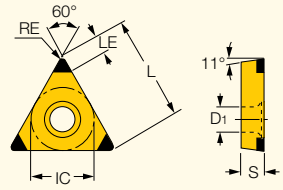
For tools, see pages: A/E-STFPR-X (109)

ISOTURN

TPGW-M3 (CBN)

Triangular Positive Inserts with 3 CBN Tips for Machining Sintered Metals and High Temperature Alloys







I N C H

Designation	Dimensions L	IC	S	RE	LE	D1	Tough ↔ Hard IB10HC	IB05S	Recommended Machining Data a_p (inch)	f (IPR)
TPGW 2-1-M3	.433	.250	.094	.0160	.09	.110		•	.002-.020	.0020-.0118
TPGW 2-2-M3	.433	.250	.094	.0315	.09	.110		•	.002-.020	.0020-.0118
TPGW 221-M3	.433	.250	.125	.0160	.09	.134	•	•	.002-.020	.0020-.0118
TPGW 222-M3	.433	.250	.125	.0315	.08	.134		•	.002-.020	.0020-.0118

• For user guide and cutting speed recommendations, see pages 128-138,288-294

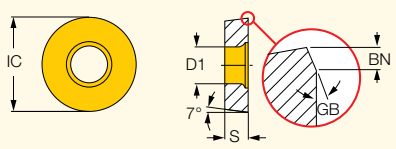
For tools, see pages: A/E-STFPR-X (109) • E-STFPR (109)

ISOTURN

RCMT-14

Round Inserts with a 7° Positive Flank for Medium and Finish Profiling on a Wide Range of Materials







M E T R I C

Designation	Dimensions IC	S	D1	GB	BN	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
RCMT 0803M0-14	8.00	3.18	3.40	15.0	0.15	•	1.00-4.00	0.30-0.45

• For user guide and cutting speed recommendations, see pages 128-138,288-294

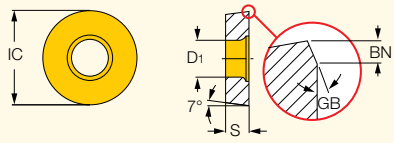
For tools, see pages: SRDCN (47) • SRGCR/L (47)

ISOTURN

RCMT-14

Round Inserts with a 7° Positive Flank for Medium and Finish Profiling on a Wide Range of Materials





I N C H

Designation	Dimensions IC	S	D1	GB	BN	IC20	Recommended Machining Data a_p (inch)	f (IPR)
RCMT 0803M0-14	.315	.125	.134	15.0	.006	•	.039-.157	.0118-.0177

• For user guide and cutting speed recommendations, see pages 128-138,288-294

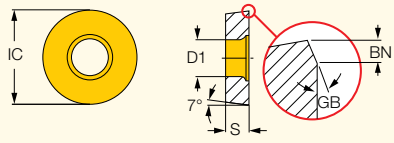
For tools, see pages: SRGCR/L (47)

ISOTURN

RCMT-SR

Round Inserts with a 7° Positive Flank for Medium Profiling on a Wide Range of Materials





M E T R I C

Designation	Dimensions IC	S	D1	GB	BN	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
RCMT 0803M0-SR	8.00	3.18	3.40	15.0	0.15	•	1.00-4.50	0.30-0.45

• For user guide and cutting speed recommendations, see pages 128-138,288-294

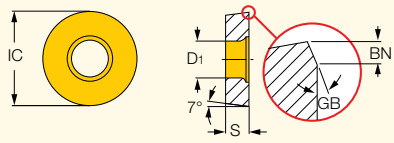
For tools, see pages: SRDCN (47) • SRGCR/L (47)

ISOTURN

RCMT-SR

Round Inserts with a 7° Positive Flank for Medium Profiling on a Wide Range of Materials





I N C H

Designation	Dimensions IC	S	D1	GB	BN	IC8150	Recommended Machining Data a_p (inch)	f (IPR)
RCMT 0803M0-SR	.315	.125	.134	15.0	.006	•	.039-.177	.0118-.0177

• For user guide and cutting speed recommendations, see pages 128-138,288-294

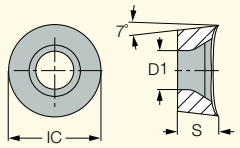
For tools, see pages: SRGCR/L (47)

ISOTURN

RCGT-AS

Round Inserts with a 7° Positive Flank, Very Positive Rake Angle and Sharp Cutting Edge for Machining Aluminum





M E T R I C

Designation	Dimensions IC	S	D1	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
RCGT 0803M0-AS	8.00	3.18	3.40	●	1.00-4.00	0.20-0.40

- For user guide and cutting speed recommendations, see pages 128-138,288-294

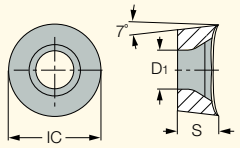
For tools, see pages: SRDCN (47) • SRGCR/L (47)

ISOTURN

RCGT-AS

Round Inserts with a 7° Positive Flank, Very Positive Rake Angle and Sharp Cutting Edge for Machining Aluminum





I N C H

Designation	Dimensions IC	S	D1	IC20	Recommended Machining Data a_p (inch)	f (IPR)
RCGT 0803M0-AS	.315	.125	.134	●	.039-.157	.0079-.0157

- For user guide and cutting speed recommendations, see pages 128-138,288-294

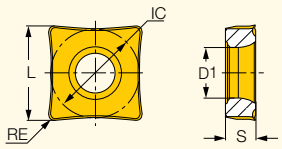
For tools, see pages: SRGCR/L (47)

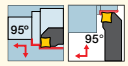
ISOTURN

QCMT-PF

Four 80° Cornered Insert with a Positive 7° Clearance and Chipformer for Finishing Applications







M E T R I C

Designation	Dimensions IC	S	RE	D1	IC908	Recommended Machining Data a_p (mm)	f (mm/rev)
QCMT 09T302-PF	9.65	3.97	0.20	4.40	●	0.50-2.50	0.05-0.30

- For user guide and cutting speed recommendations, see pages 128-138,288-294

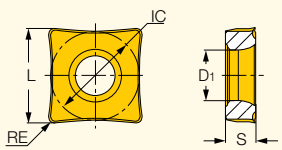
For tools, see pages: PQLCR/L (49) • PQLCR/L-S (48) • S/A-SQLCR/L (111)

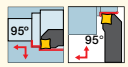
ISOTURN

QCMT-PF

Four 80° Cornered Insert with a Positive 7° Clearance and Chipformer for Finishing Applications







I N C H

Designation	Dimensions IC	S	RE	D1	IC908	Recommended Machining Data a_p (inch)	f (IPR)
QCMT 3-0-PF	.380	.156	.0079	.173	●	.020-.098	.0020-.0118

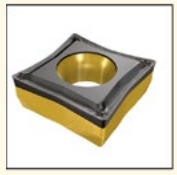
- For user guide and cutting speed recommendations, see pages 128-138,288-294

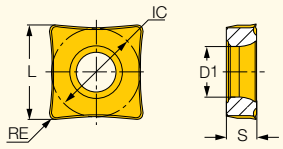
For tools, see pages: PQLCR-S (48) • PQLCR/L (49) • PQLCR/L-S (48) • S/A-SQLCR/L (111)

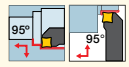
ISOTURN

QCMT-SM

Inserts with a Positive 7° Clearance and Chipformer for Finishing Applications







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC8250	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
QCMT 09T304-SM	10.40	9.65	3.97	0.40	4.40	•	•	•	0.50-2.50	0.06-0.25

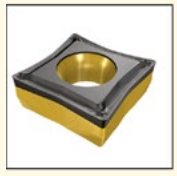
- For user guide and cutting speed recommendations, see pages 128-138,288-294

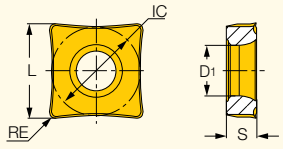
For tools, see pages: PQLCR/L (49) • PQLCR/L-S (48) • S/A-SQLCR/L (111)

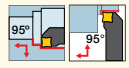
ISOTURN

QCMT-SM

Inserts with a Positive 7° Clearance and Chipformer for Finishing Applications







I N C H

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC8250	IC8150	Recommended Machining Data a_p (inch)	f (IPR)
QCMT 3-1-SM	.409	.380	.156	.0157	.173	•	•	•	.020-.098	.0024-.0098

- For user guide and cutting speed recommendations, see pages 128-138,288-294

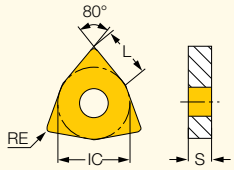
For tools, see pages: PQLCR-S (48) • PQLCR/L (49) • PQLCR/L-S (48) • S/A-SQLCR/L (111)

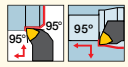
ISOTURN

WNMG-F3M

Double-Sided Trigon
Inserts for Stainless Steel
Finishing Applications







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC6015	IC806	IC807	IC706	Recommended Machining Data a_p (mm)	f (mm/rev)
WNMG 060404-F3M	6.52	9.52	4.76	0.40	●	●	●	●	●	●	0.10-1.50	0.05-0.30
WNMG 060408-F3M	6.52	9.52	4.76	0.80	●	●	●	●	●	●	0.10-1.50	0.10-0.40
WNMG 060412-F3M	6.52	9.52	4.76	1.20		●	●	●	●	●	0.20-2.50	0.15-0.50
WNMG 080404-F3M	8.70	12.70	4.76	0.40	●	●	●	●	●	●	0.10-1.50	0.05-0.30
WNMG 080408-F3M	8.70	12.70	4.76	0.80	●	●	●	●	●	●	0.10-1.50	0.10-0.40
WNMG 080412-F3M	8.70	12.70	4.76	1.20	●	●	●	●	●		0.20-2.50	0.15-0.50

• For user guide and cutting speed recommendations, see pages 128-138,288-294

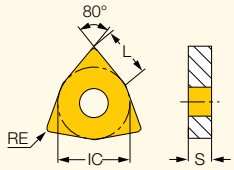
For tools, see pages: A-PWLNR/L-X/G (114) • A/S-MWLNR/L-W (117) • A/S-PWLNR/L (113) • MWLNR/L-W (53) • PWLNR/L (53)

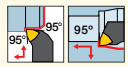
ISOTURN

WNMG-F3M

Double-Sided Trigon
Inserts for Stainless Steel
Finishing Applications







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC6015	IC806	IC807	IC706	Recommended Machining Data a_p (inch)	f (IPR)
WNMG 331-F3M	.257	.375	.187	.0157	●	●	●	●	●	●	.004-.059	.0020-.0118
WNMG 332-F3M	.257	.375	.187	.0315	●	●	●	●	●	●	.004-.059	.0039-.0157
WNMG 333-F3M	.257	.375	.187	.0472		●	●	●	●	●	.008-.098	.0059-.0197
WNMG 431-F3M	.343	.500	.187	.0157	●	●	●	●	●	●	.004-.059	.0020-.0118
WNMG 432-F3M	.343	.500	.187	.0315	●	●	●	●	●	●	.004-.059	.0039-.0157
WNMG 433-F3M	.343	.500	.187	.0472	●	●	●	●	●		.008-.098	.0059-.0197

• For user guide and cutting speed recommendations, see pages 128-138,288-294

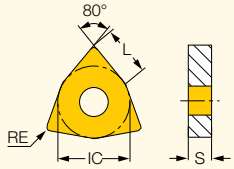
For tools, see pages: A-PWLNR/L-X/G (114) • A/S-MWLNR/L-W (117) • A/S-PWLNR/L (113) • MWLNR/L-W (53)

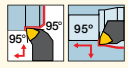
ISOTURN

WNMG-F3P

Double-Sided Trigon Inserts
for Semi-Finishing and
Finishing Applications







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	IC20N	IC520N	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
WNMG 060404-F3P	6.52	9.52	4.76	0.40	●	●	●	●	●	●	0.50-2.50	0.07-0.25
WNMG 060408-F3P	6.52	9.52	4.76	0.80	●	●	●	●	●	●	0.90-3.00	0.08-0.25
WNMG 060412-F3P	6.52	9.52	4.76	1.20	●	●	●			●	1.30-3.00	0.10-0.25
WNMG 080404-F3P	8.70	12.70	4.76	0.40	●	●	●			●	0.50-3.50	0.07-0.25
WNMG 080408-F3P	8.70	12.70	4.76	0.80	●	●	●			●	0.90-3.50	0.08-0.25
WNMG 080412-F3P	8.70	12.70	4.76	1.20	●	●	●			●	1.30-3.50	0.10-0.25

• For user guide and cutting speed recommendations, see pages 128-138,288-294

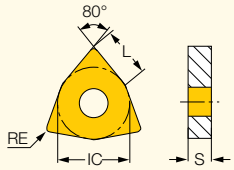
For tools, see pages: A-PWLNR/L-X/G (114) • A/S-MWLNR/L-W (117) • A/S-PWLNR/L (113) • MWLNR/L-W (53) • PWLNR/L (53)

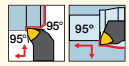
ISOTURN

WNMG-F3P

Double-Sided Trigon Inserts for Semi-Finishing and Finishing Applications







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	IC20N	IC520N	IC807	Recommended Machining Data a_p (inch)	f (IPR)
WNMG 331-F3P	.257	.375	.187	.0157	●	●	●	●	●	●	.020-.098	.0027-.0098
WNMG 332-F3P	.257	.375	.187	.0315	●	●	●	●	●	●	.035-.118	.0031-.0098
WNMG 333-F3P	.257	.375	.187	.0472	●	●	●			●	.051-.118	.0039-.0098
WNMG 431-F3P	.343	.500	.187	.0157	●	●	●			●	.020-.138	.0027-.0098
WNMG 432-F3P	.343	.500	.187	.0315	●	●	●			●	.035-.138	.0031-.0098
WNMG 433-F3P	.343	.500	.187	.0472	●	●	●			●	.051-.138	.0039-.0098

• For user guide and cutting speed recommendations, see pages 128-138,288-294

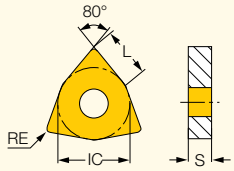
For tools, see pages: A-PWLNR/L-X/G (114) • A/S-MWLNR/L-W (117) • A/S-PWLNR/L (113) • MWLNR/L-W (53)

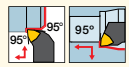
ISOTURN

WNMG-F3S

Double-Sided 80° Trigon Inserts for Titanium and Heat Resistant Materials Finishing Applications







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC806	IC1017	IC706	IC804	Recommended Machining Data a_p (mm)	f (mm/rev)
WNMG 060404-F3S	6.52	9.52	4.76	0.40	●	●	●	●	0.10-1.50	0.05-0.30
WNMG 060408-F3S	6.52	9.52	4.76	0.80	●	●	●	●	0.10-1.50	0.10-0.35
WNMG 080404-F3S	8.70	12.70	4.76	0.40	●		●	●	0.10-1.50	0.05-0.30
WNMG 080408-F3S	8.70	12.70	4.76	0.80	●		●	●	0.10-1.50	0.10-0.35

• For user guide and cutting speed recommendations, see pages 128-138,288-294

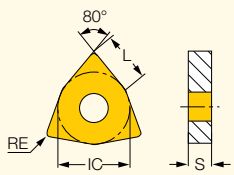
For tools, see pages: A-PWLNR/L-X/G (114) • A/S-MWLNR/L-W (117) • A/S-PWLNR/L (113) • MWLNR/L-W (53) • PWLNR/L (53)

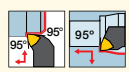
ISOTURN

WNMG-F3S

Double-Sided 80° Trigon Inserts for Titanium and Heat Resistant Materials Finishing Applications







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC806	IC1017	IC706	IC804	Recommended Machining Data a_p (inch)	f (IPR)
WNMG 331-F3S	.257	.375	.187	.0157	●	●	●	●	.004-.059	.0020-.0118
WNMG 332-F3S	.257	.375	.187	.0315	●	●	●	●	.004-.059	.0039-.0138
WNMG 431-F3S	.343	.500	.187	.0157	●		●	●	.004-.059	.0020-.0118
WNMG 432-F3S	.343	.500	.187	.0315	●		●	●	.004-.059	.0039-.0138

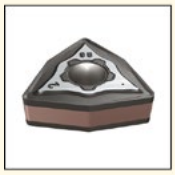
• For user guide and cutting speed recommendations, see pages 128-138,288-294

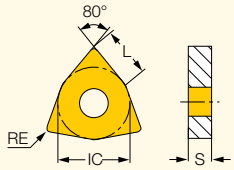
For tools, see pages: A-PWLNR/L-X/G (114) • A/S-MWLNR/L-W (117) • A/S-PWLNR/L (113) • MWLNR/L-W (53)

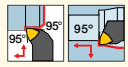
ISOTURN

WNMG-M3M

Double-Sided Trigon Inserts
for Machining Stainless
and Low Carbon Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC6015	IC806	IC1017	IC807	IC706	IC804	Recommended Machining Data a_p (mm)	f (mm/rev)
WNMG 060404-M3M	6.52	9.52	4.76	0.40	●	●	●	●	●	●	●		0.50-3.50	0.12-0.40
WNMG 060408-M3M	6.52	9.52	4.76	0.80	●	●	●	●		●	●		0.50-3.50	0.15-0.50
WNMG 060412-M3M	6.52	9.52	4.76	1.20	●	●	●	●		●	●		0.50-3.50	0.20-0.60
WNMG 080404-M3M	8.70	12.70	4.76	0.40	●					●			0.50-5.00	0.12-0.40
WNMG 080408-M3M	8.70	12.70	4.76	0.80	●	●	●	●		●	●	●	0.50-5.00	0.15-0.50
WNMG 080412-M3M	8.70	12.70	4.76	1.20	●	●	●	●		●	●		0.50-5.00	0.20-0.60
WNMG 080416-M3M	8.70	12.70	4.76	1.60						●			0.50-5.00	0.25-0.70

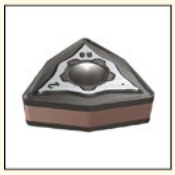
• For user guide and cutting speed recommendations, see pages 128-138,288-294

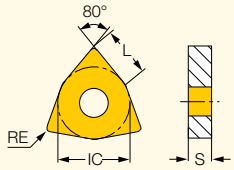
For tools, see pages: A-PWLNR/L-X/G (114) • A/S-MWLNR/L-W (117) • A/S-PWLNR/L (113) • MWLNR/L-W (53) • PWLNR/L (53)

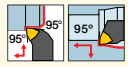
ISOTURN

WNMG-M3M

Double-Sided Trigon Inserts
for Machining Stainless
and Low Carbon Steel







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC6015	IC806	IC1017	IC807	IC706	IC804	Recommended Machining Data a_p (inch)	f (IPR)
WNMG 331-M3M	.257	.375	.187	.0157	●	●	●	●	●	●	●		.020-.138	.0047-.0157
WNMG 332-M3M	.257	.375	.187	.0315	●	●	●	●		●	●		.020-.138	.0059-.0197
WNMG 333-M3M	.257	.375	.187	.0472	●	●	●	●		●	●		.020-.138	.0079-.0236
WNMG 431-M3M	.343	.500	.187	.0157	●					●			.020-.197	.0047-.0157
WNMG 432-M3M	.343	.500	.187	.0315	●	●	●	●		●	●	●	.020-.197	.0059-.0197
WNMG 433-M3M	.343	.500	.187	.0472	●	●	●	●		●	●		.020-.197	.0079-.0236
WNMG 434-M3M	.343	.500	.187	.0630						●			.020-.197	.0098-.0276

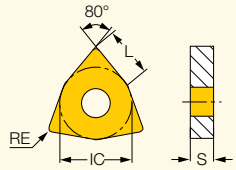
• For user guide and cutting speed recommendations, see pages 128-138,288-294

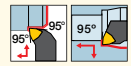
For tools, see pages: A-PWLNR/L-X/G (114) • A/S-MWLNR/L-W (117) • A/S-PWLNR/L (113) • MWLNR/L-W (53)

ISOTURN

WNMG-M3P
Double-Sided Trigon Inserts
for Medium Machining
Conditions on Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
WNMG 06T304-M3P	6.52	9.52	3.97	0.40	•	•			0.45-2.50	0.10-0.45
WNMG 06T308-M3P	6.52	9.52	3.97	0.80	•	•	•		0.50-3.00	0.15-0.50
WNMG 06T312-M3P	6.52	9.52	3.97	1.20	•	•			0.80-3.00	0.18-0.60
WNMG 060404-M3P	6.52	9.52	4.76	0.40	•	•	•	•	0.45-2.50	0.10-0.45
WNMG 060408-M3P	6.52	9.52	4.76	0.80	•	•	•	•	0.50-3.00	0.15-0.50
WNMG 060412-M3P	6.52	9.52	4.76	1.20	•		•	•	0.80-3.00	0.18-0.60
WNMG 080404-M3P	8.70	12.70	4.76	0.40	•	•	•	•	0.40-3.50	0.10-0.45
WNMG 080408-M3P	8.70	12.70	4.76	0.80	•	•	•	•	0.50-4.00	0.15-0.50
WNMG 080412-M3P	8.70	12.70	4.76	1.20	•	•	•	•	0.80-4.00	0.18-0.60
WNMG 080416-M3P	8.70	12.70	4.76	1.60	•	•		•	1.00-4.00	0.23-0.65

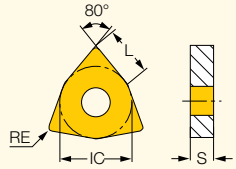
• For user guide and cutting speed recommendations, see pages 128-138,288-294

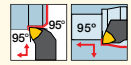
For tools, see pages: A-PWLNR/L-X/G (114) • A/S-MWLNR/L-W (117) • A/S-PWLNR/L (113) • E-PWLNR/L-HEAD (115) • MWLNR/L-W (53) • PWLNR/L (53)

ISOTURN

WNMG-M3P
Double-Sided Trigon Inserts
for Medium Machining
Conditions on Steel







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	IC807	Recommended Machining Data a_p (inch)	f (IPR)
WNMG 3-1-M3P	.257	.375	.156	.0157	•	•			.018-.098	.0039-.0177
WNMG 3-2-M3P	.257	.375	.156	.0315	•	•	•		.020-.118	.0059-.0197
WNMG 3-3-M3P	.257	.375	.156	.0472	•	•			.031-.118	.0071-.0236
WNMG 331-M3P	.257	.375	.187	.0157	•	•	•	•	.018-.098	.0039-.0177
WNMG 332-M3P	.257	.375	.187	.0315	•	•	•	•	.020-.118	.0059-.0197
WNMG 333-M3P	.257	.375	.187	.0472	•		•	•	.031-.118	.0071-.0236
WNMG 431-M3P	.343	.500	.187	.0157	•	•	•	•	.016-.138	.0039-.0177
WNMG 432-M3P	.343	.500	.187	.0315	•	•	•	•	.020-.157	.0059-.0197
WNMG 433-M3P	.343	.500	.187	.0472	•	•	•	•	.031-.157	.0071-.0236
WNMG 434-M3P	.343	.500	.187	.0630	•	•		•	.039-.157	.0091-.0256

• For user guide and cutting speed recommendations, see pages 128-138,288-294

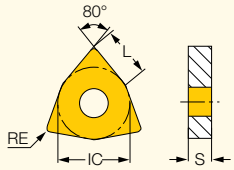
For tools, see pages: A-PWLNR/L-X/G (114) • A/S-MWLNR/L-W (117) • A/S-PWLNR/L (113) • E-PWLNR-HEAD (115) • E-PWLNR/L-HEAD (115) • MWLNR/L-W (53)

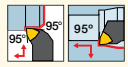
ISOTURN

WNMG-NF

Double-Sided Trigon Inserts
for Semi-Finishing and
Finishing Applications







M E T R I C

Designation	Dimensions L	IC	S	RE	IC8250	IC908	IC30N	IC530N	IC10	IC8150	IC20	IC20N	IC520N	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
WNMG 06T301-NF	6.52	9.52	3.97	0.10		●										0.20-1.00	0.05-0.15
WNMG 06T302-NF	6.52	9.52	3.97	0.20	●		●	●	●	●		●		●	●	0.30-1.50	0.08-0.17
WNMG 06T304-NF	6.52	9.52	3.97	0.40	●		●	●	●	●	●	●	●	●	●	0.40-2.50	0.07-0.25
WNMG 06T308-NF	6.52	9.52	3.97	0.80	●				●	●	●	●				0.60-3.00	0.08-0.25
WNMG 060402-NF	6.52	9.52	4.76	0.20										●	●	0.30-3.00	0.05-0.20
WNMG 060404-NF	6.52	9.52	4.76	0.40	●									●	●	0.60-3.00	0.08-0.25
WNMG 060408-NF	6.52	9.52	4.76	0.80						●						0.80-3.00	0.08-0.25
WNMG 080404-NF	8.70	12.70	4.76	0.40	●			●				●				0.40-3.50	0.07-0.25
WNMG 080408-NF	8.70	12.70	4.76	0.80	●			●		●						0.80-3.50	0.08-0.25
WNMG 080412-NF	8.70	12.70	4.76	1.20						●						1.20-3.50	0.08-0.25

• For user guide and cutting speed recommendations, see pages 128-138,288-294

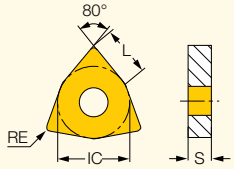
For tools, see pages: A-PWLNR/L-X/G (114) • A/S-MWLNR/L-W (117) • A/S-PWLNR/L (113) • E-PWLNR/L-HEAD (115) • MWLNR/L-W (53) • PWLNR/L (53)

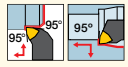
ISOTURN

WNMG-NF

Double-Sided Trigon Inserts
for Semi-Finishing and
Finishing Applications







I N C H

Designation	Dimensions L	IC	S	RE	IC8250	IC908	IC30N	IC530N	IC10	IC8150	IC20	IC20N	IC520N	IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
WNMG 3-.004-NF	.257	.375	.156	.0039		●										.008-.039	.0020-.0059
WNMG 3-0-NF	.257	.375	.156	.0079	●		●	●	●	●		●		●	●	.012-.059	.0031-.0067
WNMG 3-1-NF	.257	.375	.156	.0157	●		●	●	●	●	●	●	●	●	●	.016-.098	.0027-.0098
WNMG 3-2-NF	.257	.375	.156	.0315	●				●	●	●	●				.024-.118	.0031-.0098
WNMG 330-NF	.257	.375	.187	.0079										●	●	.012-.118	.0020-.0079
WNMG 331-NF	.257	.375	.187	.0157	●									●	●	.024-.118	.0031-.0098
WNMG 332-NF	.257	.375	.187	.0315						●						.031-.118	.0031-.0098
WNMG 431-NF	.343	.500	.187	.0157	●			●				●				.016-.138	.0027-.0098
WNMG 432-NF	.343	.500	.187	.0315	●			●		●						.031-.138	.0031-.0098
WNMG 433-NF	.343	.500	.187	.0472						●						.047-.138	.0031-.0098

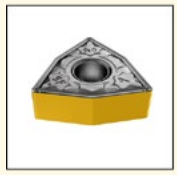
• For user guide and cutting speed recommendations, see pages 128-138,288-294

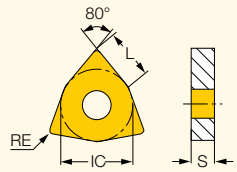
For tools, see pages: A-PWLNR/L-X/G (114) • A/S-MWLNR/L-W (117) • A/S-PWLNR/L (113) • E-PWLNR-HEAD (115) • E-PWLNR/L-HEAD (115) • MWLNR/L-W (53) • A-PWLNR/L-X/G (114)

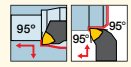
ISOTURN

WNMG-SF

Double-Sided Trigon Inserts
for Super Finishing







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC530N	IC520N	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
WNMG 06T302-SF	6.52	9.52	3.97	0.20	•				0.30-1.50	0.02-0.15
WNMG 06T304-SF	6.52	9.52	3.97	0.40	•	•	•	•	0.30-1.50	0.05-0.15

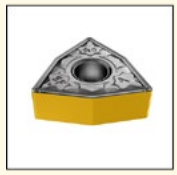
• For user guide and cutting speed recommendations, see pages 128-138,288-294

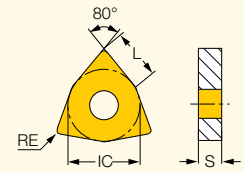
For tools, see pages: A/S-MWLNR/L-W (117) • A/S-PWLNR/L (113) • E-PWLNR/L-HEAD (115) • MWLNR/L-W (53) • PWLNR/L (53)

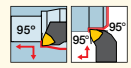
ISOTURN

WNMG-SF

Double-Sided Trigon Inserts
for Super Finishing







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC530N	IC520N	IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
WNMG 3-0-SF	.257	.375	.156	.0079	•				.012-.059	.0008-.0059
WNMG 3-1-SF	.257	.375	.156	.0157	•	•	•	•	.012-.059	.0020-.0059

• For user guide and cutting speed recommendations, see pages 128-138,288-294

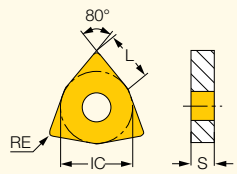
For tools, see pages: A/S-MWLNR/L-W (117) • A/S-PWLNR/L (113) • E-PWLNR-HEAD (115) • E-PWLNR/L-HEAD (115) • MWLNR/L-W (53)

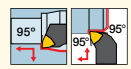
ISOTURN

WNMG-TF

Double-Sided Trigon Inserts
for Machining a Wide Range
of Materials under Medium
Cutting Conditions







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC8250	IC808	IC908	IC6015	IC8150	IC520M	IC20	IC20N	IC806	IC1017	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
WNMG 06T304-TF	6.52	9.52	3.97	0.40	•		•						•				•	•	1.00-3.00	0.12-0.35
WNMG 06T308-TF	6.52	9.52	3.97	0.80	•		•				•		•	•	•	•	•	•	1.00-3.00	0.12-0.35
WNMG 06T312-TF	6.52	9.52	3.97	1.20													•	•	1.00-4.00	0.15-0.40
WNMG 060404-TF	6.52	9.52	4.76	0.40			•										•	•	1.00-3.00	0.12-0.35
WNMG 060408-TF	6.52	9.52	4.76	0.80	•		•	•			•						•	•	1.00-3.00	0.12-0.35
WNMG 060412-TF	6.52	9.52	4.76	1.20													•	•	1.00-4.00	0.15-0.35
WNMG 080404-TF	8.70	12.70	4.76	0.40	•	•	•			•	•		•		•	•	•	•	1.00-4.00	0.12-0.35
WNMG 080408-TF	8.70	12.70	4.76	0.80	•	•	•		•	•	•	•	•		•		•	•	1.00-4.00	0.12-0.35
WNMG 080412-TF	8.70	12.70	4.76	1.20	•	•	•		•	•	•		•				•	•	1.50-4.50	0.15-0.40

• For user guide and cutting speed recommendations, see pages 128-138,288-294

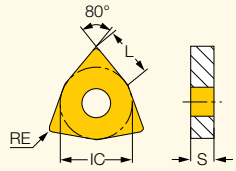
For tools, see pages: A-PWLNR/L-X/G (114) • A/S-MWLNR/L-W (117) • A/S-PWLNR/L (113) • E-PWLNR/L-HEAD (115) • MWLNR/L-W (53) • PWLNR/L (53)

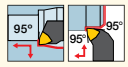
ISOTURN

WNMG-TF

Double-Sided Trigon Inserts for Machining a Wide Range of Materials under Medium Cutting Conditions







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC8250	IC808	IC908	IC6015	IC8150	IC520M	IC20	IC20N	IC806	IC1017	IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
WNMG 3-1-TF	.257	.375	.156	.0157	•		•						•				•	•	.039-.118	.0047-.0138
WNMG 3-2-TF	.257	.375	.156	.0315	•		•				•		•	•	•	•	•	•	.039-.118	.0047-.0138
WNMG 3-3-TF	.257	.375	.156	.0472													•	•	.039-.157	.0059-.0157
WNMG 331-TF	.257	.375	.187	.0157			•										•	•	.039-.118	.0047-.0138
WNMG 332-TF	.257	.375	.187	.0315	•		•	•			•						•	•	.039-.118	.0047-.0138
WNMG 333-TF	.257	.375	.187	.0472													•	•	.039-.157	.0059-.0138
WNMG 431-TF	.343	.500	.187	.0157	•	•	•			•	•		•		•	•	•	•	.039-.157	.0047-.0138
WNMG 432-TF	.343	.500	.187	.0315	•	•	•		•	•	•	•	•		•		•	•	.039-.157	.0047-.0138
WNMG 433-TF	.343	.500	.187	.0472	•	•	•		•	•	•		•				•	•	.059-.177	.0059-.0157

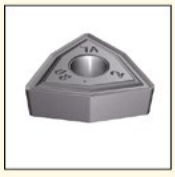
• For user guide and cutting speed recommendations, see pages 128-138,288-294

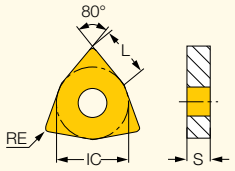
For tools, see pages: A-PWLNR/L-X/G (114) • A/S-MWLNR/L-W (117) • A/S-PWLNR/L (113) • E-PWLNR-HEAD (115) • E-PWLNR/L-HEAD (115) • MWLNR/L-W (53)

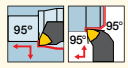
ISOTURN

WNMG-VL

Double-Sided Trigon Inserts with a Chipformer for High Temperature Alloys and Stainless Steel Valves







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC908	IC806	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
WNMG 06T308-VL	6.52	9.52	3.97	0.80	•			0.50-3.00	0.07-0.25
WNMG 080404-VL	8.70	12.70	4.76	0.40		•	•	0.30-3.00	0.05-0.15
WNMG 080408-VL	8.70	12.70	4.76	0.80	•	•		0.50-4.00	0.10-0.25
WNMG 080412-VL	8.70	12.70	4.76	1.20	•			1.00-4.50	0.12-0.25

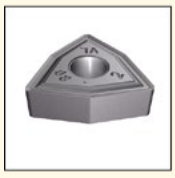
• For user guide and cutting speed recommendations, see pages 128-138,288-294

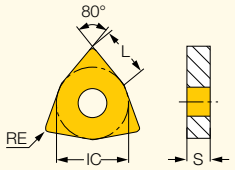
For tools, see pages: A/S-MWLNR/L-W (117) • A/S-PWLNR/L (113) • E-PWLNR/L-HEAD (115) • MWLNR/L-W (53) • PWLNR/L (53)

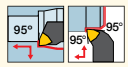
ISOTURN

WNMG-VL

Double-Sided Trigon Inserts with a Chipformer for High Temperature Alloys and Stainless Steel Valves







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC908	IC806	IC907	Recommended Machining Data a_p (inch)	f (IPR)
WNMG 3-2-VL	.257	.375	.156	.0315	•			.020-.118	.0027-.0098
WNMG 431-VL	.343	.500	.187	.0157		•	•	.012-.118	.0020-.0059
WNMG 432-VL	.343	.500	.187	.0315	•	•		.020-.157	.0039-.0098
WNMG 433-VL	.343	.500	.187	.0472	•			.039-.177	.0047-.0098

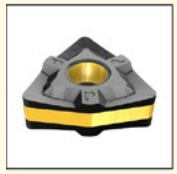
• For user guide and cutting speed recommendations, see pages 128-138,288-294

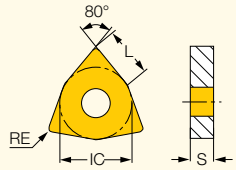
For tools, see pages: A/S-MWLNR/L-W (117) • A/S-PWLNR/L (113) • E-PWLNR-HEAD (115) • E-PWLNR/L-HEAD (115) • MWLNR/L-W (53)

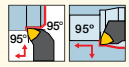
ISOTURN

WNMG-PP

Double-Sided Trigon Inserts for Machining Very Ductile Materials under Medium Cutting Conditions







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC28	IC830	IC6025	IC8250	IC30N	IC530N	IC10	IC6015	IC8150	IC520M	IC20	IC20N	IC806	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
WNMG 06T304-PP	6.52	9.52	3.97	0.40				●		●	●		●					●	●	1.00-3.00	0.14-0.30
WNMG 06T308-PP	6.52	9.52	3.97	0.80		●		●					●					●	●	1.00-3.00	0.14-0.30
WNMG 060404-PP	6.52	9.52	4.76	0.40				●										●	●	1.00-3.00	0.14-0.30
WNMG 060408-PP	6.52	9.52	4.76	0.80														●	●	1.00-3.00	0.14-0.30
WNMG 080404-PP	8.70	12.70	4.76	0.40		●	●	●			●	●	●					●	●	1.00-3.50	0.14-0.30
WNMG 080408-PP	8.70	12.70	4.76	0.80	●	●	●	●			●	●	●	●		●	●	●	●	1.00-4.00	0.14-0.30
WNMG 080412-PP	8.70	12.70	4.76	1.20				●	●						●					1.50-5.00	0.18-0.40

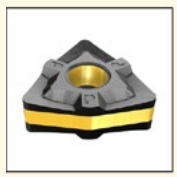
- For user guide and cutting speed recommendations, see pages 128-138,288-294

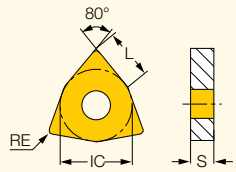
For tools, see pages: A-PWLNR/L-X/G (114) • A/S-MWLNR/L-W (117) • A/S-PWLNR/L (113) • E-PWLNR/L-HEAD (115) • MWLNR/L-W (53) • PWLNR/L (53)

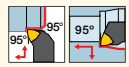
ISOTURN

WNMG-PP

Double-Sided Trigon Inserts for Machining Very Ductile Materials under Medium Cutting Conditions







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC28	IC830	IC6025	IC8250	IC30N	IC530N	IC10	IC6015	IC8150	IC520M	IC20	IC20N	IC806	IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
WNMG 3-1-PP	.257	.375	.156	.0157				●		●	●		●					●	●	.039-.118	.0055-.0118
WNMG 3-2-PP	.257	.375	.156	.0315		●		●					●					●	●	.039-.118	.0055-.0118
WNMG 331-PP	.257	.375	.187	.0157				●										●	●	.039-.118	.0055-.0118
WNMG 332-PP	.257	.375	.187	.0315														●	●	.039-.118	.0055-.0118
WNMG 431-PP	.343	.500	.187	.0157		●	●	●			●	●	●					●	●	.039-.138	.0055-.0118
WNMG 432-PP	.343	.500	.187	.0315	●	●	●	●			●	●	●	●		●	●	●	●	.039-.157	.0055-.0118
WNMG 433-PP	.343	.500	.187	.0472				●	●						●					.059-.197	.0071-.0157

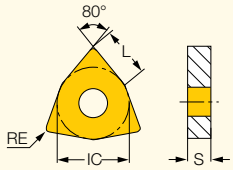
- For user guide and cutting speed recommendations, see pages 128-138,288-294

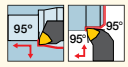
For tools, see pages: A-PWLNR/L-X/G (114) • A/S-MWLNR/L-W (117) • A/S-PWLNR/L (113) • E-PWLNR-HEAD (115) • E-PWLNR/L-HEAD (115) • MWLNR/L-W (53)

ISOTURN

WNMG-WF
Double-Sided Trigon
Wiper Inserts for Finishing
Operations at High Feeds







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC530N	IC8150	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
WNMG 060402-WF	6.52	9.52	4.76	0.20				●	0.20-3.00	0.05-0.25
WNMG 060404-WF	6.52	9.52	4.76	0.40			●	●	0.50-3.00	0.05-0.30
WNMG 060408-WF	6.52	9.52	4.76	0.80				●	0.80-3.50	0.07-0.30
WNMG 080408-WF	8.70	12.70	4.76	0.80	●	●			0.80-3.50	0.07-0.35
WNMG 080412-WF	8.70	12.70	4.76	1.20		●			0.80-3.50	0.07-0.35

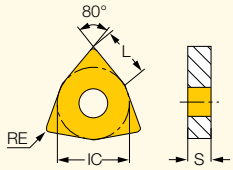
• For user guide and cutting speed recommendations, see pages 128-138,288-294

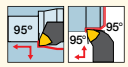
For tools, see pages: A-PWLNR/L-X/G (114) • A/S-MWLNR/L-W (117) • A/S-PWLNR/L (113) • MWLNR/L-W (53) • PWLNR/L (53)

ISOTURN

WNMG-WF
Double-Sided Trigon
Wiper Inserts for Finishing
Operations at High Feeds







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC530N	IC8150	IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
WNMG 330-WF	.257	.375	.187	.0079				●	.008-.118	.0020-.0098
WNMG 331-WF	.257	.375	.187	.0157			●	●	.020-.118	.0020-.0118
WNMG 332-WF	.257	.375	.187	.0315				●	.031-.138	.0027-.0118
WNMG 432-WF	.343	.500	.187	.0315	●	●			.031-.138	.0027-.0138
WNMG 433-WF	.343	.500	.187	.0472		●			.031-.138	.0028-.0138

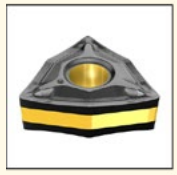
• For user guide and cutting speed recommendations, see pages 128-138,288-294

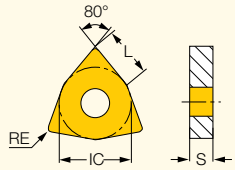
For tools, see pages: A-PWLNR/L-X/G (114) • A/S-MWLNR/L-W (117) • A/S-PWLNR/L (113) • MWLNR/L-W (53)

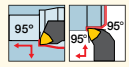
ISOTURN

WNMG-WG

Double-Sided Trigon Wiper Inserts for High Surface Finish at High Feed Turning







M E T R I C

Designation	Dimensions IC	L	S	RE	Tough ↔ Hard IC8250	IC530N	IC8150	IC20N	IC520N	IC428	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
WNMG 06T304-WG	9.52	6.52	3.97	0.40	●	●	●	●	●				0.40-3.00	0.10-0.35
WNMG 06T308-WG	9.52	6.52	3.97	0.80	●		●		●		●	●	0.60-3.50	0.10-0.50
WNMG 060404-WG	9.52	6.52	4.76	0.40	●	●	●				●		0.40-3.00	0.10-0.35
WNMG 060408-WG	9.52	6.52	4.76	0.80	●		●				●		0.60-3.50	0.10-0.50
WNMG 080408-WG	12.70	8.70	4.76	0.80	●	●	●		●	●	●	●	1.00-3.50	0.10-0.50
WNMG 080412-WG	12.70	8.70	4.76	1.20	●		●			●			1.20-4.00	0.30-0.80

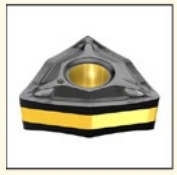
• For user guide and cutting speed recommendations, see pages 128-138,288-294

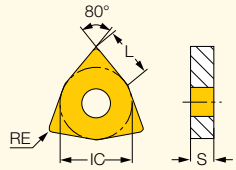
For tools, see pages: A-PWLNR/L-X/G (114) • A/S-MWLNR/L-W (117) • A/S-PWLNR/L (113) • E-PWLNR/L-HEAD (115) • MWLNR/L-W (53) • PWLNR/L (53)

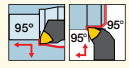
ISOTURN

WNMG-WG

Double-Sided Trigon Wiper Inserts for High Surface Finish at High Feed Turning







I N C H

Designation	Dimensions IC	L	S	RE	Tough ↔ Hard IC8250	IC530N	IC8150	IC20N	IC520N	IC428	IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
WNMG 3-1-WG	.375	.257	.156	.0157	●	●	●	●	●				.016-.118	.0039-.0138
WNMG 3-2-WG	.375	.257	.156	.0315	●		●		●		●	●	.024-.138	.0039-.0197
WNMG 331-WG	.375	.257	.187	.0157	●	●	●				●		.016-.118	.0039-.0138
WNMG 332-WG	.375	.257	.187	.0315	●		●				●		.024-.138	.0039-.0197
WNMG 432-WG	.500	.343	.187	.0315	●	●	●		●	●	●	●	.039-.138	.0039-.0197
WNMG 433-WG	.500	.343	.187	.0472	●		●			●			.047-.157	.0118-.0315

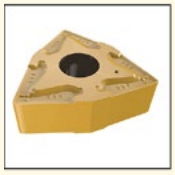
• For user guide and cutting speed recommendations, see pages 128-138,288-294

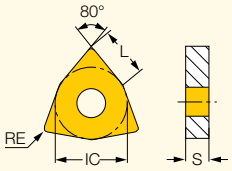
For tools, see pages: A-PWLNR/L-X/G (114) • A/S-MWLNR/L-W (117) • A/S-PWLNR/L (113) • E-PWLNR-HEAD (115) • E-PWLNR/L-HEAD (115) • MWLNR/L-W (53)

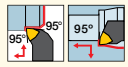
ISOTURN

WNMG-CERMET

Double-Sided Trigon Cermet Grade Inserts for Semi-Finishing and Finishing Applications







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC20N	IC520N	Recommended Machining Data a_p (mm)	f (mm/rev)
WNMG 06T304-FFC	6.52	9.52	3.97	0.40	•	•	1.00-2.50	0.05-0.25
WNMG 06T304-FFG	6.52	9.52	3.97	0.40		•	1.00-2.50	0.05-0.25
WNMG 06T304-FWA (1)	6.52	9.52	3.97	0.40		•	0.50-3.00	0.12-0.50
WNMX 060404-FWA (1)	6.52	9.52	4.76	0.40		•	0.50-3.00	0.12-0.50
WNMG 080404-FFC	8.70	12.70	4.76	0.40		•	1.50-2.50	0.05-0.25
WNMG 080408-FFC	8.70	12.70	4.76	0.80		•	1.00-2.50	0.05-0.25

• For user guide and cutting speed recommendations, see pages 128-138,288-294

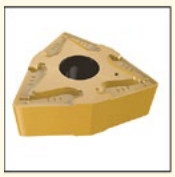
(1) Insert with wiper geometry

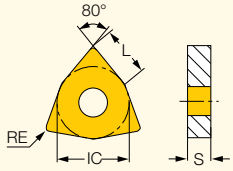
For tools, see pages: A/S-MWLNR/L-W (117) • A/S-PWLNR/L (113) • E-PWLNR/L-HEAD (115) • MWLNR/L-W (53) • PWLNR/L (53)

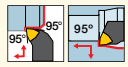
ISOTURN

WNMG-CERMET

Double-Sided Trigon Cermet Grade Inserts for Semi-Finishing and Finishing Applications







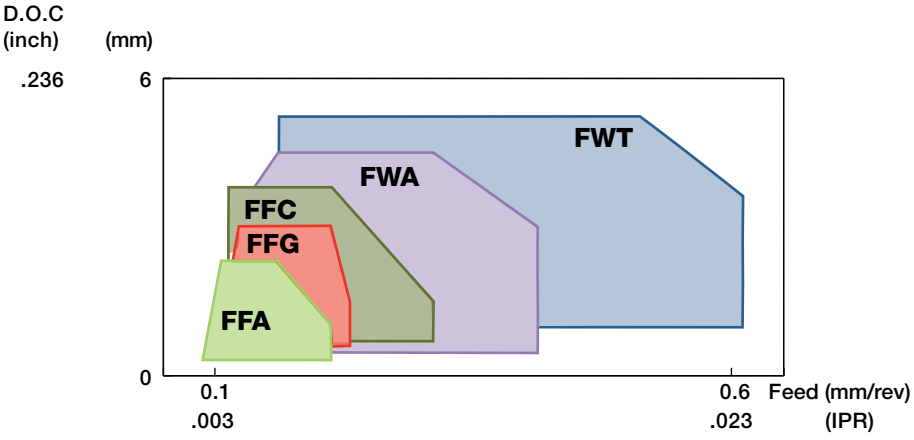
I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC20N	IC520N	Recommended Machining Data a_p (inch)	f (IPR)
WNMG 3-1-FFC	.257	.375	.156	.0157	•	•	.039-.098	.0020-.0098
WNMG 3-1-FFG	.257	.375	.156	.0157		•	.039-.098	.0020-.0098
WNMG 3-1-FWA (1)	.257	.375	.156	.0157		•	.020-.118	.0047-.0197
WNMX 331-FWA (1)	.257	.375	.187	.0157		•	.020-.118	.0047-.0197
WNMG 431-FFC	.343	.500	.187	.0157		•	.059-.098	.0020-.0098
WNMG 432-FFC	.343	.500	.187	.0315		•	.039-.098	.0020-.0098

• For user guide and cutting speed recommendations, see pages 128-138,288-294

(1) Insert with wiper geometry

For tools, see pages: A/S-MWLNR/L-W (117) • A/S-PWLNR/L (113) • E-PWLNR-HEAD (115) • E-PWLNR/L-HEAD (115) • MWLNR/L-W (53)

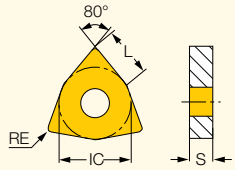


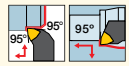
MINIPTURN POSITIVE DOUBLE SIDED

WNGP-F2P

Double-Sided Trigon Inserts
for Super Finish Machining
Conditions on Alloyed Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	IC530N	Recommended Machining Data a_p (mm)	f (mm/rev)
WNGP 040302R/L-F2P	4.35	6.35	3.18	0.20	●	0.30-2.00	0.08-0.30
WNGP 040304R/L-F2P	4.35	6.35	3.18	0.40	●	0.30-2.00	0.08-0.30
WNGP 040308R/L-F2P	4.35	6.35	3.18	0.80	●	0.30-2.00	0.08-0.30

• For user guide and cutting speed recommendations, see pages 128-138,288-294

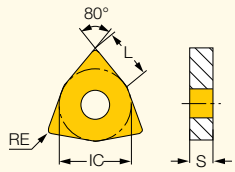
For tools, see pages: A/E-SWLNR/L-04 (77) • NQCH-SWLNR/L-S-JHP (51) • PWLNR/L-S (52)

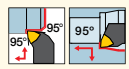
MINIPTURN POSITIVE DOUBLE SIDED

WNGP-F2P

Double-Sided Trigon Inserts
for Super Finish Machining
Conditions on Alloyed Steel







I N C H

Designation	Dimensions L	IC	S	RE	IC530N	Recommended Machining Data a_p (inch)	f (IPR)
WNGP 220.5R/L-F2P	.171	.250	.125	.0079	●	.012-.079	.0031-.0118
WNGP 221R/L-F2P	.171	.250	.125	.0157	●	.012-.079	.0031-.0118
WNGP 222R/L-F2P	.171	.250	.125	.0315	●	.012-.079	.0031-.0118

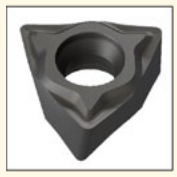
• For user guide and cutting speed recommendations, see pages 128-138,288-294

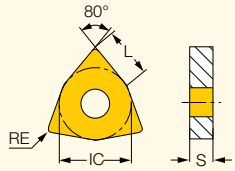
For tools, see pages: A/E-SWLNR/L-04 (77) • NQCH-SWLNR/L-S-JHP (51) • PWLNR/L-S (52)

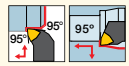
MINIPTURN POSITIVE DOUBLE SIDED

WNGP-F2M

Double-Sided Trigon Inserts
for Super Finish Machining
Conditions on Stainless Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	IC908	Recommended Machining Data a_p (mm)	f (mm/rev)
WNGP 040302R/L-F2M	4.35	6.35	3.18	0.20	●	0.30-2.00	0.08-0.30
WNGP 040304R/L-F2M	4.35	6.35	3.18	0.40	●	0.30-2.00	0.08-0.30
WNGP 040308R/L-F2M	4.35	6.35	3.18	0.80	●	0.30-2.00	0.08-0.30

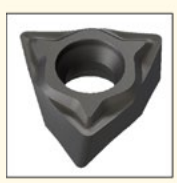
• For user guide and cutting speed recommendations, see pages 128-138,288-294

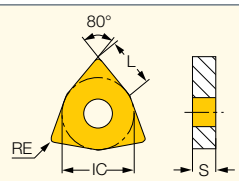
For tools, see pages: A/E-SWLNR/L-04 (77) • NQCH-SWLNR/L-S-JHP (51) • PWLNR/L-S (52)

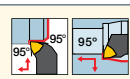
MINIPTURN POSITIVE DOUBLE SIDED

WNGP-F2M

Double-Sided Trigon Inserts
for Super Finish Machining
Conditions on Stainless Steel







I N C H

Designation	Dimensions L	IC	S	RE	IC908	Recommended Machining Data a_p (inch)	f (IPR)
WNGP 220.5R/L-F2M	.171	.250	.125	.0079	●	.012-.079	.0031-.0118
WNGP 221R/L-F2M	.171	.250	.125	.0157	●	.012-.079	.0031-.0118
WNGP 222R/L-F2M	.171	.250	.125	.0315	●	.012-.079	.0031-.0118

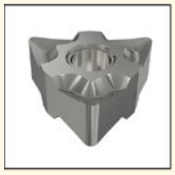
• For user guide and cutting speed recommendations, see pages 128-138,288-294

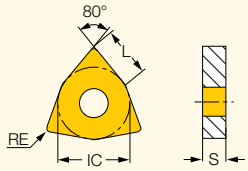
For tools, see pages: A/E-SWLNR/L-04 (77) • NQCH-SWLNR/L-S-JHP (51) • PWLNR/L-S (52)

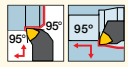
ALUPTURN POSITIVE DOUBLE SIDED

WNGG-F3N

Double-Sided Sharp Edged Positive and Polished Rake Inserts for Finishing Aluminum and Other Non-Ferrous Materials







M E T R I C

Designation	Dimensions L	IC	S	RE	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
WNGG 060402-F3N-P	6.52	9.52	4.76	0.20	●	0.20-3.00	0.10-0.30
WNGG 060404-F3N-P	6.52	9.52	4.76	0.40	●	0.40-3.00	0.12-0.35
WNGG 060408-F3N-P	6.52	9.52	4.76	0.80	●	0.80-3.00	0.15-0.40

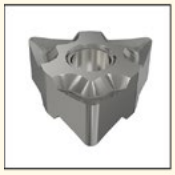
• For user guide and cutting speed recommendations, see pages 128-138,288-294

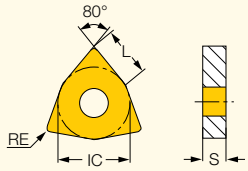
For tools, see pages: A-PWLNR/L-X/G (114) • A/S-MWLNR/L-W (117) • MWLNR/L-W (53)

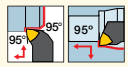
ALUPTURN POSITIVE DOUBLE SIDED

WNGG-F3N

Double-Sided Sharp Edged Positive and Polished Rake Inserts for Finishing Aluminum and Other Non-Ferrous Materials







I N C H

Designation	Dimensions L	IC	S	RE	IC20	Recommended Machining Data a_p (inch)	f (IPR)
WNGG 330-F3N-P	.257	.375	.187	.0079	●	.008-.118	.0039-.0118
WNGG 331-F3N-P	.257	.375	.187	.0157	●	.016-.118	.0047-.0138
WNGG 332-F3N-P	.257	.375	.187	.0315	●	.031-.118	.0059-.0157

• For user guide and cutting speed recommendations, see pages 128-138,288-294

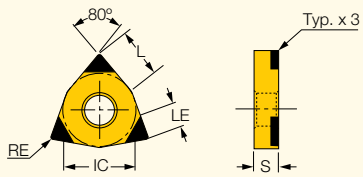
For tools, see pages: A-PWLNR/L-X/G (114) • A/S-MWLNR/L-W (117) • MWLNR/L-W (53)

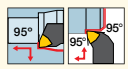
ISOTURN

WNGA-M3 (CBN)

Multi-Cornered CBN Inserts for Machining Hardened Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	LE	IB20H	Recommended Machining Data a_p (mm)	f (mm/rev)
WNGA 080408-M3	8.70	12.70	4.76	0.80	2.2	●	0.05-0.50	0.05-0.20

• For user guide and cutting speed recommendations, see pages 128-138,288-294

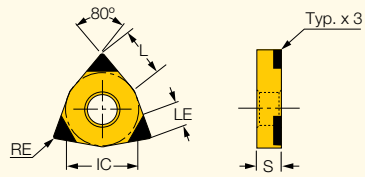
For tools, see pages: A/S-MWLNR/L-W (117) • A/S-PWLNR/L (113) • MWLNR/L-W (53) • PWLNR/L (53)

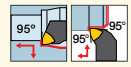
ISOTURN

WNGA-M3 (CBN)

Multi-Cornered CBN Inserts for Machining Hardened Steel







I N C H

Designation	Dimensions L	IC	S	RE	LE	IB20H	Recommended Machining Data a_p (inch)	f (IPR)
WNGA 432-M3	.343	.500	.187	.0315	.09	•	.002-.020	.0020-.0079

• For user guide and cutting speed recommendations, see pages 128-138,288-294

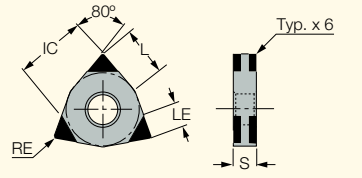
For tools, see pages: A/S-MWLNR/L-W (117) • A/S-PWLNR/L (113) • MWLNR/L-W (53)

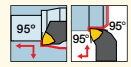
ISOTURN

WNGA-MC/M6 (CBN)

Multi-Cornered CBN Inserts for Machining Hardened Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	LE	Tough ↔ Hard IB10HC	IB55	Recommended Machining Data a_p (mm)	f (mm/rev)
WNGA 080404T-MC	8.70	12.70	4.76	0.40	3.1		•	0.05-0.50	0.05-0.20
WNGA 080408-M6	8.70	12.70	4.76	0.80	2.2	•		0.05-0.50	0.05-0.20
WNGA 080408T-MC	8.70	12.70	4.76	0.80	3.1		•	0.05-0.50	0.05-0.20
WNGA 080412T-MC	8.70	12.70	4.76	1.20	3.1		•	0.05-0.50	0.05-0.20

• For user guide and cutting speed recommendations, see pages 128-138,288-294

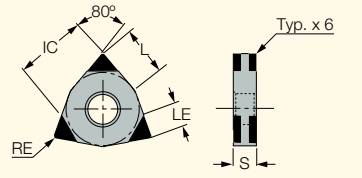
For tools, see pages: A/S-MWLNR/L-W (117) • A/S-PWLNR/L (113) • MWLNR/L-W (53) • PWLNR/L (53)

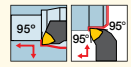
ISOTURN

WNGA-MC/M6 (CBN)

Multi-Cornered CBN Inserts for Machining Hardened Steel







I N C H

Designation	Dimensions L	IC	S	RE	LE	Tough ↔ Hard IB10HC	IB55	Recommended Machining Data a_p (inch)	f (IPR)
WNGA 431T-MC	.343	.500	.187	.0157	.12		•	.002-.020	.0020-.0079
WNGA 432-M6	.343	.500	.187	.0315	.09	•		.002-.020	.0020-.0079
WNGA 432T-MC	.343	.500	.187	.0315	.12		•	.002-.020	.0020-.0079
WNGA 433T-MC	.343	.500	.187	.0472	.12		•	.002-.020	.0020-.0079

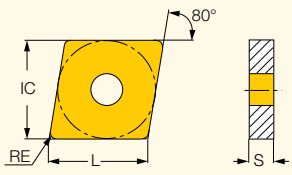
• For user guide and cutting speed recommendations, see pages 128-138,288-294

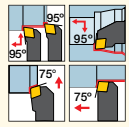
For tools, see pages: A/S-MWLNR/L-W (117) • A/S-PWLNR/L (113) • MWLNR/L-W (53)

ISOTURN

CNMG-F3P
Double-Sided 80° Rhombic
Inserts for Semi-Finishing
and Finishing Applications







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC8250	IC8150	IC20N	IC520N	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
CNMG 090404-F3P	9.67	9.52	4.76	0.40	•		•	•	•	•	•	0.50-3.50	0.07-0.25
CNMG 090408-F3P	9.67	9.52	4.76	0.80	•		•	•	•	•	•	0.90-3.50	0.08-0.25
CNMG 120404-F3P	12.90	12.70	4.76	0.40	•	•	•	•			•	0.50-3.50	0.07-0.25
CNMG 120408-F3P	12.90	12.70	4.76	0.80	•		•	•		•	•	0.90-3.50	0.08-0.25
CNMG 120412-F3P	12.90	12.70	4.76	1.20	•		•	•			•	1.30-3.50	0.10-0.25

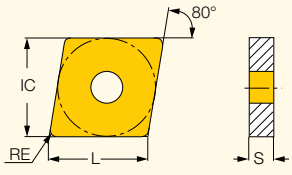
• For user guide and cutting speed recommendations, see pages 128-138,288-294

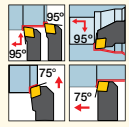
For tools, see pages: A/S-PCLNR/L (116) • A/S-PCLNR/L-X/G (118) • AVC-PCLNR/L (120)

ISOTURN

CNMG-F3P
Double-Sided 80° Rhombic
Inserts for Semi-Finishing
and Finishing Applications







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC8250	IC8150	IC20N	IC520N	IC807	Recommended Machining Data a_p (inch)	f (IPR)
CNMG 331-F3P	.381	.375	.187	.0157	•		•	•	•	•	•	.020-.138	.0027-.0098
CNMG 332-F3P	.381	.375	.187	.0315	•		•	•	•	•	•	.035-.138	.0031-.0098
CNMG 431-F3P	.508	.500	.187	.0157	•	•	•	•			•	.020-.138	.0027-.0098
CNMG 432-F3P	.508	.500	.187	.0315	•		•	•		•	•	.035-.138	.0031-.0098
CNMG 433-F3P	.508	.500	.187	.0472	•		•	•			•	.051-.138	.0039-.0098

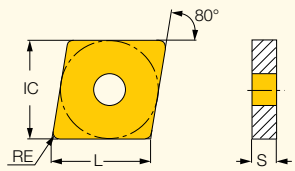
• For user guide and cutting speed recommendations, see pages 128-138,288-294

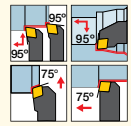
For tools, see pages: A/S-PCLNR/L (116) • A/S-PCLNR/L-X/G (118) • AVC-PCLNR/L (120) • A-PCLNR/L-X/G (119)

ISOTURN

CNMG-M3P
Double-Sided 80° Rhombic Inserts for Medium Machining Conditions on Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
CNMG 090404-M3P	9.67	9.52	4.76	0.40	•	•	•	•	0.40-4.00	0.10-0.30
CNMG 090408-M3P	9.67	9.52	4.76	0.80	•	•	•	•	0.50-4.50	0.15-0.50
CNMG 120404-M3P	12.90	12.70	4.76	0.40	•	•	•	•	0.40-5.50	0.10-0.30
CNMG 120408-M3P	12.90	12.70	4.76	0.80	•	•	•	•	0.50-5.50	0.15-0.50
CNMG 120412-M3P	12.90	12.70	4.76	1.20	•	•	•	•	0.80-5.50	0.18-0.60

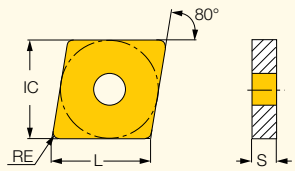
• For user guide and cutting speed recommendations, see pages 128-138,288-294

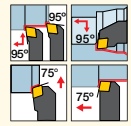
For tools, see pages: A/S-PCLNR/L (116) • A/S-PCLNR/L-X/G (118) • AVC-PCLNR/L (120)

ISOTURN

CNMG-M3P
Double-Sided 80° Rhombic Inserts for Medium Machining Conditions on Steel







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	IC807	Recommended Machining Data a_p (inch)	f (IPR)
CNMG 331-M3P	.381	.375	.187	.0157	•	•	•	•	.016-.157	.0039-.0118
CNMG 332-M3P	.381	.375	.187	.0315	•	•	•	•	.020-.177	.0059-.0197
CNMG 431-M3P	.508	.500	.187	.0157	•	•	•	•	.016-.217	.0039-.0118
CNMG 432-M3P	.508	.500	.187	.0315	•	•	•	•	.020-.217	.0059-.0197
CNMG 433-M3P	.508	.500	.187	.0472	•	•	•	•	.031-.217	.0071-.0236

• For user guide and cutting speed recommendations, see pages 128-138,288-294

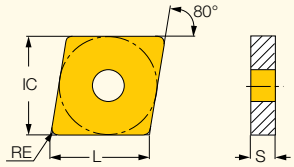
For tools, see pages: A/S-PCLNR/L (116) • A/S-PCLNR/L-X/G (118) • AVC-PCLNR/L (120) • A-PCLNR/L-X/G (119)

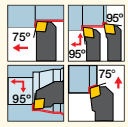
ISOTURN

CNMG-F3M

Double-sided 80° Rhombic
Inserts for Stainless Steel
Finishing Applications







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC6015	IC806	IC1017	IC807	IC706	IC4	IC804	Recommended Machining Data a_p (mm)	f (mm/rev)
CNMG 090404-F3M	9.67	9.52	4.76	0.40	•	•	•	•		•	•			0.10-1.50	0.05-0.30
CNMG 090408-F3M	9.67	9.52	4.76	0.80	•	•	•	•		•	•			0.10-1.50	0.10-0.40
CNMG 120404-F3M	12.90	12.70	4.76	0.40	•	•	•	•	•	•	•			0.10-1.50	0.05-0.30
CNMG 120408-F3M	12.90	12.70	4.76	0.80	•	•	•	•		•	•		•	0.10-1.50	0.10-0.40
CNMG 120412-F3M	12.90	12.70	4.76	1.20	•	•	•	•		•	•	•	•	0.20-2.00	0.15-0.50

• For user guide and cutting speed recommendations, see pages 128-138,288-294

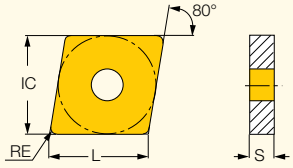
For tools, see pages: A/S-PCLNR/L (116) • A/S-PCLNR/L-X/G (118) • AVC-PCLNR/L (120)

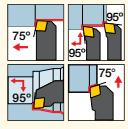
ISOTURN

CNMG-F3M

Double-sided 80° Rhombic
Inserts for Stainless Steel
Finishing Applications







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC6015	IC806	IC1017	IC807	IC706	IC4	IC804	Recommended Machining Data a_p (inch)	f (IPR)
CNMG 331-F3M	.381	.375	.187	.0157	•	•	•	•		•	•			.004-.059	.0020-.0118
CNMG 332-F3M	.381	.375	.187	.0315	•	•	•	•		•	•			.004-.059	.0039-.0157
CNMG 431-F3M	.508	.500	.187	.0157	•	•	•	•	•	•	•			.004-.059	.0020-.0118
CNMG 432-F3M	.508	.500	.187	.0315	•	•	•	•		•	•		•	.004-.059	.0039-.0157
CNMG 433-F3M	.508	.500	.187	.0472	•	•	•	•		•	•	•	•	.008-.079	.0059-.0197

• For user guide and cutting speed recommendations, see pages 128-138,288-294

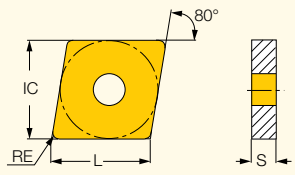
For tools, see pages: A/S-PCLNR/L (116) • A/S-PCLNR/L-X/G (118) • AVC-PCLNR/L (120) • A-PCLNR/L-X/G (119)

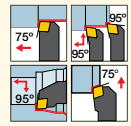
ISOTURN

CNMG-M3M

Double-Sided 80° Rhombic Inserts for Machining Stainless and Low Carbon Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC6015	IC806	IC1017	IC807	IC706	IC804	Recommended Machining Data a_p (mm)	f (mm/rev)
CNMG 090404-M3M	9.67	9.52	4.76	0.40	●	●	●	●		●	●		0.40-4.00	0.12-0.40
CNMG 090408-M3M	9.67	9.52	4.76	0.80	●	●	●	●	●	●	●		0.50-4.50	0.15-0.50
CNMG 120404-M3M	12.90	12.70	4.76	0.40	●					●	●		0.50-5.00	0.15-0.50
CNMG 120408-M3M	12.90	12.70	4.76	0.80	●	●	●	●	●	●	●	●	0.50-5.00	0.15-0.50
CNMG 120412-M3M	12.90	12.70	4.76	1.20	●	●	●	●	●	●	●	●	0.50-5.00	0.20-0.60
CNMG 120416-M3M	12.90	12.70	4.76	1.60	●	●	●	●	●		●		0.50-5.00	0.25-0.70

• For user guide and cutting speed recommendations, see pages 128-138,288-294

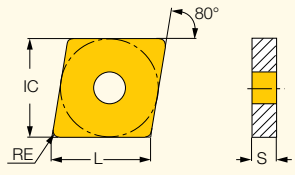
For tools, see pages: A/S-PCLNR/L (116) • A/S-PCLNR/L-X/G (118) • AVC-PCLNR/L (120)

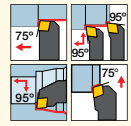
ISOTURN

CNMG-M3M

Double-Sided 80° Rhombic Inserts for Machining Stainless and Low Carbon Steel







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC6015	IC806	IC1017	IC807	IC706	IC804	Recommended Machining Data a_p (inch)	f (IPR)
CNMG 331-M3M	.381	.375	.187	.0157	●	●	●	●		●	●		.016-.157	.0047-.0157
CNMG 332-M3M	.381	.375	.187	.0315	●	●	●	●	●	●	●		.020-.177	.0059-.0197
CNMG 431-M3M	.508	.500	.187	.0157	●					●	●		.020-.197	.0059-.0197
CNMG 432-M3M	.508	.500	.187	.0315	●	●	●	●	●	●	●	●	.020-.197	.0059-.0197
CNMG 433-M3M	.508	.500	.187	.0472	●	●	●	●	●	●	●	●	.020-.197	.0079-.0236
CNMG 434-M3M	.508	.500	.187	.0630	●	●	●	●	●		●		.020-.197	.0098-.0276

• For user guide and cutting speed recommendations, see pages 128-138,288-294

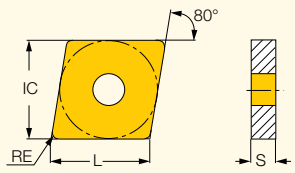
For tools, see pages: A/S-PCLNR/L (116) • A/S-PCLNR/L-X/G (118) • AVC-PCLNR/L (120) • A-PCLNR/L-X/G (119)

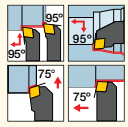
ISOTURN

CNMG-F3S

Double-Sided 80° Rhombic Inserts for Titanium and Heat Resistant Materials for Finishing Applications







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC806	IC1017	IC706	IC804	Recommended Machining Data a_p (mm)	f (mm/rev)
CNMG 090404-F3S	9.67	9.52	4.76	0.40	•		•	•	0.10-1.50	0.05-0.30
CNMG 090408-F3S	9.67	9.52	4.76	0.80	•		•	•	0.10-1.50	0.05-0.30
CNMG 120404-F3S	12.90	12.70	4.76	0.40	•	•	•	•	0.10-1.50	0.05-0.30
CNMG 120408-F3S	12.90	12.70	4.76	0.80	•	•	•	•	0.10-1.50	0.05-0.30

• For user guide and cutting speed recommendations, see pages 128-138,288-294

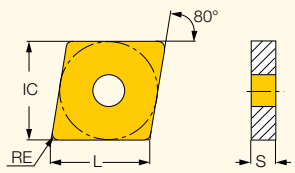
For tools, see pages: A/S-PCLNR/L (116) • A/S-PCLNR/L-X/G (118) • AVC-PCLNR/L (120)

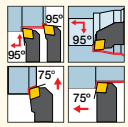
ISOTURN

CNMG-F3S

Double-Sided 80° Rhombic Inserts for Titanium and Heat Resistant Materials for Finishing Applications







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC806	IC1017	IC706	IC804	Recommended Machining Data a_p (inch)	f (IPR)
CNMG 331-F3S	.381	.375	.187	.0157	•		•	•	.004-.059	.0020-.0118
CNMG 332-F3S	.381	.375	.187	.0315	•		•	•	.004-.059	.0020-.0118
CNMG 431-F3S	.508	.500	.187	.0157	•	•	•	•	.004-.059	.0020-.0118
CNMG 432-F3S	.508	.500	.187	.0315	•	•	•	•	.004-.059	.0020-.0118

• For user guide and cutting speed recommendations, see pages 128-138,288-294

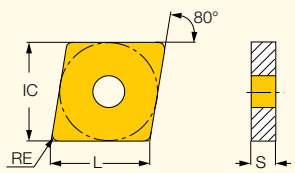
For tools, see pages: A-PCLNR/L-X/G (119) • A/S-PCLNR/L (116) • A/S-PCLNR/L-X/G (118) • AVC-PCLNR/L (120)

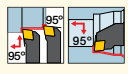
ALUPTURN POSITIVE DOUBLE SIDED

CNGG-F3N

Double-Sided Sharp Edged Positive and Polished Rake Inserts for Finishing Aluminum and Other Non-Ferrous Materials







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC1520	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
CNGG 090402-F3N-P	9.70	9.52	4.76	0.20	•	•	0.30-3.00	0.10-0.30
CNGG 090404-F3N-P	9.70	9.52	4.76	0.40	•	•	0.40-3.00	0.10-0.30
CNGG 090408-F3N-P	9.70	9.52	4.76	0.80	•	•	0.80-3.00	0.10-0.30

• For user guide and cutting speed recommendations, see pages 128-138,288-294

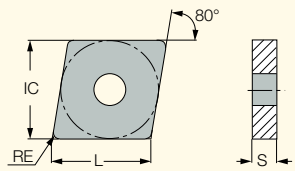
For tools, see pages: A/S-PCLNR/L-X/G (118) • AVC-PCLNR/L (120)

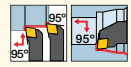
ALUPTURN POSITIVE DOUBLE SIDED

CNGG-F3N

Double-Sided Sharp Edged Positive and Polished Rake Inserts for Finishing Aluminum and Other Non-Ferrous Materials







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC1520	IC20	Recommended Machining Data a_p (inch)	f (IPR)
CNGG 330-F3N-P	.382	.375	.187	.0079	•	•	.012-.118	.0039-.0118
CNGG 331-F3N-P	.382	.375	.187	.0157	•	•	.016-.118	.0039-.0118
CNGG 332-F3N-P	.382	.375	.187	.0315	•	•	.031-.118	.0039-.0118

- For user guide and cutting speed recommendations, see pages 128-138,288-294

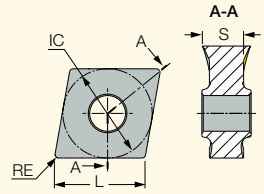
For tools, see pages: A-PCLNR/L-X/G (119) • A/S-PCLNR/L-X/G (118) • AVC-PCLNR/L (120)

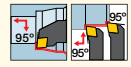
ALUPTURN POSITIVE DOUBLE SIDED

CNGX-M3N

Double-Sided Positive Rake Inserts with High Helical and Sharp Edge for Medium Machining Non-Ferrous Materials







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC1520	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
CNGX 090604-M3N-P	9.70	9.52	4.40	0.40	•	•	0.40-3.00	0.10-0.30
CNGX 090608-M3N-P	9.70	9.52	4.40	0.80	•	•	0.80-3.00	0.10-0.30

- PCLNR/L...X and A..-PCLNR/L-X are most recommended as they were designed especially for this insert
- For user guide and cutting speed recommendations, see pages 128-138,288-294

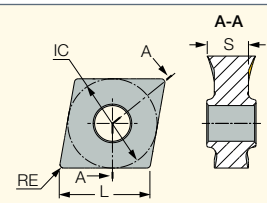
For tools, see pages: A/S-PCLNR/L-X/G (118)

ALUPTURN POSITIVE DOUBLE SIDED

CNGX-M3N

Double-Sided Positive Rake Inserts with High Helical and Sharp Edge for Medium Machining Non-Ferrous Materials







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC1520	IC20	Recommended Machining Data a_p (inch)	f (IPR)
CNGX 341-M3N-P	.382	.375	.173	.0157	•	•	.016-.118	.0039-.0118
CNGX 342-M3N-P	.382	.375	.173	.0315	•	•	.031-.118	.0039-.0118

- PCLNR/L...X and A..-PCLNR/L-X are most recommended as they were designed especially for this insert
- For user guide and cutting speed recommendations, see pages 128-138,288-294

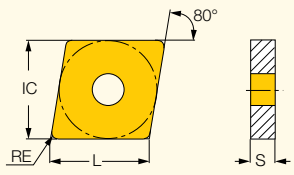
For tools, see pages: A-PCLNR/L-X/G (119) • A/S-PCLNR/L-X/G (118)

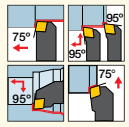
ISOTURN

CNMS-12

80° Rhombic Single-Sided Inserts for Soft and Nonferrous Materials







M E T R I C

Designation	Dimensions L	IC	S	RE	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
CNMS 120408-12	12.90	12.70	4.76	0.80	•	1.00-4.00	0.10-0.35

• For user guide and cutting speed recommendations, see pages 128-138,288-294

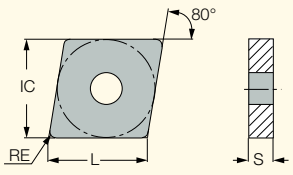
For tools, see pages: A/S-PCLNR/L (116) • A/S-PCLNR/L-X/G (118)

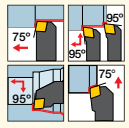
ISOTURN

CNMS-12

80° Rhombic Single-Sided Inserts for Soft and Nonferrous Materials







I N C H

Designation	Dimensions L	IC	S	RE	IC20	Recommended Machining Data a_p (inch)	f (IPR)
CNMS 432-12	.508	.500	.187	.0315	•	.039-.157	.0039-.0138

• For user guide and cutting speed recommendations, see pages 128-138,288-294

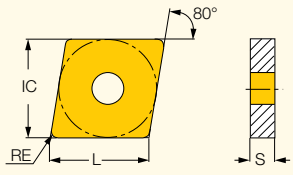
For tools, see pages: A/S-PCLNR/L (116) • A/S-PCLNR/L-X/G (118) • A-PCLNR/L-X/G (119)

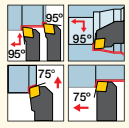
ISOTURN

CNMG-NF

Double-Sided 80° Rhombic Inserts for Semi-Finishing and Finishing Applications







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8250	IC530N	IC6015	IC8150	IC20N	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
CNMG 120404-NF	12.90	12.70	4.76	0.40	•	•	•	•	•	•	•	0.40-3.50	0.08-0.25
CNMG 120408-NF	12.90	12.70	4.76	0.80	•		•	•	•	•	•	0.80-3.50	0.08-0.25

• For user guide and cutting speed recommendations, see pages 128-138,288-294

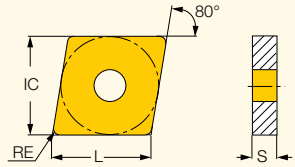
For tools, see pages: A/S-PCLNR/L (116) • A/S-PCLNR/L-X/G (118)

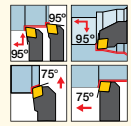
ISOTURN

CNMG-NF

Double-Sided 80° Rhombic Inserts for Semi-Finishing and Finishing Applications







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8250	IC530N	IC6015	IC8150	IC20N	IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
CNMG 431-NF	.508	.500	.187	.0157	•	•	•	•	•	•	•	.016-.138	.0031-.0098
CNMG 432-NF	.508	.500	.187	.0315	•		•	•	•	•	•	.031-.138	.0031-.0098

• For user guide and cutting speed recommendations, see pages 128-138,288-294

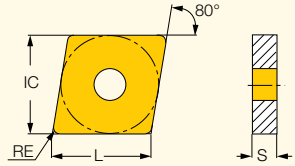
For tools, see pages: A/S-PCLNR/L (116) • A-PCLNR/L-X/G (119) • A/S-PCLNR/L-X/G (118)

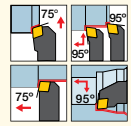
ISOTURN

CNMG-VL

Double-Sided 80° Rhombic Inserts with a Chipformer for High Temperature Alloys and Stainless Steel Valves







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC806	IC1017	IC804	Recommended Machining Data a_p (mm)	f (mm/rev)
CNMG 120404-VL	12.90	12.70	4.76	0.40	•	•		0.30-3.00	0.05-0.15
CNMG 120408-VL	12.90	12.70	4.76	0.80	•	•	•	0.50-4.00	0.10-0.25

• For user guide and cutting speed recommendations, see pages 128-138,288-294

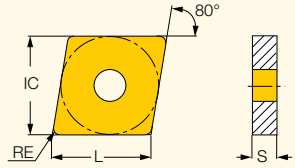
For tools, see pages: A/S-PCLNR/L (116) • A/S-PCLNR/L-X/G (118)

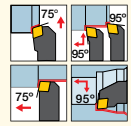
ISOTURN

CNMG-VL

Double-Sided 80° Rhombic Inserts with a Chipformer for High Temperature Alloys and Stainless Steel Valves







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC806	IC1017	IC804	Recommended Machining Data a_p (inch)	f (IPR)
CNMG 431-VL	.508	.500	.187	.0157	•	•		.012-.118	.0020-.0059
CNMG 432-VL	.508	.500	.187	.0315	•	•	•	.020-.157	.0039-.0098

• For user guide and cutting speed recommendations, see pages 128-138,288-294

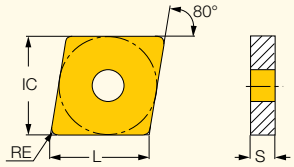
For tools, see pages: A/S-PCLNR/L (116) • A-PCLNR/L-X/G (119) • A/S-PCLNR/L-X/G (118)

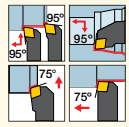
ISOTURN

CNMG-WF

Double-Sided 80° Rhombic Wiper Inserts for Finishing Operations at High Feeds







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8250	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
CNMG 120408-WF	12.90	12.70	4.76	0.80	•	•	0.80-3.50	0.10-0.35

• For user guide and cutting speed recommendations, see pages 128-138,288-294

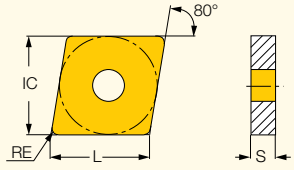
For tools, see pages: A/S-PCLNR/L (116) • A/S-PCLNR/L-X/G (118)

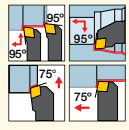
ISOTURN

CNMG-WF

Double-Sided 80° Rhombic Wiper Inserts for Finishing Operations at High Feeds







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8250	IC8150	Recommended Machining Data a_p (inch)	f (IPR)
CNMG 432-WF	.508	.500	.187	.0315	•	•	.031-.138	.0039-.0138

• For user guide and cutting speed recommendations, see pages 128-138,288-294

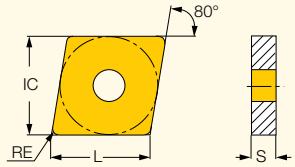
For tools, see pages: A/S-PCLNR/L (116) • A-PCLNR/L-X/G (119) • A/S-PCLNR/L-X/G (118)

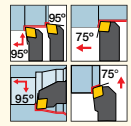
ISOTURN

CNMG/CNGG-SF

Double-Sided 80° Rhombic Inserts for Super-Finishing; Controls Chip Flow at Very Low Feeds and Depths of Cut







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC6015	IC520N	IC428	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
CNMG 120402-SF	12.90	12.70	4.76	0.20		•	•		0.30-2.00	0.03-0.25
CNMG 120404-SF	12.90	12.70	4.76	0.40	•				0.30-2.00	0.05-0.25
CNGG 120401-SF	12.90	12.70	4.76	0.10				•	0.20-1.50	0.03-0.15
CNGG 120402-SF	12.90	12.70	4.76	0.20				•	0.30-2.00	0.03-0.20
CNGG 120404-SF	12.90	12.70	4.76	0.40				•	0.30-2.00	0.03-0.20

• For user guide and cutting speed recommendations, see pages 128-138,288-294

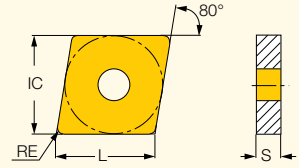
For tools, see pages: A/S-PCLNR/L (116) • A/S-PCLNR/L-X/G (118)

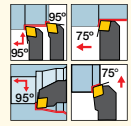
ISOTURN

CNMG/CNGG-SF

Double-Sided 80° Rhombic Inserts for Super-Finishing; Controls Chip Flow at Very Low Feeds and Depths of Cut







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC6015	IC520N	IC428	IC907	Recommended Machining Data a_p (inch)	f (IPR)
CNMG 430-SF	.508	.500	.187	.0079		•	•		.012-.079	.0012-.0098
CNMG 431-SF	.508	.500	.187	.0157	•				.012-.079	.0020-.0098
CNGG 430-SF	.508	.500	.187	.0039				•	.008-.059	.0012-.0059
CNGG 430.5-SF	.508	.500	.187	.0079				•	.012-.079	.0012-.0079
CNGG 431-SF	.508	.500	.187	.0157				•	.012-.079	.0012-.0079

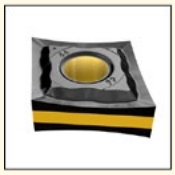
• For user guide and cutting speed recommendations, see pages 128-138,288-294

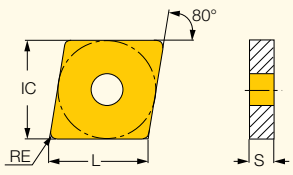
For tools, see pages: A/S-PCLNR/L (116) • A-PCLNR/L-X/G (119) • A/S-PCLNR/L-X/G (118)

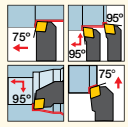
ISOTURN

CNMG/CNGG-PP

Double-Sided 80° Rhombic Inserts for Machining Very Ductile Materials under Medium Cutting Conditions







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC28	IC830	IC6025	IC8250	IC10	IC6015	IC8150	IC428	IC806	IC1017	IC807	IC706	IC907	IC804	Recommended Machining Data a_p (mm)	f (mm/rev)
CNMG 120404-PP	12.90	12.70	4.76	0.40		•	•	•	•	•					•		•		1.00-4.00	0.14-0.30
CNMG 120408-PP	12.90	12.70	4.76	0.80	•	•	•	•	•	•	•	•	•	•	•	•	•		1.00-4.00	0.14-0.30
CNMG 120412-PP	12.90	12.70	4.76	1.20				•							•	•	•		1.50-4.00	0.18-0.40
CNMG 190612-PP	19.30	19.05	6.35	1.20									•		•		•		2.00-8.00	0.30-0.60
CNGG 120401-PP	12.90	12.70	4.76	0.10													•		0.40-2.00	0.05-0.20
CNGG 120402-PP	12.90	12.70	4.76	0.20													•		0.40-2.50	0.08-0.25
CNGG 120404-PP	12.90	12.70	4.76	0.40													•		0.80-3.00	0.10-0.30
CNGG 120408-PP	12.90	12.70	4.76	0.80									•			•	•	•	1.00-4.00	0.10-0.30
CNGG 120412-PP	12.90	12.70	4.76	1.20									•			•			1.00-4.00	0.10-0.30

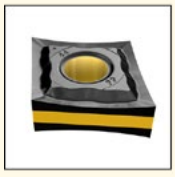
• For user guide and cutting speed recommendations, see pages 128-138,288-294

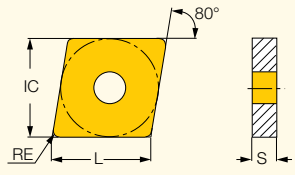
For tools, see pages: A/S-PCLNR/L (116) • A/S-PCLNR/L-X/G (118)

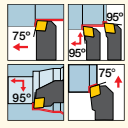
ISOTURN

CNMG/CNGG-PP

Double-Sided 80° Rhombic Inserts for Machining Very Ductile Materials under Medium Cutting Conditions







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC28	IC830	IC6025	IC8250	IC10	IC6015	IC8150	IC428	IC806	IC1017	IC807	IC706	IC907	IC804	Recommended Machining Data a_p (inch)	f (IPR)
CNMG 431-PP	.508	.500	.187	.0157		•	•	•	•	•					•		•		.039-.157	.0055-.0118
CNMG 432-PP	.508	.500	.187	.0315	•	•	•	•	•	•	•	•	•	•	•	•	•		.039-.157	.0055-.0118
CNMG 433-PP	.508	.500	.187	.0472				•							•	•	•		.059-.157	.0071-.0157
CNMG 643-PP	.760	.750	.250	.0472									•		•		•		.079-.315	.0118-.0236
CNGG 430-PP	.508	.500	.187	.0039													•		.016-.079	.0020-.0079
CNGG 430.5-PP	.508	.500	.187	.0079													•		.016-.098	.0031-.0098
CNGG 431-PP	.508	.500	.187	.0157													•		.031-.118	.0039-.0118
CNGG 432-PP	.508	.500	.187	.0315									•			•	•	•	.039-.157	.0039-.0118
CNGG 433-PP	.508	.500	.187	.0472									•			•			.039-.157	.0039-.0118

• For user guide and cutting speed recommendations, see pages 128-138,288-294

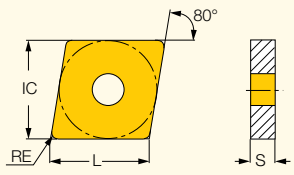
For tools, see pages: A-PCLNR/L-X/G (119) • A/S-PCLNR/L (116) • A/S-PCLNR/L-X/G (118)

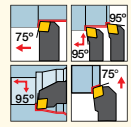
ISOTURN

CNMG/CNGG-TF

Double-Sided 80° Rhombic Inserts for Machining a Wide Range of Materials under Medium Cutting Conditions







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC8250	IC908	IC6015	IC8150	IC20	IC20N	IC806	IC1017	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
CNMG 090304-TF	9.70	9.52	3.18	0.40			•			•							1.00-3.00	0.12-0.35
CNMG 090308-TF	9.70	9.52	3.18	0.80	•		•			•							1.00-4.00	0.12-0.35
CNMG 120404-TF	12.90	12.70	4.76	0.40	•	•	•		•		•		•		•	•	1.00-4.00	0.12-0.35
CNMG 120408-TF	12.90	12.70	4.76	0.80	•	•	•	•	•	•	•	•	•	•	•	•	1.00-4.00	0.12-0.35
CNMG 120412-TF	12.90	12.70	4.76	1.20	•	•	•	•	•	•	•		•	•	•	•	1.50-4.50	0.15-0.40
CNGG 120408-TF	12.96	12.70	4.76	0.80												•	1.00-4.00	0.12-0.35

• For user guide and cutting speed recommendations, see pages 128-138,288-294

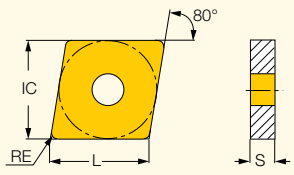
For tools, see pages: A/S-PCLNR/L (116) • A/S-PCLNR/L-X/G (118)

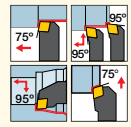
ISOTURN

CNMG/CNGG-TF

Double-Sided 80° Rhombic Inserts for Machining a Wide Range of Materials under Medium Cutting Conditions







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC8250	IC908	IC6015	IC8150	IC20	IC20N	IC806	IC1017	IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
CNMG 321-TF	.382	.375	.125	.0157			•			•							.039-.118	.0047-.0138
CNMG 322-TF	.382	.375	.125	.0315	•		•			•							.039-.157	.0047-.0138
CNMG 431-TF	.508	.500	.187	.0157	•	•	•		•		•		•		•	•	.039-.157	.0047-.0138
CNMG 432-TF	.508	.500	.187	.0315	•	•	•	•	•	•	•	•	•	•	•	•	.039-.157	.0047-.0138
CNMG 433-TF	.508	.500	.187	.0472	•	•	•	•	•	•	•		•	•	•	•	.059-.177	.0059-.0157
CNGG 432-TF	.510	.500	.187	.0315												•	.039-.157	.0047-.0138

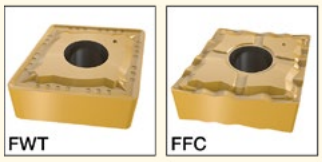
• For user guide and cutting speed recommendations, see pages 128-138,288-294

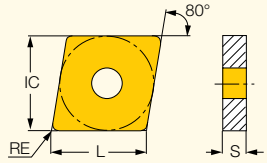
For tools, see pages: A-PCLNR/L-X/G (119) • A/S-PCLNR/L (116) • A/S-PCLNR/L-X/G (118)

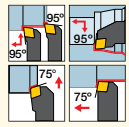
ISOTURN

CNMG-CERMET

Double-Sided 80° Rhombic
Cermet Grade Inserts
for Semi-Finishing and
Finishing Applications







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC20N	IC520N	Recommended Machining Data a_p (mm)	f (mm/rev)
CNMG 120402-FFG	12.90	12.70	4.76	0.20		●	0.40-3.50	0.07-0.25
CNMG 120404-FFC	12.90	12.70	4.76	0.40	●	●	0.50-3.50	0.07-0.25
CNMG 120408-FFC	12.90	12.70	4.76	0.80	●		1.00-2.50	0.05-0.25
CNMG 120408-FWT	12.90	12.70	4.76	0.80		●	1.00-5.00	0.15-0.60

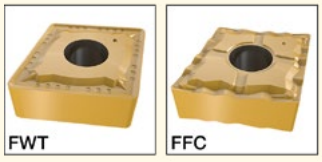
• For user guide and cutting speed recommendations, see pages 128-138,288-294

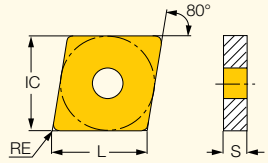
For tools, see pages: A/S-PCLNR/L (116) • A/S-PCLNR/L-X/G (118)

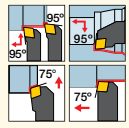
ISOTURN

CNMG-CERMET

Double-Sided 80° Rhombic
Cermet Grade Inserts
for Semi-Finishing and
Finishing Applications





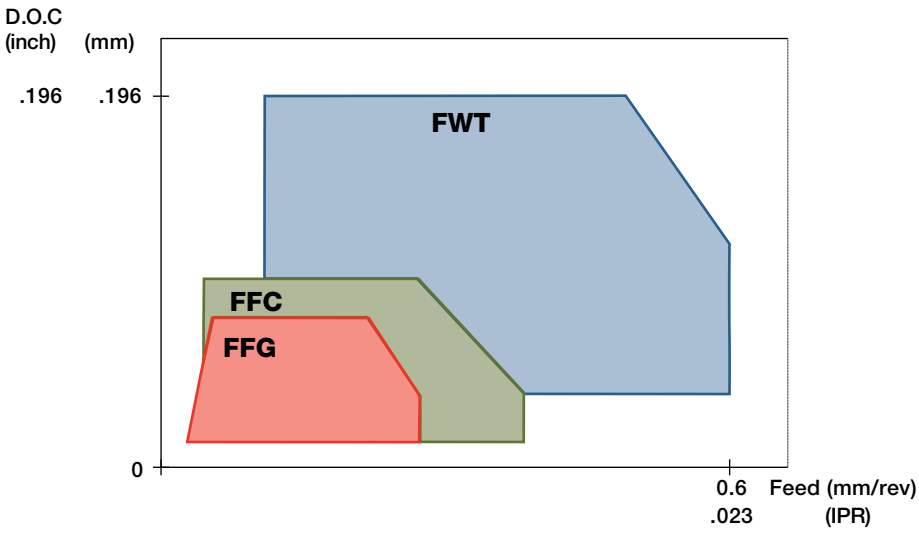


I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC20N	IC520N	Recommended Machining Data a_p (inch)	f (IPR)
CNMG 430-FFG	.508	.500	.187	.0079		●	.016-.138	.0027-.0098
CNMG 431-FFC	.508	.500	.187	.0157	●	●	.020-.138	.0027-.0098
CNMG 432-FFC	.508	.500	.187	.0315	●		.039-.098	.0020-.0098
CNMG 432-FWT	.508	.500	.187	.0315		●	.039-.197	.0059-.0236

• For user guide and cutting speed recommendations, see pages 128-138,288-294

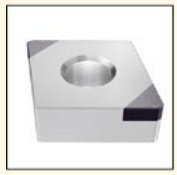
For tools, see pages: A-PCLNR/L-X/G (119) • A/S-PCLNR/L (116) • A/S-PCLNR/L-X/G (118)

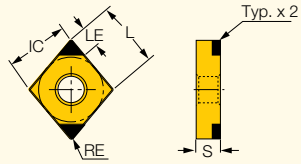


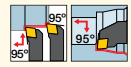
ISOTURN

CNGA-2 (CBN)

80° Rhombic Inserts with 2 CBN Tips for Machining Hardened Steel, Sintered Metals and High Temperature Alloys







M E T R I C

Designation	Dimensions L	IC	S	RE	LE	Tough ↔ Hard IB10H	IB10HC	IB10S	IB20H	IB20HC	IB05S	Recommended Machining Data a_p (mm)	f (mm/rev)
CNGA 120404-F2	12.90	12.70	4.76	0.40	2.3		●			●		0.05-0.50	0.05-0.20
CNGA 120404-M2	12.90	12.70	4.76	0.40	2.3		●	●		●	●	0.05-0.30	0.05-0.20
CNGA 120404-R2	12.90	12.70	4.76	0.40	2.2				●			0.05-0.50	0.05-0.20
CNGA 120408-F2	12.90	12.70	4.76	0.80	2.2	●				●	●	0.05-0.30	0.05-0.18
CNGA 120408-M2	12.90	12.70	4.76	0.80	2.2	●		●	●			0.05-0.30	0.05-0.18
CNGA 120408-R2	12.90	12.70	4.76	0.80	2.2				●			0.05-0.50	0.05-0.20
CNGA 120408-S2	12.90	12.70	4.76	0.80	2.2						●	0.05-0.50	0.05-0.20
CNGA 120412-F2	12.90	12.70	4.76	1.20	2.4		●			●		0.05-0.50	0.05-0.20
CNGA 120412-M2	12.90	12.70	4.76	1.20	2.4	●	●	●	●			0.05-0.30	0.05-0.20
CNGA 120412-R2	12.90	12.70	4.76	1.20	2.4					●		0.05-0.50	0.05-0.20

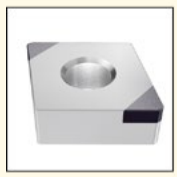
• For user guide and cutting speed recommendations, see pages 128-138,288-294

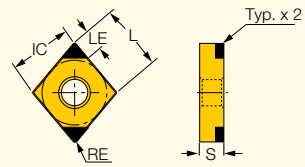
For tools, see pages: A/S-PCLNR/L (116) • A/S-PCLNR/L-X/G (118)

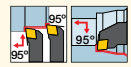
ISOTURN

CNGA-2 (CBN)

80° Rhombic Inserts with 2 CBN Tips for Machining Hardened Steel, Sintered Metals and High Temperature Alloys







I N C H

Designation	Dimensions L	IC	S	RE	LE	Tough ↔ Hard IB10H	IB10HC	IB10S	IB20H	IB20HC	IB05S	Recommended Machining Data a_p (inch)	f (IPR)
CNGA 431-F2	.508	.500	.187	.0157	.09		●			●		.002-.020	.0020-.0079
CNGA 431-M2	.508	.500	.187	.0157	.09		●	●		●	●	.002-.012	.0020-.0079
CNGA 431-R2	.508	.500	.187	.0157	.09				●			.002-.020	.0020-.0079
CNGA 432-F2	.508	.500	.187	.0315	.09	●				●	●	.002-.012	.0020-.0071
CNGA 432-M2	.508	.500	.187	.0315	.09	●		●	●			.002-.012	.0020-.0071
CNGA 432-R2	.508	.500	.187	.0315	.09				●			.002-.020	.0020-.0079
CNGA 432-S2	.508	.500	.187	.0315	.09						●	.002-.020	.0020-.0079
CNGA 433-F2	.508	.500	.187	.0472	.09		●			●		.002-.020	.0020-.0079
CNGA 433-M2	.508	.500	.187	.0472	.09	●	●	●	●			.002-.012	.0020-.0079
CNGA 433-R2	.508	.500	.187	.0472	.09					●		.002-.020	.0020-.0079

• For user guide and cutting speed recommendations, see pages 128-138,288-294

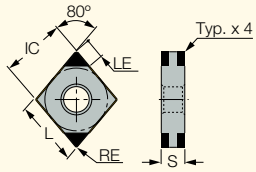
For tools, see pages: A/S-PCLNR/L (116) • A-PCLNR/L-X/G (119) • A/S-PCLNR/L-X/G (118)

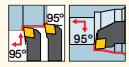
ISOTURN

CNGA-4 (CBN)

4-Cornered CBN Inserts for Machining Hardened Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	LE	Tough ↔ Hard IB10HC	IB55	IB25HC	Recommended Machining Data a_p (mm)	f (mm/rev)
CNGA 120404T-MC	12.90	12.70	4.76	0.40	3.1		●		0.05-0.50	0.05-0.20
CNGA 120408-M4	12.90	12.70	4.76	0.80	2.2	●		●	0.05-0.50	0.05-0.20
CNGA 120408T-MC	12.90	12.70	4.76	0.80	3.1		●		0.05-0.50	0.05-0.20
CNGA 120408T-WG-MC (1)	12.90	12.70	4.76	0.80	3.1		●		0.05-0.50	0.05-0.20
CNGA 120412-M4	12.90	12.70	4.76	1.20	2.4	●		●	0.05-0.50	0.05-0.20
CNGA 120412T-MC	12.90	12.70	4.76	1.20	3.1		●		0.05-0.50	0.05-0.20

• For user guide and cutting speed recommendations, see pages 128-138,288-294

(1) Wiper corner configuration

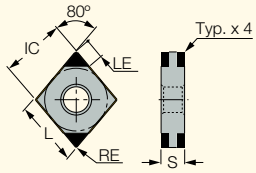
For tools, see pages: A/S-PCLNR/L (116) • A/S-PCLNR/L-X/G (118)

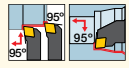
ISOTURN

CNGA-4 (CBN)

4-Cornered CBN Inserts for Machining Hardened Steel







I N C H

Designation	Dimensions L	IC	S	RE	LE	Tough ↔ Hard IB10HC	IB55	IB25HC	Recommended Machining Data a_p (inch)	f (IPR)
CNGA 431T-MC	.508	.500	.187	.0157	.12		●		.002-.020	.0020-.0079
CNGA 432-M4	.508	.500	.187	.0315	.09	●		●	.002-.020	.0020-.0079
CNGA 432T-MC	.508	.500	.187	.0315	.12		●		.002-.020	.0020-.0079
CNGA 432T-WG-MC (1)	.508	.500	.187	.0315	.12		●		.002-.020	.0020-.0079
CNGA 433-M4	.508	.500	.187	.0472	.09	●		●	.002-.020	.0020-.0079
CNGA 433T-MC	.508	.500	.187	.0472	.12		●		.002-.020	.0020-.0079

• For user guide and cutting speed recommendations, see pages 128-138,288-294

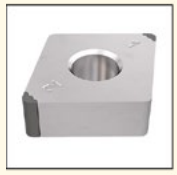
(1) Wiper corner configuration

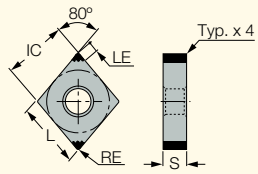
For tools, see pages: A/S-PCLNR/L (116) • A-PCLNR/L-X/G (119) • A/S-PCLNR/L-X/G (118)

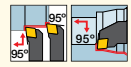
ISOTURN

CNGA-J(CBN)

Multi-Cornered CBN Inserts for Machining Hardened Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	LE	Recommended Machining Data ap (mm)	f (mm/rev)
CNGA 120408-M4-J	12.90	12.70	4.76	0.80	1.50	0.12-0.80	0.10-0.30
CNGA 120408-R4-J	12.90	12.70	4.76	0.80	1.50	0.12-0.80	0.10-0.30

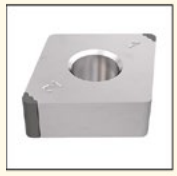
• For user guide and cutting speed recommendations, see pages 128-138,288-294

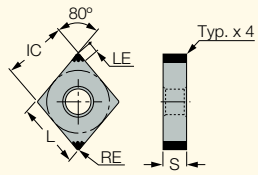
For tools, see pages: A/S-PCLNR/L (116) • A/S-PCLNR/L-X/G (118)

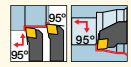
ISOTURN

CNGA-J(CBN)

4-Cornered CBN Inserts for Machining Hardened Steel







I N C H

Designation	Dimensions L	IC	S	RE	LE	Recommended Machining Data ap (inch)	f (IPR)
CNGA 432-M4-J	.508	.500	.187	.0315	.059	.005-.031	.0039-.0118
CNGA 432-R4-J	.508	.500	.187	.0315	.059	.005-.031	.0039-.0118

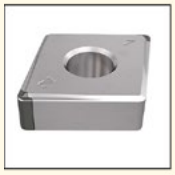
• For user guide and cutting speed recommendations, see pages 128-138,288-294

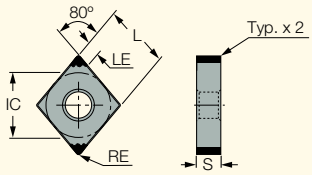
For tools, see pages: A-PCLNR/L-X/G (119) • A/S-PCLNR/L (116) • A/S-PCLNR/L-X/G (118)

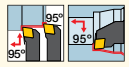
ISOTURN

CNGG-J(CBN)

80° Rhombic Inserts with 4 Chipbreaking CBN Tips for Machining Hardened Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	LE	Recommended Machining Data a_p (mm)	f (mm/rev)
CNGG 120408-M4HM-J	12.90	12.70	4.76	0.80	1.50	0.12-0.80	0.10-0.30

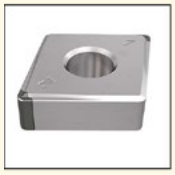
- For user guide and cutting speed recommendations, see pages 128-138,288-294

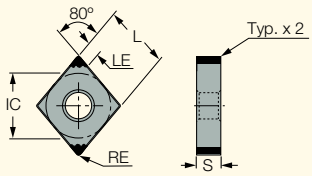
For tools, see pages: A/S-PCLNR/L (116) • A/S-PCLNR/L-X/G (118)

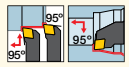
ISOTURN

CNGG-J(CBN)

80° Rhombic Inserts with 4 Chipbreaking CBN Tips for Machining Hardened Steel







I N C H

Designation	Dimensions L	IC	S	RE	LE	Recommended Machining Data a_p (inch)	f (IPR)
CNGG 432-M4HM-J	.508	.500	.187	.0315	.059	.005-.031	.0039-.0118

- For user guide and cutting speed recommendations, see pages 128-138,288-294

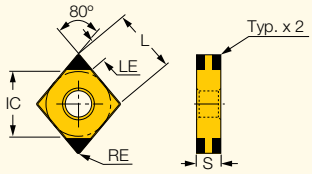
For tools, see pages: A-PCLNR/L-X/G (119) • A/S-PCLNR/L (116) • A/S-PCLNR/L-X/G (118)

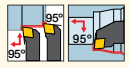
ISOTURN

CNGG-M4HF/M4HM (CBN)

80° Rhombic Inserts with 4 Chipbreaking CBN Tips for Machining Hardened Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	LE	IB25HA	Recommended Machining Data a_p (mm)	f (mm/rev)
CNGG 120408-M4HF	12.90	12.70	4.76	0.80	2.2	●	0.20-0.75	0.05-0.20
CNGG 120412-M4HM	12.90	12.70	4.76	1.20	2.4	●	0.50-1.00	0.05-0.20

- For user guide and cutting speed recommendations, see pages 128-138,288-294

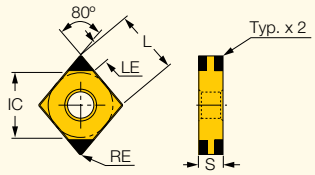
For tools, see pages: A/S-PCLNR/L (116) • A/S-PCLNR/L-X/G (118)

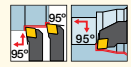
ISOTURN

CNGG-M4HF/M4HM (CBN)

80° Rhombic Inserts with 4 Chipbreaking CBN Tips for Machining Hardened Steel







I N C H

Designation	Dimensions L	IC	S	RE	LE	IB25HA	Recommended Machining Data a_p (inch)	f (IPR)
CNGG 432-M4HF	.508	.500	.187	.0315	.09	●	.008-.030	.0020-.0080
CNGG 433-M4HM	.508	.500	.187	.0472	.09	●	.020-.039	.0020-.0080

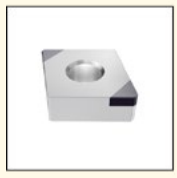
• For user guide and cutting speed recommendations, see pages 128-138,288-294

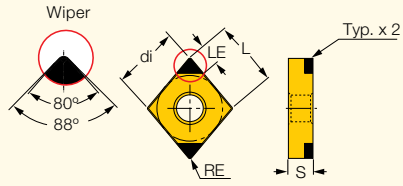
For tools, see pages: A/S-PCLNR/L (116) • A-PCLNR/L-X/G (119) • A/S-PCLNR/L-X/G (118)

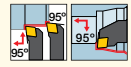
ISOTURN

CNMA-MW2 (CBN)

80° Rhombic Inserts with 2 CBN Wiper Edge Tips for Machining Hardened Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	LE	IB10H	Recommended Machining Data a_p (mm)	f (mm/rev)
CNMA 120408-MW2	12.90	12.70	4.76	0.80	3.5	●	0.05-0.30	0.03-0.40

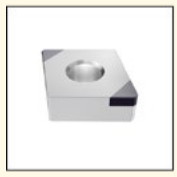
• For user guide and cutting speed recommendations, see pages 128-138,288-294

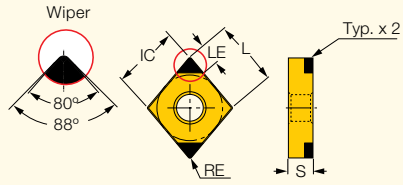
For tools, see pages: A/S-PCLNR/L (116) • A/S-PCLNR/L-X/G (118)

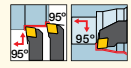
ISOTURN

CNMA-MW2 (CBN)

80° Rhombic Inserts with 2 CBN Wiper Edge Tips for Machining Hardened Steel







I N C H

Designation	Dimensions L	IC	S	RE	LE	IB10H	Recommended Machining Data a_p (inch)	f (IPR)
CNMA 432-MW2	.508	.500	.187	.0315	.14	●	.002-.012	.0012-.0160

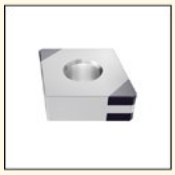
• For user guide and cutting speed recommendations, see pages 128-138,288-294

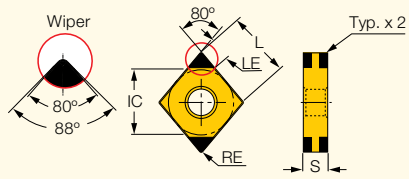
For tools, see pages: A/S-PCLNR/L (116) • A-PCLNR/L-X/G (119) • A/S-PCLNR/L-X/G (118)

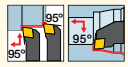
ISOTURN

CNMA-MW4 (CBN)

80° Rhombic Inserts with 4 CBN Wiper Edge Tips for Machining Hardened Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	LE	IB25HC	Recommended Machining Data a_p (mm)	f (mm/rev)
CNMA 120408-MW4	12.90	12.70	4.76	0.80	2.2	●	0.05-0.50	0.05-0.40
CNMA 120412-MW4	12.90	12.70	4.76	1.20	2.4	●	0.05-0.50	0.05-0.40

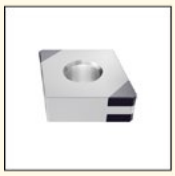
• For user guide and cutting speed recommendations, see pages 128-138,288-294

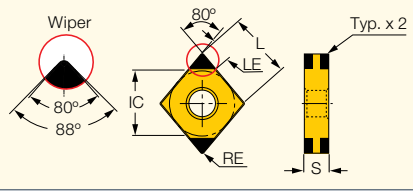
For tools, see pages: A/S-PCLNR/L (116) • A/S-PCLNR/L-X/G (118)

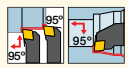
ISOTURN

CNMA-MW4 (CBN)

80° Rhombic Inserts with 4 CBN Wiper Edge Tips for Machining Hardened Steel







I N C H

Designation	Dimensions L	IC	S	RE	LE	IB25HC	Recommended Machining Data a_p (inch)	f (IPR)
CNMA 432-MW4	.508	.500	.187	.0315	.09	●	.002-.020	.0020-.0157
CNMA 433-MW4	.508	.500	.187	.0472	.09	●	.002-.020	.0020-.0157

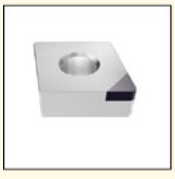
• For user guide and cutting speed recommendations, see pages 128-138,288-294

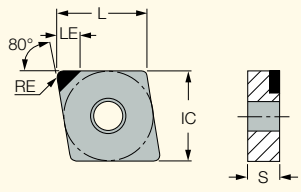
For tools, see pages: A/S-PCLNR/L (116) • A-PCLNR/L-X/G (119) • A/S-PCLNR/L-X/G (118)

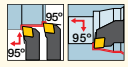
ISOTURN

CNMA-T/M1/WG (CBN)

80° Rhombic Inserts with a Single CBN Top Corner Tip for Machining Cast Iron, Hardened Steel and Super Alloys







M E T R I C

Designation	Dimensions L	IC	S	RE	LE	Tough ↔ Hard IB50	IB55	IB20H	IB85	Recommended Machining Data a_p (mm)	f (mm/rev)
CNMA 120404T	12.90	12.70	4.76	0.40	3.2	●	●			0.05-0.50	0.05-0.26
CNMA 120408-M1	12.90	12.70	4.76	0.80	3.5			●		0.05-0.50	0.05-0.30
CNMA 120408T	12.90	12.70	4.76	0.80	3.4		●		●	0.05-0.50	0.05-0.30
CNMA 120408T-WG (1)	12.90	12.70	4.76	0.80	3.5	●	●		●	0.05-0.50	0.05-0.30
CNMA 120412-M1	12.90	12.70	4.76	1.20	3.5			●		0.05-0.50	0.05-0.30
CNMA 120412T	12.90	12.70	4.76	1.20	4.0		●			0.05-0.50	0.05-0.30

• For user guide and cutting speed recommendations, see pages 128-138,288-294

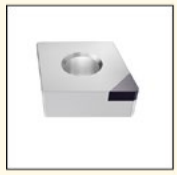
(1) Wiper insert for high feed finishing, eliminates grinding.

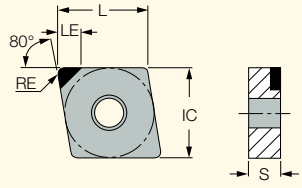
For tools, see pages: A/S-PCLNR/L (116) • A/S-PCLNR/L-X/G (118)

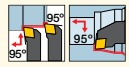
ISOTURN

CNMA-T/M1/WG (CBN)

80° Rhombic Inserts with a Single CBN Top Corner Tip for Machining Cast Iron, Hardened Steel and Super Alloys







I N C H

Designation	Dimensions L	IC	S	RE	LE	Tough ↔ Hard IB50	IB55	IB20H	IB85	Recommended Machining Data a_p (inch)	f (IPR)
CNMA 431T	.508	.500	.187	.0157	.13	●	●			.002-.020	.0020-.0102
CNMA 432-M1	.508	.500	.187	.0315	.14			●		.002-.020	.0020-.0118
CNMA 432T	.508	.500	.187	.0315	.13		●		●	.002-.020	.0020-.0118
CNMA 432T-WG (1)	.508	.500	.187	.0315	.14	●	●		●	.002-.020	.0020-.0118
CNMA 433-M1	.508	.500	.187	.0472	.14			●		.002-.020	.0020-.0118
CNMA 433T	.508	.500	.187	.0472	.16		●			.002-.020	.0020-.0118

• For user guide and cutting speed recommendations, see pages 128-138,288-294

(1) Wiper insert for high feed finishing, eliminates grinding.

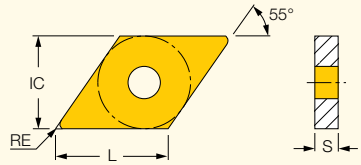
For tools, see pages: A/S-PCLNR/L (116) • A-PCLNR/L-X/G (119) • A/S-PCLNR/L-X/G (118)

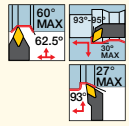
ISOTURN

DNMG-F3P

Double-Sided 55° Rhombic Inserts for Semi-Finishing and Finishing on Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
DNMG 110404-F3P	11.63	9.52	4.76	0.40	●	●	●	●	0.80-3.00	0.07-0.25
DNMG 110408-F3P	11.63	9.52	4.76	0.80	●	●	●	●	0.80-3.50	0.08-0.25
DNMG 110412-F3P	11.63	9.52	4.76	1.20	●	●	●	●	1.40-4.00	0.10-0.25

• For user guide and cutting speed recommendations, see pages 128-138,288-294

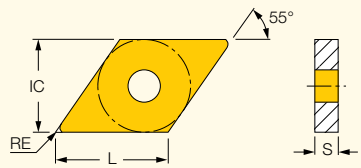
For tools, see pages: DDJNR/L (56) • PDJNR/L (55)

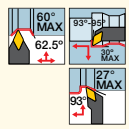
ISOTURN

DNMG-F3P

Double-Sided 55° Rhombic Inserts for Semi-Finishing and Finishing on Steel







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	IC807	Recommended Machining Data a_p (inch)	f (IPR)
DNMG 331-F3P	.458	.375	.187	.0157	●	●	●	●	.031-.118	.0027-.0098
DNMG 332-F3P	.458	.375	.187	.0315	●	●	●	●	.031-.138	.0031-.0098
DNMG 333-F3P	.458	.375	.187	.0472	●	●	●	●	.055-.157	.0039-.0098

• For user guide and cutting speed recommendations, see pages 128-138,288-294

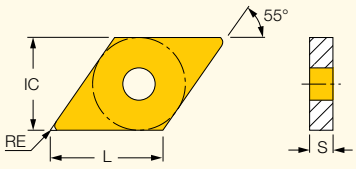
For tools, see pages: DDJNR/L (56) • PDJNR/L (55)

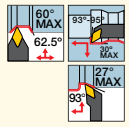
ISOTURN

DNMG-F3M

Double-Sided 55° Rhombic Inserts for Finish on Turning Stainless steel and High temperature alloy







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC6015	IC806	IC807	IC706	Recommended Machining Data a_p (mm)	f (mm/rev)
DNMG 110404-F3M	11.63	9.52	4.76	0.40	•	•	•	•	•	•	0.10-1.50	0.05-0.32
DNMG 110408-F3M	11.63	9.52	4.76	0.80	•	•	•	•	•	•	0.10-1.50	0.10-0.42
DNMG 110412-F3M	11.63	9.52	4.76	1.20		•	•	•	•		0.15-2.00	0.15-0.52

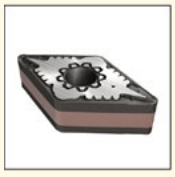
• For user guide and cutting speed recommendations, see pages 128-138,288-294

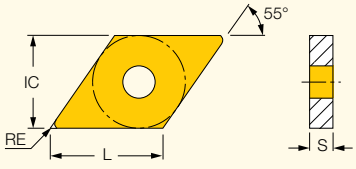
For tools, see pages: DDJNR/L (56) • PDJNR/L (55)

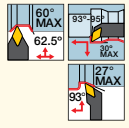
ISOTURN

DNMG-F3M

Double-Sided 55° Rhombic Inserts for Finish on Turning Stainless steel and High temperature alloy







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC6015	IC806	IC807	IC706	IC804	Recommended Machining Data a_p (inch)	f (IPR)
DNMG 331-F3M	.458	.375	.187	.0157	•	•	•	•	•	•		.004-.059	.0020-.0126
DNMG 332-F3M	.458	.375	.187	.0315	•	•	•	•	•	•		.004-.059	.0039-.0165
DNMG 333-F3M	.458	.375	.187	.0472		•	•	•	•			.006-.079	.0059-.0205

• For user guide and cutting speed recommendations, see pages 128-138,288-294

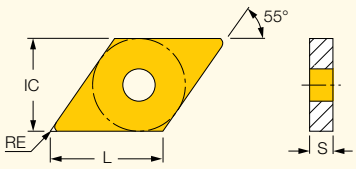
For tools, see pages: DDJNR/L (56) • PDJNR/L (55)

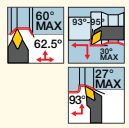
ISOTURN

DNMG-F3S

Double-Sided 55° Rhombic Inserts for Titanium and Heat Resistant Materials for Finishing Applications







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC806	IC706	IC804	Recommended Machining Data a_p (mm)	f (mm/rev)
DNMG 110404-F3S	11.63	9.52	4.76	0.40	•	•	•	0.10-1.50	0.05-0.32
DNMG 110408-F3S	11.63	9.52	4.76	0.80	•	•	•	0.10-1.50	0.10-0.40

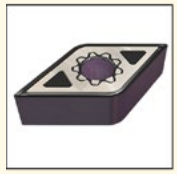
• For user guide and cutting speed recommendations, see pages 128-138,288-294

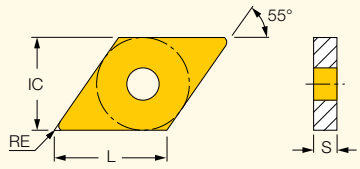
For tools, see pages: DDJNR/L (56) • PDJNR/L (55)

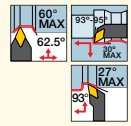
ISOTURN

DNMG-F3S

Double-Sided 55° Rhombic Inserts for Titanium and Heat Resistant Materials for Finishing Applications







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC806	IC706	IC804	Recommended Machining Data a_p (inch)	f (IPR)
DNMG 331-F3S	.458	.375	.187	.0157	●	●	●	.004-.059	.0020-.0126
DNMG 332-F3S	.458	.375	.187	.0315	●	●	●	.004-.059	.0039-.0157

• For user guide and cutting speed recommendations, see pages 128-138,288-294

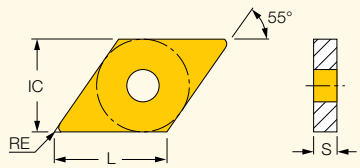
For tools, see pages: DDJNR/L (56) • PDJNR/L (55)

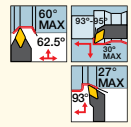
ISOTURN

DNMG-M3P

Double-Sided 55° Rhombic Inserts for Medium Machining Conditions on Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
DNMG 110408-M3P	11.63	9.52	4.76	0.80	●	●	●	●	0.50-5.00	0.15-0.50
DNMG 110412-M3P	11.63	9.52	4.76	1.20	●		●	●	0.80-5.00	0.18-0.60

• For user guide and cutting speed recommendations, see pages 128-138,288-294

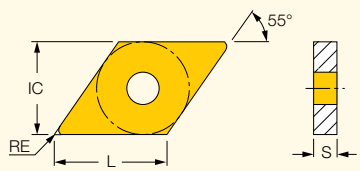
For tools, see pages: DDJNR/L (56) • PDJNR/L (55)

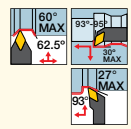
ISOTURN

DNMG-M3P

Double-Sided 55° Rhombic Inserts for Medium Machining Conditions on Steel







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	IC807	Recommended Machining Data a_p (inch)	f (IPR)
DNMG 332-M3P	.458	.375	.187	.0315	●	●	●	●	.020-.197	.0059-.0197
DNMG 333-M3P	.458	.375	.187	.0472	●		●	●	.031-.197	.0071-.0236

• For user guide and cutting speed recommendations, see pages 128-138,288-294

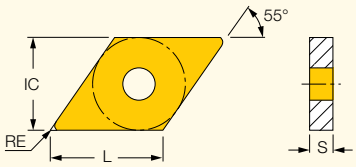
For tools, see pages: DDJNR/L (56) • PDJNR/L (55)

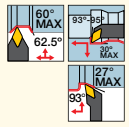
ISOTURN

DNMG-M3M

Double-Sided 55° Rhombic Inserts for Machining Stainless and Low Carbon Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC6015	IC806	IC807	IC706	Recommended Machining Data a_p (mm)	f (mm/rev)
DNMG 110404-M3M	11.63	9.52	4.76	0.40	•	•	•	•	•	•	0.50-3.50	0.12-0.40
DNMG 110408-M3M	11.63	9.52	4.76	0.80	•	•	•	•	•	•	0.50-4.00	0.15-0.50
DNMG 110412-M3M	11.63	9.52	4.76	1.20	•	•	•	•	•		0.50-4.00	0.20-0.60

• For user guide and cutting speed recommendations, see pages 128-138,288-294

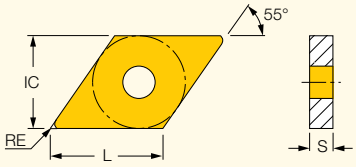
For tools, see pages: DDJNR/L (56) • PDJNR/L (55)

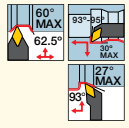
ISOTURN

DNMG-M3M

Double-Sided 55° Rhombic Inserts for Machining Stainless and Low Carbon Steel







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC6015	IC806	IC807	IC706	Recommended Machining Data a_p (inch)	f (IPR)
DNMG 331-M3M	.458	.375	.187	.0160	•	•	•	•	•	•	.020-.138	.0047-.0157
DNMG 332-M3M	.458	.375	.187	.0315	•	•	•	•	•	•	.020-.157	.0059-.0197
DNMG 333-M3M	.458	.375	.187	.0472	•	•	•	•	•		.020-.157	.0079-.0236

• For user guide and cutting speed recommendations, see pages 128-138,288-294

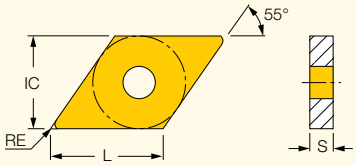
For tools, see pages: DDJNR/L (56) • PDJNR/L (55)

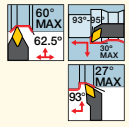
ISOTURN

DNMG-NF

Double-Sided 55° Rhombic Inserts for Semi-Finishing and Finishing Applications







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC530N	IC8150	IC20N	IC520N	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
DNMG 110402-NF	11.63	9.52	4.76	0.20		•		•	•		•	•	0.40-2.50	0.07-0.18
DNMG 110404-NF	11.63	9.52	4.76	0.40	•	•		•	•	•	•	•	0.80-3.00	0.07-0.25
DNMG 110408-NF	11.63	9.52	4.76	0.80	•	•	•	•	•		•	•	1.00-3.50	0.08-0.25

• For user guide and cutting speed recommendations, see pages 128-138,288-294

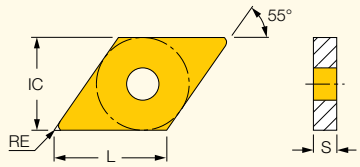
For tools, see pages: DDJNR/L (56) • PDJNR/L (55)

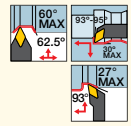
ISOTURN

DNMG-NF

Double-Sided 55° Rhombic Inserts for Semi-Finishing and Finishing Applications







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC530N	IC8150	IC20N	IC520N	IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
DNMG 330-NF	.458	.375	.187	.0079		•		•	•		•	•	.016-.098	.0027-.0071
DNMG 331-NF	.458	.375	.187	.0157	•	•		•	•	•	•	•	.031-.118	.0027-.0098
DNMG 332-NF	.458	.375	.187	.0315	•	•	•	•	•		•	•	.039-.138	.0031-.0098

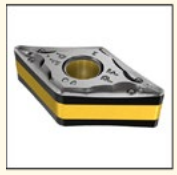
• For user guide and cutting speed recommendations, see pages 128-138,288-294

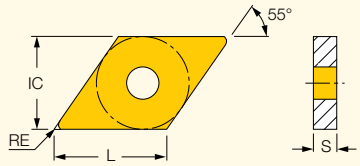
For tools, see pages: DDJNR/L (56) • PDJNR/L (55)

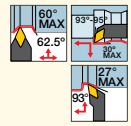
ISOTURN

DNMG-PF

Double-Sided 55° Rhombic Inserts for Finishing Applications on Alloyed and Stainless Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
DNMG 110408-PF	11.63	9.52	4.76	0.80	•	0.30-3.00	0.07-0.30

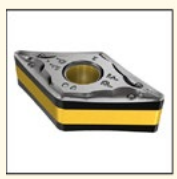
• For user guide and cutting speed recommendations, see pages 128-138,288-294

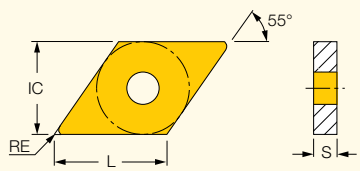
For tools, see pages: DDJNR/L (56) • PDJNR/L (55)

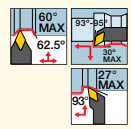
ISOTURN

DNMG-PF

Double-Sided 55° Rhombic Inserts for Finishing Applications on Alloyed and Stainless Steel







I N C H

Designation	Dimensions L	IC	S	RE	IC8150	Recommended Machining Data a_p (inch)	f (IPR)
DNMG 332-PF	.458	.375	.187	.0315	•	.012-.118	.0028-.0118

• For user guide and cutting speed recommendations, see pages 128-138,288-294

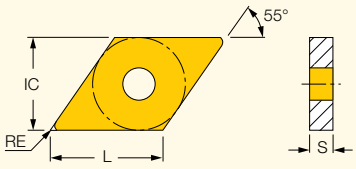
For tools, see pages: DDJNR/L (56) • PDJNR/L (55)

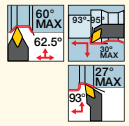
ISOTURN

DNMG-VL

Double-Sided 55° Rhombic Inserts with a Chipformer for High Temperature Alloys and Stainless Steel Valves







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC908	IC806	IC1017	Recommended Machining Data a_p (mm)	f (mm/rev)
DNMG 110404-VL	11.63	9.52	4.76	0.40	●	●	●	0.50-3.50	0.10-0.25
DNMG 110408-VL	11.63	9.52	4.76	0.80	●	●	●	0.50-3.50	0.10-0.25

• For user guide and cutting speed recommendations, see pages 128-138,288-294

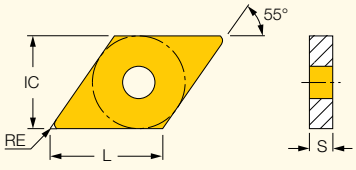
For tools, see pages: DDJNR/L (56) • PDJNR/L (55)

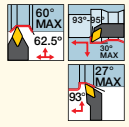
ISOTURN

DNMG-VL

Double-Sided 55° Rhombic Inserts with a Chipformer for High Temperature Alloys and Stainless Steel Valves







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC908	IC806	IC1017	Recommended Machining Data a_p (inch)	f (IPR)
DNMG 331-VL	.458	.375	.187	.0157	●	●	●	.020-.138	.0039-.0098
DNMG 332-VL	.458	.375	.187	.0315	●	●	●	.020-.138	.0039-.0098

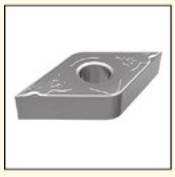
• For user guide and cutting speed recommendations, see pages 128-138,288-294

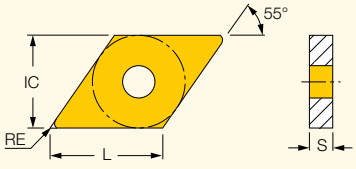
For tools, see pages: DDJNR/L (56) • PDJNR/L (55)

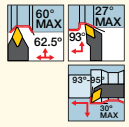
ISOTURN

DNMG/DNGG-SF

Double-Sided 55° Rhombic Inserts for Super Finishing; Controls Chip Flow at Very Low Feeds and Depths of Cut







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC530N	IC520N	Recommended Machining Data a_p (mm)	f (mm/rev)
DNMG 110404-SF	11.63	9.52	4.76	0.40	●	●	0.50-3.00	0.05-0.25

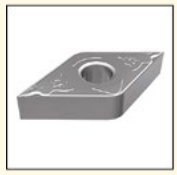
• For user guide and cutting speed recommendations, see pages 128-138,288-294

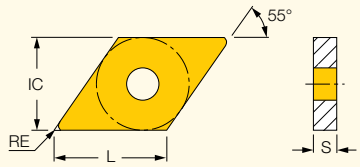
For tools, see pages: DDJNR/L (56) • PDJNR/L (55)

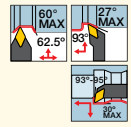
ISOTURN

DNMG/DNGG-SF

Double-Sided 55° Rhombic Inserts for Super Finishing; Controls Chip Flow at Very Low Feeds and Depths of Cut







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC530N	IC520N	Recommended Machining Data a_p (inch)	f (IPR)
DNMG 331-SF	.458	.375	.187	.0157	•	•	.020-.118	.0020-.0098

• For user guide and cutting speed recommendations, see pages 128-138,288-294

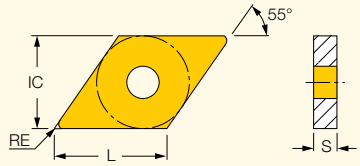
For tools, see pages: DDJNR/L (56) • PDJNR/L (55)

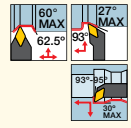
ISOTURN

DNMG/DNGG-PP

55° Double-Sided Rhombic Inserts for Machining Very Ductile Materials under Medium Cutting Conditions







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC10	IC8150	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
DNMG 110404-PP	11.63	9.52	4.76	0.40		•			•	0.40-3.00	0.12-0.30
DNMG 110408-PP	11.63	9.52	4.76	0.80	•	•	•	•		1.00-3.50	0.12-0.30

• For user guide and cutting speed recommendations, see pages 128-138,288-294

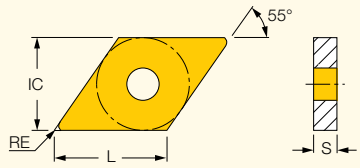
For tools, see pages: DDJNR/L (56) • PDJNR/L (55)

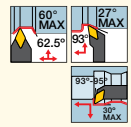
ISOTURN

DNMG/DNGG-PP

55° Double-Sided Rhombic Inserts for Machining Very Ductile Materials under Medium Cutting Conditions







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC10	IC8150	IC20	Recommended Machining Data a_p (inch)	f (IPR)
DNMG 331-PP	.458	.375	.187	.0157		•			•	.016-.118	.0047-.0118
DNMG 332-PP	.458	.375	.187	.0315	•	•	•	•		.039-.138	.0047-.0118

• For user guide and cutting speed recommendations, see pages 128-138,288-294

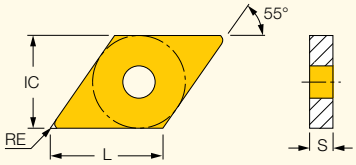
For tools, see pages: DDJNR/L (56) • PDJNR/L (55)

ISOTURN

DNMG/DNGG-TF

Double-Sided 55° Rhombic Inserts for Machining a Wide Range of Materials under Medium Cutting Conditions





M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8250	IC530N	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
DNMG 110404-TF	11.63	9.52	4.76	0.40	•	•	•	1.00-3.00	0.12-0.30
DNMG 110412-TF	11.63	9.52	4.76	1.20	•			1.50-4.00	0.15-0.35

• For user guide and cutting speed recommendations, see pages 128-138,288-294

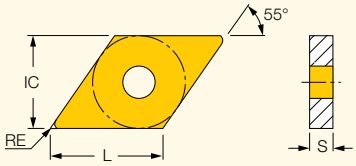
For tools, see pages: DDJNR/L (56) • PDJNR/L (55)

ISOTURN

DNMG/DNGG-TF

Double-Sided 55° Rhombic Inserts for Machining a Wide Range of Materials under Medium Cutting Conditions





I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8250	IC530N	IC20	Recommended Machining Data a_p (inch)	f (IPR)
DNMG 331-TF	.458	.375	.187	.0157	•	•	•	.039-.118	.0047-.0118
DNMG 333-TF	.458	.375	.187	.0472	•			.059-.157	.0059-.0138

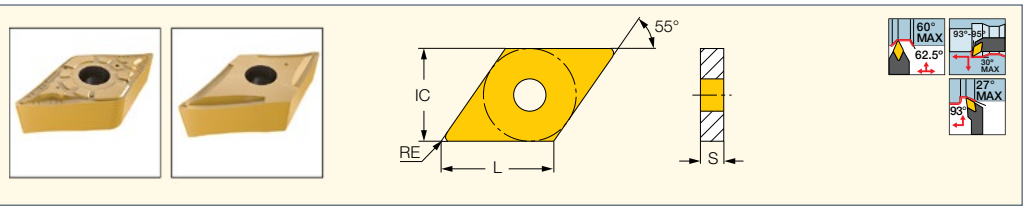
• For user guide and cutting speed recommendations, see pages 128-138,288-294

For tools, see pages: DDJNR/L (56) • PDJNR/L (55)

ISOTURN

DNMG-CERMET

Double-Sided 55° Rhombic
Cermet Grade Inserts
for Semi-Finishing and
Finishing Applications



M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC20N	IC520N	Recommended Machining Data a_p (mm)	f (mm/rev)
DNMG 110402-FFC	11.63	9.52	4.76	0.20	•		0.40-2.50	0.05-0.20
DNMG 110404-FFC	11.63	9.52	4.76	0.40		•	0.80-3.00	0.07-0.25
DNMG 110404-FFG	11.63	9.52	4.76	0.40		•	0.70-2.00	0.07-0.22
DNMG 110408-FFC	11.63	9.52	4.76	0.80	•	•	1.00-3.50	0.08-0.25

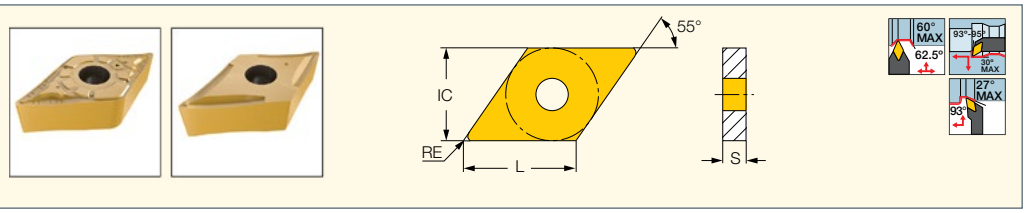
• For user guide and cutting speed recommendations, see pages 128-138,288-294

For tools, see pages: DDJNR/L (56) • PDJNR/L (55)

ISOTURN

DNMG-CERMET

Double-Sided 55° Rhombic
Cermet Grade Inserts
for Semi-Finishing and
Finishing Applications

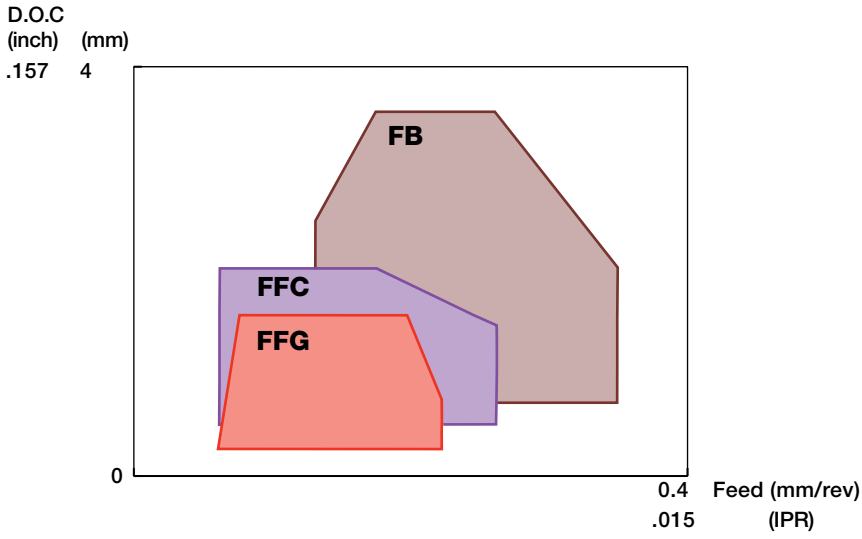


I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC20N	IC520N	Recommended Machining Data a_p (inch)	f (IPR)
DNMG 330-FFC	.458	.375	.187	.0079	•		.016-.098	.0020-.0079
DNMG 331-FFC	.458	.375	.187	.0157		•	.031-.118	.0027-.0098
DNMG 331-FFG	.458	.375	.187	.0157		•	.028-.079	.0027-.0087
DNMG 332-FFC	.458	.375	.187	.0315	•	•	.039-.138	.0031-.0098

• For user guide and cutting speed recommendations, see pages 128-138,288-294

For tools, see pages: DDJNR/L (56) • PDJNR/L (55)

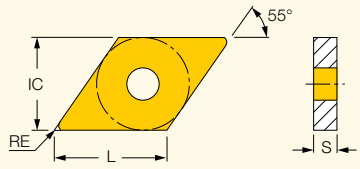


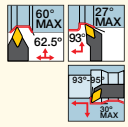
ALUPTURN POSITIVE DOUBLE SIDED

DNGG-M3N

Double-Sided Sharp-Edged Positive and Polished Rake Inserts for Finishing Aluminum and Other Non-Ferrous Materials







M E T R I C

Designation	Dimensions L	IC	S	RE	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
DNGG 110402-M3N-P	11.63	9.52	4.76	0.20	●	0.30-3.00	0.10-0.30
DNGG 110404-M3N-P	11.63	9.52	4.76	0.40	●	0.30-3.00	0.10-0.30
DNGG 110408-M3N-P	11.63	9.52	4.76	0.80	●	0.30-3.00	0.10-0.30

• For user guide and cutting speed recommendations, see pages 128-138,288-294

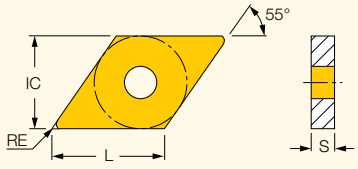
For tools, see pages: DDJNR/L (56) • PDJNR/L (55)

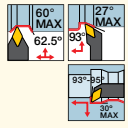
ALUPTURN POSITIVE DOUBLE SIDED

DNGG-M3N

Double-Sided Sharp-Edged Positive and Polished Rake Inserts for Finishing Aluminum and Other Non-Ferrous Materials







I N C H

Designation	Dimensions L	IC	S	RE	IC20	Recommended Machining Data a_p (inch)	f (IPR)
DNGG 330-M3N-P	.458	.375	.187	.0079	●	.012-.118	.0039-.0118
DNGG 331-M3N-P	.458	.375	.187	.0157	●	.012-.118	.0039-.0118
DNGG 332-M3N-P	.458	.375	.187	.0315	●	.012-.118	.0039-.0118

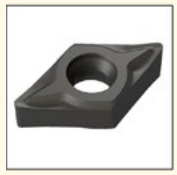
• For user guide and cutting speed recommendations, see pages 128-138,288-294

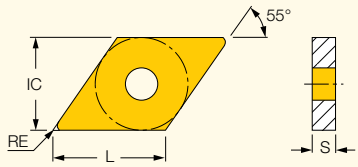
For tools, see pages: DDJNR/L (56) • PDJNR/L (55)

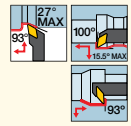
MINIPTURN POSITIVE DOUBLE SIDED

DNGP-F2M

Double-Sided 55° Rhombic Inserts for Semi-Finishing and Finishing on Stainless Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	IC908	Recommended Machining Data a_p (mm)	f (mm/rev)
DNGP 070302R/L-F2M	7.70	6.35	3.18	0.20	●	0.30-2.00	0.08-0.30
DNGP 070304R/L-F2M	7.70	6.35	3.18	0.40	●	0.30-2.00	0.08-0.30
DNGP 070308R/L-F2M	7.70	6.35	3.18	0.80	●	0.30-2.00	0.08-0.30

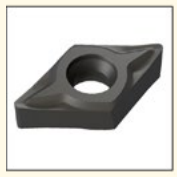
• For user guide and cutting speed recommendations, see pages 128-138,288-294

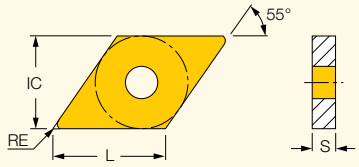
For tools, see pages: A/E-SDXNR/L-07 (91) • A/E-SDZNR/L-07 (92) • NQCH-SDJNR/L-S-JHP (54) • PDJNR/L-S (55) • SBTT/L/A-SDJNR/L07-JHP (826)

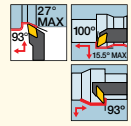
MINIPTURN POSITIVE DOUBLE SIDED

DNGP-F2M

Double-Sided 55° Rhombic Inserts for Semi-Finishing and Finishing on Stainless Steel







I N C H

Designation	Dimensions L	IC	S	RE	IC908	Recommended Machining Data a_p (inch)	f (IPR)
DNGP 220.5R/L-F2M	.303	.250	.125	.0079	●	.012-.079	.0031-.0118
DNGP 221R/L-F2M	.303	.250	.125	.0157	●	.012-.079	.0031-.0118
DNGP 222R/L-F2M	.303	.250	.125	.0315	●	.012-.079	.0031-.0118

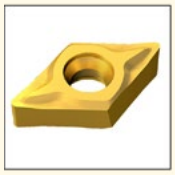
• For user guide and cutting speed recommendations, see pages 128-138,288-294

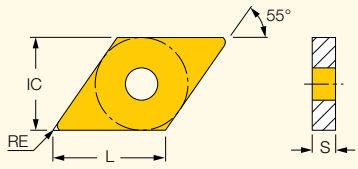
For tools, see pages: A/E-SDXNR/L-07 (91) • A/E-SDZNR/L-07 (92) • NQCH-SDJNR/L-S-JHP (54) • PDJNR/L-S (55) • SBTT/L/A-SDJNR/L07-JHP (826)

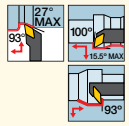
MINIPTURN POSITIVE DOUBLE SIDED

DNGP-F2P

Double-Sided 55° Rhombic Inserts for Semi-Finishing and Finishing Applications on Alloyed Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	IC530N	Recommended Machining Data a_p (mm)	f (mm/rev)
DNGP 070302R/L-F2P	7.70	6.35	3.18	0.20	•	0.30-2.00	0.08-0.30
DNGP 070304R/L-F2P	7.70	6.35	3.18	0.40	•	0.30-2.00	0.08-0.30
DNGP 070308R/L-F2P	7.70	6.35	3.18	0.80	•	0.30-2.00	0.08-0.30

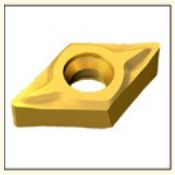
• For user guide and cutting speed recommendations, see pages 128-138,288-294

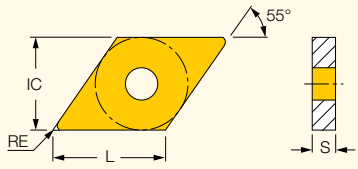
For tools, see pages: A/E-SDXNR/L-07 (91) • A/E-SDZNR/L-07 (92) • NQCH-SDJNR/L-S-JHP (54) • PDJNR/L-S (55) • SBTT/L/A-SDJNR/L07-JHP (826)

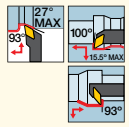
MINIPTURN POSITIVE DOUBLE SIDED

DNGP-F2P

Double-Sided 55° Rhombic Inserts for Semi-Finishing and Finishing Applications on Alloyed Steel







I N C H

Designation	Dimensions L	IC	S	RE	IC530N	Recommended Machining Data a_p (inch)	f (IPR)
DNGP 220.5R/L-F2P	.303	.250	.125	.0079	•	.012-.079	.0031-.0118
DNGP 221R/L-F2P	.303	.250	.125	.0157	•	.012-.079	.0031-.0118
DNGP 222R/L-F2P	.303	.250	.125	.0315	•	.012-.079	.0031-.0118

• For user guide and cutting speed recommendations, see pages 128-138,288-294

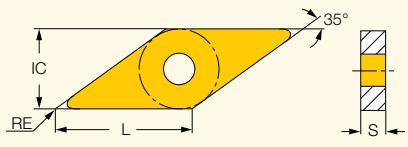
For tools, see pages: A/E-SDXNR/L-07 (91) • A/E-SDZNR/L-07 (92) • NQCH-SDJNR/L-S-JHP (54) • PDJNR/L-S (55) • SBTT/L/A-SDJNR/L07-JHP (826)

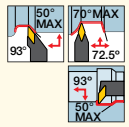
ISOTURN

VNMG-F3P

Double-Sided 35° Rhombic Inserts for Semi-Finishing and Finishing Applications on Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
VNMG 12T302-F3P	12.40	7.15	3.89	0.20	•	•	•	•	0.40-2.00	0.08-0.20
VNMG 12T304-F3P	12.40	7.15	3.89	0.40	•	•	•	•	0.70-2.00	0.08-0.20

• For user guide and cutting speed recommendations, see pages 128-138,288-294

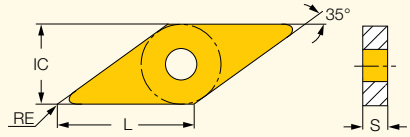
For tools, see pages: A-SVUNR/L (121) • SVANR/L-FS (57) • SVJNR/L-F (57) • SVVNN-F (58)

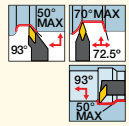
ISOTURN

VNMG-F3P

Double-Sided 35° Rhombic Inserts for Semi-Finishing and Finishing Applications on Steel







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	IC807	Recommended Machining Data a_p (inch)	f (IPR)
VNMG 2.5-0-F3P	.488	.281	.153	.0079	●	●	●	●	.016-.079	.0031-.0079
VNMG 2.5-1-F3P	.488	.281	.153	.0157	●	●	●	●	.028-.079	.0031-.0079

• For user guide and cutting speed recommendations, see pages 128-138,288-294

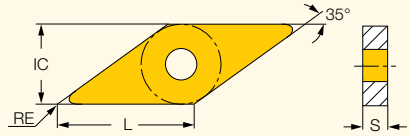
For tools, see pages: A-SVUNR/L (121) • SVANR/L-FS (57) • SVJNR/L-F (57) • SVVNN-F (58)

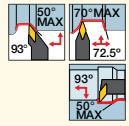
ISOTURN

VNMG-F3M

Double-Sided 35° Rhombic Inserts for Finishing on Stainless Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	IC806	IC706	IC804	Recommended Machining Data a_p (mm)	f (mm/rev)
VNMG 12T302-F3M	12.40	7.15	3.97	0.20	●	●	●	0.10-1.50	0.03-0.20
VNMG 12T304-F3M	12.40	7.15	3.97	0.40	●	●	●	0.10-1.50	0.05-0.30
VNMG 12T308-F3M	12.40	7.15	3.97	0.80	●	●	●	0.10-1.50	0.05-0.30

• For user guide and cutting speed recommendations, see pages 128-138,288-294

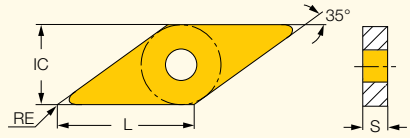
For tools, see pages: A-SVUNR/L (121) • SVANR/L-FS (57) • SVJNR/L-F (57) • SVVNN-F (58)

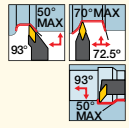
ISOTURN

VNMG-F3M

Double-Sided 35° Rhombic Inserts for Finishing on Stainless Steel







I N C H

Designation	Dimensions L	IC	S	RE	IC806	IC706	IC804	Recommended Machining Data a_p (inch)	f (IPR)
VNMG 2.5-0-F3M	.488	.281	.156	.0079	●	●	●	.004-.059	.0012-.0079
VNMG 2.5-1-F3M	.488	.281	.156	.0157	●	●	●	.004-.059	.0020-.0118
VNMG 2.5-2-F3M	.488	.281	.156	.0315	●	●	●	.004-.059	.0020-.0118

• For user guide and cutting speed recommendations, see pages 128-138,288-294

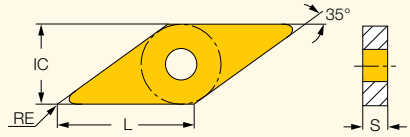
For tools, see pages: A-SVUNR/L (121) • SVANR/L-FS (57) • SVJNR/L-F (57) • SVVNN-F (58)

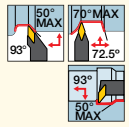
ISOTURN

VNMG-M3M

Double-Sided 35° Rhombic Inserts for Machining Stainless and Low Carbon Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC6015	IC806	IC807	IC706	Recommended Machining Data a_p (mm)	f (mm/rev)
VNMG 12T304-M3M	12.40	7.15	3.89	0.40				●	●	●	0.40-2.00	0.08-0.20
VNMG 12T308-M3M	12.40	7.15	3.89	0.80	●	●	●	●	●	●	0.70-2.00	0.08-0.20

• For user guide and cutting speed recommendations, see pages 128-138,288-294

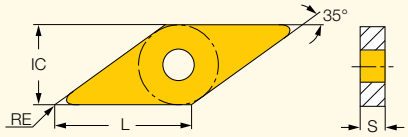
For tools, see pages: A-SVUNR/L (121) • SVANR/L-FS (57) • SVJNR/L-F (57) • SVVNN-F (58)

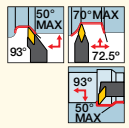
ISOTURN

VNMG-M3M

Double-Sided 35° Rhombic Inserts for Machining Stainless and Low Carbon Steel







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC6015	IC806	IC807	IC706	Recommended Machining Data a_p (inch)	f (IPR)
VNMG 2.5-1-M3M	.488	.281	.153	.0157				●	●	●	.016-.079	.0031-.0079
VNMG 2.5-2-M3M	.488	.281	.153	.0315	●	●	●	●	●	●	.028-.079	.0031-.0079

• For user guide and cutting speed recommendations, see pages 128-138,288-294

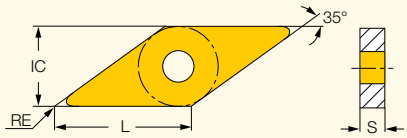
For tools, see pages: A-SVUNR/L (121) • SVANR/L-FS (57) • SVJNR/L-F (57) • SVVNN-F (58)

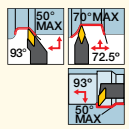
ISOTURN

VNMG-SF

Double-Sided 35° Rhombic Inserts for Super Finishing







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC908	IC570	Recommended Machining Data a_p (mm)	f (mm/rev)
VNMG 12T302-SF	12.40	7.15	3.97	0.20	●	●	0.30-2.00	0.03-0.20
VNMG 12T304-SF	12.40	7.15	3.97	0.40	●	●	0.50-3.00	0.05-0.25

• For user guide and cutting speed recommendations, see pages 128-138,288-294

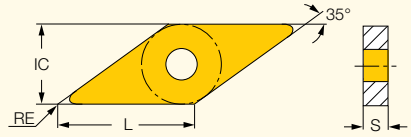
For tools, see pages: A-SVUNR/L (121) • SVANR/L-FS (57) • SVJNR/L-F (57) • SVVNN-F (58)

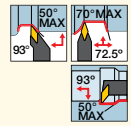
ISOTURN

VNMG-SF

Double-Sided 35° Rhombic Inserts for Super Finishing







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC908	IC570	Recommended Machining Data a_p (inch)	f (IPR)
VNMG 2.5-0-SF	.488	.281	.156	.0079	●	●	.012-.079	.0012-.0079
VNMG 2.5-1-SF	.488	.281	.156	.0157	●	●	.020-.118	.0020-.0098

• For user guide and cutting speed recommendations, see pages 128-138,288-294

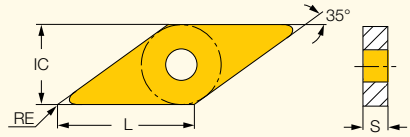
For tools, see pages: A-SVUNR/L (121) • SVANR/L-FS (57) • SVJNR/L-F (57) • SVVNN-F (58)

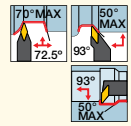
ISOTURN

VNMM-PP

Single-Sided 35° Rhombic Inserts for Machining Very Ductile Materials under Medium Cutting Conditions







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8250	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
VNMM 12T304-PP	12.40	7.15	3.97	0.40	●	●	0.80-2.50	0.12-0.20
VNMM 12T308-PP	12.40	7.15	3.97	0.80	●	●	1.00-2.50	0.12-0.25

• For user guide and cutting speed recommendations, see pages 128-138,288-294

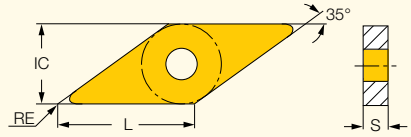
For tools, see pages: A-SVUNR/L (121) • SVANR/L-FS (57) • SVJNR/L-F (57) • SVVNN-F (58)

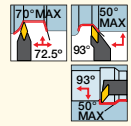
ISOTURN

VNMM-PP

Single-Sided 35° Rhombic Inserts for Machining Very Ductile Materials under Medium Cutting Conditions







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8250	IC20	Recommended Machining Data a_p (inch)	f (IPR)
VNMM 2.5-1-PP	.488	.281	.156	.0157	●	●	.031-.098	.0047-.0079
VNMM 2.5-2-PP	.488	.281	.156	.0315	●	●	.039-.098	.0047-.0098

• For user guide and cutting speed recommendations, see pages 128-138,288-294

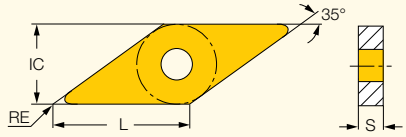
For tools, see pages: A-SVUNR/L (121) • SVANR/L-FS (57) • SVJNR/L-F (57) • SVVNN-F (58)

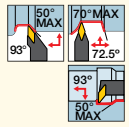
ISOTURN

VNMG-FNF-CERMET

Double-Sided 35° Rhombic Cermet Inserts for Semi-Finishing and Finishing Applications







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC20N	IC520N	Recommended Machining Data a_p (mm)	f (mm/rev)
VNMG 12T302-FNF	12.40	7.15	4.00	0.20	•		0.50-3.00	0.07-0.23
VNMG 12T304-FNF	12.40	7.15	4.00	0.40		•	0.50-3.00	0.07-0.23

• For user guide and cutting speed recommendations, see pages 128-138,288-294

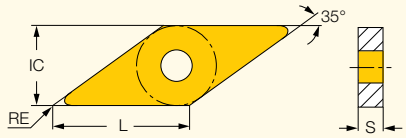
For tools, see pages: A-SVUNR/L (121) • SVANR/L-FS (57) • SVJNR/L-F (57) • SVVNN-F (58)

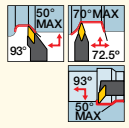
ISOTURN

VNMG-FNF-CERMET

Double-Sided 35° Rhombic Inserts for Semi-Finishing and Finishing Applications







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC20N	IC520N	Recommended Machining Data a_p (inch)	f (IPR)
VNMG 2.5-0-FNF	.488	.281	.157	.0079	•		.020-.118	.0027-.0091
VNMG 2.5-1-FNF	.488	.281	.157	.0157		•	.020-.118	.0027-.0091

• For user guide and cutting speed recommendations, see pages 128-138,288-294

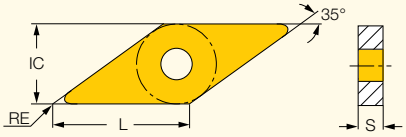
For tools, see pages: A-SVUNR/L (121) • SVANR/L-FS (57) • SVJNR/L-F (57) • SVVNN-F (58)

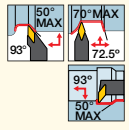
ISOTURN

VNMG/VNGG-NF

Double-Sided 35° Rhombic Inserts for Semi-Finishing and Finishing Applications







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC8250	IC530N	IC10	IC6015	IC8150	IC20N	IC428	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
VNMG 12T302-NF	12.40	7.15	3.97	0.20	•	•	•		•	•		•		•	•	0.40-2.50	0.07-0.18
VNMG 12T304-NF	12.40	7.15	3.97	0.40	•	•	•	•	•	•	•	•	•	•	•	0.70-2.00	0.07-0.24
VNMG 12T308-NF	12.40	7.15	3.97	0.80	•	•	•		•	•	•	•	•	•	•	1.00-3.00	0.08-0.24
VNGG 12T302-NF	12.40	7.15	3.90	0.20											•	0.40-2.50	0.05-0.17
VNGG 12T304-NF	12.40	7.15	3.90	0.40											•	0.50-3.00	0.05-0.25

• For user guide and cutting speed recommendations, see pages 128-138,288-294

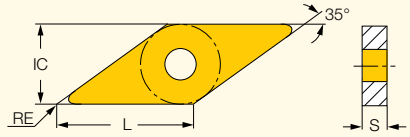
For tools, see pages: A-SVUNR/L (121) • SVANR/L-FS (57) • SVJNR/L-F (57) • SVVNN-F (58)

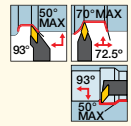
ISOTURN

VNMG/VNGG-NF

Double-Sided 35° Rhombic Inserts for Semi-Finishing and Finishing Applications







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC8250	IC530N	IC10	IC6015	IC8150	IC20N	IC428	IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
VNMG 2.5-0-NF	.488	.281	.156	.0079	•	•	•		•	•		•		•	•	.016-.098	.0027-.0071
VNMG 2.5-1-NF	.488	.281	.156	.0157	•	•	•	•	•	•	•	•	•	•	•	.028-.079	.0027-.0094
VNMG 2.5-2-NF	.488	.281	.156	.0315	•	•	•		•	•	•	•	•	•	•	.039-.118	.0031-.0094
VNGG 2.5-0-NF	.488	.281	.154	.0079											•	.016-.098	.0020-.0067
VNGG 2.5-1-NF	.488	.281	.154	.0157											•	.020-.118	.0020-.0098

• For user guide and cutting speed recommendations, see pages 128-138,288-294

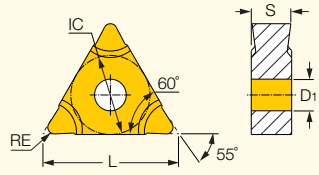
For tools, see pages: A-SVUNR/L (121) • SVANR/L-FS (57) • SVJNR/L-F (57) • SVVNN-F (58)

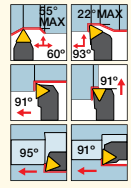
LOGIQ6TURN FINISH

D6NMG-F3P

Double-Sided Triangular Inserts with 55° Corner Angle and a Positive Rake Angle, for Finishing ISO-P Materials







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC8250	IC8150	IC520N	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
D6NMG 160404-F3P	16.47	9.52	4.76	0.40	3.81	•	•	•	•	•	0.50-2.50	0.05-0.25
D6NMG 160408-F3P	16.47	9.52	4.76	0.80	3.81	•	•	•	•	•	0.80-2.50	0.07-0.25

• The LOGIQ-6-TURN inserts fit standard holders also suitable for TNMG inserts • For user guide and cutting speed recommendations, see pages 128-138,288-294

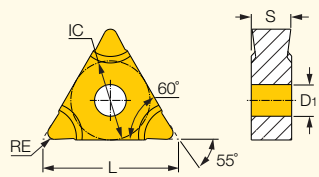
For tools, see pages: A-PTFNR/L-X/G (122) • AVC-PTLNR/L (107) • MTENN-W (59) • MTJNR/L-W (60) • NQCH-PTJNR/L-S-JHP (59) • S-PTFNR/L (123)

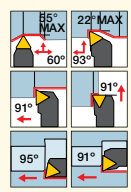
LOGIQ6TURN FINISH

D6NMG-F3P

Double-Sided Triangular Inserts with 55° Corner Angle and a Positive Rake Angle, for Finishing ISO-P Materials







I N C H

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC8250	IC8150	IC520N	IC807	Recommended Machining Data a_p (inch)	f (IPR)
D6NMG 331-F3P	.648	.375	.187	.0158	.150	•	•	•	•	•	.020-.098	.0020-.0098
D6NMG 332-F3P	.648	.375	.187	.0315	.150	•	•	•	•	•	.032-.098	.0028-.0098

• The LOGIQ-6-TURN inserts fit standard holders also suitable for TNMG inserts • For user guide and cutting speed recommendations, see pages 128-138,288-294

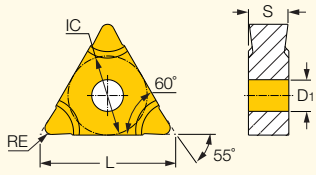
For tools, see pages: A-MTFNR (123) • A-PTFNR/L-X/G (122) • AVC-PTLNR/L (107) • MTENN-W (59) • MTJNR/L-W (60) • NQCH-PTJNR/L-S-JHP (59) • S-PTFNR/L (123)

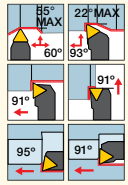
LOGIQ6TURN FINISH

D6NMG-M3P

Double-Sided Triangular Inserts with 55° Corner Angle and a Positive Rake Angle, for Semi-Finishing and Finishing ISO-P







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC8250	IC8150	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
D6NMG 160404-M3P	16.47	9.52	4.76	0.40	3.81	●	●	●	●	0.50-2.50	0.05-0.25
D6NMG 160408-M3P	16.47	9.52	4.76	0.80	3.81	●	●	●	●	0.80-2.50	0.07-0.25
D6NMG 160412-M3P	16.47	9.52	4.76	1.20	3.81	●	●	●	●	1.00-2.50	0.08-0.25

• The LOGIQ-6-TURN inserts fit standard holders also suitable for TNMG inserts • For user guide and cutting speed recommendations, see pages 128-138,288-294

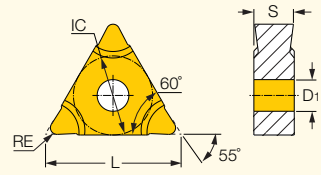
For tools, see pages: A-PTFNR/L-X/G (122) • AVC-PTLNR/L (107) • MTENN-W (59) • MTJNR/L-W (60) • NQCH-PTJNR/L-S-JHP (59) • S-PTFNR/L (123)

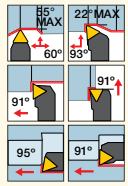
LOGIQ6TURN FINISH

D6NMG-M3P

Double-Sided Triangular Inserts with 55° Corner Angle and a Positive Rake Angle, for Semi-Finishing and Finishing ISO-P







I N C H

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC8250	IC8150	IC807	Recommended Machining Data a_p (inch)	f (IPR)
D6NMG 331-M3P	.648	.375	.187	.0157	.150	●	●	●	●	.020-.098	.0020-.0098
D6NMG 332-M3P	.648	.375	.187	.0315	.150	●	●	●	●	.031-.098	.0027-.0098
D6NMG 333-M3P	.648	.375	.187	.0472	.150	●	●	●	●	.004-.098	.0031-.0098

• The LOGIQ-6-TURN inserts fit standard holders also suitable for TNMG inserts • For user guide and cutting speed recommendations, see pages 128-138,288-294

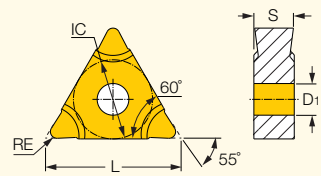
For tools, see pages: A-PTFNR/L-X/G (122) • AVC-PTLNR/L (107) • MTENN-W (59) • MTJNR/L-W (60) • NQCH-PTJNR/L-S-JHP (59) • S-PTFNR/L (123)

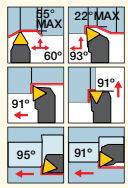
LOGIQ6TURN FINISH

D6NMG-M3M

Double-Sided Triangular Inserts with 55° Corner Angle and a Positive Rake Angle, for Semi-Finishing and Finishing ISO-M







M E T R I C

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC6025	IC6015	IC806	IC1017	IC807	IC706	Recommended Machining Data a_p (mm)	f (mm/rev)
D6NMG 160404-M3M	16.47	9.52	4.76	0.40	3.81	●	●	●	●	●	●	●	0.50-2.50	0.05-0.25
D6NMG 160408-M3M	16.47	9.52	4.76	0.80	3.81	●	●	●	●	●	●	●	0.80-2.50	0.07-0.25
D6NMG 160412-M3M	16.47	9.52	4.76	1.20	3.81		●	●					1.00-2.50	0.08-0.25

• The LOGIQ-6-TURN inserts fit standard holders also suitable for TNMG inserts • For user guide and cutting speed recommendations, see pages 128-138,288-294

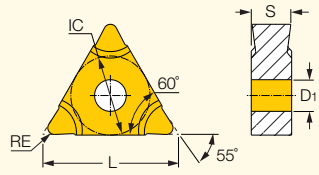
For tools, see pages: A-PTFNR/L-X/G (122) • AVC-PTLNR/L (107) • MTENN-W (59) • MTJNR/L-W (60) • NQCH-PTJNR/L-S-JHP (59) • S-PTFNR/L (123)

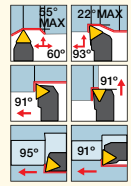
LOGIQ6TURN FINISH

D6NMG-M3M

Double-Sided Triangular Inserts with 55° Corner Angle and a Positive Rake Angle, for Semi-Finishing and Finishing ISO-M







I N C H

Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC6025	IC6015	IC806	IC1017	IC807	IC706	Recommended Machining Data a_p (inch)	f (IPR)
D6NMG 331-M3M	.648	.375	.187	.0157	.150	•	•	•	•	•	•	•	.020-.098	.0020-.0098
D6NMG 332-M3M	.648	.375	.187	.0315	.150	•	•	•	•	•	•	•	.031-.098	.0027-.0098
D6NMG 333-M3M	.648	.375	.187	.0472	.150		•	•					.039-.098	.0032-.0098

• The LOGIQ-6-TURN inserts fit standard holders also suitable for TNMG inserts • For user guide and cutting speed recommendations, see pages 128-138,288-294

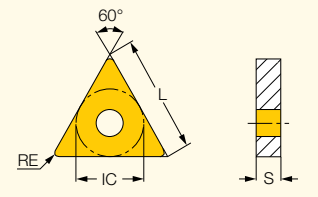
For tools, see pages: A-PTFNR/L-X/G (122) • AVC-PTLNR/L (107) • MTENN-W (59) • MTJNR/L-W (60) • NQCH-PTJNR/L-S-JHP (59) • S-PTFNR/L (123)

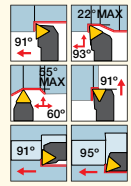
ISOTURN

TNMG-F3P

Double-Sided Triangular Inserts for Semi-Finishing and Finishing Applications







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
TNMG 160404-F3P	16.50	9.52	4.76	0.40	•	•	•	•	0.50-2.00	0.07-0.25
TNMG 160408-F3P	16.50	9.52	4.76	0.80	•	•	•	•	0.90-3.00	0.08-0.25
TNMG 160412-F3P	16.50	9.52	4.76	1.20	•	•	•	•	1.30-4.00	0.10-0.25

• For user guide and cutting speed recommendations, see pages 128-138,288-294

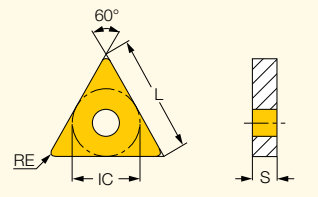
For tools, see pages: A-PTFNR/L-X/G (122) • AVC-PTLNR/L (107) • MTENN-W (59) • MTJNR/L-W (60) • NQCH-PTJNR/L-S-JHP (59) • S-PTFNR/L (123)

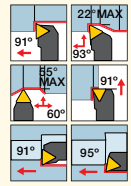
ISOTURN

TNMG-F3P

Double-Sided Triangular Inserts for Semi-Finishing and Finishing Applications







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	IC807	Recommended Machining Data a_p (inch)	f (IPR)
TNMG 331-F3P	.650	.375	.187	.0157	•	•	•	•	.020-.079	.0027-.0098
TNMG 332-F3P	.650	.375	.187	.0315	•	•	•	•	.035-.118	.0031-.0098
TNMG 333-F3P	.650	.375	.187	.0472	•	•	•	•	.051-.157	.0039-.0098

• For user guide and cutting speed recommendations, see pages 128-138,288-294

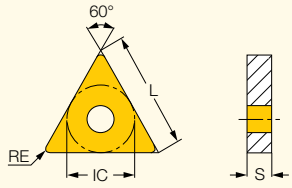
For tools, see pages: A-MTFNR (123) • A-PTFNR/L-X/G (122) • AVC-PTLNR/L (107) • MTENN-W (59) • MTJNR/L-W (60) • NQCH-PTJNR/L-S-JHP (59) • S-PTFNR/L (123)

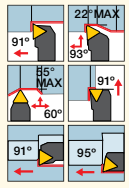
ISOTURN

TNMG-F3M

Double-Sided Triangular Inserts for Finish Turning on Stainless and Low Carbon Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC6015	IC20N	IC520N	IC806	IC807	IC706	IC804	Recommended Machining Data a_p (mm)	f (mm/rev)
TNMG 160404-F3M	16.50	9.52	4.76	0.40	●	●	●	●	●	●	●	●		0.10-1.50	0.05-0.32
TNMG 160408-F3M	16.50	9.52	4.76	0.80	●	●	●	●	●	●	●	●	●	0.10-1.50	0.10-0.42
TNMG 160412-F3M	16.50	9.52	4.76	1.20	●	●	●			●	●			0.15-2.00	0.15-0.52

- For user guide and cutting speed recommendations, see pages 128-138,288-294

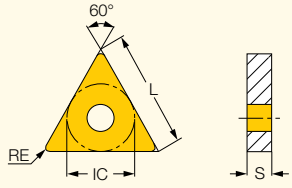
For tools, see pages: A-PTFNR/L-X/G (122) • AVC-PTLNR/L (107) • MTENN-W (59) • MTJNR/L-W (60) • NQCH-PTJNR/L-S-JHP (59) • S-PTFNR/L (123)

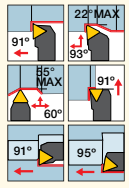
ISOTURN

TNMG-F3M

Double-Sided Triangular Inserts for Finish Turning on Stainless and Low Carbon Steel







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC6015	IC20N	IC520N	IC806	IC807	IC706	IC804	Recommended Machining Data a_p (inch)	f (IPR)
TNMG 331-F3M	.650	.375	.187	.0157	●	●	●	●	●	●	●	●		.004-.059	.0020-.0126
TNMG 332-F3M	.650	.375	.187	.0315	●	●	●	●	●	●	●	●	●	.004-.059	.0039-.0165
TNMG 333-F3M	.650	.375	.187	.0472	●	●	●			●	●			.006-.079	.0059-.0205

- For user guide and cutting speed recommendations, see pages 128-138,288-294

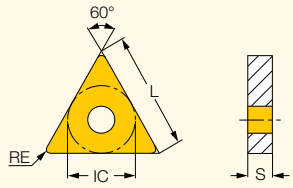
For tools, see pages: A-MTFNR (123) • A-PTFNR/L-X/G (122) • AVC-PTLNR/L (107) • MTENN-W (59) • MTJNR/L-W (60) • NQCH-PTJNR/L-S-JHP (59) • S-PTFNR/L (123)

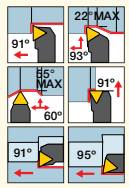
ISOTURN

TNMG-F3S

Double-Sided 60° Triangular Inserts for Titanium and Heat Resistant Materials for Finishing Applications







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC806	IC706	IC804	Recommended Machining Data a_p (mm)	f (mm/rev)
TNMG 160404-F3S	16.50	9.52	4.76	0.40	●	●	●	0.10-1.50	0.05-0.32
TNMG 160408-F3S	16.50	9.52	4.76	0.80	●	●	●	0.10-1.50	0.10-0.40

- For user guide and cutting speed recommendations, see pages 128-138,288-294

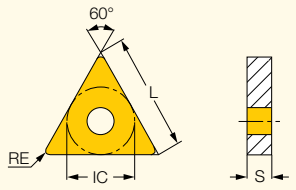
For tools, see pages: A-PTFNR/L-X/G (122) • AVC-PTLNR/L (107) • MTENN-W (59) • MTJNR/L-W (60) • NQCH-PTJNR/L-S-JHP (59) • S-PTFNR/L (123)

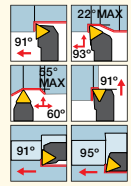
ISOTURN

TNMG-F3S

Double-Sided 60° Triangular Inserts for Titanium and Heat Resistant Materials for Finishing Applications







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC806	IC706	IC804	Recommended Machining Data a_p (inch)	f (IPR)
TNMG 331-F3S	.650	.375	.187	.0157	●	●	●	.004-.059	.0020-.0126
TNMG 332-F3S	.650	.375	.187	.0315	●	●	●	.004-.059	.0039-.0157

• For user guide and cutting speed recommendations, see pages 128-138,288-294

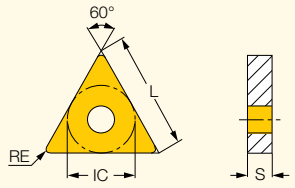
For tools, see pages: A-MTFNR (123) • A-PTFNR/L-X/G (122) • AVC-PTLNR/L (107) • MTENN-W (59) • MTJNR/L-W (60) • NQCH-PTJNR/L-S-JHP (59) • S-PTFNR/L (123)

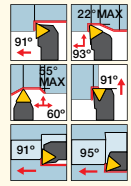
ISOTURN

TNMG-M3P

Double-Sided Triangular Inserts for Medium Machining Conditions on Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
TNMG 160404-M3P	16.50	9.52	4.76	0.40	●	●	●	●	0.40-5.00	0.10-0.30
TNMG 160408-M3P	16.50	9.52	4.76	0.80	●	●	●	●	0.50-5.00	0.15-0.50
TNMG 160412-M3P	16.50	9.52	4.76	1.20	●	●	●	●	0.80-5.00	0.18-0.60

• For user guide and cutting speed recommendations, see pages 128-138,288-294

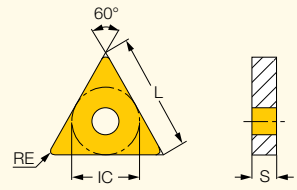
For tools, see pages: A-PTFNR/L-X/G (122) • AVC-PTLNR/L (107) • MTENN-W (59) • MTJNR/L-W (60) • NQCH-PTJNR/L-S-JHP (59) • S-PTFNR/L (123)

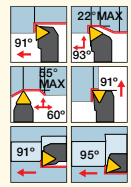
ISOTURN

TNMG-M3P

Double-Sided Triangular Inserts for Medium Machining Conditions on Steel







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	IC807	Recommended Machining Data a_p (inch)	f (IPR)
TNMG 331-M3P	.650	.375	.187	.0157	●	●	●	●	.016-.197	.0039-.0118
TNMG 332-M3P	.650	.375	.187	.0315	●	●	●	●	.020-.197	.0059-.0197
TNMG 333-M3P	.650	.375	.187	.0472	●	●	●	●	.031-.197	.0071-.0236

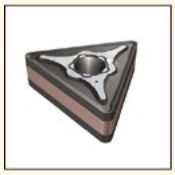
• For user guide and cutting speed recommendations, see pages 128-138,288-294

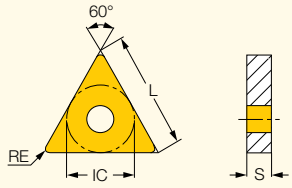
For tools, see pages: A-MTFNR (123) • A-PTFNR/L-X/G (122) • AVC-PTLNR/L (107) • MTENN-W (59) • MTJNR/L-W (60) • NQCH-PTJNR/L-S-JHP (59) • S-PTFNR/L (123)

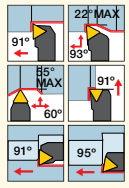
ISOTURN

TNMG-M3M

Double-Sided Triangular Inserts for Machining Stainless and Low Carbon Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC5500	IC6025	IC6015	IC807	IC706	IC804	Recommended Machining Data a_p (mm)	f (mm/rev)
TNMG 160404-M3M	16.50	9.52	4.76	0.40	●				●	●		0.50-4.00	0.15-0.50
TNMG 160408-M3M	16.50	9.52	4.76	0.80	●	●	●	●	●	●	●	0.50-4.00	0.15-0.50
TNMG 160412-M3M	16.50	9.52	4.76	1.20	●		●	●	●			0.50-4.00	0.20-0.60

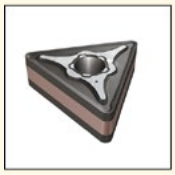
• For user guide and cutting speed recommendations, see pages 128-138,288-294

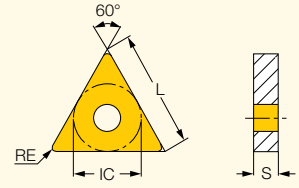
For tools, see pages: A-PTFNR/L-X/G (122) • AVC-PTLNR/L (107) • MTENN-W (59) • MTJNR/L-W (60) • NQCH-PTJNR/L-S-JHP (59) • S-PTFNR/L (123)

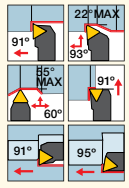
ISOTURN

TNMG-M3M

Double-Sided Triangular Inserts for Machining Stainless and Low Carbon Steel







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC5500	IC6025	IC6015	IC807	IC706	IC804	Recommended Machining Data a_p (inch)	f (IPR)
TNMG 331-M3M	.650	.375	.187	.0157	●				●	●		.020-.157	.0059-.0197
TNMG 332-M3M	.650	.375	.187	.0315	●	●	●	●	●	●	●	.020-.157	.0059-.0197
TNMG 333-M3M	.650	.375	.187	.0472	●		●	●	●			.020-.157	.0079-.0236

• For user guide and cutting speed recommendations, see pages 128-138,288-294

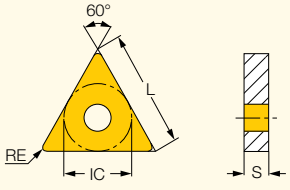
For tools, see pages: A-MTFNR (123) • A-PTFNR/L-X/G (122) • AVC-PTLNR/L (107) • MTENN-W (59) • MTJNR/L-W (60) • NQCH-PTJNR/L-S-JHP (59) • S-PTFNR/L (123)

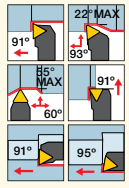
ISOTURN

TNMG-NF

Double-Sided Triangular Inserts for Semi-Finishing and Finishing Applications







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8250	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
TNMG 110304-NF	11.00	6.35	3.18	0.40	●		0.40-2.00	0.07-0.25
TNMG 160408-NF	16.50	9.52	4.76	0.80	●	●	1.00-3.00	0.08-0.25

• For user guide and cutting speed recommendations, see pages 128-138,288-294

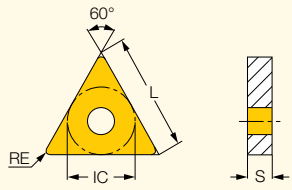
For tools, see pages: A-PTFNR/L-X/G (122) • AVC-PTLNR/L (107) • MTENN-W (59) • MTJNR/L-W (60) • NQCH-PTJNR/L-S-JHP (59) • S-PTFNR/L (123)

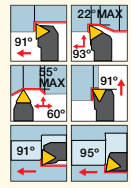
ISOTURN

TNMG-NF

Double-Sided Triangular Inserts for Semi-Finishing and Finishing Applications







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8250	IC8150	Recommended Machining Data a_p (inch)	f (IPR)
TNMG 221-NF	.433	.250	.125	.0160	•		.016-.079	.0028-.0098
TNMG 332-NF	.650	.375	.187	.0315	•	•	.039-.118	.0031-.0098

• For user guide and cutting speed recommendations, see pages 128-138,288-294

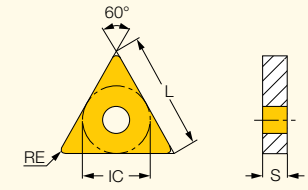
For tools, see pages: A-MTFNR (123) • A-PTFNR/L-X/G (122) • AVC-PTLNR/L (107) • MTENN-W (59) • MTJNR/L-W (60) • NQCH-PTJNR/L-S-JHP (59) • S-PTFNR/L (123)

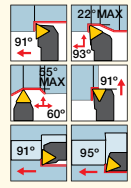
ISOTURN

TNMG-PF

Triangular Double-Sided Inserts for Finishing on Alloyed and Stainless Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
TNMG 160408-PF	16.50	9.52	4.76	0.80	•	0.80-3.00	0.08-0.30

• For user guide and cutting speed recommendations, see pages 128-138,288-294

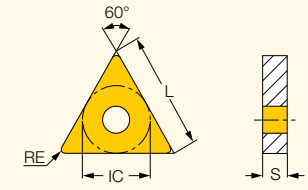
For tools, see pages: A-PTFNR/L-X/G (122) • AVC-PTLNR/L (107) • MTENN-W (59) • MTJNR/L-W (60) • NQCH-PTJNR/L-S-JHP (59) • S-PTFNR/L (123)

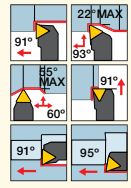
ISOTURN

TNMG-PF

Triangular Double-Sided Inserts for Finishing on Alloyed and Stainless Steel







I N C H

Designation	Dimensions L	IC	S	RE	IC8150	Recommended Machining Data a_p (inch)	f (IPR)
TNMG 332-PF	.650	.375	.187	.0315	•	.031-.118	.0031-.0118

• For user guide and cutting speed recommendations, see pages 128-138,288-294

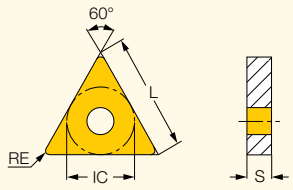
For tools, see pages: A-MTFNR (123) • A-PTFNR/L-X/G (122) • AVC-PTLNR/L (107) • MTENN-W (59) • MTJNR/L-W (60) • NQCH-PTJNR/L-S-JHP (59) • S-PTFNR/L (123)

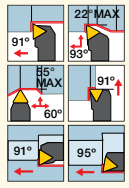
ISOTURN

TNMG-SF

Triangular Double-Sided Inserts for Super Finishing; Controls Chip Flow at Very Low Feeds and Depths of Cut







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8250	IC530N	IC520N	Recommended Machining Data a_p (mm)	f (mm/rev)
TNMG 160404-SF	16.50	9.52	4.76	0.40		●	●	0.40-2.00	0.04-0.25
TNMG 160408-SF	16.50	9.52	4.76	0.80	●	●		1.00-3.00	0.06-0.30

• For user guide and cutting speed recommendations, see pages 128-138,288-294

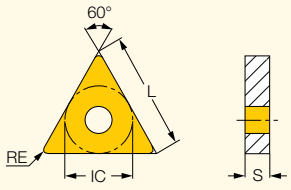
For tools, see pages: A-PTFNR/L-X/G (122) • AVC-PTLNR/L (107) • MTENN-W (59) • MTJNR/L-W (60) • NQCH-PTJNR/L-S-JHP (59) • S-PTFNR/L (123)

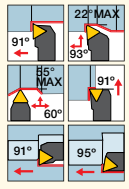
ISOTURN

TNMG-SF

Triangular Double-Sided Inserts for Super Finishing; Controls Chip Flow at Very Low Feeds and Depths of Cut







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8250	IC530N	IC520N	Recommended Machining Data a_p (inch)	f (IPR)
TNMG 331-SF	.650	.375	.187	.0157		●	●	.016-.079	.0016-.0098
TNMG 332-SF	.650	.375	.187	.0315	●	●		.039-.118	.0024-.0118

• For user guide and cutting speed recommendations, see pages 128-138,288-294

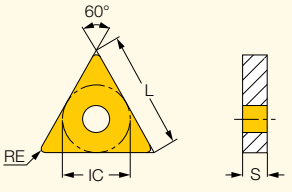
For tools, see pages: A-MTFNR (123) • A-PTFNR/L-X/G (122) • AVC-PTLNR/L (107) • MTENN-W (59) • MTJNR/L-W (60) • NQCH-PTJNR/L-S-JHP (59) • S-PTFNR/L (123)

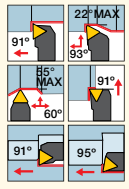
ISOTURN

TNMG-TF

Double-Sided Triangular Inserts for Machining a Wide Range of Materials under Medium Cutting Conditions







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC808	IC908	IC6015	IC8150	IC20	IC20N	IC806	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
TNMG 160304-TF	16.50	9.52	3.18	0.40		●										1.00-3.00	0.12-0.30
TNMG 160308-TF	16.50	9.52	3.18	0.80											●	1.00-3.00	0.12-0.30
TNMG 160404-TF	16.50	9.52	4.76	0.40	●	●			●	●	●		●	●	●	1.00-3.00	0.12-0.30
TNMG 160408-TF	16.50	9.52	4.76	0.80	●	●	●	●	●	●		●	●	●	●	1.00-3.00	0.12-0.30
TNMG 160412-TF	16.50	9.52	4.76	1.20		●				●				●	●	1.00-5.00	0.12-0.40

• For user guide and cutting speed recommendations, see pages 128-138,288-294

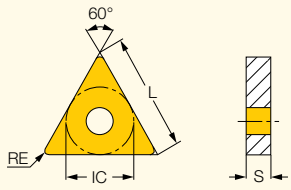
For tools, see pages: A-PTFNR/L-X/G (122) • AVC-PTLNR/L (107) • MTENN-W (59) • MTJNR/L-W (60) • NQCH-PTJNR/L-S-JHP (59) • S-PTFNR/L (123)

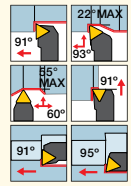
ISOTURN

TNMG-TF

Double-Sided Triangular Inserts for Machining a Wide Range of Materials under Medium Cutting Conditions







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC808	IC908	IC6015	IC8150	IC20	IC20N	IC806	IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
TNMG 321-TF	.650	.375	.125	.0157		●										.039-.118	.0047-.0118
TNMG 322-TF	.650	.375	.125	.0315											●	.039-.118	.0047-.0118
TNMG 331-TF	.650	.375	.187	.0157	●	●			●	●	●		●	●	●	.039-.118	.0047-.0118
TNMG 332-TF	.650	.375	.187	.0315	●	●	●	●	●	●		●	●	●	●	.039-.118	.0047-.0118
TNMG 333-TF	.650	.375	.187	.0472		●				●				●	●	.039-.197	.0047-.0157

- For user guide and cutting speed recommendations, see pages 128-138,288-294

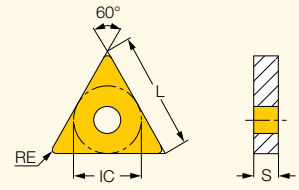
For tools, see pages: A-MTFNR (123) • A-PTFNR/L-X/G (122) • AVC-PTLNR/L (107) • MTENN-W (59) • MTJNR/L-W (60) • NQCH-PTJNR/L-S-JHP (59) • S-PTFNR/L (123)

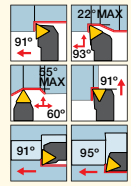
ISOTURN

TNMG-VL

Double-Sided Triangular Inserts with a Chipformer for High Temperature Alloys and Stainless Steel Valves







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC908	IC806	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
TNMG 160404-VL	16.50	9.52	4.76	0.40		●			0.80-3.50	0.10-0.25
TNMG 160408-VL	16.50	9.52	4.76	0.80	●	●	●	●	0.80-3.50	0.10-0.25

- For user guide and cutting speed recommendations, see pages 128-138,288-294

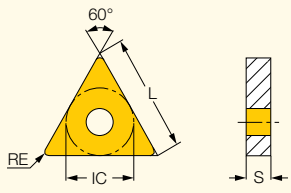
For tools, see pages: A-PTFNR/L-X/G (122) • AVC-PTLNR/L (107) • MTENN-W (59) • MTJNR/L-W (60) • NQCH-PTJNR/L-S-JHP (59) • S-PTFNR/L (123)

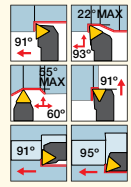
ISOTURN

TNMG-VL

Double-Sided Triangular Inserts with a Chipformer for High Temperature Alloys and Stainless Steel Valves







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC908	IC806	IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
TNMG 331-VL	.650	.375	.187	.0160		●			.031-.138	.0039-.0098
TNMG 332-VL	.650	.375	.187	.0315	●	●	●	●	.031-.138	.0039-.0098

- For user guide and cutting speed recommendations, see pages 128-138,288-294

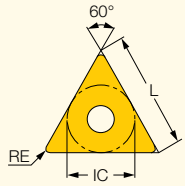
For tools, see pages: A-MTFNR (123) • A-PTFNR/L-X/G (122) • AVC-PTLNR/L (107) • MTENN-W (59) • MTJNR/L-W (60) • NQCH-PTJNR/L-S-JHP (59) • S-PTFNR/L (123)

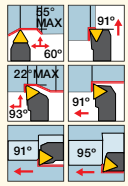
ISOTURN

TNMS-12

Triangular Single-Sided Inserts for Soft and Nonferrous Materials







M E T R I C

Designation	Dimensions L	IC	S	RE	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
TNMS 160404-12	16.50	9.52	4.76	0.40	●	0.50-3.00	0.07-0.32
TNMS 160408-12	16.50	9.52	4.76	0.80	●	0.50-3.00	0.10-0.35

• For user guide and cutting speed recommendations, see pages 128-138,288-294

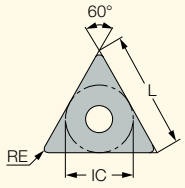
For tools, see pages: A-PTFNR/L-X/G (122) • NQCH-PTJNR/L-S-JHP (59) • S-PTFNR/L (123)

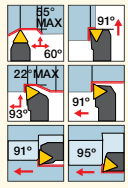
ISOTURN

TNMS-12

Triangular Single-Sided Inserts for Soft and Nonferrous Materials







I N C H

Designation	Dimensions L	IC	S	RE	IC20	Recommended Machining Data a_p (inch)	f (IPR)
TNMS 331-12	.650	.375	.187	.0157	●	.020-.118	.0027-.0126
TNMS 332-12	.650	.375	.187	.0315	●	.020-.118	.0039-.0138

• For user guide and cutting speed recommendations, see pages 128-138,288-294

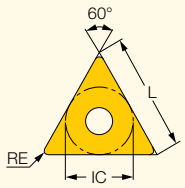
For tools, see pages: A-PTFNR/L-X/G (122) • NQCH-PTJNR/L-S-JHP (59) • S-PTFNR/L (123)

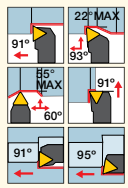
ISOTURN

TNMG/TNGG-PP

Double-Sided Triangular Inserts for Machining Very Ductile Materials under Medium Cutting Conditions







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	IC20	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
TNGG 160402-PP	16.50	9.52	4.76	0.20					●	0.50-1.50	0.05-0.25
TNMG 160404-PP	16.50	9.52	4.76	0.40		●		●		0.50-3.00	0.13-0.30
TNMG 160408-PP	16.50	9.52	4.76	0.80	●	●	●	●		1.00-3.00	0.12-0.30

• For user guide and cutting speed recommendations, see pages 128-138,288-294

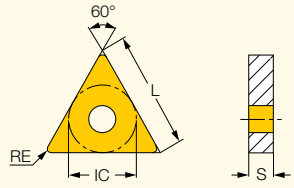
For tools, see pages: A-PTFNR/L-X/G (122) • AVC-PTLNR/L (107) • MTENN-W (59) • MTJNR/L-W (60) • S-PTFNR/L (123)

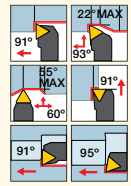
ISOTURN

TNMG/TNGG-PP

Double-Sided Triangular Inserts for Machining Very Ductile Materials under Medium Cutting Conditions







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	IC20	IC907	Recommended Machining Data a_p (inch)	f (IPR)
TNGG 330.5-PP	.650	.375	.187	.0079					●	.020-.059	.0020-.0098
TNMG 331-PP	.650	.375	.187	.0157		●		●		.020-.118	.0051-.0118
TNMG 332-PP	.650	.375	.187	.0315	●	●	●	●		.039-.118	.0047-.0118

• For user guide and cutting speed recommendations, see pages 128-138,288-294

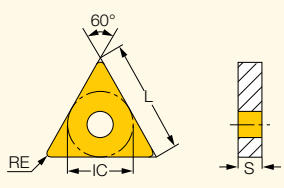
For tools, see pages: A-MTFNR (123) • A-PTFNR/L-X/G (122) • AVC-PTLNR/L (107) • MTENN-W (59) • MTJNR/L-W (60) • S-PTFNR/L (123)

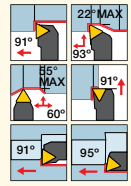
ISOTURN

TNMG-FFG-CERMET

Double-Sided Triangular Cermet Inserts for Semi-Finishing and Finishing Applications on Steel and Cast Iron







M E T R I C

Designation	Dimensions L	IC	S	RE	IC520N	Recommended Machining Data a_p (mm)	f (mm/rev)
TNMG 160404-FFG	16.50	9.52	4.76	0.40	●	0.50-2.00	0.07-0.25
TNMG 160408-FFG	16.50	9.52	4.76	0.80	●	0.90-2.50	0.08-0.25

• For user guide and cutting speed recommendations, see pages 128-138,288-294

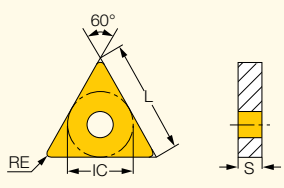
For tools, see pages: A-PTFNR/L-X/G (122) • AVC-PTLNR/L (107) • MTENN-W (59) • MTJNR/L-W (60) • NQCH-PTJNR/L-S-JHP (59) • S-PTFNR/L (123)

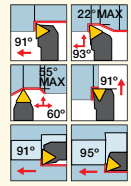
ISOTURN

TNMG-FFG-CERMET

Double-Sided Triangular Inserts for Semi-Finishing and Finishing Applications on Steel and Cast Iron







I N C H

Designation	Dimensions L	IC	S	RE	IC520N	Recommended Machining Data a_p (inch)	f (IPR)
TNMG 331-FFG	.650	.375	.187	.0157	●	.020-.079	.0027-.0098
TNMG 332-FFG	.650	.375	.187	.0315	●	.035-.098	.0031-.0098

• For user guide and cutting speed recommendations, see pages 128-138,288-294

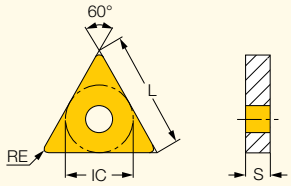
For tools, see pages: A-MTFNR (123) • A-PTFNR/L-X/G (122) • AVC-PTLNR/L (107) • MTENN-W (59) • MTJNR/L-W (60) • NQCH-PTJNR/L-S-JHP (59) • S-PTFNR/L (123)

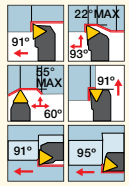
ALUPTURN POSITIVE DOUBLE SIDED

TNGG-M3N

Double-Sided Sharp Edged Positive and Polished Rake Inserts for Finishing Aluminum and Other Non-Ferrous Materials







M E T R I C

Designation	Dimensions L	IC	S	RE	IC20	Recommended Machining Data a_p (mm)	f (mm/rev)
TNGG 160402-M3N-P	16.50	9.52	4.76	0.20	●	0.30-3.00	0.10-0.30
TNGG 160404-M3N-P	16.50	9.52	4.76	0.40	●	0.30-3.00	0.10-0.30
TNGG 160408-M3N-P	16.50	9.52	4.76	0.80	●	0.30-3.00	0.10-0.30

• For user guide and cutting speed recommendations, see pages 128-138,288-294

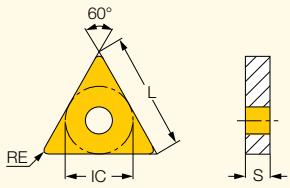
For tools, see pages: A-PTFNR/L-X/G (122) • AVC-PTLNR/L (107) • MTENN-W (59) • MTJNR/L-W (60) • S-PTFNR/L (123)

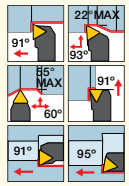
ALUPTURN POSITIVE DOUBLE SIDED

TNGG-M3N

Double-Sided Sharp Edged Positive and Polished Rake Inserts for Finishing Aluminum and Other Non-Ferrous Materials







I N C H

Designation	Dimensions L	IC	S	RE	IC20	Recommended Machining Data a_p (inch)	f (IPR)
TNGG 330-M3N-P	.650	.375	.187	.0079	●	.012-.118	.0039-.0118
TNGG 331-M3N-P	.650	.375	.187	.0157	●	.012-.118	.0039-.0118
TNGG 332-M3N-P	.650	.375	.187	.0315	●	.012-.118	.0039-.0118

• For user guide and cutting speed recommendations, see pages 128-138,288-294

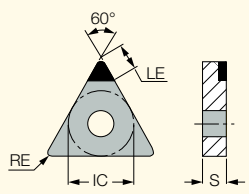
For tools, see pages: A-MTFNR (123) • A-PTFNR/L-X/G (122) • AVC-PTLNR/L (107) • MTENN-W (59) • MTJNR/L-W (60) • S-PTFNR/L (123)

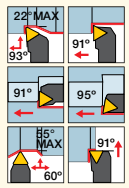
ISOTURN

TNMA (CBN)

Triangular Inserts with a Single Corner CBN Tip for Machining Cast Iron and Hardened Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	LE	Tough ↔ Hard IB55	IB85	Recommended Machining Data a_p (mm)	f (mm/rev)
TNMA 160404T	16.50	9.52	4.76	0.40	3.9	●	●	0.05-0.50	0.05-0.25
TNMA 160408T	16.50	9.52	4.76	0.80	3.5	●		0.05-0.50	0.05-0.25

• For user guide and cutting speed recommendations, see pages 128-138,288-294

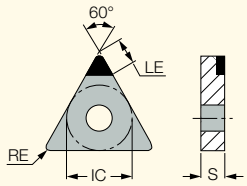
For tools, see pages: A-PTFNR/L-X/G (122) • AVC-PTLNR/L (107) • MTENN-W (59) • MTJNR/L-W (60) • NQCH-PTJNR/L-S-JHP (59) • S-PTFNR/L (123)

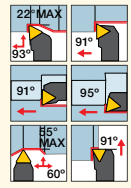
ISOTURN

TNMA (CBN)

Triangular Inserts with a Single Corner CBN Tip for Machining Cast Iron and Hardened Steel







I N C H

Designation	Dimensions L	IC	S	RE	LE	Tough ↔ Hard IB55	IB85	Recommended Machining Data a_p (inch)	f (IPR)
TNMA 331T	.650	.375	.187	.0157	.15	•	•	.002-.020	.0020-.0098
TNMA 332T	.650	.375	.187	.0315	.14	•		.002-.020	.0020-.0098

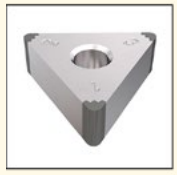
• For user guide and cutting speed recommendations, see pages 128-138,288-294

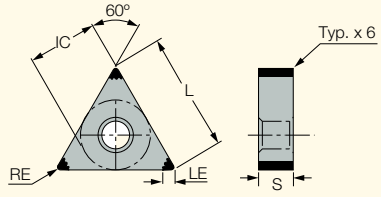
For tools, see pages: A-MTFNR (123) • A-PTFNR/L-X/G (122) • AVC-PTLNR/L (107) • MTENN-W (59) • MTJNR/L-W (60) • NQCH-PTJNR/L-S-JHP (59) • S-PTFNR/L (123)

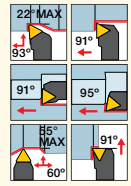
ISOTURN

TNGA-J(CBN)

Triangular Multi-Cornered CBN Inserts for Machining Hardened Steel







M E T R I C

Designation	Dimensions L	IC	RE	LE	Recommended Machining Data a_p (mm)	f (mm/rev)
TNGA 160408-R6-J	16.50	9.52	0.80	1.60	0.12-0.80	0.10-0.30

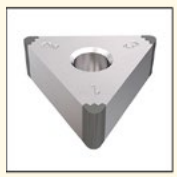
• For user guide and cutting speed recommendations, see pages 128-138,288-294

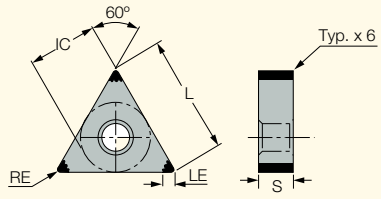
For tools, see pages: A-PTFNR/L-X/G (122) • AVC-PTLNR/L (107) • MTENN-W (59) • MTJNR/L-W (60) • S-PTFNR/L (123)

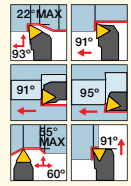
ISOTURN

TNGA-J(CBN)

Triangular Multi-Cornered CBN Inserts for Machining Hardened Steel







I N C H

Designation	Dimensions L	IC	RE	LE	Recommended Machining Data a_p (inch)	f (IPR)
TNGA 332-R6-J	.650	.375	.0315	.063	.005-.031	.0039-.0118

• For user guide and cutting speed recommendations, see pages 128-138,288-294

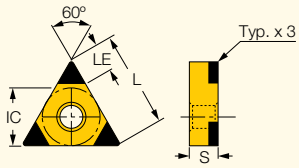
For tools, see pages: A-MTFNR (123) • A-PTFNR/L-X/G (122) • AVC-PTLNR/L (107) • MTENN-W (59) • MTJNR/L-W (60) • S-PTFNR/L (123)

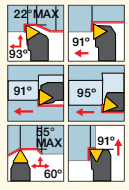
ISOTURN

TNGA-M3 (CBN)

Triangular Inserts with 3 CBN Tips for Machining Hardened Steel, Sintered Metals and High Temperature Alloys







M E T R I C

Designation	Dimensions L	IC	S	RE	LE	Tough ↔ Hard IB10S	IB20H	Recommended Machining Data a_p (mm)	f (mm/rev)
TNGA 160404-M3	16.50	9.52	4.76	0.40	2.2	•		0.10-0.50	0.05-0.30
TNGA 160408-M3	16.50	9.52	4.76	0.80	1.9	•	•	0.05-0.50	0.05-0.30
TNGA 160412-M3	16.50	9.52	4.76	1.20	2.4	•		0.10-0.50	0.05-0.30

• For user guide and cutting speed recommendations, see pages 128-138,288-294

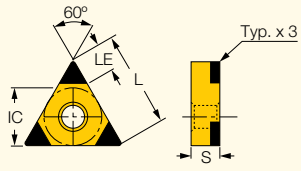
For tools, see pages: A-PTFNR/L-X/G (122) • AVC-PTLNR/L (107) • MTENN-W (59) • MTJNR/L-W (60) • S-PTFNR/L (123)

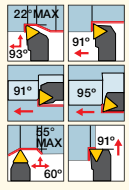
ISOTURN

TNGA-M3 (CBN)

Triangular Inserts with 3 CBN Tips for Machining Hardened Steel, Sintered Metals and High Temperature Alloys







I N C H

Designation	Dimensions L	IC	S	RE	LE	Tough ↔ Hard IB10S	IB20H	Recommended Machining Data a_p (inch)	f (IPR)
TNGA 331-M3	.650	.375	.187	.0160	.09	•		.004-.020	.0020-.0118
TNGA 332-M3	.650	.375	.187	.0315	.07	•	•	.002-.020	.0020-.0118
TNGA 333-M3	.650	.375	.187	.0472	.09	•		.004-.020	.0020-.0118

• For user guide and cutting speed recommendations, see pages 128-138,288-294

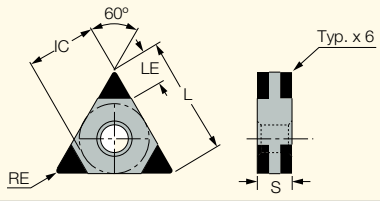
For tools, see pages: A-MTFNR (123) • A-PTFNR/L-X/G (122) • AVC-PTLNR/L (107) • MTENN-W (59) • MTJNR/L-W (60) • S-PTFNR/L (123)

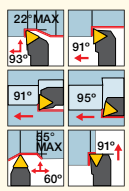
ISOTURN

TNGA-MC/M6 (CBN)

Triangular Multi-Cornered CBN Inserts for Machining Hardened Steel







M E T R I C

Designation	Dimensions L	IC	S	RE	LE	Tough ↔ Hard IB10HC	IB55	IB25HC	Recommended Machining Data a_p (mm)	f (mm/rev)
TNGA 160404T-MC	16.50	9.52	4.76	0.40	3.2		•		0.05-0.50	0.05-0.20
TNGA 160408-M6	16.50	9.52	4.76	0.80	1.9	•		•	0.05-0.50	0.05-0.20
TNGA 160408T-MC	16.50	9.52	4.76	0.80	1.9		•		0.05-0.50	0.05-0.20

• For user guide and cutting speed recommendations, see pages 128-138,288-294

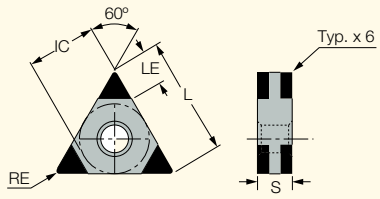
For tools, see pages: A-PTFNR/L-X/G (122) • AVC-PTLNR/L (107) • MTENN-W (59) • MTJNR/L-W (60) • NQCH-PTJNR/L-S-JHP (59) • S-PTFNR/L (123)

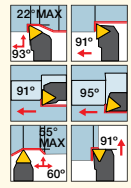
ISOTURN

TNGA-MC/M6 (CBN)

Triangular Multi-Cornered CBN Inserts for Machining Hardened Steel







I N C H

Designation	Dimensions L	IC	S	RE	LE	Tough ↔ Hard IB10HC	IB55	IB25HC	Recommended Machining Data a_p (inch)	f (IPR)
TNGA 331T-MC	.650	.375	.187	.0157	.13		•		.002-.020	.0020-.0079
TNGA 332-M6	.650	.375	.187	.0315	.07	•		•	.002-.020	.0020-.0079
TNGA 332T-MC	.650	.375	.187	.0315	.07		•		.002-.020	.0020-.0079

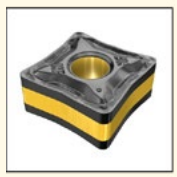
• For user guide and cutting speed recommendations, see pages 128-138,288-294

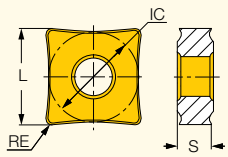
For tools, see pages: A-MTFNR (123) • A-PTFNR/L-X/G (122) • AVC-PTLNR/L (107) • MTENN-W (59) • MTJNR/L-W (60) • NQCH-PTJNR/L-S-JHP (59) • S-PTFNR/L (123)

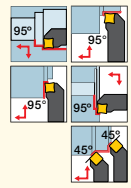
ISOTURN

QNMG-NF

Double-Sided Inserts with Four 80° Corners for Finishing Applications







M E T R I C

Designation	Dimensions L	IC	S	RE	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
QNMG 120408-NF	13.33	12.70	4.76	0.80	•	0.80-3.00	0.08-0.25

• For user guide and cutting speed recommendations, see pages 128-138,288-294

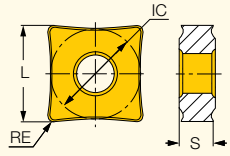
For tools, see pages: PQLNR/L (61) • S-PQFNR/L (123) • S-PQLNR/L (124)

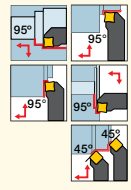
ISOTURN

QNMG-NF

Double-Sided Inserts with Four 80° Corners for Finishing Applications







I N C H

Designation	Dimensions L	IC	S	RE	IC8150	Recommended Machining Data a_p (inch)	f (IPR)
QNMG 432-NF	.525	.500	.187	.0315	•	.031-.118	.0031-.0098

• For user guide and cutting speed recommendations, see pages 128-138,288-294

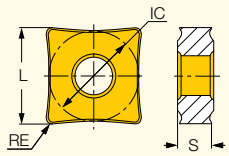
For tools, see pages: PQLNR/L (61) • S-PQFNR/L (123) • S-PQLNR/L (124)

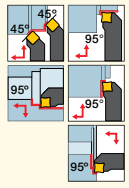
ISOTURN

QNMG-PP

Double-Sided Inserts
with Four 80° Corners for
General Applications







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	Recommended Machining Data a_p (mm)	f (mm/rev)
QNMG 090408-PP	10.32	9.52	4.76	0.80	•		1.00-4.00	0.14-0.30
QNMG 120408-PP	13.33	12.70	4.76	0.80	•	•	1.00-4.00	0.14-0.30

• For user guide and cutting speed recommendations, see pages 128-138,288-294

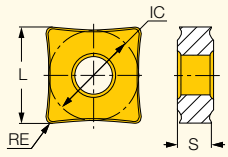
For tools, see pages: PQLNR/L (61) • S-PQFNR/L (123) • S-PQLNR/L (124)

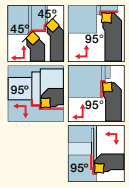
ISOTURN

QNMG-PP

Double-Sided Inserts
with Four 80° Corners for
General Applications







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	Recommended Machining Data a_p (inch)	f (IPR)
QNMG 332-PP	.406	.375	.187	.0315	•		.039-.157	.0055-.0118
QNMG 432-PP	.525	.500	.187	.0315	•	•	.039-.157	.0055-.0118

• For user guide and cutting speed recommendations, see pages 128-138,288-294

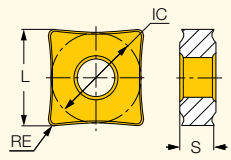
For tools, see pages: PQLNR/L (61) • S-PQFNR/L (123) • S-PQLNR (124) • S-PQLNR/L (124)

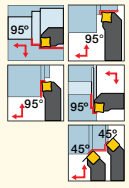
ISOTURN

QNMG-TF

Double-Sided Inserts
with Four 80° Corners for
General Applications







M E T R I C

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	Recommended Machining Data a_p (mm)	f (mm/rev)
QNMG 090404-TF	10.32	9.52	4.76	0.40	•	•	•	1.00-4.00	0.12-0.35
QNMG 090408-TF	10.32	9.52	4.76	0.80	•	•	•	1.00-4.00	0.12-0.35
QNMG 120404-TF	13.41	12.70	4.76	0.40	•	•		1.00-4.00	0.12-0.35
QNMG 120408-TF	13.33	12.70	4.76	0.80	•	•	•	1.00-4.00	0.12-0.35
QNMG 120412-TF	13.25	12.70	4.76	1.20			•	1.50-4.50	0.15-0.40

• For user guide and cutting speed recommendations, see pages 128-138,288-294

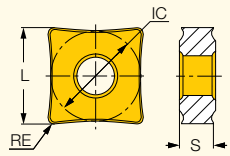
For tools, see pages: PQLNR/L (61) • S-PQFNR/L (123) • S-PQLNR/L (124)

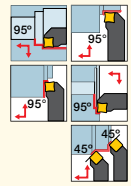
ISOTURN

QNMG-TF

Double-Sided Inserts with Four 80° Corners for General Applications







I N C H

Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	Recommended Machining Data a_p (inch)	f (IPR)
QNMG 331-TF	.406	.375	.187	.0157	●	●	●	.039-.157	.0047-.0138
QNMG 332-TF	.406	.375	.187	.0315	●	●	●	.039-.157	.0047-.0138
QNMG 431-TF	.528	.500	.187	.0157	●	●		.039-.157	.0047-.0138
QNMG 432-TF	.525	.500	.187	.0315	●	●	●	.039-.157	.0047-.0138
QNMG 433-TF	.522	.500	.187	.0472			●	.059-.177	.0059-.0157

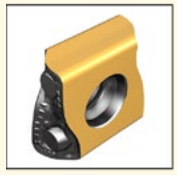
• For user guide and cutting speed recommendations, see pages 128-138,288-294

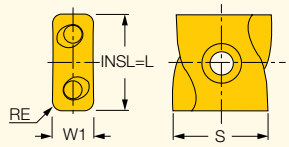
For tools, see pages: PQLNR/L (61) • S-PQFNR/L (123) • S-PQLNR (124) • S-PQLNR/L (124)

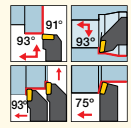
HELITURN TANGENTIAL LINE

LNMX-HT

Tangential Inserts with 4 Cutting Edges and a Positive Rake Angle for High Metal Removal Rates







M E T R I C

Designation	Dimensions W1	INSL	S	RE	Tough ↔ Hard IC830	IC8250	IC908	IC8150	IC428	IC807	IC907	Recommended Machining Data a_p (mm)	f (mm/rev)
LNMX 110408L-HT	4.75	11.00	11.40	0.80	●	●	●	●	●		●	0.50-5.00	0.15-0.60
LNMX 110408R-HT	4.75	11.00	11.40	0.80	●	●	●	●	●	●	●	0.50-5.00	0.15-0.60
LNMX 110412L-HT	4.75	11.00	11.40	1.20		●	●	●	●			0.80-5.00	0.20-0.80
LNMX 110412R-HT	4.75	11.00	11.40	1.20	●	●	●	●	●			0.80-5.00	0.20-0.80

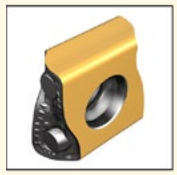
• For user guide and cutting speed recommendations, see pages 128-138,288-294

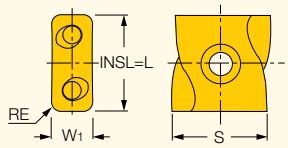
For tools, see pages: SLANR/L-TANG (62)

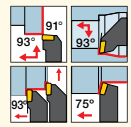
HELITURN TANGENTIAL LINE

LNMX-HT

Tangential Inserts with 4 Cutting Edges and a Positive Rake Angle for High Metal Removal Rates







I N C H

Designation	Dimensions W1	INSL	S	RE	Tough ↔ Hard IC830	IC8250	IC908	IC8150	IC428	IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
LNMX 110408L-HT	.187	.433	.449	.0315	●	●	●	●	●		●	.020-.197	.0059-.0236
LNMX 110408R-HT	.187	.433	.449	.0315	●	●	●	●	●	●	●	.020-.197	.0059-.0236
LNMX 110412L-HT	.187	.433	.449	.0472		●	●	●	●			.031-.197	.0079-.0315
LNMX 110412R-HT	.187	.433	.449	.0472	●	●	●	●	●			.031-.197	.0079-.0315

• For user guide and cutting speed recommendations, see pages 128-138,288-294

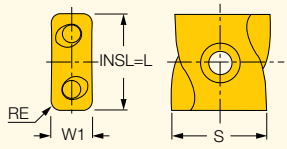
For tools, see pages: SLANR/L-TANG (62)

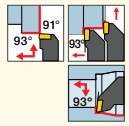
HELITURN TANGENTIAL LINE

LNMX-HM

Tangential Inserts with a Positive Rake Angle for High Metal Removal on Soft and Ductile Materials







M E T R I C

Designation	Dimensions INSL	W1	S	RE	Tough ↔ Hard IC6025	IC8250	IC6015	IC807	Recommended Machining Data a_p (mm)	f (mm/rev)
LNMX 110408L-HM	11.00	4.75	11.40	0.80	•		•	•	1.00-5.00	0.10-0.40
LNMX 110408R-HM	11.00	4.75	11.40	0.80		•	•	•	1.00-5.00	0.10-0.40
LNMX 110412L-HM	11.00	4.75	11.40	1.20		•			1.00-5.00	0.10-0.40
LNMX 110412R-HM	11.00	4.75	11.40	1.20			•		1.00-5.00	0.10-0.40

• For user guide and cutting speed recommendations, see pages 128-138,288-294

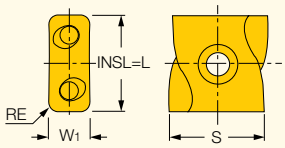
For tools, see pages: SLANR/L-TANG (62)

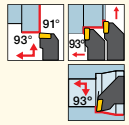
HELITURN TANGENTIAL LINE

LNMX-HM

Tangential Inserts with a Positive Rake Angle for High Metal Removal on Soft and Ductile Materials







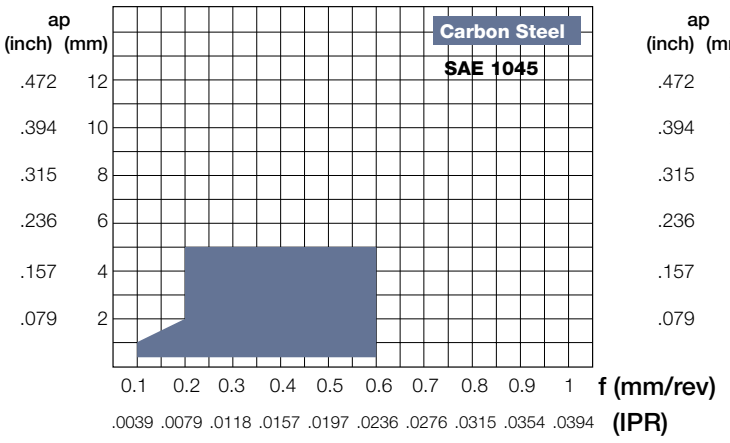
I N C H

Designation	Dimensions INSL	W1	S	RE	Tough ↔ Hard IC6025	IC8250	IC6015	IC807	Recommended Machining Data a_p (inch)	f (IPR)
LNMX 110408L-HM	.433	.187	.449	.0315	•		•	•	.039-.197	.0039-.0157
LNMX 110408R-HM	.433	.187	.449	.0315		•	•	•	.039-.197	.0039-.0157
LNMX 110412L-HM	.433	.187	.449	.0472		•			.039-.197	.0039-.0157
LNMX 110412R-HM	.433	.187	.449	.0472			•		.039-.197	.0039-.0157

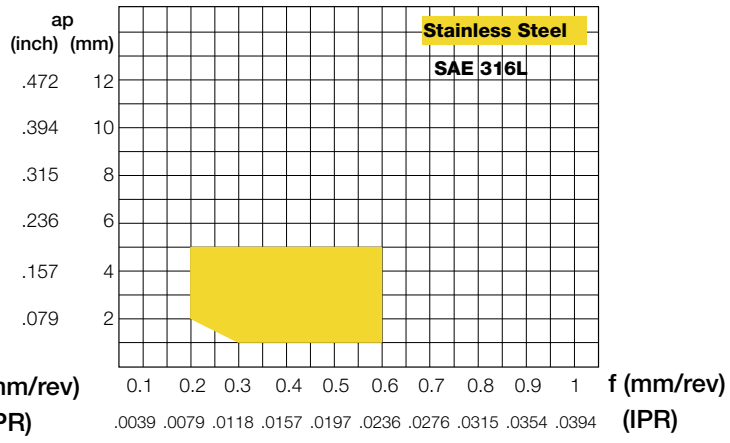
• For user guide and cutting speed recommendations, see pages 128-138,288-294

For tools, see pages: SLANR/L-TANG (62)

Without coolant



With coolant



Machining Data and Speed Recommendations for Turning (Metric)

ISO	Material		Condition	Tensile Strength [N/mm²]	Hardness HB	Material Group No.
P	non-alloy steel and cast steel, free cutting steel	<0.25% C	annealed	420	125	1
		≥0.25% C	annealed	650	190	2
		<0.55% C	quenched and tempered	850	250	3
		≥0.55% C	annealed	750	220	4
			quenched and tempered	1000	300	5
	low alloy and cast steel (less than 5% of alloying elements)		annealed	600	200	6
			quenched and tempered	930	275	7
				1000	300	8
				1200	350	9
	high alloyed steel, cast steel and tool steel		annealed	680	200	10
			quenched and tempered	1100	325	11
	stainless steel and cast steel		ferritic / martensitic	680	200	12
			martensitic	820	240	13

ISO	Material		Condition	Tensile Strength [N/mm²]	Hardness HB	Material No.
M	stainless steel and cast steel		austenitic, duplex	600	180	14

ISO	Material		Condition	Tensile Strength [N/mm²]	Hardness HB	Material No.
N	aluminum-wrought alloys		not hardenable		60	21
			hardenable		100	22
	aluminum-cast alloys	≤12% Si	not hardenable		75	23
			hardenable		90	24
		>12% Si	high temperature		130	25
	copper alloys	>1% Pb	free cutting		110	26
			brass		90	27
			electrolytic copper		100	28
	non metallic		duroplastics, fiber plastics			29
			hard rubber			30

ISO	Material		Condition	Tensile Strength [N/mm²]	Hardness HB	Material No.
S	high temperature alloys	Fe based	annealed		200	31
			hardened		280	32
		Ni or Co based	annealed		250	33
			hardened		350	34
			cast		320	35
	titanium alloys		pure	Rm 400		36
			alpha+beta alloys, hardened	Rm 1050		37

ISO	Material	Condition	Tensile Strength [N/mm²]	Hardness HB	Material
H	hardened steel	hardened		55 HRC	38
		hardened		60 HRC	39
	chilled cast iron	cast		400	40
	cast iron	hardened		55 HRC	41

Cermet		Cermet + PVD		Carbide + PVD	Carbide + CVD			
IC20N	IC30N	IC520N	IC530N	IC3028/830	IC8250	IC8150	IC428	IC807/907
250-400	230-380	250-420	230-400	120-200	230-380	280-420	300-450	140-230
220-350	200-330	220-380	200-350	100-170	200-340	240-380	260-400	120-205
180-320	160-300	180-350	160-320	80-150	170-300	200-340	220-360	100-180
210-340	190-320	210-370	190-340	90-160	190-320	220-360	240-380	115-190
160-300	140-280	160-330	140-300	80-130	160-280	180-320	200-340	95-170
180-320	160-300	180-350	160-320	80-150	170-300	200-340	220-360	100-180
170-300	150-280	170-330	150-300	70-130	160-280	200-320	220-340	95-170
160-250	140-230	160-280	140-250	60-120	140-250	190-300	210-320	85-150
150-220	130-200	150-250	130-230	50-100	120-220	180-280	200-300	70-130
180-300	160-280	180-330	160-300	80-130	170-280	200-320	220-340	100-170
150-220	130-200	150-250	130-230	50-100	120-220	180-280	200-300	70-30
210-340	190-320	210-370	190-340	90-160	190-320	220-360	240-380	
180-320	160-300	180-350	160-320	80-150	170-300	240-380	260-400	

Cermet + PVD		Carbide + PVD			Carbide + CVD	
IC520N	IC530N	IC807/ 907	IC808/ 908	IC3028/830	IC6015	IC6025
150-280	140-250	100-200	90-200	50-120	140-250	120-180

Carbide	
IC20	
1000-2500	
300-1000	
300-1000	
200-600	
250-600	
180-400	
150-300	

Carbide		Carbide + PVD									
IC07	IC20	IC706	IC804	IC806	IC907	IC1017	IC3028				
40-55	35-45	50-70			50-80	50-70	30-40				
30-45	25-35	40-60			40-65	40-60	20-30				
30-40	25-30	50-80	65 - 105	50-80	45-60	50-80	20-25				
20-30	15-25	30-40	50 - 90	40-70	35-45	30-40	10-20				
25-35	20-30	30-40	40 - 85	30-65	30-50	30-40	15-25				
100-160	80-160	90-160			150-200	90-160	130-160				
50-60	50-60	50-52			50-100	50-50	30-60				

									Carbide + PVD
									IC907
									40-100
									30-60

Machining Data and Speed Recommendations for Turning (Imperial)

ISO	Material		Condition	Tensile Strength [ksi]	Hardness HB	Material Group No.
P	Non-alloy steel and cast steel, free cutting steel	<0.25% C	Annealed	61	125	1
		≥0.25% C	Annealed	94	190	2
		<0.55% C	Quenched and tempered	123	250	3
		≥0.55% C	Annealed	109	220	4
			Quenched and tempered	145	300	5
	Low alloy and cast steel (less than 5% of alloying elements)		Annealed	87	200	6
			Quenched and tempered	135	275	7
				145	300	8
				174	350	9
	High alloyed steel, cast steel and tool steel		Annealed	99	200	10
			Quenched and tempered	160	325	11
	Stainless steel and cast steel		Ferritic/martensitic	99	200	12
			Martensitic	119	240	13
M	Stainless steel and cast steel		Austenitic	87	180	14
N	Aluminum-wrought alloys		Not hardenable		60	21
			Hardenable		100	22
	Aluminum-cast alloys	≤12% Si	Not hardenable		75	23
			Hardenable		90	24
		>12% Si	High temperature		130	25
	Copper alloys	>1% Pb	Free cutting		110	26
			Brass		90	27
			Electrolytic copper		100	28
	Non metallic		Duroplastics, fiber plastics			29
			Hard rubber			30
S	High temperature alloys	Fe based	Annealed		200	31
			Hardened		280	32
		Ni or Co based	Annealed		250	33
			Hardened		350	34
			Cast		320	35
	Titanium alloys		Pure	58	190	36
			Alpha+Beta alloys, hardened	152	310	37
H	Hardened steel		Hardened		55 HRC	38
			Hardened		60 HRC	39
	Chilled cast iron		Cast		400	40
	Cast iron		Hardened		55 HRC	41

Cermet		Cermet + PVD		Carbide + PVD	Carbide + CVD		
IC20N	IC30N	IC520N	IC530N	IC3028/830	IC8250	IC8150	IC5005/428
800-1300	750-1250	800-1400	750-1300	400-650	750-1250	900-1400	1000-1500
700-1150	650-1100	700-1250	650-1150	250-550	650-1100	800-1250	850-1300
600-1050	500-1000	600-1150	500-1050	250-500	550-1000	650-1100	700-1200
700-1100	600-1050	700-1200	600-1100	300-500	600-1050	700-1200	800-1250
500-1000	450-900	500-1100	450-1000	250-450	500-900	600-1050	650-1100
600-1050	500-1000	600-1150	500-1050	250-500	550-1000	650-1100	700-1200
550-1000	500-900	550-1100	500-1000	250-450	500-900	650-1050	700-1100
500-800	450-750	500-900	450-800	200-400	450-800	600-1000	700-1050
500-700	450-650	500-800	450-750	150-350	400-700	600-900	650-1000
600-1000	500-900	600-1100	500-1000	250-450	550-900	650-1050	700-1100
500-700	450-650	500-800	450-750	150-350	400-700	600-900	650-1000

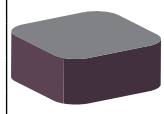
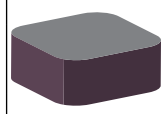
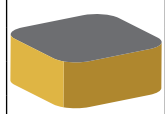
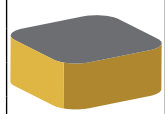
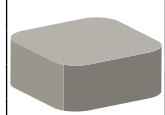
Cermet + PVD		Carbide + PVD			Carbide + CVD	
IC520N	IC530N	IC807/907	IC808/908	IC3028	IC6015	IC6025
500-1000	500-900	650-1050	460-720	200-500	650-1000	450-750
			460-720	200-500	650-1000	450-750
500-900	450-800	600-1000	330-660	150-500	450-800	400-600

Carbide	PCD
IC20	ID5
3300-8000	2000-8000
1000-3300	2000-8000
1000-3300	2000-8000
700-2000	2000-8000
800-2000	2000-3300
600-1300	2000-2600
500-1000	2000-2600

Carbide	Carbide + PVD			Whiskers	CBN		
IC20	IC907	IC806	IC3028	IW7	IB90	IB85	IB05S/10S
100-150	150-250		100-150				
80-110	130-200		50-100				
80-100	150-200	150-250	50-100	500-1500			
50-80	100-150	130-230	30-60		350-650	400-800	350-800
65-100	100-150	100-200	50-100				
250-500	500-650		450-500				
150-200	150-350		100-200				

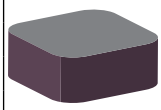
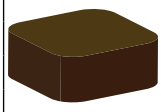
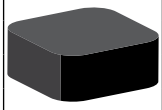
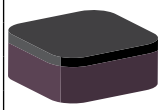
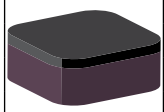
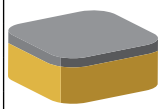
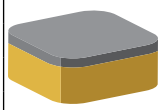
Ceramics				CBN					Carbide + PVD
IN22	IN420	IN23	IS8	IB10HC	IB10H/20H/25HC	IB25HA	IB50/55	IB85/90	IC907
150-500	260-1150	150-400		500-1200	330-700	300-650	350-450	250-450	150-350
150-400		150-350		500-1200	330-700	300-650	250-400	200-400	100-200
100-650	100-650							250-500	
		250-400	200-350					350-450	

Turning Materials Grades Chart

	Grade	ISO	Grade Description	Coating Layers	Coating Color*	Uncoated
PVD COATED	IC520N	P05-P25 M05-M15	A hard cermet grade with PVD coating. Suitable for finishing operations on steels and stainless steel at high cutting speeds and low feeds. Features excellent surface finish, very good wear resistance and prevents built-up edge.	TiN TiCN Base		
	IC530N	P25-P35 M20-M30	Tough cermet grade with PVD coating. Recommended for Semi-Finishing and finishing operations on steels at medium to high cutting speeds and low feeds. Features excellent surface finish, high wear resistance, plastic deformation durability and prevents built-up edge.	TiN TiCN Base		
	IC706	S10-S20	A hard submicron grain-sized substrate with a hard ceramic coating of Titanium Diboride (TiB_2), renowned for its exceptional oxidation stability and superior wear resistance. Ideal for semi-finishing and finishing operations on titanium alloys at moderate cutting speeds, resulting in extended tool life.	TiB_2 Base		
	IC804	S05-S15	A very hard submicron grain size substrate with PVD coating and a special SUMOTEC surface treatment. Suitable for semi-finishing and finishing operations under stable conditions on high temperature alloys and Titanium alloys moderate to relatively high cutting speeds. Features high wear resistance and plastic deformation durability.	TiAlN AlTiN Base		
	IC806	M05-M15 S10-S20	A hard submicron grain size substrate with PVD coating and a special SUMOTEC surface treatment. Excellent for machining high temperature alloys and Titanium alloys, at moderate to relatively high cutting speeds. Features high wear resistance and plastic deformation durability.	TiAlN AlTiN Base		
	IC807	P10-P20 M05-M15 K15-K30 S10-S20 H05-H15	A hard submicron grain size substrate with PVD coating and a special SUMOTEC surface treatment. Suitable for machining steels, alloy steels, austenitic stainless steel, high temperature alloys and hard steels at moderate to relatively high cutting speeds under stable conditions. Features high wear resistance and plastic deformation durability.	TiN TiAlN Base		
	IC830	P30-P45 M25-M40 S20-S30	A tough substrate with PVD coating and a special SUMOTEC surface treatment. Suitable for machining steel and stainless steel at low to medium cutting speeds and moderate to high feeds. The grade features high toughness and recommended for interrupted cuts and machining under unstable conditions. May be used on high temperature alloys at low cutting speeds.	TiN TiAlN Base		
	IC907	P10-P20 M05-M15 K15-K30 S10-S20 H05-H15	A hard submicron grain size substrate with PVD coating suitable for a wide range of materials such as steels, alloy steels, hard steels, austenitic stainless steel and heat resistant alloys at moderate to relatively high cutting speeds under stable conditions. Features high wear resistance and plastic deformation durability.	TiAlN Base		
	IC908	P15-P30 M20-M30 K20-K40 S15-S30 H20-H30	A tough submicron grain size substrate with PVD coating, recommended for general use in a large variety of operations and materials such as steels, alloy steels, austenitic stainless steel and high temperature alloys at moderate cutting speeds. Features high wear resistance and chipping durability.	TiAlN Base		

* For coated grades

Turning Materials Grades Chart

	Grade	ISO	Grade Description	Coating Layers	Coating Color*	Uncoated
PVD COATED	IC1017	S10-S25	High-hardness submicron grain substrate with a TiAlN PVD coating for machining high-temperature alloys at relatively higher speeds. This complements and enhances the machining capabilities of IC806 and IC804 grades. Suitable for aerospace and petroleum industry applications.	TiAlN AlTiN Base		
	IC1024	H10-H15	An extremely hard substrate with an ultra-fine grain size that also offers good toughness. The AlTiN PVD coating is suitable for machining hardened steels up to 62 HRC. This grade is cost-effective alternative to ceramic and CBN grades. It is recommended for finishing and light interrupted cutting operations, providing high deformation resistance.	AlTiN Base		
CVD COATED	IC428	K05-K20 H15-H25	A hard substrate with multilayer CVD coating. Recommended for machining gray and nodular cast iron at moderate to high cutting speeds.	Al_2O_3 Tic Base		
	IC6015	M05-M25 S10-S20	A hard substrate with cobalt enriched outer layer and MTCVD coating and a special SUMOTEC surface treatment. Suitable for finishing and medium turning of stainless steel at high cutting speeds. Features long tool life and high wear resistance.	TiN Al_2O_3 TiCN Base		
	IC6025	M15-M35 S20-S30	A very tough substrate with MTCVD coating with a special SUMOTEC surface treatment. Recommended for machining stainless steel at moderate cutting speeds and medium to high feeds. Features very high toughness with excellent results in heavy machining operations, unstable conditions, and interrupted cut.	TiN Al_2O_3 TiCN Base		
	IC8150	P10-P25 M10-M20 K10-K25	A hard substrate with a cobalt enriched layer, MTCVD coating with a special SUMOTEC surface treatment. Recommended for high speed machining of steels, alloy steels and martensitic stainless steel with moderate feeds under stable conditions. Features excellent thermal stability, resistance to wear and plastic deformation durability.	TiN Al_2O_3 TiCN Base		
	IC8250	P15-P35 M15-M25	A tough substrate with a cobalt enriched layer and MTCVD coating with a special SUMOTEC surface treatment. Recommended for general use machining of steels, alloy steels and martensitic stainless steel in a wide range of conditions. Features high toughness and good wear resistance.	TiN Al_2O_3 TiCN Base		

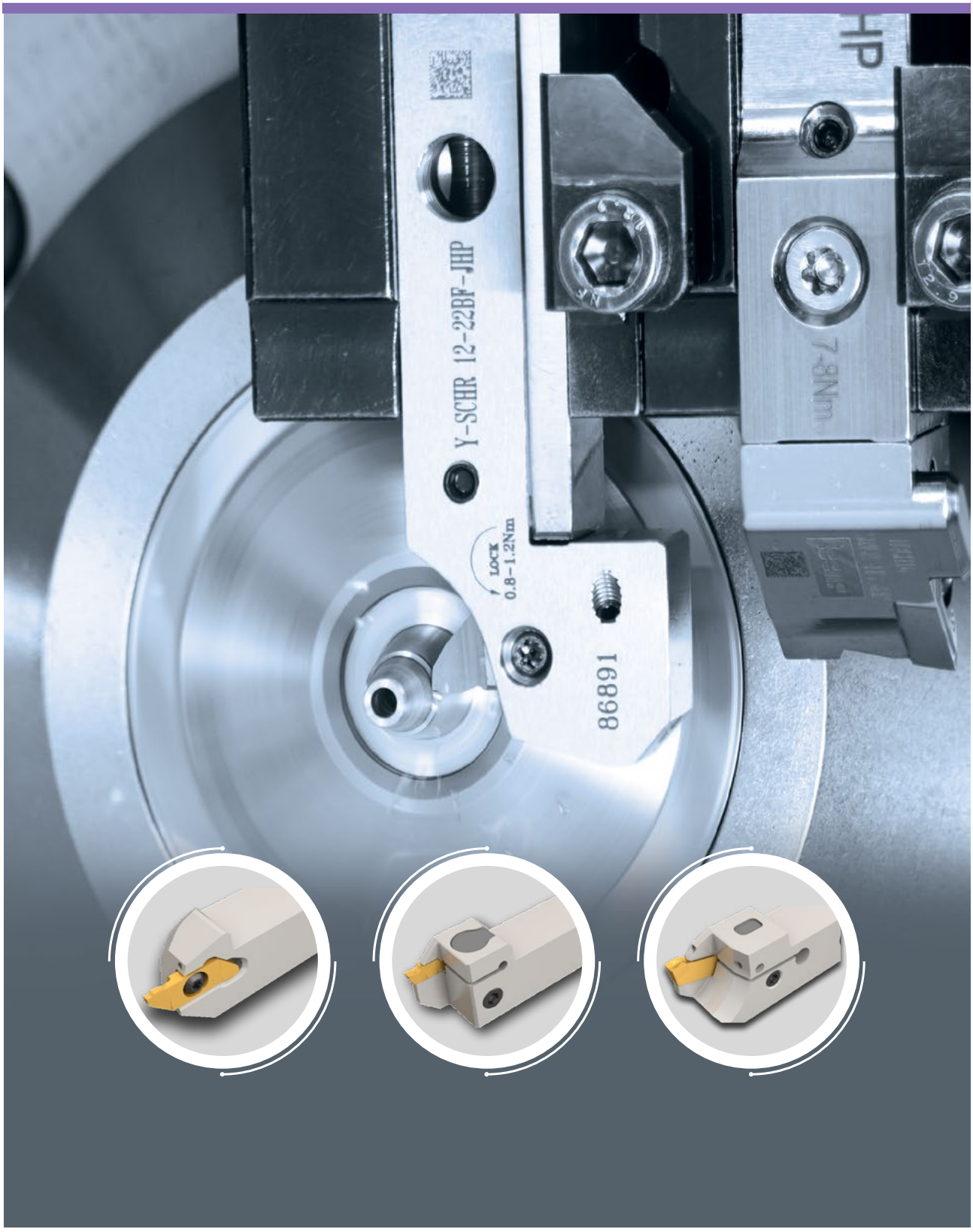
* For coated grades

Turning Materials Grades Chart

	Grade	ISO	Grade Description	Coating Layers	Coating Color*	Uncoated
UNCOATED	IC4	N01-N15 S05-S15	A very hard-uncoated carbide grade, suitable for machining aluminum alloys, aluminum alloys with high silicon content and other non-ferrous materials at high cutting speeds.	Base		
	IC08	M15-M30 N10-N25 S20-S30	A tough uncoated submicron carbide grade, suitable for steels, stainless steel and high temperature alloys at low cutting speeds. Good choice for non-ferrous materials.	Base		
	IC20	K10-K20 N05-N25 S10-S20 H10-H20	A hard-uncoated carbide grade for machining aluminum and other non-ferrous materials at medium to high cutting speeds. Can be used for cast iron at low cutting speeds. Suitable also for machining high temperature and Titanium alloys, at low cutting speeds.	Base		
CERMET	IC20N	P05-P25 M05-M15	A very hard cermet grade for turning and grooving. Recommended for finishing operations on steels and alloy steels at high cutting speeds and low feeds. Features excellent surface finish, high wear resistance, plastic deformation durability and prevents built-up edge.	Base		
	IC30N	P10-P30 M10-M20	A hard cermet grade, suitable for machining, steels and stainless steel at medium to high cutting speeds and low feeds. Features excellent surface finish, very good wear resistance and prevents built-up edge.	Base		

* For coated grades

EXTERNAL GROOVE-TURN



Information to Select the Correct Insert

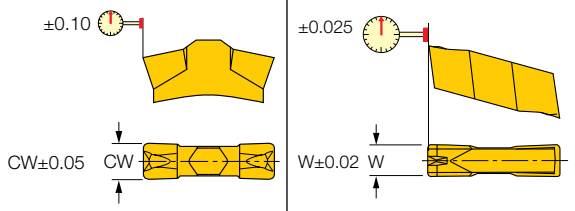
ISCAR has an extensive variety of **GROOVE-TURN** products. In many cases, you can perform your operation by using several different products. In order to make the optimal selection, these basic parameters need to be defined:

- Insert width **[CW]**
- Necessary tolerance on the insert
- Maximum depth of grooving **[CDX]**
- Application requirement grooving and turning, or only grooving (**E-Type** or not)

According to these parameters:

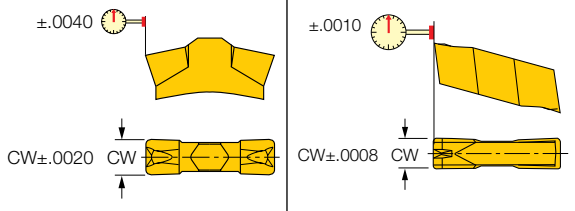
- Select the most suitable product according to the tables on pages 297-298.
- Select the most suitable chipformer according to the information on pages 299-301.

Utility Inserts		Precision Grooving Inserts	
Pressed to Size Inserts		Peripheral Ground Inserts	
Width	± 0.05	Width	± 0.02
Repeatability	± 0.10	Repeatability	± 0.025



If you don't need the tight tolerance, save money and select a utillity insert (less expensive).

Utility Inserts		Precision Grooving Inserts	
Pressed to Size Inserts		Peripheral Ground Inserts	
Width	± .0020″	Width	± .0008″
Repeatability	± .0040″	Repeatability	± .0010″



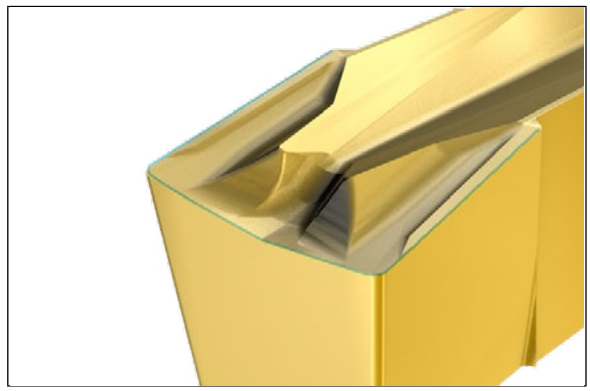
If you don't need the tight tolerance, save money and select a utillity insert (less expensive)

What Is an E-Type GROOVE-TURN Insert?

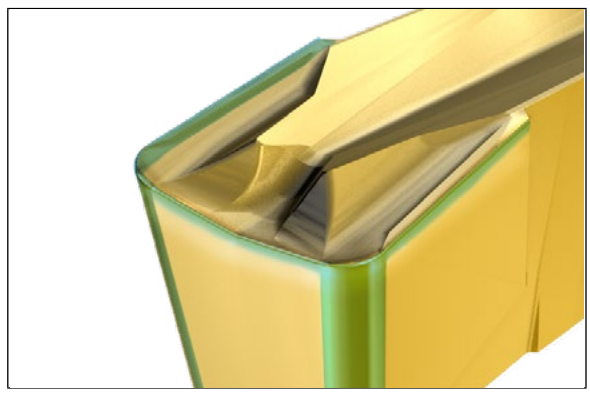
E-type inserts are precision ground grooving inserts with **turning** capability.

These inserts include the letter **E** in their description. (example: GIP 3.00**E**-0.4). This is to distinguish them from precision ground inserts which are not suitable for turning operations and don't include an **E** in their description. (example: GIP 3.00-0.2)

- E-type inserts usually have a larger corner radius
- E-type inserts have a larger honing size

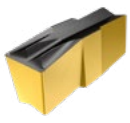


Precision Grooving Insert



E-Type GROOVE-TURN

External GROOVE-TURN Insert Type

	Insert		Properties				CW Range	CDX	Page
			Precision Ground	Utility	Number of Cutting Edges	Option for Turning			
SWISSCUT		SWISS-CUT size 22	✔		2	✔	0.5-2.5mm (.020-.098″)	Groove 1.8-7mm (.071-.276″) Turn 0.05-3.8mm (.002-.150″)	307-314
		SWISS-CUT size 41	✔		2	✔	1-3.3mm (.039-.130″)	Groove 6-11mm (.236-.433″) Turn 0.05-5mm (.002-.197″)	316-321
PENTACUT		PENTA-CUT Size 17	✔		5		0.25-3.18 (.009-.125″)	4 (.157″)	537-546
		PENTA-CUT Size 24	✔		5		0.5-4.23 (.019-.166″)	1-6.5 (.039-.255″)	553-567
		PENTACUT Size 34	✔		5		1.5-4.0 (.060-.157″)	5-10 (.197-.394″)	580-586
HELI-GRIP		HELI-GRIP		✔	2	✔	3-4.76 (.118-.187″)	No depth limit	368-371
TOP-GRIP		TOP-GRIP		✔	2	✔	3-4 (.118-.157″)	10.5-14.7 (.413-.579″)	378-379
CUT-GRIP		Short Pocket		✔	1	✔	3-4.76 (.118-.157″)	No depth limit	361-364
		Short Pocket	✔		2	✔*	0.5-4.78 (.020-.188″)	13** (.512″)	337,349-357

* Not on all the products
** On most items

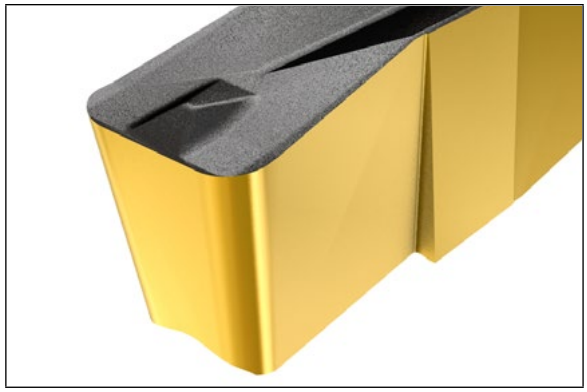
Internal GROOVE-TURN Insert Type

	Insert	Tool	Insert	Utility	Precision	Dmin	CDX	CW	Page
PICCOCUT		PICCO/ MG PCO	PICCO		✔	2.0-7.0 (.079-.276″)	0.4-2.5 (.016-.100″)	0.5-2 (.020-.079″)	446-475
CHAMGROOVE		MG/MGCH	GIQR 8		✔	8.0 (.315″)	0.7-1.5 (.028-.060″)	0.5-4 (.020-.157″)	409-410
		MG/MGCH	GIQR 11		✔	11.0 (.433″)	1.5-2.3 (.060-.090″)	0.75-5 (.030-.197″)	411-412
		MGCH	GIQR 11-15		✔	15.0 (.591″)	6.3 (.248″)	1-3 (.040-.118″)	413-414
CUTGRIP		GEHIR/L	GEPI/ GEMI	✔	✔	12.5-16 (.492-.629″)	2.4-3.0 (.094-.118″)	1-3.18 (.040-.125″)	425-427
		E-GEHIR	GIPI/ GINI/GIMIY	✔	✔	16 (.630″)	2.2 (.087″)	1.5-3 (.060-.118″)	428-431
TOP-GRIP		TGIR/L	TGMF	✔		20.5-57 (.807-2.244″)	5.5-17.5 (.196-.688″)	3-5 (.118-.197″)	378-379

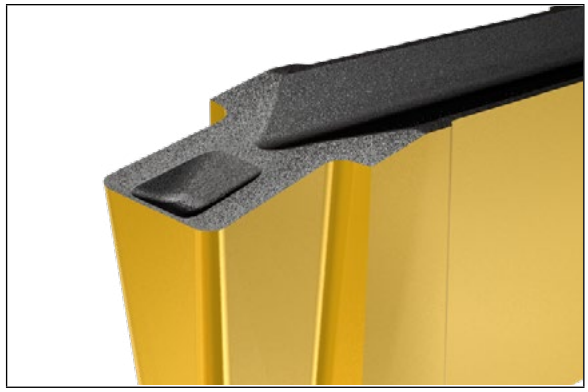
Chipbreaker Selection

General Use

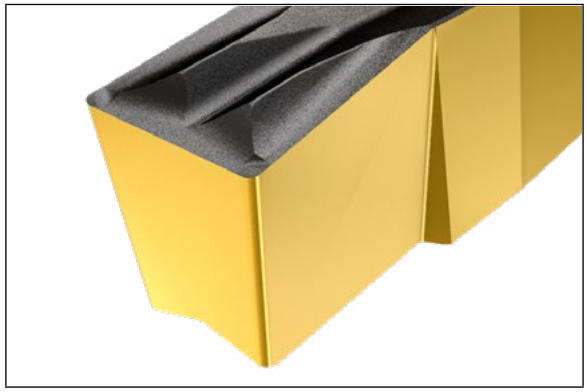
P-Type
- Very "open" geometry
- Medium to high feed in turning and grooving
- Large variety of standard sizes
- Precision ground inserts only
- Width range External: 2.39-6.35 mm (.094-.250")
  Internal: 2.39-6.35 mm (.094-.250")



G-Type
- Efficient chipbreaker for narrow width grooves
- Width range: 1-2.3 mm (.040-.090")
- No option for turning



F-Type
- First choice in grooving
- Low to medium feeds in grooving and turning
- Both precision ground and utility inserts
- Width range External: 3.0-10 mm (.118-.394")
  Internal: 3-6 mm (.118-.236")



HG-Y-Type
- General use in grooving and turning
- Efficient for a wide range of materials and cutting conditions
- Utility inserts only
- Width range External: 3-6.35 mm (.118-.250")
  Internal: 3-6.35 mm (.118-.250")

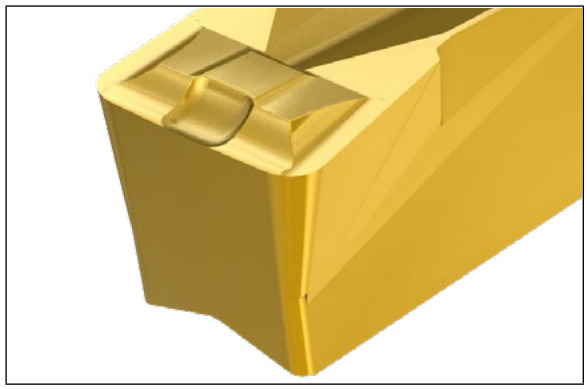


Chipbreaker Selection

Problematic and Specific Materials

N-Type

- First choice in grooving of problematic, soft & gummy materials
- Very low to medium feeds (from 0.05 mm/rev, .002 ipr)
- Both precision ground and utility inserts
- Option for turning
- Width range External: 3-8 mm (.118-.315″) Internal: 2-5 mm (.078-.197″)



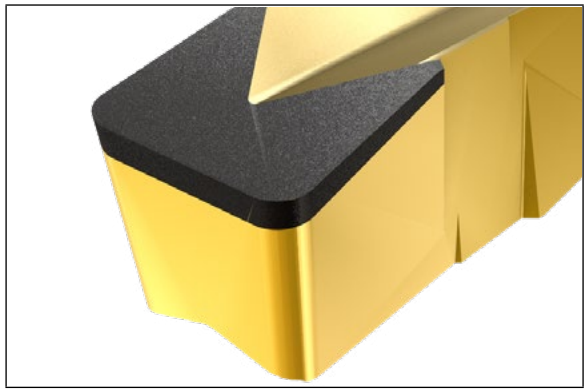
PA-Type

- First choice for machining aluminum
- High positive rake
- Peripheral ground and polished top rake with a very sharp edge
- Suitable also for finish operations on titanium and heat resistant alloys
- Width range External: 3-8 mm (.118-.315″)



A-Type

- First choice for machining cast Iron
- Peripheral 15° T-land on a flat top
- Exerts high cutting forces, therefore suitable for stable conditions
- Precision ground inserts only
- Width range External: 3-8 mm (.118-.315″)



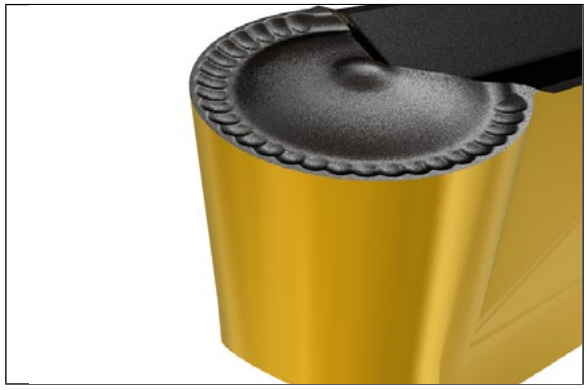
Chipbreaker Selection

Profiling (Full Radius)

Y-Type
- First choice in profiling
- Positive top rake reduces cutting forces
- Excellent for long shafts
- Eliminates vibrations
- Both precision ground and utility inserts
- Width range External: 3-12 mm (.118-.472″)
  Internal: 2-3 mm (.078-.118″)



YF-Type
- First choice for profiling ductile materials
- Utility inserts only
- Width range External: 3-8 mm (.118-.314″)



PA-Type
- First choice for profiling aluminum
- High positive rake
- Peripheral ground and polished top rake with a very sharp edge
- Suitable also for finish operations on titanium and heat resistant alloys
- Width range External: 3-8 mm (.118-.314″)



Chipbreaker Width Range

External

Insert Width							
4 (.16″)							
3 (.12″)			3.48 (.137″)				
2 (.080″)	2.3 (.090″)	2.39 (.094″)					
1 (.040″)							
	G	P	F	N	HG-Y	A	PA

Internal

Insert Width				
4 (.16″)				
3 (.12″)				
2 (.080″)	2.39 (.094″)			
1 (.040″)				
	P	F	N	HG-Y

Suitable Chipbreaker and Required Feed Range for Workpiece Material

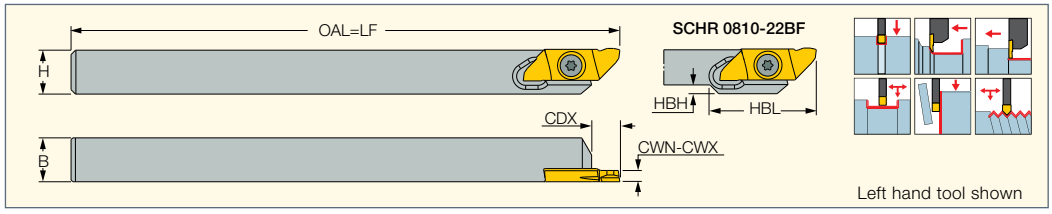
	Alloy Steel		Austenitic Stainless	High Temp. Alloys	Nonferrous Materials
High ↑ Feed ↓ Low		P	P	P	
		HG-Y	HG-Y	Y	PA*
		F	F	PA (finish only)	
		N			

* First Choice

SWISSCUT INNOVAL LINE

SCHR/L-22BF

Grooving and Turning Tools with Back and Front Clamping for Swiss-Type and Automatic Machines



M E T R I C

Designation	H	B	OAL	HBH	HBL	CDX(1)	CWN(2)	CWX(3)		
SCHR/L 0810-22BF	8.0	10.0	125.00	2.0	24.0	8.00	0.50	2.50	SR M4X0.7-19425	T-8/5
SCHR/L 10-22BF	10.0	10.0	125.00	-	-	8.00	0.50	2.50	SR M4X0.7-19425	T-8/5
SCHR/L 12-22BF	12.0	12.0	125.00	-	-	8.00	0.50	2.50	SR M4X0.7-19425	T-8/5
SCHR/L 16-22BF	16.0	16.0	125.00	-	-	8.00	0.50	2.50	SR M4X0.7-19425	T-8/5

- Recommended tightening torque = 0.8-1.2 Nm

(1) See insert dimensions

(2) Minimum cutting width

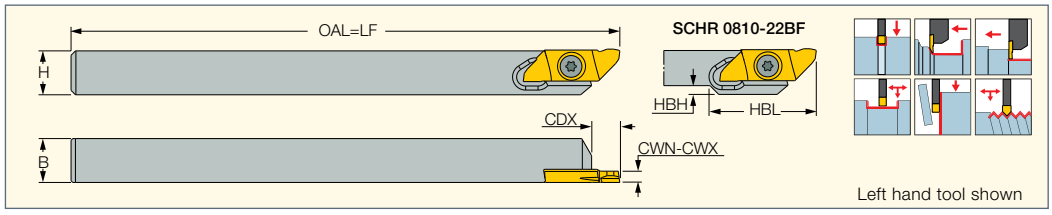
(3) Maximum cutting width

For inserts, see pages: SCIR-22-MTR-ISO (662) • SCIR/L-22-AD (311) • SCIR/L-22-AR/AL (312) • SCIR/L-22-BR/BL/BRA/BLA (307) • SCIR/L-22-ER/EL/ERA/ELA (308) • SCIR/L-22-MTR/MTL (661) • SCIR/L-22-N/R/L (309) • SCIR/L-22-NP (313) • SCIR/L-22-NX (314)

SWISSCUT INNOVAL LINE

SCHR/L-22BF

Grooving and Turning Tools with Back and Front Clamping for Swiss-Type and Automatic Machines



I N C H

Designation	H	B	OAL	HBH	HBL	CDX(1)	CWN(2)	CWX(3)		
SCHR/L 0810-22BF	.315	.394	4.921	.08	.945	.315	.020	.098	SR M4X0.7-19425	T-8/5
SCHR/L 9.5-22BF	.375	.375	4.921	-	-	.315	.020	.100	SR M4X0.7-19425	T-8/5
SCHR/L 10-22BF	.394	.394	4.921	-	-	.315	.020	.098	SR M4X0.7-19425	T-8/5
SCHR/L 12-22BF	.472	.472	4.921	-	-	.315	.020	.098	SR M4X0.7-19425	T-8/5
SCHR/L 12.7-22BF	.500	.500	4.921	-	-	.315	.020	.100	SR M4X0.7-19425	T-8/5
SCHR/L 16-22BF	.630	.630	4.921	-	-	.315	.020	.098	SR M4X0.7-19425	T-8/5

- Recommended tightening torque = 7.1-10.6 lbf x in

(1) See insert dimensions

(2) Minimum cutting width

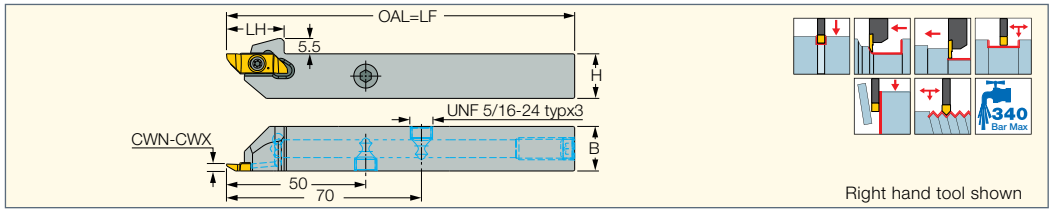
(3) Maximum cutting width

For inserts, see pages: SCIR-22-MTR-ISO (662) • SCIR/L-22-AD (311) • SCIR/L-22-AR/AL (312) • SCIR/L-22-BR/BL/BRA/BLA (307) • SCIR/L-22-ER/EL/ERA/ELA (308) • SCIR/L-22-MTR/MTL (661) • SCIR/L-22-N/R/L (309) • SCIR/L-22-NP (313) • SCIR/L-22-NX (314)

SWISSCUT INNOVAL LINE

SCHR/L-22BF-JHP

Grooving and Turning Tools with High-Pressure Coolant Channels for Swiss-Type and Automatic Machines



M E T R I C

Designation	H	B	OAL	LH	CWN(1)	CWX(2)	CDX(3)				
SCHR/L 10-22BF-JHP	10.0	10.0	125.00	20.7	0.50	2.50	8.00	SR M4X0.7-19425	T-8/5	SR 5/16UNF TL360	HW 5/32"
SCHR/L 12-22BF-JHP	12.0	12.0	125.00	20.7	0.50	2.50	8.00	SR M4X0.7-19425	T-8/5	SR 5/16UNF TL360	HW 5/32"
SCHR/L 16-22BF-JHP	16.0	16.0	125.00	20.7	0.50	2.50	8.00	SR M4X0.7-19425	T-8/5	SR 5/16UNF TL360	HW 5/32"

- Note: Coolant ports of the left-hand tools are in the same position as those of the right-hand tools

(1) Minimum cutting width

(2) Maximum cutting width

(3) See insert dimensions

For inserts, see pages: SCIR-22-MTR-ISO (662) • SCIR/L-22-AD (311) • SCIR/L-22-AR/AL (312) • SCIR/L-22-BR/BL/BRA/BLA (307) • SCIR/L-22-ER/EL/ERA/ELA (308) • SCIR/L-22-MTR/MTL (661) • SCIR/L-22-N/R/L (309) • SCIR/L-22-NP (313) • SCIR/L-22-NX (314)

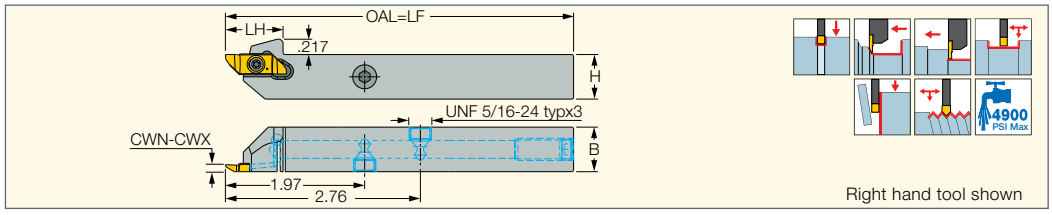
Flow Rate vs. Pressure

Designation	70 Bar Flow Rate (liters/min)	100 Bar Flow Rate (liters/min)	140 Bar Flow Rate (liters/min)
SCHR/L 10-22BF-JHP	1-3	2-4	3-5
SCHR/L 12-22BF-JHP	3-5	4-6	5-7
SCHR/L 16-22BF-JHP	6-8	7-9	8-10

SWISSCUT INNOVAL LINE

SCHR/L-22BF-JHP

Grooving and Turning Tools with High-Pressure Coolant Channels for Swiss-Type and Automatic Machines



I N C H

Designation	H	B	OAL	LH	CWN(1)	CWX(2)	CDX(3)				
SCHR/L 9.5-22BF-JHP	.375	.375	4.920	.815	.020	.100	.315	SR M4X0.7-19425	T-8/5	SR 5/16UNF TL360	HW 5/32"
SCHR/L 10-22BF-JHP	.394	.394	4.921	.815	.020	.098	.315	SR M4X0.7-19425	T-8/5	SR 5/16UNF TL360	HW 5/32"
SCHR/L 12-22BF-JHP	.472	.472	4.921	.815	.020	.098	.315	SR M4X0.7-19425	T-8/5	SR 5/16UNF TL360	HW 5/32"
SCHR/L 12.7-22BF-JHP	.500	.500	4.920	.815	.020	.100	.315	SR M4X0.7-19425	T-8/5	SR 5/16UNF TL360	HW 5/32"
SCHR/L 16-22BF-JHP	.630	.630	4.921	.815	.020	.098	.315	SR M4X0.7-19425	T-8/5	SR 5/16UNF TL360	HW 5/32"

- Note: Coolant ports of the left-hand tools are in the same position as those of the right-hand tools

(1) Minimum cutting width

(2) Maximum cutting width

(3) See insert dimensions

For inserts, see pages: SCIR-22-MTR-ISO (662) • SCIR/L-22-AD (311) • SCIR/L-22-AR/AL (312) • SCIR/L-22-BR/BL/BRA/BLA (307) • SCIR/L-22-ER/EL/ERA/ELA (308) • SCIR/L-22-MTR/MTL (661) • SCIR/L-22-N/R/L (309) • SCIR/L-22-NP (313) • SCIR/L-22-NX (314)

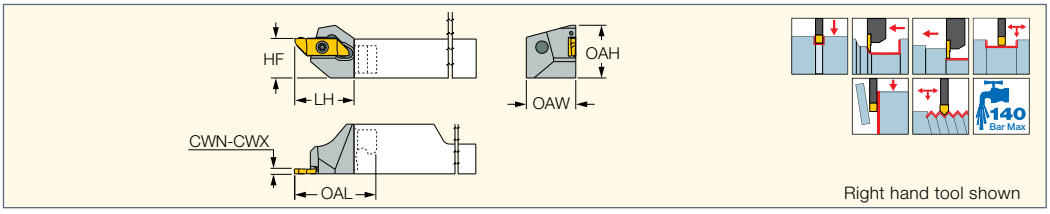
Flow Rate vs. Pressure

Designation	1000 PSI Flow Rate (GPM)	1450 PSI Flow Rate (GPM)	2000 PSI Flow Rate (GPM)
SCHR/L 9.5-22BF-JHP	.26-.79	.53-1.06	.79-1.32
SCHR/L 12.7-22BF-JHP	.79-1.32	1.06-1.59	1.32-1.85
SCHR/L 16-22BF-JHP	1.59-2.11	1.85-2.38	2.11-2.65

NEOSWISS

NQCH-SCHR/L-BF-JHP

Screw Lock JET-CUT Modular Heads Carrying SWISS-CUT Inserts for Grooving and Turning on Swiss-Type Machines



M E T R I C

Designation	HF	OAW	LH	OAH	OAL	CWN(2)	CWX(3)	Insert		
NQCH12-SCHR/L-22BF-JHP	12.0	20.00	24.0	17.30	32.80	0.50	2.50	SCIR/L-22	SR M4X0.7-19425	T-8/5
NQCH12R-SCHL-22BF-JHP (1)	12.0	20.00	24.0	17.30	32.80	0.50	2.50	SCIR/L-22	SR M4X0.7-19425	T-8/5
NQCH16-SCHR/L-22BF-JHP	16.0	20.00	24.0	21.10	32.80	0.50	2.50	SCIR/L-22	SR M4X0.7-19425	T-8/5
NQCH16R-SCHL-22BF-JHP (1)	16.0	20.00	24.0	21.10	32.80	0.50	2.50	SCIR/L-22	SR M4X0.7-19425	T-8/5

- Use only RH Shank with RH Head and LH Shank with LH Head exept NQCH12R/16R... heads

(1) The head is dedicated for the right hand machines and to be mounted on the right hand holder only

(2) Minimum cutting width

(3) Maximum cutting width

For inserts, see pages: SCIR-22-MTR-ISO (662) • SCIR/L-22-AD (311) • SCIR/L-22-AR/AL (312) • SCIR/L-22-BR/BL/BRA/BLA (307) • SCIR/L-22-ER/EL/ERA/ELA (308) • SCIR/L-22-MTR/MTL (661) • SCIR/L-22-N/R/L (309) • SCIR/L-22-NP (313) • SCIR/L-22-NX (314)

For holders, see pages: C#-NQCH-JHP (65) • NQCH-JHP (63)

I N C H

Designation	HF	OAW	LH	OAH	OAL	CWN(2)	CWX(3)	Insert		
NQCH12-SCHR/L-22BF-JHP	.472	.787	.945	.681	1.291	.020	.098	SCIR/L-22	SR M4X0.7-19425	T-8/5
NQCH12R-SCHL-22BF-JHP (1)	.472	.787	.945	.681	1.291	.020	.098	SCIR/L-22	SR M4X0.7-19425	T-8/5
NQCH16-SCHR/L-22BF-JHP	.630	.787	.945	.831	1.291	.020	.098	SCIR/L-22	SR M4X0.7-19425	T-8/5
NQCH16R-SCHL-22BF-JHP (1)	.630	.787	.945	.831	1.291	.020	.098	SCIR/L-22	SR M4X0.7-19425	T-8/5

- Use only RH Shank with RH Head and LH Shank with LH Head exept NQCH12R/16R... heads

(1) The head is dedicated for the right hand machines and to be mounted on the right hand holder only

(2) Minimum cutting width

(3) Maximum cutting width

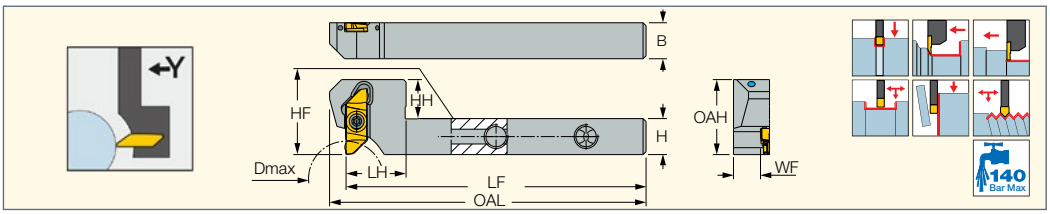
For inserts, see pages: SCIR-22-MTR-ISO (662) • SCIR/L-22-AD (311) • SCIR/L-22-AR/AL (312) • SCIR/L-22-BR/BL/BRA/BLA (307) • SCIR/L-22-ER/EL/ERA/ELA (308) • SCIR/L-22-MTR/MTL (661) • SCIR/L-22-N/R/L (309) • SCIR/L-22-NP (313) • SCIR/L-22-NX (314)

For holders, see pages: C#-NQCH-JHP (65) • NQCH-JHP (63)

NEOYSWISS AXIS

Y-SCHR-22BF-JHP

Y-Axis Screw Lock JET-CUT Integral Tools for SWISS-CUT Inserts for Grooving and Turning on Swiss-Type Machines



M E T R I C

Designation	H	B	HH	LH	HF	WF	OAH	LF	OAL	D max(1)
Y-SCHR 12-22BF-JHP	12.0	12.0	13.0	20.0	12.0	9.00	25.00	100.00	105.50	25.0 (2)
Y-SCHR 16-22BF-JHP	16.0	16.0	9.0	20.0	16.0	13.00	25.00	125.00	130.50	38.0 (2)

(1) Maximum workpiece diameter for grooving operation

(2) for grooving

For inserts, see pages: SCIR-22-MTR-ISO (662) • SCIR/L-22-AD (311) • SCIR/L-22-AR/AL (312) • SCIR/L-22-BR/BL/BRA/BLA (307) • SCIR/L-22-ER/EL/ERA/ELA (308) • SCIR/L-22-MTR/MTL (661) • SCIR/L-22-N/R/L (309) • SCIR/L-22-NP (313) • SCIR/L-22-NX (314)

I N C H

Designation	H	B	HH	LH	HF	WF	OAH	LF	OAL	D max(1)
Y-SCHR 12.7-22BF-JHP	.500	.500	.484	.787	.500	.382	.984	3.937	4.154	.984 (2)
Y-SCHR 16-22BF-JHP	.630	.630	.354	.787	.630	.512	.984	4.921	5.138	1.496 (2)

(1) Maximum workpiece diameter for grooving operation

(2) for grooving

For inserts, see pages: SCIR-22-MTR-ISO (662) • SCIR/L-22-AD (311) • SCIR/L-22-AR/AL (312) • SCIR/L-22-BR/BL/BRA/BLA (307) • SCIR/L-22-ER/EL/ERA/ELA (308) • SCIR/L-22-MTR/MTL (661) • SCIR/L-22-N/R/L (309) • SCIR/L-22-NP (313) • SCIR/L-22-NX (314)

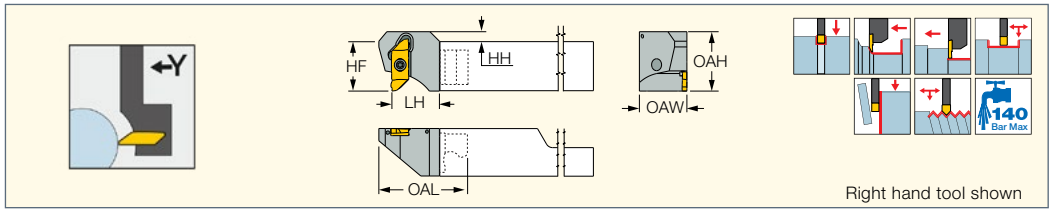
Spare Parts

Designation				
Y-SCHR-22BF-JHP	HW 5/32"	T-8/5	SR M4X0.7-19425	SR 5/16UNF TL360

NEOSWISS

NQCH-Y-SCHR-BF-JHP

Screw Lock JET-CUT Modular Heads Carrying SWISS-CUT Inserts for Grooving and Turning in Y-Axis on Swiss-Type Machines



M E T R I C

Designation	HF	OAH	LH	OAW	HH	OAL	CWN(1)	CWX(2)	Insert		
NQCH12-Y-SCHR-22BF-JHP	12.0	25.00	20.0	20.00	13.0	34.30	0.50	2.50	SCIR/L-22-N/R/L	SR M4X0.7-19425	T-8/5
NQCH16-Y-SCHR-22BF-JHP	16.0	25.00	20.0	20.00	9.0	34.30	0.50	2.50	SCIR/L-22-N/R/L	SR M4X0.7-19425	T-8/5

- Use only RH Shank with RH Head and LH Shank with LH Head

(1) Minimum cutting width

(2) Maximum cutting width

For inserts, see pages: SCIR-22-MTR-ISO (662) • SCIR/L-22-AD (311) • SCIR/L-22-AR/AL (312) • SCIR/L-22-BR/BL/BRA/BLA (307) • SCIR/L-22-ER/EL/ERA/ELA (308) • SCIR/L-22-MTR/MTL (661) • SCIR/L-22-N/R/L (309) • SCIR/L-22-NP (313) • SCIR/L-22-NX (314)

For holders, see pages: C#-NQCH-JHP (65) • NQCH-JHP (63)

I N C H

Designation	HF	OAH	LH	OAW	HH	OAL	CWN(1)	CWX(2)	Insert		
NQCH12-Y-SCHR-22BF-JHP	.472	.984	.787	.787	.512	1.350	.020	.098	SCIR/L-22-N/R/L	SR M4X0.7-19425	T-8/5
NQCH16-Y-SCHR-22BF-JHP	.630	.984	.787	.787	.354	1.350	.020	.098	SCIR/L-22-N/R/L	SR M4X0.7-19425	T-8/5

- Use only RH Shank with RH Head and LH Shank with LH Head

(1) Minimum cutting width

(2) Maximum cutting width

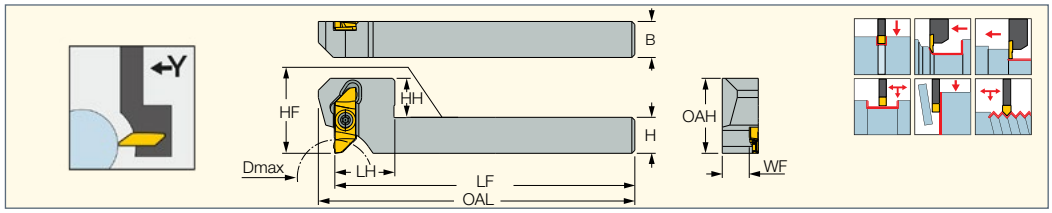
For inserts, see pages: SCIR-22-MTR-ISO (662) • SCIR/L-22-AD (311) • SCIR/L-22-AR/AL (312) • SCIR/L-22-BR/BL/BRA/BLA (307) • SCIR/L-22-ER/EL/ERA/ELA (308) • SCIR/L-22-MTR/MTL (661) • SCIR/L-22-N/R/L (309) • SCIR/L-22-NP (313) • SCIR/L-22-NX (314)

For holders, see pages: C#-NQCH-JHP (65) • NQCH-JHP (63)

NEOYSWISS

Y-SCHR-22BF

Y-Axis Screw Lock Integral Tools Carrying SWISS-CUT Inserts for Grooving and Turning on Swiss-Type Machines



M E T R I C

Designation	H	B	HH	LH	HF	WF	OAH	LF	OAL	D max(1)		
Y-SCHR 12-22BF	12.0	12.0	13.0	20.0	12.0	9.00	25.00	100.00	105.50	25.0 (2)	SR M4X0.7-19425	T-8/5
Y-SCHR 16-22BF	16.0	16.0	9.0	20.0	16.0	13.00	25.00	125.00	130.50	38.0 (2)	SR M4X0.7-19425	T-8/5

(1) Maximum workpiece diameter for grooving operation

(2) for grooving

For inserts, see pages: SCIR-22-MTR-ISO (662) • SCIR/L-22-AD (311) • SCIR/L-22-AR/AL (312) • SCIR/L-22-BR/BL/BRA/BLA (307) • SCIR/L-22-ER/EL/ERA/ELA (308) • SCIR/L-22-MTR/MTL (661) • SCIR/L-22-N/R/L (309) • SCIR/L-22-NP (313) • SCIR/L-22-NX (314)

I N C H

Designation	H	B	HH	LH	HF	WF	OAH	LF	OAL	D max(1)		
Y-SCHR 12.7-22BF	.500	.500	.484	.787	.500	.382	.984	3.937	4.154	.984 (2)	SR M4X0.7-19425	T-8/5
Y-SCHR 16-22BF	.630	.630	.354	.787	.630	.512	.984	4.921	5.138	1.496 (2)	SR M4X0.7-19425	T-8/5

(1) Maximum workpiece diameter for grooving operation

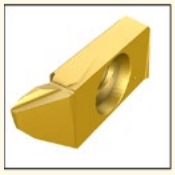
(2) for grooving

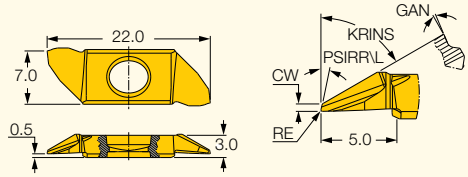
For inserts, see pages: SCIR-22-MTR-ISO (662) • SCIR/L-22-AD (311) • SCIR/L-22-AR/AL (312) • SCIR/L-22-BR/BL/BRA/BLA (307) • SCIR/L-22-ER/EL/ERA/ELA (308) • SCIR/L-22-MTR/MTL (661) • SCIR/L-22-N/R/L (309) • SCIR/L-22-NP (313) • SCIR/L-22-NX (314)

SWISSCUT INNOVAL LINE

SCIR/L-22-BR/BL/BRA/BLA

Back Turning Inserts





Left hand insert shown

M E T R I C

Designation	Dimensions CW	GAN	RE	PSIRL	PSIRR	KRINS(1)	Tough ↔ Hard IC1008	IC07	IC1007	Recommended Machining Data a_p (mm)	f turn (mm/rev)
SCIL 22-BL00-05K7	0.50	7.0	0.00	12.0	-	60.0	●			0.05-3.00	0.01-0.15
SCIL 22-BL10-05K7	0.50	7.0	0.10	12.0	-	60.0	●			0.12-3.00	0.01-0.15
SCIR 22-BR00-05K7	0.50	7.0	0.00	-	12.0	60.0	●			0.05-3.00	0.01-0.15
SCIR 22-BR10-05K7	0.50	7.0	0.10	-	12.0	60.0	●			0.12-3.00	0.01-0.15
SCIL 22-BLA00-05K8	0.50	8.0	0.00	20.0	-	60.0		●	●	0.05-3.00	0.01-0.15
SCIL 22-BLA08-05K8	0.50	8.0	0.08	20.0	-	60.0		●	●	0.10-3.00	0.01-0.15
SCIR 22-BRA00-05K8	0.50	8.0	0.00	-	20.0	60.0		●	●	0.05-3.00	0.01-0.15
SCIR 22-BRA08-05K8	0.50	8.0	0.08	-	20.0	60.0		●	●	0.10-3.00	0.01-0.15
SCIR 22-BR10-05K15	0.50	15.0	0.10	-	12.0	60.0	●			0.12-3.00	0.01-0.15
SCIL 22-BL08-10K7	1.00	7.0	0.08	12.0	-	60.0	●			0.10-3.00	0.01-0.15
SCIR 22-BR08-10K7	1.00	7.0	0.08	-	12.0	60.0	●			0.10-3.00	0.01-0.15
SCIR 22-BR08-10K15	1.00	15.0	0.08	-	12.0	60.0	●			0.10-3.00	0.01-0.15

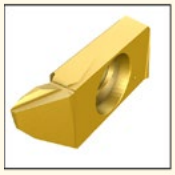
(1) Edge angle related to the wiper

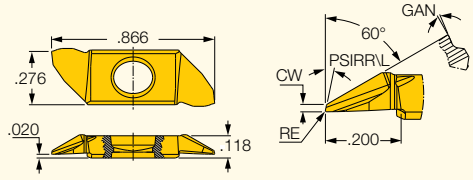
For tools, see pages: NQCH-SCHR/L-BF-JHP (305) • NQCH-Y-SCHR-BF-JHP (306) • SBTT#-SCHR/L22-JHP (832) • SCHR/L-22BF (303) • SCHR/L-22BF-JHP (304) • Y-SCHR-22BF (306) • Y-SCHR-22BF-JHP (305)

SWISSCUT INNOVAL LINE

SCIR/L-22-BR/BL/BRA/BLA

Back Turning Inserts





Left hand insert shown

I N C H

Designation	Dimensions CW	GAN	RE	PSIRL	PSIRR	KRINS(1)	Tough ↔ Hard IC1008	IC07	IC1007	Recommended Machining Data a_p (inch)	f turn (IPR)
SCIL 22-BL00-05K7	.020	7.0	.0000	12.0	-	60.0	●			.002-.118	.0004-.0059
SCIL 22-BL10-05K7	.020	7.0	.0039	12.0	-	60.0	●			.005-.118	.0004-.0059
SCIR 22-BR00-05K7	.020	7.0	.0000	-	12.0	60.0	●			.002-.118	.0004-.0059
SCIR 22-BR10-05K7	.020	7.0	.0039	-	12.0	60.0	●			.005-.118	.0004-.0059
SCIL 22-BLA00-05K8	.020	8.0	.0000	20.0	-	60.0		●	●	.002-.118	.0004-.0059
SCIL 22-BLA08-05K8	.020	8.0	.0031	20.0	-	60.0		●	●	.004-.118	.0004-.0059
SCIR 22-BRA00-05K8	.020	8.0	.0000	-	20.0	60.0		●	●	.002-.118	.0004-.0059
SCIR 22-BRA08-05K8	.020	8.0	.0031	-	20.0	60.0		●	●	.004-.118	.0004-.0059
SCIR 22-BR10-05K15	.020	15.0	.0039	-	12.0	60.0	●			.005-.118	.0004-.0059
SCIL 22-BL08-10K7	.039	7.0	.0031	12.0	-	60.0	●			.004-.118	.0004-.0059
SCIR 22-BR08-10K7	.039	7.0	.0031	-	12.0	60.0	●			.004-.118	.0004-.0059
SCIR 22-BR08-10K15	.039	15.0	.0031	-	12.0	60.0	●			.004-.118	.0004-.0059

(1) Edge angle related to the wiper

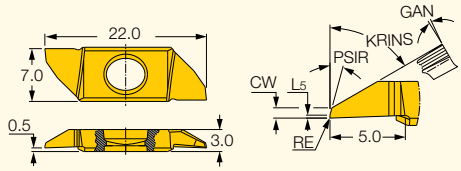
For tools, see pages: NQCH-SCHR/L-BF-JHP (305) • NQCH-Y-SCHR-BF-JHP (306) • SBTT#-SCHR/L22-JHP (832) • SCHR/L-22BF (303) • SCHR/L-22BF-JHP (304) • Y-SCHR-22BF (306) • Y-SCHR-22BF-JHP (305)

SWISSCUT INNOVAL LINE

SCIR/L-22-ER/EL/ERA/ELA

Back Turning Inserts for
Short Chipping Materials





Left hand insert shown

M E T R I C

Designation	Dimensions RE	CW	L5	GAN	KRINS(1)	PSIRL	PSIRR	Tough ↔ Hard IC1008	IC07	IC1007	Recommended Machining Data a_p (mm)	f turn (mm/rev)
SCIL 22-EL00-03K0	0.00	0.30	0.20	0.0	60.0	6.0	-	●			0.05-2.50	0.01-0.15
SCIR 22-ER00-03K0	0.00	0.30	0.20	0.0	60.0	-	6.0	●			0.05-2.50	0.01-0.15
SCIL 22-EL00-07K0	0.00	0.70	0.20	0.0	60.0	-	15.0	●			0.05-2.50	0.01-0.15
SCIR 22-EL00-07K0	0.00	0.70	0.20	0.0	60.0	15.0	-	●			0.05-2.50	0.01-0.15
SCIR 22-ER00-07K0	0.00	0.70	0.20	0.0	60.0	-	15.0	●			0.05-2.50	0.01-0.15
SCIL 22-EL00-07K10	0.00	0.70	0.20	10.0	60.0	-	3.0	●			0.05-2.50	0.01-0.15
SCIR 22-ER00-07K10	0.00	0.70	0.20	10.0	60.0	-	3.0	●			0.05-2.50	0.01-0.15
SCIL 22-ELA00-08K0	0.00	0.80	0.30	0.0	70.0	3.0	-		●	●	0.05-2.50	0.01-0.15
SCIR 22-ERA00-08K0	0.00	0.80	0.30	0.0	70.0	-	3.0		●	●	0.05-2.50	0.01-0.15

(1) Edge angle related to the wiper

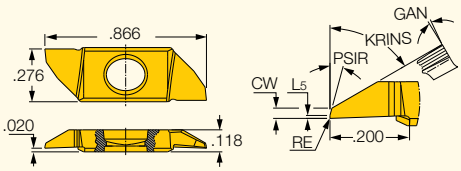
For tools, see pages: NQCH-SCHR/L-BF-JHP (305) • NQCH-Y-SCHR-BF-JHP (306) • SBTT#-SCHR/L22-JHP (832) • SCHR/L-22BF (303) • SCHR/L-22BF-JHP (304) • Y-SCHR-22BF (306) • Y-SCHR-22BF-JHP (305)

SWISSCUT INNOVAL LINE

SCIR/L-22-ER/EL/ERA/ELA

Back Turning Inserts for
Short Chipping Materials





Left hand insert shown

I N C H

Designation	Dimensions RE	CW	L5	GAN	KRINS(1)	PSIRL	PSIRR	Tough ↔ Hard IC1008	IC07	IC1007	Recommended Machining Data a_p (inch)	f turn (IPR)
SCIL 22-EL00-03K0	.0000	.012	.008	0	60.0	-	6.0	●			.002-.098	.0004-.0059
SCIR 22-ER00-03K0	.0000	.012	.008	0	60.0	6.0	-	●			.002-.098	.0004-.0059
SCIL 22-EL00-07K0	.0000	.028	.008	0	60.0	-	15.0	●			.002-.098	.0004-.0059
SCIR 22-EL00-07K0	.0000	.028	.008	0	60.0	15.0	-	●			.002-.098	.0004-.0059
SCIR 22-ER00-07K0	.0000	.028	.008	0	60.0	15.0	-	●			.002-.098	.0004-.0059
SCIL 22-EL00-07K10	.0000	.028	.008	10.0	60.0	-	3.0	●			.002-.098	.0004-.0059
SCIR 22-ER00-07K10	.0000	.028	.008	10.0	60.0	3.0	-	●			.002-.098	.0004-.0059
SCIL 22-ELA00-08K0	.0000	.031	.012	0	70.0	-	3.0		●	●	.002-.098	.0004-.0059
SCIR 22-ERA00-08K0	.0000	.031	.012	0	70.0	3.0	-		●	●	.002-.098	.0004-.0059

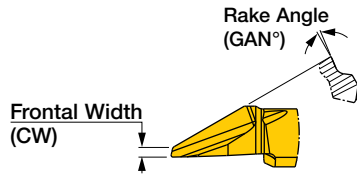
(1) Edge angle related to the wiper

For tools, see pages: NQCH-SCHR/L-BF-JHP (305) • NQCH-Y-SCHR-BF-JHP (306) • SBTT#-SCHR/L22-JHP (832) • SCHR/L-22BF (303) • SCHR/L-22BF-JHP (304) • Y-SCHR-22BF (306) • Y-SCHR-22BF-JHP (305)

Rake Angle (GAN°) Selection Guide

	Brass	Ledloy	Steel	St. Steel	Titanium	Aluminum
0°						
8°						
15°						

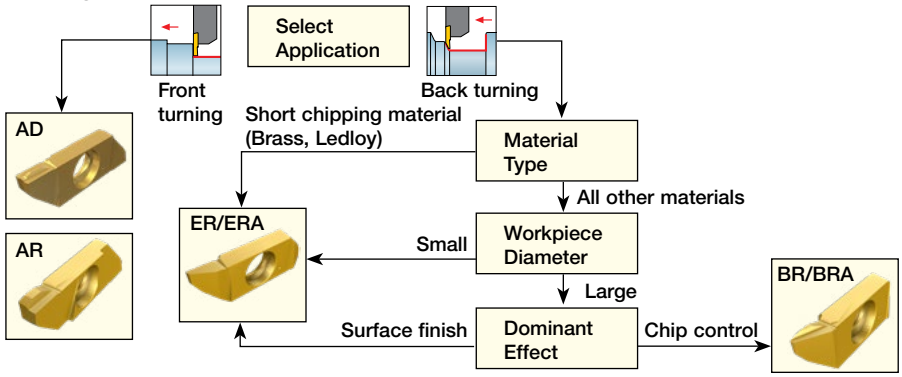
For brittle workpieces and small diameters always prefer GAN=0°

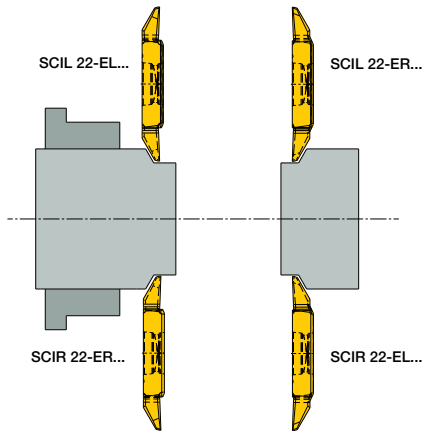


Frontal Width Selection Guide

- Small diameters and brittle workpiece: small CW (less radial force)
- Large diameters: larger CW (stronger cutting edge)

Turning Insert Selection Process



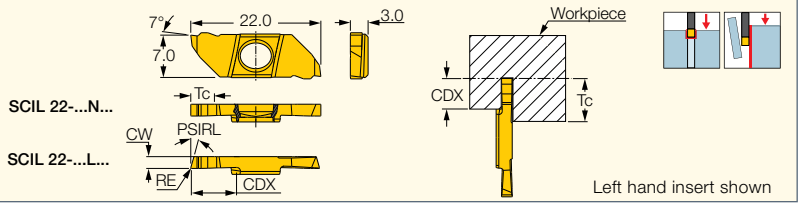


SWISSCUT INNOVAL LINE

SCIR/L-22-N/R/L

Grooving and Parting Inserts





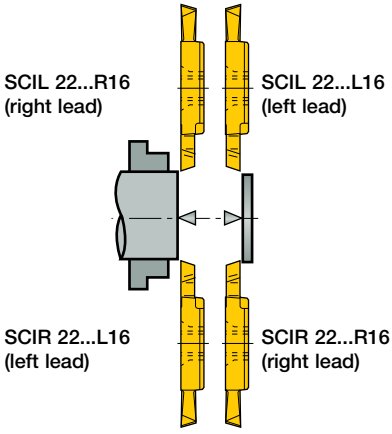
M E T R I C

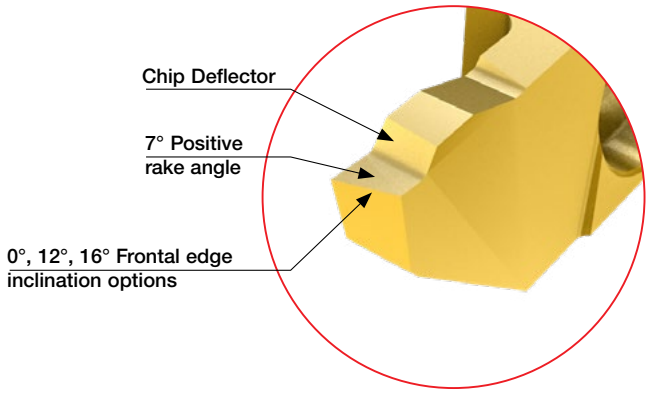
Designation	Dimensions CW	CWTOL(1)	PSIRL	PSIRR	RE	RETOL(2)	CDX	Tc	Tough ↔ Hard IC1008	IC07	IC1007	Recommended Machining Data f groove (mm/rev)
SCIL 22-050N-00	0.50	0.020	0.0	0.0	0.00	0.030	1.80	5.5	●	●	●	0.02-0.04
SCIR 22-050N-00	0.50	0.020	0.0	0.0	0.00	0.030	1.80	5.5	●	●	●	0.02-0.04
SCIL 22-100N-00	1.00	0.020	0.0	0.0	0.00	0.030	4.00	5.5	●	●	●	0.03-0.05
SCIR 22-100N-00	1.00	0.020	0.0	0.0	0.00	0.030	4.00	5.5	●	●	●	0.03-0.05
SCIL 22-150N-00	1.50	0.020	0.0	0.0	0.00	0.030	5.50	8.0	●		●	0.03-0.07
SCIR 22-150N-00	1.50	0.020	0.0	0.0	0.00	0.030	5.50	8.0	●	●	●	0.03-0.07
SCIL 22-200N-10	2.00	0.020	0.0	0.0	0.10	0.030	7.00	8.0	●	●	●	0.03-0.09
SCIR 22-200N-10	2.00	0.020	0.0	0.0	0.10	0.030	7.00	8.0	●	●	●	0.03-0.09
SCIL 22-050L12-00	0.50	0.020	12.0	-	0.00	0.030	2.00	5.5	●			0.01-0.03
SCIL 22-050R12-00	0.50	0.020	-	12.0	0.00	0.030	2.00	5.5	●			0.01-0.03
SCIR 22-050L12-00	0.50	0.020	12.0	-	0.00	0.030	2.00	5.5	●			0.01-0.03
SCIR 22-050R12-00	0.50	0.020	-	12.0	0.00	0.030	2.00	5.5	●			0.01-0.03
SCIL 22-100L16-00	1.00	0.020	16.0	-	0.00	0.030	4.00	5.5	●			0.02-0.04
SCIL 22-100R16-00	1.00	0.020	-	16.0	0.00	0.030	4.00	5.5	●			0.02-0.04
SCIR 22-100L16-00	1.00	0.020	16.0	-	0.00	0.030	4.00	5.5	●			0.02-0.04
SCIR 22-100R16-00	1.00	0.020	-	16.0	0.00	0.030	4.00	5.5	●			0.02-0.04
SCIL 22-150L16-00	1.50	0.020	16.0	-	0.00	0.030	5.50	8.0	●			0.03-0.06
SCIL 22-150R16-00	1.50	0.020	-	16.0	0.00	0.030	5.50	8.0	●			0.03-0.06
SCIR 22-150L16-00	1.50	0.020	16.0	-	0.00	0.030	5.50	8.0	●			0.03-0.06
SCIR 22-150R16-00	1.50	0.020	-	16.0	0.00	0.030	5.50	8.0	●			0.03-0.06
SCIL 22-200L16-00	2.00	0.020	16.0	-	0.00	0.030	7.00	8.0	●			0.03-0.07
SCIL 22-200R16-00	2.00	0.020	-	16.0	0.00	0.030	7.00	8.0	●			0.03-0.07
SCIR 22-200L16-00	2.00	0.020	16.0	-	0.00	0.030	7.00	8.0	●			0.03-0.07
SCIR 22-200R16-00	2.00	0.020	-	16.0	0.00	0.030	7.00	8.0	●			0.03-0.07

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

For tools, see pages: NQCH-SCHR/L-BF-JHP (305) • NQCH-Y-SCHR-BF-JHP (306) • SBTT#-SCHR/L22-JHP (832) • SCHR/L-22BF (303) • SCHR/L-22BF-JHP (304) • Y-SCHR-22BF (306) • Y-SCHR-22BF-JHP (305)



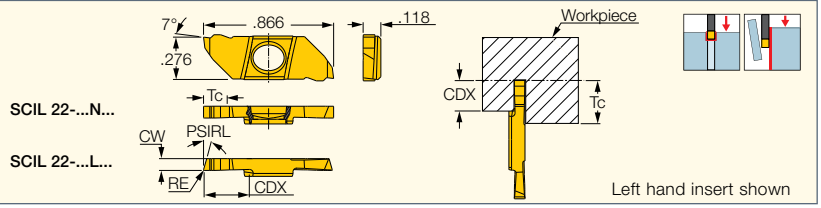


SWISSCUT INNOVAL LINE

SCIR/L-22-N/R/L

Grooving and Parting Inserts





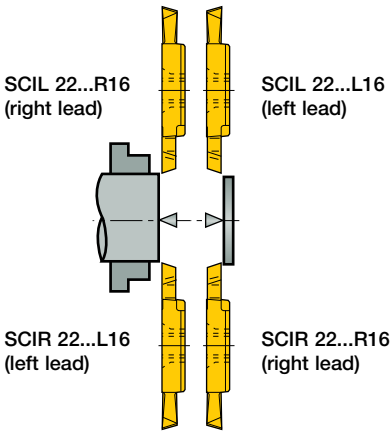
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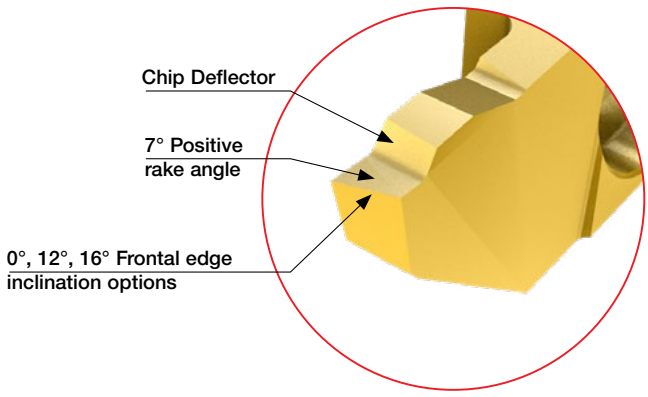
Designation	Dimensions CW	CWTOL(1)	PSIRL	PSIRR	RE	RETOL(2)	CDX	Tc	Tough ↔ Hard IC1008	IC07	IC1007	Recommended Machining Data f groove (IPR)
SCIL 22-050N-00	.020	.00078	0	0	.0000	.0012	.071	.217	●	●	●	.0008-.0016
SCIR 22-050N-00	.020	.00078	0	0	.0000	.0012	.071	.217	●	●	●	.0008-.0016
SCIL 22-100N-00	.039	.00078	0	0	.0000	.0012	.157	.217	●	●	●	.0012-.0020
SCIR 22-100N-00	.039	.00078	0	0	.0000	.0012	.157	.217	●	●	●	.0012-.0020
SCIL 22-150N-00	.059	.00078	0	0	.0000	.0012	.217	.315	●		●	.0012-.0027
SCIR 22-150N-00	.059	.00078	0	0	.0000	.0012	.217	.315	●	●	●	.0012-.0027
SCIL 22-200N-10	.079	.00078	0	0	.0039	.0012	.276	.315	●	●	●	.0012-.0035
SCIR 22-200N-10	.079	.00078	0	0	.0039	.0012	.276	.315	●	●	●	.0012-.0035
SCIL 22-050L12-00	.020	.00078	12.0	-	.0000	.0012	.079	.217	●			.0004-.0012
SCIL 22-050R12-00	.020	.00078	-	12.0	.0000	.0012	.079	.217	●			.0004-.0012
SCIR 22-050L12-00	.020	.00078	12.0	-	.0000	.0012	.079	.217	●			.0004-.0012
SCIR 22-050R12-00	.020	.00078	-	12.0	.0000	.0012	.079	.217	●			.0004-.0012
SCIL 22-100L16-00	.039	.00078	16.0	-	.0000	.0012	.157	.217	●			.0008-.0016
SCIL 22-100R16-00	.039	.00078	-	16.0	.0000	.0012	.157	.217	●			.0008-.0016
SCIR 22-100L16-00	.039	.00078	16.0	-	.0000	.0012	.157	.217	●			.0008-.0016
SCIR 22-100R16-00	.039	.00078	-	16.0	.0000	.0012	.157	.217	●			.0008-.0016
SCIL 22-150L16-00	.059	.00078	16.0	-	.0000	.0012	.217	.315	●			.0012-.0024
SCIL 22-150R16-00	.059	.00078	-	16.0	.0000	.0012	.217	.315	●			.0012-.0024
SCIR 22-150L16-00	.059	.00078	16.0	-	.0000	.0012	.217	.315	●			.0012-.0024
SCIR 22-150R16-00	.059	.00078	-	16.0	.0000	.0012	.217	.315	●			.0012-.0024
SCIL 22-200L16-00	.079	.00078	16.0	-	.0000	.0012	.276	.315	●			.0012-.0027
SCIL 22-200R16-00	.079	.00078	-	16.0	.0000	.0012	.276	.315	●			.0012-.0027
SCIR 22-200L16-00	.079	.00078	16.0	-	.0000	.0012	.276	.315	●			.0012-.0027
SCIR 22-200R16-00	.079	.00078	-	16.0	.0000	.0012	.276	.315	●			.0012-.0027

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

For tools, see pages: NQCH-SCHR/L-BF-JHP (305) • NQCH-Y-SCHR-BF-JHP (306) • SBTT#-SCHR/L22-JHP (832) • SCHR/L-22BF (303) • SCHR/L-22BF-JHP (304) • Y-SCHR-22BF (306) • Y-SCHR-22BF-JHP (305)



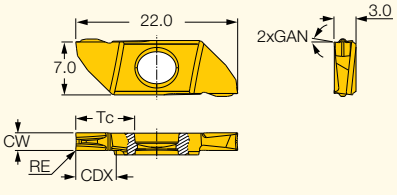


SWISSCUT INNOVAL LINE

SCIR/L-22-AD

Turning Inserts with a Front Relief Angle





M E T R I C

Designation	Dimensions CW	RE	Tc	GAN	CDX	Tough ↔ Hard IC1008	IC07	IC1007	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
SCIR/L 22-AD08-24K8	2.40	0.08	8.0	8.0	5.50	●	●	●	0.12-3.80	0.01-0.15	0.01-0.06

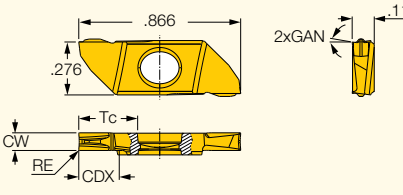
For tools, see pages: NQCH-SCHR/L-BF-JHP (305) • NQCH-Y-SCHR-BF-JHP (306) • SBTT#-SCHR/L22-JHP (832) • SCHR/L-22BF (303) • SCHR/L-22BF-JHP (304) • Y-SCHR-22BF (306) • Y-SCHR-22BF-JHP (305)

SWISSCUT INNOVAL LINE

SCIR/L-22-AD

Turning Inserts with a Front Relief Angle





I N C H

Designation	Dimensions CW	RE	Tc	GAN	CDX	Tough ↔ Hard IC1008	IC07	IC1007	Recommended Machining Data a_p (inch)	f turn (IPR)	f groove (IPR)
SCIR/L 22-AD08-24K8	.094	.0031	.315	8.0	.217	●	●	●	.005-.150	.0004-.0059	.0004-.0024

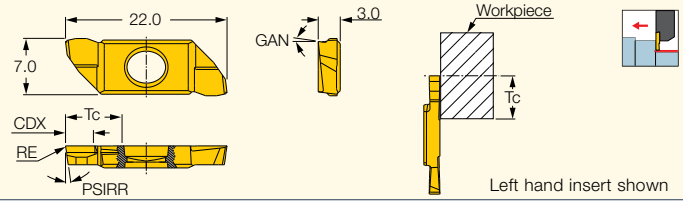
For tools, see pages: NQCH-SCHR/L-BF-JHP (305) • NQCH-Y-SCHR-BF-JHP (306) • SBTT#-SCHR/L22-JHP (832) • SCHR/L-22BF (303) • SCHR/L-22BF-JHP (304) • Y-SCHR-22BF (306) • Y-SCHR-22BF-JHP (305)

SWISSCUT INNOVAL LINE

SCIR/L-22-AR/AL

Turning Inserts with a Front Relief Angle





M E T R I C

Designation	Dimensions RE	Tc	PSIRL	PSIRR	GAN	CDX	Tough ↔ Hard IC1008	IC07	IC1007	Recommended Machining Data a_p (mm)	f turn (mm/rev)
SCIL 22-AL00-25K16	0.00	8.0	8.0	-	16.0	3.80	●	●	●	0.05-3.80	0.01-0.15
SCIR 22-AR00-25K16	0.00	8.0	-	8.0	16.0	3.80	●	●	●	0.05-3.80	0.01-0.15
SCIL 22-AL10-25K8	0.10	8.0	12.0	-	8.0	3.80	●	●	●	0.12-3.80	0.01-0.15
SCIR 22-AR10-25K8	0.10	8.0	-	12.0	8.0	3.80	●	●	●	0.12-3.80	0.01-0.15

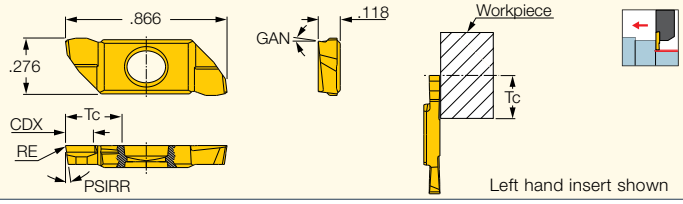
For tools, see pages: NQCH-SCHR/L-BF-JHP (305) • NQCH-Y-SCHR-BF-JHP (306) • SBTT#-SCHR/L22-JHP (832) • SCHR/L-22BF (303) • SCHR/L-22BF-JHP (304) • Y-SCHR-22BF (306) • Y-SCHR-22BF-JHP (305)

SWISSCUT INNOVAL LINE

SCIR/L-22-AR/AL

Turning Inserts with a Front Relief Angle





I N C H

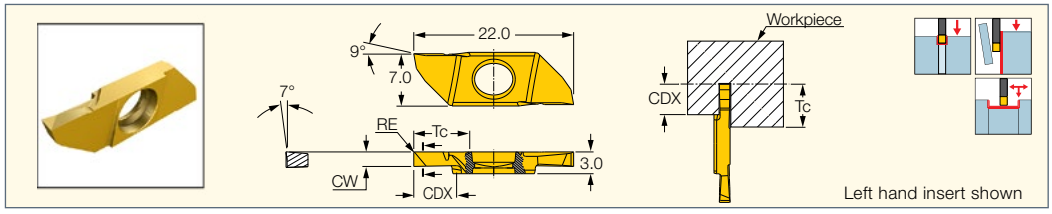
Designation	Dimensions RE	Tc	PSIRL	PSIRR	GAN	CDX	Tough ↔ Hard IC1008	IC07	IC1007	Recommended Machining Data a_p (inch)	f turn (IPR)
SCIL 22-AL00-25K16	.0000	.315	8.0	-	16.0	.150	●	●	●	.002-.150	.0004-.0059
SCIR 22-AR00-25K16	.0000	.315	-	8.0	16.0	.150	●	●	●	.002-.150	.0004-.0059
SCIL 22-AL10-25K8	.0039	.315	12.0	-	8.0	.150	●	●	●	.005-.150	.0004-.0059
SCIR 22-AR10-25K8	.0039	.315	-	12.0	8.0	.150	●	●	●	.005-.150	.0004-.0059

For tools, see pages: NQCH-SCHR/L-BF-JHP (305) • NQCH-Y-SCHR-BF-JHP (306) • SBTT#-SCHR/L22-JHP (832) • SCHR/L-22BF (303) • SCHR/L-22BF-JHP (304) • Y-SCHR-22BF (306) • Y-SCHR-22BF-JHP (305)

SWISSCUT INNOVAL LINE

SCIR/L-22-NP

Grooving, Turning and Parting Inserts



M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX	Tc	Tough ↔ Hard IC1008	IC07	IC1007	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
SCIR/L 22-080NP00	0.80	0.00	0.020	0.020	2.50	8.0	●	●	●	0.05-0.70	0.02-0.06	0.02-0.05
SCIR/L 22-100NP08	1.00	0.08	0.020	0.020	3.00	8.0	●	●	●	0.05-0.80	0.02-0.08	0.02-0.06
SCIR/L 22-150NP05	1.50	0.05	0.020	0.020	6.00	8.0	●	●	●	0.05-1.80	0.02-0.11	0.02-0.07
SCIR/L 22-200NP05	2.00	0.05	0.020	0.020	6.00	8.0	●	●	●	0.05-2.50	0.03-0.15	0.03-0.09
SCIR/L 22-250NP05	2.50	0.05	0.020	0.020	6.00	8.0	●	●	●	0.05-3.10	0.03-0.19	0.03-0.11

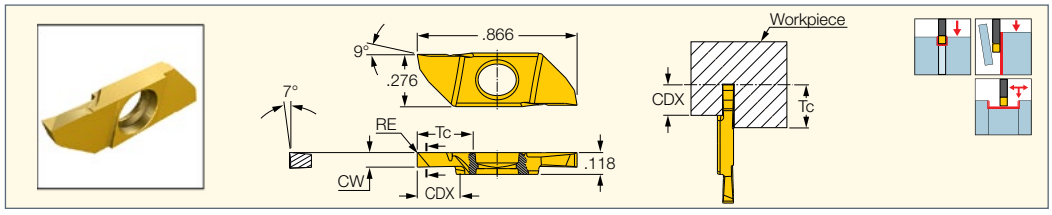
(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)

For tools, see pages: NQCH-SCHR/L-BF-JHP (305) • NQCH-Y-SCHR-BF-JHP (306) • SBTT#-SCHR/L22-JHP (832) • SCHR/L-22BF (303) • SCHR/L-22BF-JHP (304) • Y-SCHR-22BF (306) • Y-SCHR-22BF-JHP (305)

SWISSCUT INNOVAL LINE

SCIR/L-22-NP

Grooving, Turning and Parting Inserts



I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX	Tc	Tough ↔ Hard IC1008	IC07	IC1007	Recommended Machining Data a_p (inch)	f turn (IPR)	f groove (IPR)
SCIR/L 22-080NP00	.031	.0000	.00080	.0008	.098	.315	●	●	●	.002-.028	.0008-.0024	.0008-.0020
SCIR/L 22-100NP08	.039	.0031	.00080	.0008	.118	.315	●	●	●	.002-.031	.0008-.0031	.0008-.0024
SCIR/L 22-150NP05	.059	.0020	.00080	.0008	.236	.315	●	●	●	.002-.071	.0008-.0043	.0008-.0028
SCIR/L 22-200NP05	.079	.0020	.00080	.0008	.236	.315	●	●	●	.002-.098	.0012-.0059	.0012-.0035
SCIR/L 22-250NP05	.098	.0020	.00080	.0008	.236	.315	●	●	●	.002-.122	.0012-.0075	.0012-.0043

(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)

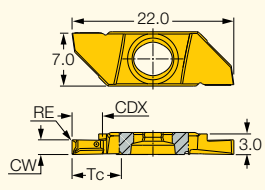
For tools, see pages: NQCH-SCHR/L-BF-JHP (305) • NQCH-Y-SCHR-BF-JHP (306) • SBTT#-SCHR/L22-JHP (832) • SCHR/L-22BF (303) • SCHR/L-22BF-JHP (304) • Y-SCHR-22BF (306) • Y-SCHR-22BF-JHP (305)

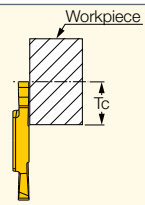
SWISSCUT INNOVAL LINE

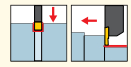
SCIR/L-22-NX

Grooving and Turning
Inserts with a Chipformer









Right hand insert shown

M E T R I C

Designation	Dimensions CW	CWTOL(1)	RE	RETOL(2)	CDX	Tc(3)	IC1008	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
SCIR/L 22-150NX080	1.50	0.020	0.08	0.020	4.30	6.8	●	0.05-1.80	0.02-0.11	0.02-0.07
SCIR/L 22-200NX080	2.00	0.020	0.08	0.020	4.30	6.8	●	0.05-2.50	0.03-0.15	0.03-0.09
SCIR/L 22-250NX080	2.50	0.020	0.08	0.020	4.30	6.8	●	0.05-3.10	0.03-0.19	0.03-0.11

(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
(3) Maximum 32 mm diameter for face turning

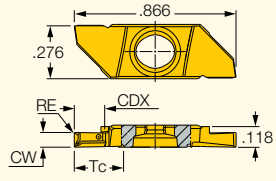
For tools, see pages: NQCH-SCHR/L-BF-JHP (305) • NQCH-Y-SCHR-BF-JHP (306) • SBTT#-SCHR/L22-JHP (832) • SCHR/L-22BF (303) • SCHR/L-22BF-JHP (304) • Y-SCHR-22BF (306) • Y-SCHR-22BF-JHP (305)

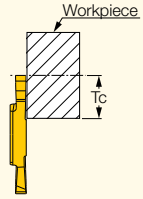
SWISSCUT INNOVAL LINE

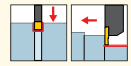
SCIR/L-22-NX

Grooving and Turning
Inserts with a Chipformer









I N C H

Designation	Dimensions CW	CWTOL(1)	RE	RETOL(2)	CDX	Tc(3)	IC1008	Recommended Machining Data a_p (inch)	f turn (IPR)	f groove (IPR)
SCIR/L 22-150NX080	.059	.00078	.0031	.0008	.169	.268	●	.002-.071	.0008-.0043	.0008-.0027
SCIR/L 22-200NX080	.079	.00078	.0031	.0008	.169	.268	●	.002-.098	.0012-.0059	.0012-.0035
SCIR/L 22-250NX080	.098	.00078	.0031	.0008	.169	.268	●	.002-.122	.0012-.0075	.0012-.0043

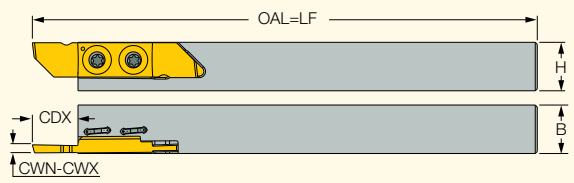
(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
(3) Maximum 1.26" diameter for face turning

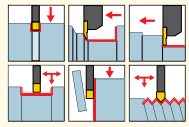
For tools, see pages: NQCH-SCHR/L-BF-JHP (305) • NQCH-Y-SCHR-BF-JHP (306) • SBTT#-SCHR/L22-JHP (832) • SCHR/L-22BF (303) • SCHR/L-22BF-JHP (304) • Y-SCHR-22BF (306) • Y-SCHR-22BF-JHP (305)

SWISSCUT EXTRA LONG

SCHR/L-41BF

Grooving and Turning Tools with Back and Front Clamping for Swiss-Type and Automatic Machines





Right hand tool shown

M E T R I C

Designation	CWX(1)	CDX(2)	B	OAL					
SCHR/L 12-41BF	3.00	11.00	12.0	125.00	SR M4.5X0.75-L7.9	BLD T15/S7	SR M2X0.4-L3.5	BLD T10/S7	SW6-SD
SCHR/L 16-41BF	3.00	11.00	16.0	125.00	SR M4.5X0.75-L7.9	BLD T15/S7	SR M2X0.4-L3.5	BLD T10/S7	SW6-SD

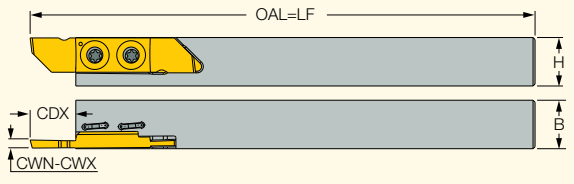
(1) Maximum cutting width
(2) See insert data

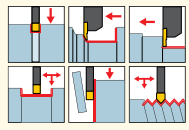
For inserts, see pages: SCIR/L-41-AD (318) • SCIR/L-41-AR/AL (319) • SCIR/L-41-BRA/BLA (316) • SCIR/L-41-ERA/ELA (317) • SCIR/L-41-MTR/MTL (660) • SCIR/L-41-N/R/L (320) • SCIR/L-41-NP (321)

SWISSCUT EXTRA LONG

SCHR/L-41BF

Grooving and Turning Tools with Back and Front Clamping for Swiss-Type and Automatic Machines





Right hand tool shown

I N C H

Designation	CWX(1)	CDX(2)	B	OAL					
SCHR/L 12-41BF	.118	.433	.472	4.921	SR M4.5X0.75-L7.9	BLD T15/S7	SR M2X0.4-L3.5	BLD T10/S7	SW6-SD
SCHR/L 12.7-41BF	.118	.433	.500	4.921	SR M4.5X0.75-L7.9	BLD T15/S7	SR M2X0.4-L3.5	BLD T10/S7	SW6-SD
SCHR/L 16-41BF	.118	.433	.630	4.921	SR M4.5X0.75-L7.9	BLD T15/S7	SR M2X0.4-L3.5	BLD T10/S7	SW6-SD

(1) Maximum cutting width
(2) See insert data

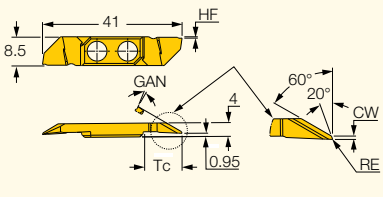
For inserts, see pages: SCIR/L-41-AD (318) • SCIR/L-41-AR/AL (319) • SCIR/L-41-BRA/BLA (316) • SCIR/L-41-ERA/ELA (317) • SCIR/L-41-MTR/MTL (660) • SCIR/L-41-N/R/L (320) • SCIR/L-41-NP (321)

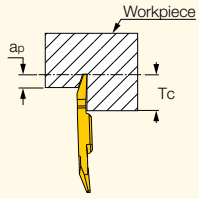
SWISSCUT EXTRA LONG

SCIR/L-41-BRA/BLA

Back Turning Inserts









M E T R I C

Designation	Dimensions CW	RE	HF(1)	Tc	GAN	IC1008	Recommended Machining Data ap (mm)	f turn (mm/rev)
SCIL 41-BLA08-05K8	0.50	0.08	0.5	11.0	8.0	●	0.10-4.20	0.02-0.15
SCIR 41-BRA08-05K8	0.50	0.08	0.5	11.0	8.0	●	0.10-4.20	0.02-0.15
SCIL 41-BLA08-10K8	1.00	0.08	0.5	11.0	8.0	●	0.10-4.20	0.02-0.15
SCIR 41-BRA08-10K8	1.00	0.08	0.5	11.0	8.0	●	0.10-4.20	0.02-0.15

(1) Cutting edge below center

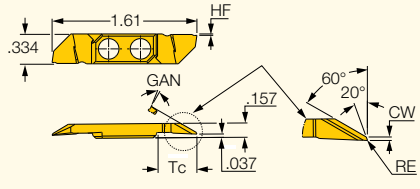
For tools, see pages: SCHR/L-41BF (315)

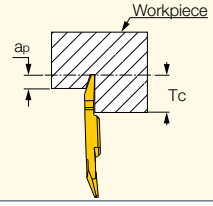
SWISSCUT EXTRA LONG

SCIR/L-41-BRA/BLA

Back Turning Inserts









I N C H

Designation	Dimensions CW	RE	HF(1)	Tc	GAN	IC1008	Recommended Machining Data ap (inch)	f turn (IPR)
SCIL 41-BLA08-05K8	.020	.0031	.020	.433	8.0	●	.004-.165	.0008-.0059
SCIR 41-BRA08-05K8	.020	.0031	.020	.433	8.0	●	.004-.165	.0008-.0059
SCIL 41-BLA08-10K8	.039	.0031	.020	.433	8.0	●	.004-.165	.0008-.0059
SCIR 41-BRA08-10K8	.039	.0031	.020	.433	8.0	●	.004-.165	.0008-.0059

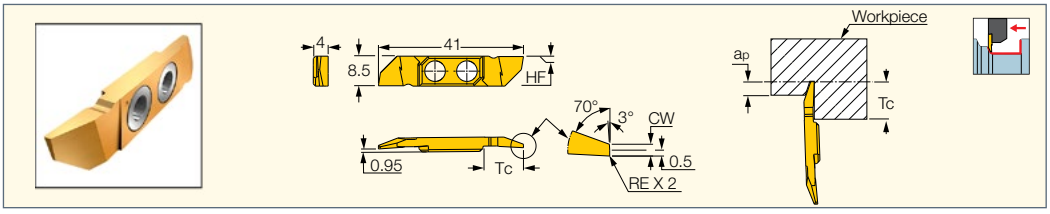
(1) Cutting edge below center

For tools, see pages: SCHR/L-41BF (315)

SWISSCUT EXTRA LONG

SCIR/L-41-ERA/ELA

Back Turning Inserts for
Short Chipping Materials



M E T R I C

Designation	Dimensions CW	RE	HF(1)	Tc	IC1008	Recommended Machining Data ap (mm)	f turn (mm/rev)
SCIL 41-ELA00-10K0	1.00	0.00	0.2	11.0	●	0.05-5.00	0.02-0.15
SCIR 41-ERA00-10K0	1.00	0.00	0.2	11.0	●	0.05-5.00	0.02-0.15
SCIL 41-ELA08-10K0	1.00	0.08	0.2	11.0	●	0.10-5.00	0.02-0.15
SCIR 41-ERA08-10K0	1.00	0.08	0.2	11.0	●	0.10-5.00	0.02-0.15

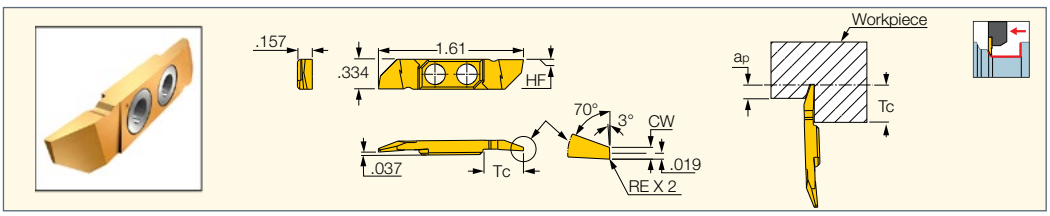
(1) Cutting edge below center

For tools, see pages: SCHR/L-41BF (315)

SWISSCUT EXTRA LONG

SCIR/L-41-ERA/ELA

Back Turning Inserts for
Short Chipping Materials



I N C H

Designation	Dimensions CW	RE	HF(1)	Tc	IC1008	Recommended Machining Data ap (inch)	f turn (IPR)
SCIL 41-ELA00-10K0	.039	.0000	.008	.433	●	.002-.197	.0008-.0059
SCIR 41-ERA00-10K0	.039	.0000	.008	.433	●	.002-.197	.0008-.0059
SCIL 41-ELA08-10K0	.039	.0031	.008	.433	●	.004-.197	.0008-.0059
SCIR 41-ERA08-10K0	.039	.0031	.008	.433	●	.004-.197	.0008-.0059

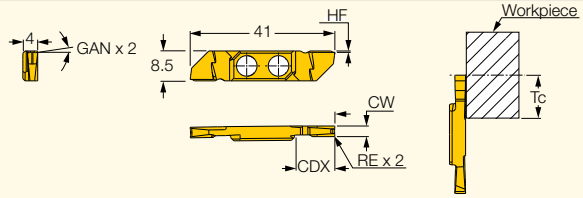
(1) Cutting edge below center

For tools, see pages: SCHR/L-41BF (315)

SWISSCUT EXTRA LONG

SCIR/L-41-AD
Turning Inserts





M E T R I C

Designation	Dimensions CW	CWTOL(1)	RE	RETOL(2)	HF(3)	CDX	Tc	GAN	IC1008	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
SCIR/L 41-AD08-30K8	3.00	0.020	0.08	0.020	0.5	11.00	11.0	8.0	●	0.12-4.00	0.02-0.15	0.01-0.06

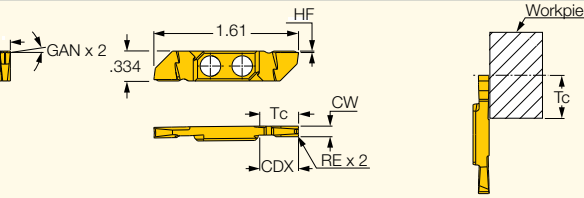
(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
(3) Cutting edge below center

For tools, see pages: SCHR/L-41BF (315)

SWISSCUT EXTRA LONG

SCIR/L-41-AD
Turning Inserts





I N C H

Designation	Dimensions CW	CWTOL(1)	RE	RETOL(2)	HF(3)	CDX	Tc	GAN	IC1008	Recommended Machining Data a_p (inch)	f turn (IPR)	f groove (IPR)
SCIR/L 41-AD08-30K8	.118	.00078	.0031	.0008	.020	.433	.433	8.0	●	.005-.157	.0008-.0059	.0004-.0024

(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
(3) Cutting edge below center

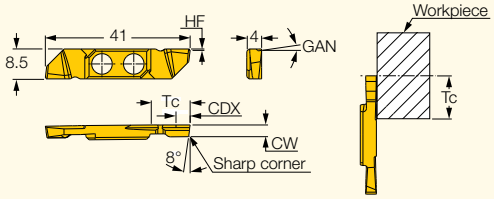
For tools, see pages: SCHR/L-41BF (315)

SWISSCUT EXTRA LONG

SCIR/L-41-AR/AL

Turning Inserts with a Front Relief Angle





M E T R I C

Designation	Dimensions CW	HF(1)	CDX	Tc	GAN	IC1008	Recommended Machining Data a_p (mm)	f turn (mm/rev)
SCIL 41-AL00-33K16	3.30	0.5	4.00	11.0	16.0	●	0.05-4.00	0.02-0.15
SCIR 41-AR00-33K16	3.30	0.5	4.00	11.0	16.0	●	0.05-4.00	0.02-0.15

(1) Cutting edge below center

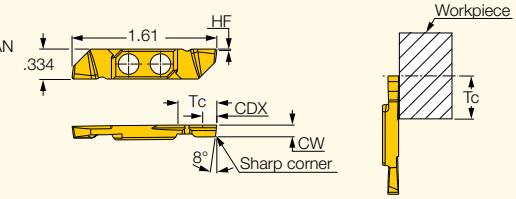
For tools, see pages: SCHR/L-41BF (315)

SWISSCUT EXTRA LONG

SCIR/L-41-AR/AL

Turning Inserts with a Front Relief Angle





I N C H

Designation	Dimensions CW	HF(1)	CDX	Tc	GAN	IC1008	Recommended Machining Data a_p (inch)	f turn (IPR)
SCIL 41-AL00-33K16	.130	.020	.157	.433	16.0	●	.002-.157	.0008-.0059
SCIR 41-AR00-33K16	.130	.020	.157	.433	16.0	●	.002-.157	.0008-.0059

(1) Cutting edge below center

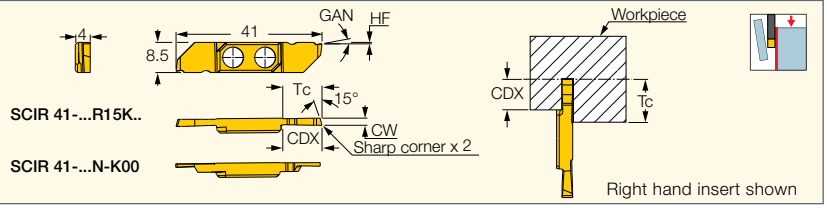
For tools, see pages: SCHR/L-41BF (315)

SWISSCUT EXTRA LONG

SCIR/L-41-N/R/L

Grooving and Parting Inserts





M E T R I C

Designation	Dimensions CW	CWTOL(1)	GAN	HF(2)	CDX	Tc	IC1008	Recommended Machining Data f groove (mm/rev)
SCIL 41-100L15K00	1.00	0.020	0.0	0.2	6.00	11.0	●	0.02-0.04
SCIR/L 41-100N-K00	1.00	0.020	0.0	0.1	6.15	11.0	●	0.03-0.05
SCIR 41-100R15K00	1.00	0.020	0.0	0.2	6.00	11.0	●	0.02-0.04
SCIL 41-150L15K00	1.50	0.020	0.0	0.2	8.00	11.0	●	0.03-0.06
SCIR/L 41-150N-K00	1.50	0.020	0.0	0.1	8.15	11.0	●	0.03-0.07
SCIR 41-150R15K00	1.50	0.020	0.0	0.2	8.00	11.0	●	0.03-0.06
SCIL 41-150L15K7	1.50	0.020	7.0	0.5	8.00	11.0	●	0.03-0.06
SCIR 41-150R15K7	1.50	0.020	7.0	0.5	8.00	11.0	●	0.03-0.06
SCIL 41-200L15K00	2.00	0.020	0.0	0.2	10.00	11.0	●	0.03-0.07
SCIR/L 41-200N-K00	2.00	0.020	0.0	0.1	11.00	11.0	●	0.03-0.09
SCIR 41-200R15K00	2.00	0.020	0.0	0.2	10.00	11.0	●	0.03-0.07
SCIL 41-200L15K7	2.00	0.020	7.0	0.5	10.00	11.0	●	0.03-0.07
SCIR 41-200R15K7	2.00	0.020	7.0	0.5	10.00	11.0	●	0.03-0.07
SCIL 41-250L15K00	2.50	0.020	0.0	0.2	10.00	11.0	●	0.03-0.07
SCIR/L 41-250N-K00	2.50	0.020	0.0	0.1	11.00	11.0	●	0.03-0.09
SCIR 41-250R15K00	2.50	0.020	0.0	0.2	10.00	11.0	●	0.03-0.07
SCIL 41-250L15K7	2.50	0.020	7.0	0.5	10.00	11.0	●	0.03-0.07
SCIR 41-250R15K7	2.50	0.020	7.0	0.5	10.00	11.0	●	0.03-0.07
SCIL 41-300L15K00	3.00	0.020	0.0	0.2	10.00	11.0	●	0.03-0.08
SCIR/L 41-300N-K00	3.00	0.020	0.0	0.1	11.00	11.0	●	0.03-0.10
SCIR 41-300R15K00	3.00	0.020	0.0	0.2	10.00	11.0	●	0.03-0.08

(1) Cutting width tolerance (+/-)

(2) Cutting edge below center

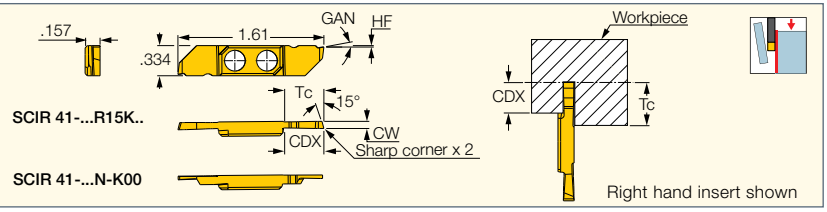
For tools, see pages: SCHR/L-41BF (315)

SWISSCUT EXTRA LONG

SCIR/L-41-N/R/L

Grooving and Parting Inserts





I N C H

Designation	Dimensions CW	CWTOL(1)	GAN	HF(2)	CDX	Tc	IC1008	Recommended Machining Data f groove (IPR)
SCIL 41-100L15K00	.039	.00078	0	.008	.236	.433	●	.0008-.0016
SCIR/L 41-100N-K00	.039	.00078	0	.004	.242	.433	●	.0012-.0020
SCIR 41-100R15K00	.039	.00078	0	.008	.236	.433	●	.0008-.0016
SCIL 41-150L15K00	.059	.00078	0	.008	.315	.433	●	.0012-.0024
SCIR/L 41-150N-K00	.059	.00078	0	.004	.321	.433	●	.0012-.0027
SCIR 41-150R15K00	.059	.00078	0	.008	.315	.433	●	.0012-.0024
SCIL 41-150L15K7	.059	.00078	7.0	.020	.315	.433	●	.0012-.0024
SCIR 41-150R15K7	.059	.00078	7.0	.020	.315	.433	●	.0012-.0024
SCIL 41-200L15K00	.079	.00078	0	.008	.394	.433	●	.0012-.0027
SCIR/L 41-200N-K00	.079	.00078	0	.004	.433	.433	●	.0012-.0035
SCIR 41-200R15K00	.079	.00078	0	.008	.394	.433	●	.0012-.0027
SCIL 41-200L15K7	.079	.00078	7.0	.020	.394	.433	●	.0012-.0027
SCIR 41-200R15K7	.079	.00078	7.0	.020	.394	.433	●	.0012-.0027
SCIL 41-250L15K00	.098	.00078	0	.008	.394	.433	●	.0012-.0027
SCIR/L 41-250N-K00	.098	.00078	0	.004	.433	.433	●	.0012-.0035
SCIR 41-250R15K00	.098	.00078	0	.008	.394	.433	●	.0012-.0027
SCIL 41-250L15K7	.098	.00078	7.0	.020	.394	.433	●	.0012-.0027
SCIR 41-250R15K7	.098	.00078	7.0	.020	.394	.433	●	.0012-.0027
SCIL 41-300L15K00	.118	.00078	0	.008	.394	.433	●	.0012-.0031
SCIR/L 41-300N-K00	.118	.00078	0	.004	.433	.433	●	.0012-.0039
SCIR 41-300R15K00	.118	.00078	0	.008	.394	.433	●	.0012-.0031

(1) Cutting width tolerance (+/-)

(2) Cutting edge below center

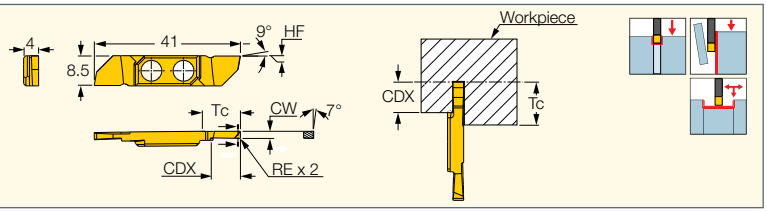
For tools, see pages: SCHR/L-41BF (315)

SWISSCUT EXTRA LONG

SCIR/L-41-NP

Grooving, Turning and Parting Inserts





M E T R I C

Designation	Dimensions CW	CWTOL(1)	RE	RETOL(2)	HF(3)	CDX	Tc	IC1008	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
SCIR/L 41-150NP08	1.50	0.020	0.08	0.020	0.2	8.00	11.0	•	0.10-1.80	0.02-0.10	0.02-0.07
SCIR/L 41-200NP08	2.00	0.020	0.08	0.020	0.2	8.00	11.0	•	0.10-2.50	0.02-0.15	0.02-0.09
SCIR/L 41-250NP08	2.50	0.020	0.08	0.020	0.2	10.00	11.0	•	0.10-3.00	0.02-0.17	0.02-0.11
SCIR/L 41-300NP08	3.00	0.020	0.08	0.020	0.2	10.00	11.0	•	0.10-4.00	0.02-0.20	0.02-0.12

• When turning to the opposite side of chipformer, maximum D.O.C. is 0.5 mm

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

(3) Cutting edge below center

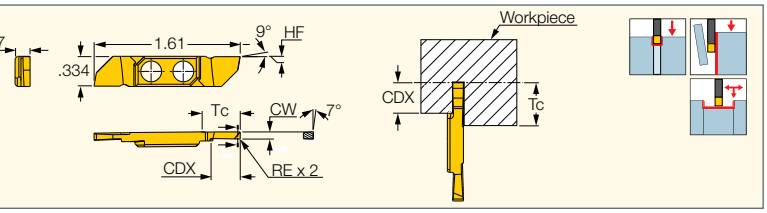
For tools, see pages: SCHR/L-41BF (315)

SWISSCUT EXTRA LONG

SCIR/L-41-NP

Grooving, Turning and Parting Inserts





I N C H

Designation	Dimensions CW	CWTOL(1)	RE	RETOL(2)	HF(3)	CDX	Tc	IC1008	Recommended Machining Data a_p (inch)	f turn (IPR)	f groove (IPR)
SCIR/L 41-150NP08	.059	.00078	.0031	.0008	.008	.315	.433	•	.004-.071	.0008-.0039	.0008-.0027
SCIR/L 41-200NP08	.079	.00078	.0031	.0008	.008	.315	.433	•	.004-.098	.0008-.0059	.0008-.0035
SCIR/L 41-250NP08	.098	.00078	.0031	.0008	.008	.394	.433	•	.004-.118	.0008-.0067	.0008-.0043
SCIR/L 41-300NP08	.118	.00078	.0031	.0008	.008	.394	.433	•	.004-.157	.0008-.0079	.0008-.0047

• When turning to the opposite side of chipformer, maximum D.O.C. is .020"

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

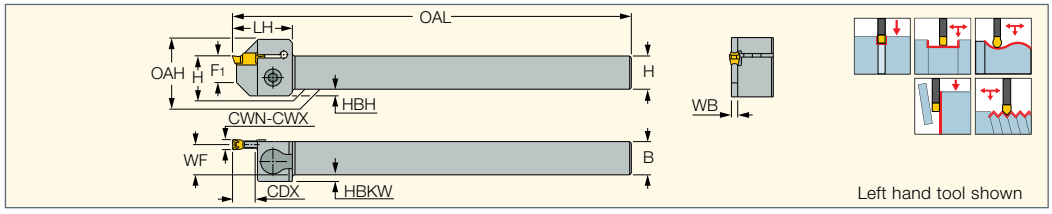
(3) Cutting edge below center

For tools, see pages: SCHR/L-41BF (315)

CUTGRIP

GEHSR/L-SL

External Machining Tools with Side Clamping Mechanism for Swiss-Type and Automatic Machines



M E T R I C

Designation	H	CWN(1)	CWX(2)	CDX	B	OAL	WF	HBH	HBKW	WB	LH	F1	OAH
GEHSR/L 10-2-SL	10.0	2.20	3.20	6.80	10.0	120.00	9.10	2.0	2.00	1.80	18.0	8.0	15.0
GEHSR/L 12-2-SL	12.0	2.20	3.20	6.80	12.0	120.00	11.10	-	-	1.80	18.0	8.0	17.0
GEHSR/L 16-2-SL	16.0	2.20	3.20	6.80	16.0	120.00	15.10	-	-	1.80	18.0	8.0	21.0

- For user guide, see pages 382-400

(1) Minimum cutting width

(2) Maximum cutting width

For inserts, see pages: GEMI (324) • GEMI (full radius) (326) • GEPI (323) • GEPI (full radius) (325) • GEPI-MT (776) • GEPI-WT (745)

For holders, see pages: SBTH-JHP (833)

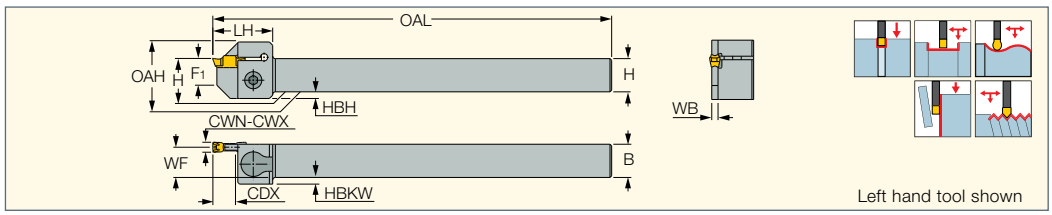
Spare Parts

Designation				
GEHSR/L 10-2-SL	PIN-22435 INJ	SR M5-24145-RL	HW 2.5/5	SR M5X3.5PL
GEHSR/L 12-2-SL	PIN-22435 INJ	SR M5-24145-RL	HW 2.5/5	SR M5X3.5PL
GEHSL 16-2-SL	PIN-22435 INJ	SR M5-24145-RL	HW 2.5/5	SR M5X3.5PL
GEHSR 16-2-SL	PIN-22435 INJ	SR M5-24145-RL	HW 2.5/5	SR M5X3.5PL

CUTGRIP

GEHSR/L-SL

External Machining Tools with Side Clamping Mechanism for Swiss-Type and Automatic Machines



I N C H

Designation	H	CWN(1)	CWX(2)	CDX	B	OAL	WF	HBH	HBKW	WB	LH	F1	OAH
GEHSR 9.5-2-SL	.375	.087	.126	.268	.375	4.720	.340	.10	.100	.071	.710	.31	.57
GEHSR/L 12.7-2-SL	.500	.087	.126	.268	.500	4.720	.470	-	-	.071	.710	.31	.70
GEHSR/L 16-2-SL	.630	.087	.126	.268	.630	4.724	.594	-	-	.071	.709	.31	.83

- For user guide, see pages 382-400

(1) Minimum cutting width

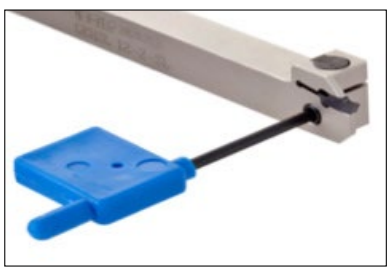
(2) Maximum cutting width

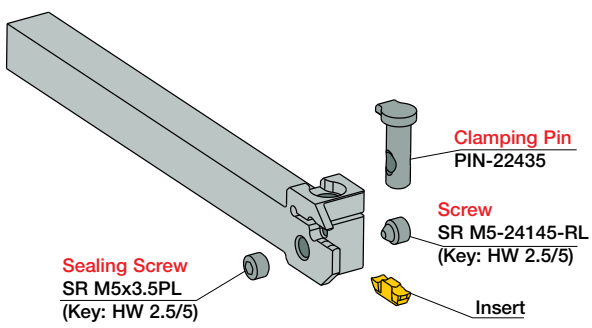
For inserts, see pages: GEMI (324) • GEMI (full radius) (326) • GEPI (323) • GEPI (full radius) (325) • GEPI-MT (776) • GEPI-WT (745)

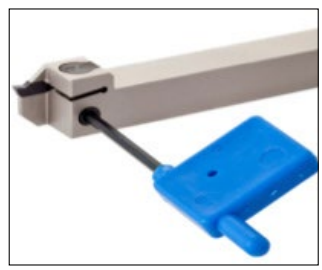
For holders, see pages: SBTH-JHP (833)

Spare Parts

Designation				
GEHSR 9.5-2-SL	PIN-22435 INJ	SR M5-24145-RL	HW 2.5/5	SR M5X3.5PL
GEHSR/L 12.7-2-SL	PIN-22435 INJ	SR M5-24145-RL	HW 2.5/5	SR M5X3.5PL
GEHSL 16-2-SL	PIN-22435 INJ	SR M5-24145-RL	HW 2.5/5	SR M5X3.5PL
GEHSR 16-2-SL	PIN-22435 INJ	SR M5-24145-RL	HW 2.5/5	SR M5X3.5PL





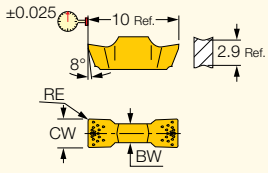


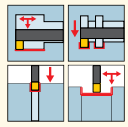
CUTGRIP

GEPI

Precision Ground Double Ended Inserts for Internal and External Grooving







M E T R I C

Designation	Dimensions CW	RE	CWTOL(2)	RETOL(3)	CDX	BW	Tough ↔ Hard IC528	IC08	IC908	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GEPI 1.85-0.10 (1)	1.85	0.10	0.020	0.030	2.50	1.80	●	●	●	0.15-0.50	0.05-0.07	0.03-0.05
GEPI 1.96-0.10	1.96	0.10	0.020	0.030	2.50	1.80	●	●	●	0.15-0.50	0.05-0.07	0.03-0.05
GEPI 1.96-0.15	1.96	0.15	0.020	0.030	2.50	1.80	●		●	0.20-0.50	0.05-0.07	0.03-0.05
GEPI 2.00-0.10	2.00	0.10	0.020	0.030	9.00	1.80	●	●	●	0.15-0.60	0.05-0.07	0.03-0.05
GEPI 2.22-0.10	2.22	0.10	0.020	0.030	9.00	1.80	●	●	●	0.15-0.60	0.06-0.08	0.04-0.06
GEPI 2.22-0.15	2.22	0.15	0.020	0.030	9.00	1.80	●			0.20-0.60	0.06-0.08	0.04-0.06
GEPI 2.39-0.10	2.39	0.10	0.020	0.030	9.00	2.20	●			0.15-1.00	0.07-0.09	0.04-0.06
GEPI 2.39-0.15	2.39	0.15	0.020	0.030	9.00	2.20	●	●	●	0.20-1.00	0.07-0.09	0.04-0.06
GEPI 2.47-0.20	2.47	0.20	0.020	0.030	9.00	2.20	●	●	●	0.25-1.10	0.08-0.11	0.04-0.07
GEPI 2.50-0.10	2.50	0.10	0.020	0.030	9.00	2.20	●			0.15-1.10	0.07-0.09	0.04-0.07
GEPI 2.50-0.20	2.50	0.20	0.020	0.030	9.00	2.20	●	●	●	0.25-1.10	0.08-0.11	0.05-0.08
GEPI 2.70-0.20	2.70	0.20	0.020	0.030	9.00	2.20	●	●	●	0.25-1.20	0.09-0.12	0.05-0.08
GEPI 3.00-0.20	3.00	0.20	0.020	0.030	9.00	2.20	●	●	●	0.25-1.30	0.10-0.14	0.05-0.09
GEPI 3.18-0.20	3.18	0.20	0.020	0.030	9.00	2.20	●		●	0.25-1.40	0.11-0.14	0.06-0.10

• DMIN for internal application=11.5mm • For cutting speed recommendations and user guide, see pages 382-400

(1) Tool pocket should be modified

(2) Cutting width tolerance (+/-)

(3) Corner radius tolerance (+/-)

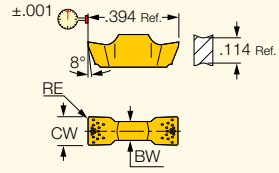
For tools, see pages: E-GEHIR / E-GHIR (425) • GEHIMR/L (419) • GEHIMR/L-SC (420) • GEHIR/L (421) • GEHIR/L-SC (423) • GEHSR/L-SL (322)

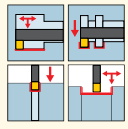
CUTGRIP

GEPI

Precision Ground Double Ended Inserts for Internal and External Grooving







I N C H

Designation	Dimensions CW	RE	CWTOL(2)	RETOL(3)	CDX	BW	Tough ↔ Hard IC528	IC08	IC908	Recommended Machining Data a_p (inch)	f turn (IPR)	f groove (IPR)
GEPI 1.85-0.10 (1)	.073	.004	.00078	.0012	.098	.071	●	●	●	.006-.020	.0020-.0027	.0012-.0020
GEPI 1.96-0.10	.077	.004	.00078	.0012	.098	.071	●	●	●	.006-.020	.0020-.0027	.0012-.0020
GEPI 1.96-0.15	.077	.006	.00078	.0012	.098	.071	●		●	.008-.020	.0020-.0027	.0012-.0020
GEPI 2.00-0.10	.079	.004	.00078	.0012	.354	.071	●	●	●	.006-.024	.0020-.0027	.0012-.0020
GEPI 2.22-0.10	.087	.004	.00078	.0012	.354	.071	●	●	●	.006-.024	.0024-.0031	.0016-.0024
GEPI 2.22-0.15	.087	.006	.00078	.0012	.354	.071	●			.008-.024	.0024-.0031	.0016-.0024
GEPI 2.39-0.10	.094	.004	.00078	.0012	.354	.087	●			.006-.039	.0027-.0035	.0016-.0024
GEPI 2.39-0.15	.094	.006	.00078	.0012	.354	.087	●	●	●	.008-.039	.0027-.0035	.0016-.0024
GEPI 2.47-0.20	.097	.008	.00078	.0012	.354	.087	●	●	●	.010-.043	.0031-.0043	.0016-.0027
GEPI 2.50-0.10	.098	.004	.00078	.0012	.354	.087	●			.006-.043	.0027-.0035	.0016-.0027
GEPI 2.50-0.20	.098	.008	.00078	.0012	.354	.087	●	●	●	.010-.043	.0031-.0043	.0020-.0031
GEPI 2.70-0.20	.106	.008	.00078	.0012	.354	.087	●	●	●	.010-.047	.0035-.0047	.0020-.0031
GEPI 3.00-0.20	.118	.008	.00078	.0012	.354	.087	●	●	●	.010-.051	.0039-.0055	.0020-.0035
GEPI 3.18-0.20	.125	.008	.00078	.0012	.354	.087	●		●	.010-.055	.0043-.0055	.0024-.0039

• DMIN for internal application=.453" • For cutting speed recommendations and user guide, see pages 382-400

(1) Tool pocket should be modified

(2) Cutting width tolerance (+/-)

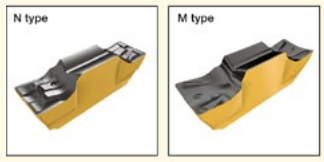
(3) Corner radius tolerance (+/-)

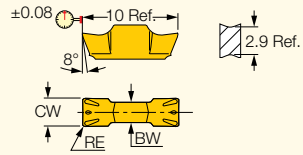
For tools, see pages: E-GEHIR / E-GHIR (425) • GEHIMR/L (419) • GEHIMR/L-SC (420) • GEHIR/L (421) • GEHIR/L-SC (423) • GEHSR/L-SL (322)

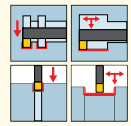
CUTGRIP

GEMI

Utility Double-Ended Inserts for Internal, External Grooving and Turning







M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	Tough ↔ Hard IC808	IC908	IC807	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GEMI 2002N	2.00	0.20	0.050	0.050	1.60	●			0.25-0.80	0.05-0.10	0.04-0.08
GEMI 3002M	3.00	0.20	0.050	0.050	2.00	●	●		0.25-1.30	0.10-0.14	0.05-0.09
GEMI 3002N	3.00	0.20	0.050	0.050	2.00	●		●	0.25-1.00	0.07-0.12	0.04-0.08

• GEMI N inserts for ductile materials and low feed • DMIN for internal application=11.5 mm • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

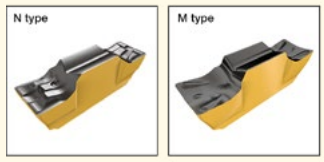
(2) Corner radius tolerance (+/-)

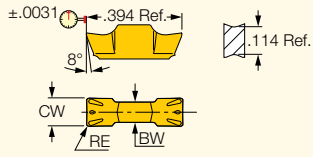
For tools, see pages: E-GEHIR / E-GHIR (425) • GEHIR/L (421) • GEHIR/L-SC (423) • GEHSR/L-SL (322)

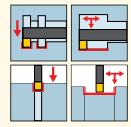
CUTGRIP

GEMI

Utility Double-Ended Inserts for Internal, External Grooving and Turning







I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	Tough ↔ Hard IC808	IC908	IC807	Recommended Machining Data a_p (inch)	f turn (IPR)	f groove (IPR)
GEMI 2002N	.079	.008	.00196	.0020	.063	●			.010-.031	.0020-.0039	.0016-.0031
GEMI 3002M	.118	.008	.00196	.0020	.079	●	●		.010-.051	.0039-.0055	.0020-.0035
GEMI 3002N	.118	.008	.00196	.0020	.079	●		●	.010-.039	.0027-.0047	.0016-.0031

• GEMI N inserts for ductile materials and low feed • DMIN for internal application=.45" • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

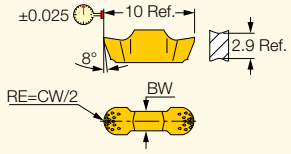
For tools, see pages: E-GEHIR / E-GHIR (425) • GEHIR/L (421) • GEHIR/L-SC (423) • GEHSR/L-SL (322)

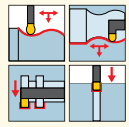
CUTGRIP

GEPI (full radius)

Precision Double-Ended Full Radius Inserts for Internal and External Profiling and Grooving







M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX	BW	Tough ↔ Hard IC528	IC08	IC908	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GEPI 2.00-1.00	2.00	1.00	0.020	0.050	5.00	1.80	•	•	•	0.00-0.60	0.08-0.12	0.04-0.07
GEPI 3.00-1.50	3.00	1.50	0.020	0.050	5.00	2.20	•	•	•	0.00-1.50	0.13-0.20	0.05-0.11
GEPI 3.18-1.59	3.18	1.59	0.020	0.050	5.00	2.20		•	•	0.00-1.59	0.13-0.21	0.06-0.11

• DMIN for internal application=11.5mm • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

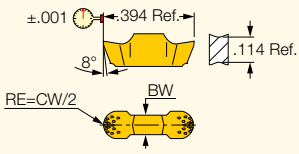
For tools, see pages: E-GEHIR / E-GHIR (425) • GEHIR/L (421) • GEHIR/L-SC (423) • GEHIUR/L (424) • GEHSR/L-SL (322)

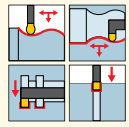
CUTGRIP

GEPI (full radius)

Precision Double-Ended Full Radius Inserts for Internal and External Profiling and Grooving







I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX	BW	Tough ↔ Hard IC528	IC08	IC908	Recommended Machining Data a_p (inch)	f turn (IPR)	f groove (IPR)
GEPI 2.00-1.00	.079	.039	.00078	.0020	.197	.071	•	•	•	.000-.024	.0031-.0047	.0016-.0027
GEPI 3.00-1.50	.118	.059	.00078	.0020	.197	.087	•	•	•	.000-.059	.0051-.0079	.0020-.0043
GEPI 3.18-1.59	.125	.063	.00078	.0020	.197	.087		•	•	.000-.063	.0051-.0083	.0024-.0043

• DMIN for internal application=.453" • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

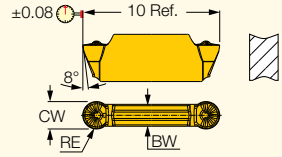
For tools, see pages: E-GEHIR / E-GHIR (425) • GEHIR/L (421) • GEHIR/L-SC (423) • GEHIUR/L (424) • GEHSR/L-SL (322)

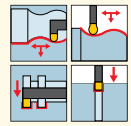
CUTGRIP

GEMI (full radius)

Utility Double-Ended Full Radius Inserts for Internal and External Grooving and Profiling







M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	IC808	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GEMI 2010Y	2.00	1.00	0.020	0.050	1.60	●	0.10-1.00	0.06-0.12	0.03-0.08
GEMI 3015Y	3.00	1.50	0.040	0.050	2.00	●	0.10-1.50	0.10-0.18	0.05-0.10

• DMIN for internal application=11.5 mm • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

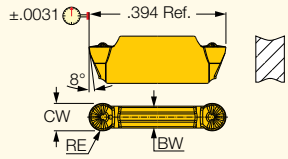
For tools, see pages: E-GEHIR / E-GHIR (425) • GEHIR/L (421) • GEHIR/L-SC (423) • GEHSR/L-SL (322)

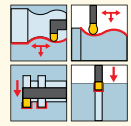
CUTGRIP

GEMI (full radius)

Utility Double-Ended Full Radius Inserts for Internal and External Grooving and Profiling







I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	IC808	Recommended Machining Data a_p (inch)	f turn (IPR)	f groove (IPR)
GEMI 2010Y	.079	.039	.00078	.0020	.063	●	.004-.039	.0024-.0047	.0012-.0031
GEMI 3015Y	.118	.059	.00157	.0020	.079	●	.004-.059	.0039-.0071	.0020-.0039

• DMIN for internal application=.45" • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

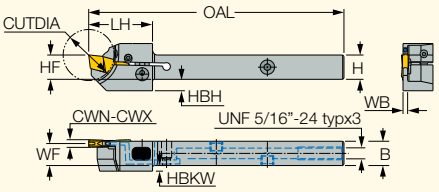
(2) Corner radius tolerance (+/-)

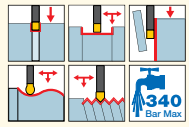
For tools, see pages: E-GEHIR / E-GHIR (425) • GEHIR/L (421) • GEHIR/L-SC (423) • GEHSR/L-SL (322)

CUT-GRIP

GHSR/L-JHP-SL

Grooving and Turning Side Lock Tools with Channels for High-Pressure Coolant on Swiss-Type and Automatic Machines





Left hand tool shown

M E T R I C											
Designation	**CWN[1]**	**CWX[2]**	**H**	**B**	**CUTDIA[3]**	**OAL**	**LH**	**WF**	**HBKW**	**WB**	**HF**
GHSR/L 10-2-JHP-SL	2.20	3.00	10.0	10.0	20.0	100.00	25.0	9.10	2.2	1.80	10.0
GHSL 12-2-JHP-SL	2.20	3.00	12.0	12.0	25.0	100.00	25.0	11.10	-	1.80	12.0
GHSR 12-2-JHP-SL	2.20	3.00	12.0	12.0	25.0	100.00	25.0	11.10	-	0.00	12.0
GHSR/L 16-2-JHP-SL	2.20	3.00	16.0	16.0	25.0	120.00	27.0	15.10	-	1.80	16.0
GHSR/L 12-3-JHP-SL	2.80	4.00	12.0	12.0	25.0	100.00	25.0	10.80	-	2.40	12.0
GHSR/L 16-3-JHP-SL	2.80	4.00	16.0	16.0	25.0	120.00	27.0	14.80	-	2.40	16.0

• When using GIVR/L inserts, tool holder's seat needs to be modified • For user guide and accessories, see pages 382-400

(1) Minimum cutting width

(2) Maximum cutting width

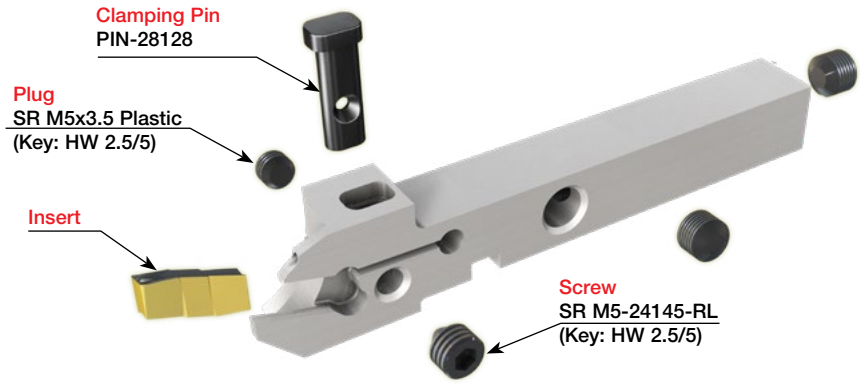
(3) Maximum workpiece diameter for grooving operation

For inserts, see pages: GIG (337) • GIM-J (339) • GIM-J-RA/LA (340) • GIMT (361) • GIMY (345) • GIMY (full radius) (346) • GIMY-F (347) • GIP (349) • GIP (full radius CW<BW) (352) • GIP (full radius) (350) • GIP-E (355) • GIP-E (full radius) (356) • GIPA (full radius W=3-6) (354) • GIPA (W=3-6) (353) • GIPM-A46 / GIP-1250 (357) • GIPY (360) • GITM (362) • GITM (full radius) (363) • GIVR/L (336) • TIP-MT (658) • TIP-P-BSPT (717) • TIP-P-BSW (714) • TIP-P-ISO (669) • TIP-P-NPT (730) • TIP-P-UN (707) • TIP-WT (655)

For holders, see pages: SBTH-JHP (833)

Flow Rate vs. Pressure

Designation	70 Bar Flow Rate (liters/min)	100 Bar Flow Rate (liters/min)	140 Bar Flow Rate (liters/min)
GHSR/L...-JHP-SL	4-6	7-9	9-11



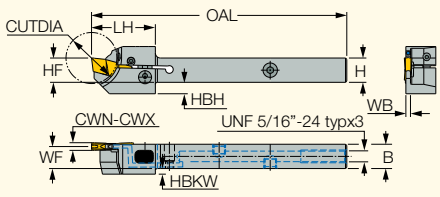
Spare Parts

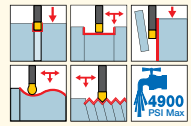
Designation						
GHSL 10-2-JHP-SL	PIN-28128 INJ	SR M5-24145-RL	SR M5X3.5PL	HW 2.5/5	SR 5/16UNF TL360	HW 5/32"
GHSR 10-2-JHP-SL	PIN-28128 INJ	SR M5-24145	SR M5X3.5PL	HW 2.5/5	SR 5/16UNF TL360	HW 5/32"
GHSR/L 12-2-JHP-SL	PIN-28128 INJ	SR M5-24145-RL	SR M5X3.5PL	HW 2.5/5	SR 5/16UNF TL360	HW 5/32"
GHSR/L 16-2-JHP-SL	PIN-28128 INJ	SR M5-24145-RL	SR M5X3.5PL	HW 2.5/5	SR 5/16UNF TL360	HW 5/32"
GHSR/L 12-3-JHP-SL	PIN-28128 INJ	SR M5-24145-RL	SR M5X3.5PL	HW 2.5/5	SR 5/16UNF TL360	HW 5/32"
GHSR/L 16-3-JHP-SL	PIN-28128 INJ	SR M5-24145-RL	SR M5X3.5PL	HW 2.5/5	SR 5/16UNF TL360	HW 5/32"

CUT-GRIP

GHSR/L-JHP-SL

Grooving and Turning Side Lock Tools with Channels for High-Pressure Coolant on Swiss-Type and Automatic Machines





Left hand tool shown

	INCH										
Designation	**CWN(1)**	**CWX(2)**	**H**	**B**	**CUTDIA(3)**	**OAL**	**LH**	**WF**	**HBKW**	**WB**	**HF**
GHSR 9.5-2-JHP-SL	.087	.118	.375	.375	.790	4.000	1.000	.340	.086	.071	.375
GHSR/L 12.7-2-JHP-SL	.087	.118	.500	.500	1.000	4.000	1.000	.460	-	.071	.500
GHSR/L 16-2-JHP-SL	.087	.118	.630	.630	.984	4.724	1.063	.594	-	.071	.630
GHSR/L 12.7-3-JHP-SL	.110	.157	.500	.500	1.000	4.000	1.000	.450	-	.094	.500
GHSR/L 16-3-JHP-SL	.110	.157	.630	.630	.984	4.724	1.063	.583	-	.094	.630

• When using GIVR/L inserts, tool holder's seat needs to be modified • For user guide and accessories, see pages 382-400

(1) Minimum cutting width

(2) Maximum cutting width

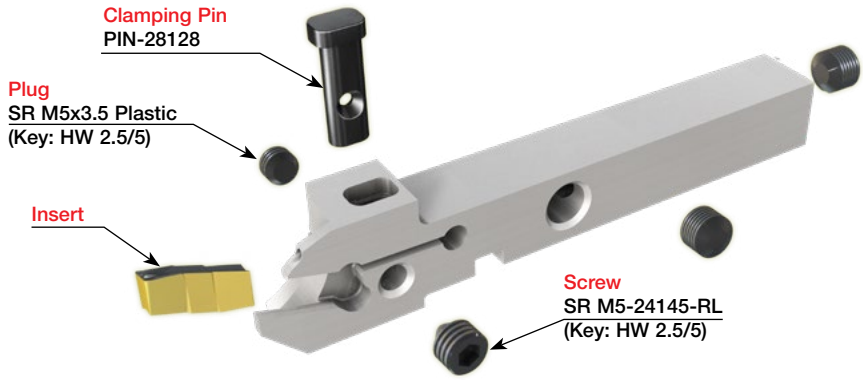
(3) Maximum workpiece diameter for grooving operation

For inserts, see pages: GIG (337) • GIM-J (339) • GIM-J-RA/LA (340) • GIMT (361) • GIMY (345) • GIMY (full radius) (346) • GIMY-F (347) • GIP (349) • GIP (full radius CW<BW) (352) • GIP (full radius) (350) • GIP-E (355) • GIP-E (full radius) (356) • GIPA (round W=.118-.236) (354) • GIPA (W=.118-.236) (353) • GIPM-A46 / GIP-1250 (357) • GIPY (360) • GITM (362) • GITM (full radius) (363) • GIVR/L (336) • TIP-MT (658) • TIP-P-BSPT (717) • TIP-P-BSW (714) • TIP-P-ISO (669) • TIP-P-NPT (730) • TIP-P-UN (707) • TIP-WT (655)

For holders, see pages: SBTH-JHP (833)

Flow Rate Vs. Pressure

Designation	1000 PSI Flow Rate (gallon/min)	1450 PSI Flow Rate (gallon/min)	2000 PSI Flow Rate (gallon/min)
GHSR/L...-JHP-SL	1.3-1.8	1.8-2.4	2.4-2.9



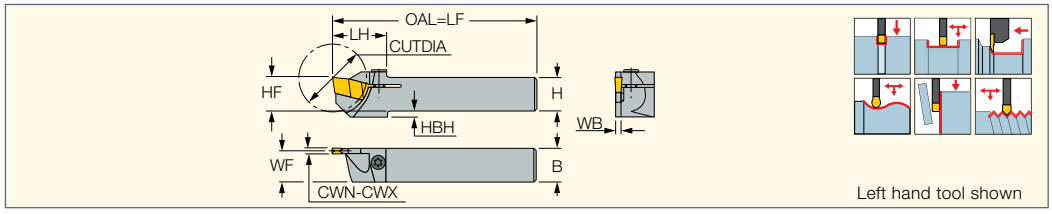
Spare Parts

Designation						
GHSR 9.5-2-JHP-SL	PIN-28128 INJ	SR M5-24145-RL	SR M5X3.5PL	HW 2.5/5	SR 5/16UNF TL360	HW 5/32"
GHSR/L 12.7-2-JHP-SL	PIN-28128 INJ	SR M5-24145-RL	SR M5X3.5PL	HW 2.5/5	SR 5/16UNF TL360	HW 5/32"
GHSR/L 16-2-JHP-SL	PIN-28128 INJ	SR M5-24145-RL	SR M5X3.5PL	HW 2.5/5	SR 5/16UNF TL360	HW 5/32"
GHSR/L 12.7-3-JHP-SL	PIN-28128 INJ	SR M5-24145-RL	SR M5X3.5PL	HW 2.5/5	SR 5/16UNF TL360	HW 5/32"
GHSR/L 16-3-JHP-SL	PIN-28128 INJ	SR M5-24145-RL	SR M5X3.5PL	HW 2.5/5	SR 5/16UNF TL360	HW 5/32"

CUTGRIP

GHSR/L

External Grooving and Turning Holders for Swiss-Type and Automatic Machines



M E T R I C

Designation	CWN(1)	CWX(2)	CUTDIA(3)	H	HF	B	OAL	WF	LH	HBH	WB		
GHSR/L 10-2	2.20	3.15	20.0	10.0	10.0	10.0	120.00	9.10	18.0	2.0	1.80	SR 16-236 P	T-15/3
GHSR/L 12-2	2.20	3.15	25.0	12.0	12.0	12.0	120.00	11.10	20.0	2.0	1.80	SR 16-236 P	T-15/3
GHSR/L 14-2	2.20	3.15	26.0	14.0	14.0	14.0	120.00	13.10	20.0	-	1.80	SR 16-236 P	T-15/3
GHSR/L 16-2	2.20	3.15	32.0	16.0	16.0	16.0	120.00	15.10	26.0	-	1.80	SR 16-212	T-20/3

• When using GIVR/L inserts, tool holder's seat needs to be modified • For user guide, see pages 382-400

(1) Minimum cutting width

(2) Maximum cutting width

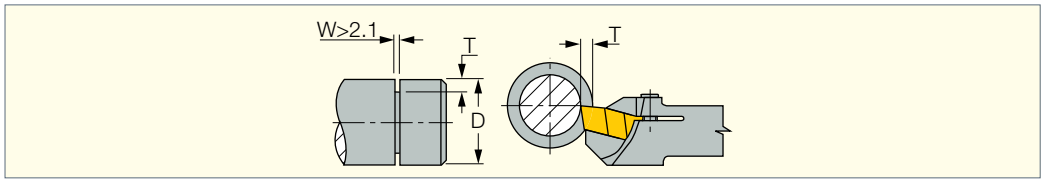
(3) For CW>2.1 mm: grooving depth depends on part diameter

For inserts, see pages: GIG (337) • GIM-J (339) • GIM-J-RA/LA (340) • GIMT (361) • GIMY (345) • GIMY (full radius) (346) • GIMY-F (347) • GIP (349) • GIP (full radius CW<BW) (352) • GIP (full radius) (350) • GIP-E (355) • GIP-E (full radius) (356) • GIPA (full radius W=3-6) (354) • GIPA (W=3-6) (353) • GIPM-A46 / GIP-1250 (357) • GIPY (360) • GITM (362) • GITM (full radius) (363) • GIVR/L (336) • TIP-MT (658) • TIP-P-BSPT (717) • TIP-P-BSW (714) • TIP-P-ISO (669) • TIP-P-NPT (730) • TIP-P-UN (707) • TIP-WT (655)

For holders, see pages: SBTH-JHP (833)

Grooving Depth

Grooving Depth Tmax per Diameter for Width > 2.1 mm



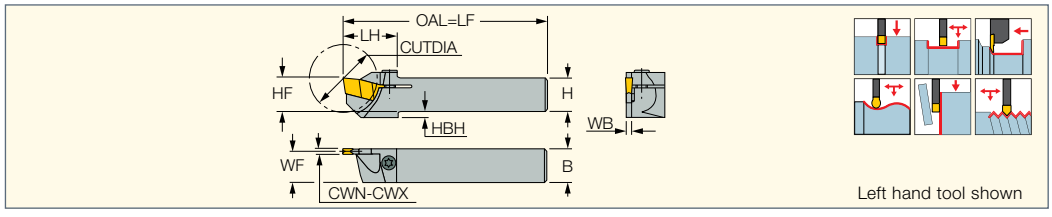
Tmax	5.0	4.5	4.0	3.5	3.0	2.5	2.3	2.0	1.7
D	10.5	10.8	11.5	12.6	14.5	17	20	25	34

Tmax is also limited by insert

CUTGRIP

GHSR/L

External Grooving and Turning Holders for Swiss-Type and Automatic Machines



I N C H

Designation	CWN(1)	CWX(2)	CUTDIA(3)	H	HF	B	OAL	WF	LH	HBH	WB		
GHSR/L 9.5-2	.087	.124	.790	.375	.375	.375	4.720	.400	.680	.08	.071	SR 16-236 P	T-15/3
GHSR/L 10-2	.087	.124	.787	.394	.394	.394	4.724	.358	.709	.08	.071	SR 16-236 P	T-15/3
GHSR/L 12.7-2	.087	.124	1.000	.500	.500	.500	4.720	.464	.760	.08	.071	SR 16-236 P	T-15/3
GHSR/L 16-2	.087	.124	1.260	.630	.630	.630	4.724	.594	1.024	-	.071	SR 16-212	T-20/3

• When using GIVR/L inserts, tool holder's seat needs to be modified • For user guide, see pages 382-400

(1) Minimum cutting width

(2) Maximum cutting width

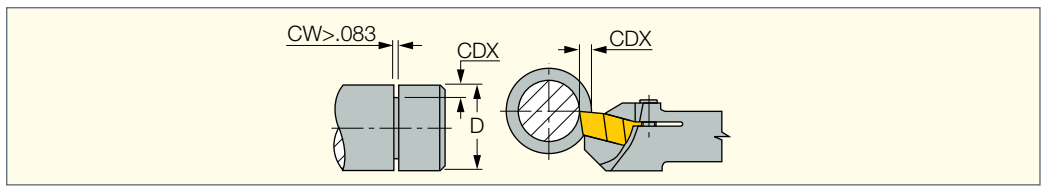
(3) For CW>.083": grooving depth depends on part diameter

For inserts, see pages: GIG (337) • GIM-J (339) • GIM-J-RA/LA (340) • GIMT (361) • GIMY (345) • GIMY (full radius) (346) • GIMY-F (347) • GIP (349) • GIP (full radius CW<BW) (352) • GIP (full radius) (350) • GIP-E (355) • GIP-E (full radius) (356) • GIPA (round W=.118-.236) (354) • GIPA (W=.118-.236) (353) • GIPM-A46 / GIP-1250 (357) • GIPY (360) • GITM (362) • GITM (full radius) (363) • GIVR/L (336) • TIP-MT (658) • TIP-P-BSPT (717) • TIP-P-BSW (714) • TIP-P-ISO (669) • TIP-P-NPT (730) • TIP-P-UN (707) • TIP-WT (655)

For holders, see pages: SBTH-JHP (833)

Grooving Depth

Grooving Depth CDX per Diameter for Width > .083"



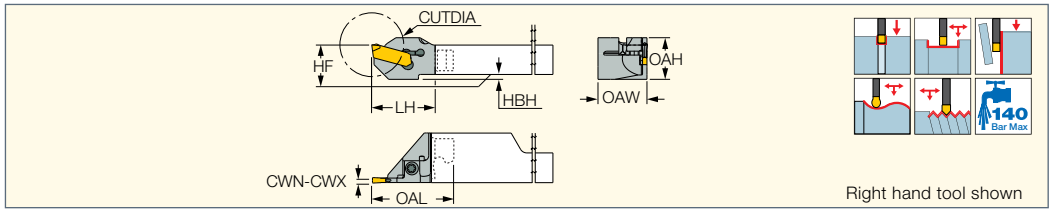
CDX	.196	.177	.157	.137	.118	.098	.090	.078	.067
D	.413	.425	.452	.496	.570	.669	.787	.984	1.34

CDX is also limited by insert.

NEOSWISS

NQCH-GHSR/L-JHP

Screw Lock JET-CUT Modular Heads Carrying CUT-GRIP Inserts for Grooving and Turning on Swiss-Type Machines



Right hand tool shown

M E T R I C										
Designation	**HF**	**OAW**	**LF**	**OAH**	**HBH**	**OAL**	**CWN(2)**	**CWX(3)**	**CUTDIA**	**Insert**
NQCH12-GHSR/L-2-JHP	12.0	20.00	24.00	17.00	2.0	32.80	2.20	3.00	25.0	GIP 2
NQCH12R-GHSL-2-JHP (1)	12.0	20.00	24.00	17.00	2.0	32.80	2.20	3.00	25.0	GIP 2
NQCH16-GHSR/L-2-JHP	16.0	20.00	24.00	19.00	2.0	32.80	2.20	3.00	25.0	GIP 2
NQCH16R-GHSL-2-JHP (1)	16.0	20.00	24.00	19.00	2.0	32.80	2.20	3.00	25.0	GIP 2

- Use only RH Shank with RH Head and LH Shank with LH Head exept NQCH12R/16R... heads
- When using GIVR/L inserts, tool holder's seat needs to be modified

(1) The head is dedicated for the right hand machines and to be mounted on the right hand holder only

(2) Minimum cutting width

(3) Maximum cutting width

For inserts, see pages: GIG (337) • GIM-J (339) • GIM-J-RA/LA (340) • GIMT (361) • GIMY (345) • GIMY (full radius) (346) • GIMY-F (347) • GIP (349) • GIP (full radius CW<BW) (352) • GIP (full radius) (350) • GIP-E (355) • GIP-E (full radius) (356) • GIPA (full radius W=3-6) (354) • GIPA (W=3-6) (353) • GIPM-A46 / GIP-1250 (357) • GIPY (360) • GITM (362) • GITM (full radius) (363) • GIVR/L (336) • TIP-MT (658) • TIP-P-BSPT (717) • TIP-P-BSW (714) • TIP-P-ISO (669) • TIP-P-NPT (730) • TIP-P-UN (707) • TIP-WT (655)

For holders, see pages: C#-NQCH-JHP (65) • NQCH-JHP (63)

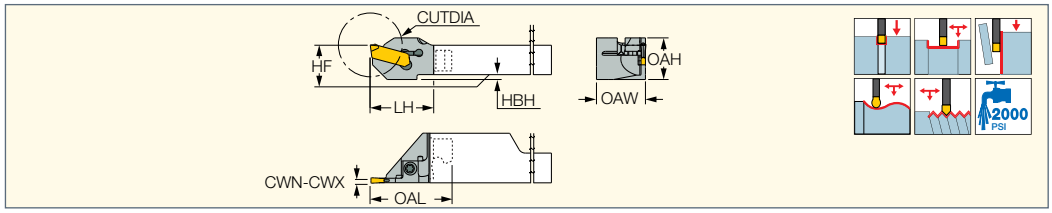
Spare Parts

Designation		
NQCH-GHSR/L-JHP	SR 16-236 P	T-15/3

NEOSWISS

NQCH-GHSR/L-JHP

Screw Lock JET-CUT Modular Heads Carrying CUT-GRIP Inserts for Grooving and Turning on Swiss-Type Machines



I N C H										
Designation	**HF**	**OAW**	**LF**	**OAH**	**HBH**	**OAL**	**CWN(2)**	**CWX(3)**	**CUTDIA**	**Insert**
NQCH12-GHSR/L-2-JHP	.472	.787	.945	.669	.079	1.291	.087	.118	.984	GIP 2
NQCH12R-GHSL-2-JHP (1)	.472	.787	.945	.669	.079	1.291	.087	.118	.984	GIP 2
NQCH16-GHSR/L-2-JHP	.630	.787	.945	.748	.079	1.291	.087	.118	.984	GIP 2
NQCH16R-GHSL-2-JHP (1)	.630	.787	.945	.748	.079	1.291	.087	.118	.984	GIP 2

- Use only RH Shank with RH Head and LH Shank with LH Head exept NQCH12R/16R... heads
- When using GIVR/L inserts, tool holder's seat needs to be modified

(1) The head is dedicated for the right hand machines and to be mounted on the right hand holder only

(2) Minimum cutting width

(3) Maximum cutting width

For inserts, see pages: GIG (337) • GIM-J (339) • GIM-J-RA/LA (340) • GIMT (361) • GIMY (345) • GIMY (full radius) (346) • GIMY-F (347) • GIP (349) • GIP (full radius CW<BW) (352) • GIP (full radius) (350) • GIP-E (355) • GIP-E (full radius) (356) • GIPA (round W=.118-.236) (354) • GIPA (W=.118-.236) (353) • GIPM-A46 / GIP-1250 (357) • GIPY (360) • GITM (362) • GITM (full radius) (363) • GIVR/L (336) • TIP-MT (658) • TIP-P-BSPT (717) • TIP-P-BSW (714) • TIP-P-ISO (669) • TIP-P-NPT (730) • TIP-P-UN (707) • TIP-WT (655)

For holders, see pages: C#-NQCH-JHP (65) • NQCH-JHP (63)

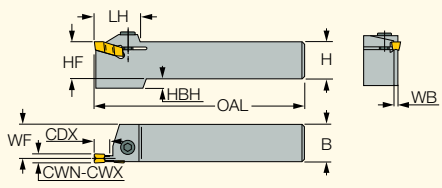
Spare Parts

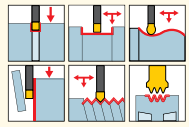
Designation		
NQCH-GHSR/L-JHP	SR 16-236 P	T-15/3

CUTGRIP

GHDR/L (short pocket)

External Tools for Turning, Grooving and Parting





Right hand tool shown

M E T R I C

Designation	CWN(2)	CWX(3)	CDX	H	HF	B	OAL	LH	WF	WB	HBH		
GHDR/L 12-3	2.80	4.00	8.00	12.0	12.0	12.0	110.00	25.0	10.80	2.40	4.0	SR 76-1021	T-20/5
GHDR/L 16-3	2.80	4.00	9.00	16.0	16.0	16.0	110.00	26.0	14.80	2.40	4.0	SR M5X16 DIN912	HW 4.0
GHDR/L 16-3 ST (1)	2.80	4.00	9.00	16.0	16.0	16.0	78.00	24.0	15.00	2.20	4.0	SR M5X16 DIN912	HW 4.0
GHDR/L 16-4	4.00	5.00	10.00	16.0	16.0	16.0	110.00	26.0	14.40	3.20	4.0	SR M6X16 DIN912	HW 5.0
GHDR 16-4 ST (1)	4.00	5.40	10.00	16.0	16.0	16.0	78.00	24.6	14.00	3.40	4.0	SR M6X16 DIN912	HW 5.0

• For using TIP and GPV inserts, toolholder seat needs to be modified according to insert profile to ensure clearance. • When using GIVR/L inserts, tool holder's seat needs to be modified • For user guide, see pages 382-400

(1) For Star and multi-spindle machines

(2) Minimum cutting width

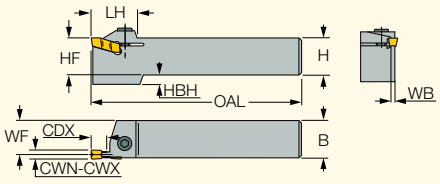
(3) Maximum cutting width

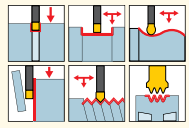
For inserts, see pages: GIG (337) • GIM-C (338) • GIM-J (339) • GIM-J-RA/LA (340) • GIM-UT-RA/LA (342) • GIM-W (343) • GIM-W-RA/LA (344) • GIMN (341) • GIMT (361) • GIMY (345) • GIMY (full radius) (346) • GIMY-F (347) • GIP (349) • GIP (flat top CW<BW) (351) • GIP (full radius CW<BW) (352) • GIP (full radius) (350) • GIP-E (355) • GIP-E (full radius) (356) • GIP-UN (359) • GIPA (full radius W=3-6) (354) • GIPA (W=3-6) (353) • GIPM-A46 / GIP-1250 (357) • GIPY (360) • GITM (362) • GITM (full radius) (363) • GIVR/L (336) • GPV (364) • TIP-MT (658) • TIP-P-BSPT (717) • TIP-P-BSW (714) • TIP-P-ISO (669) • TIP-P-NPT (730) • TIP-P-UN (707) • TIP-WT (655)

CUTGRIP

GHDR/L (short pocket)

External Tools for Turning, Grooving and Parting





Right hand tool shown

I N C H

Designation	CWN(3)	CWX(4)	CDX	H	HF	B	OAL	LH	WF	WB	HBH		
GHDR/L 12.7-2 (1)	.016	.125	.320	.500	.500	.500	4.500	1.000	.470	.062	.13	SR 76-1021	T-20/5
GHDR/L 12.7-3	.110	.157	.330	.500	.500	.500	4.500	1.000	.450	.094	.13	SR 76-1021	T-20/5
GHDR/L 16-3	.110	.157	.354	.630	.630	.630	4.331	1.024	.583	.094	.16	SR M5X16 DIN912	HW 4.0
GHDR/L 16-3 ST (2)	.110	.157	.354	.630	.630	.630	3.071	.945	.591	.087	.16	SR M5X16 DIN912	HW 4.0
GHDR/L 16-4	.157	.197	.394	.630	.630	.630	4.331	1.024	.567	.126	.16	SR M6X16 DIN912	HW 5.0
GHDR 16-4 ST (2)	.157	.213	.394	.630	.630	.630	3.071	.969	.551	.134	.16	SR M6X16 DIN912	HW 5.0

• For using TIP and GPV inserts, toolholder seat needs to be modified according to insert profile to ensure clearance. • When using GIVR/L inserts, tool holder's seat needs to be modified • For user guide, see pages 382-400

(1) In the case of inserts with W<.08", tool pocket should be ground to .012" thinner than the insert's grooving width

(2) For Star and multi-spindle machines

(3) Minimum cutting width

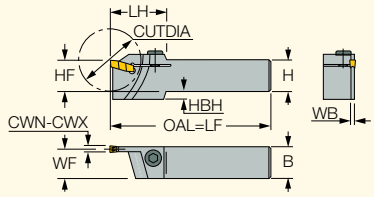
(4) Maximum cutting width

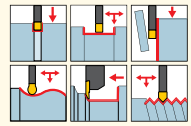
For inserts, see pages: GIG (337) • GIM-C (338) • GIM-J (339) • GIM-J-RA/LA (340) • GIM-UT-RA/LA (342) • GIM-W (343) • GIM-W-RA/LA (344) • GIMN (341) • GIMT (361) • GIMY (345) • GIMY (full radius) (346) • GIMY-F (347) • GIP (349) • GIP (flat top CW<BW) (351) • GIP (full radius CW<BW) (352) • GIP (full radius) (350) • GIP-E (355) • GIP-E (full radius) (356) • GIP-UN (359) • GIPA (round W=.118-.236) (354) • GIPA (W=.118-.236) (353) • GIPM-A46 / GIP-1250 (357) • GIPY (360) • GITM (362) • GITM (full radius) (363) • GIVR/L (336) • GPV (364) • TIP-MT (658) • TIP-P-BSPT (717) • TIP-P-BSW (714) • TIP-P-ISO (669) • TIP-P-NPT (730) • TIP-P-UN (707) • TIP-WT (655)

CUTGRIP

GHGR/L

External Holders for Deep Grooving and Parting





Left hand tool shown

M E T R I C

Designation	CWN[2]	CWX[3]	CUTDIA[4]	H	HF	B	OAL	LH	WF	WB	HBH		
GHGL 16-3	3.00	4.00	40.0	16.0	16.0	16.0	110.00	36.0	14.70	2.50	4.0	SR M6X16 DIN912	HW 5.0
GHGR 16-3	3.00	4.00	40.0	16.0	16.0	16.0	110.00	36.0	14.70	2.50	-	SR M6X16 DIN912	HW 5.0
GHGR/L 16-3 ST [1]	3.00	4.00	34.0	16.0	16.0	16.0	78.00	33.0	15.00	2.40	4.0	SR M6X16 DIN912	HW 5.0
GHGR 16-4	4.00	5.00	40.0	16.0	16.0	16.0	110.00	36.0	14.40	3.20	4.0	SR M6X16 DIN912	HW 5.0

• For machining depth over 13 mm, a single-ended insert is required (GIM, GIMF,GIMY,GIMT,GIMN) • CDX for grooving depth depends on part diameter Dmax • For grooving a part with a diameter larger than CUTDIA, see next table • For using TIP and GIVR/L inserts, tool holder seat needs to be modified according to insert profile to ensure clearance • For user guide, see pages 382-400

[1] For Star and multi-spindle machines

[2] Minimum cutting width

[3] Maximum cutting width

[4] Maximum parting diameter

For inserts, see pages: GIG (337) • GIM-C (338) • GIM-J (339) • GIM-J-RA/LA (340) • GIM-UT-RA/LA (342) • GIM-W (343) • GIM-W-RA/LA (344) • GIMN (341) • GIMT (361) • GIMY (345) • GIMY (full radius) (346) • GIMY-F (347) • GIP (349) • GIP (flat top CW<BW) (351) • GIP (full radius CW<BW) (352) • GIP (full radius) (350) • GIP-E (355) • GIP-E (full radius) (356) • GIPA (full radius W=3-6) (354) • GIPA (W=3-6) (353) • GIPM-A46 / GIP-1250 (357) • GIPY (360) • GITM (362) • GITM (full radius) (363) • TIP-MT (658) • TIP-P-BSPT (717) • TIP-P-BSW (714) • TIP-P-ISO (669) • TIP-P-NPT (730) • TIP-P-UN (707) • TIP-WT (655)

Depth Capacity*

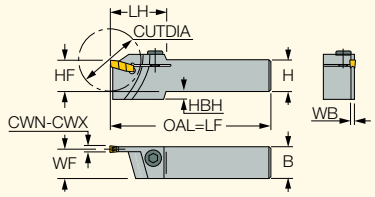
Designation	ØDmax												
GHGR/L 16-3	—	—	—	—	40	50	68	80	120	290	1000	—	—
GHGR/L 20-2	—	—	—	—	—	—	66	80	120	270	1000	—	—
GHGR/L 20-3	—	—	—	—	40	50	68	80	120	290	1000	—	—
GHGR/L 20-4	—	—	—	—	40	50	68	80	120	290	1000	—	—
GHGR/L 25-2	—	—	—	—	—	—	66	72	86	110	130	220	320
GHGR/L 25-3	—	—	—	—	40	80	105	120	190	450	1500	—	—
GHGR/L 25-4	—	—	—	—	40	80	105	120	190	450	1500	—	—
GHGR/L 25-425	—	—	99	135	350	700	—	—	—	—	—	—	—
GHGR/L 25-5	—	—	50	130	300	600	—	—	—	—	—	—	—
GHGR/L 25-630	—	100	350	—	—	—	—	—	—	—	—	—	—
GHGR/L 32-5	—	—	50	130	300	600	—	—	—	—	—	—	—
GHGR 32-632	—	—	—	—	—	—	—	—	—	—	—	—	—
CDX	32	30	25	23	20	19	17	16	14	12	11	9	8

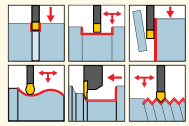
* For over 13 mm depth: GIM, GIMF,GIMT,GIMN and GIMY, GPV (single ended insert) only.

CUT-GRIP

GHGR/L

External Holders for Deep Grooving and Parting





Left hand tool shown

I N C H

Designation	CWN(2)	CWX(3)	CUTDIA(4)	H	HF	B	OAL	LH	WF	WB	HBH		
GHGR/L 12.7-3	.118	.157	1.000	.500	.500	.500	4.500	1.100	.450	.100	.25	SR M6X16 DIN912	HW 5.0
GHGL 16-3	.118	.157	1.575	.630	.630	.630	4.331	1.417	.579	.098	.16	SR M6X16 DIN912	HW 5.0
GHGR 16-3	.118	.157	1.575	.630	.630	.630	4.331	1.417	.579	.098	-	SR M6X16 DIN912	HW 5.0
GHGR/L 16-3 ST (1)	.118	.157	1.339	.630	.630	.630	3.071	1.299	.591	.094	.16	SR M6X16 DIN912	HW 5.0
GHGR 16-4	.157	.197	1.575	.630	.630	.630	4.331	1.417	.567	.126	.16	SR M6X16 DIN912	HW 5.0

• For machining depth over .512", a single-ended insert is required (GIM, GIMF,GIMY,GIMT,GIMN) • CDX for grooving depth depends on part diameter Dmax • For grooving a part with a diameter larger than CUTDIA, see next table • For using TIP and GIVR/L inserts, tool holder seat needs to be modified according to insert profile to ensure clearance • For user guide, see pages 382-400

(1) For Star and multi-spindle machines

(2) Minimum cutting width

(3) Maximum cutting width

(4) Maximum parting diameter

For inserts, see pages: GIG (337) • GIM-C (338) • GIM-J (339) • GIM-J-RA/LA (340) • GIM-UT-RA/LA (342) • GIM-W (343) • GIM-W-RA/LA (344) • GIMN (341) • GIMT (361) • GIMY (345) • GIMY (full radius) (346) • GIMY-F (347) • GIP (349) • GIP (flat top CW<BW) (351) • GIP (full radius CW<BW) (352) • GIP (full radius) (350) • GIP-E (355) • GIP-E (full radius) (356) • GIPA (round W=.118-.236) (354) • GIPA (W=.118-.236) (353) • GIPM-A46 / GIP-1250 (357) • GIPY (360) • GITM (362) • GITM (full radius) (363) • TIP-MT (658) • TIP-P-BSPT (717) • TIP-P-BSW (714) • TIP-P-ISO (669) • TIP-P-NPT (730) • TIP-P-UN (707) • TIP-WT (655)

Depth Capacity*

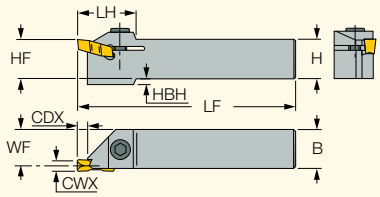
Designation	ØDmax						
GHGR/L 19-2	—	—	—	3.5	6.6	15.9	∞
GHGR/L 25.4-2	—	—	—	2.9	3.5	4.1	8.0
GHGR/L 12.7-3	—	—	—	—	—	3.1	9.5
GHGR/L 16-3	—	—	1.5	2.0	3.1	4.8	∞
GHGR/L 19-3	—	2.0	2.2	3.4	6.3	14.3	∞
GHGR/L 25.4-3	—	3.0	3.2	4.6	7.0	10.6	∞
GHGR 31.7-3	—	3.7	4.0	5.2	6.8	8.6	28.4
GHGR/L 16-4	—	—	1.5	2.0	3.1	4.8	∞
GHGR/L 19-4	—	2.0	2.2	3.4	6.3	14.3	∞
GHGR/L 25.4-4	—	3.0	3.2	4.6	7.0	10.6	∞
GHGR 31.7-4	3.10	4.2	4.5	6.4	9.2	12.9	∞
GHGR/L 25.4-425	—	42.0	∞	∞	∞	∞	∞
GHGR/L 25.4-5	3.90	15.9	39.0	∞	∞	∞	∞
GHGR 31.7-5	5.90	24.8	61.0	∞	∞	∞	∞
GHGR 25.4-630	12.10	∞	∞	∞	∞	∞	∞
CDX	1.00	.790	.750	.630	.550	.500	.370

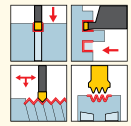
* For over .512" depth: GIM, GIMF and GIMY, GPV (single ended insert) only.

CUTGRIP

GHMR/L

Toolholders for Shallow Radial and Axial Grooving with Narrow and Special Profile Inserts





Right hand tool shown

M E T R I C

Designation	CWX(2)	CDX	H	HF	B	LF	LH	WF	HBH		
GHMR/L 12	4.00	4.80	12.0	12.0	12.0	110.00	25.0	10.80	4.0	SR 76-1021	T-20/5
GHMR/L 16	4.80	4.80	16.0	16.0	16.0	115.00	25.0	14.50	-	SR M6X16 DIN912	HW 5.0
GHMR 16-3 ST (1)	5.00	4.80	16.0	16.0	16.0	78.00	25.0	15.00	-	SR M6X16 DIN912	HW 5.0

• Use for recessing: light turning, small depth of cut (a_p=0.1-0.5 mm) and small feed (f=0.1 mm/rev) • For user guide, see pages 382-400

(1) For Star and multi-spindle machines

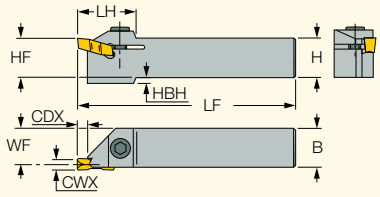
(2) Maximum cutting width

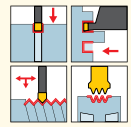
For inserts, see pages: GIG (337) • GIM-C (338) • GIM-J (339) • GIM-J-RA/LA (340) • GIM-UT-RA/LA (342) • GIM-W (343) • GIM-W-RA/LA (344) • GIMN (341) • GIMT (361) • GIMY (345) • GIMY (full radius) (346) • GIMY-F (347) • GIP (349) • GIP (flat top CW<BW) (351) • GIP (full radius CW<BW) (352) • GIP (full radius) (350) • GIP-E (355) • GIP-E (full radius) (356) • GIP-RX/LX (358) • GIP-UN (359) • GIPA (full radius W=3-6) (354) • GIPA (W=3-6) (353) • GIPM-A46 / GIP-1250 (357) • GIPY (360) • GITM (362) • GITM (full radius) (363) • GIVR/L (336) • GPV (364) • TIP-MT (658) • TIP-P-BSPT (717) • TIP-P-BSW (714) • TIP-P-ISO (669) • TIP-P-NPT (730) • TIP-P-UN (707) • TIP-WT (655)

CUTGRIP

GHMR/L

Toolholders for Shallow Radial and Axial Grooving with Narrow and Special Profile Inserts





Right hand tool shown

I N C H

Designation	CWX(2)	CDX	H	HF	B	LF	LH	WF	HBH		
GHMR/L 12.7	.157	.189	.500	.500	.500	4.500	1.000	.460	.12	SR 76-1021	T-20/5
GHMR/L 16	.189	.189	.630	.630	.630	4.528	.984	.571	-	SR M6X16 DIN912	HW 5.0
GHMR 16-3 ST (1)	.197	.189	.630	.630	.630	3.071	.984	.591	-	SR M6X16 DIN912	HW 5.0

• Use for recessing: light turning, small depth of cut (a_p=.004-.020 ") and small feed (f=.004 ipr) • For user guide, see pages 382-400

(1) For Star and multi-spindle machines

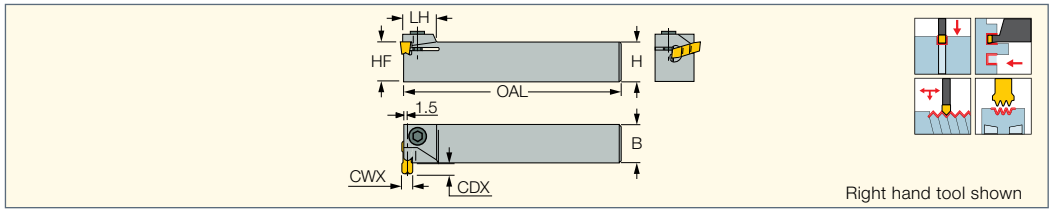
(2) Maximum cutting width

For inserts, see pages: GIG (337) • GIM-C (338) • GIM-J (339) • GIM-J-RA/LA (340) • GIM-UT-RA/LA (342) • GIM-W (343) • GIM-W-RA/LA (344) • GIMN (341) • GIMT (361) • GIMY (345) • GIMY (full radius) (346) • GIMY-F (347) • GIP (349) • GIP (flat top CW<BW) (351) • GIP (full radius CW<BW) (352) • GIP (full radius) (350) • GIP-E (355) • GIP-E (full radius) (356) • GIP-RX/LX (358) • GIP-UN (359) • GIPA (round W=.118-.236) (354) • GIPA (W=.118-.236) (353) • GIPM-A46 / GIP-1250 (357) • GIPY (360) • GITM (362) • GITM (full radius) (363) • GIVR/L (336) • GPV (364) • TIP-MT (658) • TIP-P-BSPT (717) • TIP-P-BSW (714) • TIP-P-ISO (669) • TIP-P-NPT (730) • TIP-P-UN (707) • TIP-WT (655)

CUT-GRIP

GHMPR/L

Perpendicular Toolholders for Shallow Radial and Axial Grooving with Narrow and Special Profile Inserts



M E T R I C

Designation	CWX(1)	CDX	H	HF	B	LF	LH		
GHMPR/L 16	4.80	4.80	16.0	16.0	16.0	110.00	17.0	SR M6X16 DIN912	HW 5.0

• Use for recessing: light turning, small depth of cut (a_p=0.1-0.5 mm) and small feed (f=0.1 mm/rev) • For user guide, see pages 382-400

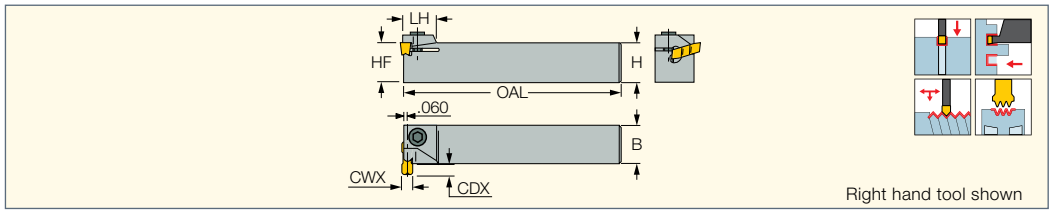
(1) Maximum cutting width

For inserts, see pages: GIG (337) • GIM-C (338) • GIM-J (339) • GIM-J-RA/LA (340) • GIM-UT-RA/LA (342) • GIM-W (343) • GIM-W-RA/LA (344) • GIMN (341) • GIMT (361) • GIMY (345) • GIMY (full radius) (346) • GIMY-F (347) • GIP (349) • GIP (flat top CW<BW) (351) • GIP (full radius CW<BW) (352) • GIP (full radius) (350) • GIP-E (355) • GIP-E (full radius) (356) • GIP-RX/LX (358) • GIP-UN (359) • GIPA (full radius W=3-6) (354) • GIPA (W=3-6) (353) • GIPM-A46 / GIP-1250 (357) • GIPY (360) • GITM (362) • GITM (full radius) (363) • GIVR/L (336) • GPV (364) • TIP-MT (658) • TIP-P-BSPT (717) • TIP-P-BSW (714) • TIP-P-ISO (669) • TIP-P-NPT (730) • TIP-P-UN (707) • TIP-WT (655)

CUT-GRIP

GHMPR/L

Perpendicular Toolholders for Shallow Radial and Axial Grooving with Narrow and Special Profile Inserts



I N C H

Designation	CWX(1)	CDX	H	HF	B	LF	LH		
GHMPR/L 12.7	.157	.189	.500	.500	.500	4.500	.670	SR 76-1021	T-20/5
GHMPR/L 16	.189	.189	.630	.630	.630	4.331	.669	SR M6X16 DIN912	HW 5.0

• Use for recessing: light turning, small depth of cut (a_p=.004-.020") and small feed (f=.004 ipr) • For user guide, see pages 382-400

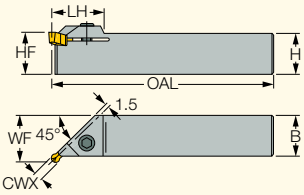
(1) Maximum cutting width

For inserts, see pages: GIG (337) • GIM-C (338) • GIM-J (339) • GIM-J-RA/LA (340) • GIM-UT-RA/LA (342) • GIM-W (343) • GIM-W-RA/LA (344) • GIMN (341) • GIMT (361) • GIMY (345) • GIMY (full radius) (346) • GIMY-F (347) • GIP (349) • GIP (flat top CW<BW) (351) • GIP (full radius CW<BW) (352) • GIP (full radius) (350) • GIP-E (355) • GIP-E (full radius) (356) • GIP-RX/LX (358) • GIP-UN (359) • GIPA (round W=.118-.236) (354) • GIPA (W=.118-.236) (353) • GIPM-A46 / GIP-1250 (357) • GIPY (360) • GITM (362) • GITM (full radius) (363) • GIVR/L (336) • GPV (364) • TIP-MT (658) • TIP-P-BSPT (717) • TIP-P-BSW (714) • TIP-P-ISO (669) • TIP-P-NPT (730) • TIP-P-UN (707) • TIP-WT (655)

CUTGRIP

GHMUR/L

External Holders for 45° Undercutting



Right hand tool shown

M E T R I C

Designation	CWX(1)	H	HF	B	OAL	LH	WF		
GHMUR/L 16	4.80	16.0	16.0	16.0	112.00	25.0	19.00	SR M6X16 DIN912	HW 5.0

- For D>100 mm, GIP/GIF inserts can be used (clearance types UN, D or G are not required)

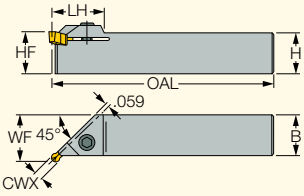
(1) Maximum cutting width

For inserts, see pages: GIMY-UN (348) • GIP-UN (359) • GIVR/L (336)

CUTGRIP

GHMUR/L

External Holders for 45° Undercutting



Right hand tool shown

I N C H

Designation	CWX(1)	H	HF	B	OAL	LH	WF		
GHMUR 12.7	.156	.500	.500	.500	4.500	1.000	.630	SR M6X16 DIN912	HW 5.0
GHMUR/L 16	.189	.630	.630	.630	4.409	.984	.748	SR M6X16 DIN912	HW 5.0

- For D>3.94", GIP/GIF inserts can be used (clearance types UN, D or G are not required)

(1) Maximum cutting width

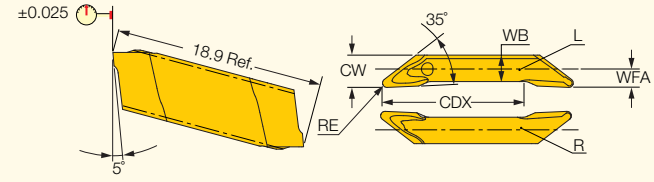
For inserts, see pages: GIMY-UN (348) • GIP-UN (359) • GIVR/L (336)

CUTVGRIP

GIVR/L

Double-Edged Groove-Turn Inserts for Back Turning, Undercutting and Profiling





M E T R I C

Designation	Dimensions RE	RETOL(1)	CW	CDX	WB	WFA	IC808	Recommended Machining Data a_p (mm)	f turn (mm/rev)
GIVR/L 302-F1M-12P	0.20	0.030	2.80	12.80	2.40	1.53	•	0.10-1.50	0.05-0.30
GIVR/L 304-F1M-12P	0.40	0.030	2.93	12.80	2.40	1.66	•	0.10-1.50	0.05-0.30

(1) Corner radius tolerance (+/-)

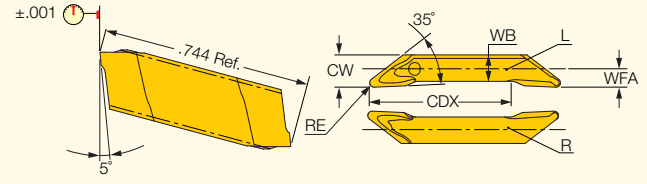
For tools, see pages: GHDR/L (short pocket) (331) • GHMPR/L (335) • GHMR/L (334) • GHMUR/L (336) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

CUTVGRIP

GIVR/L

Double-Edged Groove-Turn Inserts for Back Turning, Undercutting and Profiling





I N C H

Designation	Dimensions RE	RETOL(1)	CW	CDX	WB	WFA	IC808	Recommended Machining Data a_p (inch)	f turn (IPR)
GIVR/L 302-F1M-12P	.0079	.0012	.110	.504	.0945	.0602	•	.004-.059	.0020-.0118
GIVR/L 304-F1M-12P	.0157	.0012	.115	.504	.0945	.0654	•	.004-.059	.0020-.0118

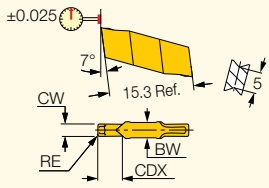
(1) Corner radius tolerance (+/-)

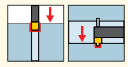
For tools, see pages: GHDR/L (short pocket) (331) • GHMPR/L (335) • GHMR/L (334) • GHMUR/L (336) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

CUTGRIP

GIG
Precision Double-Ended
Inserts for Grooving







M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX	BW	Tough ↔ Hard IC830	IC808	IC20	Recommended Machining Data f groove (mm/rev)
GIG 1.04-0.00	1.04	0.00	0.020	0.030	2.00	2.20		•		0.02-0.03
GIG 1.20-0.00	1.20	0.00	0.020	0.030	2.00	2.20		•		0.02-0.03
GIG 1.25-0.10	1.25	0.10	0.020	0.030	2.00	2.20	•	•		0.02-0.04
GIG 1.40-0.00	1.40	0.00	0.020	0.030	2.00	2.20		•		0.02-0.04
GIG 1.45-0.10	1.45	0.10	0.020	0.030	2.00	2.20	•	•		0.02-0.04
GIG 1.47-0.00	1.47	0.00	0.020	0.030	2.50	2.20		•		0.02-0.04
GIG 1.50-0.10	1.50	0.10	0.020	0.030	2.50	2.20	•	•		0.02-0.04
GIG 1.57-0.15	1.57	0.15	0.020	0.030	2.70	2.20		•		0.03-0.05
GIG 1.70-0.10	1.70	0.10	0.020	0.030	3.00	2.20		•		0.03-0.05
GIG 1.78-0.18	1.78	0.18	0.020	0.030	3.00	2.20		•		0.03-0.05
GIG 1.85-0.15	1.85	0.15	0.020	0.030	3.00	2.20	•	•		0.03-0.05
GIG 1.86-0.15	1.86	0.15	0.020	0.030	3.00	2.20		•		0.03-0.05
GIG 1.96-0.15	1.96	0.15	0.020	0.030	3.00	2.20		•		0.03-0.06
GIG 2.00-0.20	2.00	0.20	0.020	0.030	3.00	2.20	•	•	•	0.04-0.06
GIG 2.22-0.15	2.22	0.15	0.020	0.030	3.50	2.20		•		0.04-0.06
GIG 2.30-0.20	2.30	0.20	0.020	0.030	3.50	2.20	•	•		0.04-0.07

• DMIN for internal machining = 70 mm • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

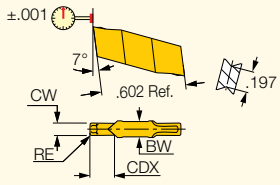
(2) Corner radius tolerance (+/-)

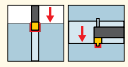
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

CUTGRIP

GIG
Precision Double-Ended
Inserts for Grooving







I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX	BW	Tough ↔ Hard IC830	IC808	IC20	Recommended Machining Data f groove (IPR)
GIG 1.04-0.00	.041	0	.00080	.0012	.079	.087		•		.0008-.0012
GIG 1.20-0.00	.047	0	.00080	.0012	.079	.087		•		.0008-.0012
GIG 1.25-0.10	.049	.004	.00080	.0012	.079	.087	•	•		.0008-.0016
GIG 1.40-0.00	.055	0	.00080	.0012	.079	.087		•		.0008-.0016
GIG 1.45-0.10	.057	.004	.00080	.0012	.079	.087	•	•		.0008-.0016
GIG 1.47-0.00	.058	0	.00080	.0012	.098	.087		•		.0008-.0016
GIG 1.50-0.10	.059	.004	.00080	.0012	.098	.087	•	•		.0008-.0016
GIG 1.57-0.15	.062	.006	.00080	.0012	.106	.087		•		.0012-.0020
GIG 1.70-0.10	.067	.004	.00078	.0012	.118	.087		•		.0012-.0020
GIG 1.78-0.18	.070	.007	.00078	.0012	.118	.087		•		.0012-.0020
GIG 1.85-0.15	.073	.006	.00078	.0012	.118	.087	•	•		.0012-.0020
GIG 1.86-0.15	.073	.006	.00078	.0012	.118	.087		•		.0012-.0020
GIG 1.96-0.15	.077	.006	.00078	.0012	.118	.087		•		.0012-.0024
GIG 2.00-0.20	.079	.008	.00078	.0012	.118	.087	•	•	•	.0016-.0024
GIG 2.22-0.15	.087	.006	.00078	.0012	.138	.087		•		.0016-.0024
GIG 2.30-0.20	.091	.008	.00078	.0012	.138	.087	•	•		.0016-.0028

• DMIN for internal machining = 2.76" • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

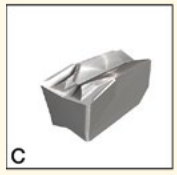
(2) Corner radius tolerance (+/-)

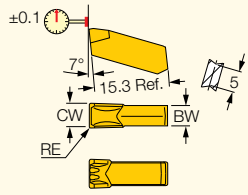
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

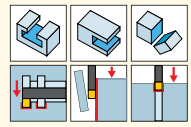
CUTGRIP

GIM-C

Parting and Grooving
Single-Sided Inserts for
Parting Bars, Hard Materials
and Tough Applications







M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	BW	Tough ↔ Hard IC328	IC830	IC354	IC908	IC20	Recommended Machining Data f groove (mm/rev)
GIM 3C	3.00	0.22	0.050	2.40	•	•	•	•	•	0.15-0.25
GIM 4C	4.00	0.25	0.050	3.40				•		0.15-0.25

• For cutting speed recommendations and user guide, see pages 382-400

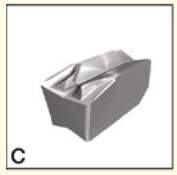
(1) Cutting width tolerance (+/-)

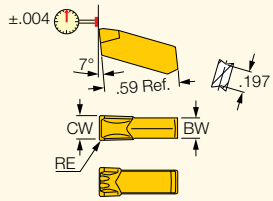
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334)

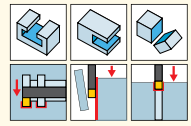
CUTGRIP

GIM-C

Parting and Grooving
Single-Sided Inserts for
Parting Bars, Hard Materials
and Tough Applications







I N C H

Designation	Dimensions CW	RE	CWTOL(1)	BW	Tough ↔ Hard IC328	IC830	IC354	IC908	IC20	Recommended Machining Data f groove (IPR)
GIM 3C	.118	.0087	.00196	.094	•	•	•	•	•	.0059-.0098
GIM 4C	.157	.0098	.00196	.134				•		.0059-.0098

• For cutting speed recommendations, see pages 382-400

(1) Cutting width tolerance (+/-)

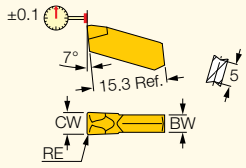
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334)

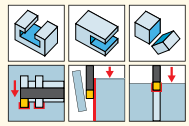
CUT-GRIP

GIM-J

Utility Single-Sided Inserts
for Parting and Grooving
Soft Materials, Tubes
and Small Diameters







M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	BW	Tough ↔ Hard IC328	IC830	IC54	IC354	IC908	IC20	Recommended Machining Data f groove (mm/rev)
GIM 2.2J	2.20	0.17	0.050	1.70	•	•	•	•	•	•	0.06-0.13
GIM 3J	3.00	0.25	0.050	2.40	•	•		•	•	•	0.08-0.15
GIM 4J	4.00	0.25	0.050	3.20	•	•		•	•	•	0.08-0.18

• For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

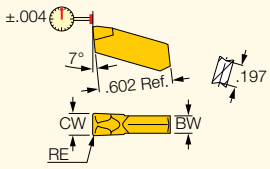
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

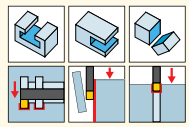
CUT-GRIP

GIM-J

Utility Single-Sided Inserts
for Parting and Grooving
Soft Materials, Tubes
and Small Diameters







I N C H

Designation	Dimensions CW	RE	CWTOL(1)	BW	Tough ↔ Hard IC328	IC830	IC54	IC354	IC908	IC20	Recommended Machining Data f groove (IPR)
GIM 2.2J	.087	.0067	.00196	.067	•	•	•	•	•	•	.0024-.0051
GIM 3J	.118	.0098	.00196	.094	•	•		•	•	•	.0031-.0059
GIM 4J	.157	.0098	.00196	.126	•	•		•	•	•	.0031-.0071

• For cutting speed recommendations, see pages 382-400

(1) Cutting width tolerance (+/-)

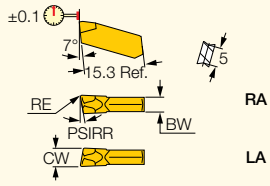
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

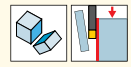
CUTGRIP

GIM-J-RA/LA

Utility Single-Sided Inserts
for Parting and Grooving
Soft Materials, Parting Tubes
and Small Diameters







M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	PSIRL	PSIRR	BW	Tough ↔ Hard IC656	IC328	IC830	IC54	IC354	IC908	IC20	Recommended Machining Data f groove (mm/rev)
GIM 2.2J-8LA	2.20	0.17	0.050	8.0	-	1.70		●			●	●	●	0.05-0.10
GIM 2.2J-8RA	2.20	0.17	0.050	-	8.0	1.70	●	●	●		●	●	●	0.05-0.10
GIM 2.2JS-15LA	2.20	0.02	0.050	15.0	-	1.70		●				●	●	0.05-0.10
GIM 2.2JS-15RA	2.20	0.02	0.050	-	15.0	1.70		●	●	●	●	●	●	0.05-0.10
GIM 3J-4LA	3.00	0.22	0.050	4.0	-	2.40					●		●	0.05-0.12
GIM 3J-4RA	3.00	0.25	0.050	-	4.0	2.40		●	●		●		●	0.05-0.12
GIM 3J-8LA	3.00	0.25	0.050	8.0	-	2.40		●			●	●	●	0.05-0.12
GIM 3J-8RA	3.00	0.25	0.050	-	8.0	2.40	●	●	●		●	●	●	0.05-0.12
GIM 3JS-15LA	3.00	0.02	0.050	15.0	-	2.40		●	●				●	0.05-0.12
GIM 3JS-15RA	3.00	0.02	0.050	-	15.0	2.40		●	●			●	●	0.05-0.12
GIM 4J-6LA	4.00	0.25	0.050	6.0	-	3.20							●	0.08-0.15
GIM 4J-6RA	4.00	0.25	0.050	-	6.0	3.20					●		●	0.08-0.15

• For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

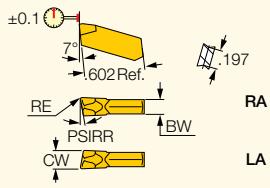
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

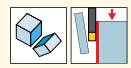
CUTGRIP

GIM-J-RA/LA

Utility Single-Sided Inserts
for Parting and Grooving
Soft Materials, Parting Tubes
and Small Diameters







I N C H

Designation	Dimensions CW	RE	CWTOL(1)	PSIRL	PSIRR	BW	Tough ↔ Hard IC656	IC328	IC830	IC54	IC354	IC908	IC20	Recommended Machining Data f groove (IPR)
GIM 2.2J-8LA	.087	.0067	.00196	8.0	-	.067		●			●	●	●	.0020-.0039
GIM 2.2J-8RA	.087	.0067	.00196	-	8.0	.067	●	●	●		●	●	●	.0020-.0039
GIM 2.2JS-15LA	.087	.0008	.00196	15.0	-	.067		●				●	●	.0020-.0039
GIM 2.2JS-15RA	.087	.0008	.00196	-	15.0	.067		●	●	●	●	●	●	.0020-.0039
GIM 3J-4LA	.118	.0087	.00196	4.0	-	.094					●		●	.0020-.0047
GIM 3J-4RA	.118	.0098	.00196	-	4.0	.094		●	●		●		●	.0020-.0047
GIM 3J-8LA	.118	.0098	.00196	8.0	-	.094		●			●	●	●	.0020-.0047
GIM 3J-8RA	.118	.0098	.00196	-	8.0	.094	●	●	●		●	●	●	.0020-.0047
GIM 3JS-15LA	.118	.0008	.00196	15.0	-	.094		●	●				●	.0020-.0047
GIM 3JS-15RA	.118	.0008	.00196	-	15.0	.094		●	●			●	●	.0020-.0047
GIM 4J-6LA	.157	.0098	.00196	6.0	-	.126							●	.0031-.0059
GIM 4J-6RA	.157	.0098	.00196	-	6.0	.126					●		●	.0031-.0059

• For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

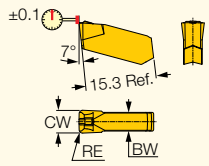
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

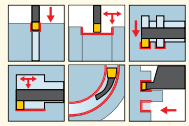
CUTGRIP

GIMN

Utility Single-Ended Inserts
for Grooving and Turning
Ductile Materials







M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	IC907	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIMN 302	3.00	0.20	0.050	0.050	2.40	●	0.30-1.20	0.07-0.11	0.04-0.09
GIMN 406	4.00	0.60	0.050	0.050	3.40	●	0.75-1.60	0.11-0.18	0.05-0.14

• DMIN for internal applications = 70 mm • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

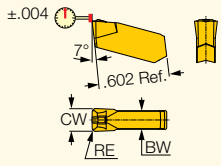
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334)

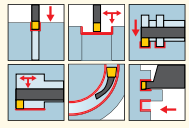
CUTGRIP

GIMN

Utility Single-Ended Inserts
for Grooving and Turning
Ductile Materials







I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	IC907	Recommended Machining Data a_p (inch)	f turn (IPR)	f groove (IPR)
GIMN 302	.118	.008	.00196	.0020	.094	●	.012-.047	.0027-.0043	.0016-.0035
GIMN 406	.157	.024	.00196	.0020	.134	●	.030-.063	.0043-.0071	.0020-.0055

• DMIN for internal applications = 2.76" • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

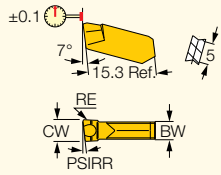
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334)

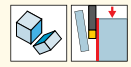
CUTGRIP

GIM-UT-RA/LA

Single-Ended Screw-Clamped Inserts for Parting at Low Feeds on CrNi Alloys and Low Carbon Steel







M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	PSIRR	BW	IC328	Recommended Machining Data f groove (mm/rev)
GIM 3UT-1.5RA	3.12	0.25	0.030	1.5	2.50	•	0.03-0.10

• For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

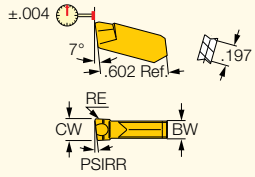
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334)

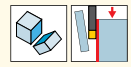
CUTGRIP

GIM-UT-RA/LA

Single-Ended Screw-Clamped Inserts for Parting at Low Feeds on CrNi Alloys and Low Carbon Steel







I N C H

Designation	Dimensions CW	RE	CWTOL(1)	PSIRR	BW	IC328	Recommended Machining Data f groove (IPR)
GIM 3UT-1.5RA	.123	.0098	.00118	1.5	.098	•	.0012-.0039

• For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

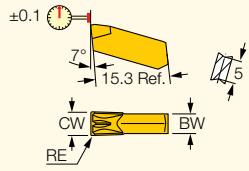
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334)

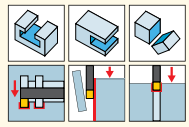
CUTGRIP

GIM-W

Single-Sided Inserts with Center Ridged Chipformer and Reinforced Edge for Parting and Grooving Alloy Steel







M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	BW	Tough ↔ Hard IC328	IC830	IC54	IC354	IC908	IC20	Recommended Machining Data f groove (mm/rev)
GIM 2.4	2.40	0.18	0.050	2.40				●	●	●	0.10-0.18
GIM 3	3.00	0.22	0.050	2.40	●	●	●	●	●	●	0.10-0.18
GIM 3.2	3.20	0.22	0.050	2.54	●	●	●	●	●	●	0.10-0.20
GIM 4	4.00	0.25	0.050	3.20	●	●	●	●	●	●	0.15-0.20

• For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

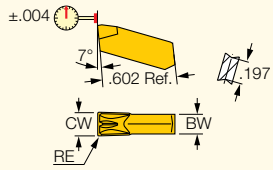
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334)

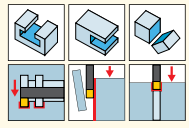
CUTGRIP

GIM-W

Single-Sided Inserts with Center Ridged Chipformer and Reinforced Edge for Parting and Grooving Alloy Steel







I N C H

Designation	Dimensions CW	RE	CWTOL(1)	BW	Tough ↔ Hard IC328	IC830	IC54	IC354	IC908	IC20	Recommended Machining Data f groove (IPR)
GIM 2.4	.094	.0071	.00196	.094				●	●	●	.0039-.0071
GIM 3	.118	.0087	.00196	.094	●	●	●	●	●	●	.0039-.0071
GIM 3.2	.126	.0087	.00196	.100	●	●	●	●	●	●	.0039-.0079
GIM 4	.157	.0098	.00196	.126	●	●	●	●	●	●	.0059-.0079

• For cutting speed recommendations, see pages 382-400

(1) Cutting width tolerance (+/-)

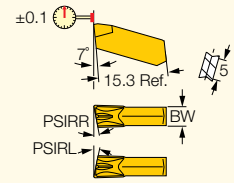
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334)

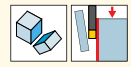
CUTGRIP

GIM-W-RA/LA

Single-Sided Screw-Clamped Inserts with Central Ridged Chipformer for Parting Alloy Steel







M E T R I C

Designation	Dimensions CW	RE	CWTOL[1]	PSIRL	PSIRR	BW	Tough ↔ Hard IC656	IC328	IC830	IC54	IC354	IC908	IC20	Recommended Machining Data f groove (mm/rev)
GIM 3-4LA	3.00	0.20	0.050	4.0	-	2.40		●			●		●	0.08-0.16
GIM 3-8LA	3.00	0.20	0.050	8.0	-	2.40		●		●	●	●	●	0.08-0.16
GIM 3S-15RA	3.00	0.22	0.050	-	15.0	2.40		●						0.08-0.16
GIM 3-4RA	3.00	0.25	0.050	-	4.0	2.40	●	●	●	●	●	●	●	0.08-0.16
GIM 3-8RA	3.00	0.25	0.050	-	8.0	2.40		●	●		●	●	●	0.08-0.16
GIM 3.2-4LA	3.20	0.22	0.050	4.0	-	2.50					●			0.08-0.16
GIM 3.2-4RA	3.20	0.22	0.050	-	4.0	2.50		●			●		●	0.08-0.16
GIM 3.2-8LA	3.20	0.22	0.050	8.0	-	2.50					●			0.08-0.16
GIM 3.2-8RA	3.20	0.22	0.050	-	8.0	2.50		●			●	●	●	0.08-0.16
GIM 4-4LA	4.00	0.25	0.050	4.0	-	3.20					●		●	0.10-0.16
GIM 4-4RA	4.00	0.25	0.050	-	4.0	3.20	●				●	●	●	0.10-0.16
GIM 4-8LA	4.00	0.25	0.050	8.0	-	3.20					●			0.10-0.16
GIM 4-8RA	4.00	0.25	0.050	-	8.0	3.20		●			●	●	●	0.10-0.16

• For cutting speed recommendations and user guide, see pages 382-400

[1] Cutting width tolerance (+/-)

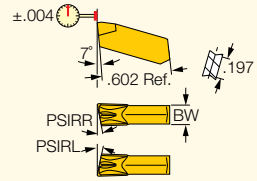
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334)

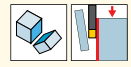
CUTGRIP

GIM-W-RA/LA

Single-Sided Screw-Clamped Inserts with Central Ridged Chipformer for Parting Alloy Steel







I N C H

Designation	Dimensions CW	RE	CWTOL[1]	PSIRL	PSIRR	BW	Tough ↔ Hard IC656	IC328	IC830	IC54	IC354	IC908	IC20	Recommended Machining Data f groove (IPR)
GIM 3-4LA	.118	.0079	.00196	4.0	-	.094		●			●		●	.0031-.0063
GIM 3-8LA	.118	.0079	.00196	8.0	-	.094		●		●	●	●	●	.0031-.0063
GIM 3S-15RA	.118	.0087	.00196	-	15.0	.094		●						.0031-.0063
GIM 3-4RA	.118	.0098	.00196	-	4.0	.094	●	●	●	●	●	●	●	.0031-.0063
GIM 3-8RA	.118	.0098	.00196	-	8.0	.094		●	●		●	●	●	.0031-.0063
GIM 3.2-4LA	.126	.0087	.00196	4.0	-	.098					●			.0031-.0063
GIM 3.2-4RA	.126	.0087	.00196	-	4.0	.098		●			●		●	.0031-.0063
GIM 3.2-8LA	.126	.0087	.00196	8.0	-	.098					●			.0031-.0063
GIM 3.2-8RA	.126	.0087	.00196	-	8.0	.098		●			●	●	●	.0031-.0063
GIM 4-4LA	.157	.0098	.00196	4.0	-	.126					●		●	.0039-.0063
GIM 4-4RA	.157	.0098	.00196	-	4.0	.126	●				●	●	●	.0039-.0063
GIM 4-8LA	.157	.0098	.00196	8.0	-	.126					●			.0039-.0063
GIM 4-8RA	.157	.0098	.00196	-	8.0	.126		●			●	●	●	.0039-.0063

• For cutting speed recommendations and user guide, see pages 382-400

[1] Cutting width tolerance (+/-)

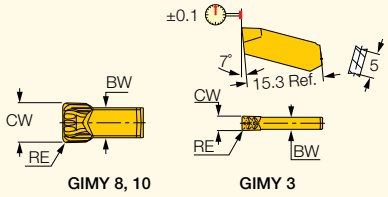
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334)

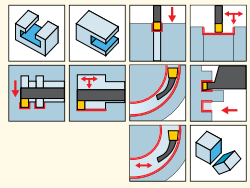
CUTGRIP

GIMY

Utility Single-Ended Inserts
for Grooving and Turning







M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	Tough ↔ Hard IC830	IC8250	IC20	IC806	IC4	IC804	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIMY 304	3.00	0.40	0.050	0.050	2.40	●	●	●	●	●	●	0.50-1.80	0.16-0.20	0.07-0.12

• DMIN for internal applications =70 mm • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

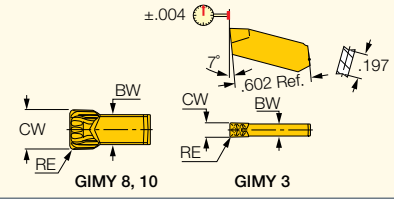
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

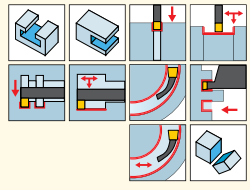
CUTGRIP

GIMY

Utility Single-Ended Inserts
for Grooving and Turning







I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	Tough ↔ Hard IC830	IC8250	IC20	IC806	IC4	IC804	Recommended Machining Data a_p (inch)	f turn (IPR)	f groove (IPR)
GIMY 304	.118	.016	.00196	.0020	.094	●	●	●	●	●	●	.020-.071	.0063-.0079	.0027-.0047

• DMIN for internal applications = 2.76" • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

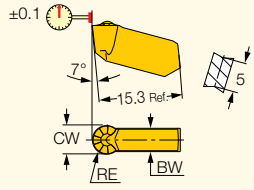
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

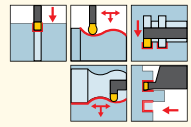
CUTGRIP

GIMY (full radius)

Utility Single-Ended Inserts
for Grooving and Profiling







M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	Tough ↔ Hard IC830	IC8250	IC808	IC908	IC20	IC20N	IC806	IC804	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIMY 315	3.00	1.50	0.050	0.050	2.40	●	●	●	●	●	●	●	●	0.00-1.50	0.18-0.26	0.07-0.13
GIMY 420	4.00	2.00	0.050	0.050	3.20	●	●	●	●	●	●	●	●	0.00-2.00	0.20-0.28	0.09-0.17

• DMIN for internal application=70 mm • Can cut arcs to 250° • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

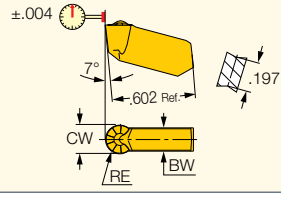
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

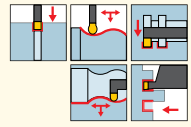
CUTGRIP

GIMY (full radius)

Utility Single-Ended Inserts
for Grooving and Profiling







I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	Tough ↔ Hard IC830	IC8250	IC808	IC908	IC20	IC20N	IC806	IC804	Recommended Machining Data a_p (inch)	f turn (IPR)	f groove (IPR)
GIMY 315	.118	.059	.00196	.0020	.094	●	●	●	●	●	●	●	●	.000-.059	.0071-.0102	.0027-.0051
GIMY 420	.157	.079	.00196	.0020	.126	●	●	●	●	●	●	●	●	.000-.079	.0079-.0110	.0035-.0067

• DMIN for internal application= 2.76" • Can cut arcs to 250° • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

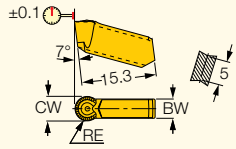
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

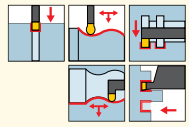
CUTGRIP

GIMY-F

Utility Single-Ended Inserts
for Grooving and Profiling
Ductile Materials







M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	IC808	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIMY 315F	3.00	1.50	0.050	0.050	2.40	●	0.00-1.50	0.18-0.26	0.07-0.13

• DMIN for internal applications =70 mm • Can cut arcs to 250° • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

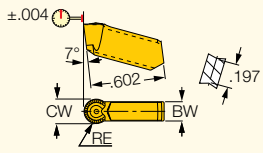
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

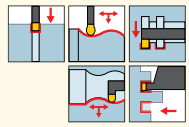
CUTGRIP

GIMY-F

Utility Single-Ended Inserts
for Grooving and Profiling
Ductile Materials







I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	IC808	Recommended Machining Data a_p (inch)	f turn (IPR)	f groove (IPR)
GIMY 315F	.118	.059	.00196	.0020	.094	●	.000-.059	.0071-.0102	.0028-.0051

• DMIN for internal applications = 2.76" • Can cut arcs to 250° • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

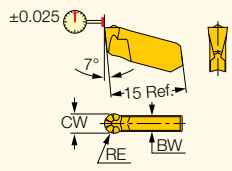
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

CUTGRIP

GIMY-UN

Utility Single-Ended Inserts
for External Undercutting





M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	CDX	IC8250	Recommended Machining Data f groove (mm/rev)
GIMY 315-UN	3.00	1.50	0.050	0.050	2.40	2.00	●	0.05-0.15
GIMY 420-UN	4.00	2.00	0.050	0.050	3.20	2.50	●	0.05-0.15

• For 45° undercutting on D 100 mm, regular GIMY inserts may be used. • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

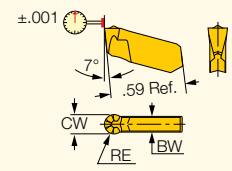
For tools, see pages: GHMUR/L (336)

CUTGRIP

GIMY-UN

Utility Single-Ended Inserts
for External Undercutting





I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	CDX	IC8250	Recommended Machining Data f groove (IPR)
GIMY 315-UN	.118	.059	.00200	.0020	.094	.079	●	.0020-.0059
GIMY 420-UN	.157	.079	.00200	.0020	.126	.098	●	.0020-.0059

• For 45° undercutting on D 3.94", regular GIMY inserts may be used. • For cutting speed recommendations and user guide, see pages 382-400

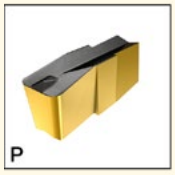
(1) Cutting width tolerance (+/-)

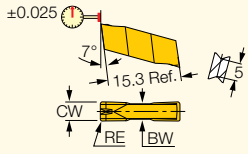
(2) Corner radius tolerance (+/-)

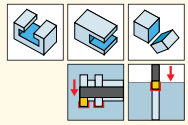
For tools, see pages: GHMUR/L (336)

CUTGRIP

GIP
Precision Double-Ended
Inserts for Grooving







M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX	BW	Tough ↔ Hard IC830	IC8250	IC808	IC908	IC20	IC20N	IC806	IC807	Recommended Machining Data f groove (mm/rev)
GIP 2.22-0.15	2.22	0.15	0.020	0.030	3.50	2.20	•		•	•	•			•	0.05-0.09
GIP 2.39-0.15	2.39	0.15	0.020	0.030	4.70	2.40	•		•	•	•			•	0.05-0.09
GIP 2.47-0.20	2.47	0.20	0.020	0.030	5.00	2.40	•		•	•	•	•		•	0.06-0.10
GIP 2.70-0.10	2.70	0.10	0.020	0.030	13.00	2.40	•		•	•	•			•	0.06-0.10
GIP 2.70-0.20	2.70	0.20	0.020	0.030	13.00	2.40			•		•				0.07-0.11
GIP 2.87-0.20	2.87	0.20	0.020	0.030	13.00	2.40	•		•	•	•				0.07-0.12
GIP 3.00-0.00	3.00	0.00	0.020	0.030	13.00	2.40	•		•		•				0.07-0.11
GIP 3.00-0.20	3.00	0.20	0.020	0.030	13.00	2.40	•		•	•	•		•	•	0.08-0.13
GIP 3.00-0.40	3.00	0.40	0.020	0.030	13.00	2.40					•				0.08-0.14
GIP 3.15-0.15	3.15	0.15	0.020	0.030	13.00	2.40	•	•	•	•	•	•			0.07-0.12
GIP 3.18-0.20	3.18	0.20	0.020	0.030	13.00	2.40	•	•	•	•	•			•	0.08-0.13
GIP 3.30-0.10	3.30	0.10	0.020	0.030	13.00	2.40	•	•	•		•				0.07-0.12
GIP 3.48-0.20	3.48	0.20	0.020	0.030	13.00	3.20		•			•				0.09-0.15
GIP 3.56-0.20	3.56	0.20	0.020	0.030	13.00	3.20		•			•				0.09-0.15
GIP 3.74-0.20	3.74	0.20	0.020	0.030	13.00	3.20		•	•		•				0.09-0.16
GIP 3.98-0.20	3.98	0.20	0.020	0.030	13.00	3.20	•	•	•	•	•			•	0.10-0.17
GIP 4.00-0.80	4.00	0.80	0.020	0.050	13.00	3.20					•				0.10-0.20
GIP 4.23-0.10	4.23	0.10	0.020	0.030	13.00	3.20	•	•	•		•				0.10-0.16

• DMIN for internal machining = 70 mm • For cutting speed recommendations and user guide, see pages 382-400

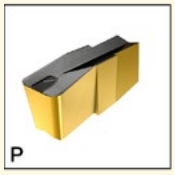
(1) Cutting width tolerance (+/-)

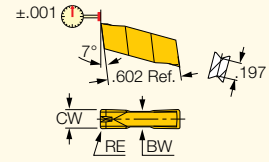
(2) Corner radius tolerance (+/-)

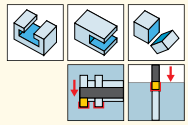
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

CUTGRIP

GIP
Precision Double-Ended
Inserts for Grooving







I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX	BW	Tough ↔ Hard IC830	IC8250	IC808	IC908	IC20	IC20N	IC806	IC807	Recommended Machining Data f groove (IPR)
GIP 2.22-0.15	.087	.0059	.00078	.0012	.138	.087	•		•	•	•			•	.0020-.0035
GIP 2.39-0.15	.094	.0059	.00078	.0012	.185	.094	•		•	•	•			•	.0020-.0035
GIP 2.47-0.20	.097	.0079	.00078	.0012	.197	.094	•		•	•	•	•		•	.0024-.0039
GIP 2.70-0.10	.106	.0039	.00078	.0012	.512	.094	•		•	•	•			•	.0024-.0039
GIP 2.70-0.20	.106	.0079	.00078	.0012	.512	.094			•		•				.0027-.0043
GIP 2.87-0.20	.113	.0079	.00078	.0012	.512	.094	•		•	•	•				.0027-.0047
GIP 3.00-0.00	.118	.0000	.00078	.0012	.512	.094	•		•		•				.0027-.0043
GIP 3.00-0.20	.118	.0079	.00078	.0012	.512	.094	•		•	•	•		•	•	.0031-.0051
GIP 3.00-0.40	.118	.0157	.00078	.0012	.512	.094					•				.0031-.0055
GIP 3.15-0.15	.124	.0059	.00078	.0012	.512	.094	•	•	•	•	•	•			.0027-.0047
GIP 3.18-0.20	.125	.0079	.00078	.0012	.512	.094	•	•	•	•	•			•	.0031-.0051
GIP 3.30-0.10	.130	.0039	.00078	.0012	.512	.094	•	•	•		•				.0027-.0047
GIP 3.48-0.20	.137	.0079	.00078	.0012	.512	.126		•			•				.0035-.0059
GIP 3.56-0.20	.140	.0079	.00078	.0012	.512	.126		•			•				.0035-.0059
GIP 3.74-0.20	.147	.0079	.00078	.0012	.512	.126		•	•		•				.0035-.0063
GIP 3.98-0.20	.157	.0079	.00078	.0012	.512	.126	•	•	•	•	•			•	.0039-.0067
GIP 4.00-0.80	.157	.0315	.00078	.0020	.512	.126					•				.0039-.0079
GIP 4.23-0.10	.167	.0039	.00078	.0012	.512	.126	•	•	•		•				.0039-.0063

• DMIN for internal machining = 2.76" • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

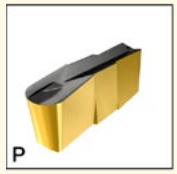
(2) Corner radius tolerance (+/-)

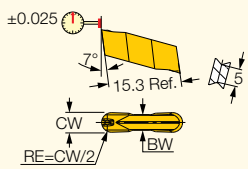
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

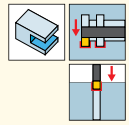
CUTGRIP

GIP (full radius)

Precision Double-Ended Full Radius Inserts for Grooving







M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX	BW	Tough ↔ Hard IC830	IC8250	IC808	IC20	IC804	Recommended Machining Data f groove (mm/rev)
GIP 3.00-1.50	3.00	1.50	0.020	0.050	12.30	2.40				●	●	0.08-0.15
GIP 3.18-1.59	3.18	1.59	0.020	0.050	12.20	2.40	●	●	●	●		0.08-0.16
GIP 3.98-1.99	3.98	1.99	0.020	0.050	11.80	3.20		●		●		0.10-0.20
GIP 4.78-2.39	4.78	2.39	0.020	0.050	11.40	4.80		●		●		0.12-0.22

• For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

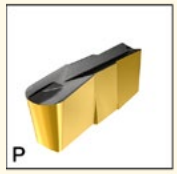
(2) Corner radius tolerance (+/-)

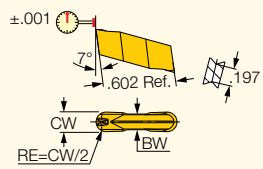
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

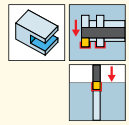
CUTGRIP

GIP (full radius)

Precision Double-Ended Full Radius Inserts for Grooving







I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX	BW	Tough ↔ Hard IC830	IC8250	IC808	IC20	IC804	Recommended Machining Data f groove (IPR)
GIP 3.00-1.50	.118	.059	.00078	.0020	.484	.094				●	●	.0031-.0059
GIP 3.18-1.59	.125	.063	.00078	.0020	.480	.094	●	●	●	●		.0031-.0063
GIP 3.98-1.99	.157	.078	.00078	.0020	.465	.126		●		●		.0039-.0079
GIP 4.78-2.39	.188	.094	.00078	.0020	.449	.189		●		●		.0047-.0087

• For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

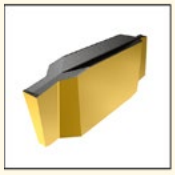
(2) Corner radius tolerance (+/-)

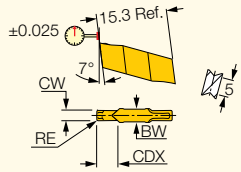
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

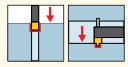
CUTGRIP

GIP (flat top CW<BW)

Flat Top Precision Double-Ended Inserts for Grooving







M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX	BW	Tough ↔ Hard IC830	IC54	IC808	IC908	IC20	IC20N	IC807	Recommended Machining Data f groove (mm/rev)
GIP 0.50-0.00	0.50	0.00	0.020	0.030	1.00	2.20		•	•		•			0.02-0.04
GIP 0.80-0.00	0.80	0.00	0.020	0.030	1.60	2.20		•	•		•			0.02-0.04
GIP 1.04-0.00	1.04	0.00	0.020	0.030	2.00	2.20	•		•	•	•		•	0.02-0.05
GIP 1.20-0.00	1.20	0.00	0.020	0.030	2.00	2.20	•		•	•	•		•	0.03-0.05
GIP 1.40-0.00	1.40	0.00	0.020	0.030	2.00	2.20	•		•	•	•			0.03-0.06
GIP 1.47-0.00	1.47	0.00	0.020	0.030	2.50	2.20	•		•	•	•			0.03-0.06
GIP 1.57-0.15	1.57	0.15	0.020	0.030	2.70	2.20	•		•	•	•		•	0.04-0.06
GIP 1.70-0.10	1.70	0.10	0.020	0.030	3.00	2.20	•		•	•	•	•		0.04-0.07
GIP 1.78-0.18	1.78	0.18	0.020	0.030	3.00	2.20	•		•	•	•			0.04-0.07
GIP 1.96-0.15	1.96	0.15	0.020	0.030	3.00	2.20	•	•	•	•	•	•	•	0.04-0.08

• DMIN for internal machining = 70 mm • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

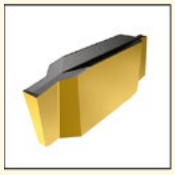
(2) Corner radius tolerance (+/-)

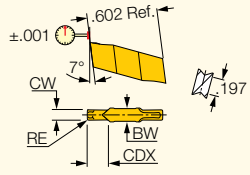
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334)

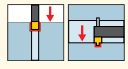
CUTGRIP

GIP (flat top CW<BW)

Flat Top Precision Double-Ended Inserts for Grooving







I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX	BW	Tough ↔ Hard IC830	IC54	IC808	IC908	IC20	IC20N	IC807	Recommended Machining Data f groove (IPR)
GIP 0.50-0.00	.020	0	.00078	.0012	.039	.087		•	•		•			.0008-.0016
GIP 0.80-0.00	.031	0	.00078	.0012	.063	.087		•	•		•			.0008-.0016
GIP 1.04-0.00	.041	0	.00078	.0012	.079	.087	•		•	•	•		•	.0008-.0020
GIP 1.20-0.00	.047	0	.00078	.0012	.079	.087	•		•	•	•		•	.0012-.0020
GIP 1.40-0.00	.055	0	.00078	.0012	.079	.087	•		•	•	•			.0012-.0024
GIP 1.47-0.00	.058	0	.00078	.0012	.098	.087	•		•	•	•			.0012-.0024
GIP 1.57-0.15	.062	.006	.00078	.0012	.106	.087	•		•	•	•		•	.0016-.0024
GIP 1.70-0.10	.067	.004	.00078	.0012	.118	.087	•		•	•	•	•		.0016-.0027
GIP 1.78-0.18	.070	.007	.00078	.0012	.118	.087	•		•	•	•			.0016-.0027
GIP 1.96-0.15	.077	.006	.00078	.0012	.118	.087	•	•	•	•	•	•	•	.0016-.0031

• DMIN for internal machining = 2.76" • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

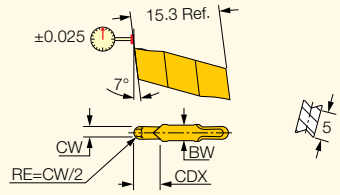
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334)

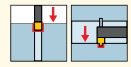
CUTGRIP

GIP (full radius CW<BW)

Flat Top Precision Double-Ended Inserts with Full Radius for Grooving







M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX	BW	Tough ↔ Hard IC830	IC808	IC908	IC20	IC806	IC807	Recommended Machining Data f groove (mm/rev)
GIP 1.00-0.50	1.00	0.50	0.020	0.050	2.00	2.20		●	●			●	0.03-0.06
GIP 1.40-0.70	1.40	0.70	0.020	0.050	2.00	2.20		●	●				0.04-0.07
GIP 1.57-0.79	1.57	0.79	0.020	0.050	2.70	2.20	●	●	●	●		●	0.04-0.08
GIP 2.00-1.00	2.00	1.00	0.020	0.050	3.00	2.20	●	●	●	●	●	●	0.05-0.11
GIP 2.39-1.20	2.39	1.20	0.020	0.050	4.70	2.40		●	●	●		●	0.06-0.12

• DMIN for internal machining = 70 mm • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

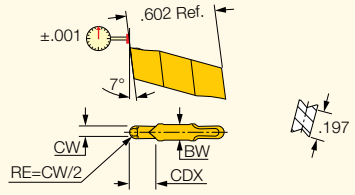
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

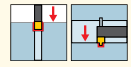
CUTGRIP

GIP (full radius CW<BW)

Flat Top Precision Double-Ended Inserts with Full Radius for Grooving







I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX	BW	Tough ↔ Hard IC830	IC808	IC908	IC20	IC806	IC807	Recommended Machining Data f groove (IPR)
GIP 1.00-0.50	.039	.020	.00078	.0020	.079	.087		●	●			●	.0012-.0024
GIP 1.40-0.70	.055	.028	.00078	.0020	.079	.087		●	●				.0016-.0027
GIP 1.57-0.79	.062	.031	.00078	.0020	.106	.087	●	●	●	●		●	.0016-.0031
GIP 2.00-1.00	.079	.039	.00078	.0020	.118	.087	●	●	●	●	●	●	.0020-.0043
GIP 2.39-1.20	.094	.047	.00078	.0020	.185	.094		●	●	●		●	.0024-.0047

• DMIN for internal machining = 2.76" • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

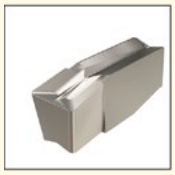
(2) Corner radius tolerance (+/-)

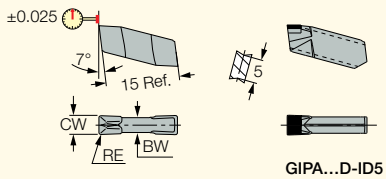
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

CUTGRIP

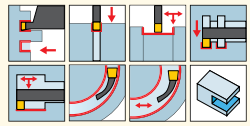
GIPA (W=3-6)

Double-Ended Precision Ground Inserts with a Polished Top Rake for Machining Aluminum





GIPA...D-ID5



M E T R I C

Designation	Dimensions CW	RE	CWTOL[2]	RETOL[3]	BW	Tough ↔ Hard IC1520	ID5	IC20	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIPA 3.00-0.20	3.00	0.20	0.020	0.030	2.40	●		●	0.25-1.80	0.12-0.20	0.08-0.14
GIPA 3.00-0.20-D [1]	3.00	0.20	0.020	0.030	2.45		●		0.25-1.80	0.12-0.25	0.09-0.16
GIPA 4.00-0.40	4.00	0.40	0.020	0.030	3.20	●		●	0.50-2.40	0.14-0.31	0.10-0.20

• DMIN for internal machining = 70 mm • For cutting speed recommendations and user guide, see pages 382-400

[1] Single-ended PCD tipped insert

[2] Cutting width tolerance (+/-)

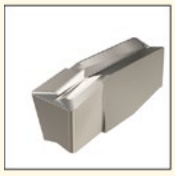
[3] Corner radius tolerance (+/-)

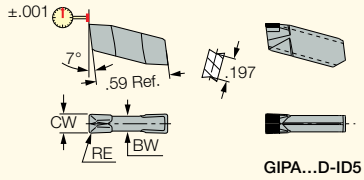
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

CUTGRIP

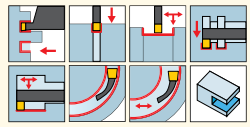
GIPA (W=.118-.236)

Double-Ended Precision Ground Inserts with a Polished Top Rake for Machining Aluminum





GIPA...D-ID5



I N C H

Designation	Dimensions CW	RE	CWTOL[2]	RETOL[3]	BW	Tough ↔ Hard IC1520	ID5	IC20	Recommended Machining Data a_p (inch)	f turn (IPR)	f groove (IPR)
GIPA 3.00-0.20	.118	.0079	.00078	.0012	.094	●		●	.010-.071	.0047-.0079	.0031-.0055
GIPA 3.00-0.20-D [1]	.118	.0079	.00078	.0012	.096		●		.010-.071	.0047-.0098	.0035-.0063
GIPA 4.00-0.40	.157	.0157	.00078	.0012	.126	●		●	.020-.094	.0055-.0122	.0039-.0079

• DMIN for internal machining = 2.76" • For cutting speed recommendations and user guide, see pages 382-400

[1] Single-ended PCD tipped insert

[2] Cutting width tolerance (+/-)

[3] Corner radius tolerance (+/-)

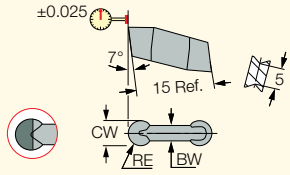
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

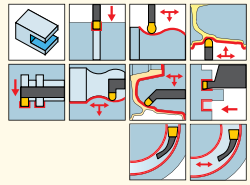
CUTGRIP

GIPA (full radius W=3-6)

Precision Double-Ended Inserts with Polished Top Rake for Machining Aluminum







M E T R I C

Designation	Dimensions CW	RE	CWTOL[4]	RETOL[5]	BW	Tough ↔ Hard IC1520	ID5	IC20	IC806	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIPA 3.00-1.50	3.00	1.50	0.020	0.050	2.40	●		●		0.00-1.50	0.15-0.30	0.08-0.16
GIPA 3.00-1.50-D [1]	3.00	1.50	0.020	0.050	2.40		●			0.00-1.50	0.19-0.36	0.09-0.19
GIPA 4.00-2.00	4.00	2.00	0.020	0.050	3.20	●		●	●	0.00-2.00	0.20-0.43	0.10-0.22
GIPA 4.00-2.00-D [1]	4.00	2.00	0.020	0.050	3.20		●			0.00-2.00	0.25-0.53	0.12-0.26
GIPA 4.00-2.00YZ-D [2]	4.00	2.00	0.020	0.050	3.20		●			0.00-2.00	0.25-0.53	0.12-0.26

- For cutting speed recommendations and user guide, see pages 382-400

[1] Single-ended PCD tipped insert
[2] Single-ended molded PCD chipformer tipped insert
[3] Single-ended flat PCD tipped insert with chip deflector
[4] Cutting width tolerance (+/-)
[5] Corner radius tolerance (+/-)

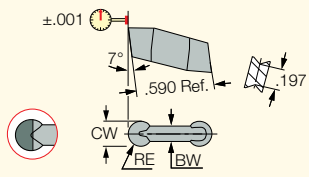
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327)
• NQCH-GHSR/L-JHP (330)

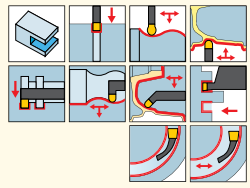
CUTGRIP

GIPA (round W=.118-.236)

Precision Double-Ended Inserts with Polished Top Rake for Machining Aluminum







I N C H

Designation	Dimensions CW	RE	CWTOL[4]	RETOL[5]	BW	Tough ↔ Hard IC1520	ID5	IC20	IC806	Recommended Machining Data a_p (inch)	f turn (IPR)	f groove (IPR)
GIPA 3.00-1.50	.118	.059	.00078	.0020	.094	●		●		.000-.059	.0059-.0118	.0031-.0063
GIPA 3.00-1.50-D [1]	.118	.059	.00078	.0020	.094		●			.000-.059	.0075-.0142	.0035-.0075
GIPA 4.00-2.00	.157	.079	.00078	.0020	.126	●		●	●	.000-.079	.0079-.0169	.0039-.0087
GIPA 4.00-2.00-D [1]	.157	.079	.00078	.0020	.126		●			.000-.079	.0098-.0209	.0047-.0102
GIPA 4.00-2.00YZ-D [2]	.157	.079	.00078	.0020	.126		●			.000-.079	.0098-.0209	.0047-.0102

- For cutting speed recommendations and user guide, see pages 382-400

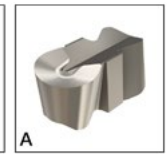
[1] Single-ended PCD tipped insert
[2] Single-ended molded PCD chipformer tipped insert
[3] Single-ended flat PCD tipped insert with chip deflector
[4] Cutting width tolerance (+/-)
[5] Corner radius tolerance (+/-)

For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327)
• NQCH-GHSR/L-JHP (330)


D


YZ-D

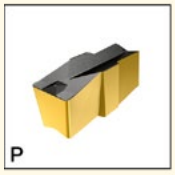

YZ

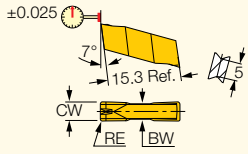

A

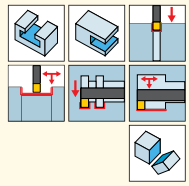
CUTGRIP

GIP-E

Precision Double-Ended Inserts for Grooving and Turning







M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	CDX	Tough ↔ Hard IC830	IC8250	IC808	IC908	IC20	IC20N	IC5010	IC428	IC806	IC807	IC804	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIP 3.00E-0.00	3.00	0.00	0.020	0.030	2.40	13.00	●											0.00-1.80	0.12-0.16	0.07-0.11
GIP 3.00E-0.20	3.00	0.20	0.020	0.030	2.40	13.00	●	●	●	●		●			●	●	●	0.25-1.80	0.15-0.20	0.08-0.13
GIP 3.00E-0.40	3.00	0.40	0.020	0.030	2.40	13.00	●	●	●	●	●	●	●	●	●	●		0.50-1.80	0.17-0.22	0.08-0.14
GIP 3.00E-0.80	3.00	0.80	0.020	0.050	2.40	13.00		●										1.00-1.80	0.19-0.26	0.08-0.15
GIP 4.00E-0.40	4.00	0.40	0.020	0.030	3.20	13.00	●	●	●	●	●	●	●	●	●	●	●	0.50-2.40	0.19-0.26	0.10-0.18
GIP 4.00E-0.60	4.00	0.60	0.020	0.050	3.20	13.00	●	●	●	●	●		●	●				0.75-2.40	0.21-0.28	0.10-0.19
GIP 4.00E-0.80	4.00	0.80	0.020	0.050	3.20	13.00	●	●	●	●	●		●	●	●	●		1.00-2.40	0.22-0.31	0.10-0.20
GIP 4.78E-0.55	4.78	0.55	0.020	0.050	4.00	13.00	●	●	●		●		●	●				0.70-2.80	0.21-0.31	0.12-0.20

• DMIN for internal machining = 70 mm • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

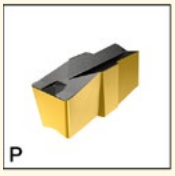
(2) Corner radius tolerance (+/-)

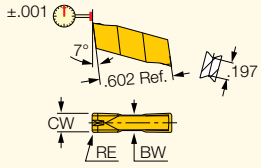
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

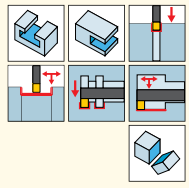
CUTGRIP

GIP-E

Precision Double-Ended Inserts for Grooving and Turning







I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	CDX	Tough ↔ Hard IC830	IC8250	IC808	IC908	IC20	IC20N	IC5010	IC428	IC806	IC807	IC804	Recommended Machining Data a_p (inch)	f turn (IPR)	f groove (IPR)
GIP 3.00E-0.00	.118	.0000	.00080	.0012	.094	.512	●											.000-.071	.0047-.0063	.0027-.0043
GIP 3.00E-0.20	.118	.0079	.00078	.0012	.094	.512	●	●	●	●		●			●	●	●	.010-.071	.0059-.0079	.0031-.0051
GIP 3.00E-0.40	.118	.0157	.00078	.0012	.094	.512	●	●	●	●	●	●	●	●	●	●		.020-.071	.0067-.0087	.0031-.0055
GIP 3.00E-0.80	.118	.0315	.00080	.0020	.094	.512		●										.039-.071	.0075-.0102	.0031-.0059
GIP 4.00E-0.40	.157	.0157	.00078	.0012	.126	.512	●	●	●	●	●	●	●	●	●	●	●	.020-.094	.0075-.0102	.0039-.0071
GIP 4.00E-0.60	.157	.0236	.00078	.0020	.126	.512	●	●	●	●	●		●	●				.030-.094	.0083-.0110	.0039-.0075
GIP 4.00E-0.80	.157	.0315	.00078	.0020	.126	.512	●	●	●	●	●		●	●	●	●		.039-.094	.0087-.0122	.0039-.0079
GIP 4.78E-0.55	.188	.0216	.00078	.0020	.157	.512	●	●	●		●		●	●				.028-.110	.0083-.0122	.0047-.0079

• DMIN for internal machining = 2.76" • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

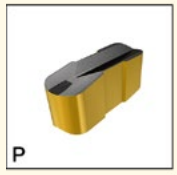
(2) Corner radius tolerance (+/-)

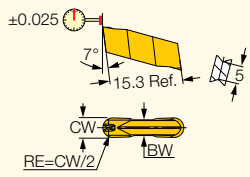
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

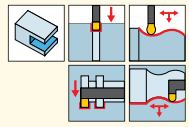
CUTGRIP

GIP-E (full radius)

Precision Double-Ended Full Radius Inserts for Profiling and Grooving







M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	CDX	Tough ↔ Hard IC830	IC8250	IC808	IC908	IC20	IC5010	IC428	IC807	IC804	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIP 3.00E-1.50	3.00	1.50	0.020	0.050	2.40	12.30	●	●	●	●	●			●	●	0.00-1.50	0.18-0.28	0.08-0.15
GIP 4.00E-2.00	4.00	2.00	0.020	0.050	3.20	11.80	●	●	●	●	●	●	●	●		0.00-2.00	0.20-0.34	0.10-0.20

• DMIN for internal machining = 70 mm • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

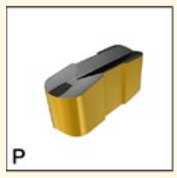
(2) Corner radius tolerance (+/-)

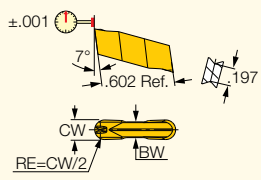
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

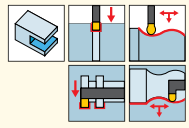
CUTGRIP

GIP-E (full radius)

Precision Double-Ended Full Radius Inserts for Profiling and Grooving







I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	CDX	Tough ↔ Hard IC830	IC8250	IC808	IC908	IC20	IC5010	IC428	IC807	IC804	Recommended Machining Data a_p (inch)	f turn (IPR)	f groove (IPR)
GIP 3.00E-1.50	.118	.059	.00078	.0020	.094	.484	●	●	●	●	●			●	●	.000-.059	.0071-.0110	.0031-.0059
GIP 4.00E-2.00	.157	.079	.00078	.0020	.126	.465	●	●	●	●	●	●	●	●		.000-.079	.0079-.0134	.0039-.0079

• DMIN for internal machining = 2.76" • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

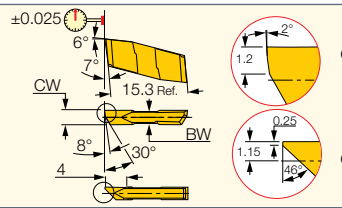
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

CUTGRIP

GIPM-A46 / GIP-1250

Precision Ground Back Turning Inserts for External Machining on Swiss-Type and Automatic Machines





M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	Tough ↔ Hard IC328	IC908	IC20	Recommended Machining Data a_p (mm)	f turn (mm/rev)
GIPM 2.35-A46R/L	2.35	0.05	0.050	0.030	2.20	●	●		0.10-1.00	0.02-0.15
GIP 3.00-1250R/L	3.00	0.00	0.050	0.030	2.40	●		●	0.10-1.00	0.02-0.15

• Toolholder seat needs to be modified according to insert profile to ensure clearance • For grooving, reduce cutting speed by 30% and feed by 50% • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

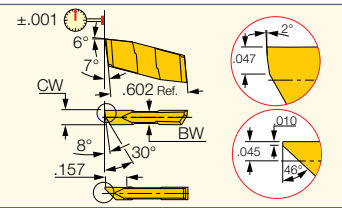
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

CUTGRIP

GIPM-A46 / GIP-1250

Precision Ground Back Turning Inserts for External Machining on Swiss-Type and Automatic Machines





I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	Tough ↔ Hard IC328	IC908	IC20	Recommended Machining Data a_p (inch)	f turn (IPR)
GIPM 2.35-A46R/L	.093	.002	.00196	.0012	.087	●	●		.004-.039	.0008-.0059
GIP 3.00-1250R/L	.118	0	.00196	.0012	.094	●		●	.004-.039	.0008-.0059

• Toolholder seat needs to be modified according to insert profile to ensure clearance • For grooving, reduce cutting speed by 30% and feed by 50% • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

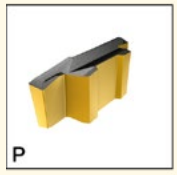
(2) Corner radius tolerance (+/-)

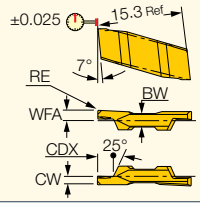
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

CUTGRIP

GIP-RX/LX

Precision Double-Ended
Inserts for External Grooving
Next to Shoulder





M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX	BW	WFA	Tough ↔ Hard IC830	IC808	Recommended Machining Data f groove (mm/rev)
GIP 0.80-0.00R/LX	0.80	0.00	0.020	0.030	1.60	2.40	1.6	•		0.02-0.04
GIP 1.00-0.00R/LX	1.00	0.00	0.020	0.030	2.00	2.40	1.6	•		0.02-0.05
GIP 1.19-0.1RX	1.19	0.10	0.020	0.030	2.00	2.40	1.6		•	0.03-0.05
GIP 1.57-0.15 R/LX	1.57	0.15	0.020	0.030	2.70	2.40	1.7	•		0.04-0.06
GIP 1.57-0.79RX	1.57	0.79	0.020	0.030	2.80	2.40	1.7		•	0.04-0.08
GIP 2.00-0.15 R/LX	2.00	0.15	0.020	0.030	3.00	2.40	1.7	•		0.05-0.08
GIP 2.39-0.15 RX	2.39	0.15	0.020	0.030	3.50	2.40	1.7	•		0.05-0.09
GIP 2.39-1.19RX	2.39	1.19	0.020	0.050	3.90	2.40	1.7		•	0.06-0.12

• Toolholder seat needs to be modified according to insert profile to ensure clearance. • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

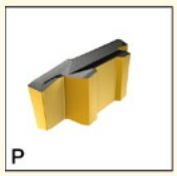
(2) Corner radius tolerance (+/-)

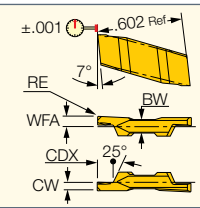
For tools, see pages: GHMPR/L (335) • GHMR/L (334)

CUTGRIP

GIP-RX/LX

Precision Double-Ended
Inserts for External Grooving
Next to Shoulder





I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX	BW	WFA	Tough ↔ Hard IC830	IC808	Recommended Machining Data f groove (IPR)
GIP 0.80-0.00R/LX	.031	.0000	.00078	.0012	.063	.094	.06	•		.0008-.0016
GIP 1.00-0.00R/LX	.039	.0000	.00078	.0012	.079	.094	.06	•		.0008-.0020
GIP 1.19-0.1RX	.047	.0039	.00078	.0012	.079	.094	.06		•	.0012-.0020
GIP 1.57-0.15 R/LX	.062	.0059	.00078	.0012	.106	.094	.07	•		.0016-.0024
GIP 1.57-0.79RX	.062	.0311	.00078	.0012	.110	.094	.07		•	.0016-.0031
GIP 2.00-0.15 R/LX	.079	.0059	.00078	.0012	.118	.094	.07	•		.0020-.0031
GIP 2.39-0.15 RX	.094	.0059	.00078	.0012	.138	.094	.07	•		.0020-.0035
GIP 2.39-1.19RX	.094	.0469	.00078	.0020	.154	.094	.07		•	.0024-.0047

• Toolholder seat needs to be modified according to insert profile to ensure clearance. • For cutting speed recommendations and user guide, see pages 382-400

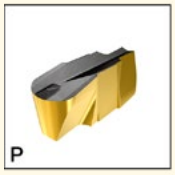
(1) Cutting width tolerance (+/-)

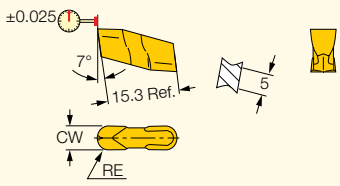
(2) Corner radius tolerance (+/-)

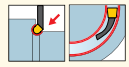
For tools, see pages: GHMPR/L (335) • GHMR/L (334)

CUTGRIP

GIP-UN
Precision Double-Ended Inserts
for External Undercutting







M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	DMIN	BW	CDX	Tough ↔ Hard IC830	IC8250	IC808	IC20	Recommended Machining Data f groove (mm/rev)
GIP 3.00-1.50UN	3.00	1.50	0.050	0.050	35.00	2.40	4.00	●	●	●	●	0.05-0.15
GIP 4.00-2.0UN	4.00	2.00	0.050	0.050	35.00	3.20	4.00		●		●	0.05-0.15

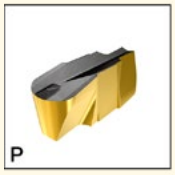
- Not recommended for turning. • For undercutting at 45° and D100 mm, other GIP inserts apply as well
- For cutting speed recommendations and user guide, see pages 382-400

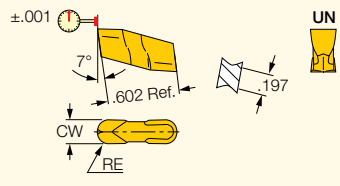
(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)

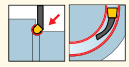
For tools, see pages: GHDR/L (short pocket) (331) • GHMPR/L (335) • GHMR/L (334) • GHMUR/L (336)

CUTGRIP

GIP-UN
Precision Double-Ended Inserts
for External Undercutting







I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	DMIN	BW	CDX	Tough ↔ Hard IC830	IC8250	IC808	IC20	Recommended Machining Data f groove (IPR)
GIP 3.00-1.50UN	.118	.059	.00196	.0020	1.378	.094	.157	●	●	●	●	.0020-.0059
GIP 4.00-2.0UN	.157	.079	.00196	.0020	1.378	.126	.157		●		●	.0020-.0059

- Not recommended for turning. • For undercutting at 45° and D 3.94", other GIP inserts apply as well
- For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)

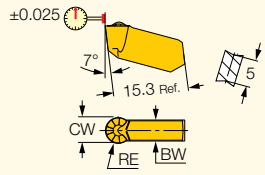
For tools, see pages: GHDR/L (short pocket) (331) • GHMPR/L (335) • GHMR/L (334) • GHMUR/L (336)

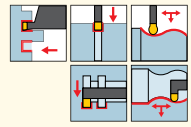
CUTGRIP

GIPY

Single-Ended Full Radius Sharp Edged Precision Inserts for Profiling High Temperature Alloys







M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	Tough ↔ Hard IC20	IC320	IC806	IC1017	IC907	IC4	IC804	Recommended Machining Data f turn (mm/rev)	f groove (mm/rev)
GIPY 3.00-1.50	3.00	1.50	0.020	0.050	2.40	•	•	•	•	•	•	•	0.19-0.28	0.08-0.15
GIPY 4.00-2.00	4.00	2.00	0.020	0.050	3.20	•	•	•	•	•	•	•	0.22-0.37	0.10-0.20

• Can cut arcs to 250° • DMIN for internal machining = 70 mm • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

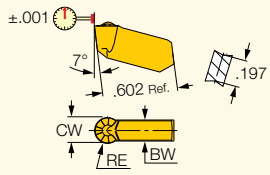
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

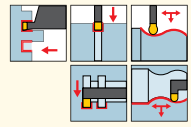
CUTGRIP

GIPY

Single-Ended Full Radius Sharp Edged Precision Inserts for Profiling High Temperature Alloys







I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	Tough ↔ Hard IC20	IC320	IC806	IC1017	IC907	IC4	IC804	Recommended Machining Data f turn (IPR)	f groove (IPR)
GIPY 3.00-1.50	.118	.059	.00078	.0020	.094	•	•	•	•	•	•	•	.0075-.0110	.0031-.0059
GIPY 4.00-2.00	.157	.079	.00078	.0020	.126	•	•	•	•	•	•	•	.0087-.0146	.0039-.0079

• Can cut arcs to 250° • DMIN for internal machining = 2.76" • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

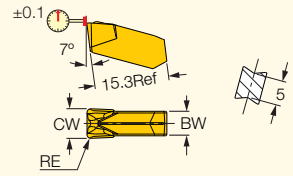
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

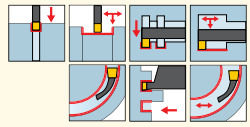
CUT-GRIP

GIMT

Utility Single-Ended Inserts
for Grooving and Turning







M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	Tough ↔ Hard IC830	IC8250	IC808	IC07	IC806	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIMT 302	3.00	0.20	0.050	0.050	2.40	●	●	●	●	●	0.50-1.80	0.10-0.22	0.07-0.15
GIMT 304	3.00	0.40	0.050	0.050	2.40	●	●	●	●	●	0.50-1.80	0.10-0.22	0.07-0.15
GIMT 402	4.00	0.20	0.050	0.050	3.40	●	●	●	●	●	0.50-2.40	0.15-0.25	0.09-0.20
GIMT 404	4.00	0.40	0.050	0.050	3.40	●	●	●	●	●	0.50-2.40	0.15-0.25	0.09-0.20

• DMIN for internal applications = 70 mm • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

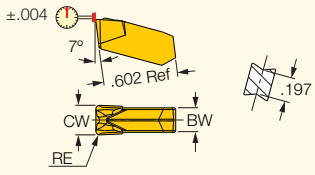
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

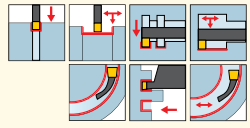
CUT-GRIP

GIMT

Utility Single-Ended Inserts
for Grooving and Turning







I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	Tough ↔ Hard IC830	IC8250	IC808	IC07	IC806	Recommended Machining Data a_p (inch)	f turn (IPR)	f groove (IPR)
GIMT 302	.118	.008	.00196	.0020	.094	●	●	●	●	●	.020-.071	.0039-.0087	.0027-.0059
GIMT 304	.118	.016	.00196	.0020	.094	●	●	●	●	●	.020-.071	.0039-.0087	.0027-.0059
GIMT 402	.157	.008	.00196	.0020	.134	●	●	●	●	●	.020-.094	.0059-.0098	.0035-.0079
GIMT 404	.157	.016	.00196	.0020	.134	●	●	●	●	●	.020-.094	.0059-.0098	.0035-.0079

• DMIN for internal applications = 2.76" • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

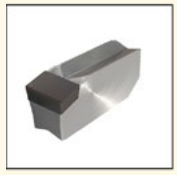
(2) Corner radius tolerance (+/-)

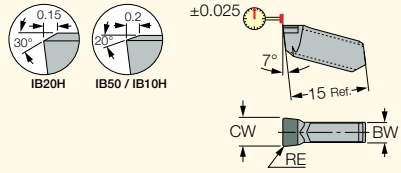
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

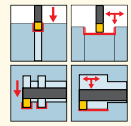
CUTGRIP

GITM

CBN Tipped Inserts for Turning and Grooving on Hard Ferrous Materials







HARD MATERIALS

M E T R I C

Designation	Dimensions CW	RE	RETOL(1)	CWTOL(2)	BW	Tough ↔ Hard IB50	IB10H	IB20H	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GITM 2.00K-0.2	2.00	0.20	0.050	0.025	1.75	●			0.00-0.30	0.02-0.07	0.02-0.05
GITM 3.00K-0.20	3.00	0.20	0.050	0.020	2.40	●	●	●	0.00-0.30	0.02-0.07	0.02-0.05
GITM 4.00K-0.20	4.00	0.20	0.050	0.020	3.20	●	●	●	0.00-0.40	0.03-0.09	0.02-0.07

• DMIN for internal machining = 70 mm • For cutting speed recommendations and user guide, see pages 382-400

(1) Corner radius tolerance (+/-)

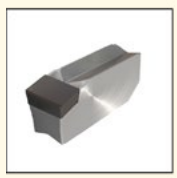
(2) Cutting width tolerance (+/-)

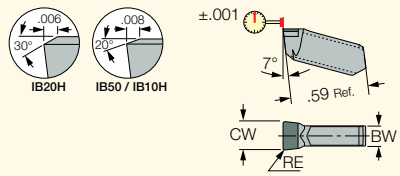
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

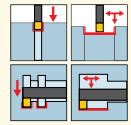
CUTGRIP

GITM

CBN Tipped Inserts for Turning and Grooving on Hard Ferrous Materials







HARD MATERIALS

I N C H

Designation	Dimensions CW	RE	RETOL(1)	CWTOL(2)	BW	Tough ↔ Hard IB50	IB10H	IB20H	Recommended Machining Data a_p (inch)	f turn (IPR)	f groove (IPR)
GITM 2.00K-0.2	.079	.008	.0020	.00098	.069	●			.000-.012	.0008-.0027	.0008-.0020
GITM 3.00K-0.20	.118	.008	.0020	.00078	.094	●	●	●	.000-.012	.0008-.0027	.0008-.0020
GITM 4.00K-0.20	.157	.008	.0020	.00078	.126	●	●	●	.000-.016	.0012-.0035	.0008-.0027

• DMIN for internal machining = 2.76" • For cutting speed recommendations and user guide, see pages 382-400

(1) Corner radius tolerance (+/-)

(2) Cutting width tolerance (+/-)

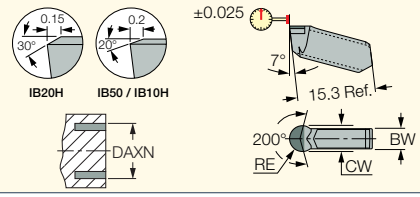
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

CUTGRIP

GITM (full radius)

Full Radius CBN Tipped Inserts for Grooving and Turning on Hard Ferrous Materials





HARD MATERIALS

M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	DAXN(3)	Tough ↔ Hard IB50	IB10H	IB20H	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GITM 3.00K-1.50	3.00	1.50	0.020	0.050	2.40	160.0	●	●	●	0.00-0.30	0.03-0.10	0.02-0.06
GITM 4.00K-2.00	4.00	2.00	0.020	0.050	3.20	160.0	●	●	●	0.00-0.40	0.04-0.14	0.02-0.09

• DMIN for internal machining = 70 mm • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

(3) Minimum axial grooving diameter

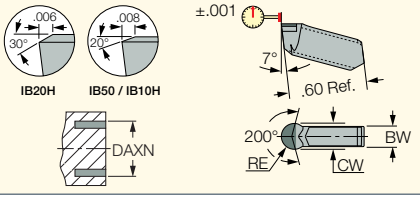
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

CUTGRIP

GITM (full radius)

Full Radius CBN Tipped Inserts for Grooving and Turning on Hard Ferrous Materials





HARD MATERIALS

I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	DAXN(3)	Tough ↔ Hard IB50	IB10H	IB20H	Recommended Machining Data a_p (inch)	f turn (IPR)	f groove (IPR)
GITM 3.00K-1.50	.118	.059	.00078	.0020	.094	6.30	●	●	●	.000-.012	.0012-.0039	.0008-.0024
GITM 4.00K-2.00	.157	.079	.00078	.0020	.126	6.30	●	●	●	.000-.016	.0016-.0055	.0008-.0035

• DMIN for internal machining = 2.76" • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

(3) Minimum axial grooving diameter

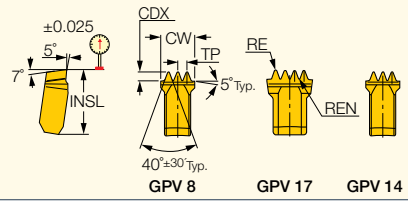
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

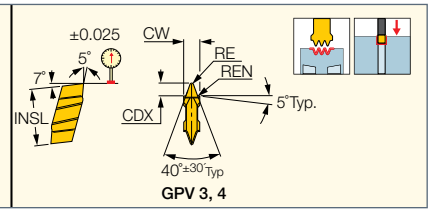
CUTGRIP

GPV

Precision Inserts for Grooving
Multi V-Ribbed Pulleys







M E T R I C

Designation	Dimensions CW	TP[5]	CDX	RE	REN	NT[6]	INSL	Tough ↔ Hard IC8250	IC5010	IC428	Recommended Machining Data f groove (mm/rev)
GPV 3-2.34-1 [1]	2.80	2.34	2.21	0.32	0.20	1	15.30	●	●		0.06-0.15
GPV 4-3.56-1 [1]	4.03	3.56	3.42	0.45	0.30	1	15.30	●	●	●	0.06-0.15

• Toolholder seat needs to be modified according to insert profile to ensure clearance. • For cutting speed recommendations and user guide, see pages 382-400

[1] Use holders which are suitable for GIP 3 / GIP 4
[2] Use holders which are suitable for GIMY 808
[3] Use holders which are suitable for TIGER 14
[4] Use holders which are suitable for TIGER 17
[5] Thread pitch
[6] Tooth count

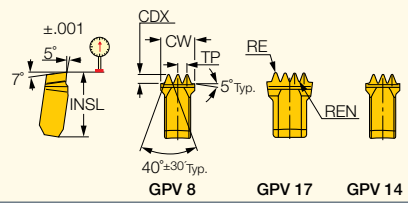
For tools, see pages: GHDR/L (short pocket) (331) • GHMPR/L (335) • GHMR/L (334)

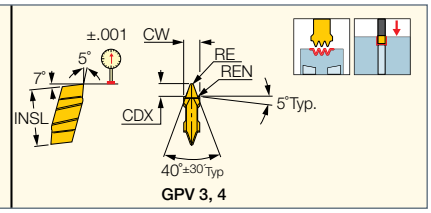
CUTGRIP

GPV

Precision Inserts for Grooving
Multi V-Ribbed Pulleys







I N C H

Designation	Dimensions CW	TP mm[5]	CDX	RE	REN	NT[6]	INSL	Tough ↔ Hard IC8250	IC5010	IC428	Recommended Machining Data f groove (IPR)
GPV 3-2.34-1 [1]	.110	.092	.087	.013	.008	1	.602	●	●		.0024-.0059
GPV 4-3.56-1 [1]	.159	.140	.135	.018	.012	1	.602	●	●	●	.0024-.0059

• Toolholder seat needs to be modified according to insert profile to ensure clearance. • For cutting speed recommendations and user guide, see pages 382-400

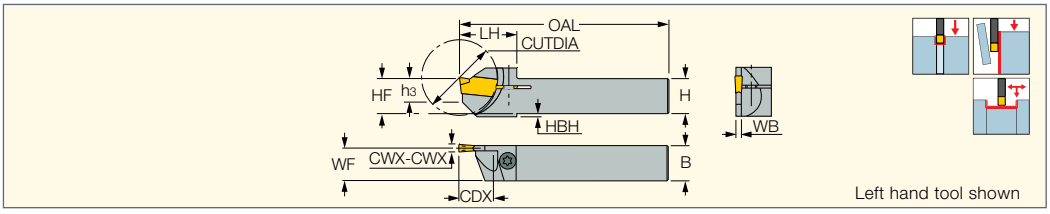
[1] Use holders which are suitable for GIP 3 / GIP 4
[2] Use holders which are suitable for GIMY 808
[3] Use holders which are suitable for TIGER 14
[4] Use holders which are suitable for TIGER 17
[5] Thread pitch
[6] Tooth count

For tools, see pages: GHDR/L (short pocket) (331) • GHMPR/L (335) • GHMR/L (334)

CUTGRIP

PHSR/L

External Machining Holders
for Swiss-Type and
Automatic Machines



M E T R I C

Designation	CWN(1)	CWX(2)	CUTDIA(3)	H	HF	B	OAL	WF	h3	LH	HBH	WB		
PHSR/L 10-2.4	2.40	3.18	20.0	10.0	10.0	10.0	150.00	9.00	8.0	18.0	2.0	1.90	SR 16-236 P	T-15/3
PHSR/L 12-2.4	2.40	3.18	25.0	12.0	12.0	12.0	150.00	11.10	7.0	20.0	-	1.90	SR 16-236 P	T-15/3
PHSR/L 16-2.4	2.40	3.18	32.0	16.0	16.0	16.0	150.00	15.10	8.0	24.1	-	1.90	SR 16-236 P	T-15/3

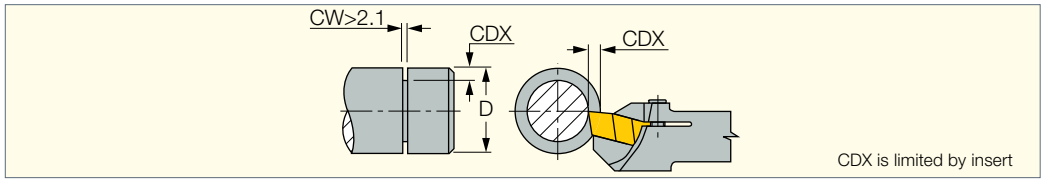
- CDX=Max depth capacity, see chart below
- For user guide, see pages 382-400

(1) Minimum cutting width
(2) Maximum cutting width
(3) Limited by part diameter

For inserts, see pages: GDMW 2.4 (366)
For holders, see pages: SBTH-JHP (833)

Grooving Depth

Grooving Depth CDX per
Diameter for Width > 2.1 mm

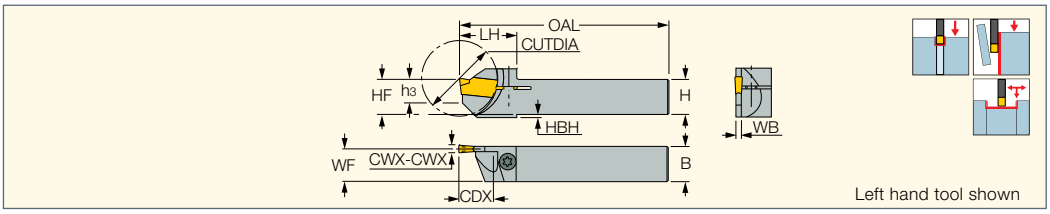


CDX	5.0	4.5	4.0	3.5	3.0	2.5	2.3	2.0	1.7
D	10.5	10.8	11.5	12.6	14.5	17	20	25	34

CUTGRIP

PHSR/L

External Machining Holders
for Swiss-Type and
Automatic Machines



I N C H

Designation	CWN(1)	CWX(2)	CUTDIA(3)	H	HF	B	OAL	WF	h3	LH	HBH	WB		
PHSR/L 9.5-2.4	.094	.125	.790	.375	.375	.375	5.910	.340	.320	.710	.10	.075	SR 16-236 P	T-15/3
PHSR/L 10-2.4	.094	.125	.787	.394	.394	.394	5.906	.354	.315	.709	.08	.075	SR 16-236 P	T-15/3
PHSR/L 12.7-2.4	.094	.125	1.000	.500	.500	.500	5.900	.460	.320	.790	-	.075	SR 16-236 P	T-15/3
PHSR/L 16-2.4	.094	.125	1.260	.630	.630	.630	5.906	.594	.315	.949	-	.075	SR 16-236 P	T-15/3

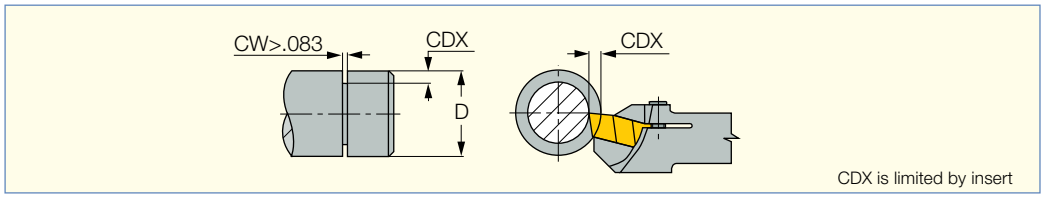
- CDX=Max depth capacity, see chart below
- For user guide, see pages 382-400

(1) Minimum cutting width
(2) Maximum cutting width
(3) Limited by part diameter

For inserts, see pages: GDMW 2.4 (366)
For holders, see pages: SBTH-JHP (833)

Grooving Depth

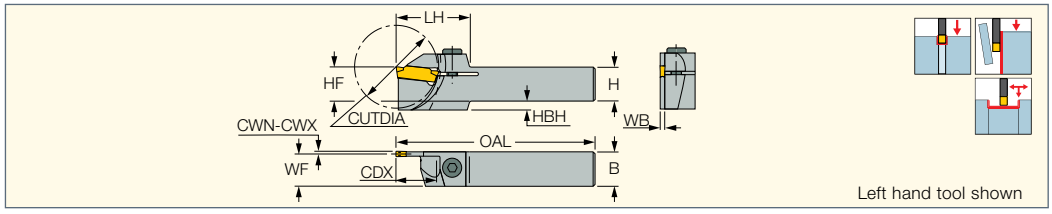
Grooving Depth CDX per
Diameter for Width >.083"



CDX	.196	.177	.157	.137	.118	.098	.090	.078	.067
D	.413	.425	.452	.496	.570	.669	.787	.984	1.34

CUTGRIP

PHGR/L
Holders for External Grooving and Turning



M E T R I C

Designation	CWN(1)	CWX(2)	CUTDIA(3)	CDX	H	HF	B	OAL	LH	WF	HBH	WB		
PHGR/L 16-2.4	2.40	3.18	34.0	17.00	16.0	16.0	16.0	110.00	33.0	15.10	5.5	1.90	SR M5X16 DIN912	HW 4.0

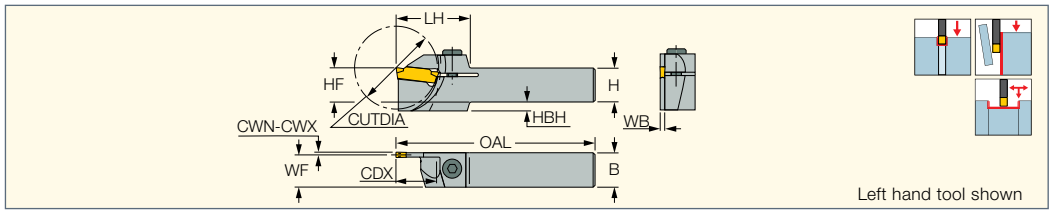
- For user guide, see pages 382-400

(1) Minimum cutting width
(2) Maximum cutting width
(3) Maximum parting diameter

For inserts, see pages: GDMW 2.4 (366)

CUTGRIP

PHGR/L
Holders for External Grooving and Turning



I N C H

Designation	CWN(1)	CWX(2)	CUTDIA(3)	CDX	H	HF	B	OAL	LH	WF	HBH	WB		
PHGR/L 16-2.4	.094	.125	1.339	.669	.630	.630	.630	4.331	1.299	.594	.22	.075	SR M5X16 DIN912	HW 4.0

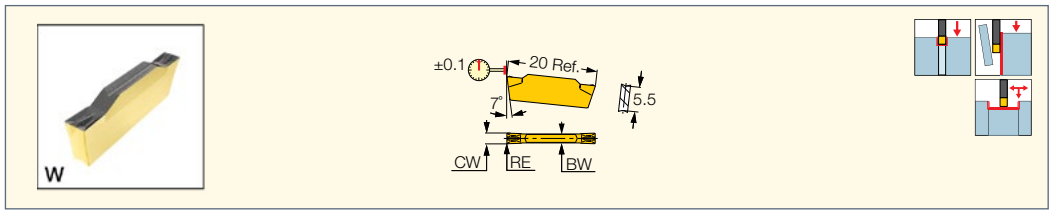
- For user guide, see pages 382-400

(1) Minimum cutting width
(2) Maximum cutting width
(3) Maximum parting diameter

For inserts, see pages: GDMW 2.4 (366)

CUTGRIP

GDMW 2.4
Utility Double-Ended Inserts for External Turning, Grooving and Parting



M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	CDX(3)	Tough ↔ Hard IC830	IC808	IC908	IC20	IC20N	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GDMW 2.4	2.40	0.18	0.040	0.030	2.00	18.00	●	●	●	●	●	0.25-1.50	0.07-0.12	0.05-0.08

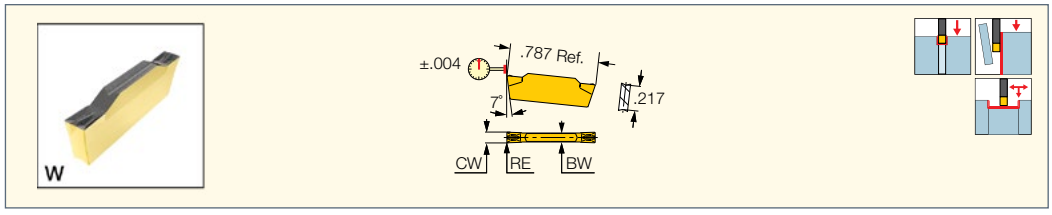
- For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
(3) Cutting depth maximum

For tools, see pages: PHGR/L (366) • PHSR/L (365)

CUTGRIP

GDMW 2.4
Utility Double-Ended Inserts for External Turning, Grooving and Parting



I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	CDX(3)	Tough ↔ Hard IC830	IC808	IC908	IC20	IC20N	Recommended Machining Data a_p (inch)	f turn (IPR)	f groove (IPR)
GDMW 2.4	.094	.007	.00157	.0012	.079	.709	●	●	●	●	●	.010-.059	.0027-.0047	.0020-.0031

- For cutting speed recommendations and user guide, see pages 382-400

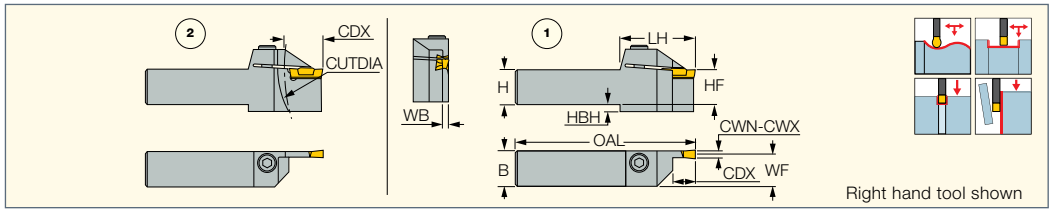
(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
(3) Cutting depth maximum

For tools, see pages: PHGR/L (366) • PHSR/L (365)

HELI-GRIP

HELIR/L

External Holders for Turning, Grooving and Parting



M E T R I C

Designation	CDX(2)	CWN(3)	CWX(4)	Fig.	CUTDIA(5)	H	HF	B	WF	OAL	LH	WB	HBH
HELIR/L 1212-3T12	12.00	3.00	3.18	1.	-	12.0	12.0	12.0	10.80	135.00	30.0	2.40	4.0
HELIR/L 1616-3T12	12.00	3.00	3.18	1.	-	16.0	16.0	16.0	14.80	135.00	30.0	2.40	-
HELIR/L 1616-4T12	12.00	4.00	4.76	1.	-	16.0	16.0	16.0	14.40	135.00	29.0	3.20	-
HELIR/L 1616-3T20 (1)	-	3.00	3.18	2.	40.0	16.0	16.0	16.0	14.80	140.00	36.4	2.40	-
HELIR/L 1616-4T20	-	4.00	4.76	2.	40.0	16.0	16.0	16.0	14.40	140.00	38.0	3.20	4.0

• For tool type as shown in Fig.2, CDX for grooving is limited by the part diameter Dmax, for grooving depth capacity, see table below • For user guide, see pages 382-400

(1) DGN inserts are not suitable for this tool

(2) Does not depend on the workpiece diameter

(3) Minimum cutting width

(4) Maximum cutting width

(5) Maximum parting diameter

For inserts, see pages: GRIPA (370) • GRIPA (full radius) (371) • GRIP (368) • GRIP (full radius) (369) • DGN/DGNC/DGNM-C (505) • HGN-C (372) • DGR/L-C DGRC/LC-C (506) • DGN/DGNM-J/JS/JT (508) • HGN-J (374) • HGR/L-C (373) • HGR/L-J/JS (375) • DGR/L-J/JS (510) • DGN-UT/UA (515) • HGN-UT (376) • DGN-MF (507)

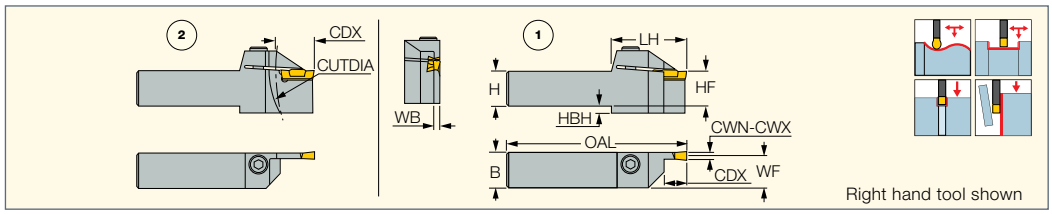
Spare Parts

Designation		
HELIR/L 1212-3T12	SR M5X16 DIN912	HW 4.0
HELIR/L 1616-3T12	SR M5X16 DIN912	HW 4.0
HELIR/L 1616-4T12	SR M5X16 DIN912	HW 4.0
HELIR/L 1616-3T20	SR M6X16 DIN912	HW 5.0
HELIR/L 1616-4T20	SR M6X20 DIN912	HW 5.0

HELI-GRIP

HELIR/L

External Holders for Turning, Grooving and Parting



I N C H

Designation	CDX(2)	CWN(3)	CWX(4)	Fig.	CUTDIA(5)	H	HF	B	WF	OAL	LH	WB	HBH
HELIR/L 12.7-3T12	.470	.118	.125	1.	-	.500	.500	.500	.450	5.300	1.200	.094	.16
HELIR/L 1616-3T12	.472	.118	.125	1.	-	.630	.630	.630	.583	5.315	1.181	.094	-
HELIR/L 1616-4T12	.472	.157	.187	1.	-	.630	.630	.630	.567	5.315	1.142	.126	-
HELIR/L 1616-3T20 (1)	-	.118	.125	2.	1.575	.630	.630	.630	.583	5.512	1.433	.094	-
HELIR/L 1616-4T20	-	.157	.187	2.	1.575	.630	.630	.630	.567	5.512	1.496	.126	.16

• For tool type as shown in Fig.2, CDX for grooving is limited by the part diameter Dmax, for grooving depth capacity, see table below • For user guide, see pages 382-400

(1) DGN inserts are not suitable for this tool

(2) Does not depend on the workpiece diameter

(3) Minimum cutting width

(4) Maximum cutting width

(5) Maximum parting diameter

For inserts, see pages: GRIPA (370) • GRIPA (full radius) (371) • GRIP (368) • GRIP (full radius) (369) • DGN/DGNC/DGNM-C (505) • HGN-C (372) • DGR/L-C DGRC/LC-C (506) • DGN/DGNM-J/JS/JT (508) • HGN-J (374) • HGR/L-C (373) • HGR/L-J/JS (375) • DGR/L-J/JS (510) • DGN-UT/UA (515) • HGN-UT (376) • DGN-MF (507)

Spare Parts

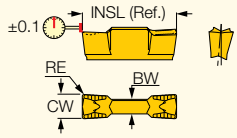
Designation		
HELIR/L 12.7-3T12	SR M5X16 DIN912	HW 4.0
HELIR/L 1616-3T12	SR M5X16 DIN912	HW 4.0
HELIR/L 1616-4T12	SR M5X16 DIN912	HW 4.0
HELIR/L 1616-3T20	SR M6X16 DIN912	HW 5.0
HELIR/L 1616-4T20	SR M6X20 DIN912	HW 5.0

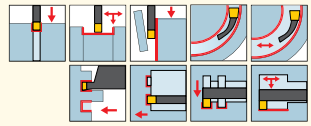
HELI-GRIP

GRIP

Utility Double-Ended Inserts for External, Internal and Face Machining







No depth penetration limit

M E T R I C

Designation	Dimensions CW	CWTOL(1)	RE	RETOL(2)	INSL	BW	Tough ↔ Hard IC830	IC8250	IC08	IC808	IC908	IC418	IC5010	IC806	IC807	IC804	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GRIP 3002Y	3.00	0.050	0.20	0.050	15.80	2.30	●	●	●	●	●			●	●	●	0.25-1.80	0.14-0.18	0.07-0.11
GRIP 3003Y	3.00	0.050	0.30	0.050	15.80	2.30	●	●	●	●	●	●	●	●			0.40-1.80	0.15-0.19	0.07-0.11
GRIP 318-040Y	3.18	0.050	0.40	0.050	15.80	2.30	●			●	●	●		●			0.50-1.90	0.17-0.22	0.07-0.12
GRIP 4002Y	4.00	0.050	0.20	0.050	19.00	2.80	●	●	●	●	●			●	●		0.25-2.40	0.16-0.21	0.09-0.14
GRIP 4004Y	4.00	0.050	0.40	0.050	19.00	2.80	●	●	●	●	●	●	●	●	●	●	0.50-2.40	0.18-0.24	0.09-0.15
GRIP 476-080Y	4.76	0.050	0.80	0.050	19.00	3.10	●	●		●	●	●		●			1.00-2.80	0.21-0.33	0.10-0.20

• For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

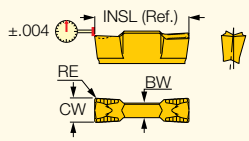
For tools, see pages: DGTR/L (503) • HELIR/L (367)

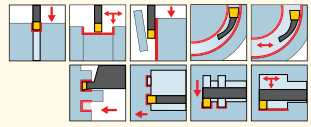
HELI-GRIP

GRIP

Utility Double-Ended Inserts for External, Internal and Face Machining







No depth penetration limit

I N C H

Designation	Dimensions CW	CWTOL(1)	RE	RETOL(2)	INSL	BW	Tough ↔ Hard IC830	IC8250	IC08	IC808	IC908	IC418	IC5010	IC806	IC807	IC804	Recommended Machining Data a_p (inch)	f turn (IPR)	f groove (IPR)
GRIP 3002Y	.118	.00196	.0079	.0020	.622	.091	●	●	●	●	●			●	●	●	.010-.071	.0055-.0071	.0027-.0043
GRIP 3003Y	.118	.00196	.0118	.0020	.622	.091	●	●	●	●	●	●	●	●			.016-.071	.0059-.0075	.0027-.0043
GRIP 318-040Y	.125	.00196	.0157	.0020	.622	.091	●			●	●	●		●			.020-.075	.0067-.0087	.0027-.0047
GRIP 4002Y	.157	.00196	.0079	.0020	.748	.110	●	●	●	●	●			●	●		.010-.094	.0063-.0083	.0035-.0055
GRIP 4004Y	.157	.00196	.0157	.0020	.748	.110	●	●	●	●	●	●	●	●	●	●	.020-.094	.0071-.0094	.0035-.0059
GRIP 476-080Y	.187	.00196	.0315	.0020	.748	.122	●	●		●	●	●		●			.039-.110	.0083-.0130	.0039-.0079

• For cutting speed recommendations and user guide, see pages 382-400

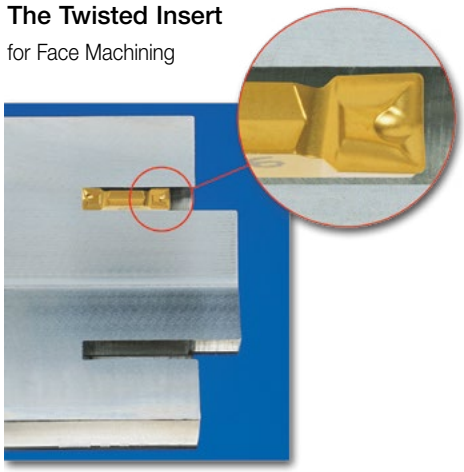
(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

For tools, see pages: DGTR/L (503) • HELIR/L (367)

The Twisted Insert

for Face Machining



The double-ended, twisted insert body makes it possible to machine deeper than the inserts' length.
A unique chipformer for controlled chip flow in axial and radial directions.

The rear angle is slanted in relation to the frontal edge so it does not come into contact with the machined groove surface as the tool penetrates deeply into the workpiece.

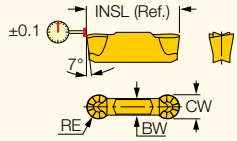


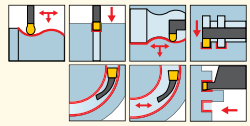
HELI-GRIP

GRIP (full radius)

Utility Double-Ended Full Radius Inserts for External, Internal and Face Machining







No depth penetration limit

M E T R I C

Designation	Dimensions CW	RE	CWTOL[1]	INSL	BW	Tough ↔ Hard IC830	IC8250	IC08	IC808	IC908	IC418	IC5010	IC806	IC807	IC804	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)	f face-groove (mm/rev)	f face-turn (mm/rev)
GRIP 3015Y	3.00	1.50	0.050	15.80	2.10	•	•	•	•	•	•	•	•	•	•	0.00-1.50	0.18-0.26	0.07-0.13	0.08-0.20	0.10-0.20
GRIP 318-159Y	3.18	1.59	0.050	15.80	2.30				•	•			•			0.00-1.50	0.19-0.28	0.07-0.13	0.08-0.20	0.10-0.20
GRIP 4020Y	4.00	2.00	0.050	19.00	2.80	•	•	•	•	•	•	•	•	•	•	0.00-2.00	0.20-0.34	0.09-0.17	0.10-0.24	0.15-0.30
GRIP 476-238Y	4.76	2.38	0.050	19.00	3.20				•	•	•		•			0.00-2.30	0.21-0.40	0.10-0.20	0.10-0.24	0.15-0.30

• For cutting speed recommendations and user guide, see pages 382-400

[1] Cutting width tolerance (+/-)

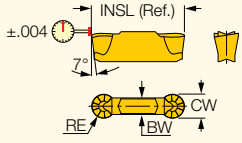
For tools, see pages: DGTR/L (503) • HELIR/L (367)

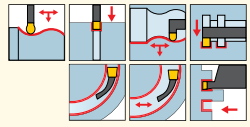
HELI-GRIP

GRIP (full radius)

Utility Double-Ended Full Radius Inserts for External, Internal and Face Machining







No depth penetration limit

I N C H

Designation	Dimensions CW	RE	CWTOL[1]	INSL	BW	Tough ↔ Hard IC830	IC8250	IC08	IC808	IC908	IC418	IC5010	IC806	IC807	IC804	Recommended Machining Data a_p (inch)	f turn (IPR)	f groove (IPR)	f face-groove (IPR)	f face-turn (IPR)
GRIP 3015Y	.118	.059	.00196	.622	.083	•	•	•	•	•	•	•	•	•	•	.000-.059	.0071-.0102	.0027-.0051	.0031-.0079	.0039-.0079
GRIP 318-159Y	.125	.063	.00196	.622	.091				•	•			•			.000-.059	.0075-.0110	.0027-.0051	.0031-.0079	.0039-.0079
GRIP 4020Y	.157	.079	.00196	.748	.110	•	•	•	•	•	•	•	•	•	•	.000-.079	.0079-.0134	.0035-.0067	.0039-.0094	.0059-.0118
GRIP 476-238Y	.187	.094	.00196	.748	.126				•	•	•		•			.000-.091	.0083-.0157	.0039-.0079	.0039-.0094	.0059-.0118

• For cutting speed recommendations and user guide, see pages 382-400

[1] Cutting width tolerance (+/-)

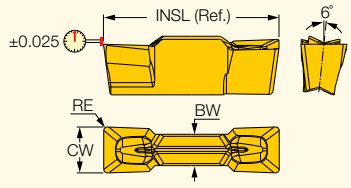
For tools, see pages: DGTR/L (503) • HELIR/L (367)

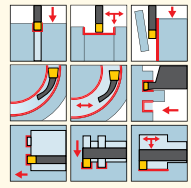
HELIGRIP

GRIPA

Ground Double-Ended Inserts for External, Internal and Face Machining







M E T R I C

Designation	Dimensions CW	CWTOL(1)	RE	RETOL(2)	INSL	BW	IC07	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)	f face-groove (mm/rev)	f face-turn (mm/rev)
GRIPA 3.00-0.40	3.00	0.020	0.40	0.030	16.00	2.28	●	0.25-1.80	0.15-0.19	0.07-0.11	0.08-0.14	0.12-0.20
GRIPA 4.00-0.40	4.00	0.020	0.40	0.030	19.02	2.82	●	0.50-2.40	0.18-0.24	0.09-0.15	0.10-0.20	0.14-0.31

• For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

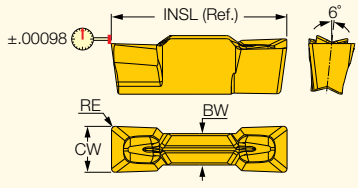
For tools, see pages: DGTR/L (503) • HELIR/L (367)

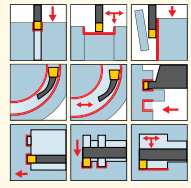
HELIGRIP

GRIPA

Ground Double-Ended Inserts for External, Internal and Face Machining







I N C H

Designation	Dimensions CW	CWTOL(1)	RE	RETOL(2)	INSL	BW	IC07	Recommended Machining Data a_p (inch)	f turn (IPR)	f groove (IPR)	f face-groove (IPR)	f face-turn (IPR)
GRIPA 3.00-0.40	.118	.00078	.0157	.0012	.630	.090	●	.010-.071	.0059-.0075	.0027-.0043	.0031-.0055	.0047-.0079
GRIPA 4.00-0.40	.157	.00078	.0157	.0012	.749	.111	●	.020-.094	.0071-.0094	.0035-.0059	.0039-.0079	.0055-.0122

• For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

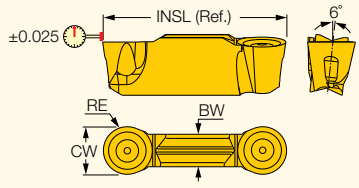
For tools, see pages: DGTR/L (503) • HELIR/L (367)

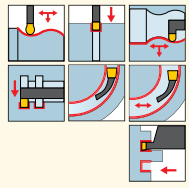
HELI-GRIP

GRIPA (full radius)

Ground Double-Ended Full Radius Inserts for External, Internal and Face Machining







M E T R I C

Designation	Dimensions CW	CWTOL(1)	RE	RETOL(2)	INSL	BW	IC07	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)	f face-groove (mm/rev)	f face-turn (mm/rev)
GRIPA 3.00-1.50	3.00	0.020	1.50	0.050	15.96	2.28	●	0.25-1.80	0.18-0.26	0.07-0.13	0.08-0.14	0.12-0.20
GRIPA 4.00-2.00	4.00	0.020	2.00	0.050	19.16	2.82	●	0.50-2.40	0.20-0.34	0.09-0.17	0.10-0.20	0.14-0.31

• For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

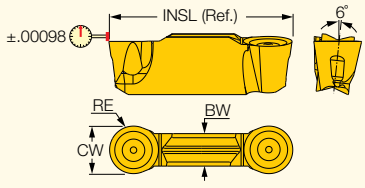
For tools, see pages: DGTR/L (503) • HELIR/L (367)

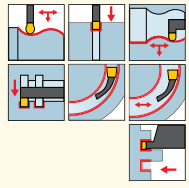
HELI-GRIP

GRIPA (full radius)

Ground Double-Ended Full Radius Inserts for External, Internal and Face Machining







I N C H

Designation	Dimensions CW	CWTOL(1)	RE	RETOL(2)	INSL	BW	IC07	Recommended Machining Data a_p (inch)	f turn (IPR)	f groove (IPR)	f face-groove (IPR)	f face-turn (IPR)
GRIPA 3.00-1.50	.118	.00078	.0590	.0020	.628	.090	●	.010-.071	.0071-.0102	.0027-.0051	.0031-.0055	.0047-.0079
GRIPA 4.00-2.00	.157	.00078	.0787	.0020	.754	.111	●	.020-.094	.0079-.0134	.0035-.0067	.0039-.0079	.0055-.0122

• For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

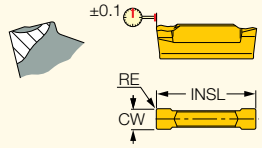
For tools, see pages: DGTR/L (503) • HELIR/L (367

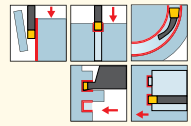
DO-GRIP

HGN-C

Parting and Grooving Inserts for Parting Bars, Hard Materials and Tough Applications







M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	INSL	Tough ↔ Hard IC328	IC830	IC354	IC308	IC908	Recommended Machining Data f groove (mm/rev)
HGN 3003C	3.00	0.30	0.050	15.80	•	•	•	•	•	0.08-0.20

• No depth limit • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

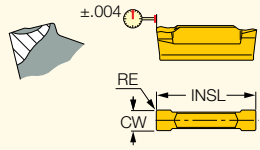
For tools, see pages: HELIR/L (367) • HGHR/L-3 (630)

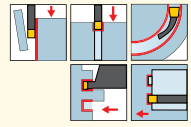
DO-GRIP

HGN-C

Parting and Grooving Inserts for Parting Bars, Hard Materials and Tough Applications







I N C H

Designation	Dimensions CW	RE	CWTOL(1)	INSL	Tough ↔ Hard IC328	IC830	IC354	IC308	IC908	Recommended Machining Data f groove (IPR)
HGN 3003C	.118	.0118	.00196	.622	•	•	•	•	•	.0031-.0079

• No depth limit • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

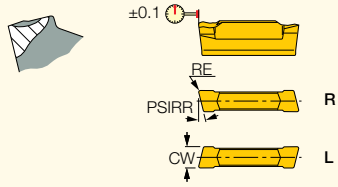
For tools, see pages: HELIR/L (367) • HGHR/L-3 (630)

DO-GRIP

HGR/L-C

Inserts for Parting Bars, Hard Materials and Tough Applications





M E T R I C

Designation	Dimensions CW	RE	INSL	PSIRL	PSIRR	Tough ↔ Hard IC328	IC830	Recommended Machining Data f groove (mm/rev)
HGL 3003C-6D	3.00	0.30	15.60	6.0	-	●		0.06-0.16
HGR 3003C-6D	3.00	0.30	15.60	-	6.0	●	●	0.06-0.16

• No depth limit • For cutting speed recommendations and user guide, see pages 382-400

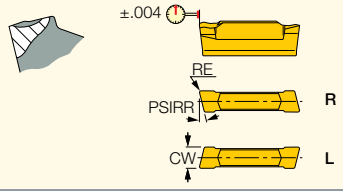
For tools, see pages: HELIR/L (367)

DO-GRIP

HGR/L-C

Inserts for Parting Bars, Hard Materials and Tough Applications





I N C H

Designation	Dimensions CW	RE	INSL	PSIRL	PSIRR	Tough ↔ Hard IC328	IC830	Recommended Machining Data f groove (IPR)
HGL 3003C-6D	.118	.0118	.614	6.0	-	●		.0024-.0063
HGR 3003C-6D	.118	.0118	.614	-	6.0	●	●	.0024-.0063

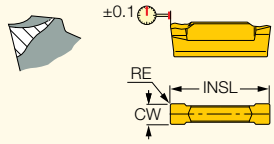
• No depth limit • For cutting speed recommendations and user guide, see pages 382-400

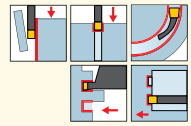
For tools, see pages: HELIR/L (367)

DO-GRIP

HGN-J
Inserts for Parting and Grooving Soft Materials, Parting Tubes, Small Diameters and Thin-Walled Parts







M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	INSL	Tough ↔ Hard IC328	IC830	IC354	IC308	Recommended Machining Data f groove (mm/rev)
HGN 3002J	3.00	0.20	0.050	0.030	16.10	•	•	•	•	0.04-0.15

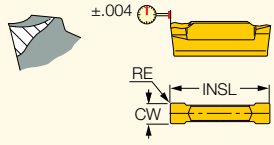
• No depth limit • For cutting speed recommendations and user guide, see pages 382-400
(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)

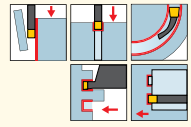
For tools, see pages: HELIR/L (367) • HGHR/L-3 (630)

DO-GRIP

HGN-J
Inserts for Parting and Grooving Soft Materials, Parting Tubes, Small Diameters and Thin-Walled Parts







I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	INSL	Tough ↔ Hard IC328	IC830	IC354	IC308	Recommended Machining Data f groove (IPR)
HGN 3002J	.118	.0079	.00196	.0012	.634	•	•	•	•	.0016-.0059

• No depth limit • For cutting speed recommendations and user guide, see pages 382-400
(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)

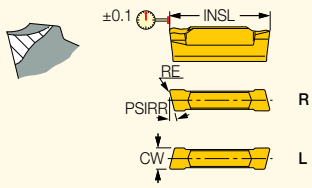
For tools, see pages: HELIR/L (367) • HGHR/L-3 (630)

DO-GRIP

HGR/L-J/JS

Double-Sided Inserts for Parting
Soft Materials, Tubes, Small
Diameters and Thin-Walled Parts







M E T R I C

Designation	Dimensions CW	RE	PSIRL	PSIRR	INSL	Tough ↔ Hard IC328	IC830	IC354	Recommended Machining Data f groove (mm/rev)
HGL 3000JS-15D (1)	3.00	0.02	15.0	-	15.20	●			0.03-0.07
HGR 3000JS-15D (1)	3.00	0.02	-	15.0	15.20	●			0.03-0.07
HGL 3002J-6D	3.00	0.20	6.0	-	15.70	●			0.04-0.12
HGR 3002J-6D	3.00	0.20	-	6.0	15.70	●	●	●	0.04-0.12

• No depth limit • For cutting speed recommendations and user guide, see pages 382-400

(1) Sharp corners

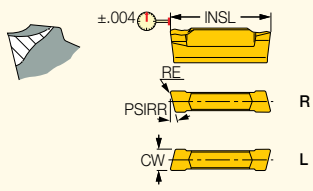
For tools, see pages: HELIR/L (367)

DO-GRIP

HGR/L-J/JS

Double-Sided Inserts for Parting
Soft Materials, Tubes, Small
Diameters and Thin-Walled Parts







I N C H

Designation	Dimensions CW	RE	PSIRL	PSIRR	INSL	Tough ↔ Hard IC328	IC830	IC354	Recommended Machining Data f groove (IPR)
HGL 3000JS-15D (1)	.118	.0008	15.0	-	.598	●			.0012-.0027
HGR 3000JS-15D (1)	.118	.0008	-	15.0	.598	●			.0012-.0027
HGL 3002J-6D	.118	.0079	6.0	-	.618	●			.0016-.0047
HGR 3002J-6D	.118	.0079	-	6.0	.618	●	●	●	.0016-.0047

• No depth limit • For cutting speed recommendations and user guide, see pages 382-400

(1) Sharp corners

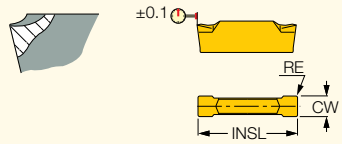
For tools, see pages: HELIR/L (367)

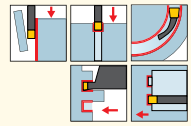
DO-GRIP

HGN-UT

Double-Sided Inserts for Parting and Grooving Low Feeds on Cr-Ni Alloys and Low Carbon Steel







M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	INSL	Tough ↔ Hard IC328	IC354	Recommended Machining Data f groove (mm/rev)
HGN 3003UT	3.00	0.30	0.050	0.030	15.80	●	●	0.04-0.13

• No depth limit • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

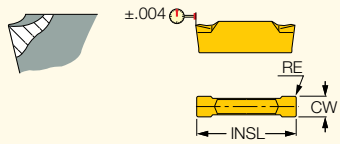
For tools, see pages: HELIR/L (367) • HGHR/L-3 (630)

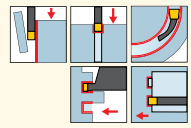
DO-GRIP

HGN-UT

Double-Sided Inserts for Parting and Grooving Low Feeds on Cr-Ni Alloys and Low Carbon Steel







I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	INSL	Tough ↔ Hard IC328	IC354	Recommended Machining Data f groove (IPR)
HGN 3003UT	.118	.0118	.00196	.0012	.622	●	●	.0016-.0051

• No depth limit • For cutting speed recommendations and user guide, see pages 382-400

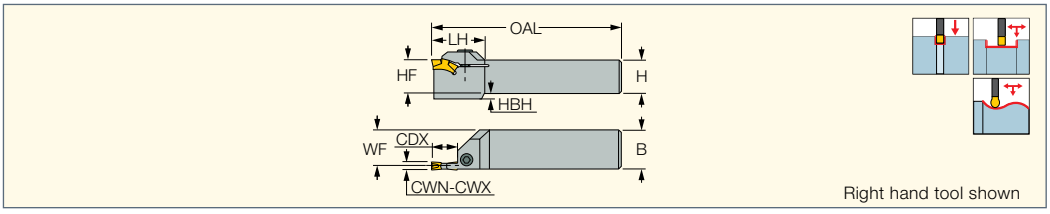
(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

For tools, see pages: HELIR/L (367) • HGHR/L-3 (630)

TOP-GRIP

TGDR/L
External Holders for Turning, Grooving and Profiling



M E T R I C

Designation	CWN[1]	CWX[2]	CDX[3]	H	HF	B	OAL	LH	WF	HBH	MIID[4]		
TGDR/L 1616-3M	3.00	3.00	7.50	16.0	16.0	16.0	100.00	30.5	14.80	6.0	TGMF 3	SR M5X12 DIN912	HW 4.0
TGDR/L 1616-4M	4.00	5.00	9.00	16.0	16.0	16.0	100.00	32.2	14.20	6.0	TGMF 4	SR M5X12 DIN912	HW 4.0

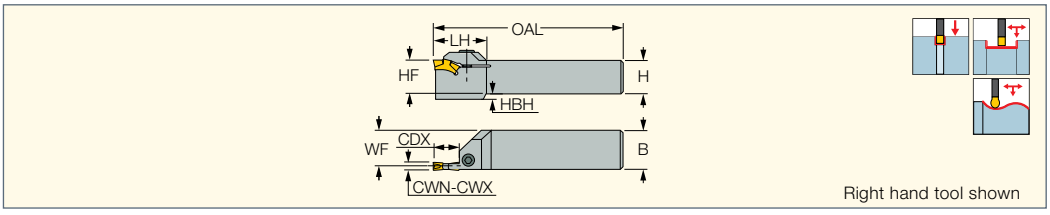
- For user guide, see pages 382-400

[1] Minimum cutting width
[2] Maximum cutting width
[3] Grooving depth is limited by the insert
[4] Master insert identification

For inserts, see pages: TGMF (full radius) (379) • TGMF/P (378)

TOP-GRIP

TGDR/L
External Holders for Turning, Grooving and Profiling



I N C H

Designation	CWN[1]	CWX[2]	CDX[3]	H	HF	B	OAL	LH	WF	HBH	MIID[4]		
TGDR/L 1616-3M	.118	.118	.295	.630	.630	.630	3.937	1.201	.583	.24	TGMF 3	SR M5X12 DIN912	HW 4.0
TGDR/L 1616-4M	.157	.197	.354	.630	.630	.630	3.937	1.268	.559	.24	TGMF 4/TGMF 5	SR M5X12 DIN912	HW 4.0

- For user guide, see pages 382-400

[1] Minimum cutting width
[2] Maximum cutting width
[3] Grooving depth is limited by the insert
[4] Master insert identification

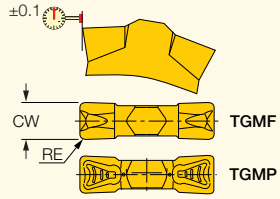
For inserts, see pages: TGMF (full radius) (379) • TGMF/P (378)

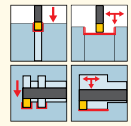
TOP-GRIP

TGMF/P

Utility Double-Ended Inserts for External and Internal Grooving and Turning







Repeatability ±0.1 while mounted on std. tool

M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX	Tough ↔ Hard IC830	IC354	IC8250	IC808	IC20	IC20N	IC428	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
TGMF 302	3.00	0.20	0.050	0.050	10.50	●		●	●	●	●	●	0.25-1.80	0.14-0.18	0.07-0.11
TGMF 304	3.00	0.40	0.050	0.050	10.30	●		●	●	●	●	●	0.50-1.80	0.16-0.20	0.07-0.12
TGMF 402	4.00	0.20	0.050	0.050	14.70	●		●	●	●	●	●	0.20-2.40	0.16-0.21	0.09-0.14
TGMF 404	4.00	0.40	0.050	0.050	14.60	●	●	●	●	●	●	●	0.50-2.40	0.18-0.24	0.09-0.15

• DMIN for internal application=20.5 mm • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

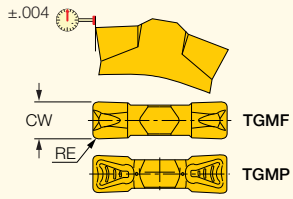
For tools, see pages: TGDR/L (377) • TGIR/L-C (432)

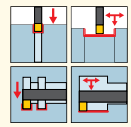
TOP-GRIP

TGMF/P

Utility Double-Ended Inserts for External and Internal Grooving and Turning







Repeatability ±.0039" while mounted on std. tool

I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX	Tough ↔ Hard IC830	IC354	IC8250	IC808	IC20	IC20N	IC428	Recommended Machining Data a_p (inch)	f turn (IPR)	f groove (IPR)
TGMF 302	.118	.008	.00196	.0020	.413	●		●	●	●	●	●	.010-.071	.0055-.0071	.0027-.0043
TGMF 304	.118	.016	.00196	.0020	.406	●		●	●	●	●	●	.020-.071	.0063-.0079	.0027-.0047
TGMF 402	.157	.008	.00196	.0020	.579	●		●	●	●	●	●	.008-.094	.0063-.0083	.0035-.0055
TGMF 404	.157	.016	.00196	.0020	.575	●	●	●	●	●	●	●	.020-.094	.0071-.0094	.0035-.0059

• DMIN for internal application= .807" • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

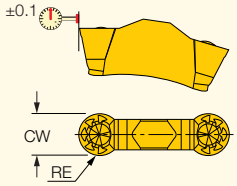
For tools, see pages: TGDR/L (377) • TGIR/L-C (432)

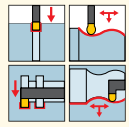
TOP-GRIP

TGMF (full radius)

Utility Double-Ended Full Radius Inserts for External and Internal Grooving and Profiling







Repeatability ±0.1 while mounted on std. tool

M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX	Tough ↔ Hard IC830	IC354	IC8250	IC808	IC20	IC5010	IC428	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
TGMF 315	3.00	1.50	0.050	0.050	11.40	●	●	●	●	●	●		0.00-1.50	0.18-0.26	0.07-0.13
TGMF 420	4.00	2.00	0.050	0.050	14.90	●		●	●	●	●	●	0.00-2.00	0.20-0.34	0.09-0.17

• Can cut arcs to 250° • DMIN for internal application=20.5 mm • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

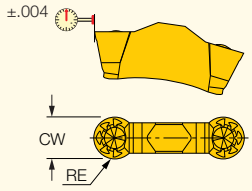
For tools, see pages: TGDR/L (377) • TGIR/L-C (432)

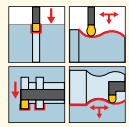
TOP-GRIP

TGMF (full radius)

Utility Double-Ended Full Radius Inserts for External and Internal Grooving and Profiling







Repeatability ±.0039" while mounted on std. tool

I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX	Tough ↔ Hard IC830	IC354	IC8250	IC808	IC20	IC5010	IC428	Recommended Machining Data a_p (inch)	f turn (IPR)	f groove (IPR)
TGMF 315	.118	.059	.00196	.0020	.449	●	●	●	●	●	●		.000-.059	.0071-.0102	.0027-.0051
TGMF 420	.157	.079	.00196	.0020	.587	●		●	●	●	●	●	.000-.079	.0079-.0134	.0035-.0067

• Can cut arcs to 250° • DMIN for internal application= .807" • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

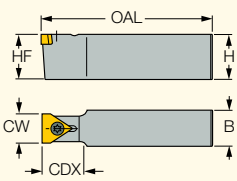
(2) Corner radius tolerance (+/-)

For tools, see pages: TGDR/L (377) • TGIR/L-C (432)

V-LOCK

SXCNN

External Toolholders for Specially Tailored Wide Profile Grooving Inserts





M E T R I C

Designation	CW	CDX	HF	H	B	OAL	Insert		
SXCNN 1212 K10-06	10.40	17.00	12.0	12.0	12.0	125.00	XNUW 10	SR 76-2067	T-15/5
SXCNN 1616 K10-06	10.40	17.00	16.0	16.0	16.0	125.00	XNUW 10	SR 76-2067	T-15/5
SXCNN 1212 K13-05	13.00	20.00	12.0	12.0	12.0	125.00	XNUW 13	SR 76-2068	T-20/5
SXCNN 1414 K13-05	13.00	23.00	14.0	14.0	14.0	125.00	XNUW 13	SR 76-2068	T-20/5
SXCNN 1616 K13-05	13.00	23.00	16.0	16.0	16.0	125.00	XNUW 13	SR 14-591	T-20/5
SXCNN 1212 K14-03	14.50	-	12.0	12.0	12.0	125.00	XNUW 14	SR 76-2067	T-15/5
SXCNN 1616 K14-03	14.50	17.00	16.0	16.0	16.0	125.00	XNUW 14	SR 76-2067	T-15/5
SXCNN 1616 K20-05	20.50	-	16.0	16.0	16.0	125.00	XNUW 20	SR 14-591	T-20/5

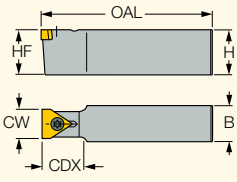
- Toolholder seat needs to be modified according to insert profile to ensure clearance

For inserts, see pages: XNUW (381)

V-LOCK

SXCNN

External Toolholders for Specially Tailored Wide Profile Grooving Inserts





I N C H

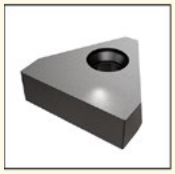
Designation	CW	CDX	HF	H	B	OAL	Insert		
SXCNN 12.7 K10-06	.410	.670	.500	.500	.500	4.500	XNUW 10	SR 76-2067	T-15/5
SXCNN 1616 K10-06	.409	.669	.630	.630	.630	4.921	XNUW 10	SR 76-2067	T-15/5
SXCNN 12.7 K13-05	.512	.800	.500	.500	.500	4.500	XNUW 13	SR 76-2068	T-20/5
SXCNN 1616 K13-05	.512	.906	.630	.630	.630	4.921	XNUW 13	SR 14-591	T-20/5
SXCNN 12.7 K14-03	.570	-	.500	.500	.500	4.500	XNUW 14	SR 76-2067	T-15/5
SXCNN 1616 K14-03	.571	.669	.630	.630	.630	4.921	XNUW 14	SR 76-2067	T-15/5
SXCNN 1616 K20-05	.807	-	.630	.630	.630	4.921	XNUW 20	SR 14-591	T-20/5

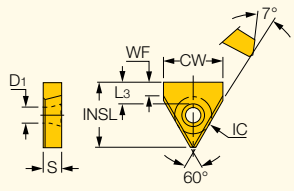
- Toolholder seat needs to be modified according to insert profile to ensure clearance

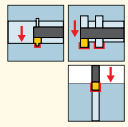
For inserts, see pages: XNUW (381)

V-LOCK

XNUW
Blank Inserts for Wide Profile Grooving







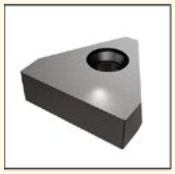
M E T R I C

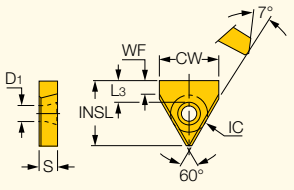
Designation	Dimensions CW	WF	L3	IC	S	D1	INSL	Tough ↔ Hard IC28	IC54	IC08	IC20	IC07
XNUW 1003-06	10.40	6.00	7.30	9.52	3.18	4.53	17.00	●		●		
XNUW 1305-05	13.00	5.00	11.40	12.70	5.35	5.50	20.60	●	●	●	●	
XNUW 14T3-03	14.50	3.00	3.70	9.52	3.97	4.40	14.00	●	●	●	●	
XNUW 2006-05	20.50	4.80	5.00	12.70	6.35	5.50	20.30	●	●	●	●	●

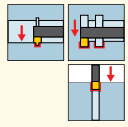
For tools, see pages: SXCNN (380)

V-LOCK

XNUW
Blank Inserts for Wide Profile Grooving







I N C H

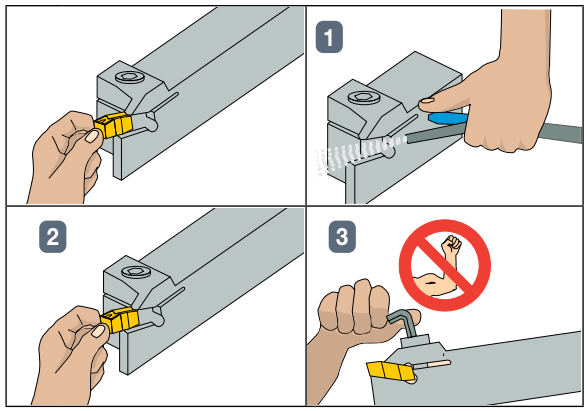
Designation	Dimensions CW	WF	L3	IC	S	D1	INSL	Tough ↔ Hard IC28	IC54	IC08	IC20	IC07
XNUW 1003-06	.409	.236	.287	.375	.125	.178	.669	●		●		
XNUW 1305-05	.512	.197	.449	.500	.211	.217	.811	●	●	●	●	
XNUW 14T3-03	.571	.118	.146	.375	.156	.173	.551	●	●	●	●	
XNUW 2006-05	.807	.189	.197	.500	.250	.217	.799	●	●	●	●	●

For tools, see pages: SXCNN (380)

What Is a GRIP Insert?

A grip insert is a grooving, groove-turn or parting insert that is clamped between 2 prisms.
Clamping a grip insert correctly in the holder is necessary for stable machining.

1. Ensure that the seat is clean of dirt and swarf.
2. In the first stage of clamping, ease the insert gently into place. Make sure that the prismatic surfaces match.
3. Always use the wrench supplied with the tool. Use reasonable force to the point of resistance for final clamping.
   The maximum recommended clamping torque is 1.5xd Nm or 15xd Kgf x cm. d=clamping screw dia. in mm.

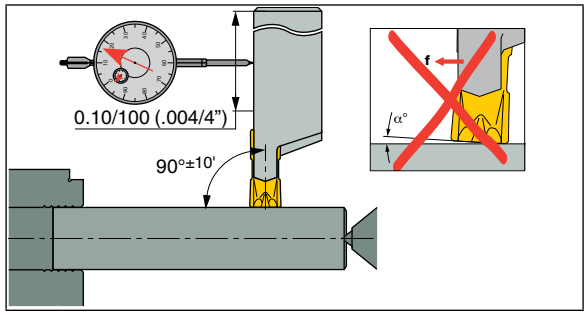


It is very important not to overtighten a grip insert, even though you may get the impression that the insert is more secure. When overtightened, the insert doesn't clamp into its correct and carefully designed clamping points, and therefore, is less stable.

Positioning the Tool on the Turret

Successful machining can be achieved only if the tool is properly positioned on the turret.
The following sequence should be followed:

- Position the grip holder perpendicular to the workpiece; deviation may be 0.10/100 mm (.004/4") along the holder
- Check to ensure that the frontal cutting edge is aligned parallel to the workpiece



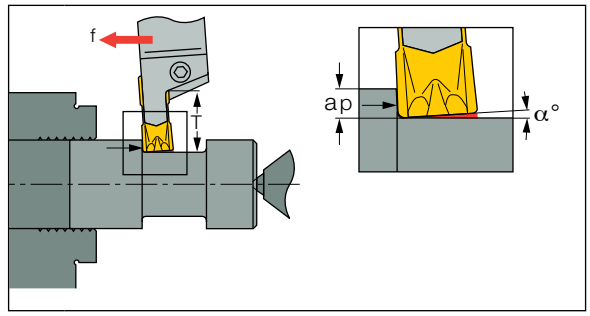
If the cutting edge is not parallel to the workpiece or is positioned as shown, the deflection during machining (in the indicated direction) will be too small and chatter may occur.

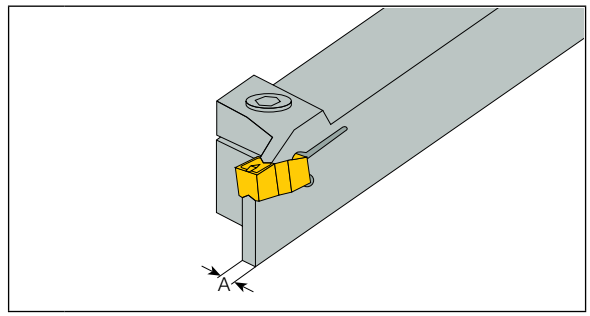
Principles of Turning with Groove-Turn Tools

The basic principle in turning with groove-turn tools is the deflection of the cutting tool, which results in a frontal clearance angle α° between the insert and the workpiece. The clearance angle α° is a function of the side cutting forces and is not constant, as is the case with ISO inserts. The deflection is influenced by the following factors:

Feed: **f**
Depth of Cut: $\mathbf{a_p}$
Overhang of Insert Support: **T**
Width of Insert Support: **A**
Cutting Speed: $\mathbf{V_c}$
Workpiece Material

When all of the above factors remain constant during turning, a high degree of accuracy with a tolerance up to ±0.01 mm (±.0004") can be achieved.





If the conditions are too light (such as in a super finish operation), there may not be enough deflection and the clearance angle will be very small. This may result in chatter and vibration.

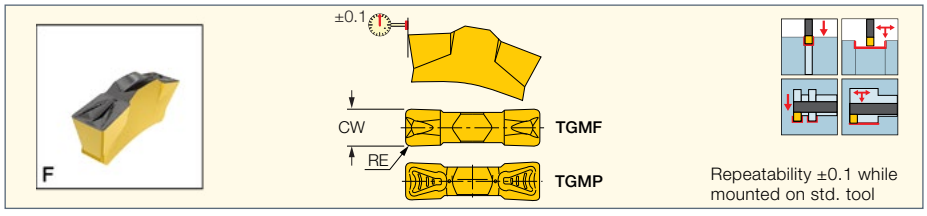
Cutting Conditions

Choosing the correct cutting conditions
Specific cutting conditions are listed in the catalog for every individual insert as shown below:

Example: TGMF 302 Utility Inserts for Grooving and Turning

TOP-GRIP

TGMF/P
Utility Double-Ended Inserts for External and Internal Grooving and Turning

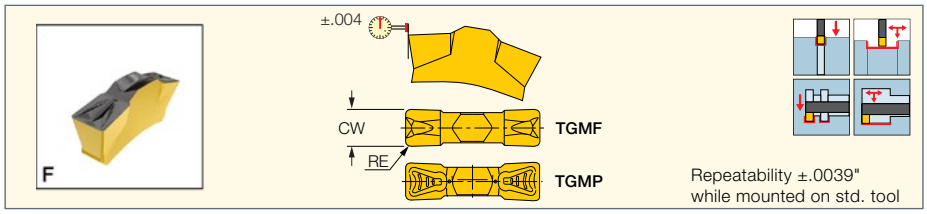


M E T R I C

Designation	Dimensions CW	RE	CWTOL	RETOL	CDX	Tough ↔ Hard IC830	IC8250	IC808	IC20	IC20N	IC428	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
TGMF 302	3.00	0.20	0.050	0.050	10.50	●	●	●	●	●	●	0.25-1.80	0.14-0.18	0.07-0.11

TOP-GRIP

TGMF/P
Utility Double-Ended Inserts for External and Internal Grooving and Turning



I N C H

Designation	Dimensions CW	RE	CWTOL	RETOL	CDX	Tough ↔ Hard IC830	IC8250	IC808	IC20	IC20N	IC428	Recommended Machining Data a_p (inch)	f turn (IPR)	f groove (IPR)
TGMF 302	.118	.008	.00196	.0020	.413	●	●	●	●	●	●	.010-.071	.0055-.0071	.0027-.0043

Grades for Applications and Materials
Carbide grades and cutting speeds:

- Cutting speed recommendations are derived from the type of workpiece material and choice of carbide grade
- Choose the carbide grade according to the chart below.
- For specific workpiece material and cutting speed recommendations, refer to pages 394-397.

Material Groups		ISO P 1-11 Steel	ISO P 12-13 Stainless Steel Ferritic & Martensitic	ISO M 14 Stainless Steel Austenitic & Duplex (Ferritic-Austenitic)	ISO N 21-28 Non-ferrous	ISO S 31-37 High Temperature Alloys	ISO H 38-41 Hard Steel & Cast Iron
GROOVE-TURN	Harder	IC20N	IC807	IC807	ID5	IC804	**IB50**
		IC807				**IC806**	
		IC808 (IC908)	**IC808 (IC908)**	**IC808 (IC908)**		IC907	
		IC8250				IC807	IC807
						IC07	
					IC20	IC20	IC808
						IC908	
	Tougher	IC830	IC830	IC830		IC08	

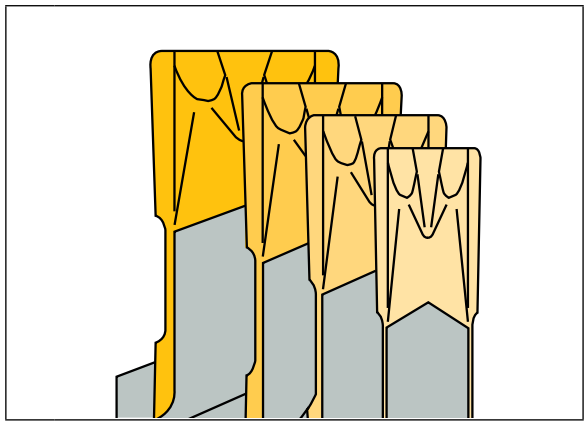
First choice

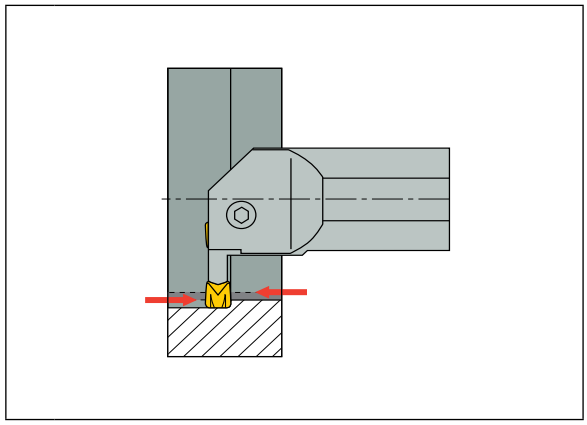
Machining Tips

Insert Width

Generally, the insert width should be as wide as possible as it contributes to its strength. However, there are additional considerations that should be taken into account in order to choose the correct width:

- Workpiece size and clamping stability: A larger width means higher cutting forces during grooving. A width that is too large can cause deformation of the workpiece and/or vibration.
- When using a larger width, make sure your machine has enough power. (see page 390)
- Machining strategy: Grooving in a correct sequence should also affect your choice. (see page 385)
- Required overhang: A larger tool overhang will require a wider insert to maintain stability.
- The larger the insert, the wider the upper and lower jaws can be, therefore, higher forces are required to effect the necessary side deflection.
- If the depth of cut is small, the width of the insert should be proportionately smaller to guarantee the required deflection.



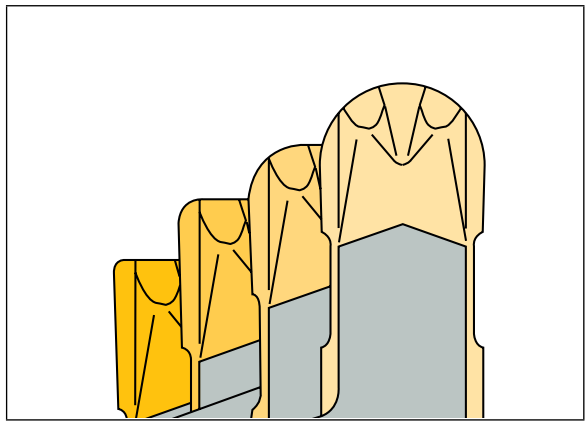


Efficient use of the insert's corners:
Always try to evenly split machining between the two corners. This optimization will increase the insert's life.

Insert Radius

Choosing the insert radius for a particular application is a combination of many factors.
The corner radius of the groove-turn insert influences the product shape and tool life.

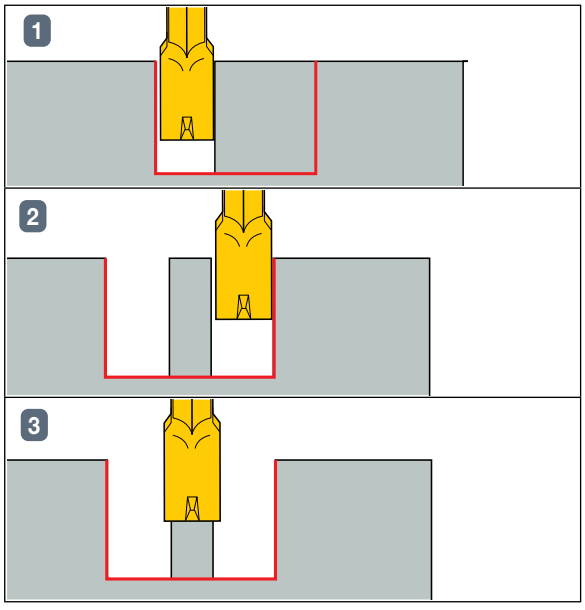
- A larger radius in turning operations normally improves surface quality.
- An insert with a larger radius has a better distribution of the cutting load and of the generated heat. It is stronger and ensures longer tool life.
- Small radii on grip inserts result in increased side forces and side deflection, preventing instability, especially with small depths of cut and feed.
- The best radius to use is basically determined by the geometry and dimensions of the workpiece. The more securely the workpiece is fastened in the machine tool, the larger the radius may be.
- When the ratio of a workpiece's length compared to its diameter is large, inserts with smaller radii will prevent chatter.
- A larger corner radius enables machining at a larger feed rate.
- In profiling operations, inserts with larger corner radii or full radii are required.



Machining Tips

Correct Grooving Sequence

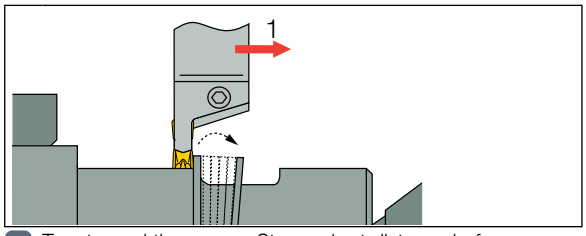
When making a groove where the insert's width is not identical to the groove, it is recommended to select an insert that will enable grooving symmetrically in such a way that the material is always in the center of the insert. This practice will ensure better chipbreaking and symmetrical cutting forces.



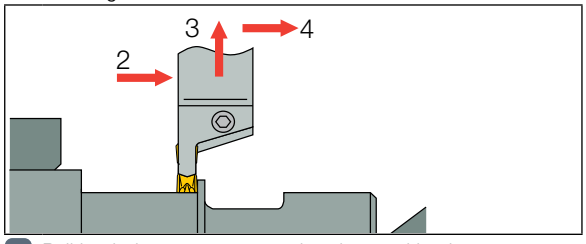
Eliminating a "Hanging Ring"

When turning at the end of a bar or towards a recess between two walls, a "hanging ring" may be formed.

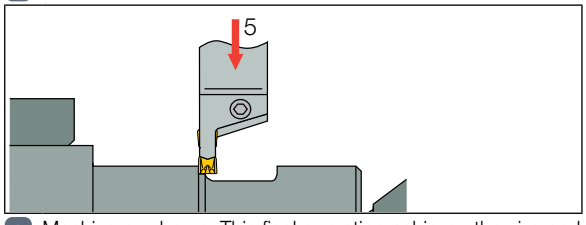
To eliminate the unwanted "hanging ring":



1 Turn toward the recess. Stop a short distance before reaching the recess.



2 Pull back the groove-turn tool and re-position it.



3 Machine as shown. This final operation achieves the size and flatness of the side wall.

Internal Machining

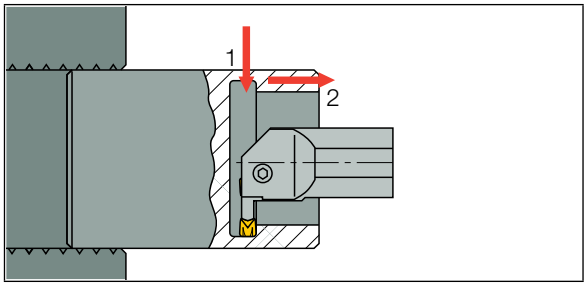
Improving Internal Turning in a Blind Hole

Internal turning in a blind hole brings about the problem of chip exit. When the tool reaches the rear side wall, chips may be caught between the wall and the insert, possibly causing insert breakage. Two solutions that can eliminate this problem:

First Solution

1 Start by grooving at the rear wall.

2 Continue by turning from the inside toward the outside.

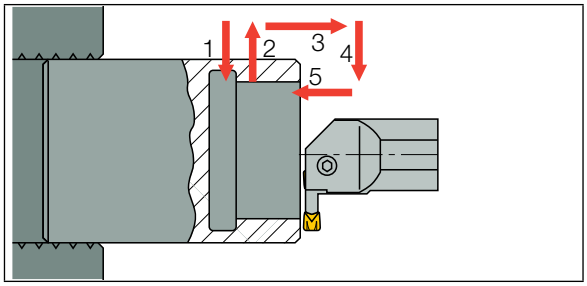


Second Solution

1 Start by grooving at the rear wall.

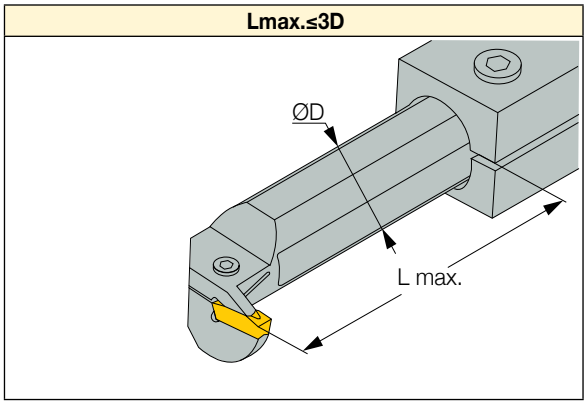
2 Pull the tool back toward the outside.

3 Turn the final diameter from outside, toward the groove.



Optimizing Internal Machining Toolholder Overhang

It is always recommended to use the minimum possible overhang in order to maintain maximum toolholder rigidity. As a general rule, maximum overhang should not exceed three times the holder-bar diameter.



Finishing Operation: Diameter Compensation

A compensation factor for the final diameter must be used in the final machining operation.

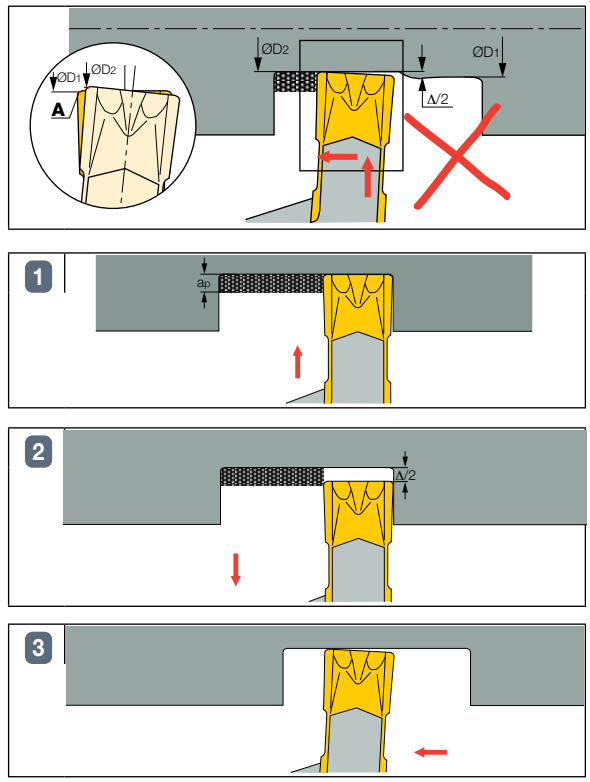
After the initial grooving to the required final diameter, the machining direction is normally changed for longitudinal turning. At this point the deflection occurs. If machining continues without correction, corner A will penetrate the material. This will result in two different diameters: øD1 from the grooving and øD2 from the turning. The difference between øD1 and øD2 is a value we define as Δ. The compensation factor is Δ/2, as shown below.

$$\frac{\Delta}{2} = \frac{\text{ø}D1 - \text{ø}D2}{2}$$

Using the compensation factor will eliminate the small surface step. Follow this simple procedure during machining:

1. Groove to the final diameter
2. Pull the tool back, a distance equal to the value of Δ/2
3. Continue the finish turning operation

Characteristic values of Δ are shown in the diagrams.

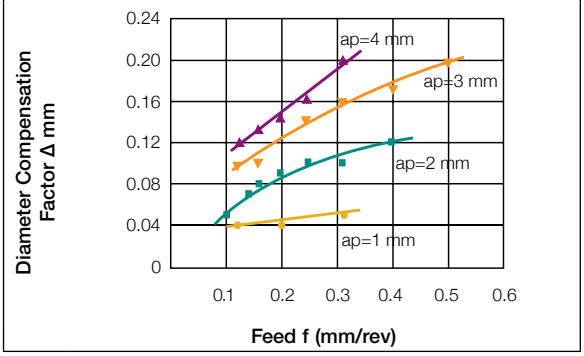


Characteristic Values of Δ

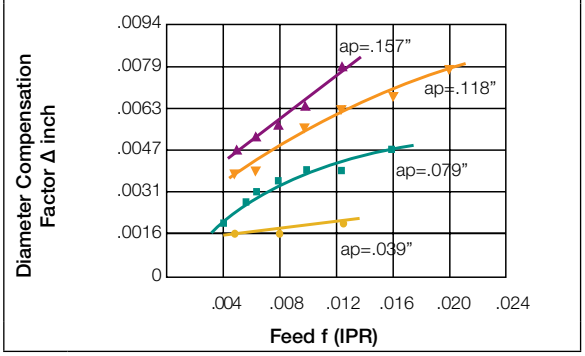
The diagrams show experimental results for specific machining conditions. These are sample values that will vary with different workpiece materials and different holder types.

Measure the Δ value for your finishing operation in a short test using your selected finishing conditions. Do not run your test using the final diameter.

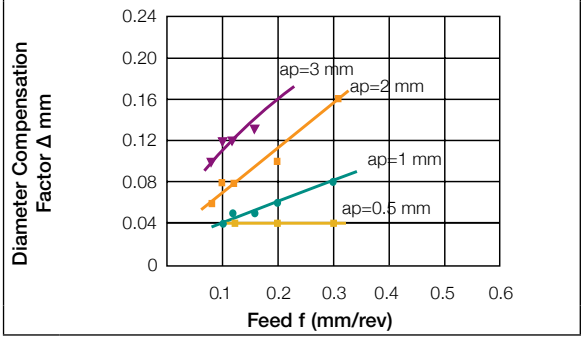
Insert: GIP 4.00E-0.4
Toolholder: GHDR 25-4



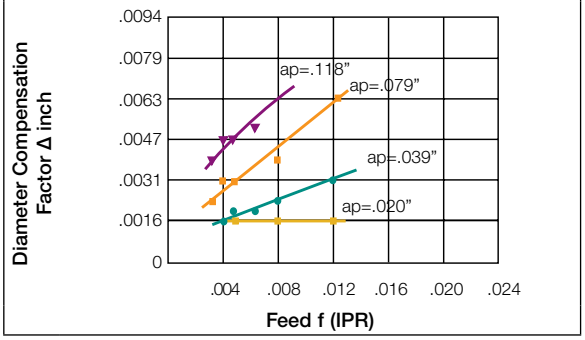
Insert: GIP 4.00E-0.4
Toolholder: GHDR 25-4



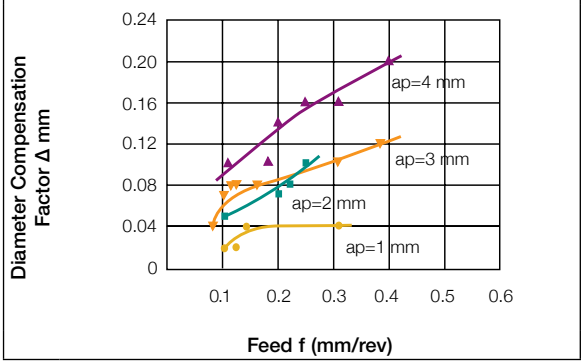
Insert: GIP 3.00E-0.4
Toolholder: GHDR 25-3



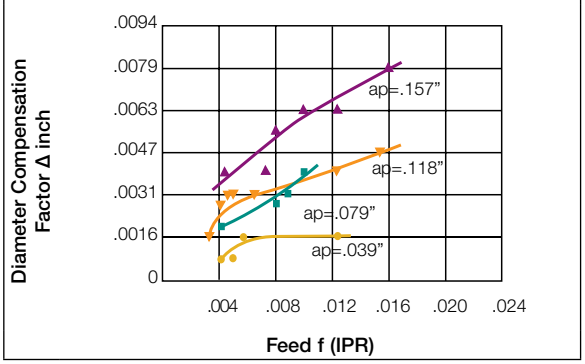
Insert: GIP 3.00E-0.4
Toolholder: GHDR 25-3



Insert: GIP 6.00E-0.8
Toolholder: GHDR 25-5



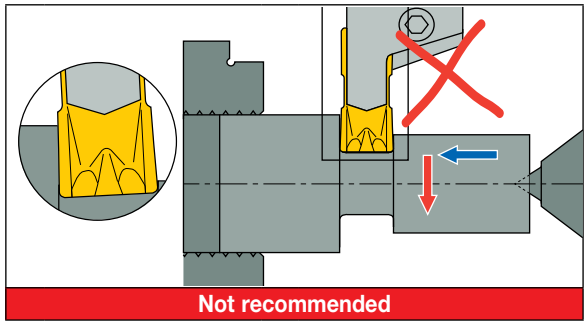
Insert: GIP 6.00E-0.8
Toolholder: GHDR 25-5

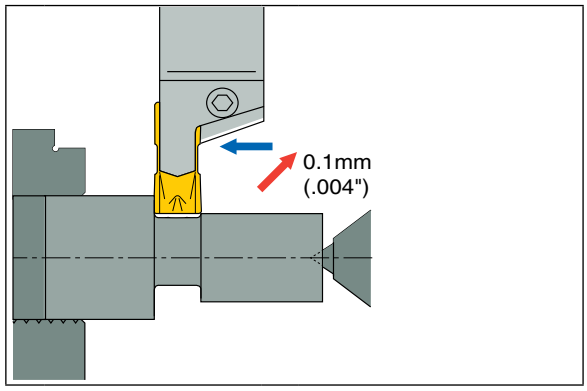


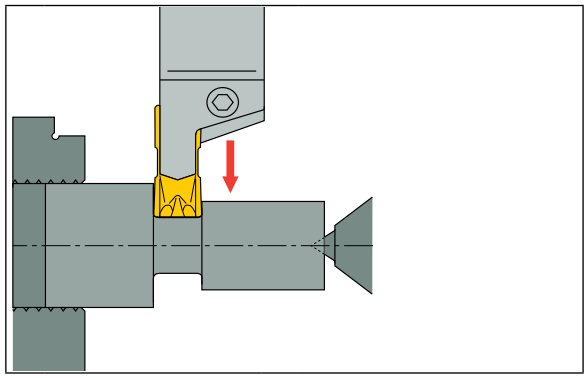
Multifunction Operations

The groove-turn tools are multifunction tools, able to operate in a sequence of grooving and turning modes. Moving from turning to grooving requires consideration of the basic Grip principle, thereby eliminating the possibility of insert breakage. In this situation one must release the side deflection which is necessary in turning, but not recommended in grooving.

The following machining sequence is suggested:
After completing the longitudinal turning, before starting the grooving, the side deflection must be released.
Move the tool in the direction opposite that of the feed, approximately 0.1 mm (.004″), and return to the original position without side load.
Then, after the deflection has been released and the holder is perpendicular to the workpiece, the grooving operation may start.







Machining Between Walls

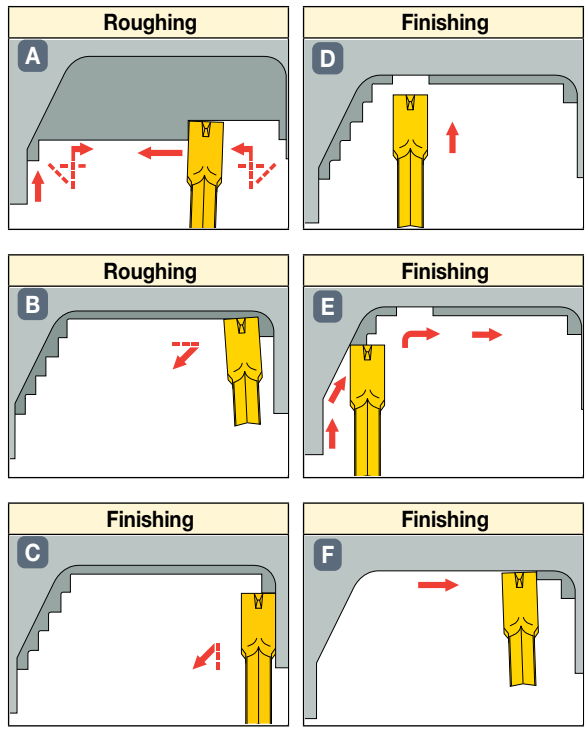
One of the most important advantages of the **GROOVE-TURN** systems is the ability to machine between walls. To achieve the best results, the following sequence is recommended:

Roughing

Plunge to depth of cut. Pull back 0.2 mm (.008″) radially. Turn longitudinally, retract at the end of the cut by 0.2 mm (.008″), simultaneously in radial and axial directions. Plunge again and repeat same cycle leaving steps of 0.2 mm (.008″) at the shoulders for the finishing cut. Minimum D.O.C. has to be $a_p \geq Rx1.2$ (corner radius).

Finishing

Plunge on the right side, reaching the tangent of the bottom radius. Retract and relieve the tangent point of the radius on the other side. Retract and machine all of the contour, pulling back by compensation value along the bottom (see page 386).

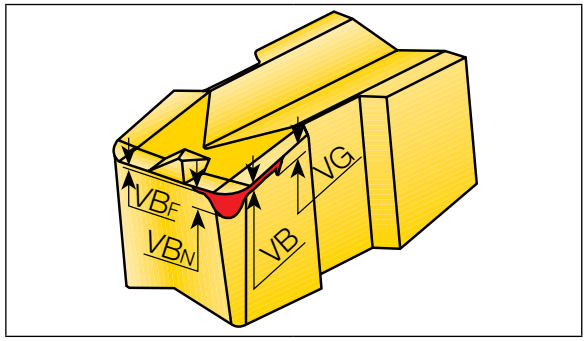


These instructions can be viewed at:
http://www.youtube.com/watch?v=HXhEtc1zl4w

Recommended Criteria for Replacement of the Cutting Edge

The cutting edge should be replaced in time to save costly downtime. The recommended value of wear at replacement is defined as the wear land size. The insert should be replaced when the wear land size is such that the increase in side forces is still small-not causing the insert to break and still maintaining the required workpiece tolerances. Wear is a function of machining time. The cutting edge should normally be replaced after 15 minutes of machining time.

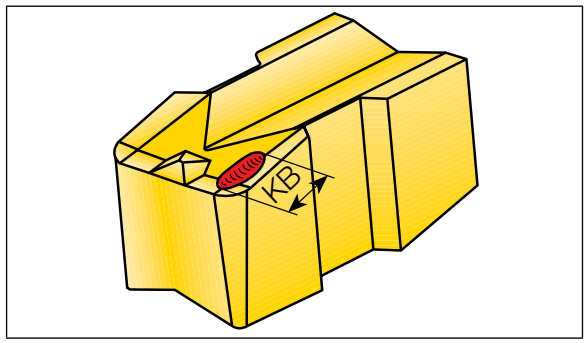
Insert Wear-Tool Life Wear on the Clearance Face
Wear land on groove turn inserts generally occurs at the corner of the clearance face **VB_N**, on the side near the corner **VB**, on the frontal cutting edge **VB_F** and at the end of the cutting side **VG**. The effective life of the cutting edge ends when any of the wear land values-**VB**, **VB**, **VB_F** or **VG**-exceed the recommended maximum values shown. The largest wear land is normally measured at the corner of the clearance face **VB_N**. It has the most influence on the dimensions and tolerances of the final workpiece. The wear land shape on GRIP inserts differs slightly from that of ISO inserts. Although the frontal cutting surface of GRIP inserts absorbs more heat land wear, the wear land **VBF** is generally negligible in turning operations when compared to **VB** and **VBN**. Wear may be found only occasionally at the end of the cutting side **VG**.



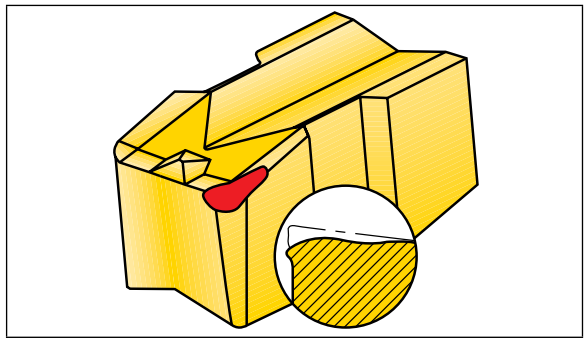
Maximum Recommended Wear Land Values Relative to Insert Widths

W Insert Width (mm)	Maximum Wear Land (mm)
≤3 (.118″)	0.20 (.008″)
4 (.157″)	0.22 (.009″)

Crater Wear and Tool Life
Crater wear **KB** occurs on the rake face and is mainly affected by feed and cutting speed. Crater wear develops over time toward the frontal cutting edge. If penetration of the frontal cutting edge occurs, it will immediately affect the quality of the machined surface.



Plastic Deformation
Plastic deformation occurs when the hardness of a cutting edge is decreased due to heat and pressure. The so-called "hot hardness" of the cutting tool material limits the feed and the cutting speed.
Plastic deformation will affect the dimensions and tolerances of the finished product. It generally occurs when a small corner radius is used with high cutting speeds and high feeds. Using the proper insert geometry and the correct speed and feed ranges should eliminate the problem.



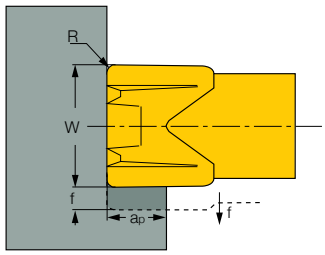
Machine Power Calculation

Calculation of Required Machine Power

Use the formulas below or use our internet web tool at:
http://mpwr.iscar.com/machinimgpwr

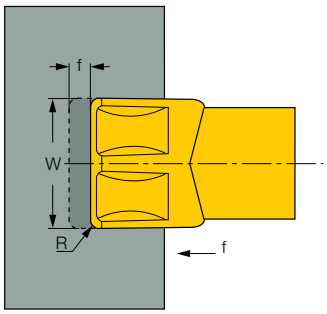
Turning

$$P = \frac{K_c \cdot a_p \cdot f \cdot v_c}{\eta \cdot 60000}\ [kW] \qquad P = \frac{K_c \cdot a_p \cdot f \cdot v_c}{\eta \cdot 32.5 \cdot 10^3}\ [HP]$$



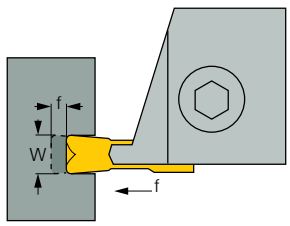
Grooving/Parting

$$P = \frac{K_c \cdot W \cdot f \cdot v_c}{\eta \cdot 60000}\ [kW] \qquad P = \frac{K_c \cdot W \cdot f \cdot v_c}{\eta \cdot 32.5 \cdot 10^3}\ [HP]$$



Face Grooving

$$P = \frac{K_c \cdot W \cdot f \cdot v_c}{\eta \cdot 60000}\ [kW] \qquad P = \frac{K_c \cdot W \cdot f \cdot v_c}{\eta \cdot 32.5 \cdot 10^3}\ [HP]$$



Where:

K_c - Specific cutting forces (N/mm², ksi), turning values could be used

η - Efficiency (η≈0.8)



M-Type Tools

- M-type tools have no support under the insert's cutting edge
- For an insert with a width smaller than 2.2 mm (.087″), there are no standard catalog tools available. There are 2 options as to how to use these narrow inserts:

1 Modify an existing tool and adjust the support under the insert to the required width

2 Use a standard M-type tool without support

- In wider widths, there are also cases where the support under the insert will disturb machining (threading inserts, pulley-V inserts and various specially tailored inserts) and therefore the above explanation should be considered
- These tools also provide the option for customers to use a very wide range of insert widths on the same tool (up to 6.4 mm /.252″)
- **Machining conditions need to be light due to little support**

K_c Values

Mtl. Gr. No.	K_c [N/mm²]	K_c [ksi]
1	2000	290
2	2100	305
3	2150	312
4	2200	319
5	2100	319
6	2100	305
7	2100	305
8	2100	305
9	2100	305
10	2500	363
11	3250	471
12	2300	334
13	2800	406
14	2600	377
21	500	73
22	800	116
23	800	116
26	700	102
27	700	102
28	1700	247
31	3000	435
32	3100	450
33	3300	479
34	3300	479
35	3200	464
36	1700	247
37	1700	247
38	4600	247
39	4700	682
40	4600	667
41	4500	653

For material groups, see page 394

Recommended Clamping Torques and Interchangeable Key Blades and Adjustable Torque Handles (optional) for GROOVE-TURN Tools



TOP-GRIP

Tool	Recommended Torque Range [Nm]	Adjustable Torque Handle	Key Blade
TGDR/L			
TGDR/L 1616-3M	6-7	TSA 6 5-14	BLD 6 HEX4
TGDR/L 1616-4M	7-8		BLD 6 HEX4

HELI-GRIP

Tool	Recommended Torque Range [Nm]	Adjustable Torque Handle	Key Blade
HELIR/L			
HELIR/L 1212-3T12	5-6	TSA 6 5-14	BLD 6 HEX4
HELIR/L 1616-3T12	7-8		BLD 6 HEX4
HELIR/L 1616-3T20	8-9		BLD 6 HEX5
HELIR/L 1616-4T12	5-6		BLD 6 HEX4
HELIR/L 1616-4T20	11-12		BLD 6 HEX5

CUT-GRIP

Tool	Recommended Torque Range [Nm]	Adjustable Torque Handle	Key Blade
GHDR/L (short Pocket)			
GHDR/L 12-3	4-5	TSA 6 5-14	BLD 6 T20
GHDR/L 16-3	5-6		BLD 6 HEX4
GHDR/L 16-3 ST	5-6		BLD 6 HEX4
GHDR/L 16-4	7-8		BLD 6 HEX5
GHDR/L 16-4 ST	7-8		BLD 6 HEX5
GHGR/L			
GHGR/L 16-3	7-8	TSA 6 5-14	BLD 6 HEX5
GHGR/L 16-3 ST	7-8		BLD 6 HEX5
GHGR 16-4	7-8		BLD 6 HEX5
GHMR/L			
GHMR/L 12	8-9	TSA 6 5-14	BLD 6 T20
GHMR/L 16	10-12		BLD 6 HEX5
GHMR/L 16-3 ST	10-12		BLD 6 HEX5
GHMPR/L			
GHMPR/L 16	4-5	TSA 6 5-14	BLD 6 HEX5
GHMUR/L			
GHMUR/L 16	6-7	TSA 6 5-14	BLD 6 HEX5

CUT-GRIP

Tool	Recommended Torque Range [Nm]	Adjustable Torque Handle	Key Blade
GHSR/L			
GHSR/L 10-2	2-3	HSA 4 1-5	BLD 4 T15
GHSR/L 12-2	2-3		BLD 4 T15
GHSR/L 14-2	2-3		BLD 4 T15
GHSR/L 16-2	4-5	TSA 6 5-14	BLD 6 T20

HELI-GRIP

Holder	Recommended Torque Range [lbf·in]	Adjustable Torque Handle	Suitable Key Blade
HELIR/L			
HELIR/L 12.7-3T12	44-53	TSA 6 5-14	BLD 6 HEX4

CUT-GRIP

Tool	Recommended Torque Range [lbf·in]	Adjustable Torque Handle	Key Blade
GHDR/L (short Pocket)			
GHDR/L 12.7-2	35-44	TSA 6 5-14	BLD 6 T20
GHDR/L 12.7-3	35-44		BLD 6 T20
GHGR/L			
GHGR/L 12.7-3	62-71	TSA 6 5-14	BLD 6 HEX5
GHMR/L			
GHMR/L 12.7	71-80	TSA 6 5-14	BLD 6 T20
GHMPR/L			
GHMPR/L 12.7	26-35	TSA 6 5-14	BLD 6 T20
GHMUR/L			
GHSR/L 9.5-2	53-62	TSA 6 5-14	BLD 6 HEX5
GHSR/L 12.7-2	71-88		BLD 6 HEX5
GHSR/L			
GHSR/L 9.5-2	17-26	HSA 4 1-5	BLD 4 T15
GHSR/L 12.7-2	17-26		BLD 4 T15

JET-CUT Tools High-Pressure (up to 340 bar/4900 psi)

The high-pressure coolant feature has been in existence for a long time in the metal removal world, taking a bigger role in today's machining. **ISCAR** was one of the first cutting tools companies to respond to market needs by designing and producing tools for ultra-high and high-pressure coolant flow. High-pressure coolant was initially implemented mainly for difficult-to-machine materials such as Titanium, Inconel and other heat resistant alloys. Later it was found that tool life, productivity and chip control can be improved when machining stainless and alloyed steel. **JET-CUT** tools are essential and important in the aviation, aerospace and medical industries.

How Does It Work?

The stream velocity of the coolant emitted from the pump increases as the coolant holes become smaller. When it emerges out of the tool through the nozzle, the velocity is very high, exerting considerable force on the chips, lowering their temperature and protecting the cutting edge from thermal shock. High temperature alloys produce a very high temperature as they are being cut. By effectively removing the heat, the chips become less ductile and thus easier to break. Shorter chips are easily managed, they do not tangle around the workpiece or machine parts, so there is no need to stop the process frequently. Usually in conventional cooling the chip prevents the coolant from reaching the insert rake face in the cutting zone. The coolant stream of the **JET-CUT** tools is directed precisely between the insert rake face and the flowing chip. This results in longer tool life and a much more reliable process.

The coolant channels of the **JET-CUT** tools feature outlets very close to the cutting edges, thus gaining the following advantages:

- Shorter machining time – the cutting speed may be increased by up to 200% when machining Titanium & heat resistant alloys
- Longer tool life – tool life increases by up to 100% not only on Titanium and heat resistant alloys, but also on stainless and alloy steels
- Improved chip control – even on the most ductile and problematic materials, small chips can be obtained
- Very effective cooling down of the cutting edge, which reduces sensitivity to heat fluctuations
- Safer and more stable process

JET-CUT tools provide advantageous performance also when conventional pressure is applied.

General Information

Pressure Ranges

Up to 30 bar (435 psi) – Low pressure (LP) may provide some improvement in tool life. Usually will not have an effect on chip control. 30 – 120 bar (435-1740 psi) – High-pressure (HP) the most commonly used pressure range used with **JET-CUT** tools.
Increase in tool life, increase in cutting speeds, improved chip control. 120 – 400 bar (1740-5800 psi) – Ultra high-pressure (UHP) requires special tool design in order to take advantage
of the extra pressure. Minor increase in tool life compared to HP range. Ultra high-pressure coolant is usually implemented for machining Titanium and heat resistant alloys when there is a need for very small chips and higher machining rates.
Since 2000, **ISCAR** has provided hundreds of special tools featuring ultra high-pressure coolant capability for various customers and applications.

Pressure vs. Flow

Each **JET-CUT** tool is designed to work at a certain flow rate, depending on the pressure. The flow rates are listed in the catalog pages for each tool. The user should verify that the pump can supply the required flow in order to achieve the optimal results. The pump data sheet will usually list the maximum flow rate for each pressure range.

Chips & Pressure

The coolant flow will start to break the chips at a certain pressure, depending on the specific tool and the workpiece material. If the chips are not breaking, the pressure should be increased until chip control is achieved. Above this pressure, as it is increased the chips become smaller and smaller. It is possible to control the size of the chips by modifying the pressure in order to achieve the desired chip size.



Groove-Turn Cutting Speed Recommendations (Metric)

ISO	Material		Condition	Tensile Strength [N/mm²]	Hardness HB	Material Group No.(1)
P	non-alloy steel and cast steel, free cutting steel	<0.25% C	annealed	420	125	1
		≥0.25% C	annealed	650	190	2
		<0.55% C	quenched and tempered	850	250	3
		≥0.55% C	annealed	750	220	4
			quenched and tempered	1000	300	5
	low alloy and cast steel (less than 5% of alloying elements)		annealed	600	200	6
			quenched and tempered	930	275	7
				1000	300	8
				1200	350	9
	high alloyed steel, cast steel and tool steel		annealed	680	200	10
			quenched and tempered	1100	325	11
P	stainless steel and cast steel		ferritic / martensitic	680	200	12
			martensitic	820	240	13
M	stainless steel and cast steel		austenitic, duplex	600	180	14
N	aluminum-wrought alloys		not hardenable		60	21
			hardenable		100	22
	aluminum-cast alloys	≤12% Si	not hardenable		75	23
			hardenable		90	24
		>12% Si	high temperature		130	25
	copper alloys	>1% Pb	free cutting		110	26
			brass		90	27
			electrolytic copper		100	28
	non metallic		duroplastics, fiber plastics			29
			hard rubber			30
S	high temperature alloys	Fe based	annealed		200	31
			hardened		280	32
		Ni or Co based	annealed		250	33
			hardened		350	34
			cast		320	35
	titanium alloys		pure	400		36
			alpha+beta alloys, hardened	1050		37
H	hardened steel		hardened		55 HRC	38
			hardened		60 HRC	39
	chilled cast iron		cast		400	40
	cast iron		hardened		55 HRC	41

Material Group No.	IC20N	IC8250	IC807	IC808	IC908	IC354	IC830	IC228/328/528		
1	225 - 335	210 - 315	160 - 240	145 - 220	140-210	110 - 170	105 - 155	100 - 145		
2	210 - 290	195 - 270	150 - 205	135 - 190	130-180	105 - 145	95 - 135	90 - 125		
3	160 - 240	150 - 225	115 - 170	105 - 155	100-150	80 - 120	75 - 110	70 - 105		
4	175 - 270	165 - 255	125 - 195	115 - 180	110-170	90 - 135	80 - 125	75 - 120		
5	145 - 225	135 - 210	105 - 160	95 - 145	90-140	70 - 110	65 - 105	65 - 100		
6	175 - 270	165 - 255	125 - 195	115 - 180	110-170	90 - 135	80 - 125	75 - 120		
7	145 - 240	135 - 225	105 - 170	95 - 155	90-150	70 - 120	65 - 110	65 - 105		
8	145 - 225	135 - 210	105 - 160	95 - 145	90-140	70 - 110	65 - 105	65 - 100		
9	130 - 210	120 - 195	90 - 150	85 - 135	80-130	65 - 105	60 - 95	55 - 90		
10	210 - 290	195 - 270	150 - 205	135 - 190	130-180	105 - 145	95 - 135	90 - 125		
11	130 - 210	120 - 195	90 - 150	85 - 135	80-130	65 - 105	60 - 95	55 - 90		

	IC20N	IC806	IC907/807	IC8250	IC808	IC908	IC320	IC830	IC354	
12	180 - 320	130 - 240	125 - 230	120 - 220	115 - 210	110-200	100 - 180	80 - 150	90 - 160	
13	160 - 300	120 - 230	115 - 220	110 - 210	105 - 200	100-190	90 - 170	75 - 140	80 - 150	

	IC20N	IC806	IC907/807	IC8250	IC808	IC908	IC320	IC830	IC354	
14	140 - 270	110 - 205	105 - 195	100 - 185	95 - 180	90-170	80 - 155	65 - 125	70 - 135	

	ID5	IC04	IC807	IC20	IC04	IC07	IC08			
21	400-2500	460 - 1380	440 - 1320	400-1200	460 - 1380	440 - 1320	320 - 960			
22	400-2500	345 - 1150	330 - 1100	300-1000	345 - 1150	330 - 1100	240 - 800			
23	400-2500	345 - 1150	330 - 1100	300-1000	345 - 1150	330 - 1100	240 - 800			
24	400-2500	230 - 690	220 - 660	200-600	230 - 690	220 - 660	160 - 480			
25	300-1500	230 - 460	220 - 440	200-400	230 - 460	220 - 440	160 - 320			
26	300-1000	230 - 460	220 - 440	200-400	230 - 460	220 - 440	160 - 320			
27	300-800	170 - 345	165 - 330	150-300	170 - 345	165 - 330	120 - 240			
28	300-800	115 - 230	110 - 220	100-200	115 - 230	110 - 220	80 - 160			
29	150-600	55 - 230	55 - 220	50-200	55 - 230	55 - 220	40 - 160			
30										

No.	IC804	IC806	IC807	IC907	IC908	IC808	IC04	IC07	IC20	IC08
31	60 - 95	50 - 80	50 - 80	45 - 75	40-65	40 - 70	30 - 50	30 - 45	25 - 40	25 - 40
32	45 - 65	35 - 55	35 - 55	35 - 50	30-45	30 - 45	25 - 35	20 - 30	20 - 30	20 - 25
33	45 - 65	35 - 55	35 - 55	35 - 50	30-45	30 - 45	25 - 35	20 - 30	20 - 30	20 - 25
34	35 - 60	30 - 50	30 - 50	30 - 45	25-40	25 - 40	20 - 30	15 - 30	15 - 25	15 - 25
35	30 - 45	25 - 35	25 - 35	25 - 35	20-30	20 - 30	15 - 25	15 - 20	15 - 20	10 - 20
36	150 - 255	125 - 210	120 - 205	115 - 195	100-170	105 - 180	80 - 135	70 - 120	65 - 110	60 - 100
37	50 - 65	45 - 60	40 - 50	40 - 50	35-45	35 - 45	50 - 65	40 - 55	40 - 50	35 - 45

No.	IB10H	IB50	IB20H	IC807	IC907	IC808	IC908			
38	100-155	90-140	80-125	35-45	30-40	30-40	25-35			
39	90-135	80-120	75-110	30-40	25-35	25-35	20-30			
40	110-175	100-160	90-145	45-65	40-60	40-60	30-50			
41	100-135	90-120	80-110	40-50	35-45	35-45	30-40			

Groove-Turn Cutting Speed Recommendations (Imperial)

ISO	Material		Condition	Tensile Strength [ksi]	Hardness HB	Material Group No.(1)
P	non-alloy steel and cast steel, free cutting steel	<0.25% C	annealed	61	125	1
		≥0.25% C	annealed	94	190	2
		<0.55% C	quenched and tempered	123	250	3
		≥0.55% C	annealed	109	220	4
			quenched and tempered	145	300	5
	low alloy and cast steel (less than 5% of alloying elements)		annealed	87	200	6
			quenched and tempered	135	275	7
				145	300	8
				174	350	9
	high alloyed steel, cast steel and tool steel		annealed	99	200	10
			quenched and tempered	160	325	11
P	stainless steel and cast steel		ferritic / martensitic	99	200	12
			martensitic	119	240	13
M	stainless steel and cast steel		austenitic, duplex	87	180	14
N	aluminum-wrought alloys		not hardenable		60	21
			hardenable		100	22
	aluminum-cast alloys	≤12% Si	not hardenable		75	23
			hardenable		90	24
		>12% Si	high temperature		130	25
	copper alloys	>1% Pb	free cutting		110	26
			brass		90	27
			electrolytic copper		100	28
	non metallic		duroplastics, fiber plastics			29
			hard rubber			30
S	high temperature alloys	Fe based	annealed		200	31
			hardened		280	32
		Ni or Co based	annealed		250	33
			hardened		350	34
			cast		320	35
	titanium alloys		pure	58	190	36
			alpha+beta alloys, hardened	152	310	37
H	hardened steel		hardened		55 HRC	38
			hardened		60 HRC	39
	chilled cast iron		cast		400	40
	cast iron		hardened		55 HRC	41

Material No.	IC20N	IC8250	IC807	IC808	IC908	IC354	IC830	IC228 / 328 / 528		
1	740-1100	690-1030	520-790	480-720	460-690	360-560	340-510	330-480		
2	690-950	640-890	490-670	440-620	430-590	340-480	310-440	300-410		
3	520-790	490-740	380-560	340-510	330-490	260-390	250-360	230-340		
4	570-890	540-840	410-640	380-590	360-560	300-440	260-410	250-390		
5	480-740	440-690	340-520	310-480	300-460	230-360	210-340	210-330		
6	570-890	540-840	410-640	380-590	360-560	300-440	260-410	250-390		
7	480-790	440-740	340-560	310-510	300-490	230-390	210-360	210-340		
8	480-740	440-690	340-520	310-480	300-460	230-360	210-340	210-330		
9	430-690	390-640	300-490	280-440	260-430	210-340	200-310	180-300		
10	690-950	640-890	490-670	440-620	430-590	340-480	310-440	300-410		
11	430-690	390-640	300-490	280-440	260-430	210-340	200-310	180-300		

	IC20N	IC806	IC907 / 807	IC8250	IC808	IC908	IC320	IC830	IC354	
12	590 - 1050	430-790	410-750	390-720	380-690	360-660	330-590	260-490	300-520	
13	525 - 985	390-750	380-720	360-690	340-660	330-620	300-560	250-460	260-490	

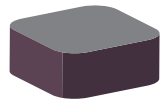
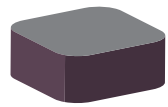
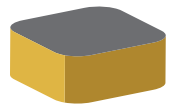
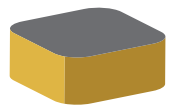
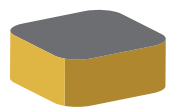
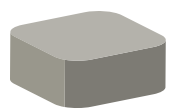
	IC20N	IC806	IC907 / 807	IC8250	IC808	IC908	IC320	IC830	IC354	
14	460 - 885	360-670	340-640	330-610	310-590	300-560	260-510	210-410	230-440	

	ID5	IC04	IC807	IC20	IC04	IC07	IC08			
21	1310-8200	1510-4530	1440-4330	1310-3940	1510-4530	1440-4330	1050-3150			
22	1310-8200	1130-3770	1080-3610	980-3280	1130-3770	1080-3610	790-2620			
23	1310-8200	1130-3770	1080-3610	980-3280	1130-3770	1080-3610	790-2620			
24	1310-8200	750-2260	720-2170	660-1970	750-2260	720-2170	520-1570			
25	980-4920	750-1510	720-1440	660-1310	750-1510	720-1440	520-1050			
26	980-3280	750-1510	720-1440	660-1310	750-1510	720-1440	520-1050			
27	980-2620	560-1130	540-1080	490-980	560-1130	540-1080	390-790			
28	980-2620	380-750	360-720	330-660	380-750	360-720	260-520			
29	490-1970	180-750	180-720	160-660	180-750	180-720	130-520			
30										

No.	IC804	IC806	IC807	IC907	IC808	IC908	IC04	IC07	IC20	IC08
31	200-310	160-260	160-260	150-250	130-210	130-230	100 - 165	100 - 150	80 - 130	80 - 130
32	150-210	110-180	110-180	110-160	100-150	100-150	80 - 115	65 - 100	65 - 100	65 - 80
33	150-210	110-180	110-180	110-160	100-150	100-150	80 - 115	65 - 100	65 - 100	65 - 80
34	110-200	100-160	100-160	100-150	80-130	80-130	65 - 100	50 - 100	50 - 80	50 - 80
35	100-150	80-110	80-110	80-110	70-100	70-100	50 - 80	50 - 65	50 - 65	35 - 65
36	430-725	410-700	390-670	380-640	330-560	340-590	260 - 445	230 - 395	215 - 360	195 - 330
37	150-300	150-280	130-160	130-160	110-150	110-150	165 - 215	130 - 180	130 - 165	115 - 150

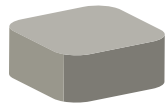
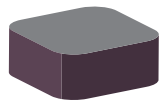
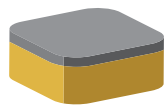
No.	IB10H	IB50	IB20H	IC807	IC907	IC808	IC908			
38	330-510	300-460	260-410	110-150	100-130	100-130	80-110			
39	300-440	260-390	250-360	100-130	80-110	80-110	70-100			
40	360-570	330-520	300-480	150-210	130-200	130-200	100-160			
41	330-440	300-390	260-360	130-160	110-150	110-150	100-130			

Groove-Turn Materials Grades Chart

	Grade	ISO	Grade Description	Coating Layers	Coating Color*
PVD COATED	IC228	P30-P45 M25-M40	A very substrate with PVD coating, suitable for machining steels and stainless steel at low to medium cutting speeds.	TiN TiCN Base	
	IC528	P30-P45 M25-M40	A tough substrate with PVD coating, suitable for machining steels and stainless steel at low to medium cutting speeds. Can be used under unstable conditions.	TiN TiCN Base	
	IC804	S05-S15	A very hard submicron grain size substrate with PVD coating and a special SUMOTEC surface treatment. Suitable for semi-finishing and finishing operations under stable conditions on high temperature alloys and Titanium alloys moderate to relatively high cutting speeds. Features high wear resistance and plastic deformation durability.	TiAlN AlTiN Base	
	IC806	M05-M15 S10-S20	A hard submicron grain size substrate with PVD coating and a special SUMOTEC surface treatment. Excellent for machining high temperature alloys and Titanium alloys, at moderate to relatively high cutting speeds. Features high wear resistance and plastic deformation durability.	TiAlN AlTiN Base	
	IC807	P10-P20 M05-M15 K15-K30 S10-S20 H05-H15	A hard submicron grain size substrate with PVD coating and a special SUMOTEC surface treatment. Suitable for machining steels, alloy steels, austenitic stainless steel, high temperature alloys and hard steels at moderate to relatively high cutting speeds under stable conditions. Features high wear resistance and plastic deformation durability.	TiN TiAlN Base	
	IC808	P15-P30 M20-M30 K20-K40 S15-S30 H20-H30	A tough submicron grain size substrate with PVD coating and a special SUMOTEC surface treatment. Recommended for general use for a large variety of applications and materials such as steels, alloy steels, austenitic stainless steel and high temperature alloys at moderate cutting speeds and feeds. Features high wear resistance and chipping durability.	TiN TiAlN Base	
	IC830	P30-P45 M25-M40 S20-S30	A tough substrate with PVD coating and a special SUMOTEC surface treatment. Suitable for machining steel and stainless steel at low to medium cutting speeds and moderate to high feeds. The grade features high toughness and recommended for interrupted cuts and machining under unstable conditions. May be used on high temperature alloys at low cutting speeds.	TiN TiAlN Base	
	IC907	P10-P20 M05-M15 K15-K30 S10-S20 H05-H15	A hard submicron grain size substrate with PVD coating suitable for a wide range of materials such as steels, alloy steels, hard steels, austenitic stainless steel and heat resistant alloys at moderate to relatively high cutting speeds under stable conditions. Features high wear resistance and plastic deformation durability.	TiAlN Base	

* For coated grades

Groove-Turn Materials Grades Chart

	Grade	ISO	Grade Description	Coating Layers	Coating Color*
PVD COATED	IC908	P15-P30 M20-M30 K20-K40 S15-S30 H20-H30	A tough submicron grain size substrate with PVD coating, recommended for general use in a large variety of operations and materials such as steels, alloy steels, austenitic stainless steel and high temperature alloys at moderate cutting speeds. Features high wear resistance and chipping durability.	TiAlN Base	
	IC1007	P10-P20 M05-M15 K15-K30 S10-S20 H05-H15	A hard submicron grain size substrate with PVD coating, suitable for a wide range of materials such as steels, alloy steels, hard steels, austenitic stainless steel and heat resistant alloys at moderate to high speeds under stable conditions. Features high wear resistance and plastic deformation durability. Good choice for non-ferrous materials and cast iron.	TiN TiAlN Base	
	IC1008	P15-P30 M20-M30 K20-K40 S15-S30 H20-H30	A tough submicron grain size substrate with PVD coating. Recommended for general use on a wide range of applications and materials as steels, alloy steels, austenitic stainless steel and high temperature alloys at moderate cutting speeds.	TiN TiAlN Base	
	IC1017	 S10-S25 	High-hardness submicron grain substrate with a TiAlN PVD coating for machining high-temperature alloys at relatively higher speeds. This complements and enhances the machining capabilities of IC806 and IC804 grades. Suitable for aerospace and petroleum industry applications.	TiAlN AlTiN Base	
CVD COATED	IC8250	P15-P35 M15-M25 	A tough substrate with a cobalt enriched layer and MTCVD coating with a special SUMOTEC surface treatment. Recommended for general use machining of steels, alloy steels and martensitic stainless steel in a wide range of conditions. Features high toughness and good wear resistance.	TiN Al_2O_3 TiCN Base	

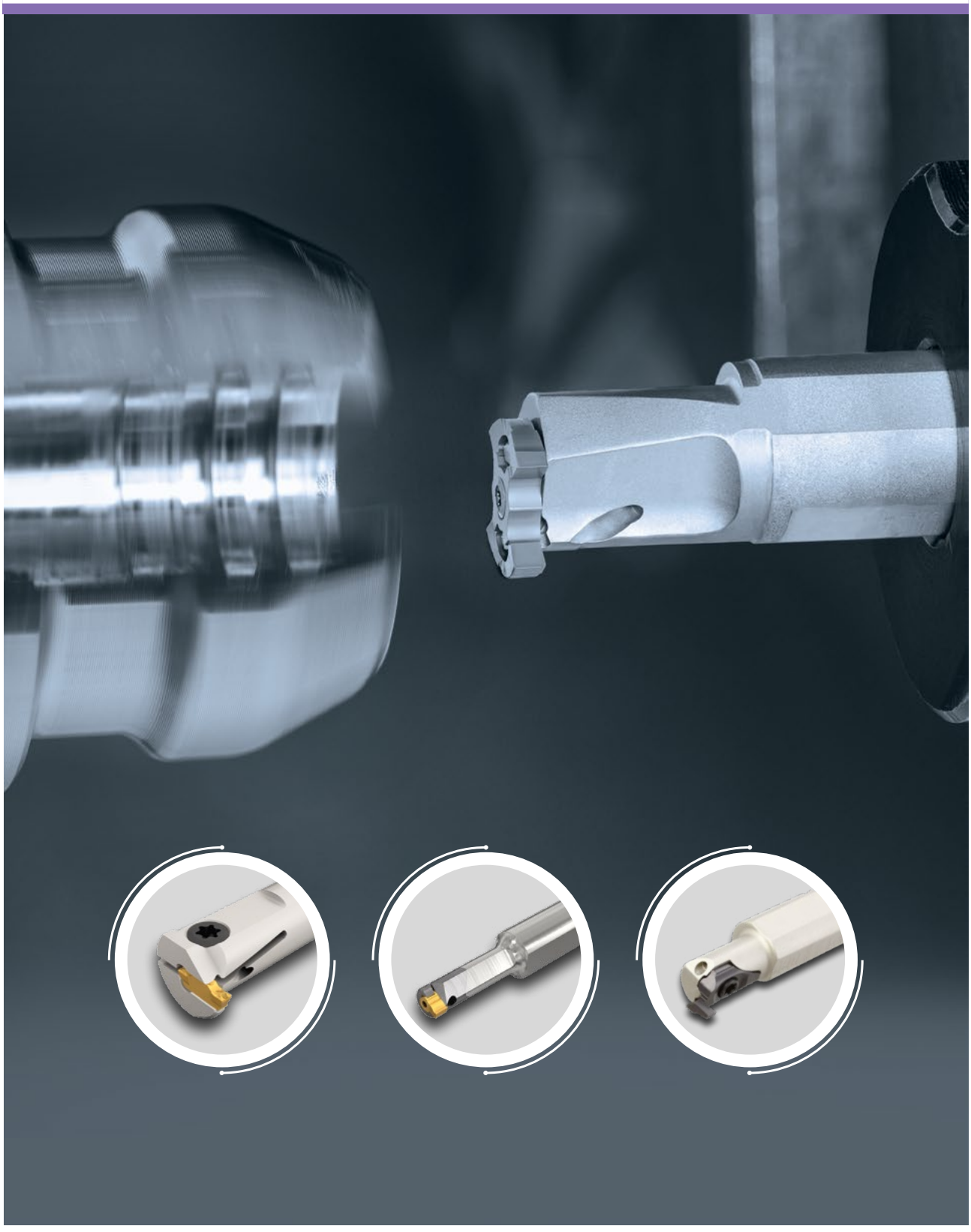
* For coated grades

Groove-Turn Materials Grades Chart

	Grade	ISO	Grade Description	Coating Layers	Uncoated
CERMET	IC20N	P05-P25 M05-M15	A very hard cermet grade for turning and grooving, recommended for finishing operations on steels and alloy steels at high cutting speeds and low feeds. Features excellent surface finish, high wear resistance, plastic deformation durability and prevents built-up edge.	Base	
UNCOATED	IC4	N01-N15 S05-S15	A very hard-uncoated carbide grade, suitable for machining aluminum alloys, aluminum alloys with high silicon content and other non-ferrous materials at high cutting speeds.	Base	
	IC07	M10-M20 N05-N20 S10-S25	A hard-uncoated submicron carbide grade, suitable for machining aluminum alloys and other non-ferrous materials at high cutting speeds.	Base	
	IC08	M15-M30 N10-N25 S20-S30	A tough uncoated submicron carbide grade, suitable for steels, stainless steel and high temperature alloys at low cutting speeds. Good choice for non-ferrous materials.	Base	
	IC20	K10-K20 N05-N25 S10-S20 H10-H20	A hard-uncoated carbide grade for machining aluminum and other non-ferrous materials at medium to high cutting speeds. Can be used for cast iron at low cutting speeds. Suitable also for machining high temperature and Titanium alloys, at low cutting speeds.	Base	
CBN	IB10H	H10	Extra fine PCBN grain size. Suitable for high speed machining of hardened steels (45-65 HRC) under stable conditions.	Base	
	IB20H	H20	A combination of coarse and fine PCBN grain, suitable for general and interrupted cutting of hardened steels.	Base	
	IB50	K01-K10 H01-H10	A PCBN grade, suitable for finish turning and grooving operations on hardened steels 45-65 HRC and nodular cast iron in continuous cutting.	Base	
PCD	ID5	N01-N10	A PCD brazed tip, suitable for machining aluminum alloys (Si < 12%) and other non-ferrous materials. Features very high wear resistance with high toughness. Suitable for finishing operations and can be used for semi roughning operations and interrupted cut.	Base	

For complete information regarding ISCAR's ceramic, CBN, and PCD grades, please refer to ISCAR's catalog on the subject.

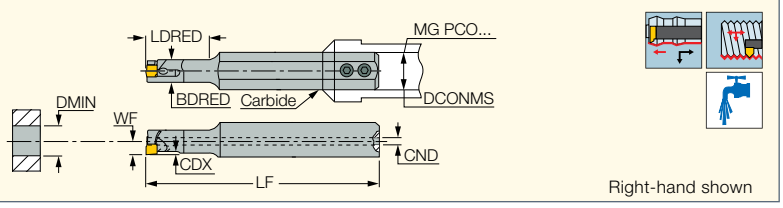
INTERNAL GROOVE-TURN



MINICHAM

MGUHR

Solid Carbide Bars for Internal Turning and Threading at 4 mm Minimum Bore Diameter

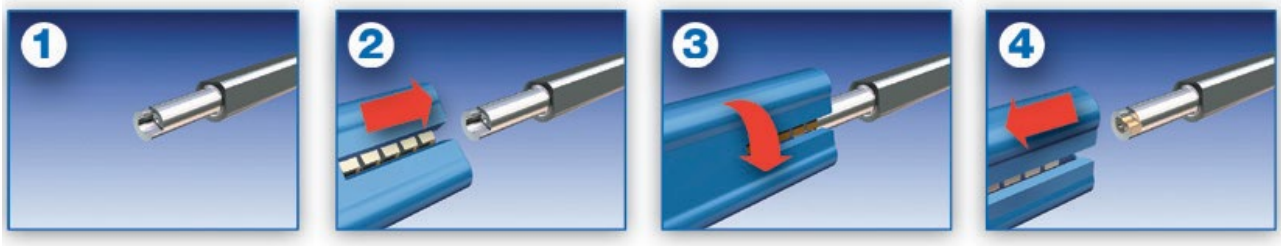


METRIC								
Designation	DMIN	CDX	WF[2]	DCONMS	OAL	LDRED	BDRED	CND[3]
MGUHR 06-04L10 [1]	4.00	0.50	2.17	6.00	62.00	10.0	3.45	1.3
MGUHR 06-04L20	4.00	0.50	2.17	6.00	62.00	20.0	3.45	1.3

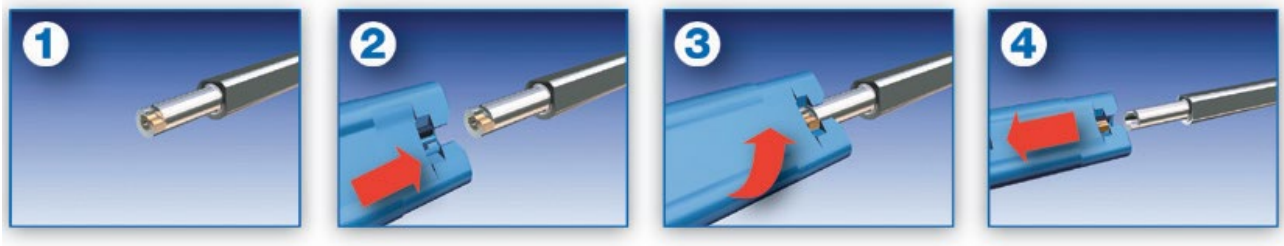
[1] DMIN for turning 4.0 mm & CDX 0.43 mm; DMIN for threading 5.0 mm & CDX 1.00 mm
[2] WF=2.17 for turning, WF=2.7 for threading
[3] Coolant entry diameter

For inserts, see pages: UMGR (403) • UMGR-A55 (753) • UMGR-A60 (778)
For holders, see pages: PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

Mounting Operation

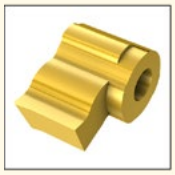


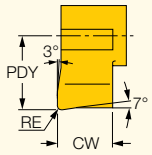
Dismounting Operation



MINICHAM

UMGR
Miniature Indexable Inserts
for Internal Turning









Right hand insert shown

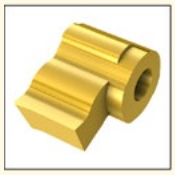
M E T R I C

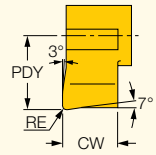
Designation	Dimensions CW	RE	PDY	DMIN	IC508
UMGR 4.0-0.0	1.63	0.00	2.20	4.00	●
UMGR 4.0-0.1	1.63	0.10	1.60	4.00	●

For tools, see pages: MGUHR (402)

MINICHAM

UMGR
Miniature Indexable Inserts
for Internal Turning









Right hand insert shown

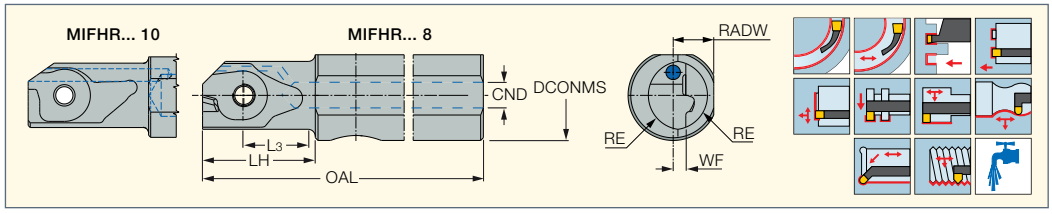
I N C H

Designation	Dimensions CW	RE	PDY	DMIN	IC508
UMGR 4.0-0.0	.064	.0000	.087	.157	●
UMGR 4.0-0.1	.064	.0039	.063	.157	●

MIN CUT MINI FACE LINE

MIFHR

Bars for Face and Internal Grooving, Undercutting and Threading Inserts



M E T R I C

Designation	DCONMS	CND(3)	WF	RADW	OAL	L3	LH	RE	Insert			
MIFHR 8SC-8-SRK (1)	8.00	1.2	1.4	3.70	75.00	7.40	11.7	3.80	MI.R 8	SR 14-297	T-8/5	
MIFHR 10C-8	10.00	5.0	1.4	4.50	102.50	7.40	12.5	3.80	MI.R 8	SR 14-297	T-8/5	
MIFHR 12C-8	12.00	5.0	1.4	5.50	102.50	7.40	12.5	3.80	MI.R 8	SR 14-297	T-8/5	
MIFHR 12C-10 (2)	12.00	6.0	2.4	5.50	90.00	11.20	17.2	4.60	MI.R 10	SR 34-506 M3X0.5	T-9/5	
MIFHR 16C-10 (2)	16.00	6.0	2.4	7.50	90.00	11.20	17.2	4.60	MI.R 10	SR 34-506 M3X0.5	T-9/5	
MIFHR 16C-15	16.00	8.0	2.7	7.50	100.00	12.50	19.0	10.30	MI.R 15	SR 34-506/L	T-9/5	PL 16
MIFHR 20C-15	20.00	8.5	4.7	9.00	100.00	12.50	19.0	11.30	MI.R 15	SR 34-506/L	T-9/5	PL 20

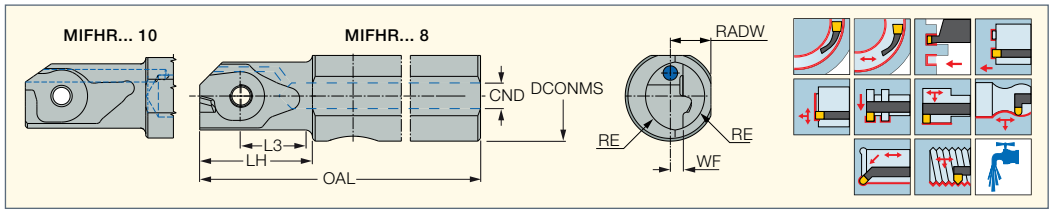
(1) Solid carbide shank
(2) Only face grooving inserts are available for this tool
(3) Coolant entry diameter

For inserts, see pages: MEFL (628) • MIFR (629) • MIGR 8 (405) • MITR 8-MT (779) • MIUR 8 (406)
For holders, see pages: PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

MIN CUT MINI FACE LINE

MIFHR

Bars for Face and Internal Grooving, Undercutting and Threading Inserts



I N C H

Designation	DCONMS	CND(2)	WF	RADW	OAL	L3	LH	RE	Insert			
MIFHR 9.5C-8	.375	.196	.055	.169	4.030	.291	.492	.1490	MI.R 8	SR 14-297	T-8/5	
MIFHR 12.7C-8	.500	.196	.055	.230	4.030	.291	.492	.1490	MI.R 8	SR 14-297	T-8/5	
MIFHR 12.7C-10 (1)	.500	.236	.094	.230	3.543	.440	.677	.1810	MI.R 10	SR 34-506 M3X0.5	T-9/5	
MIFHR 15.9C-10 (1)	.625	.236	.094	.287	3.543	.440	.677	.1810	MI.R 10	SR 34-506 M3X0.5	T-9/5	
MIFHR 15.9C-15	.625	.315	.105	.295	3.937	.441	.748	.4010	MI.R 15	SR 34-506/L	T-9/5	PL 062
MIFHR 19C-15	.750	.335	.183	.354	3.937	.492	.748	.4450	MI.R 15	SR 34-506/L	T-9/5	PL 075

(1) Only face grooving inserts are available for this tool
(2) Coolant entry diameter

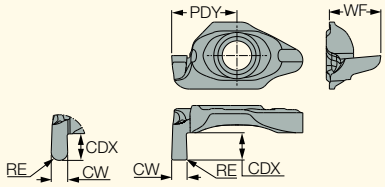
For inserts, see pages: MEFL (628) • MIFR (629) • MIGR 8 (405) • MITR 8-MT (779) • MIUR 8 (406)

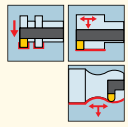
MINI FACE LINE

MIGR 8

Internal Shallow Grooving Inserts







M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	DMIN	CDX	PDY	WF	IC908	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
MIGR 8-0.50-0.00	0.50	-	0.020	0.020	8.50	1.40	6.30	4.00	●	0.05-0.50	0.03-0.10	0.01-0.03
MIGR 8-1.00-0.05	1.00	0.05	0.020	0.020	8.50	1.40	6.80	4.00	●	0.05-0.50	0.03-0.10	0.01-0.03
MIGR 8-1.20-0.05	1.20	0.05	0.020	0.020	9.20	2.10	6.80	4.70	●	0.05-0.50	0.03-0.10	0.01-0.03
MIGR 8-1.20-0.60	1.20	0.60	0.020	0.020	9.20	2.10	6.80	4.70	●	0.05-0.50	0.03-0.10	0.01-0.03
MIGR 8-1.50-0.05	1.50	0.05	0.020	0.020	9.20	2.10	6.80	4.70	●	0.05-0.50	0.03-0.10	0.01-0.03
MIGR 8-1.60-0.80	1.60	0.80	0.020	0.020	9.20	2.10	6.80	4.70	●	0.05-0.50	0.03-0.10	0.01-0.03
MIGR 8-2.00-0.10	2.00	0.10	0.020	0.020	8.90	1.80	6.80	4.40	●	0.05-0.50	0.03-0.10	0.01-0.03
MIGR 8-2.00-1.00	2.00	1.00	0.020	0.020	9.20	2.10	6.80	4.70	●	0.05-0.50	0.03-0.10	0.01-0.03

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

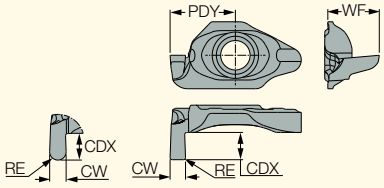
For tools, see pages: MIFHR (404)

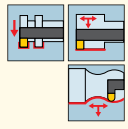
MINI FACE LINE

MIGR 8

Internal Shallow Grooving Inserts







I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	DMIN	CDX	PDY	WF	IC908	Recommended Machining Data a_p (inch)	f turn (IPR)	f groove (IPR)
MIGR 8-0.50-0.00	.020	-	.00080	.0008	.335	.055	.248	.157	●	.002-.020	.0012-.0039	.0004-.0012
MIGR 8-1.00-0.05	.039	.0020	.00080	.0008	.335	.055	.268	.157	●	.002-.020	.0012-.0039	.0004-.0012
MIGR 8-1.20-0.05	.047	.0020	.00080	.0008	.362	.083	.268	.185	●	.002-.020	.0012-.0039	.0004-.0012
MIGR 8-1.20-0.60	.047	.0236	.00080	.0008	.362	.083	.268	.185	●	.002-.020	.0012-.0039	.0004-.0012
MIGR 8-1.50-0.05	.059	.0020	.00080	.0008	.362	.083	.268	.185	●	.002-.020	.0012-.0039	.0004-.0012
MIGR 8-1.60-0.80	.063	.0315	.00080	.0008	.362	.083	.268	.185	●	.002-.020	.0012-.0039	.0004-.0012
MIGR 8-2.00-0.10	.079	.0039	.00080	.0008	.350	.071	.268	.173	●	.002-.020	.0012-.0039	.0004-.0012
MIGR 8-2.00-1.00	.079	.0394	.00080	.0008	.362	.083	.268	.185	●	.002-.020	.0012-.0039	.0004-.0012

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

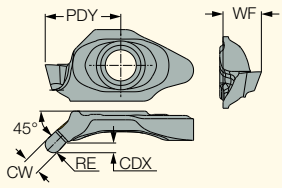
For tools, see pages: MIFHR (404)

MIN CUT MINI FACE LINE

MIUR 8

45° Full Radius Internal Undercutting Inserts





M E T R I C

Designation	Dimensions								IC908	Recommended Machining Data		
	CW	RE	CWTOL[1]	RETOL[2]	DMIN	CDX	PDY	WF		a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
MIUR 8-1.00-0.50	1.00	0.50	0.020	0.020	8.00	1.00	6.70	3.60	●	0.03-0.50	0.03-0.10	0.01-0.03
MIUR 8-1.5-0.75	1.50	0.75	0.020	0.020	8.10	1.10	6.70	3.60	●	0.03-0.50	0.03-0.10	0.01-0.03
MIUR 8-2.00-1.00	2.00	1.00	0.020	0.020	8.30	0.60	6.70	3.60	●	0.03-0.50	0.03-0.10	0.01-0.03

[1] Cutting width tolerance (+/-)
[2] Corner radius tolerance (+/-)

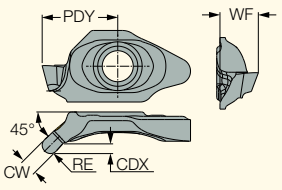
For tools, see pages: MIFHR (404)

MIN CUT MINI FACE LINE

MIUR 8

45° Full Radius Internal Undercutting Inserts





I N C H

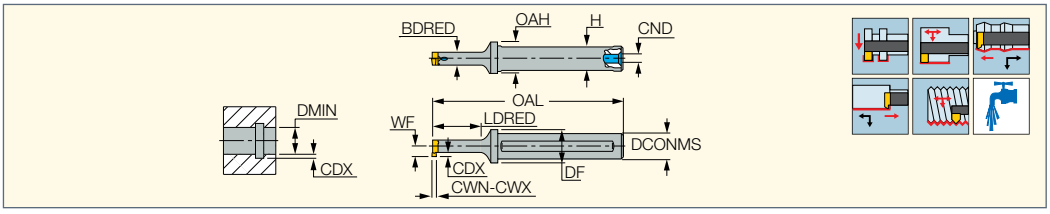
Designation	Dimensions								IC908	Recommended Machining Data		
	CW	RE	CWTOL[1]	RETOL[2]	DMIN	CDX	PDY	WF		a_p (inch)	f turn (IPR)	f groove (IPR)
MIUR 8-1.00-0.50	.039	.0197	.00078	.0008	.315	.039	.264	.142	●	.001-.020	.0012-.0039	.0004-.0012
MIUR 8-1.50-0.75	.059	.0295	.00078	.0008	.319	.043	.264	.142	●	.001-.020	.0012-.0039	.0004-.0012
MIUR 8-2.00-1.00	.079	.0394	.00078	.0008	.327	.024	.264	.142	●	.001-.020	.0012-.0039	.0004-.0012

[1] Cutting width tolerance (+/-)
[2] Corner radius tolerance (+/-)

For tools, see pages: MIFHR (404)

CHAMGROOVE

MG
Internal Grooving, Turning and Threading Bars



M E T R I C

Designation	DCONMS	DMIN(1)	CDX(2)	BDRED	OAL	LDRED	WF(3)	H	CWN(4)	CWX(5)	OAH	DF	CND(6)	Insert	MIID(7)		
MG 12-08C16	12.00	8.00	1.50	6.00	92.00	16.0	4.80	11.0	0.50	3.00	16.3	18.00	6.0	GIQR/L 8	GIQR 8	SR 76-1499	T-8/5
MG 12-08C23	12.00	8.00	1.50	6.00	92.00	23.0	4.80	11.0	0.50	3.00	16.3	18.00	6.0	GIQR/L 8	GIQR 8	SR 76-1499	T-8/5
MG 12-11C25	12.00	11.00	2.30	8.00	92.50	25.0	6.70	11.0	0.50	3.00	16.3	18.00	6.0	GIQR/L 11	GIQR 11	SR M3.5-08134	T-9/5

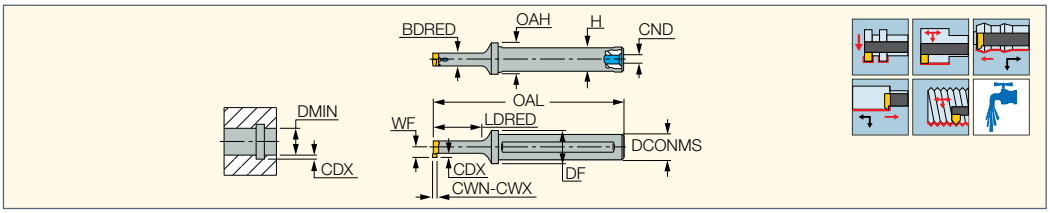
- The same tool applies on right and left machining

(1) Check according to specific insert data
(2) Check according to specific insert data
(3) Cutting edge radius on rotating tool
(4) Minimum cutting width
(5) Maximum cutting width
(6) Coolant entry diameter
(7) Master insert identification

For inserts, see pages: GIQR/L 8 (409) • GIQR/L 8-R (410) • GIQR/L 11 (411) • GIQR/L 11-R (412) • GIQR/L 11-15 (413) • GIQR/L 11-15-R (414) • GIQR/L-A18 (415) • GIQR/L-B18 (416) • GIQR/L-MT (780) • GIQR/L-WT (747)

CHAMGROOVE

MG
Internal Grooving, Turning and Threading Bars



I N C H

Designation	DCONMS	DMIN(1)	CDX(2)	BDRED	OAL	LDRED	WF(3)	H	DF	OAH	CND(4)	CWN(5)	CWX(6)	Insert	MIID(7)		
MG 12.7-08C16	.500	.315	.059	.236	3.700	.630	.190	.430	.709	.641	.236	.020	.118	GIQR/L 8	GIQR 8	SR 76-1499	T-8/5
MG 12.7-08C23	.500	.315	.059	.236	3.700	.910	.190	.430	.709	.641	.236	.020	.118	GIQR/L 8	GIQR 8	SR 76-1499	T-8/5
MG 12.7-11C25	.500	.433	.090	.315	3.700	.980	.260	.430	.709	.641	.236	.020	.118	GIQR/L 11	GIQR 11	SR M3.5-08134	T-9/5

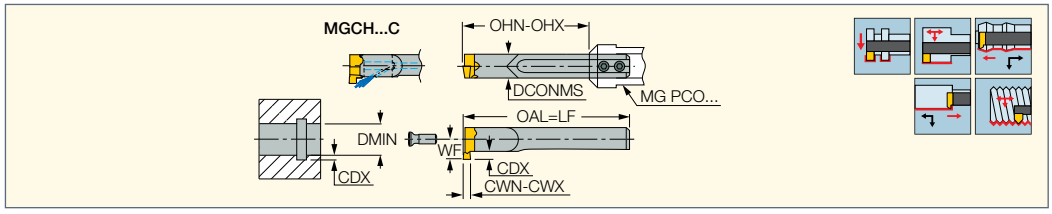
- The same tool applies on right and left machining

(1) Check according to specific insert data
(2) Check according to specific insert data
(3) Cutting edge radius on rotating tool
(4) Coolant entry diameter
(5) Minimum cutting width
(6) Maximum cutting width
(7) Master insert identification

For inserts, see pages: GIQR/L 8 (409) • GIQR/L 8-R (410) • GIQR/L 11 (411) • GIQR/L 11-R (412) • GIQR/L 11-15 (413) • GIQR/L 11-15-R (414) • GIQR/L-A18 (415) • GIQR/L-B18 (416) • GIQR/L-MT (780) • GIQR/L-WT (747)

CHAMGROOVE

MGCH
Solid Carbide Bars for Internal Grooving, Turning and Threading, DMIN 8 mm



M E T R I C

Designation	DMIN[1]	CDX[2]	DCONMS	OAL	OHN[3]	OHX[4]	WF	CWN[5]	CWX[6]	CSP[7]	Insert	MIID[8]		
MGCH 06	8.00	1.50	6.00	62.00	16.0	42.0	4.80	0.50	4.00	0	GIQR/L 8	GIQR 8	SR 76-1499	T-8/5
MGCH 06C	8.00	1.50	6.00	62.00	16.0	42.0	4.80	0.50	4.00	1	GIQR/L 8	GIQR 8	SR 76-1499	T-8/5
MGCH 06-L100	8.00	1.50	6.00	100.00	16.0	80.0	4.80	0.50	4.00	0	GIQR/L 8	GIQR 8	SR 76-1499	T-8/5
MGCH 08	- [9]	- [10]	8.00	76.00	20.0	56.0	- [11]	0.50	5.00	0	GIQR/L 11/11-15	GIQR 11	SR M3.5-08134	T-9/5
MGCH 08C	- [9]	- [10]	8.00	76.00	20.0	56.0	- [11]	0.50	5.00	1	GIQR/L 11/11-15	GIQR 11	SR M3.5-08134	T-9/5
MGCH 08-L125	- [9]	- [10]	8.00	125.00	70.0	105.0	- [11]	0.50	5.00	0	GIQR/L 11/11-15	GIQR 11	SR M3.5-08134	T-9/5

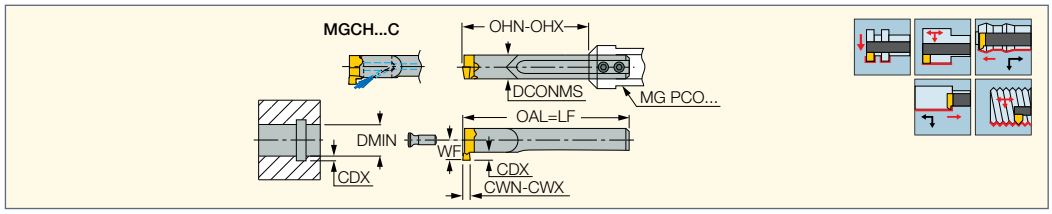
- The same tool applies on right and left machining .

[1] Check according to specific insert data
[2] Check according to specific insert data
[3] Minimum overhang
[4] Maximum overhang
[5] Minimum cutting width
[6] Maximum cutting width
[7] 0 - Without coolant supply, 1 - With coolant supply
[8] Master insert identification
[9] DMIN=11 mm for GIQR 11, DMIN=15 mm for GIQR 11-15
[10] CDX=2.30 for GIQR 11, CDX=6.3 for GIQR 11-15
[11] WF=6.70 mm for GIQR 11, WF=10.6 mm for GIQR 11-15

For inserts, see pages: GIQR/L 8 (409) • GIQR/L 8-R (410) • GIQR/L 11 (411) • GIQR/L 11-R (412) • GIQR/L 11-15 (413) • GIQR/L 11-15-R (414) • GIQR/L-A18 (415) • GIQR/L-B18 (416) • GIQR/L-MT (780) • GIQR/L-WT (747)
For holders, see pages: PICCO/MG PCO (Holder) (439) • SBB (126) • SC-PICCO (836)

CHAMGROOVE

MGCH
Solid Carbide Bars for Internal Grooving, Turning and Threading, DMIN .315"



I N C H

Designation	DMIN[1]	CDX[2]	DCONMS	OAL	OHN[3]	OHX[4]	WF	CWN[5]	CWX[6]	CSP[7]	Insert	MIID[8]		
MGCH 06	.315	.059	.236	2.441	.63	1.654	.189	.020	.157	0	GIQR/L 8	GIQR 8	SR 76-1499	T-8/5
MGCH 06C	.315	.059	.236	2.441	.63	1.654	.189	.020	.157	1	GIQR/L 8	GIQR 8	SR 76-1499	T-8/5
MGCH 06-L100	.315	.059	.236	3.937	.63	3.150	.189	.020	.157	0	GIQR/L 8	GIQR 8	SR 76-1499	T-8/5
MGCH 08	- [9]	- [10]	.315	2.992	.79	2.205	- [11]	.020	.197	0	GIQR/L 11	GIQR 11	SR M3.5-08134	T-9/5
MGCH 08C	- [9]	- [10]	.315	2.992	.79	2.205	- [11]	.020	.197	1	GIQR/L 11	GIQR 11	SR M3.5-08134	T-9/5
MGCH 08-L125	- [9]	- [10]	.315	4.921	2.76	4.134	- [11]	.020	.197	0	GIQR/L 11	GIQR 11	SR M3.5-08134	T-9/5

- The same tool applies on right and left machining

[1] Check according to specific insert data
[2] Check according to specific insert data
[3] Minimum overhang
[4] Maximum overhang
[5] Minimum cutting width
[6] Maximum cutting width
[7] 0 - Without coolant supply, 1 - With coolant supply
[8] Master insert identification
[9] DMIN=.433" for GIQR 11, DMIN=.590" for GIQR 11-15
[10] CDX=.090 for GIQR 11 CDX=.248 for GIQR 11-15
[11] WF=.264" for GIQR 11, WF=.417" for GIQR 11-15

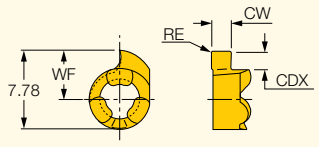
For inserts, see pages: GIQR/L 8 (409) • GIQR/L 8-R (410) • GIQR/L 11 (411) • GIQR/L 11-R (412) • GIQR/L 11-15 (413) • GIQR/L 11-15-R (414) • GIQR/L-A18 (415) • GIQR/L-B18 (416) • GIQR/L-MT (780) • GIQR/L-WT (747)
For holders, see pages: PICCO/MG PCO (Holder) (439) • SBB (126) • SC-PICCO (836)

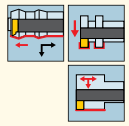
CHAMGROOVE

GIQR/L 8

Precision Ground Single-Ended Inserts for Internal Grooving and Turning







Left hand insert shown

M E T R I C

Designation	Dimensions CW	RE	CWTOL(2)	RETOL(3)	CDX	DMIN	WF	IC528	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIQR/L 8-0.50-0.00 (1)	0.50	0.00	0.020	0.030	0.70	8.00	4.80	●	-	-	0.01-0.03
GIQR/L 8-0.75-0.00 (1)	0.75	0.00	0.020	0.030	1.20	8.00	4.80	●	-	-	0.01-0.03
GIQR/L 8-0.85-0.00 (1)	0.85	0.00	0.020	0.030	1.20	8.00	4.80	●	-	-	0.01-0.03
GIQR/L 8-0.95-0.00 (1)	0.95	0.00	0.020	0.030	1.50	8.00	4.80	●	-	-	0.01-0.03
GIQR/L 8-1.00-0.00 (1)	1.00	0.00	0.020	0.030	1.50	8.00	4.80	●	-	-	0.01-0.03
GIQR/L 8-1.04-0.05 (1)	1.04	0.05	0.020	0.030	1.50	8.00	4.80	●	-	-	0.01-0.03
GIQR/L 8-1.20-0.05 (1)	1.20	0.05	0.020	0.030	1.50	8.00	4.80	●	-	-	0.01-0.03
GIQR/L 8-1.40-0.05 (1)	1.40	0.05	0.020	0.030	1.50	8.00	4.80	●	-	-	0.01-0.03
GIQR/L 8-1.47-0.05 (1)	1.47	0.05	0.020	0.030	1.50	8.00	4.80	●	-	-	0.01-0.03
GIQR/L 8-1.50-0.05 (1)	1.50	0.05	0.020	0.030	1.50	8.00	4.80	●	-	-	0.01-0.03
GIQR/L 8-1.70-0.10	1.70	0.10	0.020	0.030	1.50	8.00	4.80	●	0.12-0.68	0.02-0.05	0.01-0.03
GIQR/L 8-1.96-0.10	1.96	0.10	0.020	0.030	1.50	8.00	4.80	●	0.12-0.78	0.02-0.05	0.01-0.03
GIQR/L 8-2.00-0.10	2.00	0.10	0.020	0.030	1.50	8.00	4.80	●	0.12-0.80	0.02-0.05	0.01-0.03
GIQR/L 8-2.22-0.10	2.22	0.10	0.020	0.030	1.50	8.00	4.80	●	0.12-0.88	0.02-0.05	0.01-0.03
GIQR/L 8-2.50-0.20	2.50	0.20	0.020	0.030	1.50	8.00	4.80	●	0.24-1.00	0.02-0.05	0.01-0.03
GIQR/L 8-3.00-0.20	3.00	0.20	0.020	0.030	1.50	8.00	4.80	●	0.24-1.20	0.02-0.05	0.01-0.03
GIQR 8-3.50-0.20	3.50	0.20	0.020	0.030	1.50	8.00	4.80	●	0.24-1.40	0.02-0.05	0.01-0.03
GIQR 8-4.00-0.20	4.00	0.20	0.020	0.030	1.50	8.00	4.80	●	0.24-1.60	0.02-0.05	0.01-0.03

• According to retaining rings standard DIN 471/472. • Can be used for groove milling by circular interpolation

(1) For grooving only

(2) Cutting width tolerance (+/-)

(3) Corner radius tolerance (+/-)

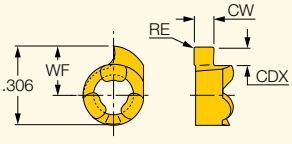
For tools, see pages: MG (407) • MGCH (408)

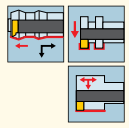
CHAMGROOVE

GIQR/L 8

Precision Ground Single-Ended Inserts for Internal Grooving and Turning







Left hand insert shown

I N C H

Designation	Dimensions CW	RE	CWTOL(2)	RETOL(3)	CDX	DMIN	WF	IC528	Recommended Machining Data a_p (inch)	f turn (IPR)	f groove (IPR)
GIQR/L 8-0.50-0.00 (1)	.020	0	.00078	.0012	.028	.315	.189	●	-	-	.0004-.0012
GIQR/L 8-0.75-0.00 (1)	.030	0	.00078	.0012	.047	.315	.189	●	-	-	.0004-.0012
GIQR/L 8-0.85-0.00 (1)	.033	0	.00078	.0012	.047	.315	.189	●	-	-	.0004-.0012
GIQR/L 8-0.95-0.00 (1)	.037	0	.00078	.0012	.059	.315	.189	●	-	-	.0004-.0012
GIQR/L 8-1.00-0.00 (1)	.039	0	.00078	.0012	.059	.315	.189	●	-	-	.0004-.0012
GIQR/L 8-1.04-0.05 (1)	.041	.002	.00078	.0012	.059	.315	.189	●	-	-	.0004-.0012
GIQR/L 8-1.20-0.05 (1)	.047	.002	.00078	.0012	.059	.315	.189	●	-	-	.0004-.0012
GIQR/L 8-1.40-0.05 (1)	.055	.002	.00078	.0012	.059	.315	.189	●	-	-	.0004-.0012
GIQR/L 8-1.47-0.05 (1)	.058	.002	.00078	.0012	.059	.315	.189	●	-	-	.0004-.0012
GIQR/L 8-1.50-0.05 (1)	.059	.002	.00078	.0012	.059	.315	.189	●	-	-	.0004-.0012
GIQR/L 8-1.70-0.10	.067	.004	.00078	.0012	.059	.315	.189	●	.005-.027	.0008-.0020	.0004-.0012
GIQR/L 8-1.96-0.10	.077	.004	.00078	.0012	.059	.315	.189	●	.005-.031	.0008-.0020	.0004-.0012
GIQR/L 8-2.00-0.10	.079	.004	.00078	.0012	.059	.315	.189	●	.005-.031	.0008-.0020	.0004-.0012
GIQR/L 8-2.22-0.10	.087	.004	.00078	.0012	.059	.315	.189	●	.005-.035	.0008-.0020	.0004-.0012
GIQR/L 8-2.50-0.20	.098	.008	.00078	.0012	.059	.315	.189	●	.009-.039	.0008-.0020	.0004-.0012
GIQR/L 8-3.00-0.20	.118	.008	.00078	.0012	.059	.315	.189	●	.009-.047	.0008-.0020	.0004-.0012
GIQR 8-3.50-0.20	.138	.008	.00078	.0012	.059	.315	.189	●	.009-.055	.0008-.0020	.0004-.0012
GIQR 8-4.00-0.20	.157	.008	.00078	.0012	.059	.315	.189	●	.009-.063	.0008-.0020	.0004-.0012

• According to retaining rings standard DIN 471/472. • Can be used for groove milling by circular interpolation

(1) For grooving only

(2) Cutting width tolerance (+/-)

(3) Corner radius tolerance (+/-)

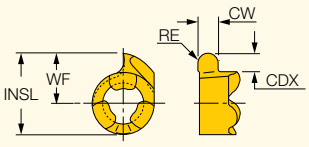
For tools, see pages: MG (407) • MGCH (408)

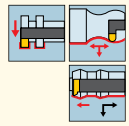
CHAMGROOVE

GIQR/L 8-R

Precision Ground Single-Ended Full Radius Inserts for Internal Grooving and Profiling







Left hand insert shown

M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX	DMIN	WF	INSL	IC528	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIQR/L 8-1.20-R060	1.20	0.60	0.020	0.030	1.50	8.00	4.80	7.78	●	0.30-0.60	0.02-0.05	0.01-0.03
GIQR/L 8-2.00-R100	2.00	1.00	0.020	0.030	1.50	8.00	4.80	7.78	●	0.50-1.00	0.02-0.05	0.01-0.03
GIQR 8-3.00-R150	3.00	1.50	0.020	0.030	1.50	8.00	4.80	7.78	●	0.70-1.50	0.02-0.05	0.01-0.03

• Comply to retaining rings DIN 471/472 • Can be used for groove milling by circular interpolation

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

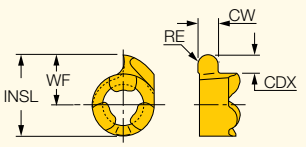
For tools, see pages: MG (407) • MGCH (408)

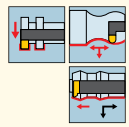
CHAMGROOVE

GIQR/L 8-R

Precision Ground Single-Ended Full Radius Inserts for Internal Grooving and Profiling







Left hand insert shown

I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX	DMIN	WF	INSL	IC528	Recommended Machining Data a_p (inch)	f turn (IPR)	f groove (IPR)
GIQR/L 8-1.20-R060	.047	.024	.00078	.0012	.059	.315	.189	.306	●	.012-.024	.0008-.0020	.0004-.0012
GIQR/L 8-2.00-R100	.079	.039	.00078	.0012	.059	.315	.189	.306	●	.020-.039	.0008-.0020	.0004-.0012
GIQR 8-3.00-R150	.118	.059	.00078	.0012	.059	.315	.189	.306	●	.028-.059	.0008-.0020	.0004-.0012

• Comply to retaining rings DIN 471/472 • Can be used for groove milling by circular interpolation

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

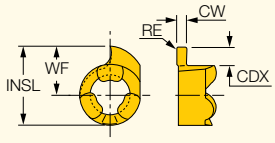
For tools, see pages: MG (407) • MGCH (408)

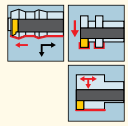
CHAMGROOVE

GIQR/L 11

Precision Ground Single-Ended Inserts for Internal Grooving and Turning, DMIN 11 mm







Left hand insert shown

M E T R I C

Designation	Dimensions CW	RE	CWTOL(2)	RETOL(3)	CDX	DMIN	INSL	WF	IC528	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIQR/L 11-0.50-0.00 (1)	0.50	0.00	0.020	0.030	1.00	11.00	10.68	6.70	●	-	-	0.01-0.03
GIQR/L 11-0.75-0.00 (1)	0.75	0.00	0.020	0.030	1.50	11.00	10.68	6.70	●	-	-	0.01-0.03
GIQR 11-0.85-0.00 (1)	0.85	0.00	0.020	0.030	1.50	11.00	10.68	6.70	●	-	-	0.01-0.03
GIQR/L 11-0.95-0.00 (1)	0.95	0.00	0.020	0.030	1.80	11.00	10.68	6.70	●	-	-	0.01-0.03
GIQR/L 11-1.04-0.05 (1)	1.04	0.05	0.020	0.030	2.00	11.00	10.68	6.70	●	-	-	0.01-0.03
GIQR/L 11-1.20-0.05 (1)	1.20	0.05	0.020	0.030	2.30	11.00	10.68	6.70	●	-	-	0.01-0.03
GIQR/L 11-1.40-0.05 (1)	1.40	0.05	0.020	0.030	2.30	11.00	10.68	6.70	●	-	-	0.01-0.03
GIQR/L 11-1.50-0.05 (1)	1.50	0.05	0.020	0.030	2.30	11.00	10.68	6.70	●	-	-	0.01-0.03
GIQR/L 11-1.70-0.05 (1)	1.70	0.05	0.020	0.030	2.30	11.00	10.68	6.70	●	-	-	0.01-0.03
GIQR/L 11-1.96-0.10 (1)	1.96	0.10	0.020	0.030	2.30	11.00	10.68	6.70	●	-	-	0.01-0.03
GIQR/L 11-2.00-0.10 (1)	2.00	0.10	0.020	0.030	2.30	11.00	10.68	6.70	●	-	-	0.01-0.03
GIQR/L 11-2.22-0.10	2.22	0.10	0.020	0.030	2.30	11.00	10.68	6.70	●	0.12-0.88	0.03-0.07	0.02-0.05
GIQR/L 11-2.39-0.15	2.39	0.15	0.020	0.030	2.30	11.00	10.68	6.70	●	0.18-0.95	0.03-0.07	0.02-0.05
GIQR/L 11-2.47-0.20	2.47	0.20	0.020	0.030	2.30	11.00	10.68	6.70	●	0.24-0.98	0.03-0.07	0.02-0.05
GIQR/L 11-2.50-0.20	2.50	0.20	0.020	0.030	2.30	11.00	10.68	6.70	●	0.24-1.00	0.03-0.07	0.02-0.05
GIQR/L 11-2.70-0.20	2.70	0.20	0.020	0.030	2.30	11.00	10.68	6.70	●	0.24-1.08	0.03-0.07	0.02-0.05
GIQR/L 11-3.00-0.20	3.00	0.20	0.020	0.030	2.30	11.00	10.68	6.70	●	0.24-1.20	0.03-0.07	0.02-0.05
GIQR 11-3.18-0.20	3.18	0.20	0.020	0.030	2.30	11.00	10.68	6.70	●	0.24-1.27	0.03-0.07	0.02-0.05
GIQR 11-4.00-0.20	4.00	0.20	0.020	0.030	2.30	11.00	10.68	6.70	●	0.24-1.60	0.03-0.07	0.02-0.05

• Comply to retaining rings DIN 471/472 • Can be used for groove milling by circular interpolation

(1) For grooving only

(2) Cutting width tolerance (+/-)

(3) Corner radius tolerance (+/-)

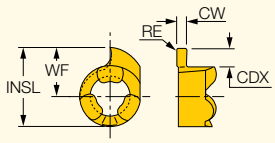
For tools, see pages: MG (407) • MGCH (408)

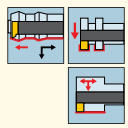
CHAMGROOVE

GIQR/L 11

Precision Ground Single-Ended Inserts for Internal Grooving and Turning, DMIN .433"







Left hand insert shown

I N C H

Designation	Dimensions CW	RE	CWTOL(2)	RETOL(3)	CDX	DMIN	INSL	WF	IC528	Recommended Machining Data a_p (inch)	f turn (IPR)	f groove (IPR)
GIQR/L 11-0.50-0.00 (1)	.020	0	.00078	.0012	.039	.433	.420	.264	●	-	-	.0004-.0012
GIQR/L 11-0.75-0.00 (1)	.030	0	.00078	.0012	.059	.433	.420	.264	●	-	-	.0004-.0012
GIQR 11-0.85-0.00 (1)	.033	0	.00078	.0012	.059	.433	.420	.264	●	-	-	.0004-.0012
GIQR/L 11-0.95-0.00 (1)	.037	0	.00078	.0012	.071	.433	.420	.264	●	-	-	.0004-.0012
GIQR/L 11-1.04-0.05 (1)	.041	.002	.00078	.0012	.079	.433	.420	.264	●	-	-	.0004-.0012
GIQR/L 11-1.20-0.05 (1)	.047	.002	.00078	.0012	.091	.433	.420	.264	●	-	-	.0004-.0012
GIQR/L 11-1.40-0.05 (1)	.055	.002	.00078	.0012	.091	.433	.420	.264	●	-	-	.0004-.0012
GIQR/L 11-1.50-0.05 (1)	.059	.002	.00078	.0012	.091	.433	.420	.264	●	-	-	.0004-.0012
GIQR/L 11-1.70-0.05 (1)	.067	.002	.00078	.0012	.091	.433	.420	.264	●	-	-	.0004-.0012
GIQR/L 11-1.96-0.10 (1)	.077	.004	.00078	.0012	.091	.433	.420	.264	●	-	-	.0004-.0012
GIQR/L 11-2.00-0.10 (1)	.079	.004	.00078	.0012	.091	.433	.420	.264	●	-	-	.0004-.0012
GIQR/L 11-2.22-0.10	.087	.004	.00078	.0012	.091	.433	.420	.264	●	.005-.035	.0012-.0027	.0008-.0020
GIQR/L 11-2.39-0.15	.094	.006	.00078	.0012	.091	.433	.420	.264	●	.007-.037	.0012-.0027	.0008-.0020
GIQR/L 11-2.47-0.20	.097	.008	.00078	.0012	.091	.433	.420	.264	●	.009-.039	.0012-.0027	.0008-.0020
GIQR/L 11-2.50-0.20	.098	.008	.00078	.0012	.091	.433	.420	.264	●	.009-.039	.0012-.0027	.0008-.0020
GIQR/L 11-2.70-0.20	.106	.008	.00078	.0012	.091	.433	.420	.264	●	.009-.043	.0012-.0027	.0008-.0020
GIQR/L 11-3.00-0.20	.118	.008	.00078	.0012	.091	.433	.420	.264	●	.009-.047	.0012-.0027	.0008-.0020
GIQR 11-3.18-0.20	.125	.008	.00078	.0012	.091	.433	.420	.264	●	.009-.050	.0012-.0027	.0008-.0020
GIQR 11-4.00-0.20	.157	.008	.00078	.0012	.091	.433	.420	.264	●	.009-.063	.0012-.0027	.0008-.0020

• Comply to retaining rings DIN 471/472 • Can be used for groove milling by circular interpolation

(1) For grooving only

(2) Cutting width tolerance (+/-)

(3) Corner radius tolerance (+/-)

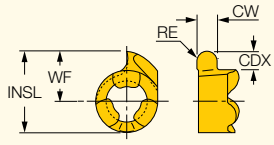
For tools, see pages: MG (407) • MGCH (408)

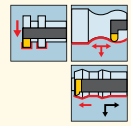
CHAMGROOVE

GIQR/L 11-R

Precision Ground Single-Ended Full Radius Inserts for Internal Grooving and Profiling







Left hand insert shown

M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX	DMIN	WF	INSL	IC528	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIQR/L 11-1.20-R060	1.20	0.60	0.020	0.030	2.30	11.00	6.70	10.68	●	0.30-0.60	0.02-0.05	0.01-0.03
GIQR/L 11-1.80-R090	1.80	0.90	0.020	0.030	2.30	11.00	6.70	10.68	●	0.40-0.90	0.02-0.05	0.01-0.03
GIQR/L 11-2.00-R100	2.00	1.00	0.020	0.030	2.30	11.00	6.70	10.68	●	0.50-1.00	0.02-0.05	0.01-0.03
GIQR/L 11-3.00-R150	3.00	1.50	0.020	0.030	2.30	11.00	6.70	10.68	●	0.70-1.50	0.02-0.05	0.01-0.03
GIQR 11-4.00-R200	4.00	2.00	0.020	0.030	2.30	11.00	6.70	10.68	●	1.00-2.00	0.02-0.05	0.01-0.03

• Comply to retaining rings DIN 471/472 • Can be used for groove milling by circular interpolation

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

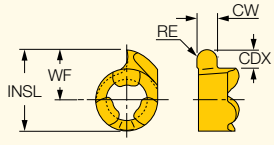
For tools, see pages: MG (407) • MGCH (408)

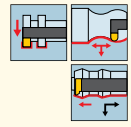
CHAMGROOVE

GIQR/L 11-R

Precision Ground Single-Ended Full Radius Inserts for Internal Grooving and Profiling







Left hand insert shown

I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX	DMIN	WF	INSL	IC528	Recommended Machining Data a_p (inch)	f turn (IPR)	f groove (IPR)
GIQR/L 11-1.20-R060	.047	.024	.00078	.0012	.091	.433	.264	.420	●	.012-.024	.0008-.0020	.0004-.0012
GIQR/L 11-1.80-R090	.071	.035	.00078	.0012	.091	.433	.264	.420	●	.016-.035	.0008-.0020	.0004-.0012
GIQR/L 11-2.00-R100	.079	.039	.00078	.0012	.091	.433	.264	.420	●	.020-.039	.0008-.0020	.0004-.0012
GIQR/L 11-3.00-R150	.118	.059	.00078	.0012	.091	.433	.264	.420	●	.028-.059	.0008-.0020	.0004-.0012
GIQR 11-4.00-R200	.157	.079	.00078	.0012	.091	.433	.264	.420	●	.039-.079	.0008-.0020	.0004-.0012

• Comply to retaining rings DIN 471/472 • Can be used for groove milling by circular interpolation

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

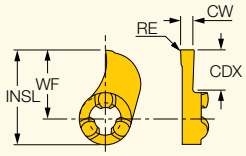
For tools, see pages: MG (407) • MGCH (408)

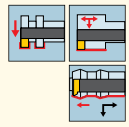
CHAMGROOVE

GIQR/L 11-15

Precision Ground Single-Ended Inserts for Internal Deep Grooving and Turning







Left hand insert shown

M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX	DMIN	INSL	WF	IC528	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIQR/L 11-15-1.50-0.05	1.50	0.05	0.020	0.030	6.30	15.00	14.60	10.60	●	0.10-0.40	0.02-0.05	0.02-0.06
GIQR/L 11-15-2.00-0.10	2.00	0.10	0.020	0.030	6.30	15.00	14.60	10.60	●	0.15-0.50	0.02-0.05	0.02-0.06
GIQR/L 11-15-2.50-0.20	2.50	0.20	0.020	0.030	6.30	15.00	14.60	10.60	●	0.25-0.65	0.02-0.05	0.02-0.06
GIQR/L 11-15-3.00-0.20	3.00	0.20	0.020	0.030	6.30	15.00	14.60	10.60	●	0.25-0.75	0.02-0.05	0.02-0.06

• Comply to retaining rings DIN 471/472 • Can be used for groove milling by circular interpolation

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

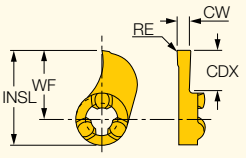
For tools, see pages: MG (407) • MGCH (408)

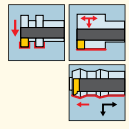
CHAMGROOVE

GIQR/L 11-15

Precision Ground Single-Ended Inserts for Internal Deep Grooving and Turning







Left hand insert shown

I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX	DMIN	INSL	WF	IC528	Recommended Machining Data a_p (inch)	f turn (IPR)	f groove (IPR)
GIQR/L 11-15-1.50-0.05	.059	.002	.00080	.0012	.248	.591	.575	.420	●	.004-.016	.0008-.0020	.0008-.0024
GIQR/L 11-15-2.00-0.10	.079	.004	.00080	.0012	.248	.591	.575	.420	●	.006-.020	.0008-.0020	.0008-.0024
GIQR/L 11-15-2.50-0.20	.098	.008	.00080	.0012	.248	.591	.575	.420	●	.010-.026	.0008-.0020	.0008-.0024
GIQR/L 11-15-3.00-0.20	.118	.008	.00080	.0012	.248	.591	.575	.420	●	.010-.030	.0008-.0020	.0008-.0024

• Comply to retaining rings DIN 471/472 • Can be used for groove milling by circular interpolation

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

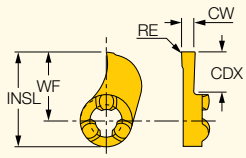
For tools, see pages: MG (407) • MGCH (408)

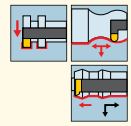
CHAMGROOVE

GIQR/L 11-15-R

Precision Ground Single-Ended
Full Radius Inserts for Deep
Internal Grooving and Profiling







Left hand insert shown

M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX	DMIN	WF	INSL	IC528	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIQR/L 11-15-2.00-R100	2.00	1.00	0.020	0.030	6.30	15.00	10.60	14.60	●	0.00-0.50	0.02-0.05	0.02-0.06
GIQR/L 11-15-2.50-R125	2.50	1.25	0.020	0.030	6.30	15.00	10.60	14.60	●	0.00-0.65	0.02-0.05	0.02-0.06
GIQR/L 11-15-3.00-R150	3.00	1.50	0.020	0.030	6.30	15.00	10.60	14.60	●	0.00-0.75	0.02-0.05	0.02-0.06

• Comply to retaining rings DIN 471/472 • Can be used for groove milling by circular interpolation

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

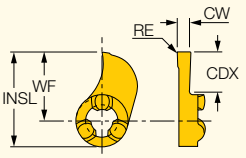
For tools, see pages: MG (407) • MGCH (408)

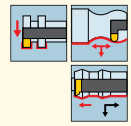
CHAMGROOVE

GIQR/L 11-15-R

Precision Ground Single-Ended
Full Radius Inserts for Deep
Internal Grooving and Profiling







Left hand insert shown

I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX	DMIN	WF	INSL	IC528	Recommended Machining Data a_p (inch)	f turn (IPR)	f groove (IPR)
GIQR/L 11-15-2.00-R100	.079	.039	.00080	.0012	.248	.591	.420	.575	●	.000-.020	.0008-.0020	.0008-.0024
GIQR/L 11-15-2.50-R125	.098	.049	.00080	.0012	.248	.591	.420	.575	●	.000-.026	.0008-.0020	.0008-.0024
GIQR/L 11-15-3.00-R150	.118	.059	.00080	.0012	.248	.591	.420	.575	●	.000-.030	.0008-.0020	.0008-.0024

• Comply to retaining rings DIN 471/472 • Can be used for groove milling by circular interpolation

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

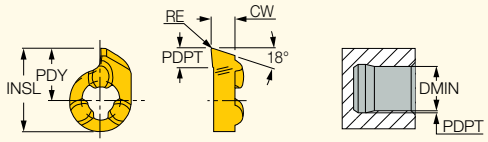
For tools, see pages: MG (407) • MGCH (408)

CHAMGROOVE

GIQR/L-A18

Internal Boring and
Profiling Inserts





Left hand insert shown

M E T R I C

Designation	Dimensions DMIN	CW	RE	PDPT	INSL	PDY	IC528	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIQR/L 8-A18-0.15	7.80	3.00	0.15	1.60	7.60	4.60	●	0.02-1.30	0.02-0.05	0.01-0.03
GIQR/L 11-A18-0.15	11.00	3.00	0.15	2.50	10.70	6.70	●	0.02-2.20	0.02-0.05	0.01-0.03

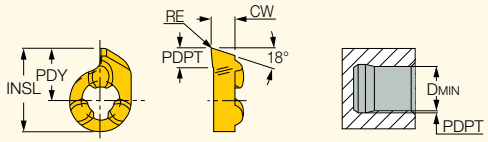
For tools, see pages: MG (407) • MGCH (408)

CHAMGROOVE

GIQR/L-A18

Internal Boring and
Profiling Inserts





Left hand insert shown

I N C H

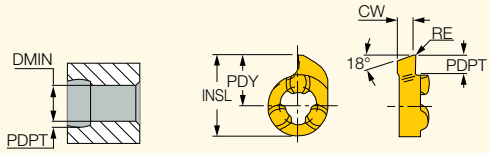
Designation	Dimensions DMIN	CW	RE	PDPT	INSL	PDY	IC528	Recommended Machining Data a_p (inch)	f turn (IPR)	f groove (IPR)
GIQR/L 8-A18-0.15	.307	.118	.0059	.063	.299	.181	●	.001-.051	.0008-.0020	.0004-.0012
GIQR/L 11-A18-0.15	.433	.118	.0059	.098	.421	.264	●	.001-.087	.0008-.0020	.0004-.0012

For tools, see pages: MG (407) • MGCH (408)

CHAMGROOVE

GIQR/L-B18
Internal Back Boring
and Profiling Inserts





Left hand insert shown

M E T R I C

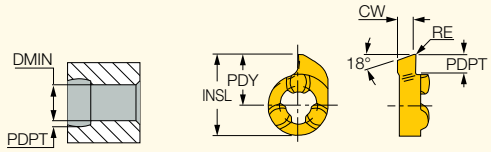
Designation	Dimensions DMIN	CW	RE	PDPT	PDY	INSL	IC528	Recommended Machining Data a_p (mm)	f turn (mm/rev)
GIQR/L 8-B18-0.15	7.80	2.50	0.15	1.30	4.60	7.60	●	0.02-1.00	0.02-0.05
GIQR/L 11-B18-0.15	11.00	2.50	0.15	2.30	6.70	10.70	●	0.02-2.00	0.02-0.05

For tools, see pages: MG (407) • MGCH (408)

CHAMGROOVE

GIQR/L-B18
Internal Back Boring
and Profiling Inserts





Left hand insert shown

I N C H

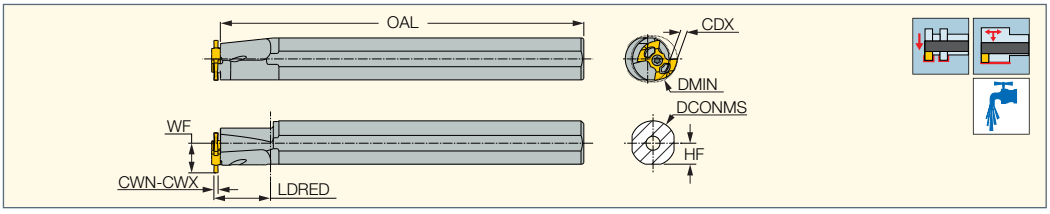
Designation	Dimensions DMIN	CW	RE	PDPT	PDY	INSL	IC528	Recommended Machining Data a_p (inch)	f turn (IPR)
GIQR/L 8-B18-0.15	.307	.098	.006	.051	.181	.299	●	.001-.039	.0008-.0020
GIQR/L 11-B18-0.15	.433	.098	.006	.091	.264	.421	●	.001-.079	.0008-.0020

For tools, see pages: MG (407) • MGCH (408)

QUICK GROOVE

GQHINR/L

Internal Grooving and Turning Bars on Which Inserts with 4 Cutting Edges Are Mounted



M E T R I C									
Designation	**CWN(1)**	**CWX(2)**	**DCONMS**	**DMIN**	**CDX**	**OAL**	**LDRED**	**WF**	**HF**
GQHINR/L 16C-16.5-20	1.00	3.00	16.00	16.50	2.50	130.00	20.0	10.60	7.5
GQHINR/L 16C-16.5-40	1.00	3.00	16.00	16.50	2.50	150.00	40.0	10.60	7.5
GQHINR/L 20C-24	1.00	3.00	20.00	24.00	2.50	160.00	60.0	13.00	9.0

- For user guide, see pages 382-400

(1) Minimum cutting width

(2) Maximum cutting width

For inserts, see pages: GQIN (418)

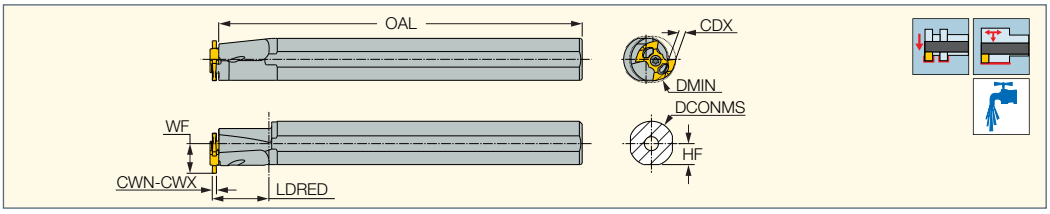
Spare Parts

Designation			
GQHINR/L 16C-16.5-20	SR 14-560	T-8/5	PL 16
GQHINR/L 16C-16.5-40	SR 14-560	T-8/5	PL 16
GQHINR/L 20C-24	SR 14-560	T-8/5	PL 20

QUICK GROOVE

GQHINR/L

Internal Grooving and Turning Bars on which Inserts with 4 Cutting Edges are mounted



I N C H									
Designation	**CWN(1)**	**CWX(2)**	**DCONMS**	**DMIN**	**CDX**	**OAL**	**LDRED**	**WF**	**HF**
GQHINR/L 15.9C-16.5-20	.039	.118	.625	.650	.098	5.118	.787	.417	.287
GQHINR/L 15.9C-16.5-40	.039	.118	.625	.650	.098	5.906	1.575	.417	.287
GQHINR/L 19C-24	.039	.118	.750	.945	.098	6.299	2.362	.512	.338

- For user guide, see pages 382-400

(1) Minimum cutting width

(2) Maximum cutting width

For inserts, see pages: GQIN (418)

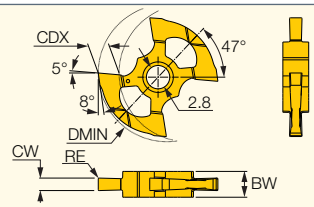
Spare Parts

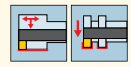
Designation			
GQHINR/L 15.9C-16.5-20	SR 14-560	T-8/5	PL 062
GQHINR/L 15.9C-16.5-40	SR 14-560	T-8/5	PL 062
GQHINR/L 19C-24	SR 14-560	T-8/5	PL 075

QUICK GROOVE

GQIN
4 Cutting Edges Precision Grounded Inserts for Internal Grooving and Recessing Operations







M E T R I C

Designation	Dimensions CW	RE	DMIN	CDX	BW	IC808G	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GQIN 1.00-0.05	1.00	0.05	16.50	2.50	3.10	●	0.05-0.30	0.02-0.05	0.02-0.06
GQIN 1.50-0.10	1.50	0.10	16.50	2.50	3.10	●	0.10-0.40	0.02-0.05	0.02-0.06
GQIN 2.00-0.20	2.00	0.20	16.50	2.50	3.10	●	0.20-0.50	0.02-0.05	0.02-0.06
GQIN 2.50-0.20	2.50	0.20	16.50	2.50	3.10	●	0.20-0.65	0.02-0.05	0.02-0.06
GQIN 3.00-0.20	3.00	0.20	16.50	2.50	3.10	●	0.20-0.75	0.02-0.05	0.02-0.06

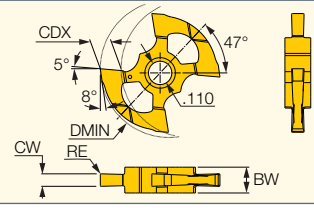
- Cutting edge with high positive rake, suitable for thin walled parts and for small diameters
- Suitable for Machining soft materials and bearing steel at low to medium feeds
- For cutting speed recommendations and user guide, see pages 382-400

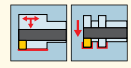
For tools, see pages: GQHINR/L (417)

QUICK GROOVE

GQIN
4 Cutting Edges Precision Grounded Inserts for Internal Grooving and Recessing Operations







I N C H

Designation	Dimensions CW	RE	DMIN	CDX	BW	IC808G	Recommended Machining Data a_p (inch)	f turn (IPR)	f groove (IPR)
GQIN 1.00-0.05	.039	.0020	.650	.098	.122	●	.002-.012	.0008-.0020	.0008-.0024
GQIN 1.50-0.10	.059	.0039	.650	.098	.122	●	.004-.016	.0008-.0020	.0008-.0024
GQIN 2.00-0.20	.079	.0079	.650	.098	.122	●	.008-.020	.0008-.0020	.0008-.0024
GQIN 2.50-0.20	.098	.0079	.650	.098	.122	●	.008-.026	.0008-.0020	.0008-.0024
GQIN 3.00-0.20	.118	.0079	.650	.098	.122	●	.008-.030	.0008-.0020	.0008-.0024

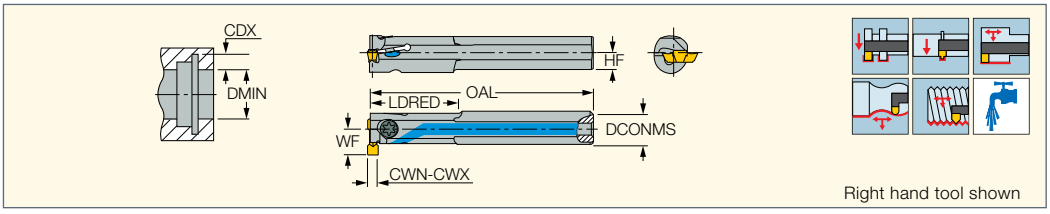
- Cutting edge with high positive rake, suitable for thin walled parts and for small diameters
- Suitable for Machining soft materials and bearing steel at low to medium feeds
- For cutting speed recommendations and user guide, see pages 382-400

For tools, see pages: GQHINR/L (417)

CUTGRIP

GEHIMR/L

Internal Machining Boring Bars with Coolant Holes for Insert Widths Less than 1.9 mm



M E T R I C

Designation	CWN(1)	CWX(2)	DCONMS	DMIN	CDX	OAL	LDRED	WF	HF	CND(3)			
GEHIMR/L 10-13	0.80	1.90	10.00	12.50	2.50	125.00	25.0	7.60	5.0	3.50	SR 16-236	T-15/5	
GEHIMR/L 12-14	0.80	1.90	12.00	14.00	2.50	150.00	35.0	9.00	6.0	6.00	SR 16-236	T-15/5	
GEHIMR/L 16-13	0.80	1.90	16.00	12.50	2.50	125.00	20.0	10.60	7.5	8.00	SR 16-236	T-15/5	PL 16
GEHIMR/L 16-14	0.80	1.90	16.00	14.00	2.50	125.00	25.0	10.90	7.5	8.00	SR 16-236	T-15/5	PL 16
GEHIMR/L 16-16	0.80	1.90	16.00	16.00	2.50	160.00	40.0	10.50	7.5	8.00	SR M5-04451	T-20/5	PL 16

- For user guide, see pages 382-400

(1) Minimum cutting width

(2) Maximum cutting width

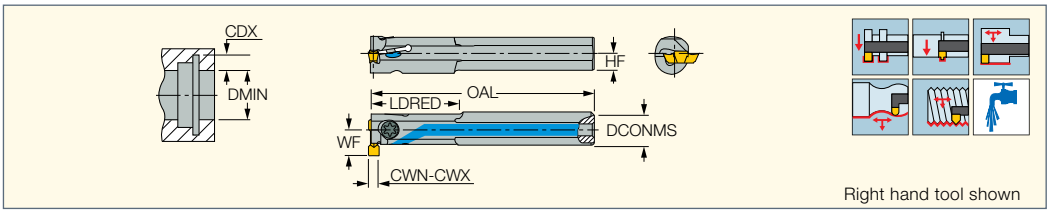
(3) Coolant inlet diameter

For inserts, see pages: GEPI (323) • GEPI (W<M) (426) • GEPI-MT (776) • GEPI-RX/LX (425) • GEPI-WT (745)

CUTGRIP

GEHIMR/L

Internal Machining Boring Bars with Coolant Holes for Insert Widths Less than .075"



I N C H

Designation	CWN(1)	CWX(2)	DCONMS	DMIN	CDX	OAL	LDRED	WF	HF	CND(3)
GEHIMR/L 9.5-13	.031	.075	.375	.492	.098	5.000	-	.300	.187	.138
GEHIMR/L 12.7-14	.031	.075	.500	.551	.098	6.000	1.380	.350	.250	.157
GEHIMR/L 15.9-13	.031	.075	.625	.492	.098	5.000	.860	.420	.287	.335
GEHIMR/L 15.9-14	.031	.075	.625	.551	.098	5.000	1.000	.430	.287	.335
GEHIMR/L 15.9-16	.031	.075	.625	.630	.098	6.000	1.570	.410	.287	.335

- For user guide, see pages 382-400

(1) Minimum cutting width

(2) Maximum cutting width

(3) Coolant entry diameter

For inserts, see pages: GEPI (323) • GEPI (W<M) (426) • GEPI-MT (776) • GEPI-RX/LX (425) • GEPI-WT (745)

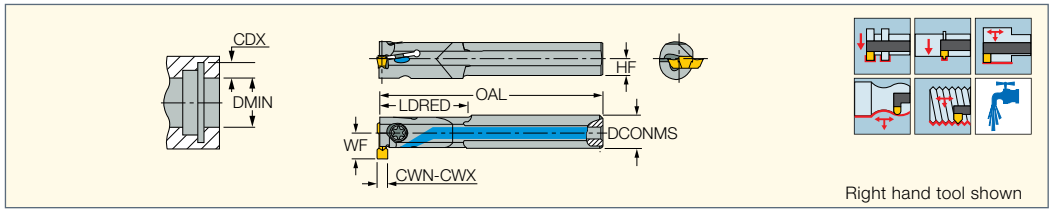
Spare Parts

Designation			
GEHIMR/L 9.5-13	SR 16-236	T-15/5	
GEHIMR/L 12.7-14	SR 16-236	T-15/5	
GEHIMR/L 15.9-13	SR 16-236	T-15/5	PL 062
GEHIMR/L 15.9-14	SR 16-236	T-15/5	PL 062
GEHIMR/L 15.9-16	SR M5-04451	T-20/5	PL 062

CUTGRIP

GEHIMR/L-SC

Internal Machining Solid Carbide Bars with Coolant Holes for Insert Widths Less than 1.9 mm



M E T R I C

Designation	CWN(1)	CWX(2)	DCONMS	DMIN	CDX	OAL	LDRED	WF	HF	CND(3)			
GEHIMR/L 10SC-13	0.80	1.90	10.00	12.50	2.50	125.00	30.0	7.60	5.0	3.50	SR 16-236	T-15/5	
GEHIMR/L 12SC-14	0.80	1.90	12.00	14.00	2.50	125.00	40.0	9.00	6.0	6.00	SR 16-236	T-15/5	
GEHIMR/L 16SC-13	0.80	1.90	16.00	12.50	2.50	125.00	35.0	10.60	7.5	8.00	SR 16-236	T-15/5	PL 16
GEHIMR/L 16SC-16	0.80	1.90	16.00	16.00	2.50	160.00	70.0	10.50	7.5	8.00	SR M5-04451	T-20/5	PL 16

- For user guide, see pages 382-400

(1) Minimum cutting width

(2) Maximum cutting width

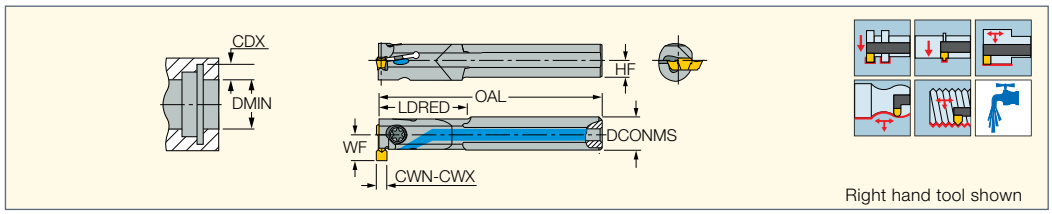
(3) Coolant inlet diameter

For inserts, see pages: GEPI (323) • GEPI (W<M) (426) • GEPI-MT (776) • GEPI-RX/LX (425) • GEPI-WT (745)

CUTGRIP

GEHIMR/L-SC

Internal Machining Solid Carbide Bars with Coolant Holes for Insert Widths Less than .075"



I N C H

Designation	CWN(1)	CWX(2)	DCONMS	DMIN	CDX	OAL	LDRED	WF	HF	CND(3)			
GEHIMR 9.5SC-13	.031	.075	.375	.492	.098	5.000	-	.300	.187	.138	SR 16-236	T-15/5	
GEHIMR 15.9SC-14	.031	.075	.625	.551	.098	6.000	2.500	.430	.287	.335	SR 16-236	T-15/5	PL 062

- For user guide, see pages 382-400

(1) Minimum cutting width

(2) Maximum cutting width

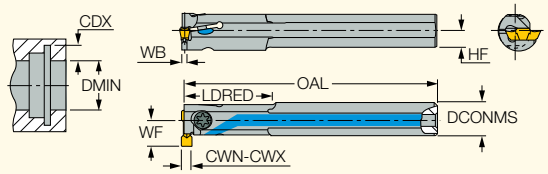
(3) Coolant inlet diameter

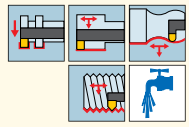
For inserts, see pages: GEPI (323) • GEPI (W<M) (426) • GEPI-MT (776) • GEPI-RX/LX (425) • GEPI-WT (745)

CUT-GRIP

GEHIR/L

Internal Machining Bars
with Coolant Holes





Right hand tool shown

METRIC											
Designation	**CWN(1)**	**CWX(2)**	**DCONMS**	**DMIN**	**CDX**	**OAL**	**LDRED**	**WF**	**WB**	**HF**	**CND(3)**
GEHIR/L 10-11.5-2-T$_3$	1.90	2.40	10.00	11.50	3.00	125.00	25.0	8.80	1.60	5.0	3.50
GEHIR/L 10-13-2-T2.4	1.90	2.40	10.00	12.50	2.40	125.00	25.0	7.50	1.60	5.0	3.50
GEHIL 12-11.5-2-T$_3$	1.90	2.40	12.00	11.50	3.00	125.00	20.0	11.60	1.60	6.0	6.00
GEHIR/L 12-14-2-T2.6	1.90	2.40	12.00	14.00	2.60	150.00	35.0	9.10	1.60	6.0	6.00
GEHIR/L 12-14-2-T$_4$	1.90	2.40	12.00	14.00	4.00	150.00	35.0	10.30	1.60	6.0	6.00
GEHIR/L 12-15-2-T$_6$	1.90	2.40	12.00	15.00	6.00	150.00	29.0	12.30	1.60	6.0	6.00
GEHIL 16-11.5-2-T$_3$	1.90	2.40	16.00	11.50	3.00	125.00	20.0	11.60	1.60	7.5	8.00
GEHIR 16-11.5-2-T$_3$	1.90	2.40	16.00	11.50	3.00	125.00	20.0	11.10	1.60	7.5	8.00
GEHIR/L 16-13-2-T2.4	1.90	2.40	16.00	12.50	2.40	125.00	20.0	10.50	1.60	7.5	8.00
GEHIR/L 16-14-2-T2.6	1.90	2.40	16.00	14.00	2.60	125.00	25.0	11.00	1.60	7.5	8.00
GEHIR/L 16-14-2-T$_4$	1.90	2.40	16.00	14.00	4.00	125.00	25.0	12.40	1.60	7.5	8.00
GEHIR/L 16-16-2-T$_3$	1.90	2.40	16.00	16.00	3.00	160.00	40.0	11.00	1.60	7.5	8.00
GEHIR/L 16-20-2-T$_8$	1.90	2.40	16.00	20.00	8.00	160.00	40.0	16.10	1.60	7.5	8.00
GEHIR/L 12-14-3-T2.6	2.40	3.20	12.00	14.00	2.60	150.00	35.0	9.10	2.00	6.0	6.00
GEHIR/L 12-14-3-T$_4$	2.40	3.20	12.00	14.00	4.00	150.00	35.0	10.30	2.00	6.0	6.00
GEHIR/L 12-15-3-T$_6$	2.40	3.20	12.00	15.00	6.00	150.00	29.0	12.30	2.00	6.0	6.00
GEHIL 16-11.5-3-T$_3$	2.40	3.20	16.00	11.50	3.00	125.00	20.0	11.60	2.00	7.5	8.00
GEHIR 16-11.5-3-T$_3$	2.40	3.20	16.00	11.50	3.00	125.00	20.0	11.10	2.00	7.5	8.00
GEHIR/L 16-13-3-T2.4	2.40	3.20	16.00	12.50	2.40	125.00	20.0	10.50	2.00	7.5	8.00
GEHIR/L 16-14-3-T2.6	2.40	3.20	16.00	14.00	2.60	125.00	25.0	11.00	2.00	7.5	8.00
GEHIR/L 16-14-3-T$_4$	2.40	3.20	16.00	14.00	4.00	125.00	25.0	12.40	2.00	7.5	8.00
GEHIR/L 16-16-3-T$_3$	2.40	3.20	16.00	16.00	3.00	160.00	40.0	11.00	2.00	7.5	8.00
GEHIR/L 16-20-3-T$_8$	2.40	3.20	16.00	20.00	8.00	160.00	40.0	16.10	2.00	7.5	8.00

• For user guide, see pages 382-400

(1) Minimum cutting width

(2) Maximum cutting width

(3) Coolant inlet diameter

For inserts, see pages: GEMI (324) • GEMI (full radius) (326) • GEPI (323) • GEPI (full radius) (325) • GEPI-MT (776) • GEPI-WT (745)

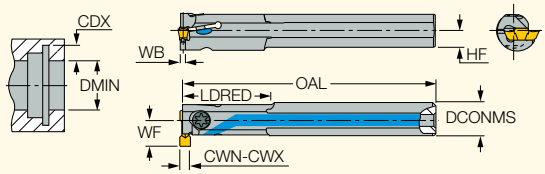
Spare Parts

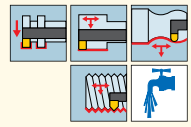
Designation			
GEHIR/L 10-11.5-2-T$_3$	SR 14-513	T-8/5	
GEHIR/L 10-13-2-T2.4	SR 16-236	T-15/5	
GEHIL 12-11.5-2-T$_3$	SR 14-513	T-8/5	
GEHIR/L 12-14-2-T2.6	SR 16-236	T-15/5	
GEHIR/L 12-14-2-T$_4$	SR 14-562	T-10/5	
GEHIR/L 12-15-2-T$_6$	SR 14-513	T-8/5	
GEHIR/L 16-11.5-2-T$_3$	SR 14-513	T-8/5	PL 16
GEHIR/L 16-13-2-T2.4	SR 16-236	T-15/5	PL 16
GEHIR/L 16-14-2-T2.6	SR 16-236	T-15/5	PL 16
GEHIR/L 16-14-2-T$_4$	SR 14-562	T-10/5	PL 16
GEHIR/L 16-16-2-T$_3$	SR M5-04451	T-20/5	PL 16
GEHIR/L 16-20-2-T$_8$	SR M5-04451	T-20/5	PL 16
GEHIR/L 12-14-3-T2.6	SR 16-236	T-15/5	
GEHIR/L 12-14-3-T$_4$	SR 14-562	T-10/5	
GEHIR/L 12-15-3-T$_6$	SR 14-513	T-8/5	
GEHIR/L 16-11.5-3-T$_3$	SR 14-513	T-8/5	PL 16
GEHIR/L 16-13-3-T2.4	SR 16-236	T-15/5	PL 16
GEHIR/L 16-14-3-T2.6	SR 16-236	T-15/5	PL 16
GEHIR/L 16-14-3-T$_4$	SR 14-562	T-10/5	PL 16
GEHIR/L 16-16-3-T$_3$	SR M5-04451	T-20/5	PL 16
GEHIR/L 16-20-3-T$_8$	SR M5-04451	T-20/5	PL 16

CUT-GRIP

GEHIR/L

Internal Machining Bars
with Coolant Holes





Right hand tool shown

I N C H											
Designation	**CWN[1]**	**CWX[2]**	**DCONMS**	**DMIN**	**CDX**	**OAL**	**LDRED**	**WF**	**WB**	**HF**	**CND[3]**
GEHIR/L 9.5-11.5-2-T$_3$	.075	.095	.375	.492	.094	5.000	.790	.300	.063	.187	.138
GEHIR/L 9.5-13-2-T2.4	.075	.095	.375	.492	.094	5.000	.790	.300	.063	.187	.138
GEHIR/L 12.7-11.5-2-T$_3$	.075	.095	.500	.551	.102	6.000	1.380	.360	.063	.250	.157
GEHIR/L 12.7-14-2-T2.6	.075	.095	.500	.551	.102	6.000	1.380	.360	.063	.250	.157
GEHIR/L 12.7-14-2-T$_4$	.075	.095	.500	.551	.157	6.000	1.380	.410	.063	.250	.157
GEHIR/L 12.7-15-2-T$_6$	.075	.095	.500	.591	.236	6.000	1.380	.490	.063	.250	.157
GEHIR/L 15.9-11.5-2-T$_3$	.075	.095	.625	.453	.118	5.000	.860	.460	.063	.287	.157
GEHIR/L 15.9-13-2-T2.4	.075	.095	.625	.492	.094	5.000	.860	.410	.063	.287	.335
GEHIR 15.9-14-2-T2.6	.075	.095	.625	.551	.102	5.000	1.000	.430	.063	.287	.335
GEHIR/L 15.9-14-2-T$_4$	.075	.095	.625	.551	.157	5.000	1.000	.490	.063	.287	.335
GEHIR/L 15.9-16-2-T$_3$	.075	.095	.625	.630	.118	6.000	1.570	.430	.063	.287	.335
GEHIR/L 15.9-20-2-T$_8$	.075	.095	.625	.787	.315	6.000	1.570	.640	.063	.287	.335
GEHIR/L 12.7-14-3-T2.6	.095	.126	.500	.551	.102	6.000	1.380	.360	.079	.250	.157
GEHIR/L 12.7-14-3-T$_4$	.095	.126	.500	.551	.157	6.000	1.380	.410	.079	.250	.157
GEHIR/L 12.7-15-3-T$_6$	.095	.126	.500	.591	.236	5.000	1.380	.490	.079	.287	.335
GEHIR/L 15.9-11.5-3-T$_3$	.095	.126	.625	.453	.118	5.000	.860	.460	.079	.287	.335
GEHIR/L 15.9-13-3-T2.4	.095	.126	.625	.492	.094	5.000	.860	.410	.079	.287	.335
GEHIR/L 15.9-14-3-T2.6	.095	.126	.625	.551	.102	5.000	1.000	.430	.079	.287	.335
GEHIR/L 15.9-14-3-T$_4$	.095	.126	.625	.551	.157	5.000	1.000	.490	.079	.287	.335
GEHIR/L 15.9-16-3-T$_3$	.095	.126	.625	.630	.118	6.000	1.570	.430	.079	.287	.335
GEHIR/L 15.9-20-3-T$_8$	.095	.126	.625	.787	.315	6.000	1.570	.640	.079	.287	.335

• For user guide, see pages 382-400

[1] Minimum cutting width

[2] Maximum cutting width

[3] Coolant inlet diameter

For inserts, see pages: GEMI (324) • GEMI (full radius) (326) • GEPI (323) • GEPI (full radius) (325) • GEPI-MT (776) • GEPI-WT (745)

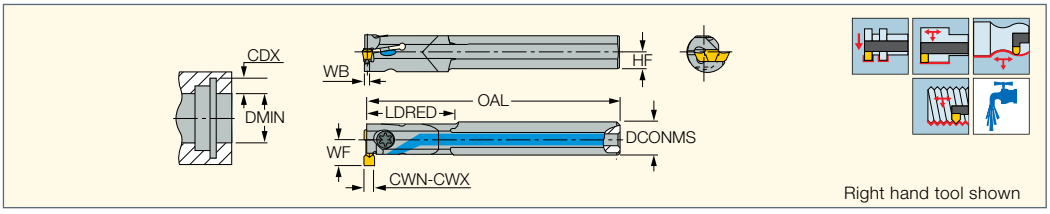
Spare Parts

Designation			
GEHIR/L 9.5-11.5-2-T$_3$	SR 14-513	T-8/5	
GEHIR/L 9.5-13-2-T2.4	SR 16-236	T-15/5	
GEHIR/L 12.7-11.5-2-T$_3$	SR 14-513	T-8/5	
GEHIR/L 12.7-14-2-T2.6	SR 16-236	T-15/5	
GEHIR/L 12.7-14-2-T$_4$	SR 14-562	T-10/5	
GEHIR/L 12.7-15-2-T$_6$	SR 14-513	T-8/5	
GEHIR/L 15.9-11.5-2-T$_3$	SR 14-513	T-8/5	PL 062
GEHIR/L 15.9-13-2-T2.4	SR 16-236	T-15/5	PL 062
GEHIR 15.9-14-2-T2.6	SR 16-236	T-15/5	PL 062
GEHIR/L 15.9-14-2-T$_4$	SR 14-562	T-10/5	PL 062
GEHIR/L 15.9-16-2-T$_3$	SR M5-04451	T-20/5	PL 062
GEHIR/L 15.9-20-2-T$_8$	SR M5-04451	T-20/5	PL 062
GEHIR/L 12.7-14-3-T2.6	SR 16-236	T-15/5	
GEHIR/L 12.7-14-3-T$_4$	SR 14-562	T-10/5	
GEHIR/L 12.7-15-3-T$_6$	SR 14-513	T-8/5	
GEHIR/L 15.9-11.5-3-T$_3$	SR 14-513	T-8/5	PL 062
GEHIR/L 15.9-13-3-T2.4	SR 16-236	T-15/5	PL 062
GEHIR/L 15.9-14-3-T2.6	SR 16-236	T-15/5	PL 062
GEHIR/L 15.9-14-3-T$_4$	SR 14-562	T-10/5	PL 062
GEHIR/L 15.9-16-3-T$_3$	SR M5-04451	T-20/5	PL 062
GEHIR/L 15.9-20-3-T$_8$	SR M5-04451	T-20/5	PL 062

CUTGRIP

GEHIR/L-SC

Internal Machining Solid Carbide Bars with Coolant Holes



M E T R I C

Designation	CWN(1)	CWX(2)	DCONMS	DMIN	CDX	OAL	LDRED	WF	WB	HF	CND(3)			
GEHIR/L 10SC-13-2	1.90	2.40	10.00	12.50	2.40	125.00	30.0	7.50	1.60	5.0	3.50	SR 16-236	T-15/5	
GEHIR 12SC-14-2	1.90	2.40	12.00	14.00	2.60	125.00	40.0	9.10	1.60	6.0	6.00	SR 16-236	T-15/5	
GEHIR/L 16SC-16-2	1.90	2.40	16.00	16.00	3.00	160.00	70.0	11.00	1.60	7.5	8.00	SR M5-04451	T-20/5	PL 16
GEHIR 12SC-14-3	2.40	3.20	12.00	14.00	2.60	125.00	40.0	9.10	2.00	6.0	6.00	SR 16-236	T-15/5	
GEHIR 16SC-13-3	2.40	3.20	16.00	12.50	2.40	125.00	35.0	10.50	2.00	7.5	8.00	SR 16-236	T-15/5	PL 16
GEHIR/L 16SC-14-3	2.40	3.20	16.00	14.00	2.60	140.00	40.0	11.00	2.00	7.5	8.00	SR 16-236	T-15/5	PL 16
GEHIR/L 16SC-16-3	2.40	3.20	16.00	16.00	3.00	160.00	70.0	11.00	2.00	7.5	8.00	SR M5-04451	T-20/5	PL 16

- For user guide, see pages 382-400

(1) Minimum cutting width

(2) Maximum cutting width

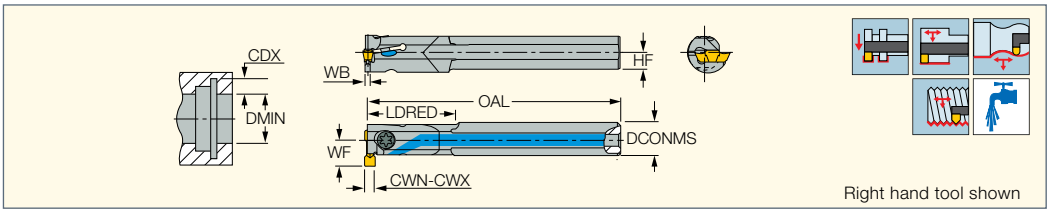
(3) Coolant inlet diameter

For inserts, see pages: GEMI (324) • GEMI (full radius) (326) • GEPI (323) • GEPI (full radius) (325) • GEPI-MT (776) • GEPI-WT (745)

CUTGRIP

GEHIR/L-SC

Internal Machining Solid Carbide Bars with Coolant Holes



I N C H

Designation	CWN(1)	CWX(2)	DCONMS	DMIN	CDX	OAL	LDRED	WF	WB	HF	CND(3)			
GEHIR/L 9.5SC-13-3	.095	.126	.375	.492	.094	5.000	-	.300	.079	.187	.138	SR 16-236	T-15/5	
GEHIR 12.7SC-14-3	.095	.126	.500	.551	.102	6.000	1.500	.360	.079	.250	.157	SR 16-236	T-15/5	
GEHIR 15.9SC-14-3	.095	.126	.625	.551	.102	6.000	2.500	.430	.079	.287	.335	SR 16-236	T-15/5	PL 062

- For user guide, see pages 382-400

(1) Minimum cutting width

(2) Maximum cutting width

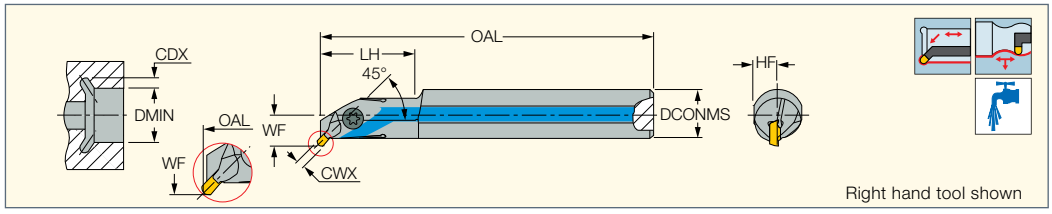
(3) Coolant inlet diameter

For inserts, see pages: GEMI (324) • GEMI (full radius) (326) • GEPI (323) • GEPI (full radius) (325) • GEPI-MT (776) • GEPI-WT (745)

CUTGRIP

GEHIUR/L

Boring Bars with Coolant Holes for Undercutting and Turning



M E T R I C

Designation	CWX(1)	DCONMS	DMIN	CDX	OAL	LH	WF	HF	CND(2)			
GEHIUR/L 12U	3.20	12.00	14.00	2.00	125.00	20.0	8.70	6.0	6.00	SR 16-236 P	T-15/5	
GEHIUR/L 16U	3.20	16.00	16.00	2.00	125.00	32.0	9.70	7.5	8.00	SR M5-04451	T-20/5	PL 16

- For profiling use GEPI (full radius) inserts only, for undercutting use GEPI - UN/UR/UL

(1) Maximum cutting width

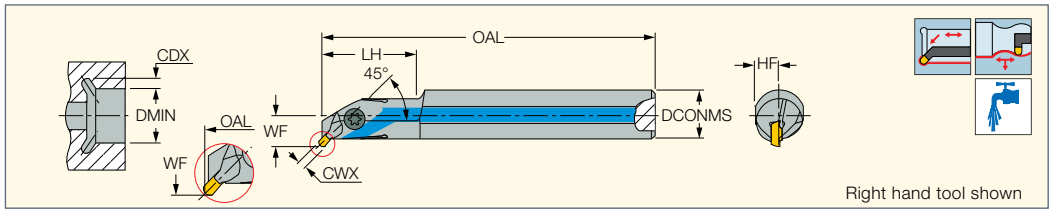
(2) Coolant inlet diameter

For inserts, see pages: GEPI (full radius) (325) • GEPI-UN/UR/UL (427)

CUTGRIP

GEHIUR/L

Undercutting and Turning Boring Bars with Coolant Holes



I N C H

Designation	CWX(1)	DCONMS	DMIN	CDX	OAL	LH	WF	HF	CND(2)			
GEHIUR 12.7U	.126	.500	.551	.079	5.000	.750	.340	.250	.157	SR 16-236 P	T-15/5	
GEHIUR/L 15.9U	.126	.625	.630	.079	5.000	1.250	.380	.287	.335	SR M5-04451	T-20/5	PL 062

- For profiling use GEPI (full radius) inserts only, for undercutting use GEPI - UN/UR/UL

(1) Maximum cutting width

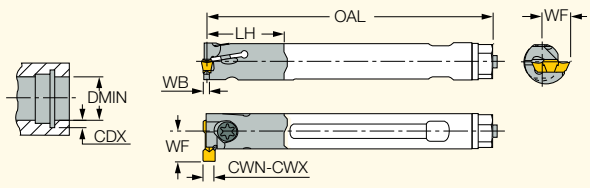
(3) Coolant entry diameter

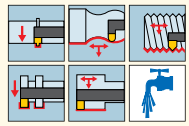
For inserts, see pages: GEPI (full radius) (325) • GEPI-UN/UR/UL (427)

CUTGRIP

E-GEHIR / E-GHIR

Interchangeable Heads for
Internal Grooving and Turning





Right hand tool shown

M E T R I C

Designation	CWN(1)	CWX(2)	DMIN	CDX	OAL	LH	WF	WB	Insert		
E12 GEHIR 16-1	1.50	1.90	16.00	2.20	174.00	21.0	9.00	1.20	GEPI, GEMI	SR M5-04451-L10.5	T-20/5
E12 GEHIR 16-2	1.90	2.40	16.00	2.20	174.00	21.0	9.00	1.60	GEPI, GEMI	SR M5-04451-L10.5	T-20/5
E12 GEHIR 16-3	2.40	3.00	16.00	2.20	174.00	21.0	9.00	2.00	GEPI, GEMI	SR M5-04451-L10.5	T-20/5
E16 GHIR 25-3	2.40	3.00	25.00	4.00	209.00	28.7	12.80	2.00	GIPI,GIMIY,GIFI,TIPI	SR M5-04451	T-20/5

• Left-hand heads on request • The shank assembly is the same for right- and left-hand heads • For user guide, see pages 382-400

(1) Minimum cutting width

(2) Maximum cutting width

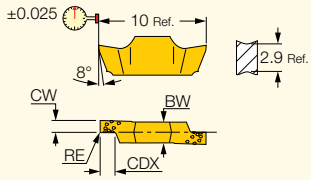
For inserts, see pages: GEMI (324) • GEMI (full radius) (326) • GEPI (323) • GEPI (full radius) (325) • GEPI (W<M) (426) • GEPI-MT (776) • GEPI-WT (745) • GIMIY (430) • GINI-E (431) • GIPI (428) • GIPI-E (429)

CUTGRIP

GEPI-RX/LX

Precision Double-Ended
Inserts for Internal Grooving
Next to Shoulder







M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX	BW	Tough ↔ Hard IC528	IC908	Recommended Machining Data f groove (mm/rev)
GEPI 0.80-0.00RX	0.80	0.00	0.020	0.030	1.50	1.80		•	0.01-0.02
GEPI 1.00-0.10 R/LX	1.00	0.10	0.020	0.030	1.50	1.80	•		0.01-0.03
GEPI 1.57-0.15RX	1.57	0.15	0.020	0.030	2.00	1.80		•	0.02-0.05

• Toolholder seat needs to be modified according to insert profile to ensure clearance • DMIN for internal application=11.5mm • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-) (2) Corner radius tolerance (+/-)

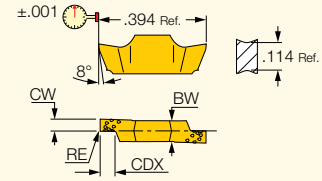
For tools, see pages: GEHIMR/L (419) • GEHIMR/L-SC (420)

CUTGRIP

GEPI-RX/LX

Precision Double-Ended
Inserts for Internal Grooving
Next to Shoulder







I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX	BW	Tough ↔ Hard IC528	IC908	Recommended Machining Data f groove (IPR)
GEPI 0.80-0.00RX	.031	0	.00078	.0012	.059	.071		•	.0004-.0008
GEPI 1.00-0.10 R/LX	.039	.004	.00078	.0012	.059	.071	•		.0004-.0012
GEPI 1.57-0.15RX	.062	.006	.00078	.0012	.079	.071		•	.0008-.0020

• Toolholder seat needs to be modified according to insert profile to ensure clearance • DMIN for internal application=.453"

• For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

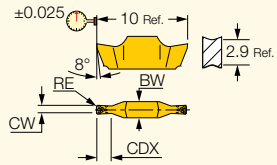
For tools, see pages: GEHIMR/L (419) • GEHIMR/L-SC (420)

CUT-GRIP

GEPI (W<M)

Precision Ground Double-Ended Inserts for Internal Grooving





M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX	BW	Tough ↔ Hard IC528	IC08	IC908	Recommended Machining Data f groove (mm/rev)
GEPI 1.00-0.10	1.00	0.10	0.020	0.030	1.60	1.80	•	•	•	0.01-0.03
GEPI 1.00-0.50	1.00	0.50	0.020	0.030	1.60	1.80			•	0.01-0.04
GEPI 1.04-0.00	1.04	0.00	0.020	0.030	1.60	1.80	•	•	•	0.01-0.03
GEPI 1.20-0.00	1.20	0.00	0.020	0.030	1.80	1.80	•	•	•	0.01-0.03
GEPI 1.25-0.10	1.25	0.10	0.020	0.030	2.00	1.80	•	•	•	0.02-0.04
GEPI 1.40-0.00	1.40	0.00	0.020	0.030	2.00	1.80	•	•	•	0.02-0.04
GEPI 1.47-0.00	1.47	0.00	0.020	0.030	2.00	1.80	•	•	•	0.02-0.04
GEPI 1.50-0.10	1.50	0.10	0.020	0.030	2.00	1.80	•	•	•	0.02-0.04
GEPI 1.57-0.15	1.57	0.15	0.020	0.030	2.00	1.80	•	•	•	0.02-0.05
GEPI 1.70-0.05	1.70	0.05	0.020	0.030	2.50	1.80	•	•	•	0.02-0.05
GEPI 1.78-0.15	1.78	0.15	0.020	0.030	2.50	1.80	•	•	•	0.02-0.05

- E12 GEHIR 16-1 seat needs to be modified according to insert profile to ensure clearance • DMIN for internal application=11.5mm
- For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

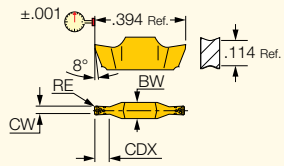
For tools, see pages: E-GEHIR / E-GHIR (425) • GEHIMR/L (419) • GEHIMR/L-SC (420)

CUT-GRIP

GEPI (W<M)

Precision Ground Double-Ended Inserts for Internal Grooving





I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX	BW	Tough ↔ Hard IC528	IC08	IC908	Recommended Machining Data f groove (IPR)
GEPI 1.00-0.10	.039	.004	.00078	.0012	.063	.071	•	•	•	.0004-.0012
GEPI 1.00-0.50	.039	.020	.00078	.0012	.063	.071			•	.0004-.0016
GEPI 1.04-0.00	.041	0	.00078	.0012	.063	.071	•	•	•	.0004-.0012
GEPI 1.20-0.00	.047	0	.00078	.0012	.071	.071	•	•	•	.0004-.0012
GEPI 1.25-0.10	.049	.004	.00078	.0012	.079	.071	•	•	•	.0008-.0016
GEPI 1.40-0.00	.055	0	.00078	.0012	.079	.071	•	•	•	.0008-.0016
GEPI 1.47-0.00	.058	0	.00078	.0012	.079	.071	•	•	•	.0008-.0016
GEPI 1.50-0.10	.059	.004	.00078	.0012	.079	.071	•	•	•	.0008-.0016
GEPI 1.57-0.15	.062	.006	.00078	.0012	.079	.071	•	•	•	.0008-.0020
GEPI 1.70-0.05	.067	.002	.00078	.0012	.098	.071	•	•	•	.0008-.0020
GEPI 1.78-0.15	.070	.006	.00078	.0012	.098	.071	•	•	•	.0008-.0020

- E12 GEHIR 16-1 seat needs to be modified according to insert profile to ensure clearance • DMIN for internal application=.453"
- For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

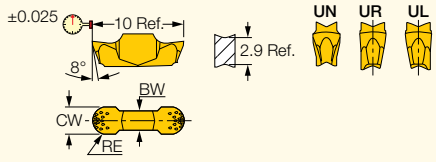
For tools, see pages: E-GEHIR / E-GHIR (425) • GEHIMR/L (419) • GEHIMR/L-SC (420)

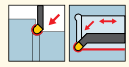
CUTGRIP

GEPI-UN/UR/UL

Precision Double-Ended Inserts
for Internal Undercutting







M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX	BW	Tough ↔ Hard IC528	IC08	Recommended Machining Data f groove (mm/rev)
GEPI 3.00-1.50UN	3.00	1.50	0.020	0.050	2.00	2.20	●		0.03-0.12
GEPI 2.00-1.00UR/L	2.00	1.00	0.020	0.050	2.00	1.80	●	●	0.03-0.12

• For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

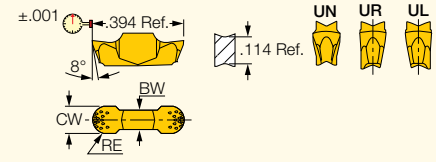
For tools, see pages: GEHIUR/L (424)

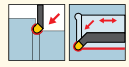
CUTGRIP

GEPI-UN/UR/UL

Precision Double-Ended Inserts
for Internal Undercutting







I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX	BW	Tough ↔ Hard IC528	IC08	Recommended Machining Data f groove (IPR)
GEPI 3.00-1.50UN	.118	.059	.00078	.0020	.079	.087	●		.0012-.0047
GEPI 2.00-1.00UR/L	.079	.039	.00078	.0020	.079	.071	●	●	.0012-.0047

• For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

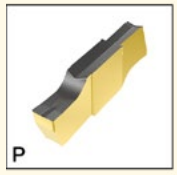
(2) Corner radius tolerance (+/-)

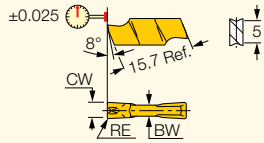
For tools, see pages: GEHIUR/L (424)

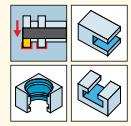
CUTGRIP

GIPI

Precision Double-Ended Inserts for Internal Grooving and Recessing







M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX	BW	Tough ↔ Hard IC830	IC8250	IC808	IC908	IC20	IC20N	Recommended Machining Data f groove (mm/rev)
GIPI 2.22-0.10	2.22	0.10	0.020	0.030	2.50	2.20	●		●	●	●		0.04-0.07
GIPI 2.22-0.15	2.22	0.15	0.020	0.030	2.50	2.20			●	●			0.04-0.07
GIPI 2.30-0.20	2.30	0.20	0.020	0.030	3.00	2.20	●				●		0.05-0.08
GIPI 2.39-0.15	2.39	0.15	0.020	0.030	6.40	2.40	●		●	●	●		0.04-0.07
GIPI 2.50-0.20	2.50	0.20	0.020	0.030	6.00	2.40	●				●		0.05-0.09
GIPI 2.70-0.10	2.70	0.10	0.020	0.030	-	2.40	●		●	●	●	●	0.05-0.08
GIPI 2.70-0.15	2.70	0.15	0.020	0.030	-	2.40			●	●			0.05-0.08
GIPI 3.00-0.40	3.00	0.40	0.020	0.030	-	2.40					●		0.06-0.11
GIPI 3.18-0.20	3.18	0.20	0.020	0.030	-	2.40	●	●	●	●	●	●	0.06-0.11
GIPI 3.30-0.10	3.30	0.10	0.020	0.030	-	2.40	●	●	●		●		0.06-0.10
GIPI 3.96-0.20	3.96	0.20	0.020	0.030	-	3.20		●		●	●		0.08-0.13

• DMIN for internal application = 20 mm • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

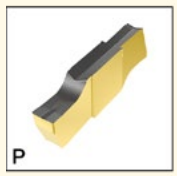
(2) Corner radius tolerance (+/-)

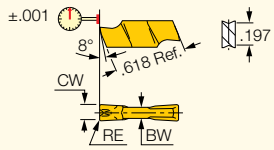
For tools, see pages: E-GEHIR / E-GHIR (425)

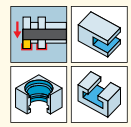
CUTGRIP

GIPI

Precision Double-Ended Inserts for Internal Grooving and Recessing







I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX	BW	Tough ↔ Hard IC830	IC8250	IC808	IC908	IC20	IC20N	Recommended Machining Data f groove (IPR)
GIPI 2.22-0.10	.087	.0039	.00078	.0012	.098	.087	●		●	●	●		.0016-.0027
GIPI 2.22-0.15	.087	.0059	.00078	.0012	.098	.087			●	●			.0016-.0027
GIPI 2.30-0.20	.091	.0080	.00080	.0012	.118	.087	●				●		.0020-.0031
GIPI 2.39-0.15	.094	.0059	.00078	.0012	.252	.094	●		●	●	●		.0016-.0027
GIPI 2.50-0.20	.098	.0079	.00078	.0012	.236	.094	●				●		.0020-.0035
GIPI 2.70-0.10	.106	.0039	.00078	.0012	-	.094	●		●	●	●	●	.0020-.0031
GIPI 2.70-0.15	.106	.0059	.00078	.0012	-	.094			●	●			.0020-.0031
GIPI 3.00-0.40	.118	.0157	.00078	.0012	-	.094					●		.0024-.0043
GIPI 3.18-0.20	.125	.0079	.00078	.0012	-	.094	●	●	●	●	●	●	.0024-.0043
GIPI 3.30-0.10	.130	.0039	.00078	.0012	-	.094	●	●	●		●		.0024-.0039
GIPI 3.96-0.20	.156	.0079	.00078	.0012	-	.126		●		●	●		.0031-.0051

• DMIN for internal application=.787" • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

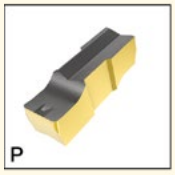
(2) Corner radius tolerance (+/-)

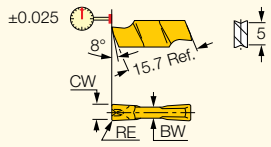
For tools, see pages: E-GEHIR / E-GHIR (425)

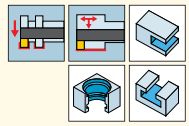
CUTGRIP

GIPI-E

Precision Double-Ended Inserts
for Internal Grooving and Turning







M E T R I C

Designation	Dimensions						Tough ↔ Hard						Recommended Machining Data		
	CW	RE	CWTOL[1]	RETOL[2]	BW	CDX	IC830	IC8250	IC808	IC908	IC20	IC20N	a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIPI 3.00E-0.40	3.00	0.40	0.020	0.030	2.40	15.50	●	●	●	●	●	●	0.50-1.50	0.14-0.18	0.06-0.12
GIPI 4.00E-0.40	4.00	0.40	0.020	0.030	3.20	15.50	●	●	●	●	●		0.50-2.00	0.15-0.21	0.08-0.15

• DMIN for internal applications = 20 mm • For cutting speed recommendations and user guide, see pages 382-400

[1] Cutting width tolerance (+/-)

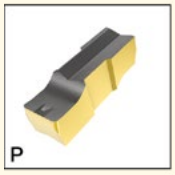
[2] Corner radius tolerance (+/-)

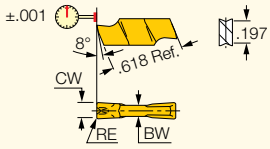
For tools, see pages: E-GEHIR / E-GHIR (425)

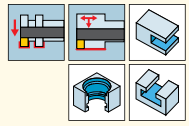
CUTGRIP

GIPI-E

Precision Double-Ended Inserts
for Internal Grooving and Turning







I N C H

Designation	Dimensions						Tough ↔ Hard						Recommended Machining Data		
	CW	RE	CWTOL[1]	RETOL[2]	BW	CDX	IC830	IC8250	IC808	IC908	IC20	IC20N	a_p (inch)	f turn (IPR)	f groove (IPR)
GIPI 3.00E-0.40	.118	.0157	.00078	.0012	.094	.610	●	●	●	●	●	●	.020-.059	.0055-.0071	.0024-.0047
GIPI 4.00E-0.40	.157	.0157	.00078	.0012	.126	.610	●	●	●	●	●		.020-.079	.0059-.0083	.0031-.0059

• DMIN for internal applications = .787" • For cutting speed recommendations and user guide, see pages 382-400

[1] Cutting width tolerance (+/-)

[2] Corner radius tolerance (+/-)

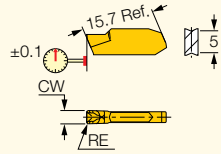
For tools, see pages: E-GEHIR / E-GHIR (425)

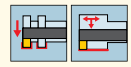
CUTGRIP

GIMIY

Utility Single-Ended Inserts for Internal Grooving and Turning







M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	Tough ↔ Hard IC830	IC808	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GIMIY 304	3.00	0.40	0.020	0.050	●	●	0.50-1.50	0.10-0.14	0.05-0.08
GIMIY 404	4.00	0.40	0.020	0.050	●	●	0.50-2.00	0.13-0.19	0.06-0.11

• DMIN for internal applications=20 mm • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

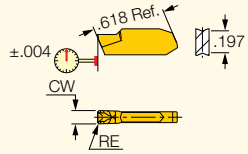
For tools, see pages: E-GEHIR / E-GHIR (425)

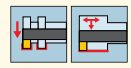
CUTGRIP

GIMIY

Utility Single-Ended Inserts for Internal Grooving and Turning







I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	Tough ↔ Hard IC830	IC808	Recommended Machining Data a_p (inch)	f turn (IPR)	f groove (IPR)
GIMIY 304	.118	.016	.00078	.0020	●	●	.020-.059	.0039-.0055	.0020-.0031
GIMIY 404	.157	.016	.00078	.0020	●	●	.020-.079	.0051-.0075	.0024-.0043

• DMIN for internal applications=.787" • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

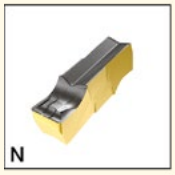
(2) Corner radius tolerance (+/-)

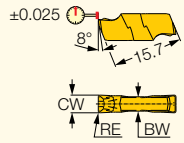
For tools, see pages: E-GEHIR / E-GHIR (425)

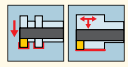
CUTGRIP

GINI-E

Precision Double-Ended Inserts for Internal Grooving and Turning of Ductile Materials







M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	CDX	IC808	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
GINI 3.00E-0.40	3.00	0.40	0.020	0.050	2.40	15.50	•	0.50-1.20	0.08-0.13	0.03-0.09
GINI 4.00E-0.40	4.00	0.40	0.020	0.050	3.20	15.50	•	0.50-1.60	0.10-0.17	0.04-0.12

• DMIN for internal applications=20 mm • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

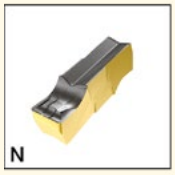
(2) Corner radius tolerance (+/-)

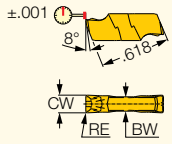
For tools, see pages: E-GEHIR / E-GHIR (425)

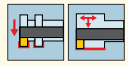
CUTGRIP

GINI-E

Precision Double-Ended Inserts for Internal Grooving and Turning of Ductile Materials







I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	CDX	IC808	Recommended Machining Data a_p (inch)	f turn (IPR)	f groove (IPR)
GINI 3.00E-0.40	.118	.016	.00080	.0020	.094	.610	•	.020-.047	.0031-.0051	.0012-.0035
GINI 4.00E-0.40	.157	.016	.00080	.0020	.126	.610	•	.020-.063	.0039-.0067	.0016-.0047

• DMIN for internal applications=.787" • For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)

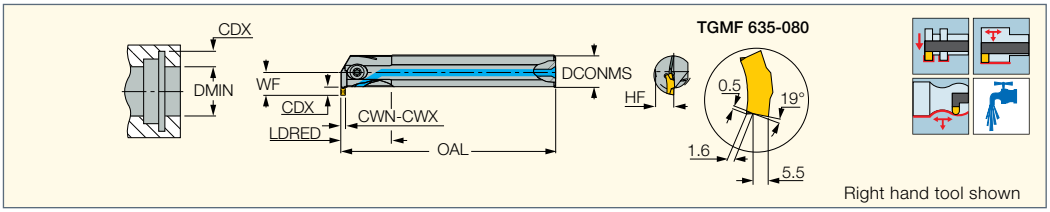
(2) Corner radius tolerance (+/-)

For tools, see pages: E-GEHIR / E-GHIR (425)

TOP-GRIP

TGIR/L-C

Grooving and Turning Bars with Coolant Holes Carrying TOP-GRIP Utility Inserts



M E T R I C

Designation	DCONMS	CWN[1]	CWX[2]	DMIN	CDX	HF	OAL	LDRED	WF	Inlet	MIID[3]
TGIR/L 16C-3	16.00	3.00	3.00	20.50	5.50	7.5	150.00	25.0	12.00	M6	TGMF 3
TGIR/L 20C-3	20.00	3.00	3.00	25.00	5.50	9.0	180.00	32.0	14.20	M6	TGMF 3
TGIR/L 25C-3	25.00	3.00	3.00	32.00	8.00	11.5	200.00	40.0	18.80	R1/8	TGMF 3
TGIR/L 25C-4	25.00	4.00	5.00	32.50	8.50	11.5	200.00	40.0	19.50	R1/8	TGMF 4, TGMF/P 5

- For user guide, see pages 382-400

(1) Minimum cutting width

(2) Maximum cutting width

(3) Master insert identification

For inserts, see pages: TGMF (full radius) (379) • TGMF/P (378)

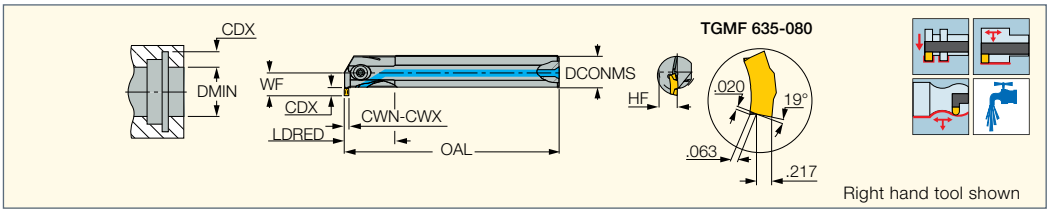
Spare Parts

Designation				
TGIR/L 16C-3	SR 76-1400	T-20/5		PL 16
TGIR/L 20C-3	SR 76-1400	T-20/5		PL 20
TGIR/L 25C-3	SR M5X16 DIN912		HW 4.0	PL 25
TGIR/L 25C-4	SR M5X16 DIN912		HW 4.0	PL 25

TOP-GRIP

TGIR/L-C

Grooving and Turning Bars with Coolant Holes Carrying TOP-GRIP Utility Inserts



I N C H

Designation	CWN[1]	CWX[2]	DCONMS	DMIN	CDX	HF	OAL	LDRED	WF	MIID			
TGIR/L 15.9C-3	.118	.118	.625	.800	.220	.295	5.900	1.000	.470	TGMF 3	SR 76-1400	T-20/5	PL 062
TGIR/L 19C-3	.118	.118	.750	.950	.220	.335	7.100	1.250	.560	TGMF 3	SR 76-1400	T-20/5	PL 075
TGIR/L 25.4C-3	.118	.118	1.000	1.260	.310	.453	7.850	1.570	.740	TGMF 3	SR M5X16 DIN912	HW 4.0	PL 100
TGIR/L 25.4C-4	.157	.197	1.000	1.280	.330	.453	7.850	1.570	.770	TGMF 4/TGMF 5	SR M5X16 DIN912	HW 4.0	PL 100

- For user guide, see pages 382-400

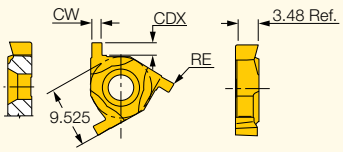
(1) Minimum cutting width

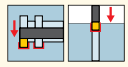
(2) Maximum cutting width

For inserts, see pages: TGMF (full radius) (379) • TGMF/P (378)

GTGA
Precision Shallow Grooving
Inserts with 3 Cutting Edges







GTGA 16 ER/IL shown

M E T R I C

Designation	Dimensions CW	CDX	CWTOL(1)	RE	RETOL(2)	Tough ↔ Hard IC528	IC508	Recommended Machining Data f groove (mm/rev)
GTGA 16EL/IR 100	1.00	1.55	0.020	0.10	0.030	●	●	0.02-0.03
GTGA 16ER/IL 100	1.00	1.55	0.020	0.10	0.030	●	●	0.02-0.03
GTGA 16EL/IR 120	1.20	1.60	0.020	0.10	0.030	●	●	0.02-0.03
GTGA 16ER/IL 120	1.20	1.60	0.020	0.10	0.030	●	●	0.02-0.03
GTGA 16EL/IR 140	1.40	1.80	0.020	0.10	0.030	●	●	0.02-0.04
GTGA 16ER/IL 140	1.40	1.80	0.020	0.10	0.030	●	●	0.02-0.04
GTGA 16EL/IR 170	1.70	2.00	0.020	0.10	0.030	●	●	0.03-0.05
GTGA 16ER/IL 170	1.70	2.00	0.020	0.10	0.030	●	●	0.03-0.05
GTGA 16EL/IR 195	1.95	2.00	0.020	0.10	0.030	●	●	0.03-0.06
GTGA 16ER/IL 195	1.95	2.00	0.020	0.10	0.030	●	●	0.03-0.06
GTGA 16EL/IR 225	2.25	2.10	0.020	0.10	0.030	●	●	0.04-0.06
GTGA 16ER/IL 225	2.25	2.10	0.020	0.10	0.030	●	●	0.04-0.06

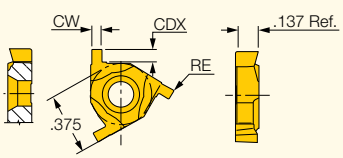
- Inserts for right-hand external grooving can be used as left-hand internal grooving
- Use with anvil AE 16-0 on external tools and with anvil AI 16-0 on internal tools
- For cutting speed recommendations and user guide, see pages 382-400

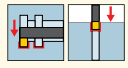
(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)

For tools, see pages: NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830) • SER/L (647) • SIR/L (738)

GTGA
Precision Shallow Grooving
Inserts with 3 Cutting Edges







GTGA 16 ER/IL shown

I N C H

Designation	Dimensions CW	CDX	CWTOL(1)	RE	RETOL(2)	Tough ↔ Hard IC528	IC508	Recommended Machining Data f groove (IPR)
GTGA 16EL/IR 100	.039	.061	.00078	.0039	.0012	●	●	.0008-.0012
GTGA 16ER/IL 100	.039	.061	.00078	.0039	.0012	●	●	.0008-.0012
GTGA 16EL/IR 120	.047	.063	.00078	.0039	.0012	●	●	.0008-.0012
GTGA 16ER/IL 120	.047	.063	.00078	.0039	.0012	●	●	.0008-.0012
GTGA 16EL/IR 140	.055	.071	.00078	.0039	.0012	●	●	.0008-.0016
GTGA 16ER/IL 140	.055	.071	.00078	.0039	.0012	●	●	.0008-.0016
GTGA 16EL/IR 170	.067	.079	.00078	.0039	.0012	●	●	.0012-.0020
GTGA 16ER/IL 170	.067	.079	.00078	.0039	.0012	●	●	.0012-.0020
GTGA 16EL/IR 195	.077	.079	.00078	.0039	.0012	●	●	.0012-.0024
GTGA 16ER/IL 195	.077	.079	.00078	.0039	.0012	●	●	.0012-.0024
GTGA 16EL/IR 225	.089	.083	.00078	.0039	.0012	●	●	.0016-.0024
GTGA 16ER/IL 225	.089	.083	.00078	.0039	.0012	●	●	.0016-.0024

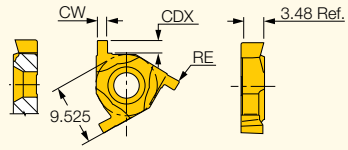
- Inserts for right-hand external grooving can be used as left-hand internal grooving
- Use with anvil AE 16-0 on external tools and with anvil AI 16-0 on internal tools
- For cutting speed recommendations and user guide, see pages 382-400

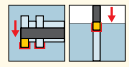
(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)

For tools, see pages: NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830) • SER/L (647) • SIR/L (738)

GTMA
Utility Shallow Grooving
Inserts with 3 Cutting Edges







GTMA 16 ER/IL shown

M E T R I C

Designation	Dimensions CW	CDX	CWTOL(1)	RE	RETOL(2)	IC508	Recommended Machining Data f groove (mm/rev)
GTMA 16ER/IL 120	1.20	1.60	0.050	0.10	0.050	●	0.02-0.03
GTMA 16ER/IL 140	1.40	1.80	0.050	0.10	0.050	●	0.02-0.04
GTMA 16ER/IL 160	1.60	2.00	0.050	0.10	0.050	●	0.03-0.05
GTMA 16ER/IL 175	1.75	2.00	0.050	0.10	0.050	●	0.03-0.05
GTMA 16ER/IL 195	1.95	2.00	0.050	0.10	0.050	●	0.03-0.06
GTMA 16ER/IL 222	2.22	2.10	0.050	0.10	0.050	●	0.04-0.06

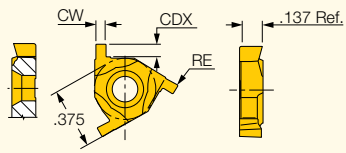
- Inserts for right-hand external grooving can be used as left-hand internal grooving
- Use with anvil AE 16-0 on external tools and with anvil AI 16-0 on internal tools
- For cutting speed recommendations and user guide, see pages 382-400

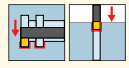
(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)

For tools, see pages: NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830) • SER/L (647) • SIR/L (738)

GTMA
Utility Shallow Grooving
Inserts with 3 Cutting Edges







GTMA 16 ER/IL shown

I N C H

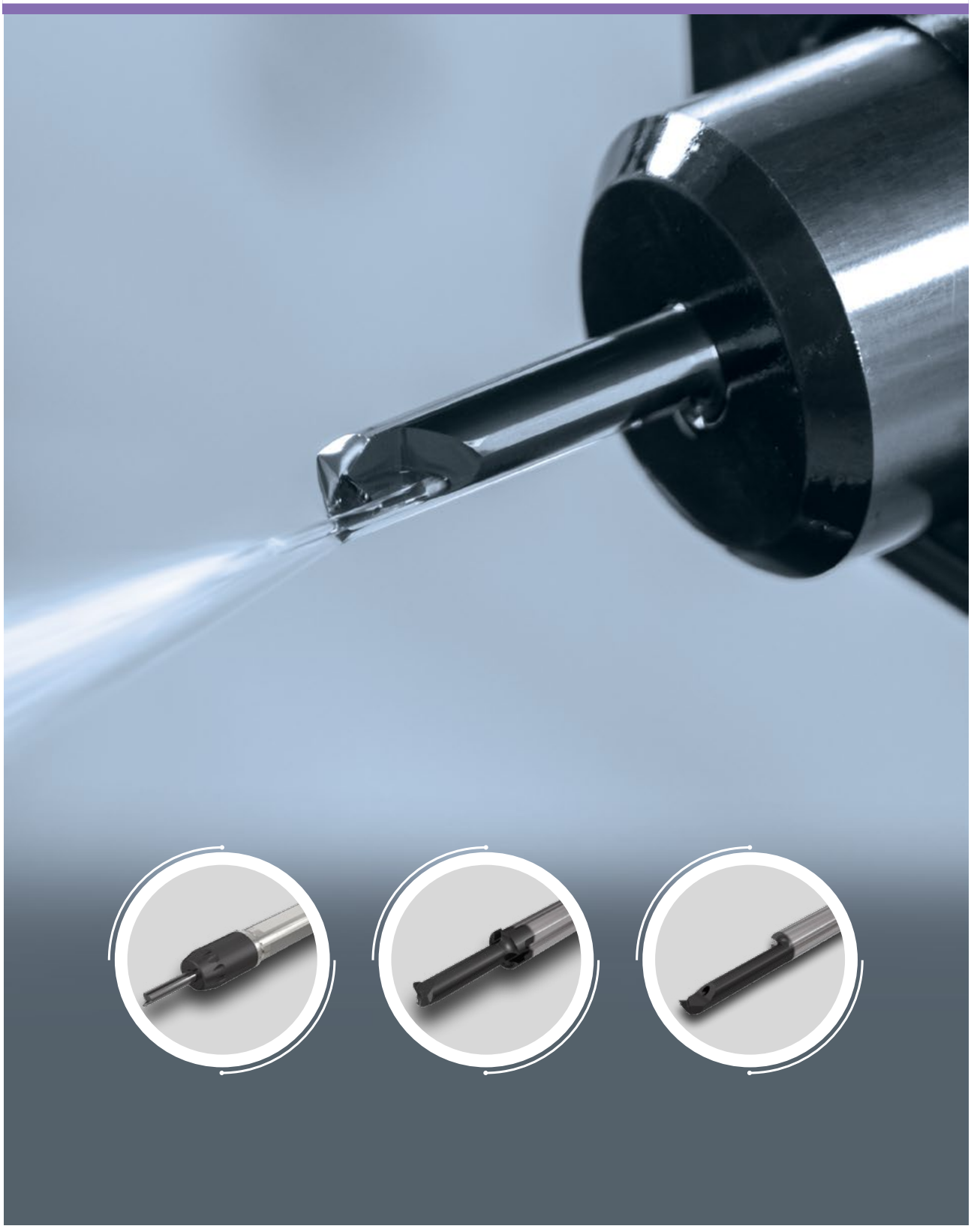
Designation	Dimensions CW	CDX	CWTOL(1)	RE	RETOL(2)	IC508	Recommended Machining Data f groove (IPR)
GTMA 16ER/IL 120	.047	.063	.00196	.0039	.0020	●	.0008-.0012
GTMA 16ER/IL 140	.055	.071	.00196	.0039	.0020	●	.0008-.0016
GTMA 16ER/IL 160	.063	.079	.00196	.0039	.0020	●	.0012-.0020
GTMA 16ER/IL 175	.069	.079	.00196	.0039	.0020	●	.0012-.0020
GTMA 16ER/IL 195	.077	.079	.00196	.0039	.0020	●	.0012-.0024
GTMA 16ER/IL 222	.087	.083	.00196	.0039	.0020	●	.0016-.0024

- Inserts for right-hand external grooving can be used as left-hand internal grooving
- Use with anvil AE 16-0 on external tools and with anvil AI 16-0 on internal tools
- For cutting speed recommendations and user guide, see pages 382-400

(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)

For tools, see pages: NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830) • SER/L (647) • SIR/L (738)

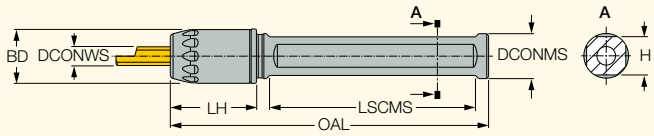
PICCO LINES



ACECUT PICCOCUT HOLDER

PICCO ACE

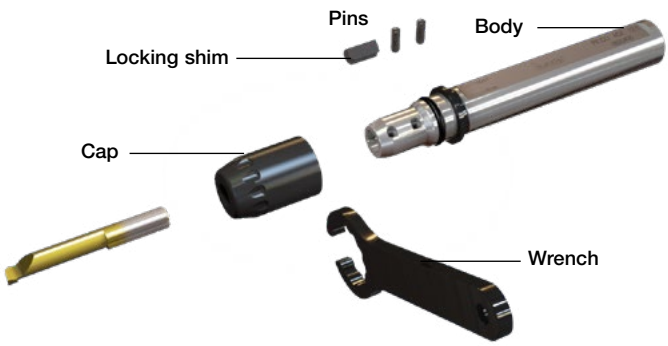
Holders for PICCO-CUT Inserts

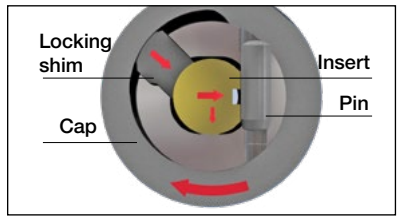


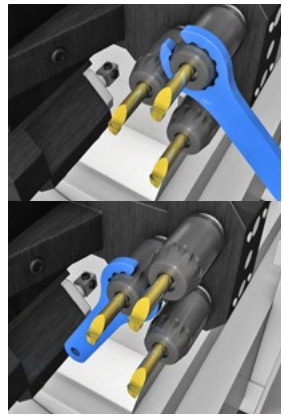
M E T R I C									
Designation	DCONMS	DCONWS	BD	OAL	LH	LSCMS	H		
PICCO ACE 12-4	12.00	4.00	14.50	85.00	23.00	53.00	10.3	PL 16 M6-D5	WRENCH ACE 4-5
PICCO ACE 12-5	12.00	5.00	14.50	85.00	23.00	53.00	10.3	PL 16 M6-D5	WRENCH ACE 4-5
PICCO ACE 16-4	16.00	4.00	14.50	85.00	21.50	53.50	14.0	PL 16 M6-D5	WRENCH ACE 4-5
PICCO ACE 16-5	16.00	5.00	14.50	85.00	21.50	53.00	14.0	PL 16 M6-D5	WRENCH ACE 4-5
PICCO ACE 16-6	16.00	6.00	19.90	85.00	23.00	53.50	14.0	PL 16 M6-D5	WRENCH ACE 6-7
PICCO ACE 16-7	16.00	7.00	19.90	85.00	23.00	53.50	14.0	PL 16 M6-D5	WRENCH ACE 6-7
PICCO ACE 20-4	20.00	4.00	14.50	150.00	21.50	118.00	18.0	PL 16 M6-D5	WRENCH ACE 4-5
PICCO ACE 20-5	20.00	5.00	14.50	150.00	21.50	118.00	18.0	PL 16 M6-D5	WRENCH ACE 4-5
PICCO ACE 20-6	20.00	6.00	19.90	150.00	21.50	118.00	18.0	PL 16 M6-D5	WRENCH ACE 6-7
PICCO ACE 20-7	20.00	7.00	19.90	150.00	21.50	118.00	18.0	PL 16 M6-D5	WRENCH ACE 6-7
PICCO ACE 22-4	22.00	4.00	14.50	150.00	21.50	118.00	20.0	PL 16 M6-D5	WRENCH ACE 4-5
PICCO ACE 22-5	22.00	5.00	14.50	150.00	21.50	118.00	20.0	PL 16 M6-D5	WRENCH ACE 4-5
PICCO ACE 22-6	22.00	6.00	19.90	150.00	21.50	118.00	20.0	PL 16 M6-D5	WRENCH ACE 6-7
PICCO ACE 22-7	22.00	7.00	19.90	150.00	21.50	118.00	20.0	PL 16 M6-D5	WRENCH ACE 6-7
PICCO ACE 25-4	25.00	4.00	14.50	150.00	21.50	118.00	20.0	PL 16 M6-D5	WRENCH ACE 4-5
PICCO ACE 25-5	25.00	5.00	14.50	150.00	21.50	118.00	20.0	PL 16 M6-D5	WRENCH ACE 4-5
PICCO ACE 25-6	25.00	6.00	19.90	150.00	21.50	118.00	20.0	PL 16 M6-D5	WRENCH ACE 6-7
PICCO ACE 25-7	25.00	7.00	19.90	150.00	21.50	118.00	20.0	PL 16 M6-D5	WRENCH ACE 6-7

- Holders are suitable for right- and left-hand PICCO inserts

For tools, see pages: PICIN-A-SCLCR/L (476) • PICIN-A-SIR/L (480) • PICIN-A-SWUBR/L (478) • PICIN-MGSIR/L (480) • PICIN-SCLCR/L (477) • PICIN-SWUBR/L (479)



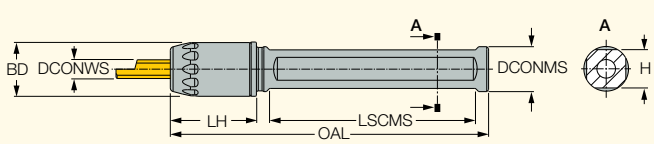




ACECUT PICCOCUT HOLDER

PICCO ACE

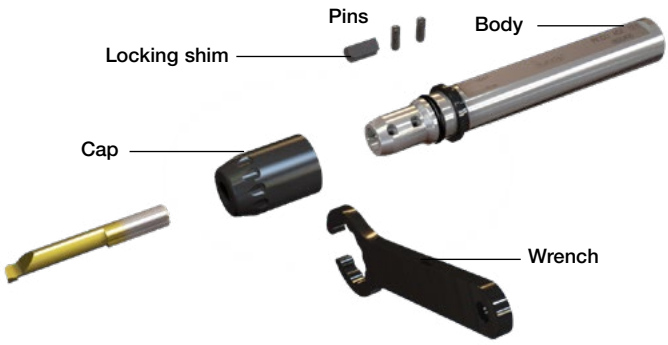
Holders for PICCO-CUT Inserts

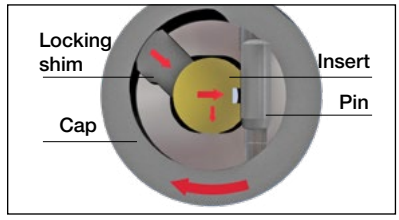


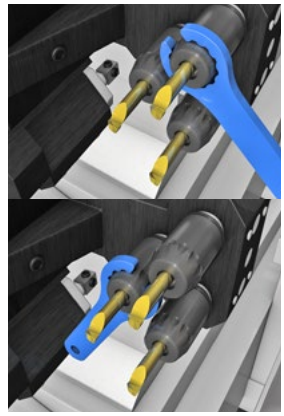
I N C H									
Designation	DCONMS	DCONWS	BD	OAL	LH	LSCMS	H		
PICCO ACE 12.7-4	.500	.157	.571	3.346	.906	2.087	.457	PL 16 M6-D5	WRENCH ACE 4-5
PICCO ACE 12.7-5	.500	.197	.571	3.346	.906	2.087	.457	PL 16 M6-D5	WRENCH ACE 4-5
PICCO ACE 15.9-4	.625	.157	.571	3.346	.846	2.087	.551	PL 16 M6-D5	WRENCH ACE 4-5
PICCO ACE 15.9-5	.625	.197	.571	3.346	.846	2.087	.551	PL 16 M6-D5	WRENCH ACE 4-5
PICCO ACE 15.9-6	.625	.236	.783	3.346	.906	2.087	.551	PL 16 M6-D5	WRENCH ACE 6-7
PICCO ACE 15.9-7	.625	.276	.783	3.346	.906	2.087	.551	PL 16 M6-D5	WRENCH ACE 6-7
PICCO ACE 19-4	.750	.157	.571	5.906	.846	4.646	.677	PL 16 M6-D5	WRENCH ACE 4-5
PICCO ACE 19-5	.750	.197	.571	5.906	.846	4.646	.677	PL 16 M6-D5	WRENCH ACE 4-5
PICCO ACE 19-6	.750	.236	.783	5.906	.906	4.646	.677	PL 16 M6-D5	WRENCH ACE 6-7
PICCO ACE 19-7	.750	.276	.783	5.906	.906	4.646	.677	PL 16 M6-D5	WRENCH ACE 6-7
PICCO ACE 25.4-4	1.000	.157	.571	5.906	.846	4.646	.905	PL 16 M6-D5	WRENCH ACE 4-5
PICCO ACE 25.4-5	1.000	.197	.571	5.906	.846	4.646	.905	PL 16 M6-D5	WRENCH ACE 4-5
PICCO ACE 25.4-6	1.000	.236	.783	5.906	.846	4.646	.905	PL 16 M6-D5	WRENCH ACE 6-7
PICCO ACE 25.4-7	1.000	.276	.783	5.906	.846	4.646	.905	PL 16 M6-D5	WRENCH ACE 6-7

- Holders are suitable for right- and left-hand PICCO inserts

For tools, see pages: PICIN-A-SCLCR/L (476) • PICIN-A-SIR/L (480) • PICIN-A-SWUBR/L (478) • PICIN-MGSIR/L (480) • PICIN-SCLCR/L (477) • PICIN-SWUBR/L (479)



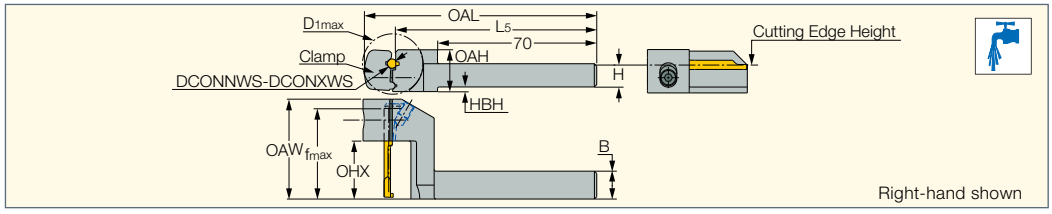




PICCOCUT

GHPCOR

Perpendicular Square-Shank Tools for Use on Cross Slide Units of Swiss-Type and Automatic Machines



M E T R I C												
Designation	**H**	**B**	**OAL**	**L5**	**HBH**	**OAH**	**OAW**	**D1 max**	**OHX(1)**	**fmax**	**DCONNWS(2)**	**DCONXWS(3)**
GHPCOR 08-16-4-5	8.0	8.0	102.00	88.00	4.0	15.0	34.00	26.0	16.00	30.0	4.00	5.00
GHPCOR 10-16-4-5	10.0	10.0	102.00	88.00	2.0	18.0	34.00	26.0	16.00	30.0	4.00	5.00
GHPCOR 12-16-4-6	12.0	12.0	102.00	88.00	-	18.0	34.00	26.0	16.00	30.0	4.00	6.00
GHPCOR 12-25-4-6	12.0	12.0	102.00	88.00	-	18.0	43.00	26.0	25.00	39.0	4.00	6.00
GHPCOR 16-16-4-6	16.0	16.0	112.00	98.00	-	22.0	35.00	36.0	16.00	31.0	4.00	6.00
GHPCOR 16-25-4-6	16.0	16.0	112.00	98.00	-	22.0	44.00	36.0	25.00	40.0	4.00	6.00
GHPCOR 16-30-7-8	16.0	16.0	116.00	98.00	-	22.0	49.00	36.0	30.00	45.0	7.00	8.00

• PICCO-CUT insert should not exceed OAW • Left-hand holders are available upon request • Coolant tube adapter: KQ2L06-M5 (for 6 mm coolant tube)

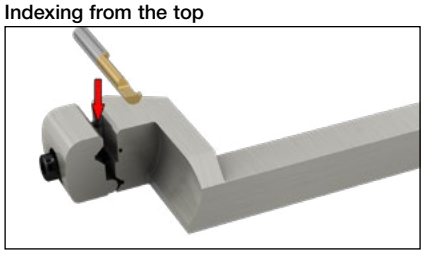
(1) Maximum overhang

(2) Minimum diameter

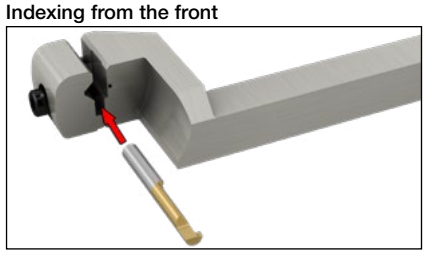
(3) Maximum diameter

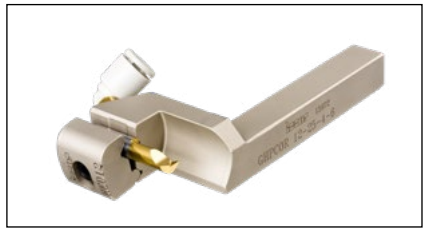
For tools, see pages: PICIN-A-SCLCR/L (476) • PICIN-A-SIR/L (480) • PICIN-A-SWUBR/L (478) • PICIN-MGSIR/L (480) • PICIN-SCLCR/L (477) • PICIN-SWUBR/L (479)

Indexing from the top



Indexing from the front





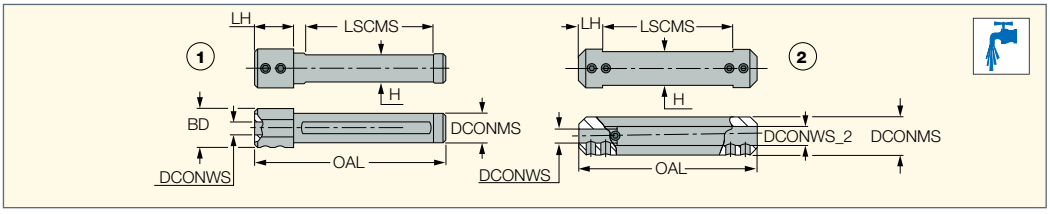
Spare Parts

Designation				
GHPCOR 08-16-4-5	HED 08	SR M4X14 DIN912	H 3.0	KQ2L06-M5
GHPCOR 10-16-4-5	HED 10	SR M4X14 DIN912	HW 3.0	KQ2L06-M5
GHPCOR 12-16-4-6	HED 12	SR M4X14 DIN912	HW 3.0	KQ2L06-M5
GHPCOR 12-25-4-6	HED 12	SR M4X14 DIN912	HW 3.0	KQ2L06-M5
GHPCOR 16-16-4-6	HED 16-4-6	SR M4X14 DIN912	HW 3.0	KQ2L06-M5
GHPCOR 16-25-4-6	HED 16-4-6	SR M4X14 DIN912	HW 3.0	KQ2L06-M5
GHPCOR 16-30-7-8	HED 16-7-8	SR M4X14 DIN912	HW 3.0	KQ2L06-M5

PASSCUT PICCOCUT HOLDER

PICCO/MG PCO (Holder)

Holders for PICCO-CUT Inserts and Small Diameter Boring Bars



M E T R I C

Designation	DCONMS	DCONWS	DCONWS_2	OAL	LH	LSCMS	H	BD	Fig.				
PICCO 12-4-5	12.00	4.00	5.00	75.00	10.0	55.00	10.3	-	2	SR M5X4-PF	HW 2.5	PIN 2X8 ISO2338B	
PICCO 16-4-5	16.00	4.00	5.00	75.00	10.0	55.00	14.0	-	2	SR M5X6-PF	HW 2.5	PIN 2X12 ISO2338B	
PICCO 20-4-5	20.00	4.00	5.00	90.00	10.0	70.00	18.0	-	2	SR M5X6-PF	HW 2.5	PIN 3X16 ISO2338B	
PICCO 22-4-5 (1)	22.00	4.00	5.00	90.00	10.0	70.00	20.0	-	2	SR M5X6-PF	HW 2.5	PIN 3X18 ISO2338B	
PICCO 16-6-7	16.00	6.00	7.00	75.00	10.0	55.00	14.0	-	2	SR M5X6-PF	HW 2.5	PIN 3X12 ISO2338B	
PICCO 20-6-7	20.00	6.00	7.00	90.00	10.0	70.00	18.0	-	2	SR M5X6-PF	HW 2.5	PIN 3X16 ISO2338B	
PICCO 22-6-7 (1)	22.00	6.00	7.00	90.00	10.0	70.00	20.0	-	2	SR M5X6-PF	HW 2.5	PIN 3X18 ISO2338B	
PICCO 25-4-5	25.00	4.00	5.00	90.00	10.0	70.00	23.4	-	2	SR M5X6-PF	HW 2.5	PIN 3X22 ISO2338B	
MG PCO-12-6	12.00	6.00	-	75.00	15.0	50.80	11.0	18.00	1	SR M5X6-PF	HW 2.5		
MG PCO-16-6-8	16.00	6.00	8.00	75.00	10.0	55.00	14.0	-	2	SR M5X6-PF	HW 2.5	MG PCO-SPCR8	
MG PCO-20-6-8	20.00	6.00	8.00	90.00	10.0	70.00	18.0	-	2	SR M5X6-PF	HW 2.5	MG PCO-SPCR8	
MG PCO-22-6-8 (1)	22.00	6.00	8.00	90.00	10.0	70.00	20.0	-	2	SR M5X6-PF	HW 2.5	MG PCO-SPCR8	
MG PCO-25-6-8	25.00	6.00	8.00	90.00	10.0	70.00	23.0	-	2	SR M5X6-PF	HW 2.5	MG PCO-SPCR8	
MG PCO-16-9	16.00	9.00	-	75.00	15.0	53.00	15.0	20.00	1	SR M5X6-PF	HW 2.5		PL 16

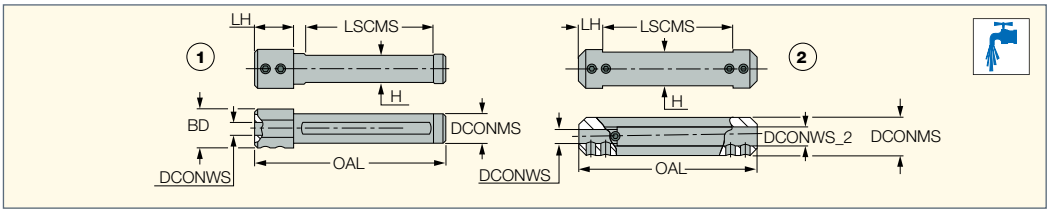
- Holders are suitable for right- and left-hand inserts, and boring bars

(1) Tools for Swiss-type CNC

PASSCUT PICCOCUT HOLDER

PICCO/MG PCO (Holder)

Holders for PICCO-CUT Inserts and Small Diameter Boring Bars

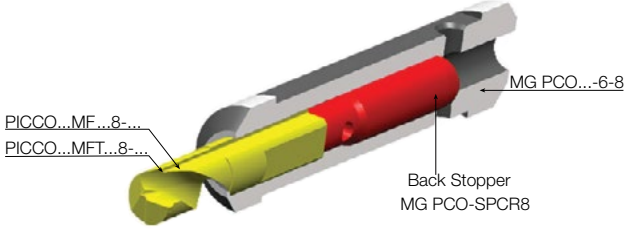


I N C H

Designation	DCONMS	DCONWS	DCONWS_2	OAL	LH	LSCMS	H	BD	Fig.				
PICCO 12.7-4-5	.500	.157	.197	2.950	.394	2.170	.410	-	2	SR M5X4-PF	HW 2.5		
PICCO 15.9-4-5	.625	.157	.197	2.950	.394	2.170	.550	-	2	SR M5X6-PF	HW 2.5	PIN 2X12 ISO2338B	
PICCO 19-4-5	.750	.157	.197	3.540	.394	2.760	.710	-	2	SR M5X6-PF	HW 2.5	PIN 3X16 ISO2338B	
PICCO 25.4-4-5 (1)	1.000	.157	.197	3.543	.394	2.756	.921	-	2	SR M5X6-PF	HW 2.5	PIN 3X22 ISO2338B	
PICCO 15.9-6-7	.625	.236	.276	2.950	.394	2.170	.550	-	2	SR M5X6-PF	HW 2.5	PIN 3X12 ISO2338B	
PICCO 19-6-7	.750	.236	.276	3.540	.394	2.760	.710	-	2	SR M5X6-PF	HW 2.5	PIN 3X16 ISO2338B	
PICCO 25-4-5	.984	.157	.197	3.543	.394	2.756	.921	-	2	SR M5X6-PF	HW 2.5	PIN 3X22 ISO2338B	
PICCO 25.4-6-7 (1)	1.000	.236	.276	3.543	.394	2.756	.921	-	2	SR M5X6-PF	HW 2.5	PIN 3X22 ISO2338B	
MG PCO-12.7-6	.500	.236	-	3.000	.590	2.090	.460	.7090	1	SR M5X6-PF	HW 2.5		
MG PCO-15.9-6-8	.625	.236	.315	3.000	.390	2.170	.551	-	2	SR M5X6-PF	HW 2.5	MG PCO-SPCR8	
MG PCO-19-6-8	.750	.236	.315	3.500	.390	2.760	.709	-	2	SR M5X6-PF	HW 2.5	MG PCO-SPCR8	
MG PCO-25.4-6-8 (1)	1.000	.236	.315	3.543	.394	2.756	.921	-	2	SR M5X6-PF	HW 2.5	MG PCO-SPCR8	
MG PCO-16-9	.630	.354	-	2.953	.591	2.087	.591	.7874	1	SR M5X6-PF	HW 2.5		PL 16

- Holders are suitable for left- and right-hand inserts, and boring bars

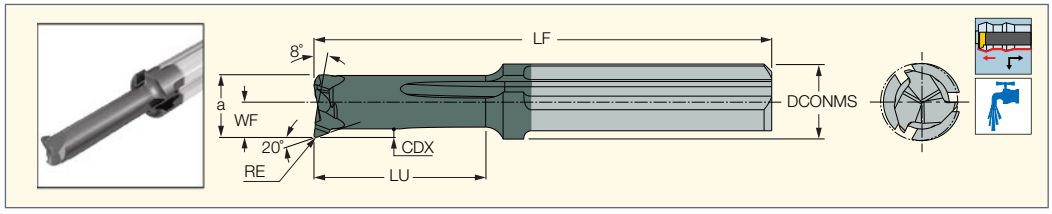
(1) Tools for Swiss-type CNC



PICCO3CUT

PMC R/L

Inserts with Three Cutting Edges for Internal Turning and Chamfering



M E T R I C

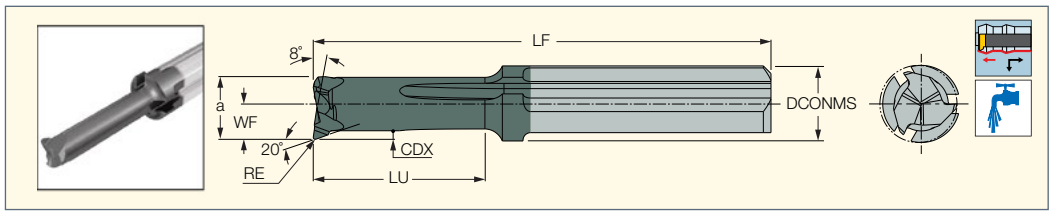
Designation	Dimensions								IC908
	DCONMS	D min	CDX	LU	RE	LF	a	WF	
PMC R/LT20D30R10-10	4.00	3.00	0.20	9.30	0.10	24.00	2.40	1.35	•
PMC R/LT20D30R10-15	4.00	3.00	0.20	14.30	0.10	29.00	2.40	1.35	•
PMC R/LT20D30R10-20	4.00	3.00	0.20	19.30	0.10	34.00	2.40	1.35	•
PMC R/LT20D40R10-10	4.00	4.00	0.30	9.30	0.10	24.00	3.30	1.85	•
PMC R/LT20D40R10-15	4.00	4.00	0.30	14.30	0.10	29.00	3.30	1.85	•
PMC R/LT20D40R10-20	4.00	4.00	0.30	19.30	0.10	34.00	3.30	1.85	•
PMC R/LT20D40R10-25	4.00	4.00	0.30	24.30	0.10	39.00	3.30	1.85	•
PMC R/LT20D50R15-10	5.00	5.00	0.50	9.30	0.15	25.00	4.00	2.30	•
PMC R/LT20D50R15-20	5.00	5.00	0.50	19.30	0.15	35.00	4.00	2.30	•
PMC R/LT20D50R15-25	5.00	5.00	0.50	24.30	0.15	40.00	4.00	2.30	•
PMC R/LT20D50R15-35	5.00	5.00	0.50	34.30	0.15	50.00	4.00	2.30	•
PMC R/LT20D60R15-15	6.00	6.00	0.50	14.30	0.15	30.00	5.00	2.80	•
PMC R/LT20D60R15-25	6.00	6.00	0.50	24.30	0.15	40.00	5.00	2.80	•
PMC R/LT20D60R15-30	6.00	6.00	0.50	29.30	0.15	45.00	5.00	2.80	•
PMC R/LT20D60R15-40	6.00	6.00	0.50	39.30	0.15	55.00	5.00	2.80	•
PMC R/LT20D70R15-20	7.00	7.00	0.60	19.30	0.15	35.00	5.90	3.30	•
PMC R/LT20D70R15-30	7.00	7.00	0.60	29.30	0.15	45.00	5.90	3.30	•
PMC R/LT20D70R15-40	7.00	7.00	0.60	39.30	0.15	55.00	5.90	3.30	•
PMC R/LT20D70R15-50	7.00	7.00	0.60	49.30	0.15	65.00	5.90	3.30	•

• Specify right- or left-hand bars

PICCO3CUT

PMC R/L

Inserts with Three Cutting Edges for Internal Turning and Chamfering



I N C H

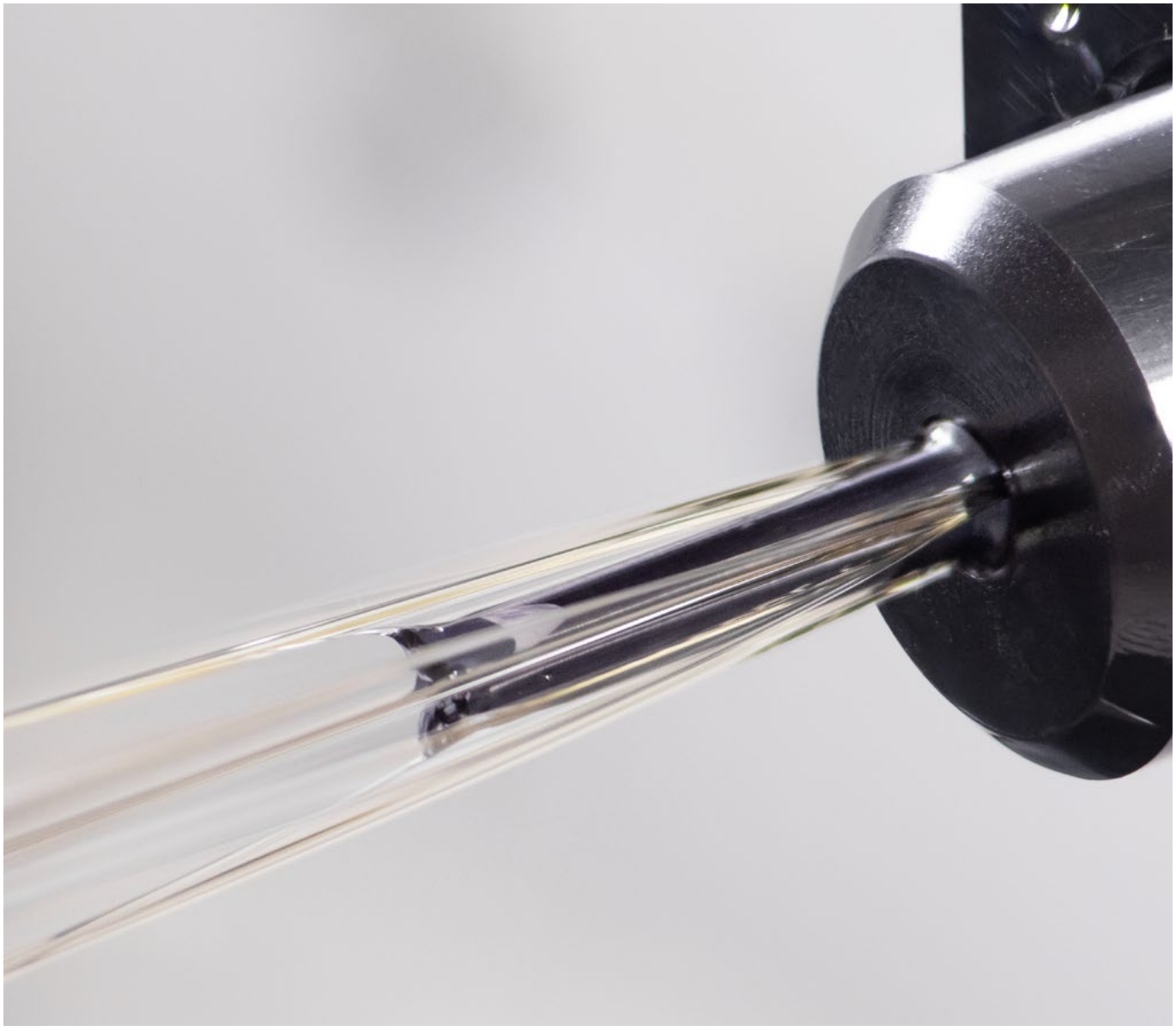
Designation	Dimensions								IC908
	DCONMS	D min	CDX	LU	RE	LF	a	WF	
PMC R/LT20D30R10-10	.157	.118	.008	.3661	.0039	.945	.094	.053	•
PMC R/LT20D30R10-15	.157	.118	.008	.5630	.0039	1.142	.094	.053	•
PMC R/LT20D30R10-20	.157	.118	.008	.7598	.0039	1.339	.094	.053	•
PMC R/LT20D40R10-10	.157	.157	.012	.3661	.0039	.945	.130	.073	•
PMC R/LT20D40R10-15	.157	.157	.012	.5630	.0039	1.142	.130	.073	•
PMC R/LT20D40R10-20	.157	.157	.012	.7598	.0039	1.339	.130	.073	•
PMC R/LT20D40R10-25	.157	.157	.012	.9567	.0039	1.535	.130	.073	•
PMC R/LT20D50R15-10	.197	.197	.020	.3661	.0059	.984	.157	.091	•
PMC R/LT20D50R15-20	.197	.197	.020	.7598	.0059	1.378	.157	.091	•
PMC R/LT20D50R15-25	.197	.197	.020	.9567	.0059	1.575	.157	.091	•
PMC R/LT20D50R15-35	.197	.197	.020	1.3504	.0059	1.968	.157	.091	•
PMC R/LT20D60R15-15	.236	.236	.020	.5630	.0059	1.181	.197	.110	•
PMC R/LT20D60R15-25	.236	.236	.020	.9567	.0059	1.575	.197	.110	•
PMC R/LT20D60R15-30	.236	.236	.020	1.1535	.0059	1.772	.197	.110	•
PMC R/LT20D60R15-40	.236	.236	.020	1.5472	.0059	2.165	.197	.110	•
PMC R/LT20D70R15-20	.276	.276	.024	.7598	.0059	1.378	.232	.130	•
PMC R/LT20D70R15-30	.276	.276	.024	1.1535	.0059	1.772	.232	.130	•
PMC R/LT20D70R15-40	.276	.276	.024	1.5472	.0059	2.165	.232	.130	•
PMC R/LT20D70R15-50	.276	.276	.024	1.9409	.0059	2.559	.232	.130	•

• Specify right- or left-hand bars

PICCOJET - Designation Key Code

PICJ	R	G	20	D60	R15	25	IC908
1	2	3	4	5	6	7	8

	Turning	Back Turning	Grooving	Profiling	Chamfering / Back Chamfering	Face Groove	Threading
1	PICJ - PICCOJET	PICJ - PICCOJET	PICJ - PICCOJET	PICJ - PICCOJET	PICJ - PICCOJET	PICJ - PICCOJET	PICJ - PICCOJET
2	RH / LH	RH / LH	RH / LH	RH / LH	RH / LH	RH / LH	RH / LH
3	T	BT	G	P	CH / BC	F	TH
4	Cutting Angle		Width	Width	Chamfering angle	Width	Max. Overhang
5	Min. Diameter	Min. Diameter	Min. Diameter	Min. Diameter	Min. Diameter	DAXN	I -ISO/UN(60 °) / W -Whitworth (BSW, BSF, BSP) (55°)
6	Radius size	Radius size	Radius size			Machining depth -CDX	TPN- Pitch minimum/nominal
7	Max. Overhang	Max. Overhang	Max. Overhang	Max. Overhang	Max. Overhang	Max. Overhang	Min. Diameter
8	Grade	Grade	Grade	Grade	Grade	Grade	Grade

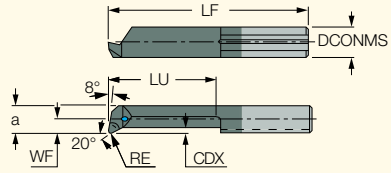


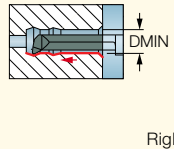
PICCOJET
COOLANT THROUGH

PICJ R/LT20

Inserts with Inner Coolant Channel for Internal Turning and Chamfering







Right hand tool shown

M E T R I C

Designation	Dimensions								Tough ↔ Hard	
	DCONMS	DMIN	CDX	LU	RE	LF	a	WF	IC908	IC902
PICJ RT20D08R04-4	4.00	0.80	0.08	4.00	0.04	20.00	0.70	-1.30	•	
PICJ RT20D10R05-5	4.00	1.00	0.10	4.50	0.05	20.00	0.90	-1.10	•	
PICJ RT20D10R05-7	4.00	1.00	0.10	6.50	0.05	22.00	0.90	-1.10	•	
PICJ RT20D15R05-5	4.00	1.50	0.10	4.00	0.05	19.00	1.30	-0.70	•	
PICJ RT20D15R05-10	4.00	1.50	0.10	9.00	0.05	24.00	1.30	-0.70	•	
PICJ RT20D20R05-5	4.00	2.00	0.10	4.00	0.05	19.00	1.70	-0.30	•	
PICJ R/LT20D20R05-10	4.00	2.00	0.10	9.00	0.05	24.00	1.70	-0.30	•	
PICJ R/LT20D20R05-15	4.00	2.00	0.10	14.00	0.05	29.00	1.70	-0.30	•	
PICJ RT20D25R05-5	4.00	2.50	0.15	4.00	0.05	19.00	2.20	0.20	•	
PICJ RT20D25R05-10	4.00	2.50	0.15	9.00	0.05	24.00	2.20	0.20	•	
PICJ RT20D25R05-16	4.00	2.50	0.15	15.00	0.05	30.00	2.20	0.20	•	
PICJ RT20D30R03-10	4.00	2.80	0.20	9.00	0.03	24.00	2.60	0.60	•	
PICJ R/LT20D30R10-10	4.00	2.80	0.20	9.00	0.10	24.00	2.60	0.60	•	
PICJ RT20D30R03-16	4.00	2.80	0.20	15.00	0.03	30.00	2.60	0.60	•	
PICJ LT20D30R10-16	4.00	2.80	0.20	15.00	0.10	30.00	2.60	0.60	•	
PICJ RT20D30R10-16 (1)	4.00	2.80	0.20	15.00	0.10	30.00	2.60	0.60	•	•
PICJ RT20D30R10-20	4.00	2.80	0.20	19.00	0.10	34.00	2.60	0.60	•	
PICJ RT20D35R10-10	4.00	3.50	0.25	9.00	0.10	24.00	3.10	1.10	•	
PICJ RT20D35R10-16	4.00	3.50	0.25	15.00	0.10	30.00	3.10	1.10	•	
PICJ RT20D35R10-20	4.00	3.50	0.25	19.00	0.10	34.00	3.10	1.10	•	
PICJ RT20D35R10-24	4.00	3.50	0.25	23.00	0.10	38.00	3.10	1.10	•	
PICJ RT20D40R03-10	4.00	4.00	0.30	9.00	0.03	24.00	3.50	1.50	•	
PICJ R/LT20D40R10-10	4.00	4.00	0.30	9.00	0.10	24.00	3.50	1.50	•	
PICJ RT20D40R03-16	4.00	4.00	0.30	15.00	0.03	30.00	3.50	1.50	•	
PICJ RT20D40R10-16	4.00	4.00	0.30	15.00	0.10	30.00	3.50	1.50	•	
PICJ RT20D40R03-20	4.00	4.00	0.30	19.00	0.03	34.00	3.50	1.50	•	
PICJ LT20D40R10-20	4.00	4.00	0.30	19.00	0.10	34.00	3.50	1.50	•	
PICJ RT20D40R10-20 (1)	4.00	4.00	0.30	19.00	0.10	34.00	3.50	1.50	•	•
PICJ RT20D40R10-24	4.00	4.00	0.30	23.00	0.10	38.00	3.50	1.50	•	
PICJ R/LT20D40R10-28	4.00	4.00	0.30	27.00	0.10	42.00	3.50	1.50	•	
PICJ RT20D50R05-10	5.00	5.00	0.50	9.00	0.05	25.00	4.40	1.90	•	
PICJ RT20D50R15-10	5.00	5.00	0.50	9.00	0.15	25.00	4.40	1.90	•	
PICJ RT20D50R05-15	5.00	5.00	0.50	14.00	0.05	30.00	4.40	1.90	•	
PICJ RT20D50R15-15	5.00	5.00	0.50	14.00	0.15	30.00	4.40	1.90	•	
PICJ RT20D50R05-20	5.00	5.00	0.50	19.00	0.05	35.00	4.40	1.90	•	
PICJ R/LT20D50R15-20	5.00	5.00	0.50	19.00	0.15	35.00	4.40	1.90	•	
PICJ RT20D50R05-25	5.00	5.00	0.50	24.00	0.05	40.00	4.40	1.90	•	
PICJ R/LT20D50R15-25	5.00	5.00	0.50	24.00	0.15	40.00	4.40	1.90	•	
PICJ RT20D50R15-30	5.00	5.00	0.50	29.00	0.15	45.00	4.40	1.90	•	
PICJ RT20D50R15-35	5.00	5.00	0.50	34.00	0.15	50.00	4.40	1.90	•	
PICJ RT20D60R05-15	6.00	6.00	0.50	14.00	0.05	30.00	5.30	2.30	•	
PICJ R/LT20D60R15-15	6.00	6.00	0.50	14.00	0.15	30.00	5.30	2.30	•	
PICJ RT20D60R05-22	6.00	6.00	0.50	21.00	0.05	37.00	5.30	2.30	•	
PICJ R/LT20D60R15-22	6.00	6.00	0.50	21.00	0.15	37.00	5.30	2.30	•	
PICJ RT20D60R05-25	6.00	6.00	0.50	24.00	0.05	40.00	5.30	2.30	•	
PICJ R/LT20D60R15-25	6.00	6.00	0.50	24.00	0.15	40.00	5.30	2.30	•	
PICJ RT20D60R05-30	6.00	6.00	0.50	29.00	0.05	45.00	5.30	2.30	•	
PICJ R/LT20D60R15-30	6.00	6.00	0.50	29.00	0.15	45.00	5.30	2.30	•	
PICJ RT20D60R15-35	6.00	6.00	0.50	34.00	0.15	50.00	5.30	2.30	•	
PICJ R/LT20D60R15-42	6.00	6.00	0.50	41.00	0.15	57.00	5.30	2.30	•	
PICJ LT20D70R15-20	7.00	6.80	0.60	19.00	0.15	35.00	6.30	2.80	•	
PICJ RT20D70R15-20 (1)	7.00	6.80	0.60	19.00	0.15	35.00	6.30	2.80	•	•
PICJ RT20D70R15-25	7.00	6.80	0.60	24.00	0.15	40.00	6.30	2.80	•	
PICJ R/LT20D70R15-30	7.00	6.80	0.60	29.00	0.15	45.00	6.30	2.80	•	

• Specify right- or left-hand bars • PICJ items are suitable for PICCO/MG PCO, PICCO ACE, SC-PICCO type holders only

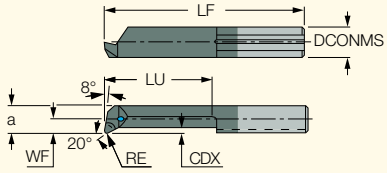
(1) IC902 for hard steel - up to 65 HRC

PICCOJET
COOLANT THROUGH

PICJ R/LT20

Inserts with Inner Coolant Channel for Internal Turning and Chamfering





Right hand tool shown

M E T R I C

Designation	Dimensions								Tough ↔ Hard	
	DCONMS	DMIN	CDX	LU	RE	LF	a	WF	IC908	IC902
PICJ RT20D70R15-35	7.00	6.80	0.60	34.00	0.15	50.00	6.30	2.80	●	
PICJ RT20D70R15-40	7.00	6.80	0.60	39.00	0.15	55.00	6.30	2.80	●	
PICJ RT20D70R15-45	7.00	6.80	0.60	44.00	0.15	60.00	6.30	2.80	●	
PICJ RT20D70R15-50	7.00	6.80	0.60	49.00	0.15	65.00	6.30	2.80	●	

• Specify right- or left-hand bars • PICJ items are suitable for PICCO/MG PCO, PICCO ACE, SC-PICCO type holders only

(1) IC902 for hard steel - up to 65 HRC

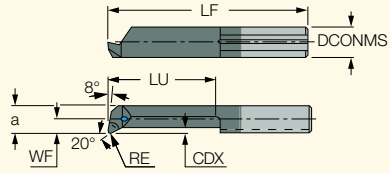


PICCOJET
COOLANT THROUGH

PICJ R/LT20

Inserts with Inner Coolant Channel for Internal Turning and Chamfering





Right hand tool shown

I N C H

Designation	Dimensions								Tough ↔ Hard	
	DCONMS	DMIN	CDX	LU	RE	LF	a	WF	IC908	IC902
PICJ RT20D08R04-4	.157	.031	.003	.1575	.002	.787	.028	-0.051	●	
PICJ RT20D10R05-5	.157	.039	.004	.1772	.002	.787	.035	-0.043	●	
PICJ RT20D10R05-7	.157	.039	.004	.2559	.002	.866	.035	-0.043	●	
PICJ RT20D15R05-5	.157	.059	.004	.1575	.002	.748	.051	-0.028	●	
PICJ RT20D15R05-10	.157	.059	.004	.3543	.002	.945	.051	-0.028	●	
PICJ RT20D20R05-5	.157	.079	.004	.1575	.002	.748	.067	-0.012	●	
PICJ R/LT20D20R05-10	.157	.079	.004	.3543	.002	.945	.067	-0.012	●	
PICJ R/LT20D20R05-15	.157	.079	.004	.5512	.002	1.142	.067	-0.012	●	
PICJ RT20D25R05-5	.157	.098	.006	.1575	.002	.748	.087	.008	●	
PICJ RT20D25R05-10	.157	.098	.006	.3543	.002	.945	.087	.008	●	
PICJ RT20D25R05-16	.157	.098	.006	.5906	.002	1.181	.087	.008	●	
PICJ RT20D30R03-10	.157	.110	.008	.3543	.001	.945	.102	.024	●	
PICJ R/LT20D30R10-10	.157	.110	.008	.3543	.004	.945	.102	.024	●	
PICJ RT20D30R03-16	.157	.110	.008	.5906	.001	1.181	.102	.024	●	
PICJ LT20D30R10-16	.157	.110	.008	.5906	.004	1.181	.102	.024	●	
PICJ RT20D30R10-16 (1)	.157	.110	.008	.5906	.004	1.181	.102	.024	●	●
PICJ RT20D30R10-20	.157	.110	.008	.7480	.004	1.339	.102	.024	●	
PICJ RT20D35R10-10	.157	.138	.010	.3543	.004	.945	.122	.043	●	
PICJ RT20D35R10-16	.157	.138	.010	.5906	.004	1.181	.122	.043	●	
PICJ RT20D35R10-20	.157	.138	.010	.7480	.004	1.339	.122	.043	●	
PICJ RT20D35R10-24	.157	.138	.010	.9055	.004	1.496	.122	.043	●	
PICJ RT20D40R03-10	.157	.157	.012	.3543	.001	.945	.138	.059	●	
PICJ R/LT20D40R10-10	.157	.157	.012	.3543	.004	.945	.138	.059	●	
PICJ RT20D40R03-16	.157	.157	.012	.5906	.001	1.181	.138	.059	●	
PICJ RT20D40R10-16	.157	.157	.012	.5906	.004	1.181	.138	.059	●	
PICJ RT20D40R03-20	.157	.157	.012	.7480	.001	1.339	.138	.059	●	
PICJ LT20D40R10-20	.157	.157	.012	.7480	.004	1.339	.138	.059	●	
PICJ RT20D40R10-20 (1)	.157	.157	.012	.7480	.004	1.339	.138	.059	●	●
PICJ RT20D40R10-24	.157	.157	.012	.9055	.004	1.496	.138	.059	●	
PICJ R/LT20D40R10-28	.157	.157	.012	1.0630	.004	1.654	.138	.059	●	
PICJ RT20D50R05-10	.197	.197	.020	.3543	.002	.984	.173	.075	●	
PICJ RT20D50R15-10	.197	.197	.020	.3543	.006	.984	.173	.075	●	
PICJ RT20D50R05-15	.197	.197	.020	.5512	.002	1.181	.173	.075	●	
PICJ RT20D50R15-15	.197	.197	.020	.5512	.006	1.181	.173	.075	●	
PICJ RT20D50R05-20	.197	.197	.020	.7480	.002	1.378	.173	.075	●	
PICJ R/LT20D50R15-20	.197	.197	.020	.7480	.006	1.378	.173	.075	●	
PICJ RT20D50R05-25	.197	.197	.020	.9449	.002	1.575	.173	.075	●	
PICJ R/LT20D50R15-25	.197	.197	.020	.9449	.006	1.575	.173	.075	●	
PICJ RT20D50R15-30	.197	.197	.020	1.1417	.006	1.772	.173	.075	●	
PICJ RT20D50R15-35	.197	.197	.020	1.3386	.006	1.968	.173	.075	●	
PICJ RT20D60R05-15	.236	.236	.020	.5512	.002	1.181	.209	.091	●	
PICJ R/LT20D60R15-15	.236	.236	.020	.5512	.006	1.181	.209	.091	●	
PICJ RT20D60R05-22	.236	.236	.020	.8268	.002	1.457	.209	.091	●	
PICJ R/LT20D60R15-22	.236	.236	.020	.8268	.006	1.457	.209	.091	●	
PICJ RT20D60R05-25	.236	.236	.020	.9449	.002	1.575	.209	.091	●	
PICJ R/LT20D60R15-25	.236	.236	.020	.9449	.006	1.575	.209	.091	●	
PICJ RT20D60R05-30	.236	.236	.020	1.1417	.002	1.772	.209	.091	●	
PICJ R/LT20D60R15-30	.236	.236	.020	1.1417	.006	1.772	.209	.091	●	
PICJ RT20D60R15-35	.236	.236	.020	1.3386	.006	1.968	.209	.091	●	
PICJ R/LT20D60R15-42	.236	.236	.020	1.6142	.006	2.244	.209	.091	●	
PICJ LT20D70R15-20	.276	.268	.024	.7480	.006	1.378	.248	.110	●	
PICJ RT20D70R15-20 (1)	.276	.268	.024	.7480	.006	1.378	.248	.110	●	●
PICJ RT20D70R15-25	.276	.268	.024	.9449	.006	1.575	.248	.110	●	
PICJ R/LT20D70R15-30	.276	.268	.024	1.1417	.006	1.772	.248	.110	●	

• Specify right- or left-hand bars • PICJ items are suitable for PICCO/MG PCO, PICCO ACE, SC-PICCO type holders only

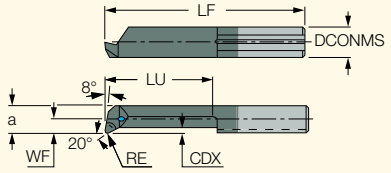
(1) IC902 for hard steel - up to 65 HRC

PICCOJET
COOLANT THROUGH

PICJ R/LT20

Inserts with Inner Coolant Channel for Internal Turning and Chamfering





Right hand tool shown

I N C H

Designation	Dimensions								Tough ↔ Hard	
	DCONMS	DMIN	CDX	LU	RE	LF	a	WF	IC908	IC902
PICJ RT20D70R15-35	.276	.268	.024	1.3386	.006	1.968	.248	.110	●	
PICJ RT20D70R15-40	.276	.268	.024	1.5354	.006	2.165	.248	.110	●	
PICJ RT20D70R15-45	.276	.268	.024	1.7323	.006	2.362	.248	.110	●	
PICJ RT20D70R15-50	.276	.268	.024	1.9291	.006	2.559	.248	.110	●	

• Specify right- or left-hand bars • PICJ items are suitable for PICCO/MG PCO, PICCO ACE, SC-PICCO type holders only

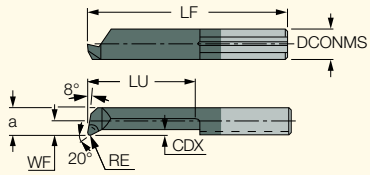
(1) IC902 for hard steel - up to 65 HRC

PICCOCUT

PICCO R/L 050, 053, 055

Inserts for Internal Turning and Chamfering





Right hand tool shown

M E T R I C

Designation	Dimensions								Tough ↔ Hard	
	DCONMS	DMIN	CDX	LU	RE	LF	a	WF	IC228	IC908
PICCO R 050.06-2 (1)	4.00	0.60	0.08	2.00	0.04	20.00	0.50	-	•	•
PICCO R 050.06-3 (1)	4.00	0.60	0.08	3.00	0.04	20.00	0.50	-	•	•
PICCO R 050.08-4	4.00	0.80	0.08	4.00	0.04	20.00	0.70	-		•
PICCO R/L 050.1-5	4.00	1.00	0.10	4.50	0.05	20.00	0.90	-	•	•
PICCO R/L 050.1-7	4.00	1.00	0.10	6.50	0.05	22.00	0.90	-	•	•
PICCO R 050.15-5	4.00	1.50	0.10	5.00	0.05	19.00	1.30	-		•
PICCO R 050.15-10	4.00	1.50	0.10	10.00	0.06	24.00	1.30	-		•
PICCO R/L 050.2-5	4.00	2.00	0.10	4.00	0.05	19.00	1.70	-	•	•
PICCO R 055.2-5	4.00	2.00	0.10	5.00	0.05	19.00	1.70	-		•
PICCO R/L 050.2-10	4.00	2.00	0.10	9.00	0.05	24.00	1.70	-	•	•
PICCO R 055.2-10	4.00	2.00	0.10	10.00	0.05	24.00	1.70	-		•
PICCO L 050.2-15	4.00	2.00	0.10	15.00	0.05	29.00	1.70	-	•	•
PICCO R 050.2-15	4.00	2.00	0.10	14.00	0.05	29.00	1.70	-	•	•
PICCO R 055.2-15	4.00	2.00	0.10	15.00	0.05	29.00	1.70	-		•
PICCO R 050.25-5	4.00	2.50	0.15	5.00	0.05	19.00	2.20	0.20		•
PICCO R 050.25-10	4.00	2.50	0.15	10.00	0.07	24.00	2.20	0.20		•
PICCO R 050.25-16	4.00	2.50	0.15	16.00	0.07	30.00	2.20	0.20		•
PICCO R 053.3-10	4.00	2.80	0.20	9.00	0.03	24.00	2.60	0.60		•
PICCO R 055.3-10	4.00	2.80	0.20	10.00	0.05	24.00	2.60	0.60		•
PICCO R/L 050.3-10	4.00	2.80	0.20	9.00	0.10	24.00	2.60	0.60	•	•
PICCO R 053.3-16	4.00	2.80	0.20	15.00	0.03	30.00	2.60	0.60		•
PICCO R 055.3-16	4.00	2.80	0.20	16.00	0.05	30.00	2.60	0.60		•
PICCO R/L 050.3-16	4.00	2.80	0.20	15.00	0.10	30.00	2.60	0.60	•	•
PICCO R 053.3-20	4.00	2.80	0.20	19.00	0.03	34.00	2.60	0.60		•
PICCO R/L 050.3-20	4.00	2.80	0.20	19.00	0.10	34.00	2.60	0.60	•	•
PICCO R 050.35-10	4.00	3.50	0.25	10.00	0.10	24.00	3.10	1.10		•
PICCO R 050.35-16	4.00	3.50	0.25	16.00	0.10	30.00	3.10	1.10		•
PICCO R 050.35-20	4.00	3.50	0.25	20.00	0.10	34.00	3.10	1.10		•
PICCO R 050.35-24	4.00	3.50	0.25	24.00	0.10	38.00	3.10	1.10		•
PICCO R 053.4-10	4.00	4.00	0.30	9.00	0.03	24.00	3.50	1.50		•
PICCO R 055.4-10	4.00	4.00	0.30	10.00	0.05	24.00	3.50	1.50		•
PICCO R/L 050.4-10	4.00	4.00	0.30	9.00	0.10	24.00	3.50	1.50	•	•
PICCO R 053.4-16	4.00	4.00	0.30	15.00	0.03	30.00	3.50	1.50		•
PICCO R 055.4-16	4.00	4.00	0.30	16.00	0.05	30.00	3.50	1.50		•
PICCO R/L 050.4-16	4.00	4.00	0.30	15.00	0.10	30.00	3.50	1.50	•	•
PICCO R 053.4-20	4.00	4.00	0.30	19.00	0.03	34.00	3.50	1.50		•
PICCO R 055.4-20	4.00	4.00	0.30	20.00	0.05	34.00	3.50	1.50		•
PICCO R/L 050.4-20	4.00	4.00	0.30	19.00	0.10	34.00	3.50	1.50	•	•
PICCO R/L 050.4-24	4.00	4.00	0.30	23.00	0.10	38.00	3.50	1.50	•	•
PICCO R/L 050.4-28	4.00	4.00	0.30	27.00	0.10	42.00	3.50	1.50	•	•
PICCO R 055.4-28	4.00	4.00	0.50	28.00	0.05	42.00	3.50	1.50		•
PICCO R 055.5-10	5.00	5.00	0.50	9.00	0.05	25.00	4.40	1.90		•
PICCO R/L 050.5-10	5.00	5.00	0.50	9.00	0.15	25.00	4.40	1.90	•	•
PICCO R 055.5-15	5.00	5.00	0.50	14.00	0.05	30.00	4.40	1.90		•
PICCO R/L 050.5-15	5.00	5.00	0.50	14.00	0.15	30.00	4.40	1.90	•	•
PICCO R 055.5-20	5.00	5.00	0.50	19.00	0.05	35.00	4.40	1.90		•
PICCO R/L 050.5-20	5.00	5.00	0.50	19.00	0.15	35.00	4.40	1.90	•	•
PICCO R 055.5-25	5.00	5.00	0.50	24.00	0.05	40.00	4.40	1.90		•
PICCO R/L 050.5-25	5.00	5.00	0.50	24.00	0.15	40.00	4.40	1.90	•	•
PICCO R 055.5-30	5.00	5.00	0.50	29.00	0.05	45.00	4.40	1.90		•
PICCO R/L 050.5-30	5.00	5.00	0.50	29.00	0.15	45.00	4.40	1.90	•	•
PICCO R/L 050.5-35	5.00	5.00	0.50	34.00	0.15	50.00	4.40	1.90	•	•
PICCO R 055.6-15	6.00	6.00	0.50	14.00	0.05	30.00	5.30	2.30		•

- Specify right- or left-hand bars

(1) Maximum D.O.C.=0.01-0.03 mm, maximum feed=0.01 mm/rev.

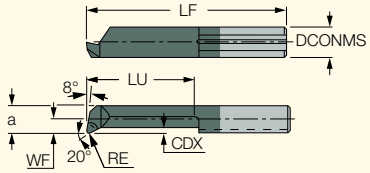
For holders, see pages: GHPCOR (438) • PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

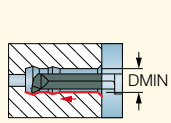
PICCOCUT

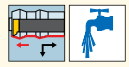
PICCO R/L 050, 053, 055

Inserts for Internal Turning and Chamfering









Right hand tool shown

M E T R I C

Designation	Dimensions								Tough ↔ Hard	
	DCONMS	DMIN	CDX	LU	RE	LF	a	WF	IC228	IC908
PICCO R/L 050.6-15	6.00	6.00	0.50	14.00	0.15	30.00	5.30	2.30	•	•
PICCO R 055.6-22	6.00	6.00	0.50	21.00	0.05	37.00	5.30	2.30		•
PICCO R/L 050.6-22	6.00	6.00	0.50	21.00	0.15	37.00	5.30	2.30	•	•
PICCO R 055.6-25	6.00	6.00	0.50	24.00	0.05	40.00	5.30	2.30		•
PICCO R/L 050.6-25	6.00	6.00	0.50	24.00	0.15	40.00	5.30	2.30	•	•
PICCO R 055.6-30	6.00	6.00	0.50	29.00	0.05	45.00	5.30	2.30		•
PICCO R/L 050.6-30	6.00	6.00	0.50	29.00	0.15	45.00	5.30	2.30	•	•
PICCO R/L 050.6-35	6.00	6.00	0.50	34.00	0.15	50.00	5.30	2.30	•	•
PICCO R/L 050.6-42	6.00	6.00	0.50	41.00	0.15	57.00	5.30	2.30	•	•
PICCO R/L 050.7-20	7.00	6.80	0.60	19.00	0.15	35.00	6.30	2.80	•	•
PICCO R/L 050.7-25	7.00	6.80	0.60	24.00	0.15	40.00	6.30	2.80	•	•
PICCO R/L 050.7-30	7.00	6.80	0.60	29.00	0.15	45.00	6.30	2.80	•	•
PICCO R/L 050.7-35	7.00	6.80	0.60	34.00	0.15	50.00	6.30	2.80	•	•
PICCO R/L 050.7-40	7.00	6.80	0.60	39.00	0.15	55.00	6.30	2.80	•	•
PICCO R/L 050.7-45	7.00	6.80	0.60	44.00	0.15	60.00	6.30	2.80	•	•
PICCO R/L 050.7-50	7.00	6.80	0.60	49.00	0.15	65.00	6.30	2.80	•	•

• Specify right- or left-hand bars

(1) Maximum D.O.C.=0.01-0.03 mm, maximum feed=0.01 mm/rev.

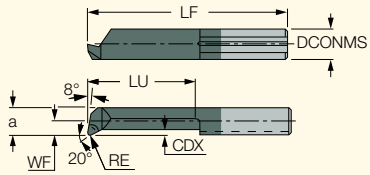
For holders, see pages: GHPCOR (438) • PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

PICCOCUT

PICCO R/L 050, 053, 055

Inserts for Internal Turning and Chamfering





Right hand tool shown

I N C H

Designation	Dimensions								Tough ↔ Hard	
	DCONMS	DMIN	CDX	LU	RE	LF	a	WF	IC228	IC908
PICCO R 050.06-2 (1)	.157	.024	.003	.0787	.002	.787	.020	-	•	•
PICCO R 050.06-3 (1)	.157	.024	.003	.1181	.002	.787	.020	-	•	•
PICCO R 050.08-4	.157	.031	.003	.1575	.002	.787	.028	-		•
PICCO R/L 050.1-5	.157	.039	.004	.1772	.002	.787	.035	-	•	•
PICCO R/L 050.1-7	.157	.039	.004	.2559	.002	.866	.035	-	•	•
PICCO R 050.15-5	.157	.059	.004	.1969	.002	.748	.051	-		•
PICCO R 050.15-10	.157	.059	.004	.3937	.002	.945	.051	-		•
PICCO R/L 050.2-5	.157	.079	.004	.1575	.002	.748	.067	-	•	•
PICCO R 055.2-5	.157	.079	.004	.1969	.002	.748	.067	-		•
PICCO R/L 050.2-10	.157	.079	.004	.3543	.002	.945	.067	-	•	•
PICCO R 055.2-10	.157	.079	.004	.3937	.002	.945	.067	-		•
PICCO L 050.2-15	.157	.079	.004	.5906	.002	1.142	.067	-	•	•
PICCO R 050.2-15	.157	.079	.004	.5512	.002	1.142	.067	-	•	•
PICCO R 055.2-15	.157	.079	.004	.5906	.002	1.142	.067	-		•
PICCO R 050.25-5	.157	.098	.006	.1969	.002	.748	.087	.008		•
PICCO R 050.25-10	.157	.098	.006	.3937	.003	.945	.087	.008		•
PICCO R 050.25-16	.157	.098	.006	.6299	.003	1.181	.087	.008		•
PICCO R 053.3-10	.157	.110	.008	.3543	.001	.945	.102	.024		•
PICCO R 055.3-10	.157	.110	.008	.3937	.002	.945	.102	.024		•
PICCO R/L 050.3-10	.157	.110	.008	.3543	.004	.945	.102	.024	•	•
PICCO R 053.3-16	.157	.110	.008	.5906	.001	1.181	.102	.024		•
PICCO R 055.3-16	.157	.110	.008	.6299	.002	1.181	.102	.024		•
PICCO R/L 050.3-16	.157	.110	.008	.5906	.004	1.181	.102	.024	•	•
PICCO R 053.3-20	.157	.110	.008	.7480	.001	1.339	.102	.024		•
PICCO R/L 050.3-20	.157	.110	.008	.7480	.004	1.339	.102	.024	•	•
PICCO R 050.35-10	.157	.138	.010	.3937	.004	.945	.122	.043		•
PICCO R 050.35-16	.157	.138	.010	.6299	.004	1.181	.122	.043		•
PICCO R 050.35-20	.157	.138	.010	.7874	.004	1.339	.122	.043		•
PICCO R 050.35-24	.157	.138	.010	.9449	.004	1.496	.122	.043		•
PICCO R 053.4-10	.157	.157	.012	.3543	.001	.945	.138	.059		•
PICCO R 055.4-10	.157	.157	.012	.3937	.002	.945	.138	.059		•
PICCO R/L 050.4-10	.157	.157	.012	.3543	.004	.945	.138	.059	•	•
PICCO R 053.4-16	.157	.157	.012	.5906	.001	1.181	.138	.059		•
PICCO R 055.4-16	.157	.157	.012	.6299	.002	1.181	.138	.059		•
PICCO R/L 050.4-16	.157	.157	.012	.5906	.004	1.181	.138	.059	•	•
PICCO R 053.4-20	.157	.157	.012	.7480	.001	1.339	.138	.059		•
PICCO R 055.4-20	.157	.157	.012	.7874	.002	1.339	.138	.059		•
PICCO R/L 050.4-20	.157	.157	.012	.7480	.004	1.339	.138	.059	•	•
PICCO R/L 050.4-24	.157	.157	.012	.9055	.004	1.496	.138	.059	•	•
PICCO R/L 050.4-28	.157	.157	.012	1.0630	.004	1.654	.138	.059	•	•
PICCO R 055.4-28	.157	.157	.020	1.1024	.002	1.654	.138	.059		•
PICCO R 055.5-10	.197	.197	.020	.3543	.002	.984	.173	.075		•
PICCO R/L 050.5-10	.197	.197	.020	.3543	.006	.984	.173	.075	•	•
PICCO R 055.5-15	.197	.197	.020	.5512	.002	1.181	.173	.075		•
PICCO R/L 050.5-15	.197	.197	.020	.5512	.006	1.181	.173	.075	•	•
PICCO R 055.5-20	.197	.197	.020	.7480	.002	1.378	.173	.075		•
PICCO R/L 050.5-20	.197	.197	.020	.7480	.006	1.378	.173	.075	•	•
PICCO R 055.5-25	.197	.197	.020	.9449	.002	1.575	.173	.075		•
PICCO R/L 050.5-25	.197	.197	.020	.9449	.006	1.575	.173	.075	•	•
PICCO R 055.5-30	.197	.197	.020	1.1417	.002	1.772	.173	.075		•
PICCO R/L 050.5-30	.197	.197	.020	1.1417	.006	1.772	.173	.075	•	•
PICCO R/L 050.5-35	.197	.197	.020	1.3386	.006	1.968	.173	.075	•	•
PICCO R 055.6-15	.236	.236	.020	.5512	.002	1.181	.209	.091		•

• Specify right- or left-hand bars

(1) Maximum D.O.C.=.0004-.0012", maximum feed=.0004 IPR.

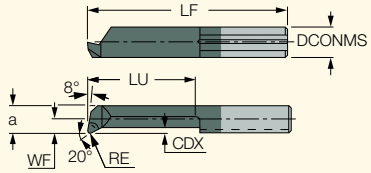
For holders, see pages: GHPCOR (438) • PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

PICCOCUT

PICCO R/L 050, 053, 055

Inserts for Internal Turning and Chamfering





Right hand tool shown

I N C H

Designation	Dimensions								Tough ↔ Hard	
	DCONMS	DMIN	CDX	LU	RE	LF	a	WF	IC228	IC908
PICCO R/L 050.6-15	.236	.236	.020	.5512	.006	1.181	.209	.091	●	●
PICCO R 055.6-22	.236	.236	.020	.8268	.002	1.457	.209	.091		●
PICCO R/L 050.6-22	.236	.236	.020	.8268	.006	1.457	.209	.091	●	●
PICCO R 055.6-25	.236	.236	.020	.9449	.002	1.575	.209	.091		●
PICCO R/L 050.6-25	.236	.236	.020	.9449	.006	1.575	.209	.091	●	●
PICCO R 055.6-30	.236	.236	.020	1.1417	.002	1.772	.209	.091		●
PICCO R/L 050.6-30	.236	.236	.020	1.1417	.006	1.772	.209	.091	●	●
PICCO R/L 050.6-35	.236	.236	.020	1.3386	.006	1.968	.209	.091	●	●
PICCO R/L 050.6-42	.236	.236	.020	1.6142	.006	2.244	.209	.091	●	●
PICCO R/L 050.7-20	.276	.268	.024	.7480	.006	1.378	.248	.110	●	●
PICCO R/L 050.7-25	.276	.268	.024	.9449	.006	1.575	.248	.110	●	●
PICCO R/L 050.7-30	.276	.268	.024	1.1417	.006	1.772	.248	.110	●	●
PICCO R/L 050.7-35	.276	.268	.024	1.3386	.006	1.968	.248	.110	●	●
PICCO R/L 050.7-40	.276	.268	.024	1.5354	.006	2.165	.248	.110	●	●
PICCO R/L 050.7-45	.276	.268	.024	1.7323	.006	2.362	.248	.110	●	●
PICCO R/L 050.7-50	.276	.268	.024	1.9291	.006	2.559	.248	.110	●	●

• Specify right- or left-hand bars

(1) Maximum D.O.C.=.0004-.0012", maximum feed=.0004 IPR.

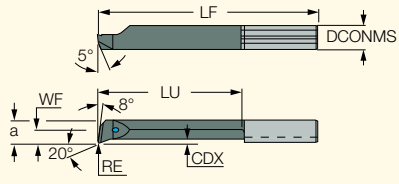
For holders, see pages: GHPCOR (438) • PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

PICCOJET COOLANT THROUGH

PICJ R/LT20-C

Inserts with Chipformers and Inner Coolant Channel for Internal Boring and Profiling





Right hand tool shown

M E T R I C

Designation	Dimensions								IC908
	DCONMS	DMIN	CDX	OHN(1)	RE	LF	a	WF	
PICJ RT20D40R10-10C	4.00	4.00	0.30	9.0	0.10	24.00	3.50	1.50	●
PICJ RT20D40R10-20C	4.00	4.00	0.30	19.0	0.10	34.00	3.50	1.50	●
PICJ RT20D40R10-28C	4.00	4.00	0.30	27.0	0.10	42.00	3.50	1.50	●
PICJ RT20D50R15-20C	5.00	5.00	0.50	19.0	0.15	35.00	4.40	1.90	●
PICJ RT20D60R15-15C	6.00	6.00	0.50	14.0	0.15	30.00	5.30	2.30	●
PICJ RT20D60R15-22C	6.00	6.00	0.50	21.0	0.15	37.00	5.30	2.30	●
PICJ RT20D70R15-20C	7.00	6.80	0.60	19.0	0.15	35.00	6.30	2.80	●

• All left-hand inserts on request • PICJ items are suitable for PICCO/MG PCO, PICCO ACE, SC-PICCO type holders only

(1) Minimum overhang

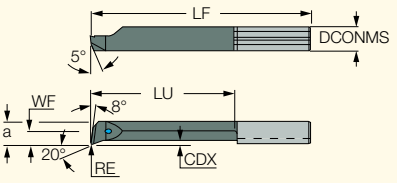


PICCOJET COOLANT THROUGH

PICJ R/LT20-C

Inserts with Chipformers and Inner Coolant Channel for Internal Boring and Profiling





Right hand tool shown

I N C H

Designation	Dimensions								IC908
	DCONMS	DMIN	CDX	OHN(1)	RE	LF	a	WF	
PICJ RT20D40R10-10C	.157	.157	.012	.35	.0039	.945	.138	.059	●
PICJ RT20D40R10-20C	.157	.157	.012	.75	.0039	1.339	.138	.059	●
PICJ RT20D40R10-28C	.157	.157	.012	1.06	.0039	1.654	.138	.059	●
PICJ RT20D50R15-20C	.197	.197	.020	.75	.0059	1.378	.173	.075	●
PICJ RT20D60R15-15C	.236	.236	.020	.55	.0059	1.181	.209	.091	●
PICJ RT20D60R15-22C	.236	.236	.020	.83	.0059	1.457	.209	.091	●
PICJ RT20D70R15-20C	.276	.268	.024	.75	.0059	1.378	.248	.110	●

• All left-hand inserts on request • PICJ items are suitable for PICCO/MG PCO, PICCO ACE, SC-PICCO type holders only

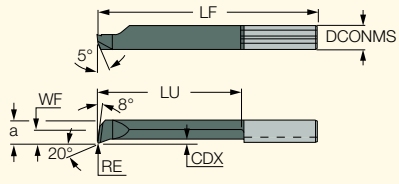
(1) Minimum overhang

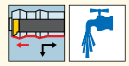
PICCOCUT

PICCO R/L 050-C

Inserts with Chipformers for Internal Boring and Profiling







Right hand tool shown

M E T R I C

Designation	Dimensions DCONMS	DMIN	CDX	LU	RE	LF	a	WF	IC908
PICCO R/L 050.4-10C	4.00	4.00	0.30	10.00	0.10	24.00	3.50	1.50	●
PICCO R/L 050.4-20C	4.00	4.00	0.30	20.00	0.10	34.00	3.50	1.50	●
PICCO R/L 050.4-24C	4.00	4.00	0.30	24.00	0.10	38.00	3.50	1.50	●
PICCO R/L 050.4-28C	4.00	4.00	0.30	28.00	0.10	42.00	3.50	1.50	●
PICCO R 050.4-16C	4.00	4.00	0.30	16.00	0.10	30.00	3.50	1.50	●
PICCO R/L 050.5-10C	5.00	5.00	0.50	10.00	0.15	25.00	4.40	1.90	●
PICCO R/L 050.5-20C	5.00	5.00	0.50	20.00	0.15	35.00	4.40	1.90	●
PICCO R/L 050.5-25C	5.00	5.00	0.50	25.00	0.15	40.00	4.40	1.90	●
PICCO R/L 050.5-30C	5.00	5.00	0.50	30.00	0.15	45.00	4.40	1.90	●
PICCO R 050.5-15C	5.00	5.00	0.50	15.00	0.15	30.00	4.40	1.90	●
PICCO R 050.5-35C	5.00	5.00	0.50	35.00	0.15	50.00	4.40	1.90	●
PICCO R/L 050.6-15C	6.00	6.00	0.50	15.00	0.15	30.00	5.30	2.30	●
PICCO R/L 050.6-22C	6.00	6.00	0.50	22.00	0.15	37.00	5.30	2.30	●
PICCO R/L 050.6-25C	6.00	6.00	0.50	25.00	0.15	40.00	5.30	2.30	●
PICCO R/L 050.6-30C	6.00	6.00	0.50	30.00	0.15	45.00	5.30	2.30	●
PICCO R/L 050.6-35C	6.00	6.00	0.50	35.00	0.15	50.00	5.30	2.30	●
PICCO R/L 050.6-42C	6.00	6.00	0.50	42.00	0.15	57.00	5.30	2.30	●
PICCO R/L 050.7-20C	7.00	6.80	0.60	20.00	0.15	35.00	6.30	2.80	●
PICCO R/L 050.7-35C	7.00	6.80	0.60	35.00	0.15	50.00	6.30	2.80	●
PICCO R/L 050.7-40C	7.00	6.80	0.60	40.00	0.15	55.00	6.30	2.80	●
PICCO L 050.7-50C	7.00	6.80	0.60	50.00	0.15	65.00	6.30	2.80	●
PICCO R 050.7-25C	7.00	6.80	0.60	25.00	0.15	40.00	6.30	2.80	●
PICCO R 050.7-30C	7.00	6.80	0.60	30.00	0.15	45.00	6.30	2.80	●

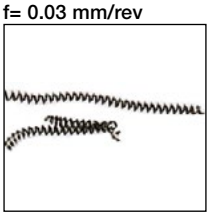
• All left-hand inserts on request

For holders, see pages: GHPCOR (438) • PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

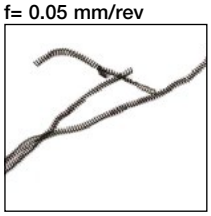
Stainless Steel 316L

PICCO R 050.6-35C with Chipbreaker

f= 0.03 mm/rev



f= 0.05 mm/rev



PICCO R 050.6-35 Standard

f= 0.03 mm/rev



f= 0.05 mm/rev

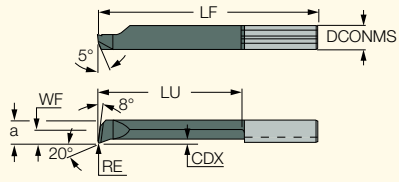


PICCOCUT

PICCO R/L 050-C

Inserts with Chipformers for Internal Boring and Profiling





Right hand tool shown

I N C H

Designation	Dimensions DCONMS	DMIN	CDX	LU	RE	LF	a	WF	IC908
PICCO R/L 050.4-10C	.157	.157	.012	.3937	.004	.945	.138	.059	●
PICCO R/L 050.4-20C	.157	.157	.012	.7874	.004	1.339	.138	.059	●
PICCO R/L 050.4-24C	.157	.157	.012	.9449	.004	1.496	.138	.059	●
PICCO R/L 050.4-28C	.157	.157	.012	1.1024	.004	1.654	.138	.059	●
PICCO R 050.4-16C	.157	.157	.012	.6299	.004	1.181	.138	.059	●
PICCO R/L 050.5-10C	.197	.197	.020	.3937	.006	.984	.173	.075	●
PICCO R/L 050.5-20C	.197	.197	.020	.7874	.006	1.378	.173	.075	●
PICCO R/L 050.5-25C	.197	.197	.020	.9842	.006	1.575	.173	.075	●
PICCO R/L 050.5-30C	.197	.197	.020	1.1811	.006	1.772	.173	.075	●
PICCO R 050.5-15C	.197	.197	.020	.5906	.006	1.181	.173	.075	●
PICCO R 050.5-35C	.197	.197	.020	1.3780	.006	1.968	.173	.075	●
PICCO R/L 050.6-15C	.236	.236	.020	.5906	.006	1.181	.209	.091	●
PICCO R/L 050.6-22C	.236	.236	.020	.8661	.006	1.457	.209	.091	●
PICCO R/L 050.6-25C	.236	.236	.020	.9842	.006	1.575	.209	.091	●
PICCO R/L 050.6-30C	.236	.236	.020	1.1811	.006	1.772	.209	.091	●
PICCO R/L 050.6-35C	.236	.236	.020	1.3780	.006	1.968	.209	.091	●
PICCO R/L 050.6-42C	.236	.236	.020	1.6535	.006	2.244	.209	.091	●
PICCO R/L 050.7-20C	.276	.268	.024	.7874	.006	1.378	.248	.110	●
PICCO R/L 050.7-35C	.276	.268	.024	1.3780	.006	1.968	.248	.110	●
PICCO R/L 050.7-40C	.276	.268	.024	1.5748	.006	2.165	.248	.110	●
PICCO L 050.7-50C	.276	.268	.024	1.9685	.006	2.559	.248	.110	●
PICCO R 050.7-25C	.276	.268	.024	.9842	.006	1.575	.248	.110	●
PICCO R 050.7-30C	.276	.268	.024	1.1811	.006	1.772	.248	.110	●

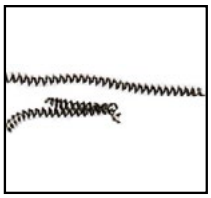
• All left-hand inserts on request

For holders, see pages: GHPCOR (438) • PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

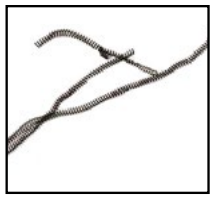
Stainless Steel 316L

PICCO R 050.6-35C with Chipbreaker

f= .0012 ipr



f= .0020 ipr



PICCO R 050.6-35 Standard

f= .0012 ipr



f= .0020 ipr

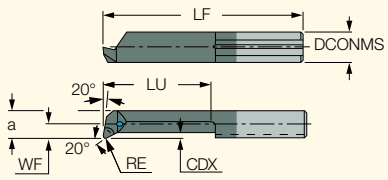


PICCOJET COOLANT THROUGH

PICJ R/LT2020

Inserts with Inner Coolant Channel for Internal Turning and Chamfering Next to the Bottom of Blind Holes





Right hand tool shown

M E T R I C

Designation	Dimensions								IC908
	DCONMS	DMIN	CDX	LU	RE	LF	a	WF	
PICJ RT2020D20R05-10	4.00	2.00	0.10	9.00	0.05	24.00	1.70	-	●
PICJ RT2020D30R10-10	4.00	2.80	0.20	9.00	0.10	24.00	2.60	0.60	●
PICJ RT2020D40R10-16	4.00	4.00	0.30	15.00	0.10	30.00	3.50	1.50	●
PICJ RT2020D50R15-20	5.00	5.00	0.50	19.00	0.15	35.00	4.40	1.90	●

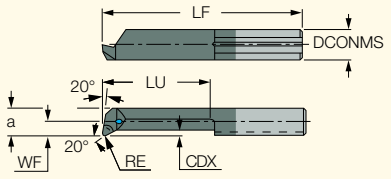
• Specify right- or left-hand bars • PICJ items are suitable for PICCO/MG PCO, PICCO ACE, SC-PICCO type holders only

PICCOJET COOLANT THROUGH

PICJ R/LT2020

Inserts with Inner Coolant Channel for Internal Turning and Chamfering Next to the Bottom of Blind Holes





Right hand tool shown

I N C H

Designation	Dimensions								IC908
	DCONMS	DMIN	CDX	LU	RE	LF	a	WF	
PICJ RT2020D20R05-10	.157	.079	.004	.3543	.002	.945	.067	-	●
PICJ RT2020D30R10-10	.157	.110	.008	.3543	.004	.945	.102	.024	●
PICJ RT2020D40R10-16	.157	.157	.012	.5906	.004	1.181	.138	.059	●
PICJ RT2020D50R15-20	.197	.197	.020	.7480	.006	1.378	.173	.075	●

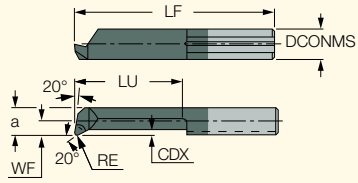
• Specify right- or left-hand bars • PICJ items are suitable for PICCO/MG PCO, PICCO ACE, SC-PICCO type holders only

PICCOCUT

PICCO R 050.20

Inserts for Internal Turning and Chamfering Next to the Bottom of Blind Holes





Right hand tool shown

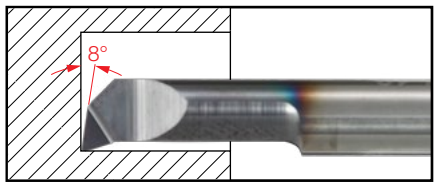
M E T R I C

Designation	Dimensions								IC908
	DCONMS	DMIN	CDX	LU	RE	LF	a	WF	
PICCO R 050.20.2-10	4.00	2.00	0.10	10.00	0.05	24.00	1.70	-	●
PICCO R 050.20.3-10	4.00	2.80	0.20	10.00	0.10	24.00	2.60	0.60	●
PICCO R 050.20.4-16	4.00	4.00	0.30	16.00	0.10	30.00	3.50	1.50	●
PICCO R 050.20.5-20	5.00	5.00	0.50	19.00	0.15	35.00	4.40	1.90	●

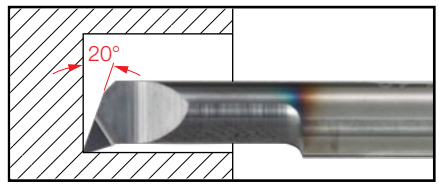
• Specify right- or left-hand bars

For holders, see pages: PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

PICCO 050...



PICCO 050.20...

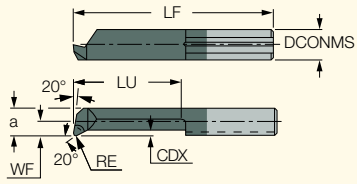


PICCOCUT

PICCO R 050.20

Inserts for Internal Turning and Chamfering Next to the Bottom of Blind Holes





Right hand tool shown

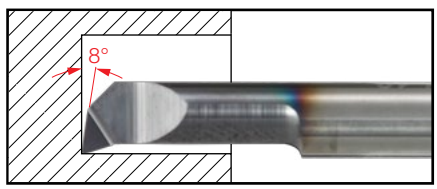
I N C H

Designation	Dimensions								IC908
	DCONMS	DMIN	CDX	LU	RE	LF	a	WF	
PICCO R 050.20.2-10	.157	.079	.004	.3937	.002	.945	.067	-	●
PICCO R 050.20.3-10	.157	.110	.008	.3937	.004	.945	.102	.024	●
PICCO R 050.20.4-16	.157	.157	.012	.6299	.004	1.181	.138	.059	●
PICCO R 050.20.5-20	.197	.197	.020	.7480	.006	1.378	.173	.075	●

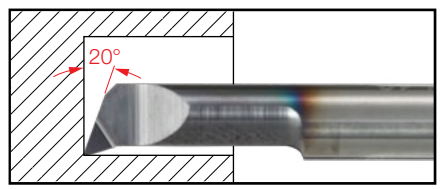
• Specify right- or left-hand bars

For holders, see pages: PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

PICCO 050...



PICCO 050.20...

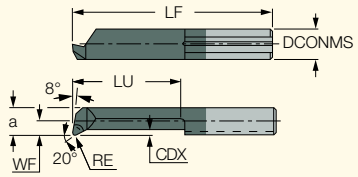


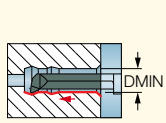
PICCOCUT

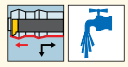
PICCO R/LHD 050

Inserts for Internal Turning and Chamfering Hard Steel - Up to 65 HRC









Right hand tool shown

M E T R I C

Designation	Dimensions								IC902
	DCONMS	DMIN	CDX	LU	RE	LF	a	WF	
PICCO R/LHD 050.2-5	4.00	2.00	0.10	4.00	0.05	19.00	1.70	-	●
PICCO RHD 050.3-10	4.00	2.80	0.20	9.00	0.10	24.00	2.60	0.60	●
PICCO RHD 050.3-16	4.00	2.80	0.20	15.00	0.10	30.00	2.60	0.60	●
PICCO RHD 050.4-10	4.00	4.00	0.30	9.00	0.10	24.00	3.50	1.50	●
PICCO RHD 050.4-20	4.00	4.00	0.30	19.00	0.10	34.00	3.50	1.50	●
PICCO RHD 050.5-15	5.00	5.00	0.50	14.00	0.15	30.00	4.40	1.90	●
PICCO R/LHD 050.6-15	6.00	6.00	0.50	14.00	0.15	30.00	5.30	2.30	●
PICCO RHD 050.7-20	7.00	6.80	0.60	19.00	0.15	35.00	6.30	2.80	●
PICCO RHD 050.7-25	7.00	6.80	0.60	24.00	0.15	40.00	6.30	2.80	●
PICCO RHD 050.7-35	7.00	6.80	0.60	34.00	0.15	50.00	6.30	2.80	●

• Specify right- or left-hand bars

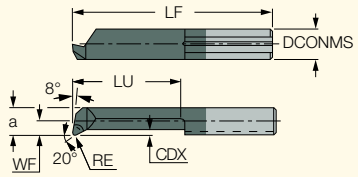
For holders, see pages: PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

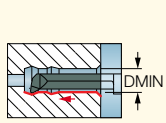
PICCOCUT

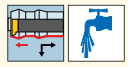
PICCO R/LHD 050

Inserts for Internal Turning and Chamfering Hard Steel - Up to 65 HRC









Right hand tool shown

I N C H

Designation	Dimensions								IC902
	DCONMS	DMIN	CDX	LU	RE	LF	a	WF	
PICCO R/LHD 050.2-5	.157	.079	.004	.1575	.002	.748	.067	-	●
PICCO RHD 050.3-10	.157	.110	.008	.3543	.004	.945	.102	.024	●
PICCO RHD 050.3-16	.157	.110	.008	.5906	.004	1.181	.102	.024	●
PICCO RHD 050.4-10	.157	.157	.012	.3543	.004	.945	.138	.059	●
PICCO RHD 050.4-20	.157	.157	.012	.7480	.004	1.339	.138	.059	●
PICCO RHD 050.5-15	.197	.197	.020	.5512	.006	1.181	.173	.075	●
PICCO R/LHD 050.6-15	.236	.236	.020	.5512	.006	1.181	.209	.091	●
PICCO RHD 050.7-20	.276	.268	.024	.7480	.006	1.378	.248	.110	●
PICCO RHD 050.7-25	.276	.268	.024	.9449	.006	1.575	.248	.110	●
PICCO RHD 050.7-35	.276	.268	.024	1.3386	.006	1.968	.248	.110	●

• Specify right- or left-hand bars

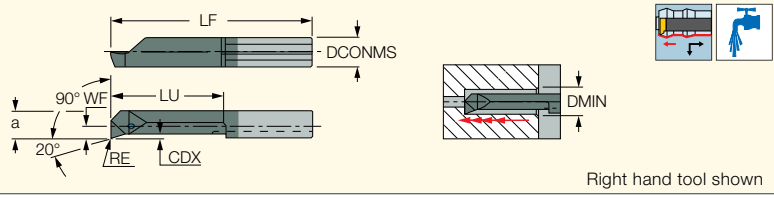
For holders, see pages: PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

PICCOJET COOLANT THROUGH

PICJ R/LT90

Inserts with Inner Coolant Channel for Internal Turning and Profiling



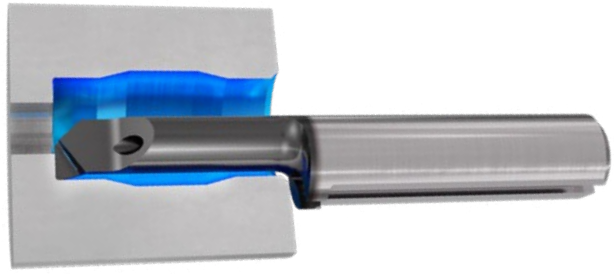


Right hand tool shown

M E T R I C

Designation	Dimensions								IC908
	DCONMS	DMIN	CDX	LU	RE	LF	a	WF	
PICJ RT90D30R10-10	4.00	2.80	0.20	9.00	0.10	24.00	2.60	0.60	●
PICJ RT90D30R10-16	4.00	2.80	0.20	14.00	0.10	30.00	2.60	0.60	●
PICJ RT90D40R10-10	4.00	4.00	0.30	9.00	0.10	24.00	3.50	1.50	●
PICJ RT90D40R10-16	4.00	4.00	0.30	14.00	0.10	30.00	3.50	1.50	●
PICJ RT90D50R15-10	5.00	5.00	0.50	9.00	0.15	25.00	4.40	1.90	●
PICJ RT90D50R15-15	5.00	5.00	0.50	14.00	0.15	30.00	4.40	1.90	●
PICJ RT90D50R15-20	5.00	5.00	0.50	19.00	0.15	35.00	4.40	1.90	●

• Specify right- or left-hand bars • PICJ items are suitable for PICCO/MG PCO, PICCO ACE, SC-PICCO type holders only

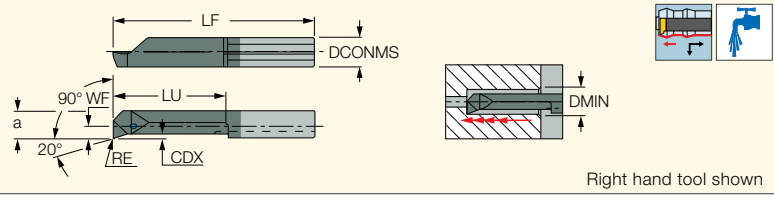


PICCOJET COOLANT THROUGH

PICJ R/LT90

Inserts with Inner Coolant Channel for Internal Turning and Profiling





Right hand tool shown

I N C H

Designation	Dimensions								IC908
	DCONMS	DMIN	CDX	LU	RE	LF	a	WF	
PICJ RT90D30R10-10	.157	.110	.008	.3543	.004	.945	.102	.024	●
PICJ RT90D30R10-16	.157	.110	.008	.5512	.004	1.181	.102	.024	●
PICJ RT90D40R10-10	.157	.157	.012	.3543	.004	.945	.138	.059	●
PICJ RT90D40R10-16	.157	.157	.012	.5512	.004	1.181	.138	.059	●
PICJ RT90D50R15-10	.197	.197	.020	.3543	.006	.984	.173	.075	●
PICJ RT90D50R15-15	.197	.197	.020	.5512	.006	1.181	.173	.075	●
PICJ RT90D50R15-20	.197	.197	.020	.7480	.006	1.378	.173	.075	●

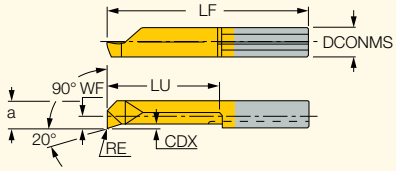
• Specify right- or left-hand bars • PICJ items are suitable for PICCO/MG PCO, PICCO ACE, SC-PICCO type holders only

PICCOCUT

PICCO R/L 090

Inserts for Internal
Turning and Profiling





Right hand tool shown

M E T R I C

Designation	Dimensions DCONMS	DMIN	CDX	LU	RE	LF	a	WF	IC228
PICCO R/L 090.3-10	4.00	2.80	0.20	9.00	0.10	24.00	2.60	0.60	•
PICCO R/L 090.3-16	4.00	2.80	0.20	15.00	0.10	30.00	2.60	0.60	•
PICCO R/L 090.4-10	4.00	4.00	0.30	9.00	0.10	24.00	3.50	1.50	•
PICCO R/L 090.4-16	4.00	4.00	0.30	15.00	0.10	30.00	3.50	1.50	•
PICCO R/L 090.5-10	5.00	5.00	0.50	9.00	0.15	25.00	4.40	1.90	•
PICCO R 090.5-15	5.00	5.00	0.50	14.00	0.15	30.00	4.40	1.90	•
PICCO R/L 090.5-20	5.00	5.00	0.50	19.00	0.15	35.00	4.40	1.90	•

• Specify right- or left-hand bars

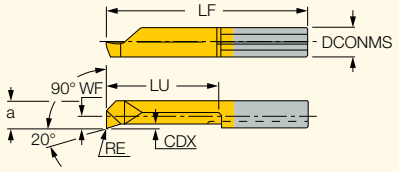
For holders, see pages: GHPCOR (438) • PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

PICCOCUT

PICCO R/L 090

Inserts for Internal
Turning and Profiling





Right hand tool shown

I N C H

Designation	Dimensions DCONMS	DMIN	CDX	LU	RE	LF	a	WF	IC228
PICCO R/L 090.3-10	.157	.110	.008	.3543	.004	.945	.102	.024	•
PICCO R/L 090.3-16	.157	.110	.008	.5906	.004	1.181	.102	.024	•
PICCO R/L 090.4-10	.157	.157	.012	.3543	.004	.945	.138	.059	•
PICCO R/L 090.4-16	.157	.157	.012	.5906	.004	1.181	.138	.059	•
PICCO R/L 090.5-10	.197	.197	.020	.3543	.006	.984	.173	.075	•
PICCO R 090.5-15	.197	.197	.020	.5512	.006	1.181	.173	.075	•
PICCO R/L 090.5-20	.197	.197	.020	.7480	.006	1.378	.173	.075	•

• Specify right- or left-hand bars

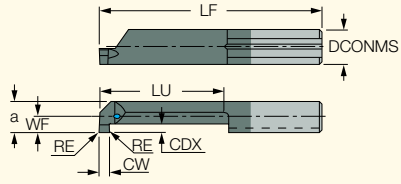
For holders, see pages: GHPCOR (438) • PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

PICCOJET COOLANT THROUGH

PICJ R/LG

Inserts with Inner Coolant Channel for Internal Grooving and Turning





Right hand tool shown

M E T R I C

Designation	Dimensions									IC908
	DCONMS	DMIN	CDX	LU	RE	LF	a	WF	CW	
PICJ RG05D20R00-5	4.00	2.00	0.40	4.00	0.00	19.00	1.80	-0.20	0.50	●
PICJ RG05D20R00-10	4.00	2.00	0.40	9.00	0.00	24.00	1.80	-0.20	0.50	●
PICJ RG07D30R00-5	4.00	3.00	0.60	4.00	0.00	19.00	2.70	0.70	0.70	●
PICJ RG07D30R00-10	4.00	3.00	0.60	9.00	0.00	24.00	2.70	0.70	0.70	●
PICJ RG07D30R00-16	4.00	3.00	0.60	15.00	0.00	30.00	2.70	0.70	0.70	●
PICJ RG10D40R00-10	4.00	4.00	0.80	9.00	0.00	24.00	3.50	1.50	1.00	●
PICJ RG10D40R00-16	4.00	4.00	0.80	15.00	0.00	30.00	3.50	1.50	1.00	●
PICJ RG10D40R00-20	4.00	4.00	0.80	19.00	0.00	34.00	3.50	1.50	1.00	●
PICJ RG10D50R00-10	5.00	5.00	1.00	9.00	0.00	25.00	4.40	1.90	1.00	●
PICJ RG10D50R00-15	5.00	5.00	1.00	14.00	0.00	30.00	4.40	1.90	1.00	●
PICJ RG10D50R00-20	5.00	5.00	1.00	19.00	0.00	35.00	4.40	1.90	1.00	●
PICJ RG10D50R00-25	5.00	5.00	1.00	24.00	0.00	40.00	4.40	1.90	1.00	●
PICJ RG10D50R00-30	5.00	5.00	1.00	29.00	0.00	45.00	4.40	1.90	1.00	●
PICJ RG15D50R00-10	5.00	5.00	1.00	9.00	0.00	25.00	4.40	1.90	1.50	●
PICJ RG15D50R00-15	5.00	5.00	1.00	14.00	0.00	30.00	4.40	1.90	1.50	●
PICJ RG15D50R00-20	5.00	5.00	1.00	19.00	0.00	35.00	4.40	1.90	1.50	●
PICJ RG15D50R00-25	5.00	5.00	1.00	24.00	0.00	40.00	4.40	1.90	1.50	●
PICJ RG20D50R00-10	5.00	5.00	1.00	9.00	0.00	25.00	4.40	1.90	2.00	●
PICJ RG20D50R00-15	5.00	5.00	1.00	14.00	0.00	30.00	4.40	1.90	2.00	●
PICJ RG20D50R00-20	5.00	5.00	1.00	19.00	0.00	35.00	4.40	1.90	2.00	●
PICJ RG20D50R00-30	5.00	5.00	1.00	29.00	0.00	45.00	4.40	1.90	2.00	●
PICJ R/LG10D60R00-10	6.00	6.00	1.80	9.00	0.00	25.00	5.30	2.30	1.00	●
PICJ RG10D60R00-15	6.00	6.00	1.80	14.00	0.00	30.00	5.30	2.30	1.00	●
PICJ RG10D60R00-22	6.00	6.00	1.80	21.00	0.00	37.00	5.30	2.30	1.00	●
PICJ RG10D60R00-25	6.00	6.00	1.80	24.00	0.00	40.00	5.30	2.30	1.00	●
PICJ RG10D60R00-30	6.00	6.00	1.80	29.00	0.00	45.00	5.30	2.30	1.00	●
PICJ R/LG15D60R00-10	6.00	6.00	1.80	9.00	0.00	25.00	5.30	2.30	1.50	●
PICJ RG15D60R00-15	6.00	6.00	1.80	14.00	0.00	30.00	5.30	2.30	1.50	●
PICJ RG15D60R00-22	6.00	6.00	1.80	21.00	0.00	37.00	5.30	2.30	1.50	●
PICJ RG15D60R00-25	6.00	6.00	1.80	24.00	0.00	40.00	5.30	2.30	1.50	●
PICJ RG15D60R00-30	6.00	6.00	1.80	29.00	0.00	45.00	5.30	2.30	1.50	●
PICJ RG20D60R00-10	6.00	6.00	1.80	9.00	0.00	25.00	5.30	2.30	2.00	●
PICJ RG20D60R00-15	6.00	6.00	1.80	14.00	0.00	30.00	5.30	2.30	2.00	●
PICJ R/LG20D60R00-22	6.00	6.00	1.80	21.00	0.00	37.00	5.30	2.30	2.00	●
PICJ RG20D60R00-25	6.00	6.00	1.80	24.00	0.00	40.00	5.30	2.30	2.00	●
PICJ RG20D60R00-30	6.00	6.00	1.80	29.00	0.00	45.00	5.30	2.30	2.00	●
PICJ RG10D70R00-10	7.00	6.80	2.50	9.00	0.00	25.00	6.30	2.80	1.00	●
PICJ RG10D70R00-15	7.00	6.80	2.50	14.00	0.00	30.00	6.30	2.80	1.00	●
PICJ RG10D70R00-22	7.00	6.80	2.50	21.00	0.00	37.00	6.30	2.80	1.00	●
PICJ RG10D70R00-25	7.00	6.80	2.50	24.00	0.00	40.00	6.30	2.80	1.00	●
PICJ RG10D70R00-30	7.00	6.80	2.50	29.00	0.00	45.00	6.30	2.80	1.00	●
PICJ RG15D70R00-10	7.00	6.80	2.50	9.00	0.00	25.00	6.30	2.80	1.50	●
PICJ RG15D70R00-15	7.00	6.80	2.50	14.00	0.00	30.00	6.30	2.80	1.50	●
PICJ RG15D70R00-22	7.00	6.80	2.50	21.00	0.00	37.00	6.30	2.80	1.50	●
PICJ RG15D70R00-25	7.00	6.80	2.50	24.00	0.00	40.00	6.30	2.80	1.50	●
PICJ RG15D70R00-30	7.00	6.80	2.50	29.00	0.00	45.00	6.30	2.80	1.50	●
PICJ RG20D70R00-10	7.00	6.80	2.50	9.00	0.00	25.00	6.30	2.80	2.00	●
PICJ R/LG20D70R00-15	7.00	6.80	2.50	14.00	0.00	30.00	6.30	2.80	2.00	●
PICJ RG20D70R00-22	7.00	6.80	2.50	21.00	0.00	37.00	6.30	2.80	2.00	●
PICJ R/LG20D70R00-25	7.00	6.80	2.50	24.00	0.00	40.00	6.30	2.80	2.00	●
PICJ RG20D70R00-30	7.00	6.80	2.50	29.00	0.00	45.00	6.30	2.80	2.00	●

- All carbide bars with sharp corners
- Specify right- or left-hand bars
- PICJ items are suitable for PICCO/MG PCO, PICCO ACE, SC-PICCO type holders only

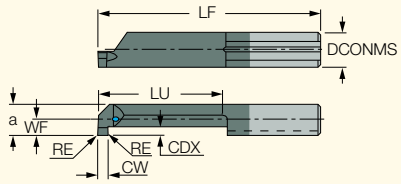


PICCOJET COOLANT THROUGH

PICJ R/LG

Inserts with Inner Coolant Channel for Internal Grooving and Turning





Right hand tool shown

I N C H

Designation	Dimensions									IC908
	DCONMS	DMIN	CDX	LU	RE	LF	a	WF	CW	
PICJ RG05D20R00-5	.157	.079	.016	.1575	0	.748	.071	-0.008	.020	●
PICJ RG05D20R00-10	.157	.079	.016	.3543	0	.945	.071	-0.008	.020	●
PICJ RG07D30R00-5	.157	.118	.024	.1575	0	.748	.106	.028	.028	●
PICJ RG07D30R00-10	.157	.118	.024	.3543	0	.945	.106	.028	.028	●
PICJ RG07D30R00-16	.157	.118	.024	.5906	0	1.181	.106	.028	.028	●
PICJ RG10D40R00-10	.157	.157	.031	.3543	0	.945	.138	.059	.039	●
PICJ RG10D40R00-16	.157	.157	.031	.5906	0	1.181	.138	.059	.039	●
PICJ RG10D40R00-20	.157	.157	.031	.7480	0	1.339	.138	.059	.039	●
PICJ RG10D50R00-10	.197	.197	.039	.3543	0	.984	.173	.075	.039	●
PICJ RG10D50R00-15	.197	.197	.039	.5512	0	1.181	.173	.075	.039	●
PICJ RG10D50R00-20	.197	.197	.039	.7480	0	1.378	.173	.075	.039	●
PICJ RG10D50R00-25	.197	.197	.039	.9449	0	1.575	.173	.075	.039	●
PICJ RG10D50R00-30	.197	.197	.039	1.1417	0	1.772	.173	.075	.039	●
PICJ RG15D50R00-10	.197	.197	.039	.3543	0	.984	.173	.075	.059	●
PICJ RG15D50R00-15	.197	.197	.039	.5512	0	1.181	.173	.075	.059	●
PICJ RG15D50R00-20	.197	.197	.039	.7480	0	1.378	.173	.075	.059	●
PICJ RG15D50R00-25	.197	.197	.039	.9449	0	1.575	.173	.075	.059	●
PICJ RG20D50R00-10	.197	.197	.039	.3543	0	.984	.173	.075	.079	●
PICJ RG20D50R00-15	.197	.197	.039	.5512	0	1.181	.173	.075	.079	●
PICJ RG20D50R00-20	.197	.197	.039	.7480	0	1.378	.173	.075	.079	●
PICJ RG20D50R00-30	.197	.197	.039	1.1417	0	1.772	.173	.075	.079	●
PICJ R/LG10D60R00-10	.236	.236	.071	.3543	0	.984	.209	.091	.039	●
PICJ RG10D60R00-15	.236	.236	.071	.5512	0	1.181	.209	.091	.039	●
PICJ RG10D60R00-22	.236	.236	.071	.8268	0	1.457	.209	.091	.039	●
PICJ RG10D60R00-25	.236	.236	.071	.9449	0	1.575	.209	.091	.039	●
PICJ RG10D60R00-30	.236	.236	.071	1.1417	0	1.772	.209	.091	.039	●
PICJ R/LG15D60R00-10	.236	.236	.071	.3543	0	.984	.209	.091	.059	●
PICJ RG15D60R00-15	.236	.236	.071	.5512	0	1.181	.209	.091	.059	●
PICJ RG15D60R00-22	.236	.236	.071	.8268	0	1.457	.209	.091	.059	●
PICJ RG15D60R00-25	.236	.236	.071	.9449	0	1.575	.209	.091	.059	●
PICJ RG15D60R00-30	.236	.236	.071	1.1417	0	1.772	.209	.091	.059	●
PICJ RG20D60R00-10	.236	.236	.071	.3543	0	.984	.209	.091	.079	●
PICJ RG20D60R00-15	.236	.236	.071	.5512	0	1.181	.209	.091	.079	●
PICJ R/LG20D60R00-22	.236	.236	.071	.8268	0	1.457	.209	.091	.079	●
PICJ RG20D60R00-25	.236	.236	.071	.9449	0	1.575	.209	.091	.079	●
PICJ RG20D60R00-30	.236	.236	.071	1.1417	0	1.772	.209	.091	.079	●
PICJ RG10D70R00-10	.276	.268	.098	.3543	0	.984	.248	.110	.039	●
PICJ RG10D70R00-15	.276	.268	.098	.5512	0	1.181	.248	.110	.039	●
PICJ RG10D70R00-22	.276	.268	.098	.8268	0	1.457	.248	.110	.039	●
PICJ RG10D70R00-25	.276	.268	.098	.9449	0	1.575	.248	.110	.039	●
PICJ RG10D70R00-30	.276	.268	.098	1.1417	0	1.772	.248	.110	.039	●
PICJ RG15D70R00-10	.276	.268	.098	.3543	0	.984	.248	.110	.059	●
PICJ RG15D70R00-15	.276	.268	.098	.5512	0	1.181	.248	.110	.059	●
PICJ RG15D70R00-22	.276	.268	.098	.8268	0	1.457	.248	.110	.059	●
PICJ RG15D70R00-25	.276	.268	.098	.9449	0	1.575	.248	.110	.059	●
PICJ RG15D70R00-30	.276	.268	.098	1.1417	0	1.772	.248	.110	.059	●
PICJ RG20D70R00-10	.276	.268	.098	.3543	0	.984	.248	.110	.079	●
PICJ R/LG20D70R00-15	.276	.268	.098	.5512	0	1.181	.248	.110	.079	●
PICJ RG20D70R00-22	.276	.268	.098	.8268	0	1.457	.248	.110	.079	●
PICJ R/LG20D70R00-25	.276	.268	.098	.9449	0	1.575	.248	.110	.079	●
PICJ RG20D70R00-30	.276	.268	.098	1.1417	0	1.772	.248	.110	.079	●

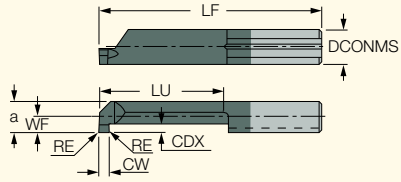
- All carbide bars with sharp corners • Specify right- or left-hand bars
- PICJ items are suitable for PICCO/MG PCO, PICCO ACE, SC-PICCO type holders only

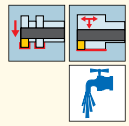
PICCOCUT

PICCO R/L 002-007

Inserts for Internal Grooving and Turning







Right hand tool shown

M E T R I C

Designation	Dimensions									Tough ↔ Hard	
	DCONMS	DMIN	CDX	LU	RE	LF	a	WF	CW	IC228	IC908
PICCO R 002.0050-5	4.00	2.00	0.40	5.00	0.00	19.00	1.80	0.20	0.50		•
PICCO R 002.0050-10	4.00	2.00	0.40	10.00	0.00	24.00	1.80	0.20	0.50		•
PICCO R/L 002.0050-15	4.00	2.00	0.40	15.00	0.00	29.00	1.80	0.20	0.50		•
PICCO R 003.0070-5	4.00	3.00	0.60	5.00	0.00	19.00	2.70	0.70	0.70		•
PICCO R 003.0070-10	4.00	3.00	0.60	10.00	0.00	24.00	2.70	0.70	0.70		•
PICCO R 003.0070-16	4.00	3.00	0.60	15.00	0.00	29.00	2.70	0.70	0.70		•
PICCO R/L 004.0100-10	4.00	4.00	0.80	9.00	0.00	24.00	3.50	1.50	1.00	•	
PICCO R/L 004.0100-16	4.00	4.00	0.80	15.00	0.00	30.00	3.50	1.50	1.00	•	
PICCO R/L 004.0100-20	4.00	4.00	0.80	19.00	0.00	34.00	3.50	1.50	1.00	•	
PICCO R/L 005.0100-10	5.00	5.00	1.00	9.00	0.00	25.00	4.40	1.90	1.00	•	
PICCO R/L 005.0100-15	5.00	5.00	1.00	14.00	0.00	30.00	4.40	1.90	1.00	•	
PICCO R/L 005.0100-20	5.00	5.00	1.00	19.00	0.00	35.00	4.40	1.90	1.00	•	
PICCO R/L 005.0100-25	5.00	5.00	1.00	24.00	0.00	40.00	4.40	1.90	1.00	•	
PICCO R/L 005.0100-30	5.00	5.00	1.00	29.00	0.00	45.00	4.40	1.90	1.00	•	
PICCO R/L 005.0150-10	5.00	5.00	1.00	9.00	0.00	25.00	4.40	1.90	1.50	•	
PICCO R/L 005.0150-15	5.00	5.00	1.00	14.00	0.00	30.00	4.40	1.90	1.50	•	
PICCO R 005M0150-15	5.00	5.00	1.00	14.00	0.10	30.00	4.00	1.90	1.50		•
PICCO R/L 005.0150-20	5.00	5.00	1.00	19.00	0.00	35.00	4.40	1.90	1.50	•	
PICCO R/L 005.0150-25	5.00	5.00	1.00	24.00	0.00	40.00	4.40	1.90	1.50	•	
PICCO R 005.0150-30	5.00	5.00	1.00	29.00	0.00	45.00	4.40	1.90	1.50	•	
PICCO R/L 005.0200-10	5.00	5.00	1.00	9.00	0.00	25.00	4.40	1.90	2.00	•	
PICCO R/L 005.0200-15	5.00	5.00	1.00	14.00	0.00	30.00	4.40	1.90	2.00	•	
PICCO R/L 005.0200-20	5.00	5.00	1.00	19.00	0.00	35.00	4.40	1.90	2.00	•	
PICCO R 005.0200-25	5.00	5.00	1.00	24.00	0.00	40.00	4.40	1.90	2.00	•	
PICCO R 005.0200-30	5.00	5.00	1.00	29.00	0.00	45.00	4.40	1.90	2.00	•	
PICCO R/L 006.0100-10	6.00	6.00	1.80	9.00	0.00	25.00	5.30	2.30	1.00	•	
PICCO R/L 006.0100-15	6.00	6.00	1.80	14.00	0.00	30.00	5.30	2.30	1.00	•	
PICCO R/L 006.0100-22	6.00	6.00	1.80	21.00	0.00	37.00	5.30	2.30	1.00	•	
PICCO R/L 006.0100-25	6.00	6.00	1.80	24.00	0.00	40.00	5.30	2.30	1.00	•	
PICCO R/L 006.0100-30	6.00	6.00	1.80	29.00	0.00	45.00	5.30	2.30	1.00	•	
PICCO R/L 006.0150-10	6.00	6.00	1.80	9.00	0.00	25.00	5.30	2.30	1.50	•	
PICCO R/L 006.0150-15	6.00	6.00	1.80	14.00	0.00	30.00	5.30	2.30	1.50	•	
PICCO R/L 006.0150-22	6.00	6.00	1.80	21.00	0.00	37.00	5.30	2.30	1.50	•	
PICCO R/L 006.0150-25	6.00	6.00	1.80	24.00	0.00	40.00	5.30	2.30	1.50	•	
PICCO R 006.0150-30	6.00	6.00	1.80	29.00	0.00	45.00	5.30	2.30	1.50	•	
PICCO R/L 006.0200-10	6.00	6.00	1.80	9.00	0.00	25.00	5.30	2.30	2.00	•	
PICCO R/L 006.0200-15	6.00	6.00	1.80	14.00	0.00	30.00	5.30	2.30	2.00	•	
PICCO R 006M0200-15	6.00	6.00	1.80	14.00	0.10	30.00	5.30	2.30	2.00		•
PICCO R/L 006.0200-22	6.00	6.00	1.80	21.00	0.00	37.00	5.30	2.30	2.00	•	
PICCO R/L 006.0200-25	6.00	6.00	1.80	24.00	0.00	40.00	5.30	2.30	2.00	•	
PICCO R/L 006.0200-30	6.00	6.00	1.80	29.00	0.00	45.00	5.30	2.30	2.00	•	
PICCO R/L 007.0100-10	7.00	6.80	2.50	9.00	0.00	25.00	6.30	2.80	1.00	•	
PICCO R/L 007.0100-15	7.00	6.80	2.50	14.00	0.00	30.00	6.30	2.80	1.00	•	
PICCO R/L 007.0100-22	7.00	6.80	2.50	21.00	0.00	37.00	6.30	2.80	1.00	•	
PICCO R/L 007.0100-25	7.00	6.80	2.50	24.00	0.00	40.00	6.30	2.80	1.00	•	
PICCO R/L 007.0100-30	7.00	6.80	2.50	29.00	0.00	45.00	6.30	2.80	1.00	•	
PICCO R/L 007.0150-10	7.00	6.80	2.50	9.00	0.00	25.00	6.30	2.80	1.50	•	
PICCO R/L 007.0150-15	7.00	6.80	2.50	14.00	0.00	30.00	6.30	2.80	1.50	•	
PICCO R/L 007.0150-22	7.00	6.80	2.50	21.00	0.00	37.00	6.30	2.80	1.50	•	
PICCO R/L 007.0150-25	7.00	6.80	2.50	24.00	0.00	40.00	6.30	2.80	1.50	•	
PICCO R/L 007.0150-30	7.00	6.80	2.50	29.00	0.00	45.00	6.30	2.80	1.50	•	
PICCO R/L 007.0200-10	7.00	6.80	2.50	9.00	0.00	25.00	6.30	2.80	2.00	•	
PICCO R/L 007.0200-15	7.00	6.80	2.50	14.00	0.00	30.00	6.30	2.80	2.00	•	
PICCO R 007M0200-15	7.00	6.80	2.50	14.00	0.10	30.00	6.30	2.80	2.00		•
PICCO R/L 007.0200-22	7.00	6.80	2.50	21.00	0.00	37.00	6.30	2.80	2.00	•	
PICCO R/L 007.0200-25	7.00	6.80	2.50	24.00	0.00	40.00	6.30	2.80	2.00	•	
PICCO R/L 007.0200-30	7.00	6.80	2.50	29.00	0.00	45.00	6.30	2.80	2.00	•	

• All carbide bars with sharp corners • Specify right- or left-hand bars

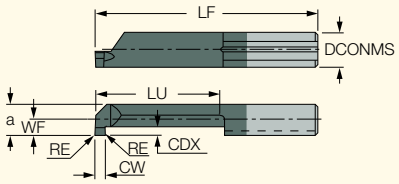
For holders, see pages: GHPCOR (438) • PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

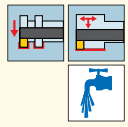
PICCOCUT

PICCO R/L 002-007

Inserts for Internal Grooving and Turning







Right hand tool shown

I N C H

Designation	Dimensions									Tough ↔ Hard	
	DCONMS	DMIN	CDX	LU	RE	LF	a	WF	CW	IC228	IC908
PICCO R 002.0050-5	.157	.079	.016	.1969	0	.748	.071	.008	.020		●
PICCO R 002.0050-10	.157	.079	.016	.3937	0	.945	.071	.008	.020		●
PICCO R/L 002.0050-15	.157	.079	.016	.5906	0	1.142	.071	.008	.020		●
PICCO R 003.0070-5	.157	.118	.024	.1969	0	.748	.106	.028	.028		●
PICCO R 003.0070-10	.157	.118	.024	.3937	0	.945	.106	.028	.028		●
PICCO R 003.0070-16	.157	.118	.024	.5906	0	1.142	.106	.028	.028		●
PICCO R/L 004.0100-10	.157	.157	.031	.3543	0	.945	.138	.059	.039	●	
PICCO R/L 004.0100-16	.157	.157	.031	.5906	0	1.181	.138	.059	.039	●	
PICCO R/L 004.0100-20	.157	.157	.031	.7480	0	1.339	.138	.059	.039	●	
PICCO R/L 005.0100-10	.197	.197	.039	.3543	0	.984	.173	.075	.039	●	
PICCO R/L 005.0100-15	.197	.197	.039	.5512	0	1.181	.173	.075	.039	●	
PICCO R/L 005.0100-20	.197	.197	.039	.7480	0	1.378	.173	.075	.039	●	
PICCO R/L 005.0100-25	.197	.197	.039	.9449	0	1.575	.173	.075	.039	●	
PICCO R/L 005.0100-30	.197	.197	.039	1.1417	0	1.772	.173	.075	.039	●	
PICCO R/L 005.0150-10	.197	.197	.039	.3543	0	.984	.173	.075	.059	●	
PICCO R/L 005.0150-15	.197	.197	.039	.5512	0	1.181	.173	.075	.059	●	
PICCO R 005M0150-15	.197	.197	.039	.5512	.004	1.181	.157	.075	.059		●
PICCO R/L 005.0150-20	.197	.197	.039	.7480	0	1.378	.173	.075	.059	●	
PICCO R/L 005.0150-25	.197	.197	.039	.9449	0	1.575	.173	.075	.059	●	
PICCO R 005.0150-30	.197	.197	.039	1.1417	0	1.772	.173	.075	.059	●	
PICCO R/L 005.0200-10	.197	.197	.039	.3543	0	.984	.173	.075	.079	●	
PICCO R/L 005.0200-15	.197	.197	.039	.5512	0	1.181	.173	.075	.079	●	
PICCO R/L 005.0200-20	.197	.197	.039	.7480	0	1.378	.173	.075	.079	●	
PICCO R 005.0200-25	.197	.197	.039	.9449	0	1.575	.173	.075	.079	●	
PICCO R 005.0200-30	.197	.197	.039	1.1417	0	1.772	.173	.075	.079	●	
PICCO R/L 006.0100-10	.236	.236	.071	.3543	0	.984	.209	.091	.039	●	
PICCO R/L 006.0100-15	.236	.236	.071	.5512	0	1.181	.209	.091	.039	●	
PICCO R/L 006.0100-22	.236	.236	.071	.8268	0	1.457	.209	.091	.039	●	
PICCO R/L 006.0100-25	.236	.236	.071	.9449	0	1.575	.209	.091	.039	●	
PICCO R/L 006.0100-30	.236	.236	.071	1.1417	0	1.772	.209	.091	.039	●	
PICCO R/L 006.0150-10	.236	.236	.071	.3543	0	.984	.209	.091	.059	●	
PICCO R/L 006.0150-15	.236	.236	.071	.5512	0	1.181	.209	.091	.059	●	
PICCO R/L 006.0150-22	.236	.236	.071	.8268	0	1.457	.209	.091	.059	●	
PICCO R/L 006.0150-25	.236	.236	.071	.9449	0	1.575	.209	.091	.059	●	
PICCO R 006.0150-30	.236	.236	.071	1.1417	0	1.772	.209	.091	.059	●	
PICCO R/L 006.0200-10	.236	.236	.071	.3543	0	.984	.209	.091	.079	●	
PICCO R/L 006.0200-15	.236	.236	.071	.5512	0	1.181	.209	.091	.079	●	
PICCO R 006M0200-15	.236	.236	.071	.5512	.004	1.181	.209	.091	.079		●
PICCO R/L 006.0200-22	.236	.236	.071	.8268	0	1.457	.209	.091	.079	●	
PICCO R/L 006.0200-25	.236	.236	.071	.9449	0	1.575	.209	.091	.079	●	
PICCO R/L 006.0200-30	.236	.236	.071	1.1417	0	1.772	.209	.091	.079	●	
PICCO R/L 007.0100-10	.276	.268	.098	.3543	0	.984	.248	.110	.039	●	
PICCO R/L 007.0100-15	.276	.268	.098	.5512	0	1.181	.248	.110	.039	●	
PICCO R/L 007.0100-22	.276	.268	.098	.8268	0	1.457	.248	.110	.039	●	
PICCO R/L 007.0100-25	.276	.268	.098	.9449	0	1.575	.248	.110	.039	●	
PICCO R/L 007.0100-30	.276	.268	.098	1.1417	0	1.772	.248	.110	.039	●	
PICCO R/L 007.0150-10	.276	.268	.098	.3543	0	.984	.248	.110	.059	●	
PICCO R/L 007.0150-15	.276	.268	.098	.5512	0	1.181	.248	.110	.059	●	
PICCO R/L 007.0150-22	.276	.268	.098	.8268	0	1.457	.248	.110	.059	●	
PICCO R/L 007.0150-25	.276	.268	.098	.9449	0	1.575	.248	.110	.059	●	
PICCO R/L 007.0150-30	.276	.268	.098	1.1417	0	1.772	.248	.110	.059	●	
PICCO R/L 007.0200-10	.276	.268	.098	.3543	0	.984	.248	.110	.079	●	
PICCO R/L 007.0200-15	.276	.268	.098	.5512	0	1.181	.248	.110	.079	●	
PICCO R 007M0200-15	.276	.268	.098	.5512	.004	1.181	.248	.110	.079		●
PICCO R/L 007.0200-22	.276	.268	.098	.8268	0	1.457	.248	.110	.079	●	
PICCO R/L 007.0200-25	.276	.268	.098	.9449	0	1.575	.248	.110	.079	●	
PICCO R/L 007.0200-30	.276	.268	.098	1.1417	0	1.772	.248	.110	.079	●	

• All carbide bars with sharp corners • Specify right- or left-hand bars

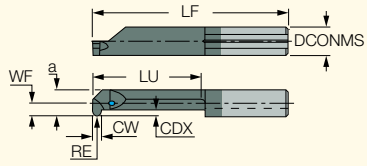
For holders, see pages: GHPCOR (438) • PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

PICCOJET COOLANT THROUGH

PICJ R/LP

Full Radius Inserts with Inner Coolant Channel for Internal Profiling





Right hand tool shown

M E T R I C

Designation	Dimensions									IC908
	DCONMS	DMIN	CDX	LU	RE	LF	a	WF	CW	
PICJ RP10D40-16	4.00	4.00	0.80	15.00	0.50	30.00	3.50	1.50	1.00	●
PICJ RP10D50-20	5.00	5.00	1.00	19.00	0.50	35.00	4.40	1.90	1.00	●
PICJ RP10D60-25	6.00	6.00	1.80	24.00	0.50	40.00	5.30	2.30	1.00	●
PICJ RP15D60-25	6.00	6.00	1.80	24.00	0.75	40.00	5.30	2.30	1.50	●
PICJ RP20D60-25	6.00	6.00	1.80	24.00	1.00	40.00	5.30	2.30	2.00	●
PICJ RP10D70-30	7.00	6.80	2.50	29.00	0.50	45.00	6.30	2.80	1.00	●
PICJ RP20D70-30	7.00	6.80	2.50	29.00	1.00	45.00	6.30	2.80	2.00	●

• Specify right- or left-hand bars • PICJ items are suitable for PICCO/MG PCO, PICCO ACE, SC-PICCO type holders only

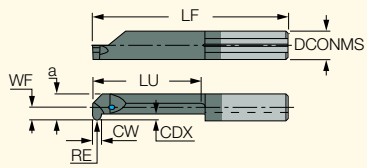


PICCOJET COOLANT THROUGH

PICJ R/LP

Full Radius Inserts with Inner Coolant Channel for Internal Profiling





Right hand tool shown

I N C H

Designation	Dimensions									IC908
	DCONMS	DMIN	CDX	LU	RE	LF	a	WF	CW	
PICJ RP10D40-16	.157	.157	.031	.5906	.0197	1.181	.138	.059	.039	●
PICJ RP10D50-20	.197	.197	.039	.7480	.0197	1.378	.173	.075	.039	●
PICJ RP10D60-25	.236	.236	.071	.9449	.0197	1.575	.209	.091	.039	●
PICJ RP15D60-25	.236	.236	.071	.9449	.0295	1.575	.209	.091	.059	●
PICJ RP20D60-25	.236	.236	.071	.9449	.0394	1.575	.209	.091	.079	●
PICJ RP10D70-30	.276	.268	.098	1.1417	.0197	1.772	.248	.110	.039	●
PICJ RP20D70-30	.276	.268	.098	1.1417	.0394	1.772	.248	.110	.079	●

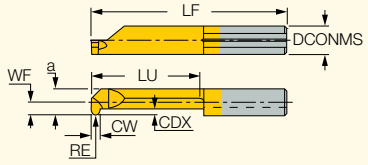
• Specify right- or left-hand bars • PICJ items are suitable for PICCO/MG PCO, PICCO ACE, SC-PICCO type holders only

PICCOCUT

PICCO R/L 004-007 (Radius)

Full Radius Inserts for Internal Profiling





Right hand tool shown

M E T R I C

Designation	Dimensions									IC228
	DCONMS	DMIN	CDX	LU	RE	LF	a	WF	CW	
PICCO R/L 004.0.50-16	4.00	4.00	0.80	15.00	0.50	30.00	3.50	1.50	1.00	•
PICCO R/L 005.0.50-20	5.00	5.00	1.00	19.00	0.50	35.00	4.40	1.90	1.00	•
PICCO R/L 005.0.75-20	5.00	5.00	1.00	19.00	0.75	35.00	4.40	1.90	1.50	•
PICCO R/L 005.1.00-20	5.00	5.00	1.00	19.00	1.00	35.00	4.40	1.90	2.00	•
PICCO R/L 006.0.50-25	6.00	6.00	1.80	24.00	0.50	40.00	5.30	2.30	1.00	•
PICCO R/L 006.0.75-25	6.00	6.00	1.80	24.00	0.75	40.00	5.30	2.30	1.50	•
PICCO R/L 006.1.00-25	6.00	6.00	1.80	24.00	1.00	40.00	5.30	2.30	2.00	•
PICCO R/L 007.0.50-30	7.00	6.80	2.50	29.00	0.50	45.00	6.30	2.80	1.00	•
PICCO R/L 007.0.75-30	7.00	6.80	2.50	29.00	0.75	45.00	6.30	2.80	1.50	•
PICCO R/L 007.1.00-30	7.00	6.80	2.50	29.00	1.00	45.00	6.30	2.80	2.00	•

• Specify right- or left-hand bars

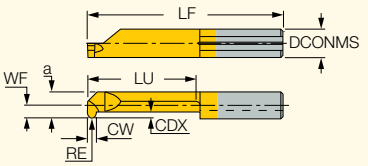
For holders, see pages: GHPCOR (438) • PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

PICCOCUT

PICCO R/L 004-007 (Radius)

Full Radius Inserts for Internal Profiling





Right hand tool shown

I N C H

Designation	Dimensions									IC228
	DCONMS	DMIN	CDX	LU	RE	LF	a	WF	CW	
PICCO R/L 004.0.50-16	.157	.157	.031	.5906	.0197	1.181	.138	.059	.039	•
PICCO R/L 005.0.50-20	.197	.197	.039	.7480	.0197	1.378	.173	.075	.039	•
PICCO R/L 005.0.75-20	.197	.197	.039	.7480	.0295	1.378	.173	.075	.059	•
PICCO R/L 005.1.00-20	.197	.197	.039	.7480	.0394	1.378	.173	.075	.079	•
PICCO R/L 006.0.50-25	.236	.236	.071	.9449	.0197	1.575	.209	.091	.039	•
PICCO R/L 006.0.75-25	.236	.236	.071	.9449	.0295	1.575	.209	.091	.059	•
PICCO R/L 006.1.00-25	.236	.236	.071	.9449	.0394	1.575	.209	.091	.079	•
PICCO R/L 007.0.50-30	.276	.268	.098	1.1417	.0197	1.772	.248	.110	.039	•
PICCO R/L 007.0.75-30	.276	.268	.098	1.1417	.0295	1.772	.248	.110	.059	•
PICCO R/L 007.1.00-30	.276	.268	.098	1.1417	.0394	1.772	.248	.110	.079	•

• Specify right- or left-hand bars

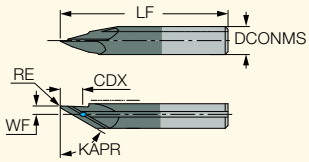
For holders, see pages: GHPCOR (438) • PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

PICCOJET COOLANT THROUGH

PICJ R/LCH

Inserts with Inner Coolant Channel for Internal Chamfering





M E T R I C

Designation	Dimensions							IC908
	DCONMS	DMIN	CDX	RE	LF	WF	KAPR[1]	
PICJ RCH45-15	5.00	1.00	3.50	0.20	30.00	1.50	45.0	•

- DMIN for internal applications=20 mm
- PICJ items are suitable for PICCO/MG PCO, PICCO ACE, SC-PICCO type holders only

(1) Tool cutting edge angle

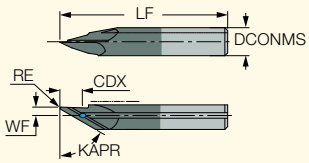


PICCOJET COOLANT THROUGH

PICJ R/LCH

Inserts with Inner Coolant Channel for Internal Chamfering





I N C H

Designation	Dimensions							IC908
	DCONMS	DMIN	CDX	RE	LF	WF	KAPR[1]	
PICJ RCH45-15	.197	.039	.138	.0079	1.181	.059	45.0	•

- DMIN for internal applications=.787”
- PICJ items are suitable for PICCO/MG PCO, PICCO ACE, SC-PICCO type holders only

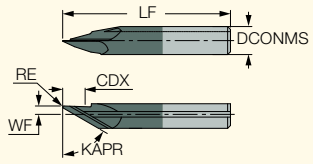
(1) Tool cutting edge angle

PICCOCUT

PICCO R/L 520

Inserts for Internal Chamfering





Right hand tool shown

M E T R I C

Designation	Dimensions							IC908
	DCONMS	DMIN	CDX	RE	LF	WF	KAPR(1)	
PICCO R/L 520.0045-15	5.00	1.00	3.50	0.20	30.00	1.50	45.0	•
PICCO R/L 520.0060-15	5.00	1.00	4.00	0.20	30.00	1.50	60.0	•

• Left hand inserts on request

(1) Tool cutting edge angle

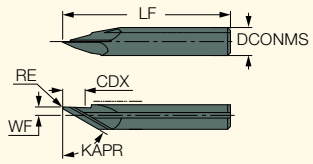
For holders, see pages: GHPCOR (438) • PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

PICCOCUT

PICCO R/L 520

Inserts for Internal Chamfering





Right hand tool shown

I N C H

Designation	Dimensions							IC908
	DCONMS	DMIN	CDX	RE	LF	WF	KAPR(1)	
PICCO R/L 520.0045-15	.197	.039	.138	.008	1.181	.059	45.0	•
PICCO R/L 520.0060-15	.197	.039	.157	.008	1.181	.059	60.0	•

• Left hand inserts on request

(1) Tool cutting edge angle

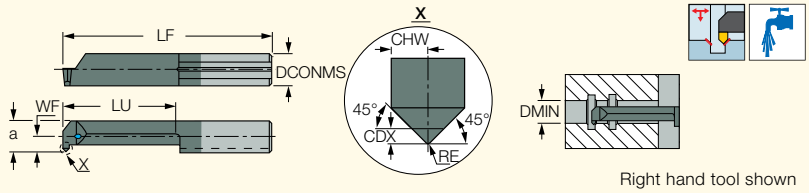
For holders, see pages: GHPCOR (438) • PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

PICCOJET COOLANT THROUGH

PICJ R/LT45

Inserts with Inner Coolant Channel for Internal Turning and 45° Chamfering





Right hand tool shown

M E T R I C

Designation	Dimensions									IC908
	DCONMS	DMIN	CDX	LU	RE	LF	a	WF	CHW	
PICJ RT45D50R20-15	5.00	5.00	0.70	14.00	0.20	30.00	4.40	1.90	1.0	●
PICJ RT45D50R20-20	5.00	5.00	0.70	19.00	0.20	35.00	4.40	1.90	1.0	●
PICJ RT45D70R20-20	7.00	6.80	0.70	19.00	0.20	35.00	6.30	2.80	1.0	●

• Specify right- or left-hand bars • PICJ items are suitable for PICCO/MG PCO, PICCO ACE, SC-PICCO type holders only

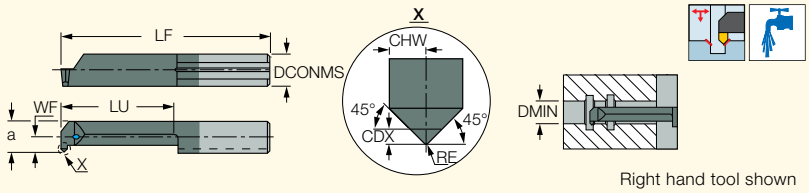


PICCOJET COOLANT THROUGH

PICJ R/LT45

Inserts with Inner Coolant Channel for Internal Turning and 45° Chamfering





Right hand tool shown

I N C H

Designation	Dimensions									IC908
	DCONMS	DMIN	CDX	LU	RE	LF	a	WF	CHW	
PICJ RT45D50R20-15	.197	.197	.028	.5512	.0079	1.181	.173	.075	.039	●
PICJ RT45D50R20-20	.197	.197	.028	.7480	.0079	1.378	.173	.075	.039	●
PICJ RT45D70R20-20	.276	.268	.028	.7480	.0079	1.378	.248	.110	.039	●

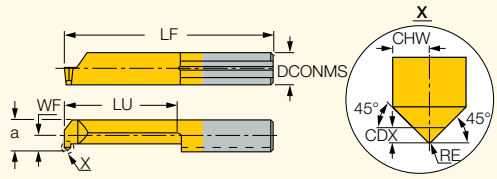
• Specify right- or left-hand bars • PICJ items are suitable for PICCO/MG PCO, PICCO ACE, SC-PICCO type holders only

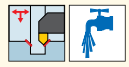
PICCOCUT

PICCO R/L 060

Inserts for Internal Turning and 45° Chamfering







Right hand tool shown

M E T R I C

Designation	Dimensions DCONMS	DMIN	CDX	LU	RE	LF	a	WF	CHW	Tough ↔ Hard IC228	IC908
PICCO R/L 060.5-15	5.00	5.00	0.70	14.00	0.20	30.00	4.40	1.90	1.0	•	
PICCO R/L 060.5-20	5.00	5.00	0.70	19.00	0.20	35.00	4.40	1.90	1.0	•	
PICCO R 060.6-20	6.00	6.00	0.70	20.00	0.20	35.00	5.30	2.30	1.0		•
PICCO R 060.6-25	6.00	6.00	0.70	25.00	0.20	40.00	5.30	2.30	1.0		•
PICCO R/L 060.7-20	7.00	6.80	0.70	19.00	0.20	35.00	6.30	2.80	1.0	•	
PICCO R 060.7-40	7.00	6.80	0.70	40.00	0.20	55.00	6.30	2.80	1.0		•

• Specify right- or left-hand bars

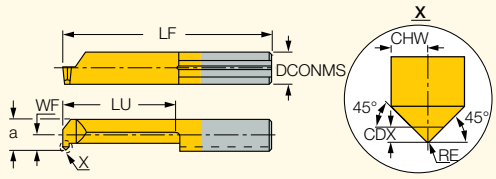
For holders, see pages: GHPCOR (438) • PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

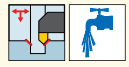
PICCOCUT

PICCO R/L 060

Inserts for Internal Turning and 45° Chamfering







Right hand tool shown

I N C H

Designation	Dimensions DCONMS	DMIN	CDX	LU	RE	LF	a	WF	CHW	Tough ↔ Hard IC228	IC908
PICCO R/L 060.5-15	.197	.197	.028	.5512	.0079	1.181	.173	.075	.039	•	
PICCO R/L 060.5-20	.197	.197	.028	.7480	.0079	1.378	.173	.075	.039	•	
PICCO R 060.6-20	.236	.236	.028	.7874	.0079	1.378	.209	.091	.039		•
PICCO R 060.6-25	.236	.236	.028	.9842	.0079	1.575	.209	.091	.039		•
PICCO R/L 060.7-20	.276	.268	.028	.7480	.0079	1.378	.248	.110	.039	•	
PICCO R 060.7-40	.276	.268	.028	1.5748	.0079	2.165	.248	.110	.039		•

• Specify right- or left-hand bars

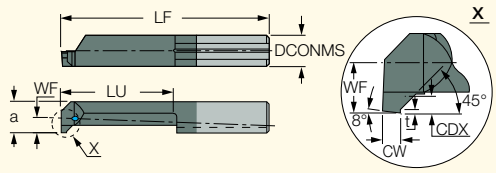
For holders, see pages: GHPCOR (438) • PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

PICCOJET COOLANT THROUGH

PICJ R/LBC

Back Chamfering Inserts
with Inner Coolant Channel
for Pre-Parting Operations





Right hand tool shown

M E T R I C

Designation	Dimensions									IC908
	DCONMS	DMIN	CDX	LU	LF	a	WF	CW	t	
PICJ RBCD50-15	5.00	5.00	1.00	14.00	30.00	4.40	1.90	1.00	0.20	●
PICJ RBCD50-20	5.00	5.00	1.00	19.00	35.00	4.40	1.90	1.00	0.20	●

• All carbide bars with sharp corners • Specify right- or left-hand bars • PICJ items are suitable for PICCO/MG PCO, PICCO ACE, SC-PICCO type holders only

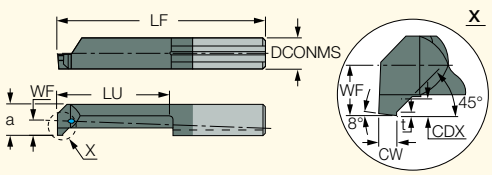


PICCOJET COOLANT THROUGH

PICJ R/LBC

Back Chamfering Inserts
with Inner Coolant Channel
for Pre-Parting Operations





Right hand tool shown

I N C H

Designation	Dimensions									IC908
	DCONMS	DMIN	CDX	LU	LF	a	WF	CW	t	
PICJ RBCD50-15	.197	.197	.039	.5512	1.181	.173	.075	.039	.008	●
PICJ RBCD50-20	.197	.197	.039	.7480	1.378	.173	.075	.039	.008	●

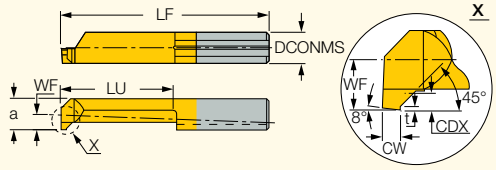
• All carbide bars with sharp corners • Specify right- or left-hand bars • PICJ items are suitable for PICCO/MG PCO, PICCO ACE, SC-PICCO type holders only

PICCOCUT

PICCO R/L 070

Back Chamfering Inserts for
Pre-Parting Operations





Right hand tool shown

M E T R I C

Designation	Dimensions									IC228
	DCONMS	DMIN	CDX	LU	LF	a	WF	CW	t	
PICCO R/L 070.5-15	5.00	5.00	1.00	15.00	30.00	4.40	1.90	1.00	0.20	●
PICCO R/L 070.5-20	5.00	5.00	1.00	20.00	35.00	4.40	1.90	1.00	0.20	●

• All carbide bars with sharp corners • Specify right- or left-hand bars

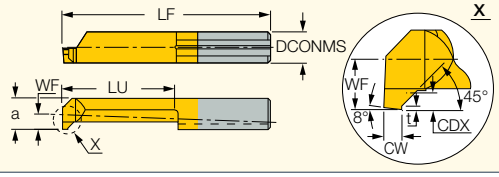
For holders, see pages: GHPCOR (438) • PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

PICCOCUT

PICCO R/L 070

Back Chamfering Inserts for
Pre-Parting Operations





Right hand tool shown

I N C H

Designation	Dimensions									IC228
	DCONMS	DMIN	CDX	LU	LF	a	WF	CW	t	
PICCO R/L 070.5-15	.197	.197	.039	.5906	1.181	.173	.075	.039	.008	●
PICCO R/L 070.5-20	.197	.197	.039	.7874	1.378	.173	.075	.039	.008	●

• All carbide bars with sharp corners • Specify right- or left-hand bars

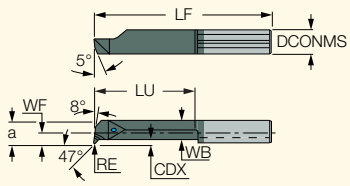
For holders, see pages: GHPCOR (438) • PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

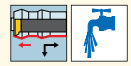
PICCOJET COOLANT THROUGH

PICJ R/LT47

Inserts for Internal Deep Profiling







Right hand tool shown

M E T R I C

Designation	Dimensions DCONMS	DMIN	CDX	LU	RE	LF	a	WF	WB	IC908
PICJ RT47D40R15-20	4.00	4.00	0.30	19.00	0.15	34.00	3.50	1.50	3.00	●
PICJ RT47D50R15-25	5.00	5.00	0.50	24.00	0.15	40.00	4.40	1.90	3.80	●
PICJ RT47D60R15-30	6.00	6.00	0.50	29.00	0.15	45.00	5.30	2.30	4.50	●
PICJ RT47D60R15T-22	6.00	6.00	1.80	19.00	0.15	37.00	5.30	2.30	3.40	●

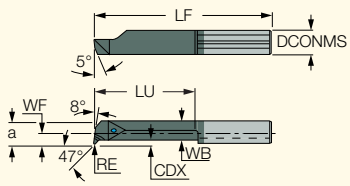
• Left hand inserts on request • PICJ items are suitable for PICCO/MG PCO, PICCO ACE, SC-PICCO type holders only

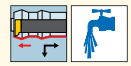
PICCOJET COOLANT THROUGH

PICJ R/LT47

Inserts for Internal Deep Profiling





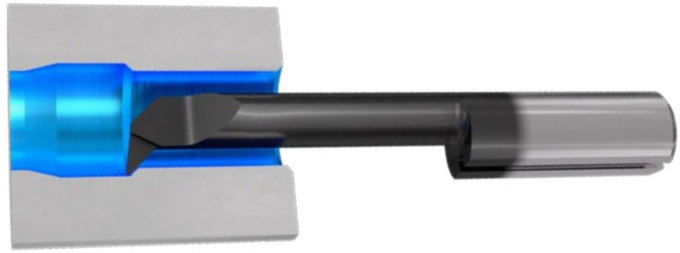


Right hand tool shown

I N C H

Designation	Dimensions DCONMS	DMIN	CDX	LU	RE	LF	a	WF	WB	IC908
PICJ RT47D40R15-20	.157	.157	.012	.7480	.0059	1.339	.138	.059	.1181	●
PICJ RT47D50R15-25	.197	.197	.020	.9449	.0059	1.575	.173	.075	.1496	●
PICJ RT47D60R15-30	.236	.236	.020	1.1417	.0059	1.772	.209	.091	.1772	●
PICJ RT47D60R15T-22	.236	.236	.071	.7480	.0059	1.457	.209	.091	.1339	●

• Left hand inserts on request • PICJ items are suitable for PICCO/MG PCO, PICCO ACE, SC-PICCO type holders only

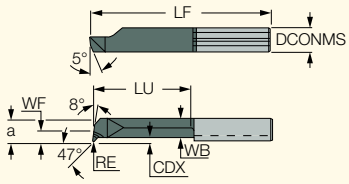


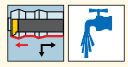
PICCOCUT

PICCO R/L 047

Inserts for Internal Deep Profiling







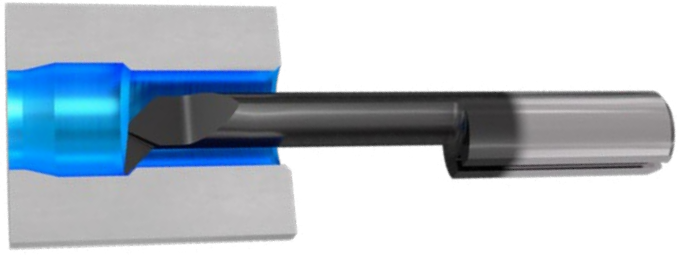
Right hand tool shown

M E T R I C

Designation	Dimensions DCONMS	DMIN	CDX	LU	RE	LF	a	WF	WB	IC908
PICCO L 047.4-20	4.00	4.00	0.30	20.00	0.15	34.00	3.50	1.50	3.00	●
PICCO R 047.4-20	4.00	4.00	0.30	20.00	0.15	34.00	3.50	1.50	3.00	●
PICCO L 047.5-25	5.00	5.00	0.50	25.00	0.15	40.00	4.40	1.90	3.80	●
PICCO R 047.5-25	5.00	5.00	0.50	25.00	0.15	40.00	4.40	1.90	3.80	●
PICCO L 047.6-30	6.00	6.00	0.50	30.00	0.15	45.00	5.30	2.30	4.50	●
PICCO R 047.T6-22	6.00	6.00	1.80	22.00	0.15	37.00	5.30	2.30	3.40	●
PICCO R 047.T6-30	6.00	6.00	1.80	30.00	0.15	45.00	5.30	2.30	3.40	●
PICCO R 047.6-30	6.00	6.00	0.50	30.00	0.15	45.00	5.30	2.30	4.50	●

• Left hand inserts on request

For holders, see pages: GHPCOR (438) • PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

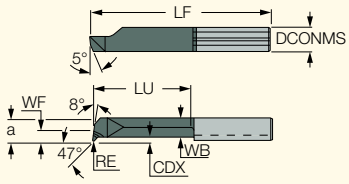


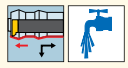
PICCOCUT

PICCO R/L 047

Inserts for Internal Deep Profiling







Right hand tool shown

I N C H

Designation	Dimensions DCONMS	DMIN	CDX	LU	RE	LF	a	WF	WB	IC908
PICCO L 047.4-20	.157	.157	.012	.7874	.0059	1.339	.138	.059	.1181	●
PICCO R 047.4-20	.157	.157	.012	.7874	.0059	1.339	.138	.059	.1181	●
PICCO L 047.5-25	.197	.197	.020	.9842	.0059	1.575	.173	.075	.1496	●
PICCO R 047.5-25	.197	.197	.020	.9842	.0059	1.575	.173	.075	.1496	●
PICCO L 047.6-30	.236	.236	.020	1.1811	.0059	1.772	.209	.091	.1772	●
PICCO R 047.T6-22	.236	.236	.071	.8661	.0059	1.457	.209	.091	.1339	●
PICCO R 047.T6-30	.236	.236	.071	1.1811	.0059	1.772	.209	.091	.1339	●
PICCO R 047.6-30	.236	.236	.020	1.1811	.0059	1.772	.209	.091	.1772	●

• Left hand inserts on request

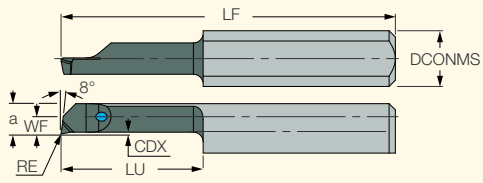
For holders, see pages: GHPCOR (438) • PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

PICCOCUT

PICCO R/LM

Profiling Inserts with Coolant Channel Optimized for Machining Medical Parts





Right hand tool shown

M E T R I C

Designation	Dimensions DCONMS	DMIN	CDX	LU	RE	LF	a	WF	Tough ↔ Hard IC908	IC909
PICCO R/LM050.05-2	4.00	0.50	0.02	2.00	0.02	20.00	0.40	0.20		●
PICCO LM050.08-4	4.00	0.80	0.03	4.00	0.02	20.00	0.70	0.20		●
PICCO RM050.08-4	4.00	0.80	0.03	4.00	0.02	20.00	0.70	0.40		●
PICCO R/LM050.1-5	4.00	1.00	0.05	5.00	0.02	20.00	0.90	0.40		●
PICCO R/LM050.1-7	4.00	1.00	0.05	7.00	0.02	22.00	0.90	0.40		●
PICCO R/LM050.15-10	4.00	1.50	0.08	10.00	0.02	24.00	1.15	0.60		●
PICCO R/LM050.15-5	4.00	1.50	0.08	5.00	0.02	19.00	1.15	0.60		●
PICCO R/LM050.2-10	4.00	2.00	0.08	10.00	0.02	24.00	1.70	0.80		●
PICCO R/LM050.2-5	4.00	2.00	0.08	5.00	0.02	19.00	1.70	0.80		●
PICCO R/LM050.25-10	4.00	2.50	0.10	10.00	0.02	24.00	2.20	0.20		●
PICCO R/LM050.25-5	4.00	2.50	0.10	5.00	0.02	19.00	2.20	0.20		●
PICCO R/LM050.3-10	4.00	3.00	0.15	10.00	0.02	24.00	2.60	0.60		●
PICCO R/LM050.3-16	4.00	3.00	0.15	16.00	0.02	30.00	2.60	0.60		●
PICCO LM050.35-10	4.00	3.50	0.17	10.00	0.02	24.00	3.40	1.10		●
PICCO R/LM050.35-16	4.00	3.50	0.17	16.00	0.02	30.00	3.10	1.10		●
PICCO R/LM050.35-20	4.00	3.50	0.17	20.00	0.02	34.00	3.10	1.10		●
PICCO RM050.35-10	4.00	3.50	0.17	10.00	0.02	24.00	3.10	1.10		●
PICCO R/LM050.4-10	4.00	4.00	0.20	10.00	0.02	24.00	3.50	1.50		●
PICCO R/LM050.4-16	4.00	4.00	0.20	16.00	0.02	30.00	3.50	1.50		●
PICCO LM050.4-20	4.00	4.00	0.20	20.00	0.02	34.00	3.50	1.50		●
PICCO R/LM050.4-24	4.00	4.00	0.20	24.00	0.02	38.00	3.50	1.50		●
PICCO RM050.4-20	4.00	4.00	0.20	20.00	0.02	34.00	3.50	1.50	●	

• An optimized insert geometry and carbide grade for machining medical parts made from titanium, medical standard stainless steel and other difficult to machine materials.

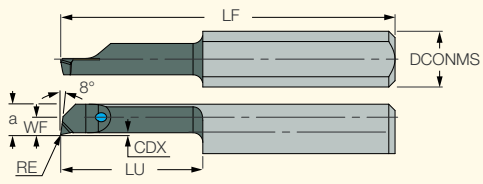
For holders, see pages: PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

PICCOCUT

PICCO R/LM

Profiling Inserts with Coolant Channel Optimized for Machining Medical Parts





Right hand tool shown

I N C H

Designation	Dimensions DCONMS	DMIN	CDX	LU	RE	LF	a	WF	Tough ↔ Hard IC908	IC909
PICCO R/LM050.05-2	.157	.020	.001	.0787	.001	.787	.016	.008		●
PICCO LM050.08-4	.157	.031	.001	.1575	.001	.787	.028	.008		●
PICCO RM050.08-4	.157	.031	.001	.1575	.001	.787	.028	.016		●
PICCO R/LM050.1-5	.157	.039	.002	.1969	.001	.787	.035	.016		●
PICCO R/LM050.1-7	.157	.039	.002	.2756	.001	.866	.035	.016		●
PICCO R/LM050.15-10	.157	.059	.003	.3937	.001	.945	.045	.024		●
PICCO R/LM050.15-5	.157	.059	.003	.1969	.001	.748	.045	.024		●
PICCO R/LM050.2-10	.157	.079	.003	.3937	.001	.945	.067	.031		●
PICCO R/LM050.2-5	.157	.079	.003	.1969	.001	.748	.067	.031		●
PICCO R/LM050.25-10	.157	.098	.004	.3937	.001	.945	.087	.008		●
PICCO R/LM050.25-5	.157	.098	.004	.1969	.001	.748	.087	.008		●
PICCO R/LM050.3-10	.157	.118	.006	.3937	.001	.945	.102	.024		●
PICCO R/LM050.3-16	.157	.118	.006	.6299	.001	1.181	.102	.024		●
PICCO LM050.35-10	.157	.138	.007	.3937	.001	.945	.134	.043		●
PICCO R/LM050.35-16	.157	.138	.007	.6299	.001	1.181	.122	.043		●
PICCO R/LM050.35-20	.157	.138	.007	.7874	.001	1.339	.122	.043		●
PICCO RM050.35-10	.157	.138	.007	.3937	.001	.945	.122	.043		●
PICCO R/LM050.4-10	.157	.157	.008	.3937	.001	.945	.138	.059		●
PICCO R/LM050.4-16	.157	.157	.008	.6299	.001	1.181	.138	.059		●
PICCO LM050.4-20	.157	.157	.008	.7874	.001	1.339	.138	.059		●
PICCO R/LM050.4-24	.157	.157	.008	.9449	.001	1.496	.138	.059		●
PICCO RM050.4-20	.157	.157	.008	.7874	.001	1.339	.138	.059	●	

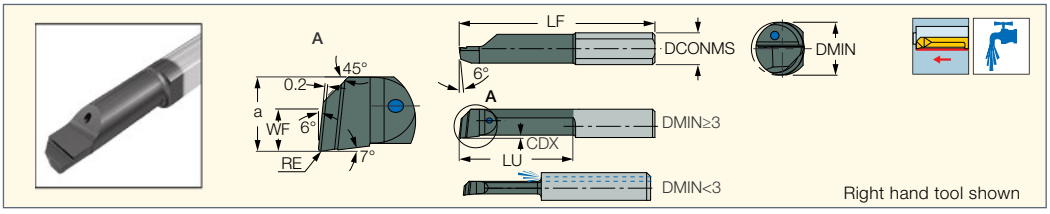
• An optimized insert geometry and carbide grade for machining medical parts made from titanium, medical standard stainless steel and other difficult to machine materials.

For holders, see pages: PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

PICCOCUT

PICCO R/LX050

Reinforced Boring Inserts
with Internal Coolant Holes



M E T R I C

Designation	Dimensions DCONMS	DMIN	CDX	LU	RE	LF	a	WF	IC908
PICCO R/LX050.2-5R15	4.00	2.00	0.10	5.00	0.15	19.00	1.80	-	●
PICCO R/LX050.2-10R05	4.00	2.00	0.10	10.00	0.05	24.00	1.80	-	●
PICCO R/LX050.2-10R15	4.00	2.00	0.10	10.00	0.15	24.00	1.80	-	●
PICCO R/LX050.3-16R10	4.00	3.00	0.15	16.00	0.10	30.00	2.70	0.70	●
PICCO R/LX050.3-16R20	4.00	3.00	0.15	16.00	0.20	30.00	2.70	0.70	●
PICCO R/LX050.4-10R10	4.00	4.00	0.20	10.00	0.10	24.00	3.60	1.60	●
PICCO R/LX050.4-10R20	4.00	4.00	0.20	10.00	0.20	24.00	3.60	1.60	●
PICCO R/LX050.4-16R10	4.00	4.00	0.20	16.00	0.10	30.00	3.60	1.60	●
PICCO R/LX050.4-16R20	4.00	4.00	0.20	16.00	0.20	30.00	3.60	1.60	●
PICCO R/LX050.5-15R10	5.00	5.00	0.30	15.00	0.10	30.00	4.60	2.10	●
PICCO R/LX050.5-15R20	5.00	5.00	0.30	15.00	0.20	30.00	4.60	2.10	●
PICCO R/LX050.5-25R10	5.00	5.00	0.30	25.00	0.10	40.00	4.60	2.10	●
PICCO R/LX050.5-25R20	5.00	5.00	0.30	25.00	0.20	40.00	4.60	2.10	●
PICCO R/LX050.6-15R10	6.00	6.00	0.40	15.00	0.10	30.00	5.50	2.50	●
PICCO R/LX050.6-15R20	6.00	6.00	0.40	15.00	0.20	30.00	5.50	2.50	●
PICCO R/LX050.6-22R20	6.00	6.00	0.40	22.00	0.20	37.00	5.50	2.50	●
PICCO R/LX050.6-35R20	6.00	6.00	0.40	35.00	0.20	50.00	5.50	2.50	●

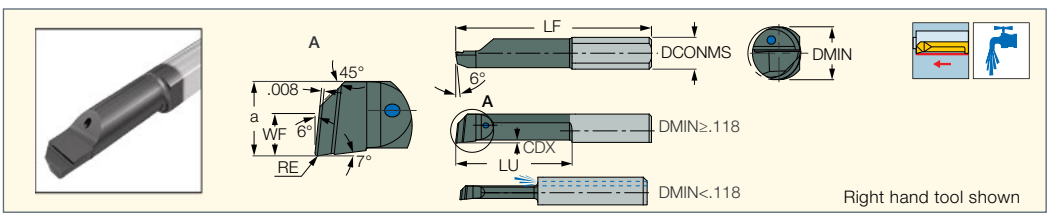
• Left-hand inserts on request

For holders, see pages: GHPCOR (438) • PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

PICCOCUT

PICCO R/LX050

Reinforced Boring Inserts
with Internal Coolant Holes



I N C H

Designation	Dimensions DCONMS	DMIN	CDX	LU	RE	LF	a	WF	IC908
PICCO R/LX050.2-5R15	.157	.079	.004	.1969	.006	.748	.071	-	●
PICCO R/LX050.2-10R05	.157	.079	.004	.3937	.002	.945	.071	-	●
PICCO R/LX050.2-10R15	.157	.079	.004	.3937	.006	.945	.071	-	●
PICCO R/LX050.3-16R10	.157	.118	.006	.6299	.004	1.181	.106	.028	●
PICCO R/LX050.3-16R20	.157	.118	.006	.6299	.008	1.181	.106	.028	●
PICCO R/LX050.4-10R10	.157	.157	.008	.3937	.004	.945	.142	.063	●
PICCO R/LX050.4-10R20	.157	.157	.008	.3937	.008	.945	.142	.063	●
PICCO R/LX050.4-16R10	.157	.157	.008	.6299	.004	1.181	.142	.063	●
PICCO R/LX050.4-16R20	.157	.157	.008	.6299	.008	1.181	.142	.063	●
PICCO R/LX050.5-15R10	.197	.197	.012	.5906	.004	1.181	.181	.083	●
PICCO R/LX050.5-15R20	.197	.197	.012	.5906	.008	1.181	.181	.083	●
PICCO R/LX050.5-25R10	.197	.197	.012	.9842	.004	1.575	.181	.083	●
PICCO R/LX050.5-25R20	.197	.197	.012	.9842	.008	1.575	.181	.083	●
PICCO R/LX050.6-15R10	.236	.236	.016	.5906	.004	1.181	.217	.098	●
PICCO R/LX050.6-15R20	.236	.236	.016	.5906	.008	1.181	.217	.098	●
PICCO R/LX050.6-22R20	.236	.236	.016	.8661	.008	1.457	.217	.098	●
PICCO R/LX050.6-35R20	.236	.236	.016	1.3780	.008	1.968	.217	.098	●

• Left-hand inserts on request

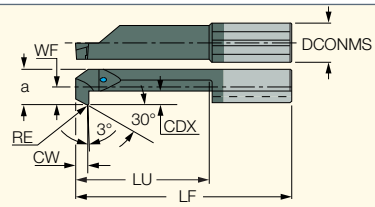
For holders, see pages: GHPCOR (438) • PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

PICCOJET COOLANT THROUGH

PICJ R/LBT

Inserts for Internal Back Turning





Right hand tool shown

M E T R I C

Designation	Dimensions									IC908
	DCONMS	DMIN	CDX	LU	RE	LF	a	WF	CW	
PICJ RBTD30R10-15	4.00	3.00	0.50	14.00	0.10	30.00	2.60	0.60	1.50	●
PICJ RBTD40R15-15	4.00	4.00	0.80	14.00	0.15	30.00	3.50	1.50	1.50	●
PICJ RBTD50R20-20	5.00	5.00	1.00	19.00	0.20	35.00	4.40	1.90	1.50	●
PICJ RBTD60R20-20	6.00	6.00	1.80	19.00	0.20	35.00	5.30	2.30	1.50	●
PICJ RBTD60R20-30	6.00	6.00	1.80	29.00	0.20	45.00	5.30	2.30	1.50	●
PICJ RBTD70R20-20	7.00	7.00	2.50	19.00	0.20	35.00	6.30	2.80	1.50	●
PICJ RBTD70R20-30	7.00	7.00	2.50	29.00	0.20	45.00	6.30	2.80	1.50	●

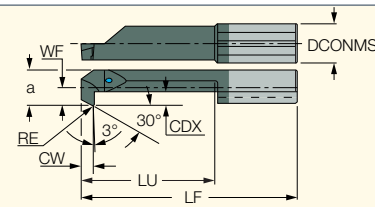
• Specify right- or left-hand bars • PICJ items are suitable for PICCO/MG PCO, PICCO ACE, SC-PICCO type holders only

PICCOJET COOLANT THROUGH

PICJ R/LBT

Inserts for Internal Back Turning





Right hand tool shown

I N C H

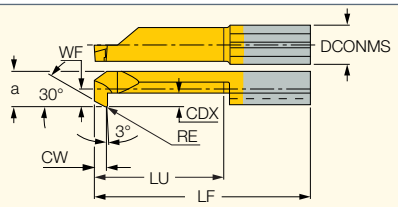
Designation	Dimensions									IC908
	DCONMS	DMIN	CDX	LU	RE	LF	a	WF	CW	
PICJ RBTD30R10-15	.157	.118	.020	.5512	.0039	1.181	.102	.024	.059	●
PICJ RBTD40R15-15	.157	.157	.032	.5512	.0059	1.181	.138	.059	.059	●
PICJ RBTD50R20-20	.197	.197	.039	.7480	.0079	1.378	.173	.075	.059	●
PICJ RBTD60R20-20	.236	.236	.071	.7480	.0079	1.378	.209	.091	.059	●
PICJ RBTD60R20-30	.236	.236	.071	1.1417	.0079	1.772	.209	.091	.059	●
PICJ RBTD70R20-20	.276	.276	.098	.7480	.0079	1.378	.248	.110	.059	●
PICJ RBTD70R20-30	.276	.276	.098	1.1417	.0079	1.772	.248	.110	.059	●

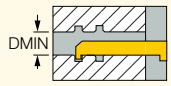
• Specify right- or left-hand bars • PICJ items are suitable for PICCO/MG PCO, PICCO ACE, SC-PICCO type holders only

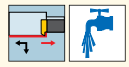
PICCOCUT

PICCO R/L 080
Inserts for Internal Back Turning









Right hand tool shown

M E T R I C

Designation	Dimensions DCONMS	DMIN	CDX	LU	RE	LF	a	WF	CW	IH	IC228
PICCO R 080.0003-15	4.00	3.00	0.50	14.00	0.10	30.00	2.60	0.60	1.50	R	•
PICCO R 080.0003-20	4.00	3.00	0.50	19.00	0.10	34.00	2.60	0.60	1.50	R	•
PICCO L 080.0003-20	4.00	3.00	0.50	19.00	0.10	34.00	2.60	0.60	1.50	L	•
PICCO R 080.0004-15	4.00	4.00	0.80	14.00	0.15	30.00	3.50	1.50	1.50	R	•
PICCO L 080.0004-15	4.00	4.00	0.80	14.00	0.15	30.00	3.50	1.50	1.50	L	•
PICCO R 080.0004-25	4.00	4.00	0.80	24.00	0.15	39.00	3.50	1.50	1.50	R	•
PICCO L 080.0004-25	4.00	4.00	0.80	24.00	0.15	39.00	3.50	1.50	1.50	L	•
PICCO R 080.0005-20	5.00	5.00	1.00	19.00	0.20	35.00	4.40	1.90	1.50	R	•
PICCO L 080.0005-20	5.00	5.00	1.00	19.00	0.20	35.00	4.40	1.90	1.50	L	•
PICCO R 080.0005-30	5.00	5.00	1.00	29.00	0.20	45.00	4.40	1.90	1.50	R	•
PICCO L 080.0005-30	5.00	5.00	1.00	29.00	0.20	45.00	4.40	1.90	1.50	L	•
PICCO R 080.0006-20	6.00	6.00	1.80	19.00	0.20	35.00	5.30	2.30	1.50	R	•
PICCO L 080.0006-20	6.00	6.00	1.80	19.00	0.20	35.00	5.30	2.30	1.50	L	•
PICCO R 080.0006-30	6.00	6.00	1.80	29.00	0.20	45.00	5.30	2.30	1.50	R	•
PICCO L 080.0006-30	6.00	6.00	1.80	29.00	0.20	45.00	5.30	2.30	1.50	L	•
PICCO R 080.0007-20	7.00	7.00	2.50	19.00	0.20	35.00	6.30	2.80	1.50	R	•
PICCO L 080.0007-20	7.00	7.00	2.50	19.00	0.20	35.00	6.30	2.80	1.50	L	•
PICCO R 080.0007-30	7.00	7.00	2.50	29.00	0.20	45.00	6.30	2.80	1.50	R	•
PICCO L 080.0007-30	7.00	7.00	2.50	29.00	0.20	45.00	6.30	2.80	1.50	L	•

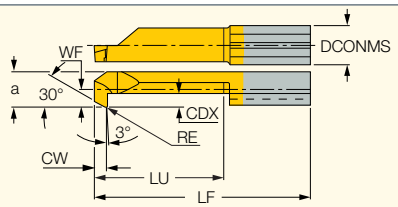
• Specify right- or left-hand bars

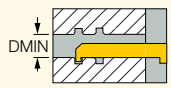
For holders, see pages: GHPCOR (438) • PICCO ACE (436) • SC-PICCO (836)

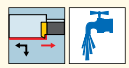
PICCOCUT

PICCO R/L 080
Inserts for Internal Back Turning









Right hand tool shown

I N C H

Designation	Dimensions DCONMS	DMIN	CDX	LU	RE	LF	a	WF	CW	IH	IC228
PICCO R 080.0003-15	.157	.118	.020	.5512	.0039	1.181	.102	.024	.059	R	•
PICCO R 080.0003-20	.157	.118	.020	.7480	.0039	1.339	.102	.024	.059	R	•
PICCO L 080.0003-20	.157	.118	.020	.7480	.0039	1.339	.102	.024	.059	L	•
PICCO R 080.0004-15	.157	.157	.031	.5512	.0059	1.181	.138	.059	.059	R	•
PICCO L 080.0004-15	.157	.157	.031	.5512	.0059	1.181	.138	.059	.059	L	•
PICCO R 080.0004-25	.157	.157	.031	.9449	.0059	1.535	.138	.059	.059	R	•
PICCO L 080.0004-25	.157	.157	.031	.9449	.0059	1.535	.138	.059	.059	L	•
PICCO R 080.0005-20	.197	.197	.039	.7480	.0079	1.378	.173	.075	.059	R	•
PICCO L 080.0005-20	.197	.197	.039	.7480	.0079	1.378	.173	.075	.059	L	•
PICCO R 080.0005-30	.197	.197	.039	1.1417	.0079	1.772	.173	.075	.059	R	•
PICCO L 080.0005-30	.197	.197	.039	1.1417	.0079	1.772	.173	.075	.059	L	•
PICCO R 080.0006-20	.236	.236	.071	.7480	.0079	1.378	.209	.091	.059	R	•
PICCO L 080.0006-20	.236	.236	.071	.7480	.0079	1.378	.209	.091	.059	L	•
PICCO R 080.0006-30	.236	.236	.071	1.1417	.0079	1.772	.209	.091	.059	R	•
PICCO L 080.0006-30	.236	.236	.071	1.1417	.0079	1.772	.209	.091	.059	L	•
PICCO R 080.0007-20	.276	.276	.098	.7480	.0079	1.378	.248	.110	.059	R	•
PICCO L 080.0007-20	.276	.276	.098	.7480	.0079	1.378	.248	.110	.059	L	•
PICCO R 080.0007-30	.276	.276	.098	1.1417	.0079	1.772	.248	.110	.059	R	•
PICCO L 080.0007-30	.276	.276	.098	1.1417	.0079	1.772	.248	.110	.059	L	•

• Specify right- or left-hand bars

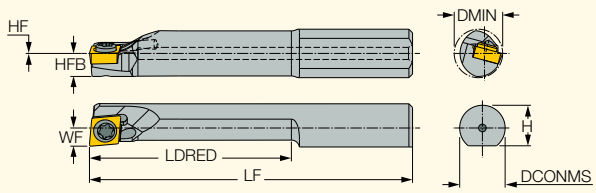
For holders, see pages: GHPCOR (438) • PICCO ACE (436) • SC-PICCO (836)

PICCOINDEX
INDEXABLE INSERTS

PICIN-A-SCLCR/L

PICCO Tools on which 80° Rhombic Inserts are Mounted





M E T R I C

Designation	DCONMS	DMIN	LDRED	LF	WF	H	HF	HFB	MIID[1]
PICIN A05-T10-SCLCR/L-03	5.00	4.50	10.0	25.00	1.85	4.5	0.0	2.1	CCGT 03X101-F1P
PICIN A05-T20-SCLCR/L-03	5.00	4.50	20.0	35.00	1.85	4.5	0.0	2.1	CCGT 03X101-F1P
PICIN A06-T15-SCLCR/L-03	6.00	6.00	15.0	30.00	2.25	5.4	0.0	2.9	CCGT 03X101-F1P
PICIN A06-T25-SCLCR/L-03	6.00	6.00	25.0	40.00	2.25	5.4	0.0	2.9	CCGT 03X101-F1P

[1] Master insert identification

For inserts, see pages: CCGT-F1P (157) • CCGW/CCMT (CBN) (162)
For holders, see pages: GHPCOR (438) • PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

Spare Parts

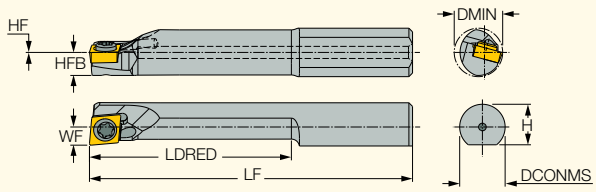
Designation		
PICIN-A-SCLCR/L	CSTA-1.6	T-6/5

PICCOINDEX
INDEXABLE INSERTS

PICIN-A-SCLCR/L

PICCO Tools on which 80° Rhombic Inserts are Mounted





I N C H

Designation	DCONMS	DMIN	LDRED	LF	WF	H	HF	HFB	MIID[1]
PICIN A05-T10-SCLCR/L-03	.197	.177	.39	.984	.073	.177	0	.083	CCGT 03X101-F1P
PICIN A05-T20-SCLCR/L-03	.197	.177	.79	1.378	.073	.177	0	.083	CCGT 03X101-F1P
PICIN A06-T15-SCLCR/L-03	.236	.236	.59	1.181	.089	.213	0	.114	CCGT 03X101-F1P
PICIN A06-T25-SCLCR/L-03	.236	.236	.98	1.575	.089	.213	0	.114	CCGT 03X101-F1P

[1] Master insert identification

For inserts, see pages: CCGT-F1P (157) • CCGW/CCMT (CBN) (162)
For holders, see pages: GHPCOR (438) • PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

Spare Parts

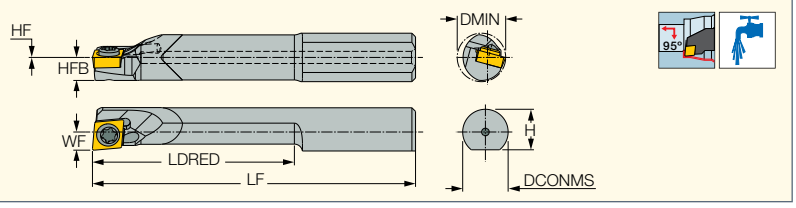
Designation		
PICIN-A-SCLCR/L	CSTA-1.6	T-6/5

PICCOINDEX INDEXABLE INSERTS

PICIN-SCLCR/L

Solid Carbide PICCO Tools
Carrying 80° Rhombic Inserts





M E T R I C									
Designation	**DCONMS**	**DMIN**	**LDRED**	**LF**	**WF**	**H**	**HF**	**HFB**	**MIID[1]**
PICIN E05-T20-SCLCR/L-03	5.00	4.50	20.0	35.00	1.85	4.5	0.0	2.1	CCGT 03X101-F1P
PICIN E05-T30-SCLCR/L-03	5.00	4.50	30.0	45.00	1.85	4.5	0.0	2.1	CCGT 03X101-F1P
PICIN E06-T25-SCLCR/L-03	6.00	6.00	25.0	40.00	2.25	5.4	0.0	2.9	CCGT 03X101-F1P
PICIN E06-T35-SCLCR/L-03	6.00	6.00	35.0	50.00	2.25	5.4	0.0	2.9	CCGT 03X101-F1P

[1] Master insert identification

For inserts, see pages: CCGT-F1P (157) • CCGW/CCMT (CBN) (162)
For holders, see pages: GHPCOR (438) • PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

Spare Parts

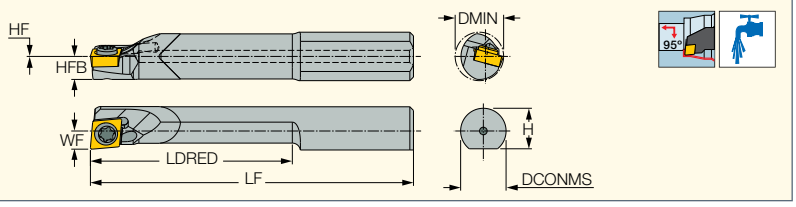
Designation		
PICIN-SCLCR/L	CSTA-1.6	T-6/5

PICCOINDEX INDEXABLE INSERTS

PICIN-SCLCR/L

Solid Carbide PICCO Tools
Carrying 80° Rhombic Inserts





I N C H									
Designation	**DCONMS**	**DMIN**	**LDRED**	**LF**	**WF**	**H**	**HF**	**HFB**	**MIID[1]**
PICIN E05-T20-SCLCR/L-03	.197	.177	.79	1.378	.073	.177	0	.083	CCGT 03X101-F1P
PICIN E05-T30-SCLCR/L-03	.197	.177	1.18	1.772	.073	.177	0	.083	CCGT 03X101-F1P
PICIN E06-T25-SCLCR/L-03	.236	.236	.98	1.575	.089	.213	0	.114	CCGT 03X101-F1P
PICIN E06-T35-SCLCR/L-03	.236	.236	1.38	1.968	.089	.213	0	.114	CCGT 03X101-F1P

[1] Master insert identification

For inserts, see pages: CCGT-F1P (157) • CCGW/CCMT (CBN) (162)
For holders, see pages: GHPCOR (438) • PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

Spare Parts

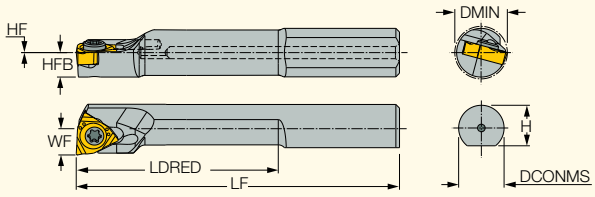
Designation		
PICIN-SCLCR/L	CSTA-1.6	T-6/5

PICCOINDEX
INDEXABLE INSERTS

PICIN-A-SWUBR/L

PICCO Tools on which
Small WBMT/WBGT Trigon
Inserts are Mounted





M E T R I C

Designation	DCONMS	DMIN	LDRED	LF	WF	H	HF	HFB	MIID[1]
PICIN A06-T15-SWUBL-06	6.00	6.50	15.0	30.00	3.25	5.4	0.0	3.0	WBMT 060101R
PICIN A06-T15-SWUBR-06	6.00	6.50	15.0	30.00	3.25	5.4	0.0	3.0	WBMT 060101L
PICIN A06-T25-SWUBL-06	6.00	6.50	25.0	40.00	3.25	5.4	0.0	3.0	WBMT 060101R
PICIN A06-T25-SWUBR-06	6.00	6.50	25.0	40.00	3.25	5.4	0.0	3.0	WBMT 060101L

• Use right-hand WBMT 06...R inserts on left-hand tools and left-hand WBMT 06...L inserts on right-hand tools
(1) Master insert identification

For inserts, see pages: WBGT (139) • WBMT (139)
For holders, see pages: GHPCOR (438) • PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

Spare Parts

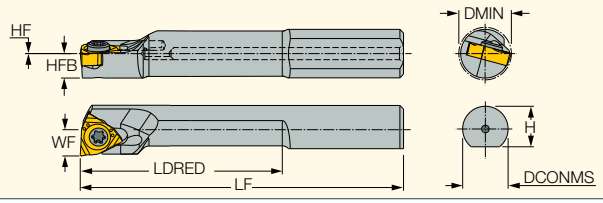
Designation		
PICIN-A-SWUBR/L	SR 14-552	T-6/5

PICCOINDEX
INDEXABLE INSERTS

PICIN-A-SWUBR/L

PICCO Tools on which
Small WBMT/WBGT Trigon
Inserts are Mounted





I N C H

Designation	DCONMS	DMIN	LDRED	LF	WF	H	HF	HFB	MIID[1]
PICIN A06-T15-SWUBL-06	.236	.256	.59	1.181	.128	.213	0	.118	WBMT 060101R
PICIN A06-T15-SWUBR-06	.236	.256	.59	1.181	.128	.213	0	.118	WBMT 060101L
PICIN A06-T25-SWUBL-06	.236	.256	.98	1.575	.128	.213	0	.118	WBMT 060101R
PICIN A06-T25-SWUBR-06	.236	.256	.98	1.575	.128	.213	0	.118	WBMT 060101L

• Use right-hand WBMT 06...R inserts on left-hand tools and left-hand WBMT 06...L inserts on right-hand tools
(1) Master insert identification

For inserts, see pages: WBGT (139) • WBMT (139)
For holders, see pages: GHPCOR (438) • PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

Spare Parts

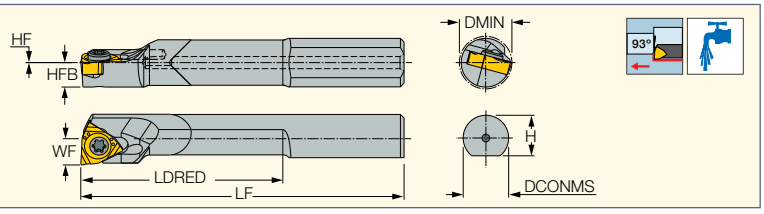
Designation		
PICIN-A-SWUBR/L	SR 14-552	T-6/5

PICCOINDEX INDEXABLE INSERTS

PICIN-SWUBR/L

Solid Carbide PICCO Tools
Carrying Small WBMT/WBGT
Trigon Inserts





M E T R I C

Designation	DCONMS	DMIN	LDRED	LF	WF	H	HF	HFB	MIID[1]
PICIN E06-T25-SWUBL-06	6.00	6.50	25.0	40.00	3.25	5.4	0.0	3.0	WBMT 060101R
PICIN E06-T25-SWUBR-06	6.00	6.50	25.0	40.00	3.25	5.4	0.0	3.0	WBMT 060101L
PICIN E06-T35-SWUBL-06	6.00	6.50	35.0	50.00	3.25	5.4	0.0	3.0	WBMT 060101R
PICIN E06-T35-SWUBR-06	6.00	6.50	35.0	50.00	3.25	5.4	0.0	3.0	WBMT 060101L

- Use right-hand WBMT 06...R inserts on left-hand tools and left-hand WBMT 06...L inserts on right-hand tools

(1) Master insert identification

For inserts, see pages: WBGT (139) • WBMT (139)
For holders, see pages: GHPCOR (438) • PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

Spare Parts

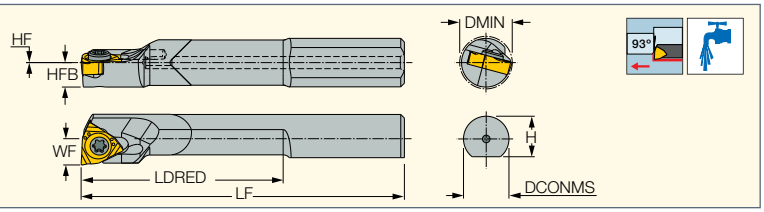
Designation		
PICIN-SWUBR/L	SR 14-552	T-6/5

PICCOINDEX INDEXABLE INSERTS

PICIN-SWUBR/L

Solid Carbide PICCO Tools
Carrying Small WBMT/WBGT
Trigon Inserts





I N C H

Designation	DCONMS	DMIN	LDRED	LF	WF	H	HF	HFB	MIID[1]
PICIN E06-T25-SWUBL-06	.236	.256	.98	1.575	.128	.213	0	.118	WBMT 060101R
PICIN E06-T25-SWUBR-06	.236	.256	.98	1.575	.128	.213	0	.118	WBMT 060101L
PICIN E06-T35-SWUBL-06	.236	.256	1.38	1.968	.128	.213	0	.118	WBMT 060101R
PICIN E06-T35-SWUBR-06	.236	.256	1.38	1.968	.128	.213	0	.118	WBMT 060101L

- Use right-hand WBMT 06...R inserts on left-hand tools and left-hand WBMT 06...L inserts on right-hand tools

(1) Master insert identification

For inserts, see pages: WBGT (139) • WBMT (139)
For holders, see pages: GHPCOR (438) • PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

Spare Parts

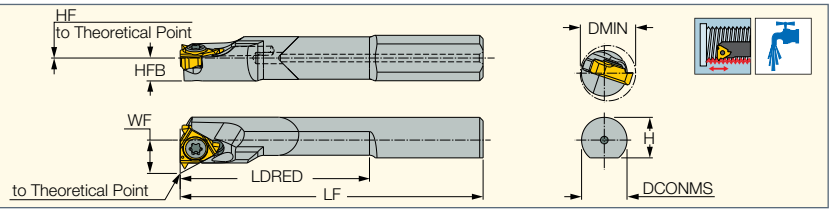
Designation		
PICIN-SWUBR/L	SR 14-552	T-6/5

PICCOINDEX INDEXABLE INSERTS

PICIN-MGSIR/L

Solid Carbide PICCO Tools on which Internal Laydown Threading Inserts are Mounted





M E T R I C

Designation	DCONMS	DMIN	LDRED	H	HFB	WF	HF	LF	Insert		
PICIN E06-T25-MGSIL-06	6.00	7.30	25.0	5.4	3.0	4.41	0.0	40.00	06IL A 55	SR 14-552	T-6/5
PICIN E06-T25-MGSIR-06	6.00	7.30	25.0	5.4	3.0	4.41	0.0	40.00	06IR A 55		

- B-steel shank with coolant hole, CB-carbide shank with coolant hole
- All toolholders provide 1.5 helix angle, either via the pocket or the anvil supplied
- For GTGA inserts, use anvil AL 16-0

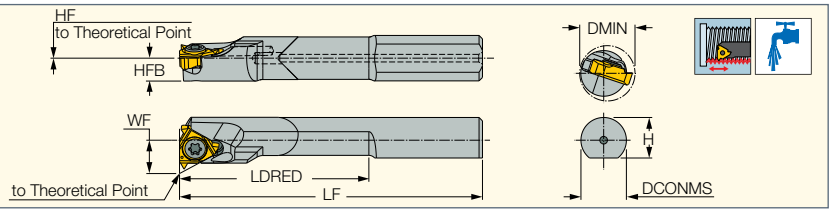
For inserts, see pages: IR/L-55° (751) • IR/L-60° (772) • IR/L-BSPT (749) • IR/L-ISO (755) • IR/L-NPT (788) • IR/L-NPTF (790) • IR/L-UN (762) • IR/L-W (741)
For holders, see pages: GHPCOR (438) • PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

PICCOINDEX INDEXABLE INSERTS

PICIN-MGSIR/L

Solid Carbide PICCO Tools on which Internal Laydown Threading Inserts are Mounted





I N C H

Designation	DCONMS	DMIN	LDRED	H	HFB	WF	HF	LF	Insert		
PICIN E06-T25-MGSIL-06	.236	.287	.98	.213	.118	.174	0	1.575	06IL A 55	SR 14-552	T-6/5
PICIN E06-T25-MGSIR-06	.236	.287	.98	.213	.118	.174	0	1.575	06IR A 55		

- B-steel shank with coolant hole, CB-carbide shank with coolant hole
- All toolholders provide 1.5 helix angle, either via the pocket or the anvil supplied
- For GTGA inserts, use anvil AL 16-0

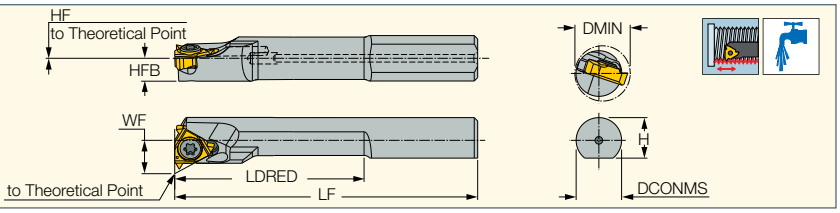
For inserts, see pages: IR/L-55° (751) • IR/L-60° (772) • IR/L-BSPT (749) • IR/L-ISO (755) • IR/L-NPT (788) • IR/L-NPTF (790) • IR/L-UN (762) • IR/L-W (741)
For holders, see pages: GHPCOR (438) • PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

PICCOINDEX INDEXABLE INSERTS

PICIN-A-SIR/L

PICCO Tools on which Internal Laydown Threading Inserts are Mounted





M E T R I C

Designation	DCONMS	DMIN	LDRED	H	HFB	WF	LF	HF	Insert		
PICIN A06-T15-SIR-06	6.00	7.30	15.0	5.4	3.0	4.41	30.00	0.1	06IL A 55	SR 14-552	T-6/5
PICIN A06-T25-SIR/L-06	6.00	7.30	25.0	5.4	3.0	4.41	40.00	0.1	06IL/R A 55	SR 14-552	T-6/5

- B-steel shank with coolant hole, CB-carbide shank with coolant hole
- All toolholders provide 1.5 helix angle, either via the pocket or the anvil supplied
- For GTGA inserts, use anvil AL 16-0

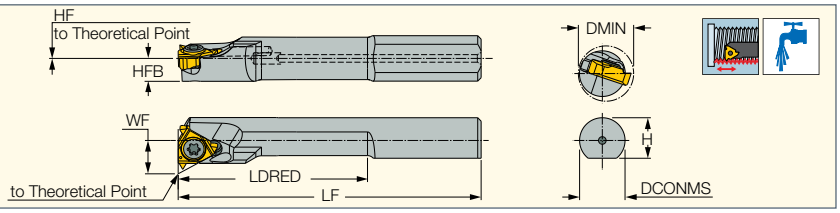
For inserts, see pages: IR/L-55° (751) • IR/L-60° (772) • IR/L-BSPT (749) • IR/L-ISO (755) • IR/L-NPT (788) • IR/L-NPTF (790) • IR/L-UN (762) • IR/L-W (741)
For holders, see pages: GHPCOR (438) • PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

PICCOINDEX INDEXABLE INSERTS

PICIN-A-SIR/L

PICCO Tools on which Internal Laydown Threading Inserts are Mounted





I N C H

Designation	DCONMS	DMIN	LDRED	H	HFB	WF	LF	HF	Insert		
PICIN A06-T15-SIR-06	.236	.287	.59	.213	.118	.174	1.181	.004	06IL A 55	SR 14-552	T-6/5
PICIN A06-T25-SIR/L-06	.236	.287	.98	.213	.118	.174	1.575	.004	06IL/R A 55	SR 14-552	T-6/5

- B-steel shank with coolant hole, CB-carbide shank with coolant hole
- All toolholders provide 1.5 helix angle, either via the pocket or the anvil supplied
- For GTGA inserts, use anvil AL 16-0

For inserts, see pages: IR/L-55° (751) • IR/L-60° (772) • IR/L-BSPT (749) • IR/L-ISO (755) • IR/L-NPT (788) • IR/L-NPTF (790) • IR/L-UN (762) • IR/L-W (741)
For holders, see pages: GHPCOR (438) • PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

PARTING

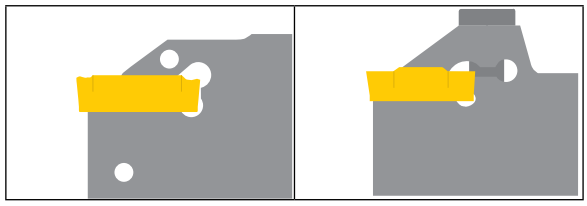


Clamping Systems

DO-GRIP

FIRST CHOICE!

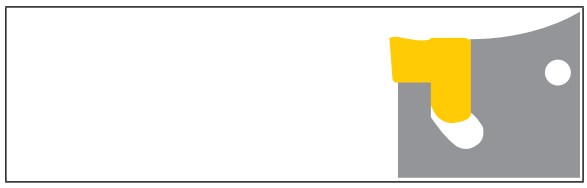
- First choice for parting
- Double-ended insert
- Self-clamped for deeper grooving and parting medium to large diameters
- Screw-clamped for small diameters
- See also **HELI-GRIP**, page 367



Self-clamped Screw-clamped

TANG-GRIP

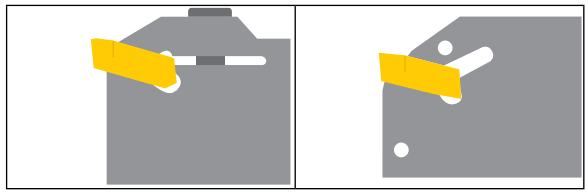
- Very rigid clamping in a tangentially oriented pocket
- Enables machining at very high feed rates and provides excellent straightness and surface finish
- Recommended for parting large diameter parts and for interrupted cuts
- Offers a free, unobstructed chip flow



TANG-GRIP

CUT-GRIP

- Single-ended insert
- Self- and screw-clamped options



Screw-clamped Self-clamped

PENTACUT

- 5 cutting edges
- Fast edge indexing
- For shallow grooving and up to 20 mm (.79″) parting diameter
- **PENTA-IQ** for parting up to 40mm (1.57″) bar diameter



PENTACUT PENTA-IQ

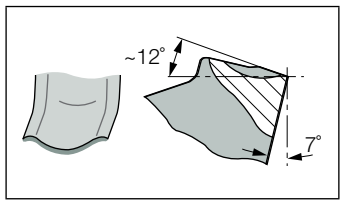
Main Chipformers

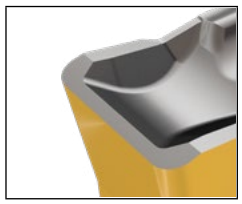
HF-Type

- For high feed machining only!
- Reinforced cutting edge (negative rake)
- Should be used with short extension tools

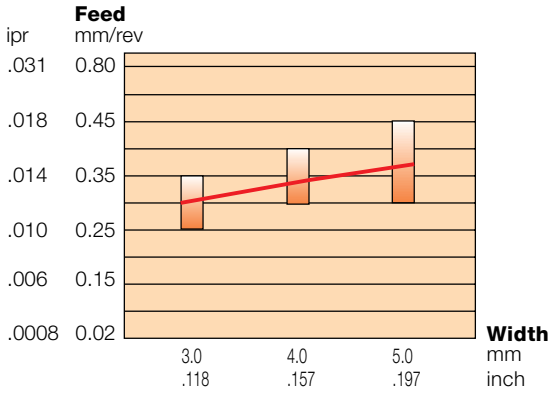
$$f \approx \frac{W_{insert}}{12}\ [mm/rev] \qquad f \approx \frac{W_{insert}}{12}\ [inch/rev]$$

Alloy Steel	Austenitic Stainless	High Temp. Alloys	Nonferrous Materials
✓	✗	✗	✗





Recommended Feed Range as a Function of Insert Width



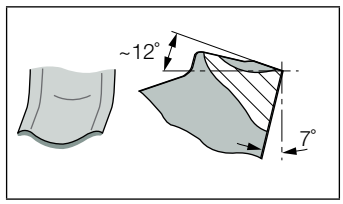
C-Type

- First choice for parting of bars, hard materials and tough applications
- A positive rake, single cavity with negative land and shoulders provides extra cutting-edge strength
- Medium-to-high feed

$$f \approx \frac{W_{insert}}{18}\ [mm/rev] \qquad f \approx \frac{W_{insert}}{18}\ [inch/rev]$$

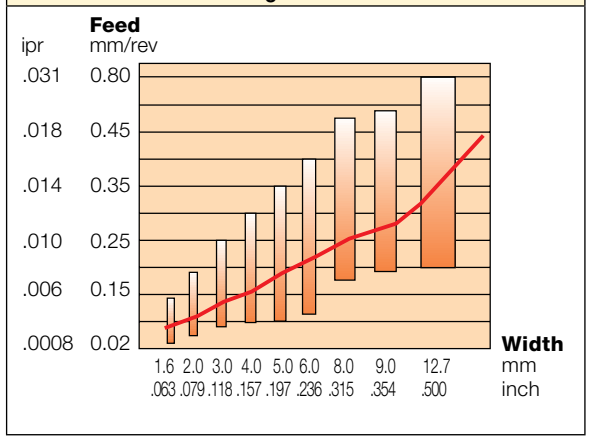
Alloy Steel	Austenitic Stainless	High Temp. Alloys	Nonferrous Materials
✓	✗	✓ (IC20 only)	✓ (IC20 only)

Recommendations are for Neutral Inserts. For R/L Inserts, Reduce Feed by 20-40%.





Recommended Feed Range as a Function of Insert Width

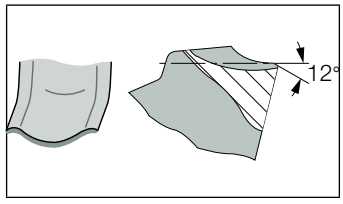


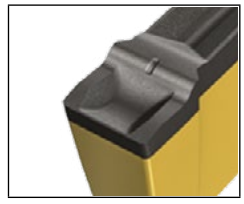
MF Type

- Parting and Grooving Insert for Soft and Hard Materials, Medium Feed

$$f \approx \frac{W_{insert}}{21}\ [mm/rev] \qquad f \approx \frac{W_{insert}}{21}\ [inch/rev]$$

Alloy Steel	Austenitic Stainless	High Temp. Alloys	Nonferrous Materials
✓	✓	✓	✗





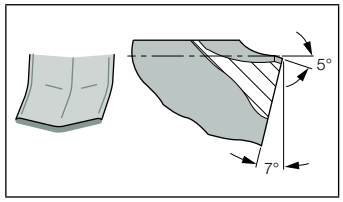
JT-Type

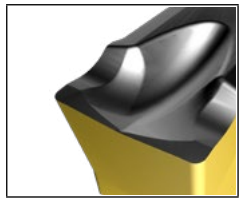
Based on the J-type chipformer with a T-land reinforced frontal cutting edge.

- Provides a solution for the intermediate range between the strong and negative C-type configuration and the positive edged J-type chipformer.
- Can be used on a wide range of materials.
- Same manner as the J-type, but it can be used at higher feeds due to its reinforced edge.

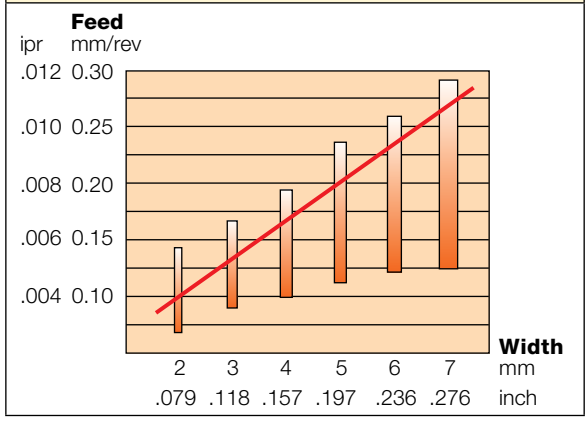
$$f \approx \frac{W_{insert}}{24}\ [mm/rev] \quad f \approx \frac{W_{insert}}{24}\ [inch/rev]$$

Alloy Steel	Austenitic Stainless	High Temp. Alloys	Nonferrous Materials
✓	✓	✓	✗





Recommended Feed Range as a Function of Insert Width



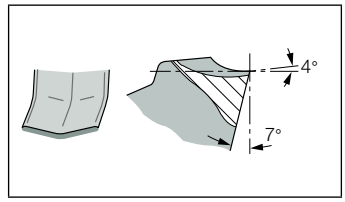
J-Type

- First choice for soft materials, parting tubes, small diameters and thin-walled parts
- Cutting edge with positive rake
- Low-to-medium feed

$$f \approx \frac{W_{insert}}{26}\ [mm/rev] \quad f \approx \frac{W_{insert}}{26}\ [inch/rev]$$

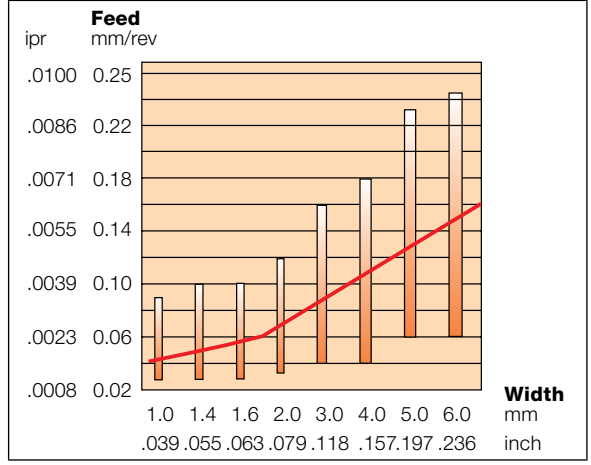
Alloy Steel	Austenitic Stainless	High Temp. Alloys	Nonferrous Materials
✓	✓	✓	✓

Recommendations Are for Neutral Inserts.
For R/L Inserts, Reduce Feed by 20-40%.





Recommended Feed Range as a Function of Insert Width

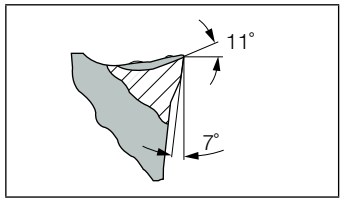


Z-Type

- Cutting edge with high positive rake, suitable for parting tubes, thin walled arts and for small diameters
- Suitable for soft materials
- Excellent for cutting bearing steel and stainless steel
- Low-to-medium feeds

$$f \approx \frac{W_{insert}}{28}\ [mm/rev] \quad f \approx \frac{W_{insert}}{28}\ [inch/rev]$$

Alloy Steel	Austenitic Stainless	High Temp. Alloys	Nonferrous Materials
✓	✓	✓	✓



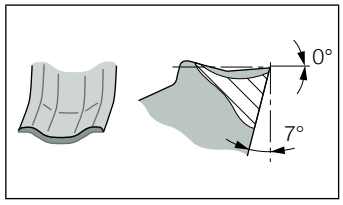


LF

- Parting and Grooving Insert for Stainless Steel & soft materials
- Miniature Parts
- Low Feeds

$$f \approx \frac{W_{insert}}{31}\ [mm/rev] \quad f \approx \frac{W_{insert}}{31}\ [inch/rev]$$

Alloy Steel	Austenitic Stainless	High Temp. Alloys	Nonferrous Materials
✓	✓	✓	✗

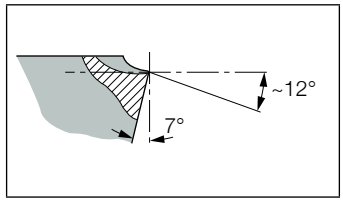




UA/UT-Type

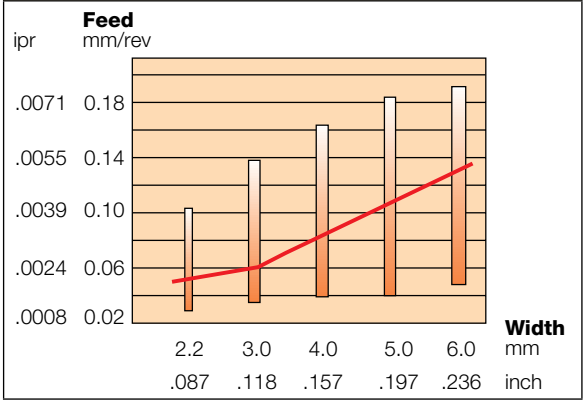
- A chipformer for use at low feeds
- Recommended for CrNi alloys and low carbon steel, especially in the bearing industry and on similar, ductile materials
- The narrow chipformer design ensures short deformed chips and provides improved performance
- **UA** and **UT** are similar chipformers. **UT** is slightly tighter than the **UA** chipformer

$$f \approx \frac{W_{insert}}{40}\ [mm/rev] \quad f \approx \frac{W_{insert}}{40}\ [inch/rev]$$





Recommended Feed Range as a Function of Insert Width

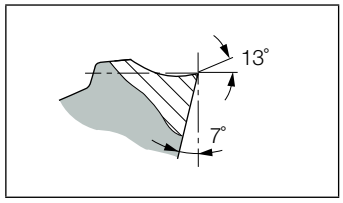


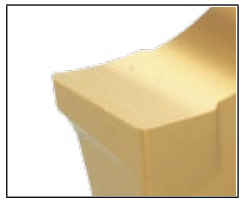
P-Type

- Very positive rake inclination and sharp cutting edge
- For soft materials, slim parts and general parting
- Low feeds

$$f \approx \frac{W_{insert}}{55}\ [mm/rev] \quad f \approx \frac{W_{insert}}{55}\ [inch/rev]$$

Alloy Steel	Austenitic Stainless	High Temp. Alloys	Nonferrous Materials
✓	✓	✗	✓



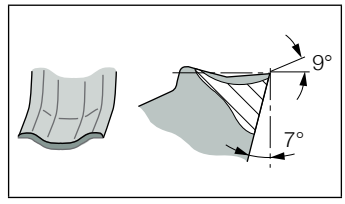


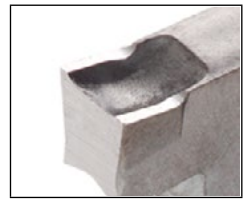
A-Type

- Positive rake, sharp edge
- For parting aluminum
- In grade **IC20**

$$f \approx \frac{W_{insert}}{43}\ [mm/rev] \quad f \approx \frac{W_{insert}}{43}\ [inch/rev]$$

Alloy Steel	Austenitic Stainless	High Temp. Alloys	Nonferrous Materials
✗	✗	✗	✓



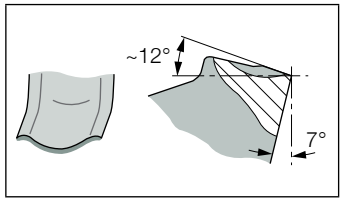


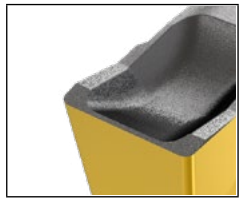
M-Type

- Similar to C-type, but with modified edge (smaller K-land)
- Improved chip control at medium feed

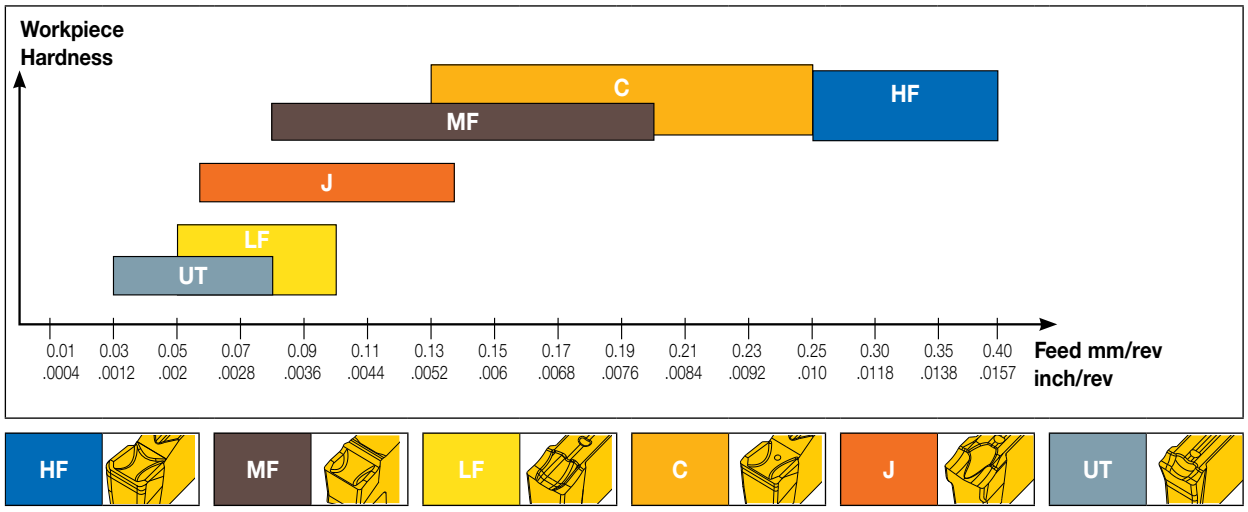
$$f \approx \frac{W_{insert}}{22}\ [mm/rev] \quad f \approx \frac{W_{insert}}{22}\ [inch/rev]$$

Alloy Steel	Austenitic Stainless	High Temp. Alloys	Nonferrous Materials
✓	✗	✓	✗

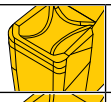
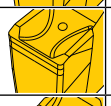
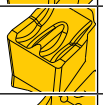
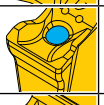
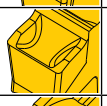
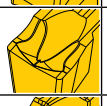
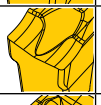
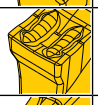
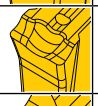
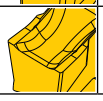




Main Chipformers Recommended Feed



Selection of Chipformers for Various Workpiece Materials

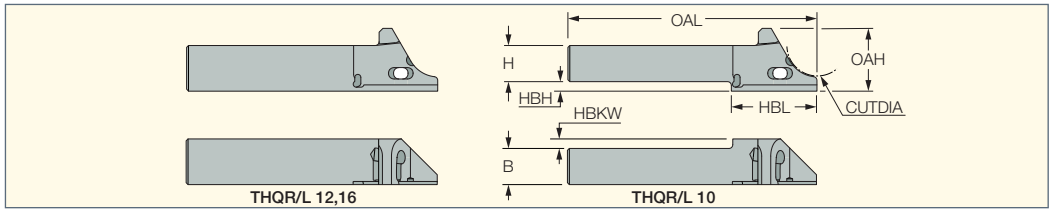
	Inserts		Alloy Steel	Austenitic Stainless	Nonferrous Materials
		HF	✔	✘	✘
		C	✔	✘	✔ (IC20 only)
High		W	✔	✘	✘
↑		C-Jet (Coolant)	✔	✔	✘
↑		MF	✔	Medium to high feed	✘
↑		JT	✔	✔	✘
Feed		J	✔	✔	✔
↓		Z	✔	✔	✔
↓		LFT	✔	✔	✘
↓		LF	✔	✔	✘
Low		UT	✔	✘	✘
		P	✔	✔	✔
		A	✘	✘	✔

✔ First choice

SWISSGRIP NARROW WIDTHS

THQR/L

Parting and Grooving Holder for a SELF-GRIP Mini Blades (SGAQ), Suitable for Swiss-Type Machines



M E T R I C									
Designation	**H**	**OAL**	**HF**	**OAH**	**HBL**	**HBH**	**CUTDIA**	**HBKW**	**B**
THQR/L 10-D16	10.0	100.00	10.0	16.50	22.6	2.0	16.0	2.00	10.0
THQR/L 12-D16	12.0	100.00	12.0	16.50	-	-	16.0	-	12.0
THQR/L 16-D16	16.0	100.00	16.0	20.50	-	-	16.0	-	16.0

For tools, see pages: SGAQ (489)

Designation	**CW**	**CUTDIA**	**f**
THQL/R 10-D16 + SGAQ 0.6	0.6	10	9.68
THQL/R 10-D16 + SGAQ 0.8	0.8	10	9.68
THQL/R 12-D16 + SGAQ 0.6	0.6	10	11.68
THQL/R 12-D16 + SGAQ 0.8	0.8	10	11.68
THQL/R 16-D16 + SGAQ 0.6	0.6	10	15.68
THQL/R 16-D16 + SGAQ 0.8	0.8	10	15.68

Designation	**CW**	**CUTDIA**	**f**
THQL/R 10-D16 + SGAQ 1.0	1	16	9.60
THQL/R 10-D16 + SGAQ 1.2	1.2	16	9.68
THQL/R 12-D16 + SGAQ 1.0	1	16	11.60
THQL/R 12-D16 + SGAQ 1.2	1.2	16	11.68
THQL/R 16-D16 + SGAQ 1.0	1	16	15.60
THQL/R 16-D16 + SGAQ 1.2	1.2	16	15.68

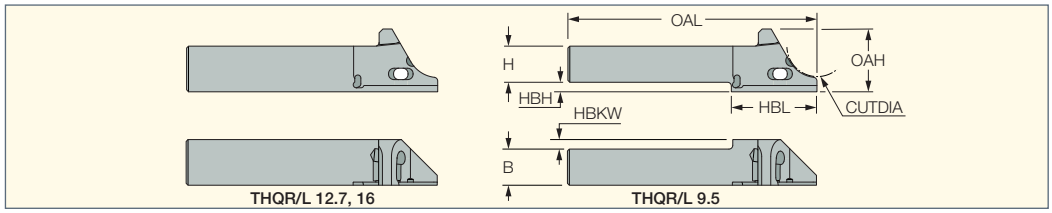
Spare Parts

Designation	
THQR/L	ESG-SWISS 0.6-1.2

SWISSGRIP NARROW WIDTHS

THQR/L

Parting and Grooving Holder for a SELF-GRIP Mini Blades (SGAQ), Suitable for Swiss-Type Machines



I N C H									
Designation	**H**	**OAL**	**HF**	**OAH**	**HBL**	**HBH**	**CUTDIA**	**HBKW**	**B**
THQL 9.5-D16	.375	3.937	.374	.650	.890	.100	.630	.4720	.374
THQR 9.5-D16	.375	3.937	.374	.650	.890	.100	.630	.4720	.374
THQR/L 12.7-D16	.500	3.937	.500	.677	-	-	.630	-	.500
THQR/L 16-D16	.630	3.937	.630	.807	-	-	.630	-	.630

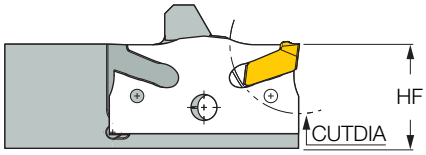
For tools, see pages: SGAQ (489)

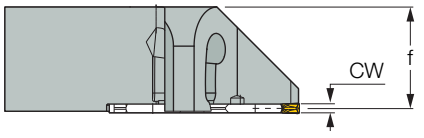
Designation	**CW**	**CUTDIA**	**f**
THQL/R 9.5-D16 + SGAQ 0.6	.024	.394	.381
THQL/R 9.5-D16 + SGAQ 0.8	.031	.394	.381
THQL/R 12.7-D16+SGAQ 0.6	.024	.394	.460
THQL/R 12.7-D16+SGAQ 0.8	.031	.394	.460
THQL/R 16-D16 + SGAQ 0.6	.024	.394	.617
THQL/R 16-D16 + SGAQ 0.8	.031	.394	.617

Designation	**CW**	**CUTDIA**	**f**
THQL/R 9.5-D16 + SGAQ 1.0	.039	.629	.378
THQL/R 9.5-D16 + SGAQ 1.2	.047	.629	.381
THQL/R 12.7-D16+SGAQ 1.0	.039	.629	.457
THQL/R 12.7-D16+SGAQ 1.2	.047	.629	.460
THQL/R 16-D16 + SGAQ 1.0	.039	.629	.614
THQL/R 16-D16 + SGAQ 1.2	.047	.629	.617

Spare Parts

Designation	
THQR/L	ESG-SWISS 0.6-1.2

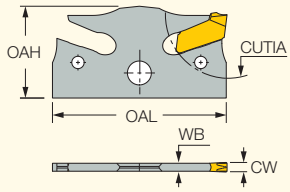


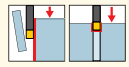


SWISSGRIP NARROW WIDTHS

SGAQ

SELF-GRIP Mini Blades for Parting and Grooving, Suitable for Swiss-Type Machines





M E T R I C

Designation	OAH	OAL	CUTDIA	WB	CW	MIID[1]	
SGAQ D10-0.6	11.50	21.80	10.0	0.50	0.60	GFT 0.6J-0.1	ESG-SLM*
SGAQ D10-0.8	11.50	21.80	10.0	0.68	0.80	GFT 0.8J-0.1	ESG-SLM*
SGAQ D16-1.0	11.50	21.80	16.0	0.85	1.00	GFT 1.0J-0.1	ESG-SLM*
SGAQ D16-1.2	11.50	21.80	16.0	1.00	1.20	GFT 1.2J-0.14	ESG-SLM*

- For user guide, see pages 597-608

(1) Master insert identification

* Optional, to be ordered separately

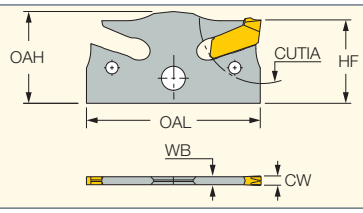
For inserts, see pages: GFT-J (490)

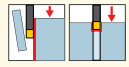
For holders, see pages: THQR/L (488)

SWISSGRIP NARROW WIDTHS

SGAQ

SELF-GRIP Mini Blades for Parting and Grooving, Suitable for Swiss-Type Machines





I N C H

Designation	OAH	OAL	CUTDIA	WB	CW	MIID[1]	
SGAQ D10-0.6	.453	.858	.394	.0197	.024	GFT 0.6J-0.1	ESG-SLM*
SGAQ D10-0.8	.453	.858	.394	.0268	.031	GFT 0.8J-0.1	ESG-SLM*
SGAQ D16-1.0	.453	.858	.630	.0335	.039	GFT 1.0J-0.1	ESG-SLM*
SGAQ D16-1.2	.453	.858	.630	.0394	.047	GFT 1.2J-0.14	ESG-SLM*

- For user guide, see pages 597-608

(1) Master insert identification

* Optional, to be ordered separately

For inserts, see pages: GFT-J (490)

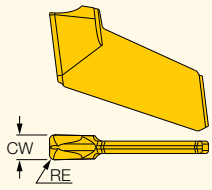
For holders, see pages: THQR/L (488)

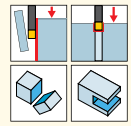
SLIMGRIP NARROW INSERTS

GFT-J

Thin Parting, Grooving and Slitting Single-Ended Inserts for Soft Materials







M E T R I C

Designation	Dimensions CW	RE	Tough ↔ Hard IC1028	IC1008	Recommended Machining Data f groove (mm/rev)
GFT 0.6J-0.1	0.60	0.10	●	●	0.03-0.05
GFT 0.8J-0.1	0.80	0.10	●	●	0.03-0.07
GFT 1.0J-0.1	1.00	0.10	●	●	0.03-0.09
GFT 1.2J-0.14	1.20	0.14	●	●	0.03-0.10
GFT 1.6J-0.16	1.60	0.16	●	●	0.03-0.12

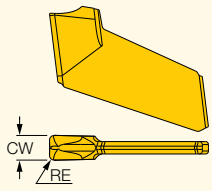
For tools, see pages: SGAQ (489)

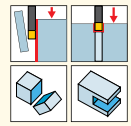
SLIMGRIP NARROW INSERTS

GFT-J

Thin Parting, Grooving and Slitting Single-Ended Inserts for Soft Materials







I N C H

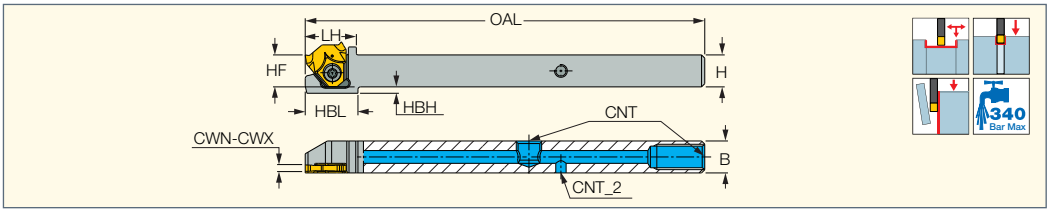
Designation	Dimensions CW	RE	Tough ↔ Hard IC1028	IC1008	Recommended Machining Data f groove (IPR)
GFT 0.6J-0.1	.024	.0039	●	●	.0012-.0020
GFT 0.8J-0.1	.031	.0039	●	●	.0012-.0027
GFT 1.0J-0.1	.039	.0039	●	●	.0012-.0035
GFT 1.2J-0.14	.047	.0055	●	●	.0012-.0039
GFT 1.6J-0.16	.063	.0063	●	●	.0012-.0047

For tools, see pages: SGAQ (489)

QUICK2CUT MINI

TGVR/L-JHP

Grooving, Parting and Recessing Tools Carrying TGV Inserts with Channels for High-Pressure Coolant



Designation	H	HF	B	CWN(1)	CWX(2)	OAL	LH	HBL	HBH	CNT	CNT_2	MIID(3)
METRIC												
TGVR/L 1010-JHP	10.0	10.0	10.0	0.33	2.00	125.00	16.0	16.5	2.0	UNF 5/16-24	M4	TGV N/R/L 0.33-3.0
TGVR/L 1212-JHP	12.0	12.0	12.0	0.33	2.00	125.00	16.0	-	-	UNF 5/16-24	M4	TGV N/R/L 0.33-3.0
TGVR/L 1616-JHP	16.0	16.0	16.0	0.33	2.00	125.00	16.0	-	-	UNF 5/16-24	M4	TGV N/R/L 0.33-3.0

- For user guide and accessories see pages 597-608, 69-74

(1) Minimum cutting width

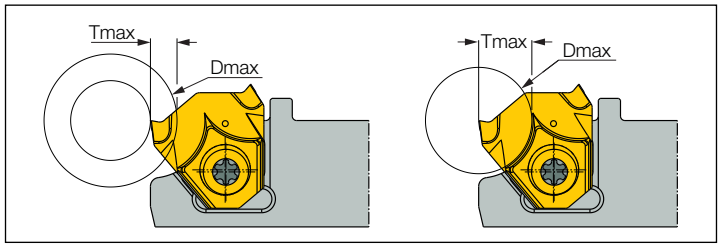
(2) Maximum cutting width

(3) Master insert identification

For inserts, see pages: TGV N (494) • TGV R/L (495)

Depth Capacity

Determining depth of cut (Tmax) as function of workpiece diameter (Dmax.)



W (insert)	Tmax	Dmax	T≤0.5	T≤1.0	T≤1.5	T≤2.0	T≤2.5	T≤3.0	T≤3.5	T≤4.0	T≤4.5	T≤5.0	T≤5.5	T≤6.0
0.33	2.0	24.0	72	45	31	24	-	-	-	-	-	-	-	-
0.50	2.5	20.0					-	-	-	-	-	-	-	-
0.75	3.0	18.0					20	-	-	-	-	-	-	-
1.00	4.0	15.0						18	16	15	-	-	-	-
2.00	6.0	12.0									14	13	13	12

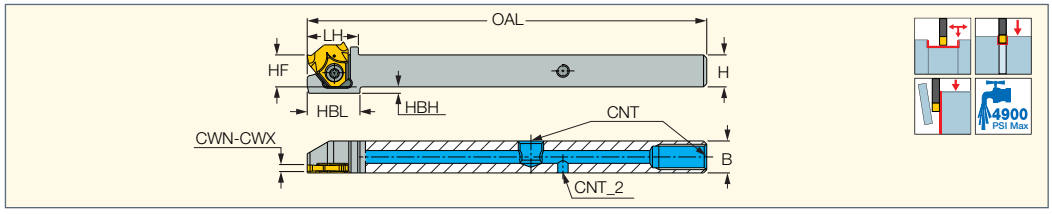
Spare Parts

Designation					
TGVR/L-JHP	SR M3.5X0.6-L8.5 IP10	IP-10/5	SR 5/16UNF TL360	SR M4X4 DIN913 TL360	HW 5/32"

QUICK2CUT MINI

TGVR/L-JHP

Grooving, Parting and Recessing Tools Carrying TGV Inserts with Channels for High-Pressure Coolant



	INCH											
Designation	**H**	**HF**	**B**	**CWN(1)**	**CWX(2)**	**OAL**	**LH**	**HBL**	**HBH**	**CNT**	**CNT_2**	**MIID(3)**
TGVR/L 9.5-JHP	.374	.374	.374	.013	.079	4.921	.630	.650	.098	UNF 5/16-24	M4	TGV N2.00P-0.1
TGVR/L 12.7-JHP	.500	.500	.500	.013	.079	4.921	.630	-	-	UNF 5/16-24	M4	TGV N2.00P-0.1
TGVR/L 1616-JHP	.630	.630	.630	.013	.079	4.921	.630	-	-	UNF 5/16-24	M4	TGV N2.00P-0.1

• For user guide and accessories see pages 597-608, 69-74

(1) Minimum cutting width

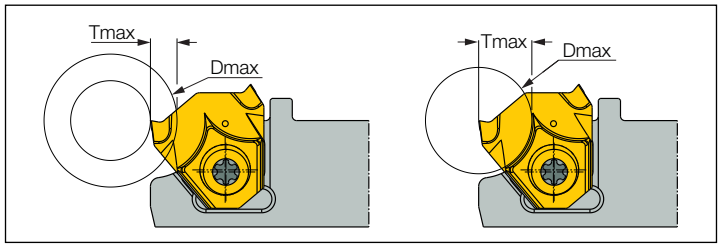
(2) Maximum cutting width

(3) Master insert identification

For inserts, see pages: TGV N (494) • TGV R/L (495)

Depth Capacity

Determining depth of cut (Tmax) as a function of workpiece diameter (Dmax.)



W (insert)	Tmax	Dmax	T≤.020	T≤.039	T≤.059	T≤.079	T≤.098	T≤.118	T≤.138	T≤.157	T≤.177	T≤.197	T≤.217	T≤.236
.013	.079	.945	2.835	1.772	1.220	.945	-	-	-	-	-	-	-	-
.020	.098	.787					.787	-	-	-	-	-	-	-
.030	.118	.709						.709	-	-	-	-	-	-
.039	.157	.591							.630	.591	-	-	-	-
.079	.236	.472									.551	.512	.512	.472

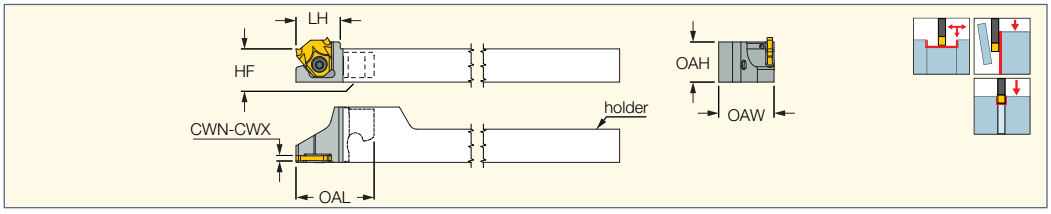
Spare Parts

Designation					
TGVR/L-JHP	SR M3.5X0.6-L8.5 IP10	IP-10/5	SR 5/16UNF TL360	SR M4X4 DIN913 TL360	HW 5/32"

NEOSWISS

NQCH-TGVR/L-JHP

Screw Lock JET-CUT Modular Heads Carrying Grooving, Parting and Recessing TGV Inserts for Swiss-Type Machines



M E T R I C

Designation	CWN(1)	CWX(2)	OAL	HF	LH	OAW	OAH	MIID(3)
NQCH12-TGVR/L-JHP	0.33	2.00	25.80	12.0	16.0	20.00	14.50	TGV..
NQCH12R-TGVL-JHP	0.33	2.00	25.80	12.0	16.0	20.00	14.50	TGV..
NQCH16-TGVR/L-JHP	0.33	2.00	25.80	16.0	16.0	20.00	16.50	TGV..
NQCH16R-TGVL-JHP	0.33	2.00	25.80	16.0	16.0	20.00	16.50	TGV..

- Use only RH Shank with RH Head and LH Shank with LH Head

(1) Minimum cutting width
(2) Maximum cutting width
(3) Master insert identification

For inserts, see pages: TGV N (494) • TGV R/L (495)
For holders, see pages: C#-NQCH-JHP (65) • NQCH-JHP (63)

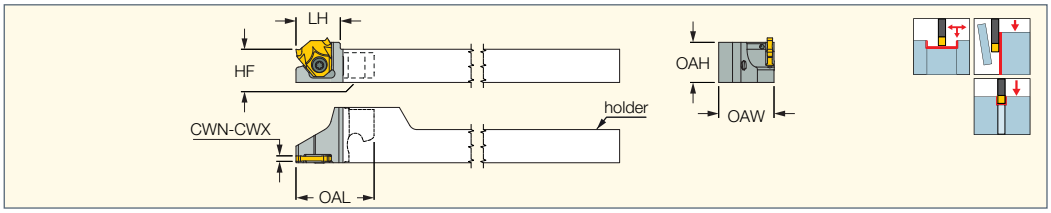
Spare Parts

Designation		
NQCH12-TGVR/L-JHP	SR M3.5X0.6-L8.5 IP10	IP-10/5
NQCH12R-TGVL-JHP	SR M3.5X0.6-L8.5 IP10	IP-10/5
NQCH16-TGVR/L-JHP	SR M3.5X0.6-L8.5 IP10	IP-10/5
NQCH16R-TGVL-JHP	SR M3.5X0.6-L8.5 IP10	IP-10/5

NEOSWISS

NQCH-TGVR/L-JHP

Screw Lock JET-CUT Modular Heads Carrying Grooving, Parting and Recessing TGV Inserts for Swiss-Type Machines



I N C H

Designation	CWN(1)	CWX(2)	OAL	HF	LH	OAW	OAH	MIID(3)
NQCH12-TGVR/L-JHP	.013	.079	1.016	.472	.630	.787	.571	TGV..
NQCH12R-TGVL-JHP	.013	.079	1.016	.472	.630	.787	.571	TGV..
NQCH16-TGVR/L-JHP	.013	.079	1.016	.630	.630	.787	.650	TGV..
NQCH16R-TGVL-JHP	.013	.079	1.016	.630	.630	.787	.650	TGV..

- Use only RH Shank with RH Head and LH Shank with LH Head

(1) Minimum cutting width
(2) Maximum cutting width
(3) Master insert identification

For inserts, see pages: TGV N (494) • TGV R/L (495)
For holders, see pages: C#-NQCH-JHP (65) • NQCH-JHP (63)

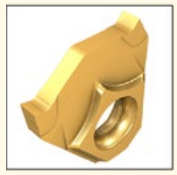
Spare Parts

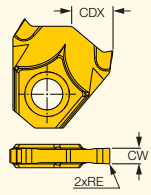
Designation		
NQCH12-TGVR/L-JHP	SR M3.5X0.6-L8.5 IP10	IP-10/5
NQCH12R-TGVL-JHP	SR M3.5X0.6-L8.5 IP10	IP-10/5
NQCH16-TGVR/L-JHP	SR M3.5X0.6-L8.5 IP10	IP-10/5
NQCH16R-TGVL-JHP	SR M3.5X0.6-L8.5 IP10	IP-10/5

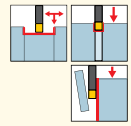
QUICK2CUT MINI

TGV N

Double Sided Tangential Insert for SWISS Type Machines, Intended for Grooving, Parting and Recessing Small Parts







M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX	IC1010	Recommended Machining Data f groove (mm/rev)
TGV N033P-000	0.33	0.00	0.020	0.030	2.00	●	0.02-0.04
TGV N050P-000	0.50	0.00	0.020	0.030	2.50	●	0.03-0.05
TGV N075P-005	0.75	0.05	0.020	0.030	3.00	●	0.03-0.06
TGV N1.00P-005	1.00	0.05	0.020	0.030	4.00	●	0.03-0.08
TGV N2.00P-0.1	2.00	0.10	0.020	0.030	6.00	●	0.03-0.10

• Cutting edge with high positive rake, suitable for parting small and miniature parts • For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

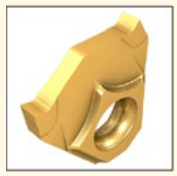
(2) Corner radius tolerance (+/-)

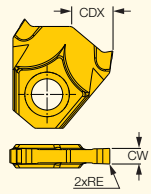
For tools, see pages: NQCH-TGVR/L-JHP (493) • TGVR/L-JHP (491)

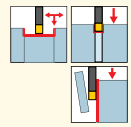
QUICK2CUT MINI

TGV N

Double Sided Tangential Insert for SWISS Type Machines, Intended for Grooving, Parting and Recessing Small Parts







I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX	IC1010	Recommended Machining Data f groove (IPR)
TGV N033P-000	.013	.0000	.00078	.0012	.079	●	.0008-.0016
TGV N050P-000	.020	.0000	.00078	.0012	.098	●	.0012-.0020
TGV N075P-005	.030	.0020	.00078	.0012	.118	●	.0012-.0024
TGV N1.00P-005	.039	.0020	.00078	.0012	.157	●	.0012-.0032
TGV N2.00P-0.1	.079	.0039	.00078	.0012	.236	●	.0012-.0039

• Cutting edge with high positive rake, suitable for parting small and miniature parts • For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

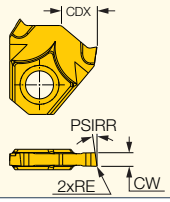
For tools, see pages: NQCH-TGVR/L-JHP (493) • TGVR/L-JHP (491)

QUICK2CUT MINI

TGV R/L

Double Sided Tangential Insert with Lead Angle Cutting Edge to Minimize Burr Size, Intended for Parting Small Parts





M E T R I C

Designation	Dimensions CW	PSIRL(1)	PSIRR(2)	RE	CDX	IC1010	Recommended Machining Data f groove (mm/rev)
TGV L1.00P-0.05-8D	1.00	8.0	-	0.05	4.00	●	0.03-0.06
TGV R1.00P-0.05-8D	1.00	-	8.0	0.05	4.00	●	0.03-0.06
TGV L2.00P-0.05-8D	2.00	8.0	-	0.05	6.00	●	0.03-0.08
TGV R2.00P-0.05-8D	2.00	-	8.0	0.05	6.00	●	0.03-0.08

• Cutting edge with high positive rake, suitable for parting small and miniature parts • For cutting speed recommendations and user guide, see pages 597-608

(1) Lead angle type for minimal burr size (left)

(2) Lead angle type for minimal burr size (right)

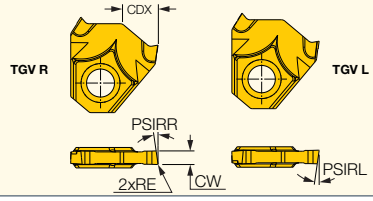
For tools, see pages: NQCH-TGVR/L-JHP (493) • TGVR/L-JHP (491)

QUICK2CUT MINI

TGV R/L

Double Sided Tangential Insert with Lead Angle Cutting Edge to Minimize Burr Size, Intended for Parting Small Parts





I N C H

Designation	Dimensions CW	PSIRL(1)	PSIRR(2)	RE	CDX	IC1010	Recommended Machining Data f groove (IPR)
TGV L1.00P-0.05-8D	.039	8.0	-	.0020	.157	●	.0012-.0024
TGV R1.00P-0.05-8D	.039	-	8.0	.0020	.157	●	.0012-.0024
TGV L2.00P-0.05-8D	.079	8.0	-	.0020	.236	●	.0012-.0032
TGV R2.00P-0.05-8D	.079	-	8.0	.0020	.236	●	.0012-.0032

• Cutting edge with high positive rake, suitable for parting small and miniature parts • For cutting speed recommendations and user guide, see pages 597-608

(1) Lead angle type for minimal burr size (left)

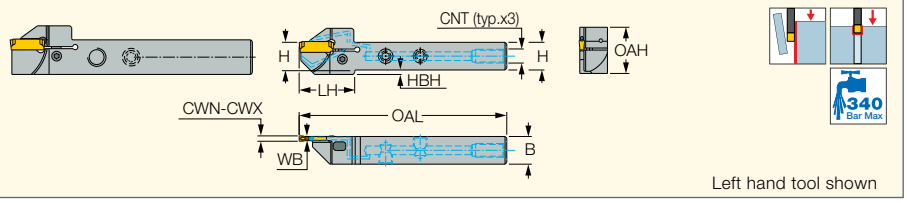
(2) Lead angle type for minimal burr size (right)

For tools, see pages: NQCH-TGVR/L-JHP (493) • TGVR/L-JHP (491)

DO-GRIP

DGTR/L-B-D-JHP-SL

Parting and Grooving Side Lock Type Tools with High-Pressure Coolant for CNC and Swiss Automatics



Designation	CWN(1)	CWX(2)	H	B	WB	LH	CUTDIA(3)	OAH	HBH	OAL	Insert	CNT
						M E T R I C						
DGTR/L 12B-2D24-JHP-SL	1.90	2.50	12.0	12.0	1.70	29.4	24.0	25.7	6.5	100.00	DG. 2...	5/16"-24 UNF
DGTR/L 16B-2D35-JHP-SL	1.90	2.50	16.0	16.0	1.70	32.0	35.0	26.7	2.6	120.00	DG. 2...	5/16"-24 UNF
DGTL 20B-2D35-JHP-SL	1.90	2.50	20.0	20.0	1.70	32.0	35.0	28.1	-	140.00	DG. 2...	1/8"-28 BSPP
DGTR 20B-2D35-JHP-SL	1.90	2.50	20.0	20.0	1.70	32.0	35.0	28.1	-	140.00	DG. 2..	1/8"-28 BSPP
DGTR/L 12B-3D24-JHP-SL	3.00	3.18	12.0	12.0	2.40	29.4	24.0	25.7	6.5	100.00	DG. 3..	5/16"-24 UNF
DGTR/L 16B-3D35-JHP-SL	3.00	3.18	16.0	16.0	2.40	32.0	35.0	26.7	2.6	120.00	DG. 3..	5/16"-24 UNF
DGTR/L 20B-3D40-JHP-SL	3.00	3.18	20.0	20.0	2.40	35.6	40.0	28.1	-	140.00	DG. 3..	1/8"-28 BSPP

• For user guide, see pages 597-608

(1) Minimum cutting width

(2) Maximum cutting width

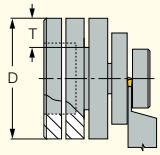
(3) Maximum cutting diameter

For inserts, see pages: DGN-LF/LFT (512) • DGN-MF (507) • DGN-P (516) • DGN-UT/UA (515) • DGN-WP (518) • DGN-Z (513) • DGN/DGNC/DGNM-C (505) • DGN/DGNM-J/JS/JT (508) • DGR-P (517) • DGR-WP (519) • DGR-Z/ZS (514) • DGR/L-C DGRC/LC-C (506) • DGR/L-J/JS (510)

For holders, see pages: SBTH-JHP (833)

Depth Capacity
DGTR/L-B-D-JHP-SL

Depth of Cut as Function of Workpiece Diameter (DGN/R/L-100... excluded)



Designation	øDmax																
DGTR/L 12B-2D24-JHP-SL	—	—	—	—	—	—	—	—	24	26	27	28	30	32	36	42	52
DGTR/L 16B-2D35-JHP-SL	—	—	—	—	—	—	—	—	24	26	27	28	30	32	36	42	52
DGTR/L 20B-2D35-JHP-SL	—	—	—	35	39	42	46	51	59	71	91	130	230	1200	NL	NL	NL
DGTR/L 25B-2D35-JHP-SL	—	—	—	65	70	75	80	90	100	120	140	180	250	410	1200	NL	NL
DGTR/L 12B-3D24-JHP-SL	—	—	—	35	39	42	46	51	59	71	91	130	230	1200	NL	NL	NL
DGTR/L 16B-3D35-JHP-SL	—	—	—	75	90	113	155	250	650	NL	NL	NL	NL	NL	NL	NL	NL
DGTR/L 20B-3D40-JHP-SL	56	62	71	83	102	134	200	400	NL	NL	NL	NL	NL	NL	NL	NL	NL
DGTR/L 25B-3D40-JHP-SL	50	55	60	67	75	85	100	115	140	200	350	NL	NL	NL	NL	NL	NL
Depth T →	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4

NL - No Limit

Example:

For a 9 mm depth of groove on a 75 mm workpiece diameter, six tools may be used.

Flow Rate vs. Pressure

Designation	70 Bar Flow Rate (liters/min)	100 Bar Flow Rate (liters/min)	140 Bar Flow Rate (liters/min)
DGTR/L ...2-JHP-SL	3-4	4-5	5-6
DGTR/L ...3-JHP-SL	5-6	6-7	7-8

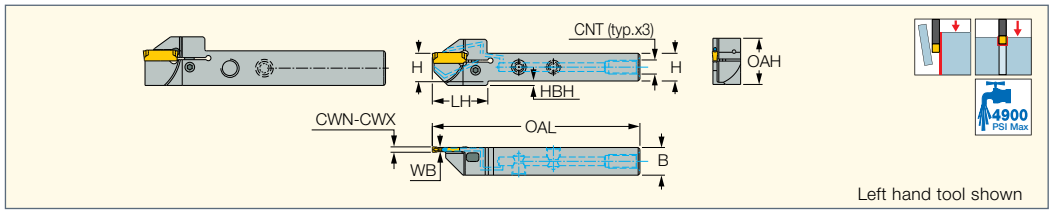
Spare Parts

Designation						
DGTR/L 12B-2D24-JHP-SL	PIN-32121	SR M5-24145-RL	SR 5/16UNF TL360	BLD HW2.5	HW 5/32"	SW6-SD
DGTR/L 16B-2D35-JHP-SL	PIN-32121	SR M5-24145-RL	SR 5/16UNF TL360	BLD HW2.5	HW 5/32"	SW6-SD
DGTR/L 20B-2D35-JHP-SL	PIN-32121	SR M5-24145-RL	PLG G1/8 TL360	BLD HW2.5	HW 5.0	SW6-SD
DGTR/L 12B-3D24-JHP-SL	PIN-32121	SR M5-24145-RL	SR 5/16UNF TL360	BLD HW2.5	HW 5/32"	SW6-SD
DGTR/L 16B-3D35-JHP-SL	PIN-32121	SR M5-24145-RL	SR 5/16UNF TL360	BLD HW2.5	HW 5/32"	SW6-SD
DGTR/L 20B-3D40-JHP-SL	PIN-32121	SR M5-24145-RL	PLG G1/8 TL360	BLD HW2.5	HW 5.0	SW6-SD

DO-GRIP

DGTR/L-B-D-JHP-SL

Parting and Grooving Side Lock Type Tools with High-Pressure Coolant for CNC and Swiss Automatics



	INCH											
Designation	**CWN(1)**	**CWX(2)**	**H**	**B**	**WB**	**LH**	**CUTDIA(3)**	**OAH**	**HBH**	**OAL**	**Insert**	**CNT**
DGTR/L 12.7B-2D24-JHP-SL	.075	.100	.500	.500	.067	1.100	.940	1.00	.23	3.940	DG. 2...	5/16 UNF
DGTR/L 16B-2D35-JHP-SL	.075	.098	.630	.630	.067	1.260	1.378	1.05	.10	4.724	DG. 2...	5/16"-24 UNF
DGTR/L 19B-2D35-JHP-SL	.075	.100	.750	.750	.067	1.300	1.400	1.10	-	5.510	DG. 2...	1/8"-28 BSPP
DGTR/L 12.7B-3D24-JHP-SL	.118	.125	.500	.500	.094	1.100	.940	1.00	.23	3.940	DG. 3...	5/16 UNF
DGTR/L 16B-3D35-JHP-SL	.118	.125	.630	.630	.094	1.260	1.378	1.05	.10	4.724	DG. 3..	5/16"-24 UNF
DGTR/L 19B-3D40-JHP-SL	.118	.125	.750	.750	.094	1.400	1.600	1.10	-	5.510	DG. 3...	1/8"-28 BSPP

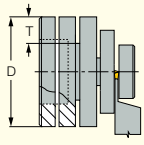
- DGN/R/L 1 mm inserts can also be mounted into pocket sizes 2 and 3.
- For user guide, see pages 597-608

(1) Minimum cutting width
(2) Maximum cutting width
(3) Maximum cutting diameter

For inserts, see pages: DGN-LF/LFT (512) • DGN-MF (507) • DGN-P (516) • DGN-UT/UA (515) • DGN-WP (518) • DGN-Z (513) • DGN/DGNC/DGNM-C (505) • DGN/DGNM-J/JS/JT (508) • DGR-P (517) • DGR-WP (519) • DGR-Z/ZS (514) • DGR/L-C DGRC/LC-C (506) • DGR/L-J/JS (510)
For holders, see pages: SBTH-JHP (833)

Depth Capacity
DGTR/L-B-D-JHP-SL

Depth of Cut as Function of Workpiece Diameter (DGN/R/L-100... excluded)



	øDmax															
Designation																
DGTR/L 12.7B-2D24-JHP-SL	—	—	—	—	—	—	—	—	.94	1.02	1.06	1.1	1.18	1.26	1.42	1.65	2.04
DGTR/L 16B-2D35-JHP-SL	—	—	—	—	—	—	—	—	.94	1.02	1.06	1.1	1.18	1.26	1.42	1.65	2.04
DGTR/L 19B-2D35-JHP-SL	—	—	—	1.38	1.53	1.65	1.81	2.01	2.33	2.79	3.58	5.12	9.06	47.2	NL	NL	NL
DGTR/L 12.7B-3D24-JHP-SL	—	—	—	1.38	1.53	1.65	1.81	2.01	2.33	2.79	3.58	5.12	9.06	47.2	NL	NL	NL
DGTR/L 16B-3D35-JHP-SL	—	—	—	2.95	3.54	4.45	6.1	9.84	25.6	NL	NL	NL	NL	NL	NL	NL	NL
DGTR/L 19B-3D40-JHP-SL	2.20	2.44	2.79	3.27	4.01	5.27	7.87	15.7	NL	NL	NL	NL	NL	NL	NL	NL	NL

NL- No Limit

Flow Rate vs. Pressure

Designation	1000 PSI Flow Rate (GPM)	1450 PSI Flow Rate (GPM)	2000 PSI Flow Rate (GPM)
DGTR/L ...2-JHP-SL	.5-1.1	1.1-1.6	1.6-2.1
DGTR/L ...3-JHP-SL	1.8-2.4	2.4-2.9	2.9-3.4

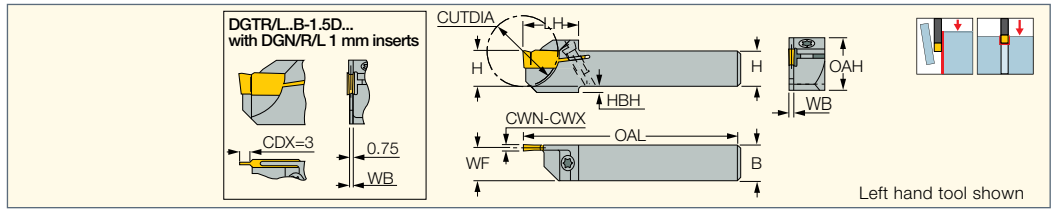
Spare Parts

Designation						
DGTR/L 12.7B-2D24-JHP-SL	PIN-32121	SR M5-24145-RL	SR 5/16UNF TL360	BLD HW2.5	HW 5/32"	SW6-SD
DGTR/L 16B-2D35-JHP-SL	PIN-32121	SR M5-24145-RL	SR 5/16UNF TL360	BLD HW2.5	HW 5/32"	SW6-SD
DGTR/L 19B-2D35-JHP-SL	PIN-32121	SR M5-24145-RL	PLG G1/8 TL360	BLD HW2.5	HW 5.0	SW6-SD
DGTR/L 12.7B-3D24-JHP-SL	PIN-32121	SR M5-24145-RL	SR 5/16UNF TL360	BLD HW2.5	HW 5/32"	SW6-SD
DGTR/L 16B-3D35-JHP-SL	PIN-32121	SR M5-24145-RL	SR 5/16UNF TL360	BLD HW2.5	HW 5/32"	SW6-SD
DGTR/L 19B-3D40-JHP-SL	PIN-32121	SR M5-24145-RL	PLG G1/8 TL360	BLD HW2.5	HW 5.0	SW6-SD

DO-GRIP

DGTR/L-B-D-SH

Parting and Grooving
Short Head Tools for CNC
and Swiss Automatics



M E T R I C

Designation	CWN(2)	CWX(3)	H	B	WB	WF	LH	CUTDIA	OAH	HBH	OAL	Insert		
DGTR/L 8B-1.4SH	1.40	1.40	8.0	8.0	1.00	7.50	18.0	10.0	15.4	2.0	125.00	DG. 14..	SR 16-236 P	T-15/5
DGTR/L 10B-1.4D20SH	1.40	1.40	10.0	10.0	1.00	9.50	18.0	20.0	13.7	2.0	120.00	DG. 14..	SR 16-236 P	T-15/5
DGTR/L 10B-1.5D20SH (1)	1.00	1.50	10.0	10.0	1.00	9.50	19.0	20.0	15.7	2.0	120.00	DG. 1.../DG. 15..	SR 16-236 P	T-15/5
DGTR/L 10B-2D20SH	1.90	2.50	10.0	10.0	1.60	9.20	19.0	20.0	15.7	2.0	120.00	DG. 1.../DG. 2..	SR 16-236 P	T-15/5
DGTR/L 12B-1.4D24SH	1.40	1.40	12.0	12.0	1.00	11.50	19.0	24.0	15.7	-	120.00	DG. 14..	SR 16-236 P	T-15/5
DGTR/L 12B-1.5D24SH (1)	1.00	1.50	12.0	12.0	1.00	11.40	19.0	24.0	15.7	-	120.00	DG. 1.../DG. 15..	SR 16-236 P	T-15/5
DGTR/L 12B-2D24SH	1.90	2.50	12.0	12.0	1.60	11.20	19.0	24.0	15.7	-	120.00	DG. 1.../DG. 2..	SR 16-236 P	T-15/5
DGTR 12B-2D24SH-L85	1.90	2.50	12.0	12.0	1.60	11.20	19.0	24.0	15.7	-	85.00	DG. 1.../DG. 2..	SR 16-236 P	T-15/5
DGTR/L 12B-3D24SH	3.00	3.18	12.0	12.0	2.40	10.80	19.0	24.0	15.7	-	120.00	DG. 3.../DG. 10..	SR 16-236 P	T-15/5
DGTR/L 16B-1.5D25SH (1)	1.00	1.50	16.0	16.0	1.20	15.40	19.5	25.4	19.7	-	120.00	DG. 1.../DG. 15..	SR 16-236 P	T-15/5
DGTR/L 16B-2D25SH	1.90	2.50	16.0	16.0	1.60	15.20	19.5	25.4	19.7	-	120.00	DG. 1.../DG. 2..	SR 16-236 P	T-15/5
DGTR/L 16B-3D25SH	3.00	3.18	16.0	16.0	2.40	14.80	19.5	25.4	19.7	-	120.00	DG. 1.../DG. 3..	SR 16-236 P	T-15/5
DGTR/L 20B-1.5D25SH (1)	1.00	1.50	20.0	20.0	1.20	19.40	19.5	25.4	23.7	-	120.00	DG. 1.../DG. 15..	SR 16-236 P	T-15/5
DGTR/L 20B-3D25SH	3.00	3.18	20.0	20.0	2.40	18.80	19.5	25.4	23.7	-	120.00	DG. 1.../DG. 3..	SR 16-236 P	T-15/5

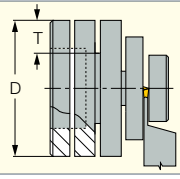
- DGN/R/L 1 mm inserts can also be mounted into pocket sizes 2 and 3.
- For user guide, see pages 597-608

(1) Do not use DG.. 1.4 on this tool!
(2) Minimum cutting width
(3) Maximum cutting width

For inserts, see pages: DGN-LF/LFT (512) • DGN-P (516) • DGN-UT/UA (515) • DGN-WP (518) • DGN-Z (513) • DGN/DGNC/DGNM-C (505) • DGN/DGNM-J/JS/JT (508) • DGR-P (517) • DGR-WP (519) • DGR-Z/ZS (514) • DGR/L-C DGRC/LC-C (506) • DGR/L-J/JS (510)

Depth Capacity DGTR/L-B-D

Depth of Cut as Function
of Workpiece Diameter
(DGN/R/L-100... excluded)



Designation	øDmax																
DGTR/L 10B-1.4D20	—	—	—	—	—	—	—	—	—	—	20	23	26	32	45	76	NL
DGTR/L 12B-1.4D30	—	—	—	—	—	30	32	35	38	43	50	62	83	125	300	NL	NL
DGTR/L 16B-1.4D30	—	—	—	—	—	30	32	35	38	43	50	62	83	125	300	NL	NL
DGTR/L 20B-1.4D30	—	—	—	—	—	30	32	35	38	43	50	62	83	125	300	NL	NL
DGTR/L 10B-2D30	—	—	—	—	—	30	32	35	38	43	50	62	83	125	300	NL	NL
DGTR/L 12B-2D30	—	—	—	—	—	30	32	35	38	43	50	62	83	125	300	NL	NL
DGTR/L 16B-2D32	—	—	—	—	32	35	37	41	47	55	69	93	150	400	NL	NL	NL
DGTR/L 20B-2D35	—	—	—	75	90	113	155	250	650	NL	NL	NL	NL	NL	NL	NL	NL
DGTR/L 25B-2D35	—	—	—	75	90	113	155	250	650	NL	NL	NL	NL	NL	NL	NL	NL
DGTR/L 12B-3D30	—	—	—	—	—	30	32	35	38	43	50	62	83	125	300	NL	NL
DGTR/L 16B-3D35	—	—	—	35	39	42	46	51	59	71	91	130	230	1200	NL	NL	NL
DGTR/L 20B-3D40	56	62	71	83	102	134	200	400	NL	NL	NL	NL	NL	NL	NL	NL	NL
DGTR/L 25B-3D40	56	62	71	83	102	134	200	400	NL	NL	NL	NL	NL	NL	NL	NL	NL
Depth T →	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4

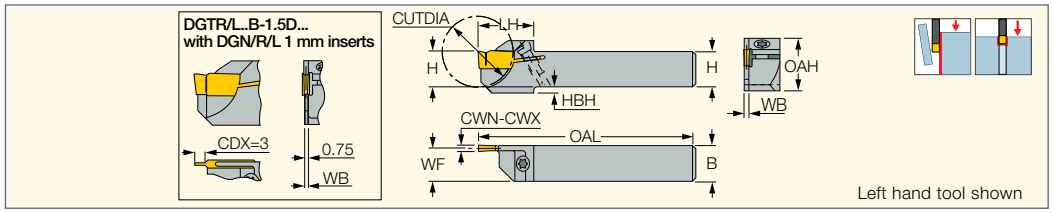
NL- No Limit

Example:
For 9 mm depth of groove on a 75 mm workpiece diameter, six tools may be used.

DO-GRIP

DGTR/L-B-D-SH

Parting and Grooving
Short Head Tools for CNC
and Swiss Automatics



Designation	CWN[2]	CWX[3]	H	B	WB	WF	LH	CUTDIA	OAH	HBH	OAL	Insert		
	I N C H													
DGTR/L 9.5B-1.4D20SH	.055	.055	.375	.375	.039	.350	.710	.790	.52	-	4.700	DG. 14..	SR 16-236 P	T-15/5
DGTR/L 9.5B-2D20SH	.075	.100	.375	.375	.063	.340	.750	.790	.62	.10	4.700	DG. 1.../DG. 2..	SR 16-236 P	T-15/5
DGTR/L 12.7B-1.4D24SH	.055	.055	.500	.500	.039	.480	.750	1.000	.65	-	4.700	DG. 14..	SR 16-236 P	T-15/5
DGTR/L 12.7B-2D24SH	.075	.100	.500	.500	.063	.470	.750	1.000	.65	-	4.700	DG. 1.../DG. 2..	SR 16-236 P	T-15/5
DGTR/L 12.7B-3D24SH	.118	.125	.500	.500	.094	.450	.750	1.000	.70	.05	4.700	DG. 1.../DG. 3..	SR 16-236 P	T-15/5
DGTR/L 16B-1.5D25SH [1]	.039	.059	.630	.630	.047	.606	.768	1.000	.78	-	4.724	DG. 1.../DG. 15..	SR 16-236 P	T-15/5
DGTR/L 16B-2D25SH	.075	.098	.630	.630	.063	.598	.768	1.000	.78	-	4.724	DG. 1.../DG. 2..	SR 16-236 P	T-15/5
DGTR/L 16B-3D25SH	.118	.125	.630	.630	.094	.583	.768	1.000	.78	-	4.724	DG. 1.../DG. 3..	SR 16-236 P	T-15/5

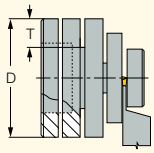
- DGN/R/L 1 mm inserts can also be mounted into pocket sizes 2 and 3.
- For user guide, see pages 597-608

[1] Do not use DG.. 1.4 on this tool!
[2] Minimum cutting width
[3] Maximum cutting width

For inserts, see pages: DGN-LF/LFT (512) • DGN-P (516) • DGN-UT/UA (515) • DGN-WP (518) • DGN-Z (513) • DGN/DGNC/DGNM-C (505) • DGN/DGNM-J/JS/JT (508) • DGR-P (517) • DGR-WP (519) • DGR-Z/ZS (514) • DGR/L-C DGRC/LC-C (506) • DGR/L-J/JS (510)

Depth Capacity DGTR/L-B-D

Depth of Cut as Function
of Workpiece Diameter
(DGN/R/L-100... excluded)



Designation	øDmax																
DGTR/L 9.5B-1.4D20	—	—	—	—	—	—	—	—	—	—	.80	.90	1.0	1.3	1.8	3.0	NL
DGTR/L 12.7B-1.4D30	—	—	—	—	—	1.2	1.3	1.4	1.5	1.7	2.0	2.4	3.3	4.9	11.8	NL	NL
DGTR/L 16B-1.4D30	—	—	—	—	—	1.2	1.3	1.4	1.5	1.7	2.0	2.4	3.3	4.9	11.8	NL	NL
DGTR/L 19B-1.4D30	—	—	—	—	—	1.2	1.3	1.4	1.5	1.7	2.0	2.4	3.3	4.9	11.8	NL	NL
DGTR/L 9.5B-2D30	—	—	—	—	—	1.2	1.3	1.4	1.5	1.7	2.0	2.4	3.3	4.9	11.8	NL	NL
DGTR/L 12.7B-2D30	—	—	—	—	—	1.2	1.3	1.4	1.5	1.7	2.0	2.4	3.3	4.9	11.8	NL	NL
DGTR/L 16B-2D32	—	—	—	—	1.3	1.4	1.5	1.6	1.9	2.2	2.7	3.7	5.9	15.7	NL	NL	NL
DGTR/L 19B-2D35	—	—	—	3.0	3.5	4.4	6.1	9.8	25.6	NL	NL	NL	NL	NL	NL	NL	NL
DGTR/L 25.4B-2D35	—	—	—	3.0	3.5	4.4	6.1	9.8	25.6	NL	NL	NL	NL	NL	NL	NL	NL
DGTR/L 12.7B-3D30	—	—	—	—	—	1.2	1.3	1.4	1.5	1.7	2.0	2.4	3.3	4.9	11.8	NL	NL
DGTR/L 16B-2D35	—	—	—	1.4	1.5	1.7	1.8	2.0	2.3	2.8	3.6	5.1	9.0	47.0	NL	NL	NL
DGTR/L 19B-3D40	2.2	2.4	2.8	3.3	4.0	5.3	7.9	15.8	NL	NL	NL	NL	NL	NL	NL	NL	NL
DGTR/L 25.4B-3D40	2.2	2.4	2.8	3.3	4.0	5.3	7.9	15.8	NL	NL	NL	NL	NL	NL	NL	NL	NL
Depth T →	.787	.748	.709	.669	.630	.591	.551	.512	.472	.433	.394	.354	.315	.276	.236	.197	.157

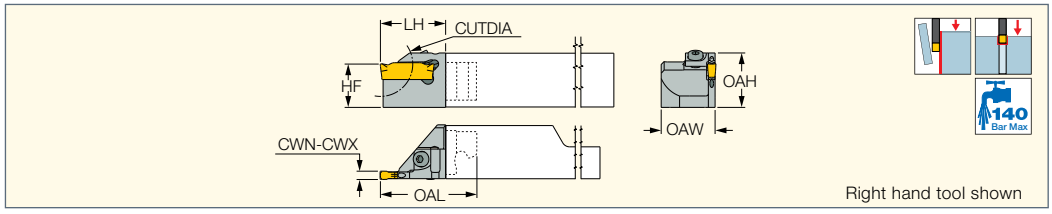
NL- No Limit

Example:
For .35" depth of groove on a 2.95" workpiece diameter, six tools may be used.

NEOSWISS

NQCH-DGTR/L-D22-SH-JHP

Screw Lock JET-CUT Modular Heads Carrying DO-GRIP Double-Edged Parting Inserts for Swiss-Type Machines



M E T R I C									
Designation	**CWN(2)**	**CWX(3)**	**HF**	**OAW**	**OAH**	**LH**	**OAL**	**CUTDIA**	**Insert**
NQCH12-DGTR/L-1D22SH-JHP	1.00	1.00	12.1	20.00	16.20	20.0	28.80	22.0	DGN 1
NQCH12R-DGTL-1D22SH-JHP (1)	1.00	1.00	12.1	20.00	16.20	20.0	28.80	22.0	DGN 1
NQCH16-DGTR/L-1D22SH-JHP	1.00	1.00	16.1	20.00	20.20	20.0	28.80	22.0	DGN 1
NQCH16R-DGTL-1D22SH-JHP (1)	1.00	1.00	16.1	20.00	20.20	20.0	28.80	22.0	DGN 1
NQCH16-DGTR/L-1.2D22SH-JHP	1.20	1.20	16.1	20.00	20.20	20.0	28.80	22.0	DGN 1.2
NQCH16R-DGTL-1.2D22SH-JHP (1)	1.20	1.20	16.1	20.00	20.20	20.0	28.80	22.0	DGN 1.2

- Use only RH Shank with RH Head and LH Shank with LH Head exept NQCH12R/16R... heads

(1) The head is dedicated for the right hand machines and to be mounted on the right hand holder only

(2) Minimum cutting width

(3) Maximum cutting width

For holders, see pages: C#-NQCH-JHP (65) • NQCH-JHP (63)

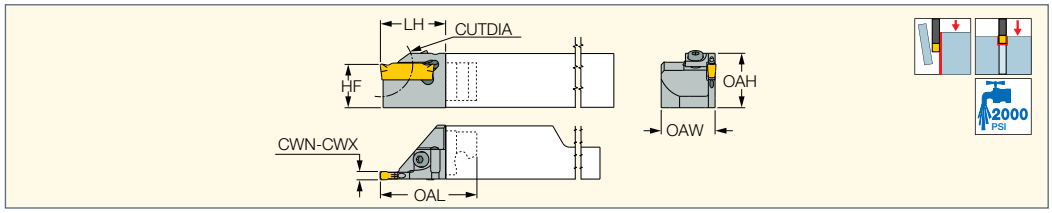
Spare Parts

Designation		
NQCH-DGTR/L-D22-SH-JHP	SR M3X8 DIN912	HW 2.5

NEOSWISS

NQCH-DGTR/L-D22-SH-JHP

Screw Lock JET-CUT Modular Heads Carrying DO-GRIP Double-Edged Parting Inserts for Swiss-Type Machines



I N C H									
Designation	**CWN(2)**	**CWX(3)**	**HF**	**OAW**	**OAH**	**LH**	**OAL**	**CUTDIA**	**Insert**
NQCH12-DGTR/L-1D22SH-JHP	.039	.039	.476	.787	.638	.787	1.134	.866	DGN 1
NQCH12R-DGTL-1D22SH-JHP (1)	.039	.039	.476	.787	.638	.787	1.134	.866	DGN 1
NQCH16-DGTR/L-1D22SH-JHP	.039	.039	.634	.787	.795	.787	1.134	.866	DGN 1
NQCH16R-DGTL-1D22SH-JHP (1)	.039	.039	.634	.787	.795	.787	1.134	.866	DGN 1
NQCH16-DGTR/L-1.2D22SH-JHP	.047	.047	.634	.787	.795	.787	1.134	.866	DGN 1.2
NQCH16R-DGTL-1.2D22SH-JHP (1)	.047	.047	.634	.787	.795	.787	1.134	.866	DGN 1.2

- Use only RH Shank with RH Head and LH Shank with LH Head exept NQCH12R/16R... heads

(1) The head is dedicated for the right hand machines and to be mounted on the right hand holder only

(2) Minimum cutting width

(3) Maximum cutting width

For holders, see pages: C#-NQCH-JHP (65) • NQCH-JHP (63)

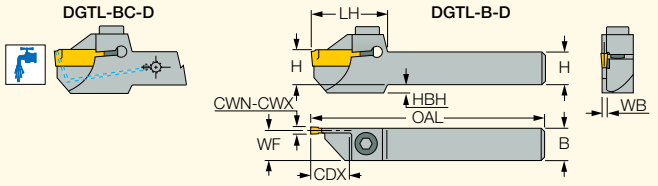
Spare Parts

Designation		
NQCH-DGTR/L-D22-SH-JHP	SR M3X8 DIN912	HW 2.5

DO-GRIP

DGTR/L-B/BC-D

Integral Shank Reinforced Parting and Grooving Tools Especially for DGNC Type of Inserts



METRIC												
Designation	**CWN(3)**	**CWX(4)**	**H**	**B**	**WB**	**OAL**	**LH**	**CDX(5)**	**WF**	**HBH**	**CSP(6)**	**Insert**
DGTR/L 10B-1.4D20	1.40	1.40	10.0	10.0	1.00	140.00	23.6	10.00	9.50	2.0	0	DG. 14..
DGTR/L 12B-1.4D30	1.40	1.40	12.0	12.0	1.00	140.00	29.6	15.00	11.50	3.5	0	DG. 14..
DGTR/L 16B-1.4D30	1.40	1.40	16.0	16.0	1.00	140.00	29.6	15.00	15.50	-	0	DG. 14..
DGTR/L 20B-1.4D30	1.40	1.40	20.0	20.0	1.00	140.00	29.6	15.00	19.50	-	0	DG. 14..
DGTR/L 10B-2D30	1.90	2.50	10.0	10.0	1.60	140.00	29.6	15.00	9.20	6.6	0	DG. 1.../DG. 2..
DGTR/L 12B-2D30	1.90	2.50	12.0	12.0	1.60	140.00	29.6	15.00	11.20	3.5	0	DG. 1.../DG. 2..
DGTR/L 16B-2D32	1.90	2.50	16.0	16.0	1.60	140.00	30.6	16.00	15.20	-	0	DG. 1.../DG. 2..
DGTR/L 20B-2D35	1.90	2.50	20.0	20.0	1.60	140.00	32.1	17.50	19.20	-	0	DG. 1.../DG. 2..
DGTR/L 12B-3D30	3.00	3.18	12.0	12.0	2.40	140.00	29.6	15.00	10.80	3.5	0	DG. 1.../DG. 3..
DGTR/L 16B-3D35	3.00	3.18	16.0	16.0	2.40	140.00	32.1	16.00	14.80	2.6	0	DG. 1.../DG. 3..
DGTR/L 16BC-3D35 (1)	3.00	3.18	16.0	16.0	2.40	140.00	31.1	16.00	14.80	2.6	1	DGNC/DGRC/DGLC 3...
DGTR/L 20B-3D40 (2)	3.00	3.18	20.0	20.0	2.40	140.00	35.6	20.00	18.80	-	0	DG. 1.../DG. 3..
DGTR/L 20BC-3D40 (1)	3.00	3.18	20.0	20.0	2.40	140.00	34.6	20.00	18.80	-	1	DGNC/DGRC/DGLC 3...

- Important: 1.4 mm width inserts should be used only on tools for 1.4 mm specific width tools
- DGN/R/L 1 mm inserts can also be mounted into pocket sizes 2 and 3.
- For user guide, see pages 597-608

(1) Tools for inserts with coolant holes for high temperature alloys and stainless steel
(2) Insert's Tmax=18 mm, for deeper penetration modify insert into single-ended
(3) Minimum cutting width
(4) Maximum cutting width
(5) The specified limit refers to the tool
(6) 0 - Without coolant supply, 1 - With coolant supply

For inserts, see pages: DGN-LF/LFT (512) • DGN-P (516) • DGN-UT/UA (515) • DGN-WP (518) • DGN-Z (513) • DGN/DGNC/DGNM-C (505) • DGN/DGNM-J/JS/JT (508) • DGR-P (517) • DGR-WP (519) • DGR-Z/ZS (514) • DGR/L-C DGRC/LC-C (506) • DGR/L-J/JS (510)

Spare Parts

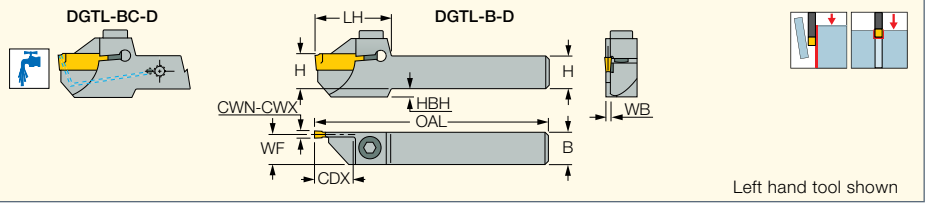
Designation						
DGTR/L 10B-1.4D20	SR M5X12 DIN912	HW 4.0				
DGTR/L 12B-1.4D30	SR M5X12 DIN912	HW 4.0				
DGTR/L 16B-1.4D30	SR M5X12 DIN912	HW 4.0				
DGTR/L 20B-1.4D30	SR M5X12 DIN912	HW 4.0				
DGTR/L 10B-2D30	SR M5X12 DIN912	HW 4.0				
DGTR/L 12B-2D30	SR M5X12 DIN912	HW 4.0				
DGTR/L 16B-2D32	SR M4X14 DIN912	HW 3.0				
DGTR/L 20B-2D35	SR M4X14 DIN912	HW 3.0				
DGTR/L 12B-3D30	SR M5X12 DIN912	HW 4.0				
DGTR/L 16B-3D35	SR M5X12 DIN912	HW 4.0				
DGTR/L 16BC-3D35	SR M5X12 DIN912	HW 4.0	CGM 343*	CF 343*	SGCU 341*	CGF 343*
DGTR/L 20B-3D40	SR M5X12 DIN912	HW 4.0				
DGTR/L 20BC-3D40	SR M5X12 DIN912	HW 4.0	CGM 343*	CF 343*	SGCU 341*	CGF 343*

* Optional, to be ordered separately

DO-GRIP

DGTR/L-B/BC-D

Integral Shank Reinforced Parting and Grooving Tools Especially for DGNC Type of Inserts



	INCH											
Designation	**CWN(3)**	**CWX(4)**	**H**	**B**	**WB**	**OAL**	**LH**	**CDX(5)**	**WF**	**HBH**	**CSP(6)**	**Insert**
DGTR/L 9.5B-1.4D20	.055	.055	.375	.375	.039	5.500	.930	.394	.360	.10	0	DG. 14..
DGTR/L 12.7B-1.4D30	.055	.055	.500	.500	.039	5.500	1.200	.591	.480	.11	0	DG. 14..
DGTR/L 16B-1.4D30	.055	.055	.630	.630	.039	5.512	1.165	.591	.610	-	0	DG. 14..
DGTR/L 19B-1.4D30	.055	.055	.750	.750	.039	5.500	1.200	.591	.730	-	0	DG. 14..
DGTR/L 9.5B-2D30	.075	.100	.375	.375	.063	5.500	1.200	.591	.340	.24	0	DG. 1.../DG. 2..
DGTR/L 12.7B-2D30	.075	.100	.500	.500	.063	5.500	1.200	.591	.470	.24	0	DG. 1.../DG. 2..
DGTR/L 16B-2D32	.075	.098	.630	.630	.063	5.512	1.205	.630	.598	-	0	DG. 1.../DG. 2..
DGTR/L 19B-2D35	.075	.100	.750	.750	.063	5.500	1.300	.689	.720	-	0	DG. 1.../DG. 2..
DGTR/L 12.7B-3D30	.118	.125	.500	.500	.094	5.500	1.200	.591	.450	.11	0	DG. 1.../DG. 3..
DGTR/L 16B-3D35	.118	.125	.630	.630	.094	5.512	1.264	.630	.583	.10	0	DG. 1.../DG. 3..
DGTR/L 16BC-3D35 (1)	.118	.125	.630	.630	.094	5.512	1.224	.630	.583	.10	1	DGNC/DGRC/DGLC 3...
DGTR/L 19BC-3D40 (1)	.118	.125	.750	.750	.094	5.500	1.400	.787	.700	.10	1	DGNC/DGRC/DGLC 3...
DGTR/L 19B-3D40 (2)	.118	.125	.750	.750	.094	5.500	1.400	.787	.700	-	0	DG. 1.../DG. 3..

• Important: 1.4 mm (.055") width inserts should be used only on tools for 1.4 mm specific width tools • DGN/R/L 1 mm (.039") inserts can also be mounted into pocket sizes 2 and 3. • For user guide,see pages 597-608

(1) Tools for inserts with coolant holes for high temperature alloys and stainless steel

(2) Insert's Tmax=.7", for deeper penetration modify insert into single-ended

(3) Minimum cutting width

(4) Maximum cutting width

(5) The specified limit refers to the tool

(6) 0 - Without coolant supply, 1 - With coolant supply

For inserts, see pages: DGN-LF/LFT (512) • DGN-P (516) • DGN-UT/UA (515) • DGN-WP (518) • DGN-Z (513) • DGN/DGNC/DGNM-C (505) • DGN/DGNM-J/JS/JT (508) • DGR-P (517) • DGR-WP (519) • DGR-Z/ZS (514) • DGR/L-C DGRC/LC-C (506) • DGR/L-J/JS (510)

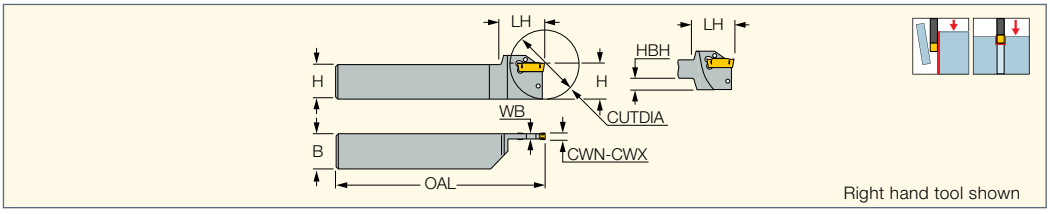
Spare Parts

Designation						
DGTR/L 9.5B-1.4D20	SR M5X12 DIN912	HW 4.0				
DGTR/L 12.7B-1.4D30	SR M5X12 DIN912	HW 4.0				
DGTR/L 16B-1.4D30	SR M5X12 DIN912	HW 4.0				
DGTR/L 19B-1.4D30	SR M5X12 DIN912	HW 4.0				
DGTR/L 9.5B-2D30	SR M5X12 DIN912	HW 4.0				
DGTR/L 12.7B-2D30	SR M5X12 DIN912	HW 4.0				
DGTR/L 16B-2D32	SR M4X14 DIN912	HW 3.0				
DGTL 19B-2D35	SR M5X12 DIN912	HW 4.0				
DGTR 19B-2D35	SR M4X14 DIN912	HW 3.0				
DGTR/L 12.7B-3D30	SR M5X12 DIN912	HW 4.0				
DGTR/L 16B-3D35	SR M5X12 DIN912	HW 4.0				
DGTR/L 16BC-3D35	SR M5X12 DIN912	HW 4.0	CGM 343*	CF 343*	SGCU 341*	CGF 343*
DGTR/L 19BC-3D40	SR M5X12 DIN912	HW 4.0	CGM 343*	CF 343*	SGCU 341*	CGF 343*
DGTR/L 19B-3D40	SR M5X12 DIN912	HW 4.0				

* Optional, to be ordered separately

DO-GRIP

DGTR/L
Integral Shank Parting and Grooving Tools



M E T R I C

Designation	CWN(1)	CWX(2)	H	B	WB	OAL	LH	HBH	CUTDIA(3)	
DGTR/L 1010-2	1.90	2.50	10.0	10.0	1.80	150.00	29.0	6.6	35.0	EDG 33B*
DGTR/L 1212-2	1.90	2.50	12.0	12.0	1.80	150.00	29.0	6.6	35.0	EDG 33B*
DGTR/L 1616-2	1.90	2.50	16.0	16.0	1.80	150.00	29.0	2.6	35.0	EDG 33B*
DGTR/L 2012-2	1.90	2.50	20.0	12.0	1.80	125.00	29.0	-	35.0	EDG 33A*
DGTR/L 1212-3	3.00	3.18	12.0	12.0	2.50	150.00	29.0	6.6	35.0 (4)	EDG 33B*
DGTR/L 1616-3	3.00	3.18	16.0	16.0	2.50	150.00	29.0	6.6	35.0 (5)	EDG 33B*
DGTR/L 2012-3	3.00	3.18	20.0	12.0	2.50	125.00	29.0	-	35.0 (4)	EDG 33A*
DGTR/L 2020-3	3.00	3.18	20.0	20.0	2.50	125.00	29.0	-	35.0 (4)	EDG 33A*
DGTR/L 2020-4	4.00	4.76	20.0	20.0	3.40	125.00	31.0	-	51.0	EDG 33A*
DGTR/L 2020-5	4.80	5.00	20.0	20.0	4.00	125.00	33.0	-	59.0	EDG 33A*

• Insert limit is Tmax=18 mm. If deeper penetration is required, the insert should be modified into single-ended by the user • DG..1.0 insert can be mounted into pocket sizes 2 and 3, in which case the pocket width has to be modified • For user guide, see pages 597-608

(1) Minimum cutting width

(2) Maximum cutting width

(3) Maximum workpiece diameter for grooving operation

(4) Dmax=43 mm when single-ended insert is used

(5) Dmax=43(1.69") when single-ended insert is used

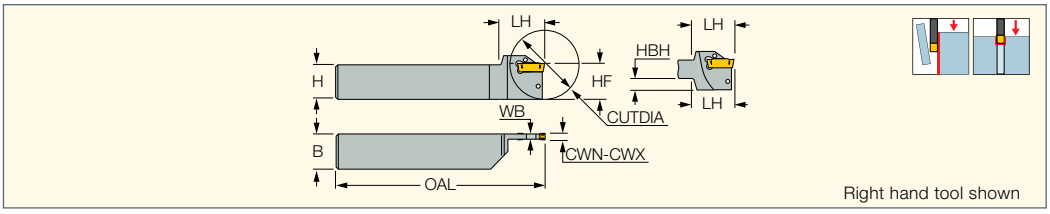
* Optional, to be ordered separately

For inserts, see pages: GRIPA (370) • GRIPA (full radius) (371) • DGN-LF/LFT (512) • DGN-MF (507) • DGN/DGNC/DGNM-C (505) • DGR/L-C DGRC/LC-C (506) • DGN/DGNM-J/JS/JT (508) • DGR/L-J/JS (510) • DGN-P (516) • DGN-UT/UA (515) • DGN-WP (518) • DGN-Z (513) • DGR-P (517) • DGR-WP (519) • DGR-Z/ZS (514) • GRIP (368) • GRIP (full radius) (369)

For holders, see pages: SBTH-JHP (833)

DO-GRIP

DGTR/L
Integral Shank Parting and Grooving Tools



I N C H

Designation	CWN(1)	CWX(2)	H	B	WB	OAL	LH	HBH	CUTDIA(3)	
DGTR/L 9.5-2	.075	.100	.375	.375	.071	4.500	1.100	.26	1.400	EDG 33B*
DGTR/L 12.7-2	.075	.100	.500	.500	.071	4.500	1.100	.26	1.400	EDG 33B*
DGTR/L 1616-2	.075	.098	.630	.630	.071	5.906	1.142	.10	1.378	EDG 33B*
DGTR/L 19-2	.075	.100	.750	.750	.071	4.500	1.100	.14	1.400	EDG 33A*
DGTR/L 12.7-3	.118	.125	.500	.500	.100	4.500	1.100	.26	1.400 (4)	EDG 33B*
DGTR/L 1616-3	.118	.125	.630	.630	.098	5.906	1.142	.26	1.378 (4)	EDG 33B*
DGTR/L 19-3	.118	.125	.750	.750	.100	4.500	1.100	-	1.400 (4)	EDG 33A*
DGTR/L 19-4	.157	.157	.750	.750	.134	4.500	1.200	-	2.000	EDG 33A*

• Insert limit is Tmax=.709". If deeper penetration is required, the insert should be modified into single-ended by the user • DG..1.0 insert can be mounted into pocket sizes 2 and 3, in which case the pocket width has to be modified • For user guide, see pages 597-608

(1) Minimum cutting width

(2) Maximum cutting width

(3) Maximum workpiece diameter for grooving operation

(4) Dmax=1.69" when single-ended insert is used

* Optional, to be ordered separately

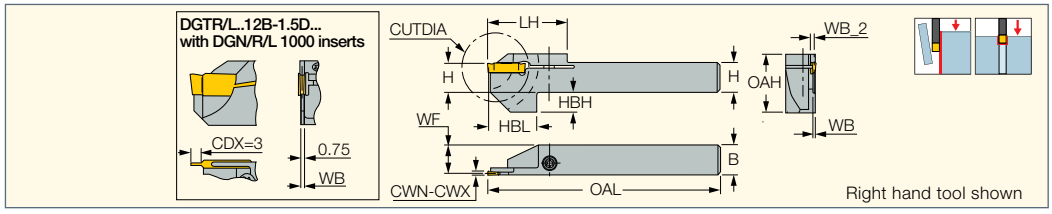
For inserts, see pages: • GRIPA (370) • GRIPA (full radius) (371) • DGN-LF/LFT (512) • DGN-MF (507) • DGN/DGNC/DGNM-C (505) • DGR/L-C DGRC/LC-C (506) • DGN/DGNM-J/JS/JT (508) • DGR/L-J/JS (510) • DGN-P (516) • DGN-UT/UA (515) • DGN-WP (518) • DGN-Z (513) • DGR-P (517) • DGR-WP (519) • DGR-Z/ZS (514) • GRIP (368) • GRIP (full radius) (369)

For holders, see pages: SBTH-JHP (833)

DO-GRIP

DGTR/L-B-D-TR

Reinforced Parting and Grooving Tools Carrying Double-Ended DO-GRIP Inserts



M E T R I C

Designation	CWN[1]	CWX[2]	H	B	WB	WB_2[3]	WF	OAL	LH	HBL	CUTDIA[4]	OAH	HBH	Insert
DGTR 12B-1.4D20-TR12	1.40	1.40	12.0	12.0	1.00	2.3	11.50	95.00	32.5	20.00	20.0	23.7	8.0	DG. 14..
DGTL 12B-1.5D20-TR12	1.00	1.50	12.0	12.0	1.20	2.3	11.30	95.00	32.5	20.00	20.0	23.7	8.0	DG. 1.../DG. 15..
DGTR 12B-1.5-D20-TR12	1.00	1.50	12.0	12.0	1.20	2.3	11.30	95.00	32.5	20.00	20.0	23.7	8.0	DG. 1.../DG. 15..

• Important: 1.4 mm width inserts should be used only on tools for 1.4 mm specific width! • For TRAUB machines, model TNL 12/7 • For user guide, see pages 597-608

(1) Minimum cutting width

(2) Maximum cutting width

(3) Rake angle axial

(4) Maximum workpiece diameter for grooving operation

For inserts, see pages: DGN-P (516) • DGN/DGNM-J/JS/JT (508) • DGR-P (517) • DGR/L-J/JS (510)

For holders, see pages: SBTH-JHP (833)

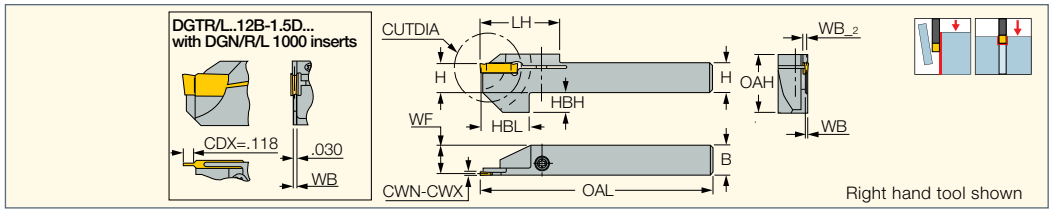
Spare Parts

Designation		
DGTR/L-B-D-TR	SR 16-236 P	T-15/5

DO-GRIP

DGTR/L-B-D-TR

Reinforced Parting and Grooving Tools Carrying Double-Ended DO-GRIP Inserts



I N C H

Designation	CWN[1]	CWX[2]	H	B	WB	WB_2[3]	WF	OAL	LH	HBL	CUTDIA[4]	OAH	HBH	Insert
DGTR 12B-1.4D20-TR12	.055	.055	.472	.472	.039	.091	.453	3.740	1.280	.787	.787	.93	.31	DG. 14..
DGTR/L 12B-1.5D20-TR12	.039	.059	.472	.472	.047	.091	.445	3.740	1.280	.787	.787	.93	.31	DG. 1.../DG. 15..

• Important: .055" width inserts should be used only on tools for .055" specific width! • For TRAUB machines, model TNL 12/7 • For user guide,see pages 597-608

(1) Minimum cutting width

(2) Maximum cutting width

(3) Rake angle axial

(4) Maximum workpiece diameter for grooving operation

For inserts, see pages: DGN-P (516) • DGN/DGNM-J/JS/JT (508) • DGR-P (517) • DGR/L-J/JS (510)

For holders, see pages: SBTH-JHP (833)

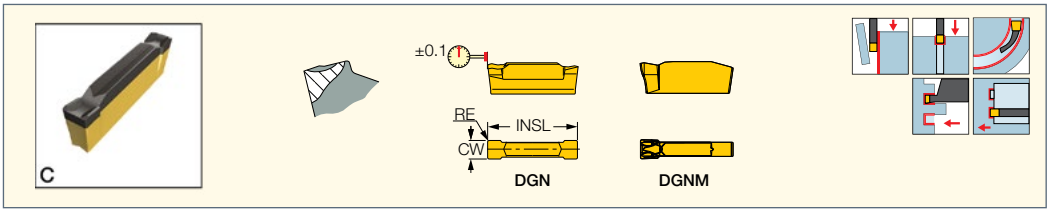
Spare Parts

Designation		
DGTR/L-B-D-TR	SR 16-236 P	T-15/5

DO-GRIP

DGN/DGNC/DGNM-C

Double-Sided Parting Inserts for Parting and Grooving Bars, Hard Materials and Tough Applications



M E T R I C

Designation	Dimensions CW	CWTOL(3)	RE	RETOL(4)	CDX	INSL	Tough ↔ Hard IC328	IC830	IC928	IC1030	IC1028	IC354	IC1010	IC308	IC808	IC908	IC30N	IC5400	IC20	IC807	IC907	Recommended Machining Data f groove (mm/rev)
DGN 2002C	2.00	0.030	0.20	0.020	18.00	19.90	●	●		●	●	●	●		●	●		●	●			0.05-0.16
DGN 2202C	2.20	0.030	0.20	0.020	18.00	19.80	●	●		●	●	●	●	●	●	●	●	●	●		●	0.05-0.16
DGN 2502C	2.50	0.030	0.20	0.020	18.00	20.70			●	●			●			●						0.08-0.20
DGN 3102C	3.10	0.040	0.20	0.020	18.00	20.10	●	●		●	●	●	●	●	●	●	●	●	●	●	●	0.10-0.25
DGNC 3102C (1)	3.10	0.040	0.20	0.020	18.00	21.00									●	●						0.10-0.25
DGNM 3202C (2)	3.18	0.040	0.20	0.020	- (5)	20.40	●					●				●						0.10-0.25

• Feed values for grade IC20 should be decreased by 50% • For cutting speed recommendations and user guide, see pages 597-608

(1) Inserts with coolant holes, recommended coolant pressure 10 bar minimum

(2) Single-ended insert

(3) Cutting width tolerance (+/-)

(4) Corner radius tolerance (+/-)

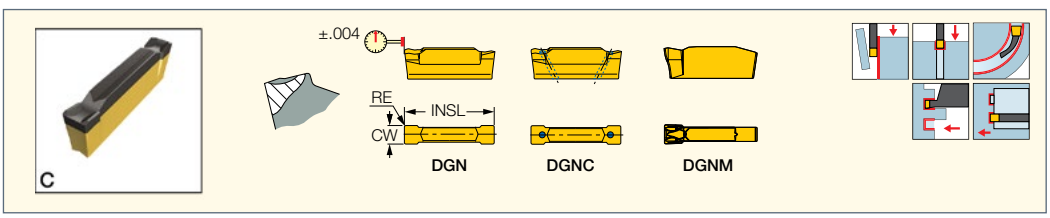
(5) No depth limit

For tools, see pages: DGTR/L (503) • DGTR/L-B-D-JHP-SL (496) • DGTR/L-B-D-SH (498) • DGTR/L-B/BC-D (501) • HELIR/L (367)

DO-GRIP

DGN/DGNC/DGNM-C

Double-Sided Parting Inserts for Parting and Grooving Bars, Hard Materials and Tough Applications



I N C H

Designation	Dimensions CW	CWTOL(3)	RE	RETOL(4)	CDX	INSL	Tough ↔ Hard IC328	IC830	IC928	IC1030	IC1028	IC354	IC1010	IC308	IC808	IC908	IC30N	IC5400	IC20	IC807	IC907	Recommended Machining Data f groove (IPR)
DGN 2002C	.079	.00118	.0079	.0008	.709	.783	●	●		●	●	●	●		●	●		●	●			.0020-.0063
WGN 2002C	.079	.00118	.0079	.0008	.709	.783							●									.0020-.0063
DGN 2202C	.087	.00118	.0079	.0008	.709	.780	●	●		●	●	●	●	●	●	●	●	●	●		●	.0020-.0063
DGN 2502C	.098	.00118	.0079	.0008	.709	.815			●	●			●			●						.0031-.0079
DGN 3102C	.122	.00157	.0079	.0008	.709	.791	●	●		●	●	●	●	●	●	●	●	●	●	●	●	.0039-.0098
DGNC 3102C (1)	.122	.00157	.0079	.0008	.709	.827									●	●						.0039-.0098
DGNM 3202C (2)	.125	.00157	.0079	.0008	- (5)	.803	●					●				●						.0039-.0098

• Feed values for grade IC20 should be decreased by 50% • For cutting speed recommendations and user guide, see pages 597-608

(1) Inserts with coolant holes, recommended coolant pressure 145 psi minimum

(2) Single-ended insert

(3) Cutting width tolerance (+/-)

(4) Corner radius tolerance (+/-)

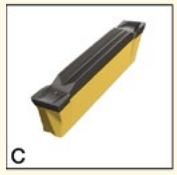
(5) No depth limit

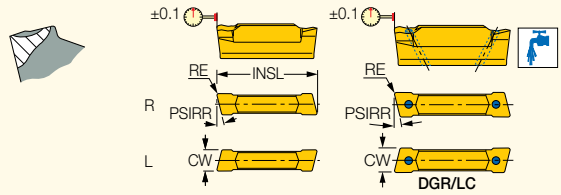
For tools, see pages: DGTR/L (503) • DGTR/L-B-D-JHP-SL (496) • DGTR/L-B-D-SH (498) • DGTR/L-B/BC-D (501) • HELIR/L (367)

DO-GRIP

DGR/L-C DGRC/LC-C

Double-Sided Inserts for Parting Bars, Hard Materials and Tough Applications





M E T R I C

Designation	Dimensions CW	RE	CDX	PSIRL	PSIRR	INSL	Tough ↔ Hard IC328	IC830	IC1030	IC1028	IC354	IC1010	IC808	IC908	IC20	Recommended Machining Data f groove (mm/rev)
DGL 2202C-6D	2.20	0.20	18.00	6.0	-	20.80	●		●	●	●	●		●	●	0.04-0.12
DGR 2202C-6D	2.20	0.20	18.00	-	6.0	20.80	●	●	●	●	●	●	●	●	●	0.04-0.12
DGL 3102C-15D	3.10	0.20	18.00	15.0	-	21.00	●	●	●	●						0.08-0.14
DGL 3102C-6D	3.10	0.20	18.00	6.0	-	21.00	●	●	●	●	●	●	●	●	●	0.08-0.18
DGLC 3102C-6D (1)	3.10	0.20	18.00	6.0	-	21.00							●	●		0.08-0.18
DGR 3102C-15D	3.10	0.20	18.00	-	15.0	20.90	●	●	●	●		●		●		0.08-0.14
DGR 3102C-6D	3.10	0.20	18.00	-	6.0	21.00	●	●	●	●	●	●	●	●	●	0.08-0.18
DGR 3102C-8D	3.10	0.20	18.00	-	8.0	21.10	●	●	●	●						0.05-0.15
DGRC 3102C-6D (1)	3.10	0.20	18.00	-	6.0	20.90							●	●		0.08-0.18

• Feed values for grade IC20 should be decreased by 50% • For cutting speed recommendations and user guide, see pages 597-608

(1) Inserts with coolant holes, recommended coolant pressure 10 bar minimum

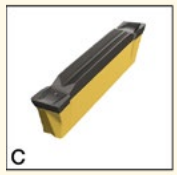
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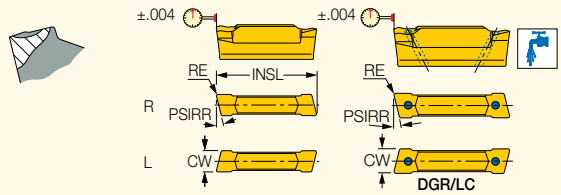
For tools, see pages: DGTR/L (503) • DGTR/L-B-D-JHP-SL (496) • DGTR/L-B-D-SH (498) • DGTR/L-B/BC-D (501) • HELIR/L (367)

DO-GRIP

DGR/L-C DGRC/LC-C

Double-Sided Inserts for Parting Bars, Hard Materials and Tough Applications





I N C H

Designation	Dimensions CW	RE	CDX	PSIRL	PSIRR	INSL	Tough ↔ Hard IC328	IC830	IC1030	IC1028	IC354	IC1010	IC808	IC908	IC20	Recommended Machining Data f groove (IPR)
DGL 2202C-6D	.087	.0079	.709	6.0	-	.819	●		●	●	●	●		●	●	.0016-.0047
DGR 2202C-6D	.087	.0079	.709	-	6.0	.819	●	●	●	●	●	●	●	●	●	.0016-.0047
DGL 3102C-15D	.122	.0079	.709	15.0	-	.827	●	●	●	●						.0031-.0055
DGL 3102C-6D	.122	.0079	.709	6.0	-	.827	●	●	●	●	●	●	●	●	●	.0031-.0071
DGLC 3102C-6D (1)	.122	.0079	.709	6.0	-	.827							●	●		.0031-.0071
DGR 3102C-15D	.122	.0079	.709	-	15.0	.823	●	●	●	●		●		●		.0031-.0055
DGR 3102C-6D	.122	.0079	.709	-	6.0	.827	●	●	●	●	●	●	●	●	●	.0031-.0071
DGR 3102C-8D	.122	.0079	.709	-	8.0	.831	●	●	●	●						.0020-.0059
DGRC 3102C-6D (1)	.122	.0079	.709	-	6.0	.823							●	●		.0031-.0071

• Feed values for grade IC20 should be decreased by 50% • For cutting speed recommendations and user guide, see pages 597-608

(1) Inserts with coolant holes, recommended coolant pressure 145 PSI minimum

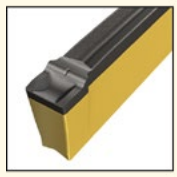
(2) No depth limit

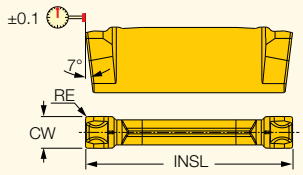
For tools, see pages: DGTR/L (503) • DGTR/L-B-D-JHP-SL (496) • DGTR/L-B-D-SH (498) • DGTR/L-B/BC-D (501) • HELIR/L (367)

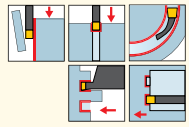
DO-GRIP

DGN-MF

Double-Sided Inserts for Parting and Grooving Soft and Hard Materials at Medium Feeds







M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	CDX	INSL	Tough ↔ Hard IC830	IC1030	IC1010	IC808	IC5400	Recommended Machining Data f groove (mm/rev)
DGN 2002MF	2.00	0.20	0.040	18.00	19.90	●	●	●	●	●	0.04-0.12
DGN 2202MF	2.20	0.20	0.040	18.00	19.90		●	●			0.04-0.12
DGN 3002MF	3.00	0.20	0.040	18.00	20.10					●	0.06-0.18
DGN 3102MF	3.10	0.20	0.040	18.00	20.10	●	●	●	●	●	0.06-0.18

- For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

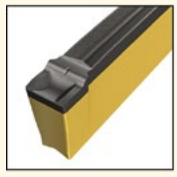
(2) No depth limit

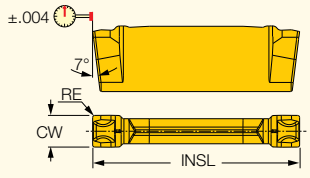
For tools, see pages: DGTR/L (503) • DGTR/L-B-D-JHP-SL (496) • HELIR/L (367)

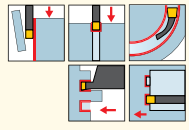
DO-GRIP

DGN-MF

Double-Sided Inserts for Parting and Grooving Soft and Hard Materials at Medium Feeds







I N C H

Designation	Dimensions CW	RE	CWTOL(1)	CDX	INSL	Tough ↔ Hard IC830	IC1030	IC1010	IC808	IC5400	Recommended Machining Data f groove (IPR)
DGN 2002MF	.079	.0079	.00157	.709	.783	●	●	●	●	●	.0016-.0047
DGN 2202MF	.087	.0079	.00157	.709	.783		●	●			.0016-.0047
DGN 3002MF	.118	.0079	.00157	.709	.791					●	.0024-.0071
DGN 3102MF	.122	.0079	.00157	.709	.791	●	●	●	●	●	.0024-.0071

- For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

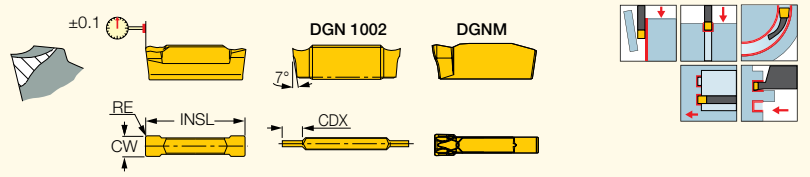
For tools, see pages: DGTR/L (503) • DGTR/L-B-D-JHP-SL (496) • HELIR/L (367)

DO-GRIP

DGN/DGNM-J/JS/JT

Double-Sided Inserts for Parting and Grooving Soft Materials, Parting Tubes, Small Diameters and Thin-Walled Parts





M E T R I C

Designation	Dimensions						Tough ↔ Hard													Recommended Machining Data
	CW	CWTOL[3]	RE	RETOL[4]	CDX	INSL	IC328	IC830	IC928	IC1030	IC1028	IC354	IC1010	IC308	IC808	IC908	IC5400	IC20	IC807	IC907	f groove (mm/rev)
DGN 1002J	1.00	0.020	0.16	0.020	3.00	21.00	●			●	●		●			●					0.02-0.07
DGN 1402J	1.40	0.030	0.16	0.020	15.00	15.80	●	●		●	●	●	●	●	●	●					0.03-0.12
DGN 1502J	1.50	0.030	0.16	0.020	18.00	20.90	●			●	●		●			●					0.03-0.12
DGN 2002J	2.00	0.020	0.20	0.020	18.00	19.88								●							0.04-0.12
DGN 2002JT	2.00	0.030	0.20	0.020	18.00	19.80									●						0.04-0.14
DGN 2200JS [1]	2.20	0.030	0.02	0.020	18.00	19.00	●	●		●			●								0.03-0.08
DGN 2202J	2.20	0.030	0.20	0.020	18.00	19.80	●	●		●	●	●	●	●	●	●	●	●	●		0.04-0.12
DGN 2202JT	2.20	0.030	0.20	0.020	18.00	19.80		●							●		●				0.04-0.14
DGN 3100JS [1]	3.10	0.040	0.02	0.020	18.00	19.70	●			●			●	●							0.03-0.10
DGN 3102J	3.10	0.040	0.20	0.020	18.00	20.10	●	●		●	●	●	●	●	●	●	●	●		●	0.04-0.16
DGN 3102JT	3.10	0.040	0.20	0.020	18.00	20.10		●							●		●			●	0.05-0.18
DGN 3202J	3.18	0.040	0.20	0.020	18.00	20.10										●					0.04-0.16
DGNM 3202J [2]	3.18	0.040	0.20	0.020	- [5]	20.30	●			●		●	●			●					0.04-0.16

- JT chipformer has the basic positive configuration of the J-type and a reinforced negative frontal edge; most suitable for soft materials at low to medium feeds
- For cutting speed recommendations and user guide, see pages 597-608

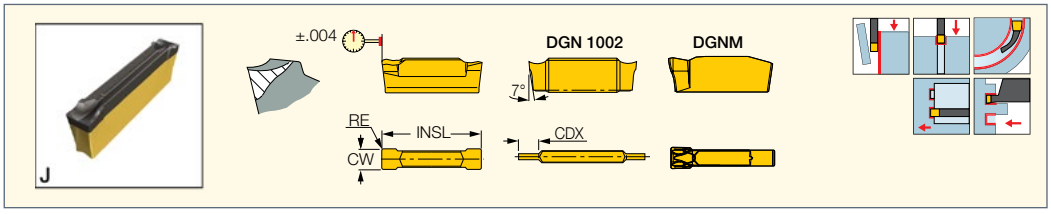
[1] Sharp corners
[2] Single-ended insert
[3] Cutting width tolerance (+/-)
[4] Corner radius tolerance (+/-)
[5] No depth limit

For tools, see pages: DGTR/L (503) • DGTR/L-B-D-JHP-SL (496) • DGTR/L-B-D-SH (498) • DGTR/L-B-D-TR (504) • DGTR/L-B/BC-D (501) • HELIR/L (367)

DO-GRIP

DGN/DGNM-J/JS/JT

Double-Sided Inserts for Parting and Grooving Soft Materials, Parting Tubes, Small Diameters and Thin-Walled Parts



I N C H

Designation	Dimensions						Tough ↔ Hard														Recommended Machining Data
	CW	CWTOL[3]	RE	RETOL[4]	CDX	INSL	IC328	IC830	IC928	IC1030	IC1028	IC354	IC1010	IC308	IC808	IC908	IC5400	IC20	IC807	IC907	f groove (IPR)
DGN 1002J	.039	.00078	.0063	.0008	.118	.827	●			●	●		●			●					.0008-.0027
DGN 1402J	.055	.00118	.0063	.0008	.591	.622	●	●		●	●	●	●	●	●	●					.0012-.0047
DGN 1502J	.059	.00118	.0063	.0008	.709	.823	●			●	●		●			●					.0012-.0047
DGN 2002J	.079	.00078	.0079	.0008	.709	.783								●							.0016-.0047
DGN 2002JT	.079	.00118	.0079	.0008	.709	.780									●						.0016-.0055
DGN 2200JS [1]	.087	.00118	.0008	.0008	.709	.748	●	●		●			●								.0012-.0031
DGN 2202J	.087	.00118	.0079	.0008	.709	.780	●	●		●	●	●	●	●	●	●	●	●	●		.0016-.0047
DGN 2202JT	.087	.00118	.0079	.0008	.709	.780		●							●		●				.0016-.0055
DGN 3100JS [1]	.122	.00157	.0008	.0008	.709	.776	●			●			●	●							.0012-.0039
DGN 3102J	.122	.00157	.0079	.0008	.709	.791	●	●		●	●	●	●	●	●	●	●	●		●	.0016-.0063
DGN 3102JT	.122	.00157	.0079	.0008	.709	.791		●							●		●			●	.0020-.0071
DGN 3202J	.125	.00157	.0079	.0008	.709	.791										●					.0016-.0063
DGNM 3202J [2]	.125	.00157	.0079	.0008	- [5]	.799	●			●		●	●			●					.0016-.0063

- JT chipformer has the basic positive configuration of the J-type and a reinforced negative frontal edge; most suitable for soft materials at low to medium feeds
- For cutting speed recommendations and user guide, see pages 597-608

[1] Sharp corners
[2] Single-ended insert
[3] Cutting width tolerance (+/-)
[4] Corner radius tolerance (+/-)
[5] No depth limit

For tools, see pages: DGTR/L (503) • DGTR/L-B-D-JHP-SL (496) • DGTR/L-B-D-SH (498) • DGTR/L-B-D-TR (504) • DGTR/L-B/BC-D (501) • HELIR/L (367)

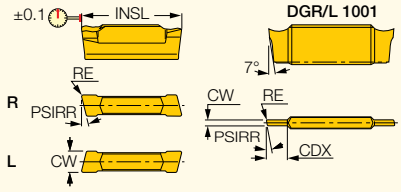
DO-GRIP

DGR/L-J/JS

Double-Sided Inserts for Parting Soft Materials, Parting Tubes, Small Diameters and Thin-Walled Parts









M E T R I C

Designation	Dimensions CW	RE	CDX	INSL	PSIRL	PSIRR	Tough ↔ Hard IC328	IC830	IC1030	IC1028	IC354	IC1010	IC308	IC808	IC908	IC20	Recommended Machining Data f groove (mm/rev)
DGL 1001J-8D	1.00	0.07	3.00	21.00	-	8.0							●		●		0.02-0.06
DGR 1001J-8D	1.00	0.07	3.00	21.00	-	8.0	●			●		●	●		●		0.02-0.06
DGL 1400JS-15D (1)	1.40	0.02	14.00	15.40	15.0	-	●		●								0.03-0.07
DGR 1400JS-15D (1)	1.40	0.02	14.00	15.40	15.0	-	●	●	●	●		●	●		●		0.03-0.07
DGL 1402J-8D	1.40	0.16	14.00	15.80	-	8.0	●			●							0.03-0.08
DGR 1402J-8D	1.40	0.16	14.00	15.80	8.0	-	●	●	●	●			●		●		0.03-0.08
DGR 1500J-8D	1.50	0.05	18.00	20.90	-	8.0	●	●	●	●		●	●				0.03-0.08
DGL 2200JS-15D (1)	2.20	0.02	18.00	20.60	15.0	-	●		●	●	●		●		●		0.03-0.07
DGL 2200JS-6D (1)	2.20	0.02	18.00	20.60	-	6.0	●			●			●		●		0.03-0.08
DGR 2200JS-15D (1)	2.20	0.02	18.00	20.60	-	15.0	●		●	●	●	●	●		●	●	0.03-0.07
DGR 2200JS-6D (1)	2.20	0.02	18.00	20.60	6.0	-	●	●	●	●	●	●	●		●		0.03-0.08
DGL 2202J-6D	2.20	0.20	18.00	21.00	-	6.0	●		●	●	●	●			●	●	0.03-0.10
DGR 2202J-15D	2.20	0.20	18.00	21.00	15.0	-	●	●	●	●							0.03-0.08
DGR 2202J-6D	2.20	0.20	18.00	21.00	-	6.0	●	●	●	●	●	●			●	●	0.03-0.10
DGL 3100JS-15D (1)	3.10	0.02	18.00	20.60	15.0	-	●			●	●		●		●		0.03-0.07
DGL 3100JS-6D (1)	3.10	0.02	18.00	20.60	-	6.0	●			●			●		●		0.03-0.08
DGR 3100JS-15D (1)	3.10	0.02	18.00	20.60	-	15.0	●	●	●	●	●	●	●		●		0.03-0.07
DGR 3100JS-6D (1)	3.10	0.02	18.00	20.60	6.0	-	●	●	●	●	●	●	●		●		0.03-0.08
DGL 3102J-15D	3.10	0.20	18.00	21.00	-	15.0	●		●	●							0.04-0.10
DGL 3102J-6D	3.10	0.20	18.00	21.00	6.0	-	●	●	●	●	●	●			●	●	0.04-0.14
DGR 3102J-15D	3.10	0.20	18.00	21.00	15.0	-	●		●	●	●	●			●		0.04-0.10
DGR 3102J-6D	3.10	0.20	18.00	21.00	6.0	-	●	●	●	●	●	●		●	●	●	0.04-0.14

• For cutting speed recommendations and user guide, see pages 597-608

(1) Sharp corners

(2) No depth limit

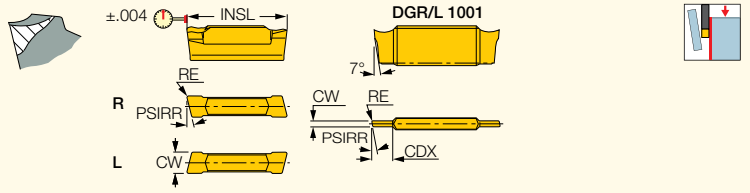
For tools, see pages:DGTR/L (503) • DGTR/L-B-D-JHP-SL (496) • DGTR/L-B-D-SH (498) • DGTR/L-B-D-TR (504) • DGTR/L-B/BC-D (501) • HELIR/L (367)

DO-GRIP

DGR/L-J/JS

Double-Sided Inserts for Parting Soft Materials, Parting Tubes, Small Diameters and Thin-Walled Parts





I N C H

Designation	Dimensions CW	RE	CDX	INSL	PSIRL	PSIRR	Tough ↔ Hard IC328	IC830	IC1030	IC1028	IC354	IC1010	IC308	IC808	IC908	IC20	Recommended Machining Data f groove (IPR)
DGL 1001J-8D	.039	.0027	.118	.827	8.0	-							●		●		.0008-.0024
DGR 1001J-8D	.039	.0027	.118	.827	-	8.0	●			●		●	●		●		.0008-.0024
DGL 1400JS-15D (1)	.055	.0008	.551	.606	15.0	-	●		●								.0012-.0027
DGR 1400JS-15D (1)	.055	.0008	.551	.606	15.0	-	●	●	●	●		●	●		●		.0012-.0027
DGL 1402J-8D	.055	.0063	.551	.622	8.0	-	●			●							.0012-.0031
DGR 1402J-8D	.055	.0063	.551	.622	8.0	-	●	●	●	●			●		●		.0012-.0031
DGR 1500J-8D	.059	.0020	.709	.823	8.0	-	●	●	●	●		●	●				.0012-.0031
DGL 2200JS-15D (1)	.087	.0008	.709	.811	-	15.0	●		●	●	●		●		●		.0012-.0027
DGL 2200JS-6D (1)	.087	.0008	.709	.811	6.0	-	●			●			●		●		.0012-.0031
DGR 2200JS-15D (1)	.087	.0008	.709	.811	15.0	-	●		●	●	●	●	●		●	●	.0012-.0027
DGR 2200JS-6D (1)	.087	.0008	.709	.811	6.0	-	●	●	●	●	●	●	●		●		.0012-.0031
DGL 2202J-6D	.087	.0079	.709	.827	6.0	-	●		●	●	●	●			●	●	.0012-.0039
DGR 2202J-15D	.087	.0079	.709	.827	15.0	-	●	●	●	●							.0012-.0031
DGR 2202J-6D	.087	.0079	.709	.827	6.0	-	●	●	●	●	●	●			●	●	.0012-.0039
DGL 3100JS-15D (1)	.122	.0008	.709	.811	-	15.0	●			●	●		●		●		.0012-.0027
DGL 3100JS-6D (1)	.122	.0008	.709	.811	-	6.0	●			●			●		●		.0012-.0031
DGR 3100JS-15D (1)	.122	.0008	.709	.811	15.0	-	●	●	●	●	●	●	●		●		.0012-.0027
DGR 3100JS-6D (1)	.122	.0008	.709	.811	6.0	-	●	●	●	●	●	●	●		●		.0012-.0031
DGL 3102J-15D	.122	.0079	.709	.827	15.0	-	●		●	●							.0016-.0039
DGL 3102J-6D	.122	.0079	.709	.827	6.0	-	●	●	●	●	●	●			●	●	.0016-.0055
DGR 3102J-15D	.122	.0079	.709	.827	15.0	-	●		●	●	●	●			●		.0016-.0039
DGR 3102J-6D	.122	.0079	.709	.827	-	6.0	●	●	●	●	●	●		●	●	●	.0016-.0055

• For cutting speed recommendations and user guide, see pages 597-608

(1) Sharp corners

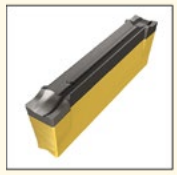
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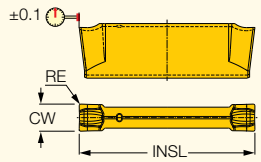
For tools, see pages: DGTR/L (503) • DGTR/L-B-D-JHP-SL (496) • DGTR/L-B-D-SH (498) • DGTR/L-B-D-TR (504) • DGTR/L-B/BC-D (501) • HELIR/L (367)

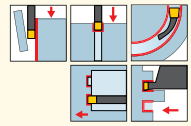
DO-GRIP

DGN-LF/LFT

Double-Sided Inserts for Parting and Grooving Stainless Steel







M E T R I C

Designation	Dimensions CW	CWTOL(1)	RE	RETOL(2)	CDX	INSL	Tough ↔ Hard IC830	IC928	IC1030	IC1010	IC808	IC908	IC5400	Recommended Machining Data f groove (mm/rev)
DGN 2002LF	2.00	0.030	0.20	0.020	18.00	19.80	●		●	●	●		●	0.03-0.08
DGN 2202LF	2.20	0.030	0.20	0.020	18.00	19.80		●	●	●		●	●	0.03-0.08
DGN 2502LF	2.50	0.030	0.20	0.020	18.00	19.80			●	●				0.03-0.08
DGN 3102LF	3.10	0.040	0.20	0.020	18.00	20.10	●	●	●	●	●	●	●	0.04-0.10
DGN 3102LFT	3.10	0.040	0.20	0.020	18.00	21.10		●				●		0.04-0.12

• The LFT chipformer features basically the same design as the LF chipformer, except that it is reinforced by a T-land to improve its durability in interrupted-cut or on hard materials applications. It can be applied at higher feeds than the LF chipformer • For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

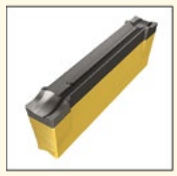
(2) Corner radius tolerance (+/-)

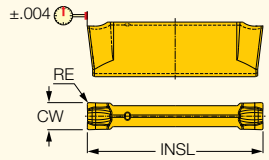
For tools, see pages: DGTR/L (503) • DGTR/L-B-D-JHP-SL (496) • DGTR/L-B-D-SH (498) • DGTR/L-B/BC-D (501)

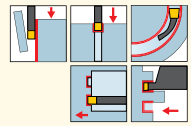
DO-GRIP

DGN-LF/LFT

Double-Sided Inserts for Parting and Grooving Stainless Steel







I N C H

Designation	Dimensions CW	CWTOL(1)	RE	RETOL(2)	CDX	INSL	Tough ↔ Hard IC830	IC928	IC1030	IC1010	IC808	IC908	IC5400	Recommended Machining Data f groove (IPR)
DGN 2002LF	.079	.00118	.0079	.0008	.709	.780	●		●	●	●		●	.0012-.0031
DGN 2202LF	.087	.00118	.0079	.0008	.709	.780		●	●	●		●	●	.0012-.0031
DGN 2502LF	.098	.00118	.0079	.0008	.709	.780			●	●				.0012-.0031
DGN 3102LF	.122	.00157	.0079	.0008	.709	.791	●	●	●	●	●	●	●	.0016-.0039
DGN 3102LFT	.122	.00157	.0079	.0008	.709	.831		●				●		.0016-.0047

• The LFT chipformer features basically the same design as the LF chipformer, except that it is reinforced by a T-land to improve its durability in interrupted-cut or on hard materials applications. It can be applied at higher feeds than the LF chipformer • For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

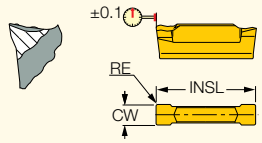
For tools, see pages: DGTR/L (503) • DGTR/L-B-D-JHP-SL (496) • DGTR/L-B-D-SH (498) • DGTR/L-B/BC-D (501)

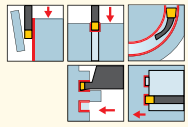
DO-GRIP

DGN-Z

Double-Sided Inserts for Parting Tubes, Thin-Walled and Small Parts







M E T R I C

Designation	Dimensions CW	CDX	CWTOL(1)	RE	RETOL(2)	INSL	Tough ↔ Hard IC1030	IC1010	IC808	IC908	Recommended Machining Data f groove (mm/rev)
DGN 2002Z	2.00	18.00	0.030	0.20	0.020	20.90	●	●	●	●	0.03-0.12
DGN 3002Z	3.00	18.00	0.030	0.20	0.020	20.90			●	●	0.03-0.16

• For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

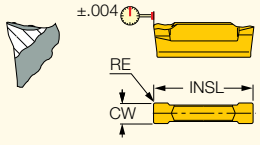
For tools, see pages: DGTR/L (503) • DGTR/L-B-D-JHP-SL (496) • DGTR/L-B-D-SH (498) • DGTR/L-B/BC-D (501)

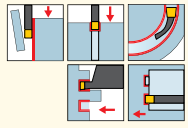
DO-GRIP

DGN-Z

Double-Sided Inserts for Parting Tubes, Thin-Walled and Small Parts







I N C H

Designation	Dimensions CW	CDX	CWTOL(1)	RE	RETOL(2)	INSL	Tough ↔ Hard IC1030	IC1010	IC808	IC908	Recommended Machining Data f groove (IPR)
DGN 2002Z	.079	.709	.00118	.0079	.0008	.823	●	●	●	●	.0012-.0047
DGN 3002Z	.118	.709	.00118	.0079	.0008	.823			●	●	.0012-.0063

• For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

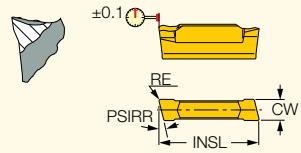
For tools, see pages: DGTR/L (503) • DGTR/L-B-D-JHP-SL (496) • DGTR/L-B-D-SH (498) • DGTR/L-B/BC-D (501)

DO-GRIP

DGR-Z/ZS

Double-Sided Inserts with Very Positive Rake for Parting Tubes, Thin-Walled and Small Parts







M E T R I C

Designation	Dimensions CW	RE	INSL	CDX	PSIRR	IC908	Recommended Machining Data f groove (mm/rev)
DGR 2000ZS-15D (1)	2.00	0.02	20.40	18.00	15.0	●	0.03-0.07
DGR 2000ZS-6D (1)	2.00	0.02	20.40	18.00	6.0	●	0.03-0.08
DGR 2002Z-15D	2.00	0.20	20.90	18.00	15.0	●	0.03-0.10
DGR 2002Z-6D	2.00	0.20	20.90	18.00	6.0	●	0.03-0.10
DGR 3000ZS-15D (1)	3.00	0.02	20.40	18.00	15.0	●	0.03-0.10
DGR 3000ZS-6D (1)	3.00	0.02	20.40	18.00	6.0	●	0.03-0.12
DGR 3002Z-6D	3.00	0.20	20.90	18.00	6.0	●	0.03-0.14

• For cutting speed recommendations and user guide, see pages 597-608

(1) Sharp corners

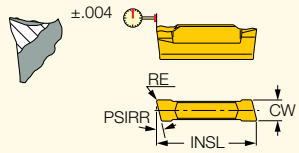
For tools, see pages: DGTR/L (503) • DGTR/L-B-D-JHP-SL (496) • DGTR/L-B-D-SH (498) • DGTR/L-B/BC-D (501)

DO-GRIP

DGR-Z/ZS

Double-Sided Inserts with Very Positive Rake for Parting Tubes, Thin-Walled and Small Parts







I N C H

Designation	Dimensions CW	RE	INSL	CDX	PSIRR	IC908	Recommended Machining Data f groove (IPR)
DGR 2000ZS-15D (1)	.079	.0008	.803	.709	15.0	●	.0012-.0027
DGR 2000ZS-6D (1)	.079	.0008	.803	.709	6.0	●	.0012-.0031
DGR 2002Z-15D	.079	.0079	.823	.709	15.0	●	.0012-.0039
DGR 2002Z-6D	.079	.0079	.823	.709	6.0	●	.0012-.0039
DGR 3000ZS-15D (1)	.118	.0008	.803	.709	15.0	●	.0012-.0039
DGR 3000ZS-6D (1)	.118	.0008	.803	.709	6.0	●	.0012-.0047
DGR 3002Z-6D	.118	.0079	.823	.709	6.0	●	.0012-.0055

• For cutting speed recommendations and user guide, see pages 597-608

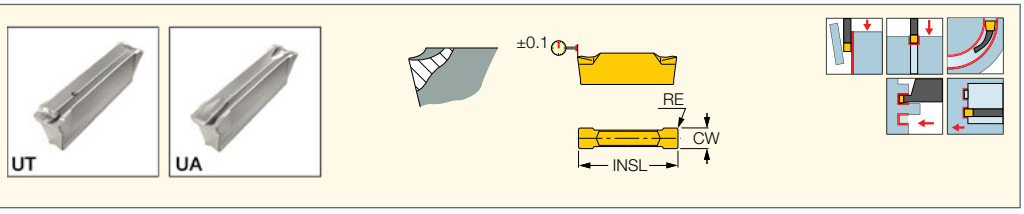
(1) Sharp corners

For tools, see pages: DGTR/L (503) • DGTR/L-B-D-JHP-SL (496) • DGTR/L-B-D-SH (498) • DGTR/L-B/BC-D (501)

DO-GRIP

DGN-UT/UA

Double-Sided Inserts for Parting and Grooving Cr-Ni Alloys, Low Carbon Steel and Ductile Materials at Low Feeds



M E T R I C

Designation	Dimensions CW	CWTOL(1)	RE	RETOL(2)	CDX	INSL	Tough ↔ Hard IC328	IC1030	IC1028	IC354	IC350	IC1010	IC308	IC908	IC20	Recommended Machining Data f groove (mm/rev)
DGN 2202UA	2.20	0.030	0.20	0.020	18.00	19.90	•		•	•						0.04-0.13
DGN 2202UT	2.20	0.030	0.20	0.020	18.00	19.60					•			•		0.03-0.11
DGN 3003UA	3.00	0.030	0.25	0.020	18.00	20.50	•	•	•	•		•	•		•	0.04-0.15
DGN 3003UT	3.00	0.030	0.25	0.020	18.00	20.50						•	•	•		0.04-0.13

• For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

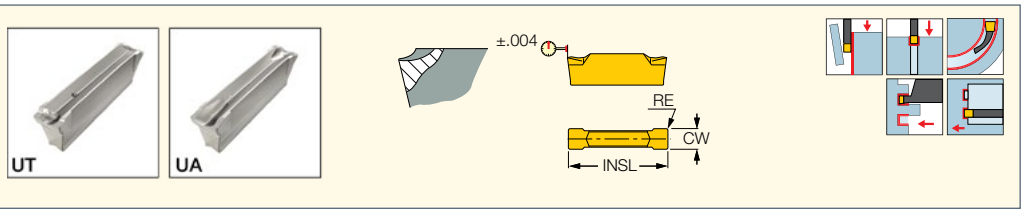
(3) No depth limit

For tools, see pages: DGTR/L (503) • DGTR/L-B-D-JHP-SL (496) • DGTR/L-B-D-SH (498) • DGTR/L-B/BC-D (501) • HELIR/L (367)

DO-GRIP

DGN-UT/UA

Double-Sided Inserts for Parting and Grooving Cr-Ni Alloys, Low Carbon Steel and Ductile Materials at Low Feeds



I N C H

Designation	Dimensions CW	CWTOL(1)	RE	RETOL(2)	CDX	INSL	Tough ↔ Hard IC328	IC1030	IC1028	IC354	IC350	IC1010	IC308	IC908	IC20	Recommended Machining Data f groove (IPR)
DGN 2202UA	.087	.00118	.0079	.0008	.709	.783	•		•	•						.0016-.0051
DGN 2202UT	.087	.00118	.0079	.0008	.709	.772					•			•		.0012-.0043
DGN 3003UA	.118	.00118	.0098	.0008	.709	.807	•	•	•	•		•	•		•	.0016-.0059
DGN 3003UT	.118	.00118	.0098	.0008	.709	.807						•	•	•		.0016-.0051

• For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

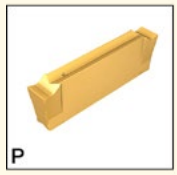
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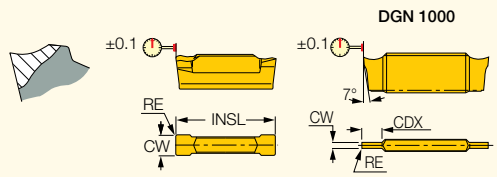
For tools, see pages: DGTR/L (503) • DGTR/L-B-D-JHP-SL (496) • DGTR/L-B-D-SH (498) • DGTR/L-B/BC-D (501) • HELIR/L (367)

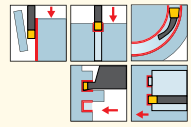
DO-GRIP

DGN-P

Double-Sided Inserts for Parting and Grooving Soft Materials, Thin and Miniature Parts







M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	INSL	CDX	IC508	Recommended Machining Data f groove (mm/rev)
DGN 1000P	1.00	0.05	0.020	0.020	20.00	3.00	●	0.02-0.05
DGN 1500P	1.50	0.05	0.020	0.020	20.00	18.00	●	0.02-0.07
DGN 2000P	2.00	0.05	0.020	0.020	20.00	18.00	●	0.02-0.08
DGN 3000P	3.00	0.05	0.020	0.020	20.00	18.00	●	0.02-0.10

• For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

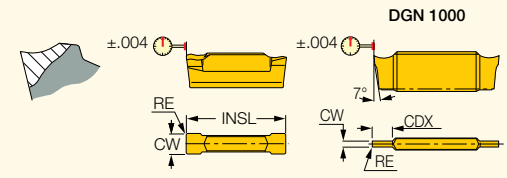
For tools, see pages: DGTR/L (503) • DGTR/L-B-D-JHP-SL (496) • DGTR/L-B-D-SH (498) • DGTR/L-B-D-TR (504) • DGTR/L-B/BC-D (501)

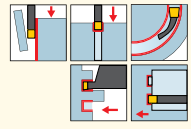
DO-GRIP

DGN-P

Double-Sided Inserts for Parting and Grooving Soft Materials, Thin and Miniature Parts







I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	INSL	CDX	IC508	Recommended Machining Data f groove (IPR)
DGN 1000P	.039	.0020	.00078	.0008	.787	.118	●	.0008-.0020
DGN 1500P	.059	.0020	.00078	.0008	.787	.709	●	.0008-.0027
DGN 2000P	.079	.0020	.00078	.0008	.787	.709	●	.0008-.0031
DGN 3000P	.118	.0020	.00078	.0008	.787	.709	●	.0008-.0039

• For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

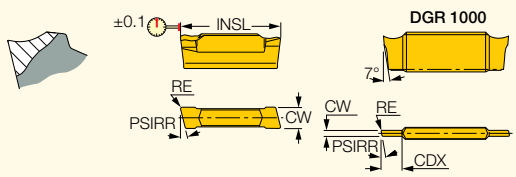
For tools, see pages: DGTR/L (503) • DGTR/L-B-D-JHP-SL (496) • DGTR/L-B-D-SH (498) • DGTR/L-B-D-TR (504) • DGTR/L-B/BC-D (501)

DO-GRIP

DGR-P

Double-Sided Inserts for Parting Soft Materials, Thin Walled and Miniature Parts





M E T R I C

Designation	Dimensions CW	RE	INSL	CDX	PSIRR	IC508	Recommended Machining Data f groove (mm/rev)
DGR 1000P-15D	1.00	0.05	20.60	2.90	15.0	●	0.02-0.03
DGR 1000P-6D	1.00	0.05	20.60	2.90	6.0	●	0.02-0.04
DGR 1500P-15D	1.50	0.05	20.60	18.00	15.0	●	0.02-0.04
DGR 1500P-6D	1.50	0.05	20.60	18.00	6.0	●	0.02-0.05
DGR 2000P-15D	2.00	0.05	20.60	18.00	15.0	●	0.02-0.05
DGR 2000P-6D	2.00	0.05	20.60	18.00	6.0	●	0.02-0.07

• For cutting speed recommendations and user guide, see pages 597-608

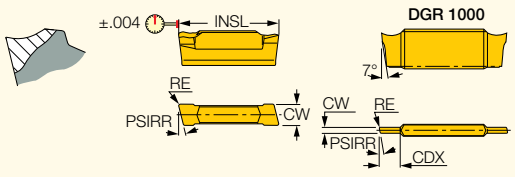
For tools, see pages: DGTR/L (503) • DGTR/L-B-D-JHP-SL (496) • DGTR/L-B-D-SH (498) • DGTR/L-B-D-TR (504) • DGTR/L-B/BC-D (501)

DO-GRIP

DGR-P

Double-Sided Inserts for Parting Soft Materials, Thin Walled and Miniature Parts





I N C H

Designation	Dimensions CW	RE	INSL	CDX	PSIRR	IC508	Recommended Machining Data f groove (IPR)
DGR 1000P-15D	.039	.0020	.811	.114	15.0	●	.0008-.0012
DGR 1000P-6D	.039	.0020	.811	.114	6.0	●	.0008-.0016
DGR 1500P-15D	.059	.0020	.811	.709	15.0	●	.0008-.0016
DGR 1500P-6D	.059	.0020	.811	.709	6.0	●	.0008-.0020
DGR 2000P-15D	.079	.0020	.811	.709	15.0	●	.0008-.0020
DGR 2000P-6D	.079	.0020	.811	.709	6.0	●	.0008-.0027

• For cutting speed recommendations and user guide, see pages 597-608

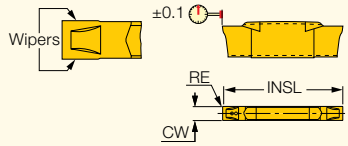
For tools, see pages: DGTR/L (503) • DGTR/L-B-D-JHP-SL (496) • DGTR/L-B-D-SH (498) • DGTR/L-B-D-TR (504) • DGTR/L-B/BC-D (501)

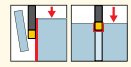
DO-GRIP

DGN-WP

Double-Sided Parting and Grooving Inserts with a Wiper Design for High Flatness and Surface Finish







M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX	INSL	Tough ↔ Hard IC328	IC1030	Recommended Machining Data f groove (mm/rev)
DGN 1900WP	1.90	0.05	0.020	0.020	6.00	19.70	●	●	0.04-0.12
DGN 2400WP	2.39	0.05	0.020	0.020	6.00	20.40	●	●	0.05-0.14

• For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

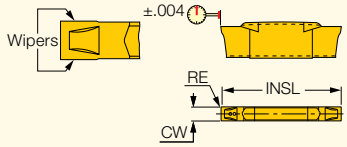
For tools, see pages: DGTR/L (503) • DGTR/L-B-D-JHP-SL (496) • DGTR/L-B-D-SH (498) • DGTR/L-B/BC-D (501)

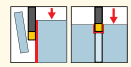
DO-GRIP

DGN-WP

Double-Sided Parting and Grooving Inserts with a Wiper Design for High Flatness and Surface Finish







I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX	INSL	Tough ↔ Hard IC328	IC1030	Recommended Machining Data f groove (IPR)
DGN 1900WP	.075	.0020	.00078	.0008	.236	.776	●	●	.0016-.0047
DGN 2400WP	.094	.0020	.00078	.0008	.236	.803	●	●	.0020-.0055

• For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

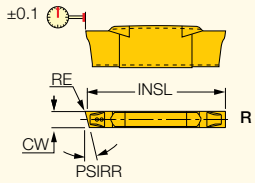
For tools, see pages: DGTR/L (503) • DGTR/L-B-D-JHP-SL (496) • DGTR/L-B-D-SH (498) • DGTR/L-B/BC-D (501)

DO-GRIP

DGR-WP

Double-Sided Parting Inserts with a Wiper Design for High Flatness and Surface Finish







M E T R I C

Designation	Dimensions CW	RE	CDX	INSL	PSIRR	Tough ↔ Hard IC328	IC1030	Recommended Machining Data f groove (mm/rev)
DGR 1900WP-12D	1.90	0.05	6.00	19.70	12.0	●	●	0.04-0.10
DGR 1900WP-5D	1.90	0.05	6.00	19.70	5.0	●		0.04-0.10
DGR 2400WP-12D	2.39	0.05	6.00	20.40	12.0	●	●	0.04-0.10
DGR 2400WP-5D	2.39	0.05	6.00	20.40	5.0	●		0.04-0.12

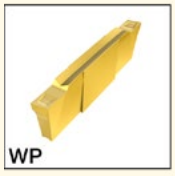
• For cutting speed recommendations and user guide, see pages 597-608

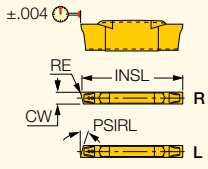
For tools, see pages: DGTR/L (503) • DGTR/L-B-D-JHP-SL (496) • DGTR/L-B-D-SH (498) • DGTR/L-B/BC-D (501)

DO-GRIP

DGR-WP

Double-Sided Parting Inserts with a Wiper Design for High Flatness and Surface Finish







I N C H

Designation	Dimensions CW	RE	CDX	INSL	PSIRR	Tough ↔ Hard IC328	IC1030	Recommended Machining Data f groove (IPR)
DGR 1900WP-12D	.075	.0020	.236	.776	12.0	●	●	.0016-.0039
DGR 1900WP-5D	.075	.0020	.236	.776	5.0	●		.0016-.0039
DGR 2400WP-12D	.094	.0020	.236	.803	12.0	●	●	.0016-.0039
DGR 2400WP-5D	.094	.0020	.236	.803	5.0	●		.0016-.0047

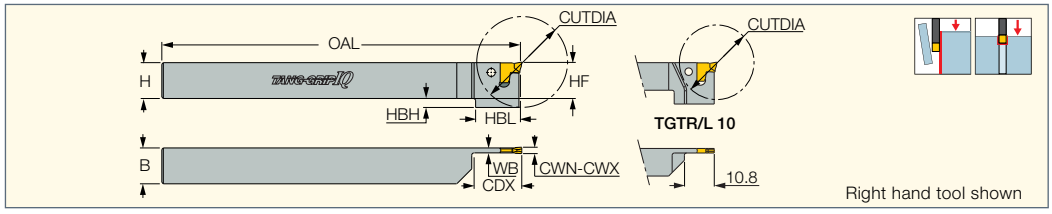
• For cutting speed recommendations and user guide, see pages 597-608

For tools, see pages: DGTR/L (503) • DGTR/L-B-D-JHP-SL (496) • DGTR/L-B-D-SH (498) • DGTR/L-B/BC-D (501)

TANG-GRIP IQ 350 LINE

TGTR/L-2T..SH-L120

Integral Shank Short-Head
TANG-GRIP Toolholders for
Parting and Grooving



M E T R I C

Designation	CWN(1)	CWX(2)	H	HF	B	WB	OAL	HBL	HBH	CDX	CUTDIA(3)
TGTR/L 1010-2T10SH-L120-IQ	1.80	2.50	10.0	10.1	10.0	1.65	120.00	15.0	5.0	10.00	26.0
TGTR/L 1212-2T15SH-L120-IQ	1.80	2.50	12.0	12.1	12.0	1.65	120.00	15.0	3.0	15.00	30.0
TGTR/L 1616-2T18SH-L120-IQ	1.80	2.50	16.0	16.1	16.0	1.65	120.00	-	-	18.00	36.0

- For user guide, see pages 597-608

(1) Minimum cutting width
(2) Maximum cutting width
(3) For parting

For inserts, see pages: TAG N-A (528) • TAG N-C/W/M (525) • TAG N-J/JS/JT (530) • TAG N-LF (533) • TAG N-MF (526) • TAG N-UT (527) • TAG R/L-C (529) • TAG R/L-J/JS (531)
For holders, see pages: SBTH-JHP (833)

Spare Parts

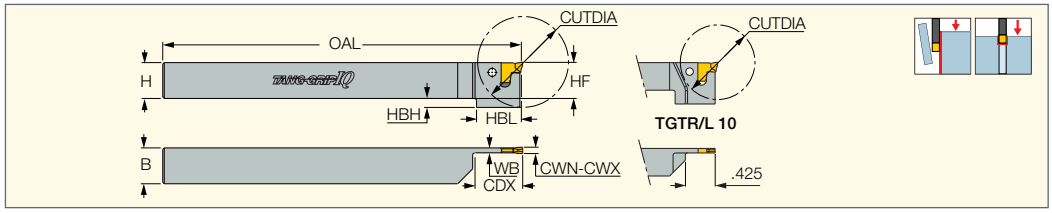
Designation	
TGTR/L-2T..SH-L120	ETG 2-SH-T*

* Optional, to be ordered separately

TANG-GRIP IQ 350 LINE

TGTR/L-2T..SH-L120

Integral Shank Short-Head
TANG-GRIP Toolholders for
Parting and Grooving



I N C H

Designation	CWN(1)	CWX(2)	H	HF	B	WB	OAL	HBL	HBH	CDX	CUTDIA(3)
TGTR/L 1010-2T10SH-L120-IQ	.071	.098	.394	.398	.394	.065	4.724	.591	.20	.394	1.024
TGTR/L 1212-2T15SH-L120-IQ	.071	.098	.472	.476	.472	.065	4.724	.591	.12	.591	1.181
TGTR/L 1616-2T18SH-L120-IQ	.071	.098	.630	.634	.630	.065	4.724	-	-	.709	1.417

- For user guide, see pages 597-608

(1) Minimum cutting width
(2) Maximum cutting width
(3) For parting

For inserts, see pages: TAG N-A (528) • TAG N-C/W/M (525) • TAG N-J/JS/JT (530) • TAG N-LF (533) • TAG N-MF (526) • TAG N-UT (527) • TAG R/L-C (529) • TAG R/L-J/JS (531)
For holders, see pages: SBTH-JHP (833)

Spare Parts

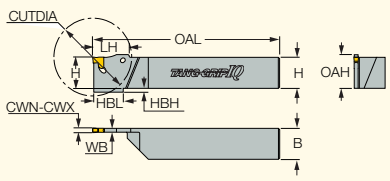
Designation	
TGTR/L-2T..SH-L120	ETG 2-SH-T*

* Optional, to be ordered separately

TANG-GRIP IQ 350 LINE

TGTR/L-IQ

Integral Shank TANG-GRIP Toolholders for Parting and Grooving



Left hand tool shown

M E T R I C

Designation	CWN(1)	CWX(2)	H	B	WB	OAL	OAH	LH	HBL	HBH	CUTDIA(3)	Insert	
TGTR/L 1010-1.4-IQ	1.40	1.45	10.0	10.0	1.05	140.00	15.0	-	15.50	5.0	20.0	TAG 1.4	ETG 1.4/1.6*
TGTR/L 1212-1.4-IQ	1.40	1.45	12.0	12.0	1.05	140.00	12.0	-	16.00	3.0	30.0	TAG 1.4	ETG 1.4/1.6*
TGTR/L 1616-1.4-IQ	1.40	1.45	16.0	16.0	1.05	140.00	16.0	-	16.00	-	30.0	TAG 1.4	ETG 1.4/1.6*
TGTR/L 2020-1.4-IQ	1.40	1.45	20.0	20.0	1.05	140.00	20.0	-	16.00	-	30.0	TAG 1.4	ETG 1.4/1.6*
TGTR/L 1010-1.6-IQ	1.60	1.64	10.0	10.0	1.30	120.00	-	-	16.00	5.0	28.0	TAG 1.6	ETG 1.4/1.6*
TGTR/L 1212-1.6-IQ	1.60	1.64	12.0	12.0	1.30	120.00	-	-	16.00	3.0	32.0	TAG 1.6	ETG 1.4/1.6*
TGTR/L 1616-1.6-IQ	1.60	1.64	16.0	16.0	1.30	120.00	-	-	16.00	-	35.0	TAG 1.6	ETG 1.4/1.6*
TGTR/L 1010-2-IQ	1.80	2.40	10.0	10.0	1.65	150.00	15.0	-	15.50	5.0	28.0	TAG 2	ETG 2*
TGTR/L 1212-2-IQ	1.80	2.40	12.0	12.0	1.65	150.00	15.0	-	17.00	3.0	32.0	TAG 2	ETG 2*
TGTR/L 1612-2-L120-IQ	1.80	2.50	16.0	12.0	1.65	120.00	16.0	-	16.00	-	35.0	TAG 2	ETG 2*
TGTR/L 1616-2-IQ	1.80	2.40	16.0	16.0	1.65	150.00	16.0	-	16.00	-	35.0	TAG 2	ETG 2*
TGTR/L 2012-2-IQ	1.80	2.40	20.0	12.0	1.65	125.00	20.0	-	16.00	-	35.0	TAG 2	ETG 2*
TGTR/L 1212-3-IQ	2.80	3.50	12.0	12.0	2.50	150.00	19.0	-	19.00	7.0	32.0	TAG 3	ETG 3-4-SH*
TGTR/L 1612-3-L120-IQ	2.80	3.50	16.0	12.0	2.50	120.00	19.0	-	19.00	3.0	35.0	TAG 3	ETG 3-4-SH*
TGTR/L 1616-3-IQ	2.80	3.50	16.0	16.0	2.50	150.00	19.0	-	19.00	3.0	35.0	TAG 3	ETG 3-4-SH*
TGTR/L 2012-3-IQ	2.80	3.50	20.0	12.0	2.50	125.00	20.0	-	19.00	-	43.0	TAG 3	ETG 3-4-SH*
TGTR/L 2020-3-IQ	2.80	3.50	20.0	20.0	2.50	120.50	21.7	23.4	19.00	-	54.0	TAG 3	ETG 3-4*
TGTR/L 2020-4-IQ	3.70	4.50	20.0	20.0	3.40	120.50	21.7	23.4	19.00	-	57.0	TAG 4	ETG 3-4*
TGTR/L 2020-5-IQ	4.70	5.50	20.0	20.0	4.00	120.00	21.7	-	19.00	-	57.0	TAG 5	ETG 5-7*

- For user guide, see pages 597-608

(1) Minimum cutting width

(2) Maximum cutting width

(3) Maximum workpiece diameter for grooving operation

* Optional, to be ordered separately

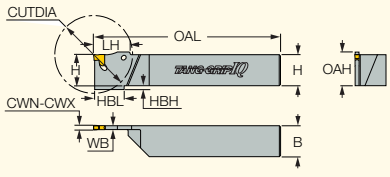
For inserts, see pages: TAG N-A (528) • TAG N-C/W/M (525) • TAG N-J/JS/JT (530) • TAG N-LF (533) • TAG N-MF (526) • TAG N-UT (527) • TAG R/L-C (529) • TAG R/L-J/JS (531)

For holders, see pages: SBTH-JHP (833)

TANG-GRIP IQ 350 LINE

TGTR/L-IQ

Integral Shank TANG-GRIP Toolholders for Parting and Grooving



Left hand tool shown

I N C H

Designation	CWN(1)	CWX(2)	H	B	WB	OAL	OAH	LH	HBL	HBH	CUTDIA(3)	Insert	
TGTR/L 9.5-1.4-IQ	.055	.060	.375	.375	.041	5.512	-	-	.590	.22	.790	TAG 1.4	ETG 1.4/1.6*
TGTR/L 12.7-1.4-IQ	.055	.060	.500	.500	.041	5.512	-	-	.630	.09	1.180	TAG 1.4	ETG 1.4/1.6*
TGTR/L 19-1.4-IQ	.055	.060	.750	.750	.041	5.512	-	-	-	-	1.180	TAG 1.4	ETG 1.4/1.6*
TGTR 9.5-1.6-IQ	.063	.065	.375	.375	.051	4.724	-	-	.629	.02	1.100	TAG 1.6	ETG 1.4/1.6*
TGTR/L 12.7-1.6-IQ	.063	.065	.500	.500	.051	4.724	-	-	.629	.12	1.260	TAG 1.6	ETG 1.4/1.6*
TGTR/L 9.5-2-IQ	.071	.098	.375	.375	.063	5.905	-	-	.730	.22	1.100	TAG 2	ETG 2*
TGTR/L 12.7-2-IQ	.071	.098	.500	.500	.063	5.910	-	-	.730	.14	1.260	TAG 2	ETG 2*
TGTR/L 16-2-IQ	.071	.098	.626	.626	.063	5.910	-	-	.710	.12	1.260	TAG 2	ETG 2*
TGTR/L 19-2-IQ	.071	.098	.750	.750	.063	5.905	-	-	-	-	1.380	TAG 2	ETG 2*
TGTR/L 12.7-3-IQ	.110	.138	.500	.500	.098	5.905	-	-	.730	.25	1.260	TAG 3	ETG 3-4-SH*
TGTR/L 16-3-IQ	.110	.138	.625	.625	.098	5.905	-	-	.710	.12	1.260	TAG 3	ETG 3-4-SH*
TGTR/L 19-3-IQ	.110	.138	.750	.750	.098	4.500	.82	.900	-	-	1.750	TAG 3	ETG 3-4*
TGTR/L 19-4-IQ	.146	.177	.750	.750	.134	4.500	.82	.900	-	-	2.000	TAG 4	ETG 3-4*

- For user guide, see pages 597-608

(1) Minimum cutting width

(2) Maximum cutting width

(3) Maximum workpiece diameter for grooving operation

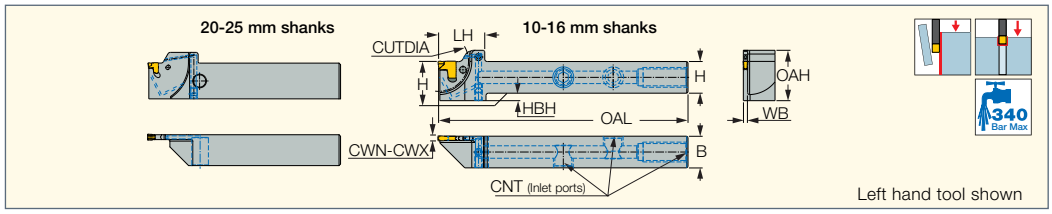
* Optional, to be ordered separately

For inserts, see pages: TAG N-A (528) • TAG N-C/W/M (525) • TAG N-J/JS/JT (530) • TAG N-LF (533) • TAG N-MF (526) • TAG N-UT (527) • TAG R/L-C (529) • TAG R/L-J/JS (531)

TANG-GRIP PARTING LINE

TGTR/L-JHP

Parting and Grooving Tools with Channels for High-Pressure Coolant Carrying TANG-GRIP Inserts



	M E T R I C											
Designation	**CWN(1)**	**CWX(2)**	**H**	**B**	**WB**	**OAL**	**OAH**	**LH**	**HBH**	**CNT**	**CUTDIA(3)**	**Insert**
TGTR/L 1010-2JHP	1.80	2.50	10.0	10.0	1.72	100.00	19.5	18.5	5.0	UNF 5/16-24	24.0	TAG 2
TGTR/L 1212-2JHP	1.80	2.50	12.0	12.0	1.72	100.00	19.5	18.5	3.0	UNF 5/16-24	24.0	TAG 2
TGTR/L 1616-2JHP	1.80	2.50	16.0	16.0	1.72	120.00	21.5	25.5	-	UNF 5/16-24	35.0	TAG 2
TGTR/L 2012-2JHP	1.80	2.50	20.0	12.0	1.72	120.00	25.6	25.5	-	UNF 5/16-24	35.0	TAG 2
TGTR/L 1616-3JHP	2.80	3.50	16.0	16.0	2.50	120.00	24.5	25.5	3.0	UNF 5/16-24	35.0	TAG 3
TGTR/L 2020-3JHP	2.80	3.50	20.0	20.0	2.50	120.00	27.0	35.0	-	G 1/8-28	54.0	TAG 3
TGTR/L 2020-4JHP	3.70	4.50	20.0	20.0	3.40	120.00	27.0	35.0	-	G 1/8-28	54.0	TAG 4

- For user guide and accessories, see pages 597-608, 69-74

(1) Minimum cutting width

(2) Maximum cutting width

(3) Maximum workpiece diameter for grooving operation

For inserts, see pages: TAG N-A (528) • TAG N-C/W/M (525) • TAG N-J/JS/JT (530) • TAG N-LF (533) • TAG N-MF (526) • TAG N-UT (527) • TAG R/L-C (529) • TAG R/L-J/JS (531)

For holders, see pages: SBTH-JHP (833)

Flow Rate vs. Pressure

Designation	70 Bar Flow Rate (liters/min)	100 Bar Flow Rate (liters/min)	140 Bar Flow Rate (liters/min)
TGTR/L...-2JHP	2-4	4-6	6-8
TGTR/L...-3JHP	7-9	9-11	11-13
TGTR/L...-4JHP	7-9	9-11	11-13

Spare Parts

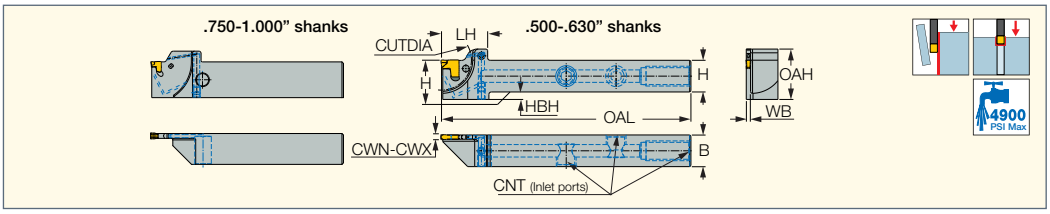
Designation					
TGTR/L 1010-2JHP	ETG 2-SH-T*		SR 5/16UNF TL360		HW 5/32"
TGTR/L 1212-2JHP	ETG 2-SH-T*		SR 5/16UNF TL360		HW 5/32"
TGTR/L 1616-2JHP	ETG 2*		SR 5/16UNF TL360		HW 5/32"
TGTR/L 2012-2JHP	ETG 2*		SR 5/16UNF TL360		HW 5/32"
TGTR/L 1616-3JHP	ETG 3-4-SH*		SR 5/16UNF TL360		HW 5/32"
TGTR/L 2020-3JHP	ETG 3-4-SH*	PLG G1/8 TL360		HW 5.0	
TGTR/L 2020-4JHP	ETG 3-4-SH*	PLG G1/8 TL360		HW 5.0	

* Optional, to be ordered separately

TANG-GRIP PARTING LINE

TGTR/L-JHP

Parting and Grooving Tools with Channels for High-Pressure Coolant Carrying TANG-GRIP Inserts



	INCH											
Designation	**CWN(1)**	**CWX(2)**	**H**	**B**	**WB**	**OAL**	**OAH**	**LH**	**HBH**	**CNT**	**CUTDIA(3)**	**Insert**
TGTR/L 12.7-2JHP	.071	.100	.500	.500	.068	3.940	.80	.730	.12	UNF 5/16-24 (4)	.940	TAG 2
TGTR/L 1616-2JHP	.071	.098	.630	.630	.068	4.724	.85	1.004	-	UNF 5/16-24	1.378	TAG 2
TGTR/L 19-2JHP	.071	.100	.750	.750	.068	4.720	1.00	1.004	-	G 1/8-28	1.400	TAG 2
TGTR/L 1616-3JHP	.110	.138	.630	.630	.098	4.724	.96	1.004	.12	UNF 5/16-24	1.378	TAG 3
TGTR/L 19-3JHP	.110	.138	.750	.750	.100	4.724	1.00	1.378	-	G 1/8-28	2.100	TAG 3
TGTR/L 19-4JHP	.146	.177	.750	.750	.134	4.724	1.00	1.378	-	G 1/8-28	2.100	TAG 4

• For user guide and accessories, see pages 597-608, 69-74

(1) Minimum cutting width

(2) Maximum cutting width

(3) Maximum workpiece diameter for grooving operation

(4) Use M5 G1/8 adapter.

For inserts, see pages: TAG N-A (528) • TAG N-C/W/M (525) • TAG N-J/JS/JT (530) • TAG N-LF (533) • TAG N-MF (526) • TAG N-UT (527) • TAG R/L-C (529) • TAG R/L-J/JS (531)

For holders, see pages: SBTH-JHP (833)

Flow Rate vs. Pressure

Designation	1000 psi Flow Rate (GPM)	1450 psi Flow Rate (GPM)	2030 psi Flow Rate (GPM)
TGTR/L...-2JHP	.5-1.06	1.0-1.6	1.6-2.1
TGTR/L...-3JHP	1.8-2.4	2.4-3.0	3.0-3.4
TGTR/L...-4JHP	1.8-2.4	2.4-3.0	3.0-3.4

Spare Parts

Designation					
TGTR/L 12.7-2JHP	ETG 2-SH-T*		SR 5/16UNF TL360		HW 5/32"
TGTR/L 1616-2JHP	ETG 2*		SR 5/16UNF TL360		HW 5/32"
TGTR/L 19-2JHP	ETG 2*	PLG G1/8 TL360		HW 5.0	
TGTR/L 1616-3JHP	ETG 3-4-SH*		SR 5/16UNF TL360		HW 5/32"
TGTR/L 19-3JHP	ETG 3-4-SH*	PLG G1/8 TL360		HW 5.0	
TGTR/L 19-4JHP	ETG 3-4-SH*	PLG G1/8 TL360		HW 5.0	

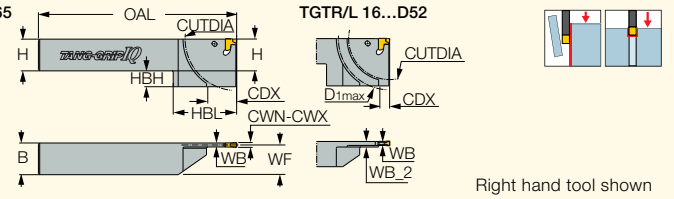
* Optional, to be ordered separately

TANG-GRIP IQ 350 LINE

TGTR/L-D

Integral Shank TANG-GRIP Toolholders with Reinforced Blades for Parting and Grooving Mainly Sub-Spindle Machines





M E T R I C

Designation	CW	CWN(1)	CWX(2)	H	B	WB	WB_2	OAL	HBL	WF	HBH	CUTDIA(3)	D1 max	CDX	Insert	
TGTR/L 1616-2-D52-IQ	2.00	1.80	2.40	16.0	16.0	1.65	3.50	125.00	40.0	15.20	14.0	52.0	65.0	6.00	TAG 2	ETG 2*
TGTR/L 2020-2-D65-IQ	2.00	1.80	2.40	20.0	20.0	1.65	-	125.00	40.0	19.20	10.0	65.0	-	18.00	TAG 2	ETG 2*
TGTR/L 1616-3-D52-IQ	3.00	2.80	3.50	16.0	16.0	2.50	3.50	125.00	40.0	14.80	14.0	52.0	65.0	6.00	TAG 3	ETG 3-4-SH*
TGTR/L 2020-3-D65-IQ	3.00	2.80	3.50	20.0	20.0	2.50	-	125.00	40.0	18.80	10.0	65.0	-	18.00	TAG 3	ETG 3-4-SH*

• For user guide, see pages 597-608

(1) Minimum cutting width

(2) Maximum cutting width

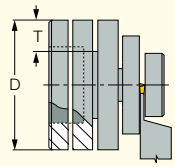
(3) Maximum workpiece diameter for grooving operation

* Optional, to be ordered separately

For inserts, see pages: TAG N-A (528) • TAG N-C/W/M (525) • TAG N-J/JS/JT (530) • TAG N-LF (533) • TAG N-MF (526) • TAG N-UT (527) • TAG R/L-C (529) • TAG R/L-J/JS (531)

Depth Capacity DGTR/L-D

Table Determining Depth of Cut as Function of Workpiece Diameter



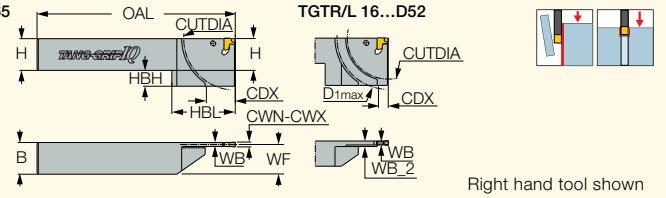
Designation	Tmax									
TGTR/L 1616-2-D52-IQ	20	25	19	16	15	13	11	10	9	8
TGTR/L 2020-2-D65-IQ	20	25	30	31	29	26	24	23	22	20
TGTR/L 1616-3-D52-IQ	20	25	20	17	15	13	11	10	9	8
TGTR/L 2020-3-D65-IQ	20	25	30	31	29	26	24	23	22	20
D →	40	50	60	70	80	100	120	150	200	300

TANG-GRIP IQ 350 LINE

TGTR/L-D

Integral Shank TANG-GRIP Toolholders with Reinforced Blades for Parting and Grooving Mainly Sub-Spindle Machines





I N C H

Designation	CW	CWN(1)	CWX(2)	H	B	WB	WB_2	OAL	HBL	WF	HBH	CUTDIA(3)	D1 max	CDX	Insert	
TGTR/L 1616-2-D52-IQ	.079	.071	.094	.630	.630	.065	.138	4.921	1.575	.598	.55	2.050	2.56	.236	TAG 2	ETG 2*
TGTR/L 1616-3-D52-IQ	.118	.110	.138	.630	.630	.098	.138	4.921	1.575	.583	.55	2.050	2.56	.236	TAG 3	ETG 3-4-SH*

• For user guide, see pages 597-608

(1) Minimum cutting width

(2) Maximum cutting width

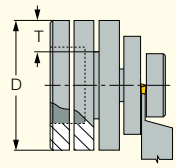
(3) Maximum workpiece diameter for grooving operation

* Optional, to be ordered separately

For inserts, see pages: TAG N-A (528) • TAG N-C/W/M (525) • TAG N-J/JS/JT (530) • TAG N-LF (533) • TAG N-MF (526) • TAG N-UT (527) • TAG R/L-C (529) • TAG R/L-J/JS (531)

Depth Capacity TGTR/L-D

Table determining depth of cut as function of workpiece diameter

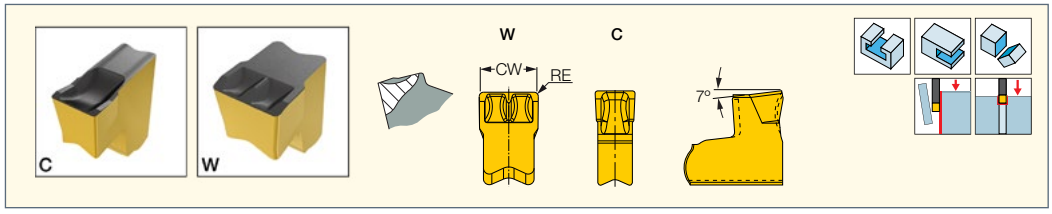


Designation	Tmax									
TGTR/L 1616-2-D52-IQ	.78	.98	.75	.63	.59	.51	.43	.39	.35	.31
TGTR/L 1616-3-D52-IQ	.78	.98	.79	.67	.59	.51	.43	.39	.35	.31
D →	1.57	1.97	2.36	2.75	3.15	3.94	4.72	5.90	7.87	11.8

TANG-GRIP PARTING LINE

TAG N-C/W/M

Single-Ended Inserts for Parting, Grooving and Slitting Bars, Hard Materials and Tough Applications



M E T R I C

Designation	Dimensions CW	CWTOL(3)	RE	Tough ↔ Hard IC830	IC928	IC1030	IC1010	IC808	IC908	IC30N	IC5400	IC20	IC807	Recommended Machining Data f groove (mm/rev)
TAG N1.4C	1.40	0.040	0.16										●	0.04-0.10
TAG N1.6C	1.60	0.040	0.16	●				●						0.04-0.14
TAG N2C	2.00	0.040	0.20	●		●	●	●		●	●	●		0.05-0.16
TAG N2.4C	2.40	0.040	0.16	●				●						0.06-0.18
TAG N3CB (1)	3.00	0.040	0.35	●				●						0.12-0.30
TAG N3C	3.05	0.040	0.20	●	●	●	●	●	●	●	●	●	●	0.10-0.25
TAG N3M (2)	3.05	0.040	0.20	●					●					0.06-0.18
TAG N3W	3.05	0.040	0.20	●					●					0.10-0.25

• Feed values for grade IC20 should be decreased by 50% • For cutting speed recommendations and user guide, see pages 597-608

(1) Larger corner radii for interrupted cut and high feed applications

(2) Similar to C-type, but with a modified edge; improved chip control at medium feeds

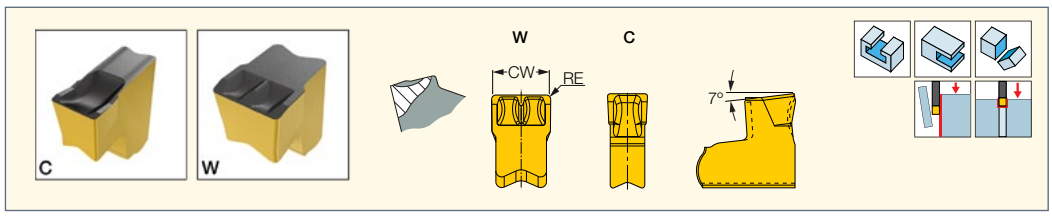
(3) Cutting width tolerance (+/-)

For tools, see pages: TGTR/L-2T..SH-L120 (520) • TGTR/L-D (524) • TGTR/L-JHP (522) • TGTR/L-IQ (521)

TANG-GRIP PARTING LINE

TAG N-C/W/M

Single-Ended Inserts for Parting, Grooving and Slitting Bars, Hard Materials and Tough Applications



I N C H

Designation	Dimensions CW	CWTOL(3)	RE	Tough ↔ Hard IC830	IC928	IC1030	IC1010	IC808	IC908	IC30N	IC5400	IC20	IC807	Recommended Machining Data f groove (IPR)
TAG N1.4C	.055	.00157	.0063										●	.0016-.0039
TAG N1.6C	.063	.00157	.0063	●				●						.0016-.0055
TAG N2C	.079	.00157	.0079	●		●	●	●		●	●	●		.0020-.0063
TAG N2.4C	.094	.00157	.0063	●				●						.0024-.0071
TAG N3CB (1)	.118	.00157	.0138	●				●						.0047-.0118
TAG N3C	.120	.00157	.0079	●	●	●	●	●	●	●	●	●	●	.0039-.0098
TAG N3M (2)	.120	.00157	.0079	●					●					.0024-.0071
TAG N3W	.120	.00157	.0079	●					●					.0039-.0098

• Feed values for grade IC20 should be decreased by 50% • For cutting speed recommendations see pages 597-608

(1) Larger corner radii for interrupted cut and high feed applications

(2) Similar to C-type, but with a modified edge; improved chip control at medium feeds

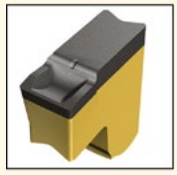
(3) Cutting width tolerance (+/-)

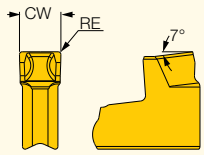
For tools, see pages: TGTR/L-2T..SH-L120 (520) • TGTR/L-D (524) • TGTR/L-IQ (521) • TGTR/L-JHP (522)

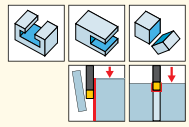
TANG-GRIP PARTING LINE

TAG N-MF

Single-Ended Inserts for Parting Grooving and Slitting Stainless and Alloy Steel at Medium Feed







M E T R I C

Designation	Dimensions CW	CWTOL(1)	RE	Tough ↔ Hard IC830	IC1030	IC1010	IC808	IC5400	IC807	Recommended Machining Data f groove (mm/rev)
TAG N2MF	2.00	0.050	0.20	●	●	●	●	●		0.04-0.15
TAG N3MF	3.05	0.050	0.20	●	●	●	●	●	●	0.06-0.18

• For cutting speed recommendations and user guide, see pages 597-608

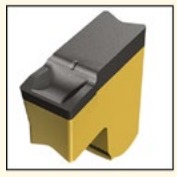
(1) Cutting width tolerance (+/-)

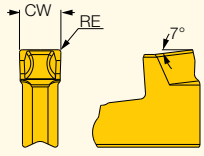
For tools, see pages: TGTR/L-2T..SH-L120 (520) • TGTR/L-D (524) • TGTR/L-IQ (521) • TGTR/L-JHP (522)

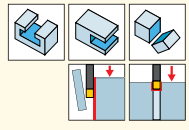
TANG-GRIP PARTING LINE

TAG N-MF

Single-Ended Inserts for Parting Grooving and Slitting Stainless and Alloy Steel at Medium Feed







I N C H

Designation	Dimensions CW	CWTOL(1)	RE	Tough ↔ Hard IC830	IC1030	IC1010	IC808	IC5400	IC807	Recommended Machining Data f groove (IPR)
TAG N2MF	.079	.00196	.008	●	●	●	●	●		.0016-.0059
TAG N3MF	.120	.00196	.008	●	●	●	●	●	●	.0024-.0071

• For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

For tools, see pages: TGTR/L-2T..SH-L120 (520) • TGTR/L-D (524) • TGTR/L-IQ (521) • TGTR/L-JHP (522)

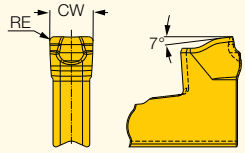
TANG-GRIP PARTING LINE

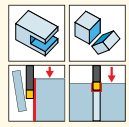
TAG N-UT

Single-Sided Inserts for Parting, Grooving & Slitting at Low Feeds on Cr-Ni Alloys, Ductile Materials & Low Carbon Steel









M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	Tough ↔ Hard IC830	IC808	IC908	Recommended Machining Data f groove (mm/rev)
TAG N2UT	2.00	0.20	0.040	0.040	•	•	•	0.03-0.10
TAG N3UT	3.00	0.30	0.040	0.040	•	•		0.04-0.12

• For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

For tools, see pages: TGTR/L-2T..SH-L120 (520) • TGTR/L-D (524) • TGTR/L-IQ (521) • TGTR/L-JHP (522)

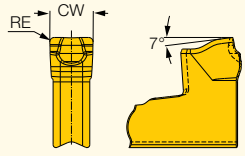
TANG-GRIP PARTING LINE

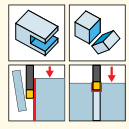
TAG N-UT

Single-Sided Inserts for Parting, Grooving & Slitting at Low Feeds on Cr-Ni Alloys, Ductile Materials & Low Carbon Steel









I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	Tough ↔ Hard IC830	IC808	IC908	Recommended Machining Data f groove (IPR)
TAG N2UT	.079	.0079	.00157	.0016	•	•	•	.0012-.0039
TAG N3UT	.118	.0118	.00157	.0016	•	•		.0016-.0047

• For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

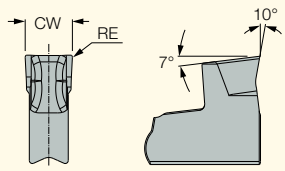
For tools, see pages: TGTR/L-2T..SH-L120 (520) • TGTR/L-D (524) • TGTR/L-IQ (521) • TGTR/L-JHP (522)

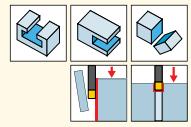
TANG-GRIP PARTING LINE

TAG N-A

Single-Ended Inserts for Parting, Grooving, and Slitting Aluminum







M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	IC20	Recommended Machining Data f groove (mm/rev)
TAG N2A	2.00	0.20	0.040	0.040	●	0.02-0.10
TAG N3A	3.07	0.20	0.040	0.040	●	0.03-0.14

• For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

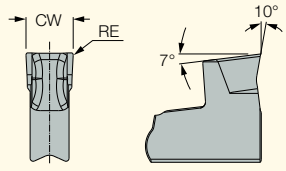
For tools, see pages: TGTR/L-2T..SH-L120 (520) • TGTR/L-D (524) • TGTR/L-IQ (521) • TGTR/L-JHP (522)

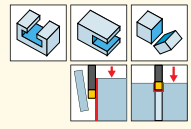
TANG-GRIP PARTING LINE

TAG N-A

Single-Ended Inserts for Parting, Grooving, and Slitting Aluminum







I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	IC20	Recommended Machining Data f groove (IPR)
TAG N2A	.079	.008	.00157	.0016	●	.0008-.0039
TAG N3A	.121	.008	.00157	.0016	●	.0012-.0055

• For cutting speed recommendations, see pages 597-608

(1) Cutting width tolerance (+/-)

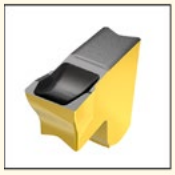
(2) Corner radius tolerance (+/-)

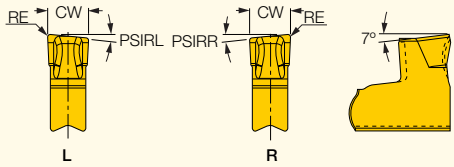
For tools, see pages: TGTR/L-2T..SH-L120 (520) • TGTR/L-D (524) • TGTR/L-IQ (521) • TGTR/L-JHP (522)

TANG-GRIP PARTING LINE

TAG R/L-C

Single-Ended Inserts for Parting Bars, Hard Materials and Tough Parting Applications







M E T R I C

Designation	Dimensions CW	CWTOL(1)	RE	PSIRR	PSIRL	Tough ↔ Hard IC830	IC928	IC808	IC908	IC30N	Recommended Machining Data f groove (mm/rev)
TAG L2C-6D	2.05	0.100	0.20	-	6.0	•		•			0.04-0.12
TAG R2C-6D	2.05	0.100	0.20	6.0	-	•		•			0.04-0.12
TAG R2.4C-8D	2.40	0.100	0.16	8.0	-			•			0.05-0.13
TAG L3C-6D	3.00	0.100	0.20	-	6.0	•	•	•	•		0.08-0.18
TAG R3C-6D	3.00	0.100	0.20	6.0	-	•	•	•	•		0.08-0.18
TAG R3C-8D	3.00	0.100	0.20	8.0	-					•	0.06-0.16
TAG L3C-15D	3.00	0.100	0.20	-	15.0	•	•	•	•		0.08-0.16
TAG R3C-15D	3.00	0.100	0.20	15.0	-	•	•	•	•		0.08-0.16

• For cutting speed recommendations and user guide, see pages 597-608

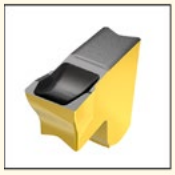
(1) Cutting width tolerance (+/-)

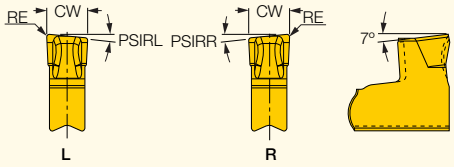
For tools, see pages: TGTR/L-2T..SH-L120 (520) • TGTR/L-D (524) • TGTR/L-IQ (521) • TGTR/L-JHP (522)

TANG-GRIP PARTING LINE

TAG R/L-C

Single-Ended Inserts for Parting Bars, Hard Materials and Tough Parting Applications







I N C H

Designation	Dimensions CW	CWTOL(1)	RE	PSIRR	PSIRL	Tough ↔ Hard IC830	IC928	IC808	IC908	IC30N	Recommended Machining Data f groove (IPR)
TAG L2C-6D	.081	.00393	.008	-	6.0	•		•			.0016-.0047
TAG R2C-6D	.081	.00393	.008	6.0	-	•		•			.0016-.0047
TAG R2.4C-8D	.094	.00393	.006	8.0	-			•			.0020-.0051
TAG L3C-6D	.118	.00393	.008	-	6.0	•	•	•	•		.0031-.0071
TAG R3C-6D	.118	.00393	.008	6.0	-	•	•	•	•		.0031-.0071
TAG R3C-8D	.118	.00393	.008	8.0	-					•	.0024-.0063
TAG L3C-15D	.118	.00393	.008	-	15.0	•	•	•	•		.0031-.0063
TAG R3C-15D	.118	.00393	.008	15.0	-	•	•	•	•		.0031-.0063

• For cutting speed recommendations and user guide, see pages 597-608

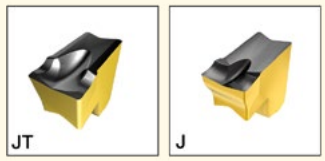
(1) Cutting width tolerance (+/-)

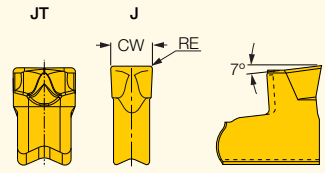
For tools, see pages: TGTR/L-2T..SH-L120 (520) • TGTR/L-D (524) • TGTR/L-IQ (521) • TGTR/L-JHP (522)

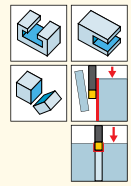
TANG-GRIP PARTING LINE

TAG N-J/JS/JT

Single-Ended Inserts for Parting, Grooving and Slitting Soft Materials







M E T R I C

Designation	Dimensions CW	RE	CWTOL(2)	RETOL(3)	Tough ↔ Hard IC830	IC928	IC1030	IC1010	IC808	IC908	IC5400	IC20	IC807	Recommended Machining Data f groove (mm/rev)
TAG N1.4J	1.40	0.16	0.040	0.030	●				●				●	0.03-0.10
TAG N1.6J	1.60	0.16	0.040	0.030	●				●					0.03-0.12
TAG N2JS (1)	2.00	0.02	0.040	0.020	●				●					0.03-0.08
TAG N2J	2.00	0.20	0.040	0.040	●		●	●	●		●	●		0.04-0.12
TAG N2JT	2.00	0.20	0.040	0.040	●	●		●	●	●	●			0.04-0.14
TAG N3JS (1)	3.05	0.02	0.040	0.020	●				●					0.04-0.10
TAG N3J	3.05	0.20	0.040	0.030	●	●	●	●	●	●	●	●	●	0.04-0.16
TAG N3JT	3.05	0.20	0.040	0.030	●				●	●	●			0.05-0.18
TAG N3.2JT	3.25	0.20	0.040	0.030	●				●					0.05-0.18

- JT chipformer has the basic positive configuration of the J-type and a reinforced negative front edge; most suitable for soft materials at low to medium feeds.
- For cutting speed recommendations and user guide, see pages 597-608

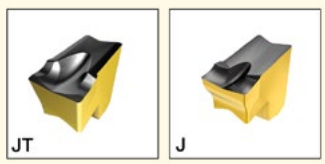
(1) Sharp corners cannot be used on TGSF slitting cutters
(2) Cutting width tolerance (+/-)
(3) Corner radius tolerance (+/-)

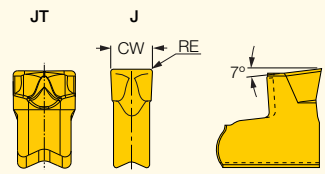
For tools, see pages: TGTR/L-2T..SH-L120 (520) • TGTR/L-D (524) • TGTR/L-IQ (521) • TGTR/L-JHP (522)

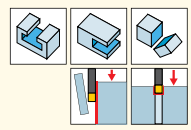
TANG-GRIP PARTING LINE

TAG N-J/JS/JT

Single-Ended Inserts for Parting, Grooving and Slitting Soft Materials







I N C H

Designation	Dimensions CW	RE	CWTOL(2)	RETOL(3)	Tough ↔ Hard IC830	IC928	IC1030	IC1010	IC808	IC908	IC5400	IC20	IC807	Recommended Machining Data f groove (IPR)
TAG N1.4J	.055	.0063	.00157	.0012	●				●				●	.0012-.0039
TAG N1.6J	.063	.0063	.00157	.0012	●				●					.0012-.0047
TAG N2JS (1)	.079	.0008	.00157	.0008	●				●					.0012-.0031
TAG N2J	.079	.0079	.00157	.0016	●		●	●	●		●	●		.0016-.0047
TAG N2JT	.079	.0079	.00157	.0016	●	●		●	●	●	●			.0016-.0055
TAG N3JS (1)	.120	.0008	.00157	.0008	●				●					.0016-.0039
TAG N3J	.120	.0079	.00157	.0012	●	●	●	●	●	●	●	●	●	.0016-.0063
TAG N3JT	.120	.0079	.00157	.0012	●				●	●	●			.0020-.0071
TAG N3.2JT	.128	.0079	.00157	.0012	●				●					.0020-.0071

- JT chipformer has the basic positive configuration of the J-type and a reinforced negative front edge; most suitable for soft materials at low to medium feeds.
- For cutting speed recommendations, see pages 597-608

(1) Sharp corners cannot be used on TGSF slitting cutters
(2) Cutting width tolerance (+/-)
(3) Corner radius tolerance (+/-)

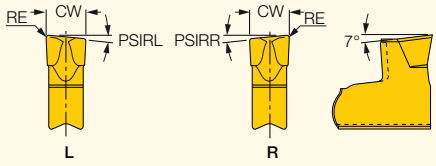
For tools, see pages: TGTR/L-2T..SH-L120 (520) • TGTR/L-D (524) • TGTR/L-IQ (521) • TGTR/L-JHP (522)

TANG-GRIP PARTING LINE

TAG R/L-J/JS

TANG-GRIP Inserts for Parting Soft Materials, Tubes, Small Diameters and Thin-Walled Parts







M E T R I C

Designation	Dimensions CW	RE	PSIRL	PSIRR	Tough ↔ Hard IC830	IC928	IC808	IC908	IC807	Recommended Machining Data f groove (mm/rev)
TAG L1.4J-8D	1.40	0.16	8.0	-	●		●		●	0.03-0.08
TAG R1.4J-8D	1.40	0.16	-	8.0	●		●		●	0.03-0.08
TAG L1.4JS-10D (1)	1.40	0.02	10.0	-	●		●		●	0.02-0.06
TAG R1.4JS-10D (1)	1.40	0.02	-	10.0	●		●		●	0.02-0.06
TAG L2J-6D	2.00	0.20	6.0	-	●		●			0.03-0.10
TAG R2J-6D	2.00	0.20	-	6.0	●		●			0.03-0.10
TAG L2JS-6D (1)	2.00	0.02	6.0	-	●		●			0.02-0.08
TAG R2JS-6D (1)	2.00	0.02	-	6.0	●		●			0.02-0.08
TAG L2J-15D	2.00	0.20	15.0	-	●		●			0.03-0.08
TAG R2J-15D	2.00	0.20	-	15.0	●		●			0.03-0.08
TAG L2JS-15D (1)	2.00	0.02	15.0	-	●		●			0.02-0.06
TAG R2JS-15D (1)	2.00	0.02	-	15.0	●		●			0.02-0.06
TAG L3J-6D	3.00	0.20	6.0	-	●	●	●	●		0.04-0.14
TAG R3J-6D	3.00	0.20	-	6.0	●	●	●	●		0.04-0.14
TAG L3JS-6D (1)	3.00	0.02	6.0	-	●		●			0.03-0.10
TAG R3JS-6D (1)	3.00	0.02	-	6.0	●		●			0.03-0.10
TAG L3J-15D	3.00	0.20	15.0	-	●	●	●	●		0.04-0.12
TAG R3J-15D	3.00	0.20	-	15.0	●	●	●	●		0.04-0.12
TAG L3JS-15D (1)	3.00	0.02	15.0	-	●		●			0.03-0.08
TAG R3JS-15D (1)	3.00	0.02	-	15.0	●		●			0.03-0.08

• For cutting speed recommendations and user guide, see pages 597-608

(1) Sharp corners cannot be used on TGSF slitting cutters

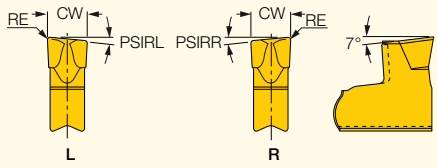
For tools, see pages: TGTR/L-2T..SH-L120 (520) • TGTR/L-D (524) • TGTR/L-IQ (521) • TGTR/L-JHP (522)

TANG-GRIP PARTING LINE

TAG R/L-J/JS

TANG-GRIP Inserts for Parting Soft Materials, Tubes, Small Diameters and Thin-Walled Parts







I N C H

Designation	Dimensions CW	RE	PSIRL	PSIRR	Tough ↔ Hard IC830	IC928	IC808	IC908	IC807	Recommended Machining Data f groove (IPR)
TAG L1.4J-8D	.055	.0063	8.0	-	●		●		●	.0012-.0031
TAG R1.4J-8D	.055	.0063	-	8.0	●		●		●	.0012-.0031
TAG L1.4JS-10D (1)	.055	.0008	10.0	-	●		●		●	.0008-.0024
TAG R1.4JS-10D (1)	.055	.0008	-	10.0	●		●		●	.0008-.0024
TAG L2J-6D	.079	.0079	6.0	-	●		●			.0012-.0039
TAG R2J-6D	.079	.0079	-	6.0	●		●			.0012-.0039
TAG L2JS-6D (1)	.079	.0008	6.0	-	●		●			.0008-.0031
TAG R2JS-6D (1)	.079	.0008	-	6.0	●		●			.0008-.0031
TAG L2J-15D	.079	.0079	15.0	-	●		●			.0012-.0031
TAG R2J-15D	.079	.0079	-	15.0	●		●			.0012-.0031
TAG L2JS-15D (1)	.079	.0008	15.0	-	●		●			.0008-.0024
TAG R2JS-15D (1)	.079	.0008	-	15.0	●		●			.0008-.0024
TAG L3J-6D	.118	.0079	6.0	-	●	●	●	●		.0016-.0055
TAG R3J-6D	.118	.0079	-	6.0	●	●	●	●		.0016-.0055
TAG L3JS-6D (1)	.118	.0008	6.0	-	●		●			.0012-.0039
TAG R3JS-6D (1)	.118	.0008	-	6.0	●		●			.0012-.0039
TAG L3J-15D	.118	.0079	15.0	-	●	●	●	●		.0016-.0047
TAG R3J-15D	.118	.0079	-	15.0	●	●	●	●		.0016-.0047
TAG L3JS-15D (1)	.118	.0008	15.0	-	●		●			.0012-.0031
TAG R3JS-15D (1)	.118	.0008	-	15.0	●		●			.0012-.0031

• For cutting speed recommendations and user guide, see pages 597-608

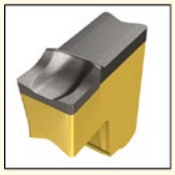
(1) Sharp corners cannot be used on TGSF slitting cutters

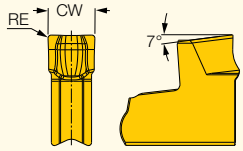
For tools, see pages: TGTR/L-2T..SH-L120 (520) • TGTR/L-D (524) • TGTR/L-IQ (521) • TGTR/L-JHP (522)

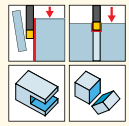
TANG-GRIP PARTING LINE

TAG N-LF

Single-Ended Inserts for Parting, Grooving and Slitting Stainless Steel







M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	Tough ↔ Hard IC830	IC1030	IC1010	IC808	IC5400	IC807	Recommended Machining Data f groove (mm/rev)
TAG N2LF	2.00	0.20	0.040	0.030	•	•	•	•	•		0.03-0.08
TAG N3LF	3.05	0.20	0.040	0.030	•	•	•	•	•	•	0.04-0.10

• For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

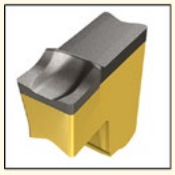
(2) Corner radius tolerance (+/-)

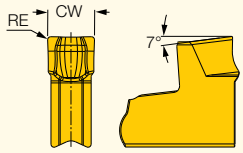
For tools, see pages: TGTR/L-2T..SH-L120 (520) • TGTR/L-D (524) • TGTR/L-IQ (521) • TGTR/L-JHP (522)

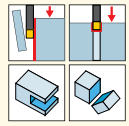
TANG-GRIP PARTING LINE

TAG N-LF

Single-Ended Inserts for Parting, Grooving and Slitting Stainless Steel







I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	Tough ↔ Hard IC830	IC1030	IC1010	IC808	IC5400	IC807	Recommended Machining Data f groove (IPR)
TAG N2LF	.079	.008	.00157	.0012	•	•	•	•	•		.0012-.0031
TAG N3LF	.120	.008	.00157	.0012	•	•	•	•	•	•	.0016-.0039

• For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

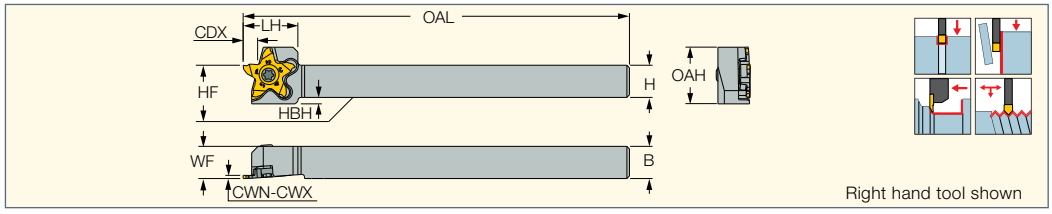
(2) Corner radius tolerance (+/-)

For tools, see pages: TGTR/L-2T..SH-L120 (520) • TGTR/L-D (524) • TGTR/L-IQ (521) • TGTR/L-JHP (522)

PENTACUT

PCHRS/LS-17

Tools Carrying Inserts with 5 Cutting Edges for Grooving, Parting, and Recessing Next to High Shoulders



M E T R I C

Designation	H	B	CWN(1)	CWX(2)	WF	OAL	LH	HBH	OAH	CDX	HF
PCHR/LS 0810-17	8.0	10.0	0.25	3.18	10.00	120.00	17.0	4.0	13.60	4.00	8.0
PCHR/LS 10-17	10.0	10.0	0.25	3.18	10.00	120.00	17.0	2.0	15.60	4.00	10.0
PCHR/LS 12-17	12.0	12.0	0.25	3.18	12.00	120.00	17.0	-	17.60	4.00	12.0
PCHR/LS 16-17	16.0	16.0	0.25	3.18	16.00	120.00	17.0	-	21.60	4.00	16.0

- Use right-hand inserts on right-hand tools and vice versa

(1) Minimum cutting width

(2) Maximum cutting width

For inserts, see pages: PENTA 17-ER/EL (540) • PENTA 17-MT-RS/LS (671) • PENTA 17-NP-RS/LS (537) • PENTA 17-NX-RS (538) • PENTA 17-P-RS/LS (541) • PENTA 17-P-RS/LS (full radius) (543) • PENTA 17-WT-RS/LS (653) • PENTA 17R/L-P-RS (545)

Spare Parts

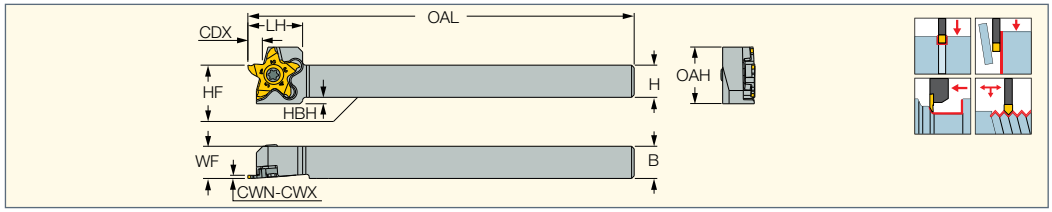
Designation		
PCHLS 0810-17	SR M4-39432(a)	T-1508/5
PCHRS 0810-17	SR M4-39432L(a)	T-1508/5
PCHLS 10-17	SR M4-39432(a)	T-1508/5
PCHRS 10-17	SR M4-39432L(a)	T-1508/5
PCHLS 12-17	SR M4-39432(a)	T-1508/5
PCHRS 12-17	SR M4-39432L(a)	T-1508/5
PCHLS 16-17	SR M4-39432(a)	T-1508/5
PCHRS 16-17	SR M4-39432L(a)	T-1508/5

(a) Recommended tightening torque:2.5 N*m

PENTACUT

PCHRS/LS-17

Tools Carrying Inserts with 5 Cutting Edges for Grooving,Parting, and Recessing Next to High Shoulders



I N C H

Designation	H	B	CWN(1)	CWX(2)	WF	OAL	LH	HBH	OAH	CDX	HF
PCHR/LS 9.5-17	.375	.375	.010	.125	.375	4.724	.669	.100	.690	.157	.375
PCHR/LS 12.7-17	.500	.500	.010	.125	.500	4.724	.669	-	.720	.157	.500
PCHR/LS 16-17	.630	.630	.010	.125	.630	4.724	.669	-	.850	.157	.630

- Use right-hand inserts on right-hand tools and vice versa

(1) Minimum cutting width

(2) Maximum cutting width

For inserts, see pages: PENTA 17-ER/EL (540) • PENTA 17-MT-RS/LS (671) • PENTA 17-NP-RS/LS (537) • PENTA 17-NX-RS (538) • PENTA 17-P-RS/LS (541) • PENTA 17-P-RS/LS (full radius) (543) • PENTA 17-WT-RS/LS (653) • PENTA 17R/L-P-RS (545)

Spare Parts

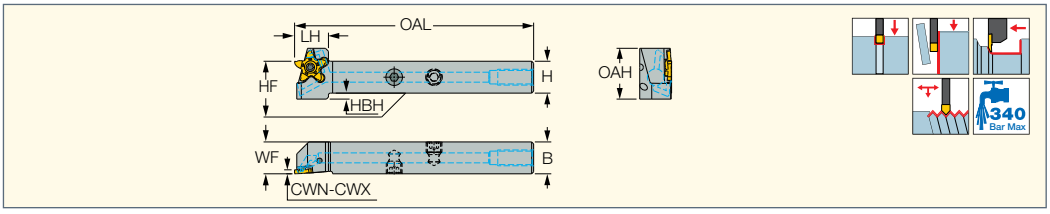
Designation		
PCHLS 9.5-17	SR M4-39432(a)	T-1508/5
PCHRS 9.5-17	SR M4-39432L(a)	T-1508/5
PCHLS 12.7-17	SR M4-39432(a)	T-1508/5
PCHRS 12.7-17	SR M4-39432L(a)	T-1508/5
PCHLS 16-17	SR M4-39432(a)	T-1508/5
PCHRS 16-17	SR M4-39432L(a)	T-1508/5

(a) Recommended tightening torque:22 lbf*in

PENTACUT

PCHRS/LS-17-JHP

Tools Carrying Inserts with
5 Cutting Edges for Shallow
Profiling Next to High Shoulders



M E T R I C									
Designation	**H**	**B**	**WF**	**OAL**	**LH**	**HBH**	**HF**	**OAH**	**CDX**
PCHR/LS 10-17-JHP	10.0	10.0	10.00	100.00	17.0	8.0	10.0	24.50	4.00
PCHR/LS 12-17-JHP	12.0	12.0	12.00	100.00	17.0	6.0	12.0	24.50	4.00
PCHR/LS 16-17-JHP	16.0	16.0	16.00	120.00	17.0	3.0	16.0	25.50	4.00

- Use right-hand inserts on right-hand tools and vice versa

For inserts, see pages: PENTA 17-ER/EL (540) • PENTA 17-MT-RS/LS (671) • PENTA 17-NP-RS/LS (537) • PENTA 17-NX-RS (538) • PENTA 17-P-RS/LS (541) • PENTA 17-P-RS/LS (full radius) (543) • PENTA 17-WT-RS/LS (653) • PENTA 17R/L-P-RS (545) • PENTA 17R/L-SP-RS (546)

Spare Parts

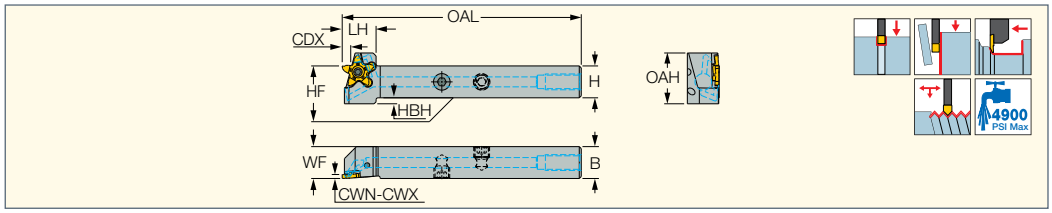
Designation				
PCHLS 10-17-JHP	SR M4-39432[a]	T-1508/5	HW 5/32"	SR 5/16UNF TL360
PCHRS 10-17-JHP	SR M4-39432L[a]	T-1508/5	HW 5/32"	SR 5/16UNF TL360
PCHLS 12-17-JHP	SR M4-39432[a]	T-1508/5	HW 5/32"	SR 5/16UNF TL360
PCHRS 12-17-JHP	SR M4-39432L[a]	T-1508/5	HW 5/32"	SR 5/16UNF TL360
PCHLS 16-17-JHP	SR M4-39432[a]	T-1508/5	HW 5/32"	SR 5/16UNF TL360
PCHRS 16-17-JHP	SR M4-39432L[a]	T-1508/5	HW 5/32"	SR 5/16UNF TL360

[a] Recommended tightening torque:2.5 N*m

PENTACUT

PCHRS/LS-17-JHP

Tools Carrying Inserts with
5 Cutting Edges for Shallow
Profiling Next to High Shoulders



I N C H									
Designation	**H**	**B**	**WF**	**OAL**	**LH**	**HBH**	**HF**	**OAH**	**CDX**
PCHR/LS 9.5-17-JHP	.375	.375	.375	3.940	.670	.320	.375	.950	.157
PCHR/LS 12.7-17-JHP	.500	.500	.500	3.940	.670	.210	.500	.960	.157

- Use right-hand inserts on right-hand tools and vice versa

For inserts, see pages: PENTA 17-ER/EL (540) • PENTA 17-MT-RS/LS (671) • PENTA 17-NP-RS/LS (537) • PENTA 17-NX-RS (538) • PENTA 17-P-RS/LS (541) • PENTA 17-P-RS/LS (full radius) (543) • PENTA 17-WT-RS/LS (653) • PENTA 17R/L-P-RS (545) • PENTA 17R/L-SP-RS (546)

Spare Parts

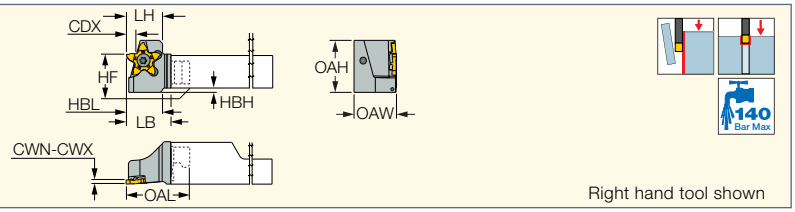
Designation				
PCHLS 9.5-17-JHP	SR M4-39432[a]	T-1508/5	HW 5/32"	SR 5/16UNF TL360
PCHRS 9.5-17-JHP	SR M4-39432L[a]	T-1508/5	HW 5/32"	SR 5/16UNF TL360
PCHLS 12.7-17-JHP	SR M4-39432[a]	T-1508/5	HW 5/32"	SR 5/16UNF TL360
PCHRS 12.7-17-JHP	SR M4-39432L[a]	T-1508/5	HW 5/32"	SR 5/16UNF TL360

[a] Recommended tightening torque:22 lbf*in

NEOSWISS

NQCH-PCHR/L-S-JHP

Screw Lock JET-CUT Modular Heads Carrying PENTA Inserts for Grooving, Parting, and Recessing on Swiss-Type Machines



Right hand tool shown

M E T R I C												
Designation	**HF**	**OAW**	**LB**	**OAH**	**HBH**	**LH**	**OAL**	**HBL**	**CWN(2)**	**CWX(3)**	**CDX**	**Insert**
NQCH12-PCHR/LS-17-JHP	12.0	20.00	21.00	24.40	6.0	17.0	29.80	17.0	0.25	3.18	4.00	PENTA 17
NQCH12R-PCHLS-17-JHP (1)	12.0	20.00	21.00	24.40	6.0	17.0	29.80	17.0	0.25	3.18	4.00	PENTA 17
NQCH16-PCHR/LS-17-JHP	16.0	20.00	21.00	24.50	2.0	17.0	29.80	17.0	0.25	3.18	4.00	PENTA 17
NQCH16R-PCHLS-17-JHP (1)	16.0	20.00	21.00	24.50	2.0	17.0	29.80	17.0	0.25	3.18	4.00	PENTA 17

- Use only RH Shank with RH Head and LH Shank with LH Head except NQCH12R/16R... heads

(1) The head is dedicated for the right hand machines and to be mounted on the right hand holder only

(2) Minimum cutting width

(3) Maximum cutting width

For inserts, see pages: PENTA 17-ER/EL (540) • PENTA 17-MT-RS/LS (671) • PENTA 17-NP-RS/LS (537) • PENTA 17-NX-RS (538) • PENTA 17-P-RS/LS (541) • PENTA 17-P-RS/LS (full radius) (543) • PENTA 17-WT-RS/LS (653) • PENTA 17R/L-P-RS (545)

For holders, see pages: C#-NQCH-JHP (65) • NQCH-JHP (63)

Spare Parts

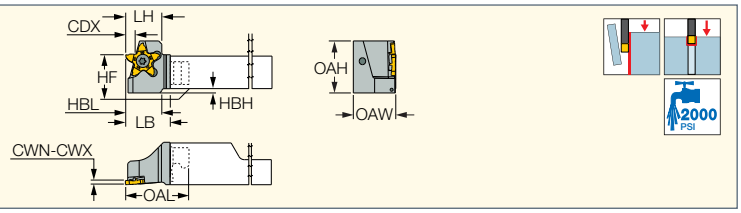
Designation		
NQCH12-PCHLS-17-JHP	SR M4-39432(a)	T-1508/5
NQCH12-PCHRS-17-JHP	SR M4-39432L(a)	T-1508/5
NQCH12R-PCHLS-17-JHP	SR M4-39432(a)	T-1508/5
NQCH16-PCHLS-17-JHP	SR M4-39432(a)	T-1508/5
NQCH16-PCHRS-17-JHP	SR M4-39432L(a)	T-1508/5
NQCH16R-PCHLS-17-JHP	SR M4-39432(a)	T-1508/5

(a) Recommended tightening torque:2.5 N*m

NEOSWISS

NQCH-PCHR/L-S-JHP

Screw Lock JET-CUT Modular Heads Carrying PENTA Inserts for Grooving, Parting, and Recessing on Swiss-Type Machines



I N C H												
Designation	**HF**	**OAW**	**LB**	**OAH**	**HBH**	**LH**	**OAL**	**HBL**	**CWN(2)**	**CWX(3)**	**CDX**	**Insert**
NQCH12-PCHR/LS-17-JHP	.472	.787	.827	.961	.236	.669	1.173	.669	.010	.125	.157	PENTA 17
NQCH12R-PCHLS-17-JHP (1)	.472	.787	.827	.961	.236	.669	1.173	.669	.010	.125	.157	PENTA 17
NQCH16-PCHR/LS-17-JHP	.630	.787	.827	.965	.079	.669	1.173	.669	.010	.125	.157	PENTA 17
NQCH16R-PCHLS-17-JHP (1)	.630	.787	.827	.965	.079	.669	1.173	.669	.010	.125	.157	PENTA 17

- Use only RH Shank with RH Head and LH Shank with LH Head except NQCH12R/16R... heads

(1) The head is dedicated for the right hand machines and to be mounted on the right hand holder only

(2) Minimum cutting width

(3) Maximum cutting width

For inserts, see pages: PENTA 17-ER/EL (540) • PENTA 17-MT-RS/LS (671) • PENTA 17-NP-RS/LS (537) • PENTA 17-NX-RS (538) • PENTA 17-P-RS/LS (541) • PENTA 17-P-RS/LS (full radius) (543) • PENTA 17-WT-RS/LS (653) • PENTA 17R/L-P-RS (545)

For holders, see pages: C#-NQCH-JHP (65) • NQCH-JHP (63)

Spare Parts

Designation		
NQCH12-PCHLS-17-JHP	SR M4-39432(a)	T-1508/5
NQCH12-PCHRS-17-JHP	SR M4-39432L(a)	T-1508/5
NQCH12R-PCHLS-17-JHP	SR M4-39432(a)	T-1508/5
NQCH16-PCHLS-17-JHP	SR M4-39432(a)	T-1508/5
NQCH16-PCHRS-17-JHP	SR M4-39432L(a)	T-1508/5
NQCH16R-PCHLS-17-JHP	SR M4-39432(a)	T-1508/5

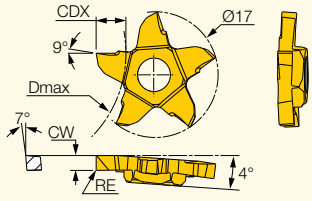
(a) Recommended tightening torque:22 lbf*in

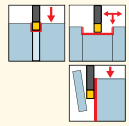
PENTACUT

PENTA 17-NP-RS/LS

Pentagonal Inserts for Precision Grooving and Turning Next to High Shoulder Applications







M E T R I C

Designation	Dimensions CW	CWTOL(1)	RE	RETOL(2)	CDX	D max(3)	IC1008	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
PENTA 17-100NP08R/LS	1.00	0.020	0.08	0.020	3.00	32.0 (4)	●	0.05-0.70	0.02-0.06	0.03-0.06
PENTA 17-200NP08R/LS	2.00	0.020	0.08	0.020	4.00	32.0 (4)	●	0.05-2.50	0.05-0.15	0.05-0.09
PENTA 17-300NP08R/LS	3.00	0.020	0.08	0.020	4.00	32.0 (4)	●	0.05-3.10	0.05-0.19	0.05-0.11

• When turning to the opposite side of chipformer, maximum CDX is 0.5 mm • For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

(3) Maximum workpiece diameter for grooving operation

(4) for grooving

For tools, see pages: NQCH-PCHR/L-S-JHP (536) • PCHRS/LS-17 (534) • PCHRS/LS-17-JHP (535)

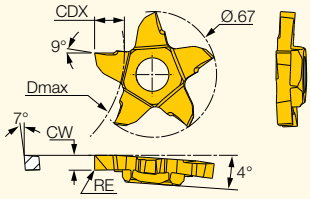
Designation	Dimensions CW	RE	CDX	Dmax as a function of depth of cut (CDX) CDX≤2.5	CDX≤3.0	CDX≤3.5	CDX≤3.8	CDX≤4.0
PENTA 17-100NP08-R/LS	1.00	0.08	3.00	N.L.	100	-	-	-
PENTA 17-200NP08-R/LS	2.00	0.08	4.00	N.L.	100	75	45	32
PENTA 17-300NP08-R/LS	3.00	0.08	4.00	N.L.	100	75	45	32

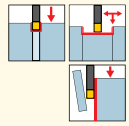
PENTACUT

PENTA 17-NP-RS/LS

Pentagonal Inserts for Precision Grooving and Turning Next to High Shoulder Applications







I N C H

Designation	Dimensions CW	CWTOL(1)	RE	RETOL(2)	CDX	D max(3)	IC1008	Recommended Machining Data a_p (inch)	f turn (IPR)	f groove (IPR)
PENTA 17-100NP08R/LS	.039	.00078	.0031	.0008	.118	1.260 (4)	●	.002-.028	.0008-.0024	.0012-.0024
PENTA 17-200NP08R/LS	.079	.00078	.0031	.0008	.157	1.260 (4)	●	.002-.098	.0020-.0059	.0020-.0035
PENTA 17-300NP08R/LS	.118	.00078	.0031	.0008	.157	1.260 (4)	●	.002-.122	.0020-.0075	.0020-.0043

• When turning to the opposite side of chipformer, maximum CDX is .020" • For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

(3) Maximum workpiece diameter for grooving operation

(4) for grooving

For tools, see pages: NQCH-PCHR/L-S-JHP (536) • PCHRS/LS-17 (534) • PCHRS/LS-17-JHP (535)

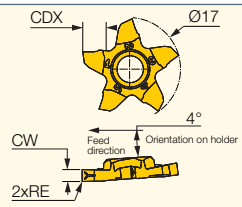
Designation	Dmax as a function of depth of cut (CDX) CDX≤.98	CDX≤.118	CDX≤.138	CDX≤.150	CDX≤.157
PENTA 17-100NP08-L/RS	N.L.	3.937	-	-	-
PENTA 17-200NP08-L/RS	N.L.	3.937	2.953	1.772	1.260
PENTA 17-300NP08-L/RS	N.L.	3.937	2.953	1.772	1.260

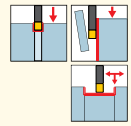
PENTACUT

PENTA 17-NX-RS

Pentagonal Inserts for Precision Grooving and Parting Off for Next to Shoulder Applications







M E T R I C

Designation	Dimensions CW	CWTOL(1)	RE	RETOL(2)	CDX	IC1008	Recommended Machining Data a_p (mm)	f turn (mm/rev)	f groove (mm/rev)
PENTA 17N150NX080RS	1.50	0.020	0.08	0.020	4.00	•	0.05-1.80	0.02-0.11	0.02-0.07
PENTA 17N200NX080RS	2.00	0.020	0.08	0.020	4.00	•	0.05-2.50	0.03-0.15	0.03-0.09
PENTA 17N250NX080RS	2.50	0.020	0.08	0.020	4.00	•	0.05-3.10	0.03-0.19	0.03-0.11

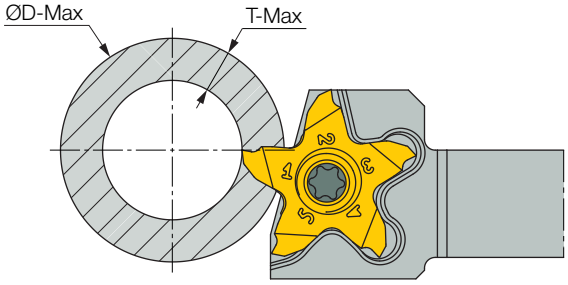
• For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

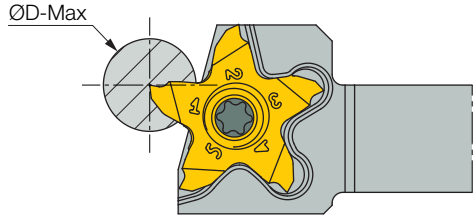
(2) Corner radius tolerance (+/-)

For tools, see pages: NQCH-PCHR/L-S-JHP (536) • PCHRS/LS-17 (534) • PCHRS/LS-17-JHP (535)

Grooving & Parting hollow bars



Parting to center



PENTA 17...NX...RS - Precision Grooving & Parting Inserts

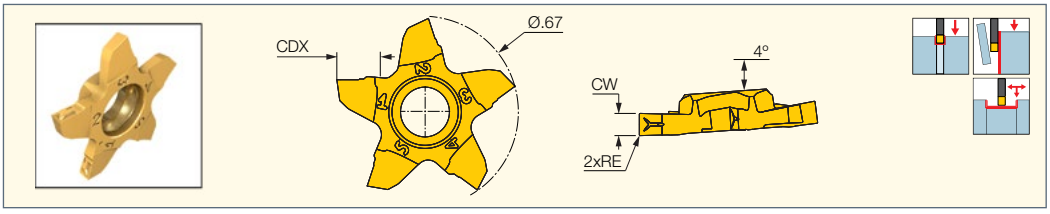
Designation	CW	RE	T-Max	D-Max as a Function of Depth of Cut (T) T ≤ 2.3	T ≤ 2.5	T ≤ 3.0	T ≤ 3.5	T ≤ 3.8	T ≤ 4.0	Parting to Center D-Max
PENTA 17N150NX080RS	1.5	0.08	4.0	N.L.	400	100	55	32	25	8
PENTA 17N200NX080RS	2.0									
PENTA 17N250NX080RS	2.5									

1. N.L. = NO LIMIT
2. * - For precision grooving Dmax = N.L.
3. PENTA 17...RS to be clamped on PCHRS ...-17 holders

PENTACUT

PENTA 17-NX-RS

Pentagonal Inserts for Precision Grooving and Parting Off for Next to Shoulder Applications



I N C H

Designation	Dimensions CW	CWTOL(1)	RE	RETOL(2)	CDX	IC1008	Recommended Machining Data a_p (inch)	f turn (IPR)	f groove (IPR)
PENTA 17N150NX080RS	.059	.00078	.0031	.0008	.157	•	.002-.071	.0008-.0043	.0008-.0027
PENTA 17N200NX080RS	.079	.00078	.0031	.0008	.157	•	.002-.098	.0012-.0059	.0012-.0035
PENTA 17N250NX080RS	.098	.00078	.0031	.0008	.157	•	.002-.122	.0012-.0075	.0012-.0043

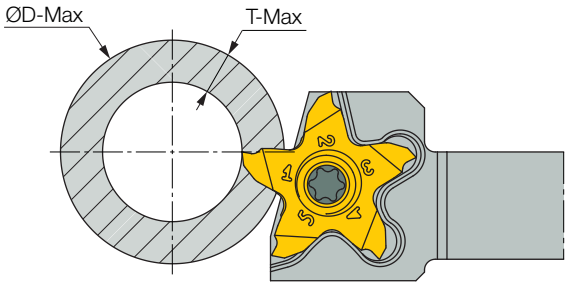
• For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

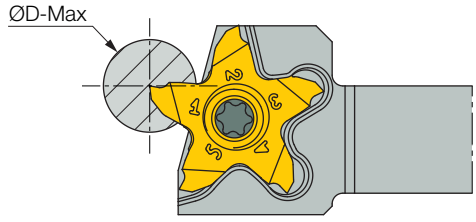
(2) Corner radius tolerance (+/-)

For tools, see pages: NQCH-PCHR/L-S-JHP (536) • PCHRS/LS-17 (534) • PCHRS/LS-17-JHP (535)

Grooving & Parting hollow bars



Parting to center



PENTA 17...NX...RS - Precision Grooving & Parting Off inserts

Designation	CW	RE	T-Max	D-Max as a Function of Depth of Cut (T) T ≤ .091	T ≤ .098	T ≤ .118	T ≤ .138	T ≤ .150	T ≤ .157	Parting to Center D-Max
PENTA 17N150NX080RS	.059	.003	.157	N.L.	15.748	3.937	2.165	1.260	.984	.315
PENTA 17N200NX080RS	.079									
PENTA 17N250NX080RS	.098									

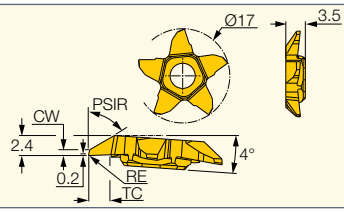
1. N.L. = NO LIMIT
2. * - For precision grooving Dmax = N.L.
3. PENTA 17...RS to be clamped on PCHRS ...-17 holders

PENTACUT

PENTA 17-ER/EL

Back Turning Pentagonal Inserts
for Short Chipping Materials







M E T R I C

Designation	Dimensions CW	RE	PSIR	Tc	IC1008	Recommended Machining Data a_p (mm)	f turn (mm/rev)
PENTA 17EL00-07K0LS	0.70	0.00	60.0	4.0	●	0.05-2.50	0.01-0.15
PENTA 17ER00-07K0RS	0.70	0.00	60.0	4.0	●	0.05-2.50	0.01-0.15
PENTA 17EL08-07K0LS	0.70	0.08	60.0	4.0	●	0.05-2.50	0.01-0.15
PENTA 17ER08-07K0RS	0.70	0.08	60.0	4.0	●	0.05-2.50	0.01-0.15

• For cutting speed recommendations and user guide, see pages 597-608

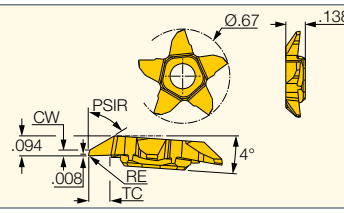
For tools, see pages: NQCH-PCHR/L-S-JHP (536) • PCHRS/LS-17 (534) • PCHRS/LS-17-JHP (535)

PENTACUT

PENTA 17-ER/EL

Back Turning Pentagonal Inserts
for Short Chipping Materials







I N C H

Designation	Dimensions CW	RE	PSIR	Tc	IC1008	Recommended Machining Data a_p (inch)	f turn (IPR)
PENTA 17EL00-07K0LS	.028	.0000	60.0	.157	●	.002-.098	.0004-.0059
PENTA 17ER00-07K0RS	.028	.0000	60.0	.157	●	.002-.098	.0004-.0059
PENTA 17EL08-07K0LS	.028	.0031	60.0	.157	●	.002-.098	.0004-.0059
PENTA 17ER08-07K0RS	.028	.0031	60.0	.157	●	.002-.098	.0004-.0059

• For cutting speed recommendations and user guide, see pages 597-608

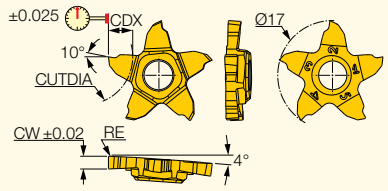
For tools, see pages: NQCH-PCHR/L-S-JHP (536) • PCHRS/LS-17 (534) • PCHRS/LS-17-JHP (535)

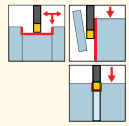
PENTACUT

PENTA 17-P-RS/LS

Pentagonal Inserts for Grooving and Parting Soft Materials, and Miniature Parts







M E T R I C						
	Dimensions					Recommended Machining Data
Designation	CW	RE	CDX	CUTDIA	IC1008	f groove (mm/rev)
PENTA 17N025P000R/LS	0.25	0.00	0.60	1.2	●	0.02-0.03
PENTA 17N030P000R/LS	0.30	0.00	0.60	1.2	●	0.02-0.03
PENTA 17N033P000R/LS	0.33	0.00	0.60	1.2	●	0.02-0.03
PENTA 17N043P000R/LS	0.43	0.00	1.00	2.0	●	0.02-0.04
PENTA 17N050P000R/LS	0.50	0.00	2.00	4.0	●	0.02-0.04
PENTA 17N075P000R/LS	0.75	0.00	2.50	5.0	●	0.02-0.04
PENTA 17N080P000R/LS	0.80	0.00	2.50	5.0	●	0.02-0.04
PENTA 17N095P000R/LS	0.95	0.00	3.00	6.0	●	0.02-0.05
PENTA 17N100P010R/LS	1.00	0.10	3.00	6.0	●	0.02-0.05
PENTA 17N120P010R/LS	1.20	0.10	3.00	6.0	●	0.02-0.05
PENTA 17N140P010R/LS	1.40	0.10	3.00	6.0	●	0.02-0.05
PENTA 17N150P010R/LS	1.50	0.10	4.00	8.0	●	0.02-0.07
PENTA 17N157P010R/LS	1.57	0.10	4.00	8.0	●	0.02-0.07
PENTA 17N170P010R/LS	1.70	0.10	4.00	8.0	●	0.02-0.07
PENTA 17N178P010R/LS	1.78	0.10	4.00	8.0	●	0.02-0.07
PENTA 17N196P010R/LS	1.96	0.10	4.00	8.0	●	0.02-0.08
PENTA 17N200P010R/LS	2.00	0.10	4.00	8.0	●	0.02-0.08
PENTA 17N222P010R/LS	2.22	0.10	4.00	8.0	●	0.02-0.08
PENTA 17N230P010R/LS	2.30	0.10	4.00	8.0	●	0.02-0.08
PENTA 17N239P010R/LS	2.39	0.10	4.00	8.0	●	0.02-0.08
PENTA 17N247P010R/LS	2.47	0.10	4.00	8.0	●	0.02-0.08
PENTA 17N250P010R/LS	2.50	0.10	4.00	8.0	●	0.02-0.08
PENTA 17N270P010R/LS	2.70	0.10	4.00	8.0	●	0.02-0.09
PENTA 17N287P010R/LS	2.87	0.10	4.00	8.0	●	0.02-0.10
PENTA 17N300P010R/LS	3.00	0.10	4.00	8.0	●	0.02-0.10
PENTA 17N318P010R/LS	3.18	0.10	4.00	8.0	●	0.02-0.10

• For cutting speed recommendations and user guide, see pages 597-608

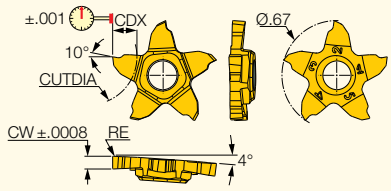
For tools, see pages: NQCH-PCHR/L-S-JHP (536) • PCHRS/LS-17 (534) • PCHRS/LS-17-JHP (535)

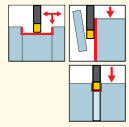
PENTACUT

PENTA 17-P-RS/LS

Pentagonal Inserts for Grooving and Parting Soft Materials, and Miniature Parts







I N C H

Designation	Dimensions CW	RE	CDX	CUTDIA	IC1008	Recommended Machining Data f groove (IPR)
PENTA 17N025P000R/LS	.010	.0000	.024	.047	●	.0008-.0012
PENTA 17N030P000R/LS	.012	.0000	.024	.047	●	.0008-.0012
PENTA 17N033P000R/LS	.013	.0000	.024	.047	●	.0008-.0012
PENTA 17N043P000R/LS	.017	.0000	.039	.079	●	.0008-.0016
PENTA 17N050P000R/LS	.020	.0000	.079	.157	●	.0008-.0016
PENTA 17N075P000R/LS	.030	.0000	.098	.197	●	.0008-.0016
PENTA 17N080P000R/LS	.031	.0000	.098	.197	●	.0008-.0016
PENTA 17N095P000R/LS	.037	.0000	.118	.236	●	.0008-.0020
PENTA 17N100P010R/LS	.039	.0039	.118	.236	●	.0008-.0020
PENTA 17N120P010R/LS	.047	.0039	.118	.236	●	.0008-.0020
PENTA 17N140P010R/LS	.055	.0039	.118	.236	●	.0008-.0020
PENTA 17N150P010R/LS	.059	.0039	.157	.315	●	.0008-.0027
PENTA 17N157P010R/LS	.062	.0039	.157	.315	●	.0008-.0027
PENTA 17N170P010R/LS	.067	.0039	.157	.315	●	.0008-.0027
PENTA 17N178P010R/LS	.070	.0039	.157	.315	●	.0008-.0027
PENTA 17N196P010R/LS	.077	.0039	.157	.315	●	.0008-.0031
PENTA 17N200P010R/LS	.079	.0039	.157	.315	●	.0008-.0031
PENTA 17N222P010R/LS	.087	.0039	.157	.315	●	.0008-.0031
PENTA 17N230P010R/LS	.091	.0039	.157	.315	●	.0008-.0031
PENTA 17N239P010R/LS	.094	.0039	.157	.315	●	.0008-.0031
PENTA 17N247P010R/LS	.097	.0039	.157	.315	●	.0008-.0031
PENTA 17N250P010R/LS	.098	.0039	.157	.315	●	.0008-.0031
PENTA 17N270P010R/LS	.106	.0039	.157	.315	●	.0008-.0035
PENTA 17N287P010R/LS	.113	.0039	.157	.315	●	.0008-.0039
PENTA 17N300P010R/LS	.118	.0039	.157	.315	●	.0008-.0039
PENTA 17N318P010R/LS	.125	.0039	.157	.315	●	.0008-.0039

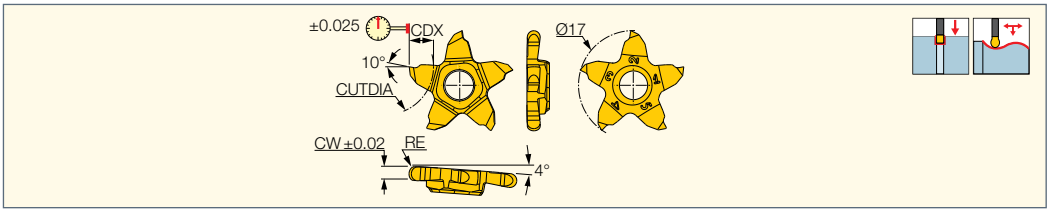
• For cutting speed recommendations and user guide, see pages 597-608

For tools, see pages: NQCH-PCHR/L-S-JHP (536) • PCHRS/LS-17 (534) • PCHRS/LS-17-JHP (535)

PENTACUT

PENTA 17-P-RS/LS (full radius)

Precision Grooving
Pentagonal Full Radius
Inserts for Soft Materials



M E T R I C

Designation	Dimensions CW	RE	CDX	CUTDIA	IC1008	Recommended Machining Data f groove (mm/rev)
PENTA 17N080P040R/LS	0.80	0.40	2.50	5.0	●	0.02-0.04
PENTA 17N100P050R/LS	1.00	0.50	3.00	6.0	●	0.02-0.05
PENTA 17N157P079R/LS	1.57	0.79	4.00	8.0	●	0.02-0.07
PENTA 17N200P100R/LS	2.00	1.00	4.00	8.0	●	0.02-0.08
PENTA 17N239P120R/LS	2.39	1.20	4.00	8.0	●	0.02-0.08

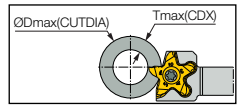
• For cutting speed recommendations and user guide, see pages 597-608

For tools, see pages: NQCH-PCHR/L-S-JHP (536) • PCHRS/LS-17 (534) • PCHRS/LS-17-JHP (535)

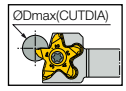
Designation	Dmax as a function of depth of cut (T) W ±0.02	R	Tmax	T<2.3	T<2.5	T<3.0	T<3.5	T<3.8	T<4.0	Parting to center Dmax.
PENTA 17N025P000RS/LS	0.25	0.00	0.6*	---	---	---	---	---	---	1.2
PENTA 17N030P000RS/LS	0.30	0.00	0.6*	---	---	---	---	---	---	1.2
PENTA 17N033P000RS/LS	0.33	0.00	0.6*	---	---	---	---	---	---	1.2
PENTA 17N043P000RS/LS	0.43	0.00	1.0*	---	---	---	---	---	---	2
PENTA 17N050P000RS/LS	0.50	0.00	2.0*	---	---	---	---	---	---	4
PENTA 17N075P000RS/LS	0.75	0.00	2.5	N.L.		---	---	---	---	5
PENTA 17N080P000RS/LS	0.80	0.00	2.5	N.L.		---	---	---	---	
PENTA 17N095P000RS/LS	0.95	0.00		N.L.			---	---	---	
PENTA 17N100P010RS/LS	1.00	0.10		N.L.	400		---	---	---	
PENTA 17N100P050RS/LS	1.00	0.50	3.0	N.L.		100	---	---	---	6
PENTA 17N120P010RS/LS	1.20	0.10		N.L.			---	---	---	
PENTA 17N140P010RS/LS	1.40	0.10		N.L.			---	---	---	
PENTA 17N150P010RS/LS	1.50	0.10		N.L.						
PENTA 17N157P010RS/LS	1.57	0.10		N.L.						
PENTA 17N157P079RS/LS	1.57	0.79		N.L.						
PENTA 17N170P010RS/LS	1.70	0.10		N.L.						
PENTA 17N178P010RS/LS	1.78	0.10		N.L.						
PENTA 17N196P010RS/LS	1.96	0.10		N.L.						
PENTA 17N200P010RS/LS	2.00	0.10		N.L.						
PENTA 17N200P100RS/LS	2.00	1.00		N.L.						
PENTA 17N222P010RS/LS	2.22	0.10	4.0	N.L.	400	100	55	32	20	8
PENTA 17N230P010RS/LS	2.30	0.10		N.L.						
PENTA 17N239P010RS/LS	2.39	0.10		N.L.						
PENTA 17N239P120RS/LS	2.39	1.20		N.L.						
PENTA 17N247P010RS/LS	2.47	0.10		N.L.						
PENTA 17N250P010RS/LS	2.50	0.10		N.L.						
PENTA 17N270P010RS/LS	2.70	0.10		N.L.						
PENTA 17N287P010RS/LS	2.87	0.10		N.L.						
PENTA 17N300P010RS/LS	3.00	0.10		N.L.						
PENTA 17N318P010RS/LS	3.18	0.10		N.L.	400	100	55	32	25	

1. N.L. = NO LIMIT
2. *For precision grooving Dmax = N.L.
3. PENTA 17...RS to be clamped on PCHRS ...-17 holders, PENTA 17...LS to be clamped on PCHLS ...-17 holders.

Parting Hollow Bars



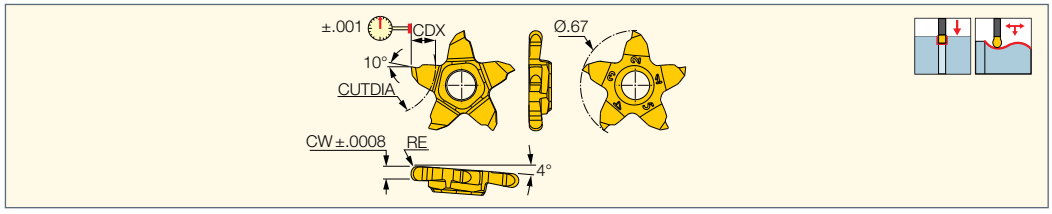
Parting to Center



PENTACUT

PENTA 17-P-RS/LS (full radius)

Precision Grooving
Pentagonal Full Radius
Inserts for Soft Materials



I N C H

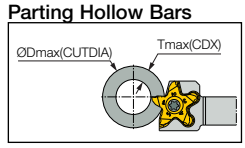
Designation	Dimensions CW	RE	CDX	CUTDIA	IC1008	Recommended Machining Data f groove (IPR)
PENTA 17N080P040R/LS	.031	.0157	.098	.197	●	.0008-.0016
PENTA 17N100P050R/LS	.039	.0197	.118	.236	●	.0008-.0020
PENTA 17N157P079R/LS	.062	.0311	.157	.315	●	.0008-.0027
PENTA 17N200P100R/LS	.079	.0394	.157	.315	●	.0008-.0031
PENTA 17N239P120R/LS	.094	.0472	.157	.315	●	.0008-.0031

• For cutting speed recommendations and user guide, see pages 597-608

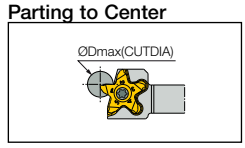
For tools, see pages: NQCH-PCHR/L-S-JHP (536) • PCHRS/LS-17 (534) • PCHRS/LS-17-JHP (535)

Designation	Dmax as a function of depth of cut (T) W ±.0008	R	Tmax	T<.0905	T<.0984	T<.1181	T<.1377	T<.1496	T<.1574	Parting to center Dmax.
PENTA 17N025P000RS/LS	.0098	0.00	.0236*	---	---	---	---	---	---	.0472
PENTA 17N030P000RS/LS	.0118	0.00	.0236*	---	---	---	---	---	---	.0472
PENTA 17N033P000RS/LS	.0129	0.00	.0236*	---	---	---	---	---	---	.0472
PENTA 17N043P000RS/LS	.0169	0.00	.0393*	---	---	---	---	---	---	.0787
PENTA 17N050P000RS/LS	.0196	0.00	.0787*	---	---	---	---	---	---	.1574
PENTA 17N075P000RS/LS	.0295	0.00	.0984	N.L.			---	---	---	.1968
PENTA 17N080P000RS/LS	.0314	0.00	.0984	N.L.			---	---	---	
PENTA 17N095P000RS/LS	.0374	0.00		N.L.			---	---	---	
PENTA 17N100P010RS/LS	.0393	.0039		N.L.	15.748		---	---	---	
PENTA 17N100P050RS/LS	.0393	.0196	.1181	N.L.		3.937	---	---	---	.2362
PENTA 17N120P010RS/LS	.0472	.0039		N.L.			---	---	---	
PENTA 17N140P010RS/LS	.0551	.0039		N.L.			---	---	---	
PENTA 17N150P010RS/LS	.0590	.0039		N.L.						
PENTA 17N157P010RS/LS	.0618	.0039		N.L.						
PENTA 17N157P079RS/LS	.0618	.0311		N.L.						
PENTA 17N170P010RS/LS	.0669	.0039		N.L.						
PENTA 17N178P010RS/LS	.0700	.0039		N.L.						
PENTA 17N196P010RS/LS	.0771	.0039		N.L.						
PENTA 17N200P010RS/LS	.0787	.0039		N.L.						
PENTA 17N200P100RS/LS	.0787	.0393		N.L.						
PENTA 17N222P010RS/LS	.0874	.0039	.1574	N.L.	15.748	3.937	2.165	1.2598	.7874	.3149
PENTA 17N230P010RS/LS	.0905	.0039		N.L.						
PENTA 17N239P010RS/LS	.0940	.0039		N.L.						
PENTA 17N239P120RS/LS	.0940	.0472		N.L.						
PENTA 17N247P010RS/LS	.0972	.0039		N.L.						
PENTA 17N250P010RS/LS	.0984	.0039		N.L.						
PENTA 17N270P010RS/LS	.1062	.0039		N.L.						
PENTA 17N287P010RS/LS	.1129	.0039		N.L.						
PENTA 17N300P010RS/LS	.1181	.0039		N.L.						
PENTA 17N318P010RS/LS	.1251	.0039		N.L.	15.748	3.937	2.165	1.259	.9842	

Parting Hollow Bars



Parting to Center



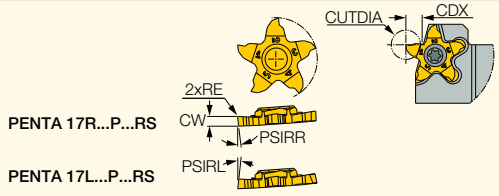
1. N.L. = NO LIMIT
2.*For precision grooving Dmax = N.L.
3. PENTA 17...RS to be clamped on PCHRS ...-17 holders, PENTA 17...LS to be clamped on PCHLS ...-17 holders.

PENTACUT

PENTA 17R/L-P-RS

Lead Angle Edge Pentagonal Inserts (5 edges) for Parting Miniature Parts





M E T R I C

Designation	Dimensions CW	RE	CDX	CUTDIA	PSIRL	PSIRR	IC1008	Recommended Machining Data f groove (mm/rev)
PENTA 17L100P-15D-RS	1.00	0.05	3.00	6.0	15.0	-	●	0.02-0.03
PENTA 17L100P-6D-RS	1.00	0.05	3.00	6.0	6.0	-	●	0.02-0.04
PENTA 17R100P-15D-RS	1.00	0.05	3.00	6.0	-	15.0	●	0.02-0.03
PENTA 17R100P-6D-RS	1.00	0.05	3.00	6.0	-	6.0	●	0.02-0.04
PENTA 17L150P-15D-RS	1.50	0.05	4.00	8.0	15.0	-	●	0.02-0.03
PENTA 17L150P-6D-RS	1.50	0.05	4.00	8.0	6.0	-	●	0.02-0.04
PENTA 17R150P-15D-RS	1.50	0.05	4.00	8.0	-	15.0	●	0.02-0.03
PENTA 17R150P-6D-RS	1.50	0.05	4.00	8.0	-	6.0	●	0.02-0.04
PENTA 17L200P-15D-RS	2.00	0.05	4.00	8.0	15.0	-	●	0.02-0.03
PENTA 17L200P-6D-RS	2.00	0.05	4.00	8.0	6.0	-	●	0.02-0.04
PENTA 17R200P-15D-RS	2.00	0.05	4.00	8.0	-	15.0	●	0.02-0.03
PENTA 17R200P-6D-RS	2.00	0.05	4.00	8.0	-	6.0	●	0.02-0.04

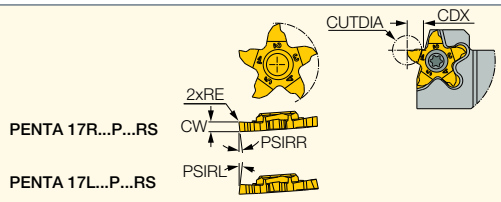
For tools, see pages: NQCH-PCHR/L-S-JHP (536) • PCHRS/LS-17 (534) • PCHRS/LS-17-JHP (535)

PENTACUT

PENTA 17R/L-P-RS

Lead Angle Edge Pentagonal Inserts (5 edges) for Parting Miniature Parts





I N C H

Designation	Dimensions CW	RE	CDX	CUTDIA	PSIRL	PSIRR	IC1008	Recommended Machining Data f groove (IPR)
PENTA 17L100P-15D-RS	.039	.0020	.118	.236	15.0	-	●	.0008-.0012
PENTA 17L100P-6D-RS	.039	.0020	.118	.236	6.0	-	●	.0008-.0016
PENTA 17R100P-15D-RS	.039	.0020	.118	.236	-	15.0	●	.0008-.0012
PENTA 17R100P-6D-RS	.039	.0020	.118	.236	-	6.0	●	.0008-.0016
PENTA 17L150P-15D-RS	.059	.0020	.157	.315	15.0	-	●	.0008-.0012
PENTA 17L150P-6D-RS	.059	.0020	.157	.315	6.0	-	●	.0008-.0016
PENTA 17R150P-15D-RS	.059	.0020	.157	.315	-	15.0	●	.0008-.0012
PENTA 17R150P-6D-RS	.059	.0020	.157	.315	-	6.0	●	.0008-.0016
PENTA 17L200P-15D-RS	.079	.0020	.157	.315	15.0	-	●	.0008-.0012
PENTA 17L200P-6D-RS	.079	.0020	.157	.315	6.0	-	●	.0008-.0016
PENTA 17R200P-15D-RS	.079	.0020	.157	.315	-	15.0	●	.0008-.0012
PENTA 17R200P-6D-RS	.079	.0020	.157	.315	-	6.0	●	.0008-.0016

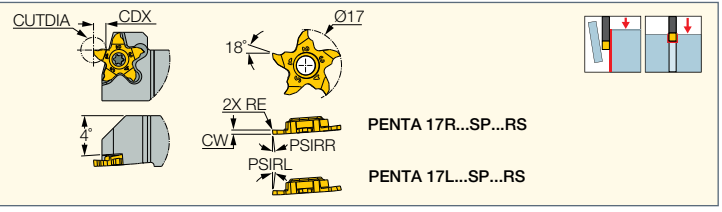
For tools, see pages: NQCH-PCHR/L-S-JHP (536) • PCHRS/LS-17 (534) • PCHRS/LS-17-JHP (535)

PENTACUT

PENTA 17R/L-SP-RS

Pentagonal Inserts (5 edges)
with a High Positive Rake
for Parting Soft Materials





M E T R I C

Designation	Dimensions CW	RE	CDX	CUTDIA	PSIRL	PSIRR	IC1007	Recommended Machining Data f groove (mm/rev)
PENTA 17L03SP6D-RS	0.30	0.00	0.60	1.2	6.0	-	●	0.02-0.03
PENTA 17R03SP6D-RS	0.30	0.00	0.60	1.2	-	6.0	●	0.02-0.03
PENTA 17L05SP6D-RS	0.50	0.00	2.00	4.0	6.0	-	●	0.02-0.04
PENTA 17R05SP6D-RS	0.50	0.00	2.00	4.0	-	6.0	●	0.02-0.04
PENTA 17L08SP6D-RS	0.80	0.00	2.50	5.0	6.0	-	●	0.02-0.04
PENTA 17R08SP6D-RS	0.80	0.00	2.50	5.0	-	6.0	●	0.02-0.04
PENTA 17L10SP6D-RS	1.00	0.00	3.00	6.0	6.0	-	●	0.02-0.05
PENTA 17R10SP6D-RS	1.00	0.00	3.00	6.0	-	6.0	●	0.02-0.05

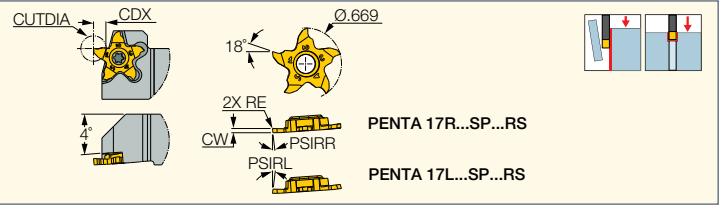
For tools, see pages: PCHRS/LS-17-JHP (535)

PENTACUT

PENTA 17R/L-SP-RS

Pentagonal Inserts (5 edges)
with a High Positive Rake
for Parting Soft Materials





I N C H

Designation	Dimensions CW	RE	CDX	CUTDIA	PSIRL	PSIRR	IC1007	Recommended Machining Data f groove (IPR)
PENTA 17L03SP6D-RS	.012	.0000	.024	.047	6.0	-	●	.0008-.0012
PENTA 17R03SP6D-RS	.012	.0000	.024	.047	-	6.0	●	.0008-.0012
PENTA 17L05SP6D-RS	.020	.0000	.079	.157	6.0	-	●	.0008-.0016
PENTA 17R05SP6D-RS	.020	.0000	.079	.157	-	6.0	●	.0008-.0016
PENTA 17L08SP6D-RS	.032	.0000	.098	.197	6.0	-	●	.0008-.0016
PENTA 17R08SP6D-RS	.032	.0000	.098	.197	-	6.0	●	.0008-.0016
PENTA 17L10SP6D-RS	.039	.0000	.118	.236	6.0	-	●	.0008-.0020
PENTA 17R10SP6D-RS	.039	.0000	.118	.236	-	6.0	●	.0008-.0020

For tools, see pages: PCHRS/LS-17-JHP (535)

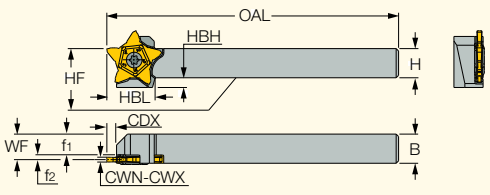
PENTACUT

PCHR/L-24

Grooving, Parting and Recessing Holders Carrying Inserts with 5 Cutting Edges

CWN-CWX	f2
0.50-3.20	2.0
3.21-4.23	2.5
4.24-5.20	3.0
5.21-6.20	3.5
6.21-8.20	4.5

WF=f1+f2



Right hand tool shown

M E T R I C

Designation	H	HF	B	CWN(1)	CWX(2)	f1	CDX(3)	OAL	LH	HBH
PCHR/L 10-24	10.0	10.0	10.0	0.50	3.20	6.5	6.50	120.00	19.5	6.0
PCHR/L 12-24	12.0	12.0	12.0	0.50	3.20	8.5	6.50	120.00	19.5	4.0
PCHR/L 16-24	16.0	16.0	16.0	0.50	3.20	12.5	6.50	120.00	19.5	-
PCHR/L 16-24-5	16.0	16.0	16.0	3.21	5.20	11.5	6.40	120.00	21.5	4.0

- WF=f1+f2 (according to insert width (CW) being used)

(1) Minimum cutting width

(2) Maximum cutting width

(3) For specific information, refer to insert data

For inserts, see pages: PENTA 24-BSPT (718) • PENTA 24-ISO (670) • PENTA 24-MT (659) • PENTA 24-NPT (731) • PENTA 24-UN (709) • PENTA 24-W (715) • PENTA 24-WT (654) • PENTA 24N-C (565) • PENTA 24N-C (full radius) (566) • PENTA 24N-C-SL (570) • PENTA 24N-J (553) • PENTA 24N-J (full radius) (556) • PENTA 24N-J-SL (572) • PENTA 24N-PF/P (557) • PENTA 24N-Z (559) • PENTA 24R-C (567) • PENTA 24R-P (558) • PENTA 24R/L-DSL (574) • PENTA 24R/L-J (555) • PENTA 24R/L-Z (561)

Spare Parts

Designation		
PCHL 10-24	SR 16-212-01397L	T-2010/5*
PCHR 10-24	SR 16-212-01397	T-2010/5*
PCHL 12-24	SR 16-212-01397L	T-2010/5*
PCHR 12-24	SR 16-212-01397	T-2010/5*
PCHL 16-24	SR 16-212-01397L	T-2010/5*
PCHR 16-24	SR 16-212-01397	T-2010/5*
PCHL 16-24-5	SR PCHL-8-06642(a)	T 15/5
PCHR 16-24-5	SR PCHR-8-06642(a)	T 15/5

* Optional, to be ordered separately

(a) Recommended tightening torque: 3.5 Nm

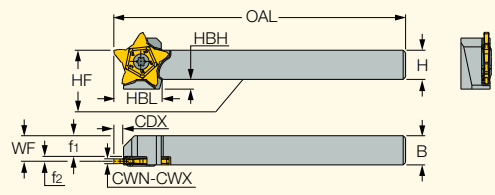
PENTACUT

PCHR/L-24

Grooving, Parting and Recessing Holders Carrying Inserts with 5 Cutting Edges

CWN-CWX	f2
.020-.126	.079
.127-.166	.098
.167-.205	.118
.206- .244	.138
.245-.323	.177

WF=f1+f2



Right hand tool shown

I N C H

Designation	H	HF	B	CWN(1)	CWX(2)	f1	CDX(3)	OAL	LH	HBH
PCHR 9.5-24	.375	.375	.375	.020	.125	.220	.256	5.000	.800	.26
PCHR/L 12.7-24	.500	.500	.500	.020	.125	.362	.256	5.000	.800	.13
PCHR/L 16-24	.630	.630	.630	.020	.126	.492	.256	4.724	.768	-
PCHR/L 16-24-5	.630	.630	.630	.126	.205	.453	.252	4.724	.846	.16

- WF=f1+f2 (according to insert width (CW) being used)

(1) Minimum cutting width

(2) Maximum cutting width

(3) For specific information, refer to insert data

For inserts, see pages: PENTA 24-BSPT (718) • PENTA 24-ISO (670) • PENTA 24-MT (659) • PENTA 24-NPT (731) • PENTA 24-UN (709) • PENTA 24-W (715) • PENTA 24-WT (654) • PENTA 24N-C (565) • PENTA 24N-C (full radius) (566) • PENTA 24N-C-SL (570) • PENTA 24N-J (553) • PENTA 24N-J (full radius) (556) • PENTA 24N-J-SL (572) • PENTA 24N-PF/P (557) • PENTA 24N-Z (559) • PENTA 24R-C (567) • PENTA 24R-P (558) • PENTA 24R/L-DSL (574) • PENTA 24R/L-J (555) • PENTA 24R/L-Z (561)

Spare Parts

Designation		
PCHR 9.5-24	SR 16-212-01397	T-2010/5*
PCHL 12.7-24	SR 16-212-01397L	T-2010/5*
PCHR 12.7-24	SR 16-212-01397	T-2010/5*
PCHL 16-24	SR 16-212-01397L	T-2010/5*
PCHR 16-24	SR 16-212-01397	T-2010/5*
PCHL 16-24-5	SR PCHL-8-06642(a)	T 15/5
PCHR 16-24-5	SR PCHR-8-06642(a)	T 15/5

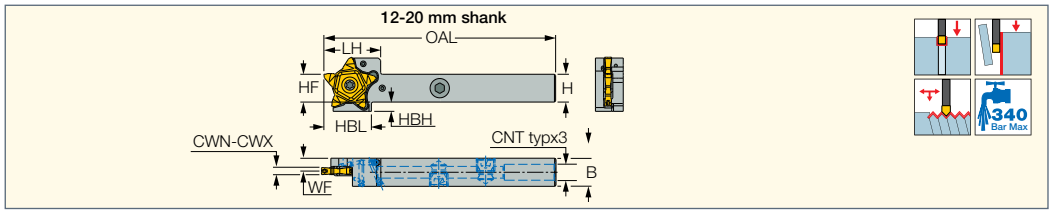
* Optional, to be ordered separately

(a) Recommended tightening torque: 31 lbf*in

PENTACUT

PCHR/L-24-JHP

Grooving, Parting and Recessing Tools Carrying PENTA Inserts with Channels for High-Pressure Coolant



	M E T R I C												
Designation	**H**	**HF**	**B**	**CWN(1)**	**CWX(2)**	**CDX(3)**	**WF**	**OAL**	**LH**	**HBL**	**HBH**	**CNT**	**Insert**
PCHR/L 12-24-JHP	12.0	12.0	12.0	0.50	3.20	6.50	5.50	100.00	24.5	20.50	4.0	UNF 5/16-24	PENTA 24
PCHR/L 16-24-JHP	16.0	16.0	16.0	0.50	3.20	6.50	9.50	120.00	24.5	-	-	UNF 5/16-24	PENTA 24

- For user guide and accessories see pages 597-608, 69-74

(1) Minimum cutting width

(2) Maximum cutting width • Up to 6.2 mm width may be ordered on request

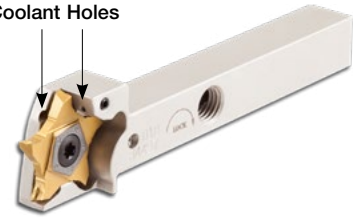
(3) For specific information, refer to insert data

For inserts, see pages: PENTA 24-BSPT (718) • PENTA 24-ISO (670) • PENTA 24-MT (659) • PENTA 24-NPT (731) • PENTA 24-UN (709) • PENTA 24-W (715) • PENTA 24-WT (654) • PENTA 24N-C (565) • PENTA 24N-C (full radius) (566) • PENTA 24N-C-SL (570) • PENTA 24N-J (553) • PENTA 24N-J (full radius) (556) • PENTA 24N-J-SL (572) • PENTA 24N-PF/P (557) • PENTA 24N-Z (559) • PENTA 24R-C (567) • PENTA 24R-P (558) • PENTA 24R/L-DSL (574) • PENTA 24R/L-J (555) • PENTA 24R/L-Z (561)

Flow Rate vs. Pressure

Designation	70 Bar Flow Rate (liters/min)	100 Bar Flow Rate (liters/min)	140 Bar Flow Rate (liters/min)
PCHR/L 12-24-JHP	5-8	9-11	11-13
PCHR/L 16/20/25-24-JHP	12-14	14-16	16-18

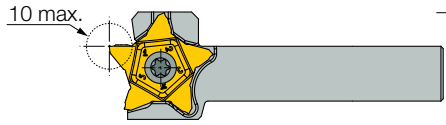
Coolant Holes



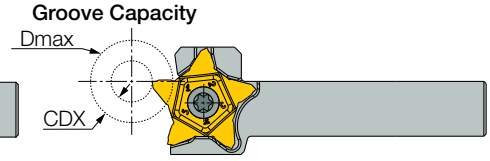
(2) Grooving Depth CDX Relative to Dmax

CDX	3.5	4	4.5	5
Dmax	No-limit	210	135	50

Cut-off to Center



Groove Capacity



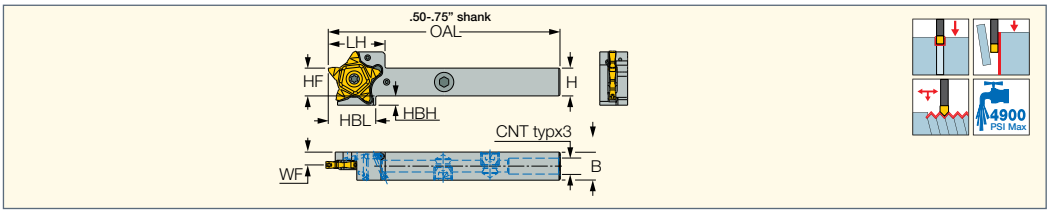
Spare Parts

Designation				
PCHL 12-24-JHP	SR 16-212-01397L-L8.5	T-2010/5	SR 5/16UNF TL360	HW 5/32"
PCHR 12-24-JHP	SR 16-212-01397-L8.5	T-2010/5	SR 5/16UNF TL360	HW 5/32"
PCHL 16-24-JHP	SR 16-212-01397L	T-2010/5	SR 5/16UNF TL360	HW 5/32"
PCHR 16-24-JHP	SR 16-212-01397	T-2010/5	SR 5/16UNF TL360	HW 5/32"

PENTACUT

PCHR/L-24-JHP

Grooving, Parting and Recessing Tools Carrying PENTA Inserts with Channels for High-Pressure Coolant



				INCH								
Designation	**H**	**HF**	**B**	**CWN(1)**	**CWX(2)**	**CDX(3)**	**WF**	**OAL**	**LH**	**HBL**	**HBH**	**CNT**	**Insert**
PCHR/L 12.7-24-JHP	.500	.500	.500	.020	.126	.256	.250	3.400	1.000	.800	.16	UNF 5/16-24	PENTA 24
PCHR/L 16-24-JHP	.630	.630	.630	.020	.126	.256	.374	4.724	.965	-	-	UNF 5/16-24	PENTA 24

- For user guide and accessories see pages 597-608, 69-74

(1) Minimum cutting width

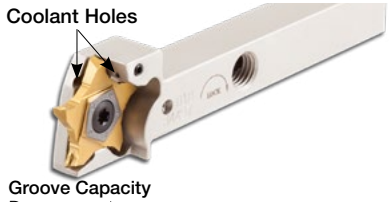
(2) Maximum cutting width • Up to .244" width may be ordered on request

(3) For specific information, refer to insert data

For inserts, see pages: PENTA 24-BSPT (718) • PENTA 24-ISO (670) • PENTA 24-MT (659) • PENTA 24-NPT (731) • PENTA 24-UN (709) • PENTA 24-W (715) • PENTA 24-WT (654) • PENTA 24N-C (565) • PENTA 24N-C (full radius) (566) • PENTA 24N-C-SL (570) • PENTA 24N-J (553) • PENTA 24N-J (full radius) (556) • PENTA 24N-J-SL (572) • PENTA 24N-PF/P (557) • PENTA 24N-Z (559) • PENTA 24R-C (567) • PENTA 24R-P (558) • PENTA 24R/L-DSL (574) • PENTA 24R/L-J (555) • PENTA 24R/L-Z (561)

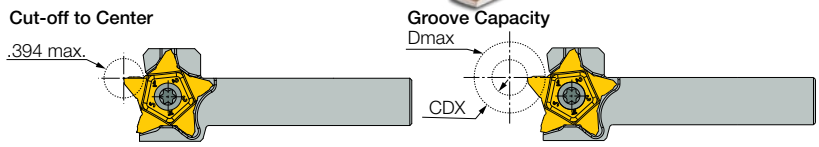
Flow Rate vs. Pressure

Designation	1000 PSI Flow Rate (GPM)	1450 PSI Flow Rate (GPM)	2000 PSI Flow Rate (GPM)
PCHR/L 12.7-24-JHP	1.1-1.8	2.0-2.4	2.4-2.9
PCHR/L 16/19/25.4-24-JHP	2.6-3.1	3.1-3.5	3.5-4.0



(2) Grooving Depth CDX Relative to Dmax

CDX	.137	.157	.177	.197
Dmax	No-limit	8.27	5.31	1.97



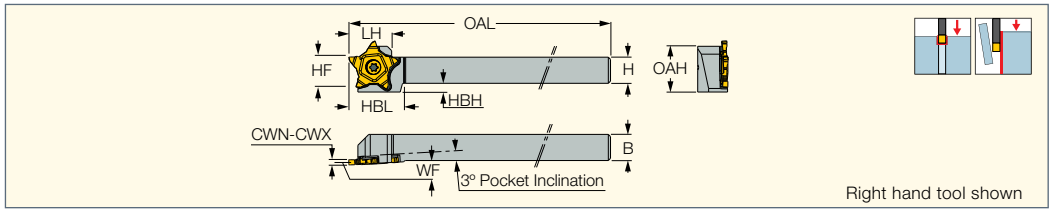
Spare Parts

Designation				
PCHL 12.7-24-JHP	SR 16-212-01397L-L8.5	T-2010/5	SR 5/16UNF TL360	HW 5/32"
PCHR 12.7-24-JHP	SR 16-212-01397-L8.5	T-2010/5	SR 5/16UNF TL360	HW 5/32"
PCHL 16-24-JHP	SR 16-212-01397L	T-2010/5	SR 5/16UNF TL360	HW 5/32"
PCHR 16-24-JHP	SR 16-212-01397	T-2010/5	SR 5/16UNF TL360	HW 5/32"

PENTACUT

PCHRS/LS

Holders Carrying Inserts with 5 Cutting Edges for Grooving, Parting and Recessing Next to High Shoulders



M E T R I C										
Designation	**H**	**B**	**CWN(1)**	**CWX(2)**	**OAL**	**LH**	**HBL**	**HBH**	**OAH**	**HF**
PCHR/LS 12-24	12.0	12.0	0.80	4.80	120.00	19.5	24.50	4.0	21.0	12.0
PCHR/LS 16-24	16.0	16.0	0.80	4.80	120.00	19.5	-	-	21.0	16.0

(1) Minimum cutting width
(2) Maximum cutting width

For inserts, see pages: PENTA 24N-RS/LS (563)

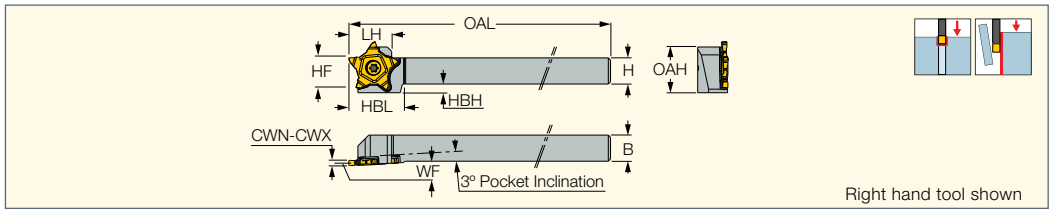
Spare Parts

Designation		
PCHLS 12-24	SR 16-212-01397LS	T-2010/5
PCHRS 12-24	SR 16-212-01397RS	T-2010/5
PCHLS 16-24	SR 16-212-01397LS	T-2010/5
PCHRS 16-24	SR 16-212-01397RS	T-2010/5

PENTACUT

PCHRS/LS

Holders Carrying Inserts with 5 Cutting Edges for Grooving,Parting and Recessing Next to High Shoulders



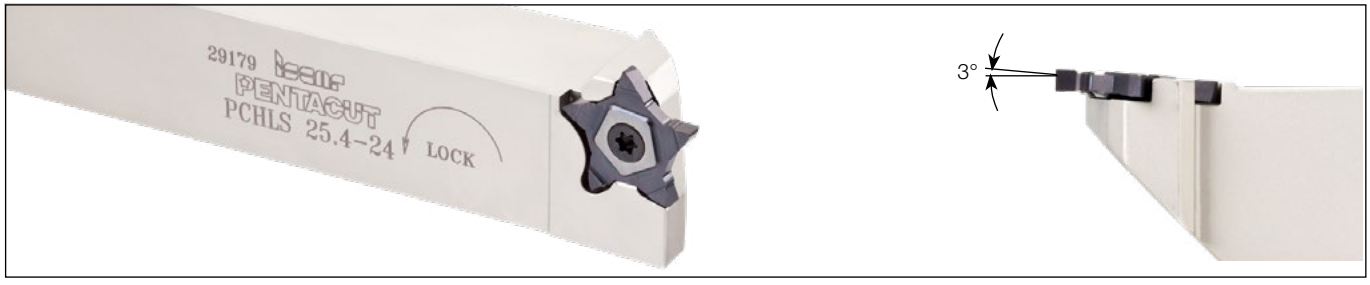
I N C H										
Designation	**H**	**B**	**CWN(1)**	**CWX(2)**	**OAL**	**LH**	**HBL**	**HBH**	**OAH**	**HF**
PCHRS 12.7-24	.500	.500	.031	.189	4.720	.770	.965	.13	.83	.500
PCHR/LS 16-24	.630	.630	.031	.189	4.724	.768	-	-	.83	.630

(1) Minimum cutting width
(2) Maximum cutting width

For inserts, see pages: PENTA 24N-RS/LS (563)

Spare Parts

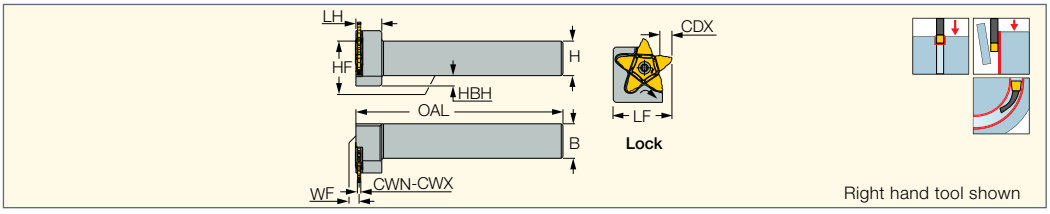
Designation		
PCHRS 12.7-24	SR 16-212-01397RS	T-2010/5
PCHLS 16-24	SR 16-212-01397LS	T-2010/5
PCHRS 16-24	SR 16-212-01397RS	T-2010/5



PENTACUT

PCHPR/L

Perpendicular Holders Carrying Inserts with 5 Cutting Edges for Facing, Grooving, Parting and Recessing



M E T R I C											
Designation	**H**	**B**	**CWN(1)**	**CWX(2)**	**CDX(3)**	**HF**	**WF**	**LF**	**OAL**	**LH**	**HBH**
PCHPR/L 16-24	16.0	16.0	0.50	3.20 (4)	6.50	16.0	1.50 (5)	23.5	120.00	11.5	-

(1) Minimum cutting width
(2) Maximum cutting width
(3) For specific information, refer to insert data
(4) Up to 6.2 mm width may be ordered on request
(5) Valid for inserts with CW<3.2 mm

For inserts, see pages: PENTA 24N-C (565) • PENTA 24N-C (full radius) (566) • PENTA 24N-C-SL (570) • PENTA 24N-J (553) • PENTA 24N-J (full radius) (556) • PENTA 24N-J-SL (572) • PENTA 24N-PF/P (557) • PENTA 24N-Z (559) • PENTA 24R-C (567) • PENTA 24R-P (558) • PENTA 24R/L-DSL (574) • PENTA 24R/L-J (555) • PENTA 24R/L-Z (561) • PENTA 34F-R/L (632) • PENTA 34N-C (580) • PENTA 34N-J (585) • PENTA 34N-PB (584) • PENTA 34R/L-C (582) • PENTA 34R/L-J (586) • PENTA 34R/L-PB (583)

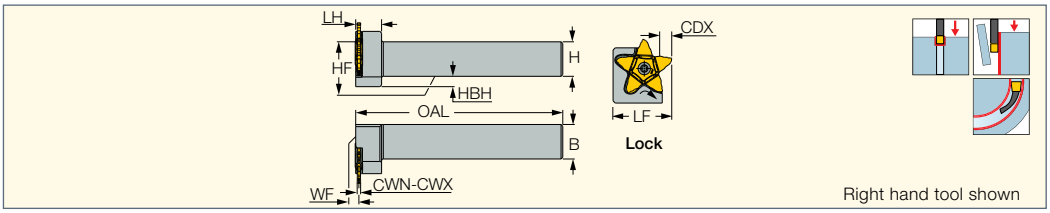
Spare Parts

Designation		
PCHPL 16-24	SR 16-212-01397	T-20/5
PCHPR 16-24	SR 16-212-01397L	T-20/5

PENTACUT

PCHPR/L

Perpendicular Holders Carrying Inserts with 5 Cutting Edges for Facing, Grooving, Parting and Recessing



I N C H											
Designation	**H**	**B**	**CWN(1)**	**CWX(2)**	**CDX(3)**	**HF**	**WF**	**LF**	**OAL**	**LH**	**HBH**
PCHPR/L 16-24	.630	.630	.020	.126 (4)	.256	.630	.059 (5)	.93	4.724	.453	-

(1) Minimum cutting width
(2) Maximum cutting width
(3) For specific information, refer to insert data
(4) Up to .244" width may be ordered on request
(5) Valid for inserts with W<.126"

For inserts, see pages: PENTA 24N-C (565) • PENTA 24N-C (full radius) (566) • PENTA 24N-C-SL (570) • PENTA 24N-J (553) • PENTA 24N-J (full radius) (556) • PENTA 24N-J-SL (572) • PENTA 24N-PF/P (557) • PENTA 24N-Z (559) • PENTA 24R-C (567) • PENTA 24R-P (558) • PENTA 24R/L-DSL (574) • PENTA 24R/L-J (555) • PENTA 24R/L-Z (561) • PENTA 34F-R/L (632) • PENTA 34N-C (580) • PENTA 34N-J (585) • PENTA 34N-PB (584) • PENTA 34R/L-C (582) • PENTA 34R/L-J (586) • PENTA 34R/L-PB (583)

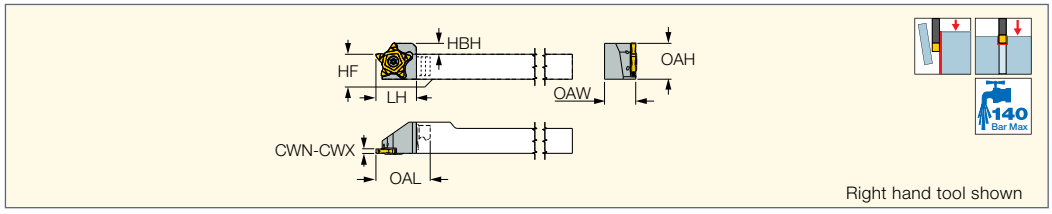
Spare Parts

Designation		
PCHPL 16-24	SR 16-212-01397	T-20/5
PCHPR 16-24	SR 16-212-01397L	T-20/5

NEOSWISS

NQCH-PCHR/L-24-JHP

Screw Lock JET-CUT Modular Heads Carrying PENTA Inserts for Grooving, Parting, and Recessing on Swiss-Type Machines



M E T R I C									
Designation	**HF**	**OAW**	**OAH**	**HBH**	**OAL**	**HBL**	**CWN(1)**	**CWX(2)**	**Insert**
NQCH12-PCHL24-JHP	12.0	20.00	23.00	7.0	34.80	26.0	0.50	3.20	PENTA 24
NQCH12-PCHR24-JHP	12.0	20.00	23.00	7.0	34.80	26.0	0.50	3.20	PENTA 24
NQCH16-PCHL24-JHP	16.0	20.00	23.00	7.0	34.80	26.0	0.50	3.20	PENTA 24
NQCH16-PCHR24-JHP	16.0	20.00	23.00	7.0	34.80	26.0	0.50	3.20	PENTA 24

(1) Minimum cutting width
(2) Maximum cutting width

For inserts, see pages: PENTA 24-BSPT (718) • PENTA 24-ISO (670) • PENTA 24-MT (659) • PENTA 24-NPT (731) • PENTA 24-UN (709) • PENTA 24-W (715) • PENTA 24-WT (654) • PENTA 24N-C (565) • PENTA 24N-C (full radius) (566) • PENTA 24N-C-SL (570) • PENTA 24N-J (553) • PENTA 24N-J (full radius) (556) • PENTA 24N-J-SL (572) • PENTA 24N-PF/P (557) • PENTA 24N-Z (559) • PENTA 24R-C (567) • PENTA 24R-P (558) • PENTA 24R/L-DSL (574) • PENTA 24R/L-J (555) • PENTA 24R/L-Z (561)
For holders, see pages: C#-NQCH-JHP (65) • NQCH-JHP (63)

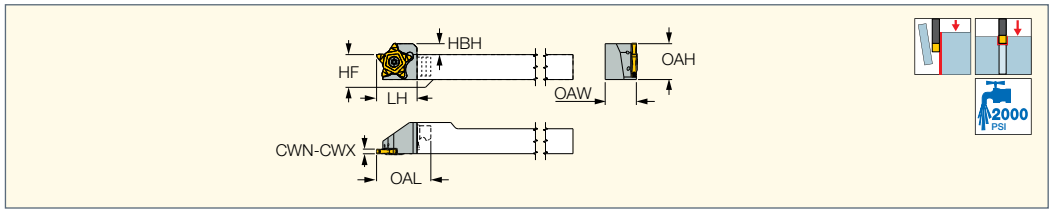
Spare Parts

Designation		
NQCH12-PCHL24-JHP	SR 16-212-01397L	T-2010/5
NQCH12-PCHR24-JHP	SR 16-212-01397	T-2010/5
NQCH16-PCHL24-JHP	SR 16-212-01397L	T-2010/5
NQCH16-PCHR24-JHP	SR 16-212-01397	T-2010/5

NEOSWISS

NQCH-PCHR/L-24-JHP

Screw Lock JET-CUT Modular Heads Carrying PENTA Inserts for Grooving, Parting, and Recessing on Swiss-Type Machines



I N C H									
Designation	**HF**	**OAW**	**OAH**	**HBH**	**OAL**	**HBL**	**CWN(1)**	**CWX(2)**	**Insert**
NQCH12-PCHL24-JHP	.472	.787	.906	.276	1.370	1.024	.020	.126	PENTA 24
NQCH12-PCHR24-JHP	.472	.787	.906	.276	1.370	1.024	.020	.126	PENTA 24
NQCH16-PCHL24-JHP	.630	.787	.906	.276	1.370	1.024	.020	.126	PENTA 24
NQCH16-PCHR24-JHP	.630	.787	.906	.276	1.370	1.024	.020	.126	PENTA 24

(1) Minimum cutting width
(2) Maximum cutting width

For inserts, see pages: PENTA 24-BSPT (718) • PENTA 24-ISO (670) • PENTA 24-MT (659) • PENTA 24-NPT (731) • PENTA 24-UN (709) • PENTA 24-W (715) • PENTA 24-WT (654) • PENTA 24N-C (565) • PENTA 24N-C (full radius) (566) • PENTA 24N-C-SL (570) • PENTA 24N-J (553) • PENTA 24N-J (full radius) (556) • PENTA 24N-J-SL (572) • PENTA 24N-PF/P (557) • PENTA 24N-Z (559) • PENTA 24R-C (567) • PENTA 24R-P (558) • PENTA 24R/L-DSL (574) • PENTA 24R/L-J (555) • PENTA 24R/L-Z (561)
For holders, see pages: C#-NQCH-JHP (65) • NQCH-JHP (63)

Spare Parts

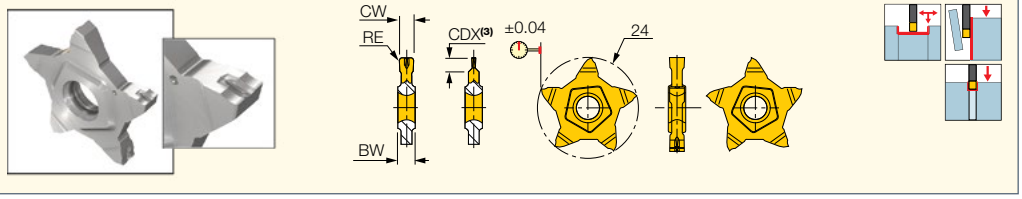
Designation		
NQCH12-PCHL24-JHP	SR 16-212-01397L	T-2010/5
NQCH12-PCHR24-JHP	SR 16-212-01397	T-2010/5
NQCH16-PCHL24-JHP	SR 16-212-01397L	T-2010/5
NQCH16-PCHR24-JHP	SR 16-212-01397	T-2010/5

Identification System for Standard Inserts

PENTA	24	N	150	J	010
Family name	Circular circumference of the insert	Insert lead angle (K) N, R, L	Cutting edge width CW(mm) x100	Chipbreaker style J, Z	Corner radius RE (mm)x100 for neutral insert. (k=0) Or lead angle for right- or left-hand inserts. (eg. 15D=15°)

PENTACUT

PENTA 24N-J
Inserts with 5 Cutting Edges for Parting and Grooving Soft Materials, Tubes, Small and Thin-Walled Parts



M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	BW	CDX(3)	Tough ↔ Hard IC1010	IC1008	IC908	IC807G	Recommended Machining Data f groove (mm/rev)
PENTA 24N050J000	0.50	0.00	0.020	0.020	4.00	1.00			•		0.02-0.04
PENTA 24N050J004	0.50	0.04	0.020	0.020	4.00	2.50		•			0.02-0.05
PENTA 24N080J000	0.80	0.00	0.020	0.020	4.00	1.60			•		0.02-0.05
PENTA 24N100J004	1.00	0.04	0.020	0.020	4.00	3.50			•		0.03-0.07
PENTA 24N100J006	1.00	0.06	0.020	0.020	4.00	3.50		•		•	0.03-0.07
PENTA 24N104J000	1.04	0.00	0.020	0.020	4.00	2.00			•		0.02-0.07
PENTA 24N120J000	1.20	0.00	0.020	0.020	4.00	2.00			•	•	0.03-0.07
PENTA 24N125J010	1.25	0.10	0.020	0.020	4.00	2.00			•		0.03-0.07
PENTA 24N140J000	1.40	0.00	0.020	0.020	4.00	2.00			•		0.03-0.08
PENTA 24N147J000	1.47	0.00	0.020	0.020	4.00	2.50			•		0.03-0.08
PENTA 24N150J010	1.50	0.10	0.020	0.020	4.00	5.00	•	•	•	•	0.03-0.10
PENTA 24N157J015	1.57	0.15	0.020	0.030	4.00	3.00			•	•	0.03-0.12
PENTA 24N170J010	1.70	0.10	0.020	0.030	4.00	3.00			•	•	0.03-0.12
PENTA 24N178J018	1.78	0.18	0.020	0.030	4.00	3.00			•	•	0.04-0.12
PENTA 24N185J015	1.85	0.15	0.020	0.030	4.00	3.00			•		0.04-0.12
PENTA 24N196J015	1.96	0.15	0.020	0.030	4.00	3.00			•	•	0.04-0.12
PENTA 24N196J040	1.96	0.40	0.020	0.030	4.00	3.00			•		0.03-0.10
PENTA 24N200J020	2.00	0.20	0.020	0.030	4.00	6.00	•	•	•	•	0.04-0.12
PENTA 24N222J015	2.22	0.15	0.020	0.030	4.00	3.50			•	•	0.04-0.16
PENTA 24N230J020	2.30	0.20	0.020	0.030	4.00	3.50			•	•	0.04-0.16
PENTA 24N239J015	2.39	0.15	0.020	0.030	4.00	5.00			•	•	0.04-0.16
PENTA 24N247J020	2.47	0.20	0.020	0.030	4.00	5.00			•	•	0.04-0.16
PENTA 24N250J020	2.50	0.20	0.020	0.030	4.00	5.00			•		0.04-0.16
PENTA 24N270J010	2.70	0.10	0.020	0.020	4.00	5.00			•		0.04-0.16
PENTA 24N287J020	2.87	0.20	0.020	0.030	4.00	6.50			•		0.04-0.16
PENTA 24N300J000	3.00	0.00	0.020	0.020	4.00	6.50			•		0.04-0.10
PENTA 24N300J020	3.00	0.20	0.020	0.030	4.00	6.50	•		•	•	0.04-0.16
PENTA 24N300J040	3.00	0.40	0.020	0.030	4.00	6.50			•	•	0.04-0.16
PENTA 24N315J015	3.15	0.15	0.020	0.030	4.00	6.50			•		0.04-0.16
PENTA 24N318J020	3.18	0.20	0.020	0.030	4.00	6.50			•	•	0.04-0.16
PENTA 24N330J010	3.30	0.10	0.020	0.030	5.00	6.40			•		0.04-0.16
PENTA 24N348J020	3.48	0.20	0.020	0.030	5.00	6.40			•		0.04-0.18
PENTA 24N356J020	3.56	0.20	0.020	0.030	5.00	6.40			•		0.04-0.18
PENTA 24N374J020	3.74	0.20	0.020	0.030	5.00	6.40			•		0.04-0.18
PENTA 24N398J020	3.98	0.20	0.020	0.030	5.00	6.20			•		0.04-0.18
PENTA 24N400J040	4.00	0.40	0.020	0.030	5.00	6.20			•		0.04-0.18
PENTA 24N423J010	4.23	0.10	0.020	0.030	5.00	6.20			•		0.04-0.18

• Recessing is possible only with 2.39 mm and wider inserts • For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

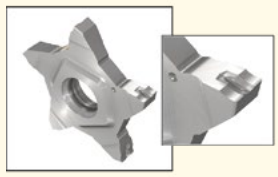
(3) For grooving and parting depth relative to part diameter, see page 559

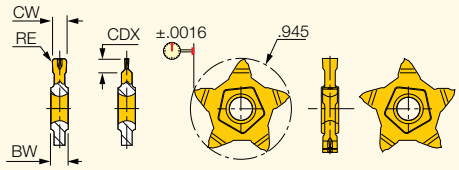
For tools, see pages: NQCH-PCHR/L-24-JHP (552) • PCHPR/L (551) • PCHR/L-24 (547) • PCHR/L-24-JHP (548)

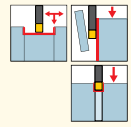
PENTACUT

PENTA 24N-J

Inserts with 5 Cutting Edges
for Parting and Grooving
Soft Materials, Tubes, Small
and Thin-Walled Parts







I N C H

Designation	Dimensions						Tough ↔ Hard				Recommended Machining Data
	CW	RE	CWTOL(1)	RETOL(2)	BW	CDX(3)	IC1010	IC1008	IC908	IC807G	f groove (IPR)
PENTA 24N050J000	.020	.0000	.00078	.0008	.157	.039			•		.0008-.0016
PENTA 24N050J004	.020	.0016	.00078	.0008	.157	.098		•			.0008-.0020
PENTA 24N080J000	.031	.0000	.00078	.0008	.157	.063			•		.0008-.0020
PENTA 24N100J004	.039	.0016	.00078	.0008	.157	.138			•		.0012-.0027
PENTA 24N100J006	.039	.0024	.00078	.0008	.157	.138		•		•	.0012-.0027
PENTA 24N104J000	.041	.0000	.00078	.0008	.157	.079			•		.0008-.0027
PENTA 24N120J000	.047	.0000	.00078	.0008	.157	.079			•	•	.0012-.0027
PENTA 24N125J010	.049	.0039	.00078	.0008	.157	.079			•		.0012-.0027
PENTA 24N140J000	.055	.0000	.00078	.0008	.157	.079			•		.0012-.0031
PENTA 24N147J000	.058	.0000	.00078	.0008	.157	.098			•		.0012-.0031
PENTA 24N150J010	.059	.0039	.00000	.0008	.157	.197	•	•	•	•	.0012-.0039
PENTA 24N157J015	.062	.0059	.00078	.0012	.157	.118			•	•	.0000-.0047
PENTA 24N170J010	.067	.0039	.00078	.0012	.157	.118			•	•	.0012-.0047
PENTA 24N178J018	.070	.0071	.00078	.0012	.157	.118			•	•	.0016-.0047
PENTA 24N185J015	.073	.0059	.00078	.0012	.157	.118			•		.0016-.0047
PENTA 24N196J015	.077	.0059	.00078	.0012	.157	.118			•	•	.0016-.0047
PENTA 24N196J040	.077	.0157	.00078	.0012	.157	.118			•		.0012-.0039
PENTA 24N200J020	.079	.0079	.00078	.0012	.157	.236	•	•	•	•	.0016-.0047
PENTA 24N222J015	.087	.0059	.00078	.0012	.157	.138			•	•	.0016-.0063
PENTA 24N230J020	.091	.0079	.00078	.0012	.157	.138			•	•	.0016-.0063
PENTA 24N239J015	.094	.0059	.00078	.0012	.157	.197			•	•	.0016-.0063
PENTA 24N247J020	.097	.0079	.00078	.0012	.157	.197			•	•	.0016-.0063
PENTA 24N250J020	.098	.0079	.00078	.0012	.157	.197			•		.0016-.0063
PENTA 24N270J010	.106	.0039	.00078	.0008	.157	.197			•		.0016-.0063
PENTA 24N287J020	.113	.0079	.00078	.0012	.157	.256			•		.0016-.0063
PENTA 24N300J000	.118	.0000	.00078	.0008	.157	.256			•		.0016-.0039
PENTA 24N300J020	.118	.0079	.00078	.0012	.157	.256	•		•	•	.0016-.0063
PENTA 24N300J040	.118	.0157	.00078	.0012	.157	.256			•	•	.0016-.0063
PENTA 24N315J015	.124	.0059	.00078	.0012	.157	.256			•		.0016-.0063
PENTA 24N318J020	.125	.0079	.00078	.0012	.157	.256			•	•	.0016-.0063
PENTA 24N330J010	.130	.0039	.00078	.0012	.197	.252			•		.0016-.0063
PENTA 24N348J020	.137	.0079	.00078	.0012	.197	.252			•		.0016-.0071
PENTA 24N356J020	.140	.0079	.00078	.0012	.197	.252			•		.0016-.0071
PENTA 24N374J020	.147	.0079	.00078	.0012	.197	.252			•		.0016-.0071
PENTA 24N398J020	.157	.0079	.00078	.0012	.197	.244			•		.0016-.0071
PENTA 24N400J040	.157	.0157	.00078	.0012	.197	.244			•		.0016-.0071
PENTA 24N423J010	.167	.0039	.00078	.0012	.197	.244			•		.0016-.0071

• Recessing is possible only with .094" and wider inserts • For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

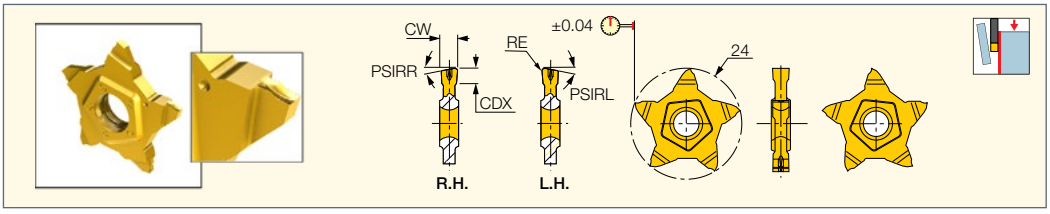
(3) For grooving and parting depth relative to part diameter, see page 559

For tools, see pages: NQCH-PCHR/L-24-JHP (552) • PCHPR/L (551) • PCHR/L-24 (547) • PCHR/L-24-JHP (548)

PENTACUT

PENTA 24R/L-J

Inserts with 5 Cutting Edges
for Parting Tubes, Small
and Thin-Walled Parts



M E T R I C

Designation	Dimensions CW	CDX	RE	CWTOL(1)	PSIRL	PSIRR	CUTDIA(2)	IC1008	Recommended Machining Data f groove (mm/rev)
PENTA 24L100J15D	1.00	3.50	0.06	0.020	15.0	-	7.0	•	0.02-0.06
PENTA 24R100J15D	1.00	3.50	0.06	0.020	-	15.0	7.0	•	0.02-0.06
PENTA 24L150J06D	1.50	5.00	0.10	0.020	6.0	-	10.0	•	0.03-0.09
PENTA 24L150J15D	1.50	5.00	0.06	0.020	15.0	-	10.0	•	0.03-0.08
PENTA 24R150J06D	1.50	5.00	0.06	0.020	-	6.0	10.0	•	0.03-0.09
PENTA 24R150J15D	1.50	5.00	0.06	0.020	-	15.0	10.0	•	0.03-0.08
PENTA 24L200J06D	2.00	6.00	0.10	0.020	6.0	-	12.0	•	0.04-0.10
PENTA 24L200J15D	2.00	6.00	0.10	0.020	15.0	-	12.0	•	0.04-0.09
PENTA 24R200J06D	2.00	6.00	0.10	0.020	-	6.0	12.0	•	0.04-0.10
PENTA 24R200J15D	2.00	6.00	0.10	0.020	-	15.0	12.0	•	0.04-0.09

• For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

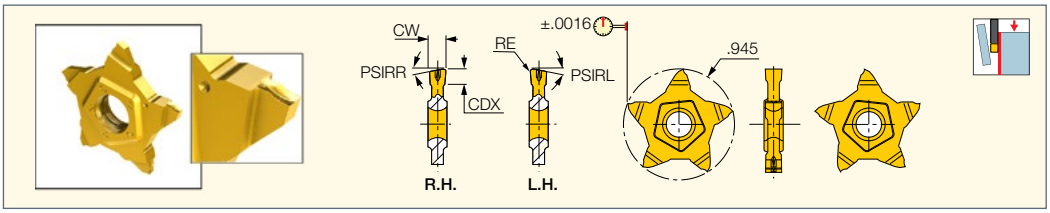
(2) For grooving and parting depths relative to part diameter, see page 559

For tools, see pages: NQCH-PCHR/L-24-JHP (552) • PCHPR/L (551) • PCHR/L-24 (547) • PCHR/L-24-JHP (548)

PENTACUT

PENTA 24R/L-J

Inserts with 5 Cutting Edges
for Parting Tubes, Small
and Thin-Walled Parts



I N C H

Designation	Dimensions CW	CDX	RE	CWTOL(1)	PSIRL	PSIRR	CUTDIA(2)	IC1008	Recommended Machining Data f groove (IPR)
PENTA 24L100J15D	.039	.138	.0024	.00078	15.0	-	.276	•	.0008-.0024
PENTA 24R100J15D	.039	.138	.0024	.00078	-	15.0	.276	•	.0008-.0024
PENTA 24L150J06D	.059	.197	.0039	.00078	6.0	-	.394	•	.0012-.0035
PENTA 24L150J15D	.059	.197	.0024	.00078	15.0	-	.394	•	.0012-.0031
PENTA 24R150J06D	.059	.197	.0024	.00078	-	6.0	.394	•	.0012-.0035
PENTA 24R150J15D	.059	.197	.0024	.00078	-	15.0	.394	•	.0012-.0031
PENTA 24L200J06D	.079	.236	.0039	.00078	6.0	-	.472	•	.0016-.0039
PENTA 24L200J15D	.079	.236	.0039	.00078	15.0	-	.472	•	.0016-.0035
PENTA 24R200J06D	.079	.236	.0039	.00078	-	6.0	.472	•	.0016-.0039
PENTA 24R200J15D	.079	.236	.0039	.00078	-	15.0	.472	•	.0016-.0035

• For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

(2) For grooving and parting depths relative to part diameter, see page 559

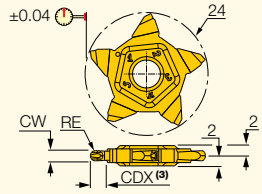
For tools, see pages: NQCH-PCHR/L-24-JHP (552) • PCHPR/L (551) • PCHR/L-24 (547) • PCHR/L-24-JHP (548)

PENTACUT

PENTA 24N-J (full radius)

Precision Grooving
Pentagonal Full Radius
Inserts for Soft Materials







M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	Tough ↔ Hard IC908	IC807G	Recommended Machining Data f groove (mm/rev)
PENTA 24N100J050	1.00	0.50	0.020	0.050	3.50	•		0.03-0.07
PENTA 24N120J060	1.20	0.60	0.020	0.050	2.00	•		0.03-0.07
PENTA 24N140J070	1.40	0.70	0.020	0.050	2.00	•		0.05-0.08
PENTA 24N157J079	1.57	0.79	0.020	0.050	3.00	•	•	0.05-0.08
PENTA 24N200J100	2.00	1.00	0.020	0.050	3.00	•	•	0.05-0.12
PENTA 24N239J120	2.39	1.20	0.020	0.050	5.00	•		0.06-0.16
PENTA 24N300J150	3.00	1.50	0.020	0.050	6.50	•	•	0.06-0.20
PENTA 24N318J159	3.18	1.59	0.020	0.050	6.50	•		0.06-0.20
PENTA 24N400J200	4.00	2.00	0.020	0.050	6.25	•		0.06-0.20

• Recessing is possible only with 2.39 mm and wider inserts. • For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

(3) For grooving depth relative to part diameter, see page 559

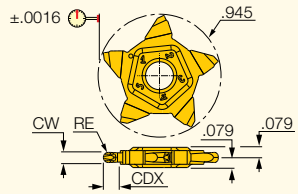
For tools, see pages: NQCH-PCHR/L-24-JHP (552) • PCHPR/L (551) • PCHR/L-24 (547) • PCHR/L-24-JHP (548)

PENTACUT

PENTA 24N-J (full radius)

Precision Grooving
Pentagonal Full Radius
Inserts for Soft Materials







I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	Tough ↔ Hard IC908	IC807G	Recommended Machining Data f groove (IPR)
PENTA 24N100J050	.039	.0197	.00078	.0020	.138	•		.0012-.0027
PENTA 24N120J060	.047	.0236	.00078	.0020	.079	•		.0012-.0027
PENTA 24N140J070	.055	.0276	.00078	.0020	.079	•		.0020-.0031
PENTA 24N157J079	.062	.0311	.00078	.0020	.118	•	•	.0020-.0031
PENTA 24N200J100	.079	.0394	.00078	.0020	.118	•	•	.0020-.0047
PENTA 24N239J120	.094	.0472	.00078	.0020	.197	•		.0024-.0063
PENTA 24N300J150	.118	.0590	.00078	.0020	.256	•	•	.0024-.0079
PENTA 24N318J159	.125	.0626	.00078	.0020	.256	•		.0024-.0079
PENTA 24N400J200	.157	.0787	.00078	.0020	.246	•		.0024-.0079

• Recessing is possible only with .094" and wider inserts. • For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

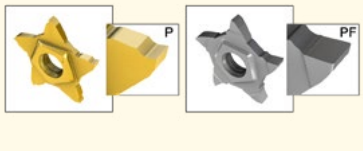
(3) For grooving depth relative to part diameter, see page 559

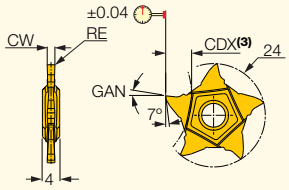
For tools, see pages: NQCH-PCHR/L-24-JHP (552) • PCHPR/L (551) • PCHR/L-24 (547) • PCHR/L-24-JHP (548)

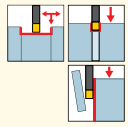
PENTACUT

PENTA 24N-PF/P

Pentagonal Inserts with a High Positive Flat Rake for Parting and Precision Grooving







M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	GAN	Tough ↔ Hard IC1008	IC908	IC30N	Recommended Machining Data f groove (mm/rev)
PENTA 24N050PF005	0.50	0.05	0.020	0.020	2.50	6.0			•	0.01-0.04
PENTA 24N075PF005	0.75	0.05	0.020	0.020	2.50	6.0			•	0.02-0.05
PENTA 24N095PF005	0.95	0.05	0.020	0.020	4.00	6.0			•	0.02-0.05
PENTA 24N100P005	1.00	0.05	0.020	0.020	3.50	12.0	•			0.02-0.05
PENTA 24N100PF010	1.00	0.10	0.020	0.020	4.00	6.0		•	•	0.03-0.06
PENTA 24N125PF020	1.25	0.20	0.020	0.020	5.00	6.0			•	0.03-0.06
PENTA 24N145PF020	1.45	0.20	0.020	0.020	6.20	6.0			•	0.03-0.06
PENTA 24N150P005	1.50	0.05	0.020	0.020	5.00	12.0	•			0.02-0.07
PENTA 24N150PF020	1.50	0.20	0.020	0.030	6.00	6.0		•	•	0.03-0.09
PENTA 24N175PF020	1.75	0.20	0.020	0.030	6.20	6.0			•	0.02-0.08
PENTA 24N185PF020	1.85	0.20	0.020	0.030	6.00	6.0			•	0.03-0.10
PENTA 24N200P005	2.00	0.05	0.020	0.020	6.00	12.0	•			0.02-0.08
PENTA 24N200PF020	2.00	0.20	0.020	0.030	6.50	6.0		•	•	0.04-0.10
PENTA 24N230PF020	2.30	0.20	0.020	0.030	6.20	6.0			•	0.04-0.14
PENTA 24N239PF015	2.39	0.15	0.020	0.030	6.50	6.0		•		0.04-0.14
PENTA 24N250PF020	2.50	0.20	0.020	0.030	6.50	6.0		•	•	0.04-0.14
PENTA 24N300PF020	3.00	0.20	0.020	0.030	6.50	6.0		•	•	0.04-0.14
PENTA 24N300PF030	3.00	0.30	0.020	0.030	6.20	6.0			•	0.04-0.15
PENTA 24N400PF020	4.00	0.20	0.020	0.030	6.50	6.0			•	0.04-0.16
PENTA 24N400PF040	4.00	0.40	0.020	0.030	6.20	6.0			•	0.04-0.16

• For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

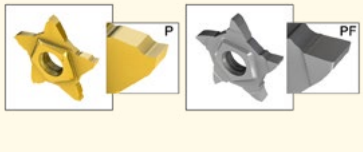
(3) For grooving and parting depths relative to part diameter, see page 559

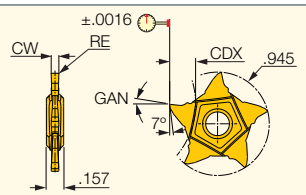
For tools, see pages: NQCH-PCHR/L-24-JHP (552) • PCHPR/L (551) • PCHR/L-24 (547) • PCHR/L-24-JHP (548)

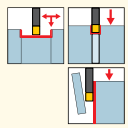
PENTACUT

PENTA 24N-PF/P

Pentagonal Inserts with a High Positive Flat Rake for Parting and Precision Grooving







I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	GAN	Tough ↔ Hard IC1008	IC908	IC30N	Recommended Machining Data f groove (IPR)
PENTA 24N050PF005	.020	.0020	.00078	.0008	.098	6.0			•	.0004-.0016
PENTA 24N075PF005	.030	.0020	.00078	.0008	.098	6.0			•	.0008-.0020
PENTA 24N095PF005	.037	.0020	.00078	.0008	.157	6.0			•	.0008-.0020
PENTA 24N100P005	.039	.0020	.00078	.0008	.138	12.0	•			.0008-.0020
PENTA 24N100PF010	.039	.0039	.00078	.0008	.157	6.0		•	•	.0012-.0024
PENTA 24N125PF020	.049	.0079	.00078	.0008	.197	6.0			•	.0012-.0024
PENTA 24N145PF020	.057	.0079	.00078	.0008	.244	6.0			•	.0012-.0024
PENTA 24N150P005	.059	.0020	.00078	.0008	.197	12.0	•			.0008-.0027
PENTA 24N150PF020	.059	.0079	.00078	.0012	.236	6.0		•	•	.0012-.0035
PENTA 24N175PF020	.069	.0079	.00078	.0012	.244	6.0			•	.0008-.0031
PENTA 24N185PF020	.073	.0079	.00078	.0012	.236	6.0			•	.0012-.0039
PENTA 24N200P005	.079	.0020	.00078	.0008	.236	12.0	•			.0008-.0031
PENTA 24N200PF020	.079	.0079	.00078	.0012	.256	6.0		•	•	.0016-.0039
PENTA 24N230PF020	.091	.0079	.00078	.0012	.244	6.0			•	.0016-.0055
PENTA 24N239PF015	.094	.0059	.00078	.0012	.256	6.0		•		.0016-.0055
PENTA 24N250PF020	.098	.0079	.00078	.0012	.256	6.0		•	•	.0016-.0055
PENTA 24N300PF020	.118	.0079	.00078	.0012	.256	6.0		•	•	.0016-.0055
PENTA 24N300PF030	.118	.0118	.00078	.0012	.244	6.0			•	.0016-.0059
PENTA 24N400PF020	.157	.0079	.00078	.0012	.256	6.0			•	.0016-.0063
PENTA 24N400PF040	.157	.0157	.00078	.0012	.244	6.0			•	.0016-.0063

• For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

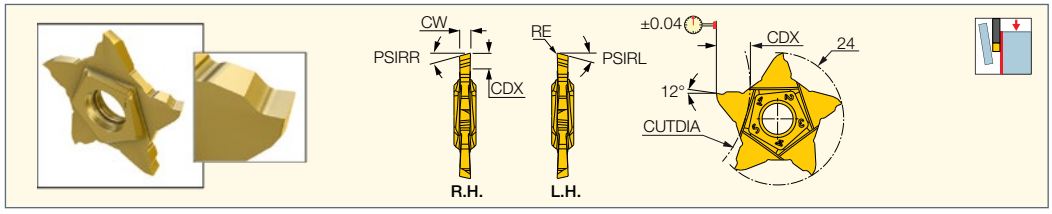
(3) For grooving and parting depths relative to part diameter, see page 559

For tools, see pages: NQCH-PCHR/L-24-JHP (552) • PCHPR/L (551) • PCHR/L-24 (547) • PCHR/L-24-JHP (548)

PENTACUT

PENTA 24R-P

Inserts with 5 Cutting Edges for Parting Soft Materials, Thin Walls and Miniature Parts



M E T R I C

Designation	Dimensions CW	CDX	RE	CWTOL(1)	CUTDIA(2)	PSIRR	IC1008	Recommended Machining Data f groove (mm/rev)
PENTA 24R100P06D	1.00	3.50	0.05	0.020	7.2	6.0	●	0.02-0.04
PENTA 24R100P15D	1.00	3.50	0.05	0.020	7.2	15.0	●	0.02-0.03
PENTA 24R150P06D	1.50	5.00	0.05	0.020	11.0	6.0	●	0.02-0.05
PENTA 24R150P15D	1.50	5.00	0.05	0.020	11.0	15.0	●	0.02-0.04
PENTA 24R200P06D	2.00	6.00	0.05	0.020	12.6	6.0	●	0.02-0.07
PENTA 24R200P15D	2.00	6.00	0.05	0.020	12.6	15.0	●	0.02-0.05

- For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

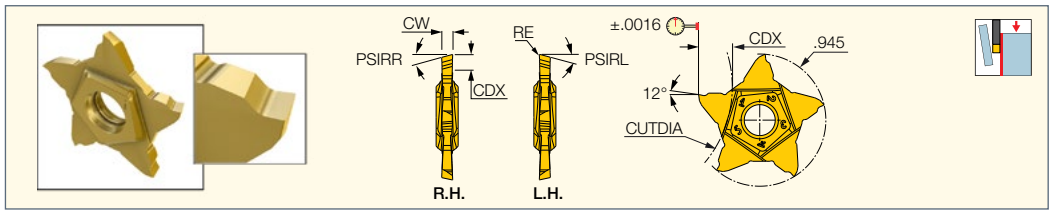
(2) For grooving and parting depths relative to part diameter, see page 559

For tools, see pages: NQCH-PCHR/L-24-JHP (552) • PCHPR/L (551) • PCHR/L-24 (547) • PCHR/L-24-JHP (548)

PENTACUT

PENTA 24R-P

Inserts with 5 Cutting Edges for Parting Soft Materials, Thin Walls and Miniature Parts



I N C H

Designation	Dimensions CW	CDX	RE	CWTOL(1)	CUTDIA(2)	PSIRR	IC1008	Recommended Machining Data f groove (IPR)
PENTA 24R100P06D	.039	.138	.0020	.00078	.283	6.0	●	.0008-.0016
PENTA 24R100P15D	.039	.138	.0020	.00078	.283	15.0	●	.0008-.0012
PENTA 24R150P06D	.059	.197	.0020	.00078	.433	6.0	●	.0008-.0020
PENTA 24R150P15D	.059	.197	.0020	.00078	.433	15.0	●	.0008-.0016
PENTA 24R200P06D	.079	.236	.0020	.00078	.496	6.0	●	.0008-.0027
PENTA 24R200P15D	.079	.236	.0020	.00078	.496	15.0	●	.0008-.0020

- For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

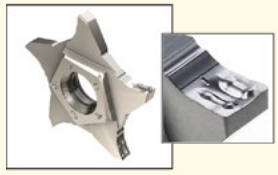
(2) For grooving and parting depths relative to part diameter, see page 559

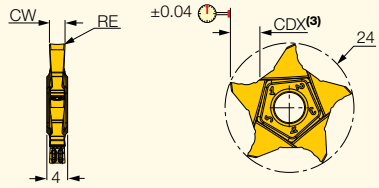
For tools, see pages: NQCH-PCHR/L-24-JHP (552) • PCHPR/L (551) • PCHR/L-24 (547) • PCHR/L-24-JHP (548)

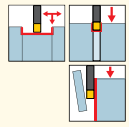
PENTACUT

PENTA 24N-Z

Inserts with 5 Cutting Edges for Grooving and Parting Tubes, Small and Thin-Walled Parts







M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	IC908	Recommended Machining Data f groove (mm/rev)
PENTA 24N150Z010	1.50	0.10	0.020	0.020	5.00	●	0.05-0.08
PENTA 24N200Z020	2.00	0.20	0.020	0.030	6.40	●	0.04-0.12
PENTA 24N300Z020	3.00	0.20	0.020	0.030	6.40	●	0.04-0.16

• Cutting edge with high positive rake, suitable for parting tubes, thin walled parts and for small diameters • Suitable for machining soft materials and bearing steel at low to medium feeds • For cutting speed recommendations and user guide, see pages 597-608

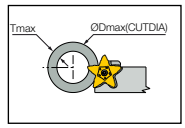
(1) Cutting width tolerance (+/-)

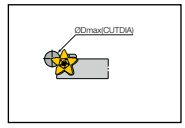
(2) Corner radius tolerance (+/-)

(3) For grooving and parting depths relative to part diameter, see below

For tools, see pages: NQCH-PCHR/L-24-JHP (552) • PCHPR/L (551) • PCHR/L-24 (547) • PCHR/L-24-JHP (548)

ØDmax as a Function of Parting / Grooving Depth (T) for PENTA 24 Inserts										
CW±0.02	CDX(3)	CDX / ØDmax	T≤3.0	T≤3.5	T≤4.0	T≤4.5	T≤5.0	T≤5.5	T≤6.5	T≤6.4
CW=0.50 (1)	1.0	1.0 / N.L.	-	-	-	-	-	-	-	-
CW=0.50 (2)	2.5			250						
CW=0.80	1.6	1.6 / N.L.	-	-	-	-	-	-	-	-
CW=1.00	3.5		N.L.	250	-	-	-	-	-	-
1.04≤CW≤1.40	2.0	2.0 / N.L.	-	-	-	-	-	-	-	-
CW=1.47	2.5	2.5 / N.L.	-	-	-	-	-	-	-	-
CW=1.50	5.0		N.L.	470	210	70	30	-	-	-
1.57≤CW≤1.96	3.0		N.L.	-	-	-	-	-	-	-
CW=2.00	6.0(4)		N.L.	470	210	130	75	45	20	-
2.22≤CW≤2.30	3.5		N.L.	250	-	-	-	-	-	-
2.39≤CW≤2.50	5.0		N.L.	470	210	70	30	-	-	-
2.70≤CW≤3.18	6.4		N.L.	470	210	135	100	70	40	20





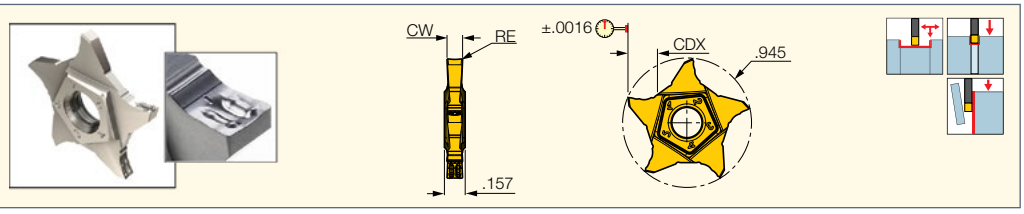
(1) Refers to PENTA 24N050J000 - a precision grooving insert (2) Refers to PENTA 24N050J004 - a parting insert (3) CUTDIA for parting = 2 x CDX

(4) For full radius insert, CDX = 3.0, ØDmax = No limit

PENTACUT

PENTA 24N-Z

Inserts with 5 Cutting Edges for Grooving and Parting Tubes, Small and Thin-Walled Parts



I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	IC908	Recommended Machining Data f groove (IPR)
PENTA 24N150Z010	.059	.0039	.00078	.0008	.197	●	.0020-.0031
PENTA 24N200Z020	.079	.0079	.00078	.0012	.252	●	.0016-.0047
PENTA 24N300Z020	.118	.0079	.00078	.0012	.252	●	.0016-.0063

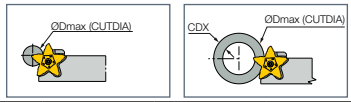
• Cutting edge with high positive rake, suitable for parting tubes, thin walled parts and for small diameters • Suitable for machining soft materials and bearing steel at low to medium feeds • For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

(3) For grooving and parting depths relative to part diameter, see below

For tools, see pages: NQCH-PCHR/L-24-JHP (552) • PCHPR/L (551) • PCHR/L-24 (547) • PCHR/L-24-JHP (548)



			ØDmax as a Function of Parting / Grooving Depth (T) for PENTA 24 Inserts							
CW±.0008	CDX(3)	CDX/ØDmax	T≤.118	T≤.138	T≤.157	T≤.177	T≤.197	T≤.217	T≤.256	T≤.252
CW=.020(1)	.039	.039 / N.L.	-	-	-	-	-	-	-	-
CW=.020(2)	.098			9.84						
CW=.031	.063	.063 / N.L.	-	-	-	-	-	-	-	-
CW=.039	.138		N.L.	9.84	-	-	-	-	-	-
.041≤CW≤.055	.079	.079 / N.L.	-	-	-	-	-	-	-	-
CW=.058	.098	.098 / N.L.	-	-	-	-	-	-	-	-
CW=.059	.197		N.L.	18.5	8.27	2.76	1.18	-	-	-
.062≤CW≤.077	.118		N.L.	-	-	-	-	-	-	-
CW=.079	.236(4)		N.L.	18.5	8.27	5.12	2.95	1.77	.79	-
.087≤CW≤.091	.138		N.L.	9.84	-	-	-	-	-	-
.094≤CW≤.098	.197		N.L.	18.5	8.27	2.76	1.18	-	-	-
.106≤CW≤.125	.252		N.L.	18.5	8.27	5.31	3.94	2.76	1.57	.79

(1) Refers to PENTA 24N050J000 - a precision grooving insert.

(2) Refers to PENTA 24N050J004 - a parting insert.

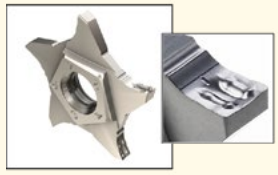
(3) CUTDIA for parting = 2 x CDX

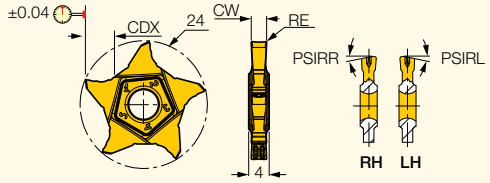
(4) For full radius insert , CDX = .118, ØDmax = No limit

PENTACUT

PENTA 24R/L-Z

Inserts with 5 Cutting Edges for Parting Tubes, Small and Thin-Walled Parts





M E T R I C

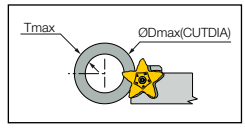
Designation	Dimensions CW	PSIRL	PSIRR	RE	CUTDIA(1)	CDX	IC1008	Recommended Machining Data f groove (mm/rev)
PENTA 24L150Z06D	1.50	6.0	-	0.06	10.0	5.00	●	0.03-0.09
PENTA 24L150Z15D	1.50	15.0	-	0.06	10.0	5.00	●	0.03-0.08
PENTA 24R150Z06D	1.50	-	6.0	0.06	10.0	5.00	●	0.03-0.09
PENTA 24R150Z15D	1.50	-	15.0	0.06	10.0	5.00	●	0.03-0.08
PENTA 24L200Z06D	2.00	6.0	-	0.10	12.8	6.40	●	0.04-0.10
PENTA 24L200Z15D	2.00	15.0	-	0.10	12.8	6.40	●	0.04-0.09
PENTA 24R200Z06D	2.00	-	6.0	0.10	12.8	6.40	●	0.04-0.10
PENTA 24R200Z15D	2.00	-	15.0	0.10	12.8	6.40	●	0.04-0.09
PENTA 24L300Z06D	3.00	6.0	-	0.20	12.8	6.40	●	0.04-0.13
PENTA 24L300Z15D	3.00	15.0	-	0.20	12.8	6.40	●	0.04-0.12
PENTA 24R300Z06D	3.00	-	6.0	0.20	12.8	6.40	●	0.04-0.15
PENTA 24R300Z15D	3.00	-	15.0	0.20	12.8	6.40	●	0.04-0.14

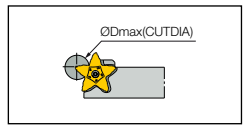
• Cutting edge with high positive rake, suitable for parting tubes, thin walled parts and for small diameters • Suitable for machining soft materials and bearing steel at low to medium feeds • For cutting speed recommendations and user guide, see pages 597-608

(1) Maximum workpiece diameter for grooving operation

For tools, see pages: NQCH-PCHR/L-24-JHP (552) • PCHPR/L (551) • PCHR/L-24 (547) • PCHR/L-24-JHP (548)

W±0.02	Tmax(1)	Tmax / Dmax	Dmax as a Function of Parting / Grooving Depth (T) for PENTA 24 Inserts T≤3.0	T≤3.5	T≤4.0	T≤4.5	T≤5.0	T≤5.5	T≤6.0	T≤6.2	T≤6.4
W=0.50	1.0	1.0 / N.L.	-	-	-	-	-	-	-	-	-
W=0.50	2.5	2.5 / N.L.	-	-	-	-	-	-	-	-	-
W=0.80	1.6	1.6 / N.L.	-	-	-	-	-	-	-	-	-
W=1.00	3.5		N.L.	250	-	-	-	-	-	-	-
1.04≤W≤1.40	2.0	2.0 / N.L.	-	-	-	-	-	-	-	-	-
W=1.47	2.5	2.5 / N.L.	-	-	-	-	-	-	-	-	-
W=1.50	5.0		N.L.	470	210	70	30	-	-	-	-
1.57≤W≤1.96	3.0		N.L.	-	-	-	-	-	-	-	-
W=2.00	6.0(2)		N.L.	470	210	130	75	45	20	-	-
2.22≤W≤2.30	3.5		N.L.	250	-	-	-	-	-	-	-
2.39≤W≤2.50	5.0		N.L.	470	210	70	30	-	-	-	-
2.70≤W≤3.18	6.2		N.L.	470	210	135	100	70	40	20	-
3.19≤W≤3.74	6.4		N.L.	350	180	115	80	52	32	26	20
3.75≤W≤4.00	6.2		N.L.	350	180	115	80	62	32	18	-
4.01≤W≤4.23	6.2		N.L.	350	180	115	80	62	42	25	-





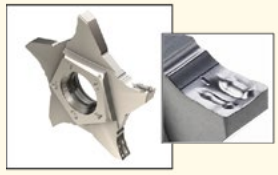
(1) Dmax for parting = 2 x Tmax

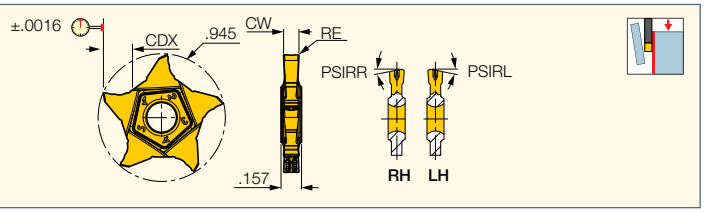
(2) For full radius insert , Tmax = 3.0, Dmax = No limit

PENTACUT

PENTA 24R/L-Z

Inserts with 5 Cutting Edges for Parting Tubes, Small and Thin-Walled Parts





I N C H

Designation	Dimensions CW	PSIRL	PSIRR	RE	CUTDIA(1)	CDX	IC1008	Recommended Machining Data f groove (IPR)
PENTA 24L150Z06D	.059	6.0	-	.0024	.394	.197	●	.0012-.0035
PENTA 24L150Z15D	.059	15.0	-	.0024	.394	.197	●	.0012-.0031
PENTA 24R150Z06D	.059	-	6.0	.0024	.394	.197	●	.0012-.0035
PENTA 24R150Z15D	.059	-	15.0	.0024	.394	.197	●	.0012-.0031
PENTA 24L200Z06D	.079	6.0	-	.0039	.504	.252	●	.0016-.0039
PENTA 24L200Z15D	.079	15.0	-	.0039	.504	.252	●	.0016-.0035
PENTA 24R200Z06D	.079	-	6.0	.0039	.504	.252	●	.0016-.0039
PENTA 24R200Z15D	.079	-	15.0	.0039	.504	.252	●	.0016-.0035
PENTA 24L300Z06D	.118	6.0	-	.0079	.504	.252	●	.0016-.0051
PENTA 24L300Z15D	.118	15.0	-	.0079	.504	.252	●	.0016-.0047
PENTA 24R300Z06D	.118	-	6.0	.0079	.504	.252	●	.0016-.0059
PENTA 24R300Z15D	.118	-	15.0	.0079	.504	.252	●	.0016-.0055

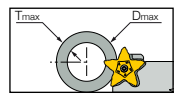
• Cutting edge with high positive rake, suitable for parting tubes, thin walled parts and for small diameters • Suitable for machining soft materials and bearing steel at low to medium feeds • For cutting speed recommendations and user guide, see pages 597-608

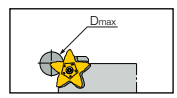
(1) Maximum workpiece diameter for grooving operation

For tools, see pages: NQCH-PCHR/L-24-JHP (552) • PCHPR/L (551) • PCHR/L-24 (547) • PCHR/L-24-JHP (548)

Dmax as a Function of Parting / Grooving Depth (T) for PENTA 24 Inserts

W±.0008	Tmax(1)	Tmax / Dmax	T≤.118	T≤.138	T≤.157	T≤.177	T≤.197	T≤.217	T≤.236	T≤.244	T≤.252
W=.020	.039	.039 / N.L.	-	-	-	-	-	-	-	-	-
W=.020	.098	.098 / N.L.	-	-	-	-	-	-	-	-	-
W=.031	.063	.063 / N.L.	-	-	-	-	-	-	-	-	-
W=.039	.138		N.L.	9.843	-	-	-	-	-	-	-
.041≤W≤.055	.079	.079 / N.L.	-	-	-	-	-	-	-	-	-
W=.058	.098	.098 / N.L.	-	-	-	-	-	-	-	-	-
W=.059	.197		N.L.	18.504	8.268	2.756	1.181	-	-	-	-
.062≤W≤.077	.118		N.L.	-	-	-	-	-	-	-	-
W=.079	.236(2)		N.L.	18.504	8.268	5.118	2.953	1.772	.787	-	-
.087≤W≤.090	.138		N.L.	9.843	-	-	-	-	-	-	-
.094≤W≤.098	.197		N.L.	18.504	8.268	2.756	1.181	-	-	-	-
.106≤W≤.125	.244		N.L.	18.504	8.268	5.315	3.937	2.756	1.575	.787	-
.126≤W≤.147	.252		N.L.	13.780	7.087	4.528	3.150	2.047	1.260	1.02	.787
.148≤W≤.157	.244		N.L.	13.780	7.087	4.528	3.150	2.441	1.260	.709	-
.158≤W≤.167	.244		N.L.	13.780	7.087	4.528	3.150	2.441	1.654	.983	-





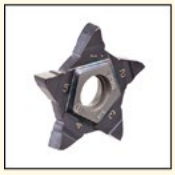
(1) Dmax for parting = 2 x Tmax

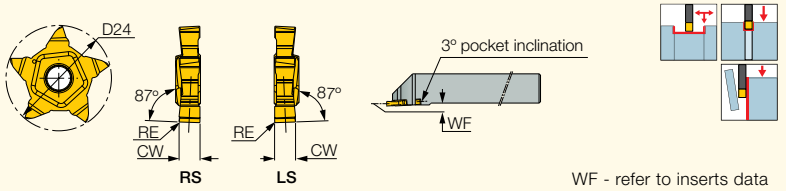
(2) For full radius insert , Tmax = .118, Dmax = No limit

PENTACUT

PENTA 24N-RS/LS

Pentagonal Inserts for Parting and Precision Grooving Next to High Shoulder Applications





WF - refer to inserts data

M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	CDX	CUTDIA(2)	WF	IC908	Recommended Machining Data f groove (mm/rev)
PENTA 24N080NF010R/LS	0.80	0.10	0.020	1.60	- (3)	1.60	●	0.03-0.05
PENTA 24N100NF010R/LS	1.00	0.10	0.020	1.80	- (3)	1.50	●	0.03-0.06
PENTA 24N119NF010R/LS	1.19	0.10	0.020	2.00	- (3)	1.40	●	0.03-0.06
PENTA 24N157NF020R/LS	1.57	0.20	0.020	3.00	- (3)	1.20	●	0.03-0.08
PENTA 24N157NF079R/LS	1.57	0.79	0.020	3.00	- (3)	1.20	●	0.03-0.08
PENTA 24N200NF020R/LS	2.00	0.20	0.020	3.00	- (3)	1.00	●	0.03-0.10
PENTA 24N239NF020R/LS	2.39	0.20	0.020	5.00	40.0	0.80	●	0.03-0.12
PENTA 24N239NF119R/LS	2.39	1.19	0.020	5.00	40.0	0.80	●	0.03-0.12
PENTA 24N300NF020R/LS	3.00	0.20	0.020	6.20	16.0	0.50	●	0.04-0.14
PENTA 24N318NF020R/LS	3.18	0.20	0.020	6.50	13.0	0.40	●	0.04-0.14
PENTA 24N318NF159R/LS	3.18	1.59	0.020	6.50	13.0	0.40	●	0.04-0.14
PENTA 24N400NF020RS	4.00	0.20	0.020	6.50	13.0	1.00	●	0.04-0.16
PENTA 24N480NF020R/LS	4.80	0.20	0.020	6.50	13.0	1.60	●	0.04-0.16

- For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

(2) Maximum workpiece diameter for grooving operation

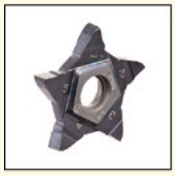
(3) No limit

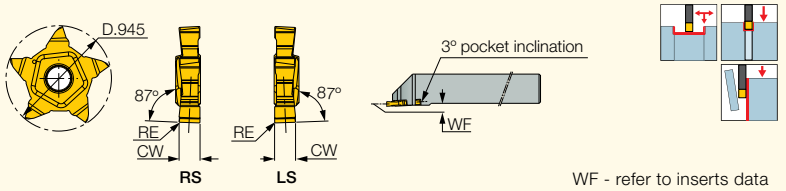
For tools, see pages: PCHRS/LS (550)

PENTACUT

PENTA 24N-RS/LS

Pentagonal Inserts for Parting and Precision Grooving Next to High Shoulder Applications





WF - refer to inserts data

I N C H

Designation	Dimensions CW	RE	CWTOL(1)	CDX	CUTDIA(2)	WF	IC908	Recommended Machining Data f groove (IPR)
PENTA 24N080NF010R/LS	.031	.0039	.00078	.063	- (3)	.063	●	.0012-.0020
PENTA 24N100NF010R/LS	.039	.0039	.00078	.071	-	.059	●	.0012-.0024
PENTA 24N119NF010R/LS	.047	.0039	.00078	.079	- (3)	.055	●	.0012-.0024
PENTA 24N157NF020R/LS	.062	.0079	.00078	.118	- (3)	.047	●	.0012-.0031
PENTA 24N157NF079R/LS	.062	.0311	.00078	.118	- (3)	.047	●	.0012-.0031
PENTA 24N200NF020R/LS	.079	.0079	.00078	.118	- (3)	.039	●	.0012-.0039
PENTA 24N239NF020R/LS	.094	.0079	.00078	.197	1.575	.031	●	.0012-.0047
PENTA 24N239NF119R/LS	.094	.0469	.00078	.197	1.575	.031	●	.0012-.0047
PENTA 24N300NF020R/LS	.118	.0079	.00078	.244	.630	.020	●	.0016-.0055
PENTA 24N318NF020R/LS	.125	.0079	.00078	.256	.512	.016	●	.0016-.0055
PENTA 24N318NF159R/LS	.125	.0626	.00078	.256	.512	.016	●	.0016-.0055
PENTA 24N400NF020RS	.157	.0079	.00078	.256	.512	.039	●	.0016-.0063
PENTA 24N480NF020R/LS	.189	.0079	.00078	.256	.512	.063	●	.0016-.0063

- For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

(2) Maximum workpiece diameter for grooving operation

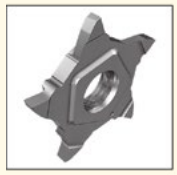
(3) No limit

For tools, see pages: PCHRS/LS (550)

PENTACUT

PENTA 24N-PF-RS

Pentagonal Inserts for Parting and Precision Grooving Next to High Shoulder Applications



M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	CDX	WPGDX	WF	IC908	Recommended Machining Data f groove (mm/rev)
PENTA 24N200PF020RS	2.00	0.20	0.020	3.00	- (2)	0.96	●	0.04-0.10

- For cutting speed recommendations and user guide, see pages 597-608

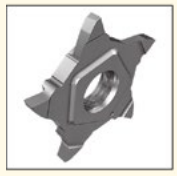
(1) Cutting width tolerance (+/-)

(2) No limit

PENTACUT

PENTA 24N-PF-RS

Pentagonal Inserts for Parting and Precision Grooving Next to High Shoulder Applications



I N C H

Designation	Dimensions CW	RE	CWTOL(1)	CDX	WPGDX	WF	IC908	Recommended Machining Data f groove (IPR)
PENTA 24N200PF020RS	.079	.0079	.00078	.118	-	.038	●	.0016-.0039

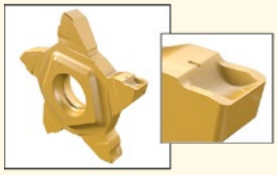
- For cutting speed recommendations and user guide, see pages 597-608

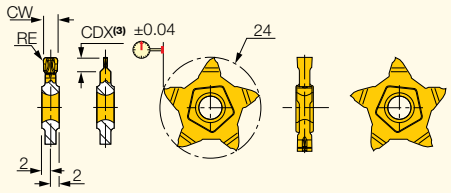
(1) Cutting width tolerance (+/-)

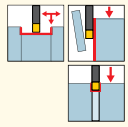
PENTACUT

PENTA 24N-C

Inserts with 5 Cutting Edges for Parting and Grooving Bars, Hard Materials and Tough Applications







M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	IC908	Recommended Machining Data f groove (mm/rev)
PENTA 24N150C010	1.50	0.10	0.020	0.050	5.00	•	0.05-0.11
PENTA 24N157C015	1.57	0.15	0.020	0.050	3.00	•	0.05-0.12
PENTA 24N170C010	1.70	0.10	0.020	0.050	3.00	•	0.05-0.13
PENTA 24N178C018	1.78	0.18	0.020	0.050	3.00	•	0.05-0.14
PENTA 24N196C015	1.96	0.15	0.020	0.050	3.00	•	0.05-0.15
PENTA 24N200C020	2.00	0.20	0.020	0.050	6.00	•	0.05-0.16
PENTA 24N222C015	2.22	0.15	0.020	0.050	3.50	•	0.05-0.16
PENTA 24N230C020	2.30	0.20	0.020	0.050	3.50	•	0.06-0.17
PENTA 24N239C015	2.39	0.15	0.020	0.050	5.00	•	0.07-0.18
PENTA 24N247C020	2.47	0.20	0.020	0.050	5.00	•	0.08-0.18
PENTA 24N270C010	2.70	0.10	0.020	0.050	6.20	•	0.09-0.18
PENTA 24N287C020	2.87	0.20	0.020	0.050	6.20	•	0.10-0.18
PENTA 24N300C020	3.00	0.20	0.020	0.050	6.20	•	0.10-0.20
PENTA 24N300C040	3.00	0.40	0.020	0.050	6.20	•	0.10-0.20
PENTA 24N318C020	3.18	0.20	0.020	0.050	6.20	•	0.10-0.20
PENTA 24N478C055	4.78	0.55	0.020	0.050	6.20	•	0.10-0.25
PENTA 24N486C040	4.86	0.40	0.020	0.050	6.20	•	0.10-0.25
PENTA 24N500C040	5.00	0.40	0.020	0.050	6.20	•	0.10-0.25

• Recessing is possible only with 2.39 mm and wider inserts • For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

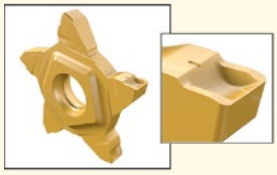
(3) For grooving and parting depths relative to part diameter, see page 559

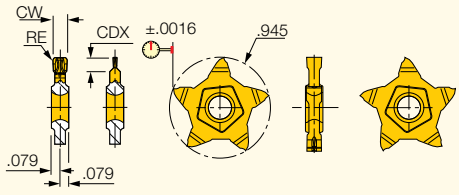
For tools, see pages: NQCH-PCHR/L-24-JHP (552) • PCHPR/L (551) • PCHR/L-24 (547) • PCHR/L-24-JHP (548)

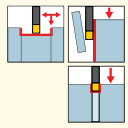
PENTACUT

PENTA 24N-C

Inserts with 5 Cutting Edges for Parting and Grooving Bars, Hard Materials and Tough Applications







I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	IC908	Recommended Machining Data f groove (IPR)
PENTA 24N150C010	.059	.0039	.00078	.0020	.197	•	.0020-.0043
PENTA 24N157C015	.062	.0059	.00078	.0020	.118	•	.0020-.0047
PENTA 24N170C010	.067	.0039	.00078	.0020	.118	•	.0020-.0051
PENTA 24N178C018	.070	.0071	.00078	.0020	.118	•	.0020-.0055
PENTA 24N196C015	.077	.0059	.00078	.0020	.118	•	.0020-.0059
PENTA 24N200C020	.079	.0079	.00078	.0020	.236	•	.0020-.0063
PENTA 24N222C015	.087	.0059	.00078	.0020	.138	•	.0020-.0063
PENTA 24N230C020	.091	.0079	.00078	.0020	.138	•	.0024-.0067
PENTA 24N239C015	.094	.0059	.00078	.0020	.197	•	.0027-.0071
PENTA 24N247C020	.097	.0079	.00078	.0020	.197	•	.0031-.0071
PENTA 24N270C010	.106	.0039	.00078	.0020	.244	•	.0035-.0071
PENTA 24N287C020	.113	.0079	.00078	.0020	.244	•	.0039-.0071
PENTA 24N300C020	.118	.0079	.00078	.0020	.244	•	.0039-.0079
PENTA 24N300C040	.118	.0157	.00078	.0020	.244	•	.0039-.0079
PENTA 24N318C020	.125	.0079	.00078	.0020	.244	•	.0039-.0079
PENTA 24N478C055	.188	.0216	.00078	.0020	.244	•	.0039-.0098
PENTA 24N486C040	.191	.0157	.00078	.0020	.244	•	.0039-.0098
PENTA 24N500C040	.197	.0157	.00078	.0020	.244	•	.0039-.0098

• Recessing is possible only with .094" and wider inserts • For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

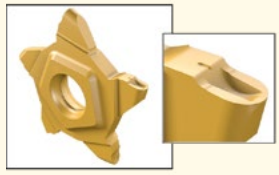
(3) For grooving and parting depths relative to part diameter, see page 560

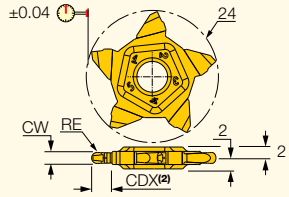
For tools, see pages: NQCH-PCHR/L-24-JHP (552) • PCHPR/L (551) • PCHR/L-24 (547) • PCHR/L-24-JHP (548)

PENTACUT

PENTA 24N-C (full radius)

Full Radius Grooving Inserts with 5 Cutting Edges for Hard Materials and Tough Applications







M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	CDX(2)	IC908	Recommended Machining Data f groove (mm/rev)
PENTA 24N157C079	1.57	0.79	0.020	3.00	●	0.04-0.12
PENTA 24N200C100	2.00	1.00	0.020	3.00	●	0.04-0.16
PENTA 24N239C120	2.39	1.20	0.020	5.00	●	0.06-0.18
PENTA 24N300C150	3.00	1.50	0.020	6.20	●	0.10-0.25

• Recessing is possible only with 2.39 mm and wider inserts • For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

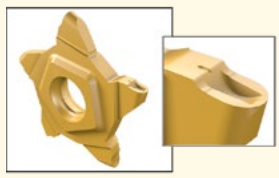
(2) For grooving depth relative to part diameter, see page 559

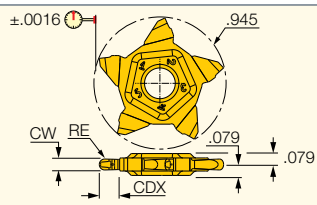
For tools, see pages: NQCH-PCHR/L-24-JHP (552) • PCHPR/L (551) • PCHR/L-24 (547) • PCHR/L-24-JHP (548)

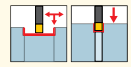
PENTACUT

PENTA 24N-C (full radius)

Full Radius Grooving Inserts with 5 Cutting Edges for Hard Materials and Tough Applications







I N C H

Designation	Dimensions CW	RE	CWTOL(1)	CDX(2)	IC908	Recommended Machining Data f groove (IPR)
PENTA 24N157C079	.062	.0311	.00078	.118	●	.0016-.0047
PENTA 24N200C100	.079	.0394	.00078	.118	●	.0016-.0063
PENTA 24N239C120	.094	.0472	.00078	.197	●	.0024-.0071
PENTA 24N300C150	.118	.0590	.00078	.244	●	.0039-.0098

• Recessing is possible only with .094" and wider inserts • For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

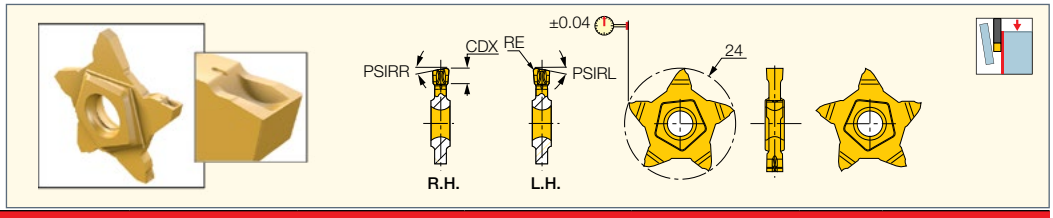
(2) For grooving depth relative to part diameter, see page 560

For tools, see pages: NQCH-PCHR/L-24-JHP (552) • PCHPR/L (551) • PCHR/L-24 (547) • PCHR/L-24-JHP (548)

PENTACUT

PENTA 24R-C

Inserts with 5 Cutting Edges
for Parting Bars, Hard Materials
and Tough Applications



M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	CDX	PSIRR	IC1008	Recommended Machining Data f groove (mm/rev)
PENTA 24R150C06D	1.50	0.06	0.020	5.00	6.0	●	0.03-0.10
PENTA 24R200C06D	2.00	0.10	0.020	6.00	6.0	●	0.04-0.12

• For cutting speed recommendations and user guide, see pages 597-608

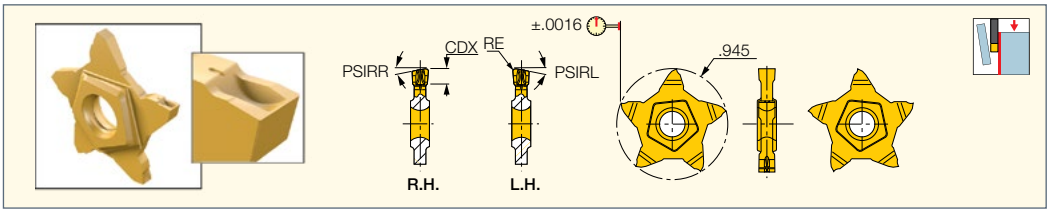
(1) Cutting width tolerance (+/-)

For tools, see pages: NQCH-PCHR/L-24-JHP (552) • PCHPR/L (551) • PCHR/L-24 (547) • PCHR/L-24-JHP (548)

PENTACUT

PENTA 24R-C

Inserts with 5 Cutting Edges
for Parting Bars, Hard Materials
and Tough Applications



I N C H

Designation	Dimensions CW	RE	CWTOL(1)	CDX	PSIRR	IC1008	Recommended Machining Data f groove (IPR)
PENTA 24R150C06D	.059	.0024	.00078	.197	6.0	●	.0012-.0039
PENTA 24R200C06D	.079	.0039	.00078	.236	6.0	●	.0016-.0047

• For cutting speed recommendations and user guide, see pages 597-608

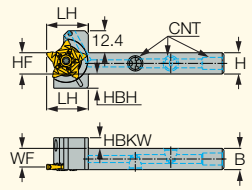
(1) Cutting width tolerance (+/-)

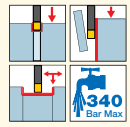
For tools, see pages: NQCH-PCHR/L-24-JHP (552) • PCHPR/L (551) • PCHR/L-24 (547) • PCHR/L-24-JHP (548)

QUICKPENTA

PCHR/L-24-JHP-QC/MC

Grooving, Parting and Recessing Tools with Safety Lock Clamping for Five Cutting Edged Inserts





Right hand tool shown

Designation	H	HF	B	CWN(1)	CWX(2)	CDX	WF	HBKW	OAL	CNT	LH	HBH	Insert
	M	E	T	R	I	C							
PCHR/L 12-24-JHP-QC	12.0	12.0	12.0	0.50	3.18	6.40	10.50	6.00	100.00	UNF 5/16-24	23.5	8.0	PENTA 24...SL
PCHR/L 16-24-JHP-QC	16.0	16.0	16.0	0.50	3.18	6.40	14.50	2.00	93.50	UNF 5/16-24	23.5	4.0	PENTA 24...SL

- For user guide and accessories see pages 597-608, 69-74

(1) Minimum cutting width

(2) Maximum cutting width

For inserts, see pages: PENTA 24N-C-SL (570) • PENTA 24N-J-SL (572) • PENTA 24R/L-DSL (574)

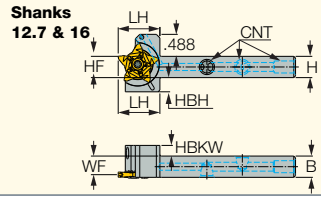
Spare Parts

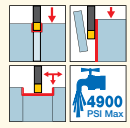
Designation				
PCHR/L 12-24-JHP-QC	SR 16-212-01397R-SET	SR 5/16UNF TL360	T-2010/5	SR M3X0.5X10DIN7991 10.9
PCHR/L 16-24-JHP-QC	SR 16-212-01397R-SET	SR 5/16UNF TL360	T-2010/5	SR M3X0.5X10DIN7991 10.9

QUICKPENTA

PCHR/L-24-JHP-QC

Grooving, Parting and Recessing Tools with Safety Lock Clamping for Five Cutting Edged Inserts





Right hand tool shown

Designation	H	HF	B	CWN(1)	CWX(2)	CDX	WF	HBKW	OAL	CNT	LH	HBH	Insert
	I	N	C	H									
PCHR/L 12.7-24-JHP-QC	.500	.500	.500	.020	.125	.252	.441	.2091	3.937	UNF 5/16-24	.925	.287	PENTA 24...SL
PCHR/L 16-24-JHP-QC	.630	.630	.630	.020	.125	.252	.571	.0787	3.681	UNF 5/16-24	.925	.157	PENTA 24...SL

- For user guide and accessories see pages 597-608, 69-74

(1) Minimum cutting width

(2) Maximum cutting width

For inserts, see pages: PENTA 24N-C-SL (570) • PENTA 24N-J-SL (572) • PENTA 24R/L-DSL (574)

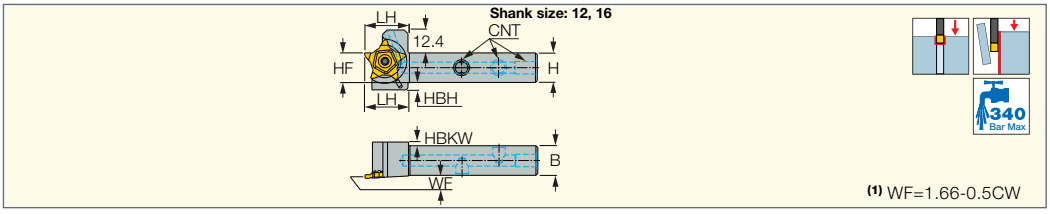
Spare Parts

Designation				
PCHR/L 12.7-24-JHP-QC	SR 16-212-01397R-SET	SR 5/16UNF TL360	T-2010/5	SR M3X0.5X10DIN7991 10.9
PCHR/L 16-24-JHP-QC	SR 16-212-01397R-SET	SR 5/16UNF TL360	T-2010/5	SR M3X0.5X10DIN7991 10.9

QUICKPENTA

PCHRS-24 JHP-QC/MC

Holders with PENTA-CUT Inserts for Grooving and Parting Next to High Shoulders, Enables Quick Cutting Edge Indexing



M E T R I C

Designation	H	B	HF	CWN(1)	CWX(2)	CDX	OAL	LH	HBH	HBKW	OAH	CNT
PCHRS 12-24 JHP-QC	12.0	12.0	12.0	0.80	3.18	6.20	100.00	23.5	8.0	6.00	32.40	UNF 5/16-24
PCHRS 16-24 JHP-QC	16.0	16.0	16.0	0.80	3.18	6.20	93.50	23.5	4.0	2.00	32.40	UNF 5/16-24

(1) Minimum cutting width
(2) Maximum cutting width

For inserts, see pages: PENTA 24N-NF-RS-SL (576) • PENTA 24N-NF-RSSL (full radius) (577)

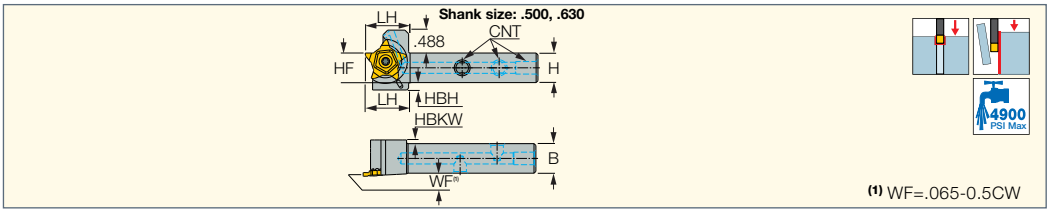
Spare Parts

Designation			
PCHRS-24 JHP-QC/MC	SR 16-212-01397R-SET	T-2010/5	SR M3X0.5X10DIN7991 10.9

QUICKPENTA

PCHRS-24 JHP-QC

Holders with PENTA-CUT Inserts for Grooving and Parting Next to High Shoulders, Enables Quick Cutting Edge Indexing



I N C H

Designation	H	B	HF	CWN(1)	CWX(2)	CDX	OAL	LH	HBH	HBKW	OAH	CNT
PCHRS 12.7-24 JHP-QC	.500	.500	.500	.031	.125	.244	3.937	.925	.287	.2090	1.276	UNF 5/16-24
PCHRS 16-24 JHP-QC	.630	.630	.630	.031	.125	.244	3.681	.925	.157	.0787	1.276	UNF 5/16-24

(1) Minimum cutting width
(2) Maximum cutting width

For inserts, see pages: PENTA 24N-NF-RS-SL (576) • PENTA 24N-NF-RSSL (full radius) (577)

Spare Parts

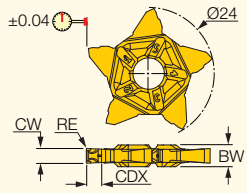
Designation			
PCHRS-24 JHP-QC/MC	SR 16-212-01397R-SET	T-2010/5	SR M3X0.5X10DIN7991 10.9

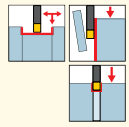
QUICKPENTA

PENTA 24N-C-SL

First Choice for The Parting of Bars, Hard Materials, and Tough Applications with a Negative Cutting Rake Angle







M E T R I C

Designation	Dimensions CW	CWTOL(1)	RE	RETOL(2)	CDX	BW	IC808G	Recommended Machining Data f groove (mm/rev)
PENTA 24N200C020SL	2.00	0.020	0.20	0.030	6.00	4.00	●	0.05-0.16
PENTA 24N300C020SL	3.00	0.020	0.20	0.030	6.20	4.00	●	0.06-0.20

• CUTDIA as a function of depth of cut (CDX). • For cutting speed recommendations and user guide, see pages 597-608

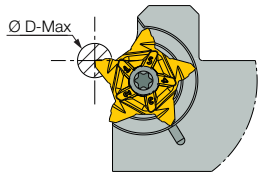
(1) Cutting width tolerance (+/-)

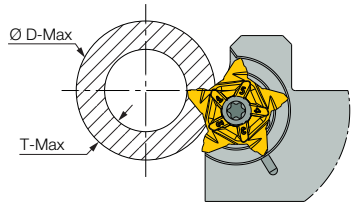
(2) Corner radius tolerance (+/-)

For tools, see pages: NQCH-PCHR/L-24-JHP (552) • PCHPR/L (551) • PCHR/L-24 (547) • PCHR/L-24-JHP (548) • PCHR/L-24-JHP-QC/MC (568)

Designation	CW ± 0.02	Parting to Center D-Max	Parting Hollow Bars T-Max	Parting Hollow Bars D-Max
PENTA 24...SL	CW = 0.50	5	2.5*	250
	CW = 1.00	7	3.5	250
	CW = 1.50	10	5.0	30
	CW = 2.00	12	6.0	20
	CW = 2.47	10	5.0	30
	CW = 3.00	12.4	6.2	20

*Refers to PENTA 24N050J004SL





Designation	T-Max	D-Max As a Function of Depth of Cut (T) T≤3.0	T≤3.5	T≤4.0	T≤4.5	T≤5.0	T≤5.5	T≤6.0	T≤6.2
PENTA 24N200C020SL	6.0	N.L.	470	210	120	75	45	20	-
PENTA 24N300C020SL	6.2	N.L.	470	210	120	75	60	40	20

(1) The data in those tables refers to standard inserts only.

(2) As T decreases ,D-Max Increases. See tables for further data.

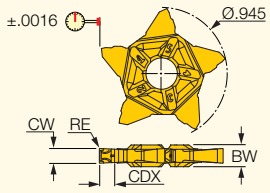
(3) N.L. = No Limit.

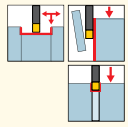
QUICKPENTA

PENTA 24N-C-SL

First Choice for The Parting of Bars, Hard Materials, and Tough Applications with a Negative Cutting Rake Angle







I N C H

Designation	Dimensions CW	CWTOL(1)	RE	RETOL(2)	CDX	BW	IC808G	Recommended Machining Data f groove (IPR)
PENTA 24N200C020SL	.079	.00078	.0079	.0012	.236	.157	●	.0020-.0063
PENTA 24N300C020SL	.118	.00078	.0079	.0012	.244	.157	●	.0024-.0079

• CUTDIA as a function of depth of cut (CDX). • For cutting speed recommendations and user guide, see pages 597-608

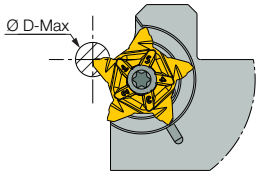
(1) Cutting width tolerance (+/-)

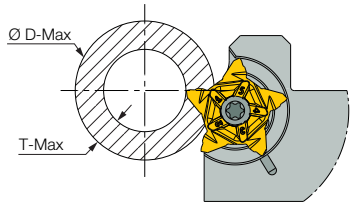
(2) Corner radius tolerance (+/-)

For tools, see pages: • NQCH-PCHR/L-24-JHP (552) • PCHPR/L (551) • PCHR/L-24 (547) • PCHR/L-24-JHP (548) • PCHR/L-24-JHP-QC (568)

Designation	W ± .0008	Parting to Center D-Max	Parting Hollow Bars T-Max	D-Max
PENTA 24...SL	W = 0.197	.197	.098*	9.843
	W = .0394	.276	.138	9.843
	W = .0591	.394	.197	1.181
	W = .0787	.472	.236	.787
	W = .0972	.394	.197	1.181
	W = .1181	.488	.244	.787

*Refers to PENTA 24N050J004SL





Designation	T-Max	D-Max As a Function of Depth of Cut (T) T≤.118	T≤.138	T≤.157	T≤.177	T≤.197	T≤.217	T≤.236	T≤.244
PENTA 24N200C020SL	.236	N.L.	18.504	8.268	4.724	2.953	1.772	.787	-
PENTA 24N300C020SL	.244	N.L.	18.504	8.268	4.724	2.953	2.362	1.575	.787

(1) The data in those tables refers to standard inserts only.

(2) As T decreases ,D-Max Increases. See tables for further data.

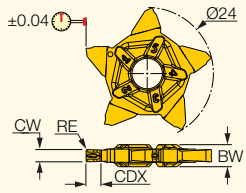
(3) N.L. = No Limit.

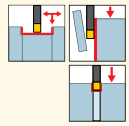
QUICKPENTA

PENTA 24N-J-SL

Five Cutting Edges for Parting and Grooving with Positive Rake Angle Clamped Onto Standard PENTA-CUT Holders







M E T R I C

Designation	Dimensions CW	CWTOL(1)	RE	RETOL(2)	CDX	BW	IC808G	Recommended Machining Data f groove (mm/rev)
PENTA 24N050J004SL	0.50	0.020	0.04	0.020	2.50	4.00	●	0.02-0.06
PENTA 24N100J006SL	1.00	0.020	0.06	0.020	3.50	4.00	●	0.02-0.08
PENTA 24N150J010SL	1.50	0.020	0.10	0.020	5.00	4.00	●	0.03-0.10
PENTA 24N200J020SL	2.00	0.020	0.20	0.030	6.00	4.00	●	0.03-0.12
PENTA 24N247J020SL	2.47	0.020	0.20	0.030	5.00	4.00	●	0.03-0.15
PENTA 24N300J020SL	3.00	0.020	0.20	0.030	6.20	4.00	●	0.03-0.15

• For cutting speed recommendations and user guide, see pages 597-608

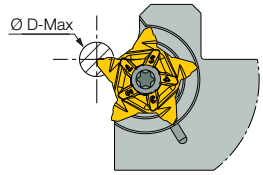
(1) Cutting width tolerance (+/-)

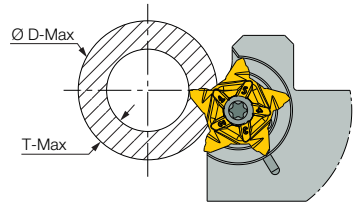
(2) Corner radius tolerance (+/-)

For tools, see pages: NQCH-PCHR/L-24-JHP (552) • PCHPR/L (551) • PCHR/L-24 (547) • PCHR/L-24-JHP (548) • PCHR/L-24-JHP-QC/MC (568)

Designation	CW ± 0.02	Parting to Center D-Max	Parting Hollow Bars T-Max	Parting Hollow Bars D-Max
PENTA 24...SL	CW = 0.50	5	2.5*	250
	CW = 1.00	7	3.5	250
	CW = 1.50	10	5.0	30
	CW = 2.00	12	6.0	20
	CW = 2.47	10	5.0	30
	CW = 3.00	12.4	6.2	20

*Refers to PENTA 24N050J004SL





Designation	T-Max	D-Max As a Function of Depth of Cut (T) T≤3.0	T≤3.5	T≤4.0	T≤4.5	T≤5.0	T≤5.5	T≤6.0	T≤6.2
PENTA 24N050J004SL	2.5	-.	-	-	-	-	-	-	-
PENTA 24N100J006SL	3.5	N.L.	250	-	-	-	-	-	-
PENTA 24N150J010SL	5.0	N.L.	470	210	70	30	-	-	-
PENTA 24N200J020SL	6.0	N.L.	470	210	120	75	45	20	-
PENTA 24N247J020SL	5.0	N.L.	470	210	70	30	-	-	-
PENTA 24N300J020SL	6.2	N.L.	470	210	120	75	60	40	20

(1) The data in those tables refers to standard inserts only.

(2) As T decreases ,D-Max Increases. See tables for further data.

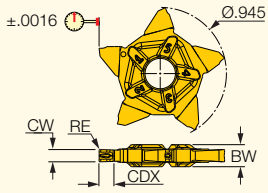
(3) N.L. = No Limit.

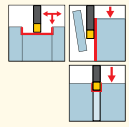
QUICKPENTA

PENTA 24N-J-SL

Five Cutting Edges for Parting and Grooving with Positive Rake Angle Clamped Onto Standard PENTA-CUT Holders







I N C H

Designation	Dimensions CW	CWTOL(1)	RE	RETOL(2)	CDX	BW	IC808G	Recommended Machining Data f groove (IPR)
PENTA 24N050J004SL	.020	.00078	.0016	.0008	.098	.157	●	.0008-.0024
PENTA 24N100J006SL	.039	.00078	.0024	.0008	.138	.157	●	.0008-.0031
PENTA 24N150J010SL	.059	.00078	.0039	.0008	.197	.157	●	.0012-.0039
PENTA 24N200J020SL	.079	.00078	.0079	.0012	.236	.157	●	.0012-.0047
PENTA 24N247J020SL	.097	.00078	.0079	.0012	.197	.157	●	.0012-.0059
PENTA 24N300J020SL	.118	.00078	.0079	.0012	.244	.157	●	.0012-.0059

• For cutting speed recommendations and user guide, see pages 597-608

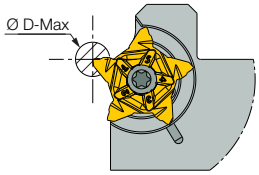
(1) Cutting width tolerance (+/-)

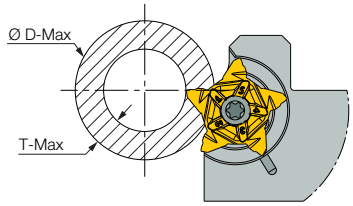
(2) Corner radius tolerance (+/-)

For tools, see pages: • NQCH-PCHR/L-24-JHP (552) • PCHPR/L (551) • PCHR/L-24 (547) • PCHR/L-24-JHP (548) • PCHR/L-24-JHP-QC (568)

Designation	W ± .0008	Parting to Center D-Max	Parting Hollow Bars T-Max	Parting Hollow Bars D-Max
PENTA 24...SL	W = .0197	.197	.098*	9.843
	W = .0394	.276	.138	9.843
	W = .0581	.394	.197	1.181
	W = .0787	.472	.236	.787
	W = .0972	.394	.197	1.181
	W = .1181	.488	.244	.787

*Refers to PENTA 24N050J004SL





Designation	T-Max	D-Max As a Function of Depth of Cut (T) T≤.118	T≤.138	T≤.157	T≤.177	T≤.197	T≤.217	T≤.236	T≤.244
PENTA 24N050J004SL	.098	-.	-	-	-	-	-	-	-
PENTA 24N100J006SL	.138	N.L.	9.843	-	-	-	-	-	-
PENTA 24N150J010SL	.197	N.L.	18.504	8.268	2.756	1.181	-	-	-
PENTA 24N200J020SL	.236	N.L.	18.504	8.268	4.724	2.953	1.772	.787	-
PENTA 24N247J020SL	.197	N.L.	18.504	8.268	2.756	1.181	-	-	-
PENTA 24N300J020SL	.244	N.L.	18.504	8.268	4.724	2.953	2.362	1.575	.787

(1) The data in those tables refers to standard inserts only.

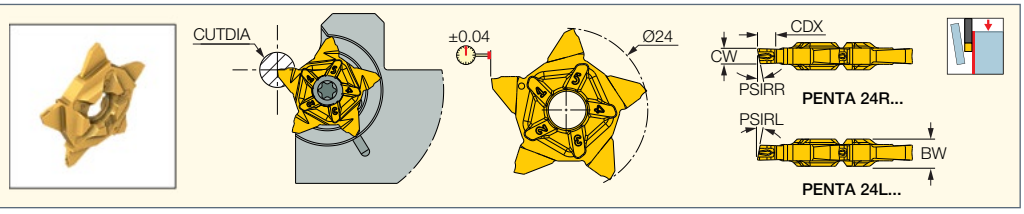
(2) As T decreases ,D-Max Increases. See tables for further data.

(3) N.L. = No Limit.

QUICKPENTA

PENTA 24R/L-DSL

Parting Insert with 5 Angled Cutting Edges to Minimize Burr Size. Can Be Clamped Also on Standard PENTA-CUT Holders



M E T R I C

Designation	Dimensions CW	CWTOL[1]	CDX	PSIRL	PSIRR	CUTDIA	IC1010	Recommended Machining Data f groove (mm/rev)
PENTA 24L100J15DSL	1.00	0.020	3.50	15.0	-	7.0	●	0.02-0.05
PENTA 24R100J15DSL	1.00	0.020	3.50	-	15.0	7.0	●	0.02-0.05
PENTA 24L150J06DSL	1.50	0.020	5.00	6.0	-	10.0	●	0.03-0.08
PENTA 24R150J06DSL	1.50	0.020	5.00	-	6.0	10.0	●	0.03-0.08
PENTA 24L200J06DSL	2.00	0.020	6.00	6.0	-	12.0	●	0.03-0.10
PENTA 24R200J06DSL	2.00	0.020	6.00	-	6.0	12.0	●	0.03-0.10

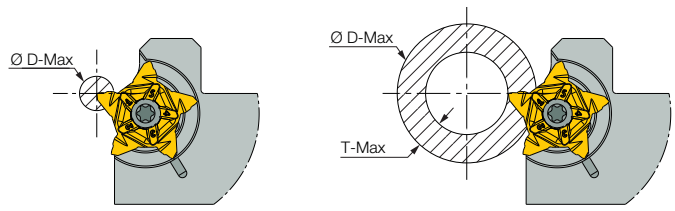
• CUTDIA - parting to center • For cutting speed recommendations and user guide, see pages 597-608

[1] Cutting width tolerance (+/-)

For tools, see pages: NQCH-PCHR/L-24-JHP (552) • PCHPR/L (551) • PCHR/L-24 (547) • PCHR/L-24-JHP (548) • PCHR/L-24-JHP-QC/MC (568)

Designation	CW ± 0.02	Parting to Center D-Max	Parting Hollow Bars T-Max	Parting Hollow Bars D-Max
PENTA 24...SL	CW = 0.50	5	2.5*	250
	CW = 1.00	7	3.5	250
	CW = 1.50	10	5.0	30
	CW = 2.00	12	6.0	20
	CW = 2.47	10	5.0	30
	CW = 3.00	12.4	6.2	20

*Refers to PENTA 24N050J004SL



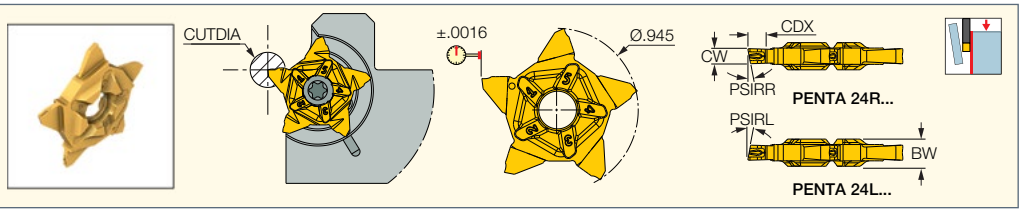
Designation	Parting to Center D-Max	D-Max As a Function of Depth of Cut (T) (for Parting Hollow Bars) T≤3.0	T≤3.5	T≤4.0	T≤4.5	T≤5.0	T≤5.5	T≤6.0
PENTA 24R/L100J15DSL	7	N.L.	250	-	-	-	-	-
PENTA 24R/L150J06DSL	10	N.L.	470	210	70	30	-	-
PENTA 24R/L200J06DSL	12	N.L.	470	210	120	75	45	20

[1] The data in those tables refers to standard inserts only.
[2] As T decreases ,D-Max Increases. See tables for further data.
[3] N.L. = No Limit.

QUICKPENTA

PENTA 24R/L-DSL

Parting Insert with 5 Angled Cutting Edges to Minimize Burr Size. Can Be Clamped Also on Standard PENTA-CUT Holders



I N C H

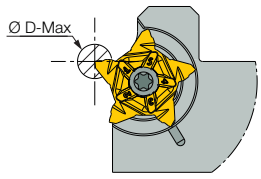
Designation	Dimensions CW	CWTOL[1]	CDX	PSIRL	PSIRR	CUTDIA	IC1010	Recommended Machining Data f groove (IPR)
PENTA 24L100J15DSL	.039	.00078	.138	15.0	-	.276	●	.0008-.0020
PENTA 24R100J15DSL	.039	.00078	.138	-	15.0	.276	●	.0008-.0020
PENTA 24L150J06DSL	.059	.00078	.197	6.0	-	.394	●	.0012-.0031
PENTA 24R150J06DSL	.059	.00078	.197	-	6.0	.394	●	.0012-.0031
PENTA 24L200J06DSL	.079	.00078	.236	6.0	-	.472	●	.0012-.0039
PENTA 24R200J06DSL	.079	.00078	.236	-	6.0	.472	●	.0012-.0039

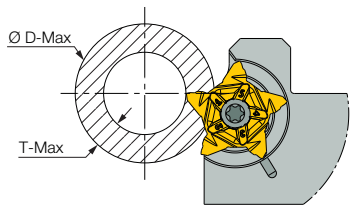
• CUTDIA - parting to center • For cutting speed recommendations and user guide, see pages 597-608

[1] Cutting width tolerance (+/-)

For tools, see pages: • NQCH-PCHR/L-24-JHP (552) • PCHPR/L (551) • PCHR/L-24 (547) • PCHR/L-24-JHP (548) • PCHR/L-24-JHP-QC (568)

Designation	W ± .0008	Parting to Center D-Max	Parting Hollow Bars T-Max	Parting Hollow Bars D-Max
PENTA 24...SL	W = .0197	.197	.098*	9.843
	W = .0394	.276	.138	9.843
	W = .0951	.394	.197	1.181
	W = .0787	.472	.236	.787
	W = .0972	.394	.197	1.181
	W = .1181	.488	.244	.787





*Refers to PENTA 24N050J004SL

Designation	Parting to Center D-Max	D-Max As a Function of Depth of Cut (T) (for Parting Hollow Bars) T≤.118	T≤.138	T≤.157	T≤.177	T≤.197	T≤.217	T≤.236
PENTA 24R/L100J15DSL	.276	N.L.	9.843	-	-	-	-	-
PENTA 24R/L150J06DSL	.394	N.L.	18.504	8.268	2.756	1.181	-	-
PENTA 24R/L200J06DSL	.472	N.L.	18.504	8.268	4.724	2.953	1.772	.787

[1] The data in those tables refers to standard inserts only.

[2] As T decreases ,D-Max Increases. See tables for further data.

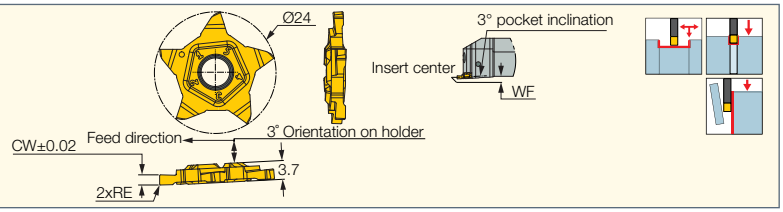
[3] N.L. = No Limit.

QUICKPENTA

PENTA 24N-NF-RS-SL

Pentagonal Parting and Grooving Inserts for Quick Cutting Edge Indexing. Used for Next to High Shoulder Applications





M E T R I C

Designation	Dimensions CW	RE	CDX	WF	IC808G	Recommended Machining Data f groove (mm/rev)
PENTA 24N080NF01RS-SL	0.80	0.10	1.60	1.26	●	0.03-0.07
PENTA 24N100NF01RS-SL	1.00	0.10	1.80	1.16	●	0.03-0.08
PENTA 24N119NF01RS-SL	1.19	0.10	2.00	1.06	●	0.03-0.10
PENTA 24N157NF02RS-SL	1.57	0.20	3.00	0.88	●	0.04-0.12
PENTA 24N200NF02RS-SL	2.00	0.20	3.00	0.66	●	0.04-0.12
PENTA 24N239NF02RS-SL	2.39	0.20	5.00	0.46	●	0.04-0.14
PENTA 24N300NF02RS-SL	3.00	0.20	6.20	0.16	●	0.04-0.14

- For cutting speed recommendations and user guide, see pages 597-608

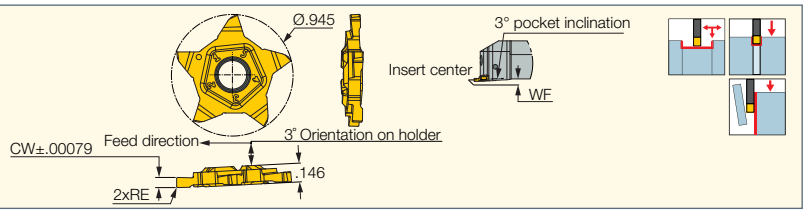
For tools, see pages: PCHRS-24 JHP-QC/MC (569)

QUICKPENTA

PENTA 24N-NF-RS-SL

Pentagonal Parting and Grooving Inserts for Quick Cutting Edge Indexing. Used for Next to High Shoulder Applications





I N C H

Designation	Dimensions CW	RE	CDX	WF	IC808G	Recommended Machining Data f groove (IPR)
PENTA 24N080NF01RS-SL	.031	.0039	.063	.050	●	.0012-.0027
PENTA 24N100NF01RS-SL	.039	.0039	.071	.046	●	.0012-.0031
PENTA 24N119NF01RS-SL	.047	.0039	.079	.042	●	.0012-.0039
PENTA 24N157NF02RS-SL	.062	.0079	.118	.035	●	.0016-.0047
PENTA 24N200NF02RS-SL	.079	.0079	.118	.026	●	.0016-.0047
PENTA 24N239NF02RS-SL	.094	.0079	.197	.018	●	.0016-.0055
PENTA 24N300NF02RS-SL	.118	.0079	.244	.006	●	.0016-.0055

- For cutting speed recommendations and user guide, see pages 597-608

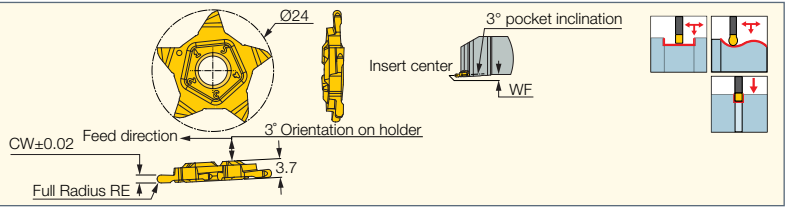
For tools, see pages: PCHRS-24 JHP-QC (569)

QUICKPENTA

PENTA 24N-NF-RSSL (full radius)

Precision Grooving Pentagonal Full Radius Inserts for Quick and Accurate Cutting Edge Indexing





M E T R I C

Designation	Dimensions CW	RE	CDX	IC808G	Recommended Machining Data f groove (mm/rev)
PENTA 24N157NF079RSSL	1.57	0.79	3.00	●	0.04-0.10
PENTA 24N318NF159RSSL	3.18	1.59	6.20	●	0.05-0.15

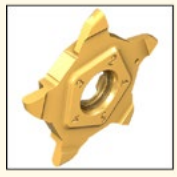
• Recessing is possible only with 2.39 mm and wider inserts. • For cutting speed recommendations and user guide, see pages 597-608

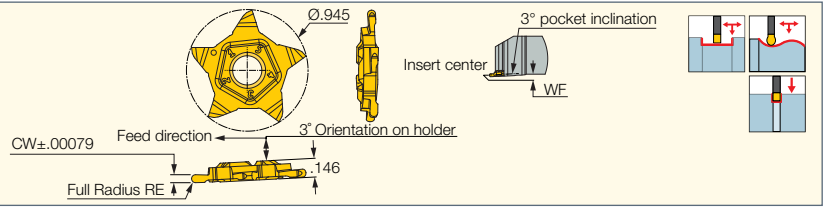
For tools, see pages: PCHRS-24 JHP-QC/MC (569)

QUICKPENTA

PENTA 24N-NF-RSSL (full radius)

Precision Grooving Pentagonal Full Radius Inserts for Quick and Accurate Cutting Edge Indexing





I N C H

Designation	Dimensions CW	RE	CDX	IC808G	Recommended Machining Data f groove (IPR)
PENTA 24N157NF079RSSL	.062	.0311	.118	●	.0016-.0039
PENTA 24N318NF159RSSL	.125	.0626	.244	●	.0020-.0059

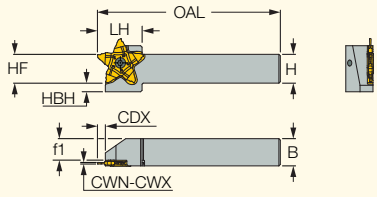
• Recessing is possible only with .094" and wider inserts. • For cutting speed recommendations and user guide, see pages 597-608

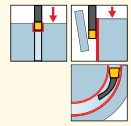
For tools, see pages: PCHRS-24 JHP-QC (569)

PENTACUT

PCHR/L-34

Grooving, Parting and Recessing Holders Carrying Inserts with 5 Cutting Edges





Right-hand tool shown
• f1-to clamping plane

M E T R I C

Designation	H	HF	B	CWN(1)	CWX(2)	f1	CDX(3)	OAL	LH	HBH
PCHR/L 16-34	16.0	16.0	16.0	1.50	4.00	12.00	10.00	120.00	31.0	9.0

(1) Minimum cutting width
(2) Maximum cutting width
(3) For specific information, refer to insert data

For inserts, see pages: PENTA 34F-R/L (632) • PENTA 34N-C (580) • PENTA 34N-J (585) • PENTA 34N-PB (584) • PENTA 34R/L-C (582) • PENTA 34R/L-J (586) • PENTA 34R/L-PB (583)

Spare Parts

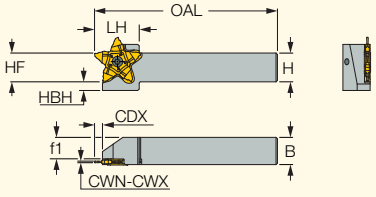
Designation		
PCHL 16-34	SR 16-212-01397	T-2010/5*
PCHR 16-34	SR 16-212-01397	T-2010/5*

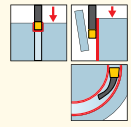
* Optional, to be ordered separately

PENTACUT

PCHR/L-34

Grooving, Parting and Recessing Holders Carrying Inserts with 5 Cutting Edges





Right-hand tool shown
• f1-to clamping plane

I N C H

Designation	H	HF	B	CWN(1)	CWX(2)	f1	CDX(3)	OAL	LH	HBH
PCHR/L 16-34	.630	.630	.630	.059	.157	.472	.394	4.724	1.220	.35

(1) Minimum cutting width
(2) Maximum cutting width
(3) For specific information, refer to insert data

For inserts, see pages: PENTA 34F-R/L (632) • PENTA 34N-C (580) • PENTA 34N-J (585) • PENTA 34N-PB (584) • PENTA 34R/L-C (582) • PENTA 34R/L-J (586) • PENTA 34R/L-PB (583)

Spare Parts

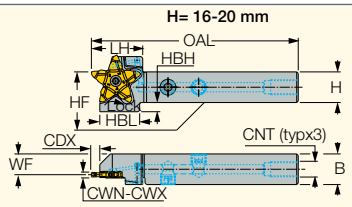
Designation		
PCHL 16-34	SR 16-212-01397	T-2010/5*
PCHR 16-34	SR 16-212-01397	T-2010/5*

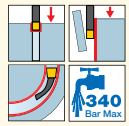
* Optional, to be ordered separately

PENTACUT

PCHR/L-34-JHP

Grooving, Parting and Recessing Tools Carrying PENTA Inserts with Channels for High-Pressure Coolant





Right hand tool shown

M E T R I C												
Designation	**H**	**HF**	**B**	**CWN(1)**	**CWX(2)**	**CDX(3)**	**WF**	**OAL**	**LH**	**HBH**	**CNT**	**Insert**
PCHR/L 16-34-JHP	16.0	16.0	16.0	1.50	4.00	10.00	9.60	120.00	33.5	9.0	UNF 5/16-24	PENTA 34

- For user guide and accessories, see pages 597-608, 69-74

(1) Minimum cutting width

(2) Maximum cutting width

(3) For specific information, refer to insert data

For inserts, see pages: PENTA 34F-R/L (632) • PENTA 34N-C (580) • PENTA 34N-J (585) • PENTA 34N-PB (584) • PENTA 34R/L-C (582) • PENTA 34R/L-J (586) • PENTA 34R/L-PB (583)

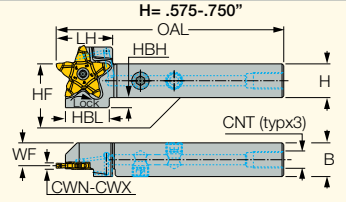
Spare Parts

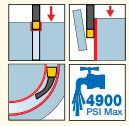
Designation			
PCHR/L 16-34-JHP	SR 16-212-01397	SR 5/16UNF TL360	HW 5/32"

PENTACUT

PCHR/L-34-JHP

Grooving, Parting and Recessing Tools Carrying PENTA Inserts with Channels for High-Pressure Coolant





I N C H												
Designation	**H**	**HF**	**B**	**CWN(1)**	**CWX(2)**	**CDX(3)**	**WF**	**OAL**	**LH**	**HBH**	**CNT**	**Insert**
PCHR/L 16-34-JHP	.630	.630	.630	.059	.157	.394	.378	4.724	1.319	.35	UNF 5/16-24	PENTA 34

- For user guide and accessories, see pages 597-608, 69-74

(1) Minimum cutting width

(2) Maximum cutting width

(3) For specific information, refer to insert data

For inserts, see pages: PENTA 34F-R/L (632) • PENTA 34N-C (580) • PENTA 34N-J (585) • PENTA 34N-PB (584) • PENTA 34R/L-C (582) • PENTA 34R/L-J (586) • PENTA 34R/L-PB (583)

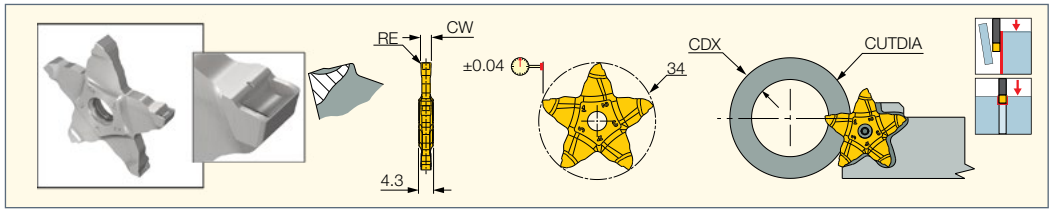
Spare Parts

Designation			
PCHR/L 16-34-JHP	SR 16-212-01397	SR 5/16UNF TL360	HW 5/32"

PENTACUT

PENTA 34N-C

Inserts with 5 Cutting Edges for Parting and Grooving Hard Materials, Tough and General Applications



M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	IC908	Recommended Machining Data f groove (mm/rev)
PENTA 34N150C015	1.50	0.15	0.020	0.030	8.50	●	0.05-0.12
PENTA 34N200C020	2.00	0.20	0.020	0.030	8.00	●	0.04-0.14
PENTA 34N200C100	2.00	1.00	0.020	0.050	8.00	●	0.05-0.16
PENTA 34N222C015	2.22	0.15	0.020	0.030	8.00	●	0.05-0.14
PENTA 34N230C020	2.30	0.20	0.020	0.030	8.00	●	0.05-0.14
PENTA 34N239C015	2.39	0.15	0.020	0.030	8.00	●	0.05-0.15
PENTA 34N239C120	2.39	1.20	0.020	0.050	8.00	●	0.05-0.18
PENTA 34N247C020	2.47	0.20	0.020	0.030	8.00	●	0.05-0.18
PENTA 34N250C020	2.50	0.20	0.020	0.030	8.00	●	0.05-0.18
PENTA 34N270C010	2.70	0.10	0.020	0.030	10.00	●	0.05-0.18
PENTA 34N287C020	2.87	0.20	0.020	0.030	10.00	●	0.05-0.18
PENTA 34N300C000	3.00	0.03	0.020	0.020	10.00	●	0.04-0.10
PENTA 34N300C020	3.00	0.20	0.020	0.030	10.00	●	0.06-0.22
PENTA 34N300C040	3.00	0.40	0.020	0.030	10.00	●	0.06-0.25
PENTA 34N300C150	3.00	1.50	0.020	0.050	10.00	●	0.06-0.20
PENTA 34N315C015	3.15	0.15	0.020	0.030	10.00	●	0.06-0.20
PENTA 34N318C020	3.18	0.20	0.020	0.030	10.00	●	0.06-0.22
PENTA 34N330C010	3.30	0.10	0.020	0.020	10.00	●	0.06-0.20
PENTA 34N348C020	3.48	0.20	0.020	0.030	10.00	●	0.06-0.25
PENTA 34N350C025	3.50	0.25	0.020	0.030	10.00	●	0.06-0.30
PENTA 34N398C020	3.98	0.20	0.020	0.030	10.00	●	0.06-0.30
PENTA 34N400C030	4.00	0.30	0.020	0.030	10.00	●	0.06-0.30

• For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

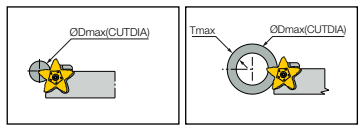
(3) For grooving and parting depths relative to part diameter, see below

For tools, see pages: PCHPR/L (551) • PCHR/L-34 (578) • PCHR/L-34-JHP (579)

	ØDmax as a Function of Parting / Grooving Depth (T) for PENTA 34 Inserts						
$CW^{\pm 0.02}$	T≤5.0	T≤6.0	T≤7.0	T≤8.0	T≤8.5	T≤9.0	T≤10.0
1.50 ≤ CW ≤ 2.69	N.L.	350	165	100	55	-	-
2.70 ≤ CW ≤ 4.00						55	20

CUTDIA for parting = 2 x CDX

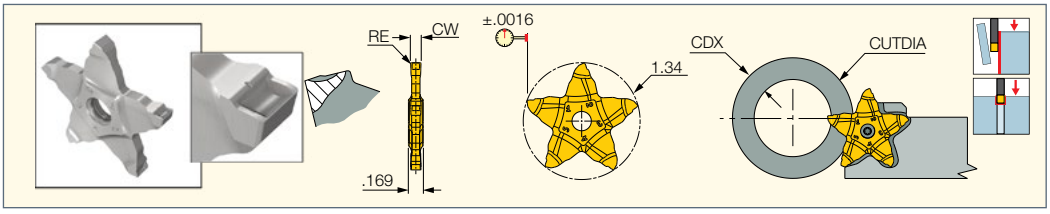
N.L. = No Limit



PENTACUT

PENTA 34N-C

Inserts with 5 Cutting Edges for Parting and Grooving Hard Materials, Tough and General Applications



I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	IC908	Recommended Machining Data f groove (IPR)
PENTA 34N150C015	.059	.0059	.00078	.0012	.335	●	.0020-.0047
PENTA 34N200C020	.079	.0079	.00078	.0012	.315	●	.0016-.0055
PENTA 34N200C100	.079	.0394	.00078	.0020	.315	●	.0020-.0063
PENTA 34N222C015	.087	.0059	.00078	.0012	.315	●	.0020-.0055
PENTA 34N230C020	.091	.0079	.00078	.0012	.315	●	.0020-.0055
PENTA 34N239C015	.094	.0059	.00078	.0012	.315	●	.0020-.0059
PENTA 34N239C120	.094	.0472	.00078	.0020	.315	●	.0020-.0071
PENTA 34N247C020	.097	.0079	.00078	.0012	.315	●	.0020-.0071
PENTA 34N250C020	.098	.0079	.00078	.0012	.315	●	.0020-.0071
PENTA 34N270C010	.106	.0039	.00078	.0012	.394	●	.0020-.0071
PENTA 34N287C020	.113	.0079	.00078	.0012	.394	●	.0020-.0071
PENTA 34N300C000	.118	.0012	.00078	.0008	.394	●	.0016-.0039
PENTA 34N300C020	.118	.0079	.00078	.0012	.394	●	.0024-.0087
PENTA 34N300C040	.118	.0157	.00078	.0012	.394	●	.0024-.0098
PENTA 34N300C150	.118	.0590	.00078	.0020	.394	●	.0024-.0079
PENTA 34N315C015	.124	.0059	.00078	.0012	.394	●	.0024-.0079
PENTA 34N318C020	.125	.0079	.00078	.0012	.394	●	.0024-.0087
PENTA 34N330C010	.130	.0039	.00078	.0008	.394	●	.0024-.0079
PENTA 34N348C020	.137	.0079	.00078	.0012	.394	●	.0024-.0098
PENTA 34N350C025	.138	.0098	.00078	.0012	.394	●	.0024-.0118
PENTA 34N398C020	.157	.0079	.00078	.0012	.394	●	.0024-.0118
PENTA 34N400C030	.157	.0118	.00078	.0012	.394	●	.0024-.0118

- For cutting speed recommendations and user guide, see pages 597-608

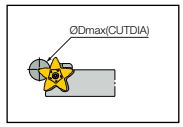
(1) Cutting width tolerance (+/-)

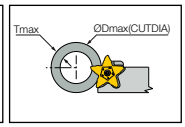
(2) Corner radius tolerance (+/-)

(3) For grooving and parting depths relative to part diameter, see below

For tools, see pages: PCHPR/L (551) • PCHR/L-34 (578) • PCHR/L-34-JHP (579)

	ØDmax as a Function of Parting / Grooving Depth (T) for PENTA 34 Inserts						
CW±.0008	T≤.197	T≤.236	T≤.276	T≤.311	T≤.335	T≤.354	T≤.394
.059 ≤ CW ≤ .106	N.L.	13.77	6.50	3.94	2.17	-	-
.107 ≤ CW ≤ .157						2.17	.787





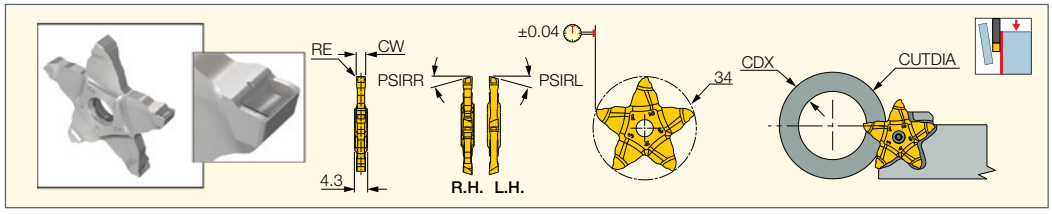
N.L. = No Limit

CUTDIA for parting = 2 x CDX

PENTACUT

PENTA 34R/L-C

Inserts with 5 Cutting Edges for Parting Hard Materials, Tough and General Applications



M E T R I C

Designation	Dimensions CW	RE	CUTDIA(1)	CDX	PSIRL	PSIRR	IC908	Recommended Machining Data f groove (mm/rev)
PENTA 34L150C08D	1.50	0.07	18.0	8.00	8.0	-	●	0.03-0.08
PENTA 34R150C08D	1.50	0.07	18.0	8.00	-	8.0	●	0.03-0.08
PENTA 34L200C06D	2.00	0.10	18.0	8.00	6.0	-	●	0.04-0.12
PENTA 34R200C06D	2.00	0.10	18.0	8.00	-	6.0	●	0.04-0.12
PENTA 34L200C15D	2.00	0.10	18.0	8.00	15.0	-	●	0.04-0.10
PENTA 34R200C15D	2.00	0.10	18.0	8.00	-	15.0	●	0.04-0.10
PENTA 34L300C06D	3.00	0.20	20.0	10.00	6.0	-	●	0.04-0.14
PENTA 34R300C06D	3.00	0.20	20.0	10.00	-	6.0	●	0.06-0.14
PENTA 34L300C15D	3.00	0.20	20.0	10.00	15.0	-	●	0.04-0.10
PENTA 34R300C15D	3.00	0.20	20.0	10.00	-	15.0	●	0.06-0.12

• For cutting speed recommendations and user guide, see pages 597-608

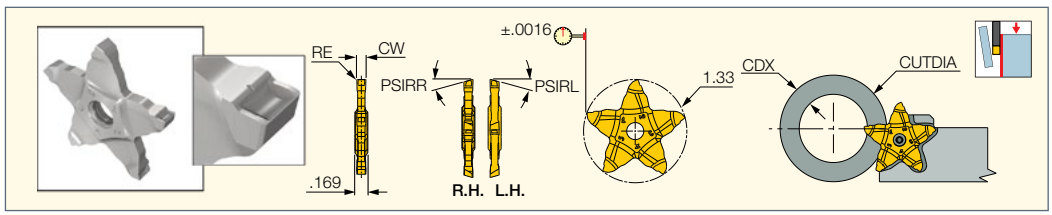
(1) For grooving and parting depths relative to part diameter, see page 580

For tools, see pages: PCHPR/L (551) • PCHR/L-34 (578) • PCHR/L-34-JHP (579)

PENTACUT

PENTA 34R/L-C

Inserts with 5 Cutting Edges for Parting Hard Materials, Tough and General Applications



I N C H

Designation	Dimensions CW	RE	CUTDIA(1)	CDX	PSIRL	PSIRR	IC908	Recommended Machining Data f groove (IPR)
PENTA 34L150C08D	.059	.0027	.709	.315	8.0	-	●	.0012-.0031
PENTA 34R150C08D	.059	.0027	.709	.315	-	8.0	●	.0012-.0031
PENTA 34L200C06D	.079	.0039	.709	.315	6.0	-	●	.0016-.0047
PENTA 34R200C06D	.079	.0039	.709	.315	-	6.0	●	.0016-.0047
PENTA 34L200C15D	.079	.0039	.709	.315	15.0	-	●	.0016-.0039
PENTA 34R200C15D	.079	.0039	.709	.315	-	15.0	●	.0016-.0039
PENTA 34L300C06D	.118	.0079	.787	.394	6.0	-	●	.0016-.0055
PENTA 34R300C06D	.118	.0079	.787	.394	-	6.0	●	.0024-.0055
PENTA 34L300C15D	.118	.0079	.787	.394	15.0	-	●	.0016-.0039
PENTA 34R300C15D	.118	.0079	.787	.394	-	15.0	●	.0024-.0047

• For cutting speed recommendations and user guide, see pages 597-608

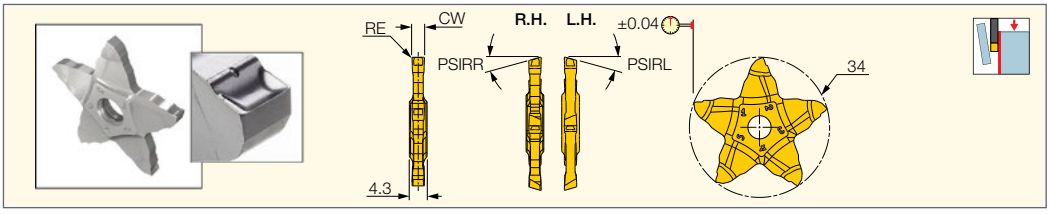
(1) For grooving and parting depths relative to part diameter, see page 581

For tools, see pages: PCHPR/L (551) • PCHR/L-34 (578) • PCHR/L-34-JHP (579)

PENTACUT

PENTA 34R/L-PB

Pentagonal Inserts for Parting Bearing Steel and other Ductile Materials



M E T R I C

Designation	Dimensions CW	RE	CUTDIA(1)	PSIRL	PSIRR	IC908	Recommended Machining Data f groove (mm/rev)
PENTA 34R150PB-6D	1.50	0.07	18.0	-	6.0	●	0.03-0.05
PENTA 34L150PB-6D	1.50	0.07	18.0	6.0	-	●	0.03-0.05
PENTA 34R200PB-6D	2.00	0.10	18.0	-	6.0	●	0.03-0.06
PENTA 34L200PB-6D	2.00	0.10	18.0	6.0	-	●	0.03-0.06
PENTA 34R300PB-6D	3.00	0.20	20.0	-	6.0	●	0.03-0.08
PENTA 34L300PB-6D	3.00	0.20	20.0	6.0	-	●	0.03-0.08

- For cutting speed recommendations and user guide, see pages 597-608

(1) Maximum workpiece diameter for grooving operation

For tools, see pages: PCHPR/L (551) • PCHR/L-34 (578) • PCHR/L-34-JHP (579)

W±0.02	Dmax as a Function of Parting / Grooving Depth (T) for PENTA 34 Inserts T≤5.0	T≤6.0	T≤7.0	T≤8.0	T≤8.5	T≤9.0	T≤10.0
1.50 ≤ W ≤ 2.69	N.L.	350	165	100	55	-	-
2.70 ≤ W ≤ 4.00						55	20

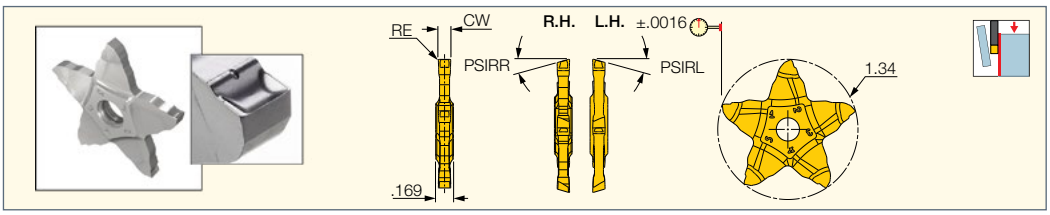
Dmax for parting = 2 x Tmax

N.L. = No Limit

PENTACUT

PENTA 34R/L-PB

Pentagonal Inserts for Parting Bearing Steel and other Ductile Materials



I N C H

Designation	Dimensions CW	RE	CUTDIA(1)	PSIRL	PSIRR	IC908	Recommended Machining Data f groove (IPR)
PENTA 34R150PB-6D	.059	.0027	.709	-	6.0	●	.0012-.0020
PENTA 34L150PB-6D	.059	.0027	.709	6.0	-	●	.0012-.0020
PENTA 34R200PB-6D	.079	.0039	.709	-	6.0	●	.0012-.0024
PENTA 34L200PB-6D	.079	.0039	.709	6.0	-	●	.0012-.0024
PENTA 34R300PB-6D	.118	.0079	.787	-	6.0	●	.0012-.0031
PENTA 34L300PB-6D	.118	.0079	.787	6.0	-	●	.0012-.0031

- For cutting speed recommendations and user guide, see pages 597-608

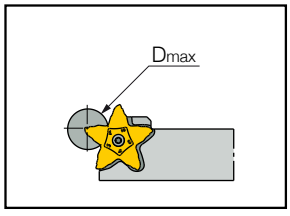
(1) Maximum workpiece diameter for grooving operation

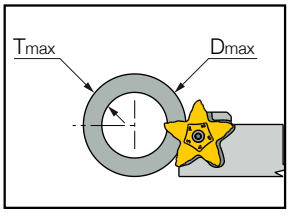
For tools, see pages: PCHPR/L (551) • PCHR/L-34 (578) • PCHR/L-34-JHP (579)

W±.0008	Dmax as a Function of Parting / Grooving Depth (T) for PENTA 34 Inserts T≤.197	T≤.236	T≤.276	T≤.315	T≤.335	T≤.354	T≤.394
.058 ≤ W ≤ .106	N.L.	13.78	6.50	3.94	2.16	-	-
.106 ≤ W ≤ .158						2.16	.79

Dmax for parting = 2 x Tmax

N.L. = No Limit

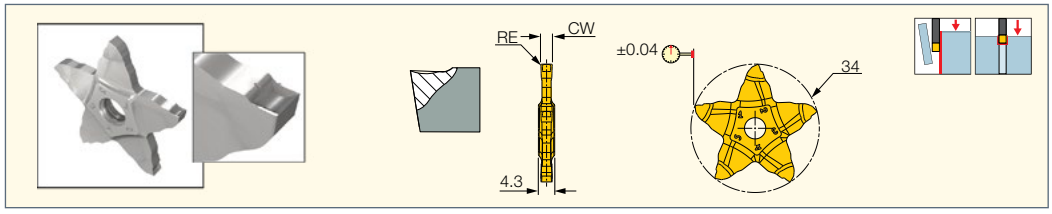




PENTACUT

PENTA 34N-PB

Parting and Grooving Pentagonal Inserts for Parting Bearing Steel and Other Ductile Materials



M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	IC908	Recommended Machining Data f groove (mm/rev)
PENTA 34N150PB015	1.50	0.15	0.020	0.030	8.50	•	0.03-0.08
PENTA 34N200PB020	2.00	0.20	0.020	0.030	8.50	•	0.03-0.08
PENTA 34N300PB020	3.00	0.20	0.020	0.030	9.50	•	0.03-0.10

• For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

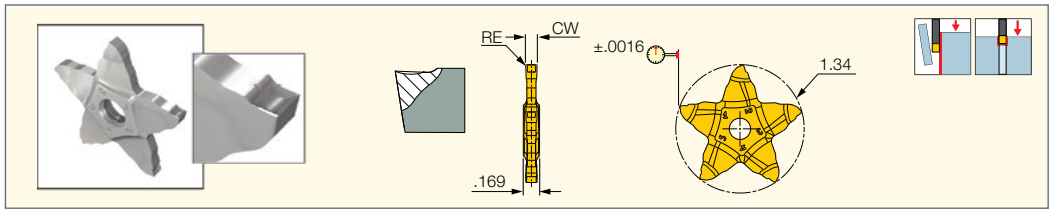
(3) For grooving and parting depths relative to part diameter, see page 580

For tools, see pages: PCHPR/L (551) • PCHR/L-34 (578) • PCHR/L-34-JHP (579)

PENTACUT

PENTA 34N-PB

Parting and Grooving Pentagonal Inserts for Parting Bearing Steel and Other Ductile Materials



I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	IC908	Recommended Machining Data f groove (IPR)
PENTA 34N150PB015	.059	.0059	.00078	.0012	.335	•	.0012-.0031
PENTA 34N200PB020	.079	.0079	.00078	.0012	.335	•	.0012-.0031
PENTA 34N300PB020	.118	.0079	.00078	.0012	.374	•	.0012-.0039

• For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

(3) For grooving and parting depths relative to part diameter, see page 581

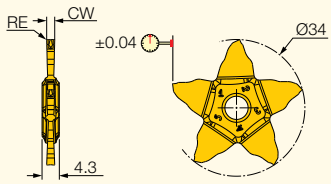
For tools, see pages: PCHPR/L (551) • PCHR/L-34 (578) • PCHR/L-34-JHP (579)

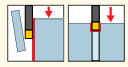
PENTACUT

PENTA 34N-J

Inserts with 5 Cutting Edges for Parting and Grooving Soft Materials, Parting Tubes, Small and Thin-Walled Parts







M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	IC908	Recommended Machining Data f groove (mm/rev)
PENTA 34N150J015	1.50	0.15	0.020	0.002	8.50	●	0.03-0.10
PENTA 34N200J020	2.00	0.20	0.020	0.002	8.50	●	0.04-0.12
PENTA 34N200J100	2.00	1.00	0.020	0.002	8.50	●	0.05-0.12
PENTA 34N239J015	2.39	0.15	0.020	0.002	8.50	●	0.04-0.16
PENTA 34N239J120	2.39	1.20	0.020	0.002	8.50	●	0.06-0.16
PENTA 34N250J020	2.50	0.20	0.020	0.002	8.50	●	0.04-0.16
PENTA 34N270J010	2.70	0.10	0.020	0.002	10.00	●	0.04-0.16
PENTA 34N300J000	3.00	0.00	0.020	0.002	10.00	●	0.04-0.10
PENTA 34N300J020	3.00	0.20	0.020	0.002	10.00	●	0.04-0.16
PENTA 34N300J040	3.00	0.40	0.020	0.002	10.00	●	0.04-0.16
PENTA 34N300J150	3.00	1.50	0.020	0.002	10.00	●	0.06-0.20
PENTA 34N318J020	3.18	0.20	0.020	0.002	10.00	●	0.20-0.16

• Recessing is possible only with 2.39 mm and wider inserts • For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

(3) For grooving and parting depths relative to part diameter, see page 580

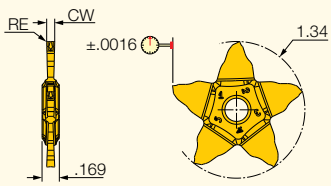
For tools, see pages: PCHPR/L (551) • PCHR/L-34 (578) • PCHR/L-34-JHP (579)

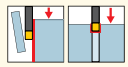
PENTACUT

PENTA 34N-J

Inserts with 5 Cutting Edges for Parting and Grooving Soft Materials, Parting Tubes, Small and Thin-Walled Parts







I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX(3)	IC908	Recommended Machining Data f groove (IPR)
PENTA 34N150J015	.059	.0059	.00078	.0001	.335	●	.0012-.0039
PENTA 34N200J020	.079	.0079	.00078	.0001	.335	●	.0016-.0047
PENTA 34N200J100	.079	.0394	.00078	.0001	.335	●	.0020-.0047
PENTA 34N239J015	.094	.0059	.00078	.0001	.335	●	.0016-.0063
PENTA 34N239J120	.094	.0472	.00078	.0001	.335	●	.0024-.0063
PENTA 34N250J020	.098	.0079	.00078	.0001	.335	●	.0016-.0063
PENTA 34N270J010	.106	.0039	.00078	.0001	.394	●	.0016-.0063
PENTA 34N300J000	.118	.0000	.00078	.0001	.394	●	.0016-.0039
PENTA 34N300J020	.118	.0079	.00078	.0001	.394	●	.0016-.0063
PENTA 34N300J040	.118	.0157	.00078	.0001	.394	●	.0016-.0063
PENTA 34N300J150	.118	.0590	.00078	.0001	.394	●	.0024-.0079
PENTA 34N318J020	.125	.0079	.00078	.0001	.394	●	.0079-.0063

• Recessing is possible only with .094" and wider inserts • For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

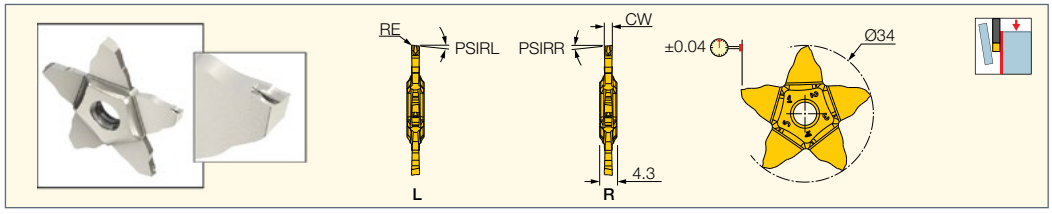
(3) For grooving and parting depths relative to part diameter, see page 581

For tools, see pages: PCHPR/L (551) • PCHR/L-34 (578) • PCHR/L-34-JHP (579)

PENTACUT

PENTA 34R/L-J

Inserts with 5 Cutting Edges
for Parting Tubes, Small
and Thin-Walled Parts



M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	CUTDIA(2)	PSIRL	PSIRR	IC908	Recommended Machining Data f groove (mm/rev)
PENTA 34L150J06D	1.50	0.07	0.020	18.0	6.0	-	●	0.03-0.09
PENTA 34L150J15D	1.50	0.07	0.020	18.0	15.0	-	●	0.03-0.08
PENTA 34R150J06D	1.50	0.07	0.020	18.0	-	6.0	●	0.03-0.09
PENTA 34R150J15D	1.50	0.07	0.020	18.0	-	15.0	●	0.03-0.08
PENTA 34L200J06D	2.00	0.10	0.020	18.0	6.0	-	●	0.04-0.10
PENTA 34L200J15D	2.00	0.10	0.020	18.0	15.0	-	●	0.04-0.09
PENTA 34R200J06D	2.00	0.10	0.020	18.0	-	6.0	●	0.04-0.10
PENTA 34R200J15D	2.00	0.10	0.020	18.0	-	15.0	●	0.04-0.09

- For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

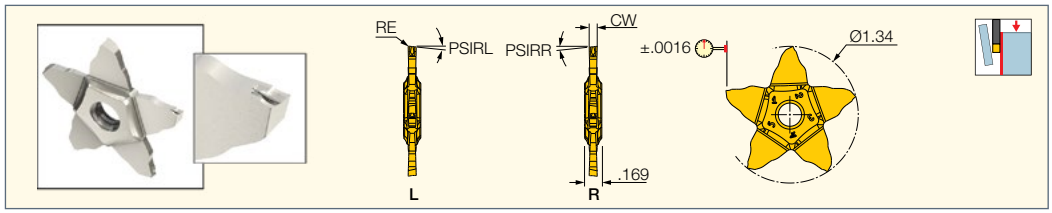
(2) For grooving and parting depths relative to part diameter, see page 580

For tools, see pages: PCHPR/L (551) • PCHR/L-34 (578) • PCHR/L-34-JHP (579)

PENTACUT

PENTA 34R/L-J

Inserts with 5 Cutting Edges
for Parting Tubes, Small
and Thin-Walled Parts



I N C H

Designation	Dimensions CW	RE	CWTOL(1)	CUTDIA(2)	PSIRL	PSIRR	IC908	Recommended Machining Data f groove (IPR)
PENTA 34L150J06D	.059	.0027	.00078	.709	6.0	-	●	.0012-.0035
PENTA 34L150J15D	.059	.0027	.00078	.709	15.0	-	●	.0012-.0031
PENTA 34R150J06D	.059	.0027	.00078	.709	-	6.0	●	.0012-.0035
PENTA 34R150J15D	.059	.0027	.00078	.709	-	15.0	●	.0012-.0031
PENTA 34L200J06D	.079	.0039	.00078	.709	6.0	-	●	.0016-.0039
PENTA 34L200J15D	.079	.0039	.00078	.709	15.0	-	●	.0016-.0035
PENTA 34R200J06D	.079	.0039	.00078	.709	-	6.0	●	.0016-.0039
PENTA 34R200J15D	.079	.0039	.00078	.709	-	15.0	●	.0016-.0035

- For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

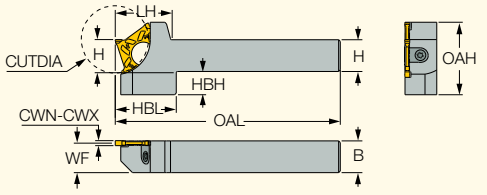
(2) For grooving and parting depths relative to part diameter, see page 581

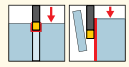
For tools, see pages: PCHPR/L (551) • PCHR/L-34 (578) • PCHR/L-34-JHP (579)

PENTA IQ GRIP PARTING LINE

PCHR/L-D-IQ

Grooving and Parting Tools Carrying Inserts with 5 Cutting Edges





Left hand tool shown

METRIC											
Designation	**H**	**B**	**CWN(1)**	**CWX(2)**	**WF**	**CUTDIA(3)**	**OAL**	**LH**	**HBL**	**HBH**	**OAH**
PCHR/L 12-D22-2-IQ	12.0	12.0	2.00	2.40	11.40	22.0	100.00	26.9	25.70	8.0	25.5
PCHR/L 16-D22-2-IQ	16.0	16.0	2.00	2.40	15.40	22.0	120.00	26.9	23.20	4.0	25.5
PCHR/L 20-D22-2-IQ	20.0	20.0	2.00	2.40	19.40	22.0	120.00	26.9	-	-	25.5
PCHR/L 12-D22-3-IQ	12.0	12.0	3.00	3.20	10.70	22.0	120.00	19.7	20.00	11.0	25.5
PCHR/L 16-D22-3-IQ	16.0	16.0	3.00	3.20	14.70	22.0	120.00	19.7	20.00	7.0	25.5
PCHR/L 20-D22-3-IQ	20.0	20.0	3.00	3.20	18.70	22.0	120.00	19.7	-	-	25.5
PCHR/L 12-D32-2-IQ	12.0	12.0	2.00	2.40	11.50	32.0	100.00	28.4	29.50	14.0	33.6
PCHR/L 16-D32-2-IQ	16.0	16.0	2.00	2.40	15.50	32.0	120.00	28.4	29.50	10.0	33.6
PCHR/L 20-D32-2-IQ	20.0	20.0	2.00	2.40	19.50	32.0	120.00	28.4	29.50	6.0	33.6
PCHR/L 12-D32-3-IQ	12.0	12.0	3.00	3.20	10.70	32.0	100.00	26.0	32.00	16.0	32.6
PCHR/L 16-D32-3-IQ	16.0	16.0	3.00	3.20	14.70	32.0	120.00	26.0	32.00	12.0	32.6
PCHR/L 20-D32-3-IQ	20.0	20.0	3.00	3.20	18.70	32.0	120.00	26.0	32.00	8.0	32.6
PCHR/L 16-D40-3-IQ	16.0	16.0	3.00	3.20	14.70	40.0	135.00	33.3	36.80	17.0	43.5
PCHR/L 20-D40-3-IQ	20.0	20.0	3.00	3.20	18.70	40.0	135.00	33.3	35.60	13.0	43.5

(1) Minimum cutting width
(2) Maximum cutting width
(3) Maximum workpiece diameter for grooving operation

For inserts, see pages: PENTA D-N-C (591) • PENTA D-N-J (593) • PENTA D-N-PB (595) • PENTA D-R/L-C (592) • PENTA D-R/L-J (594) • PENTA D-R/L-PB (596)

Tmax as a Function of Dmax for PENTA D22

Tmax	T≤1.2	T≤2.0	T≤3.0	T≤4.0	T≤5.0	T≤7.0	T≤9.0	T≤11.0
Dmax	N.L(1)	600	130	60	40	30	25	22

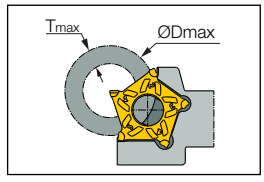
Tmax as a Function of Dmax for PENTA D32

Tmax	T≤1.2	T≤2	T≤3.0	T≤4.0	T≤5.0	T≤6.0	T≤7.0	T≤8.0	T≤9.0	T≤16.0
Dmax	N.L(1)	N.L(1)	250	130	80	60	50	45	40	32

Tmax as a Function of Dmax for PENTA D40

Tmax	T≤1.2	T≤2	T≤3.0	T≤4.0	T≤5.0	T≤6.0	T≤7.0	T≤8.0	T≤9.0	T≤10.0	T≤11.0	T≤12.0	T≤13.0	T≤16.0	T≤20.0
Dmax	N.L(1)	N.L(1)	N.L(1)	350	200	140	105	85	75	65	60	55	50	45	40

(1) N.L = No Limit



Spare Parts

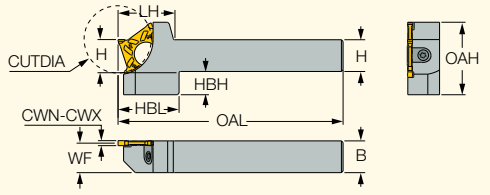
Designation				
PCHR/L 12-D22-2-IQ	SR M6-R-L	LEVER PD22-2 INJ	BLD T15/S7	SW6-SD
PCHR/L 16-D22-2-IQ	SR M6-R-L	LEVER PD22-2 INJ	BLD T15/S7	SW6-SD
PCHR/L 20-D22-2-IQ	SR M6-R-L	LEVER PD22-2 INJ	BLD T15/S7	SW6-SD
PCHR/L 12-D22-3-IQ	SR M6-R-L	LEVER PD22-3 INJ	BLD T15/S7	SW6-SD
PCHR/L 16-D22-3-IQ	SR M6-R-L	LEVER PD22-3 INJ	BLD T15/S7	SW6-SD
PCHR/L 20-D22-3-IQ	SR M6-R-L	LEVER PD22-3 INJ	BLD T15/S7	SW6-SD
PCHR/L 12-D32-2-IQ	SR M6-R-L	LEVER PD32-2 INJ	BLD T15/S7	SW6-SD
PCHR/L 16-D32-2-IQ	SR M6-R-L	LEVER PD32-2 INJ	BLD T15/S7	SW6-SD
PCHR/L 20-D32-2-IQ	SR M6-R-L	LEVER PD32-2 INJ	BLD T15/S7	SW6-SD
PCHR/L 12-D32-3-IQ	SR M6-R-L	LEVER PD22-3 INJ	BLD T15/S7	SW6-SD
PCHR/L 16-D32-3-IQ	SR M6-R-L	LEVER PD32-3 INJ	BLD T15/S7	SW6-SD
PCHR/L 20-D32-3-IQ	SR M6-R-L	LEVER PD32-3 INJ	BLD T15/S7	SW6-SD
PCHR/L 16-D40-3-IQ	SR M7-R-L	LEVER PD40 INJ	BLD T20/S7	SW6-SD
PCHR/L 20-D40-3-IQ	SR M7-R-L	LEVER PD40 INJ	BLD T20/S7	SW6-SD

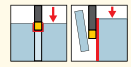
* Optional, to be ordered separately

PENTA IQ GRIP PARTING LINE

PCHR/L-D-IQ

Grooving and Parting Tools Carrying Inserts with 5 Cutting Edges





Left hand tool shown

INCH											
Designation	**H**	**B**	**CWN(1)**	**CWX(2)**	**WF**	**CUTDIA(3)**	**OAL**	**LH**	**HBL**	**HBH**	**OAH**
PCHR/L 12.7-D22-2-IQ	.500	.500	.079	.094	.470	.870	4.720	.780	1.012	.29	1.00
PCHR/L 16-D22-2-IQ	.630	.630	.079	.094	.606	.866	4.724	1.059	.913	.16	1.00
PCHR/L 19-D22-2-IQ	.750	.750	.079	.094	.720	.870	4.720	.780	-	-	1.00
PCHR/L 12.7-D22-3-IQ	.500	.500	.118	.126	.450	.870	4.720	.780	1.012	.29	1.00
PCHR/L 16-D22-3-IQ	.630	.630	.118	.126	.579	.866	4.724	.776	.787	.28	1.00
PCHR/L 19-D22-3-IQ	.750	.750	.118	.126	.700	.870	4.720	.780	-	-	1.00
PCHR/L 12.7-D32-2-IQ	.500	.500	.079	.094	.480	1.300	3.937	1.000	1.161	.52	1.30
PCHR/L 16-D32-2-IQ	.630	.630	.079	.094	.610	1.260	4.724	1.118	1.161	.39	1.32
PCHR/L 19-D32-2-IQ	.750	.750	.079	.094	.730	1.300	4.724	1.000	1.250	.35	1.30
PCHR/L 12.7-D32-3-IQ	.500	.500	.118	.126	.390	1.300	3.937	1.000	1.161	.52	1.30
PCHR/L 16-D32-3-IQ	.630	.630	.118	.126	.579	1.260	4.724	1.024	1.260	.47	1.28
PCHR/L 19-D32-3-IQ	.750	.750	.118	.126	.700	1.300	4.724	1.000	1.250	.35	1.30
PCHR/L 19-D40-2-IQ	.750	.750	.079	.094	.720	1.600	5.320	1.300	1.440	.55	1.70
PCHR/L 16-D40-3-IQ	.630	.630	.118	.126	.579	1.575	5.315	1.311	1.449	.67	1.71
PCHR/L 19-D40-3-IQ	.750	.750	.118	.126	.700	1.600	5.320	1.300	1.440	.55	1.70

(1) Minimum cutting width

(2) Maximum cutting width

(3) Maximum workpiece diameter for grooving operation

For inserts, see pages: PENTA D-N-C (591) • PENTA D-N-J (593) • PENTA D-N-PB (595) • PENTA D-R/L-C (592) • PENTA D-R/L-J (594) • PENTA D-R/L-PB (596)

Tmax as a Function of Dmax for PENTA D22

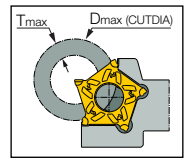
Tmax	T≤.047	T≤.079	T≤.118	T≤.157	T≤.197	T≤.276	T≤.354	T≤.433
Dmax	N.L(1)	23.6	5.1	2.3	1.6	1.2	1.0	.9

Tmax as a Function of Dmax for PENTA D32

Tmax	T≤.047	T≤.079	T≤.118	T≤.157	T≤.197	T≤.236	T≤.276	T≤.315	T≤.354	T≤.630
Dmax	N.L(1)	N.L(1)	9.8	5.1	3.1	2.4	2.0	1.8	1.6	1.3

Tmax as a Function of Dmax for PENTA D40

Tmax	T≤.047	T≤.079	T≤.118	T≤.157	T≤.197	T≤.236	T≤.276	T≤.315	T≤.354	T≤.394	T≤.433	T≤.472	T≤.511	T≤.630	T≤.787
Dmax	N.L(1)	N.L(1)	N.L(1)	13.7	7.9	5.5	4.1	3.3	3.0	2.6	2.4	2.2	2.0	1.8	1.6



(1) N.L. = No Limit

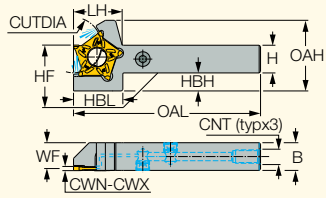
Spare Parts

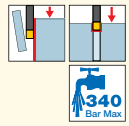
Designation				
PCHR/L 12.7-D22-2-IQ	SR M6-R-L	LEVER PD22-2 INJ	BLD T15/S7	SW6-SD
PCHR/L 16-D22-2-IQ	SR M6-R-L	LEVER PD22-2 INJ	BLD T15/S7	SW6-SD
PCHR/L 19-D22-2-IQ	SR M6-R-L	LEVER PD22-2 INJ	BLD T15/S7	SW6-SD
PCHR/L 12.7-D22-3-IQ	SR M6-R-L	LEVER PD22-3 INJ	BLD T15/S7	SW6-SD
PCHR/L 16-D22-3-IQ	SR M6-R-L	LEVER PD22-3 INJ	BLD T15/S7	SW6-SD
PCHR/L 19-D22-3-IQ	SR M6-R-L	LEVER PD22-3 INJ	BLD T15/S7	SW6-SD
PCHR/L 12.7-D32-2-IQ	SR M6-R-L	LEVER PD32-2 INJ	BLD T15/S7	SW6-SD
PCHR/L 16-D32-2-IQ	SR M6-R-L	LEVER PD32-2 INJ	BLD T15/S7	SW6-SD
PCHR/L 19-D32-2-IQ	SR M6-R-L	LEVER PD32-2 INJ	BLD T15/S7	SW6-SD
PCHR/L 12.7-D32-3-IQ	SR M6-R-L	LEVER PD32-3 INJ	BLD T15/S7	SW6-SD
PCHR/L 16-D32-3-IQ	SR M6-R-L	LEVER PD32-3 INJ	BLD T15/S7	SW6-SD
PCHR/L 19-D32-3-IQ	SR M6-R-L	LEVER PD32-3 INJ	BLD T15/S7	SW6-SD
PCHR/L 16-D40-3-IQ	SR M7-R-L	LEVER PD40 INJ	BLD T20/S7	SW6-SD
PCHR/L 19-D40-3-IQ	SR M7-R-L	LEVER PD40 INJ	BLD T20/S7	SW6-SD

PENTA IQ GRIP PARTING LINE

PCHR/L-D-JHP

Grooving and Parting Tools with Channels for High-Pressure Coolant Carrying Inserts with 5 Cutting Edges





METRIC													
Designation	**H**	**HF**	**HBH**	**B**	**CWN(1)**	**CWX(2)**	**WF**	**CUTDIA(3)**	**OAL**	**LH**	**HBL**	**OAH**	**CNT**
PCHR/L 12-D22-2-JHP	12.0	0.0	9.0	12.0	2.00	2.40	11.00	22.0	101.50	29.0	29.50	32.0	UNF 5/16-24
PCHR/L 16-D22-2-JHP	16.0	0.0	5.0	16.0	2.00	2.40	15.00	22.0	121.50	29.0	29.50	32.0	UNF 5/16-24
PCHR/L 20-D22-2-JHP	20.0	0.0	1.0	20.0	2.00	2.40	19.00	22.0	121.50	29.0	29.50	32.0	G 1/8-28
PCHR/L 12-D32-2-JHP	12.0	12.1	14.5	12.0	2.00	2.40	11.15	32.0	100.00	30.5	31.00	41.0	UNF 5/16-24
PCHR/L 16-D32-2-JHP	16.0	16.1	10.0	16.0	2.00	2.40	15.21	32.0	120.00	25.9	27.00	41.0	UNF 5/16-24
PCHR/L 20-D32-2-JHP	20.0	20.1	6.5	20.0	2.00	2.40	18.40	32.0	120.00	30.5	31.00	41.0	G 1/8-28
PCHR/L 16-D40-3-JHP	16.0	16.0	17.0	16.0	3.00	3.20	14.60	40.0	135.00	36.3	36.80	51.0	UNF 5/16-24
PCHR/L 20-D40-3-JHP	20.0	20.0	13.0	20.0	3.00	3.20	18.60	40.0	135.00	35.1	35.60	51.0	G 1/8-28

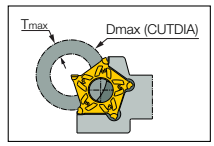
(1) Minimum cutting width
(2) Maximum cutting width
(3) Maximum workpiece diameter for grooving operation

For inserts, see pages: PENTA D-N-C (591) • PENTA D-N-J (593) • PENTA D-N-PB (595) • PENTA D-R/L-C (592) • PENTA D-R/L-J (594) • PENTA D-R/L-PB (596)
For holders, see pages: SBTH-JHP (833)

PCHR/L D22-2...-JHP Dmax for Partting Off 22/T11										
Tmax	T≤1.0	T≤2.0	T≤3.0	T≤4.0	T≤5.0	T≤6.0	T≤7.0	T≤8.0	T≤9.0	T≤10.0
Dmax	89	64	48	40	34	31	28	27	24	21

PCHR/L D32-2...-JHP Dmax for Partting Off 32/T16										
Tmax	T≤1.0	T≤2.0	T≤3.0	T≤4.0	T≤5.0	T≤6.0	T≤7.0	T≤8.0	T≤9.0	T≤10.0
Dmax	150	125	100	78	65	57	51	46	43	40
Tmax	T≤11.0	T≤12.0	T≤13.0	T≤14.0	T≤15.0					
Dmax	39	37	35	34	33					

PCHR/L D40-3...-JHP Dmax for Partting Off 40/T20										
Tmax	T≤1.0	T≤2.0	T≤3.0	T≤4.0	T≤5.0	T≤6.0	T≤7.0	T≤8.0	T≤9.0	T≤10.0
Dmax	400	300	200	145	114	95	82	73	66	61
Tmax	T≤11.0	T≤12.0	T≤13.0	T≤14.0	T≤15.0	T≤16.0	T≤17.0	T≤18.0	T≤19.0	
Dmax	57	54	51	49	47	46	45	44	42	



Flow Rate vs. Pressure

Designation	70 bar Flow Rate (liters/min)	100 bar Flow Rate (liters/min)	140 bar Flow Rate (liters/min)
PCHR/L...-2JHP	2-4	4-6	6-8
PCHR/L...-3JHP	7-9	9-11	11-13

Spare Parts

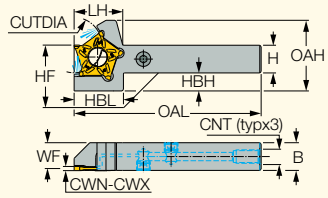
Designation							
PCHR/L 12-D22-2-JHP	SR M6-R-L	LEVER PD22-2 INJ	BLD T15/S7	SW6-SD	HW 5/32"		SR 5/16UNF TL360
PCHR/L 16-D22-2-JHP	SR M6-R-L	LEVER PD22-2 INJ	BLD T15/S7	SW6-SD	HW 5/32"		SR 5/16UNF TL360
PCHR/L 20-D22-2-JHP	SR M6-R-L	LEVER PD22-2 INJ	BLD T15/S7	SW6-SD	HW 5.0	PLG G1/8 TL360	
PCHR/L 12-D32-2-JHP	SR M6-R-L	LEVER PD32-2 INJ	BLD T15/S7	SW6-SD	HW 5/32"		SR 5/16UNF TL360
PCHR/L 16-D32-2-JHP	SR M6-R-L	LEVER PD32-2 INJ	BLD T15/S7	SW6-SD	HW 5/32"		SR 5/16UNF TL360
PCHR/L 20-D32-2-JHP	SR M6-R-L	LEVER PD32-2 INJ	BLD T15/S7	SW6-SD	HW 5.0	PLG G1/8 TL360	
PCHR/L 16-D40-3-JHP	SR M7-R-L	LEVER PD40 INJ	BLD T20/S7	SW6-SD	HW 5/32"		SR 5/16UNF TL360
PCHR/L 20-D40-3-JHP	SR M7-R-L	LEVER PD40 INJ	BLD T20/S7	SW6-SD	HW 5.0	PLG G1/8 TL360	

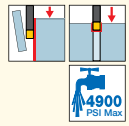
* Optional, to be ordered separately

PENTA IQ GRIP PARTING LINE

PCHR/L-D-JHP

Grooving and Parting Tools with Channels for High-Pressure Coolant Carrying Inserts with 5 Cutting Edges





	INCH												
Designation	**H**	**HF**	**HBH**	**B**	**CWN(1)**	**CWX(2)**	**WF**	**CUTDIA(3)**	**OAL**	**LH**	**HBL**	**OAH**	**CNT**
PCHR/L 12.7-D22-2-JHP	.500	0	.33	.500	.079	.094	.460	.870	3.996	1.140	1.083	1.26	UNF 5/16-24
PCHR/L 16-D22-2-JHP	.630	0	.20	.630	.079	.094	.591	.866	4.783	1.142	1.161	1.26	UNF 5/16-24
PCHR/L 19-D22-2-JHP	.750	0	.04	.750	.079	.094	.710	.870	4.783	1.140	1.161	1.26	G 1/8-28
PCHR/L 12.7-D32-2-JHP	.500	.504	.54	.500	.079	.094	.467	1.260	3.940	1.200	1.220	1.61	UNF 5/16-24
PCHR/L 16-D32-2-JHP	.630	.634	.39	.630	.079	.094	.599	1.260	4.724	1.020	1.063	1.61	UNF 5/16-24
PCHR/L 19-D32-2-JHP	.750	.754	.29	.750	.079	.094	.687	1.260	4.720	1.200	1.220	1.61	G 1/8-28
PCHR/L 16-D40-3-JHP	.630	.630	.67	.630	.118	.126	.575	1.575	5.315	1.429	1.449	2.01	UNF 5/16-24
PCHR/L 19-D40-3-JHP	.750	.750	.55	.750	.118	.126	.700	1.570	5.315	1.420	1.440	2.01	G 1/8-28

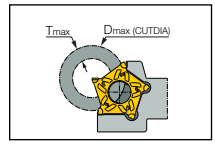
(1) Minimum cutting width
(2) Maximum cutting width
(3) Maximum workpiece diameter for grooving operation

For inserts, see pages: PENTA D-N-C (591) • PENTA D-N-J (593) • PENTA D-N-PB (595) • PENTA D-R/L-C (592) • PENTA D-R/L-J (594) • PENTA D-R/L-PB (596)
For holders, see pages: SBTH-JHP (833)

PCHR/L D22-2...-JHP Dmax for Partting Off 22/T11										
Tmax	T≤.039	T≤.079	T≤.118	T≤.157	T≤.197	T≤.236	T≤.276	T≤.315	T≤.354	T≤.394
Dmax	3.5	2.5	1.9	1.6	1.3	1.2	1.1	1.1	.9	.8

PCHR/L D32-2...-JHP Dmax for Partting Off 32/T16										
Tmax	T≤.039	T≤.079	T≤.118	T≤.157	T≤.197	T≤.236	T≤.276	T≤.315	T≤.354	T≤.394
Dmax	5.9	4.9	3.9	3.1	2.6	2.2	2.0	1.8	1.7	1.6
Tmax	T≤.433	T≤.472	T≤.512	T≤.551	T≤.591					
Dmax	1.5	1.5	1.4	1.3	1.3					

PCHR/L D40-3...-JHP Dmax for Partting Off 40/T20										
Tmax	T≤.039	T≤.079	T≤.118	T≤.157	T≤.197	T≤.236	T≤.276	T≤.315	T≤.354	T≤.394
Dmax	15.7	11.8	7.9	5.7	4.5	3.7	3.2	2.9	2.6	2.4
Tmax	T≤.433	T≤.472	T≤.512	T≤.551	T≤.591	T≤.630	T≤.669	T≤.709	T≤.748	
Dmax	2.2	2.1	2.0	1.9	1.9	1.8	1.8	1.7	1.7	



Flow Rate vs. Pressure

Designation	1015 PSI Flow Rate (GPM)	1450 PSI Flow Rate (GPM)	2030 PSI Flow Rate (GPM)
PCHR/L...-2JHP	.528-1.06	1.06-1.58	1.58-2.11
PCHR/L...-3JHP	1.85-2.38	2.38-2.90	2.90-3.43

Spare Parts

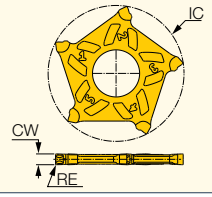
Designation							
PCHR/L 12.7-D22-2-JHP	SR M6-R-L	LEVER PD22-2 INJ	BLD T15/S7	SW6-SD	HW 5/32"		SR 5/16UNF TL360
PCHR/L 16-D22-2-JHP	SR M6-R-L	LEVER PD22-2 INJ	BLD T15/S7	SW6-SD	HW 5/32"		SR 5/16UNF TL360
PCHR/L 19-D22-2-JHP	SR M6-R-L	LEVER PD22-2 INJ	BLD T15/S7	SW6-SD	HW 5.0	PLG G1/8 TL360	
PCHR/L 12.7-D32-2-JHP	SR M6-R-L	LEVER PD32-2 INJ	BLD T15/S7	SW6-SD	HW 5/32"		SR 5/16UNF TL360
PCHR/L 16-D32-2-JHP	SR M6-R-L	LEVER PD32-2 INJ	BLD T15/S7	SW6-SD	HW 5/32"		SR 5/16UNF TL360
PCHR/L 19-D32-2-JHP	SR M6-R-L	LEVER PD32-2 INJ	BLD T15/S7	SW6-SD	HW 5.0	PLG G1/8 TL360	
PCHR/L 16-D40-3-JHP	SR M7-R-L	LEVER PD40 INJ	BLD T20/S7	SW6-SD	HW 5/32"		SR 5/16UNF TL360
PCHR/L 19-D40-3-JHP	SR M7-R-L	LEVER PD40 INJ	BLD T20/S7	SW6-SD	HW 5.0	PLG G1/8 TL360	

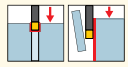
PENTA IQ GRIP PARTING LINE

PENTA D-N-C

Inserts with 5 Cutting Edges for Parting and Grooving Hard Materials, Tough and General Applications







Right hand insert shown

M E T R I C

Designation	Dimensions RE	CW	RETOL(1)	CWTOL(2)	IC	IC808G	Recommended Machining Data f groove (mm/rev)
PENTA D32N200C020	0.20	2.00	0.030	0.020	30.25	●	0.04-0.14
PENTA D32N300C020	0.20	3.00	0.030	0.020	30.25	●	0.06-0.22
PENTA D40N300C020	0.20	3.02	0.030	0.020	37.80	●	0.06-0.22

• For cutting speed recommendations and user guide, see pages 597-608

(1) Corner radius tolerance (+/-)

(2) Cutting width tolerance (+/-)

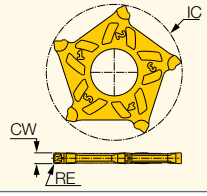
For tools, see pages: PCHR/L-D-IQ (587) • PCHR/L-D-JHP (589)

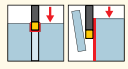
PENTA IQ GRIP PARTING LINE

PENTA D-N-C

Inserts with 5 Cutting Edges for Parting and Grooving Hard Materials, Tough and General Applications







Right hand insert shown

I N C H

Designation	Dimensions RE	CW	RETOL(1)	CWTOL(2)	IC	IC808G	Recommended Machining Data f groove (IPR)
PENTA D32N200C020	.0079	.079	.0012	.00078	1.191	●	.0016-.0055
PENTA D32N300C020	.0079	.118	.0012	.00078	1.191	●	.0024-.0087
PENTA D40N300C020	.0079	.119	.0012	.00078	1.488	●	.0024-.0087

• For cutting speed recommendations and user guide, see pages 597-608

(1) Corner radius tolerance (+/-)

(2) Cutting width tolerance (+/-)

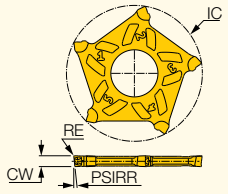
For tools, see pages: PCHR/L-D-IQ (587) • PCHR/L-D-JHP (589)

PENTA IQ GRIP PARTING LINE

PENTA D-R/L-C

Inserts with 5 Cutting Edges for Parting Hard Materials, Tough and General Applications





Right hand insert shown

M E T R I C

Designation	Dimensions CW	RE	IC	PSIRL	PSIRR	IC808G	Recommended Machining Data f groove (mm/rev)
PENTA D32L200C-6D	2.00	0.10	30.25	6.0	-	●	0.04-0.12
PENTA D32R200C-6D	2.00	0.10	30.25	-	6.0	●	0.04-0.12
PENTA D32L200C-15D	2.00	0.20	30.25	15.0	-	●	0.04-0.10
PENTA D32R200C-15D	2.00	0.20	30.25	-	15.0	●	0.04-0.10
PENTA D32L300C-6D	3.00	0.20	30.25	6.0	-	●	0.04-0.14
PENTA D32R300C-6D	3.00	0.20	30.25	-	6.0	●	0.04-0.14
PENTA D32L300C-15D	3.00	0.20	30.25	15.0	-	●	0.04-0.10
PENTA D32R300C-15D	3.00	0.20	30.25	-	15.0	●	0.04-0.10
PENTA D40L300C-6D	3.00	0.20	37.80	6.0	-	●	0.04-0.14
PENTA D40R300C-6D	3.00	0.20	37.80	-	6.0	●	0.04-0.14
PENTA D40L300C-15D	3.00	0.20	37.80	15.0	-	●	0.04-0.10
PENTA D40R300C-15D	3.00	0.20	37.80	-	15.0	●	0.04-0.10

• For cutting speed recommendations and user guide, see pages 597-608

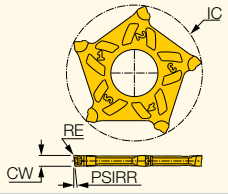
For tools, see pages: PCHR/L-D-IQ (587) • PCHR/L-D-JHP (589)

PENTA IQ GRIP PARTING LINE

PENTA D-R/L-C

Inserts with 5 Cutting Edges for Parting Hard Materials, Tough and General Applications





I N C H

Designation	Dimensions CW	RE	IC	PSIRL	PSIRR	IC808G	Recommended Machining Data f groove (IPR)
PENTA D32L200C-6D	.079	.0039	1.191	6.0	-	●	.0016-.0047
PENTA D32R200C-6D	.079	.0039	1.191	-	6.0	●	.0016-.0047
PENTA D32L200C-15D	.079	.0079	1.191	15.0	-	●	.0016-.0039
PENTA D32R200C-15D	.079	.0079	1.191	-	15.0	●	.0016-.0039
PENTA D32L300C-6D	.118	.0079	1.191	6.0	-	●	.0016-.0055
PENTA D32R300C-6D	.118	.0079	1.191	-	6.0	●	.0016-.0055
PENTA D32L300C-15D	.118	.0079	1.191	15.0	-	●	.0016-.0039
PENTA D32R300C-15D	.118	.0079	1.191	-	15.0	●	.0016-.0039
PENTA D40L300C-6D	.118	.0079	1.488	6.0	-	●	.0016-.0055
PENTA D40R300C-6D	.118	.0079	1.488	-	6.0	●	.0016-.0055
PENTA D40L300C-15D	.118	.0079	1.488	15.0	-	●	.0016-.0039
PENTA D40R300C-15D	.118	.0079	1.488	-	15.0	●	.0016-.0039

• For cutting speed recommendations and user guide, see pages 597-608

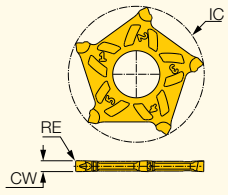
For tools, see pages: PCHR/L-D-IQ (587) • PCHR/L-D-JHP (589)

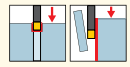
PENTA IQ GRIP PARTING LINE

PENTA D-N-J

Inserts with 5 Cutting Edges for Parting and Grooving Soft Materials, Parting Tubes, Small and Thin-Walled Parts







M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	IC	IC808G	Recommended Machining Data f groove (mm/rev)
PENTA D22N200J020	2.00	0.20	0.020	0.030	22.00	●	0.04-0.12
PENTA D22N300J020	3.00	0.20	0.020	0.030	22.00	●	0.04-0.16

- For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

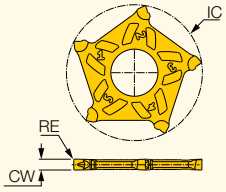
For tools, see pages: PCHR/L-D-IQ (587) • PCHR/L-D-JHP (589)

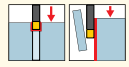
PENTA IQ GRIP PARTING LINE

PENTA D-N-J

Inserts with 5 Cutting Edges for Parting and Grooving Soft Materials, Parting Tubes, Small and Thin-Walled Parts







I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	IC	IC808G	Recommended Machining Data f groove (IPR)
PENTA D22N200J020	.079	.0079	.00078	.0012	.866	●	.0016-.0047
PENTA D22N300J020	.118	.0079	.00078	.0012	.866	●	.0016-.0063

- For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

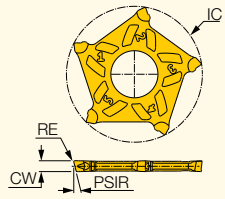
For tools, see pages: PCHR/L-D-IQ (587) • PCHR/L-D-JHP (589)

PENTA IQ GRIP PARTING LINE

PENTA D-R/L-J

Inserts with 5 Cutting Edges
for Parting Tubes, Small
and Thin-Walled Parts







Right hand insert shown

M E T R I C

Designation	Dimensions CW	RE	IC	PSIRL	PSIRR	IC808G	Recommended Machining Data f groove (mm/rev)
PENTA D22L200J-6D	2.00	0.20	22.00	6.0	-	●	0.04-0.10
PENTA D22R200J-6D	2.00	0.20	22.00	-	6.0	●	0.04-0.10
PENTA D22L200J-15D	2.00	0.20	22.00	15.0	-	●	0.04-0.08
PENTA D22R200J-15D	2.00	0.20	22.00	-	15.0	●	0.04-0.08
PENTA D22R300J-6D	3.00	0.20	22.00	-	6.0	●	0.04-0.12
PENTA D22L300J-15D	3.00	0.20	22.00	15.0	-	●	0.04-0.10
PENTA D22R300J-15D	3.00	0.20	22.00	-	15.0	●	0.04-0.10

• For cutting speed recommendations and user guide, see pages 597-608

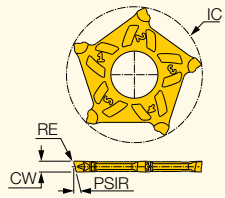
For tools, see pages: PCHR/L-D-IQ (587) • PCHR/L-D-JHP (589)

PENTA IQ GRIP PARTING LINE

PENTA D-R/L-J

Inserts with 5 Cutting Edges
for Parting Tubes, Small
and Thin-Walled Parts







Right hand insert shown

I N C H

Designation	Dimensions CW	RE	IC	PSIRL	PSIRR	IC808G	Recommended Machining Data f groove (IPR)
PENTA D22L200J-6D	.079	.0079	.866	6.0	-	●	.0016-.0039
PENTA D22R200J-6D	.079	.0079	.866	-	6.0	●	.0016-.0039
PENTA D22L200J-15D	.079	.0079	.866	15.0	-	●	.0016-.0031
PENTA D22R200J-15D	.079	.0079	.866	-	15.0	●	.0016-.0031
PENTA D22R300J-6D	.118	.0079	.866	-	6.0	●	.0016-.0047
PENTA D22L300J-15D	.118	.0079	.866	15.0	-	●	.0016-.0039
PENTA D22R300J-15D	.118	.0079	.866	-	15.0	●	.0016-.0039

• For cutting speed recommendations and user guide, see pages 597-608

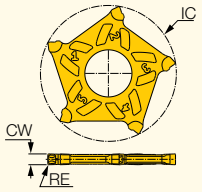
For tools, see pages: PCHR/L-D-IQ (587) • PCHR/L-D-JHP (589)

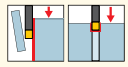
PENTA IQ GRIP PARTING LINE

PENTA D-N-PB

Pentagonal Inserts for Parting and Grooving Bearing Steel and Other Ductile Materials







M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	IC	IC808G	Recommended Machining Data f groove (mm/rev)
PENTA D40N300PB020	3.00	0.20	0.020	0.030	37.80	•	0.03-0.10

• For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

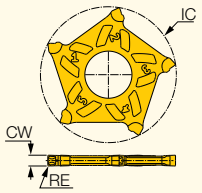
For tools, see pages: PCHR/L-D-IQ (587) • PCHR/L-D-JHP (589)

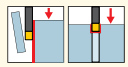
PENTA IQ GRIP PARTING LINE

PENTA D-N-PB

Pentagonal Inserts for Parting and Grooving Bearing Steel and Other Ductile Materials







I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	IC	IC808G	Recommended Machining Data f groove (IPR)
PENTA D40N300PB020	.118	.0079	.00078	.0012	1.488	•	.0012-.0039

• For cutting speed recommendations and user guide, see pages 597-608

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

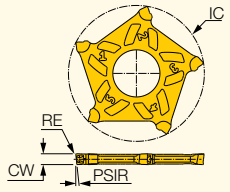
For tools, see pages: PCHR/L-D-IQ (587) • PCHR/L-D-JHP (589)

PENTA IQ GRIP PARTING LINE

PENTA D-R/L-PB

Pentagonal Inserts for Parting Bearing Steel and other Ductile Materials







Right hand insert shown

M E T R I C

Designation	Dimensions CW	RE	IC	PSIRL	PSIRR	IC808G	Recommended Machining Data f groove (mm/rev)
PENTA D40L300PB-6D	3.00	0.20	37.80	6.0	-	●	0.03-0.08
PENTA D40R300PB-6D	3.00	0.20	37.80	-	6.0	●	0.03-0.08
PENTA D40L300PB-15D	3.00	0.10	37.80	15.0	-	●	0.03-0.06
PENTA D40R300PB-15D	3.00	0.10	37.80	-	15.0	●	0.03-0.06

• For cutting speed recommendations and user guide, see pages 597-608

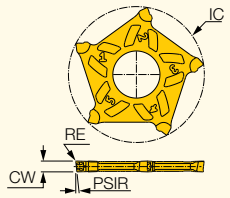
For tools, see pages: PCHR/L-D-IQ (587) • PCHR/L-D-JHP (589)

PENTA IQ GRIP PARTING LINE

PENTA D-R/L-PB

Pentagonal Inserts for Parting Bearing Steel and other Ductile Materials







I N C H

Designation	Dimensions CW	RE	IC	PSIRL	PSIRR	IC808G	Recommended Machining Data f groove (IPR)
PENTA D40L300PB-6D	.118	.0079	1.488	6.0	-	●	.0012-.0031
PENTA D40R300PB-6D	.118	.0079	1.488	-	6.0	●	.0012-.0031
PENTA D40L300PB-15D	.118	.0039	1.488	15.0	-	●	.0012-.0024
PENTA D40R300PB-15D	.118	.0039	1.488	-	15.0	●	.0012-.0024

• For cutting speed recommendations and user guide, see pages 597-608

For tools, see pages: PCHR/L-D-IQ (587) • PCHR/L-D-JHP (589)

Parting and Grooving

Selection of Inserts

For a proper match of insert and cutting material to application, the following variables must be taken into consideration:

- Width of cut (width of insert)
- Chipformer style
- Lead angle
- Corner radius
- Carbide grade

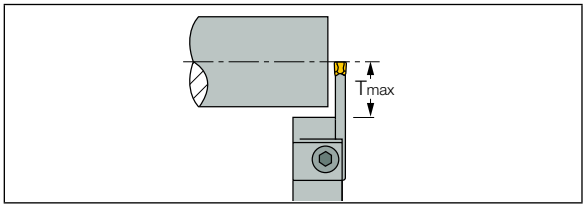
Width of Cut (W.O.C.) and Depth of Cut (D.O.C.)

In selecting **W.O.C.**, the main factor to consider is the required **D.O.C.** The ratio **D.O.C.**≈ 8x**W.O.C.** is of practical use on alloy steel of average machinability. For example, applying a 3 mm (.118″) **W.O.C.** insert **TAG N3C** to cut-off a 48 mm (1.89″) solid bar.
Additional factors which affect **D.O.C.** capacity, relative to the ratio, are:

Holder Or Blade Size

To minimize risk of vibration and deflection always choose:

- Blade or toolholder with smallest possible overhang.
- Toolholder with maximum shank dimension.
- Blade height (B) dimension which is larger than Tmax.
- Blade or holder with maximum blade width (largest possible insert seat size).
  Example:
- A **W.O.C.** 9.5 mm (.375″) on blade TGFH 53K-9 (B=52.6 mm, 2.07″) extends the ratio of **D.O.C.** to **W.O.C.** by some 50% to 120 mm (4.72″).



Insert Support

A self-clamped tool is recommended for deep radial machining. A screw-clamp holder is recommended for axial and small **D.O.C.** machining.

90˚ Mounting

It is very important that the insert is mounted at 90º to the center line of the workpiece in order to obtain perpendicular surfaces and reduce the risk of vibration.

Workpiece Machinability

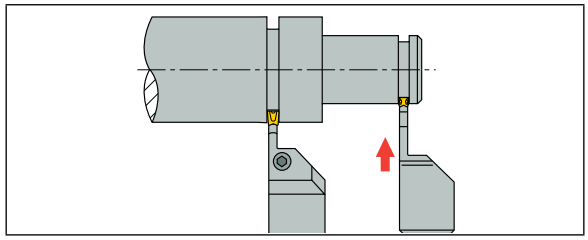
The workpiece material affects all of the above factors.

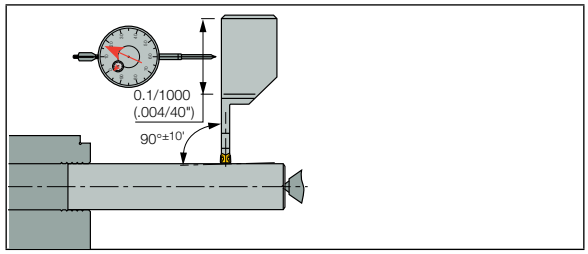
Machine Power and Setup Rigidity

Excessive **W.O.C.** on a light-duty machine will yield vibration and may even stop spindle rotation.

Expensive Workpiece Material

On costly metals the narrowest applicable **W.O.C.** should be used.



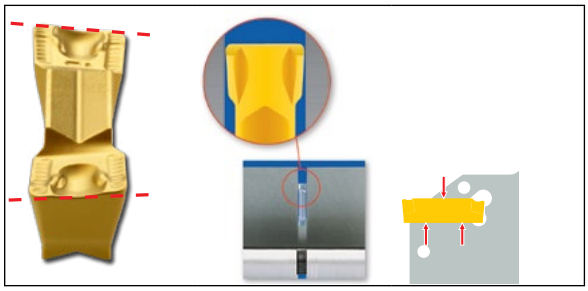


Insert Positioning

The Twisted Insert for Parting and Grooving Applications

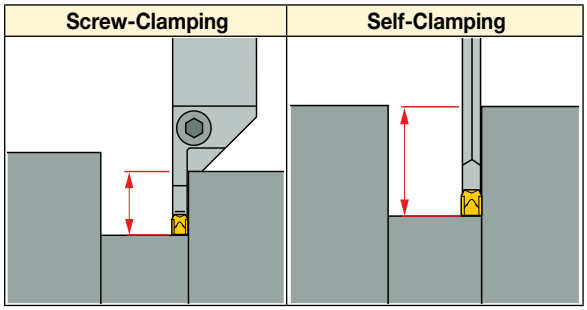
Machining depths longer than insert length is made possible with the double-ended, twisted insert body.

The rear edge is slanted in relation to the frontal edge so it does not come into contact with the machined groove surface when the tool penetrates deeply into the workpiece.



Clamping

Extended, prismatic surfaces guarantee reliable, foolproof clamping even in unstable machining conditions.

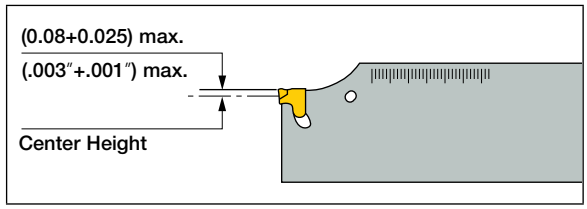


Small diameters **(D.O.C.)** with screw-clamped Inserts

Large diameters **(D.O.C.)** with self-clamped Inserts

Setup

- The optimal cutting edge height above the center of **TANG-GRIP** tools is up to 0.08 mm + 0.025 mm (.003″ + .001″) **W.O.C.**, an advantage when cutting solid bar to center
- Cut-off as close to chuck as possible
- On new applications, first machine in the low or middle range of recommended speeds and feeds Machining
- Consistency of speed and feed improves performance
- Apply coolant abundantly
- Secure inserts into clean pockets
- Cutting forces on soft workpiece materials may be insufficient to push insert well into pocket. Tap insert into place using a plastic hammer
- On a conventional lathe, lock the carriage to prevent axial motion during cut-off

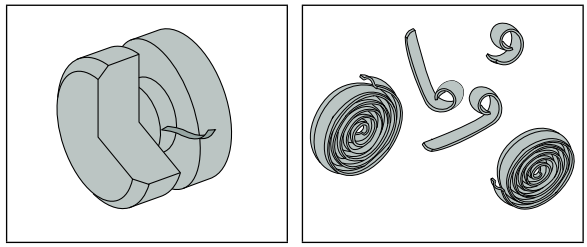


Usage

- Replace worn inserts promptly, the price of a new one is much less than the risk of damage from continuing with one that is worn out
- Replace blades that have worn or damaged pockets
- Never try to repair damaged pockets
- Chip curling is dependent on the chipformer type and the machining conditions

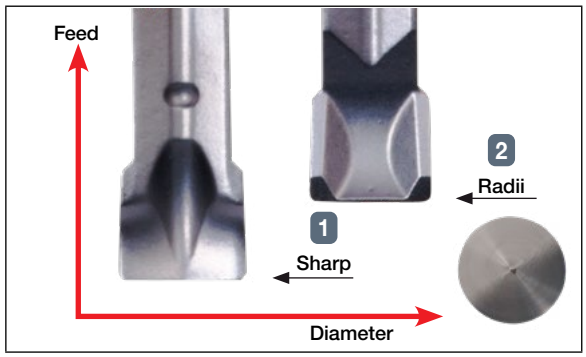
Chipformer Features

- Narrows the chip
- Eliminates friction with groove walls, prevents chip jam overload
- Permits higher feeds
- Produces unscratched surfaces, eliminating additional facing
- Curls the chips into compact spirals for easy disposal



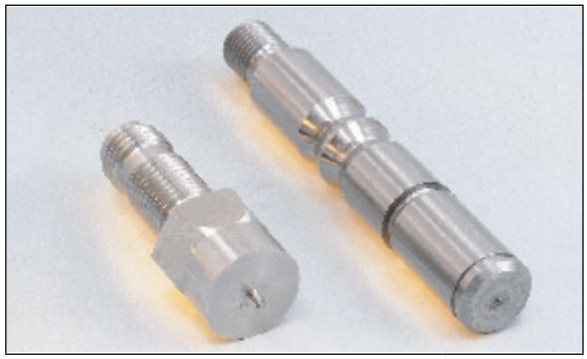
Selection of Corner Radius

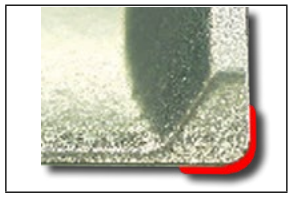
1. A smaller corner radius (r) will reduce the load on the workpiece and produce a smaller size burr
2. At the same time, a large corner radius allows for higher feeds and increased tool life

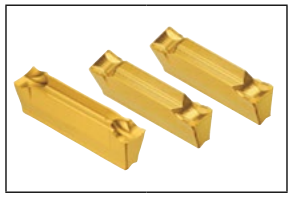


Standard Corner Radius

- Standard medium corner size
- For general applications and materials





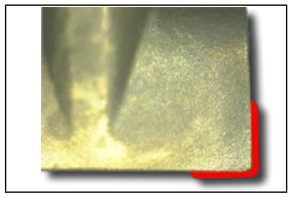


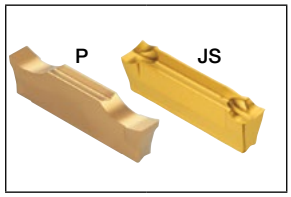
Medium (Standard) Corner Radius

"S" Sharp Corners

- Cutting edge with positive rake and sharp corners
- When a minimum burr (pip) size is essential
- For small feeds
- For small diameters or thin walls
- For CNCs, multi-spindle and screw machines



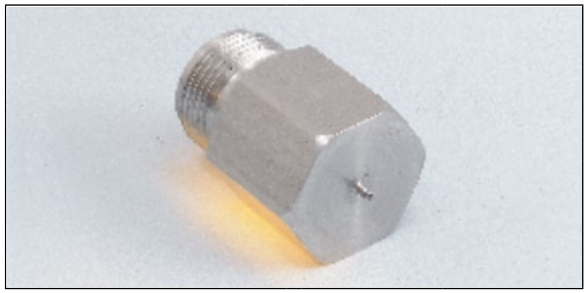


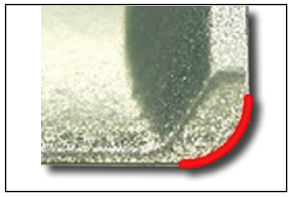


Sharp Corner

"B" Large Corner Radius

- Reinforced corners with stronger cutting edge
- For tough applications and interrupted cuts



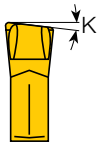
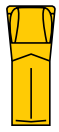
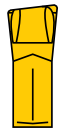


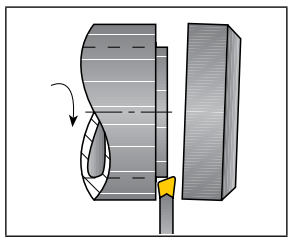


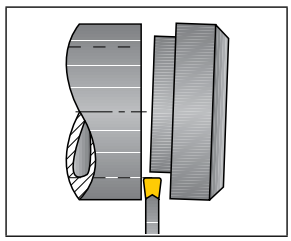
Large Corner Radius

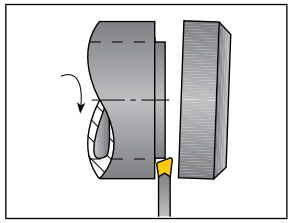
Lead Angle

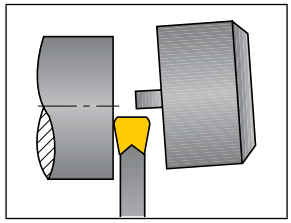
Lead angle **(K)** on cut-off inserts reduces size of burr remaining on workpiece. Increasing the lead angle reduces the burr, but also reduces possible feed rates and tool life. Therefore, neutral inserts are recommended for parts on which a burr is tolerated.
Insert designations such as **TAG R... DGR (R.H.)** and **TAG L... DGL (L.H.)** comply with standard terms for turning direction. When looking toward the chuck from the workpiece, **R.H.**=counterclockwise **(C.C.)** rotation of workpiece and **L.H.**=clockwise **(C)** rotation of workpiece. **C.C.** requires right-hand inserts; C requires left-hand inserts. A neutral insert with 0º lead angle increases **D.O.C.** capacity.

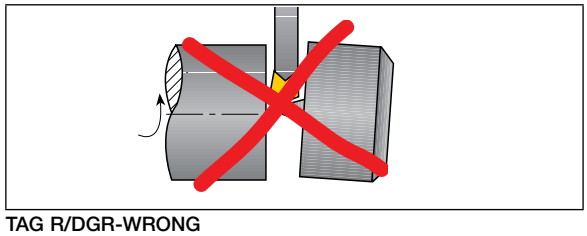
Left	Neutral	Right
TAG L/DGL	TAG N/DGN	TAG R/DGR
		


TAGR/GFR/DGR

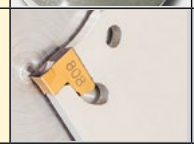

TAGR/GFN/DGN


TAG R/DGR


TAG N/DGN

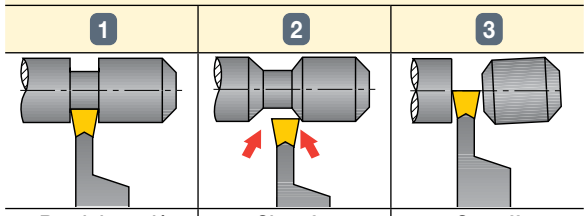

TAG R/DGR-WRONG

Neutral Insert vs. Lead Angle Type

		
Lifetime		✔
Chip Control		✔
Burr Size		✔
Surface Finish		✔
Part Straightness		✔

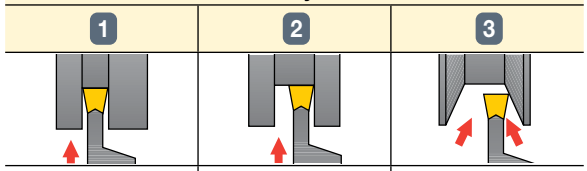
General Rules for Specific Applications

Chamfer and Cut-Off



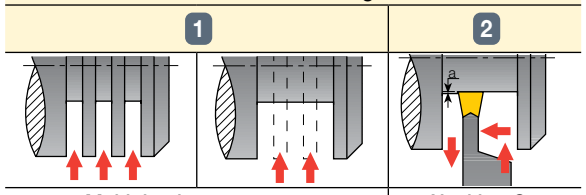
1	2	3
Break in and/ or groove	Chamfer	Cut-off

V-Belt Pulley Grooves



1	2	3
Break in	Multiple plunge to depth at minor width of groove	Bevel, plunge and turn to minor diameter

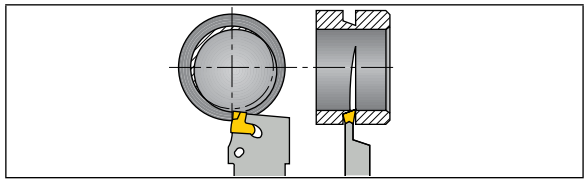
Neck Recessing



1	2
Multiple plunge grooves	Necking On neck turning, DOC (a)=up to size of insert corner radius

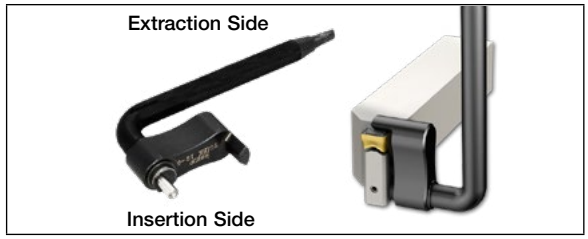
Parting on Eccentric Tubes

Inserts with 4° lead angle are usually recommended for tubes. However, the combination of eccentric bore and machine resiliency may increase feed-snap on breakthrough and damage the cutting edge. Changing to 6° lead angle inserts will moderate breakthrough. Alternatively, inserts with an extra negative rake-land that strengthens the cutting edge are available on request.

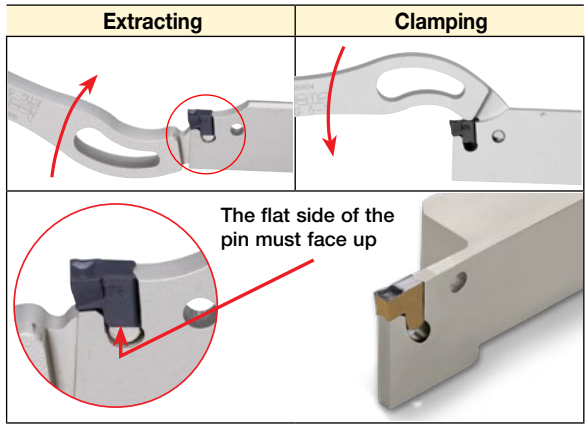


Clamping / Extraction Instructions

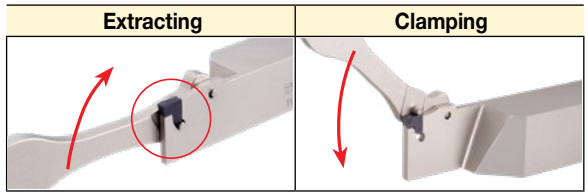
TANG-GRIP The tools are equipped with a user-friendly clamping and extraction device.



ETG 8-12 Extractor for 8 to 12.7 mm (.315″ to .500″) inserts



ETG 5-7 (for 5-7 mm, .197-.276″ tools)
ETG 2 (for 2 mm, .079″ tools)
ETG 1.4 (for 1.4 mm, .055″ tools)



ETG 3-4 (for 3 and 4 mm, .118″ and .157″ tools)

Machining Data and Parting Speed Recommendations (metric)

ISO	Material		Condition	Tensile Strength [N/mm²]	Hardness HB	Material Group No.
P	non-alloy steel and cast steel, free cutting steel	<0.25% C	annealed	420	125	1
		≥0.25% C	annealed	650	190	2
		<0.55% C	quenched and tempered	850	250	3
		≥0.55% C	annealed	750	220	4
			quenched and tempered	1000	300	5
	low alloy and cast steel (less than 5% of alloying elements)		annealed	600	200	6
			quenched and tempered	930	275	7
				1000	300	8
				1200	350	9
	high alloyed steel, cast steel and tool steel		annealed	680	200	10
			quenched and tempered	1100	325	11
	stainless steel and cast steel		ferritic / martensitic	680	200	12
			martensitic	820	240	13
M	stainless steel and cast steel		austenitic, duplex	600	180	14
N	aluminum-wrought alloys		not hardenable		60	21
			hardenable		100	22
	aluminum-cast alloys	≤12% Si	not hardenable		75	23
			hardenable		90	24
		>12% Si	high temperature		130	25
	copper alloys	>1% Pb	free cutting		110	26
			brass		90	27
			electrolytic copper		100	28
	non metallic		duroplastics, fiber plastics			29
			hard rubber			30
S	high temperature alloys	Fe based	annealed		200	31
			hardened		280	32
		Ni or Co based	annealed		250	33
			hardened		350	34
			cast		320	35
	titanium alloys		pure	RM 400		36
			alpha+beta alloys, hardened	RM 1050		37
H	hardened steel		hardened		55 HRC	38
			hardened		60 HRC	39
	chilled cast iron		cast		400	40
	cast iron		hardened		55 HRC	41

Material Group No.	IC907/807	IC30N	IC354	IC1010/ IC908/808/1008	IC5400	IC1030/ IC830/928/1028	IC328
1	160 - 240	130 - 190	115 - 170	135 - 200	110 - 160	100 - 150	95 - 140
2	150 - 205	120 - 160	105 - 145	125 - 170	100 - 135	95 - 125	85 - 120
3	115 - 170	90 - 135	80 - 120	95 - 140	75 - 110	70 - 105	65 - 100
4	125 - 190	100 - 150	90 - 135	105 - 160	85 - 130	80 - 120	75 - 110
5	100 - 160	80 - 130	70 - 115	85 - 135	70 - 110	65 - 100	60 - 95
6	125 - 190	100 - 150	90 - 135	105 - 160	85 - 130	80 - 120	75 - 110
7	100 - 170	80 - 135	70 - 120	85 - 140	70 - 110	65 - 105	60 - 100
8	100 - 160	80 - 130	70 - 115	85 - 135	70 - 110	65 - 100	60 - 95
9	90 - 150	70 - 120	65 - 105	75 - 125	60 - 100	55 - 95	50 - 85
10	150 - 205	120 - 160	105 - 145	125 - 170	100 - 135	95 - 125	85 - 120
11	90 - 150	70 - 120	65 - 105	75 - 125	60 - 100	55 - 95	50 - 85

	IC20N	IC907/807	IC808	IC908	IC5400	IC830/928/1028	IC328
12	170 - 300	115 - 210	110 - 200	105 - 190	85 - 150	80 - 140	75 - 135
13	150 - 290	105 - 200	100 - 190	95 - 180	75 - 145	70 - 135	65 - 125

	IC20N	IC907/807	IC808	IC908	IC5400	IC830/928/1028	IC328
14	140 - 260	95 - 175	90 - 170	85 - 160	70 - 130	65 - 120	60 - 110

	IC907/807	IC908/808	IC20				
21	360 - 1080	330 - 990	300 - 900				
22	270 - 900	250 - 825	225 - 750				
23	270 - 900	250 - 825	225 - 750				
24	180 - 540	165 - 495	150 - 450				
25	180 - 360	165 - 330	150 - 300				
26	180 - 360	165 - 330	150 - 300				
27	130 - 270	120 - 250	110 - 225				
28	90 - 180	80 - 165	75 - 150				
29	40 - 180	40 - 165	35 - 150				

	IC807	IC907	IC908	IC808	IC830/328/928/1028	IC20	
31	50 - 70	45 - 70	40 - 60	40 - 65	30 - 45	30 - 40	
32	35 - 55	35 - 50	30 - 45	30 - 45	20 - 35	20 - 30	
33	35 - 55	35 - 50	30 - 45	30 - 45	20 - 35	20 - 30	
34	30 - 50	30 - 45	25 - 40	25 - 40	20 - 30	15 - 30	
35	25 - 35	25 - 35	20 - 30	20 - 30	15 - 20	15 - 20	
36	115 - 190	110 - 185	95 - 160	100 - 170	70 - 120	65 - 110	
37	40 - 50	40 - 50	35 - 45	35 - 45	30 - 40	40 - 50	

	IC807	IC907	IC808	IC908			
38	35-45	30-40	30-40	25-35			
39	30-40	25-35	25-35	20-30			
40	45-65	40-60	40-60	30-50			
41	40-50	35-45	35-45	30-40			

Machining Data and Parting Speed Recommendations (Imperial)

ISO	Material		Condition	Tensile Strength [ksi]	Hardness HB	Material Group No.
P	non-alloy steel and cast steel, free cutting steel	<0.25% C	annealed	61	125	1
		≥0.25% C	annealed	94	190	2
		<0.55% C	quenched and tempered	123	250	3
		≥0.55% C	annealed	109	220	4
			quenched and tempered	145	300	5
	low alloy and cast steel (less than 5% of alloying elements)		annealed	87	200	6
			quenched and tempered	135	275	7
				145	300	8
				174	350	9
	high alloyed steel, cast steel and tool steel		annealed	99	200	10
			quenched and tempered	160	325	11
P	stainless steel and cast steel		ferritic / martensitic	99	200	12
			martensitic	119	240	13
M	stainless steel and cast steel		austenitic, duplex	87	180	14
N	aluminum-wrought alloys		not hardenable		60	21
			hardenable		100	22
	aluminum-cast alloys	≤12% Si	not hardenable		75	23
			hardenable		90	24
		>12% Si	high temperature		130	25
	copper alloys	>1% Pb	free cutting		110	26
			brass		90	27
			electrolytic copper		100	28
	non metallic		duroplastics, fiber plastics			29
			hard rubber			30
S	high temperature alloys	Fe based	annealed		200	31
			hardened		280	32
		Ni or Co based	annealed		250	33
			hardened		350	34
			cast		320	35
	titanium alloys		pure	58	190	36
			alpha+beta alloys, hardened	152	310	37
H	hardened steel		hardened		55 HRC	38
			hardened		60 HRC	39
	chilled cast iron		cast		400	40
	cast iron		hardened		55 HRC	41

Material Group No.	IC907/807	IC30N	IC354	IC1010/ IC908/808/1008	IC5400	IC1030/ IC830/928/1028	IC328
1	525 - 785	425 - 625	375 - 560	445 - 655	360 - 525	330 - 490	310 - 460
2	490 - 675	395 - 525	345 - 475	410 - 560	330 - 445	310 - 410	280 - 395
3	375 - 560	295 - 445	260 - 395	310 - 460	245 - 360	230 - 345	215 - 330
4	410 - 625	330 - 490	295 - 445	345 - 525	280 - 425	260 - 395	245 - 360
5	330 - 525	260 - 425	230 - 375	280 - 445	230 - 360	215 - 330	195 - 310
6	410 - 625	330 - 490	295 - 445	345 - 525	280 - 425	260 - 395	245 - 360
7	330 - 560	260 - 445	230 - 395	280 - 460	230 - 360	215 - 345	195 - 330
8	330 - 525	260 - 425	230 - 375	280 - 445	230 - 360	215 - 330	195 - 310
9	295 - 490	230 - 395	215 - 345	245 - 410	195 - 330	180 - 310	165 - 280
10	490 - 675	395 - 525	345 - 475	410 - 560	330 - 445	310 - 410	280 - 395
11	295 - 490	230 - 395	215 - 345	245 - 410	195 - 330	180 - 310	165 - 280

	IC20N	IC907/807	IC808	IC908	IC5400	IC830/928/1028	IC328
12	560 - 985	375 - 690	360 - 655	345 - 625	280 - 490	260 - 460	245 - 445
13	490 - 950	345 - 655	330 - 625	310 - 590	245 - 475	230 - 445	215 - 410

	IC20N	IC907/807	IC808	IC908	IC5400	IC830/928/1028	IC328
14	460 - 855	310 - 575	295 - 560	280 - 525	230 - 425	215 - 395	195 - 360

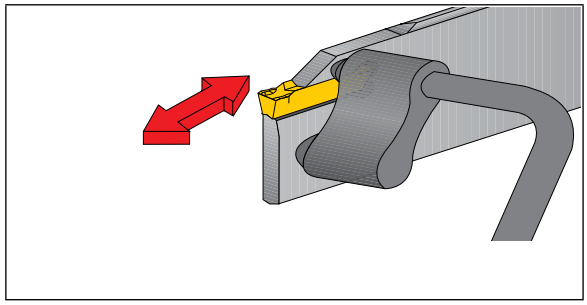
	IC907/807	IC908/808	IC20				
21	1180 - 3545	1085 - 3250	985 - 2955				
22	885 - 2955	820 - 2705	740 - 2460				
23	885 - 2955	820 - 2705	740 - 2460				
24	590 - 1770	540 - 1625	490 - 1475				
25	590 - 1180	540 - 1085	490 - 985				
26	590 - 1180	540 - 1085	490 - 985				
27	425 - 885	395 - 820	360 - 740				
28	295 - 590	260 - 540	245 - 490				
29	130 - 590	130 - 540	115 - 490				
30							

	IC807	IC907	IC908	IC808	IC830/328/928/1028	IC20	
31	165 - 230	150 - 230	130 - 195	130 - 215	100 - 150	100 - 130	
32	115 - 180	115 - 165	100 - 150	100 - 150	65 - 115	65 - 100	
33	115 - 180	115 - 165	100 - 150	100 - 150	65 - 115	65 - 100	
34	100 - 165	100 - 150	80 - 130	80 - 130	65 - 100	50 - 100	
35	80 - 115	80 - 115	65 - 100	65 - 100	50 - 65	50 - 65	
36	375 - 625	360 - 605	310 - 525	330 - 560	230 - 395	215 - 360	
37	130 - 165	130 - 165	115 - 150	115 - 150	100 - 130	130 - 165	

	IC807	IC907	IC808	IC908			
38	115 - 150	100 - 130	100 - 130	80 - 115			
39	100 - 130	80 - 115	80 - 115	65 - 100			
40	150 - 215	130 - 195	130 - 195	100 - 165			
41	130 - 165	115 - 150	115 - 150	100 - 130			

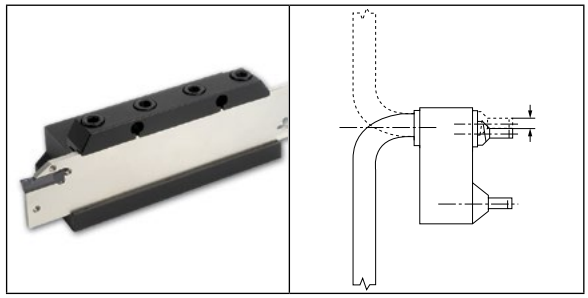
Clamping / Extraction Instructions

Extractor for DGN/R/L Double-Ended Inserts
Do-Grip Insert Clamping/Extracting

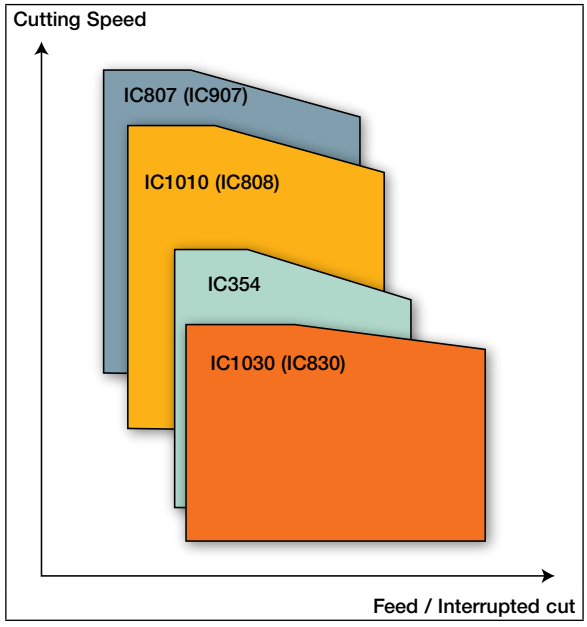


Extracting the insert

Eccentric Extractor for Insert Indexing
Simple to operate; controlled rotation requires low force; guarantees limited upper jaw movement and secures maximum load on blade.



Grade Application Range

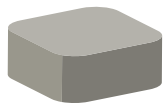
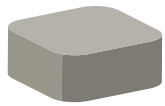
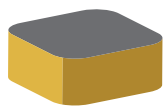
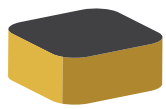
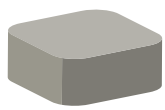
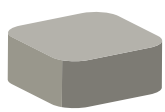


Selection Guide for Parting Grades

Material Groups		ISO P		ISO M	ISO N	ISO S	ISO H
		1-11	12-13	14	21-28	31-37	38-41
		Steel	Stainless Steel Ferritic & Martensitic	Stainless Steel Austenitic & Duplex (Ferritic - Austenitic)	Non-ferrous	High Temperature Alloys	Hard Steel & Cast Iron
PARTING	Harder	IC807 (IC907)	IC807 (IC907)	IC807 (IC907)	**IC20**	**IC807 (IC907)**	**IC807 (IC907)**
			IC808	IC808		IC20	
		IC808	IC1010	IC1010		IC808	IC808
		IC1010	IC5400	IC5400		IC1010	IC1010
		IC830	**IC830**	IC830		IC830	
	Tougher	IC1030	IC1030	**IC1030**		IC1030	

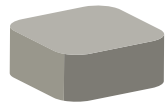
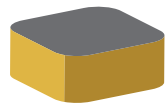
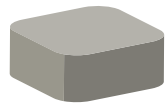
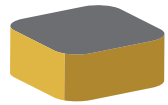
■ First choice

Parting Materials Grades Chart

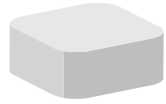
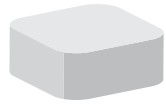
		Grade	ISO	Grade Description	Coating Layers	Coating Color*
Tough	PVD COATED	IC1030	P30-P45 M25-M40	A tough substrate with PVD coating, suitable for machining steel and stainless steel at low to medium cutting speeds and moderate to high feeds. Recommended for interrupted cuts and machining under unstable conditions.	TiN AlTiN Base	
		IC328	P30-P45 M25-M40	A tough substrate with PVD coating, suitable for a wide range of applications on steels and stainless steel at low to medium speeds and medium to high feeds. The grade is recommended for interrupted cuts and machining under unstable conditions.	AlTiN Base	
		IC928	P30-P45 M25-M40	A tough substrate with PVD coating, suitable for machining steel and stainless steel at low to medium cutting speeds and moderate to high feeds. The grade is recommended for interrupted cuts and machining under unstable conditions.	AlTiCrN Base	
		IC1028	P30-P45 M25-M40	A tough substrate with PVD coating, suitable for machining steel and stainless steel at low to medium cutting speeds and moderate to high feeds. The grade is recommended for interrupted cuts and machining under unstable conditions.	TiN AlTiCrN Base	
		IC830	P30-P45 M25-M40	A tough substrate with PVD coating and a special SUMOTEC surface treatment. Suitable for machining steel and stainless steel at low to medium cutting speeds and moderate to high feeds. The grade features high toughness and recommended for interrupted cuts and machining under unstable conditions. May be used on high temperature alloys at low cutting speeds.	TiN TiAlN Base	
	CVD COATED	IC5400	P30-P45 M25-M45	A tough substrate with MTCVD coating and a special SUMOTEC post coating treatment. Suitable for machining steel and stainless steel at low to medium cutting speeds and moderate to high feeds under stable and unstable machining conditions.	TiN Al_2O_3 TiCN Base	
	PVD COATED	IC354	P20-P40 M20-M30	A tough substrate with PVD coating, suitable for general use on a wide range of carbon steels, alloy steels and stainless steel at moderate speeds and feeds.	AlTiN Base	
Hard		IC308	P15-P30 S15-S30	A tough submicron grain size substrate with PVD coating. Suitable for steel, alloy steels and stainless steel at low to medium cutting speeds under stable conditions.	AlTiN Base	

* For coated grades

Parting Materials Grades Chart

		Grade	ISO	Grade Description	Coating Layers	Coating Color*
Tough	PVD COATED	IC1010	P15-P30 M20-M30 K20-K40 S15-S30 H20-H30	A tough submicron grain size substrate with PVD coating. Recommended for general use on a wide range of applications and materials such as steels, alloy steels, austenitic stainless steel and high temperature alloys at moderate cutting speeds and low to medium feeds. The grade features improved toughness and wear resistance which extends tool life.	TiN AlTiN Base	
		IC1008	P15-P30 M20-M30 K20-K40 S15-S30 H20-H30	A tough submicron grain size substrate with PVD coating. Recommended for general use on a wide range of applications and materials as steels, alloy steels, austenitic stainless steel and high temperature alloys at moderate cutting speeds.	TiN TiAlN Base	
		IC908	P15-P30 M20-M30 K20-K40 S15-S30 H20-H30	A tough submicron grain size substrate with PVD coating, recommended general use in a large variety of operations and materials such as steels, alloy steels, austenitic stainless steel and high temperature alloys at moderate cutting speeds. Features high wear resistance and chipping durability.	TiAlN Base	
		IC808	P15-P30 M20-M30 K20-K40 S15-S30 H20-H30	A tough submicron grain size substrate with PVD coating and a special SUMOTEC surface treatment. Recommended for general use for a large variety of applications and materials such as steels, alloy steels, austenitic stainless steel and high temperature alloys at moderate cutting speeds and feeds. Features high wear resistance and chipping durability.	TiN TiAlN Base	
		IC907	P10-P20 M05-M15 K15-K30 S10-S20 H05-H15	A hard submicron grain size substrate with PVD coating, suitable for a wide range of materials such as steels, alloy steels, hard steels, austenitic stainless steel and heat resistant alloys at moderate to relatively high cutting speeds under stable conditions. Features high wear resistance and plastic deformation durability.	TiAlN Base	
		IC807	P10-P20 M05-M15 K15-K30 S10-S20 H05-H15	A hard submicron grain size substrate with PVD coating and a special SUMOTEC surface treatment. Suitable for machining steels, alloy steels, austenitic stainless steel, high temperature alloys and hard steels at moderate to relatively high cutting speeds under stable conditions. Features high wear resistance and plastic deformation durability.	TiN TiAlN Base	
Hard						

* For coated grades

	Grade	ISO	Grade Description	Uncoated Layers	Uncoated
CERMET	IC30N	P10-P30 M10-M20 	A tough cermet grade, suitable for machining, steels and stainless steel at medium to high cutting speeds and low feeds. Features excellent surface finish, very good wear resistance and prevents built-up edge.	Base	
UNCOATED	IC20	 K10-K20 N05-N25 S10-S20 H10-H20	A hard-uncoated carbide grade for machining aluminum and other non-ferrous materials at medium to high cutting speeds. Can be used for cast iron at low cutting speeds. Suitable also for machining high temperature and Titanium alloys, at low cutting speeds.	Base	

FACE GROOVING



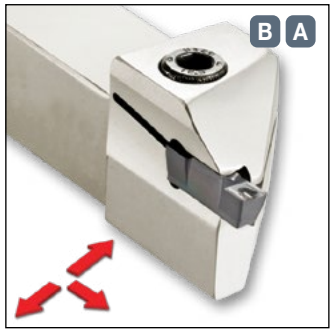
Small Diameter
Face Machining Systems (Metric-Imperial)



Tool: HGHR/L see page 630
Insert: GRIP... / HGPL...

CW = 3-6.35 mm (.118-.25″)
CDX = 6 mm (.236″)
DAXN = 12 mm (.472″)

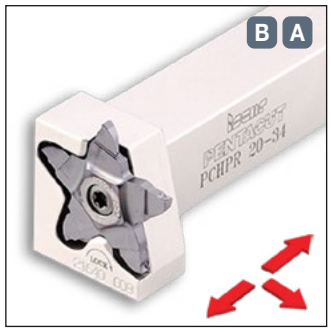
Integral shank toolholder with double-ended inserts.
Used for face grooving and face turning of small parts for 12 mm (.472″) minimum groove diameter.



Tool: HFHR/L..-M
Insert: HFPR/L...

CW = 3-6 mm (.118-.236″)
CDX = 5.3 mm (.209″)
DAXN = 20 mm (.787″)

Integral toolholders carrying **HELIFACE** and GRIP inserts.
For machining up to 5.3 mm (.209″) depth of cut. 3-6 mm (.118-.236″) wide inserts can be mounted in the same pocket.



Tool: PCHPR/L see page 551
Insert: PENTA 34F...

CW = 2.39-4 mm (.094-.157″)
CDX = 5 mm (.196″)
DAXN = 22 mm (.866″)

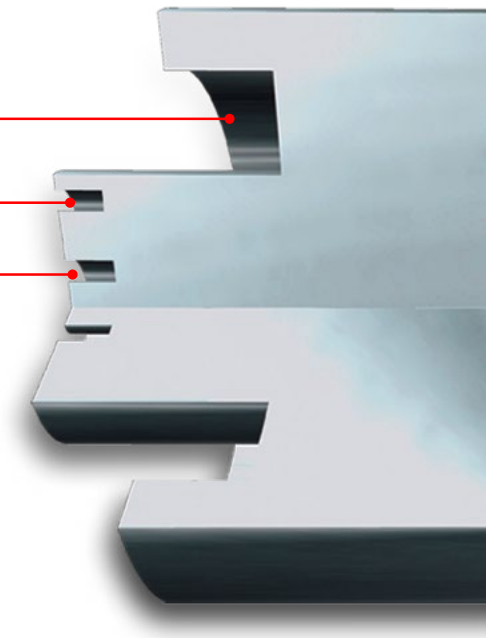
Pentagonal insert for face grooving and recessing up to 5 mm (.196″) depth of cut at a minimum of 22 mm (.866″) diameter.

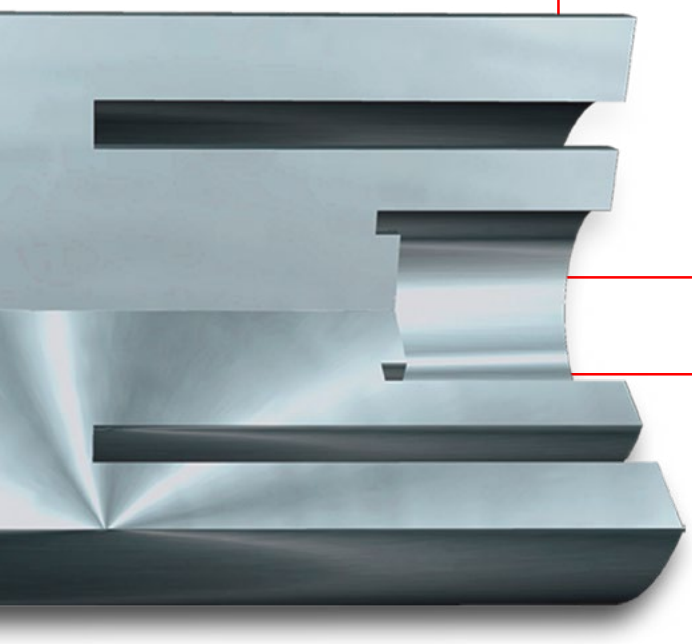


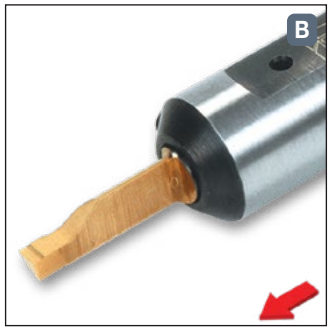
Tool: PICCO R010 see page 615

CW = 1-5 mm (.094-.157″)
CDX = 6 mm (.196″)
DAXN = 6 mm (.866″)

Small solid carbide bars for machining shallow grooves from 6 mm (.196″) minimum diameter.







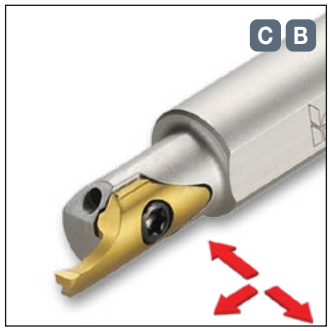
Tool: PICCO R015 see page 624

CW = 2.5-3 mm (.098-.118″)

CDX = 30 mm (1.181″)

DAXN = 8 mm (.590″)

Small solid carbide bars for machining deep face grooves of up to 30 and 8 mm (1.181″ and .590″) minimum diameter.



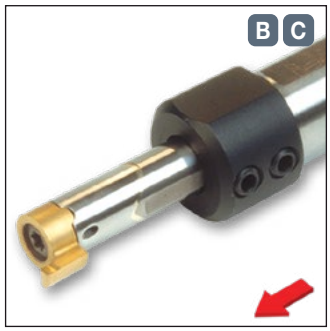
Tool: MIFHR ... see page 404
Insert: MIFR ...

CW = 1.5-3.5 mm (.059-.138″)

CDX = 5.5 mm (.217″)

DAXN = 8 mm (.315″)

MINCUT-A family of internal face grooving and face turning tools for machining small diameters ranging from 8-60 mm (.315 - 1.34″). Strong and stable tangential pocket with internal coolant.



Tool: MGCH 09C see page 625
Insert: GFQR...

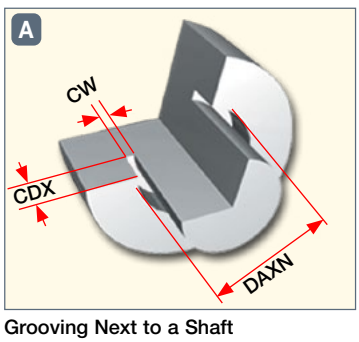
CW = 1-2.5 mm (.039-.098″)

CDX = 3 mm (.118″)

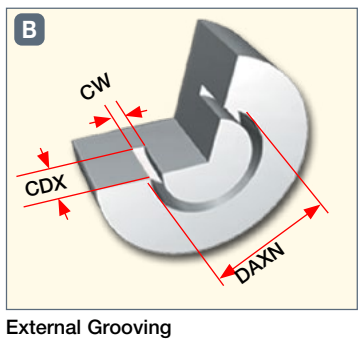
DAXN = 12 mm (.472″)

A screw-clamped insert on an internal coolant solid carbide bar.
Used for machining shallow grooves from 12 mm (.472″) minimum diameter.

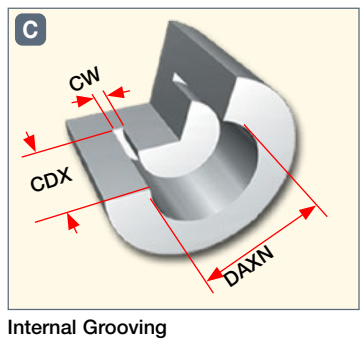
Main Applications



Grooving Next to a Shaft

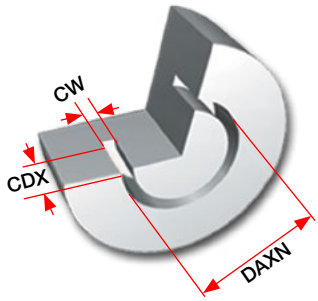


External Grooving

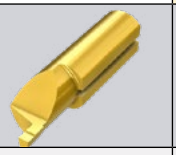


Internal Grooving

Face Grooving - User Guide (Metric-Imperial)
A Variety of Inserts for Face Machining Applications



Face Grooving DAXN 6–12 mm (.236-.472")

		DAXN	DAXX	CWN	CWX	CDX	Page
Picco		6 .236	-	1 .039	3 .118	30 1.181	613-624
MIFR/MEFL		8 .315	-	1.5 .059	3.5 .138	15 .59	628-629
GFQR		12 .472	19 .75	1 .039	2.5 .098	3 .118	626
HGPL		12 .472	∞	3 .118	6 .236	∞	631

Face Grooving DAXN 22 mm (.87")

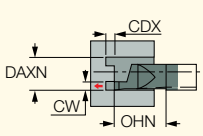
		DAXN	DAXX	CWN	CWX	CDX	Page
PENTA 34F		22 .87	∞	2.39 .094	4 1.57	5 .197	632

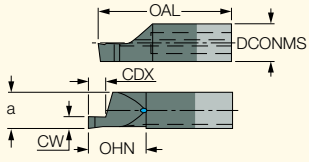
PICCOJET
COOLANT THROUGH

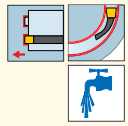
PICJ R/LF-D6/8-T
(Face Grooving)

Inserts with an Internal Coolant Channels for Face Grooving









M E T R I C

Designation	Dimensions							IC908	Recommended Machining Data
	DAXN(1)	CW	CDX	DCONMS	OHN(2)	OAL	a		f face-groove (mm/rev)
PICJ RF10D6T1.5-10	6.0	1.00	1.50	6.00	11.0	26.00	5.20	●	0.01-0.04
PICJ RF15D6T2.0-10	6.0	1.50	2.00	6.00	11.0	26.00	5.20	●	0.01-0.04
PICJ LF15D8T2.5-20	8.0	1.50	2.50	7.00	21.0	35.00	5.90	●	0.01-0.04
PICJ RF10D8T1.5-10-6	8.0	1.00	1.50	6.00	11.0	26.00	5.20	●	0.01-0.04
PICJ RF10D8T1.5-20-7	8.0	1.00	1.50	7.00	21.0	35.00	5.90	●	0.01-0.04
PICJ RF10D8T1.5-30-7	8.0	1.00	1.50	7.00	30.0	45.00	5.90	●	0.01-0.04
PICJ RF15D8T2.5-10-6	8.0	1.50	2.50	6.00	11.0	26.00	5.20	●	0.01-0.04
PICJ RF15D8T2.5-20-6	8.0	1.50	2.50	6.00	20.0	35.00	5.20	●	0.01-0.04
PICJ RF15D8T2.5-30-7	8.0	1.50	2.50	7.00	30.0	45.00	5.90	●	0.01-0.04
PICJ RF20D8T3.0-10-6	8.0	2.00	3.00	6.00	11.0	26.00	5.20	●	0.02-0.05
PICJ RF20D8T3.0-20-6	8.0	2.00	3.00	6.00	20.0	35.00	5.20	●	0.02-0.05
PICJ R/LF20D8T3.0-30-7	8.0	2.00	3.00	7.00	30.0	45.00	5.90	●	0.02-0.05
PICJ RF25D8T3.5-10-6	8.0	2.50	3.50	6.00	11.0	26.00	5.20	●	0.02-0.05
PICJ RF25D8T3.5-20-7	8.0	2.50	3.50	7.00	21.0	35.00	5.90	●	0.02-0.05
PICJ RF30D8T3.5-10-6	8.0	3.00	3.50	6.00	11.0	26.00	5.20	●	0.02-0.06
PICJ RF30D8T3.5-20-6	8.0	3.00	3.50	6.00	21.0	35.00	5.20	●	0.02-0.06
PICJ RF30D8T3.5-30-7	8.0	3.00	3.50	7.00	30.0	45.00	5.90	●	0.02-0.06

- Only right-hand inserts are available as standard • All inserts are with sharp corners • For detailed cutting data, see pages 633-638
- PICJ items are suitable for PICCO/MG PCO, PICCO ACE, SC-PICCO type holders only

(1) Minimum axial grooving diameter

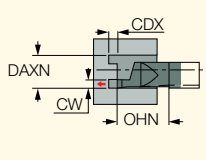
(2) Minimum overhang

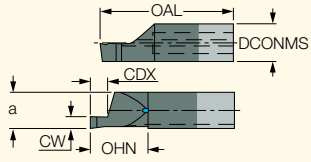
PICCOJET
COOLANT THROUGH

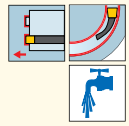
PICJ R/LF-D6/8-T
(Face Grooving)

Inserts with an Internal Coolant Channels for Face Grooving









I N C H

Designation	Dimensions DAXN(1)	CW	CDX	DCONMS	OHN(2)	OAL	a	IC908	Recommended Machining Data f face-groove (IPR)
PICJ RF10D6T1.5-10	.24	.039	.059	.236	.43	1.024	.205	●	.0004-.0016
PICJ RF15D6T2.0-10	.24	.059	.079	.236	.43	1.024	.205	●	.0004-.0016
PICJ LF15D8T2.5-20	.31	.059	.098	.276	.83	1.378	.232	●	.0004-.0016
PICJ RF10D8T1.5-10-6	.31	.039	.059	.236	.43	1.024	.205	●	.0004-.0016
PICJ RF10D8T1.5-20-7	.31	.039	.059	.276	.83	1.378	.232	●	.0004-.0016
PICJ RF10D8T1.5-30-7	.31	.039	.059	.276	1.18	1.772	.232	●	.0004-.0016
PICJ RF15D8T2.5-10-6	.31	.059	.098	.236	.43	1.024	.205	●	.0004-.0016
PICJ RF15D8T2.5-20-6	.31	.059	.098	.236	.79	1.378	.205	●	.0004-.0016
PICJ RF15D8T2.5-30-7	.31	.059	.098	.276	1.18	1.772	.232	●	.0004-.0016
PICJ RF20D8T3.0-10-6	.31	.079	.118	.236	.43	1.024	.205	●	.0008-.0020
PICJ RF20D8T3.0-20-6	.31	.079	.118	.236	.79	1.378	.205	●	.0008-.0020
PICJ R/LF20D8T3.0-30-7	.31	.079	.118	.276	1.18	1.772	.232	●	.0008-.0020
PICJ RF25D8T3.5-10-6	.31	.098	.138	.236	.43	1.024	.205	●	.0008-.0020
PICJ RF25D8T3.5-20-7	.31	.098	.138	.276	.83	1.378	.232	●	.0008-.0020
PICJ RF30D8T3.5-10-6	.31	.118	.138	.236	.43	1.024	.205	●	.0008-.0024
PICJ RF30D8T3.5-20-6	.31	.118	.138	.236	.83	1.378	.205	●	.0008-.0024
PICJ RF30D8T3.5-30-7	.31	.118	.138	.276	1.18	1.772	.232	●	.0008-.0024

- Only right-hand inserts are available as standard
- All inserts are with sharp corners
- For detailed cutting data, see pages 633-638
- PICJ items are suitable for PICCO/MG PCO, PICCO ACE, SC-PICCO type holders only

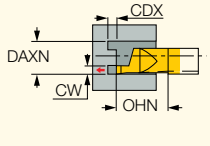
(1) Minimum axial grooving diameter

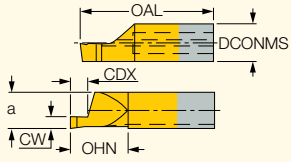
(2) Minimum overhang

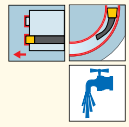
PICCOCUT

PICCO-010/610
(Face Grooving)
Inserts for Face Grooving









Right hand tool shown

M E T R I C

Designation	Dimensions							IC228	Recommended Machining Data
	DAXN(1)	CW	CDX	DCONMS	OHN(2)	OAL	a		f face-groove (mm/rev)
PICCO R 010.1006-10	6.0	1.00	1.50	6.00	11.0	26.00	5.20	•	0.01-0.04
PICCO R 010.1506-10	6.0	1.50	2.00	6.00	11.0	26.00	5.20	•	0.01-0.04
PICCO R/L 010.1508-20	8.0	1.50	2.50	7.00	21.0	35.00	5.90	•	0.01-0.04
PICCO R/L 010.1508-30	8.0	1.50	2.50	7.00	30.0	45.00	5.90	•	0.01-0.04
PICCO R/L 010.2008-30	8.0	2.00	3.00	7.00	30.0	45.00	5.90	•	0.02-0.05
PICCO R 010.1008-10	8.0	1.00	1.50	7.00	11.0	26.00	5.90	•	0.01-0.04
PICCO R 010.1008-20	8.0	1.00	1.50	7.00	21.0	35.00	5.90	•	0.01-0.04
PICCO R 010.1008-30	8.0	1.00	1.50	7.00	30.0	45.00	5.90	•	0.01-0.04
PICCO R 010.1508-10	8.0	1.50	2.50	7.00	11.0	26.00	5.90	•	0.01-0.04
PICCO R 010.2008-10	8.0	2.00	3.00	7.00	11.0	26.00	5.90	•	0.02-0.05
PICCO R 010.2008-20	8.0	2.00	3.00	7.00	21.0	35.00	5.90	•	0.02-0.05
PICCO R 010.2508-10	8.0	2.50	3.50	7.00	11.0	26.00	5.90	•	0.02-0.05
PICCO R 010.2508-20	8.0	2.50	3.50	7.00	21.0	35.00	5.90	•	0.02-0.05
PICCO R 010.2508-30	8.0	2.50	3.50	7.00	30.0	45.00	5.90	•	0.02-0.05
PICCO R 010.3008-10	8.0	3.00	3.50	7.00	11.0	26.00	5.90	•	0.02-0.06
PICCO R 010.3008-20	8.0	3.00	3.50	7.00	21.0	35.00	5.90	•	0.02-0.06
PICCO R 010.3008-30	8.0	3.00	3.50	7.00	30.0	45.00	5.90	•	0.02-0.06
PICCO R 610.1008-10	8.0	1.00	1.50	6.00	11.0	26.00	5.20	•	0.01-0.04
PICCO R 610.1008-20	8.0	1.00	1.50	6.00	20.0	35.00	5.20	•	0.01-0.04
PICCO R 610.1508-10	8.0	1.50	2.50	6.00	11.0	26.00	5.20	•	0.01-0.04
PICCO R 610.1508-20	8.0	1.50	2.50	6.00	20.0	35.00	5.20	•	0.01-0.04
PICCO R 610.2008-10	8.0	2.00	3.00	6.00	11.0	26.00	5.20	•	0.02-0.05
PICCO R 610.2008-20	8.0	2.00	3.00	6.00	20.0	35.00	5.20	•	0.02-0.05
PICCO R 610.2508-10	8.0	2.50	3.50	6.00	11.0	26.00	5.20	•	0.02-0.05
PICCO R 610.2508-20	8.0	2.50	3.50	6.00	20.0	35.00	5.20	•	0.02-0.05
PICCO R 610.3008-10	8.0	3.00	3.50	6.00	11.0	26.00	5.20	•	0.02-0.06
PICCO R 610.3008-20	8.0	3.00	3.50	6.00	20.0	35.00	5.20	•	0.02-0.06

• Only right-hand inserts are available as standard • All inserts are with sharp corners • For detailed cutting data, see pages 633-638

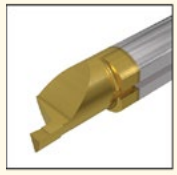
(1) Minimum axial grooving diameter

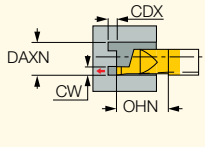
(2) Minimum overhang

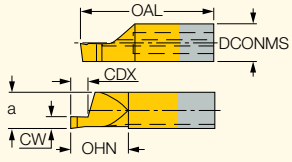
For holders, see pages: GHPCOR (438) • PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

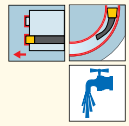
PICCOCUT

PICCO-010/610
(Face Grooving)
Inserts for Face Grooving









Right hand tool shown

I N C H

Designation	Dimensions DAXN(1)	CW	CDX	DCONMS	OHN(2)	OAL	a	IC228	Recommended Machining Data f face-groove (IPR)
PICCO R 010.1006-10	.24	.039	.059	.236	.43	1.024	.205	●	.0004-.0016
PICCO R 010.1506-10	.24	.059	.079	.236	.43	1.024	.205	●	.0004-.0016
PICCO R/L 010.1508-20	.31	.059	.098	.276	.83	1.378	.232	●	.0004-.0016
PICCO R/L 010.1508-30	.31	.059	.098	.276	1.18	1.772	.232	●	.0004-.0016
PICCO R/L 010.2008-30	.31	.079	.118	.276	1.18	1.772	.232	●	.0008-.0020
PICCO R 010.1008-10	.31	.039	.059	.276	.43	1.024	.232	●	.0004-.0016
PICCO R 010.1008-20	.31	.039	.059	.276	.83	1.378	.232	●	.0004-.0016
PICCO R 010.1008-30	.31	.039	.059	.276	1.18	1.772	.232	●	.0004-.0016
PICCO R 010.1508-10	.31	.059	.098	.276	.43	1.024	.232	●	.0004-.0016
PICCO R 010.2008-10	.31	.079	.118	.276	.43	1.024	.232	●	.0008-.0020
PICCO R 010.2008-20	.31	.079	.118	.276	.83	1.378	.232	●	.0008-.0020
PICCO R 010.2508-10	.31	.098	.138	.276	.43	1.024	.232	●	.0008-.0020
PICCO R 010.2508-20	.31	.098	.138	.276	.83	1.378	.232	●	.0008-.0020
PICCO R 010.2508-30	.31	.098	.138	.276	1.18	1.772	.232	●	.0008-.0020
PICCO R 010.3008-10	.31	.118	.138	.276	.43	1.024	.232	●	.0008-.0024
PICCO R 010.3008-20	.31	.118	.138	.276	.83	1.378	.232	●	.0008-.0024
PICCO R 010.3008-30	.31	.118	.138	.276	1.18	1.772	.232	●	.0008-.0024
PICCO R 610.1008-10	.31	.039	.059	.236	.43	1.024	.205	●	.0004-.0016
PICCO R 610.1008-20	.31	.039	.059	.236	.79	1.378	.205	●	.0004-.0016
PICCO R 610.1508-10	.31	.059	.098	.236	.43	1.024	.205	●	.0004-.0016
PICCO R 610.1508-20	.31	.059	.098	.236	.79	1.378	.205	●	.0004-.0016
PICCO R 610.2008-10	.31	.079	.118	.236	.43	1.024	.205	●	.0008-.0020
PICCO R 610.2008-20	.31	.079	.118	.236	.79	1.378	.205	●	.0008-.0020
PICCO R 610.2508-10	.31	.098	.138	.236	.43	1.024	.205	●	.0008-.0020
PICCO R 610.2508-20	.31	.098	.138	.236	.79	1.378	.205	●	.0008-.0020
PICCO R 610.3008-10	.31	.118	.138	.236	.43	1.024	.205	●	.0008-.0024
PICCO R 610.3008-20	.31	.118	.138	.236	.79	1.378	.205	●	.0008-.0024

• Only right-hand inserts are available as standard • All inserts are with sharp corners • For detailed cutting data, see pages 633-638

(1) Minimum axial grooving diameter

(2) Minimum overhang

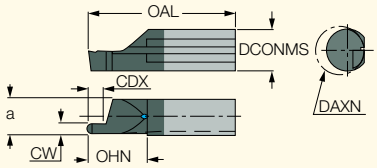
For holders, see pages: GHPCOR (438) • PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

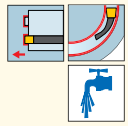
PICCOJET COOLANT THROUGH

PICJ RF-T
(Round Face Grooving)

Inserts with Internal Coolant Channel for Round Profile Face Grooving







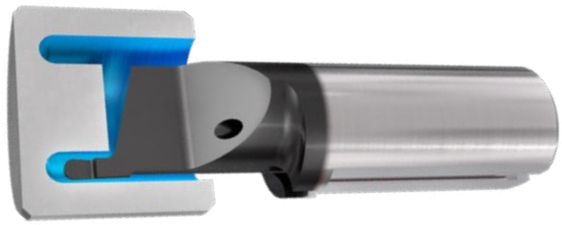
M E T R I C

Designation	Dimensions DAXN(1)	CW	CDX	DCONMS	OHN(2)	OAL	a	RE	IC908	Recommended Machining Data f face-groove (mm/rev)
PICJ RFP10D8T2.0-10	8.0	1.00	2.00	7.00	11.0	26.00	5.90	0.50	●	0.01-0.04
PICJ RFP10D8T2.0-20	8.0	1.00	2.00	7.00	20.0	35.00	5.90	0.50	●	0.01-0.04
PICJ RFP16D8T3-10	8.0	1.60	3.00	7.00	11.0	26.00	5.90	0.80	●	0.01-0.05
PICJ RFP16D8T3-20	8.0	1.60	3.00	7.00	20.0	35.00	5.90	0.80	●	0.01-0.05
PICJ RFP20D8T4-10	8.0	2.00	4.00	7.00	11.0	26.00	5.90	1.00	●	0.02-0.05
PICJ RFP20D8T4-20	8.0	2.00	4.00	7.00	20.0	35.00	5.90	1.00	●	0.02-0.05
PICJ RFP25D8T5-10	8.0	2.50	5.00	7.00	11.0	26.00	5.90	1.25	●	0.02-0.05
PICJ RFP30D8T6-10	8.0	3.00	6.00	7.00	11.0	26.00	5.90	1.50	●	0.02-0.05
PICJ RFP30D8T6-20	8.0	3.00	6.00	7.00	20.0	35.00	5.90	1.50	●	0.02-0.05

- Only right-hand inserts are available as standard, left-hand inserts on request
- For detailed cutting data, see pages 633-638
- PICJ items are suitable for PICCO/MG PCO, PICCO ACE, SC-PICCO types holders only

(1) Minimum axial grooving diameter

(2) Minimum overhang

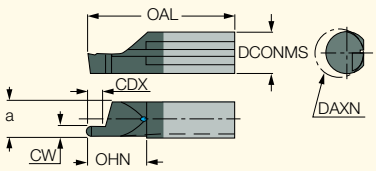


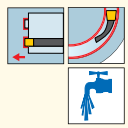
PICCOJET COOLANT THROUGH

PICJ RF-T
(Round Face Grooving)

Inserts with Internal Coolant Channel for Round Profile Face Grooving







I N C H

Designation	Dimensions DAXN(1)	CW	CDX	DCONMS	OHN(2)	OAL	a	RE	IC908	Recommended Machining Data f face-groove (IPR)
PICJ RFP10D8T2.0-10	.31	.039	.079	.276	.43	1.024	.232	.0197	●	.0004-.0016
PICJ RFP10D8T2.0-20	.31	.039	.079	.276	.79	1.378	.232	.0197	●	.0004-.0016
PICJ RFP16D8T3-10	.31	.063	.118	.276	.43	1.024	.232	.0315	●	.0004-.0020
PICJ RFP16D8T3-20	.31	.063	.118	.276	.79	1.378	.232	.0315	●	.0004-.0020
PICJ RFP20D8T4-10	.31	.079	.157	.276	.43	1.024	.232	.0394	●	.0008-.0020
PICJ RFP20D8T4-20	.31	.079	.157	.276	.79	1.378	.232	.0394	●	.0008-.0020
PICJ RFP25D8T5-10	.31	.098	.197	.276	.43	1.024	.232	.0492	●	.0008-.0020
PICJ RFP30D8T6-10	.31	.118	.236	.276	.43	1.024	.232	.0590	●	.0008-.0020
PICJ RFP30D8T6-20	.31	.118	.236	.276	.79	1.378	.232	.0590	●	.0008-.0020

- Only right-hand inserts are available as standard, left-hand inserts on request
- For detailed cutting data, see pages 633-638
- PICJ items are suitable for PICCO/MG PCO, PICCO ACE, SC-PICCO type holders only

(1) Minimum axial grooving diameter

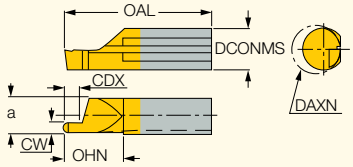
(2) Minimum overhang

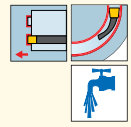
PICCOCUT

PICCO-010
(Round Face Groove)

Inserts for Round Profile Face Grooving







Right hand tool shown

M E T R I C

Designation	Dimensions DAXN(1)	CW	CDX	DCONMS	OHN(2)	OAL	a	RE	IC1008	Recommended Machining Data f face-groove (mm/rev)
PICCO R 010.1005-10	8.0	1.00	2.00	7.00	11.0	26.00	5.90	0.50	•	0.01-0.04
PICCO R 010.1005-20	8.0	1.00	2.00	7.00	20.0	35.00	5.90	0.50	•	0.01-0.04
PICCO R 010.1608-10	8.0	1.60	3.00	7.00	11.0	26.00	5.90	0.80	•	0.01-0.05
PICCO R 010.1608-20	8.0	1.60	3.00	7.00	20.0	35.00	5.90	0.80	•	0.01-0.05
PICCO R 010.2010-10	8.0	2.00	4.00	7.00	11.0	26.00	5.90	1.00	•	0.02-0.05
PICCO R 010.2010-20	8.0	2.00	4.00	7.00	20.0	35.00	5.90	1.00	•	0.02-0.05
PICCO R 010.2512-10	8.0	2.50	5.00	7.00	11.0	26.00	5.90	1.25	•	0.02-0.05
PICCO R 010.2512-20	8.0	2.50	5.00	7.00	20.0	35.00	5.90	1.25	•	0.02-0.05
PICCO R 010.3015-10	8.0	3.00	6.00	7.00	11.0	26.00	5.90	1.50	•	0.02-0.05
PICCO R 010.3015-20	8.0	3.00	6.00	7.00	20.0	35.00	5.90	1.50	•	0.02-0.05

• Only right-hand inserts are available as standard, left-hand inserts on request • For detailed cutting data, see pages 633-638

(1) Minimum axial grooving diameter

(2) Minimum overhang

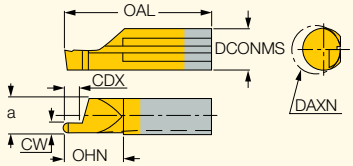
For holders, see pages: GHPCOR (438) • PICCO ACE (436) • SC-PICCO (836)

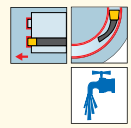
PICCOCUT

PICCO-010
(Round Face Groove)

Inserts for Round Profile Face Grooving







Right hand tool shown

I N C H

Designation	Dimensions DAXN(1)	CW	CDX	DCONMS	OHN(2)	OAL	a	RE	IC1008	Recommended Machining Data f face-groove (IPR)
PICCO R 010.1005-10	.31	.039	.079	.276	.43	1.024	.232	.0197	•	.0004-.0016
PICCO R 010.1005-20	.31	.039	.079	.276	.79	1.378	.232	.0197	•	.0004-.0016
PICCO R 010.1608-10	.31	.063	.118	.276	.43	1.024	.232	.0315	•	.0004-.0020
PICCO R 010.1608-20	.31	.063	.118	.276	.79	1.378	.232	.0315	•	.0004-.0020
PICCO R 010.2010-10	.31	.079	.157	.276	.43	1.024	.232	.0394	•	.0008-.0020
PICCO R 010.2010-20	.31	.079	.157	.276	.79	1.378	.232	.0394	•	.0008-.0020
PICCO R 010.2512-10	.31	.098	.197	.276	.43	1.024	.232	.0492	•	.0008-.0020
PICCO R 010.2512-20	.31	.098	.197	.276	.79	1.378	.232	.0492	•	.0008-.0020
PICCO R 010.3015-10	.31	.118	.236	.276	.43	1.024	.232	.0590	•	.0008-.0020
PICCO R 010.3015-20	.31	.118	.236	.276	.79	1.378	.232	.0590	•	.0008-.0020

• Only right-hand inserts are available as standard, left-hand inserts on request • For detailed cutting data, see pages 633-638

(1) Minimum axial grooving diameter

(2) Minimum overhang

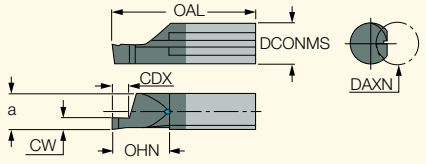
For holders, see pages: GHPCOR (438) • PICCO ACE (436) • SC-PICCO (836)

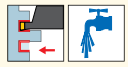
PICCOJET COOLANT THROUGH

PICJ RF-T-20
(Grooving Along Shaft)

Inserts with an Internal Coolant Channel for Grooving Along Shaft Dmin 6 mm







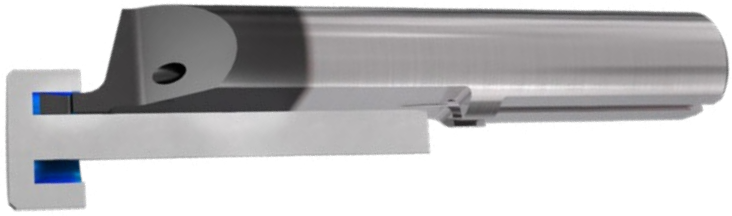
M E T R I C

Designation	Dimensions DAXN(1)	CW	CDX	DCONMS	OHN(2)	OAL	a	IC908	Recommended Machining Data f face-groove (mm/rev)
PICJ RF10D6T2.0-20	6.0	1.00	2.00	6.00	20.0	35.00	5.20	●	0.01-0.04
PICJ RF15D6T3.0-20	6.0	1.50	3.00	6.00	20.0	35.00	5.20	●	0.01-0.05
PICJ RF20D6T4.0-20	6.0	2.00	4.00	6.00	20.0	35.00	5.20	●	0.02-0.06
PICJ RF25D6T5.0-20	6.0	2.50	5.00	6.00	20.0	35.00	5.20	●	0.02-0.06
PICJ RF30D6T6.0-20	6.0	3.00	6.00	6.00	20.0	35.00	5.20	●	0.02-0.06

- Only right-hand inserts are available as standard, left-hand inserts on request
- All carbide inserts are with sharp corners
- For detailed cutting data, see pages 633-638
- PICJ items are suitable for PICCO/MG PCO, PICCO ACE, SC-PICCO types holders only

(1) Minimum axial grooving diameter

(2) Minimum overhang

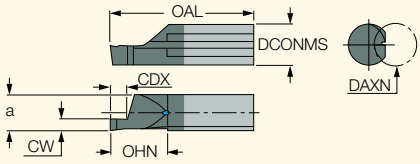


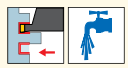
PICCOJET COOLANT THROUGH

PICJ RF-T-20
(Grooving Along Shaft)

Inserts with an Internal Coolant Channel for Grooving Along Shaft Dmin .236"







I N C H

Designation	Dimensions DAXN(1)	CW	CDX	DCONMS	OHN(2)	OAL	a	IC908	Recommended Machining Data f face-groove (IPR)
PICJ RF10D6T2.0-20	.24	.039	.079	.236	.79	1.378	.205	●	.0004-.0016
PICJ RF15D6T3.0-20	.24	.059	.118	.236	.79	1.378	.205	●	.0004-.0020
PICJ RF20D6T4.0-20	.24	.079	.157	.236	.79	1.378	.205	●	.0008-.0024
PICJ RF25D6T5.0-20	.24	.098	.197	.236	.79	1.378	.205	●	.0008-.0024
PICJ RF30D6T6.0-20	.24	.118	.236	.236	.79	1.378	.205	●	.0008-.0024

- Only right-hand inserts are available as standard, left-hand inserts on request
- All carbide inserts are with sharp corners
- For detailed cutting data, see pages 633-638
- PICJ items are suitable for PICCO/MG PCO, PICCO ACE, SC-PICCO type holders only

(1) Minimum axial grooving diameter

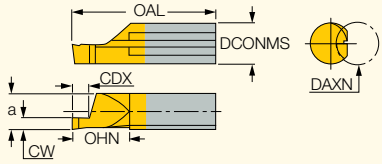
(2) Minimum overhang

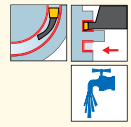
PICCOCUT

PICCO-620
(Groove Along Shaft)

Inserts for Grooving Along a Shaft Dmin 6 mm







Right hand tool shown

M E T R I C

Designation	Dimensions DAXN(1)	CW	CDX	DCONMS	OHN(2)	OAL	a	IC1008	Recommended Machining Data f face-groove (mm/rev)
PICCO R 620.1006-20	6.0	1.00	2.00	6.00	20.0	35.00	5.20	•	0.01-0.04
PICCO R 620.1506-20	6.0	1.50	3.00	6.00	20.0	35.00	5.20	•	0.01-0.05
PICCO R 620.2006-20	6.0	2.00	4.00	6.00	20.0	35.00	5.20	•	0.02-0.06
PICCO R 620.2506-20	6.0	2.50	5.00	6.00	20.0	35.00	5.20	•	0.02-0.06
PICCO R 620.3006-20	6.0	3.00	6.00	6.00	20.0	35.00	5.20	•	0.02-0.06

• Only right-hand inserts are available as standard, left-hand inserts on request • All carbide inserts are with sharp corners • For detailed cutting data, see pages 633-638

(1) Minimum axial grooving diameter

(2) Minimum overhang

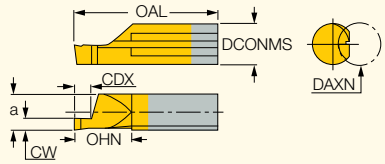
For holders, see pages: GHPCOR (438) • PICCO ACE (436) • SC-PICCO (836)

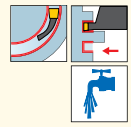
PICCOCUT

PICCO-620
(Groove Along Shaft)

Inserts for Grooving Along a Shaft Dmin .236"







Right hand tool shown

I N C H

Designation	Dimensions DAXN(1)	CW	CDX	DCONMS	OHN(2)	OAL	a	IC1008	Recommended Machining Data f face-groove (IPR)
PICCO R 620.1006-20	.24	.039	.079	.236	.79	1.378	.205	•	.0004-.0016
PICCO R 620.1506-20	.24	.059	.118	.236	.79	1.378	.205	•	.0004-.0020
PICCO R 620.2006-20	.24	.079	.157	.236	.79	1.378	.205	•	.0008-.0024
PICCO R 620.2506-20	.24	.098	.197	.236	.79	1.378	.205	•	.0008-.0024
PICCO R 620.3006-20	.24	.118	.236	.236	.79	1.378	.205	•	.0008-.0024

• Only right-hand inserts are available as standard, left-hand inserts on request • All carbide inserts are with sharp corners • For detailed cutting data, see pages 633-638

(1) Minimum axial grooving diameter

(2) Minimum overhang

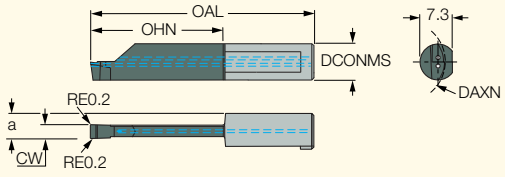
For holders, see pages: GHPCOR (438) • PICCO ACE (436) • SC-PICCO (836)

PICCOJET COOLANT THROUGH

PICJ RF-D16/20-T (Face Grooving)

Inserts with an Internal Coolant Channels for Deep Face Grooving





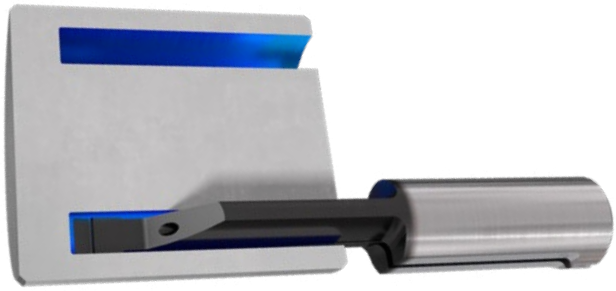
M E T R I C

Designation	Dimensions DAXN(1)	CW	DCONMS	OHN(2)	OAL	a	IC908	Recommended Machining Data f face-groove (mm/rev)
PICJ RF30D16T10-10	16.0	3.00	8.00	10.0	30.00	5.50	●	0.01-0.05
PICJ RF30D16T20-20	16.0	3.00	8.00	20.0	40.00	5.50	●	0.01-0.05
PICJ RF40D16T20-20	16.0	4.00	8.00	20.0	40.00	6.00	●	0.01-0.05
PICJ RF30D20T25-25	20.0	3.00	8.00	25.0	45.00	5.50	●	0.01-0.05
PICJ RF30D20T30-30	20.0	3.00	8.00	30.0	50.00	5.50	●	0.01-0.04
PICJ RF30D20T40-40	20.0	3.00	8.00	40.0	60.00	5.50	●	0.01-0.04
PICJ RF40D20T25-25	20.0	4.00	8.00	25.0	45.00	6.00	●	0.01-0.06
PICJ RF40D20T30-30	20.0	4.00	8.00	30.0	50.00	6.00	●	0.01-0.06
PICJ RF40D20T40-40	20.0	4.00	8.00	40.0	60.00	6.00	●	0.01-0.05
PICJ RF50D20T25-25	20.0	5.00	8.00	25.0	45.00	6.50	●	0.02-0.06
PICJ RF50D20T30-30	20.0	5.00	8.00	30.0	50.00	6.50	●	0.02-0.06
PICJ RF50D20T35-35	20.0	5.00	8.00	35.0	55.00	6.50	●	0.02-0.05
PICJ RF50D20T40-40	20.0	5.00	8.00	40.0	60.00	6.50	●	0.02-0.05

- All inserts have two coolant holes which may be used with coolant pressure up to 100 bars
- For detailed cutting data, see pages 633-638

(1) Minimum axial grooving diameter

(2) Minimum overhang

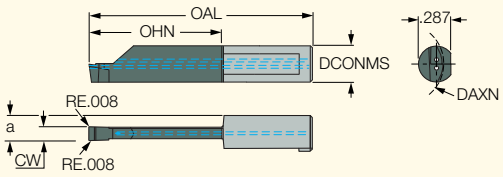


PICCOJET COOLANT THROUGH

PICJ RF-D16/20-T (Face Grooving)

Inserts with an Internal Coolant Channels for Deep Face Grooving





I N C H

Designation	Dimensions DAXN(1)	CW	DCONMS	OHN(2)	OAL	a	IC908	Recommended Machining Data f face-groove (IPR)
PICJ RF30D16T10-10	.63	.118	.315	.39	1.181	.217	●	.0004-.0020
PICJ RF30D16T20-20	.63	.118	.315	.79	1.575	.217	●	.0004-.0020
PICJ RF40D16T20-20	.63	.157	.315	.79	1.575	.236	●	.0004-.0020
PICJ RF30D20T25-25	.79	.118	.315	.98	1.772	.217	●	.0004-.0020
PICJ RF30D20T30-30	.79	.118	.315	1.18	1.968	.217	●	.0004-.0016
PICJ RF30D20T40-40	.79	.118	.315	1.57	2.362	.217	●	.0004-.0016
PICJ RF40D20T25-25	.79	.157	.315	.98	1.772	.236	●	.0004-.0024
PICJ RF40D20T30-30	.79	.157	.315	1.18	1.968	.236	●	.0004-.0024
PICJ RF40D20T40-40	.79	.157	.315	1.57	2.362	.236	●	.0004-.0020
PICJ RF50D20T25-25	.79	.197	.315	.98	1.772	.256	●	.0008-.0024
PICJ RF50D20T30-30	.79	.197	.315	1.18	1.968	.256	●	.0008-.0024
PICJ RF50D20T35-35	.79	.197	.315	1.38	2.165	.256	●	.0008-.0020
PICJ RF50D20T40-40	.79	.197	.315	1.57	2.362	.256	●	.0008-.0020

- All inserts have two coolant holes which may be used with coolant pressure up to 1450 PSI
- For detailed cutting data, see pages 633-638

(1) Minimum axial grooving diameter

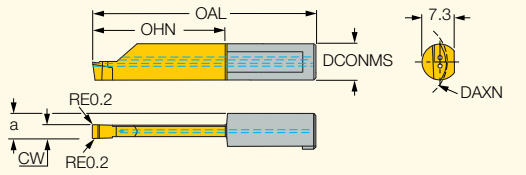
(2) Minimum overhang

PICCOCUT

PICCO-016/020
(Face Grooving)

Inserts with an Internal Coolant Channels for Deep Face Grooving





Right hand tool shown

M E T R I C

Designation	Dimensions DAXN(1)	CW	DCONMS	OHN(2)	OAL	a	IC1008	Recommended Machining Data f face-groove (mm/rev)
PICCO R 016.0300-10	16.0	3.00	8.00	10.0	30.00	5.50	•	0.01-0.05
PICCO R 016.0300-20	16.0	3.00	8.00	20.0	40.00	5.50	•	0.01-0.05
PICCO R 016.0400-10	16.0	4.00	8.00	10.0	30.00	6.00	•	0.01-0.05
PICCO R 016.0400-20	16.0	4.00	8.00	20.0	40.00	6.00	•	0.01-0.05
PICCO R 020.0300-25	20.0	3.00	8.00	25.0	45.00	5.50	•	0.01-0.05
PICCO R 020.0300-30	20.0	3.00	8.00	30.0	50.00	5.50	•	0.01-0.04
PICCO R 020.0300-35	20.0	3.00	8.00	35.0	55.00	5.50	•	0.01-0.04
PICCO R 020.0300-40	20.0	3.00	8.00	40.0	60.00	5.50	•	0.01-0.04
PICCO R 020.0400-25	20.0	4.00	8.00	25.0	45.00	6.00	•	0.01-0.06
PICCO R 020.0400-30	20.0	4.00	8.00	30.0	50.00	6.00	•	0.01-0.06
PICCO R 020.0400-35	20.0	4.00	8.00	35.0	55.00	6.00	•	0.01-0.05
PICCO R 020.0400-40	20.0	4.00	8.00	40.0	60.00	6.00	•	0.01-0.05
PICCO R 020.0500-20	20.0	5.00	8.00	20.0	40.00	6.50	•	0.02-0.06
PICCO R 020.0500-25	20.0	5.00	8.00	25.0	45.00	6.50	•	0.02-0.06
PICCO R 020.0500-30	20.0	5.00	8.00	30.0	50.00	6.50	•	0.02-0.06
PICCO R 020.0500-35	20.0	5.00	8.00	35.0	55.00	6.50	•	0.02-0.05
PICCO R 020.0500-40	20.0	5.00	8.00	40.0	60.00	6.50	•	0.02-0.05

• All inserts have two coolant holes which may be used with coolant pressure up to 100 bars • For detailed cutting data, see pages 633-638

(1) Minimum axial grooving diameter

(2) Minimum overhang

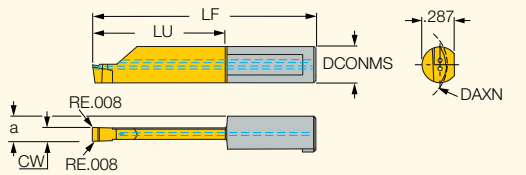
For holders, see pages: GHPCOR (438) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

PICCOCUT

PICCO-016/020
(Face Grooving)

Inserts with an Internal Coolant Channels for Deep Face Grooving





Right hand tool shown

I N C H

Designation	Dimensions DAXN(1)	CW	DCONMS	OHN(2)	OAL	a	IC1008	Recommended Machining Data f face-groove (IPR)
PICCO R 016.0300-10	.63	.118	.315	.39	1.181	.217	•	.0004-.0020
PICCO R 016.0300-20	.63	.118	.315	.79	1.575	.217	•	.0004-.0020
PICCO R 016.0400-10	.63	.157	.315	.39	1.181	.236	•	.0004-.0020
PICCO R 016.0400-20	.63	.157	.315	.79	1.575	.236	•	.0004-.0020
PICCO R 020.0300-25	.79	.118	.315	.98	1.772	.217	•	.0004-.0020
PICCO R 020.0300-30	.79	.118	.315	1.18	1.968	.217	•	.0004-.0016
PICCO R 020.0300-35	.79	.118	.315	1.38	2.165	.217	•	.0004-.0016
PICCO R 020.0300-40	.79	.118	.315	1.57	2.362	.217	•	.0004-.0016
PICCO R 020.0400-25	.79	.157	.315	.98	1.772	.236	•	.0004-.0024
PICCO R 020.0400-30	.79	.157	.315	1.18	1.968	.236	•	.0004-.0024
PICCO R 020.0400-35	.79	.157	.315	1.38	2.165	.236	•	.0004-.0020
PICCO R 020.0400-40	.79	.157	.315	1.57	2.362	.236	•	.0004-.0020
PICCO R 020.0500-20	.79	.197	.315	.79	1.575	.256	•	.0008-.0024
PICCO R 020.0500-25	.79	.197	.315	.98	1.772	.256	•	.0008-.0024
PICCO R 020.0500-30	.79	.197	.315	1.18	1.968	.256	•	.0008-.0024
PICCO R 020.0500-35	.79	.197	.315	1.38	2.165	.256	•	.0008-.0020
PICCO R 020.0500-40	.79	.197	.315	1.57	2.362	.256	•	.0008-.0020

• All inserts have two coolant holes which may be used with coolant pressure up to 1450 PSI • For detailed cutting data, see pages 633-638

(1) Minimum axial grooving diameter

(2) Minimum overhang

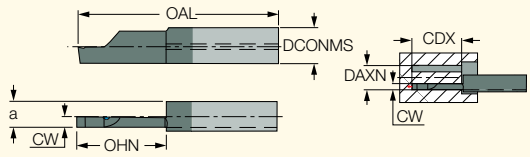
For holders, see pages: GHPCOR (438) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

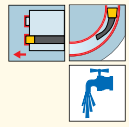
PICCOJET COOLANT THROUGH

PICJ RF-D8-T (Face Grooving)

Inserts with an Internal Coolant Channels for Deep Face Grooving







M E T R I C

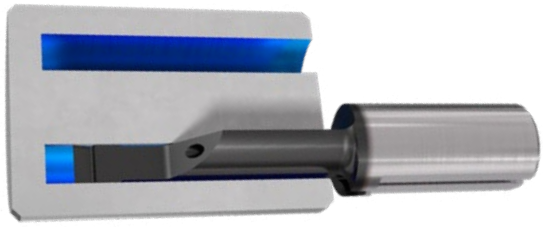
Designation	Dimensions DAXN(1)	CW	CDX	DCONMS	OHN(2)	OAL	a	IC908	Recommended Machining Data f face-groove (mm/rev)
PICJ RF25D8T20-20	8.0	2.50	19.00	7.00	20.0	35.00	5.90	●	0.01-0.04
PICJ RF30D8T20-20	8.0	3.00	19.00	7.00	20.0	35.00	5.90	●	0.02-0.05
PICJ RF30D8T30-30	8.0	3.00	29.00	7.00	30.0	45.00	5.90	●	0.01-0.04

• Only right-hand inserts are available as standard, left-hand inserts on request • All inserts are with sharp corners • For detailed cutting data, see pages 633-638

• PICJ items are suitable for PICCO/MG PCO, PICCO ACE, SC-PICCO types holders only

(1) Minimum axial grooving diameter

(2) Minimum overhang

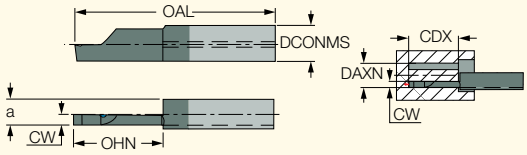


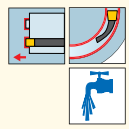
PICCOJET COOLANT THROUGH

PICJ RF-D8-T (Face Grooving)

Inserts with an Internal Coolant Channels for Deep Face Grooving







I N C H

Designation	Dimensions DAXN(1)	CW	CDX	DCONMS	OHN(2)	OAL	a	IC908	Recommended Machining Data f face-groove (IPR)
PICJ RF25D8T20-20	.31	.098	.748	.276	.79	1.378	.232	●	.0004-.0016
PICJ RF30D8T20-20	.31	.118	.748	.276	.79	1.378	.232	●	.0008-.0020
PICJ RF30D8T30-30	.31	.118	1.142	.276	1.18	1.772	.232	●	.0004-.0016

• Only right-hand inserts are available as standard, left-hand inserts on request • All inserts are with sharp corners • For detailed cutting data, see pages 633-638

• PICJ items are suitable for PICCO/MG PCO, PICCO ACE, SC-PICCO type holders only

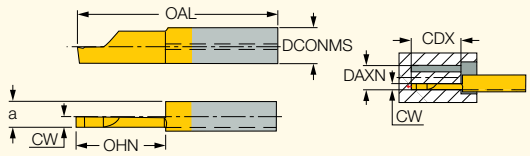
(1) Minimum axial grooving diameter

(2) Minimum overhang

PICCOCUT

PICCO-015
(Face Grooving)
Inserts for Deep Face Grooving





Right hand tool shown

M E T R I C

Designation	Dimensions DAXN(1)	CW	CDX	DCONMS	OHN(2)	OAL	a	IC228	Recommended Machining Data f face-groove (mm/rev)
PICCO R/L 015.3015-20	15.0	3.00	19.00	7.00	20.0	35.00	5.90	●	0.02-0.05
PICCO R 015.2515-20	15.0	2.50	19.00	7.00	20.0	35.00	5.90	●	0.01-0.04
PICCO R 015.3015-30	15.0	3.00	29.00	7.00	30.0	45.00	5.90	●	0.01-0.04

• Only right-hand inserts are available as standard, left-hand inserts on request • All inserts are with sharp corners • For detailed cutting data, see pages 633-638

(1) Minimum axial grooving diameter

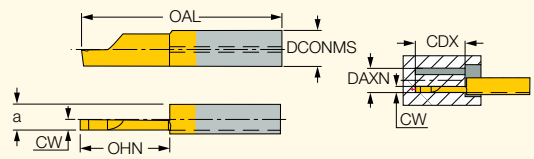
(2) Minimum overhang

For holders, see pages: GHPCOR (438) • PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

PICCOCUT

PICCO-015
(Face Grooving)
Inserts for Deep Face Grooving





Right hand tool shown

I N C H

Designation	Dimensions DAXN(1)	CW	CDX	DCONMS	OHN(2)	OAL	a	IC228	Recommended Machining Data f face-groove (IPR)
PICCO R/L 015.3015-20	.59	.118	.748	.276	.79	1.378	.232	●	.0008-.0020
PICCO R 015.2515-20	.59	.098	.748	.276	.79	1.378	.232	●	.0004-.0016
PICCO R 015.3015-30	.59	.118	1.142	.276	1.18	1.772	.232	●	.0004-.0016

• Only right-hand inserts are available as standard, left-hand inserts on request • All inserts are with sharp corners • For detailed cutting data, see pages 633-638

(1) Minimum axial grooving diameter

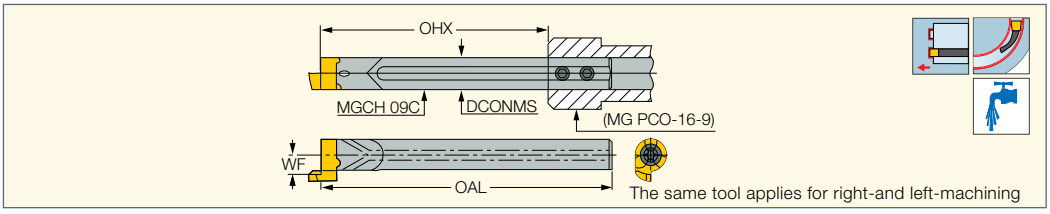
(2) Minimum overhang

For holders, see pages: GHPCOR (438) • PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

CHAMGROOVE

MGCH-C (face)

Face Machining Tools Carrying GFQR Inserts for Dmin 12 - Dmax 19 mm Penetration Range



M E T R I C

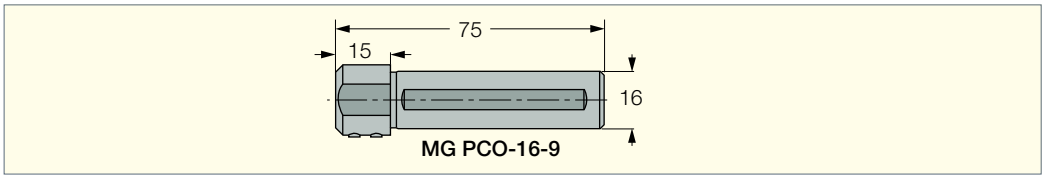
Designation	DCONMS	OAL	OHX(1)	WF		
MGCH 09C	9.00	83.50	65.0	5.50	SR 76-2145	T-15/5

(1) Maximum overhang

For inserts, see pages: GFQR (626)
For holders, see pages: PICCO/MG PCO (Holder) (439)

MG PCO

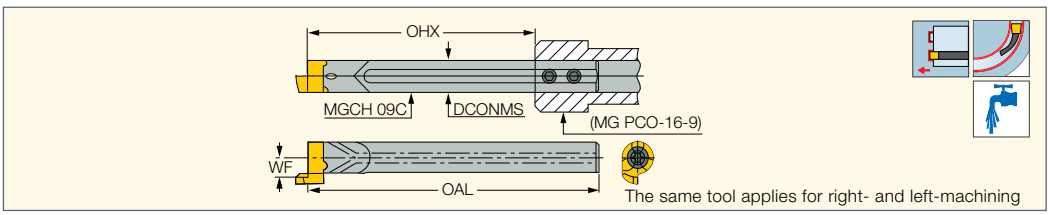
Holder Bar for Adjustable Shank



CHAMGROOVE

MGCH-C (face)

Face Machining Tools Carrying GFQR Inserts for Dmin .472 - Dmax .748" Penetration Range



I N C H

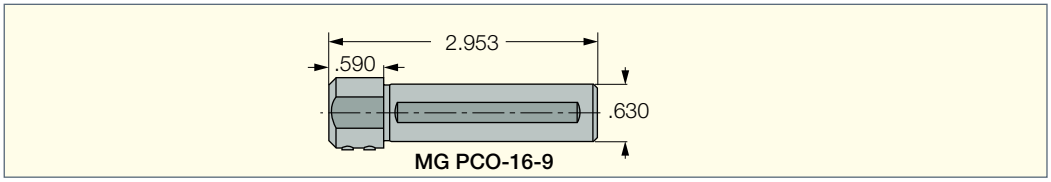
Designation	DCONMS	OAL	OHX(1)	WF		
MGCH 09C	.354	3.287	2.559	.217	SR 76-2145	T-15/5

(1) Maximum overhang

For inserts, see pages: GFQR (626)
For holders, see pages: PICCO/MG PCO (Holder) (439)

MG PCO

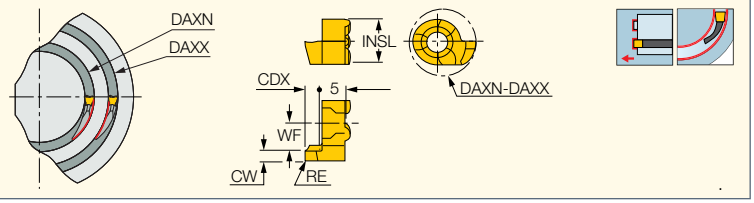
Holder Bar for Adjustable Shank



CHAMGROOVE

GFQR
Face Grooving Inserts





M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX	DAXN(3)	DAXX(4)	IC528	Recommended Machining Data f face-groove (mm/rev)
GFQR 12-1.00-0.05	1.00	0.05	0.020	0.030	1.50	12.0	16.0	●	0.01-0.04
GFQR 12-1.50-0.20	1.50	0.20	0.020	0.030	2.50	12.0	17.0	●	0.01-0.04
GFQR 12-2.00-0.20	2.00	0.20	0.020	0.030	3.00	12.4	18.0	●	0.02-0.05
GFQR 12-2.50-0.20	2.50	0.20	0.020	0.030	3.00	13.0	19.0	●	0.02-0.05

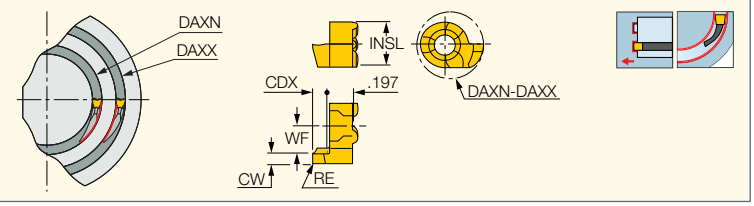
• For detailed cutting data, see pages 633-638
(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
(3) Minimum penetration diameter
(4) Maximum penetration diameter

For tools, see pages: MGCH-C (face) (625)

CHAMGROOVE

GFQR
Face Grooving Inserts





I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX	DAXN(3)	DAXX(4)	IC528	Recommended Machining Data f face-groove (IPR)
GFQR 12-1.00-0.05	.039	.0020	.00078	.0012	.059	.47	.63	●	.0004-.0016
GFQR 12-1.50-0.20	.059	.0079	.00078	.0012	.098	.47	.67	●	.0004-.0016
GFQR 12-2.00-0.20	.079	.0079	.00078	.0012	.118	.49	.71	●	.0008-.0020
GFQR 12-2.50-0.20	.098	.0079	.00078	.0012	.118	.51	.75	●	.0008-.0020

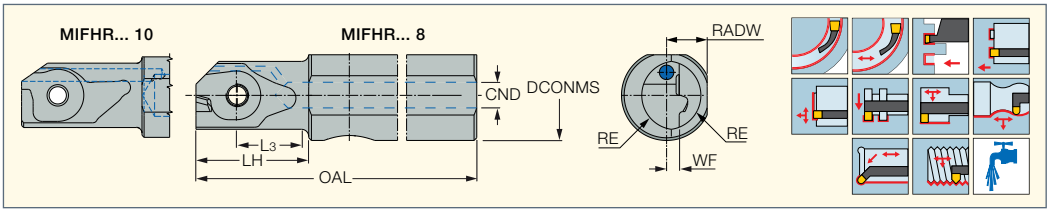
• For detailed cutting data, see pages 633-638
(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
(3) Minimum penetration diameter
(4) Maximum penetration diameter

For tools, see pages: MGCH-C (face) (625)

MINI FACE LINE

MIFHR

Bars for Face and Internal Grooving, Undercutting and Threading Inserts



M E T R I C

Designation	DCONMS	CND(3)	WF	RADW	OAL	L3	LH	RE	Insert			
MIFHR 8SC-8-SRK (1)	8.00	1.2	1.4	3.70	75.00	7.40	11.7	3.80	MI.R 8	SR 14-297	T-8/5	
MIFHR 10C-8	10.00	5.0	1.4	4.50	102.50	7.40	12.5	3.80	MI.R 8	SR 14-297	T-8/5	
MIFHR 12C-8	12.00	5.0	1.4	5.50	102.50	7.40	12.5	3.80	MI.R 8	SR 14-297	T-8/5	
MIFHR 12C-10 (2)	12.00	6.0	2.4	5.50	90.00	11.20	17.2	4.60	MI.R 10	SR 34-506 M3X0.5	T-9/5	
MIFHR 16C-10 (2)	16.00	6.0	2.4	7.50	90.00	11.20	17.2	4.60	MI.R 10	SR 34-506 M3X0.5	T-9/5	
MIFHR 16C-15	16.00	8.0	2.7	7.50	100.00	12.50	19.0	10.30	MI.R 15	SR 34-506/L	T-9/5	PL 16
MIFHR 20C-15	20.00	8.5	4.7	9.00	100.00	12.50	19.0	11.30	MI.R 15	SR 34-506/L	T-9/5	PL 20

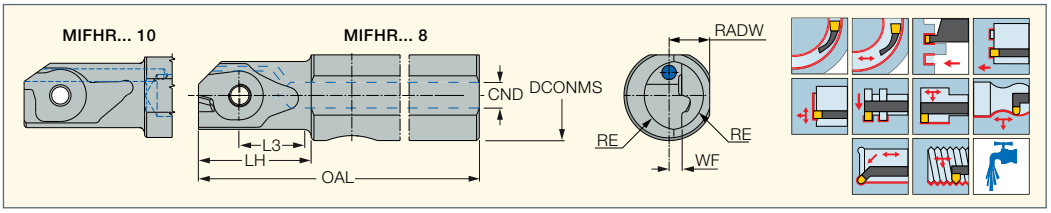
(1) Solid carbide shank
(2) Only face grooving inserts are available for this tool
(3) Coolant entry diameter

For inserts, see pages: MEFL (628) • MIFR (629) • MIGR 8 (405) • MITR 8-MT (779) • MIUR 8 (406)

MINI FACE LINE

MIFHR

Bars for Face and Internal Grooving, Undercutting and Threading Inserts



I N C H

Designation	DCONMS	CND(2)	WF	RADW	OAL	L3	LH	RE	Insert			
MIFHR 9.5C-8	.375	.196	.055	.169	4.030	.291	.492	.1490	MI.R 8	SR 14-297	T-8/5	
MIFHR 12.7C-8	.500	.196	.055	.230	4.030	.291	.492	.1490	MI.R 8	SR 14-297	T-8/5	
MIFHR 12.7C-10 (1)	.500	.236	.094	.230	3.543	.440	.677	.1810	MI.R 10	SR 34-506 M3X0.5	T-9/5	
MIFHR 15.9C-10 (1)	.625	.236	.094	.287	3.543	.440	.677	.1810	MI.R 10	SR 34-506 M3X0.5	T-9/5	
MIFHR 15.9C-15	.625	.315	.105	.295	3.937	.441	.748	.4010	MI.R 15	SR 34-506/L	T-9/5	PL 062
MIFHR 19C-15	.750	.335	.183	.354	3.937	.492	.748	.4450	MI.R 15	SR 34-506/L	T-9/5	PL 075

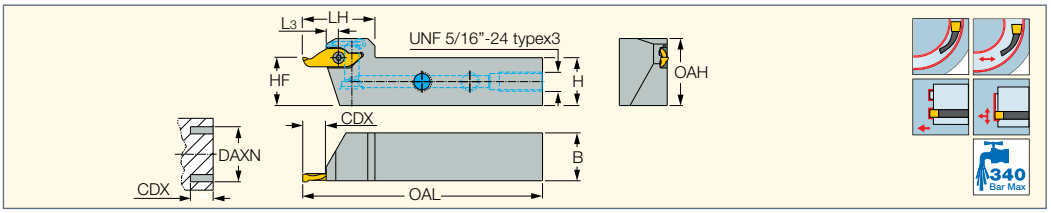
(1) Only face grooving inserts are available for this tool
(2) Coolant entry diameter

For inserts, see pages: MEFL (628) • MIFR (629) • MIGR 8 (405) • MITR 8-MT (779) • MIUR 8 (406)

MINI FACE LINE

MFHR-JHP

Square Shank Tools for MIFR 10 Face Grooving Inserts



M E T R I C

Designation	H	B	OAL	LH	L3	CDX	DAXN(1)	OAH	HF	Insert			
MFHR 12C-10-JHP	12.0	12.0	100.00	27.0	5.20	9.00	10.0	20.0	12.0	MI.R 10	SR 34-506 M3X0.5	T-9/5	SR 5/16UNF TL360
MFHR 16C-10-JHP	16.0	16.0	100.00	27.0	5.20	9.00	10.0	24.0	16.0	MI.R 10	SR 34-506 M3X0.5	T-9/5	SR 5/16UNF TL360

• For DAXN, refer to insert data • For user guide and accessories, see pages 610-612,633-640
(1) Minimum axial grooving diameter

For inserts, see pages: MEFL (628) • MIFR (629)

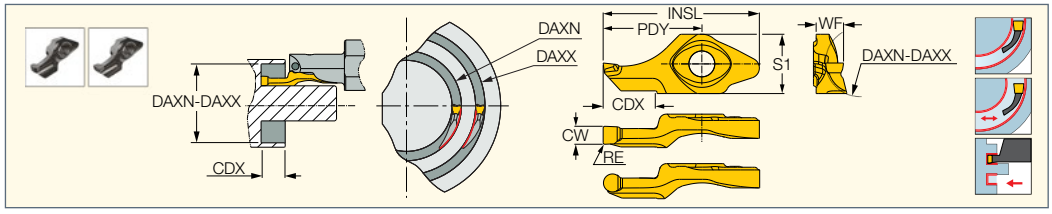
Flow Rate vs. Pressure

Designation	70 Bar Flow Rate (liters/min)	100 Bar Flow Rate (liters/min)	140 Bar Flow Rate (liters/min)
MFHR 12C-10-JHP	3	5-9	9-11
MFHR 16C-10-JHP	3	7-9	9-11

MIN CUT MINI FACE LINE

MEFL

Screw-Clamped Inserts for External Face Grooving and Turning Next to Shafts



M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX	DAXN(3)	DAXX(4)	WF	S1	PDY	INSL	IC908	Recommended Machining Data f face-groove (mm/rev)	f face-turn (mm/rev)
MEFL 8-1.50-0.20	1.50	0.20	0.020	0.020	5.50	8.0	15.0	2.60	6.60	11.00	17.40	•	0.02-0.10	0.02-0.06
MEFL 8-1.60-0.80	1.60	0.80	0.020	0.020	5.50	7.0	12.1	2.70	6.60	11.00	17.40	•	0.02-0.10	0.02-0.06
MEFL 8-2.00-0.20	2.00	0.20	0.020	0.020	5.50	8.0	20.0	3.10	6.60	11.00	17.40	•	0.02-0.10	0.02-0.06
MEFL 8-2.00-1.00	2.00	1.00	0.020	0.020	5.50	7.0	14.0	2.90	6.60	11.00	17.40	•	0.02-0.10	0.02-0.06
MEFL 8-2.20-0.20	2.20	0.20	0.020	0.020	5.50	7.0	20.0	3.10	6.60	11.00	17.40	•	0.02-0.10	0.02-0.06
MEFL 10-2.50-0.20	2.50	0.20	0.020	0.020	9.00	10.0	45.0	3.15	7.60	14.85	24.50	•	0.02-0.06	0.02-0.05
MEFL 10-2.50-1.25	2.50	1.25	0.020	0.020	9.00	10.0	45.0	3.15	7.60	14.85	24.50	•	0.02-0.06	0.02-0.05
MEFL 10-3.00-0.20	3.00	0.20	0.020	0.020	9.00	10.0	100.0	3.60	7.60	14.85	24.50	•	0.02-0.06	0.02-0.05
MEFL 10-3.00-1.50	3.00	1.50	0.020	0.020	9.00	10.0	100.0	3.40	7.60	14.85	24.50	•	0.02-0.06	0.02-0.05

• For cutting speed recommendations, see pages 633-638

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

(3) Minimum axial grooving diameter

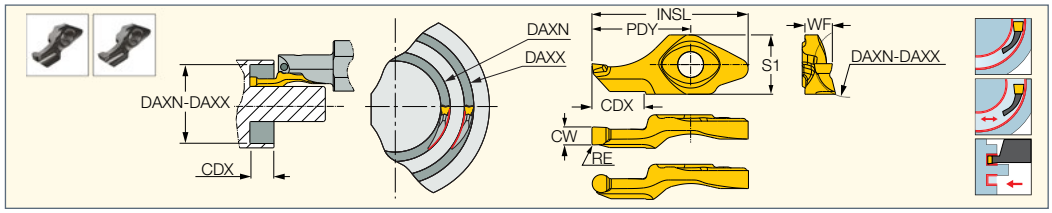
(4) Maximum axial grooving diameter

For tools, see pages: MFHR-JHP (627) • MIFHR (404)

MIN CUT MINI FACE LINE

MEFL

Screw-Clamped Inserts for External Face Grooving and Turning Next to Shafts



I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX	DAXN(3)	DAXX(4)	WF	S1	PDY	INSL	IC908	Recommended Machining Data f face-groove (IPR)	f face-turn (IPR)
MEFL 8-1.50-0.20	.059	.0079	.00078	.0008	.217	.31	.59	.102	.260	.4331	.685	•	.0008-.0039	.0008-.0024
MEFL 8-1.60-0.80	.063	.0315	.00078	.0008	.217	.28	.48	.106	.260	.4331	.685	•	.0008-.0039	.0008-.0024
MEFL 8-2.00-0.20	.079	.0079	.00078	.0008	.217	.31	.79	.122	.260	.4331	.685	•	.0008-.0039	.0008-.0024
MEFL 8-2.00-1.00	.079	.0394	.00078	.0008	.217	.28	.55	.114	.260	.4331	.685	•	.0008-.0039	.0008-.0024
MEFL 8-2.20-0.20	.087	.0079	.00078	.0008	.217	.28	.79	.122	.260	.4331	.685	•	.0008-.0039	.0008-.0024
MEFL 10-2.50-0.20	.098	.0079	.00078	.0008	.354	.39	1.77	.124	.299	.5846	.965	•	.0008-.0024	.0008-.0020
MEFL 10-2.50-1.25	.098	.0492	.00078	.0008	.354	.39	1.77	.124	.299	.5846	.965	•	.0008-.0024	.0008-.0020
MEFL 10-3.00-0.20	.118	.0079	.00078	.0008	.354	.39	3.94	.142	.299	.5846	.965	•	.0008-.0024	.0008-.0020
MEFL 10-3.00-1.50	.118	.0590	.00078	.0008	.354	.39	3.94	.134	.299	.5846	.965	•	.0008-.0024	.0008-.0020

• For cutting speed recommendations, see pages 633-638

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

(3) Minimum axial grooving diameter

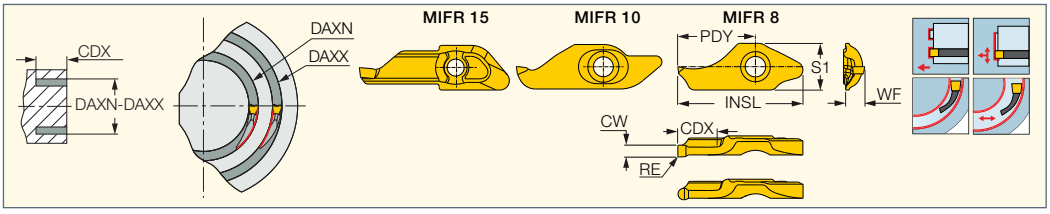
(4) Maximum axial grooving diameter

For tools, see pages: MFHR-JHP (metric) (627) • MIFHR (404)

MIN CUT MINI FACE LINE

MIFR

Screw-Clamped Inserts for Internal Face Grooving and Turning



M E T R I C

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX	DAXN(3)	DAXX(4)	WF	S1	INSL	PDY	IC908	Recommended Machining Data f face-groove (mm/rev)	f face-turn (mm/rev)
MIFR 8-1.50-0.20	1.50	0.20	0.020	0.020	5.50	8.0	11.5	2.60	6.50	17.70	11.00	●	0.02-0.10	0.02-0.06
MIFR 8-1.60-0.80	1.60	0.80	0.020	0.020	5.50	8.0	12.1	2.60	6.50	17.70	11.00	●	0.02-0.10	0.02-0.06
MIFR 10-2.00-0.20	2.00	0.20	0.020	0.020	9.00	10.0	-	3.00	7.60	25.10	14.80	●	0.02-0.10	0.02-0.06
MIFR 8-2.00-0.20	2.00	0.20	0.020	0.020	5.50	8.0	16.0	2.80	6.50	17.70	11.00	●	0.02-0.10	0.02-0.06
MIFR 10-2.00-1.00	2.00	1.00	0.020	0.020	9.00	10.0	-	3.00	7.60	25.10	14.80	●	0.02-0.10	0.02-0.06
MIFR 8-2.20-0.20	2.20	0.20	0.020	0.020	5.50	8.0	21.0	2.90	6.50	17.70	11.00	●	0.02-0.10	0.02-0.06
MIFR 10-2.50-0.20	2.50	0.20	0.020	0.020	9.00	10.0	30.0	3.10	7.60	25.10	14.80	●	0.02-0.10	0.02-0.06
MIFR 15-2.50-0.20	2.50	0.20	0.020	0.020	15.00	15.0	60.0	5.55	9.00	30.00	19.30	●	0.03-0.05	0.03-0.04
MIFR 10-2.50-1.25	2.50	1.25	0.020	0.020	9.00	10.0	-	3.30	7.60	25.10	14.80	●	0.02-0.10	0.02-0.06
MIFR 15-2.50-1.25	2.50	1.25	0.020	0.020	15.00	12.0	47.0	5.55	9.00	30.00	19.30	●	0.03-0.05	0.03-0.04
MIFR 10-3.00-0.20	3.00	0.20	0.020	0.020	9.00	10.0	30.0	3.30	7.60	25.10	14.80	●	0.02-0.10	0.02-0.06
MIFR 15-3.00-0.20	3.00	0.20	0.020	0.020	15.00	15.0	60.0	5.85	9.00	30.00	19.30	●	0.03-0.05	0.03-0.04
MIFR 10-3.00-1.50	3.00	1.50	0.020	0.020	9.00	10.0	34.0	3.30	7.60	25.10	14.80	●	0.02-0.10	0.02-0.06
MIFR 15-3.00-1.50	3.00	1.50	0.020	0.020	15.00	10.0	-	5.85	9.00	30.00	19.30	●	0.03-0.05	0.03-0.04
MIFR 15-3.50-0.20	3.50	0.20	0.020	0.020	15.00	10.0	-	6.00	9.00	30.00	19.30	●	0.03-0.05	0.03-0.04

- Recommended cutting speeds and feeds can be increased by 20-30% for aluminum, and reduced by 20-30% for titanium and Inconel
- For cutting speed recommendaions, see pages 633-638

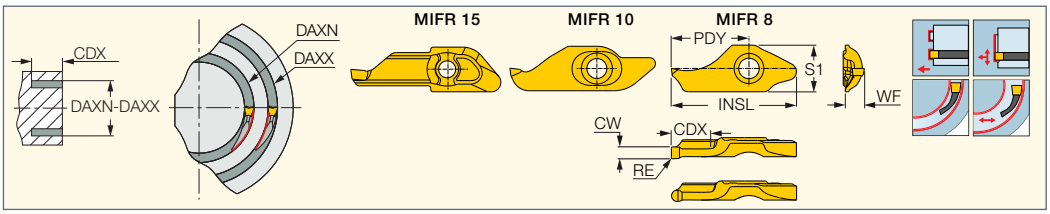
(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
(3) Minimum axial grooving diameter
(4) Maximum axial grooving diameter

For tools, see pages: MFHR-JHP (627) • MIFHR (404)

MIN CUT MINI FACE LINE

MIFR

Screw-Clamped Inserts for Internal Face Grooving and Turning, Penetration Diameter Range .315-.669"



I N C H

Designation	Dimensions CW	RE	CWTOL(1)	RETOL(2)	CDX	DAXN(3)	DAXX(4)	WF	S1	INSL	PDY	IC908	Recommended Machining Data f face-groove (IPR)	f face-turn (IPR)
MIFR 8-1.50-0.20	.059	.0079	.00078	.0008	.217	.31	.45	.102	.256	.697	.4331	●	.0008-.0039	.0008-.0024
MIFR 8-1.60-0.80	.063	.0315	.00078	.0008	.217	.31	.48	.102	.256	.697	.4331	●	.0008-.0039	.0008-.0024
MIFR 10-2.00-0.20	.079	.0079	.00078	.0008	.354	.39	-	.118	.299	.988	.5827	●	.0008-.0039	.0008-.0024
MIFR 8-2.00-0.20	.079	.0079	.00078	.0008	.217	.31	.63	.110	.256	.697	.4331	●	.0008-.0039	.0008-.0024
MIFR 10-2.00-1.00	.079	.0394	.00078	.0008	.354	.39	-	.118	.299	.988	.5827	●	.0008-.0039	.0008-.0024
MIFR 8-2.20-0.20	.087	.0079	.00078	.0008	.217	.31	.83	.114	.256	.697	.4331	●	.0008-.0039	.0008-.0024
MIFR 10-2.50-0.20	.098	.0079	.00078	.0008	.354	.39	1.18	.122	.299	.988	.5827	●	.0008-.0039	.0008-.0024
MIFR 15-2.50-0.20	.098	.0079	.00078	.0008	.591	.59	2.36	.219	.354	1.181	.7598	●	.0012-.0020	.0012-.0016
MIFR 10-2.50-1.25	.098	.0492	.00078	.0008	.354	.39	-	.130	.299	.988	.5827	●	.0008-.0039	.0008-.0024
MIFR 15-2.50-1.25	.098	.0492	.00078	.0008	.591	.47	1.85	.219	.354	1.181	.7598	●	.0012-.0020	.0012-.0016
MIFR 10-3.00-0.20	.118	.0079	.00078	.0008	.354	.39	1.18	.130	.299	.988	.5827	●	.0008-.0039	.0008-.0024
MIFR 15-3.00-0.20	.118	.0079	.00078	.0008	.591	.59	2.36	.230	.354	1.181	.7598	●	.0012-.0020	.0012-.0016
MIFR 10-3.00-1.50	.118	.0590	.00078	.0008	.354	.39	1.34	.130	.299	.988	.5827	●	.0008-.0039	.0008-.0024
MIFR 15-3.00-1.50	.118	.0590	.00078	.0008	.591	.39	-	.230	.354	1.181	.7598	●	.0012-.0020	.0012-.0016
MIFR 15-3.50-0.20	.138	.0079	.00078	.0008	.591	.39	-	.236	.354	1.181	.7598	●	.0012-.0020	.0012-.0016

- Recommended cutting speeds and feeds can be increased by 20-30% for aluminum, and reduced by 20-30% for titanium and Inconel
- For cutting speed recommendaions, see pages 633-638

(1) Cutting width tolerance (+/-)
(2) Corner radius tolerance (+/-)
(3) Minimum axial grooving diameter
(4) Maximum axial grooving diameter

For tools, see pages: MFHR-JHP (metric) (627) • MIFHR (404)

MIFR 8



MIFR 10



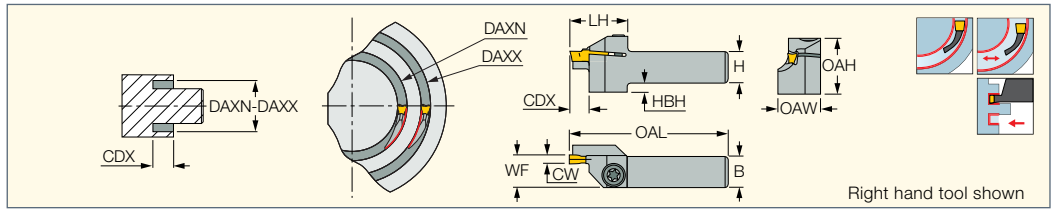
MIFR 15



HELIFACE

HGHR/L-3

Integral Holders for Face Grooving and Turning



M E T R I C

Designation	CW	CDX	DAXN(1)	DAXX(2)	WF	H	OAH	B	OAW	OAL	LH	HBH	MIID(3)		
HGHL 1212-12-3T6	3.00	6.00	12.0	16.0	11.00	12.0	19.00	12.0	15.70	120.00	19.0	-	HGPL 3003Y	SR 76-1400	T-20/3
HGHL 1616-12-3T6	3.00	6.00	12.0	16.0	15.00	16.0	21.00	16.0	19.70	120.00	19.0	-	HGPL 3003Y	SR 76-1400	T-20/3
HGHL 1616-16-3T6	3.00	6.00	16.0	25.0	15.00	16.0	21.00	16.0	18.80	120.00	19.0	-	HGPL 3003Y	SR 76-1400	T-20/3
HGHR 1010-12-3T6	3.00	6.00	12.0	16.0	9.50	10.0	19.00	10.0	13.70	120.00	19.0	2.0	GRIP 3003Y	SR 76-1400	T-20/3
HGHR 1010-16-3T6	3.00	6.00	16.0	25.0	9.50	10.0	19.00	10.0	12.80	120.00	19.0	2.0	GRIP 3003Y	SR 76-1400	T-20/3
HGHR 1212-12-3T6	3.00	6.00	12.0	16.0	11.00	12.0	19.00	12.0	15.70	120.00	19.0	-	GRIP 3003Y	SR 76-1400	T-20/3
HGHR 1212-16-3T6	3.00	6.00	16.0	25.0	11.00	12.0	19.00	12.0	14.80	120.00	19.0	-	GRIP 3003Y	SR 76-1400	T-20/3
HGHR 1616-12-3T6	3.00	6.00	12.0	16.0	15.00	16.0	21.00	16.0	19.70	120.00	19.0	-	GRIP 3003Y	SR 76-1400	T-20/3
HGHR 1616-16-3T6	3.00	6.00	16.0	25.0	15.00	16.0	21.00	16.0	18.80	120.00	19.0	-	GRIP 3003Y	SR 76-1400	T-20/3

• HGN & GRIP inserts can be used only with right-hand toolholders, HGPL inserts only with left-hand toolholders • For user guide, see pages 610-612,633-640

(1) Minimum penetration diameter

(2) Maximum penetration diameter

(3) Master insert identification

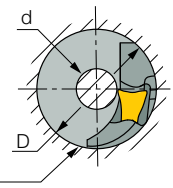
For inserts, see pages: GRIPA (370) • GRIPA (full radius) (371) • GRIP (368) • GRIP (full radius) (369) • HGN-C (372) • HGN-J (374) • HGN-UT (376) • HGPL (631)

Groove can be widened with no limitation toward or away from the center except for the following tools:

HGHR/L...-12-3T6

D	d
12.0	4.0
13.0	1.0
13.5	0

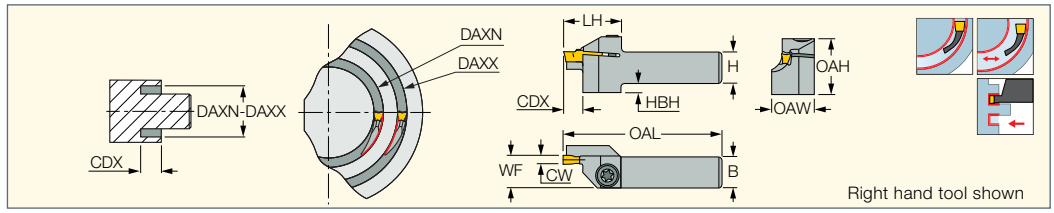
Limitation of widening toward center depends on the major diameter (D) as per chart.



HELIFACE

HGHR/L-3

Integral Holders for Face Grooving and Turning



I N C H

Designation	CW	CDX	DAXN(1)	DAXX(2)	WF	H	B	OAH	OAW	OAL	LH	HBH	MIID(3)		
HGHL 9.5-12-3T6	.118	.236	.47	.63	.370	.375	.375	.670	.559	5.000	.750	.120	HGPL 3003Y	SR 76-1400	T-20/3
HGHL 12.7-12-3T6	.118	.236	.47	.63	.460	.500	.500	.700	.646	5.000	.750	.120	HGPL 3003Y	SR 76-1400	T-20/3
HGHL 12.7-16-3T6	.118	.236	.63	.98	.460	.500	.500	.700	.619	5.000	.750	.120	HGPL 3003Y	SR 76-1400	T-20/3
HGHL 15.9-12-3T6	.118	.236	.47	.63	.590	.625	.625	.820	.771	5.000	.750	.120	HGPL 3003Y	SR 76-1400	T-20/3
HGHR 9.5-16-3T6	.118	.236	.63	.98	.370	.375	.375	.670	.524	5.000	.750	.120	GRIP 3003Y	SR 76-1400	T-20/3
HGHR 15.9-12-3T6	.118	.236	.47	.63	.590	.625	.625	.820	.771	5.000	.750	.120	GRIP 3003Y	SR 76-1400	T-20/3
HGHR 15.9-16-3T6	.118	.236	.63	.98	.590	.625	.625	.820	.735	5.000	.750	.120	GRIP 3003Y	SR 76-1400	T-20/3

• HGN & GRIP inserts can be used only with right-hand toolholders, HGPL inserts only with left-hand toolholders • For user guide, see pages 610-612,633-640

(1) Minimum penetration diameter

(2) Maximum penetration diameter

(3) Master insert identification

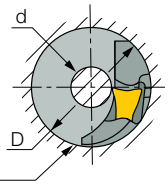
For inserts, see pages: GRIP (368) • GRIP (full radius) (369) • GRIPA (370) • GRIPA (full radius) (371) • HGN-C (372) • HGN-J (374) • HGN-UT (376) • HGPL (631)

Groove can be widened with no limitation toward or away from the center with the exception of the following tools:

HGHR/L...-12-3T6

D	d
.472	.157
.512	.039
.513	0

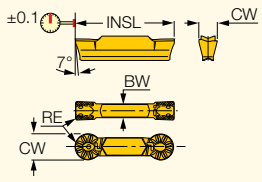
Limitation of widening toward center depends on the major diameter (D) as per chart

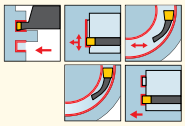


HELI-GRIP

HGPL
Utility Double-Ended Inserts
for Face Machining







M E T R I C

Designation	Dimensions						Tough ↔ Hard						Recommended Machining Data		
	CW	BW	RE	CWTOL(1)	RETOL(2)	INSL	IC328	IC354	IC08	IC808	IC908	IC806	a_p (mm)	f face-groove (mm/rev)	f face-turn (mm/rev)
HGPL 3015Y	3.00	2.10	1.50	0.030	0.050	16.00				•	•		0.00-1.50	0.08-0.20	0.12-0.23
HGPL 3002Y	3.00	2.30	0.20	0.030	0.050	16.00		•	•	•	•		0.24-1.80	0.08-0.20	0.12-0.23
HGPL 3003Y	3.00	2.30	0.30	0.030	0.050	16.00	•	•	•	•	•		0.36-1.80	0.08-0.20	0.12-0.23
HGPL 4002Y	4.00	2.80	0.20	0.030	0.050	19.00		•	•	•	•		0.24-2.40	0.10-0.24	0.16-0.30
HGPL 4004Y	4.00	2.80	0.40	0.030	0.050	19.00		•	•	•	•		0.48-2.40	0.10-0.24	0.16-0.30
HGPL 4020Y	4.00	2.80	2.00	0.030	0.050	19.00			•	•	•		0.00-2.00	0.10-0.24	0.16-0.30
HGPL 5005Y	5.00	3.30	0.50	0.030	0.050	19.00		•		•	•		0.60-3.00	0.12-0.24	0.20-0.38
HGPL 5025Y	5.00	3.30	2.50	0.030	0.050	19.00			•	•	•		0.00-2.50	0.12-0.24	0.20-0.38
HGPL 6005Y	6.00	4.20	0.50	0.030	0.050	19.00		•		•	•	•	0.60-3.60	0.12-0.28	0.24-0.45
HGPL 6030Y	6.00	4.20	3.00	0.030	0.050	19.00			•	•	•		0.00-3.00	0.12-0.28	0.24-0.45

• No depth penetration limit • For cutting speed recommendations and user guide, see pages 610-612,633-640

(1) Cutting width tolerance (+/-)

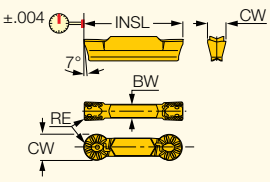
(2) Corner radius tolerance (+/-)

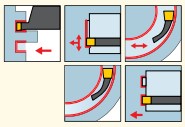
For tools, see pages: HGHR/L-3 (630)

HELI-GRIP

HGPL
Utility Double-Ended Inserts
for Face Machining







I N C H

Designation	Dimensions						Tough ↔ Hard						Recommended Machining Data		
	CW	BW	RE	CWTOL(1)	RETOL(2)	INSL	IC328	IC354	IC08	IC808	IC908	IC806	a_p (inch)	f face-groove (IPR)	f face-turn (IPR)
HGPL 3015Y	.118	.083	.059	.00118	.0020	.630				•	•		.000-.059	.0031-.0079	.0047-.0091
HGPL 3002Y	.118	.091	.008	.00118	.0020	.630		•	•	•	•		.009-.071	.0031-.0079	.0047-.0091
HGPL 3003Y	.118	.091	.012	.00118	.0020	.630	•	•	•	•	•		.014-.071	.0031-.0079	.0047-.0091
HGPL 4002Y	.157	.110	.008	.00118	.0020	.748		•	•	•	•		.009-.094	.0039-.0094	.0063-.0118
HGPL 4004Y	.157	.110	.016	.00118	.0020	.748		•	•	•	•		.019-.094	.0039-.0094	.0063-.0118
HGPL 4020Y	.157	.110	.079	.00118	.0020	.748			•	•	•		.000-.079	.0039-.0094	.0063-.0118
HGPL 5005Y	.197	.130	.020	.00118	.0020	.748		•		•	•		.024-.118	.0047-.0094	.0079-.0150
HGPL 5025Y	.197	.130	.098	.00118	.0020	.748			•	•	•		.000-.098	.0047-.0094	.0079-.0150
HGPL 6005Y	.236	.165	.020	.00118	.0020	.748		•		•	•	•	.024-.142	.0047-.0110	.0094-.0177
HGPL 6030Y	.236	.165	.118	.00118	.0020	.748			•	•	•		.000-.118	.0047-.0110	.0094-.0177

• No depth penetration limit • For cutting speed recommendations and user guide, see pages 610-612,633-640

(1) Cutting width tolerance (+/-)

(2) Corner radius tolerance (+/-)

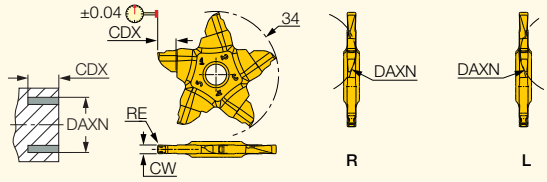
For tools, see pages: HGHR/L-3 (630)

PENTACUT

PENTA 34F-R/L

Pentagonal Inserts for Face Grooving and Recessing





M E T R I C

Designation	Dimensions CW	RE	RETOL(1)	CDX	DAXN(2)	IC908	Recommended Machining Data f face-groove (mm/rev)
PENTA 34F239-0.15-22R/L	2.39	0.15	0.020	5.00	22.0	●	0.08-0.12
PENTA 34F247-0.20-22R/L	2.47	0.20	0.020	5.00	22.0	●	0.08-0.12
PENTA 34F300-0.40-22R/L	3.00	0.40	0.020	5.00	22.0	●	0.08-0.15
PENTA 34F400-0.40-22R/L	4.00	0.40	0.020	5.00	22.0	●	0.08-0.15

• For cutting speed recommendations, see pages 633-638

(1) Corner radius tolerance (+/-)

(2) Minimum axial grooving diameter

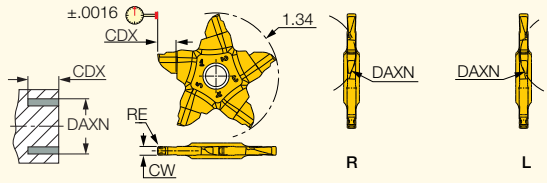
For tools, see pages: PCHPR/L (551) • PCHR/L-34 (578) • PCHR/L-34-JHP (579)

PENTACUT

PENTA 34F-R/L

Pentagonal Inserts for Face Grooving and Recessing





I N C H

Designation	Dimensions CW	RE	RETOL(1)	CDX	DAXN(2)	IC908	Recommended Machining Data f face-groove (IPR)
PENTA 34F239-0.15-22R/L	.094	.0059	.0008	.197	.87	●	.0031-.0047
PENTA 34F247-0.20-22R/L	.097	.0079	.0008	.197	.87	●	.0031-.0047
PENTA 34F300-0.40-22R/L	.118	.0157	.0008	.197	.87	●	.0031-.0059
PENTA 34F400-0.40-22R/L	.157	.0157	.0008	.197	.87	●	.0031-.0059

• For cutting speed recommendations, see pages 633-638

(1) Corner radius tolerance (+/-)

(2) Minimum axial grooving diameter

For tools, see pages: PCHPR/L (551) • PCHR/L-34 (578) • PCHR/L-34-JHP (579)

Machining Data for Face Grooving (Metric)

ISO	Material		Condition	Tensile Strength [N/mm²]	Hardness HB	Material No.	Cutting Speed (m/min)	GFQR IC528 Feed (mm/rev)	PICCO IC228 Feed (mm/rev)	MIFR/ MEFL 8 IC908 Feed (mm/rev)	MIFR 10 IC908 Feed (mm/rev)	MIFR 15 IC908 Feed (mm/rev)
P	non-alloy steel and cast steel, free cutting steel	<0.25% C	annealed	420	125	1	80-180	0.02-0.08	0.015-0.05	0.015-0.08	0.03-0.10	0.03-0.08
		≥0.25% C	annealed	650	190	2						
		<0.55% C	quenched and tempered	850	250	3	80-130	0.02-0.06	0.015-0.04			
		≥0.55% C	annealed	750	220	4						
			quenched and tempered	1000	300	5	80-120	0.02-0.06	0.015-0.04			
	low alloy and cast steel (less than 5% of alloying elements)		annealed	600	200	6	80-140	0.02-0.08	0.015-0.04			
			quenched and tempered	930	275	7	80-140	0.02-0.08	0.015-0.04			
				1000	300	8	80-120	0.02-0.06	0.015-0.03			
				1200	350	9	80-120	0.02-0.05	0.015-0.03			
	high alloyed steel, cast steel and tool steel		annealed	680	200	10	80-140	0.02-0.08	0.015-0.04			
			quenched and tempered	1100	325	11	80-120	0.02-0.08	0.015-0.03			
	stainless steel and cast steel		ferritic / martensitic	680	200	12	40-120	0.02-0.08	0.015-0.04	0.015-0.07	0.03-0.08	0.02-0.05
			martensitic	820	240	13	40-120	0.02-0.07	0.015-0.04	0.015-0.07	0.03-0.08	0.02-0.05
M	stainless steel and cast steel		austenitic, duplex	600	180	14	40-100	0.02-0.06	0.015-0.03	0.015-0.07	0.03-0.08	0.02-0.05
N	aluminum-wrought alloys		not hardenable		60	21	150-320	0.02-0.08	0.015-005	0.02-0.10	0.05-0.15	0.05-0.12
			hardenable		100	22	100-250	0.02-0.08	0.015-005			
	aluminum-cast alloys	≤12% Si	not hardenable		75	23	150-300	0.02-0.08	0.015-005			
			hardenable		90	24	150-300	0.02-0.08	0.015-005			
		>12% Si	high temperature		130	25	100-150	0.02-0.08	0.015-005			
	copper alloys	>1% Pb	free cutting		110	26	80-230	0.02-0.08	0.015-005			
			brass		90	27	70-200	0.02-0.08	0.015-005			
			electrolytic copper		100	28	50-180	0.02-0.08	0.015-005			
	non metallic		duroplastics, fiber plastics			29						
			hard rubber			30						
S	high temperature alloys	Fe based	annealed		200	31	20-40	0.02-0.06	0.015-0.04	0.015-0.7	0.02-0.08	0.02-0.05
			hardened		280	32	15-30	0.02-0.06	0.015-0.04			
		Ni or Co based	annealed		250	33	15-20	0.02-0.06	0.015-0.04			
			hardened		350	34	15-20	0.02-0.06	0.015-0.04			
			cast		320	35	15-20	0.02-0.06	0.015-0.04			
	titanium alloys		pure	RM 400		36	40-120	0.02-0.06	0.015-0.04			
			alpha+beta alloys, hardened	RM 1050		37	20-50	0.02-0.06	0.015-0.04			
H	hardened steel		hardened		55 HRC	38						
			hardened		60 HRC	39						
	chilled cast iron		cast		400	40						
	cast iron		hardened		55 HRC	41						

Machining Data for Face Grooving (Metric)

ISO	Material		Condition	Tensile Strength [N/mm²]	Hardness HB	Material Group No.
P	non-alloy steel and cast steel, free cutting steel	<0.25% C	annealed	420	125	1
		≥0.25% C	annealed	650	190	2
		<0.55% C	quenched and tempered	850	250	3
		≥0.55% C	annealed	750	220	4
			quenched and tempered	1000	300	5
	low alloy and cast steel (less than 5% of alloying elements)		annealed	600	200	6
			quenched and tempered	930	275	7
				1000	300	8
				1200	350	9
	high alloyed steel, cast steel and tool steel		annealed	680	200	10
			quenched and tempered	1100	325	11
	stainless steel and cast steel		ferritic / martensitic	680	200	12
			martensitic	820	240	13
M	stainless steel and cast steel		austenitic, duplex	600	180	14
N	aluminum-wrought alloys		not hardenable		60	21
			hardenable		100	22
	aluminum-cast alloys	≤12% Si	not hardenable		75	23
			hardenable		90	24
		>12% Si	high temperature		130	25
	copper alloys	>1% Pb	free cutting		110	26
			brass		90	27
			electrolytic copper		100	28
	non metallic		duroplastics, fiber plastics			29
			hard rubber			30
S	high temperature alloys	Fe based	annealed		200	31
			hardened		280	32
		Ni or Co based	annealed		250	33
			hardened		350	34
			cast		320	35
	titanium alloys		pure	RM 400		36
			alpha+beta alloys, hardened	RM 1050		37
H	hardened steel		hardened		55 HRC	38
			hardened		60 HRC	39
	chilled cast iron		cast		400	40
	cast iron		hardened		55 HRC	41

Material No.	IC228/528	IC830	IC354	IC908	IC808	IC8250
1	85 - 125	90 - 135	95 - 145	120 - 180	125 - 190	180 - 270
2	75 - 110	80 - 115	90 - 125	110 - 155	115 - 165	165 - 230
3	60 - 85	65 - 95	70 - 100	85 - 125	90 - 130	125 - 185
4	65 - 100	70 - 110	75 - 115	95 - 145	100 - 150	140 - 215
5	50 - 85	55 - 90	60 - 95	75 - 120	80 - 125	110 - 180
6	65 - 100	70 - 110	75 - 115	95 - 145	100 - 150	140 - 215
7	50 - 85	55 - 95	60 - 100	75 - 125	80 - 130	110 - 185
8	50 - 85	55 - 90	60 - 95	75 - 120	80 - 125	110 - 180
9	50 - 75	50 - 80	55 - 90	70 - 110	75 - 115	105 - 165
10	75 - 110	80 - 115	90 - 125	110 - 155	115 - 165	165 - 230
11	50 - 75	50 - 80	55 - 90	70 - 110	75 - 115	105 - 165

	IC806	IC808	IC354	IC830	IC20	
12	110 - 200	100 - 180	80 - 145	75 - 135	50 - 90	
13	100 - 185	90 - 170	70 - 135	65 - 125	45 - 85	

	IC806	IC808	IC354	IC830	IC20	
14	90 - 170	80 - 155	65 - 125	60 - 115	40 - 75	

	IC808	IC20				
21	330 - 990	300 - 900				
22	250 - 825	225 - 750				
23	250 - 825	225 - 750				
24	165 - 495	150 - 450				
25	165 - 330	150 - 300				
26	165 - 330	150 - 300				
27	120 - 250	110 - 225				
28	80 - 165	75 - 150				
29	40 - 165	35 - 150				
30						

	IC806	IC908	IC808	IC830	IC20	
31	45 - 70	35 - 55	35 - 60	25 - 40	25 - 40	
32	30 - 50	25 - 40	25 - 40	20 - 30	15 - 30	
33	30 - 50	25 - 40	25 - 40	20 - 30	15 - 30	
34	25 - 45	20 - 35	20 - 35	15 - 25	15 - 25	
35	20 - 30	15 - 25	15 - 25	10 - 20	10 - 15	
36	105 - 180	85 - 145	90 - 150	65 - 110	60 - 100	
37	40 - 50	30 - 40	30 - 40	25 - 35	35 - 45	

	IC808	IC20				
38	25-30	20-30				
39	20-30	15-25				
40	30-45	30-40				
41	25-30	25-30				

Machining Data for Face Grooving (Imperial)

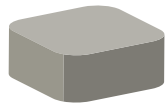
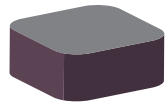
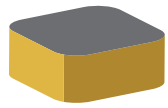
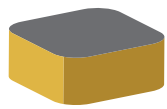
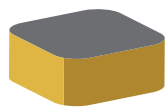
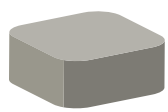
ISO	Material		Condition	Tensile Strength [ksi]	Hardness HB	Material Group No.
P	non-alloy steel and cast steel, free cutting steel	<0.25% C	annealed	61	125	1
		≥0.25% C	annealed	94	190	2
		<0.55% C	quenched and tempered	123	250	3
		≥0.55% C	annealed	109	220	4
			quenched and tempered	145	300	5
	low alloy and cast steel (less than 5% of alloying elements)		annealed	87	200	6
			quenched and tempered	135	275	7
				145	300	8
				174	350	9
	high alloyed steel, cast steel and tool steel		annealed	99	200	10
			quenched and tempered	160	325	11
	stainless steel and cast steel		ferritic / martensitic	99	200	12
			martensitic	119	240	13
M	stainless steel and cast steel		austenitic, duplex	87	180	14
N	aluminum-wrought alloys		not hardenable		60	21
			hardenable		100	22
	aluminum-cast alloys	≤12% Si	not hardenable		75	23
			hardenable		90	24
		>12% Si	high temperature		130	25
	copper alloys	>1% Pb	free cutting		110	26
			brass		90	27
			electrolytic copper		100	28
	non metallic		duroplastics, fiber plastics			29
			hard rubber			30
S	high temperature alloys	Fe based	annealed		200	31
			hardened		280	32
		Ni or Co based	annealed		250	33
			hardened		350	34
			cast		320	35
	titanium alloys		pure	58	190	36
			alpha+beta alloys, hardened	152	310	37
H	hardened steel		hardened		55 HRC	38
			hardened		60 HRC	39
	chilled cast iron		cast		400	40
	cast iron		hardened		55 HRC	41

Material no.	IC228/528	IC830	IC354	IC908	IC808	IC8250
1	280 - 410	300 - 440	310 - 480	390 - 590	410 - 620	590 - 890
2	250 - 360	260 - 380	300 - 410	360 - 510	380 - 540	540 - 750
3	200 - 280	210 - 310	230 - 330	280 - 410	300 - 430	410 - 610
4	210 - 330	230 - 360	250 - 380	310 - 480	330 - 490	460 - 710
5	160 - 280	180 - 300	200 - 310	250 - 390	260 - 410	360 - 590
6	210 - 330	230 - 360	250 - 380	310 - 480	330 - 490	460 - 710
7	160 - 280	180 - 310	200 - 330	250 - 410	260 - 430	360 - 610
8	160 - 280	180 - 300	200 - 310	250 - 390	260 - 410	360 - 590
9	160 - 250	160 - 260	180 - 300	230 - 360	250 - 380	340 - 540
10	250 - 360	260 - 380	300 - 410	360 - 510	380 - 540	540 - 750
11	160 - 250	160 - 260	180 - 300	230 - 360	250 - 380	340 - 540
	IC806	**IC808**	**IC354**	**IC830**	**IC20**	
12	360 - 660	330 - 590	260 - 480	250 - 440	160 - 300	
13	330 - 610	300 - 560	230 - 440	210 - 410	150 - 280	
	IC806	**IC808**	**IC354**	**IC830**	**IC20**	
14	300 - 560	260 - 510	210 - 410	200 - 380	130 - 250	
	IC808	**IC20**				
21	1080 - 3250	980 - 2950				
22	820 - 2710	740 - 2460				
23	820 - 2710	740 - 2460				
24	540 - 1620	490 - 1480				
25	540 - 1080	490 - 980				
26	540 - 1080	490 - 980				
27	390 - 820	360 - 740				
28	260 - 540	250 - 490				
29	130 - 540	110 - 490				
30						
	IC806	**IC908**	**IC808**	**IC830**	**IC20**	
31	150 - 230	110 - 180	110 - 200	80 - 130	80 - 130	
32	100 - 160	80 - 130	80 - 130	70 - 100	50 - 100	
33	100 - 160	80 - 130	80 - 130	70 - 100	50 - 100	
34	80 - 150	70 - 110	70 - 110	50 - 80	50 - 80	
35	70 - 100	50 - 80	50 - 80	30 - 70	30 - 50	
36	340 - 590	280 - 480	300 - 490	210 - 360	200 - 330	
37	130 - 160	100 - 130	100 - 130	80 - 110	110 - 150	
	IC808	**IC20**				
38	80 - 100	65 - 100				
39	65 - 100	50 - 80				
40	100 - 150	100 - 130				
41	80 - 100	80 - 100				

Machining Data for Face Grooving (Imperial)

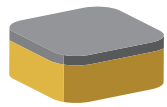
ISO	Material		Condition	Tensile Strength [ksi]	Hardness HB	Material Group No.	Cutting Speed (SFM)	GFQR IC528 Feed (IPR)	PICCO IC228/1008 Feed (IPR)	MIFR/MEFL 8 IC908 Feed (IPR)	MIFR 10 IC908 Feed (IPR)	MIFR 15 IC908 Feed (IPR)
P	non-alloy steel and cast steel, free cutting steel	<0.25% C	annealed	61	125	1	130-590	.0008-.0031	.0006-.002	.0006-.0031	.0012-.0039	.001-.003
		≥0.25% C	annealed	94	190	2						
		<0.55% C	quenched and tempered	123	250	3	130-430	.0008-.0024	.0006-.0016			
		≥0.55% C	annealed	109	220	4						
			quenched and tempered	145	300	5	130-390	.0008-.0024	.0006-.0016			
	low alloy and cast steel (less than 5% of alloying elements)		annealed	87	200	6	130-460	.0008-.0031	.0006-.0016			
			quenched and tempered	135	275	7	130-460	.0008-.0031	.0006-.0016			
				145	300	8	130-390	.0008-.0024	.0006-.0012			
				174	350	9	130-390	.0008-.002	.0006-.0012			
	high alloyed steel, cast steel and tool steel		annealed	99	200	10	130-460	.0008-.0031	.0006-.0016			
			quenched and tempered	160	325	11	130-390	.0008-.0031	.0006-.0012			
	stainless steel and cast steel		ferritic / martensitic	99	200	12	130-390	.0008-.0031	.0006-.0016	.0006-.0028	.0012-.0031	.0008-.002
			martensitic	119	240	13	130-390	.0008-.0028	.0006-.0016			
M	stainless steel and cast steel		austenitic, duplex	87	180	14	130-330	.0008-.0024	.0006-.0012	.0006-.0028	.0014-.0031	.0008-.002
N	aluminum-wrought alloys		not hardenable		60	21	490-1050	.0008-.0031	.0006-.002	.0008-.0039	.002-.0059	.002-.005
			hardenable		100	22	330-820	.0008-.0031	.0006-.002			
	aluminum-cast alloys	≤12% Si	not hardenable		75	23	490-980	.0008-.0031	.0006-.002			
			hardenable		90	24	490-980	.0008-.0031	.0006-.002			
		>12% Si	high temperature		130	25	330-490	.0008-.0031	.0006-.002			
	copper alloys	>1% Pb	free cutting		110	26	260-750	.0008-.0031	.0006-.002			
			brass		90	27	230-660	.0008-.0031	.0006-.002			
			electrolytic copper		100	28	160-590	.0008-.0031	.0006-.002			
	non metallic		duroplastics, fiber plastics			29						
			hard rubber			30						
S	high temperature alloys	Fe based	annealed		200	31	70-130	.0008-.0024	.0006-.0016	.0006-.0028	.0008-.0031	.0008-.002
			hardened		280	32	50-100	.0008-.0024	.0006-.0016			
		Ni or Co based	annealed		250	33	50-70	.0008-.0024	.0006-.0016			
			hardened		350	34	50-70	.0008-.0024	.0006-.0016			
			cast		320	35	50-70	.0008-.0024	.0006-.0016			
	titanium alloys		pure	58	190	36	130-390	.0008-.0024	.0006-.0016			
			alpha+beta alloys, hardened	152	310	37	70-160	.0008-.0024	.0006-.0016			
H	hardened steel		hardened		55 HRC	38						
			hardened		60 HRC	39						
	chilled cast iron		cast		400	40						
	cast iron		hardened		55 HRC	41						

Face Grooving Materials Grades Chart

	Grade	ISO	Grade Description	Coating Layers	Coating Color*
PVD COATED	IC354	P20-P40 M20-M30	A tough substrate with PVD coating, suitable for general use on a wide range of carbon steels, alloy steels and stainless steel at moderate speeds and feeds.	TiCN Base	
	IC806	M05-M15 S10-S20	A hard submicron grain size substrate with PVD coating and a special SUMOTEC surface treatment. Excellent for machining high temperature alloys and Titanium alloys, at moderate to relatively high cutting speeds. Features high wear resistance and plastic deformation durability.	TiAlN AlTiN Base	
	IC807	P10-P20 M05-M15 K15-K30 S10-S20 H05-H15	A hard submicron grain size substrate with PVD coating and a special SUMOTEC surface treatment. Suitable for machining steels, alloy steels, austenitic stainless steel, high temperature alloys and hard steels at moderate to relatively high cutting speeds under stable conditions. Features high wear resistance and plastic deformation durability.	TiN TiAlN Base	
	IC808	P15-P30 M20-M30 K20-K40 S15-S30 H20-H30	A tough submicron grain size substrate with PVD coating and a special SUMOTEC surface treatment. Recommended for general use for a large variety of applications and materials such as steels, alloy steels, austenitic stainless steel and high temperature alloys at moderate cutting speeds and feeds. Features high wear resistance and chipping durability.	TiN TiAlN Base	
	IC830	P30-P45 M25-M40 S20-S30	A tough substrate with PVD coating and a special SUMOTEC surface treatment. Suitable for machining steel and stainless steel at low to medium cutting speeds and moderate to high feeds. The grade features high toughness and recommended for interrupted cuts and machining under unstable conditions. May be used on high temperature alloys at low cutting speeds.	TiN TiAlN Base	
	IC908	P15-P30 M20-M30 K20-K40 S15-S30 H20-H30	A tough submicron grain size substrate with PVD coating, recommended for general use in a large variety of operations and materials such as steels, alloy steels, austenitic stainless steel and high temperature alloys at moderate cutting speeds. Features high wear resistance and chipping durability.	TiAlN Base	

* For coated grades

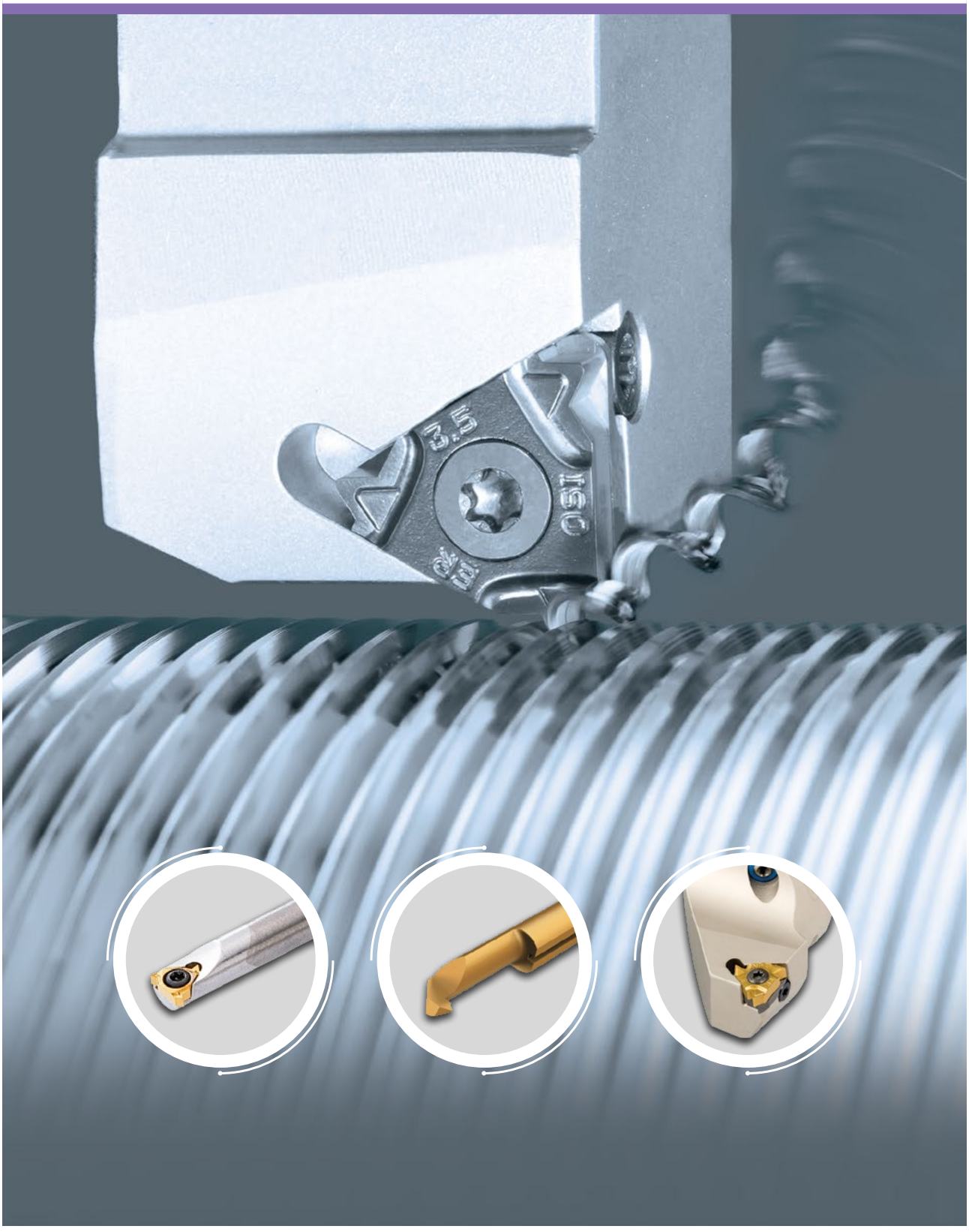
Face Gooving Materials Grades Chart

	Grade	ISO	Grade Description	Coating Layers	Coating Color*
CVD COATED	IC8250	P15-P35 M15-M25 H15-H25	A tough substrate with a cobalt enriched layer and MTCVD coating with a special SUMOTEC surface treatment. Recommended for general use machining of steels, alloy steels and martensitic stainless steel in a wide range of conditions. Features high toughness and good wear resistance.	TiN Al_2O_3 TiCN Base	
	IC9015	P10-P25 K10-K15 	A hard substrate with a cobalt enriched layer and MTCVD coating. Recommended for high speed machining of steels, alloy steels and martensitic stainless steel with moderate feeds at stable conditions.	TiN Al_2O_3 TiCN Base	

* For coated grades

	Grade	ISO	Grade Description	Coating Layers	Uncoated
UNCOATED	IC08	 M15-M30 N10-N25 S20-S30 	A tough uncoated submicron carbide grade, suitable for steels, stainless steel and high temperature alloys at low cutting speeds. Good choice for non-ferrous materials.	Base	
	IC20	 K10-K20 N05-N25 S10-S20 H10-H20	A hard-uncoated carbide grade for machining aluminum and other non-ferrous materials at medium to high cutting speeds. Can be used for cast iron at low cutting speeds. Suitable also for machining high temperature and Titanium alloys, at low cutting speeds.	Base	

THREADING



Toolholder Identification System

Description of ISCAR Threading Tools According to the Template Below

S	E	R	2020	K	16	□
1	2	3	4	5	6	7

1 Clamping System

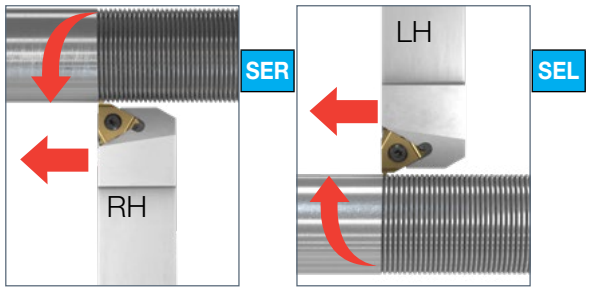
S – screw clamping

2 Application

E – external
I – internal

3 Hand of Tool

R – right-hand
L – left-hand

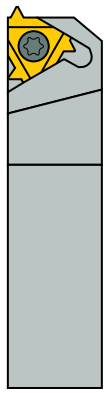


4 External Toolholders

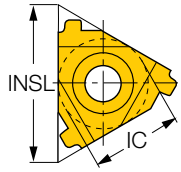
Shank: hxb 2020
20x20 mm (0750-.75"x.75")

5 Tool Length

D	–	60 mm	2.5"
F	–	80 mm	3.25"
H	–	100 mm	4.0"
K	–	125 mm	5.0"
L	–	140 mm	5.5"
M	–	150 mm	6.0"
P	–	170 mm	7.0"
R	–	200 mm	8.0"
S	–	250 mm	10.0"
T	–	300 mm	12.0"
U	–	350 mm	14.0"
V	–	400 mm	16.0"



6 Insert Size



INSL (mm)	IC (Inch)
06	5/32"
08	3/16"
08U	3/16"
11	1/4"
16	3/8"
22	1/2"
22U	1/2"
27	5/8"
27U	5/8"

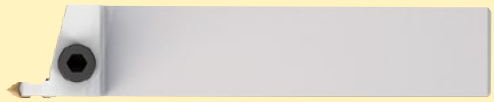
7 Optional Specifications

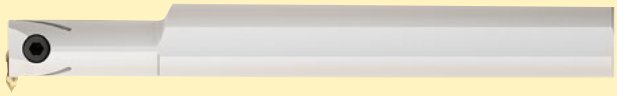
U – for u-type inserts
B – bore for coolant
C – carbide shank
O – offset style
D – drop head
G – gang tool
SP – special

Optional Prefix

C - chamfix shank
HSK
KM

] exchangeable adaptation system

Tool Types		
C#-SER/L HSK-SEL		Standard  U-Type 
ISCAR GROOVE-TURN TOOLS		
PENTACUT Carrying Inserts with 5 Threading Corners. For tool information, refer to the section on GROOVE-TURN.		

Boring Bars		
E-SIR-HEAD		Standard  U-Type 
GROOVE-TURN Boring Bars		
CHAMGROOVE Holder and Carbide Bar		
CHAMGROOVE Integral		
PICCOCUT Holders and Carbide Bars		

Main Types of Laydown Inserts

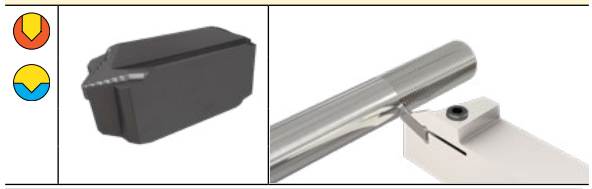
B/M-TYPE	U-TYPE	REGULAR TYPE	MULTI-TOOTH
			



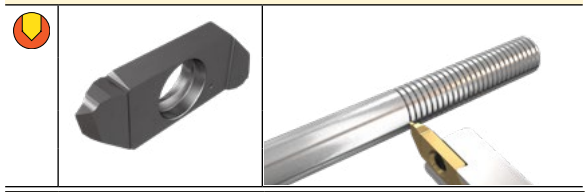
Additional Threading Systems

External

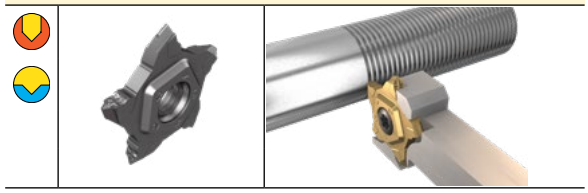
CUT-GRIP External

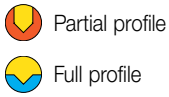


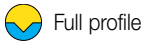
SWISSCUT External



PENTACUT External

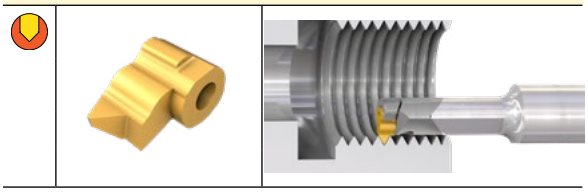


 Partial profile

 Full profile

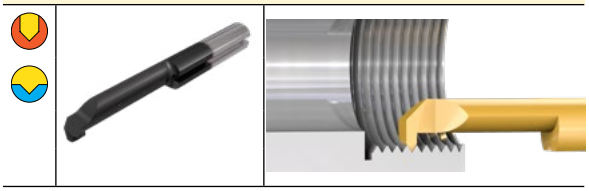
Internal

MINICHAM Internal



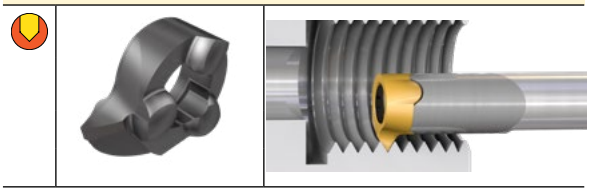
Minimum bore dia. 4 mm / .315”

PICCOCUT Mini-Bar



Minimum bore dia. 2.4 mm / .094”

CHAMGROOVE Internal



Minimum bore dia. 8.0 mm / .315”

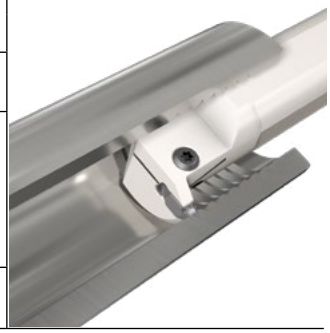
CUT-GRIP Internal



Minimum bore dia.
12.5 mm / .492”



Minimum bore dia.
20 mm / .787”



 Partial profile

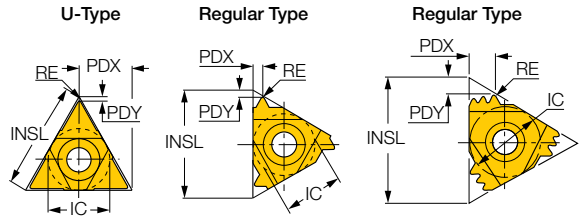
 Full profile

Insert Identification System

Laydown Insert Description According to the Template Below

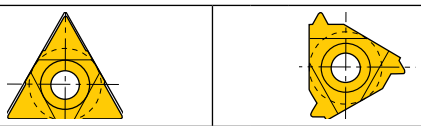
16	E	R	M	1.50	ISO	□	IC908
1	2	3	4	5	6	7	8

1 Insert Length (INSL)



INSL (mm)	IC (inch)
06	5⁄32 "
08	3⁄16 "
11	1/4 "
16	3/8 "
22	1/2 "
27	5/88 "

2 Insert Configuration



U-Type	Regular Type
UE — U-type for external threading	**E** — regular type for external threading
UI — U-type for internal threading	**I** — regular type for internal threading
UEI — U-type for external and internal threading	

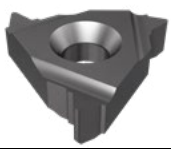
* U-Type configuration is recommended for big threading profiles

3 Insert Clamp Direction

R — right-hand
L — left-hand
RL — right and left-hand

4 Insert Type

B — pressed chipformer and peripheral ground profile
M — pressed to size insert with pressed chipformer
□ — not indicated, G type is an insert with deflector

B-Type	M-Type	G-Type
		

5 Pitch

	mm	TPI
A	0.5-1.5	48-16
AG	0.5-3.0	48-8
G	1.75-3.0	14-8
N	3.5-5.0	7-5
Q	5.5-6.0	4.5-4
U	5.5-9.0	4.5-2.75

6 Threading Standard

55 — partial profile 55°
60 — partial profile 60°
ISO — ISO Metric
UN — american UN
W — whitworth
BSPT — british BSPT
RND — round DIN 405
TR — trapeze DIN 103
ACME — ACME
STACME — stub ACME
ABUT — american buttress
UNJ — UNJ
NPT — NPT
API RD — API round
BUT — API buttress casing
API — API
EL — extreme line casing
MJ — ISO 5855

7 Number of Teeth

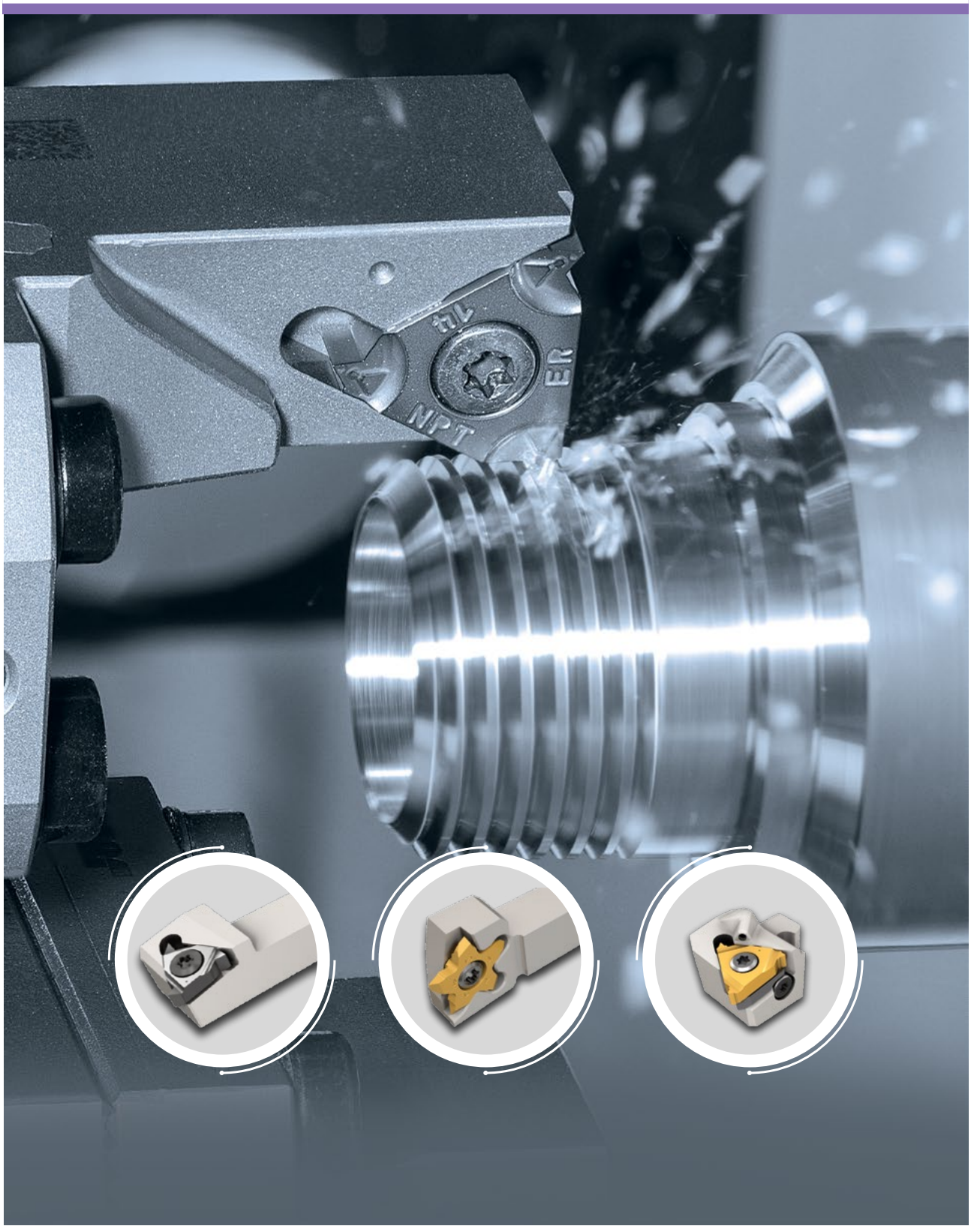
□ — not indicated, 1 tooth
2M — 2 teeth
3M — 3 teeth

* Multi-Tooth inserts increase productivity and are recommended for mass production

8 Grade

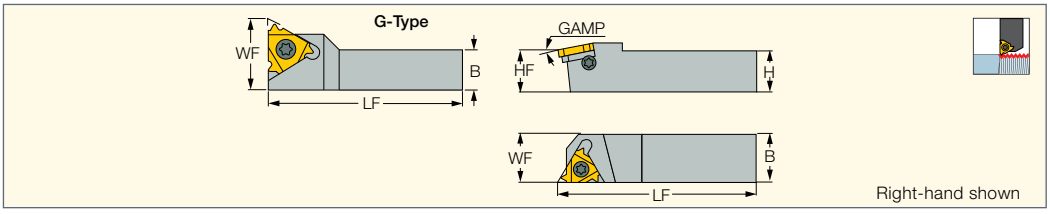
IC50M, IC228, IC250, IC508, IC806, IC808, IC908, IC1007

EXTERNAL THREADING



ISCARTHREAD

SER/L
External Threading Toolholders



M E T R I C							
Designation	**H**	**HF**	**B**	**LF**	**WF**	**GAMP(2)**	**Insert(3)**
SER 0808 H11 (1)	8.0	8.0	8.0	100.00	11.00	15.0	11 ER/L..
SER/L 1010 H11 (1)	10.0	10.0	10.0	100.00	11.00	15.0	11 ER/L..
SER/L 1212 F16	12.0	12.0	12.0	80.00	12.00	10.0	16 ER/L..
SER 1212 X16	12.0	12.0	12.0	120.00	12.00	10.0	16 ER/L..
SER/L 1616 H16	16.0	16.0	16.0	100.00	16.00	10.0	16 ER/L..
SER 1616 K16G	16.0	16.0	16.0	125.00	21.70	10.0	16 ER/L..

• All tools are made for 1.5 helix angle • For multi-tooth inserts use anvils AE16M / AI16M • For GTGA inserts, use anvil AE 16-0

(1) Toolholder without anvil

(2) Rake angle axial

(3) Right-hand inserts (ER) for right-hand tools (SER)

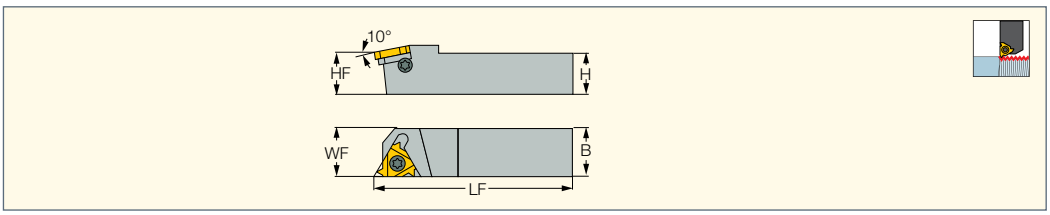
For inserts, see pages: GTMA (434) • ER/L-55° (651) • ER/L-60° (656) • ER/L-ABUT (723) • ER/L-ACME (722) • ER/L-API RD (734) • ER/L-BSPT (716) • ER/L-ISO (663) • ER/L-NPT (728) • ER/L-RND (719) • ER/L-STACME (721) • ER/L-TR (720) • ER/L-UN (701) • ER/L-UNJ (725) • ER/L-W (710) • ER/L-SAGE (724) • ER-PG (733) • ER-MJ (727) • ER-NPTF (732) • GTGA (433)

Spare Parts

Designation					
SER 0808 H11	SR M2.6-L6.7-S11				T-8/5
SER/L 1010 H11	SR M2.6-L6.7-S11				T-8/5
SEL 1212 F16	SR 5-40-L12.2-S16	SR 5-40-L6.8-A16		AI16	T-10/5
SER 1212 F16	SR 5-40-L12.2-S16	SR 5-40-L6.8-A16	AE16		T-10/5
SER 1212 X16	SR 5-40-L12.2-S16	SR 5-40-L6.8-A16	AE16		T-10/5
SEL 1616 H16	SR 5-40-L12.2-S16	SR 5-40-L6.8-A16		AI16	T-10/5
SER 1616 H16	SR 5-40-L12.2-S16	SR 5-40-L6.8-A16	AE16		T-10/5
SER 1616 K16G	SR 5-40-L12.2-S16	SR 5-40-L6.8-A16	AE16		T-10/5

ISCARTHREAD

SER/L
External Threading Toolholders



I N C H						
Designation	**H**	**HF**	**B**	**LF**	**WF**	**Insert(2)**
SER/L 0310 H11 (1)	.310	.310	.310	4.000	.430	11 ER/L..
SER/L 0375 H11 (1)	.380	.380	.380	4.000	.430	11 ER/L..
SER/L 0375 D16	.380	.380	.380	2.500	.630	16 ER/L..
SER/L 0500 F16	.500	.500	.500	3.250	.630	16 ER/L..
SER/L 0625 H16	.625	.625	.625	4.000	.625	16 ER/L..

• All tools are made for 1.5 helix angle • For multi-tooth inserts use anvils AE16M / AI16M • For GTGA inserts, use anvil AE 16-0

(1) Toolholder without anvil

(2) Right-hand inserts (ER) for right-hand tools (SER)

For inserts, see pages: GTMA (434) • ER/L-55° (651) • ER/L-60° (656) • ER/L-ABUT (723) • ER/L-ACME (722) • ER/L-API RD (734) • ER/L-BSPT (716) • ER/L-ISO (663) • ER/L-NPT (728) • ER/L-RND (719) • ER/L-STACME (721) • ER/L-TR (720) • ER/L-UN (701) • ER/L-UNJ (725) • ER/L-W (710) • ER/L-SAGE (724) • ER-PG (733) • ER-MJ (727) • ER-NPTF (732) • GTGA (433)

Spare Parts

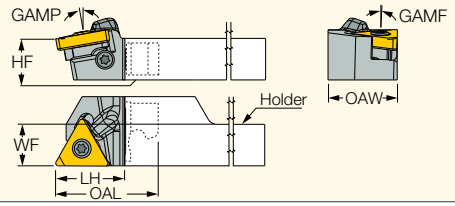
Designation					
SER/L 0310 H11				SR M2.6-L6.7-S11	T-8/5
SER/L 0375 H11				SR M2.6-L6.7-S11	T-8/5
SEL 0375 D16	AI16		SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5
SER 0375 D16		AE16	SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5
SEL 0500 F16	AI16		SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5
SER 0500 F16		AE16	SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5
SEL 0625 H16	AI16		SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5
SER 0625 H16		AE16	SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5

NEOSWISS

NQCH-SER/L-JHP

Screw Lock JET-CUT Modular Heads which Mount ISO Laydown Threading Inserts for Swiss-Type Machines





Right hand tool shown

M E T R I C

Designation	WF	HF	LH	OAL	OAW	GAMP(1)	GAMF(2)	Insert
NQCH12-SEL-16-JHP	12.00	11.8	20.6	29.40	20.00	10.0	1.5	16EL..
NQCH12-SER-16-JHP	12.00	11.8	20.6	29.40	20.00	10.0	1.5	16ER..
NQCH16-SEL-16-JHP	16.00	15.8	20.6	29.40	20.00	10.0	1.5	16EL..
NQCH16-SER-16-JHP	16.00	15.8	20.6	29.40	20.00	10.0	1.5	16ER..

- Use only RH Shank with RH Head and LH Shank with LH Head

(1) Rake angle axial

(2) Rake angle radial

For inserts, see pages: ER-MJ (727) • ER-NPTF (732) • ER-PG (733) • ER/L-55° (651) • ER/L-60° (656) • ER/L-ABUT (723) • ER/L-ACME (722) • ER/L-API RD (734) • ER/L-BSPT (716) • ER/L-ISO (663) • ER/L-NPT (728) • ER/L-RND (719) • ER/L-SAGE (724) • ER/L-STACME (721) • ER/L-TR (720) • ER/L-UN (701) • ER/L-UNJ (725) • ER/L-W (710) • GTGA (433) • GTMA (434)

For holders, see pages: C#-NQCH-JHP (65) • NQCH-JHP (63)

Spare Parts

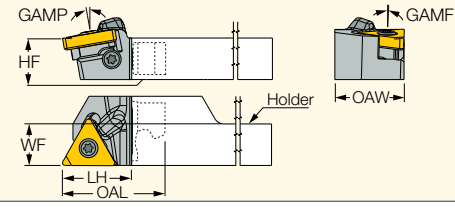
Designation				
NQCH12-SEL-16-JHP	AI16	SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5
NQCH12-SER-16-JHP	AE16	SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5
NQCH16-SEL-16-JHP	AI16	SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5
NQCH16-SER-16-JHP	AE16	SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5

NEOSWISS

NQCH-SER/L-JHP

Screw Lock JET-CUT Modular Heads which Mount ISO Laydown Threading Inserts for Swiss-Type Machines





I N C H

Designation	WF	HF	LH	OAL	OAW	GAMP(1)	GAMF(2)	Insert
NQCH12-SEL-16-JHP	.472	.465	.811	1.157	.787	10.0	1.5	16EL..
NQCH12-SER-16-JHP	.472	.465	.811	1.157	.787	10.0	1.5	16ER..
NQCH16-SEL-16-JHP	.630	.622	.811	1.157	.787	10.0	1.5	16EL..
NQCH16-SER-16-JHP	.630	.622	.811	1.157	.787	10.0	1.5	16ER..

- Use only RH Shank with RH Head and LH Shank with LH Head

(1) Rake angle axial

(2) Rake angle radial

For inserts, see pages: ER-MJ (727) • ER-NPTF (732) • ER-PG (733) • ER/L-55° (651) • ER/L-60° (656) • ER/L-ABUT (723) • ER/L-ACME (722) • ER/L-API RD (734) • ER/L-BSPT (716) • ER/L-ISO (663) • ER/L-NPT (728) • ER/L-RND (719) • ER/L-SAGE (724) • ER/L-STACME (721) • ER/L-TR (720) • ER/L-UN (701) • ER/L-UNJ (725) • ER/L-W (710) • GTGA (433) • GTMA (434)

For holders, see pages: C#-NQCH-JHP (65) • NQCH-JHP (63)

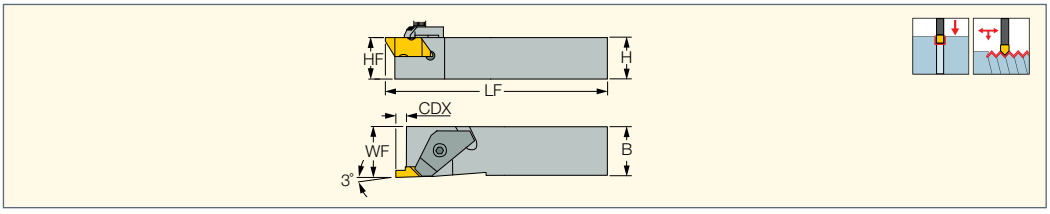
Spare Parts

Designation				
NQCH12-SEL-16-JHP	AI16	SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5
NQCH12-SER-16-JHP	AE16	SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5
NQCH16-SEL-16-JHP	AI16	SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5
NQCH16-SER-16-JHP	AE16	SR 5-40-L6.8-A16	SR 5-40-L12.2-S16	T-10/5

NOTCH-GRIP GROOVE-TURN LINE

FLASR/L

External Tools for Grooving and Threading intended for Swiss-Type Machines



M E T R I C							
Designation	**SSC(1)**	**H**	**HF**	**B**	**CDX**	**WF**	**Insert**
FLASR/L-1010M2	2.0	10.0	10.0	10.0	3.51	10.00	FL/IN_-2
FLASR/L-1212M2	2.0	12.0	12.0	12.0	3.51	12.00	FL/IN_-2
FLASR-1616M2	2.0	16.0	16.0	16.0	3.51	16.00	FL/IN_-2
FLASR/L-1616M3	3.0	16.0	16.0	16.0	5.31	16.00	FL/IN_-3

(1) Seat size code

For inserts, see pages: 60° PARTIAL PROFILE THREADING FLT (675) • 60° PARTIAL PROFILE THREADING FLT-CB (674) • 60° PARTIAL PROFILE THREADING FLTF (672) • 60° PARTIAL PROFILE THREADING FLTK (673) • 60° PARTIAL PROFILE THREADING FLTP (676) • ACME THREADING FLA (684) • ACME THREADING FLA-PT-E (685) • ACME THREADING FLAS (687) • AMERICAN STANDARD BUTTRESS THREADING FLTB-A (692) • AMERICAN STANDARD BUTTRESS THREADING FLTB-B (693) • API BUTTRESS THREADING FLDC-B-E (699) • API PARTIAL PROFILE THREADING FLD (696) • API ROUND THREADING FLDC-RD-75 (694) • API ROUND THREADING FLDC-RD-75-CB (695) • API THREADING FLDC-E (697) • NPT THREADING FLDC-NPT-E (680) • NPT THREADING FLDC-V-75 (679) • STUB ACME THREADING FLAS-PT-E (683) • UN THREADING FLTC-E (677) • UNJ THREADING FLJ (688) • UNJ THREADING FLJF (690) • UNJ THREADING FLJK (691) • UNJ THREADING FLJP (689)

For holders, see pages: SBTH-JHP (833)

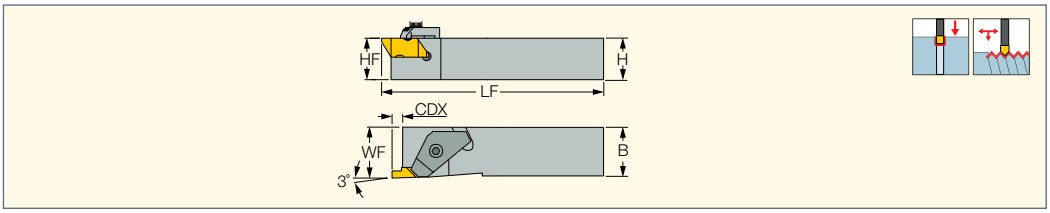
Spare Parts

Designation		
FLASR/L-1010M2	TF183 CLAMP	S-310-TF
FLASR/L-1212M2	TF182 CLAMP	S-310-TF
FLASR-1616M2	TF184 CLAMP	S412-TF
FLASR-1616M3	TF184 CLAMP	S412-TF
FLASL-1616M3	TF185 CLAMP	S412-TF

NOTCH-GRIP GROOVE-TURN LINE

FLASR/L

External Tools for Grooving and Threading intended for Swiss-Type Machines



I N C H								
Designation	**SSC(1)**	**H**	**HF**	**B**	**CDX**	**WF**	**LF**	**Insert**
FLASR/L-062D	2.0	.375	.375	.375	.138	.380	6.000	FL/IN_-2
FLASR/L-082D	2.0	.500	.500	.500	.138	.500	6.000	FL/IN_-2
FLASR-102B	2.0	.625	.625	.625	.138	.630	4.500	FL/IN_-2
FLASR/L-103B	3.0	.625	.625	.625	.210	.630	4.500	FL/IN_-3

(1) Seat size code

For inserts, see pages: 60° PARTIAL PROFILE THREADING FLT (675) • 60° PARTIAL PROFILE THREADING FLT-CB (674) • 60° PARTIAL PROFILE THREADING FLTF (672) • 60° PARTIAL PROFILE THREADING FLTK (673) • 60° PARTIAL PROFILE THREADING FLTP (676) • ACME THREADING FLA (684) • ACME THREADING FLA-PT-E (685) • ACME THREADING FLAS (687) • AMERICAN STANDARD BUTTRESS THREADING FLTB-A (692) • AMERICAN STANDARD BUTTRESS THREADING FLTB-B (693) • API BUTTRESS THREADING FLDC-B-E (699) • API PARTIAL PROFILE THREADING FLD (696) • API ROUND THREADING FLDC-RD-75 (694) • API ROUND THREADING FLDC-RD-75-CB (695) • API THREADING FLDC-E (697) • NPT THREADING FLDC-NPT-E (680) • NPT THREADING FLDC-V-75 (679) • STUB ACME THREADING FLAS-PT-E (683) • UN THREADING FLTC-E (677) • UNJ THREADING FLJ (688) • UNJ THREADING FLJF (690) • UNJ THREADING FLJK (691) • UNJ THREADING FLJP (689)

Spare Parts

Designation		
FLASL-062D	TF183 CLAMP	S-310-TF
FLASR-062D	TF182 CLAMP	S-310-TF
FLASL-082D	TF183 CLAMP	S-310-TF
FLASR-082D	TF182 CLAMP	S-310-TF
FLASR-102B	TF74 CLAMP	S412-TF
FLASL-103B	TF185 CLAMP	S412-TF
FLASR-103B	TF184 CLAMP	S412-TF

EXTERNAL THREADING INSERTS

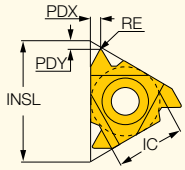


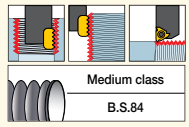
ISCARTHREAD

ER/L-55°

External Laydown Threading Inserts with a 55° Partial Profile for General Applications

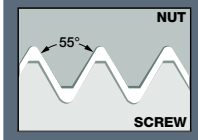






External right-hand shown

M E T R I C



Designation	Dimensions IC	TPIN[2]	TPIX[3]	INSL	RE	PDX	PDY	Tough ↔ Hard IC228	IC50M	IC250	IC808	IC908	IC1007
11ER A 55 IC250	6.35	16.00	48.00	11.00	0.05	0.90	0.80			•			
11ER A 55 IC908	6.35	16.00	48.00	11.00	0.05	0.90	0.80					•	
16EL A 55 IC250	9.52	16.00	48.00	16.49	0.05	0.90	0.80			•			
16EL A 55 IC50M	9.52	16.00	48.00	16.49	0.05	0.90	0.80		•				
16ER A 55 IC250	9.52	16.00	48.00	16.49	0.06	0.90	0.80			•			
16ER A 55 IC50M	9.52	16.00	48.00	16.49	0.06	0.90	0.80		•				
16ER A 55 IC908	9.52	16.00	48.00	16.49	0.06	0.90	0.80					•	
16ER/L AG 55 IC250	9.52	8.00	48.00	16.49	0.07	1.70	1.20			•			
16EL AG 55 IC908	9.52	8.00	48.00	16.49	0.07	1.70	1.20					•	
16ER AG 55 IC1007	9.52	8.00	48.00	16.49	0.07	1.70	1.00						•
16ER AG 55 IC228	9.52	8.00	48.00	16.49	0.07	1.70	1.20	•					
16ER AG 55 IC908	9.52	8.00	48.00	16.49	0.07	1.70	1.20					•	
16ERB AG 55 IC908 [1]	9.52	8.00	48.00	16.49	0.07	1.70	1.20					•	
16ERM AG 55 IC1007 [1]	9.52	8.00	48.00	16.49	0.07	1.70	1.20						•
16ERM AG 55 IC250 [1]	9.52	8.00	48.00	16.49	0.07	1.70	1.20			•			
16ERM AG 55 IC50M [1]	9.52	8.00	48.00	16.49	0.07	1.70	1.20		•				
16ERM AG 55 IC808 [1]	9.52	8.00	48.00	16.49	0.07	1.70	1.20				•		
16ERM AG 55 IC908 [1]	9.52	8.00	48.00	16.49	0.07	1.70	1.20					•	
16EL G 55 IC250	9.52	8.00	14.00	16.49	0.23	1.70	1.17			•			
16ER G 55 IC250	9.52	8.00	14.00	16.49	0.23	1.70	1.20			•			
16ER G 55 IC908	9.52	8.00	14.00	16.49	0.23	1.70	1.17					•	
16ERB G 55 IC908 [1]	9.52	8.00	14.00	16.49	0.23	1.70	1.20					•	
16ERM G 55 IC1007	9.52	8.00	14.00	16.49	0.25	1.70	1.15						•
16ERM G 55 IC250 [1]	9.52	8.00	14.00	16.49	0.25	1.70	1.15			•			
16ERM G 55 IC808 [1]	9.52	8.00	14.00	16.49	0.25	1.70	1.14				•		
16ERM G 55 IC908 [1]	9.52	8.00	14.00	16.49	0.25	1.70	1.14					•	

- For insert identification system, see page 645
- For threading between walls use GRIP-type inserts TIP-WT, GEPI-WT, TIPI-WT
- For detailed cutting data, see pages 797-812

[1] With pressed chipformer
[2] Threads per inch minimum
[3] Threads per inch maximum

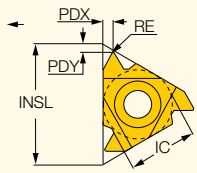
For tools, see pages: NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830) • SER/L (647)

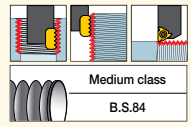
ISCARTHREAD

ER/L-55°

External Laydown Threading Inserts with a 55° Partial Profile for General Applications

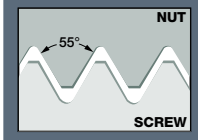






External right-hand shown

I N C H



Designation	Dimensions IC	TPIN(2)	TPIX(3)	INSL	RE	PDX	PDY	Tough ↔ Hard IC228	IC50M	IC250	IC808	IC908	IC1007
11ER A 55 IC250	.250	16.00	48.00	.433	.0020	.0354	.0315			•			
11ER A 55 IC908	.250	16.00	48.00	.433	.0020	.0354	.0315					•	
16EL A 55 IC250	.375	16.00	48.00	.649	.0020	.0354	.0315			•			
16EL A 55 IC50M	.375	16.00	48.00	.649	.0020	.0354	.0315		•				
16ER A 55 IC250	.375	16.00	48.00	.649	.0024	.0354	.0315			•			
16ER A 55 IC50M	.375	16.00	48.00	.649	.0024	.0354	.0315		•				
16ER A 55 IC908	.375	16.00	48.00	.649	.0024	.0354	.0315					•	
16ER/L AG 55 IC250	.375	8.00	48.00	.649	.0027	.0669	.0472			•			
16EL AG 55 IC908	.375	8.00	48.00	.649	.0028	.0669	.0472					•	
16ER AG 55 IC1007	.375	8.00	48.00	.649	.0028	.0669	.0394						•
16ER AG 55 IC228	.375	8.00	48.00	.649	.0027	.0669	.0472	•					
16ER AG 55 IC908	.375	8.00	48.00	.649	.0027	.0669	.0472					•	
16ERB AG 55 IC908 (1)	.375	8.00	48.00	.649	.0028	.0669	.0472					•	
16ERM AG 55 IC1007 (1)	.375	8.00	48.00	.649	.0027	.0669	.0472						•
16ERM AG 55 IC250 (1)	.375	8.00	48.00	.649	.0027	.0669	.0472			•			
16ERM AG 55 IC50M (1)	.375	8.00	48.00	.649	.0027	.0669	.0472		•				
16ERM AG 55 IC808 (1)	.375	8.00	48.00	.649	.0027	.0669	.0472				•		
16ERM AG 55 IC908 (1)	.375	8.00	48.00	.649	.0027	.0669	.0472					•	
16EL G 55 IC250	.375	8.00	14.00	.649	.0091	.0669	.0461			•			
16ER G 55 IC250	.375	8.00	14.00	.649	.0091	.0669	.0472			•			
16ER G 55 IC908	.375	8.00	14.00	.649	.0091	.0669	.0461					•	
16ERB G 55 IC908 (1)	.375	8.00	14.00	.649	.0091	.0669	.0472					•	
16ERM G 55 IC1007	.375	8.00	14.00	.649	.0098	.0669	.0453						•
16ERM G 55 IC250 (1)	.375	8.00	14.00	.649	.0098	.0669	.0453			•			
16ERM G 55 IC808 (1)	.375	8.00	14.00	.649	.0098	.0669	.0449				•		
16ERM G 55 IC908 (1)	.375	8.00	14.00	.649	.0098	.0669	.0449					•	

- For insert identification system, see page 645
- For threading between walls use GRIP-type inserts TIP-WT, GEPI-WT, TIPI-WT
- For detailed cutting data, see pages 797-812

(1) With pressed chipformer
(2) Threads per inch minimum
(3) Threads per inch maximum

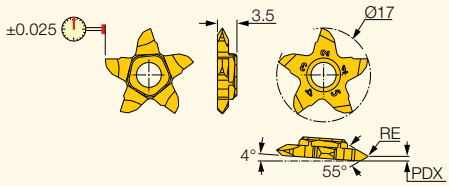
For tools, see pages: NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830) • SER/L (647)

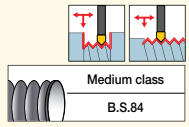
PENTACUT THREADING LINE

PENTA 17-WT-RS/LS

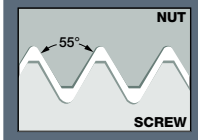
Precision Ground Pentagonal External Threading Inserts with a 55° Partial Profile for General Applications







M E T R I C



Designation	Dimensions TPIX(1)	TPIN(2)	RE	PDX	IC1008
PENTA 17-WTL003LS IC1008	72.00	16.00	0.03	0.80	●
PENTA 17-WTR003RS IC1008	72.00	16.00	0.03	0.80	●
PENTA 17-WTL008LS IC1008	31.00	8.00	0.08	1.40	●
PENTA 17-WTR008RS IC1008	31.00	8.00	0.08	1.40	●

(1) Threads per inch maximum
(2) Threads per inch minimum

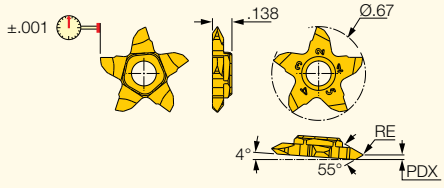
For tools, see pages: NQCH-PCHR/L-S-JHP (536) • PCHRS/LS-17 (534) • PCHRS/LS-17-JHP (535)

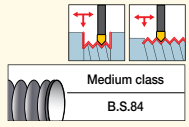
PENTACUT THREADING LINE

PENTA 17-WT-RS/LS

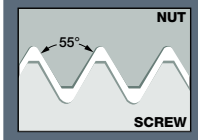
Precision Ground Pentagonal External Threading Inserts with a 55° Partial Profile for General Applications







I N C H



Designation	Dimensions TPIX(1)	TPIN(2)	RE	PDX	IC1008
PENTA 17-WTL003LS IC1008	72.00	16.00	.0012	.0315	●
PENTA 17-WTR003RS IC1008	72.00	16.00	.0012	.0315	●
PENTA 17-WTL008LS IC1008	31.00	8.00	.0031	.0551	●
PENTA 17-WTR008RS IC1008	31.00	8.00	.0031	.0551	●

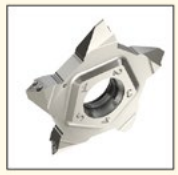
(1) Threads per inch maximum
(2) Threads per inch minimum

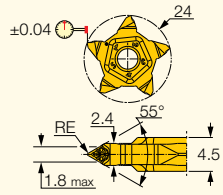
For tools, see pages: NQCH-PCHR/L-S-JHP (536) • PCHRS/LS-17 (534) • PCHRS/LS-17-JHP (535)

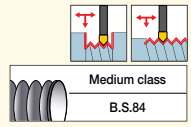
PENTACUT THREADING LINE

PENTA 24-WT

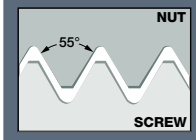
Precision Ground Pentagonal External Threading Inserts with a Whitworth 55° Partial Profile







M E T R I C



Designation	Dimensions TPIX(2)	TPIN(3)	RE	IC908
PENTA 24A-WT-0.15 IC908 (1)	24.00	8.00	0.15	●
PENTA 24A-WT-0.05 IC908 (1)	80.00	8.00	0.05	●

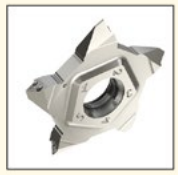
• TPIN=6.4/D(inch) D-nominal thread diameter (inch)
(1) Flat rake (without a chipformer)
(2) Threads per inch maximum
(3) Threads per inch minimum

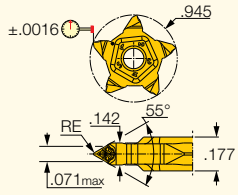
For tools, see pages: NQCH-PCHR/L-24-JHP (552) • PCHR/L-24 (547) • PCHR/L-24-JHP (548)

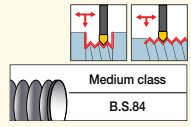
PENTACUT THREADING LINE

PENTA 24-WT

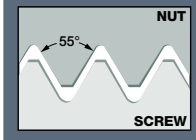
Precision Ground Pentagonal External Threading Inserts with a Whitworth 55° Partial Profile







I N C H



Designation	Dimensions TPIX(2)	TPIN(3)	RE	IC908
PENTA 24A-WT-0.15 IC908 (1)	24.00	8.00	.0059	●
PENTA 24A-WT-0.05 IC908 (1)	80.00	8.00	.0020	●

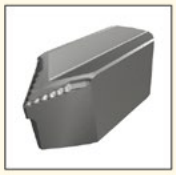
• TPIN=6.4/D(inch) D-nominal thread diameter (inch)
(1) Flat rake (without a chipformer)
(2) Threads per inch maximum
(3) Threads per inch minimum

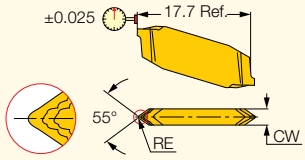
For tools, see pages: NQCH-PCHR/L-24-JHP (552) • PCHR/L-24 (547) • PCHR/L-24-JHP (548)

CUTGRIP

TIP-WT

Precision Ground Double-Ended Threading Inserts with a 55° Partial Profile and a Chipformer





TIP inserts are 1.6 mm longer than GIP in the same pocket

M E T R I C

Designation	CW	RE	RETOL[2]	TPIX[3]	TPIN[4]	Tough ↔ Hard IC08	IC908
TIP 2WT-0.05 IC08	2.40	0.05	0.030	54.00	12.00	●	
TIP 2WT-0.05 IC908 [1]	2.40	0.05	0.030	54.00	12.00		●
TIP 4WT-0.15 IC08	4.00	0.15	0.030	19.00	7.00	●	
TIP 4WT-0.15 IC908 [1]	4.00	0.15	0.030	19.00	7.00		●

- Toolholder seat needs to be modified according to insert profile to ensure clearance • Pitch max 0.187xD • Internal & External tolerance: B.S.84 Medium class

[1] TPIN(thread per inch minimum) = D/6.4 • D-Diameter of thread (inch)

[2] Corner radius tolerance (+/-)

[3] Threads per inch maximum

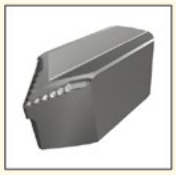
[4] Threads per inch minimum

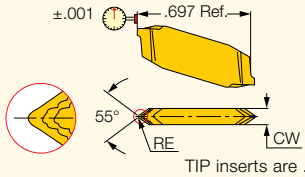
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

CUTGRIP

TIP-WT

Precision Ground Double-Ended Threading Inserts with a 55° Partial Profile and a Chipformer





TIP inserts are .063" longer than GIP in the same pocket

I N C H

Designation	CW	RE	RETOL[2]	TPIX[3]	TPIN[4]	Tough ↔ Hard IC08	IC908
TIP 2WT-0.05 IC08	.094	.002	.0012	54.00	12.00	●	
TIP 2WT-0.05 IC908 [1]	.094	.002	.0012	54.00	12.00		●
TIP 4WT-0.15 IC08	.157	.006	.0012	19.00	7.00	●	
TIP 4WT-0.15 IC908 [1]	.157	.006	.0012	19.00	7.00		●

- Toolholder seat needs to be modified according to insert profile to ensure clearance • Pitch max 0.187xD • Internal & External tolerance: B.S.84 Medium class

[1] TPIN(thread per inch minimum) = D/6.4 • D-Diameter of thread (inch)

[2] Corner radius tolerance (+/-)

[3] Threads per inch maximum

[4] Threads per inch minimum

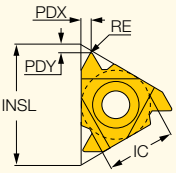
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

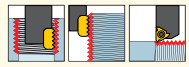
ISCARTHREAD

ER/L-60°

External Laydown Threading Inserts with a 60° Partial Profile for General Applications

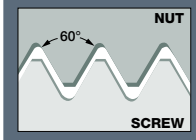






External right-hand shown

M E T R I C



Designation	Dimensions IC	TPN(2)	TPX(3)	TPIN(4)	TPIX(5)	INSL	RE	PDX	PDY	Tough ↔ Hard IC228	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
11EL A 60 IC908	6.35	0.500	1.500	16.00	48.00	11.00	0.05	0.90	0.80							•	
11ER A 60 IC908	6.35	0.500	1.500	16.00	48.00	11.00	0.06	0.90	0.80							•	
16EL A 60 IC250	9.52	0.500	1.500	16.00	48.00	16.49	0.08	0.90	1.00			•					
16EL A 60 IC50M	9.52	0.500	1.500	16.00	48.00	16.49	0.07	0.90	1.00		•						
16EL A 60 IC908	9.52	0.500	1.500	16.00	48.00	16.49	0.07	0.90	1.00							•	
16ER A 60 IC08	9.52	0.500	1.500	16.00	48.00	16.49	0.07	0.80	1.00				•				
16ER A 60 IC1007	9.52	0.500	1.500	16.00	48.00	16.49	0.07	0.90	1.00								•
16ER A 60 IC228	9.52	0.500	1.500	16.00	48.00	16.49	0.07	0.90	1.00	•							
16ER A 60 IC250	9.52	0.500	1.500	16.00	48.00	16.49	0.07	0.90	1.00			•					
16ER A 60 IC908	9.52	0.500	1.500	16.00	48.00	16.49	0.07	0.80	1.00							•	
16ERB A 60 IC08 (1)	9.52	0.500	1.500	16.00	48.00	16.49	0.07	0.80	1.00				•				
16ERB A 60 IC908 (1)	9.52	0.500	1.500	16.00	48.00	16.49	0.07	0.80	1.00							•	
16ERM A 60 IC1007 (1)	9.52	0.500	1.500	16.00	48.00	16.49	0.07	0.90	0.80								•
16ERM A 60 IC250 (1)	9.52	0.500	1.500	16.00	48.00	16.49	0.07	0.90	0.80			•					
16ERM A 60 IC50M (1)	9.52	0.500	1.500	16.00	48.00	16.49	0.07	0.90	0.80		•						
16ERM A 60 IC808 (1)	9.52	0.500	1.500	16.00	48.00	16.49	0.07	0.90	0.80						•		
16ERM A 60 IC908 (1)	9.52	0.500	1.500	16.00	48.00	16.49	0.07	0.90	0.80							•	
16EL AG 60 IC250	9.52	0.500	3.000	8.00	48.00	16.49	0.06	1.70	1.20			•					
16EL AG 60 IC50M	9.52	0.500	3.000	8.00	48.00	16.49	0.06	1.70	1.20		•						
16EL AG 60 IC908	9.52	0.500	3.000	8.00	48.00	16.49	0.06	1.70	1.20							•	
16ER AG 60 IC08	9.52	0.500	3.000	8.00	48.00	16.49	0.06	1.70	1.20				•				
16ER AG 60 IC1007	9.52	0.500	3.000	8.00	48.00	16.49	0.08	1.50	1.20								•
16ER AG 60 IC228	9.52	0.500	3.000	8.00	48.00	16.49	0.08	1.70	1.20	•							
16ER AG 60 IC250	9.52	0.500	3.000	8.00	48.00	16.49	0.08	1.70	1.20			•					
16ER AG 60 IC50M	9.52	0.500	3.000	8.00	48.00	16.49	0.08	1.70	1.20		•						
16ER AG 60 IC508	9.52	0.500	3.000	8.00	48.00	16.49	0.08	1.50	1.20					•			
16ER AG 60 IC908	9.52	0.500	3.000	8.00	48.00	16.49	0.08	1.50	1.20							•	
16ERB AG 60 IC908 (1)	9.52	0.500	3.000	8.00	48.00	16.49	0.06	1.70	1.20							•	
16ERM AG 60 IC1007 (1)	9.52	0.500	3.000	8.00	48.00	16.49	0.08	1.70	1.20								•
16ERM AG 60 IC250 (1)	9.52	0.500	3.000	8.00	48.00	16.49	0.08	1.70	1.20			•					
16ERM AG 60 IC50M (1)	9.52	0.500	3.000	8.00	48.00	16.49	0.08	1.70	1.20		•						
16ERM AG 60 IC508 (1)	9.52	0.500	3.000	8.00	48.00	16.49	0.08	1.70	1.20					•			
16ERM AG 60 IC808 (1)	9.52	0.500	3.000	8.00	48.00	16.49	0.08	1.70	1.20						•		
16ERM AG 60 IC908 (1)	9.52	0.500	3.000	8.00	48.00	16.49	0.08	1.70	1.20							•	
16EL G 60 IC250	9.52	1.750	3.000	8.00	14.00	16.49	0.22	1.70	1.20			•					
16EL G 60 IC908	9.52	1.750	3.000	8.00	14.00	16.49	0.22	1.70	1.20							•	
16ER G 60 IC08	9.52	1.750	3.000	8.00	14.00	16.49	0.22	1.70	1.20				•				
16ER G 60 IC1007	9.52	1.750	3.000	8.00	14.00	16.49	0.22	1.70	1.20								•
16ER G 60 IC228	9.52	1.750	3.000	8.00	14.00	16.49	0.22	1.70	1.20	•							
16ER G 60 IC250	9.52	1.750	3.000	8.00	14.00	16.49	0.22	1.70	1.20			•					
16ER G 60 IC908	9.52	1.750	3.000	8.00	14.00	16.49	0.22	1.70	1.20							•	
16ERB G 60 IC908 (1)	9.52	1.750	3.000	8.00	14.00	16.49	0.22	1.70	1.20							•	
16ERM G 60 IC1007 (1)	9.52	1.750	3.000	8.00	14.00	16.49	0.25	1.50	1.00								•
16ERM G 60 IC250 (1)	9.52	1.750	3.000	8.00	14.00	16.49	0.25	1.50	1.00			•					
16ERM G 60 IC50M (1)	9.52	1.750	3.000	8.00	14.00	16.49	0.25	1.50	1.00		•						
16ERM G 60 IC808 (1)	9.52	1.750	3.000	8.00	14.00	16.49	0.25	1.50	1.00						•		
16ERM G 60 IC908 (1)	9.52	1.750	3.000	8.00	14.00	16.49	0.25	1.50	1.00							•	

- For Insert Identification System, see page 645 • For threading between walls use GRIP-type inserts SCIR/L B/F -MTR/L, TIP-MT, GEPI-MT, TIPI-MT
- For technical information and detailed cutting data, see pages 797-812 • DIN13 , ISO 68-1, ISO 965 (1&2) - External tolerance: 6g
- ANSI/ASME B1.1 - External tolerance: 2A

(1) With pressed chipformer
(2) Thread pitch minimum (mm)-internal
(3) Thread pitch maximum (mm)-internal
(4) Threads per inch minimum-internal
(5) Threads per inch maximum-internal

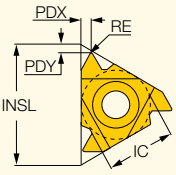
For tools, see pages: NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830) • SER/L (647)

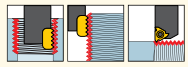
ISCARTHREAD

ER/L-60°

External Laydown Threading Inserts with a 60° Partial Profile for General Applications

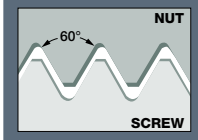






External right-hand shown

I N C H



Designation	Dimensions IC	TPN (mm)(2)	TPX (mm)(3)	TPIN(4)	TPIX(5)	INSL	RE	PDX	PDY	Tough ↔ Hard IC228	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
11EL A 60 IC908	.250	.500	1.500	16.00	48.00	.433	.0020	.0354	.0315							●	
11ER A 60 IC908	.250	.500	1.500	16.00	48.00	.433	.0024	.0354	.0315							●	
16EL A 60 IC250	.375	.500	1.500	16.00	48.00	.649	.0031	.0354	.0394			●					
16EL A 60 IC50M	.375	.500	1.500	16.00	48.00	.649	.0029	.0354	.0394		●						
16EL A 60 IC908	.375	.500	1.500	16.00	48.00	.649	.0029	.0354	.0394							●	
16ER A 60 IC08	.375	.500	1.500	16.00	48.00	.649	.0029	.0315	.0394				●				
16ER A 60 IC1007	.375	.500	1.500	16.00	48.00	.649	.0029	.0354	.0394								●
16ER A 60 IC228	.375	.500	1.500	16.00	48.00	.649	.0029	.0354	.0394	●							
16ER A 60 IC250	.375	.500	1.500	16.00	48.00	.649	.0029	.0354	.0394			●					
16ER A 60 IC908	.375	.500	1.500	16.00	48.00	.649	.0029	.0315	.0394							●	
16ERB A 60 IC08 (1)	.375	.500	1.500	16.00	48.00	.649	.0029	.0315	.0394				●				
16ERB A 60 IC908 (1)	.375	.500	1.500	16.00	48.00	.649	.0029	.0315	.0394							●	
16ERM A 60 IC1007 (1)	.375	.500	1.500	16.00	48.00	.649	.0027	.0354	.0315								●
16ERM A 60 IC250 (1)	.375	.500	1.500	16.00	48.00	.649	.0028	.0354	.0315			●					
16ERM A 60 IC50M (1)	.375	.500	1.500	16.00	48.00	.649	.0028	.0354	.0315		●						
16ERM A 60 IC808 (1)	.375	.500	1.500	16.00	48.00	.649	.0027	.0354	.0315						●		
16ERM A 60 IC908 (1)	.375	.500	1.500	16.00	48.00	.649	.0027	.0354	.0315							●	
16EL AG 60 IC250	.375	.500	3.000	8.00	48.00	.649	.0024	.0669	.0472			●					
16EL AG 60 IC50M	.375	.500	3.000	8.00	48.00	.649	.0024	.0669	.0472		●						
16EL AG 60 IC908	.375	.500	3.000	8.00	48.00	.649	.0024	.0669	.0472							●	
16ER AG 60 IC08	.375	.500	3.000	8.00	48.00	.649	.0024	.0669	.0472				●				
16ER AG 60 IC1007	.375	.500	3.000	8.00	48.00	.649	.0032	.0591	.0472								●
16ER AG 60 IC228	.375	.500	3.000	8.00	48.00	.649	.0031	.0669	.0472	●							
16ER AG 60 IC250	.375	.500	3.000	8.00	48.00	.649	.0031	.0669	.0472			●					
16ER AG 60 IC50M	.375	.500	3.000	8.00	48.00	.649	.0031	.0669	.0472		●						
16ER AG 60 IC508	.375	.500	3.000	8.00	48.00	.649	.0032	.0591	.0472					●			
16ER AG 60 IC908	.375	.500	3.000	8.00	48.00	.649	.0031	.0590	.0472							●	
16ERB AG 60 IC908 (1)	.375	.500	3.000	8.00	48.00	.649	.0024	.0669	.0472							●	
16ERM AG 60 IC1007 (1)	.375	.500	3.000	8.00	48.00	.649	.0031	.0669	.0472								●
16ERM AG 60 IC250 (1)	.375	.500	3.000	8.00	48.00	.649	.0031	.0669	.0472			●					
16ERM AG 60 IC50M (1)	.375	.500	3.000	8.00	48.00	.649	.0031	.0669	.0472		●						
16ERM AG 60 IC508 (1)	.375	.500	3.000	8.00	48.00	.649	.0032	.0669	.0472					●			
16ERM AG 60 IC808 (1)	.375	.500	3.000	8.00	48.00	.649	.0032	.0669	.0472						●		
16ERM AG 60 IC908 (1)	.375	.500	3.000	8.00	48.00	.649	.0031	.0669	.0472							●	
16EL G 60 IC250	.375	1.750	3.000	8.00	14.00	.649	.0087	.0669	.0472			●					
16EL G 60 IC908	.375	1.750	3.000	8.00	14.00	.649	.0087	.0669	.0472							●	
16ER G 60 IC08	.375	1.750	3.000	8.00	14.00	.649	.0087	.0669	.0472				●				
16ER G 60 IC1007	.375	1.750	3.000	8.00	14.00	.649	.0087	.0669	.0472								●
16ER G 60 IC228	.375	1.750	3.000	8.00	14.00	.649	.0087	.0669	.0472	●							
16ER G 60 IC250	.375	1.750	3.000	8.00	14.00	.649	.0087	.0669	.0472			●					
16ER G 60 IC908	.375	1.750	3.000	8.00	14.00	.649	.0087	.0669	.0472							●	
16ERB G 60 IC908 (1)	.375	1.750	3.000	8.00	14.00	.649	.0087	.0669	.0472							●	
16ERM G 60 IC1007 (1)	.375	1.750	3.000	8.00	14.00	.649	.0098	.0590	.0394								●
16ERM G 60 IC250 (1)	.375	1.750	3.000	8.00	14.00	.649	.0098	.0591	.0394			●					
16ERM G 60 IC50M (1)	.375	1.750	3.000	8.00	14.00	.649	.0098	.0590	.0394		●						
16ERM G 60 IC808 (1)	.375	1.750	3.000	8.00	14.00	.649	.0098	.0591	.0394						●		
16ERM G 60 IC908 (1)	.375	1.750	3.000	8.00	14.00	.649	.0098	.0590	.0394							●	

- For Insert Identification System, see page 645 • For threading between walls use GRIP-type inserts SCIR/L B/F -MTR/L, TIP-MT, GEPI-MT, TIPI-MT
- For technical information and detailed cutting data, see pages 797-812 • DIN13 , ISO 68-1, ISO 965 (1&2) - External tolerance: 6g
- ANSI/ASME B1.1 - External tolerance: 2A

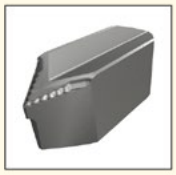
(1) With pressed chipformer
(2) Thread pitch minimum (mm)-internal
(3) Thread pitch maximum (mm)-internal
(4) Threads per inch minimum-internal
(5) Threads per inch maximum-internal

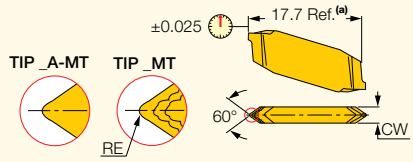
For tools, see pages: MTET Single Point (1219) • NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830) • SER/L (647)

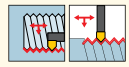
CUTGRIP

TIP-MT

Precision Ground Double-Ended Threading Inserts with a 60° Partial Profile and Chipformer







M E T R I C

Designation	Dimensions CW	RE	RETOL(2)	TPN(3)	TPIX(4)	TPIN(5)	TPX(6)	Tough ↔ Hard IC08	IC908
TIP 2A-MT-0.05 IC908 (1)	2.40	0.05	0.030	0.450	56.00	12.00	2.120		•
TIP 2MT-0.05 IC08	2.40	0.05	0.030	0.450	56.00	12.00	2.000	•	
TIP 2MT-0.05 IC908	2.40	0.05	0.030	0.450	56.00	12.00	2.000		•
TIP 2MT-0.14 IC08	2.40	0.14	0.030	1.000	24.00	12.00	2.000	•	
TIP 2MT-0.14 IC908	2.40	0.14	0.030	1.000	24.00	12.00	2.000		•
TIP 4A-MT-0.15 IC908 (1)	4.00	0.15	0.030	1.270	20.00	7.00	3.630		•
TIP 4MT-0.15 IC908	4.00	0.15	0.030	1.000	24.00	7.00	3.500		•
TIP 4MT-0.20 IC08	4.00	0.20	0.030	1.250	20.00	7.00	3.500	•	
TIP 4MT-0.20 IC908	4.00	0.20	0.030	1.250	20.00	7.00	3.500		•

• (a) TIP inserts are 1.6 mm longer than GIP in the same pocket • Toolholder seat needs to be modified according to insert profile to ensure clearance • DIN13 , ISO 68-1, ISO 965 (1&2) - Internal tolerance: 6H, External tolerance: 6g • ANSI/ASME B1.1 - Internal tolerance: 2B, External tolerance: 2A

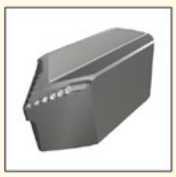
(1) Without chipformer (flat rake)
(2) Corner radius tolerance (+/-)
(3) Thread pitch minimum (mm)
(4) Threads per inch maximum
(5) Threads per inch minimum
(6) Thread pitch maximum (mm)

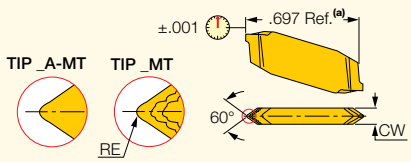
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

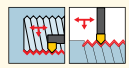
CUTGRIP

TIP-MT

Precision Ground Double-Ended Threading Inserts with a 60° Partial Profile and Chipformer







I N C H

Designation	Dimensions CW	RE	RETOL(2)	TPN (mm)(3)	TPIX(4)	TPIN(5)	TPX (mm)(6)	Tough ↔ Hard IC08	IC908
TIP 2A-MT-0.05 IC908 (1)	.094	.002	.0012	.450	56.00	12.00	2.120		•
TIP 2MT-0.05 IC08	.094	.002	.0012	.450	56.00	12.00	2.000	•	
TIP 2MT-0.05 IC908	.094	.002	.0012	.450	56.00	12.00	2.000		•
TIP 2MT-0.14 IC08	.094	.006	.0012	1.000	24.00	12.00	2.000	•	
TIP 2MT-0.14 IC908	.094	.006	.0012	1.000	24.00	12.00	2.000		•
TIP 4A-MT-0.15 IC908 (1)	.157	.006	.0012	1.270	20.00	7.00	3.630		•
TIP 4MT-0.15 IC908	.157	.006	.0012	1.000	24.00	7.00	3.500		•
TIP 4MT-0.20 IC08	.157	.008	.0012	1.250	20.00	7.00	3.500	•	
TIP 4MT-0.20 IC908	.157	.008	.0012	1.250	20.00	7.00	3.500		•

• (a) TIP inserts are .063" longer than GIP in the same pocket • Toolholder seat needs to be modified according to insert profile to ensure clearance • DIN13 , ISO 68-1, ISO 965 (1&2) - Internal tolerance: 6H, External tolerance: 6g • ANSI/ASME B1.1 - Internal tolerance: 2B, External tolerance: 2A

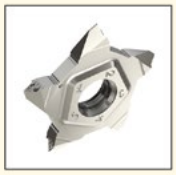
(1) Without chipformer (flat rake)
(2) Corner radius tolerance (+/-)
(3) Thread pitch minimum (mm)
(4) Threads per inch maximum
(5) Threads per inch minimum
(6) Thread pitch maximum (mm)

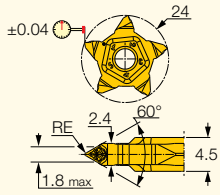
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

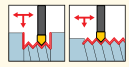
PENTACUT THREADING LINE

PENTA 24-MT

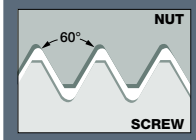
Precision Ground Pentagonal External Threading Inserts with a 60° Partial Profile for General Applications







M E T R I C



Designation	Dimensions TPN[2]	TPX[3]	RE	TPIN[4]	TPIX[5]	IC908
PENTA 24A-MT-0.05 IC908 [1]	0.250	3.000	0.05	8.00	80.00	●
PENTA 24-MT-0.05 IC908	0.250	3.500	0.05	8.00	80.00	●
PENTA 24N3-MT010RS IC908	0.500	3.500	0.10	7.00	48.00	●
PENTA 24A-MT-0.15 IC908	0.800	3.000	0.15	8.00	32.00	●

• TPX=0.175xD • DIN13 , ISO 68-1, ISO 965 (1&2) - External tolerance: 6g • ANSI/ASME B1.1 - External tolerance: 2A

[1] Flat rake (without a chipformer)
[2] Thread pitch minimum (mm)
[3] Thread pitch maximum (mm)
[4] Threads per inch minimum
[5] Threads per inch maximum

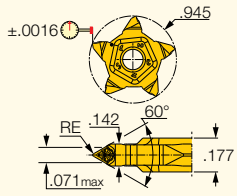
For tools, see pages: NQCH-PCHR/L-24-JHP (552) • PCHR/L-24 (547) • PCHR/L-24-JHP (548)

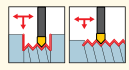
PENTACUT THREADING LINE

PENTA 24-MT

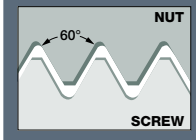
Precision Ground Pentagonal External Threading Inserts with a 60° Partial Profile for General Applications







I N C H



Designation	Dimensions TPN (mm)[2]	TPX (mm)[3]	RE	TPIN[4]	TPIX[5]	IC908
PENTA 24A-MT-0.05 IC908 [1]	.250	3.000	.0020	8.00	80.00	●
PENTA 24-MT-0.05 IC908	.250	3.500	.0020	8.00	80.00	●
PENTA 24N3-MT010RS IC908	.500	3.500	.0039	7.00	48.00	●
PENTA 24A-MT-0.15 IC908	.800	3.000	.0059	8.00	32.00	●

• TPX=0.175xD • DIN13 , ISO 68-1, ISO 965 (1&2) - External tolerance: 6g • ANSI/ASME B1.1 - External tolerance: 2A

[1] Flat rake (without a chipformer)
[2] Thread pitch minimum (mm)
[3] Thread pitch maximum (mm)
[4] Threads per inch minimum
[5] Threads per inch maximum

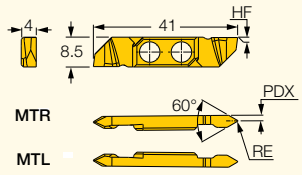
For tools, see pages: NQCH-PCHR/L-24-JHP (552) • PCHR/L-24 (547) • PCHR/L-24-JHP (548)

SWISSCUT EXTRA LONG

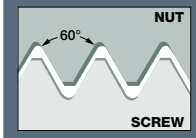
SCIR/L-41-MTR/MTL

Threading Inserts with
a 60° Partial Profile





M E T R I C



Designation	Dimensions RE	PDX	TPN[1]	TPX[2]	TPIN[3]	TPIX[4]	HF[5]	IC1008
SCIL 41-MTL006 IC1008	0.06	0.90	0.400	1.500	17.00	64.00	0.2	●
SCIR 41-MTR006 IC1008	0.06	0.90	0.400	1.500	17.00	64.00	0.2	●
SCIL 41-MTL020 IC1008	0.20	1.60	1.500	2.500	10.00	17.00	0.2	●
SCIR 41-MTR020 IC1008	0.20	1.60	1.500	2.500	10.00	17.00	0.2	●

• For detailed cutting data, see pages 797-812 • DIN13 , ISO 68-1, ISO 965 (1&2) - External tolerance: 6g • ANSI/ASME B1.1 - External tolerance: 2A

(1) Thread pitch minimum (mm)
(2) Thread pitch maximum (mm)
(3) Threads per inch minimum
(4) Threads per inch maximum
(5) Cutting edge below center

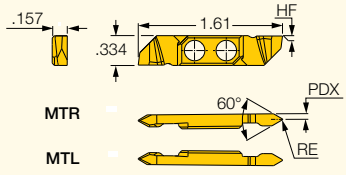
For tools, see pages: SCHR/L-41BF (315)

SWISSCUT EXTRA LONG

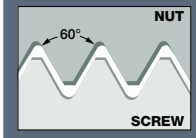
SCIR/L-41-MTR/MTL

Threading Inserts with
a 60° Partial Profile





I N C H



Designation	Dimensions RE	PDX	TPN (mm)[1]	TPX (mm)[2]	TPIN[3]	TPIX[4]	HF[5]	IC1008
SCIL 41-MTL006 IC1008	.0024	.0354	.400	1.500	17.00	64.00	.008	●
SCIR 41-MTR006 IC1008	.0024	.0354	.400	1.500	17.00	64.00	.008	●
SCIL 41-MTL020 IC1008	.0079	.0630	1.500	2.500	10.00	17.00	.008	●
SCIR 41-MTR020 IC1008	.0079	.0630	1.500	2.500	10.00	17.00	.008	●

• For detailed cutting data, see pages 797-812 • DIN13 , ISO 68-1, ISO 965 (1&2) - External tolerance: 6g • ANSI/ASME B1.1 - External tolerance: 2A

(1) Thread pitch minimum (mm)
(2) Thread pitch maximum (mm)
(3) Threads per inch minimum
(4) Threads per inch maximum
(5) Cutting edge below center

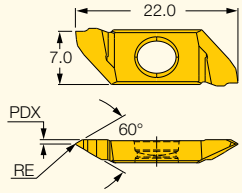
For tools, see pages: SCHR/L-41BF (315)

SWISSCUT INNOVAL LINE

SCIR/L-22-MTR/MTL

Threading Inserts with
a 60° Partial Profile





Left-hand shown

M E T R I C

Designation	RE	PDX	TPN[1]	TPX[2]	TPIX[3]	TPIN[4]	Tough ↔ Hard: IC1008	IC07	IC1007
SCIL 22-MTL003 IC07	0.03	0.4	0.300	0.900	83.00	28.00		•	
SCIL 22-MTL003 IC1007	0.03	0.4	0.300	0.900	83.00	28.00			•
SCIL 22-MTL003 IC1008	0.03	0.4	0.300	0.900	83.00	28.00	•		
SCIR 22-MTR003 IC07	0.03	0.4	0.300	0.900	83.00	28.00		•	
SCIR 22-MTR003 IC1007	0.03	0.4	0.300	0.900	83.00	28.00			•
SCIR 22-MTR003 IC1008	0.03	0.4	0.300	0.900	83.00	28.00	•		
SCIL 22-MTL007 IC07	0.07	0.5	0.700	1.100	36.00	23.00		•	
SCIL 22-MTL007 IC1007	0.07	0.5	0.700	1.100	36.00	23.00			•
SCIL 22-MTR/L007 IC1008	0.07	0.5	0.700	1.100	36.00	23.00	•		
SCIR 22-MTR/L007 IC1008	0.07	0.5	0.700	1.100	36.00	23.00	•		
SCIR 22-MTR007 IC07	0.07	0.5	0.700	1.100	36.00	23.00		•	
SCIR 22-MTR007 IC1007	0.07	0.5	0.700	1.100	36.00	23.00			•
SCIL 22-MTL010 IC07	0.10	0.8	0.900	1.700	28.00	15.00		•	
SCIL 22-MTL010 IC1007	0.10	0.8	0.900	1.700	28.00	15.00			•
SCIL 22-MTL010 IC1008	0.10	0.8	0.900	1.700	28.00	15.00	•		
SCIR 22-MTR010 IC07	0.10	0.8	0.900	1.700	28.00	15.00		•	
SCIR 22-MTR010 IC1007	0.10	0.8	0.900	1.700	28.00	15.00			•
SCIR 22-MTR010 IC1008	0.10	0.8	0.900	1.700	28.00	15.00	•		

• For detailed cutting data, see pages 797-812 • DIN13 , ISO 68-1, ISO 965 (1&2) - External tolerance: 6g • ANSI/ASME B1.1 - External tolerance: 2A

(1) Thread pitch minimum (mm)

(2) Thread pitch maximum (mm)

(3) Threads per inch maximum

(4) Threads per inch minimum

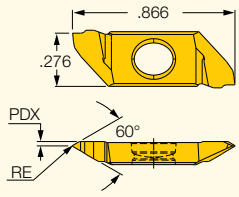
For tools, see pages: NQCH-SCHR/L-BF-JHP (305) • NQCH-Y-SCHR-BF-JHP (306) • SCHR/L-22BF (303) • SCHR/L-22BF-JHP (304)

SWISSCUT INNOVAL LINE

SCIR/L-22-MTR/MTL

Threading Inserts with
a 60° Partial Profile





I N C H

Designation	RE	PDX	TPN (mm)[1]	TPX (mm)[2]	TPIX[3]	TPIN[4]	Tough ↔ Hard: IC1008	IC07	IC1007
SCIL 22-MTL003 IC07	.0012	.02	.300	.900	83.00	28.00		•	
SCIL 22-MTL003 IC1007	.0012	.02	.300	.900	83.00	28.00			•
SCIL 22-MTL003 IC1008	.0012	.02	.300	.900	83.00	28.00	•		
SCIR 22-MTR003 IC07	.0012	.02	.300	.900	83.00	28.00		•	
SCIR 22-MTR003 IC1007	.0012	.02	.300	.900	83.00	28.00			•
SCIR 22-MTR003 IC1008	.0012	.02	.300	.900	83.00	28.00	•		
SCIL 22-MTL007 IC07	.0027	.02	.700	1.100	36.00	23.00		•	
SCIL 22-MTL007 IC1007	.0027	.02	.700	1.100	36.00	23.00			•
SCIL 22-MTR/L007 IC1008	.0027	.02	.700	1.100	36.00	23.00	•		
SCIR 22-MTR/L007 IC1008	.0027	.02	.700	1.100	36.00	23.00	•		
SCIR 22-MTR007 IC07	.0027	.02	.700	1.100	36.00	23.00		•	
SCIR 22-MTR007 IC1007	.0027	.02	.700	1.100	36.00	23.00			•
SCIL 22-MTL010 IC07	.0039	.03	.900	1.700	28.00	15.00		•	
SCIL 22-MTL010 IC1007	.0039	.03	.900	1.700	28.00	15.00			•
SCIL 22-MTL010 IC1008	.0039	.03	.900	1.700	28.00	15.00	•		
SCIR 22-MTR010 IC07	.0039	.03	.900	1.700	28.00	15.00		•	
SCIR 22-MTR010 IC1007	.0039	.03	.900	1.700	28.00	15.00			•
SCIR 22-MTR010 IC1008	.0039	.03	.900	1.700	28.00	15.00	•		

• For detailed cutting data, see pages 797-812 • DIN13 , ISO 68-1, ISO 965 (1&2) - External tolerance: 6g • ANSI/ASME B1.1 - External tolerance: 2A

(1) Thread pitch minimum (mm)

(2) Thread pitch maximum (mm)

(3) Threads per inch maximum

(4) Threads per inch minimum

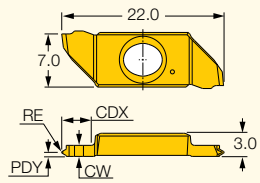
For tools, see pages: NQCH-SCHR/L-BF-JHP (305) • NQCH-Y-SCHR-BF-JHP (306) • SCHR/L-22BF (303) • SCHR/L-22BF-JHP (304)

SWISSCUT INNOVAL LINE

SCIR-22-MTR-ISO

Precision Ground ISO Metric
Full Profile Threading Inserts







M E T R I C

Designation	Dimensions TP[1]	CW	CDX[2]	RE	PDY	IC1008
SCIR 22-MTR-0.3ISO IC1008	0.300	1.00	3.00	0.03	0.2	●
SCIR 22-MTR-0.4ISO IC1008	0.400	1.00	3.00	0.04	0.2	●
SCIR 22-MTR-0.5ISO IC1008	0.500	1.00	3.00	0.06	0.3	●
SCIR 22-MTR-0.75ISOIC1008	0.750	1.00	3.00	0.10	0.4	●
SCIR 22-MTR-1.0ISO IC1008	1.000	1.50	4.00	0.14	0.6	●
SCIR 22-MTR-1.5ISO IC1008	1.500	2.00	4.00	0.20	0.8	●

(1) Thread pitch
(2) Alpha numeric parameter

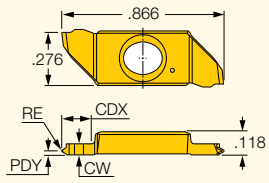
For tools, see pages: NQCH-SCHR/L-BF-JHP (305) • NQCH-Y-SCHR-BF-JHP (306) • SCHR/L-22BF (303) • SCHR/L-22BF-JHP (304)

SWISSCUT INNOVAL LINE

SCIR-22-MTR-ISO

Precision Ground ISO Metric
Full Profile Threading Inserts







I N C H

Designation	Dimensions TP mm[1]	CW	CDX[2]	RE	PDY	IC1008
SCIR 22-MTR-0.3ISO IC1008	.300	.039	.118	.0012	.01	●
SCIR 22-MTR-0.4ISO IC1008	.400	.039	.118	.0016	.01	●
SCIR 22-MTR-0.5ISO IC1008	.500	.039	.118	.0024	.01	●
SCIR 22-MTR-0.75ISOIC1008	.750	.039	.118	.0039	.02	●
SCIR 22-MTR-1.0ISO IC1008	1.000	.059	.157	.0055	.02	●
SCIR 22-MTR-1.5ISO IC1008	1.500	.079	.157	.0079	.03	●

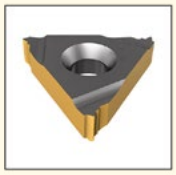
(1) Thread pitch
(2) Alpha numeric parameter

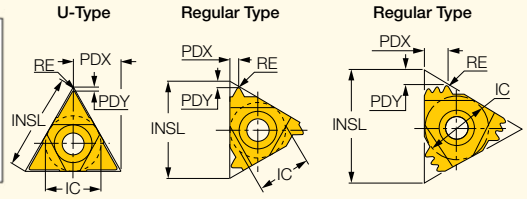
For tools, see pages: NQCH-SCHR/L-BF-JHP (305) • NQCH-Y-SCHR-BF-JHP (306) • SCHR/L-22BF (303) • SCHR/L-22BF-JHP (304)

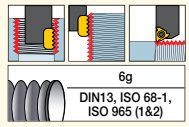
ISCARTHREAD

ER/L-ISO

External ISO Metric
(DIN13 12-1986 class: 6g)
Laydown Threading Inserts
for General Applications

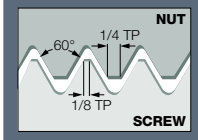






External right-hand shown

M E T R I C



Designation	Dimensions IC	TP[4]	INSL	RE	PDX	PDY	NT[5]	Tough ↔ Hard IC228	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
11EL 0.35 ISO IC908	6.35	0.350	11.00	0.04	0.40	0.80	1							●	
11ER 0.35 ISO IC908	6.35	0.350	11.00	0.04	0.40	0.60	1							●	
11ER 0.40 ISO IC908	6.35	0.400	11.00	0.04	0.40	0.70	1							●	
11ER 0.45 ISO IC228	6.35	0.450	11.00	0.05	0.40	0.70	1	●							
11ER/L 0.50 ISO IC908	6.35	0.500	11.00	0.07	0.60	0.57	1							●	
11ER 0.50 ISO IC250	6.35	0.500	11.00	0.07	0.60	0.57	1			●					
11ER 0.60 ISO IC908	6.35	0.600	11.00	0.07	0.60	0.60	1							●	
11ER 0.70 ISO IC908	6.35	0.700	11.00	0.11	0.60	0.60	1							●	
11EL 0.75 ISO IC908	6.35	0.750	11.00	0.08	0.60	0.60	1							●	
11ER 0.75 ISO IC908	6.35	0.750	11.00	0.11	0.60	0.60	1							●	
11ER 0.80 ISO IC908	6.35	0.800	11.00	0.12	0.60	0.60	1							●	
11EL 1.00 ISO IC250	6.35	1.000	11.00	0.15	0.65	0.70	1			●					
11ER 1.00 ISO IC908	6.35	1.000	11.00	0.15	0.65	0.70	1							●	
11ER 1.25 ISO IC908	6.35	1.250	11.00	0.16	0.90	0.80	1							●	
11EL 1.50 ISO IC908	6.35	1.500	11.00	0.19	0.90	0.80	1							●	
11ER 1.50 ISO IC250	6.35	1.500	11.00	0.19	0.80	1.00	1			●					
11ER 1.50 ISO IC908	6.35	1.500	11.00	0.19	0.80	1.00	1							●	
11ER 1.75 ISO IC250	6.35	1.750	11.00	0.22	0.80	1.10	1			●					
16ER/L 0.35 ISO IC908	9.52	0.350	16.49	0.04	0.40	0.60	1							●	
16EL 0.40 ISO IC908	9.52	0.400	16.49	0.05	0.40	0.70	1							●	
16ER 0.40 ISO IC908	9.52	0.400	16.49	0.05	0.40	0.60	1							●	
16ER 0.45 ISO IC908	9.52	0.450	16.49	0.05	0.40	0.60	1							●	
16ER/L 0.50 ISO IC908	9.52	0.500	16.49	0.07	0.45	0.60	1							●	
16ER 0.50 ISO IC08	9.52	0.500	16.49	0.07	0.45	0.60	1				●				
16ER 0.50 ISO IC1007	9.52	0.500	16.49	0.07	0.45	0.60	1								●
16ER 0.50 ISO IC250	9.52	0.500	16.49	0.07	0.45	0.60	1			●					
16ERM 0.50 ISO IC908	9.52	0.500	16.49	0.06	0.60	0.60	1							●	
16ER 0.60 ISO IC908	9.52	0.600	16.49	0.10	0.60	0.60	1							●	
16ER/L 0.70 ISO IC908	9.52	0.700	16.49	0.11	0.60	0.60	1							●	
16ER 0.70 ISO IC1007	9.52	0.700	16.49	0.11	0.60	0.60	1								●
16ER 0.70 ISO IC250	9.52	0.700	16.49	0.11	0.60	0.60	1			●					
16ER/L 0.75 ISO IC908	9.52	0.750	16.49	0.11	0.60	0.60	1							●	
16ER 0.75 ISO IC08	9.52	0.750	16.49	0.11	0.60	0.60	1				●				
16ER 0.75 ISO IC1007	9.52	0.750	16.49	0.11	0.60	0.60	1								●
16ER 0.75 ISO IC250	9.52	0.750	16.49	0.11	0.60	0.60	1			●					
16ER 0.75 ISO 3M IC908 [1]	9.52	0.750	16.49	0.07	1.90	1.40	3							●	
16ERM 0.75 ISO IC1007	9.52	0.750	16.49	0.08	0.60	0.60	1								●
16ERM 0.75 ISO IC808 [2]	9.52	0.750	16.49	0.08	0.60	0.60	1						●		
16ERM 0.75 ISO IC908 [2]	9.52	0.750	16.49	0.08	0.60	0.60	1							●	
16EL 0.80 ISO IC250	9.52	0.800	16.49	0.12	0.60	0.60	1			●					
16ER 0.80 ISO IC1007	9.52	0.800	16.49	0.12	0.60	1.00	1								●
16ER 0.80 ISO IC250	9.52	0.800	16.49	0.12	0.60	1.00	1			●					
16ER 0.80 ISO IC908	9.52	0.800	16.49	0.12	0.60	1.00	1							●	
16ERB 0.80 ISO IC908 [2]	9.52	0.800	16.49	0.12	0.70	0.70	1							●	
16EL 1.00 ISO IC08	9.52	1.000	16.49	0.15	0.80	0.70	1				●				
16ER/L 1.00 ISO IC250	9.52	1.000	16.49	0.15	0.75	0.70	1			●					
16EL 1.00 ISO IC908	9.52	1.000	16.49	0.15	0.75	0.70	1							●	
16ER 1.00 ISO IC08	9.52	1.000	16.49	0.15	0.70	1.00	1				●				
16ER 1.00 ISO IC1007	9.52	1.000	16.49	0.15	0.70	1.00	1								●
16ER 1.00 ISO IC228	9.52	1.000	16.49	0.15	0.75	1.00	1	●							

- For Insert Identification System, see page 645 • For threading between walls use GRIP-type inserts TIP-ISO class: 6g
- For technical information and detailed cutting data, see pages 797-812

(1) Multi-tooth
(2) With pressed chipformer
(3) With pressed chipformer
(4) Thread pitch
(5) Number of teeth per corner

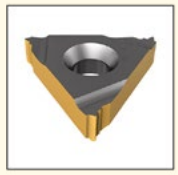
For tools, see pages: NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830) • SER/L (647)

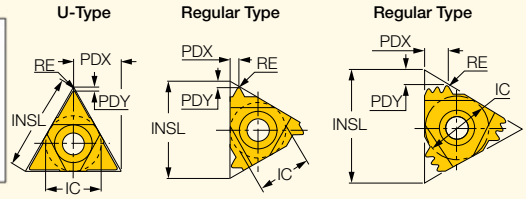
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ISCARTHREAD

ER/L-ISO

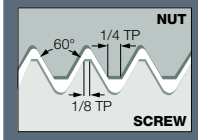
External ISO Metric
(DIN13 12-1986 class: 6g)
Laydown Threading Inserts
for General Applications





External right-hand shown

M E T R I C



Designation	Dimensions IC	TP[4]	INSL	RE	PDX	PDY	NT[5]	Tough ↔ Hard IC228	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
16ER 1.00 ISO IC50M	9.52	1.000	16.49	0.15	0.75	0.70	1		●						
16ER 1.00 ISO IC908	9.52	1.000	16.49	0.15	0.70	1.00	1							●	
16ER 1.00 ISO 3M IC908 (1)	9.52	1.000	16.49	0.07	2.50	1.70	3							●	
16ERB 1.00 ISO IC908 (2)	9.52	1.000	16.49	0.15	0.70	0.70	1							●	
16ERM 1.00 ISO IC1007 (2)	9.52	1.000	16.49	0.11	0.70	0.70	1								●
16ERM 1.00 ISO IC250 (2)	9.52	1.000	16.49	0.11	0.70	0.70	1			●					
16ERM 1.00 ISO IC50M (2)	9.52	1.000	16.49	0.11	0.70	0.70	1		●						
16ERM 1.00 ISO IC508 (2)	9.52	1.000	16.49	0.11	0.70	0.70	1					●			
16ERM 1.00 ISO IC808 (2)	9.52	1.000	16.49	0.11	0.70	0.70	1						●		
16ERM 1.00 ISO IC908 (2)	9.52	1.000	16.49	0.11	0.70	0.70	1							●	
16ER/L 1.25 ISO IC08	9.52	1.250	16.49	0.16	0.90	0.80	1				●				
16ER/L 1.25 ISO IC250	9.52	1.250	16.49	0.16	0.90	0.80	1			●					
16ER/L 1.25 ISO IC908	9.52	1.250	16.49	0.16	0.90	0.80	1							●	
16ER 1.25 ISO IC1007	9.52	1.250	16.49	0.16	0.90	0.80	1								●
16ERB 1.25 ISO IC908 (2)	9.52	1.250	16.49	0.16	0.90	0.80	1							●	
16ERM 1.25 ISO IC1007 (2)	9.52	1.250	16.49	0.14	0.90	0.80	1								●
16ERM 1.25 ISO IC250 (2)	9.52	1.250	16.49	0.14	0.90	0.80	1			●					
16ERM 1.25 ISO IC808 (2)	9.52	1.250	16.49	0.14	0.90	0.80	1						●		
16ERM 1.25 ISO IC908 (2)	9.52	1.250	16.49	0.14	0.90	0.80	1							●	
16ER/L 1.50 ISO IC08	9.52	1.500	16.49	0.22	1.15	1.00	1				●				
16EL 1.50 ISO IC1007	9.52	1.500	16.49	0.22	1.15	1.00	1								●
16EL 1.50 ISO IC250	9.52	1.500	16.49	0.22	1.20	1.00	1			●					
16ER/L 1.50 ISO IC908	9.52	1.500	16.49	0.22	1.15	1.00	1							●	
16ER 1.50 ISO IC1007	9.52	1.500	16.49	0.19	1.15	0.90	1								●
16ER 1.50 ISO IC228	9.52	1.500	16.49	0.19	1.20	0.90	1	●							
16ER 1.50 ISO IC250	9.52	1.500	16.49	0.19	1.20	0.90	1			●					
16ER 1.50 ISO IC50M	9.52	1.500	16.49	0.19	1.20	0.90	1		●						
16ER 1.50 ISO 2M IC908 (1)	9.52	1.500	16.49	0.18	2.30	1.50	2							●	
16ERB 1.50 ISO IC908 (2)	9.52	1.500	16.49	0.19	1.00	0.80	1							●	
16ERM 1.50 ISO IC1007 (2)	9.52	1.500	16.49	0.22	1.00	0.80	1								●
16ERM 1.50 ISO IC250 (2)	9.52	1.500	16.49	0.19	1.00	0.80	1			●					
16ERM 1.50 ISO IC50M (2)	9.52	1.500	16.49	0.19	1.00	0.80	1		●						
16ERM 1.50 ISO IC508 (2)	9.52	1.500	16.49	0.22	1.00	0.80	1					●			
16ERM 1.50 ISO IC808 (2)	9.52	1.500	16.49	0.22	1.00	0.80	1						●		
16ERM 1.50 ISO IC908 (2)	9.52	1.500	16.49	0.22	1.00	0.80	1							●	
16EL 1.75 ISO IC908	9.52	1.750	16.49	0.26	1.15	1.10	1							●	
16ER 1.75 ISO IC08	9.52	1.750	16.49	0.26	1.20	1.00	1				●				
16ER 1.75 ISO IC1007	9.52	1.750	16.49	0.26	1.20	1.00	1								●
16ER 1.75 ISO IC228	9.52	1.750	16.49	0.26	1.15	1.10	1	●							
16ER 1.75 ISO IC250	9.52	1.750	16.49	0.26	1.15	1.10	1			●					
16ER 1.75 ISO IC908	9.52	1.750	16.49	0.26	1.20	1.00	1							●	
16ERB 1.75 ISO IC908 (2)	9.52	1.750	16.49	0.26	1.15	1.00	1							●	
16ERM 1.75 ISO IC1007 (2)	9.52	1.750	16.49	0.25	1.20	0.90	1								●
16ERM 1.75 ISO IC250 (2)	9.52	1.750	16.49	0.25	1.20	0.90	1			●					
16ERM 1.75 ISO IC808 (2)	9.52	1.750	16.49	0.25	1.20	0.90	1						●		
16ERM 1.75 ISO IC908 (2)	9.52	1.750	16.49	0.25	1.20	0.90	1							●	
16EL 2.00 ISO IC228	9.52	2.000	16.49	0.25	1.30	1.00	1	●							
16EL 2.00 ISO IC250	9.52	2.000	16.49	0.25	1.30	1.00	1			●					
16EL 2.00 ISO IC908	9.52	2.000	16.49	0.25	1.30	1.00	1							●	
16ER 2.00 ISO IC08	9.52	2.000	16.49	0.26	1.25	1.00	1				●				

- For Insert Identification System, see page 645 • For threading between walls use GRIP-type inserts TIP-ISO class: 6g
- For technical information and detailed cutting data, see pages 797-812

(1) Multi-tooth
(2) With pressed chipformer
(3) With pressed chipformer
(4) Thread pitch
(5) Number of teeth per corner

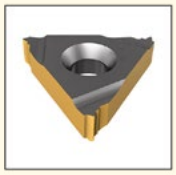
For tools, see pages: NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830) • SER/L (647)

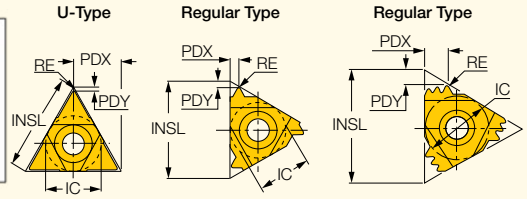
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ISCARTHREAD

ER/L-ISO

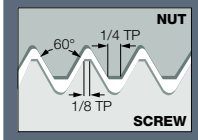
External ISO Metric
(DIN13 12-1986 class: 6g)
Laydown Threading Inserts
for General Applications





External right-hand shown

M E T R I C



Designation	Dimensions IC	TP[4]	INSL	RE	PDX	PDY	NT[5]	Tough ↔ Hard IC228	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
16ER 2.00 ISO IC1007	9.52	2.000	16.49	0.26	1.25	1.00	1								•
16ER 2.00 ISO IC228	9.52	2.000	16.49	0.26	1.30	1.00	1	•							
16ER 2.00 ISO IC250	9.52	2.000	16.49	0.26	1.30	1.00	1			•					
16ER 2.00 ISO IC50M	9.52	2.000	16.49	0.26	1.30	1.00	1		•						
16ER 2.00 ISO IC908	9.52	2.000	16.49	0.26	1.25	1.00	1							•	
16ER 2.00 ISO 2M IC908 [1]	9.52	2.000	16.49	0.09	2.90	1.80	2							•	
16ERB 2.00 ISO IC908 [2]	9.52	2.000	16.49	0.25	1.20	0.90	1							•	
16ERM 2.00 ISO IC1007 [2]	9.52	2.000	16.49	0.28	1.30	1.00	1								•
16ERM 2.00 ISO IC250 [2]	9.52	2.000	16.49	0.28	1.30	1.00	1			•					
16ERM 2.00 ISO IC508 [2]	9.52	2.000	16.49	0.28	1.30	1.00	1					•			
16ERM 2.00 ISO IC808 [2]	9.52	2.000	16.49	0.28	1.30	1.00	1						•		
16ERM 2.00 ISO IC908 [3]	9.52	2.000	16.49	0.28	1.30	1.00	1							•	
16EL 2.50 ISO IC908	9.52	2.500	16.49	0.32	1.45	1.10	1							•	
16ER 2.50 ISO IC1007	9.52	2.500	16.49	0.36	1.45	1.10	1								•
16ER 2.50 ISO IC250	9.52	2.500	16.49	0.32	1.45	1.10	1			•					
16ER 2.50 ISO IC50M	9.52	2.500	16.49	0.32	1.45	1.10	1		•						
16ER 2.50 ISO IC908	9.52	2.500	16.49	0.36	1.45	1.10	1							•	
16ERB 2.50 ISO IC908	9.52	2.500	16.49	0.32	1.45	1.10	1							•	
16ERM 2.50 ISO IC1007 [2]	9.52	2.500	16.49	0.30	1.50	1.10	1								•
16ERM 2.50 ISO IC250 [2]	9.52	2.500	16.49	0.30	1.50	1.10	1			•					
16ERM 2.50 ISO IC808 [2]	9.52	2.500	16.49	0.30	1.50	1.10	1						•		
16ERM 2.50 ISO IC908 [2]	9.52	2.500	16.49	0.30	1.50	1.10	1							•	
16EL 3.00 ISO IC908	9.52	3.000	16.49	0.44	1.60	1.20	1							•	
16ER 3.00 ISO IC1007	9.52	3.000	16.49	0.44	1.65	1.00	1								•
16ER 3.00 ISO IC228	9.52	3.000	16.49	0.44	1.60	1.20	1	•							
16ER 3.00 ISO IC250	9.52	3.000	16.49	0.44	1.60	1.20	1			•					
16ER 3.00 ISO IC50M	9.52	3.000	16.49	0.44	1.60	1.20	1		•						
16ER 3.00 ISO IC508	9.52	3.000	16.49	0.44	1.60	1.20	1					•			
16ER 3.00 ISO IC908	9.52	3.000	16.49	0.44	1.65	1.00	1							•	
16ERB 3.00 ISO IC908 [2]	9.52	3.000	16.49	0.44	1.60	1.20	1							•	
16ERM 3.00 ISO IC1007 [2]	9.52	3.000	16.49	0.38	1.60	1.20	1								•
16ERM 3.00 ISO IC250 [2]	9.52	3.000	16.49	0.38	1.60	1.20	1			•					
16ERM 3.00 ISO IC50M [2]	9.52	3.000	16.49	0.38	1.60	1.20	1		•						
16ERM 3.00 ISO IC508 [2]	9.52	3.000	16.49	0.38	1.60	1.20	1					•			
16ERM 3.00 ISO IC808 [2]	9.52	3.000	16.49	0.38	1.60	1.20	1						•		
16ERM 3.00 ISO IC908 [2]	9.52	3.000	16.49	0.38	1.60	1.20	1							•	
16ERB 3.50 ISO IC908	9.52	3.500	16.49	0.51	1.60	1.30	1							•	

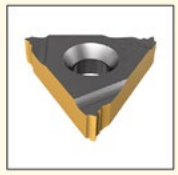
- For Insert Identification System, see page 645 • For threading between walls use GRIP-type inserts TIP-ISO class: 6g
- For technical information and detailed cutting data, see pages 797-812

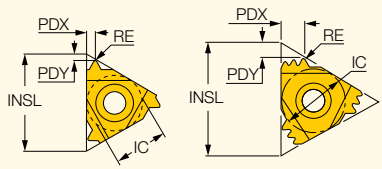
[1] Multi-tooth
[2] With pressed chipformer
[3] With pressed chipformer
[4] Thread pitch
[5] Number of teeth per corner

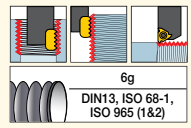
For tools, see pages: NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830) • SER/L (647)

ISCARTHREAD

ER/L-ISO
External ISO Metric
(DIN13 12-1986 class: 6g)
Laydown Threading Inserts
for General Applications

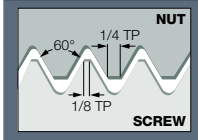






External right-hand shown

I N C H



Designation	Dimensions IC	TP mm[4]	INSL	RE	PDX	PDY	NT[5]	Tough ↔ Hard IC228	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
11EL 0.35 ISO IC908	.250	.350	.433	.0016	.0157	.0315	1							•	
11ER 0.35 ISO IC908	.250	.350	.433	.0016	.0157	.0236	1							•	
11ER 0.40 ISO IC908	.250	.400	.433	.0016	.0157	.0276	1							•	
11ER 0.45 ISO IC228	.250	.450	.433	.0020	.0157	.0276	1	•							
11ER/L 0.50 ISO IC908	.250	.500	.433	.0028	.0236	.0224	1							•	
11ER 0.50 ISO IC250	.250	.500	.433	.0028	.0236	.0224	1			•					
11ER 0.60 ISO IC908	.250	.600	.433	.0027	.0236	.0236	1							•	
11ER 0.70 ISO IC908	.250	.700	.433	.0043	.0236	.0236	1							•	
11EL 0.75 ISO IC908	.250	.750	.433	.0031	.0236	.0236	1							•	
11ER 0.75 ISO IC908	.250	.750	.433	.0043	.0236	.0236	1							•	
11ER 0.80 ISO IC908	.250	.800	.433	.0047	.0236	.0236	1							•	
11EL 1.00 ISO IC250	.250	1.000	.433	.0059	.0256	.0276	1			•					
11ER 1.00 ISO IC908	.250	1.000	.433	.0059	.0256	.0276	1							•	
11ER 1.25 ISO IC908	.250	1.250	.433	.0063	.0354	.0315	1							•	
11EL 1.50 ISO IC908	.250	1.500	.433	.0075	.0354	.0315	1							•	
11ER 1.50 ISO IC250	.250	1.500	.433	.0075	.0315	.0394	1			•					
11ER 1.50 ISO IC908	.250	1.500	.433	.0075	.0315	.0394	1							•	
11ER 1.75 ISO IC250	.250	1.750	.433	.0087	.0315	.0433	1			•					
16ER/L 0.35 ISO IC908	.375	.350	.649	.0016	.0157	.0236	1							•	
16EL 0.40 ISO IC908	.375	.400	.649	.0020	.0157	.0276	1							•	
16ER 0.40 ISO IC908	.375	.400	.649	.0020	.0157	.0236	1							•	
16ER 0.45 ISO IC908	.375	.450	.649	.0020	.0157	.0236	1							•	
16ER/L 0.50 ISO IC908	.375	.500	.649	.0028	.0177	.0236	1							•	
16ER 0.50 ISO IC08	.375	.500	.649	.0028	.0177	.0236	1				•				
16ER 0.50 ISO IC1007	.375	.500	.649	.0028	.0177	.0236	1								•
16ER 0.50 ISO IC250	.375	.500	.649	.0028	.0177	.0236	1			•					
16ERM 0.50 ISO IC908	.375	.500	.649	.0024	.0236	.0236	1							•	
16ER 0.60 ISO IC908	.375	.600	.649	.0039	.0236	.0236	1							•	
16ER/L 0.70 ISO IC908	.375	.700	.649	.0043	.0236	.0236	1							•	
16ER 0.70 ISO IC1007	.375	.700	.649	.0043	.0236	.0236	1								•
16ER 0.70 ISO IC250	.375	.700	.649	.0043	.0236	.0236	1			•					
16ER/L 0.75 ISO IC908	.375	.750	.649	.0043	.0236	.0236	1							•	
16ER 0.75 ISO IC08	.375	.750	.649	.0043	.0236	.0236	1				•				
16ER 0.75 ISO IC1007	.375	.750	.649	.0043	.0236	.0236	1								•
16ER 0.75 ISO IC250	.375	.750	.649	.0043	.0236	.0236	1			•					
16ER 0.75 ISO 3M IC908 [1]	.375	.750	.649	.0027	.0748	.0551	3							•	
16ERM 0.75 ISO IC1007	.375	.750	.649	.0031	.0236	.0236	1								•
16ERM 0.75 ISO IC808 [2]	.375	.750	.649	.0031	.0236	.0236	1						•		
16ERM 0.75 ISO IC908 [2]	.375	.750	.649	.0031	.0236	.0236	1							•	
16EL 0.80 ISO IC250	.375	.800	.649	.0047	.0236	.0236	1			•					
16ER 0.80 ISO IC1007	.375	.800	.649	.0047	.0236	.0394	1								•
16ER 0.80 ISO IC250	.375	.800	.649	.0047	.0236	.0394	1			•					
16ER 0.80 ISO IC908	.375	.800	.649	.0047	.0236	.0394	1							•	
16ERB 0.80 ISO IC908 [2]	.375	.800	.649	.0047	.0276	.0276	1							•	
16EL 1.00 ISO IC08	.375	1.000	.649	.0059	.0315	.0276	1				•				
16ER/L 1.00 ISO IC250	.375	1.000	.649	.0059	.0295	.0276	1			•					
16EL 1.00 ISO IC908	.375	1.000	.649	.0059	.0295	.0276	1							•	
16ER 1.00 ISO IC08	.375	1.000	.649	.0059	.0276	.0394	1				•				

• For Insert Identification System, see page 645 • For threading between walls use GRIP-type inserts TIP-ISO class: 6g
• For technical information and detailed cutting data, see pages 797-812

[1] Multi-tooth
[2] With pressed chipformer
[3] With pressed chipformer
[4] Thread pitch
[5] Number of teeth per corner

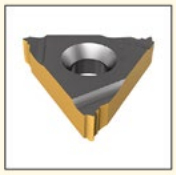
For tools, see pages: MTET Single Point (1219) • NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830) • SER/L (647)

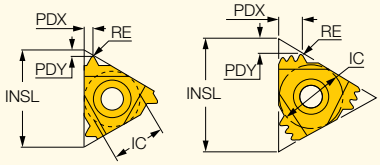
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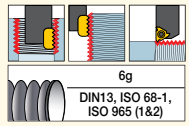
ISCARTHREAD

ER/L-ISO

External ISO Metric
(DIN13 12-1986 class: 6g)
Laydown Threading Inserts
for General Applications

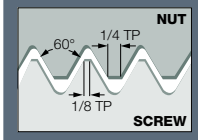






External right-hand shown

I N C H



Designation	Dimensions IC	TP mm[4]	INSL	RE	PDX	PDY	NT[5]	Tough ↔ Hard IC228	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
16ER 1.00 ISO IC1007	.375	1.000	.649	.0059	.0276	.0394	1								●
16ER 1.00 ISO IC228	.375	1.000	.649	.0059	.0295	.0394	1	●							
16ER 1.00 ISO IC50M	.375	1.000	.649	.0059	.0295	.0276	1		●						
16ER 1.00 ISO IC908	.375	1.000	.649	.0059	.0276	.0394	1							●	
16ER 1.00 ISO 3M IC908 (1)	.375	1.000	.649	.0027	.0984	.0669	3							●	
16ERB 1.00 ISO IC908 (2)	.375	1.000	.649	.0059	.0276	.0276	1							●	
16ERM 1.00 ISO IC1007 (2)	.375	1.000	.649	.0043	.0276	.0276	1								●
16ERM 1.00 ISO IC250 (2)	.375	1.000	.649	.0043	.0276	.0276	1			●					
16ERM 1.00 ISO IC50M (2)	.375	1.000	.649	.0043	.0276	.0276	1		●						
16ERM 1.00 ISO IC508 (2)	.375	1.000	.649	.0043	.0276	.0276	1					●			
16ERM 1.00 ISO IC808 (2)	.375	1.000	.649	.0043	.0276	.0276	1						●		
16ERM 1.00 ISO IC908 (2)	.375	1.000	.649	.0043	.0276	.0276	1							●	
16ER/L 1.25 ISO IC08	.375	1.250	.649	.0063	.0354	.0315	1				●				
16ER/L 1.25 ISO IC250	.375	1.250	.649	.0063	.0354	.0315	1			●					
16ER/L 1.25 ISO IC908	.375	1.250	.649	.0063	.0354	.0315	1							●	
16ER 1.25 ISO IC1007	.375	1.250	.649	.0063	.0354	.0315	1								●
16ERB 1.25 ISO IC908 (2)	.375	1.250	.649	.0063	.0354	.0315	1							●	
16ERM 1.25 ISO IC1007 (2)	.375	1.250	.649	.0055	.0354	.0315	1								●
16ERM 1.25 ISO IC250 (2)	.375	1.250	.649	.0055	.0354	.0315	1			●					
16ERM 1.25 ISO IC808 (2)	.375	1.250	.649	.0055	.0354	.0315	1						●		
16ERM 1.25 ISO IC908 (2)	.375	1.250	.649	.0055	.0354	.0315	1							●	
16ER/L 1.50 ISO IC08	.375	1.500	.649	.0087	.0453	.0394	1				●				
16EL 1.50 ISO IC1007	.375	1.500	.649	.0087	.0453	.0394	1								●
16EL 1.50 ISO IC250	.375	1.500	.649	.0087	.0472	.0394	1			●					
16ER/L 1.50 ISO IC908	.375	1.500	.649	.0087	.0453	.0394	1							●	
16ER 1.50 ISO IC1007	.375	1.500	.649	.0075	.0453	.0354	1								●
16ER 1.50 ISO IC228	.375	1.500	.649	.0075	.0472	.0354	1	●							
16ER 1.50 ISO IC250	.375	1.500	.649	.0075	.0472	.0354	1			●					
16ER 1.50 ISO IC50M	.375	1.500	.649	.0075	.0472	.0354	1		●						
16ER 1.50 ISO 2M IC908 (1)	.375	1.500	.649	.0071	.0906	.0590	2							●	
16ERB 1.50 ISO IC908 (2)	.375	1.500	.649	.0075	.0394	.0315	1							●	
16ERM 1.50 ISO IC1007 (2)	.375	1.500	.649	.0087	.0394	.0315	1								●
16ERM 1.50 ISO IC250 (2)	.375	1.500	.649	.0075	.0394	.0315	1			●					
16ERM 1.50 ISO IC50M (2)	.375	1.500	.649	.0075	.0394	.0315	1		●						
16ERM 1.50 ISO IC508 (2)	.375	1.500	.649	.0087	.0394	.0315	1					●			
16ERM 1.50 ISO IC808 (2)	.375	1.500	.649	.0087	.0394	.0315	1						●		
16ERM 1.50 ISO IC908 (2)	.375	1.500	.649	.0087	.0394	.0315	1							●	
16EL 1.75 ISO IC908	.375	1.750	.649	.0102	.0453	.0433	1							●	
16ER 1.75 ISO IC08	.375	1.750	.649	.0102	.0472	.0394	1				●				
16ER 1.75 ISO IC1007	.375	1.750	.649	.0102	.0472	.0394	1								●
16ER 1.75 ISO IC228	.375	1.750	.649	.0102	.0453	.0433	1	●							
16ER 1.75 ISO IC250	.375	1.750	.649	.0102	.0453	.0433	1			●					
16ER 1.75 ISO IC908	.375	1.750	.649	.0102	.0472	.0394	1							●	
16ERB 1.75 ISO IC908 (2)	.375	1.750	.649	.0102	.0453	.0394	1							●	
16ERM 1.75 ISO IC1007 (2)	.375	1.750	.649	.0098	.0472	.0354	1								●
16ERM 1.75 ISO IC250 (2)	.375	1.750	.649	.0098	.0472	.0354	1			●					
16ERM 1.75 ISO IC808 (2)	.375	1.750	.649	.0098	.0472	.0354	1						●		
16ERM 1.75 ISO IC908 (2)	.375	1.750	.649	.0098	.0472	.0354	1							●	
16EL 2.00 ISO IC228	.375	2.000	.649	.0098	.0512	.0394	1	●							
16EL 2.00 ISO IC250	.375	2.000	.649	.0098	.0512	.0394	1			●					

- For Insert Identification System, see page 645 • For threading between walls use GRIP-type inserts TIP-ISO class: 6g
- For technical information and detailed cutting data, see pages 797-812

(1) Multi-tooth
(2) With pressed chipformer
(3) With pressed chipformer
(4) Thread pitch
(5) Number of teeth per corner

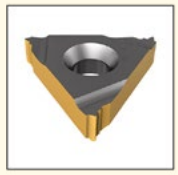
For tools, see pages: MTET Single Point (1219) • NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830) • SER/L (647)

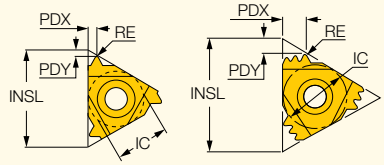
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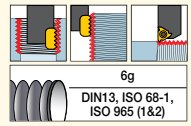
ISCARTHREAD

ER/L-ISO

External ISO Metric
(DIN13 12-1986 class: 6g)
Laydown Threading Inserts
for General Applications

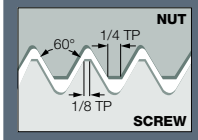






External right-hand shown

I N C H



Designation	Dimensions IC	TP mm[4]	INSL	RE	PDX	PDY	NT[5]	Tough ↔ Hard IC228	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
16EL 2.00 ISO IC908	.375	2.000	.649	.0098	.0512	.0394	1							●	
16ER 2.00 ISO IC08	.375	2.000	.649	.0102	.0492	.0394	1				●				
16ER 2.00 ISO IC1007	.375	2.000	.649	.0102	.0492	.0394	1								●
16ER 2.00 ISO IC228	.375	2.000	.649	.0102	.0512	.0394	1	●							
16ER 2.00 ISO IC250	.375	2.000	.649	.0102	.0512	.0394	1			●					
16ER 2.00 ISO IC50M	.375	2.000	.649	.0102	.0512	.0394	1		●						
16ER 2.00 ISO IC908	.375	2.000	.649	.0102	.0492	.0394	1							●	
16ER 2.00 ISO 2M IC908 [1]	.375	2.000	.649	.0035	.1142	.0709	2							●	
16ERB 2.00 ISO IC908 [2]	.375	2.000	.649	.0098	.0472	.0354	1							●	
16ERM 2.00 ISO IC1007 [2]	.375	2.000	.649	.0110	.0512	.0394	1								●
16ERM 2.00 ISO IC250 [2]	.375	2.000	.649	.0110	.0512	.0394	1			●					
16ERM 2.00 ISO IC508 [2]	.375	2.000	.649	.0110	.0512	.0394	1					●			
16ERM 2.00 ISO IC808 [2]	.375	2.000	.649	.0110	.0512	.0394	1						●		
16ERM 2.00 ISO IC908 [3]	.375	2.000	.649	.0110	.0512	.0394	1							●	
16EL 2.50 ISO IC908	.375	2.500	.649	.0126	.0571	.0433	1							●	
16ER 2.50 ISO IC1007	.375	2.500	.649	.0142	.0571	.0433	1								●
16ER 2.50 ISO IC250	.375	2.500	.649	.0126	.0571	.0433	1			●					
16ER 2.50 ISO IC50M	.375	2.500	.649	.0126	.0571	.0433	1		●						
16ER 2.50 ISO IC908	.375	2.500	.649	.0142	.0571	.0433	1							●	
16ERB 2.50 ISO IC908	.375	2.500	.649	.0126	.0571	.0433	1							●	
16ERM 2.50 ISO IC1007 [2]	.375	2.500	.649	.0118	.0590	.0433	1								●
16ERM 2.50 ISO IC250 [2]	.375	2.500	.649	.0118	.0590	.0433	1			●					
16ERM 2.50 ISO IC808 [2]	.375	2.500	.649	.0118	.0590	.0433	1						●		
16ERM 2.50 ISO IC908 [2]	.375	2.500	.649	.0118	.0590	.0433	1							●	
16EL 3.00 ISO IC908	.375	3.000	.649	.0173	.0630	.0472	1							●	
16ER 3.00 ISO IC1007	.375	3.000	.649	.0173	.0650	.0394	1								●
16ER 3.00 ISO IC228	.375	3.000	.649	.0173	.0630	.0472	1	●							
16ER 3.00 ISO IC250	.375	3.000	.649	.0173	.0630	.0472	1			●					
16ER 3.00 ISO IC50M	.375	3.000	.649	.0173	.0630	.0472	1		●						
16ER 3.00 ISO IC508	.375	3.000	.649	.0173	.0630	.0472	1					●			
16ER 3.00 ISO IC908	.375	3.000	.649	.0173	.0650	.0394	1							●	
16ERB 3.00 ISO IC908 [2]	.375	3.000	.649	.0173	.0630	.0472	1							●	
16ERM 3.00 ISO IC1007 [2]	.375	3.000	.649	.0150	.0630	.0472	1								●
16ERM 3.00 ISO IC250 [2]	.375	3.000	.649	.0150	.0630	.0472	1			●					
16ERM 3.00 ISO IC50M [2]	.375	3.000	.649	.0150	.0630	.0472	1		●						
16ERM 3.00 ISO IC508 [2]	.375	3.000	.649	.0150	.0630	.0472	1					●			
16ERM 3.00 ISO IC808 [2]	.375	3.000	.649	.0150	.0630	.0472	1						●		
16ERM 3.00 ISO IC908 [2]	.375	3.000	.649	.0150	.0630	.0472	1							●	
16ERB 3.50 ISO IC908	.375	3.500	.649	.0201	.0630	.0512	1							●	

- For Insert Identification System, see page 645 • For threading between walls use GRIP-type inserts TIP-ISO class: 6g
- For technical information and detailed cutting data, see pages 797-812

[1] Multi-tooth
[2] With pressed chipformer
[3] With pressed chipformer
[4] Thread pitch
[5] Number of teeth per corner

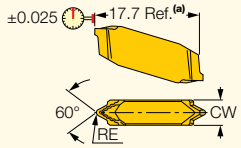
For tools, see pages: MTET Single Point (1219) • NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830) • SER/L (647)

CUTGRIP

TIP-P-ISO

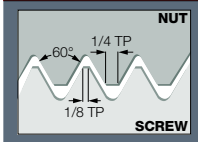
Precision Ground ISO Metric Full Profile Double-Ended External Threading Inserts with a Chipformer







M E T R I C



Designation	Dimensions TP(1)	CW	RE	RETOL(2)	Tough ↔ Hard IC08	IC908
TIP 2P0.5-ISO IC08	0.500	2.40	0.08	0.030	•	
TIP 2P0.5-ISO IC908	0.500	2.40	0.08	0.030		•
TIP 2P0.75-ISO IC08	0.750	2.40	0.11	0.030	•	
TIP 2P0.75-ISO IC908	0.750	2.40	0.11	0.030		•
TIP 2P0.8-ISO IC08	0.800	2.40	0.12	0.030	•	
TIP 2P0.8-ISO IC908	0.800	2.40	0.12	0.030		•
TIP 2P1.0-ISO IC08	1.000	2.40	0.14	0.030	•	
TIP 2P1.0-ISO IC908	1.000	2.40	0.14	0.030		•
TIP 2P1.25-ISO IC08	1.250	2.40	0.18	0.030	•	
TIP 2P1.25-ISO IC908	1.250	2.40	0.18	0.030		•
TIP 2P1.5-ISO IC08	1.500	2.40	0.22	0.030	•	
TIP 2P1.5-ISO IC908	1.500	2.40	0.22	0.030		•
TIP 2P1.75-ISO IC08	1.750	2.40	0.25	0.030	•	
TIP 2P1.75-ISO IC908	1.750	2.40	0.25	0.030		•
TIP 4P2.0-ISO IC08	2.000	4.00	0.28	0.030	•	
TIP 4P2.0-ISO IC908	2.000	4.00	0.28	0.030		•
TIP 4P2.5-ISO IC08	2.500	4.00	0.35	0.050	•	
TIP 4P2.5-ISO IC908	2.500	4.00	0.35	0.050		•
TIP 4P3.0-ISO IC908	3.000	4.00	0.42	0.050		•
TIP 4P3.5-ISO IC908	3.500	4.00	0.48	0.050		•

• (a) TIP inserts are 1.6 mm longer than GIP in the same pocket • Toolholder seat needs to be modified according to insert profile to ensure clearance

(1) Thread pitch (2) Corner radius tolerance (+/-)

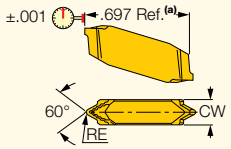
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

CUTGRIP

TIP-P-ISO

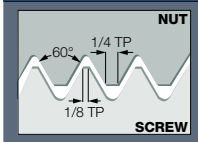
Precision Ground ISO Metric Full Profile Double-Ended External Threading Inserts with a Chipformer







I N C H



Designation	Dimensions TP mm(1)	CW	RE	RETOL(2)	Tough ↔ Hard IC08	IC908
TIP 2P0.5-ISO IC08	.500	.094	.0031	.0012	•	
TIP 2P0.5-ISO IC908	.500	.094	.0031	.0012		•
TIP 2P0.75-ISO IC08	.750	.094	.0043	.0012	•	
TIP 2P0.75-ISO IC908	.750	.094	.0043	.0012		•
TIP 2P0.8-ISO IC08	.800	.094	.0047	.0012	•	
TIP 2P0.8-ISO IC908	.800	.094	.0047	.0012		•
TIP 2P1.0-ISO IC08	1.000	.094	.0055	.0012	•	
TIP 2P1.0-ISO IC908	1.000	.094	.0055	.0012		•
TIP 2P1.25-ISO IC08	1.250	.094	.0071	.0012	•	
TIP 2P1.25-ISO IC908	1.250	.094	.0071	.0012		•
TIP 2P1.5-ISO IC08	1.500	.094	.0087	.0012	•	
TIP 2P1.5-ISO IC908	1.500	.094	.0087	.0012		•
TIP 2P1.75-ISO IC08	1.750	.094	.0098	.0012	•	
TIP 2P1.75-ISO IC908	1.750	.094	.0098	.0012		•
TIP 4P2.0-ISO IC08	2.000	.157	.0110	.0012	•	
TIP 4P2.0-ISO IC908	2.000	.157	.0110	.0012		•
TIP 4P2.5-ISO IC08	2.500	.157	.0138	.0020	•	
TIP 4P2.5-ISO IC908	2.500	.157	.0138	.0020		•
TIP 4P3.0-ISO IC908	3.000	.157	.0165	.0020		•
TIP 4P3.5-ISO IC908	3.500	.157	.0189	.0020		•

• (a) TIP inserts are .063" longer than GIP in the same pocket • Toolholder seat needs to be modified according to insert profile to ensure clearance

(1) Thread pitch (2) Corner radius tolerance (+/-)

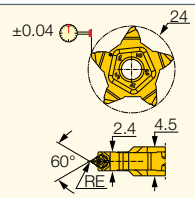
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

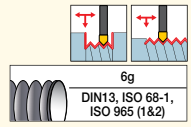
PENTACUT THREADING LINE

PENTA 24-ISO

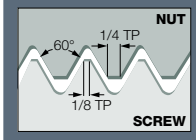
Precision Ground ISO Metric
Full Profile Pentagonal
External Threading Inserts
with a Chipformer







M E T R I C



Designation	Dimensions TP[1]	RE	IC908
PENTA 24-0.5-ISO IC908	0.500	0.08	•
PENTA 24-0.75-ISO IC908	0.750	0.11	•
PENTA 24-0.8-ISO IC908	0.800	0.12	•
PENTA 24-1.0-ISO IC908	1.000	0.14	•
PENTA 24-1.25-ISO IC908	1.250	0.18	•
PENTA 24-1.5-ISO IC908	1.500	0.22	•
PENTA 24-1.75-ISO IC908	1.750	0.25	•
PENTA 24-2.0-ISO IC908	2.000	0.28	•

• DMIN(mm)=5.435xTP

(1) Thread pitch

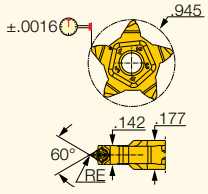
For tools, see pages: NQCH-PCHR/L-24-JHP (552) • PCHR/L-24 (547) • PCHR/L-24-JHP (548)

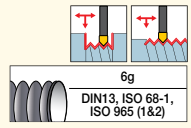
PENTACUT THREADING LINE

PENTA 24-ISO

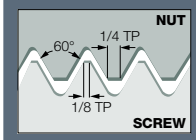
Precision Ground ISO Metric
Full Profile Pentagonal
External Threading Inserts
with a Chipformer







I N C H



Designation	Dimensions TP mm[1]	RE	IC908
PENTA 24-0.5-ISO IC908	.500	.0031	•
PENTA 24-0.75-ISO IC908	.750	.0043	•
PENTA 24-0.8-ISO IC908	.800	.0047	•
PENTA 24-1.0-ISO IC908	1.000	.0055	•
PENTA 24-1.25-ISO IC908	1.250	.0071	•
PENTA 24-1.5-ISO IC908	1.500	.0087	•
PENTA 24-1.75-ISO IC908	1.750	.0098	•
PENTA 24-2.0-ISO IC908	2.000	.0110	•

• DMIN(mm)=5.435xTP

(1) Thread pitch

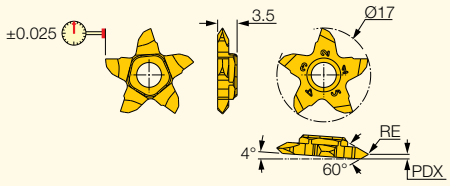
For tools, see pages: NQCH-PCHR/L-24-JHP (552) • PCHR/L-24 (547) • PCHR/L-24-JHP (548)

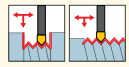
PENTACUT THREADING LINE

PENTA 17-MT-RS/LS

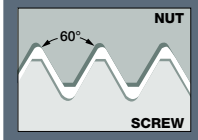
Precision Ground Pentagonal External Threading Inserts with a 60° Partial Profile for General Applications







M E T R I C



Designation	Dimensions TPIN(1)	TPIX(2)	TPN(3)	TPX(4)	RE	PDX	IC1008
PENTA 17-MTL008LS IC1008	8.00	36.00	0.700	3.000	0.08	1.40	●
PENTA 17-MTR008RS IC1008	8.00	36.00	0.700	3.000	0.08	1.40	●
PENTA 17-MTL003LS IC1008	17.00	80.00	0.300	1.500	0.03	0.80	●
PENTA 17-MTR003RS IC1008	17.00	80.00	0.300	1.500	0.03	0.80	●

• DIN13 , ISO 68-1, ISO 965 (1&2) - External tolerance: 6g • ANSI/ASME B1.1 - External tolerance: 2A

(1) Threads per inch minimum

(2) Threads per inch maximum

(3) Thread pitch minimum (mm)

(4) Thread pitch maximum (mm)

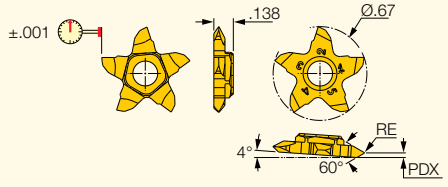
For tools, see pages: NQCH-PCHR/L-S-JHP (536) • PCHRS/LS-17 (534) • PCHRS/LS-17-JHP (535)

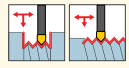
PENTACUT THREADING LINE

PENTA 17-MT-RS/LS

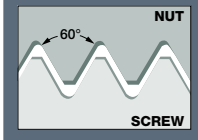
Precision Ground Pentagonal External Threading Inserts with a 60° Partial Profile for General Applications







I N C H



Designation	Dimensions TPIN(1)	TPIX(2)	TPN (mm)(3)	TPX (mm)(4)	RE	PDX	IC1008
PENTA 17-MTL008LS IC1008	8.00	36.00	.700	3.000	.0031	.0551	●
PENTA 17-MTR008RS IC1008	8.00	36.00	.700	3.000	.0031	.0551	●
PENTA 17-MTL003LS IC1008	17.00	80.00	.300	1.500	.0012	.0315	●
PENTA 17-MTR003RS IC1008	17.00	80.00	.300	1.500	.0012	.0315	●

• DIN13 , ISO 68-1, ISO 965 (1&2) - External tolerance: 6g • ANSI/ASME B1.1 - External tolerance: 2A

(1) Threads per inch minimum

(2) Threads per inch maximum

(3) Thread pitch minimum (mm)

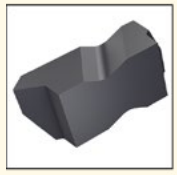
(4) Thread pitch maximum (mm)

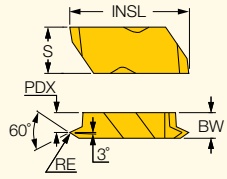
For tools, see pages: NQCH-PCHR/L-S-JHP (536) • PCHRS/LS-17 (534) • PCHRS/LS-17-JHP (535)

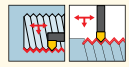
NOTCH-GRIP GROOVE-TURN LINE

60° PARTIAL PROFILE THREADING FLTF

Double-Ended Precision Flat Top Threading Inserts

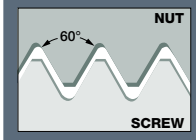






Right-hand shown

M E T R I C



Designation	Dimensions													IC908
	TPIN(1)	TPIX(2)	TPIN_ DF2(3)	TPIX_ DF2(4)	RE	PDX	BW	S	INSL	TPN(5)	TPX(6)	TPN_ DF2	TPX_ DF2	
FLTF-2R/L IC908	12.00	24.00	14.00	44.00	0.08	2.80	3.81	5.56	12.95	1.000	2.000	0.500	1.750	●
FLTF-3R/L IC908	9.00	24.00	10.00	44.00	0.08	3.60	4.95	8.74	22.60	1.000	2.500	0.500	2.500	●

- DMIN according to related boring bar • For 60° V-thread limits, see pages 811-812 • DIN13 , ISO 68-1, ISO 965 (1&2) - Internal tolerance: 6H, External tolerance: 6g
- ANSI/ASME B1.1 - Internal tolerance: 2B, External tolerance: 2A

(1) TPI int. min.
(2) TPI int. max.
(3) TPI ext. min.
(4) TPI ext. max.
(5) Thread pitch minimum (mm)
(6) Thread pitch maximum (mm)

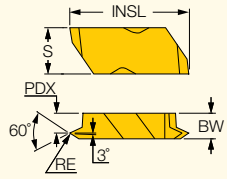
For tools, see pages: FLASR/L (649)

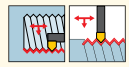
NOTCH-GRIP GROOVE-TURN LINE

60° PARTIAL PROFILE THREADING FLTF

Double-Ended Precision Flat Top Threading Inserts

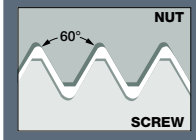






Right-hand shown

I N C H



Designation	Dimensions													IC908
	TPIN(1)	TPIX(2)	TPIN_ DF2(3)	TPIX_ DF2(4)	RE	PDX	BW	S	INSL	TPN (mm)(5)	TPX (mm)(6)	TPN_ DF2	TPX_ DF2	
FLTF-2R/L IC908	12.00	24.00	14.00	44.00	.0031	.1102	.150	.219	.510	1.000	2.000	.500	1.750	●
FLTF-3R/L IC908	9.00	24.00	10.00	44.00	.0031	.1417	.195	.344	.890	1.000	2.500	.500	2.500	●

- DMIN according to related boring bar • For 60° V-thread limits, see pages 811-812 • DIN13 , ISO 68-1, ISO 965 (1&2) - Internal tolerance: 6H, External tolerance: 6g
- ANSI/ASME B1.1 - Internal tolerance: 2B, External tolerance: 2A

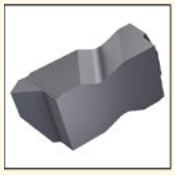
(1) TPI int. min.
(2) TPI int. max.
(3) TPI ext. min.
(4) TPI ext. max.
(5) Thread pitch minimum (mm)
(6) Thread pitch maximum (mm)

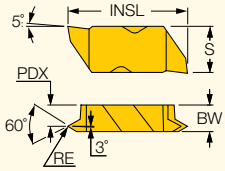
For tools, see pages: FLASR/L (649)

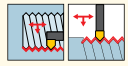
NOTCH-GRIP GROOVE-TURN LINE

60° PARTIAL PROFILE THREADING FLTK

Double-Ended Precision Positive Rake Threading Inserts

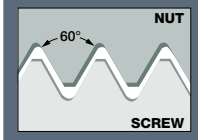






Right-hand shown

M E T R I C



Designation	Dimensions														IC908
	TPIN[1]	TPIX[2]	TPIN_ DF2[3]	TPIX_ DF2[4]	RE	TTP	PDX	BW	S	INSL	TPN[5]	TPX[6]	TPN_ DF2	TPX_ DF2	
FLTK-3R/L IC908	9.00	24.00	10.00	44.00	0.08	BOTH	3.60	4.95	8.74	22.60	1.000	2.500	0.500	2.500	●
FLTK-2R/L IC908	12.00	24.00	14.00	44.00	0.08	BOTH	2.80	3.81	5.56	12.95	1.000	2.000	0.500	1.750	●

- DMIN according to related boring bar • For 60° V-thread limits, see pages 811-812 • DIN13 , ISO 68-1, ISO 965 (1&2) - Internal tolerance: 6H, External tolerance: 6g
- ANSI/ASME B1.1 - Internal tolerance: 2B, External tolerance: 2A

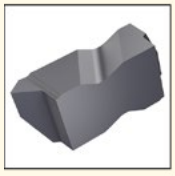
(1) TPI int. min.
(2) TPI int. max.
(3) TPI ext. min.
(4) TPI ext. max.
(5) Thread pitch minimum (mm)
(6) Thread pitch maximum (mm)

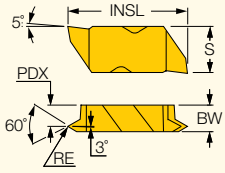
For tools, see pages: FLASR/L (649)

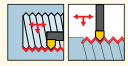
NOTCH-GRIP GROOVE-TURN LINE

60° PARTIAL PROFILE THREADING FLTK

Double-Ended Precision Positive Rake Threading Inserts

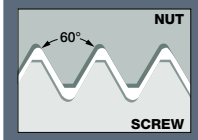






Right-hand shown

I N C H



Designation	Dimensions														IC908
	TPIN[1]	TPIX[2]	TPIN_ DF2[3]	TPIX_ DF2[4]	RE	TTP	PDX	BW	S	INSL	TPN (mm)[5]	TPX (mm)[6]	TPN_ DF2	TPX_ DF2	
FLTK-3R/L IC908	9.00	24.00	10.00	44.00	.0031	BOTH	.1417	.195	.344	.890	1.000	2.500	.500	2.500	●
FLTK-2R/L IC908	12.00	24.00	14.00	44.00	.0031	BOTH	.1102	.150	.219	.510	1.000	2.000	.500	1.750	●

- DMIN according to related boring bar • For 60° V-thread limits, see pages 811-812 • DIN13 , ISO 68-1, ISO 965 (1&2) - Internal tolerance: 6H, External tolerance: 6g
- ANSI/ASME B1.1 - Internal tolerance: 2B, External tolerance: 2A

(1) TPI int. min.
(2) TPI int. max.
(3) TPI ext. min.
(4) TPI ext. max.
(5) Thread pitch minimum (mm)
(6) Thread pitch maximum (mm)

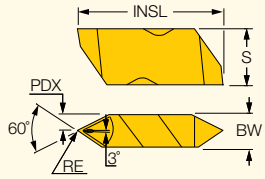
For tools, see pages: FLASR/L (649)

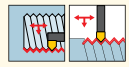
NOTCH-GRIP GROOVE-TURN LINE

60° PARTIAL PROFILE THREADING FLT-CB

Double-Ended Precision Threading Inserts with Chipbreakers

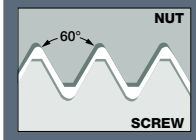






Right-hand shown

M E T R I C



Designation	Dimensions													IC908
	TPIN[1]	TPIX[2]	TPIN_ DF2[3]	TPIX_ DF2[4]	RE	PDX	BW	S	INSL	TPN[5]	TPX[6]	TPN_ DF2	TPX_ DF2	
FLT-3R/LC-HCB IC908	5.00	6.00	6.00	11.00	0.34	2.50	4.95	8.74	22.60	4.000	5.000	2.250	4.000	●
FLT-3R/L-HCB IC908	5.00	12.00	6.00	20.00	0.17	2.50	4.95	8.74	22.60	2.000	5.000	1.250	4.000	●
FLT-3R/L-FCB IC908	7.00	20.00	8.00	36.00	0.10	2.50	4.95	8.74	22.60	1.250	3.500	0.500	3.000	●
FLT-3R/L-CB IC908	8.00	12.00	8.00	20.00	0.17	2.50	4.95	8.74	22.60	2.000	3.000	1.250	3.000	●

- DMIN according to related boring bar • For 60° V-thread limits, see pages 811-812 • DIN13 , ISO 68-1, ISO 965 (1&2) - Internal tolerance: 6H, External tolerance: 6g
- ANSI/ASME B1.1 - Internal tolerance: 2B, External tolerance: 2A

(1) TPI int. min.
(2) TPI int. max.
(3) TPI ext. min.
(4) TPI ext. max.
(5) Thread pitch minimum (mm)
(6) Thread pitch maximum (mm)

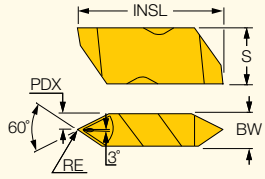
For tools, see pages: FLASR/L (649)

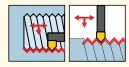
NOTCH-GRIP GROOVE-TURN LINE

60° PARTIAL PROFILE THREADING FLT-CB

Double-Ended Precision Threading Inserts with Chipbreakers

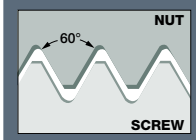






Right-hand shown

I N C H



Designation	Dimensions													IC908
	TPIN[1]	TPIX[2]	TPIN_ DF2[3]	TPIX_ DF2[4]	RE	PDX	BW	S	INSL	TPN (mm)[5]	TPX (mm)[6]	TPN_ DF2	TPX_ DF2	
FLT-3R/LC-HCB IC908	5.00	6.00	6.00	11.00	.0134	.0984	.195	.344	.890	4.000	5.000	2.250	4.000	●
FLT-3R/L-HCB IC908	5.00	12.00	6.00	20.00	.0067	.0984	.195	.344	.890	2.000	5.000	1.250	4.000	●
FLT-3R/L-FCB IC908	7.00	20.00	8.00	36.00	.0039	.0984	.195	.344	.890	1.250	3.500	.500	3.000	●
FLT-3R/L-CB IC908	8.00	12.00	8.00	20.00	.0067	.0984	.195	.344	.890	2.000	3.000	1.250	3.000	●

- DMIN according to related boring bar • For 60° V-thread limits, see pages 811-812 • DIN13 , ISO 68-1, ISO 965 (1&2) - Internal tolerance: 6H, External tolerance: 6g
- ANSI/ASME B1.1 - Internal tolerance: 2B, External tolerance: 2A

(1) TPI int. min.
(2) TPI int. max.
(3) TPI ext. min.
(4) TPI ext. max.
(5) Thread pitch minimum (mm)
(6) Thread pitch maximum (mm)

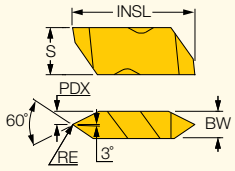
For tools, see pages: FLASR/L (649)

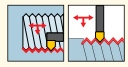
NOTCH-GRIP GROOVE-TURN LINE

60° PARTIAL PROFILE THREADING FLT

Double-Ended Precision Flat Top Threading Inserts

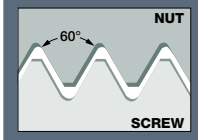






Right-hand shown

M E T R I C



Designation	Dimensions													IC908
	TPIN[1]	TPIX[2]	TPIN_ DF2[3]	TPIX_ DF2[4]	RE	PDX	BW	S	INSL	TPN[5]	TPX[6]	TPN_ DF2	TPX_ DF2	
FLT-3R/L IC908	5.00	12.00	6.00	20.00	0.26	2.50	4.95	8.74	22.60	2.000	5.000	1.250	4.000	●
FLT-3010R/L IC908	5.00	12.00	6.00	18.00	0.10	2.50	4.95	8.74	22.60	2.000	5.000	1.250	4.000	●
FLT-2R/L IC908	7.00	20.00	8.00	36.00	0.10	1.90	3.81	5.56	12.95	1.250	3.500	0.500	3.000	●

- DMIN according to related boring bar • For 60° V-thread limits, see pages 811-812 • DIN13 , ISO 68-1, ISO 965 (1&2) - Internal tolerance: 6H, External tolerance: 6g
- ANSI/ASME B1.1 - Internal tolerance: 2B, External tolerance: 2A

(1) TPI int. min.
(2) TPI int. max.
(3) TPI ext. min.
(4) TPI ext. max.
(5) Thread pitch minimum (mm)
(6) Thread pitch maximum (mm)

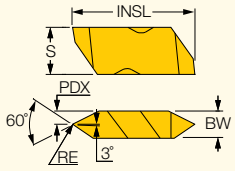
For tools, see pages: FLASR/L (649)

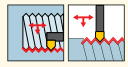
NOTCH-GRIP GROOVE-TURN LINE

60° PARTIAL PROFILE THREADING FLT

Double-Ended Precision Flat Top Threading Inserts

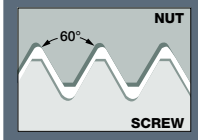






Right-hand shown

I N C H



Designation	Dimensions													IC908
	TPIN[1]	TPIX[2]	TPIN_ DF2[3]	TPIX_ DF2[4]	RE	PDX	BW	S	INSL	TPN (mm)[5]	TPX (mm)[6]	TPN_ DF2	TPX_ DF2	
FLT-3R/L IC908	5.00	12.00	6.00	20.00	.0102	.0984	.195	.344	.890	2.000	5.000	1.250	4.000	●
FLT-3010R/L IC908	5.00	12.00	6.00	18.00	.0039	.0984	.195	.344	.890	2.000	5.000	1.250	4.000	●
FLT-2R/L IC908	7.00	20.00	8.00	36.00	.0039	.0748	.150	.219	.510	1.250	3.500	.500	3.000	●

- DMIN according to related boring bar • For 60° V-thread limits, see pages 811-812 • DIN13 , ISO 68-1, ISO 965 (1&2) - Internal tolerance: 6H, External tolerance: 6g
- ANSI/ASME B1.1 - Internal tolerance: 2B, External tolerance: 2A

(1) TPI int. min.
(2) TPI int. max.
(3) TPI ext. min.
(4) TPI ext. max.
(5) Thread pitch minimum (mm)
(6) Thread pitch maximum (mm)

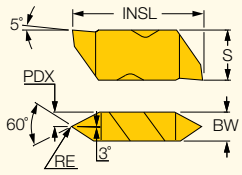
For tools, see pages: FLASR/L (649)

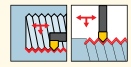
NOTCH-GRIP GROOVE-TURN LINE

60° PARTIAL PROFILE THREADING FLTP

Double-Ended Precision Positive Rake Threading Inserts

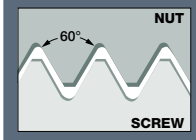






Right-hand shown

M E T R I C



Designation	Dimensions													IC908
	TPIN[1]	TPIX[2]	TPIN_ DF2[3]	TPIX_ DF2[4]	RE	PDX	BW	S	INSL	TPN[5]	TPX[6]	TPN_ DF2	TPX_ DF2	
FLTP-3R/L IC908	5.00	12.00	6.00	20.00	0.17	2.50	5.00	8.74	22.60	2.000	5.000	1.250	4.000	●
FLTP-2R/L IC908	7.00	20.00	8.00	36.00	0.10	1.90	3.80	5.56	12.95	1.250	3.500	0.500	3.000	●

- DMIN according to related boring bar • For 60° V-thread limits, see pages 811-812 • DIN13 , ISO 68-1, ISO 965 (1&2) - Internal tolerance: 6H, External tolerance: 6g
- ANSI/ASME B1.1 - Internal tolerance: 2B, External tolerance: 2A

(1) TPI int. min.
(2) TPI int. max.
(3) TPI ext. min.
(4) TPI ext. max.
(5) Thread pitch minimum (mm)
(6) Thread pitch maximum (mm)

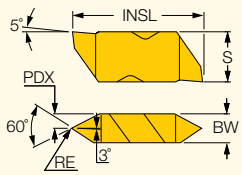
For tools, see pages: FLASR/L (649)

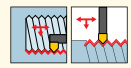
NOTCH-GRIP GROOVE-TURN LINE

60° PARTIAL PROFILE THREADING FLTP

Double-Ended Precision Positive Rake Threading Inserts

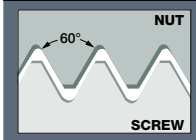






Right-hand shown

I N C H



Designation	Dimensions													IC908
	TPIN[1]	TPIX[2]	TPIN_ DF2[3]	TPIX_ DF2[4]	RE	PDX	BW	S	INSL	TPN (mm)[5]	TPX (mm)[6]	TPN_ DF2	TPX_ DF2	
FLTP-3R/L IC908	5.00	12.00	6.00	20.00	.0067	.0984	.197	.344	.890	2.000	5.000	1.250	4.000	●
FLTP-2R/L IC908	7.00	20.00	8.00	36.00	.0039	.0748	.150	.219	.510	1.250	3.500	.500	3.000	●

- DMIN according to related boring bar • For 60° V-thread limits, see pages 811-812 • DIN13 , ISO 68-1, ISO 965 (1&2) - Internal tolerance: 6H, External tolerance: 6g
- ANSI/ASME B1.1 - Internal tolerance: 2B, External tolerance: 2A

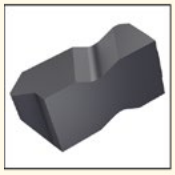
(1) TPI int. min.
(2) TPI int. max.
(3) TPI ext. min.
(4) TPI ext. max.
(5) Thread pitch minimum (mm)
(6) Thread pitch maximum (mm)

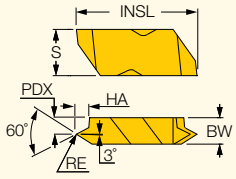
For tools, see pages: FLASR/L (649)

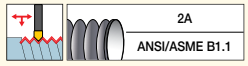
NOTCH-GRIP GROOVE-TURN LINE

UN THREADING FLTC-E

Double-Ended, Precision, Flat Top Full Profile Threading Inserts

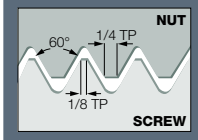






Right-hand shown

M E T R I C



Designation	Dimensions TPI[1]	RE	HA	PDX	BW	S	INSL	IC908
FLTC-3R/L7E IC908	7.0	0.43	2.74	2.70	4.95	8.74	22.60	●
FLTC-3R/L8E IC908	8.0	0.38	2.39	2.70	4.95	8.74	22.60	●
FLTC-3R/L9E IC908	9.0	0.33	2.13	2.70	4.95	8.74	22.60	●
FLTC-3R/L10E IC908	10.0	0.30	1.93	2.70	4.95	8.74	22.60	●
FLTC-3R/L11E IC908	11.0	0.28	1.75	2.70	4.95	8.74	22.60	●
FLTC-3R/L12E IC908	12.0	0.25	1.30	3.80	4.95	8.74	22.60	●
FLTC-3R/L14E IC908	14.0	0.23	1.37	3.80	4.95	8.74	22.60	●
FLTC-3R/L16E IC908	16.0	0.20	1.17	3.80	4.95	8.74	22.60	●
FLTC-3R/L18E IC908	18.0	0.18	1.04	3.80	4.95	8.74	22.60	●
FLTC-3R/L20E IC908	20.0	0.15	0.94	3.80	4.95	8.74	22.60	●
FLTC-3R/L24E IC908	24.0	0.13	0.79	3.80	4.95	8.74	22.60	●
FLTC-3R/L28E IC908	28.0	0.08	0.58	3.80	4.95	8.74	22.60	●
FLTC-3R/L32E IC908	32.0	0.08	0.53	3.80	4.95	8.74	22.60	●

- For internal thread limits, see pages 811-812

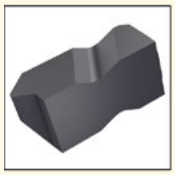
(1) Threads per inch

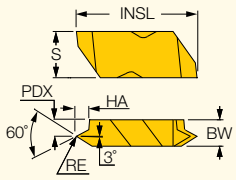
For tools, see pages: FLASR/L (649)

NOTCH-GRIP GROOVE-TURN LINE

UN THREADING FLTC-E

Double-Ended, Precision, Flat Top Full Profile Threading Inserts

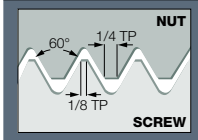






Right-hand shown

I N C H



Designation	Dimensions TPI[1]	RE	HA	PDX	BW	S	INSL	IC908
FLTC-3R/L7E IC908	7.0	.0169	.108	.1063	.195	.344	.890	●
FLTC-3R/L8E IC908	8.0	.0150	.094	.1063	.195	.344	.890	●
FLTC-3R/L9E IC908	9.0	.0130	.084	.1063	.195	.344	.890	●
FLTC-3R/L10E IC908	10.0	.0118	.076	.1063	.195	.344	.890	●
FLTC-3R/L11E IC908	11.0	.0110	.069	.1063	.195	.344	.890	●
FLTC-3R/L12E IC908	12.0	.0098	.051	.1496	.195	.344	.890	●
FLTC-3R/L14E IC908	14.0	.0091	.054	.1496	.195	.344	.890	●
FLTC-3R/L16E IC908	16.0	.0079	.046	.1496	.195	.344	.890	●
FLTC-3R/L18E IC908	18.0	.0071	.041	.1496	.195	.344	.890	●
FLTC-3R/L20E IC908	20.0	.0059	.037	.1496	.195	.344	.890	●
FLTC-3R/L24E IC908	24.0	.0051	.031	.1496	.195	.344	.890	●
FLTC-3R/L28E IC908	28.0	.0031	.023	.1496	.195	.344	.890	●
FLTC-3R/L32E IC908	32.0	.0031	.021	.1496	.195	.344	.890	●

- For internal thread limits, see pages 811-812

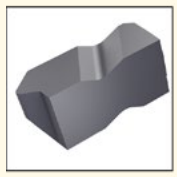
(1) Threads per inch

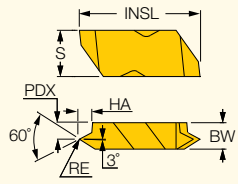
For tools, see pages: FLASR/L (649)

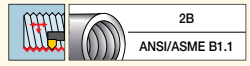
NOTCH-GRIP GROOVE-TURN LINE

UN THREADING FLTC-I

Double-Ended, Precision, Flat Top Full Profile Threading Inserts

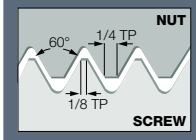






Right-hand shown

M E T R I C



Designation	TPI[1]	Dimensions RE	HA	PDX	BW	S	INSL	IC908
FLTC-3R/L7I IC908	7.0	0.23	2.34	2.70	4.95	8.74	22.60	●
FLTC-3R/L8I IC908	8.0	0.18	2.06	2.70	4.95	8.74	22.60	●
FLTC-3R/L9I IC908	9.0	0.15	1.83	2.70	4.95	8.74	22.60	●
FLTC-3R/L10I IC908	10.0	0.13	1.65	2.70	4.95	8.74	22.60	●
FLTC-3R/L11I IC908	11.0	0.13	1.50	2.70	4.95	8.74	22.60	●
FLTC-3R/L12I IC908	12.0	0.10	1.22	3.80	4.95	8.74	22.60	●
FLTC-3R/L14I IC908	14.0	0.08	1.12	3.76	4.95	8.74	22.60	●
FLTC-3R/L16I IC908	16.0	0.08	1.02	3.76	4.95	8.74	22.60	●
FLTC-3R/L18I IC908	18.0	0.08	0.91	3.76	4.95	8.74	22.60	●
FLTC-3R/L20I IC908	20.0	0.08	0.79	3.76	4.95	8.74	22.60	●
FLTC-3R/L24I IC908	24.0	0.08	0.66	3.76	4.95	8.74	22.60	●
FLTC-3R/L28I IC908	28.0	0.08	0.58	3.76	4.95	8.74	22.60	●

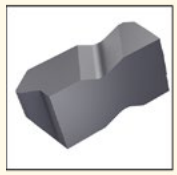
- For internal thread limits, see pages 811-812

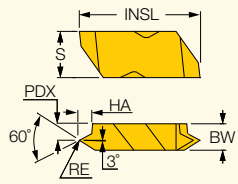
(1) Threads per inch

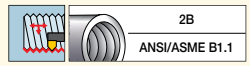
NOTCH-GRIP GROOVE-TURN LINE

UN THREADING FLTC-I

Double-Ended, Precision, Flat Top Full Profile Threading Inserts

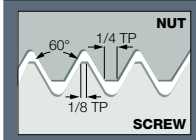






Right-hand shown

I N C H



Designation	TPI[1]	Dimensions RE	HA	PDX	BW	S	INSL	IC908
FLTC-3R/L7I IC908	7.0	.0091	.092	.1063	.195	.344	.890	●
FLTC-3R/L8I IC908	8.0	.0071	.081	.1063	.195	.344	.890	●
FLTC-3R/L9I IC908	9.0	.0059	.072	.1063	.195	.344	.890	●
FLTC-3R/L10I IC908	10.0	.0051	.065	.1063	.195	.344	.890	●
FLTC-3R/L11I IC908	11.0	.0051	.059	.1063	.195	.344	.890	●
FLTC-3R/L12I IC908	12.0	.0039	.048	.1496	.195	.344	.890	●
FLTC-3R/L14I IC908	14.0	.0031	.044	.1480	.195	.344	.890	●
FLTC-3R/L16I IC908	16.0	.0031	.040	.1480	.195	.344	.890	●
FLTC-3R/L18I IC908	18.0	.0031	.036	.1480	.195	.344	.890	●
FLTC-3R/L20I IC908	20.0	.0031	.031	.1480	.195	.344	.890	●
FLTC-3R/L24I IC908	24.0	.0031	.026	.1480	.195	.344	.890	●
FLTC-3R/L28I IC908	28.0	.0031	.023	.1480	.195	.344	.890	●

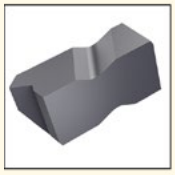
- For internal thread limits, see pages 811-812

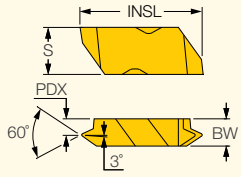
(1) Threads per inch

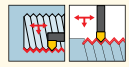
For tools, see ISCAR Threading Catalog: A-FLER/L

NOTCH-GRIP GROOVE-TURN LINE

NPT THREADING
FLDC-V-75
Double-Ended, Precision,
Flat Top Threading Inserts

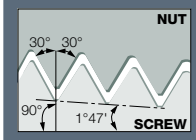






Right-hand shown

M E T R I C



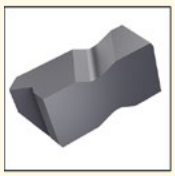
Designation	Dimensions TPI(1)	IPF	PDX	BW	S	INSL	IC908
FLDC-3-8VR/L75 IC908	8.0	3/4	2.50	4.95	8.74	22.60	●
FLDC-3-115VR/L75 IC908	11.5	3/4	3.70	4.95	8.74	22.60	●
FLDC-3-14VR/L-75 IC908	14.0	3/4	3.80	4.95	8.74	22.60	●
FLDC-3-18VR/L-75 IC908	18.0	3/4	3.90	4.95	8.74	22.60	●
FLDC-3-27VR/L-75 IC908	27.0	3/4	4.10	4.95	8.74	22.60	●

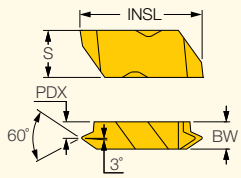
• DMIN according to related boring bar • Internal & External tolerance: ANSI/ASME B1.20.1 - Standard NPT
(1) Threads per inch

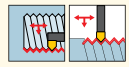
For tools, see pages: FLASR/L (649)

NOTCH-GRIP GROOVE-TURN LINE

NPT THREADING
FLDC-V-75
Double-Ended, Precision,
Flat Top Threading Inserts

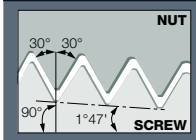






Right-hand shown

I N C H



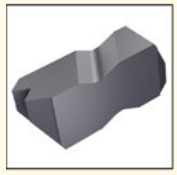
Designation	Dimensions TPI(1)	IPF	PDX	BW	S	INSL	IC908
FLDC-3-8VR/L75 IC908	8.0	3/4	.0984	.195	.344	.890	●
FLDC-3-115VR/L75 IC908	11.5	3/4	.1457	.195	.344	.890	●
FLDC-3-14VR/L-75 IC908	14.0	3/4	.1496	.195	.344	.890	●
FLDC-3-18VR/L-75 IC908	18.0	3/4	.1535	.195	.344	.890	●
FLDC-3-27VR/L-75 IC908	27.0	3/4	.1614	.195	.344	.890	●

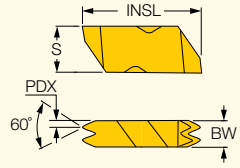
• DMIN according to related boring bar • Internal & External tolerance: ANSI/ASME B1.20.1 - Standard NPT
(1) Threads per inch

For tools, see pages: FLASR/L (649)

NOTCH-GRIP GROOVE-TURN LINE

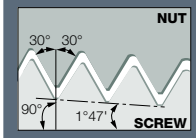
NPT THREADING
FLDC-NPT-E
Double-Ended, Precision, Flat Top Multi-Tooth Threading Inserts





Right-hand shown

M E T R I C



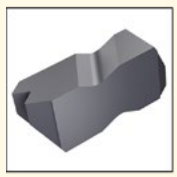
Designation	Dimensions TPI[1]	IPF	PDX	BW	S	INSL	IC908
FLDC-3-8NPT 2E IC908	8.0	3/4	1.50	6.35	8.74	22.60	●
FLDC-3-11.5NPT-2E IC908	11.5	3/4	1.20	6.35	8.74	22.60	●

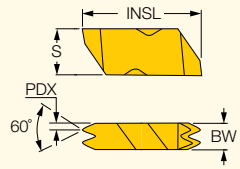
[1] Threads per inch

For tools, see pages: FLASR/L (649)

NOTCH-GRIP GROOVE-TURN LINE

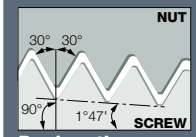
NPT THREADING
FLDC-NPT-E
Double-Ended, Precision, Flat Top Multi-Tooth Threading Inserts





Right-hand shown

I N C H



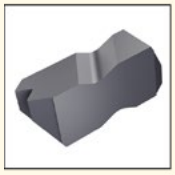
Designation	Dimensions TPI[1]	IPF	PDX	BW	S	INSL	IC908
FLDC-3-8NPT 2E IC908	8.0	3/4	.0590	.250	.344	.890	●
FLDC-3-11.5NPT-2E IC908	11.5	3/4	.0472	.250	.344	.890	●

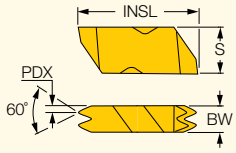
[1] Threads per inch

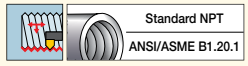
For tools, see pages: FLASR/L (649)

NOTCH-GRIP GROOVE-TURN LINE

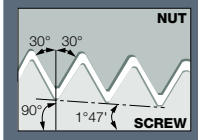
NPT THREADING
FLDC-NPT-I
Double-Ended, Precision, Flat Top Multi-Tooth Threading Inserts







M E T R I C



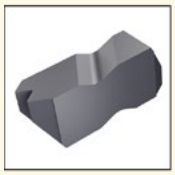
Designation	Dimensions TPI[1]	IPF	PDX	BW	S	INSL	IC908
FLDC-3-8NPT 2I IC908	8.0	3/4	1.50	6.35	8.74	22.60	●
FLDC-3-11.5NPT-2I IC908	11.5	3/4	1.20	6.35	8.74	22.60	●

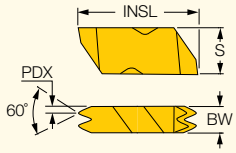
- For internal thread limits, see pages 811-812

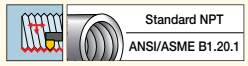
(1) Threads per inch

NOTCH-GRIP GROOVE-TURN LINE

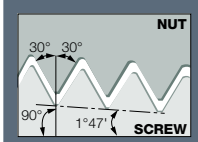
NPT THREADING
FLDC-NPT-I
Double-Ended, Precision, Flat Top Multi-Tooth Threading Inserts







I N C H



Designation	Dimensions TPI[1]	IPF	PDX	BW	S	INSL	IC908
FLDC-3-8NPT 2I IC908	8.0	3/4	.0590	.250	.344	.890	●
FLDC-3-11.5NPT-2I IC908	11.5	3/4	.0472	.250	.344	.890	●

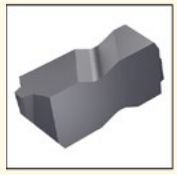
- For internal thread limits, see pages 811-812

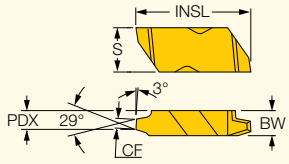
(1) Threads per inch

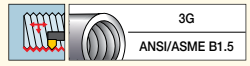
For tools, see ISCAR Threading Catalog: A-FLER/L

NOTCH-GRIP GROOVE-TURN LINE

STUB ACME THREADING
FLAS-PT-I
Double-Ended, Precision, Flat Top on Internal Threading Inserts

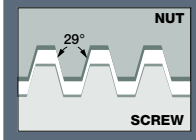






Right-hand shown

M E T R I C

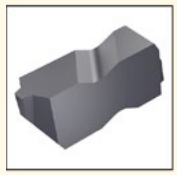


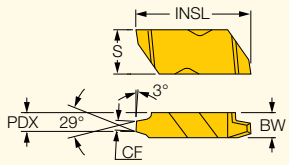
Designation	TPI[1]	Dimensions CF	PDX	BW	S	INSL	IC908
FLAS-3L4-PT-I IC908	4.0	2.55	3.80	4.95	8.74	22.60	●
FLAS-3L5-PT-I IC908	5.0	2.01	3.80	4.95	8.74	22.60	●
FLAS-3L6-PT-I IC908	6.0	1.66	3.80	4.95	8.74	22.60	●
FLAS-3L8-PT-I IC908	8.0	1.21	3.80	4.95	8.74	22.60	●
FLAS-3L10-PT-I IC908	10.0	0.94	3.80	4.95	8.74	22.60	●
FLAS-3L12-PT-I IC908	12.0	0.83	3.80	4.95	8.74	22.60	●
FLAS-3L14-PT-I IC908	14.0	0.70	3.80	4.95	8.74	22.60	●
FLAS-3L16-PT-I IC908	16.0	0.60	3.80	4.95	8.74	22.60	●

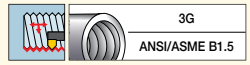
• For internal thread limits, see pages 811-812
(1) Threads per inch

NOTCH-GRIP GROOVE-TURN LINE

STUB ACME THREADING
FLAS-PT-I
Double-Ended, Precision, Flat Top on Internal Threading Inserts

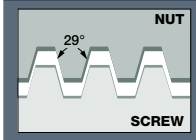






Right-hand shown

I N C H



Designation	TPI[1]	Dimensions CF	PDX	BW	S	INSL	IC908
FLAS-3L4-PT-I IC908	4.0	.100	.1496	.195	.344	.890	●
FLAS-3L5-PT-I IC908	5.0	.079	.1496	.195	.344	.890	●
FLAS-3L6-PT-I IC908	6.0	.065	.1496	.195	.344	.890	●
FLAS-3L8-PT-I IC908	8.0	.048	.1496	.195	.344	.890	●
FLAS-3L10-PT-I IC908	10.0	.037	.1496	.195	.344	.890	●
FLAS-3L12-PT-I IC908	12.0	.033	.1496	.195	.344	.890	●
FLAS-3L14-PT-I IC908	14.0	.028	.1496	.195	.344	.890	●
FLAS-3L16-PT-I IC908	16.0	.024	.1496	.195	.344	.890	●

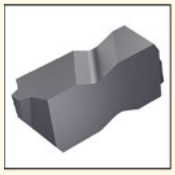
• For internal thread limits, see pages 811-812
(1) Threads per inch

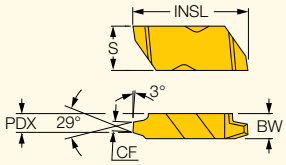
For tools, see ISCAR Threading Catalog: A-FLER/L

NOTCH-GRIP GROOVE-TURN LINE

STUB ACME THREADING
FLAS-PT-E

Double-Ended, Precision, Flat Top External Threading Inserts

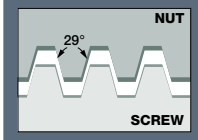






Right-hand shown

M E T R I C



Designation	TPI[1]	Dimensions CF	PDX	BW	S	INSL	IC908
FLAS-3R4-PT-E IC908	4.0	2.55	3.80	4.95	8.74	22.60	●
FLAS-3R5-PT-E IC908	5.0	2.01	3.80	4.95	8.74	22.60	●
FLAS-3R6-PT-E IC908	6.0	1.66	3.80	4.95	8.74	22.60	●
FLAS-3R8-PT-E IC908	8.0	1.21	3.80	4.95	8.74	22.60	●
FLAS-3R10-PT-E IC908	10.0	0.94	3.80	4.95	8.74	22.60	●
FLAS-3R12-PT-E IC908	12.0	0.83	3.80	4.95	8.74	22.60	●
FLAS-3R14-PT-E IC908	14.0	0.70	3.80	4.95	8.74	22.60	●
FLAS-3R16-PT-E IC908	16.0	0.60	3.80	4.95	8.74	22.60	●

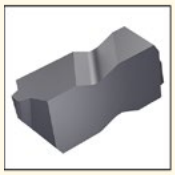
(1) Threads per inch

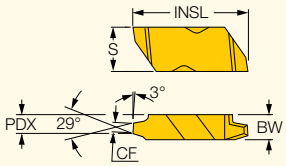
For tools, see pages: FLASR/L (649)

NOTCH-GRIP GROOVE-TURN LINE

STUB ACME THREADING
FLAS-PT-E

Double-Ended, Precision, Flat Top External Threading Inserts

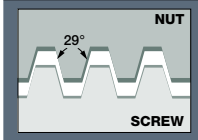






Right-hand shown

I N C H



Designation	TPI[1]	Dimensions CF	PDX	BW	S	INSL	IC908
FLAS-3R4-PT-E IC908	4.0	.100	.1496	.195	.344	.890	●
FLAS-3R5-PT-E IC908	5.0	.079	.1496	.195	.344	.890	●
FLAS-3R6-PT-E IC908	6.0	.065	.1496	.195	.344	.890	●
FLAS-3R8-PT-E IC908	8.0	.048	.1496	.195	.344	.890	●
FLAS-3R10-PT-E IC908	10.0	.037	.1496	.195	.344	.890	●
FLAS-3R12-PT-E IC908	12.0	.033	.1496	.195	.344	.890	●
FLAS-3R14-PT-E IC908	14.0	.028	.1496	.195	.344	.890	●
FLAS-3R16-PT-E IC908	16.0	.024	.1496	.195	.344	.890	●

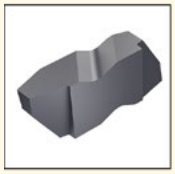
(1) Threads per inch

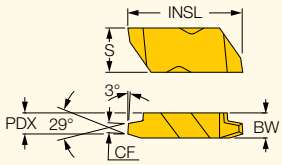
For tools, see pages: FLASR/L (649)

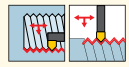
ISCARTHREAD

ACME THREADING FLA

Double-Ended, Precision,
Flat Top Threading Inserts

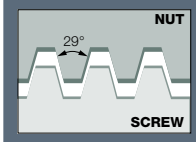






Right-hand shown

M E T R I C



Designation	Dimensions TPI[1]	CF	PDX	BW	S	INSL	IC908
FLA-3R/L5 IC908	5.0	1.75	3.80	4.95	8.74	22.60	●
FLA-3L6 IC908	6.0	1.44	3.80	4.95	8.74	22.60	●
FLA-3R6 IC908	6.0	1.44	3.80	4.95	8.74	22.60	●
FLA-3L8 IC908	8.0	1.04	3.80	4.95	8.74	22.60	●
FLA-3R8 IC908	8.0	1.04	3.80	4.95	8.74	22.60	●
FLA-3R/L10 IC908	10.0	0.81	3.80	4.95	8.74	22.60	●
FLA-3R/L12 IC908	12.0	0.72	3.80	4.95	8.74	22.60	●
FLA-3R/L14 IC908	14.0	0.61	3.80	4.95	8.74	22.60	●
FLA-3R/L16 IC908	16.0	0.52	3.80	4.95	8.74	22.60	●

- Internal & External tolerance: ANSI/ASME B1.5 - 3G

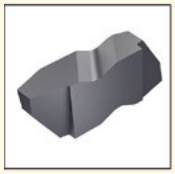
[1] Threads per inch

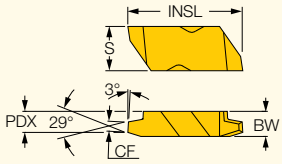
For tools, see pages: FLASR/L (649)

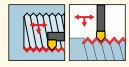
ISCARTHREAD

ACME THREADING FLA

Double-Ended, Precision,
Flat Top Threading Inserts

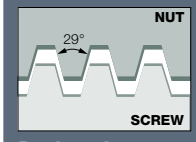






Right-hand shown

I N C H



Designation	Dimensions TPI[1]	CF	PDX	BW	S	INSL	IC908
FLA-3L4 IC908	4.0	.087	.1339	.195	.344	.890	●
FLA-3R/L5 IC908	5.0	.069	.1496	.195	.344	.890	●
FLA-3R/L6 IC908	6.0	.057	.1496	.195	.344	.890	●
FLA-3R/L8 IC908	8.0	.041	.1496	.195	.344	.890	●
FLA-3R/L10 IC908	10.0	.032	.1496	.195	.344	.890	●
FLA-3R/L12 IC908	12.0	.028	.1496	.195	.344	.890	●
FLA-3R/L14 IC908	14.0	.024	.1496	.195	.344	.890	●
FLA-3R/L16 IC908	16.0	.020	.1496	.195	.344	.890	●

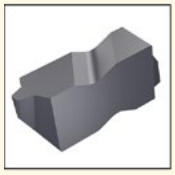
- Internal & External tolerance: ANSI/ASME B1.5 - 3G

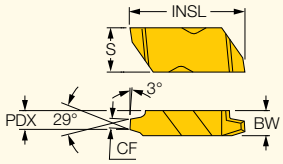
[1] Threads per inch

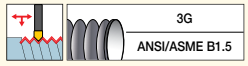
For tools, see pages: FLASR/L (649)

NOTCH-GRIP GROOVE-TURN LINE

ACME THREADING
FLA-PT-E
Double-Ended, Precision, Flat Top External Threading Inserts

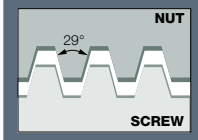






Right-hand shown

M E T R I C



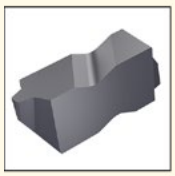
Designation	Dimensions TPI[1]	CF	PDX	BW	S	INSL	IC908
FLA-3R4-PT-E IC908	4.0	2.22	3.40	4.95	8.74	28.45	●
FLA-3R5-PT-E IC908	5.0	1.75	3.80	4.95	8.74	28.45	●
FLA-3R6-PT-E IC908	6.0	1.44	3.80	4.95	8.74	22.60	●
FLA-3R8-PT-E IC908	8.0	1.04	3.80	4.95	8.74	28.45	●
FLA-3R10-PT-E IC908	10.0	0.81	3.80	4.95	8.74	22.60	●
FLA-3R12-PT-E IC908	12.0	0.72	3.80	4.95	8.74	22.60	●
FLA-3R14-PT-E IC908	14.0	0.61	3.80	4.95	8.74	22.60	●
FLA-3R16-PT-E IC908	16.0	0.52	3.80	4.95	8.74	22.60	●

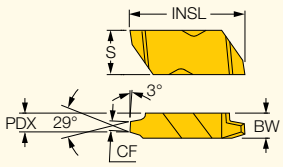
(1) Threads per inch

For tools, see pages: FLASR/L (649)

NOTCH-GRIP GROOVE-TURN LINE

ACME THREADING
FLA-PT-E
Double-Ended, Precision, Flat Top External Threading Inserts

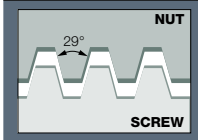






Right-hand shown

I N C H



Designation	Dimensions TPI[1]	CF	PDX	BW	S	INSL	IC908
FLA-3R4-PT-E IC908	4.0	.087	.1339	.195	.344	1.120	●
FLA-3R5-PT-E IC908	5.0	.069	.1496	.195	.344	1.120	●
FLA-3R6-PT-E IC908	6.0	.057	.1496	.195	.344	.890	●
FLA-3R8-PT-E IC908	8.0	.041	.1496	.195	.344	1.120	●
FLA-3R10-PT-E IC908	10.0	.032	.1496	.195	.344	.890	●
FLA-3R12-PT-E IC908	12.0	.028	.1496	.195	.344	.890	●
FLA-3R14-PT-E IC908	14.0	.024	.1496	.195	.344	.890	●
FLA-3R16-PT-E IC908	16.0	.020	.1496	.195	.344	.890	●

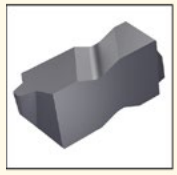
(1) Threads per inch

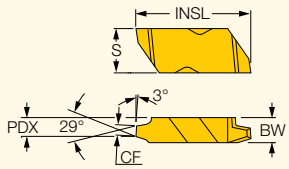
For tools, see pages: FLASR/L (649)

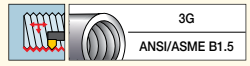
NOTCH-GRIP GROOVE-TURN LINE

ACME THREADING
FLA-PT-I

Double-Ended, Precision, Flat Top Internal Threading Inserts

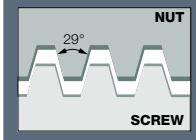






Right-hand shown

M E T R I C



Designation	Dimensions TPI[1]	CF	PDX	BW	S	INSL	IC908
FLA-3L16-PT-I IC908	16.0	0.52	3.80	4.95	8.74	22.60	●
FLA-3L14-PT-I IC908	14.0	0.61	3.80	4.95	8.74	22.60	●
FLA-3L12-PT-I IC908	12.0	0.72	3.80	4.95	8.74	22.60	●
FLA-3L10-PT-I IC908	10.0	0.81	3.80	4.95	8.74	22.60	●
FLA-3L8-PT-I IC908	8.0	1.04	3.80	4.95	8.74	22.60	●
FLA-3L6-PT-I IC908	6.0	1.44	3.80	4.95	8.74	22.60	●
FLA-3L5-PT-I IC908	5.0	1.75	3.80	4.95	8.74	22.60	●
FLA-3L4-PT-I IC908	4.0	2.22	3.40	4.95	8.74	22.60	●

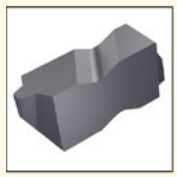
- For internal thread limits, see pages 811-812

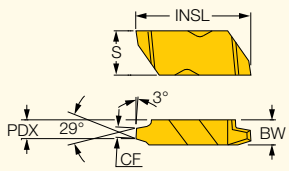
(1) Threads per inch

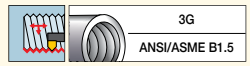
NOTCH-GRIP GROOVE-TURN LINE

ACME THREADING
FLA-PT-I

Double-Ended, Precision, Flat Top Internal Threading Inserts

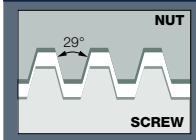






Right-hand shown

I N C H



Designation	Dimensions TPI[1]	CF	PDX	BW	S	INSL	IC908
FLA-3L16-PT-I IC908	16.0	.020	.1496	.195	.344	.890	●
FLA-3L14-PT-I IC908	14.0	.024	.1496	.195	.344	.890	●
FLA-3L12-PT-I IC908	12.0	.028	.1496	.195	.344	.890	●
FLA-3L10-PT-I IC908	10.0	.032	.1496	.195	.344	.890	●
FLA-3L8-PT-I IC908	8.0	.041	.1496	.195	.344	.890	●
FLA-3L6-PT-I IC908	6.0	.057	.1496	.195	.344	.890	●
FLA-3L5-PT-I IC908	5.0	.069	.1496	.195	.344	.890	●
FLA-3L4-PT-I IC908	4.0	.087	.1339	.195	.344	.890	●

- For internal thread limits, see pages 811-812

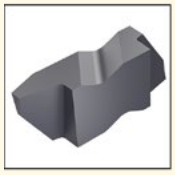
(1) Threads per inch

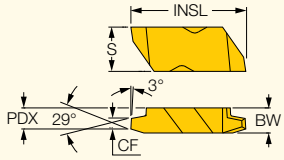
For tools, see ISCAR Threading Catalog: A-FLER/L

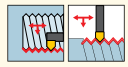
NOTCH-GRIP GROOVE-TURN LINE

ACME THREADING FLAS

Double-Ended, Precision,
Flat Top Threading Inserts







Right-hand shown

M E T R I C

Designation	TPI[1]	Dimensions CF	PDX	BW	S	INSL	IC908
FLAS-3L4 IC908	4.0	2.55	3.80	4.95	8.74	22.60	●
FLAS-3R/L5 IC908	5.0	2.01	3.80	4.95	8.74	22.60	●
FLAS-3R/L6 IC908	6.0	1.66	3.80	4.95	8.74	22.60	●
FLAS-3R/L8 IC908	8.0	1.21	3.80	4.95	8.74	22.60	●
FLAS-3R/L10 IC908	10.0	0.94	3.80	4.95	8.74	22.60	●
FLAS-3R/L12 IC908	12.0	0.83	3.80	4.95	8.74	22.60	●
FLAS-3R/L14 IC908	14.0	0.70	3.80	4.95	8.74	22.60	●
FLAS-3R/L16 IC908	16.0	0.60	3.80	4.95	8.74	22.60	●

• DMIN according to related boring bar • Internal & External tolerance: ANSI/ASME B1.5 - 3G

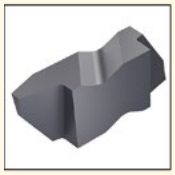
(1) Threads per inch

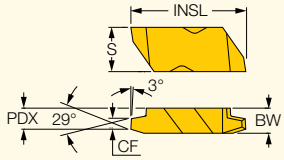
For tools, see pages: FLASR/L (649)

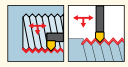
NOTCH-GRIP GROOVE-TURN LINE

ACME THREADING FLAS

Double-Ended, Precision,
Flat Top Threading Inserts







Right-hand shown

I N C H

Designation	TPI[1]	Dimensions CF	PDX	BW	S	INSL	IC908
FLAS-3L4 IC908	4.0	.100	.1496	.195	.344	.890	●
FLAS-3R/L5 IC908	5.0	.079	.1496	.195	.344	.890	●
FLAS-3R/L6 IC908	6.0	.065	.1496	.195	.344	.890	●
FLAS-3R/L8 IC908	8.0	.048	.1496	.195	.344	.890	●
FLAS-3R/L10 IC908	10.0	.037	.1496	.195	.344	.890	●
FLAS-3R/L12 IC908	12.0	.033	.1496	.195	.344	.890	●
FLAS-3R/L14 IC908	14.0	.028	.1496	.195	.344	.890	●
FLAS-3R/L16 IC908	16.0	.024	.1496	.195	.344	.890	●

• DMIN according to related boring bar • Internal & External tolerance: ANSI/ASME B1.5 - 3G

(1) Threads per inch

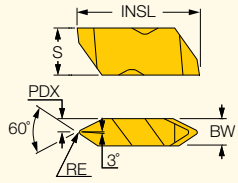
For tools, see pages: FLASR/L (649)

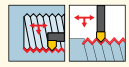
NOTCH-GRIP GROOVE-TURN LINE

UNJ THREADING FLJ

Double-Ended, Precision,
Flat Top Threading Inserts

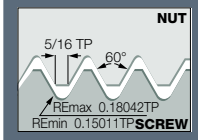






M E T R I C

Designation	TPI[1]	RE	PDX	BW	S	INSL	IC908
FLJ-3020R/L8 IC908	8.0	0.48	2.49	4.95	8.74	22.60	●
FLJ-3014R/L12 IC908	12.0	0.32	2.49	4.95	8.74	22.60	●
FLJ-3010R/L16 IC908	16.0	0.24	2.49	4.95	8.74	22.60	●



Dimensions

• DMIN according to related boring bar • Internal tolerance: MIL-S-8879C - 3B • External tolerance: MIL-S-8879C - 3A

[1] Threads per inch

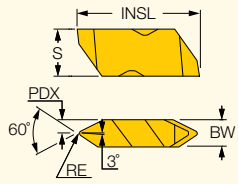
For tools, see pages: FLASR/L (649)

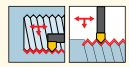
NOTCH-GRIP GROOVE-TURN LINE

UNJ THREADING FLJ

Double-Ended, Precision,
Flat Top Threading Inserts

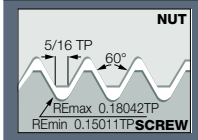






I N C H

Designation	TPI[1]	RE	PDX	BW	S	INSL	IC908
FLJ-3020R/L8 IC908	8.0	.0189	.0980	.195	.344	.890	●
FLJ-3014R/L12 IC908	12.0	.0126	.0980	.195	.344	.890	●
FLJ-3010R/L16 IC908	16.0	.0094	.0980	.195	.344	.890	●



Dimensions

• DMIN according to related boring bar • Internal tolerance: MIL-S-8879C - 3B • External tolerance: MIL-S-8879C - 3A

[1] Threads per inch

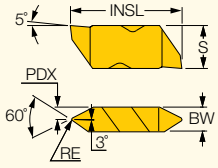
For tools, see pages: FLASR/L (649)

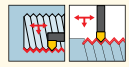
NOTCH-GRIP GROOVE-TURN LINE

UNJ THREADING FLJP

Double-Ended, Precision Threading Inserts with a Positive Rake

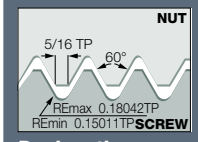






Right-hand shown

M E T R I C



Designation	Dimensions TPI(1)	RE	PDX	BW	S	INSL	IC908
FLJP-3020R/L8 IC908	8.0	0.48	2.50	4.95	8.74	22.60	●
FLJP-3014R/L12 IC908	12.0	0.32	2.50	4.95	8.74	22.60	●
FLJP-3010R/L16 IC908	16.0	0.24	2.50	4.95	8.74	22.60	●

• DMIN according to related boring bar • Internal tolerance: MIL-S-8879C - 3B • External tolerance: MIL-S-8879C - 3A

(1) Threads per inch

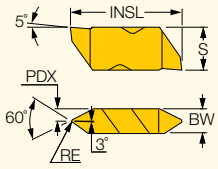
For tools, see pages: FLASR/L (649)

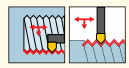
NOTCH-GRIP GROOVE-TURN LINE

UNJ THREADING FLJP

Double-Ended, Precision Threading Inserts with a Positive Rake

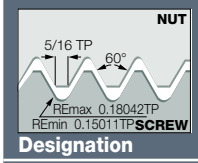






Right-hand shown

I N C H



Designation	Dimensions TPI(1)	RE	PDX	BW	S	INSL	IC908
FLJP-3020R/L8 IC908	8.0	.0189	.0984	.195	.344	.890	●
FLJP-3014R/L12 IC908	12.0	.0126	.0984	.195	.344	.890	●
FLJP-3010R/L16 IC908	16.0	.0094	.0984	.195	.344	.890	●

• DMIN according to related boring bar • Internal tolerance: MIL-S-8879C - 3B • External tolerance: MIL-S-8879C - 3A

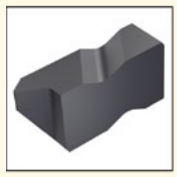
(1) Threads per inch

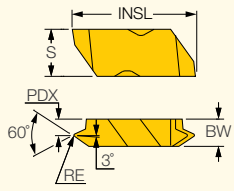
For tools, see pages: FLASR/L (649)

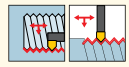
NOTCH-GRIP GROOVE-TURN LINE

UNJ THREADING FLJF

Double-Ended, Precision
Flat Top Threading Inserts

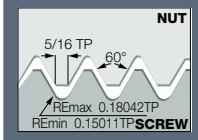






Right-hand shown

M E T R I C



Designation	Dimensions TPI(1)	RE	PDX	BW	S	INSL	IC908
FLJF-3012R/L14 IC908	14.0	0.27	3.58	4.95	8.74	22.60	●
FLJF-3010R/L16 IC908	16.0	0.24	3.60	4.95	8.74	22.60	●
FLJF-3009R/L18 IC908	18.0	0.21	3.60	4.95	8.74	22.60	●
FLJF-3008R/L20 IC908	20.0	0.19	3.60	4.95	8.74	22.60	●
FLJF-3007R/L24 IC908	24.0	0.16	3.60	4.95	8.74	22.60	●
FLJF-3006R/L28 IC908	28.0	0.14	3.60	4.95	8.74	22.60	●
FLJF-3005R/L32 IC908	32.0	0.12	3.60	4.95	8.74	22.60	●

• DMIN according to related boring bar • Internal tolerance: MIL-S-8879C - 3B • External tolerance: MIL-S-8879C - 3A

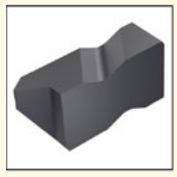
(1) Threads per inch

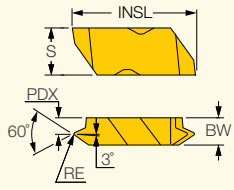
For tools, see pages: FLASR/L (649)

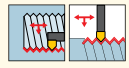
NOTCH-GRIP GROOVE-TURN LINE

UNJ THREADING FLJF

Double-Ended, Precision
Flat Top Threading Inserts

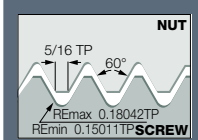






Right-hand shown

I N C H



Designation	Dimensions TPI(1)	RE	PDX	BW	S	INSL	IC908
FLJF-3012R/L14 IC908	14.0	.0106	.1409	.195	.344	.890	●
FLJF-3010R/L16 IC908	16.0	.0094	.1417	.195	.344	.890	●
FLJF-3009R/L18 IC908	18.0	.0083	.1417	.195	.344	.890	●
FLJF-3008R/L20 IC908	20.0	.0075	.1417	.195	.344	.890	●
FLJF-3007R/L24 IC908	24.0	.0063	.1417	.195	.344	.890	●
FLJF-3006R/L28 IC908	28.0	.0055	.1417	.195	.344	.890	●
FLJF-3005R/L32 IC908	32.0	.0047	.1417	.195	.344	.890	●

• DMIN according to related boring bar • Internal tolerance: MIL-S-8879C - 3B • External tolerance: MIL-S-8879C - 3A

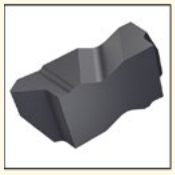
(1) Threads per inch

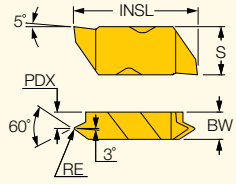
For tools, see pages: FLASR/L (649)

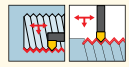
NOTCH-GRIP GROOVE-TURN LINE

UNJ THREADING FLJK

Double-Ended, Precision Threading Inserts with a Positive Rake

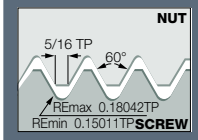






Right-hand shown

M E T R I C



Designation	Dimensions TPI[1]	RE	PDX	BW	S	INSL	IC908
FLJK-3012R/L14 IC908	14.0	0.27	3.58	4.95	8.74	22.60	●
FLJK-3010R/L16 IC908	16.0	0.24	3.60	4.95	8.74	22.60	●
FLJK-3009R/L18 IC908	18.0	0.21	3.60	4.95	8.74	22.60	●
FLJK-3008R/L20 IC908	20.0	0.19	3.60	4.95	8.74	22.60	●
FLJK-3007R/L24 IC908	24.0	0.16	3.60	4.95	8.74	22.60	●
FLJK-3006R/L28 IC908	28.0	0.14	3.60	4.95	8.74	22.60	●
FLJK-3005R/L32 IC908	32.0	0.12	3.60	4.95	8.74	22.60	●

• DMIN according to related boring bar • Internal tolerance: MIL-S-8879C - 3B • External tolerance: MIL-S-8879C - 3A

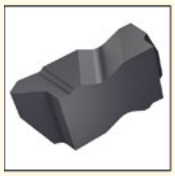
(1) Threads per inch

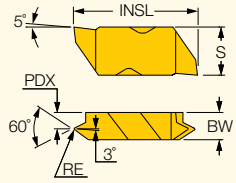
For tools, see pages: FLASR/L (649)

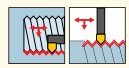
NOTCH-GRIP GROOVE-TURN LINE

UNJ THREADING FLJK

Double-Ended, Precision Threading Inserts with a Positive Rake

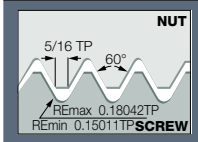






Right-hand shown

I N C H



Designation	Dimensions TPI[1]	RE	PDX	BW	S	INSL	IC908
FLJK-3012R/L14 IC908	14.0	.0106	.1409	.195	.344	.890	●
FLJK-3010R/L16 IC908	16.0	.0094	.1417	.195	.344	.890	●
FLJK-3009R/L18 IC908	18.0	.0083	.1417	.195	.344	.890	●
FLJK-3008R/L20 IC908	20.0	.0075	.1417	.195	.344	.890	●
FLJK-3007R/L24 IC908	24.0	.0063	.1417	.195	.344	.890	●
FLJK-3006R/L28 IC908	28.0	.0055	.1417	.195	.344	.890	●
FLJK-3005R/L32 IC908	32.0	.0047	.1417	.195	.344	.890	●

• DMIN according to related boring bar • Internal tolerance: MIL-S-8879C - 3B • External tolerance: MIL-S-8879C - 3A

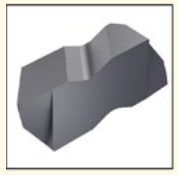
(1) Threads per inch

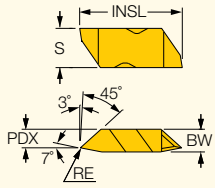
For tools, see pages: FLASR/L (649)

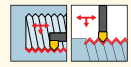
NOTCH-GRIP GROOVE-TURN LINE

AMERICAN STANDARD BUTTRESS THREADING FLTB-A

Double-Ended, Precision, Flat Top Threading Inserts for 7° Lead

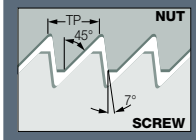






Right-hand shown

M E T R I C



Designation	Dimensions							IC908
	TPIN(1)	TPIX(2)	RE	PDX	BW	S	INSL	
FLTB-3R/LA IC908	8.00	16.00	0.13	4.20	4.95	8.74	22.60	●
FLTB-2R/LA IC908	16.00	20.00	0.05	3.20	3.81	5.56	12.95	●

- For user guide, see pages 811-812 • DMIN according to related boring bar • Internal tolerance: ANSI/ASME B1.9 - Class 2B
- External tolerance: ANSI/ASME B1.9 - Class 2A

(1) TPI min.

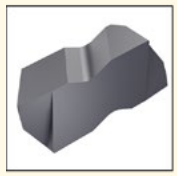
(2) TPI max.

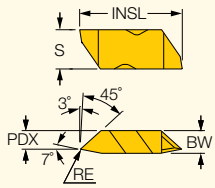
For tools, see pages: FLASR/L (649)

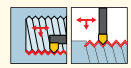
NOTCH-GRIP GROOVE-TURN LINE

AMERICAN STANDARD BUTTRESS THREADING FLTB-A

Double-Ended, Precision, Flat Top Threading Inserts for 7° Lead

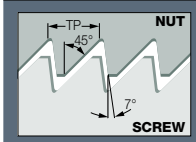






Right-hand shown

I N C H



Designation	Dimensions							IC908
	TPIN(1)	TPIX(2)	RE	PDX	BW	S	INSL	
FLTB-3R/LA IC908	8.00	16.00	.0051	.1654	.195	.344	.890	●
FLTB-2R/LA IC908	16.00	20.00	.0020	.1260	.150	.219	.510	●

- For user guide, see pages 811-812 • DMIN according to related boring bar • Internal tolerance: ANSI/ASME B1.9 - Class 2B
- External tolerance: ANSI/ASME B1.9 - Class 2A

(1) TPI min.

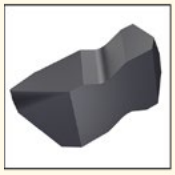
(2) TPI max.

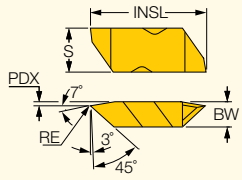
For tools, see pages: FLASR/L (649)

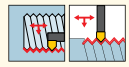
NOTCH-GRIP GROOVE-TURN LINE

AMERICAN STANDARD BUTTRESS THREADING FLTB-B

Double-Ended, Precision, Flat Top Threading Inserts for 45° Lead

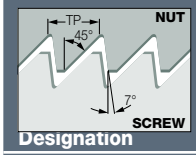






Left-hand shown

M E T R I C



Designation	Dimensions							IC908
	TPIN(1)	TPIX(2)	RE	PDX	BW	S	INSL	
FLTB-3R/LB IC908	8.00	16.00	0.13	0.30	4.95	8.74	22.60	●
FLTB-2R/LB IC908	16.00	20.00	0.05	0.30	3.81	5.56	12.95	●

- For user guide, see pages 811-812 • DMIN according to related boring bar • Internal tolerance: ANSI/ASME B1.9 - Class 2B
- External tolerance: ANSI/ASME B1.9 - Class 2A

(1) TPI min.

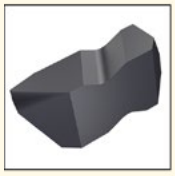
(2) TPI max.

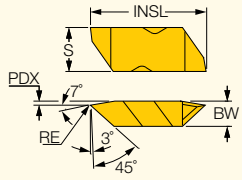
For tools, see pages: FLASR/L (649)

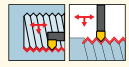
NOTCH-GRIP GROOVE-TURN LINE

AMERICAN STANDARD BUTTRESS THREADING FLTB-B

Double-Ended, Precision, Flat Top Threading Inserts for 45° Lead

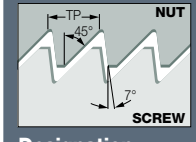






Left-hand shown

I N C H



Designation	Dimensions							IC908
	TPIN(1)	TPIX(2)	RE	PDX	BW	S	INSL	
FLTB-3R/LB IC908	8.00	16.00	.0051	.0118	.195	.344	.890	●
FLTB-2R/LB IC908	16.00	20.00	.0020	.0118	.150	.219	.510	●

- For user guide, see pages 811-812 • DMIN according to related boring bar • Internal tolerance: ANSI/ASME B1.9 - Class 2B
- External tolerance: ANSI/ASME B1.9 - Class 2A

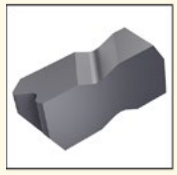
(1) TPI min.

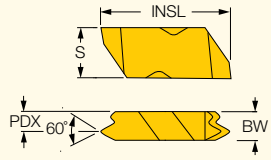
(2) TPI max.

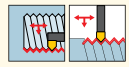
For tools, see pages: FLASR/L (649)

NOTCH-GRIP GROOVE-TURN LINE

API ROUND THREADING
FLDC-RD-75
Double-Ended, Precision,
Flat Top Threading Inserts

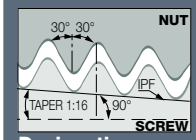






Right-hand shown

M E T R I C



Designation	Dimensions TPI(1)	IPF	PDX	BW	S	INSL	IC908
FLDC-3-8RDR/L75 IC908	8.0	3/4	5.00	3.18	8.74	22.60	●
FLDC-3-10RDR/L75 IC908	10.0	3/4	5.00	3.18	8.74	22.60	●

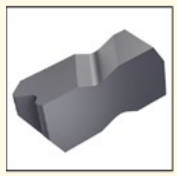
• DMIN according to related boring bar • API Spec STD 5B Internal & External tolerance: Standard API RD

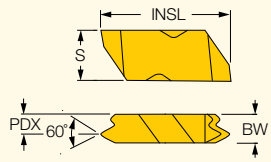
(1) Threads per inch

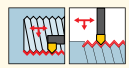
For tools, see pages: FLASR/L (649)

NOTCH-GRIP GROOVE-TURN LINE

API ROUND THREADING
FLDC-RD-75
Double-Ended, Precision,
Flat Top Threading Inserts

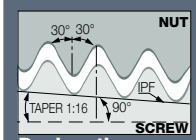






Right-hand shown

I N C H



Designation	Dimensions TPI(1)	IPF	PDX	BW	S	INSL	IC908
FLDC-3-8RDR/L75 IC908	8.0	3/4	.1969	.125	.344	.890	●
FLDC-3-10RDR/L75 IC908	10.0	3/4	.1969	.125	.344	.890	●

• DMIN according to related boring bar • API Spec STD 5B Internal & External tolerance: Standard API RD

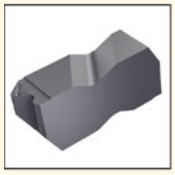
(1) Threads per inch

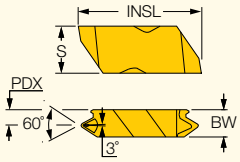
For tools, see pages: FLASR/L (649)

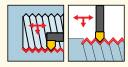
NOTCH-GRIP GROOVE-TURN LINE

API ROUND THREADING
FLDC-RD-75-CB

Double-Ended, Precision, Threading Inserts with a Chipbreaker







Right-hand shown

M E T R I C

Designation	Dimensions TPI[1]	IPF	PDX	BW	S	INSL	IC908
FLDC-3-8RDR/L75-CB IC908	8.0	3/4	4.95	3.18	8.74	25.15	•

• DMIN according to related boring bar • API Spec STD 5B Internal & External tolerance: Standard API RD

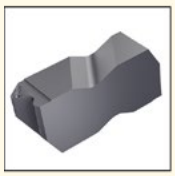
(1) Threads per inch

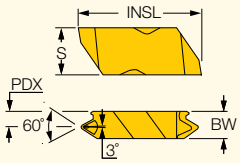
For tools, see pages: FLASR/L (649)

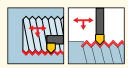
NOTCH-GRIP GROOVE-TURN LINE

API ROUND THREADING
FLDC-RD-75-CB

Double-Ended, Precision, Threading Inserts with a Chipbreaker







Right-hand shown

I N C H

Designation	Dimensions TPI[1]	IPF	PDX	BW	S	INSL	IC908
FLDC-3-8RDR/L75-CB IC908	8.0	3/4	.1949	.125	.344	.990	•

• DMIN according to related boring bar • API Spec STD 5B Internal & External tolerance: Standard API RD

(1) Threads per inch

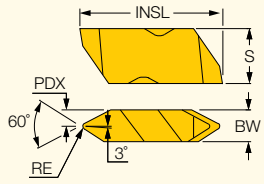
For tools, see pages: FLASR/L (649)

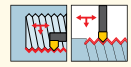
NOTCH-GRIP
GROOVE-TURN LINE

API PARTIAL PROFILE THREADING FLD

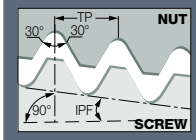
Double-Ended, Precision, Flat Top Partial Profile Threading Inserts







M E T R I C



Designation	Dimensions TPI(1)	RE	PDX	BW	S	INSL	IC908
FLD-3038R/L IC908	4.0	0.84	2.08	4.95	8.74	22.60	●
FLD-3040R/L IC908	5.0	0.38	2.08	4.95	8.74	22.60	●

• DMIN according to related boring bar • API Spec7 Internal & External tolerance: API Spec7

(1) Threads per inch

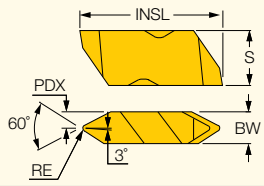
For tools, see pages: FLASR/L (649)

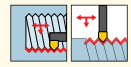
NOTCH-GRIP
GROOVE-TURN LINE

API PARTIAL PROFILE THREADING FLD

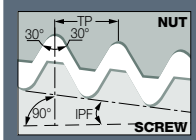
Double-Ended, Precision, Flat Top Partial Profile Threading Inserts







I N C H



Designation	Dimensions TPI(1)	RE	PDX	BW	S	INSL	IC908
FLD-3038R/L IC908	4.0	.0331	.0819	.195	.344	.890	●
FLD-3040R/L IC908	5.0	.0150	.0819	.195	.344	.890	●

• DMIN according to related boring bar • API Spec7 Internal & External tolerance: API Spec7

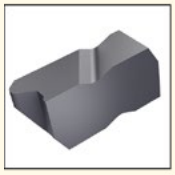
(1) Threads per inch

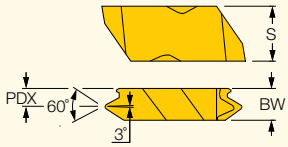
For tools, see pages: FLASR/L (649)

NOTCH-GRIP GROOVE-TURN LINE

API THREADING FLDC-E

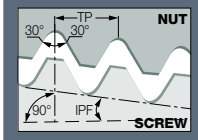
Double-Ended, Precision,
Flat Top Threading Inserts





Right-hand shown

M E T R I C



Designation	Dimensions						IC908
	TPI[1]	TPF	PDX	BW	S	INSL	
FLDC-3-530E IC908	5.0	3	3.73	6.35	8.74	22.60	●

- API Spec7 Internal & External tolerance: API Spec7

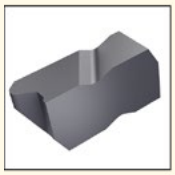
(1) Threads per inch

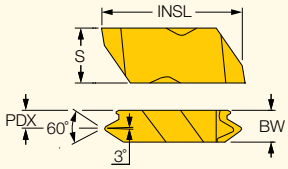
For tools, see pages: FLASR/L (649)

NOTCH-GRIP GROOVE-TURN LINE

API THREADING FLDC-E

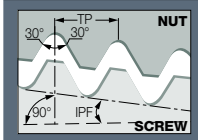
Double-Ended, Precision,
Flat Top Threading Inserts





Right-hand shown

I N C H



Designation	Dimensions						IC908
	TPI[1]	TPF	PDX	BW	S	INSL	
FLDC-3-530E IC908	5.0	3	.1469	.250	.344	.890	●

- API Spec7 Internal & External tolerance: API Spec7

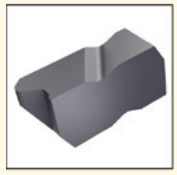
(1) Threads per inch

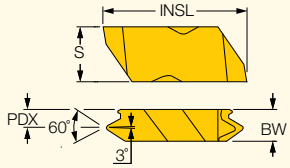
For tools, see pages: FLASR/L (649)

NOTCH-GRIP GROOVE-TURN LINE

API THREADING FLDC-I

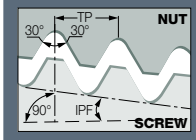
Double-Ended, Precision,
Flat Top Threading Inserts





Right-hand shown

M E T R I C



Designation	Dimensions						IC908
	TPI[1]	TPF	PDX	BW	S	INSL	
FLDC-3-530I IC908	5.0	3	3.73	6.35	8.74	22.60	•

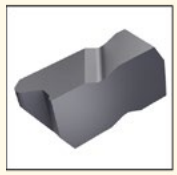
• API Spec7 Internal & External tolerance: API Spec7

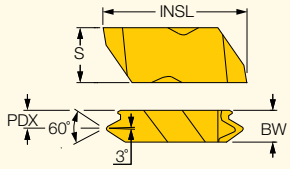
[1] Threads per inch

NOTCH-GRIP GROOVE-TURN LINE

API THREADING FLDC-I

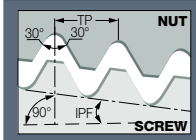
Double-Ended, Precision,
Flat Top Threading Inserts





Right-hand shown

I N C H



Designation	Dimensions						IC908
	TPI[1]	TPF	PDX	BW	S	INSL	
FLDC-3-530I IC908	5.0	3	.1469	.250	.344	.890	•

• API Spec7 Internal & External tolerance: API Spec7

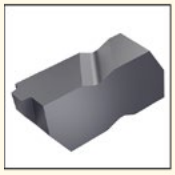
[1] Threads per inch

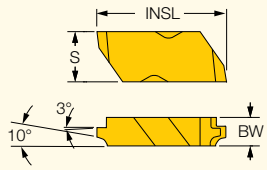
For tools, see ISCAR Threading Catalog: A-FLER/L

NOTCH-GRIP GROOVE-TURN LINE

API BUTTRESS THREADING FLDC-B-E

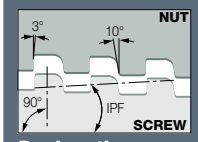
Double-Ended, Precision, Flat Top Threading Inserts





Right-hand shown

M E T R I C



Designation	Dimensions TPI[1]	IPF[2]	BW	S	INSL	IC908
FLDC-3-5B1E IC908	5.0	1	6.35	8.74	22.60	●
FLDC-3-5B75E IC908	5.0	3/4	6.35	8.74	22.60	●

- API Spec STD Internal & External tolerance: 5B

(1) Threads per inch

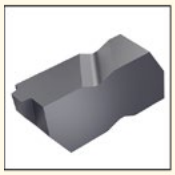
(2) Taper Per Foot (TPF) or Inch Per Foot (IPF)

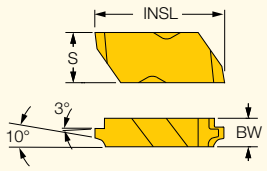
For tools, see pages: FLASR/L (649)

NOTCH-GRIP GROOVE-TURN LINE

API BUTTRESS THREADING FLDC-B-E

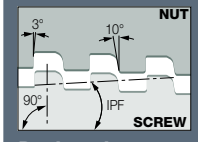
Double-Ended, Precision, Flat Top Threading Inserts





Right-hand shown

I N C H



Designation	Dimensions TPI[1]	IPF[2]	BW	S	INSL	IC908
FLDC-3-5B1E IC908	5.0	1	.250	.344	.890	●
FLDC-3-5B75E IC908	5.0	3/4	.250	.344	.890	●

- API Spec STD Internal & External tolerance: 5B

(1) Threads per inch

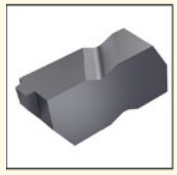
(2) Taper Per Foot (TPF) or Inch Per Foot (IPF)

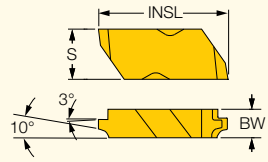
For tools, see pages: FLASR/L (649)

NOTCH-GRIP GROOVE-TURN LINE

API BUTTRESS THREADING FLDC-B-I

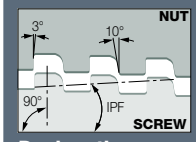
Double-Ended, Precision, Flat Top Threading Inserts





Right-hand shown

M E T R I C



Designation	Dimensions TPI[1]	IPF[2]	BW	S	INSL	IC908
FLDC-3-5B1I IC908	5.0	1	6.35	8.74	22.60	●
FLDC-3-5B75I IC908	5.0	3/4	6.35	8.74	22.60	●

- API Spec STD Internal & External tolerance: 5B

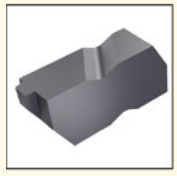
(1) Threads per inch

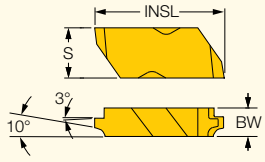
(2) Taper Per Foot (TPF) or Inch Per Foot (IPF)

NOTCH-GRIP GROOVE-TURN LINE

API BUTTRESS THREADING FLDC-B-I

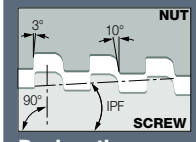
Double-Ended, Precision, Flat Top Threading Inserts





Right-hand shown

I N C H



Designation	Dimensions TPI[1]	IPF[2]	BW	S	INSL	IC908
FLDC-3-5B1I IC908	5.0	1	.250	.344	.890	●
FLDC-3-5B75I IC908	5.0	3/4	.250	.344	.890	●

- API Spec STD Internal & External tolerance: 5B

(1) Threads per inch

(2) Taper Per Foot (TPF) or Inch Per Foot (IPF)

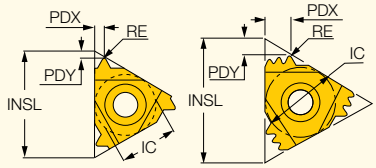
For tools, see ISCAR Threading Catalog: A-FLER/L

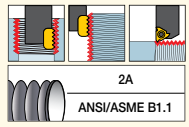
ISCARTHREAD

ER/L-UN

External American UN Full Profile (UN, UNC, UNF, UNEF) Laydown Threading Inserts for General Applications

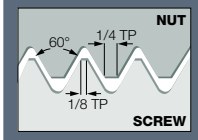






External right-hand shown

M E T R I C



Designation	Dimensions IC	TPI[3]	INSL	RE	PDX	PDY	NT[4]	Tough ↔ Hard IC228	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
11ER 56 UN IC908	6.35	56.0	11.00	0.07	0.40	0.60	1							●	
11ER 48 UN IC250	6.35	48.0	11.00	0.08	0.45	0.60	1			●					
11ER 44 UN IC908	6.35	44.0	11.00	0.09	0.60	0.60	1							●	
11EL 32 UN IC250	6.35	32.0	11.00	0.12	0.60	0.70	1			●					
11ER 32 UN IC908	6.35	32.0	11.00	0.12	0.60	0.60	1							●	
11ER 28 UN IC08	6.35	28.0	11.00	0.10	0.70	0.60	1				●				
11ER 28 UN IC908	6.35	28.0	11.00	0.10	0.70	0.60	1							●	
11ER 24 UN IC908	6.35	24.0	11.00	0.12	0.80	0.70	1							●	
11ER/L 20 UN IC908	6.35	20.0	11.00	0.19	0.80	0.70	1							●	
11ER 20 UN IC08	6.35	20.0	11.00	0.19	0.80	0.70	1				●				
11ER 20 UN IC250	6.35	20.0	11.00	0.19	0.80	0.70	1			●					
11ER 18 UN IC08	6.35	18.0	11.00	0.17	1.00	0.80	1				●				
11ER 18 UN IC908	6.35	18.0	11.00	0.17	1.00	0.80	1							●	
11ER 16 UN IC250	6.35	16.0	11.00	0.18	1.10	0.90	1			●					
11ER 16 UN IC50M	6.35	16.0	11.00	0.18	1.10	0.90	1		●						
11ER 16 UN IC908	6.35	16.0	11.00	0.18	1.10	0.90	1							●	
16ER 72 UN IC908	9.52	72.0	16.49	0.05	0.40	0.70	1							●	
16ER 64 UN IC250	9.52	64.0	16.49	0.06	0.40	0.60	1			●					
16ER 56 UN IC908	9.52	56.0	16.49	0.07	0.40	0.65	1							●	
16ER 48 UN IC908	9.52	48.0	16.49	0.05	0.60	0.60	1							●	
16EL 40 UN IC250	9.52	40.0	16.49	0.10	0.50	0.60	1			●					
16ER 40 UN IC08	9.52	40.0	16.49	0.10	0.50	0.60	1				●				
16ER 40 UN IC508	9.52	40.0	16.49	0.10	0.50	0.60	1					●			
16ER 40 UN IC908	9.52	40.0	16.49	0.10	0.50	0.60	1							●	
16EL 36 UN IC908	9.52	36.0	16.49	0.07	0.60	0.60	1							●	
16ER 36 UN IC908	9.52	36.0	16.49	0.08	0.60	0.60	1							●	
16ER/L 32 UN IC908	9.52	32.0	16.49	0.10	0.60	0.60	1							●	
16ER 32 UN IC1007	9.52	32.0	16.49	0.10	0.60	0.60	1								●
16ER 32 UN IC250	9.52	32.0	16.49	0.10	0.60	0.60	1			●					
16ER/L 28 UN IC908	9.52	28.0	16.49	0.11	0.70	0.60	1							●	
16ER 28 UN IC08	9.52	28.0	16.49	0.11	0.70	0.60	1				●				
16ER 28 UN IC1007	9.52	28.0	16.49	0.11	0.70	0.60	1								●
16ER 28 UN IC250	9.52	28.0	16.49	0.11	0.70	0.60	1			●					
16ER 27 UN IC50M	9.52	27.0	16.49	0.13	0.70	0.70	1		●						
16ER 27 UN IC908	9.52	27.0	16.49	0.13	0.70	0.70	1							●	
16ER/L 24 UN IC908	9.52	24.0	16.49	0.13	0.80	0.70	1							●	
16ER 24 UN IC08	9.52	24.0	16.49	0.13	0.80	0.70	1				●				
16ER 24 UN IC1007	9.52	24.0	16.49	0.13	0.80	0.70	1								●
16ER 24 UN IC250	9.52	24.0	16.49	0.13	0.80	0.70	1			●					
16ER 24 UN 2M IC250	9.52	24.0	16.49	0.15	1.70	1.10	2			●					
16ERB 24 UN IC908 [1]	9.52	24.0	16.49	0.13	0.80	0.70	1							●	
16ERM 24 UN IC1007	9.52	24.0	16.49	0.11	0.80	0.70	1								●
16ERM 24 UN IC250 [1]	9.52	24.0	16.49	0.11	0.80	0.70	1			●					
16ERM 24 UN IC908 [1]	9.52	24.0	16.49	0.11	0.80	0.70	1							●	
16EL 20 UN IC250	9.52	20.0	16.49	0.16	0.90	0.80	1			●					
16EL 20 UN IC08	9.52	20.0	16.49	0.16	0.80	0.90	1				●				
16EL 20 UN IC908	9.52	20.0	16.49	0.16	0.80	0.90	1							●	
16ER 20 UN IC08	9.52	20.0	16.49	0.16	0.90	0.80	1				●				
16ER 20 UN IC1007	9.52	20.0	16.49	0.16	0.90	0.80	1								●
16ER 20 UN IC250	9.52	20.0	16.49	0.16	0.90	0.80	1			●					

- For Insert Identification System, see page 645 • Tolerance: Class 2A • For threading between walls use GRIP-type insert TIP-UN
- For technical information and detailed cutting data, see pages 797-812

(1) With pressed chipformer
(2) Multi-tooth
(3) Threads per inch
(4) Number of teeth per corner

For tools, see pages: MTET Single Point (1219) • NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830) • SER/L (647)

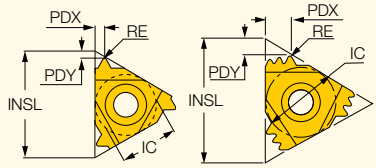
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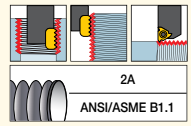
ISCARTHREAD

ER/L-UN

External American UN Full Profile (UN, UNC, UNF, UNEF) Laydown Threading Inserts for General Applications

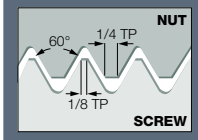






External right-hand shown

M E T R I C



Designation	Dimensions IC	TPI[3]	INSL	RE	PDX	PDY	NT[4]	Tough ↔ Hard IC228	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
16ER 20 UN IC908	9.52	20.0	16.49	0.16	0.90	0.80	1							●	
16ERB 20 UN IC908 [1]	9.52	20.0	16.49	0.16	0.90	0.80	1							●	
16ERM 20 UN IC1007 [1]	9.52	20.0	16.49	0.14	0.90	0.80	1								●
16ERM 20 UN IC250 [1]	9.52	20.0	16.49	0.14	0.90	0.80	1			●					
16ERM 20 UN IC808 [1]	9.52	20.0	16.49	0.14	0.90	0.80	1						●		
16ERM 20 UN IC908 [1]	9.52	20.0	16.49	0.14	0.90	0.80	1							●	
16EL 18 UN IC08	9.52	18.0	16.49	0.17	1.00	0.80	1				●				
16ER/L 18 UN IC908	9.52	18.0	16.49	0.17	0.80	0.70	1							●	
16ER 18 UN IC1007	9.52	18.0	16.49	0.17	0.80	0.70	1								●
16ER 18 UN IC250	9.52	18.0	16.49	0.17	0.80	0.70	1			●					
16ER 18 UN IC50M	9.52	18.0	16.49	0.17	0.80	0.70	1		●						
16ER 18 UN 2M IC908	9.52	18.0	16.49	0.20	2.25	1.50	2							●	
16ERB 18 UN IC908 [1]	9.52	18.0	16.49	0.18	0.80	0.70	1							●	
16ERM 18 UN IC1007 [1]	9.52	18.0	16.49	0.15	1.00	0.80	1								●
16ERM 18 UN IC250 [1]	9.52	18.0	16.49	0.15	1.00	0.80	1			●					
16ERM 18 UN IC808 [1]	9.52	18.0	16.49	0.15	1.00	0.80	1						●		
16ERM 18 UN IC908 [1]	9.52	18.0	16.49	0.15	1.00	0.80	1							●	
16EL 16 UN IC250	9.52	16.0	16.49	0.23	1.20	1.10	1			●					
16EL 16 UN IC908	9.52	16.0	16.49	0.23	1.15	1.10	1							●	
16ER 16 UN IC1007	9.52	16.0	16.49	0.23	1.15	1.00	1								●
16ER 16 UN IC228	9.52	16.0	16.49	0.23	1.15	1.10	1	●							
16ER 16 UN IC250	9.52	16.0	16.49	0.23	1.15	1.10	1			●					
16ER 16 UN IC908	9.52	16.0	16.49	0.23	1.15	1.00	1							●	
16ER 16 UN 2M IC908 [2]	9.52	16.0	16.49	0.09	2.30	1.50	2							●	
16ERB 16 UN IC908 [1]	9.52	16.0	16.49	0.23	1.10	1.15	1							●	
16ERM 16 UN IC1007 [1]	9.52	16.0	16.49	0.23	1.10	1.00	1								●
16ERM 16 UN IC250 [1]	9.52	16.0	16.49	0.23	1.10	1.00	1			●					
16ERM 16 UN IC808 [1]	9.52	16.0	16.49	0.23	1.10	1.00	1						●		
16ERM 16 UN IC908 [1]	9.52	16.0	16.49	0.23	1.10	1.00	1							●	
16ER/L 14 UN IC250	9.52	14.0	16.49	0.23	1.20	1.00	1			●					
16EL 14 UN IC508	9.52	14.0	16.49	0.23	1.20	1.00	1					●			
16ER 14 UN IC1007	9.52	14.0	16.49	0.23	1.20	1.00	1								●
16ER 14 UN IC908	9.52	14.0	16.49	0.23	1.20	1.00	1							●	
16ER 14 UN 2M IC908 [2]	9.52	14.0	16.49	0.09	2.60	1.60	2							●	
16ERB 14 UN IC908 [1]	9.52	14.0	16.49	0.23	1.20	1.00	1							●	
16ERM 14 UN IC1007 [1]	9.52	14.0	16.49	0.22	1.20	1.00	1								●
16ERM 14 UN IC250 [1]	9.52	14.0	16.49	0.22	1.20	1.00	1			●					
16ERM 14 UN IC808 [1]	9.52	14.0	16.49	0.22	1.20	1.00	1						●		
16ERM 14 UN IC908 [1]	9.52	14.0	16.49	0.22	1.20	1.00	1							●	
16EL 13 UN IC250	9.52	13.0	16.49	0.24	1.30	1.00	1			●					
16ER/L 13 UN IC908	9.52	13.0	16.49	0.24	1.20	1.00	1							●	
16ER 13 UN IC08	9.52	13.0	16.49	0.24	1.20	1.00	1				●				
16ER 13 UN IC250	9.52	13.0	16.49	0.24	1.20	1.00	1			●					
16ERB 13 UN IC908 [1]	9.52	13.0	16.49	0.25	1.20	0.90	1							●	
16ERM 13 UN IC908 [1]	9.52	13.0	16.49	0.24	1.30	1.00	1							●	
16EL 12 UN IC250	9.52	12.0	16.49	0.27	1.20	1.10	1			●					
16EL 12 UN IC908	9.52	12.0	16.49	0.27	1.20	1.10	1							●	
16ER 12 UN IC08	9.52	12.0	16.49	0.30	1.25	1.00	1				●				
16ER 12 UN IC1007	9.52	12.0	16.49	0.30	1.25	1.00	1								●
16ER 12 UN IC250	9.52	12.0	16.49	0.30	1.30	1.00	1			●					

- For Insert Identification System, see page 645 • Tolerance: Class 2A • For threading between walls use GRIP-type insert TIP-UN
- For technical information and detailed cutting data, see pages 797-812

(1) With pressed chipformer
(2) Multi-tooth
(3) Threads per inch
(4) Number of teeth per corner

For tools, see pages: MTET Single Point (1219) • NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830) • SER/L (647)

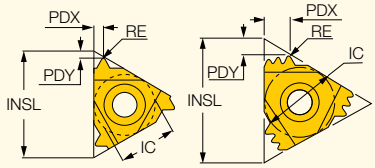
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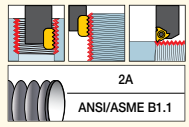
ISCARTHREAD

ER/L-UN

External American UN Full Profile (UN, UNC, UNF, UNEF) Laydown Threading Inserts for General Applications

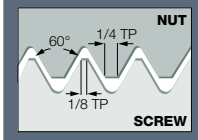






External right-hand shown

M E T R I C



Designation	Dimensions IC	TPI[3]	INSL	RE	PDX	PDY	NT[4]	Tough ↔ Hard IC228	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
16ER 12 UN IC908	9.52	12.0	16.49	0.30	1.25	1.00	1							●	
16ER 12 UN 2M IC908 [2]	9.52	12.0	16.49	0.27	3.40	2.20	2							●	
16ERB 12 UN IC908 [1]	9.52	12.0	16.49	0.27	1.20	0.90	1							●	
16ERM 12 UN IC1007 [1]	9.52	12.0	16.49	0.25	1.40	1.10	1								●
16ERM 12 UN IC250 [1]	9.52	12.0	16.49	0.25	1.40	1.10	1			●					
16ERM 12 UN IC50M [1]	9.52	12.0	16.49	0.25	1.40	1.10	1		●						
16ERM 12 UN IC808 [1]	9.52	12.0	16.49	0.25	1.40	1.10	1						●		
16ERM 12 UN IC908 [1]	9.52	12.0	16.49	0.25	1.40	1.10	1							●	
16ER 11.5 UN IC250	9.52	11.5	16.49	0.27	1.50	1.20	1			●					
16ER 11.5 UN IC908	9.52	11.5	16.49	0.27	1.50	1.20	1							●	
16EL 11 UN IC908	9.52	11.0	16.49	0.28	1.50	1.10	1							●	
16ER 11 UN IC250	9.52	11.0	16.49	0.29	1.50	1.10	1			●					
16ER 11 UN IC908	9.52	11.0	16.49	0.29	1.50	1.10	1							●	
16ERB 11 UN IC908 [1]	9.52	11.0	16.49	0.29	1.50	1.10	1							●	
16ER/L 10 UN IC250	9.52	10.0	16.49	0.37	1.50	1.10	1			●					
16ER/L 10 UN IC908	9.52	10.0	16.49	0.37	1.50	1.10	1							●	
16ER 10 UN IC08	9.52	10.0	16.49	0.37	1.50	1.10	1				●				
16ER 10 UN IC1007	9.52	10.0	16.49	0.37	1.50	1.10	1								●
16ERB 10 UN IC908 [1]	9.52	10.0	16.49	0.37	1.50	1.10	1							●	
16ERM 10 UN IC908	9.52	10.0	16.49	0.32	1.50	1.10	1							●	
16ER 9 UN IC908	9.52	9.0	16.49	0.35	1.60	1.30	1							●	
16ERB 9 UN IC908 [1]	9.52	9.0	16.49	0.35	1.60	1.30	1							●	
16ER/L 8 UN IC250	9.52	8.0	16.49	0.40	1.60	1.20	1			●					
16ER/L 8 UN IC908	9.52	8.0	16.49	0.40	1.60	1.20	1							●	
16ER 8 UN IC1007	9.52	8.0	16.49	0.40	1.60	1.20	1								●
16ERB 8 UN IC908 [1]	9.52	8.0	16.49	0.43	1.60	1.20	1							●	
16ERM 8 UN IC1007	9.52	8.0	16.49	0.41	1.60	1.20	1								●
16ERM 8 UN IC250 [1]	9.52	8.0	16.49	0.41	1.60	1.20	1			●					
16ERM 8 UN IC908 [1]	9.52	8.0	16.49	0.41	1.60	1.20	1							●	

- For Insert Identification System, see page 645 • Tolerance: Class 2A • For threading between walls use GRIP-type insert TIP-UN
- For technical information and detailed cutting data, see pages 797-812

[1] With pressed chipformer
[2] Multi-tooth
[3] Threads per inch
[4] Number of teeth per corner

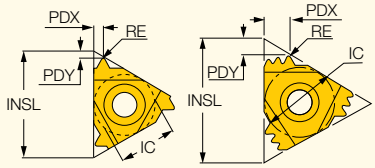
For tools, see pages: MTET Single Point (1219) • NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830) • SER/L (647)

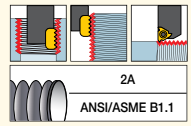
ISCARTHREAD

ER/L-UN

External American UN Full Profile (UN, UNC, UNF, UNEF) Laydown Threading Inserts for General Applications

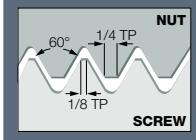






External right-hand shown

I N C H



Designation	Dimensions IC	TPI[3]	INSL	RE	PDX	PDY	NT[4]	Tough ↔ Hard IC228	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
11ER 56 UN IC908	.250	56.0	.433	.0026	.0158	.0236	1							•	
11ER 48 UN IC250	.250	48.0	.433	.0032	.0177	.0236	1			•					
11ER 44 UN IC908	.250	44.0	.433	.0035	.0236	.0236	1							•	
11EL 32 UN IC250	.250	32.0	.433	.0047	.0236	.0276	1			•					
11ER 32 UN IC908	.250	32.0	.433	.0047	.0236	.0236	1							•	
11ER 28 UN IC08	.250	28.0	.433	.0039	.0276	.0236	1				•				
11ER 28 UN IC908	.250	28.0	.433	.0039	.0276	.0236	1							•	
11ER 24 UN IC908	.250	24.0	.433	.0047	.0315	.0276	1							•	
11ER/L 20 UN IC908	.250	20.0	.433	.0075	.0315	.0276	1							•	
11ER 20 UN IC08	.250	20.0	.433	.0075	.0315	.0276	1				•				
11ER 20 UN IC250	.250	20.0	.433	.0075	.0315	.0276	1			•					
11ER 18 UN IC08	.250	18.0	.433	.0067	.0394	.0315	1				•				
11ER 18 UN IC908	.250	18.0	.433	.0067	.0394	.0315	1							•	
11ER 16 UN IC250	.250	16.0	.433	.0071	.0433	.0354	1			•					
11ER 16 UN IC50M	.250	16.0	.433	.0071	.0433	.0354	1		•						
11ER 16 UN IC908	.250	16.0	.433	.0071	.0433	.0354	1							•	
16ER 72 UN IC908	.375	72.0	.649	.0020	.0158	.0276	1							•	
16ER 64 UN IC250	.375	64.0	.649	.0024	.0158	.0236	1			•					
16ER 56 UN IC908	.375	56.0	.649	.0026	.0158	.0256	1							•	
16ER 48 UN IC908	.375	48.0	.649	.0020	.0236	.0236	1							•	
16EL 40 UN IC250	.375	40.0	.649	.0039	.0197	.0236	1			•					
16ER 40 UN IC08	.375	40.0	.649	.0039	.0197	.0236	1				•				
16ER 40 UN IC508	.375	40.0	.649	.0039	.0197	.0236	1					•			
16ER 40 UN IC908	.375	40.0	.649	.0039	.0197	.0236	1							•	
16EL 36 UN IC908	.375	36.0	.649	.0027	.0236	.0236	1							•	
16ER 36 UN IC908	.375	36.0	.649	.0031	.0236	.0236	1							•	
16ER/L 32 UN IC908	.375	32.0	.649	.0039	.0236	.0236	1							•	
16ER 32 UN IC1007	.375	32.0	.649	.0039	.0236	.0236	1								•
16ER 32 UN IC250	.375	32.0	.649	.0039	.0236	.0236	1			•					
16ER/L 28 UN IC908	.375	28.0	.649	.0043	.0276	.0236	1							•	
16ER 28 UN IC08	.375	28.0	.649	.0043	.0276	.0236	1				•				
16ER 28 UN IC1007	.375	28.0	.649	.0043	.0276	.0236	1								•
16ER 28 UN IC250	.375	28.0	.649	.0043	.0276	.0236	1			•					
16ER 27 UN IC50M	.375	27.0	.649	.0051	.0276	.0276	1		•						
16ER 27 UN IC908	.375	27.0	.649	.0051	.0276	.0276	1							•	
16ER/L 24 UN IC908	.375	24.0	.649	.0051	.0315	.0276	1							•	
16ER 24 UN IC08	.375	24.0	.649	.0051	.0315	.0276	1				•				
16ER 24 UN IC1007	.375	24.0	.649	.0051	.0315	.0276	1								•
16ER 24 UN IC250	.375	24.0	.649	.0051	.0315	.0276	1			•					
16ER 24 UN 2M IC250	.375	24.0	.649	.0059	.0669	.0433	2			•					
16ERB 24 UN IC908 [1]	.375	24.0	.649	.0051	.0315	.0276	1							•	
16ERM 24 UN IC1007	.375	24.0	.649	.0043	.0315	.0276	1								•
16ERM 24 UN IC250 [1]	.375	24.0	.649	.0043	.0315	.0276	1			•					
16ERM 24 UN IC908 [1]	.375	24.0	.649	.0043	.0315	.0276	1							•	
16EL 20 UN IC250	.375	20.0	.649	.0063	.0354	.0315	1			•					
16EL 20 UN IC08	.375	20.0	.649	.0063	.0315	.0354	1				•				
16EL 20 UN IC908	.375	20.0	.649	.0063	.0315	.0354	1							•	
16ER 20 UN IC08	.375	20.0	.649	.0063	.0354	.0315	1				•				

- For Insert Identification System, see page 645 • Tolerance: Class 2A • For threading between walls use GRIP-type insert TIP-UN
- For technical information and detailed cutting data, see pages 797-812

[1] With pressed chipformer
[2] Multi-tooth
[3] Threads per inch
[4] Number of teeth per corner

For tools, see pages: MTET Single Point (1219) • NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830) • SER/L (647)

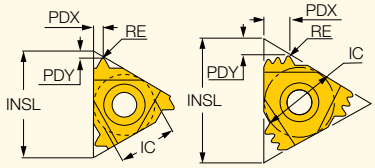
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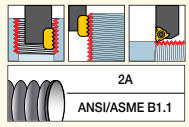
ISCARTHREAD

ER/L-UN

External American UN Full Profile (UN, UNC, UNF, UNEF) Laydown Threading Inserts for General Applications

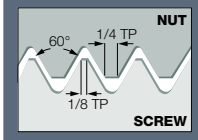






External right-hand shown

I N C H



Designation	Dimensions IC	TPI[3]	INSL	RE	PDX	PDY	NT[4]	Tough ↔ Hard IC228	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
16ER 20 UN IC1007	.375	20.0	.649	.0063	.0354	.0315	1								●
16ER 20 UN IC250	.375	20.0	.649	.0063	.0354	.0315	1			●					
16ER 20 UN IC908	.375	20.0	.649	.0063	.0354	.0315	1							●	
16ERB 20 UN IC908 [1]	.375	20.0	.649	.0063	.0354	.0315	1							●	
16ERM 20 UN IC1007 [1]	.375	20.0	.649	.0055	.0354	.0315	1								●
16ERM 20 UN IC250 [1]	.375	20.0	.649	.0055	.0354	.0315	1			●					
16ERM 20 UN IC808 [1]	.375	20.0	.649	.0055	.0354	.0315	1						●		
16ERM 20 UN IC908 [1]	.375	20.0	.649	.0055	.0354	.0315	1							●	
16EL 18 UN IC08	.375	18.0	.649	.0067	.0394	.0315	1				●				
16ER/L 18 UN IC908	.375	18.0	.649	.0067	.0315	.0276	1							●	
16ER 18 UN IC1007	.375	18.0	.649	.0067	.0315	.0276	1								●
16ER 18 UN IC250	.375	18.0	.649	.0067	.0315	.0276	1			●					
16ER 18 UN IC50M	.375	18.0	.649	.0067	.0315	.0276	1		●						
16ER 18 UN 2M IC908	.375	18.0	.649	.0079	.0886	.0591	2							●	
16ERB 18 UN IC908 [1]	.375	18.0	.649	.0071	.0315	.0276	1							●	
16ERM 18 UN IC1007 [1]	.375	18.0	.649	.0059	.0394	.0315	1								●
16ERM 18 UN IC250 [1]	.375	18.0	.649	.0059	.0394	.0315	1			●					
16ERM 18 UN IC808 [1]	.375	18.0	.649	.0059	.0394	.0315	1						●		
16ERM 18 UN IC908 [1]	.375	18.0	.649	.0059	.0394	.0315	1							●	
16EL 16 UN IC250	.375	16.0	.649	.0091	.0472	.0433	1			●					
16EL 16 UN IC908	.375	16.0	.649	.0091	.0453	.0433	1							●	
16ER 16 UN IC1007	.375	16.0	.649	.0091	.0453	.0394	1								●
16ER 16 UN IC228	.375	16.0	.649	.0091	.0453	.0433	1	●							
16ER 16 UN IC250	.375	16.0	.649	.0091	.0453	.0433	1			●					
16ER 16 UN IC908	.375	16.0	.649	.0091	.0453	.0394	1							●	
16ER 16 UN 2M IC908 [2]	.375	16.0	.649	.0035	.0906	.0590	2							●	
16ERB 16 UN IC908 [1]	.375	16.0	.649	.0091	.0433	.0453	1							●	
16ERM 16 UN IC1007 [1]	.375	16.0	.649	.0091	.0433	.0394	1								●
16ERM 16 UN IC250 [1]	.375	16.0	.649	.0091	.0433	.0394	1			●					
16ERM 16 UN IC808 [1]	.375	16.0	.649	.0091	.0433	.0394	1						●		
16ERM 16 UN IC908 [1]	.375	16.0	.649	.0091	.0433	.0394	1							●	
16ER/L 14 UN IC250	.375	14.0	.649	.0091	.0472	.0394	1			●					
16EL 14 UN IC508	.375	14.0	.649	.0091	.0472	.0394	1					●			
16ER 14 UN IC1007	.375	14.0	.649	.0091	.0472	.0394	1								●
16ER 14 UN IC908	.375	14.0	.649	.0091	.0472	.0394	1							●	
16ER 14 UN 2M IC908 [2]	.375	14.0	.649	.0035	.1024	.0630	2							●	
16ERB 14 UN IC908 [1]	.375	14.0	.649	.0091	.0472	.0394	1							●	
16ERM 14 UN IC1007 [1]	.375	14.0	.649	.0087	.0472	.0394	1								●
16ERM 14 UN IC250 [1]	.375	14.0	.649	.0087	.0472	.0394	1			●					
16ERM 14 UN IC808 [1]	.375	14.0	.649	.0087	.0472	.0394	1						●		
16ERM 14 UN IC908 [1]	.375	14.0	.649	.0087	.0472	.0394	1							●	
16EL 13 UN IC250	.375	13.0	.649	.0094	.0512	.0394	1			●					
16ER/L 13 UN IC908	.375	13.0	.649	.0094	.0472	.0394	1							●	
16ER 13 UN IC08	.375	13.0	.649	.0094	.0472	.0394	1				●				
16ER 13 UN IC250	.375	13.0	.649	.0094	.0472	.0394	1			●					
16ERB 13 UN IC908 [1]	.375	13.0	.649	.0098	.0472	.0354	1							●	
16ERM 13 UN IC908 [1]	.375	13.0	.649	.0094	.0512	.0394	1							●	
16EL 12 UN IC250	.375	12.0	.649	.0106	.0472	.0433	1			●					
16EL 12 UN IC908	.375	12.0	.649	.0106	.0472	.0433	1							●	

- For Insert Identification System, see page 645 • Tolerance: Class 2A • For threading between walls use GRIP-type insert TIP-UN
- For technical information and detailed cutting data, see pages 797-812

[1] With pressed chipformer
[2] Multi-tooth
[3] Threads per inch
[4] Number of teeth per corner

For tools, see pages: MTET Single Point (1219) • NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830) • SER/L (647)

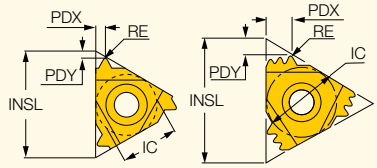
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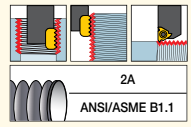
ISCARTHREAD

ER/L-UN

External American UN Full Profile (UN, UNC, UNF, UNEF) Laydown Threading Inserts for General Applications

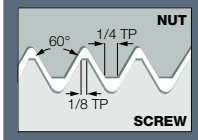






External right-hand shown

I N C H



Designation	Dimensions IC	TPI[3]	INSL	RE	PDX	PDY	NT[4]	Tough ↔ Hard IC228	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
16ER 12 UN IC08	.375	12.0	.649	.0118	.0492	.0394	1				●				
16ER 12 UN IC1007	.375	12.0	.649	.0118	.0492	.0394	1								●
16ER 12 UN IC250	.375	12.0	.649	.0118	.0512	.0394	1			●					
16ER 12 UN IC908	.375	12.0	.649	.0118	.0492	.0394	1							●	
16ER 12 UN 2M IC908 [2]	.375	12.0	.649	.0106	.1339	.0866	2							●	
16ERB 12 UN IC908 [1]	.375	12.0	.649	.0106	.0472	.0354	1							●	
16ERM 12 UN IC1007 [1]	.375	12.0	.649	.0098	.0551	.0433	1								●
16ERM 12 UN IC250 [1]	.375	12.0	.649	.0098	.0551	.0433	1			●					
16ERM 12 UN IC50M [1]	.375	12.0	.649	.0098	.0551	.0433	1		●						
16ERM 12 UN IC808 [1]	.375	12.0	.649	.0098	.0551	.0433	1						●		
16ERM 12 UN IC908 [1]	.375	12.0	.649	.0098	.0551	.0433	1							●	
16ER 11.5 UN IC250	.375	11.5	.649	.0106	.0590	.0472	1			●					
16ER 11.5 UN IC908	.375	11.5	.649	.0106	.0590	.0472	1							●	
16EL 11 UN IC908	.375	11.0	.649	.0110	.0590	.0433	1							●	
16ER 11 UN IC250	.375	11.0	.649	.0114	.0590	.0433	1			●					
16ER 11 UN IC908	.375	11.0	.649	.0114	.0590	.0433	1							●	
16ERB 11 UN IC908 [1]	.375	11.0	.649	.0114	.0590	.0433	1							●	
16ER/L 10 UN IC250	.375	10.0	.649	.0146	.0591	.0433	1			●					
16ER/L 10 UN IC908	.375	10.0	.649	.0146	.0591	.0433	1							●	
16ER 10 UN IC08	.375	10.0	.649	.0146	.0591	.0433	1				●				
16ER 10 UN IC1007	.375	10.0	.649	.0146	.0591	.0433	1								●
16ERB 10 UN IC908 [1]	.375	10.0	.649	.0146	.0591	.0433	1							●	
16ERM 10 UN IC908	.375	10.0	.649	.0126	.0590	.0433	1							●	
16ER 9 UN IC908	.375	9.0	.649	.0138	.0630	.0512	1							●	
16ERB 9 UN IC908 [1]	.375	9.0	.649	.0138	.0630	.0512	1							●	
16EL 8 UN IC250	.375	8.0	.649	.0157	.0630	.0472	1			●					
16ER/L 8 UN IC908	.375	8.0	.649	.0157	.0630	.0472	1							●	
16ER 8 UN IC1007	.375	8.0	.649	.0157	.0630	.0472	1								●
16ER 8 UN IC250	.375	8.0	.649	.0157	.0630	.0472	1			●					
16ERB 8 UN IC908 [1]	.375	8.0	.649	.0169	.0630	.0472	1							●	
16ERM 8 UN IC1007	.375	8.0	.649	.0161	.0630	.0472	1								●
16ERM 8 UN IC250 [1]	.375	8.0	.649	.0161	.0630	.0472	1			●					
16ERM 8 UN IC908 [1]	.375	8.0	.649	.0161	.0630	.0472	1							●	

- For Insert Identification System, see page 645 • Tolerance: Class 2A • For threading between walls use GRIP-type insert TIP-UN
- For technical information and detailed cutting data, see pages 797-812

[1] With pressed chipformer
[2] Multi-tooth
[3] Threads per inch
[4] Number of teeth per corner

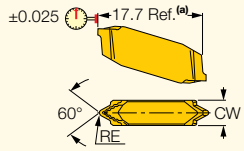
For tools, see pages: MTET Single Point (1219) • NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830) • SER/L (647)

CUTGRIP

TIP-P-UN

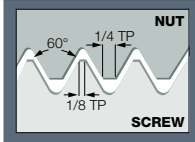
American UN (UNC,UNF,UNEF)
Precision Ground External
Double-Ended Full Profile Threading
Inserts with a Chipformer







M E T R I C



Designation	Dimensions CW	RE	RETOL(1)	TPI(2)	Tough ↔ Hard IC08	IC808	IC908
TIP 2P32-UN IC08	2.40	0.10	0.030	32.0	●		
TIP 2P32-UN IC908	2.40	0.10	0.030	32.0			●
TIP 2P28-UN IC08	2.40	0.11	0.030	28.0	●		
TIP 2P28-UN IC908	2.40	0.11	0.030	28.0			●
TIP 2P24-UN IC08	2.40	0.13	0.030	24.0	●		
TIP 2P24-UN IC908	2.40	0.13	0.030	24.0			●
TIP 2P20-UN IC08	2.40	0.16	0.030	20.0	●		
TIP 2P20-UN IC908	2.40	0.16	0.030	20.0			●
TIP 2P18-UN IC08	2.40	0.18	0.030	18.0	●		
TIP 2P18-UN IC908	2.40	0.18	0.030	18.0			●
TIP 2P16-UN IC08	2.40	0.20	0.030	16.0	●		
TIP 2P16-UN IC908	2.40	0.20	0.030	16.0			●
TIP 2P14-UN IC08	2.40	0.23	0.030	14.0	●		
TIP 2P14-UN IC908	2.40	0.23	0.030	14.0			●
TIP 2P13-UN IC08	2.40	0.25	0.030	13.0	●		
TIP 2P13-UN IC908	2.40	0.25	0.030	13.0			●
TIP 2P12-UN IC08	2.40	0.27	0.030	12.0	●		
TIP 2P12-UN IC908	2.40	0.27	0.030	12.0			●
TIP 4P11-UN IC908	4.00	0.30	0.030	11.0			●
TIP 4P10-UN IC808	4.00	0.33	0.050	10.0		●	
TIP 4P10-UN IC908	4.00	0.33	0.050	10.0			●
TIP 4P08-UN IC908	4.00	0.41	0.050	8.0			●

• (a) TIP inserts are 1.6 mm longer than GIP in the same pocket • Toolholder seat needs to be modified according to insert profile to ensure clearance

(1) Corner radius tolerance (+/-)

(2) Threads per inch

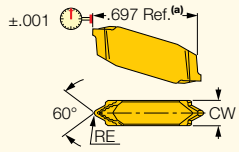
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

CUTGRIP

TIP-P-UN

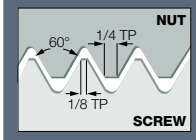
American UN (UNC,UNF,UNEF)
Precision Ground External
Double-Ended Full Profile Threading
Inserts with a Chipformer







I N C H



Designation	Dimensions CW	RE	RETOL(1)	TPI(2)	Tough ↔ Hard IC08	IC808	IC908
TIP 2P32-UN IC08	.094	.0039	.0012	32.0	•		
TIP 2P32-UN IC908	.094	.0039	.0012	32.0			•
TIP 2P28-UN IC08	.094	.0043	.0012	28.0	•		
TIP 2P28-UN IC908	.094	.0043	.0012	28.0			•
TIP 2P24-UN IC08	.094	.0051	.0012	24.0	•		
TIP 2P24-UN IC908	.094	.0051	.0012	24.0			•
TIP 2P20-UN IC08	.094	.0063	.0012	20.0	•		
TIP 2P20-UN IC908	.094	.0063	.0012	20.0			•
TIP 2P18-UN IC08	.094	.0071	.0012	18.0	•		
TIP 2P18-UN IC908	.094	.0071	.0012	18.0			•
TIP 2P16-UN IC08	.094	.0079	.0012	16.0	•		
TIP 2P16-UN IC908	.094	.0079	.0012	16.0			•
TIP 2P14-UN IC08	.094	.0091	.0012	14.0	•		
TIP 2P14-UN IC908	.094	.0091	.0012	14.0			•
TIP 2P13-UN IC08	.094	.0098	.0012	13.0	•		
TIP 2P13-UN IC908	.094	.0098	.0012	13.0			•
TIP 2P12-UN IC08	.094	.0106	.0012	12.0	•		
TIP 2P12-UN IC908	.094	.0106	.0012	12.0			•
TIP 4P11-UN IC908	.157	.0118	.0012	11.0			•
TIP 4P10-UN IC808	.157	.0130	.0020	10.0		•	
TIP 4P10-UN IC908	.157	.0130	.0020	10.0			•
TIP 4P08-UN IC908	.157	.0161	.0020	8.0			•

• (a) TIP inserts are .063" longer than GIP in the same pocket • Toolholder seat needs to be modified according to insert profile to ensure clearance

(1) Corner radius tolerance (+/-)

(2) Threads per inch

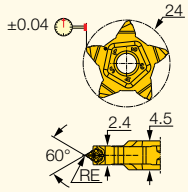
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

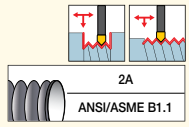
PENTACUT THREADING LINE

PENTA 24-UN

American UN
(UNC, UNF, UNEF) Precision
Ground Full Profile Pentagonal
External Inserts with a Chipformer

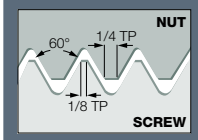






M E T R I C

Designation	Dimensions TPI[1]	RE	IC908
PENTA 24-24-UN IC908	24.0	0.13	●
PENTA 24-20-UN IC908	20.0	0.16	●
PENTA 24-18-UN IC908	18.0	0.18	●
PENTA 24-16-UN IC908	16.0	0.21	●
PENTA 24-14-UN IC908	14.0	0.23	●



• DMIN(inch)=5.435/TPI • Tolerance: Class 2A

[1] Threads per inch

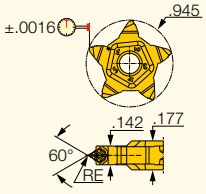
For tools, see pages: NQCH-PCHR/L-24-JHP (552) • PCHR/L-24 (547) • PCHR/L-24-JHP (548)

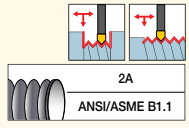
PENTACUT THREADING LINE

PENTA 24-UN

American UN
(UNC, UNF, UNEF) Precision
Ground Full Profile Pentagonal
External Inserts with a Chipformer

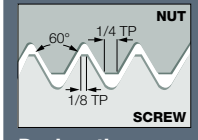






I N C H

Designation	Dimensions TPI[1]	RE	IC908
PENTA 24-24-UN IC908	24.0	.0051	●
PENTA 24-20-UN IC908	20.0	.0063	●
PENTA 24-18-UN IC908	18.0	.0071	●
PENTA 24-16-UN IC908	16.0	.0083	●
PENTA 24-14-UN IC908	14.0	.0091	●



• DMIN(inch)=5.435/TPI • Tolerance: Class 2A

[1] Threads per inch

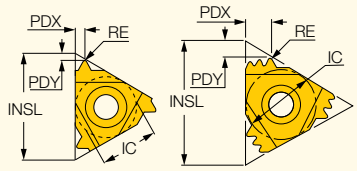
For tools, see pages: NQCH-PCHR/L-24-JHP (552) • PCHR/L-24 (547) • PCHR/L-24-JHP (548)

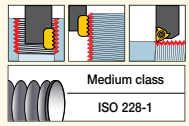
ISCARTHREAD

ER/L-W

External Whitworth
(BSW, BSF, BSP) B.S.84-1956
DIN 259 Medium Class Full
Profile Laydown Threading Inserts

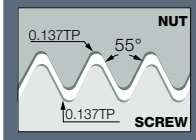






External right-hand shown

M E T R I C



Designation	Dimensions IC	TPI[3]	INSL	RE	NT[4]	PDX	PDY	Tough ↔ Hard IC228	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
11ER/L 19 W IC908	6.35	19.0	11.00	0.15	1	1.00	0.80							•	
11ER 14 W IC908	6.35	14.0	11.00	0.23	1	1.00	0.70							•	
16ER 32 W IC50M	9.52	32.0	16.49	0.09	1	0.60	0.60		•						
16ER 28 W IC1007	9.52	28.0	16.49	0.11	1	0.70	0.60								•
16ER 28 W IC250	9.52	28.0	16.49	0.11	1	0.70	0.60			•					
16ER 28 W IC908	9.52	28.0	16.49	0.11	1	0.70	0.60							•	
16ER 26 W IC908	9.52	26.0	16.49	0.12	1	0.70	0.70							•	
16ER 24 W IC908	9.52	24.0	16.49	0.14	1	0.80	0.70							•	
16ER 22 W IC908	9.52	22.0	16.49	0.13	1	0.90	0.80							•	
16ER 20 W IC908	9.52	20.0	16.49	0.16	1	0.80	0.70							•	
16ER/L 19 W IC908	9.52	19.0	16.49	0.17	1	0.80	0.70							•	
16ER 19 W IC1007	9.52	19.0	16.49	0.17	1	0.80	0.70								•
16ER 19 W IC228	9.52	19.0	16.49	0.17	1	0.80	0.70	•							
16ER 19 W IC250	9.52	19.0	16.49	0.17	1	0.80	0.70			•					
16ERB 19 W IC908 (1)	9.52	19.0	16.49	0.17	1	0.80	0.70							•	
16ERM 19 W IC1007 (1)	9.52	19.0	16.49	0.16	1	1.00	0.80								•
16ERM 19 W IC250 (1)	9.52	19.0	16.49	0.16	1	1.00	0.80			•					
16ERM 19 W IC50M (1)	9.52	19.0	16.49	0.16	1	1.00	0.80		•						
16ERM 19 W IC808 (1)	9.52	19.0	16.49	0.16	1	1.00	0.80						•		
16ERM 19 W IC908 (1)	9.52	19.0	16.49	0.16	1	1.00	0.80							•	
16ER/L 18 W IC908	9.52	18.0	16.49	0.19	1	1.15	1.10							•	
16ER 18 W IC50M	9.52	18.0	16.49	0.19	1	1.15	1.10		•						
16ER 16 W IC908	9.52	16.0	16.49	0.20	1	1.20	0.90							•	
16ERB 16 W IC908 (1)	9.52	16.0	16.49	0.20	1	1.20	0.90							•	
16ERM 16 W IC1007	9.52	16.0	16.49	0.20	1	1.10	0.90								•
16ERM 16 W IC250 (1)	9.52	16.0	16.49	0.20	1	1.10	0.90			•					
16ERM 16 W IC808 (1)	9.52	16.0	16.49	0.20	1	1.10	0.90						•		
16ERM 16 W IC908 (1)	9.52	16.0	16.49	0.20	1	1.10	0.90							•	
16ER/L 14 W IC908	9.52	14.0	16.49	0.23	1	1.20	1.00							•	
16ER 14 W IC228	9.52	14.0	16.49	0.23	1	1.20	1.00	•							
16ER 14 W IC250	9.52	14.0	16.49	0.23	1	1.20	1.00			•					
16ER 14 W 2M IC908 (2)	9.52	14.0	16.49	0.21	2	2.70	1.70							•	
16ERB 14 W IC908 (1)	9.52	14.0	16.49	0.23	1	1.20	1.00							•	
16ERM 14 W IC1007 (1)	9.52	14.0	16.49	0.24	1	1.20	1.00								•
16ERM 14 W IC250 (1)	9.52	14.0	16.49	0.24	1	1.20	1.00			•					
16ERM 14 W IC50M (1)	9.52	14.0	16.49	0.24	1	1.20	1.00		•						
16ERM 14 W IC808 (1)	9.52	14.0	16.49	0.24	1	1.20	1.00						•		
16ERM 14 W IC908 (1)	9.52	14.0	16.49	0.24	1	1.20	1.00							•	
16ER/L 12 W IC908	9.52	12.0	16.49	0.27	1	1.40	1.20							•	
16ER/L 11 W IC250	9.52	11.0	16.49	0.29	1	1.50	1.10			•					
16EL 11 W IC908	9.52	11.0	16.49	0.29	1	1.50	1.10							•	
16ER 11 W IC08	9.52	11.0	16.49	0.30	1	1.50	1.10				•				
16ER 11 W IC1007	9.52	11.0	16.49	0.29	1	1.50	1.10								•
16ER 11 W IC228	9.52	11.0	16.49	0.29	1	1.50	1.10	•							
16ER 11 W IC50M	9.52	11.0	16.49	0.29	1	1.50	1.10		•						
16ER 11 W IC508	9.52	11.0	16.49	0.30	1	1.50	1.10					•			
16ER 11 W IC908	9.52	11.0	16.49	0.30	1	1.50	1.10							•	
16ERB 11 W IC908 (1)	9.52	11.0	16.49	0.29	1	1.50	1.10							•	

- For Insert Identification System, see page 645 • For threading between walls use GRIP-type insert TIP-BSW • Tolerance: medium class
- For technical information and detailed cutting data, see pages 797-812

(1) With pressed chipformer
(2) Multi-tooth
(3) Threads per inch
(4) Number of teeth per corner

For tools, see pages: MTET Single Point (1219) • NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830) • SER/L (647)

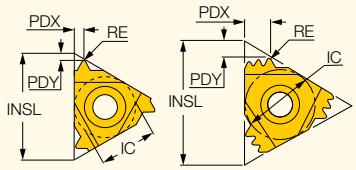
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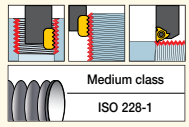
ISCARTHREAD

ER/L-W

External Whitworth
(BSW, BSF, BSP) B.S.84-1956
DIN 259 Medium Class Full
Profile Laydown Threading Inserts

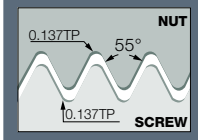






External right-hand shown

M E T R I C



Designation	Dimensions IC	TPI[3]	INSL	RE	NT[4]	PDX	PDY	Tough ↔ Hard IC228	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
16ERM 11 W IC1007 [1]	9.52	11.0	16.49	0.27	1	1.50	1.10								●
16ERM 11 W IC250 [1]	9.52	11.0	16.49	0.27	1	1.50	1.10			●					
16ERM 11 W IC508 [1]	9.52	11.0	16.49	0.27	1	1.50	1.10					●			
16ERM 11 W IC808 [1]	9.52	11.0	16.49	0.27	1	1.50	1.10						●		
16ERM 11 W IC908 [1]	9.52	11.0	16.49	0.27	1	1.50	1.10							●	
16ER 10 W IC250	9.52	10.0	16.49	0.32	1	1.45	1.10			●					
16ER 10 W IC908	9.52	10.0	16.49	0.32	1	1.45	1.10							●	
16ERB 10 W IC908 [1]	9.52	10.0	16.49	0.32	1	1.45	1.10							●	
16ER 9 W IC250	9.52	9.0	16.49	0.34	1	1.70	1.20			●					
16EL 8 W IC908	9.52	8.0	16.49	0.39	1	1.50	1.20							●	
16ER 8 W IC908	9.52	8.0	16.49	0.41	1	1.60	1.20							●	

• For Insert Identification System, see page 645 • For threading between walls use GRIP-type insert TIP-BSW • Tolerance: medium class
• For technical information and detailed cutting data, see pages 797-812

[1] With pressed chipformer
[2] Multi-tooth
[3] Threads per inch
[4] Number of teeth per corner

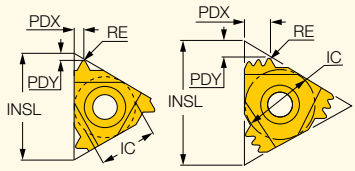
For tools, see pages: MTET Single Point (1219) • NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830) • SER/L (647)

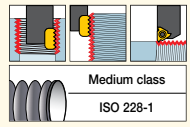
ISCARTHREAD

ER/L-W

External Whitworth
(BSW, BSF, BSP) B.S.84-1956
DIN 259 Medium Class Full
Profile Laydown Threading Inserts

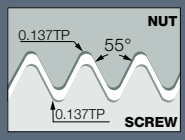






External right-hand shown

I N C H



Designation	Dimensions IC	TPI[3]	INSL	RE	NT[4]	PDX	PDY	Tough ↔ Hard IC228	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
11ER/L 19 W IC908	.250	19.0	.433	.0059	1	.0394	.0315							•	
11ER 14 W IC908	.250	14.0	.433	.0091	1	.0394	.0276							•	
16ER 32 W IC50M	.375	32.0	.649	.0035	1	.0236	.0236		•						
16ER 28 W IC1007	.375	28.0	.649	.0043	1	.0276	.0236								•
16ER 28 W IC250	.375	28.0	.649	.0043	1	.0276	.0236			•					
16ER 28 W IC908	.375	28.0	.649	.0043	1	.0276	.0236							•	
16ER 26 W IC908	.375	26.0	.649	.0047	1	.0276	.0276							•	
16ER 24 W IC908	.375	24.0	.649	.0055	1	.0315	.0276							•	
16ER 22 W IC908	.375	22.0	.649	.0051	1	.0354	.0315							•	
16ER 20 W IC908	.375	20.0	.649	.0063	1	.0315	.0276							•	
16ER/L 19 W IC908	.375	19.0	.649	.0067	1	.0315	.0276							•	
16ER 19 W IC1007	.375	19.0	.649	.0067	1	.0315	.0276								•
16ER 19 W IC228	.375	19.0	.649	.0067	1	.0315	.0276	•							
16ER 19 W IC250	.375	19.0	.649	.0067	1	.0315	.0276			•					
16ERB 19 W IC908 (1)	.375	19.0	.649	.0067	1	.0315	.0276							•	
16ERM 19 W IC1007 (1)	.375	19.0	.649	.0063	1	.0394	.0315								•
16ERM 19 W IC250 (1)	.375	19.0	.649	.0063	1	.0394	.0315			•					
16ERM 19 W IC50M (1)	.375	19.0	.649	.0063	1	.0394	.0315		•						
16ERM 19 W IC808 (1)	.375	19.0	.649	.0063	1	.0394	.0315						•		
16ERM 19 W IC908 (1)	.375	19.0	.649	.0063	1	.0394	.0315							•	
16ER/L 18 W IC908	.375	18.0	.649	.0075	1	.0453	.0433							•	
16ER 18 W IC50M	.375	18.0	.649	.0075	1	.0453	.0433		•						
16ER 16 W IC908	.375	16.0	.649	.0079	1	.0472	.0354							•	
16ERB 16 W IC908 (1)	.375	16.0	.649	.0079	1	.0472	.0354							•	
16ERM 16 W IC1007	.375	16.0	.649	.0079	1	.0433	.0354								•
16ERM 16 W IC250 (1)	.375	16.0	.649	.0079	1	.0433	.0354			•					
16ERM 16 W IC808 (1)	.375	16.0	.649	.0079	1	.0433	.0354						•		
16ERM 16 W IC908 (1)	.375	16.0	.649	.0079	1	.0433	.0354							•	
16ER/L 14 W IC908	.375	14.0	.649	.0091	1	.0472	.0394							•	
16ER 14 W IC228	.375	14.0	.649	.0091	1	.0472	.0394	•							
16ER 14 W IC250	.375	14.0	.649	.0091	1	.0472	.0394			•					
16ER 14 W 2M IC908 (2)	.375	14.0	.649	.0083	2	.1063	.0669							•	
16ERB 14 W IC908 (1)	.375	14.0	.649	.0091	1	.0472	.0394							•	
16ERM 14 W IC1007 (1)	.375	14.0	.649	.0094	1	.0472	.0394								•
16ERM 14 W IC250 (1)	.375	14.0	.649	.0094	1	.0472	.0394			•					
16ERM 14 W IC50M (1)	.375	14.0	.649	.0094	1	.0472	.0394		•						
16ERM 14 W IC808 (1)	.375	14.0	.649	.0094	1	.0472	.0394						•		
16ERM 14 W IC908 (1)	.375	14.0	.649	.0094	1	.0472	.0394							•	
16ER/L 12 W IC908	.375	12.0	.649	.0106	1	.0551	.0472							•	
16ER/L 11 W IC250	.375	11.0	.649	.0114	1	.0590	.0433			•					
16EL 11 W IC908	.375	11.0	.649	.0114	1	.0590	.0433							•	
16ER 11 W IC08	.375	11.0	.649	.0118	1	.0590	.0433				•				
16ER 11 W IC1007	.375	11.0	.649	.0114	1	.0590	.0433								•
16ER 11 W IC228	.375	11.0	.649	.0114	1	.0590	.0433	•							
16ER 11 W IC50M	.375	11.0	.649	.0114	1	.0590	.0433		•						
16ER 11 W IC508	.375	11.0	.649	.0118	1	.0590	.0433					•			
16ER 11 W IC908	.375	11.0	.649	.0118	1	.0590	.0433							•	
16ERB 11 W IC908 (1)	.375	11.0	.649	.0114	1	.0590	.0433							•	

- For Insert Identification System, see page 645 • For threading between walls use GRIP-type insert TIP-BSW • Tolerance: medium class
- For technical information and detailed cutting data, see pages 797-812

(1) With pressed chipformer
(2) Multi-tooth
(3) Threads per inch
(4) Number of teeth per corner

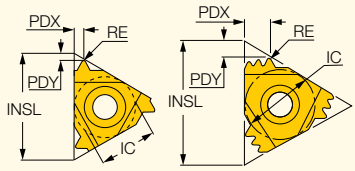
For tools, see pages: MTET Single Point (1219) • NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830) • SER/L (647)

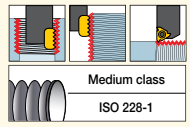
ISCARTHREAD

ER/L-W

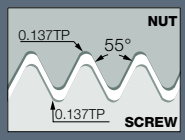
External Whitworth
(BSW, BSF, BSP) B.S.84-1956
DIN 259 Medium Class Full
Profile Laydown Threading Inserts







External right-hand shown



I N C H

Designation	IC	TPI[3]	INSL	RE	NT[4]	PDX	PDY	IC228	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
	Dimensions							Tough ↔ Hard							
16ERM 11 W IC1007 [1]	.375	11.0	.649	.0106	1	.0590	.0433								●
16ERM 11 W IC250 [1]	.375	11.0	.649	.0106	1	.0590	.0433			●					
16ERM 11 W IC508 [1]	.375	11.0	.649	.0106	1	.0590	.0433					●			
16ERM 11 W IC808 [1]	.375	11.0	.649	.0106	1	.0590	.0433						●		
16ERM 11 W IC908 [1]	.375	11.0	.649	.0106	1	.0590	.0433							●	
16ER 10 W IC250	.375	10.0	.649	.0126	1	.0571	.0433			●					
16ER 10 W IC908	.375	10.0	.649	.0126	1	.0571	.0433							●	
16ERB 10 W IC908 [1]	.375	10.0	.649	.0126	1	.0571	.0433							●	
16ER 9 W IC250	.375	9.0	.649	.0134	1	.0669	.0472			●					
16EL 8 W IC908	.375	8.0	.649	.0154	1	.0590	.0472							●	
16ER 8 W IC908	.375	8.0	.649	.0161	1	.0630	.0472							●	

- For Insert Identification System, see page 645 • For threading between walls use GRIP-type insert TIP-BSW • Tolerance: medium class
- For technical information and detailed cutting data, see pages 797-812

[1] With pressed chipformer
[2] Multi-tooth
[3] Threads per inch
[4] Number of teeth per corner

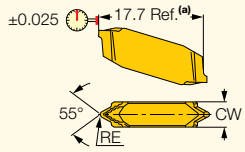
For tools, see pages: MTET Single Point (1219) • NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830) • SER/L (647)

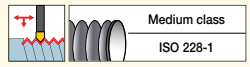
CUTGRIP

TIP-P-BSW

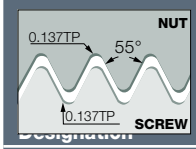
American (BSW, BSF, BSP)
Precision Ground External
Double-Ended Full Profile Threading
Inserts with a Chipformer







M E T R I C



Designation	Dimensions CW	RE	TPI(1)	Tough ↔ Hard IC08	IC908
TIP 2P28-BSW IC08	2.40	0.11	28.0	•	
TIP 2P28-BSW IC908	2.40	0.11	28.0		•
TIP 2P26-BSW IC08	2.40	0.12	26.0	•	
TIP 2P26-BSW IC908	2.40	0.12	26.0		•
TIP 2P24-BSW IC08	2.40	0.12	24.0	•	
TIP 2P24-BSW IC908	2.40	0.12	24.0		•
TIP 2P20-BSW IC08	2.40	0.16	20.0	•	
TIP 2P20-BSW IC908	2.40	0.16	20.0		•
TIP 2P19-BSW IC08	2.40	0.16	19.0	•	
TIP 2P19-BSW IC908	2.40	0.16	19.0		•
TIP 2P18-BSW IC08	2.40	0.17	18.0	•	
TIP 2P18-BSW IC908	2.40	0.17	18.0		•
TIP 2P16-BSW IC08	2.40	0.19	16.0	•	
TIP 2P16-BSW IC908	2.40	0.19	16.0		•
TIP 2P14-BSW IC08	2.40	0.22	14.0	•	
TIP 2P14-BSW IC908	2.40	0.22	14.0		•
TIP 4P12-BSW IC908	4.00	0.25	12.0		•
TIP 4P11-BSW IC08	4.00	0.28	11.0	•	
TIP 4P11-BSW IC908	4.00	0.28	11.0		•
TIP 4P10-BSW IC908	4.00	0.31	10.0		•

• (a) TIP inserts are 1.6 mm longer than GIP in the same pocket • Toolholder seat needs to be modified according to insert profile to ensure clearance
(1) Threads per inch

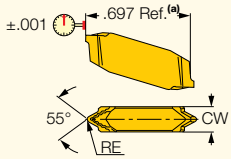
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

CUTGRIP

TIP-P-BSW

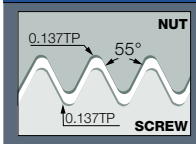
American (BSW, BSF, BSP)
Precision Ground External
Double-Ended Full Profile Threading
Inserts with a Chipformer







I N C H



Designation	Dimensions CW	RE	TPI(1)	Tough ↔ Hard IC08	IC908
TIP 2P28-BSW IC08	.094	.0043	28.0	•	
TIP 2P28-BSW IC908	.094	.0043	28.0		•
TIP 2P26-BSW IC08	.094	.0047	26.0	•	
TIP 2P26-BSW IC908	.094	.0047	26.0		•
TIP 2P24-BSW IC08	.094	.0047	24.0	•	
TIP 2P24-BSW IC908	.094	.0047	24.0		•
TIP 2P20-BSW IC08	.094	.0063	20.0	•	
TIP 2P20-BSW IC908	.094	.0063	20.0		•
TIP 2P19-BSW IC08	.094	.0063	19.0	•	
TIP 2P19-BSW IC908	.094	.0063	19.0		•
TIP 2P18-BSW IC08	.094	.0067	18.0	•	
TIP 2P18-BSW IC908	.094	.0067	18.0		•
TIP 2P16-BSW IC08	.094	.0075	16.0	•	
TIP 2P16-BSW IC908	.094	.0075	16.0		•
TIP 2P14-BSW IC08	.094	.0087	14.0	•	
TIP 2P14-BSW IC908	.094	.0087	14.0		•
TIP 4P12-BSW IC908	.157	.0098	12.0		•
TIP 4P11-BSW IC08	.157	.0110	11.0	•	
TIP 4P11-BSW IC908	.157	.0110	11.0		•
TIP 4P10-BSW IC908	.157	.0122	10.0		•

• (a) TIP inserts are .063" longer than GIP in the same pocket • Toolholder seat needs to be modified according to insert profile to ensure clearance
(1) Threads per inch

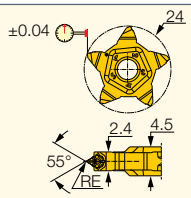
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

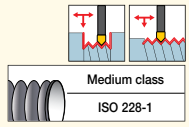
PENTACUT THREADING LINE

PENTA 24-W

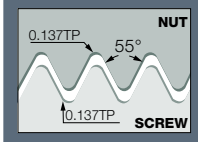
Whitworth (BSW, BSF, BSP)
B.S.84-1956 DIN 259 Pentagonal
Full Profile External Threading
Inserts with a Chipformer







M E T R I C



Designation	Dimensions TPI(1)	RE	IC908
PENTA 24-28-W IC908	28.0	0.09	●
PENTA 24-19-W IC908	19.0	0.15	●
PENTA 24-14-W IC908	14.0	0.21	●

- DMIN(inch)=5.435/TPI

(1) Threads per inch

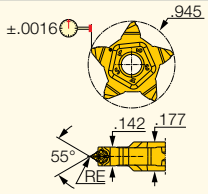
For tools, see pages: NQCH-PCHR/L-24-JHP (552) • PCHR/L-24 (547) • PCHR/L-24-JHP (548)

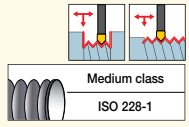
PENTACUT THREADING LINE

PENTA 24-W

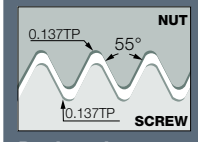
Whitworth (BSW, BSF, BSP)
B.S.84-1956 DIN 259 Pentagonal
Full Profile External Threading
Inserts with a Chipformer







I N C H



Designation	Dimensions TPI(1)	RE	IC908
PENTA 24-28-W IC908	28.0	.0035	●
PENTA 24-19-W IC908	19.0	.0059	●
PENTA 24-14-W IC908	14.0	.0083	●

- DMIN(inch)=5.435/TPI

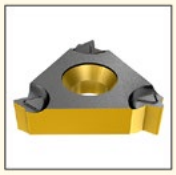
(1) Threads per inch

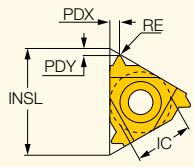
For tools, see pages: NQCH-PCHR/L-24-JHP (552) • PCHR/L-24 (547) • PCHR/L-24-JHP (548)

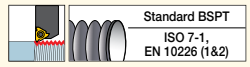
ISCARTHREAD

ER/L-BSPT

External BSPT (British Standard Pipe) B.S.21-1957 Full Profile Laydown Threading Inserts

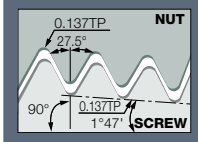






External right-hand shown

M E T R I C



Designation	Dimensions IC	TPI[2]	INSL	RE	PDX	PDY	Tough ↔ Hard IC250	IC808	IC908	IC1007
16ER 28 BSPT IC250	9.52	28.0	16.49	0.11	0.60	0.60	•			
16ER 28 BSPT IC908	9.52	28.0	16.49	0.11	0.60	0.60			•	
16EL 19 BSPT IC908	9.52	19.0	16.49	0.16	0.80	0.70			•	
16ER 19 BSPT IC250	9.52	19.0	16.49	0.16	0.90	0.80	•			
16ER 19 BSPT IC1007	9.52	19.0	16.49	0.16	0.80	0.70				•
16ER 19 BSPT IC908	9.52	19.0	16.49	0.16	0.80	0.70			•	
16EL 14 BSPT IC908	9.52	14.0	16.49	0.25	1.15	0.90			•	
16ER 14 BSPT IC1007	9.52	14.0	16.49	0.25	1.15	0.90				•
16ER 14 BSPT IC250	9.52	14.0	16.49	0.25	1.15	0.90	•			
16ER 14 BSPT IC908	9.52	14.0	16.49	0.25	1.15	0.90			•	
16ERB 14 BSPT IC908 (1)	9.52	14.0	16.49	0.23	1.15	1.00			•	
16ERM 14 BSPT IC1007 (1)	9.52	14.0	16.49	0.24	1.20	1.00				•
16ERM 14 BSPT IC808 (1)	9.52	14.0	16.49	0.24	1.20	1.00		•		
16ERM 14 BSPT IC908 (1)	9.52	14.0	16.49	0.24	1.20	1.00			•	
16EL 11 BSPT IC908	9.52	11.0	16.49	0.32	1.45	1.10			•	
16ER 11 BSPT IC250	9.52	11.0	16.49	0.32	1.45	1.10	•			
16ER 11 BSPT IC908	9.52	11.0	16.49	0.32	1.45	1.10			•	
16ERB 11 BSPT IC908 (1)	9.52	11.0	16.49	0.32	1.45	1.10			•	
16ERM 11 BSPT IC1007 (1)	9.52	11.0	16.49	0.31	1.50	1.10				•
16ERM 11 BSPT IC908 (1)	9.52	11.0	16.49	0.31	1.50	1.10			•	

• For Insert Identification System, see page 645 • For threading between walls use insert TIP-BSPT • For technical information and detailed cutting data, see pages 797-812

(1) With pressed chipformer

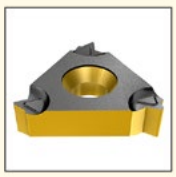
(2) Threads per inch

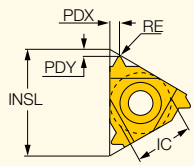
For tools, see pages: NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830) • SER/L (647)

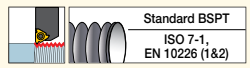
ISCARTHREAD

ER/L-BSPT

External BSPT (British Standard Pipe) B.S.21-1957 Full Profile Laydown Threading Inserts

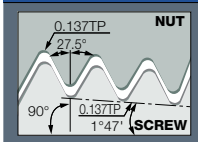






External right-hand shown

I N C H



Designation	Dimensions IC	TPI[2]	INSL	RE	PDX	PDY	Tough ↔ Hard IC250	IC808	IC908	IC1007
16ER 28 BSPT IC250	.375	28.0	.649	.0043	.0236	.0236	•			
16ER 28 BSPT IC908	.375	28.0	.649	.0043	.0236	.0236			•	
16EL 19 BSPT IC908	.375	19.0	.649	.0063	.0315	.0276			•	
16ER 19 BSPT IC250	.375	19.0	.649	.0063	.0354	.0315	•			
16ER 19 BSPT IC1007	.375	19.0	.649	.0063	.0315	.0276				•
16ER 19 BSPT IC908	.375	19.0	.649	.0063	.0315	.0276			•	
16EL 14 BSPT IC908	.375	14.0	.649	.0098	.0453	.0354			•	
16ER 14 BSPT IC1007	.375	14.0	.649	.0098	.0453	.0354				•
16ER 14 BSPT IC250	.375	14.0	.649	.0098	.0453	.0354	•			
16ER 14 BSPT IC908	.375	14.0	.649	.0098	.0453	.0354			•	
16ERB 14 BSPT IC908 (1)	.375	14.0	.649	.0091	.0453	.0394			•	
16ERM 14 BSPT IC1007 (1)	.375	14.0	.649	.0094	.0472	.0394				•
16ERM 14 BSPT IC808 (1)	.375	14.0	.649	.0094	.0472	.0394		•		
16ERM 14 BSPT IC908 (1)	.375	14.0	.649	.0094	.0472	.0394			•	
16EL 11 BSPT IC908	.375	11.0	.649	.0126	.0571	.0433			•	
16ER 11 BSPT IC250	.375	11.0	.649	.0126	.0571	.0433	•			
16ER 11 BSPT IC908	.375	11.0	.649	.0126	.0571	.0433			•	
16ERB 11 BSPT IC908 (1)	.375	11.0	.649	.0126	.0571	.0433			•	
16ERM 11 BSPT IC1007 (1)	.375	11.0	.649	.0122	.0590	.0433				•
16ERM 11 BSPT IC908 (1)	.375	11.0	.649	.0122	.0590	.0433			•	

• For Insert Identification System, see page 645 • For threading between walls use insert TIP-BSPT • For technical information and detailed cutting data, see pages 797-812

(1) With pressed chipformer

(2) Threads per inch

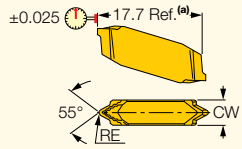
For tools, see pages: NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830) • SER/L (647)

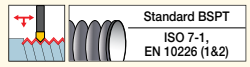
CUTGRIP

TIP-P-BSPT

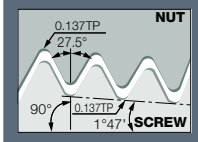
Precision Ground BSPT (British Standard Pipe) External Double-Ended Full Profile Threading Inserts with a Chipformer







M E T R I C



Designation	Dimensions CW	RE	RETOL(1)	TPI(2)	Tough ↔ Hard IC08	IC908
TIP 2P28-BSPT IC08	2.40	0.11	0.030	28.0	•	
TIP 2P28-BSPT IC908	2.40	0.11	0.030	28.0		•
TIP 2P19-BSPT IC08	2.40	0.16	0.030	19.0	•	
TIP 2P19-BSPT IC908	2.40	0.16	0.030	19.0		•
TIP 2P14-BSPT IC08	2.40	0.22	0.030	14.0	•	
TIP 2P14-BSPT IC908	2.40	0.22	0.030	14.0		•
TIP 4P11-BSPT IC08	4.00	0.28	0.030	11.0	•	
TIP 4P11-BSPT IC908	4.00	0.28	0.030	11.0		•

• (a) TIP inserts are 1.6 mm longer than GIP in the same pocket • Toolholder seat needs to be modified according to insert profile to ensure clearance

(1) Corner radius tolerance (+/-)

(2) Threads per inch

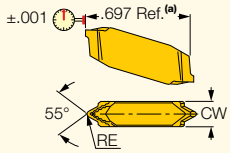
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

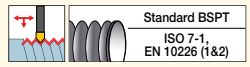
CUTGRIP

TIP-P-BSPT

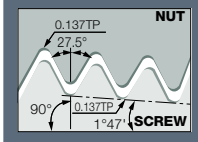
Precision Ground BSPT (British Standard Pipe) External Double-Ended Full Profile Threading Inserts with a Chipformer







I N C H



Designation	Dimensions CW	RE	RETOL(1)	TPI(2)	Tough ↔ Hard IC08	IC908
TIP 2P28-BSPT IC08	.094	.004	.0012	28.0	•	
TIP 2P28-BSPT IC908	.094	.004	.0012	28.0		•
TIP 2P19-BSPT IC08	.094	.006	.0012	19.0	•	
TIP 2P19-BSPT IC908	.094	.006	.0012	19.0		•
TIP 2P14-BSPT IC08	.094	.009	.0012	14.0	•	
TIP 2P14-BSPT IC908	.094	.009	.0012	14.0		•
TIP 4P11-BSPT IC08	.157	.011	.0012	11.0	•	
TIP 4P11-BSPT IC908	.157	.011	.0012	11.0		•

• (a) TIP inserts are .063" longer than GIP in the same pocket • Toolholder seat needs to be modified according to insert profile to ensure clearance

(1) Corner radius tolerance (+/-)

(2) Threads per inch

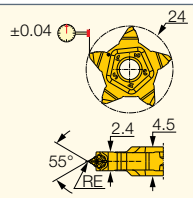
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

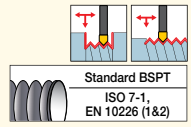
PENTACUT THREADING LINE

PENTA 24-BSPT

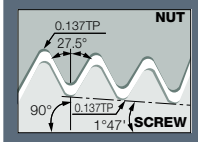
BSPT (British Standard Pipe)
Precision Ground External
Pentagonal Full Profile Threading
Inserts with a Chipformer







M E T R I C

 Designation	Dimensions TPI(1)	RE	IC908
PENTA 24-19-BSPT IC908	19.0	0.16	●
PENTA 24-14-BSPT IC908	14.0	0.22	●

- DMIN(inch)=5.435/TPI

(1) Threads per inch

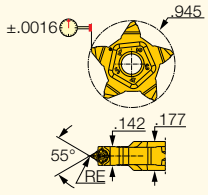
For tools, see pages: NQCH-PCHR/L-24-JHP (552) • PCHR/L-24 (547) • PCHR/L-24-JHP (548)

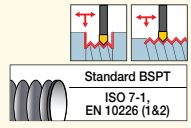
PENTACUT THREADING LINE

PENTA 24-BSPT

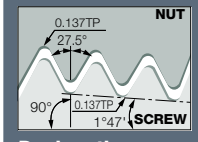
BSPT (British Standard Pipe)
Precision Ground External
Pentagonal Full Profile Threading
Inserts with a Chipformer







I N C H

 Designation	Dimensions TPI(1)	RE	IC908
PENTA 24-19-BSPT IC908	19.0	.0063	●
PENTA 24-14-BSPT IC908	14.0	.0087	●

- DMIN(inch)=5.435/TPI

(1) Threads per inch

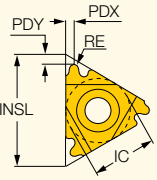
For tools, see pages: NQCH-PCHR/L-24-JHP (552) • PCHR/L-24 (547) • PCHR/L-24-JHP (548)

ISCARTHREAD

ER/L-RND

External DIN 405 Round Laydown Threading Inserts for Fire Fighting and Food Industry Pipe Couplings

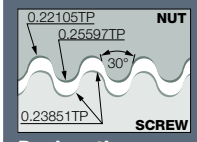






External right-hand shown

M E T R I C



Designation	Dimensions IC	TPI[2]	INSL	RE	PDX	PDY	Tough ↔ Hard IC228	IC250	IC508	IC908
16EL 6 RND IC250	9.52	6.0	16.49	1.01	1.70	1.50		•		
16ER 6 RND IC250	9.52	6.0	16.49	1.01	1.70	1.50		•		
16ER 6 RND IC908	9.52	6.0	16.49	1.01	1.60	1.50				•
16ERM 6 RND IC508 [1]	9.52	6.0	16.49	1.01	1.70	1.50			•	
16ERM 6 RND IC908 [1]	9.52	6.0	16.49	1.01	1.70	1.50				•
16EL 8 RND IC250	9.52	8.0	16.49	0.76	1.30	1.40		•		
16EL 8 RND IC908	9.52	8.0	16.49	0.76	1.30	1.40				•
16ER 8 RND IC250	9.52	8.0	16.49	0.76	1.30	1.40		•		
16ER 8 RND IC908	9.52	8.0	16.49	0.76	1.30	1.40				•
16ERM 8 RND IC908 [1]	9.52	8.0	16.49	0.75	1.30	1.40				•
16EL 10 RND IC908	9.52	10.0	16.49	0.61	1.20	1.10				•
16ER 10 RND IC250	9.52	10.0	16.49	0.61	1.20	1.10		•		
16ER 10 RND IC908	9.52	10.0	16.49	0.61	1.30	1.40				•

• For Insert Identification System, see page 645 • Tolerance: Class 7H • For technical information and detailed cutting data, see pages 797-812

[1] With pressed chipformer

[2] Threads per inch

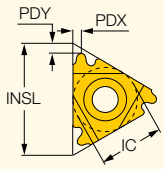
For tools, see pages: NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830) • SER/L (647)

ISCARTHREAD

ER/L-RND

External DIN 405 Round Laydown Threading Inserts for Fire Fighting and Food Industry Pipe Couplings

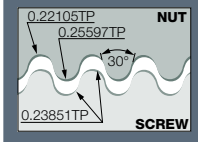






External right-hand shown

I N C H



Designation	Dimensions IC	TPI[2]	INSL	RE	PDX	PDY	Tough ↔ Hard IC228	IC250	IC508	IC908
16EL 6 RND IC250	.375	6.0	.649	.0398	.0669	.0590		•		
16ER 6 RND IC250	.375	6.0	.649	.0398	.0669	.0590		•		
16ER 6 RND IC908	.375	6.0	.649	.0398	.0630	.0590				•
16ERM 6 RND IC508 [1]	.375	6.0	.649	.0398	.0669	.0590			•	
16ERM 6 RND IC908 [1]	.375	6.0	.649	.0398	.0669	.0590				•
16EL 8 RND IC250	.375	8.0	.649	.0299	.0512	.0551		•		
16EL 8 RND IC908	.375	8.0	.649	.0299	.0512	.0551				•
16ER 8 RND IC250	.375	8.0	.649	.0299	.0512	.0551		•		
16ER 8 RND IC908	.375	8.0	.649	.0299	.0512	.0551				•
16ERM 8 RND IC908 [1]	.375	8.0	.649	.0295	.0512	.0551				•
16EL 10 RND IC908	.375	10.0	.649	.0240	.0472	.0433				•
16ER 10 RND IC250	.375	10.0	.649	.0240	.0472	.0433		•		
16ER 10 RND IC908	.375	10.0	.649	.0240	.0512	.0551				•

• For Insert Identification System, see page 645 • Tolerance: Class 7H • For technical information and detailed cutting data, seepages 797-812

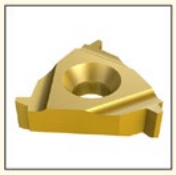
[1] With pressed chipformer

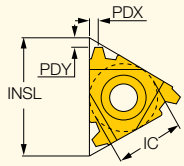
[2] Threads per inch

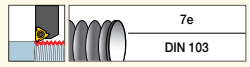
For tools, see pages: NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830) • SER/L (647)

ISCARTHREAD

ER/L-TR
External Trapezoid Shaped
DIN 103 Laydown Threading
Inserts for Feed Screws

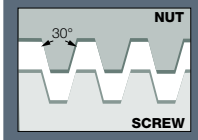






External right-hand shown

M E T R I C



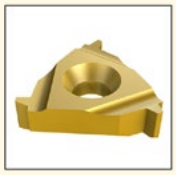
Designation	Dimensions IC	TP[1]	INSL	PDY	PDX	Tough ↔ Hard IC228	IC50M	IC250	IC908	IC1007
16EL 1.5 TR IC250	9.52	1.500	16.49	1.00	1.00			●		
16ER 1.5 TR IC250	9.52	1.500	16.49	1.00	1.00			●		
16ER 1.5 TR IC908	9.52	1.500	16.49	1.00	1.00				●	
16EL 2 TR IC250	9.52	2.000	16.49	1.00	1.00			●		
16ER 2 TR IC250	9.52	2.000	16.49	1.00	1.00			●		
16ER 2 TR IC908	9.52	2.000	16.49	1.00	1.00				●	
16EL 3 TR IC908	9.52	3.000	16.49	1.40	1.60				●	
16ER 3 TR IC1007	9.52	3.000	16.49	1.40	1.60					●
16ER 3 TR IC228	9.52	3.000	16.49	1.40	1.60	●				
16ER 3 TR IC250	9.52	3.000	16.49	1.40	1.60			●		
16ER 3 TR IC908	9.52	3.000	16.49	1.40	1.60				●	
16ER 4 TR IC250	9.52	4.000	16.49	1.35	1.50			●		
16ER 4 TR IC908	9.52	4.000	16.49	1.35	1.50				●	

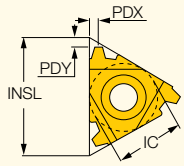
• For Insert Identification System, see page 645 • DIN 103 04/1977,1502901/1977 Class 7e • For technical information and detailed cutting data, see pages 797-812
[1] Thread pitch

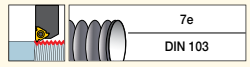
For tools, see pages: NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830) • SER/L (647)

ISCARTHREAD

ER/L-TR
External Trapezoid Shaped
DIN 103 Laydown Threading
Inserts for Feed Screws

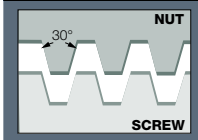






External right-hand shown

I N C H



Designation	Dimensions IC	TP mm[1]	INSL	PDY	PDX	Tough ↔ Hard IC228	IC50M	IC250	IC908	IC1007
16EL 1.5 TR IC250	.375	1.500	.649	.0394	.0394			●		
16ER 1.5 TR IC250	.375	1.500	.649	.0394	.0394			●		
16ER 1.5 TR IC908	.375	1.500	.649	.0394	.0394				●	
16EL 2 TR IC250	.375	2.000	.649	.0394	.0394			●		
16ER 2 TR IC250	.375	2.000	.649	.0394	.0394			●		
16ER 2 TR IC908	.375	2.000	.649	.0394	.0394				●	
16EL 3 TR IC908	.375	3.000	.649	.0551	.0630				●	
16ER 3 TR IC1007	.375	3.000	.649	.0551	.0630					●
16ER 3 TR IC228	.375	3.000	.649	.0551	.0630	●				
16ER 3 TR IC250	.375	3.000	.649	.0551	.0630			●		
16ER 3 TR IC908	.375	3.000	.649	.0551	.0630				●	
16ER 4 TR IC250	.375	4.000	.649	.0532	.0591			●		
16ER 4 TR IC908	.375	4.000	.649	.0532	.0591				●	

• For Insert Identification System, see page 645 • DIN 103 04/1977,1502901/1977 Class 7e • For technical information and detailed cutting data, see pages 797-812
[1] Thread pitch

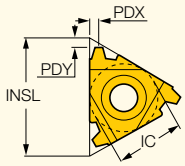
For tools, see pages: NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830) • SER/L (647)

ISCARTHREAD

ER/L-STACME

External STUB ACME Laydown Threading Inserts with a Shallow ACME Profile for Control Valves

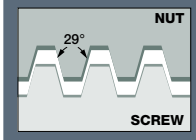






External right-hand shown

M E T R I C



Designation	Dimensions IC	TPI[1]	INSL	PDX	PDY	Tough ↔ Hard IC50M	IC250	IC908
16EL 16 STACME IC250	9.52	16.0	16.49	1.00	1.00		●	
16ER 16 STACME IC908	9.52	16.0	16.49	1.00	1.00			●
16ER 14 STACME IC250	9.52	14.0	16.49	1.00	1.00		●	
16EL 12 STACME IC908	9.52	12.0	16.49	1.20	1.20			●
16ER 12 STACME IC250	9.52	12.0	16.49	1.20	1.20		●	
16ER 12 STACME IC908	9.52	12.0	16.49	1.20	1.30			●
16EL 10 STACME IC50M	9.52	10.0	16.49	1.30	1.30	●		
16ER 10 STACME IC908	9.52	10.0	16.49	1.20	1.30			●
16EL 8 STACME IC908	9.52	8.0	16.49	1.50	1.50			●
16ER 8 STACME IC250	9.52	8.0	16.49	1.50	1.50		●	
16ER 8 STACME IC50M	9.52	8.0	16.49	1.50	1.50	●		
16ER 8 STACME IC908	9.52	8.0	16.49	1.70	1.70			●
16EL 6 STACME IC908	9.52	6.0	16.49	1.80	1.80			●
16ER 6 STACME IC250	9.52	6.0	16.49	1.80	1.80		●	
16ER 6 STACME IC908	9.52	6.0	16.49	1.70	1.70			●

• For Insert Identification System, see page 645 • STUB ACME ASME/ANSI B1.8-1988 Class 2G • For technical information and detailed cutting data, see pages 797-812

[1] Threads per inch

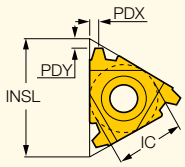
For tools, see pages: NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830) • SER/L (647)

ISCARTHREAD

ER/L-STACME

External STUB ACME Laydown Threading Inserts with a Shallow ACME Profile for Control Valves

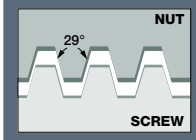






External right-hand shown

I N C H



Designation	Dimensions IC	TPI[1]	INSL	PDX	PDY	Tough ↔ Hard IC50M	IC250	IC908
16EL 16 STACME IC250	.375	16.0	.649	.0394	.0394		●	
16ER 16 STACME IC908	.375	16.0	.649	.0394	.0394			●
16ER 14 STACME IC250	.375	14.0	.649	.0394	.0394		●	
16EL 12 STACME IC908	.375	12.0	.649	.0472	.0472			●
16ER 12 STACME IC250	.375	12.0	.649	.0472	.0472		●	
16ER 12 STACME IC908	.375	12.0	.649	.0472	.0512			●
16EL 10 STACME IC50M	.375	10.0	.649	.0512	.0512	●		
16ER 10 STACME IC908	.375	10.0	.649	.0472	.0512			●
16EL 8 STACME IC908	.375	8.0	.649	.0590	.0590			●
16ER 8 STACME IC250	.375	8.0	.649	.0590	.0590		●	
16ER 8 STACME IC50M	.375	8.0	.649	.0590	.0590	●		
16ER 8 STACME IC908	.375	8.0	.649	.0669	.0669			●
16EL 6 STACME IC908	.375	6.0	.649	.0709	.0709			●
16ER 6 STACME IC250	.375	6.0	.649	.0709	.0709		●	
16ER 6 STACME IC908	.375	6.0	.649	.0669	.0669			●

• For Insert Identification System, see page 645 • STUB ACME ASME/ANSI B1.8-1988 Class 2G • For technical information and detailed cutting data, see pages 797-812

[1] Threads per inch

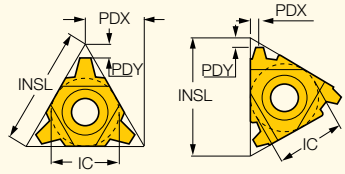
For tools, see pages: NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830) • SER/L (647)

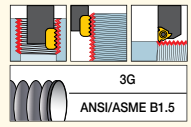
ISCARTHREAD

ER/L-ACME

External ACME Profile
Laydown Threading Inserts
for Feed Screws

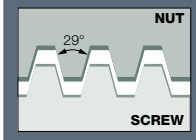






External right-hand shown

M E T R I C



Designation	Dimensions IC	TPI[1]	INSL	PDX	PDY	Tough ↔ Hard IC50M	IC250	IC08	IC908	IC1007
11ER 16 ACME IC908	6.35	16.0	11.00	1.00	0.90				•	
16ER 16 ACME IC250	9.52	16.0	16.49	1.00	1.00		•			
16ER 16 ACME IC908	9.52	16.0	16.49	1.00	1.00				•	
16ER 14 ACME IC250	9.52	14.0	16.49	1.00	1.00		•			
16ER 12 ACME IC908	9.52	12.0	16.49	1.00	1.00				•	
16ER 10 ACME IC250	9.52	10.0	16.49	1.30	1.40		•			
16ER 10 ACME IC908	9.52	10.0	16.49	1.30	1.40				•	
16EL 8 ACME IC250	9.52	8.0	16.49	1.50	1.50		•			
16EL 8 ACME IC908	9.52	8.0	16.49	1.50	1.30				•	
16ER 8 ACME IC250	9.52	8.0	16.49	1.50	1.50		•			
16ER 8 ACME IC908	9.52	8.0	16.49	1.50	1.30				•	
16EL 6 ACME IC250	9.52	6.0	16.49	1.70	1.40		•			
16ER 6 ACME IC250	9.52	6.0	16.49	1.70	1.40		•			
16ER 6 ACME IC1007	9.52	6.0	16.49	1.70	1.40					•
16ER 6 ACME IC908	9.52	6.0	16.49	1.70	1.40				•	

• For Insert Identification System, see page 645 • ACME ASME/ANSI B1.5-1988 Class 3G • For technical information and detailed cutting data, see pages 797-812

[1] Threads per inch

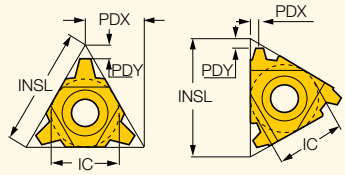
For tools, see pages: NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830) • SER/L (647)

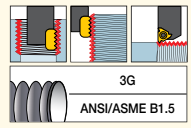
ISCARTHREAD

ER/L-ACME

External ACME Profile
Laydown Threading Inserts
for Feed Screws

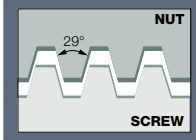






External right-hand shown

I N C H



Designation	Dimensions IC	TPI[1]	INSL	PDX	PDY	Tough ↔ Hard IC50M	IC250	IC08	IC908	IC1007
11ER 16 ACME IC908	.250	16.0	.433	.0394	.0354				•	
16ER 16 ACME IC250	.375	16.0	.649	.0394	.0394		•			
16ER 16 ACME IC908	.375	16.0	.649	.0394	.0394				•	
16ER 14 ACME IC250	.375	14.0	.649	.0394	.0394		•			
16ER 12 ACME IC908	.375	12.0	.649	.0394	.0394				•	
16ER 10 ACME IC250	.375	10.0	.649	.0512	.0551		•			
16ER 10 ACME IC908	.375	10.0	.649	.0512	.0551				•	
16EL 8 ACME IC250	.375	8.0	.649	.0590	.0590		•			
16EL 8 ACME IC908	.375	8.0	.649	.0590	.0512				•	
16ER 8 ACME IC250	.375	8.0	.649	.0590	.0590		•			
16ER 8 ACME IC908	.375	8.0	.649	.0590	.0512				•	
16EL 6 ACME IC250	.375	6.0	.649	.0669	.0551		•			
16ER 6 ACME IC250	.375	6.0	.649	.0669	.0551		•			
16ER 6 ACME IC1007	.375	6.0	.649	.0669	.0551					•
16ER 6 ACME IC908	.375	6.0	.649	.0669	.0551				•	

• For Insert Identification System, see page 645 • ACME ASME/ANSI B1.5-1988 Class 3G • For technical information and detailed cutting data, see pages 797-812

[1] Threads per inch

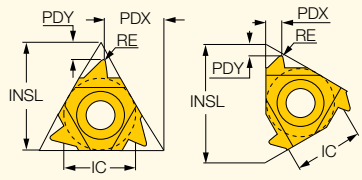
For tools, see pages: NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830) • SER/L (647)

ISCARTHREAD

ER/L-ABUT

External American Buttress Laydown Threading Inserts for High Force Transmission in One Direction

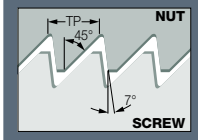






External right-hand shown

M E T R I C



Designation	Dimensions IC	TPI(1)	INSL	RE	PDX	PDY	Tough ↔ Hard IC250	IC908
16ER 20 ABUT IC908	9.52	20.0	16.49	0.07	1.30	1.00		●
16EL 16 ABUT IC908	9.52	16.0	16.49	0.09	1.50	1.10		●
16ER 16 ABUT IC250	9.52	16.0	16.49	0.09	1.50	1.30	●	
16ER 16 ABUT IC908	9.52	16.0	16.49	0.09	1.50	1.10		●
16EL 12 ABUT IC908	9.52	12.0	16.49	0.12	2.00	1.40		●
16ER 12 ABUT IC250	9.52	12.0	16.49	0.12	2.00	1.40	●	
16ER 12 ABUT IC908	9.52	12.0	16.49	0.12	2.00	1.40		●
16EL 10 ABUT IC908	9.52	10.0	16.49	0.15	2.30	1.50		●
16ER 10 ABUT IC908	9.52	10.0	16.49	0.15	2.30	1.50		●

• For Insert Identification System, see page 645 • ANSI B1.9-1973 Class 2 • For technical information and detailed cutting data, see pages 797-812

(1) Threads per inch

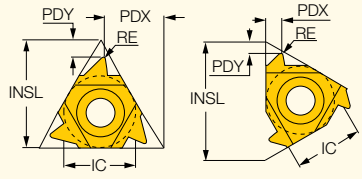
For tools, see pages: NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830) • SER/L (647)

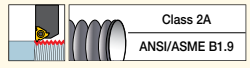
ISCARTHREAD

ER/L-ABUT

External American Buttress Laydown Threading Inserts for High Force Transmission in One Direction

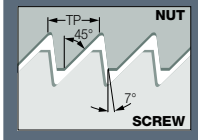






External right-hand shown

I N C H



Designation	Dimensions IC	TPI(1)	INSL	RE	PDX	PDY	Tough ↔ Hard IC250	IC908
16ER 20 ABUT IC908	.375	20.0	.649	.0027	.0512	.0394		●
16EL 16 ABUT IC908	.375	16.0	.649	.0035	.0590	.0433		●
16ER 16 ABUT IC250	.375	16.0	.649	.0035	.0591	.0512	●	
16ER 16 ABUT IC908	.375	16.0	.649	.0035	.0590	.0433		●
16EL 12 ABUT IC908	.375	12.0	.649	.0047	.0787	.0551		●
16ER 12 ABUT IC250	.375	12.0	.649	.0047	.0787	.0551	●	
16ER 12 ABUT IC908	.375	12.0	.649	.0047	.0787	.0551		●
16EL 10 ABUT IC908	.375	10.0	.649	.0059	.0906	.0590		●
16ER 10 ABUT IC908	.375	10.0	.649	.0059	.0906	.0590		●

• For Insert Identification System, see page 645 • ANSI B1.9-1973 Class 2 • For technical information and detailed cutting data, see pages 797-812

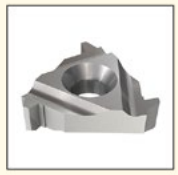
(1) Threads per inch

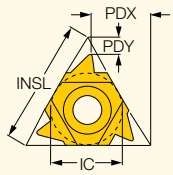
For tools, see pages: NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830) • SER/L (647)

ISCARTHREAD

ER/L-SAGE

External Buttress Thread (DIN 513) for High Force in One Direction Applications

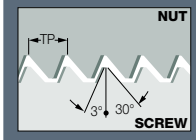






External right-hand shown

M E T R I C



Designation	Dimensions IC	TP[2]	INSL	PDX	PDY	Tough ↔ Hard IC250	IC908
16EL 2 SAGE IC908	9.52	2.000	16.49	1.60	1.10		●
16ER 2 SAGE IC908	9.52	2.000	16.49	1.60	1.10		●

• For Insert Identification System, see page 645 • For technical information and detailed cutting data, see pages 797-812

(1) Requires special anvil

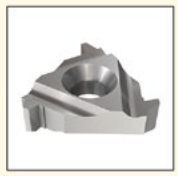
(2) Thread pitch

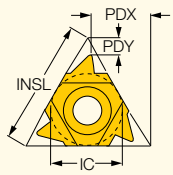
For tools, see pages: SER/L (647) • NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830)

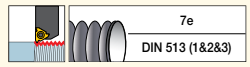
ISCARTHREAD

ER/L-SAGE

External Buttress Thread (DIN 513) for High Force in One Direction Applications

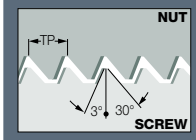






External right-hand shown

I N C H



Designation	Dimensions IC	TP mm[2]	INSL	PDX	PDY	Tough ↔ Hard IC250	IC908
16EL 2 SAGE IC908	.375	2.000	.649	.0630	.0433		●
16ER 2 SAGE IC908	.375	2.000	.649	.0630	.0433		●

• For Insert Identification System, see page 645 • For technical information and detailed cutting data, see pages 797-812

(1) Requires special anvil

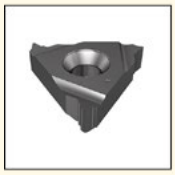
(2) Thread pitch

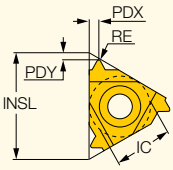
For tools, see pages: SER/L (647) • NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830)

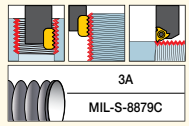
ISCARTHREAD

ER/L-UNJ

External UNJ Profile Laydown Threading Inserts for the Aviation and Aerospace Industries

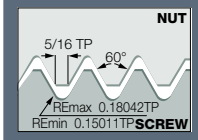






External right-hand shown

M E T R I C



Designation	Dimensions IC	TPI[1]	INSL	RE	PDX	PDY	Tough ↔ Hard IC50M	IC250	IC08	IC908	IC806	IC1007
11ER 28 UNJ IC908	6.35	28.0	11.00	0.15	0.60	0.60				•		
11ER 24 UNJ IC908	6.35	24.0	11.00	0.16	0.80	0.70				•		
11ER 20 UNJ IC908	6.35	20.0	11.00	0.19	0.90	0.80				•		
11ER 18 UNJ IC908	6.35	18.0	11.00	0.23	1.00	0.80				•		
16ER 40 UNJ IC908	9.52	40.0	16.49	0.10	0.60	0.60				•		
16ER 36 UNJ IC908	9.52	36.0	16.49	0.11	0.60	0.60				•		
16ER 32 UNJ IC806	9.52	32.0	16.49	0.13	0.60	0.60					•	
16ER 32 UNJ IC908	9.52	32.0	16.49	0.13	0.60	0.60				•		
16ER/L 28 UNJ IC908	9.52	28.0	16.49	0.15	0.60	0.60				•		
16ER 28 UNJ IC806	9.52	28.0	16.49	0.15	0.60	0.60					•	
16EL 24 UNJ IC250	9.52	24.0	16.49	0.16	0.80	0.70		•				
16ER 24 UNJ IC806	9.52	24.0	16.49	0.18	0.80	0.70					•	
16ER 24 UNJ IC908	9.52	24.0	16.49	0.18	0.80	0.70				•		
16ER/L 20 UNJ IC908	9.52	20.0	16.49	0.21	0.90	0.80				•		
16ER 20 UNJ IC1007	9.52	20.0	16.49	0.21	0.90	0.80						•
16ER 20 UNJ IC250	9.52	20.0	16.49	0.21	0.90	0.80		•				
16ER 20 UNJ IC806	9.52	20.0	16.49	0.21	0.90	0.80					•	
16EL 18 UNJ IC08	9.52	18.0	16.49	0.23	0.80	0.70			•			
16ER 18 UNJ IC1007	9.52	18.0	16.49	0.23	0.80	0.70						•
16ER 18 UNJ IC806	9.52	18.0	16.49	0.23	0.80	0.70					•	
16ER 18 UNJ IC908	9.52	18.0	16.49	0.23	0.80	0.70				•		
16ER/L 16 UNJ IC908	9.52	16.0	16.49	0.26	1.20	0.90				•		
16ER 16 UNJ IC1007	9.52	16.0	16.49	0.26	1.20	0.90						•
16ER 16 UNJ IC50M	9.52	16.0	16.49	0.26	1.20	0.90	•					
16ER 16 UNJ IC806	9.52	16.0	16.49	0.26	1.20	0.90					•	
16ER/L 14 UNJ IC908	9.52	14.0	16.49	0.30	1.20	1.10				•		
16ER 14 UNJ IC250	9.52	14.0	16.49	0.30	1.20	1.00		•				
16ER 14 UNJ IC806	9.52	14.0	16.49	0.30	1.20	1.10					•	
16ER 13 UNJ IC908	9.52	13.0	16.49	0.29	1.30	1.10				•		
16EL 12 UNJ IC908	9.52	12.0	16.49	0.35	1.20	1.10				•		
16ER 12 UNJ IC806	9.52	12.0	16.49	0.35	1.20	1.00					•	
16ER 12 UNJ IC908	9.52	12.0	16.49	0.35	1.20	1.00				•		
16ER 11 UNJ IC908	9.52	11.0	16.49	0.38	1.50	1.20				•		
16ER 10 UNJ IC908	9.52	10.0	16.49	0.38	1.50	1.10				•		
16ER 10 UNJ IC806	9.52	10.0	16.49	0.38	1.50	1.10					•	
16ER 9 UNJ IC250	9.52	9.0	16.49	0.47	1.45	1.15		•				
16EL 8 UNJ IC250	9.52	8.0	16.49	0.48	1.60	1.20		•				
16ER 8 UNJ IC908	9.52	8.0	16.49	0.48	1.60	1.20				•		

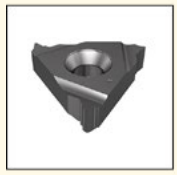
• UNJ MIL-S-8879C 9-1992 Class 3A • Only right-hand inserts are available in grade IC806 and IC1007 • Thread milling application available only for inserts size 06, 08, 11
• For Insert Identification System, see page 645 • For technical information and detailed cutting data, see pages 797-812
[1] Threads per inch

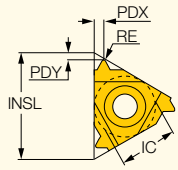
For tools, see pages: NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830) • SER/L (647)

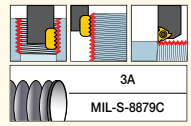
ISCARTHREAD

ER/L-UNJ

External UNJ Profile Laydown Threading Inserts for the Aviation and Aerospace Industries

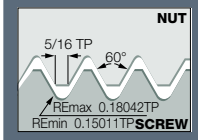






External right-hand shown

I N C H



Designation	Dimensions IC	TPI[1]	INSL	RE	PDX	PDY	Tough ↔ Hard IC50M	IC250	IC08	IC908	IC806	IC1007
11ER 28 UNJ IC908	.250	28.0	.433	.0059	.0236	.0236				●		
11ER 24 UNJ IC908	.250	24.0	.433	.0063	.0315	.0276				●		
11ER 20 UNJ IC908	.250	20.0	.433	.0075	.0354	.0315				●		
11ER 18 UNJ IC908	.250	18.0	.433	.0091	.0394	.0315				●		
16ER 40 UNJ IC908	.375	40.0	.649	.0039	.0236	.0236				●		
16ER 36 UNJ IC908	.375	36.0	.649	.0043	.0236	.0236				●		
16ER 32 UNJ IC806	.375	32.0	.649	.0051	.0236	.0236					●	
16ER 32 UNJ IC908	.375	32.0	.649	.0051	.0236	.0236				●		
16ER/L 28 UNJ IC908	.375	28.0	.649	.0059	.0236	.0236				●		
16ER 28 UNJ IC806	.375	28.0	.649	.0059	.0236	.0236					●	
16EL 24 UNJ IC250	.375	24.0	.649	.0063	.0315	.0276		●				
16ER 24 UNJ IC806	.375	24.0	.649	.0071	.0315	.0276					●	
16ER 24 UNJ IC908	.375	24.0	.649	.0071	.0315	.0276				●		
16ER/L 20 UNJ IC908	.375	20.0	.649	.0083	.0354	.0315				●		
16ER 20 UNJ IC1007	.375	20.0	.649	.0083	.0354	.0315						●
16ER 20 UNJ IC250	.375	20.0	.649	.0083	.0354	.0315		●				
16ER 20 UNJ IC806	.375	20.0	.649	.0083	.0354	.0315					●	
16EL 18 UNJ IC08	.375	18.0	.649	.0091	.0315	.0276			●			
16ER 18 UNJ IC1007	.375	18.0	.649	.0091	.0315	.0276						●
16ER 18 UNJ IC806	.375	18.0	.649	.0091	.0315	.0276					●	
16ER 18 UNJ IC908	.375	18.0	.649	.0091	.0315	.0276				●		
16ER/L 16 UNJ IC908	.375	16.0	.649	.0102	.0472	.0354				●		
16ER 16 UNJ IC1007	.375	16.0	.649	.0102	.0472	.0354						●
16ER 16 UNJ IC50M	.375	16.0	.649	.0102	.0472	.0354	●					
16ER 16 UNJ IC806	.375	16.0	.649	.0102	.0472	.0354					●	
16ER/L 14 UNJ IC908	.375	14.0	.649	.0118	.0472	.0433				●		
16ER 14 UNJ IC250	.375	14.0	.649	.0118	.0472	.0394		●				
16ER 14 UNJ IC806	.375	14.0	.649	.0118	.0472	.0433					●	
16ER 13 UNJ IC908	.375	13.0	.649	.0114	.0512	.0433				●		
16EL 12 UNJ IC908	.375	12.0	.649	.0138	.0472	.0433				●		
16ER 12 UNJ IC806	.375	12.0	.649	.0138	.0472	.0394					●	
16ER 12 UNJ IC908	.375	12.0	.649	.0138	.0472	.0394				●		
16ER 11 UNJ IC908	.375	11.0	.649	.0150	.0591	.0472				●		
16ER 10 UNJ IC908	.375	10.0	.649	.0150	.0590	.0433				●		
16ER 10 UNJ IC806	.375	10.0	.649	.0150	.0590	.0433					●	
16ER 9 UNJ IC250	.375	9.0	.649	.0185	.0571	.0453		●				
16EL 8 UNJ IC250	.375	8.0	.649	.0189	.0630	.0472		●				
16ER 8 UNJ IC908	.375	8.0	.649	.0189	.0630	.0472				●		

• UNJ MIL-S-8879C 9-1992 Class 3A • Only right-hand inserts are available in grade IC806 and IC1007 • Thread milling application available only for inserts size 06, 08, 11 • For Insert Identification System, see page 645 • For technical information and detailed cutting data, see pages 797-812

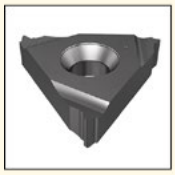
(1) Threads per inch

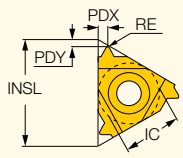
For tools, see pages: NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830) • SER/L (647)

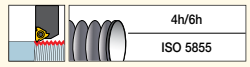
ISCARTHREAD

ER-MJ

External MJ ISO 5855 Metric Full Profile Laydown Threading Inserts for the Aviation and Aerospace Industries

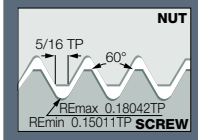






External right-hand shown

M E T R I C



Designation	Dimensions IC	TP[1]	INSL	RE	PDX	PDY	Tough ↔ Hard IC250	IC908	IC806
16ER 1.00 MJ IC806	9.52	1.000	16.49	0.17	0.80	0.70			●
16ER 1.00 MJ IC908	9.52	1.000	16.49	0.17	0.80	0.70		●	
16ER 1.25 MJ IC806	9.52	1.250	16.49	0.21	0.80	0.80			●
16ER 1.25 MJ IC908	9.52	1.250	16.49	0.21	0.80	0.80		●	
16ER 1.50 MJ IC250	9.52	1.500	16.49	0.25	1.20	1.00	●		
16ER 1.50 MJ IC806	9.52	1.500	16.49	0.25	1.20	1.00			●
16ER 1.50 MJ IC908	9.52	1.500	16.49	0.25	1.20	1.00		●	
16ER 2.00 MJ IC908	9.52	2.000	16.49	0.33	1.20	1.00		●	
16ER 2.00 MJ IC806	9.52	2.000	16.49	0.33	1.20	1.00			●

• For Insert Identification System, see page 645 • For technical information and detailed cutting data, see pages 797-812

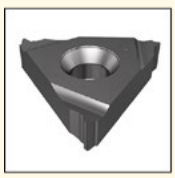
[1] Thread pitch

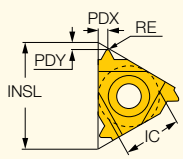
For tools, see pages: NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830) • SER/L (647)

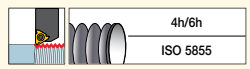
ISCARTHREAD

ER-MJ

External MJ ISO 5855 Metric Full Profile Laydown Threading Inserts for the Aviation and Aerospace Industries

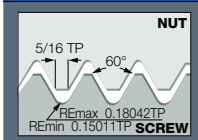






External right-hand shown

I N C H



Designation	Dimensions IC	TP mm[1]	INSL	RE	PDX	PDY	Tough ↔ Hard IC250	IC908	IC806
16ER 1.00 MJ IC806	.375	1.000	.649	.0067	.0315	.0276			●
16ER 1.00 MJ IC908	.375	1.000	.649	.0067	.0315	.0276		●	
16ER 1.25 MJ IC806	.375	1.250	.649	.0083	.0315	.0315			●
16ER 1.25 MJ IC908	.375	1.250	.649	.0083	.0315	.0315		●	
16ER 1.50 MJ IC250	.375	1.500	.649	.0098	.0472	.0394	●		
16ER 1.50 MJ IC806	.375	1.500	.649	.0098	.0472	.0394			●
16ER 1.50 MJ IC908	.375	1.500	.649	.0098	.0472	.0394		●	
16ER 2.00 MJ IC908	.375	2.000	.649	.0130	.0472	.0394		●	
16ER 2.00 MJ IC806	.375	2.000	.649	.0130	.0472	.0394			●

• For Insert Identification System, see page 645 • For technical information and detailed cutting data, see pages 797-812

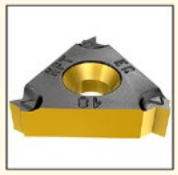
[1] Thread pitch

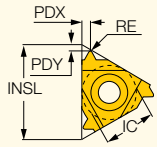
For tools, see pages: NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830) • SER/L (647)

ISCARTHREAD

ER/L-NPT

External NPT (National Pipe Threads) Full Profile Laydown Threading Inserts for Steam, Gas and Water Pipes

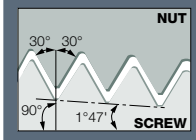






External right-hand shown

M E T R I C



Designation	Dimensions IC	TPI[2]	INSL	RE	PDX	PDY	NT[3]	Tough ↔ Hard IC228	IC50M	IC250	IC808	IC908	IC1007
16ER 27 NPT IC250	9.52	27.0	16.49	0.04	0.80	0.70	1			●			
16ER 27 NPT IC908	9.52	27.0	16.49	0.04	0.80	0.70	1					●	
16ER 18 NPT IC250	9.52	18.0	16.49	0.06	1.00	0.80	1			●			
16ER 18 NPT IC1007	9.52	18.0	16.49	0.06	1.10	0.90	1						●
16ER 18 NPT IC228	9.52	18.0	16.49	0.06	1.10	0.90	1	●					
16ER 18 NPT IC908	9.52	18.0	16.49	0.06	1.10	0.90	1					●	
16ERB 18 NPT IC908 [1]	9.52	18.0	16.49	0.06	1.10	0.90	1					●	
16ERM 18 NPT IC1007	9.52	18.0	16.49	0.05	1.00	0.80	1						●
16ERM 18 NPT IC808 [1]	9.52	18.0	16.49	0.05	1.00	0.80	1				●		
16ERM 18 NPT IC908 [1]	9.52	18.0	16.49	0.05	1.00	0.80	1					●	
16EL 14 NPT IC908	9.52	14.0	16.49	0.07	1.20	0.90	1					●	
16ER 14 NPT IC250	9.52	14.0	16.49	0.07	1.20	0.90	1			●			
16ER 14 NPT IC1007	9.52	14.0	16.49	0.07	1.20	0.90	1						●
16ER 14 NPT IC228	9.52	14.0	16.49	0.07	1.20	0.90	1	●					
16ER 14 NPT IC908	9.52	14.0	16.49	0.07	1.20	0.90	1					●	
16ERB 14 NPT IC908 [1]	9.52	14.0	16.49	0.07	1.20	0.90	1					●	
16ERM 14 NPT IC1007 [1]	9.52	14.0	16.49	0.05	1.20	0.90	1						●
16ERM 14 NPT IC250 [1]	9.52	14.0	16.49	0.05	1.20	0.90	1			●			
16ERM 14 NPT IC50M [1]	9.52	14.0	16.49	0.05	1.20	0.90	1		●				
16ERM 14 NPT IC808 [1]	9.52	14.0	16.49	0.05	1.20	0.90	1				●		
16ERM 14 NPT IC908 [1]	9.52	14.0	16.49	0.05	1.20	0.90	1					●	
16EL 11.5 NPT IC908	9.52	11.5	16.49	0.09	1.50	1.10	1					●	
16ER 11.5 NPT IC1007	9.52	11.5	16.49	0.09	1.50	1.10	1						●
16ER 11.5 NPT IC250	9.52	11.5	16.49	0.09	1.50	1.10	1			●			
16ER 11.5 NPT IC50M	9.52	11.5	16.49	0.09	1.50	1.10	1		●				
16ER 11.5 NPT IC908	9.52	11.5	16.49	0.09	1.50	1.10	1					●	
16ERB 11.5 NPT IC908 [1]	9.52	11.5	16.49	0.09	1.50	1.10	1					●	
16ERM 11.5 NPT IC1007 [1]	9.52	11.5	16.49	0.09	1.50	1.10	1						●
16ERM 11.5 NPT IC250 [1]	9.52	11.5	16.49	0.09	1.50	1.10	1			●			
16ERM 11.5 NPT IC808 [1]	9.52	11.5	16.49	0.09	1.50	1.10	1				●		
16ERM 11.5 NPT IC908 [1]	9.52	11.5	16.49	0.09	1.50	1.10	1					●	
16ER 8 NPT IC250	9.52	8.0	16.49	0.12	1.60	1.30	1			●			
16ER 8 NPT IC50M	9.52	8.0	16.49	0.12	1.60	1.30	1		●				
16ER 8 NPT IC908	9.52	8.0	16.49	0.12	1.60	1.30	1					●	
16ERB 8 NPT IC908 [1]	9.52	8.0	16.49	0.11	1.70	1.40	1					●	
16ERM 8 NPT IC1007	9.52	8.0	16.49	0.12	1.80	1.30	1						●
16ERM 8 NPT IC250 [1]	9.52	8.0	16.49	0.12	1.80	1.30	1			●			
16ERM 8 NPT IC808 [1]	9.52	8.0	16.49	0.12	1.80	1.30	1				●		
16ERM 8 NPT IC908 [1]	9.52	8.0	16.49	0.12	1.80	1.30	1					●	

• For Insert Identification System, see page 645 • For threading between walls use GRIP-type insert TIP-NPT • National Pipe Threads ANSI/ASME B1.20.1-1983

• For technical information and detailed cutting data, see pages 797-812

[1] With pressed chipformer

[2] Threads per inch

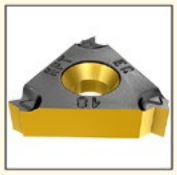
[3] Number of teeth per corner

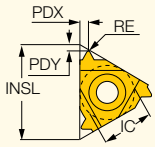
For tools, see pages: NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830) • SER/L (647)

ISCARTHREAD

ER/L-NPT

External NPT (National Pipe Threads) Full Profile Laydown Threading Inserts for Steam, Gas and Water Pipes

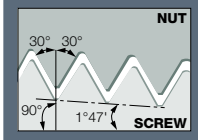






External right-hand shown

I N C H



Designation	Dimensions IC	TPI[2]	INSL	RE	PDX	PDY	NT[3]	Tough ↔ Hard IC228	IC50M	IC250	IC808	IC908	IC1007
16ER 27 NPT IC250	.375	27.0	.649	.0016	.0315	.0276	1			●			
16ER 27 NPT IC908	.375	27.0	.649	.0016	.0315	.0276	1					●	
16ER 18 NPT IC250	.375	18.0	.649	.0024	.0394	.0315	1			●			
16ER 18 NPT IC1007	.375	18.0	.649	.0024	.0433	.0354	1						●
16ER 18 NPT IC228	.375	18.0	.649	.0024	.0433	.0354	1	●					
16ER 18 NPT IC908	.375	18.0	.649	.0024	.0433	.0354	1					●	
16ERB 18 NPT IC908 [1]	.375	18.0	.649	.0024	.0433	.0354	1					●	
16ERM 18 NPT IC1007	.375	18.0	.649	.0020	.0394	.0315	1						●
16ERM 18 NPT IC808 [1]	.375	18.0	.649	.0020	.0394	.0315	1				●		
16ERM 18 NPT IC908 [1]	.375	18.0	.649	.0020	.0394	.0315	1					●	
16EL 14 NPT IC908	.375	14.0	.649	.0027	.0472	.0354	1					●	
16ER 14 NPT IC250	.375	14.0	.649	.0027	.0472	.0354	1			●			
16ER 14 NPT IC1007	.375	14.0	.649	.0027	.0472	.0354	1						●
16ER 14 NPT IC228	.375	14.0	.649	.0027	.0472	.0354	1	●					
16ER 14 NPT IC908	.375	14.0	.649	.0027	.0472	.0354	1					●	
16ERB 14 NPT IC908 [1]	.375	14.0	.649	.0027	.0472	.0354	1					●	
16ERM 14 NPT IC1007 [1]	.375	14.0	.649	.0020	.0472	.0354	1						●
16ERM 14 NPT IC250 [1]	.375	14.0	.649	.0020	.0472	.0354	1			●			
16ERM 14 NPT IC50M [1]	.375	14.0	.649	.0020	.0472	.0354	1		●				
16ERM 14 NPT IC808 [1]	.375	14.0	.649	.0020	.0472	.0354	1				●		
16ERM 14 NPT IC908 [1]	.375	14.0	.649	.0020	.0472	.0354	1					●	
16EL 11.5 NPT IC908	.375	11.5	.649	.0035	.0590	.0433	1					●	
16ER 11.5 NPT IC1007	.375	11.5	.649	.0035	.0590	.0433	1						●
16ER 11.5 NPT IC250	.375	11.5	.649	.0035	.0590	.0433	1			●			
16ER 11.5 NPT IC50M	.375	11.5	.649	.0035	.0590	.0433	1		●				
16ER 11.5 NPT IC908	.375	11.5	.649	.0035	.0590	.0433	1					●	
16ERB 11.5 NPT IC908 [1]	.375	11.5	.649	.0035	.0590	.0433	1					●	
16ERM 11.5 NPT IC1007 [1]	.375	11.5	.649	.0035	.0590	.0433	1						●
16ERM 11.5 NPT IC250 [1]	.375	11.5	.649	.0035	.0590	.0433	1			●			
16ERM 11.5 NPT IC808 [1]	.375	11.5	.649	.0035	.0590	.0433	1				●		
16ERM 11.5 NPT IC908 [1]	.375	11.5	.649	.0035	.0590	.0433	1					●	
16ER 8 NPT IC250	.375	8.0	.649	.0047	.0630	.0512	1			●			
16ER 8 NPT IC50M	.375	8.0	.649	.0047	.0630	.0512	1		●				
16ER 8 NPT IC908	.375	8.0	.649	.0047	.0630	.0512	1					●	
16ERB 8 NPT IC908 [1]	.375	8.0	.649	.0043	.0669	.0551	1					●	
16ERM 8 NPT IC1007	.375	8.0	.649	.0047	.0709	.0512	1						●
16ERM 8 NPT IC250 [1]	.375	8.0	.649	.0047	.0709	.0512	1			●			
16ERM 8 NPT IC808 [1]	.375	8.0	.649	.0047	.0709	.0512	1				●		
16ERM 8 NPT IC908 [1]	.375	8.0	.649	.0047	.0709	.0512	1					●	

- For Insert Identification System, see page 645 • For threading between walls use GRIP-type insert TIP-NPT • National Pipe Threads ANSI/ASME B1.20.1-1983
- For technical information and detailed cutting data, see pages 797-812

[1] With pressed chipformer
[2] Threads per inch
[3] Number of teeth per corner

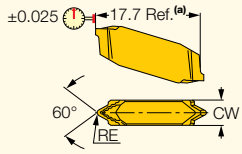
For tools, see pages: NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830) • SER/L (647)

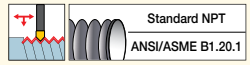
CUTGRIP

TIP-P-NPT

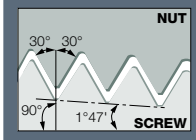
NPT (National Pipe Threads)
Precision Ground Double-Ended
External Full Profile Threading
Inserts with a Chipformer







M E T R I C

 Designation	Dimensions CW	RE	RETOL(1)	TPI(2)	Tough ↔ Hard IC08	IC908
TIP 2P27-NPT IC08	2.40	0.05	0.030	27.0	•	
TIP 2P27-NPT IC908	2.40	0.05	0.030	27.0		•
TIP 2P18-NPT IC08	2.40	0.07	0.030	18.0	•	
TIP 2P18-NPT IC908	2.40	0.07	0.030	18.0		•
TIP 2P14-NPT IC908	2.40	0.09	0.030	14.0		•
TIP 4P11.5-NPT IC08	4.00	0.10	0.030	11.5	•	
TIP 4P11.5-NPT IC908	4.00	0.10	0.030	11.5		•
TIP 4P8-NPT IC08	4.00	0.13	0.030	8.0	•	
TIP 4P8-NPT IC908	4.00	0.13	0.030	8.0		•

• (a) TIP inserts are 1.6 mm longer than GIP in the same pocket • Toolholder seat needs to be modified according to insert profile to ensure clearance
(1) Corner radius tolerance (+/-)
(2) Threads per inch

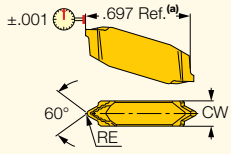
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

CUTGRIP

TIP-P-NPT

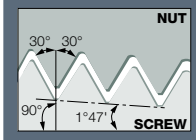
NPT (National Pipe Threads)
Precision Ground Double-Ended
External Full Profile Threading
Inserts with a Chipformer







I N C H

 Designation	Dimensions CW	RE	RETOL(1)	TPI(2)	Tough ↔ Hard IC08	IC908
TIP 2P27-NPT IC08	.094	.002	.0012	27.0	•	
TIP 2P27-NPT IC908	.094	.002	.0012	27.0		•
TIP 2P18-NPT IC08	.094	.003	.0012	18.0	•	
TIP 2P18-NPT IC908	.094	.003	.0012	18.0		•
TIP 2P14-NPT IC908	.094	.004	.0012	14.0		•
TIP 4P11.5-NPT IC08	.157	.004	.0012	11.5	•	
TIP 4P11.5-NPT IC908	.157	.004	.0012	11.5		•
TIP 4P8-NPT IC08	.157	.005	.0012	8.0	•	
TIP 4P8-NPT IC908	.157	.005	.0012	8.0		•

• (a) TIP inserts are .063" longer than GIP in the same pocket • Toolholder seat needs to be modified according to insert profile to ensure clearance
(1) Corner radius tolerance (+/-)
(2) Threads per inch

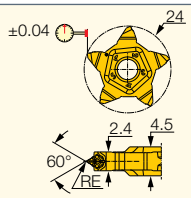
For tools, see pages: GHDR/L (short pocket) (331) • GHGR/L (332) • GHMPR/L (335) • GHMR/L (334) • GHSR/L (329) • GHSR/L-JHP-SL (327) • NQCH-GHSR/L-JHP (330)

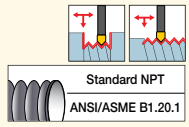
PENTACUT THREADING LINE

PENTA 24-NPT

NPT (National Pipe Threads)
Precision Ground Pentagonal
External Full Profile Threading
Inserts with a Chipformer

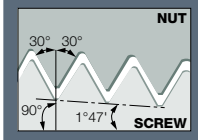






M E T R I C

Designation	Dimensions TPI[1]	Dimensions RE	IC908
PENTA 24-18-NPT IC908	18.0	0.07	●
PENTA 24-14-NPT IC908	14.0	0.09	●



[1] Threads per inch

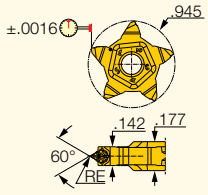
For tools, see pages: NQCH-PCHR/L-24-JHP (552) • PCHR/L-24 (547) • PCHR/L-24-JHP (548)

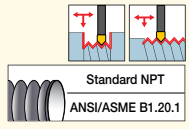
PENTACUT THREADING LINE

PENTA 24-NPT

NPT (National Pipe Threads)
Precision Ground Pentagonal
External Full Profile Threading
Inserts with a Chipformer

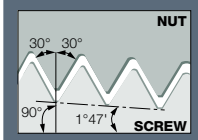






I N C H

Designation	Dimensions TPI[1]	Dimensions RE	IC908
PENTA 24-18-NPT IC908	18.0	.0027	●
PENTA 24-14-NPT IC908	14.0	.0035	●



[1] Threads per inch

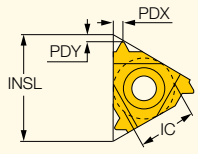
For tools, see pages: NQCH-PCHR/L-24-JHP (552) • PCHR/L-24 (547) • PCHR/L-24-JHP (548)

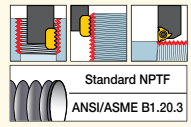
ISCARTHREAD

ER-NPTF

External NPTF (National Pipe Threads) Full Profile Laydown Threading Inserts for Steam, Gas and Water Pipes

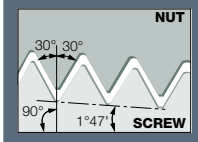






External right-hand shown

M E T R I C



Designation	Dimensions IC	TPI(1)	INSL	PDX	PDY	Tough ↔ Hard IC250	IC908
11ER 14 NPTF IC908	6.35	14.0	11.00	1.00	0.73		●
16ER 27 NPTF IC908	9.52	27.0	16.49	0.60	0.55		●
16ER 18 NPTF IC908	9.52	18.0	16.49	0.90	0.80		●
16ER 14 NPTF IC250	9.52	14.0	16.49	1.20	0.90	●	
16ER 14 NPTF IC908	9.52	14.0	16.49	1.20	0.90		●
16ER 11.5 NPTF IC908	9.52	11.5	16.49	1.50	1.10		●

• For Insert Identification System, see page 645 • (National Pipe Threads-Dry Seal) ANSI/ASME B1.20.1-1976 full profile • For technical information and detailed cutting data, see pages 797-812

(1) Threads per inch

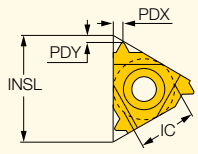
For tools, see pages: MTET Single Point (1219) • NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830) • SER/L (647)

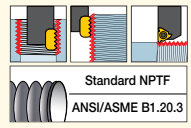
ISCARTHREAD

ER-NPTF

External NPTF (National Pipe Threads) Full Profile Laydown Threading Inserts, for Steam, Gas and Water Pipes

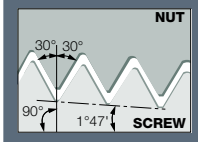






External right-hand shown

I N C H



Designation	Dimensions IC	TPI(1)	INSL	PDX	PDY	Tough ↔ Hard IC250	IC908
11ER 14 NPTF IC908	.250	14.0	.433	.0394	.0287		●
16ER 27 NPTF IC908	.375	27.0	.649	.0236	.0216		●
16ER 18 NPTF IC908	.375	18.0	.649	.0354	.0315		●
16ER 14 NPTF IC250	.375	14.0	.649	.0472	.0354	●	
16ER 14 NPTF IC908	.375	14.0	.649	.0472	.0354		●
16ER 11.5 NPTF IC908	.375	11.5	.649	.0590	.0433		●

• For Insert Identification System, see page 645 • (National Pipe Threads-Dry Seal) ANSI/ASME B1.20.1-1976 full profile

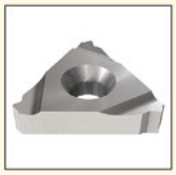
• For technical information and detailed cutting data, see pages 797-812

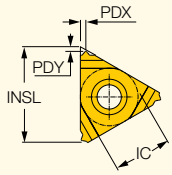
(1) Threads per inch

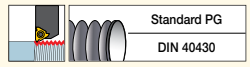
For tools, see pages: MTET Single Point (1219) • NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830) • SER/L (647)

ISCARTHREAD

ER-PG
External Threading Inserts
for the Electric Industry

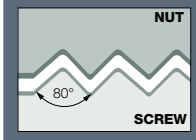






External right-hand shown

M E T R I C



Designation	Dimensions IC	TPI[1]	INSL	RE	PDX	PDY	Tough ↔ Hard IC08	IC908
16ER 20 PG IC908	9.52	20.0	16.49	0.13	0.80	0.70		●
16ER 18 PG IC08	9.52	18.0	16.49	0.15	0.90	0.80	●	
16ER 18 PG IC908	9.52	18.0	16.49	0.15	0.90	0.80		●
16ER 16 PG IC908	9.52	16.0	16.49	0.17	1.00	0.80		●

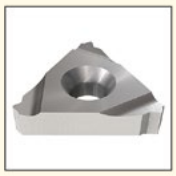
• For Insert Identification System, see page 645

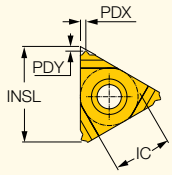
[1] Threads per inch

For tools, see pages: NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830) • SER/L (647)

ISCARTHREAD

ER-PG
External Threading Inserts
for the Electric Industry

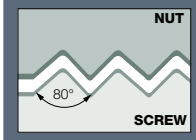






External right-hand shown

I N C H



Designation	Dimensions IC	TPI[1]	INSL	RE	PDX	PDY	Tough ↔ Hard IC08	IC908
16ER 20 PG IC908	.375	20.0	.649	.0051	.0315	.0276		●
16ER 18 PG IC08	.375	18.0	.649	.0059	.0354	.0315	●	
16ER 18 PG IC908	.375	18.0	.649	.0059	.0354	.0315		●
16ER 16 PG IC908	.375	16.0	.649	.0067	.0394	.0315		●

• For Insert Identification System, see page 645

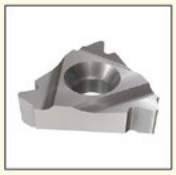
[1] Threads per inch

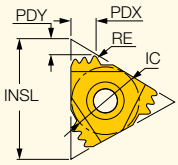
For tools, see pages: NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830) • SER/L (647)

ISCARTHREAD

ER/L-API RD

External API - Oil Thread Round Profile Laydown Threading Inserts

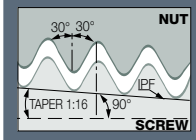






External right-hand shown

M E T R I C



Designation	Dimensions IC	IPF	TPI(1)	INSL	RE	PDX	PDY	NT(2)	Tough ↔ Hard IC250	IC908
16ER 10 API RD IC250	9.52	0.75	10.0	16.49	0.36	1.50	1.20	1	●	
16ER 10 API RD IC908	9.52	0.75	10.0	16.49	0.36	1.50	1.20	1		●
16EL 8 API RD IC908	9.52	0.75	8.0	16.49	0.43	1.60	1.35	1		●
16ER 8 API RD IC250	9.52	0.75	8.0	16.49	0.43	1.60	1.35	1	●	
16ER 8 API RD IC908	9.52	0.75	8.0	16.49	0.43	1.60	1.35	1		●

• For Insert Identification System, see page 645 • API Spec 5B8-1996 • For technical information and detailed cutting data, see pages 797-812

(1) Threads per inch

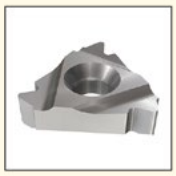
(2) Number of teeth per corner

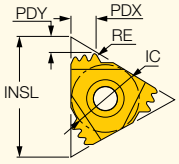
For tools, see pages: NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830) • SER/L (647)

ISCARTHREAD

ER/L-API RD

External API - Oil Thread Round Profile Laydown Threading Inserts

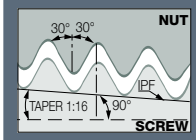






External right-hand shown

I N C H



Designation	Dimensions IC	IPF	TPI(2)	INSL	RE	PDX	PDY	NT(3)	Tough ↔ Hard IC250	IC908
16ER 10 API RD IC250	.375	0.75	10.0	.649	.0142	.0590	.0472	1	●	
16ER 10 API RD IC908	.375	0.75	10.0	.649	.0142	.0590	.0472	1		●
16EL 8 API RD IC908	.375	0.75	8.0	.649	.0169	.0630	.0532	1		●
16ER 8 API RD IC250	.375	0.75	8.0	.649	.0169	.0630	.0532	1	●	
16ER 8 API RD IC908	.375	0.75	8.0	.649	.0169	.0630	.0532	1		●

• For Insert Identification System, see page 645 • API Spec 5B8-1996 • For technical information and detailed cutting data, see pages 797-812

(1) Multi-tooth

(2) Threads per inch

(3) Number of teeth per corner

For tools, see pages: NQCH-SER/L-JHP (648) • SBTT#-16ER/L-JHP (830) • SER/L (647)

Thread Whirling

Iscar Thread Whirling offers solutions for producing long threads on small-diameter parts for various applications, such as dental implants, orthopedic and bone screws, automotive parts and more.

The Whirling head rotates eccentrically at high speed while the workpiece rotates slowly, enabling fast and accurate cutting.

The heads are suitable for Swiss-type machines such as **STAR, Citizen, Tornos, Hanwha, Tsugami, Nexturn,** and compatible whirling units including **PCM, WTO, MADAULA,** etc.

Perfect For Long Threads on Swiss Type Machines

- Single pass working ability reduces machining. time and increases productivity.
- A high accuracy Holder-Insert system along with special cutting-edge geometryleads to a high-quality surface finish.
- Multi-Insert holders reduce cycle time and increase tool life.
- Whirling toolholders consist of up to 6 inserts depend on the clamping diameter.
- Whirling inserts consist of three cutting edges with high indexability.
- Whirling inserts can produce single or double start threads in one pass.

Advantages

- Increased productivity
- Increased tool life
- Quick setup
- Enables producing long threads
- Enables high helix angle threads
- Short machine time
- High-quality surface finish

Lead time for whirling tools and inserts is 5-6 weeks. Whirling tools are provided on request. Attached is a list of available whirling tools according to the machine model being used. The customer should specify their specific thread profile and the required number of inserts in the cutter (or leave this decision to **ISCAR** designers). Inserts are PVD coated with IC908 grade.

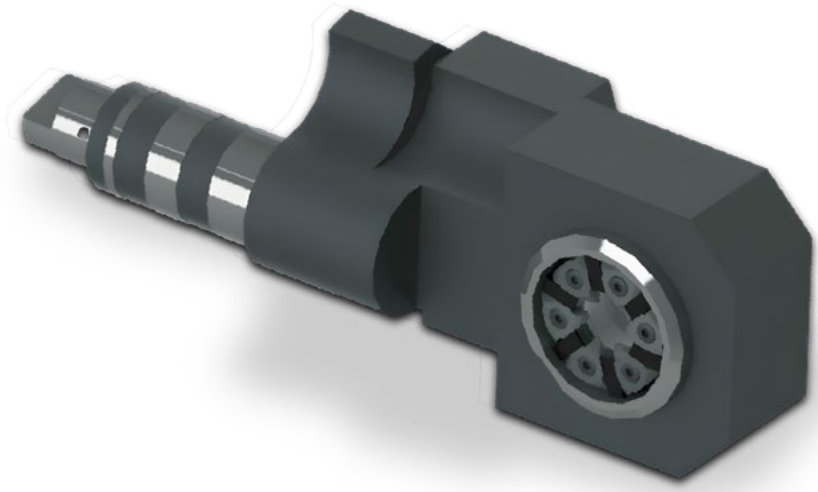


Thread Whirling

Machine and Whirling Unit Details are Required in Order to Offer a Suitable Toolholder

Machine		Whirling Unit	Whirling Holder Ordering Code	No. of Inserts	Cutting Diameter	Clamping Diameter	Insert Size
Brand	Model						
Star	SR20/ECAS20	Star	SRW4012 730 - 6	6	12	40	18W
	SR20/ECAS20	WTO	SRW4295 557 - 6	6	9.5	42	18W
Citizen	M30/M32	PCM	SRW4512 719 - 6	6	12	45	18W

* the table above serves as an example



Product Identification

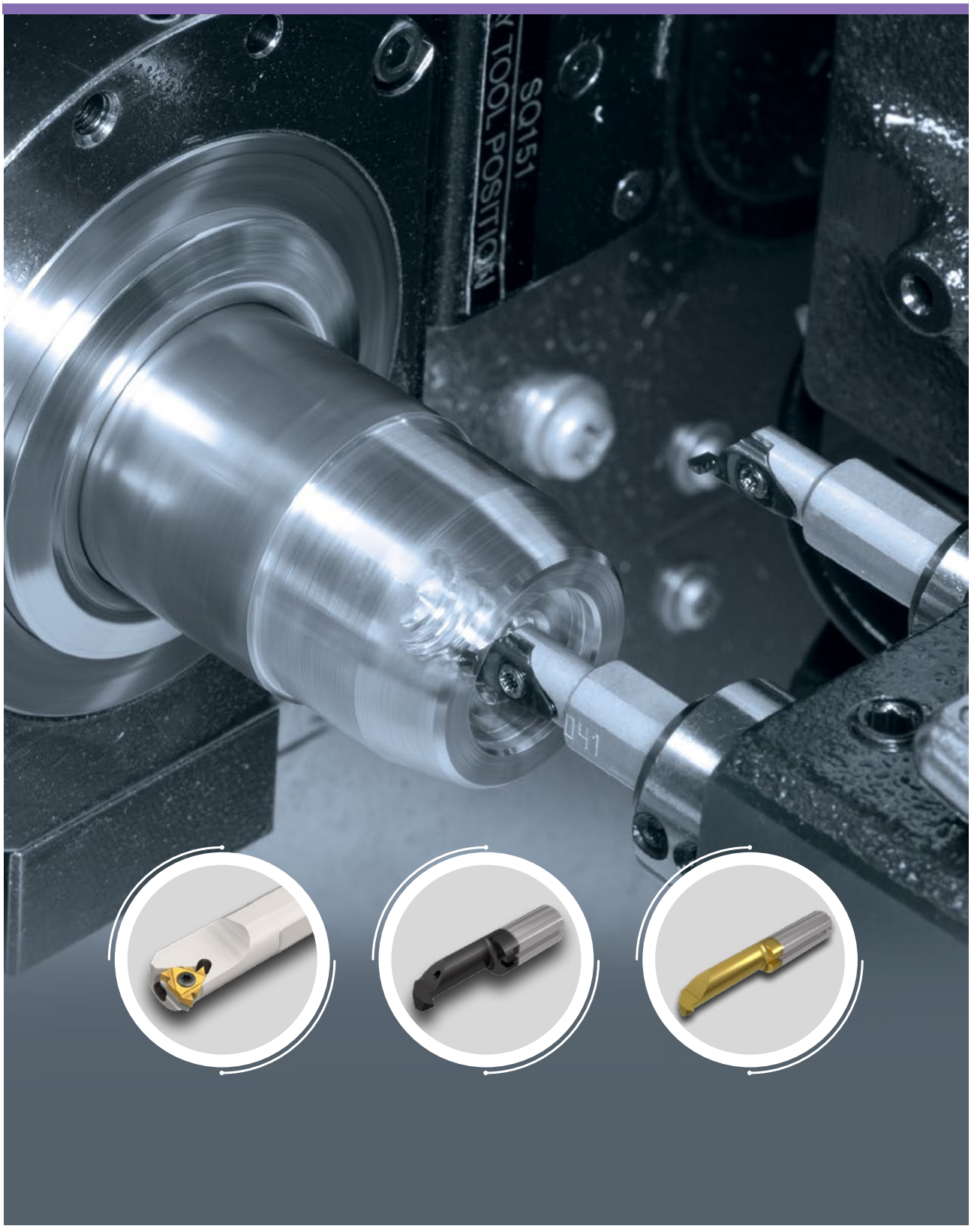
Whirling Toolholder

SR	W	45	12	719	-	6
Clamping type	Whirling	Clamping diameter	Cutting diameter	Tool Serial		No. of inserts Whirling

Whirling Insert

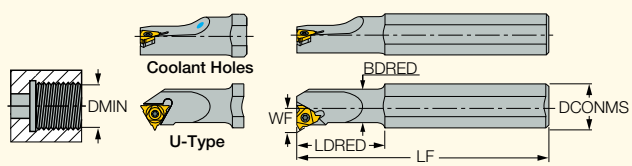
18W	E	L	1.25	###	-	IC##
Insert size	External	R-right hand L-left hand	Cutting diameter	Drawing Serial		Coating grade

INTERNAL THREADING



ISCARTHREAD

SIR/L
Internal Threading Bars



Right-hand shown

M E T R I C									
Designation	DMIN	DCONMS	BDRED	LF	LDRED	WF	CSP[3]	BMC[4]	Insert[5]
SIR/L 0005 H06CB [1]	6.40	6.00	5.10	100.00	25.0	4.30	1	H	06 IR/L..
SIR/L 0005 H06 [2]	6.40	12.00	5.10	100.00	12.0	4.30	0	S	06 IR/L..
SIR/L 0007 K08CB [1]	9.00	8.00	6.60	125.00	30.0	5.30	1	H	08 IR/L..
SIR/L 0008 K08UCB	9.00	8.00	7.30	125.00	35.0	6.40	1	H	08 UIRL..
SIR/L 0007 K08 [2]	9.00	16.00	6.60	125.00	18.0	5.30	0	S	08 IR/L..
SIR/L 0008 K08U [2]	9.00	16.00	7.30	125.00	21.0	6.60	0	S	08 UIRL..
SIR/L 0010 H11 [2]	12.00	10.00	10.00	100.00	-	7.40	0	S	11 IR/L..
SIR/L 0010 M11CB [1]	12.00	10.00	10.00	150.00	-	7.40	1	H	11 IR/L..
SIR 0010 H11B [2]	12.00	10.00	10.00	100.00	-	7.40	1	S	11 IR/L..
SIR/L 0010 K11 [2]	12.00	16.00	10.00	125.00	25.0	6.50	0	S	11 IR/L..
SIR/L 0010 K11B [2]	12.00	16.00	10.00	125.00	25.0	7.40	1	S	11 IR/L..
SIR/L 0012 P11CB [1]	15.00	12.00	12.00	170.00	-	8.40	1	H	11 IR/L..
SIR/L 0013 L11 [2]	15.00	16.00	13.00	140.00	32.0	8.90	0	S	11 IR/L..
SIR/L 0013 M16 [2]	16.00	16.00	13.00	150.00	32.0	10.00	0	S	16 IR/L..
SIR/L 0013 M16B [2]	16.00	16.00	13.00	150.00	32.0	10.20	1	S	16 IR/L..
SIR/L 0016 R16CB [2]	19.00	16.00	16.00	200.00	-	11.70	1	H	16 IR/L..
SIR/L 0016 P16 [2]	19.00	20.00	16.00	170.00	40.0	11.40	0	S	16 IR/L..
SIR/L 0016 P16B [2]	19.00	20.00	16.00	170.00	40.0	11.70	1	S	16 IR/L..

- B-steel shank with coolant hole, C-carbide shank without coolant hole, CB-carbide shank with coolant hole • All toolholders are made for 1.5 helix angle
- For GTGA inserts, use anvil AI 16-0

[1] Toolholder without anvil
[2] Carbide shank without anvil
[3] 0 - Without coolant supply, 1 - With coolant supply
[4] H-carbide,S-steel
[5] Right-hand inserts (IR) for right-hand tools (SIR)

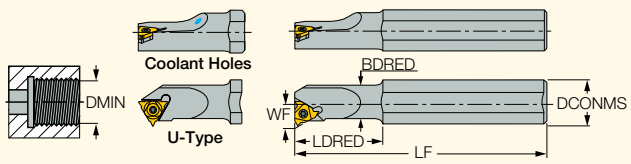
For inserts, see pages: GTMA (434) • IR/L-55° (751) • IR/L-60° (772) • IR/L-ABUT (786) • IR/L-ACME (785) • IR/L-API RD (796) • IR/L-BSPT (749) • IR-MJ (793) • IR/L-ISO (755) • IR/L-NPT (788) • IR/L-RND (782) • IR/L-STACME (784) • IR/L-TR (783) • IR/L-UN (762) • IR/L-W (741) • IR/L-UNJ (791) • IR/L-PG (795) • IR/L-SAGE (787) • IR/L-NPTF (790) • GTGA (433)

Spare Parts

Designation			
SIR/L 0005 H06CB	SR 14-552	T-6/5	
SIR/L 0005 H06	SR 14-552	T-6/5	
SIR/L 0007 K08CB	SR 14-558	T-6/5	
SIR/L 0008 K08UCB	SR 14-558	T-6/5	
SIR/L 0007 K08	SR 14-558	T-6/5	
SIR/L 0008 K08U	SR 14-558	T-6/5	
SIR/L 0010 H11	SR M2.6-L6.7-S11	T-8/5	
SIR/L 0010 M11CB	SR M2.6-L6.7-S11	T-8/5	
SIR 0010 H11B	SR M2.6-L6.7-S11	T-8/5	
SIR/L 0010 K11	SR M2.6-L6.7-S11	T-8/5	
SIR/L 0010 K11B	SR M2.6-L6.7-S11	T-8/5	PL 16
SIR/L 0012 P11CB	SR M2.6-L6.7-S11	T-8/5	
SIR/L 0013 L11	SR M2.6-L6.7-S11	T-8/5	
SIR/L 0013 M16	SR 5-40-L9.7-S16S	T-10/5	
SIR/L 0013 M16B	SR 5-40-L9.7-S16S	T-10/5	PL 16
SIL 0016 R16CB	SR 5-40-L9.7-S16S	T-10/5	
SIR 0016 R16CB	SR 5-40-L9.7-S16S	T-10/5	
SIR/L 0016 P16	SR 5-40-L9.7-S16S	T-10/5	
SIR/L 0016 P16B	SR 5-40-L9.7-S16S	T-10/5	PL 20

ISCARTHREAD

SIR/L
Internal Threading Bars



Right-hand shown

	I N C H								
Designation	**DCONMS**	**BDRED**	**LF**	**LDRED**	**DMIN**	**WF**	**CSP(3)**	**BMC(4)**	**Insert(5)**
SIL 0205 H06 (1)	.500	.200	4.000	.500	.250	.170	0	S	06 IL..
SIR 0205 H06CB (2)	.250	.200	4.000	1.000	.240	.170	1	H	06 IR..
SIR 0205 H06-W (1)	.500	.200	4.000	.500	.250	.170	0	S	06 IR/IL..
SIR/L 0265 K08 (1)	.625	.260	5.000	.710	.354	.210	0	S	08 IR/IL..
SIR 0265 K08CB (2)	.315	.260	5.000	1.200	.355	.210	1	H	08 IR..
SIR/L 0310 K08U (1)	.625	.290	5.000	.710	.315	.210	0	S	08 UIRL..
SIR 0310 K08UCB (2)	.315	.290	5.000	1.400	.355	.250	1	H	08 UIRL..
SIR/L 0375 H11 (1)	.375	.375	4.000	-	.500	.290	0	S	11 IR/IL..
SIR/L 0375 K11 (1)	.620	.380	5.000	1.000	.470	.260	0	S	11 IR/IL..
SIR/L 0375 K11B (1)	.625	.380	5.000	.980	.470	.280	1	S	11 IR/IL..
SIR 0375 M11CB (2)	.375	.375	6.000	-	.500	.290	1	H	11 IR..
SIR/L 0500 L11 (1)	.625	.500	5.500	1.250	.630	.320	0	S	11 IR/IL..
SIR 0500 P11CB (2)	.500	.500	7.000	-	.600	.330	1	H	11 IR..
SIR/L 0500 M16 (1)	.625	.500	6.000	1.250	.640	.390	0	S	16 IR/IL..
SIR/L 0500 M16B (1)	.625	.500	6.000	1.260	.640	.390	1	S	16 IR/IL..
SIR/L 0625 P16 (1)	.750	.625	7.000	1.500	.750	.450	0	S	16 IR/IL..
SIR/L 0625 P16B (1)	.750	.625	7.000	1.570	.750	.450	1	S	16 IR/IL..
SIR 0625 R16CB (2)	.625	.625	8.000	-	.750	.460	1	H	16 IR..

- B-steel shank with coolant hole, C-carbide shank without coolant hole, CB-carbide shank with coolant hole • All toolholders are made for 1.5 helix angle
- For GTGA inserts, use anvil AI 16-0

(1) Toolholder without anvil
(2) Carbide shank without anvil
(3) 0 - Without coolant supply, 1 - With coolant supply
(4) H-carbide,S-steel
(5) Right-hand inserts (IR) for right-hand tools (SIR)

For inserts, see pages: GTMA (434) • IR/L-55° (751) • IR/L-60° (772) • IR/L-ABUT (786) • IR/L-ACME (785) • IR/L-API RD (796) • IR/L-BSPT (749) • IR/L-ISO (755) • IR/L-NPT (788) • IR/L-RND (782) • IR/L-STACME (784) • IR/L-TR (783) • IR/L-UN (762) • IR/L-W (741) • IR/L-UNJ (791) • IR/L-PG (795) • IR/L-SAGE (787) • IR/L-NPTF (790) • IR-MJ (793) • GTGA (433)

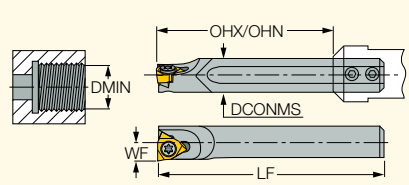
Spare Parts

Designation			
SIL 0205 H06	SR 14-552	T-6/5	
SIR 0205 H06CB	SR 14-552	T-6/5	
SIR 0205 H06-W	SR 14-552	T-6/5	
SIR/L 0265 K08	SR 14-558	T-6/5	
SIR 0265 K08CB	SR 14-558	T-6/5	
SIR/L 0310 K08U	SR 14-558	T-6/5	
SIR 0310 K08UCB	SR 14-558	T-6/5	
SIR/L 0375 H11	SR M2.6-L6.7-S11	T-8/5	
SIR/L 0375 K11	SR M2.6-L6.7-S11	T-8/5	
SIR/L 0375 K11B	SR M2.6-L6.7-S11	T-8/5	PL 062
SIR 0375 M11CB	SR M2.6-L6.7-S11	T-8/5	
SIR/L 0500 L11	SR M2.6-L6.7-S11	T-8/5	
SIR 0500 P11CB	SR M2.6-L6.7-S11	T-8/5	
SIR/L 0500 M16	SR 5-40-L9.7-S16S	T-10/5	
SIR/L 0500 M16B	SR 5-40-L9.7-S16S	T-10/5	PL 062
SIR/L 0625 P16	SR 5-40-L9.7-S16S	T-10/5	
SIR/L 0625 P16B	SR 5-40-L9.7-S16S	T-10/5	PL 075
SIR 0625 R16CB	SR 5-40-L9.7-S16S	T-10/5	

ISCARTHREAD

MGSIR/L

Solid Carbide Bars for Internal Turning and Threading



Right hand tool shown

M E T R I C

Designation	DCONMS	LF	OHN(1)	OHX(2)	WF	DMIN	CSP(3)	MIID(4)		
MGSIL 06-06	6.00	59.00	16.0	42.0	3.90	7.00	0	06 IL../ILM..	SR 14-552	T-6/5
MGSIR 06-06	6.00	59.00	16.0	42.0	3.90	7.00	0	06 IR../IRM..	SR 14-552	T-6/5
MGSIL 08-06	8.00	72.00	20.0	56.0	5.00	9.20	0	06 IL../ILM..	SR 14-552	T-6/5
MGSIR 08-06	8.00	72.00	20.0	56.0	5.00	9.20	0	06 IR../IRM..	SR 14-552	T-6/5

- In order to maintain high machining reliability, we strongly recommend replacing the clamping screw every 10 insert indexes

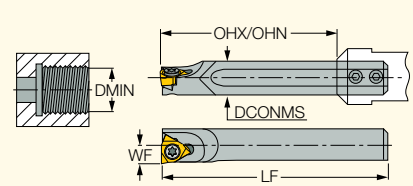
(1) Minimum overhang in adjustment range
(2) Maximum overhang in adjustment range
(3) 0 - Without coolant supply, 1 - With coolant supply
(4) Master insert identification

For inserts, see pages: IR/L-55° (751) • IR/L-60° (772) • IR/L-BSPT (749) • IR/L-ISO (755) • IR/L-NPT (788) • IR/L-NPTF (790) • IR/L-UN (762) • IR/L-W (741)
For holders, see pages: SC-PICCO (836)

ISCARTHREAD

MGSIR/L

Solid Carbide Bars for Internal Turning and Threading



Right hand tool shown

I N C H

Designation	DCONMS	LF	OHN(1)	OHX(2)	WF	DMIN	CSP(3)	MIID(4)		
MGSIL 06-06	.236	2.323	.63	1.654	.154	.276	0	06 IR../IRM..	SR 14-552	T-6/5
MGSIR 06-06	.236	2.323	.63	1.654	.154	.276	0	06 IL../ILM..	SR 14-552	T-6/5
MGSIL 08-06	.315	2.835	.79	2.205	.197	.362	0	06 IR../IRM..	SR 14-552	T-6/5
MGSIR 08-06	.315	2.835	.79	2.205	.197	.362	0	06 IL../ILM..	SR 14-552	T-6/5

- In order to maintain high machining reliability, we strongly recommend replacing the clamping screw every 10 insert indexes

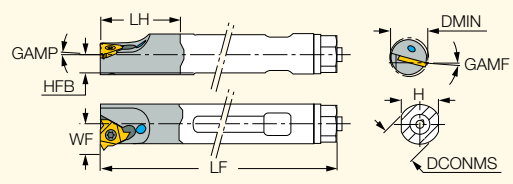
(1) Minimum overhang in adjustment range
(2) Maximum overhang in adjustment range
(3) 0 - Without coolant supply, 1 - With coolant supply
(4) Master insert identification

For inserts, see pages: IR/L-55° (751) • IR/L-60° (772) • IR/L-BSPT (749) • IR/L-ISO (755) • IR/L-NPT (788) • IR/L-NPTF (790) • IR/L-UN (762) • IR/L-W (741)
For holders, see pages: SC-PICCO (836)

ISCARTHREAD

E-SIR-HEAD

Interchangeable Threading Heads for Carbide Bars



Right-hand shown

M E T R I C

Designation	DCONMS	LF	LH	H	HFB	WF	GAMP(1)	GAMF(2)	DMIN	Insert		
E12 SIR-11 HEAD	12.00	179.00	24.8	11.0	5.5	8.30	1.5	-15.0	14.90	11 IRM../11 IR	T-8/5	SR M2.6-L6.7-S11
E16 SIR-16 HEAD	16.00	200.00	37.0	15.0	8.0	10.30	1.5	-15.0	20.00	16 IRM../16 IR	T-10/5	SR 5-40-L9.7-S16S

(1) Rake angle axial
(2) Rake angle radial

For inserts, see: All IR11.., IR16.. laydown threading inserts
For holders, see page: E-SHANK (125)

I N C H

Designation	DCONMS	LF	LH	H	HFB	WF	GAMP(1)	GAMF(2)	DMIN	Hand		
E12 SIR-11 HEAD	.625	7.000	1.170	.590	.295	.430	1.5	-15.0	.787	R	T-10/5	SR 5-40-L9.7-S16S

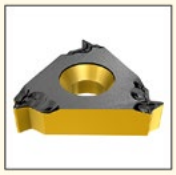
(1) Rake angle axial
(2) Rake angle radial

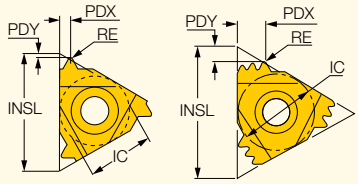
For inserts, see: All IR11.. laydown threading inserts
For holders, see page: E-SHANK (125)

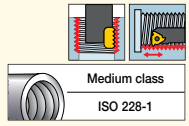
ISCARTHREAD

IR/L-W

Internal Whitworth
(BSW, BSF, BSP) B.S.84-1956
DIN 259 Medium Class Full
Profile Laydown Threading Inserts

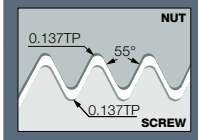






Internal left-hand shown

M E T R I C



Designation	Dimensions IC	TPI[3]	INSL	RE	PDX	PDY	NT[4]	Tough ↔ Hard IC228	IC928	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
06IR 26 W IC228	4.00	26.0	6.88	0.10	0.60	0.70	1	•								
08IR 28 W IC228	5.00	28.0	8.24	0.12	0.60	0.50	1	•								
08IR 19 W IC228	5.00	19.0	8.24	0.16	0.70	0.60	1	•								
08IR 19 W IC908	5.00	19.0	8.24	0.16	0.70	0.60	1								•	
08IR 19 W IC928	5.00	19.0	8.24	0.16	0.70	0.60	1		•							
08IR 18 W IC228	5.00	18.0	8.24	0.16	0.70	0.60	1	•								
08IR 16 W IC228	5.00	16.0	8.24	0.18	0.70	0.60	1	•								
11IR 36 W IC08	6.35	36.0	11.00	0.08	0.60	0.60	1					•				
11IR 28 W IC250	6.35	28.0	11.00	0.13	0.60	0.60	1				•					
11IRB 28 W IC908	6.35	28.0	11.00	0.10	0.60	0.60	1								•	
11IR 26 W IC228	6.35	26.0	11.00	0.12	0.60	0.60	1	•								
11IL 24 W IC908	6.35	24.0	11.00	0.15	0.80	0.80	1								•	
11IR 24 W IC908	6.35	24.0	11.00	0.15	0.80	0.80	1								•	
11IRB 24 W IC908	6.35	24.0	11.00	0.11	0.60	0.60	1								•	
11IR 20 W IC250	6.35	20.0	11.00	0.14	0.90	0.80	1				•					
11IR 20 W IC908	6.35	20.0	11.00	0.14	0.90	0.80	1								•	
11IRB 20 W IC908	6.35	20.0	11.00	0.14	0.90	0.80	1								•	
11IR 19 W IC1007	6.35	19.0	11.00	0.18	0.90	0.80	1									•
11IR 19 W IC250	6.35	19.0	11.00	0.18	0.90	0.80	1				•					
11IR 19 W IC908	6.35	19.0	11.00	0.18	0.90	0.80	1								•	
11IRB 19 W IC908	6.35	19.0	11.00	0.17	0.90	0.70	1								•	
11IL 18 W IC908	6.35	18.0	11.00	0.16	1.00	0.80	1								•	
11IR 18 W IC908	6.35	18.0	11.00	0.18	1.00	0.80	1								•	
11IRB 18 W IC908	6.35	18.0	11.00	0.18	1.00	0.90	1								•	
11IR 16 W IC908	6.35	16.0	11.00	0.18	1.10	0.90	1								•	
11IRB 16 W IC908	6.35	16.0	11.00	0.20	0.95	0.85	1								•	
11IL 14 W IC908	6.35	14.0	11.00	0.23	1.10	0.90	1								•	
11IR 14 W IC08	6.35	14.0	11.00	0.23	1.10	0.90	1					•				
11IR 14 W IC1007	6.35	14.0	11.00	0.23	1.10	0.90	1									•
11IR 14 W IC228	6.35	14.0	11.00	0.23	1.10	0.90	1	•								
11IR 14 W IC250	6.35	14.0	11.00	0.23	1.10	0.90	1				•					
11IR 14 W IC908	6.35	14.0	11.00	0.23	1.10	0.90	1								•	
11IRB 14 W IC908	6.35	14.0	11.00	0.23	1.00	0.90	1								•	
16IR 32 W IC50M	9.52	32.0	16.49	0.09	0.60	0.60	1			•						
16IR 28 W IC250	9.52	28.0	16.49	0.09	0.70	0.60	1				•					
16IR 26 W IC908	9.52	26.0	16.49	0.12	0.80	0.80	1								•	
16IR 24 W IC908	9.52	24.0	16.49	0.11	0.80	0.70	1								•	
16IR 22 W IC908	9.52	22.0	16.49	0.13	0.90	0.80	1								•	
16IL 20 W IC250	9.52	20.0	16.49	0.14	0.90	0.80	1				•					
16IL 20 W IC908	9.52	20.0	16.49	0.14	0.90	0.80	1								•	
16IR 20 W IC250	9.52	20.0	16.49	0.14	0.90	0.80	1				•					
16IR 20 W IC908	9.52	20.0	16.49	0.16	0.80	0.70	1								•	
16IRM 20 W IC908 [1]	9.52	20.0	16.49	0.14	0.90	0.80	1								•	
16IR 19 W IC250	9.52	19.0	16.49	0.17	0.80	0.70	1				•					
16IR 19 W IC908	9.52	19.0	16.49	0.17	0.80	0.70	1								•	
16IRB 19 W IC908 [1]	9.52	19.0	16.49	0.17	0.80	0.70	1								•	
16IRM 19 W IC250 [1]	9.52	19.0	16.49	0.15	1.00	0.80	1				•					
16IL 18 W IC908	9.52	18.0	16.49	0.18	0.80	0.80	1								•	
16IR 18 W IC908	9.52	18.0	16.49	0.18	0.80	0.80	1								•	
16IR 16 W IC908	9.52	16.0	16.49	0.20	1.00	1.00	1								•	

• For Insert Identification System, see page 645 • Tolerance: medium class • For technical information and detailed cutting data, see pages 797-812

[1] With pressed chipformer

[2] Multi-tooth

[3] Threads per inch

[4] Number of teeth per corner

For tools, see pages: E-SIR-HEAD (740) • MGSIR/L (740) • MTET Single Point (1219) • PICIN-A-SIR/L (480) • PICIN-MGSIR/L (480) • SIR/L (738)

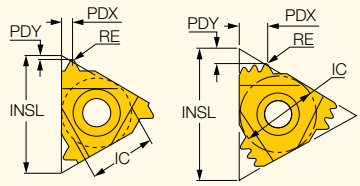
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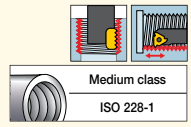
ISCARTHREAD

IR/L-W

Internal Whitworth
(BSW, BSF, BSP) B.S.84-1956
DIN 259 Medium Class Full
Profile Laydown Threading Inserts

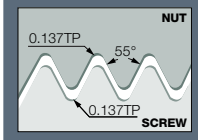






Internal left-hand shown

M E T R I C



Designation	Dimensions IC	TPI[3]	INSL	RE	PDX	PDY	NT[4]	Tough ↔ Hard IC228	IC928	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
16IRB 16 W IC908 [1]	9.52	16.0	16.49	0.20	1.20	1.00	1								•	
16IRM 16 W IC808 [1]	9.52	16.0	16.49	0.18	1.10	0.90	1							•		
16IRM 16 W IC908 [1]	9.52	16.0	16.49	0.18	1.10	0.90	1								•	
16IL 14 W IC908	9.52	14.0	16.49	0.23	1.20	1.00	1								•	
16IR 14 W IC08	9.52	14.0	16.49	0.23	1.20	1.00	1					•				
16IR 14 W IC1007	9.52	14.0	16.49	0.23	1.20	1.00	1									•
16IR 14 W IC228	9.52	14.0	16.49	0.23	1.20	1.00	1	•								
16IR 14 W IC250	9.52	14.0	16.49	0.23	1.20	1.00	1				•					
16IR 14 W IC908	9.52	14.0	16.49	0.23	1.20	1.00	1								•	
16IR 14 W 2M IC1007	9.52	14.0	16.49	0.19	2.60	1.70	2									•
16IR 14 W 2M IC908 [2]	9.52	14.0	16.49	0.23	2.60	1.70	2								•	
16IRB 14 W IC908 [1]	9.52	14.0	16.49	0.23	1.20	1.00	1								•	
16IRM 14 W IC1007 [1]	9.52	14.0	16.49	0.21	1.20	1.00	1									•
16IRM 14 W IC250 [1]	9.52	14.0	16.49	0.21	1.20	1.00	1				•					
16IRM 14 W IC808 [1]	9.52	14.0	16.49	0.21	1.20	1.00	1							•		
16IRM 14 W IC908 [1]	9.52	14.0	16.49	0.21	1.20	1.00	1								•	
16IR 12 W IC908	9.52	12.0	16.49	0.27	1.50	1.20	1								•	
16IL 11 W IC908	9.52	11.0	16.49	0.29	1.50	1.10	1								•	
16IR 11 W IC08	9.52	11.0	16.49	0.29	1.50	1.10	1					•				
16IR 11 W IC1007	9.52	11.0	16.49	0.29	1.50	1.10	1									•
16IR 11 W IC228	9.52	11.0	16.49	0.29	1.50	1.10	1	•								
16IR 11 W IC250	9.52	11.0	16.49	0.29	1.50	1.10	1				•					
16IR 11 W IC50M	9.52	11.0	16.49	0.29	1.50	1.10	1			•						
16IR 11 W IC908	9.52	11.0	16.49	0.29	1.50	1.10	1								•	
16IRB 11 W IC908 [1]	9.52	11.0	16.49	0.28	1.50	1.10	1								•	
16IRM 11 W IC1007 [1]	9.52	11.0	16.49	0.27	1.50	1.10	1									•
16IRM 11 W IC250 [1]	9.52	11.0	16.49	0.27	1.50	1.10	1				•					
16IRM 11 W IC508 [1]	9.52	11.0	16.49	0.27	1.50	1.10	1						•			
16IRM 11 W IC808 [1]	9.52	11.0	16.49	0.27	1.50	1.10	1							•		
16IRM 11 W IC908 [1]	9.52	11.0	16.49	0.27	1.50	1.10	1								•	
16IR 10 W IC908	9.52	10.0	16.49	0.32	1.10	1.10	1								•	
16IRB 10 W IC908 [1]	9.52	10.0	16.49	0.31	1.50	1.10	1								•	
16IR 9 W IC250	9.52	9.0	16.49	0.34	1.70	1.20	1				•					
16IL 8 W IC50M	9.52	8.0	16.49	0.41	1.10	1.10	1			•						
16IL 8 W IC908	9.52	8.0	16.49	0.41	1.50	1.10	1								•	
16IR 8 W IC908	9.52	8.0	16.49	0.41	1.10	1.10	1								•	

• For Insert Identification System, see page 645 • Tolerance: medium class • For technical information and detailed cutting data, see pages 797-812

[1] With pressed chipformer

[2] Multi-tooth

[3] Threads per inch

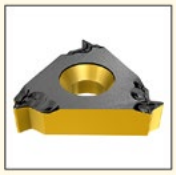
[4] Number of teeth per corner

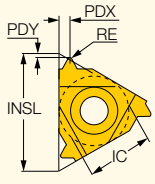
For tools, see pages: E-SIR-HEAD (740) • MGSIR/L (740) • MTET Single Point (1219) • PICIN-A-SIR/L (480) • PICIN-MGSIR/L (480) • SIR/L (738)

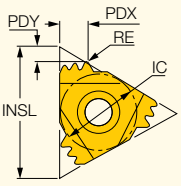
ISCARTHREAD

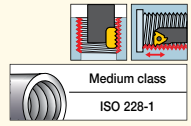
IR/L-W

Internal Whitworth
(BSW, BSF, BSP) B.S.84-1956
DIN 259 Medium Class Full
Profile Laydown Threading Inserts



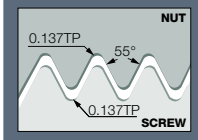






Internal left-hand shown

I N C H



Designation	Dimensions IC	TPI[3]	INSL	RE	PDX	PDY	NT[4]	Tough ↔ Hard IC228	IC928	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
06IR 26 W IC228	.157	26.0	.271	.0039	.0236	.0276	1	•								
08IR 28 W IC228	.197	28.0	.324	.0047	.0236	.0197	1	•								
08IR 19 W IC228	.197	19.0	.324	.0063	.0276	.0236	1	•								
08IR 19 W IC908	.197	19.0	.324	.0063	.0276	.0236	1								•	
08IR 19 W IC928	.197	19.0	.324	.0063	.0276	.0236	1		•							
08IR 18 W IC228	.197	18.0	.324	.0063	.0276	.0236	1	•								
08IR 16 W IC228	.197	16.0	.324	.0071	.0276	.0236	1	•								
11IR 36 W IC08	.250	36.0	.433	.0032	.0236	.0236	1					•				
11IR 28 W IC250	.250	28.0	.433	.0049	.0236	.0236	1				•					
11IRB 28 W IC908	.250	28.0	.433	.0039	.0236	.0236	1								•	
11IR 26 W IC228	.250	26.0	.433	.0047	.0236	.0236	1	•								
11IL 24 W IC908	.250	24.0	.433	.0059	.0315	.0315	1								•	
11IR 24 W IC908	.250	24.0	.433	.0059	.0315	.0315	1								•	
11IRB 24 W IC908	.250	24.0	.433	.0043	.0236	.0236	1								•	
11IR 20 W IC250	.250	20.0	.433	.0055	.0354	.0315	1				•					
11IR 20 W IC908	.250	20.0	.433	.0055	.0354	.0315	1								•	
11IRB 20 W IC908	.250	20.0	.433	.0055	.0354	.0315	1								•	
11IR 19 W IC1007	.250	19.0	.433	.0071	.0354	.0315	1									•
11IR 19 W IC250	.250	19.0	.433	.0071	.0354	.0315	1				•					
11IR 19 W IC908	.250	19.0	.433	.0071	.0354	.0315	1								•	
11IRB 19 W IC908	.250	19.0	.433	.0067	.0354	.0276	1								•	
11IL 18 W IC908	.250	18.0	.433	.0063	.0394	.0315	1								•	
11IR 18 W IC908	.250	18.0	.433	.0071	.0394	.0315	1								•	
11IRB 18 W IC908	.250	18.0	.433	.0071	.0394	.0354	1								•	
11IR 16 W IC908	.250	16.0	.433	.0071	.0433	.0354	1								•	
11IRB 16 W IC908	.250	16.0	.433	.0079	.0374	.0335	1								•	
11IL 14 W IC908	.250	14.0	.433	.0091	.0433	.0354	1								•	
11IR 14 W IC08	.250	14.0	.433	.0091	.0433	.0354	1					•				
11IR 14 W IC1007	.250	14.0	.433	.0091	.0433	.0354	1									•
11IR 14 W IC228	.250	14.0	.433	.0091	.0433	.0354	1	•								
11IR 14 W IC250	.250	14.0	.433	.0091	.0433	.0354	1				•					
11IR 14 W IC908	.250	14.0	.433	.0091	.0433	.0354	1								•	
11IRB 14 W IC908	.250	14.0	.433	.0091	.0394	.0354	1								•	
16IR 32 W IC50M	.375	32.0	.649	.0035	.0236	.0236	1			•						
16IR 28 W IC250	.375	28.0	.649	.0035	.0276	.0236	1				•					
16IR 26 W IC908	.375	26.0	.649	.0047	.0315	.0315	1								•	
16IR 24 W IC908	.375	24.0	.649	.0043	.0315	.0276	1								•	
16IR 22 W IC908	.375	22.0	.649	.0051	.0354	.0315	1								•	
16IL 20 W IC250	.375	20.0	.649	.0055	.0354	.0315	1				•					
16IL 20 W IC908	.375	20.0	.649	.0055	.0354	.0315	1								•	
16IR 20 W IC250	.375	20.0	.649	.0055	.0354	.0315	1				•					
16IR 20 W IC908	.375	20.0	.649	.0063	.0315	.0276	1								•	
16IRM 20 W IC908 [1]	.375	20.0	.649	.0055	.0354	.0315	1								•	
16IR 19 W IC250	.375	19.0	.649	.0067	.0315	.0276	1				•					
16IR 19 W IC908	.375	19.0	.649	.0067	.0315	.0276	1								•	
16IRB 19 W IC908 [1]	.375	19.0	.649	.0067	.0315	.0276	1								•	
16IRM 19 W IC250 [1]	.375	19.0	.649	.0059	.0394	.0315	1				•					
16IL 18 W IC908	.375	18.0	.649	.0071	.0315	.0315	1								•	
16IR 18 W IC908	.375	18.0	.649	.0071	.0315	.0315	1								•	
16IR 16 W IC908	.375	16.0	.649	.0079	.0394	.0394	1								•	
16IRB 16 W IC908 [1]	.375	16.0	.649	.0079	.0472	.0394	1								•	

• For Insert Identification System, see page 645 • Tolerance: medium class • For technical information and detailed cutting data, see pages 797-812

[1] With pressed chipformer
[2] Multi-tooth
[3] Threads per inch
[4] Number of teeth per corner

For tools, see pages: E-SIR-HEAD (740) • MGSIR/L (740) • MTET Single Point (1219) • PICIN-A-SIR/L (480) • PICIN-MGSIR/L (480) • SIR/L (738)

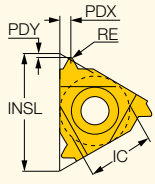
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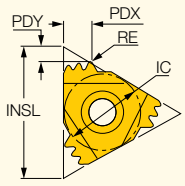
ISCARTHREAD

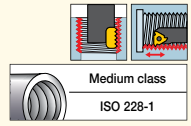
IR/L-W

Internal Whitworth
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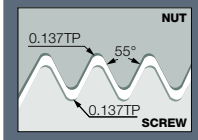






Internal left-hand shown

I N C H



Designation	Dimensions IC	TPI[3]	INSL	RE	PDX	PDY	NT[4]	Tough ↔ Hard IC228	IC928	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
16IRM 16 W IC808 [1]	.375	16.0	.649	.0071	.0433	.0354	1							•		
16IRM 16 W IC908 [1]	.375	16.0	.649	.0071	.0433	.0354	1								•	
16IL 14 W IC908	.375	14.0	.649	.0091	.0472	.0394	1								•	
16IR 14 W IC08	.375	14.0	.649	.0091	.0472	.0394	1					•				
16IR 14 W IC1007	.375	14.0	.649	.0091	.0472	.0394	1									•
16IR 14 W IC228	.375	14.0	.649	.0091	.0472	.0394	1	•								
16IR 14 W IC250	.375	14.0	.649	.0091	.0472	.0394	1				•					
16IR 14 W IC908	.375	14.0	.649	.0091	.0472	.0394	1								•	
16IR 14 W 2M IC1007	.375	14.0	.649	.0075	.1024	.0669	2									•
16IR 14 W 2M IC908 [2]	.375	14.0	.649	.0091	.1024	.0669	2								•	
16IRB 14 W IC908 [1]	.375	14.0	.649	.0091	.0472	.0394	1								•	
16IRM 14 W IC1007 [1]	.375	14.0	.649	.0083	.0472	.0394	1									•
16IRM 14 W IC250 [1]	.375	14.0	.649	.0083	.0472	.0394	1				•					
16IRM 14 W IC808 [1]	.375	14.0	.649	.0083	.0472	.0394	1							•		
16IRM 14 W IC908 [1]	.375	14.0	.649	.0083	.0472	.0394	1								•	
16IR 12 W IC908	.375	12.0	.649	.0106	.0590	.0472	1								•	
16IL 11 W IC908	.375	11.0	.649	.0114	.0590	.0433	1								•	
16IR 11 W IC08	.375	11.0	.649	.0114	.0590	.0433	1					•				
16IR 11 W IC1007	.375	11.0	.649	.0114	.0590	.0433	1									•
16IR 11 W IC228	.375	11.0	.649	.0114	.0590	.0433	1	•								
16IR 11 W IC250	.375	11.0	.649	.0114	.0590	.0433	1				•					
16IR 11 W IC50M	.375	11.0	.649	.0114	.0590	.0433	1			•						
16IR 11 W IC908	.375	11.0	.649	.0114	.0590	.0433	1								•	
16IRB 11 W IC908 [1]	.375	11.0	.649	.0110	.0590	.0433	1								•	
16IRM 11 W IC1007 [1]	.375	11.0	.649	.0106	.0590	.0433	1									•
16IRM 11 W IC250 [1]	.375	11.0	.649	.0106	.0590	.0433	1				•					
16IRM 11 W IC508 [1]	.375	11.0	.649	.0106	.0590	.0433	1						•			
16IRM 11 W IC808 [1]	.375	11.0	.649	.0106	.0590	.0433	1							•		
16IRM 11 W IC908 [1]	.375	11.0	.649	.0106	.0590	.0433	1								•	
16IR 10 W IC908	.375	10.0	.649	.0126	.0433	.0433	1								•	
16IRB 10 W IC908 [1]	.375	10.0	.649	.0122	.0590	.0433	1								•	
16IR 9 W IC250	.375	9.0	.649	.0134	.0669	.0472	1				•					
16IL 8 W IC50M	.375	8.0	.649	.0161	.0433	.0433	1			•						
16IL 8 W IC908	.375	8.0	.649	.0161	.0590	.0433	1								•	
16IR 8 W IC908	.375	8.0	.649	.0161	.0433	.0433	1								•	

• For Insert Identification System, see page 645 • Tolerance: medium class • For technical information and detailed cutting data, see pages 797-812

[1] With pressed chipformer

[2] Multi-tooth

[3] Threads per inch

[4] Number of teeth per corner

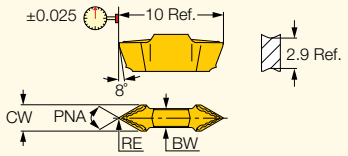
For tools, see pages: E-SIR-HEAD (740) • MGSIR/L (740) • MTET Single Point (1219) • PICIN-A-SIR/L (480) • PICIN-MGSIR/L (480) • SIR/L (738)

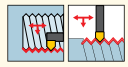
CUT-GRIP

GEPI-WT

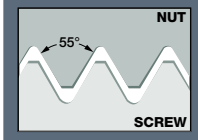
Precision Ground Double-Ended Threading Inserts with a 55° Partial Profile and a Chipformer for 11.5 mm Bore Diameter







M E T R I C



Designation	Dimensions CW	RE	RETOL(1)	PNA	BW	TPN(2)	TPX(3)	TPIN(4)	TPIX(5)	Tough ↔ Hard IC08	IC908
GEPI 2.5-WT0.05 IC08	2.50	0.05	0.030	55.0	1.80	0.470	2.540	10.00	54.00	●	
GEPI 2.5-WT0.05 IC908	2.50	0.05	0.030	55.0	1.80	0.470	2.540	10.00	54.00		●

- Toolholder seat needs to be modified according to insert profile to ensure clearance • Pitch max 0.167xD, TPI min D/6.0
- Internal & External tolerance: B.S.84 Medium class

(1) Corner radius tolerance (+/-)
(2) Thread pitch minimum (mm)
(3) Thread pitch maximum (mm)
(4) Threads per inch minimum
(5) Threads per inch maximum

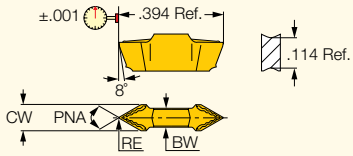
For tools, see pages: E-GEHIR / E-GHIR (425) • GEHIR/L (421) • GEHSR/L-SL (322)

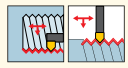
CUT-GRIP

GEPI-WT

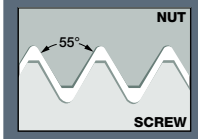
Precision Ground Double-Ended Threading Inserts with a 55° Partial Profile and a Chipformer for .453" Bore Diameter







I N C H



Designation	Dimensions CW	RE	RETOL(1)	PNA	BW	TPN (mm)(2)	TPX (mm)(3)	TPIN(4)	TPIX(5)	Tough ↔ Hard IC08	IC908
GEPI 2.5-WT0.05 IC08	.098	.002	.0012	55.0	.071	.470	2.540	10.00	54.00	●	
GEPI 2.5-WT0.05 IC908	.098	.002	.0012	55.0	.071	.470	2.540	10.00	54.00		●

- Toolholder seat needs to be modified according to insert profile to ensure clearance • Pitch max 0.167xD, TPI min D/6.0
- Internal & External tolerance: B.S.84 Medium class

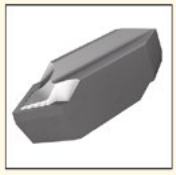
(1) Corner radius tolerance (+/-)
(2) Thread pitch minimum (mm)
(3) Thread pitch maximum (mm)
(4) Threads per inch minimum
(5) Threads per inch maximum

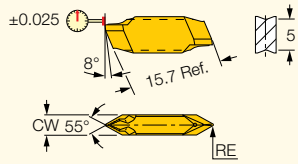
For tools, see pages: E-GEHIR / E-GHIR (425) • GEHIMR/L (419) • GEHIMR/L-SC (420) • GEHIR/L (421) • GEHIR/L-SC (423) • GEHSR/L-SL (322)

CUTGRIP

TIPI-WT

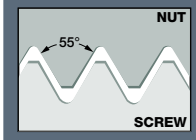
Double-Ended Internal Threading Inserts with a 55° Partial Profile and a Chipformer for 20 mm Min. Bore Diameter







M E T R I C



Designation	Dimensions CW	RE	RETOL(1)	TPN(2)	TPIX(3)	TPIN(4)	Tough ↔ Hard IC08	IC908
TIPI 3.4WT-0.10 IC08	3.40	0.10	0.030	0.950	27.00	8.00	•	
TIPI 3.4WT-0.10 IC908	3.40	0.10	0.030	0.950	27.00	8.00		•

• Toolholder seat needs to be modified according to insert profile to ensure clearance • Pitch max 0.187xD, TPI min D/5.25 D=Diameter of thread (pitch max<=CW)

(1) Corner radius tolerance (+/-)

(2) Thread pitch minimum (mm)

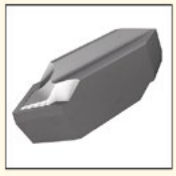
(3) Threads per inch maximum

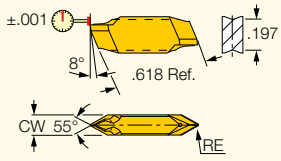
(4) Threads per inch minimum

CUTGRIP

TIPI-WT

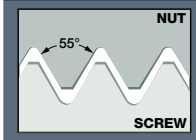
Double-Ended Internal Threading Inserts with a 55° Partial Profile and a Chipformer for .787" Min. Bore Diameter







I N C H



Designation	Dimensions CW	RE	RETOL(1)	TPN (mm)(2)	TPIX(3)	TPIN(4)	Tough ↔ Hard IC08	IC908
TIPI 3.4WT-0.10 IC08	.134	.004	.0012	.950	27.00	8.00	•	
TIPI 3.4WT-0.10 IC908	.134	.004	.0012	.950	27.00	8.00		•

• Toolholder seat needs to be modified according to insert profile to ensure clearance • Pitch max 0.187xD, TPI min D/5.25 D=Diameter of thread (pitch max<=CW)

(1) Corner radius tolerance (+/-)

(2) Thread pitch minimum (mm)

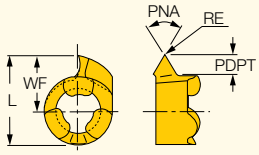
(3) Threads per inch maximum

(4) Threads per inch minimum

CHAMGROOVE

GIQR/L-WT
Internal Inserts with Whitworth Partial Profile for Threading in 8 mm and Larger Holes

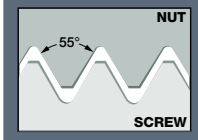






Left hand insert shown

M E T R I C



Designation	Dimensions L	RE	PNA	PDPT	WF	DMIN	TPIN(1)	TPIX(2)	IC528
GIQR/L 8-WT-0.05 IC528	7.78	0.05	55.0	1.50	4.80	8.00	16.00	50.00	●
GIQR/L 11-WT-0.05 IC528	10.68	0.05	55.0	2.00	6.70	11.00	11.00	50.00	●

• Can be used for thread milling by circular interpolation • TPI min D/5.9 • D-diameter of thread (pitch max<=W) • For cutting speed recommendations, see pages 797-812

(1) Threads per inch minimum

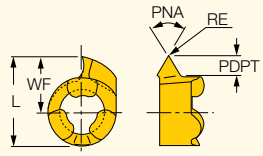
(2) Threads per inch maximum

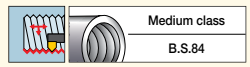
For tools, see pages: MG (407) • MGCH (408)

CHAMGROOVE

GIQR/L-WT
Internal Inserts with Whitworth Partial Profile for Threading in .31" and Larger Holes

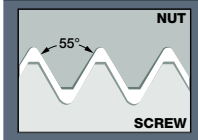






Left hand insert shown

I N C H



Designation	Dimensions L	RE	PNA	PDPT	WF	DMIN	TPIN(1)	TPIX(2)	IC528
GIQR/L 8-WT-0.05 IC528	.306	.002	55.0	.059	.189	.315	16.00	50.00	●
GIQR/L 11-WT-0.05 IC528	.420	.002	55.0	.079	.264	.433	11.00	50.00	●

• Can be used for thread milling by circular interpolation • TPI min D/5.9 • D-diameter of thread (pitch max<=W) • For cutting speed recommendations, see pages 797-812

(1) Threads per inch minimum

(2) Threads per inch maximum

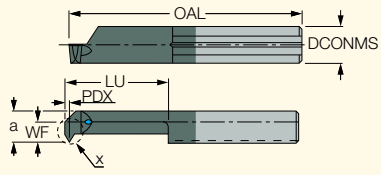
For tools, see pages: MG (407) • MGCH (408)

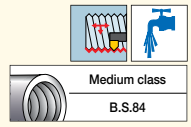
PICCOJET COOLANT THROUGH

PICJ RTH (55° Threading)

Inserts with Inner Coolant Channel for 55° Internal Threading Profile

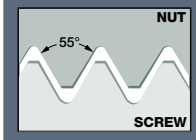






Right hand shown

M E T R I C



Designation	Dimensions											IC908
	DCONMS	DMIN	HC	CF	PDX	WF	a	OHN(1)	OAL	TPIX(2)	TPIN(3)	
PICJ RTH14W24D060	6.00	6.00	0.81	0.12	0.80	2.30	5.30	15.0	30.00	24.00	16.00	●
PICJ RTH14W24D070	7.00	7.00	0.81	0.12	0.80	2.80	6.30	15.0	30.00	24.00	16.00	●

• All mini-bars have sharp corners • For detailed cutting data, see pages 797-812 • PICJ items are suitable for PICCO/MG PCO, PICCO ACE, SC-PICCO type holders only

(1) Minimum overhang

(2) Threads per inch maximum

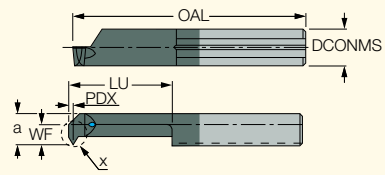
(3) Threads per inch minimum

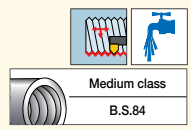
PICCOJET COOLANT THROUGH

PICJ RTH (55° Threading)

Inserts with Inner Coolant Channel for 55° Internal Threading Profile

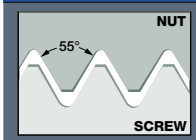






Right hand shown

I N C H



Designation	Dimensions											IC908
	DCONMS	DMIN	HC	CF	PDX	WF	a	OHN(1)	OAL	TPIX(2)	TPIN(3)	
PICJ RTH14W24D060	.236	.236	.032	.005	.0315	.091	.209	.59	1.181	24.00	16.00	●
PICJ RTH14W24D070	.276	.276	.032	.005	.0315	.110	.248	.59	1.181	24.00	16.00	●

• All mini-bars have sharp corners • For detailed cutting data, see pages 797-812 • PICJ items are suitable for PICCO/MG PCO, PICCO ACE, SC-PICCO type holders only

(1) Minimum overhang

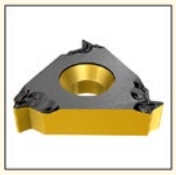
(2) Threads per inch maximum

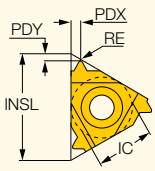
(3) Threads per inch minimum

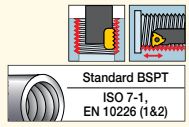
ISCARTHREAD

IR/L-BSPT

Internal BSPT (British Standard Pipe) B.S.21-1957 Full Profile Laydown Threading Inserts

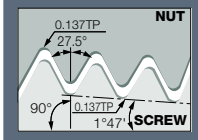






Internal left-hand shown

M E T R I C



Designation	Dimensions IC	TPI[2]	INSL	RE	PDX	PDY	Tough ↔ Hard IC228	IC250	IC808	IC908	IC1007
06IR 28 BSPT IC228	4.00	28.0	6.88	0.11	0.60	0.70	•				
08IR 28 BSPT IC228	5.00	28.0	8.24	0.13	0.60	0.50	•				
08IR 19 BSPT IC228	5.00	19.0	8.24	0.18	0.80	0.60	•				
11IR 19 BSPT IC250	6.35	19.0	11.00	0.16	0.90	0.80		•			
11IR 19 BSPT IC1007	6.35	19.0	11.00	0.16	0.90	0.90					•
11IR 19 BSPT IC908	6.35	19.0	11.00	0.16	0.90	0.90				•	
11IL 14 BSPT IC908	6.35	14.0	11.00	0.23	1.00	0.90				•	
11IR 14 BSPT IC908	6.35	14.0	11.00	0.23	1.00	0.90				•	
16IR 28 BSPT IC908	9.52	28.0	16.49	0.11	0.60	0.60				•	
16IR 19 BSPT IC250	9.52	19.0	16.49	0.16	0.90	0.80		•			
16IL 14 BSPT IC908	9.52	14.0	16.49	0.21	1.20	1.00				•	
16IR 14 BSPT IC908	9.52	14.0	16.49	0.23	1.20	1.00				•	
16IRB 14 BSPT IC908 [1]	9.52	14.0	16.49	0.23	1.20	1.00				•	
16IRM 14 BSPT IC1007 [1]	9.52	14.0	16.49	0.21	1.20	1.00					•
16IRM 14 BSPT IC808 [1]	9.52	14.0	16.49	0.21	1.20	1.00			•		
16IRM 14 BSPT IC908 [1]	9.52	14.0	16.49	0.21	1.20	1.00				•	
16IL 11 BSPT IC908	9.52	11.0	16.49	0.29	1.50	1.10				•	
16IR 11 BSPT IC228	9.52	11.0	16.49	0.29	1.50	1.10	•				
16IR 11 BSPT IC250	9.52	11.0	16.49	0.29	1.50	1.10		•			
16IR 11 BSPT IC908	9.52	11.0	16.49	0.29	1.50	1.10				•	
16IRB 11 BSPT IC908 [1]	9.52	11.0	16.49	0.29	1.50	1.10				•	
16IRM 11 BSPT IC1007 [1]	9.52	11.0	16.49	0.28	1.50	1.10					•
16IRM 11 BSPT IC808 [1]	9.52	11.0	16.49	0.28	1.50	1.10			•		
16IRM 11 BSPT IC908 [1]	9.52	11.0	16.49	0.28	1.50	1.10				•	

• For Insert Identification System, see page 645 • For technical information and detailed cutting data, see pages 797-812

[1] With pressed chipformer

[2] Threads per inch

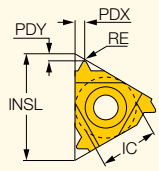
For tools, see pages: E-SIR-HEAD (740) • MGSIR/L (740) • MTET Single Point (1219) • PICIN-A-SIR/L (480) • PICIN-MGSIR/L (480) • SIR/L (738)

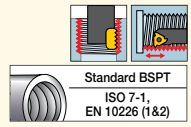
ISCARTHREAD

IR/L-BSPT

Internal BSPT (British Standard Pipe) B.S.21-1957 Full Profile Laydown Threading Inserts

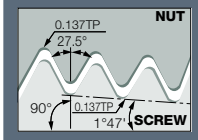






Internal left-hand shown

I N C H



Designation	Dimensions IC	TPI[2]	INSL	RE	PDX	PDY	Tough ↔ Hard IC228	IC250	IC808	IC908	IC1007
06IR 28 BSPT IC228	.157	28.0	.271	.0043	.0236	.0276	●				
08IR 28 BSPT IC228	.197	28.0	.324	.0051	.0236	.0197	●				
08IR 19 BSPT IC228	.197	19.0	.324	.0071	.0315	.0236	●				
11IR 19 BSPT IC250	.250	19.0	.433	.0063	.0354	.0315		●			
11IR 19 BSPT IC1007	.250	19.0	.433	.0063	.0354	.0354					●
11IR 19 BSPT IC908	.250	19.0	.433	.0063	.0354	.0354				●	
11IL 14 BSPT IC908	.250	14.0	.433	.0091	.0394	.0354				●	
11IR 14 BSPT IC908	.250	14.0	.433	.0091	.0394	.0354				●	
16IR 28 BSPT IC908	.375	28.0	.649	.0043	.0236	.0236				●	
16IR 19 BSPT IC250	.375	19.0	.649	.0063	.0354	.0315		●			
16IL 14 BSPT IC908	.375	14.0	.649	.0083	.0472	.0394				●	
16IR 14 BSPT IC908	.375	14.0	.649	.0091	.0472	.0394				●	
16IRB 14 BSPT IC908 [1]	.375	14.0	.649	.0091	.0472	.0394				●	
16IRM 14 BSPT IC1007 [1]	.375	14.0	.649	.0083	.0472	.0394					●
16IRM 14 BSPT IC808 [1]	.375	14.0	.649	.0083	.0472	.0394			●		
16IRM 14 BSPT IC908 [1]	.375	14.0	.649	.0083	.0472	.0394				●	
16IL 11 BSPT IC908	.375	11.0	.649	.0114	.0590	.0433				●	
16IR 11 BSPT IC228	.375	11.0	.649	.0114	.0590	.0433	●				
16IR 11 BSPT IC250	.375	11.0	.649	.0114	.0590	.0433		●			
16IR 11 BSPT IC908	.375	11.0	.649	.0114	.0590	.0433				●	
16IRB 11 BSPT IC908 [1]	.375	11.0	.649	.0114	.0590	.0433				●	
16IRM 11 BSPT IC1007 [1]	.375	11.0	.649	.0110	.0590	.0433					●
16IRM 11 BSPT IC808 [1]	.375	11.0	.649	.0110	.0590	.0433			●		
16IRM 11 BSPT IC908 [1]	.375	11.0	.649	.0110	.0590	.0433				●	

• For Insert Identification System, see page 645 • For technical information and detailed cutting data, see pages 797-812

[1] With pressed chipformer

[2] Threads per inch

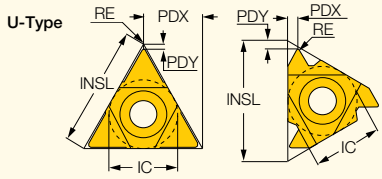
For tools, see pages: • E-SIR-HEAD (740) • MGSIR/L (740) • MTET Single Point (1219) • PICIN-A-SIR/L (480) • PICIN-MGSIR/L (480) • SIR/L (738)

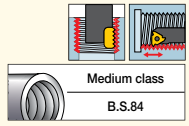
ISCARTHREAD

IR/L-55°

Internal Laydown Threading Inserts with a 55° Partial Profile for General Applications

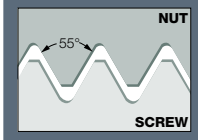






Internal left-hand shown

M E T R I C



Designation	Dimensions IC	TPIX(2)	TPIN(3)	INSL	RE	PDX	PDY	Tough ↔ Hard IC228	IC928	IC50M	IC250	IC508	IC808	IC908	IC1007
06IL A 55 IC228	4.00	48.00	20.00	6.88	0.07	0.60	0.55	●							
06IR A 55 IC228	4.00	48.00	20.00	6.88	0.08	0.60	0.55	●							
08IL A 55 IC228	5.00	48.00	16.00	8.24	0.08	0.70	0.60	●							
08IR A 55 IC228	5.00	48.00	16.00	8.24	0.08	0.70	0.60	●							
08IR A 55 IC908	5.00	48.00	16.00	8.24	0.08	0.70	0.60							●	
08IR A 55 IC928	5.00	48.00	16.00	8.24	0.08	0.70	0.60		●						
08UIRL U 55 IC228	5.00	18.00	12.00	8.66	0.10	4.33	0.90	●							
11IL A 55 IC250	6.35	48.00	16.00	11.00	0.05	0.90	0.80				●				
11IL A 55 IC908	6.35	48.00	16.00	11.00	0.05	0.90	0.80							●	
11IR A 55 IC1007	6.35	48.00	16.00	11.00	0.05	0.90	0.80								●
11IR A 55 IC228	6.35	48.00	16.00	11.00	0.05	0.90	0.80	●							
11IR A 55 IC250	6.35	48.00	16.00	11.00	0.05	0.90	0.80				●				
11IR A 55 IC908	6.35	48.00	16.00	11.00	0.05	0.90	0.80							●	
16IR A 55 IC50M	9.52	48.00	16.00	16.49	0.05	0.90	0.80			●					
16IR A 55 IC908	9.52	48.00	16.00	16.49	0.05	0.90	0.80							●	
16IL AG 55 IC908	9.52	48.00	8.00	16.49	0.07	1.70	1.20							●	
16IR AG 55 IC250	9.52	48.00	8.00	16.49	0.07	1.70	1.20				●				
16IR AG 55 IC908	9.52	48.00	8.00	16.49	0.07	1.70	1.20							●	
16IRB AG 55 IC908 (1)	9.52	48.00	8.00	16.49	0.07	1.70	1.20							●	
16IRM AG 55 IC1007 (1)	9.52	48.00	8.00	16.49	0.05	1.70	1.20								●
16IRM AG 55 IC250 (1)	9.52	48.00	8.00	16.49	0.05	1.70	1.20				●				
16IRM AG 55 IC808 (1)	9.52	48.00	8.00	16.49	0.05	1.70	1.20						●		
16IRM AG 55 IC908 (1)	9.52	48.00	8.00	16.49	0.05	1.70	1.20							●	
16IL G 55 IC908	9.52	14.00	8.00	16.49	0.20	1.70	1.20							●	
16IR G 55 IC250	9.52	14.00	8.00	16.49	0.23	1.70	1.20				●				
16IR G 55 IC508	9.52	14.00	8.00	16.49	0.23	1.70	1.20					●			
16IR G 55 IC908	9.52	14.00	8.00	16.49	0.23	1.70	1.20							●	
16IRB G 55 IC908 (1)	9.52	14.00	8.00	16.49	0.23	1.70	1.20							●	
16IRM G 55 IC1007	9.52	14.00	8.00	16.49	0.20	1.70	1.20								●
16IRM G 55 IC250 (1)	9.52	14.00	8.00	16.49	0.20	1.70	1.20				●				
16IRM G 55 IC808 (1)	9.52	14.00	8.00	16.49	0.20	1.70	1.20						●		
16IRM G 55 IC908 (1)	9.52	14.00	8.00	16.49	0.20	1.70	1.20							●	

- For insert identification system, see page 645 • For threading between walls use GRIP-type inserts TIP-WT, GEPI-WT, TIPI-WT.
- For detailed cutting data, see pages 797-812

(1) With pressed chipformer

(2) Threads per inch maximum

(3) Threads per inch minimum

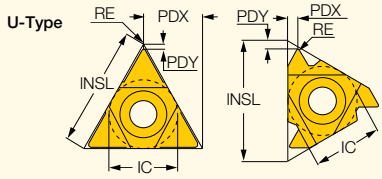
For tools, see pages: E-SIR-HEAD (740) • MGSIR/L (740) • MTET Single Point (1219) • PICIN-A-SIR/L (480) • PICIN-MGSIR/L (480) • SIR/L (738)

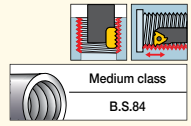
ISCARTHREAD

IR/L-55°

Internal Laydown Threading Inserts with a 55° Partial Profile for General Applications

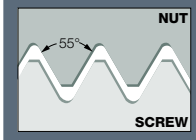






Internal left-hand shown

I N C H



Designation	Dimensions IC	TPIX(2)	TPIN(3)	INSL	RE	PDX	PDY	Tough ↔ Hard IC228	IC928	IC50M	IC250	IC508	IC808	IC908	IC1007
06IL A 55 IC228	.157	48.00	20.00	.271	.0029	.0236	.0216	•							
06IR A 55 IC228	.157	48.00	20.00	.271	.0032	.0236	.0216	•							
08IL A 55 IC228	.197	48.00	16.00	.324	.0031	.0276	.0236	•							
08IR A 55 IC228	.197	48.00	16.00	.324	.0031	.0276	.0236	•							
08IR A 55 IC908	.197	48.00	16.00	.324	.0031	.0276	.0236							•	
08IR A 55 IC928	.197	48.00	16.00	.324	.0031	.0276	.0236		•						
08UIRL U 55 IC228	.197	18.00	12.00	.341	.0039	.1705	.0354	•							
11IL A 55 IC250	.250	48.00	16.00	.433	.0020	.0354	.0315				•				
11IL A 55 IC908	.250	48.00	16.00	.433	.0020	.0354	.0315							•	
11IR A 55 IC1007	.250	48.00	16.00	.433	.0020	.0354	.0315								•
11IR A 55 IC228	.250	48.00	16.00	.433	.0020	.0354	.0315	•							
11IR A 55 IC250	.250	48.00	16.00	.433	.0020	.0354	.0315				•				
11IR A 55 IC908	.250	48.00	16.00	.433	.0020	.0354	.0315							•	
16IR A 55 IC50M	.375	48.00	16.00	.649	.0020	.0354	.0315			•					
16IR A 55 IC908	.375	48.00	16.00	.649	.0020	.0354	.0315							•	
16IL AG 55 IC908	.375	48.00	8.00	.649	.0027	.0669	.0472							•	
16IR AG 55 IC250	.375	48.00	8.00	.649	.0027	.0669	.0472				•				
16IR AG 55 IC908	.375	48.00	8.00	.649	.0027	.0669	.0472							•	
16IRB AG 55 IC908 (1)	.375	48.00	8.00	.649	.0027	.0669	.0472							•	
16IRM AG 55 IC1007 (1)	.375	48.00	8.00	.649	.0020	.0669	.0472								•
16IRM AG 55 IC250 (1)	.375	48.00	8.00	.649	.0020	.0669	.0472				•				
16IRM AG 55 IC808 (1)	.375	48.00	8.00	.649	.0020	.0669	.0472						•		
16IRM AG 55 IC908 (1)	.375	48.00	8.00	.649	.0020	.0669	.0472							•	
16IL G 55 IC908	.375	14.00	8.00	.649	.0079	.0669	.0472							•	
16IR G 55 IC250	.375	14.00	8.00	.649	.0091	.0669	.0472				•				
16IR G 55 IC508	.375	14.00	8.00	.649	.0091	.0669	.0472					•			
16IR G 55 IC908	.375	14.00	8.00	.649	.0091	.0669	.0472							•	
16IRB G 55 IC908 (1)	.375	14.00	8.00	.649	.0091	.0669	.0472							•	
16IRM G 55 IC1007	.375	14.00	8.00	.649	.0079	.0669	.0472								•
16IRM G 55 IC250 (1)	.375	14.00	8.00	.649	.0079	.0669	.0472				•				
16IRM G 55 IC808 (1)	.375	14.00	8.00	.649	.0079	.0669	.0472						•		
16IRM G 55 IC908 (1)	.375	14.00	8.00	.649	.0079	.0669	.0472							•	

- For insert identification system, see pages 645 • For threading between walls use GRIP-type inserts TIP-WT, GEPI-WT, TIPI-WT.
- For detailed cutting data, see pages 797-812

(1) With pressed chipformer

(2) Threads per inch maximum

(3) Threads per inch minimum

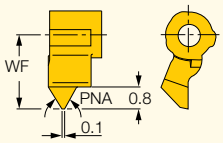
For tools, see pages: E-SIR-HEAD (740) • MGSIR/L (740) • MTET Single Point (1219) • PICIN-A-SIR/L (480) • PICIN-MGSIR/L (480) • SIR/L (738)

MINICHAM

UMGR-A55

Mini Indexable Inserts with Whitworth Partial Profile for Threading in 5.2 mm and Larger Holes

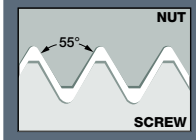






Right hand insert shown

M E T R I C



Designation	Dimensions WF	PNA	TPIX(1)	TPIN(2)	TPN(3)	TPX(4)	DMIN	IC508
UMGR 4.0-A55 IC508	2.70	55.0	40.00	24.00	0.500	1.400	5.20	●

(1) Threads per inch maximum
(2) Threads per inch minimum
(3) Thread pitch minimum (mm)
(4) Thread pitch maximum (mm)

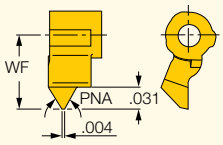
For tools, see pages: MGUHR (402)

MINICHAM

UMGR-A55

Mini Indexable Inserts with Whitworth Partial Profile for Threading in .205" and Larger Holes

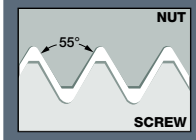






Right hand insert shown

I N C H



Designation	Dimensions WF	PNA	TPIX(1)	TPIN(2)	TPN (mm)(3)	TPX (mm)(4)	DMIN	IC508
UMGR 4.0-A55 IC508	.106	55.0	40.00	24.00	.500	1.400	.205	●

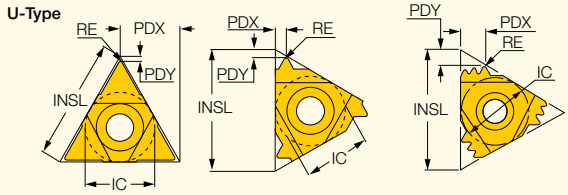
(1) Threads per inch maximum
(2) Threads per inch minimum
(3) Thread pitch minimum (mm)
(4) Thread pitch maximum (mm)

ISCARTHREAD

IR/L-ISO

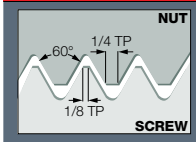
Internal ISO Metric
(DIN13 12-1986 class 6H)
Laydown Threading Inserts
for General Applications





Internal left-hand shown

M E T R I C



Designation	Dimensions IC	TP[3]	INSL	RE	PDX	PDY	NT[4]	Tough ↔ Hard IC28	IC228	IC928	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
06IL 0.50 ISO IC228	4.00	0.500	6.88	0.04	0.40	0.60	1		•								
06IR 0.50 ISO IC228	4.00	0.500	6.88	0.04	0.40	0.60	1		•								
06IR 0.50 ISO IC908	4.00	0.500	6.88	0.04	0.40	0.60	1									•	
06IR 0.50 ISO IC928	4.00	0.500	6.88	0.04	0.40	0.60	1			•							
06IL 0.75 ISO IC228	4.00	0.750	6.88	0.06	0.50	0.60	1		•								
06IR 0.75 ISO IC228	4.00	0.750	6.88	0.06	0.50	0.60	1		•								
06IR 0.75 ISO IC908	4.00	0.750	6.88	0.06	0.50	0.60	1									•	
06IR 0.75 ISO IC928	4.00	0.750	6.88	0.06	0.50	0.60	1			•							
06IL 1.00 ISO IC228	4.00	1.000	6.88	0.05	0.60	0.60	1		•								
06IR 1.00 ISO IC228	4.00	1.000	6.88	0.05	0.60	0.60	1		•								
06IR 1.00 ISO IC908	4.00	1.000	6.88	0.05	0.60	0.60	1									•	
06IR 1.00 ISO IC928	4.00	1.000	6.88	0.05	0.60	0.60	1			•							
06IL 1.25 ISO IC228	4.00	1.250	6.88	0.07	0.60	0.60	1		•								
06IR 1.25 ISO IC228	4.00	1.250	6.88	0.07	0.60	0.60	1		•								
06IR 1.25 ISO IC908	4.00	1.250	6.88	0.07	0.60	0.60	1									•	
06IR 1.25 ISO IC928	4.00	1.250	6.88	0.07	0.60	0.60	1			•							
08IL 0.50 ISO IC228	5.00	0.500	8.24	0.04	0.40	0.60	1		•								
08IR 0.50 ISO IC228	5.00	0.500	8.24	0.04	0.40	0.60	1		•								
08IR 0.50 ISO IC908	5.00	0.500	8.24	0.04	0.40	0.60	1									•	
08IR 0.50 ISO IC928	5.00	0.500	8.24	0.04	0.40	0.60	1			•							
08IR 0.75 ISO IC228	5.00	0.750	8.24	0.06	0.45	0.60	1		•								
08IR 0.75 ISO IC908	5.00	0.750	8.24	0.06	0.50	0.60	1									•	
08IR 0.75 ISO IC928	5.00	0.750	8.24	0.06	0.50	0.60	1			•							
08IL 1.00 ISO IC228	5.00	1.000	8.24	0.07	0.60	0.60	1		•								
08IR 1.00 ISO IC228	5.00	1.000	8.24	0.07	0.60	0.60	1		•								
08IR 1.00 ISO IC908	5.00	1.000	8.24	0.07	0.60	0.60	1									•	
08IR 1.00 ISO IC928	5.00	1.000	8.24	0.07	0.60	0.60	1			•							
08IL 1.25 ISO IC228	5.00	1.250	8.24	0.09	0.70	0.60	1		•								
08IR 1.25 ISO IC228	5.00	1.250	8.66	0.09	0.70	0.60	1		•								
08IR 1.25 ISO IC908	5.00	1.250	8.24	0.09	0.70	0.60	1									•	
08IR 1.25 ISO IC928	5.00	1.250	8.24	0.09	0.70	0.60	1			•							
08IL 1.50 ISO IC228	5.00	1.500	8.24	0.12	0.70	0.60	1		•								
08IR 1.50 ISO IC228	5.00	1.500	8.24	0.12	0.70	0.60	1		•								
08IR 1.50 ISO IC28	5.00	1.500	8.24	0.12	0.70	0.60	1	•									
08IR 1.50 ISO IC908	5.00	1.500	8.24	0.12	0.70	0.60	1									•	
08IR 1.50 ISO IC928	5.00	1.500	8.24	0.12	0.70	0.60	1			•							
08IL 1.75 ISO IC228	5.00	1.750	8.24	0.15	0.90	0.60	1		•								
08IR 1.75 ISO IC228	5.00	1.750	8.66	0.15	0.90	0.60	1		•								
08IR 1.75 ISO IC908	5.00	1.750	8.24	0.15	0.90	0.60	1									•	
08IR 1.75 ISO IC928	5.00	1.750	8.24	0.15	0.85	0.60	1			•							
08UIRL 2.00 ISO IC228	5.00	2.000	8.66	0.14	4.33	0.80	1		•								
11IL 0.35 ISO IC08	6.35	0.350	11.00	0.03	0.30	0.60	1						•				
11IR 0.35 ISO IC908	6.35	0.350	11.00	0.03	0.30	0.60	1									•	
11IR 0.40 ISO IC908	6.35	0.400	11.00	0.03	0.40	0.80	1									•	
11IL 0.50 ISO IC908	6.35	0.500	11.00	0.04	0.60	0.80	1									•	
11IR 0.50 ISO IC08	6.35	0.500	11.00	0.04	0.60	0.80	1						•				
11IR 0.50 ISO IC250	6.35	0.500	11.00	0.04	0.60	0.80	1					•					
11IR 0.50 ISO IC908	6.35	0.500	11.00	0.04	0.60	0.80	1									•	
11IRB 0.50 ISO IC908	6.35	0.500	11.00	0.04	0.60	0.80	1									•	
11IRM 0.50 ISO IC908	6.35	0.500	11.00	0.04	0.40	0.30	1									•	

• For Insert Identification System, see page 645 • Tolerance: Class 6H • For technical information and detailed cutting data, see pages 797-812

(1) With pressed chipformer

(2) Thread pitch

(3) Number of teeth per corner

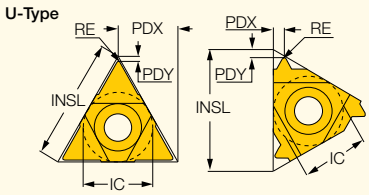
For tools, see pages: E-SIR-HEAD (740) • MGSIR/L (740) • MTET Single Point (1219) • PICIN-A-SIR/L (480) • PICIN-MGSIR/L (480) • SIR/L (738)

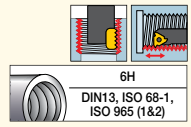
ISCARTHREAD

IR/L-ISO

Internal ISO Metric
(DIN13 12-1986 class 6H)
Laydown Threading Inserts
for General Applications

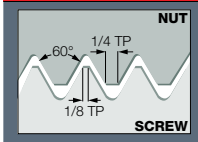






Internal left-hand shown

M E T R I C



Designation	Dimensions IC	TP[3]	INSL	RE	PDX	PDY	NT[4]	Tough ↔ Hard IC28	IC228	IC928	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
11IR 0.70 ISO IC908	6.35	0.700	11.00	0.05	0.60	0.60	1									●	
11IL 0.75 ISO IC908	6.35	0.750	11.00	0.05	0.60	0.60	1									●	
11IR 0.75 ISO IC908	6.35	0.750	11.00	0.05	0.60	0.60	1									●	
11IRB 0.75 ISO IC908	6.35	0.750	11.00	0.05	0.60	0.10	1									●	
11IRM 0.75 ISO IC908	6.35	0.750	11.00	0.06	0.50	0.30	1									●	
11IR 0.80 ISO IC908	6.35	0.800	11.00	0.04	0.60	0.60	1									●	
11IRB 0.80 ISO IC908	6.35	0.800	11.00	0.04	0.60	0.60	1									●	
11IL 1.00 ISO IC908	6.35	1.000	11.00	0.07	0.65	0.60	1									●	
11IR 1.00 ISO IC08	6.35	1.000	11.00	0.07	0.65	0.60	1						●				
11IR 1.00 ISO IC1007	6.35	1.000	11.00	0.07	0.65	0.77	1										●
11IR 1.00 ISO IC228	6.35	1.000	11.00	0.07	0.65	0.60	1		●								
11IR 1.00 ISO IC250	6.35	1.000	11.00	0.07	0.65	0.60	1					●					
11IR 1.00 ISO IC50M	6.35	1.000	11.00	0.07	0.65	0.60	1				●						
11IR 1.00 ISO IC908	6.35	1.000	11.00	0.07	0.65	0.77	1									●	
11IRB 1.00 ISO IC908	6.35	1.000	11.00	0.07	0.60	0.60	1									●	
11IRM 1.00 ISO IC1007	6.35	1.000	11.00	0.05	0.70	0.60	1										●
11IRM 1.00 ISO IC808 (1)	6.35	1.000	11.00	0.05	0.70	0.60	1								●		
11IRM 1.00 ISO IC908 (1)	6.35	1.000	11.00	0.05	0.70	0.60	1									●	
11IL 1.25 ISO IC908	6.35	1.250	11.00	0.09	0.80	0.80	1									●	
11IR 1.25 ISO IC908	6.35	1.250	11.00	0.09	0.80	0.80	1									●	
11IRB 1.25 ISO IC908	6.35	1.250	11.00	0.09	0.90	0.80	1									●	
11IL 1.50 ISO IC250	6.35	1.500	11.00	0.12	1.00	0.80	1					●					
11IL 1.50 ISO IC908	6.35	1.500	11.00	0.12	0.95	0.80	1									●	
11IR 1.50 ISO IC08	6.35	1.500	11.00	0.12	0.95	0.80	1						●				
11IR 1.50 ISO IC1007	6.35	1.500	11.00	0.12	0.95	0.80	1										●
11IR 1.50 ISO IC228	6.35	1.500	11.00	0.12	0.95	0.80	1		●								
11IR 1.50 ISO IC250	6.35	1.500	11.00	0.12	0.95	0.80	1					●					
11IR 1.50 ISO IC50M	6.35	1.500	11.00	0.12	0.95	0.80	1				●						
11IR 1.50 ISO IC908	6.35	1.500	11.00	0.12	0.95	0.80	1									●	
11IRB 1.50 ISO IC908	6.35	1.500	11.00	0.12	0.95	0.80	1									●	
11IRM 1.50 ISO IC1007 (1)	6.35	1.500	11.00	0.08	1.00	0.80	1										●
11IRM 1.50 ISO IC250 (1)	6.35	1.500	11.00	0.08	1.00	0.80	1					●					
11IRM 1.50 ISO IC908 (1)	6.35	1.500	11.00	0.08	1.00	0.80	1									●	
11IL 1.75 ISO IC50M	6.35	1.750	11.00	0.12	1.00	0.80	1				●						
11IL 1.75 ISO IC908	6.35	1.750	11.00	0.12	1.00	0.80	1									●	
11IR 1.75 ISO IC908	6.35	1.750	11.00	0.12	1.00	0.80	1									●	
11IRB 1.75 ISO IC908	6.35	1.750	11.00	0.12	1.00	0.80	1									●	
11IRM 1.75 ISO IC908	6.35	1.750	11.00	0.15	0.90	0.60	1									●	
11IL 2.00 ISO IC908	6.35	2.000	11.00	0.15	0.90	0.80	1									●	
11IR 2.00 ISO IC1007	6.35	2.000	11.00	0.15	1.00	0.80	1										●
11IR 2.00 ISO IC228	6.35	2.000	11.00	0.15	1.00	0.80	1		●								
11IR 2.00 ISO IC250	6.35	2.000	11.00	0.15	1.00	0.80	1					●					
11IR 2.00 ISO IC508	6.35	2.000	11.00	0.15	1.00	0.80	1							●			
11IR 2.00 ISO IC908	6.35	2.000	11.00	0.15	1.00	0.80	1									●	
11IRM 2.00 ISO IC908	6.35	2.000	11.00	0.16	1.00	0.60	1									●	
11IR 2.5 ISO IC908	6.35	2.500	11.00	0.18	1.20	0.80	1									●	
16IR 0.35 ISO IC908	9.52	0.350	16.49	0.02	0.30	0.60	1									●	
16IL 0.40 ISO IC908	9.52	0.400	16.49	0.03	0.40	0.60	1									●	
16IR 0.40 ISO IC908	9.52	0.400	16.49	0.03	0.40	0.60	1									●	
16IL 0.45 ISO IC908	9.52	0.450	16.49	0.02	0.40	0.80	1									●	

• For Insert Identification System, see page 645 • Tolerance: Class 6H • For technical information and detailed cutting data, see pages 797-812

(1) With pressed chipformer

(2) Thread pitch

(3) Number of teeth per corner

For tools, see pages: E-SIR-HEAD (740) • MGSIR/L (740) • MTET Single Point (1219) • PICIN-A-SIR/L (480) • PICIN-MGSIR/L (480) • SIR/L (738)

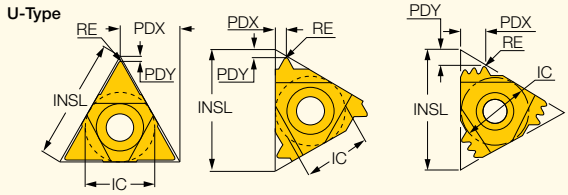
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ISCARTHREAD

IR/L-ISO

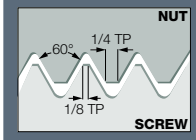
Internal ISO Metric
(DIN13 12-1986 class 6H)
Laydown Threading Inserts
for General Applications





Internal left-hand shown

M E T R I C



Designation	Dimensions							Tough ↔ Hard									
	IC	TP[3]	INSL	RE	PDX	PDY	NT[4]	IC28	IC228	IC928	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
16IL 0.50 ISO IC908	9.52	0.500	16.49	0.04	0.60	0.60	1									•	
16IR 0.50 ISO IC08	9.52	0.500	16.49	0.04	0.60	0.60	1						•				
16IR 0.50 ISO IC250	9.52	0.500	16.49	0.04	0.60	0.60	1					•					
16IR 0.50 ISO IC908	9.52	0.500	16.49	0.04	0.60	0.60	1									•	
16IR 0.60 ISO IC908	9.52	0.600	16.49	0.04	0.60	0.60	1									•	
16IR 0.70 ISO IC250	9.52	0.700	16.49	0.05	0.60	0.60	1					•					
16IR 0.70 ISO IC908	9.52	0.700	16.49	0.05	0.60	0.60	1									•	
16IL 0.75 ISO IC908	9.52	0.750	16.49	0.06	0.60	1.00	1									•	
16IR 0.75 ISO IC08	9.52	0.750	16.49	0.06	0.60	1.00	1						•				
16IR 0.75 ISO IC908	9.52	0.750	16.49	0.06	0.60	1.00	1									•	
16IL 0.80 ISO IC50M	9.52	0.800	16.49	0.05	0.60	0.60	1				•						
16IR 0.80 ISO IC250	9.52	0.800	16.49	0.05	0.60	0.60	1					•					
16IL 1.00 ISO IC908	9.52	1.000	16.49	0.07	0.80	0.70	1									•	
16IR 1.00 ISO IC08	9.52	1.000	16.49	0.07	0.80	0.70	1						•				
16IR 1.00 ISO IC1007	9.52	1.000	16.49	0.07	0.80	0.70	1										•
16IR 1.00 ISO IC250	9.52	1.000	16.49	0.07	0.80	0.70	1					•					
16IR 1.00 ISO IC50M	9.52	1.000	16.49	0.07	0.80	0.70	1				•						
16IR 1.00 ISO IC908	9.52	1.000	16.49	0.07	0.80	0.70	1									•	
16IR 1.00 ISO 3M IC908 [2]	9.52	1.000	16.49	0.07	2.50	1.50	3									•	
16IRB 1.00 ISO IC908 [1]	9.52	1.000	16.49	0.07	0.80	0.70	1									•	
16IRM 1.00 ISO IC1007 [1]	9.52	1.000	16.49	0.05	0.70	0.60	1										•
16IRM 1.00 ISO IC250 [1]	9.52	1.000	16.49	0.05	0.70	0.60	1					•					
16IRM 1.00 ISO IC50M [1]	9.52	1.000	16.49	0.05	0.70	0.60	1				•						
16IRM 1.00 ISO IC508 [1]	9.52	1.000	16.49	0.05	0.70	0.60	1							•			
16IRM 1.00 ISO IC808 [1]	9.52	1.000	16.49	0.05	0.70	0.60	1								•		
16IRM 1.00 ISO IC908 [1]	9.52	1.000	16.49	0.05	0.70	0.60	1									•	
16IL 1.25 ISO IC08	9.52	1.250	16.49	0.09	0.90	0.80	1						•				
16IL 1.25 ISO IC50M	9.52	1.250	16.49	0.09	0.90	0.80	1				•						
16IL 1.25 ISO IC908	9.52	1.250	16.49	0.09	0.90	0.80	1									•	
16IR 1.25 ISO IC08	9.52	1.250	16.49	0.09	0.90	0.80	1						•				
16IR 1.25 ISO IC250	9.52	1.250	16.49	0.09	0.90	0.80	1					•					
16IR 1.25 ISO IC908	9.52	1.250	16.49	0.09	0.90	0.80	1									•	
16IRB 1.25 ISO IC908 [1]	9.52	1.250	16.49	0.09	0.80	0.70	1									•	
16IRM 1.25 ISO IC1007	9.52	1.250	16.49	0.06	0.90	0.80	1										•
16IRM 1.25 ISO IC250 [1]	9.52	1.250	16.49	0.06	0.90	0.80	1					•					
16IRM 1.25 ISO IC908 [1]	9.52	1.250	16.49	0.06	0.90	0.80	1									•	
16IL 1.50 ISO IC1007	9.52	1.500	16.49	0.12	1.15	0.90	1										•
16IL 1.50 ISO IC250	9.52	1.500	16.49	0.12	1.20	0.90	1					•					
16IL 1.50 ISO IC50M	9.52	1.500	16.49	0.12	1.15	0.90	1				•						
16IL 1.50 ISO IC908	9.52	1.500	16.49	0.12	1.15	0.90	1									•	
16IR 1.50 ISO IC08	9.52	1.500	16.49	0.12	1.00	0.90	1						•				
16IR 1.50 ISO IC1007	9.52	1.500	16.49	0.12	1.00	0.90	1										•
16IR 1.50 ISO IC228	9.52	1.500	16.49	0.12	1.15	0.90	1		•								
16IR 1.50 ISO IC250	9.52	1.500	16.49	0.12	1.00	0.90	1					•					
16IR 1.50 ISO IC50M	9.52	1.500	16.49	0.12	1.15	0.90	1				•						
16IR 1.50 ISO IC908	9.52	1.500	16.49	0.12	1.00	0.90	1									•	
16IR 1.50 ISO 2M IC908 [2]	9.52	1.500	16.49	0.10	2.30	1.50	2									•	
16IRB 1.50 ISO IC908 [1]	9.52	1.500	16.49	0.12	1.15	0.90	1									•	
16IRM 1.50 ISO IC1007 [1]	9.52	1.500	16.49	0.08	1.00	0.80	1										•
16IRM 1.50 ISO IC250 [1]	9.52	1.500	16.49	0.08	1.00	0.80	1					•					

• For Insert Identification System, see page 645 • Tolerance: Class 6H • For technical information and detailed cutting data, see pages 797-812

[1] With pressed chipformer

[2] Multi-tooth

[3] Thread pitch

[4] Number of teeth per corner

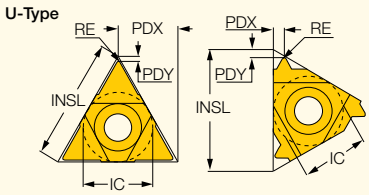
For tools, see pages: E-SIR-HEAD (740) • MGSIR/L (740) • MTET Single Point (1219) • PICIN-A-SIR/L (480) • PICIN-MGSIR/L (480) • SIR/L (738)

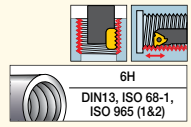
ISCARTHREAD

IR/L-ISO

Internal ISO Metric
(DIN13 12-1986 class 6H)
Laydown Threading Inserts
for General Applications

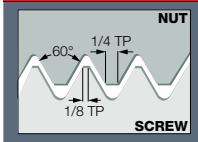






Internal left-hand shown

M E T R I C



Designation	Dimensions IC	TP[3]	INSL	RE	PDX	PDY	NT[4]	Tough ↔ Hard IC28	IC228	IC928	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
16IRM 1.50 ISO IC50M [1]	9.52	1.500	16.49	0.08	1.00	0.80	1				•						
16IRM 1.50 ISO IC508 [1]	9.52	1.500	16.49	0.08	1.00	0.80	1							•			
16IRM 1.50 ISO IC808 [1]	9.52	1.500	16.49	0.08	1.00	0.80	1								•		
16IRM 1.50 ISO IC908 [1]	9.52	1.500	16.49	0.08	1.00	0.80	1									•	
16IL 1.75 ISO IC908	9.52	1.750	16.49	0.12	1.20	0.90	1									•	
16IR 1.75 ISO IC08	9.52	1.750	16.49	0.12	1.20	0.90	1						•				
16IR 1.75 ISO IC250	9.52	1.750	16.49	0.12	1.20	0.90	1					•					
16IR 1.75 ISO IC908	9.52	1.750	16.49	0.12	1.20	0.90	1									•	
16IRB 1.75 ISO IC908 [1]	9.52	1.750	16.49	0.12	1.20	0.90	1									•	
16IRM 1.75 ISO IC1007	9.52	1.750	16.49	0.10	1.20	0.90	1										•
16IRM 1.75 ISO IC250 [1]	9.52	1.750	16.49	0.10	1.20	0.90	1					•					
16IRM 1.75 ISO IC808 [1]	9.52	1.750	16.49	0.10	1.20	0.90	1								•		
16IRM 1.75 ISO IC908 [1]	9.52	1.750	16.49	0.10	1.20	0.90	1									•	
16IL 2.00 ISO IC250	9.52	2.000	16.49	0.16	1.20	0.90	1					•					
16IL 2.00 ISO IC908	9.52	2.000	16.49	0.16	1.20	0.90	1									•	
16IR 2.00 ISO IC1007	9.52	2.000	16.49	0.16	1.20	0.90	1										•
16IR 2.00 ISO IC228	9.52	2.000	16.49	0.16	1.20	0.90	1		•								
16IR 2.00 ISO IC250	9.52	2.000	16.49	0.16	1.20	0.90	1					•					
16IR 2.00 ISO IC508	9.52	2.000	16.49	0.16	1.20	0.90	1							•			
16IR 2.00 ISO IC908	9.52	2.000	16.49	0.16	1.20	0.90	1									•	
16IR 2.00 ISO 2M IC908 [2]	9.52	2.000	16.49	0.14	2.70	1.60	2									•	
16IRB 2.00 ISO IC908 [1]	9.52	2.000	16.49	0.16	1.15	1.00	1									•	
16IRM 2.00 ISO IC1007 [1]	9.52	2.000	16.49	0.11	1.30	1.00	1										•
16IRM 2.00 ISO IC250 [1]	9.52	2.000	16.49	0.11	1.30	1.00	1					•					
16IRM 2.00 ISO IC508 [1]	9.52	2.000	16.49	0.11	1.30	1.00	1							•			
16IRM 2.00 ISO IC808 [1]	9.52	2.000	16.49	0.11	1.30	1.00	1								•		
16IRM 2.00 ISO IC908 [1]	9.52	2.000	16.49	0.11	1.30	1.00	1									•	
16IL 2.50 ISO IC908	9.52	2.500	16.49	0.19	1.40	1.15	1									•	
16IR 2.50 ISO IC1007	9.52	2.500	16.49	0.19	1.40	1.20	1										•
16IR 2.50 ISO IC228	9.52	2.500	16.49	0.19	1.40	1.15	1		•								
16IR 2.50 ISO IC250	9.52	2.500	16.49	0.19	1.40	1.15	1					•					
16IR 2.50 ISO IC908	9.52	2.500	16.49	0.19	1.40	1.15	1									•	
16IRB 2.50 ISO IC908	9.52	2.500	16.49	0.19	1.50	1.20	1									•	
16IRM 2.50 ISO IC1007 [1]	9.52	2.500	16.49	0.14	1.50	1.10	1										•
16IRM 2.50 ISO IC250 [1]	9.52	2.500	16.49	0.14	1.50	1.10	1					•					
16IRM 2.50 ISO IC808 [1]	9.52	2.500	16.49	0.14	1.50	1.10	1								•		
16IRM 2.50 ISO IC908 [1]	9.52	2.500	16.49	0.14	1.50	1.10	1									•	
16IL 3.00 ISO IC908	9.52	3.000	16.49	0.21	1.50	1.10	1									•	
16IR 3.00 ISO IC1007	9.52	3.000	16.49	0.21	1.50	1.10	1										•
16IR 3.00 ISO IC228	9.52	3.000	16.49	0.21	1.50	1.10	1		•								
16IR 3.00 ISO IC250	9.52	3.000	16.49	0.21	1.50	1.10	1					•					
16IR 3.00 ISO IC908	9.52	3.000	16.49	0.21	1.50	1.10	1									•	
16IRB 3.00 ISO IC908 [1]	9.52	3.000	16.49	0.21	1.50	1.10	1									•	
16IRM 3.00 ISO IC1007 [1]	9.52	3.000	16.49	0.22	1.50	1.10	1										•
16IRM 3.00 ISO IC250 [1]	9.52	3.000	16.49	0.22	1.50	1.10	1					•					
16IRM 3.00 ISO IC508 [1]	9.52	3.000	16.49	0.22	1.50	1.10	1							•			
16IRM 3.00 ISO IC808 [1]	9.52	3.000	16.49	0.22	1.50	1.10	1								•		
16IRM 3.00 ISO IC908 [1]	9.52	3.000	16.49	0.22	1.50	1.10	1									•	
16IR 3.50 ISO IC1007	9.52	3.500	16.49	0.26	1.60	1.50	1										•

• For Insert Identification System, see page 645 • Tolerance: Class 6H • For technical information and detailed cutting data, see pages 797-812

[1] With pressed chipformer

[2] Multi-tooth

[3] Thread pitch

[4] Number of teeth per corner

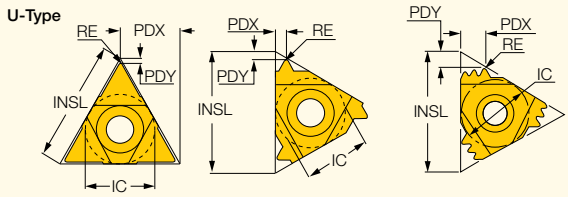
For tools, see pages: E-SIR-HEAD (740) • MGSIR/L (740) • MTET Single Point (1219) • PICIN-A-SIR/L (480) • PICIN-MGSIR/L (480) • SIR/L (738)

ISCARTHREAD

IR/L-ISO

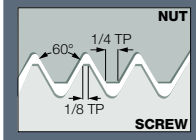
Internal ISO Metric
(DIN13 12-1986 class 6H)
Laydown Threading Inserts
for General Applications





Internal left-hand shown

I N C H



Designation	Dimensions IC	TP mm[3]	INSL	RE	PDX	PDY	NT[4]	Tough ↔ Hard IC28	IC228	IC928	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
06IL 0.50 ISO IC228	.157	.500	.271	.0016	.0157	.0236	1		•								
06IR 0.50 ISO IC228	.157	.500	.271	.0016	.0157	.0236	1		•								
06IR 0.50 ISO IC908	.157	.500	.271	.0016	.0157	.0236	1									•	
06IR 0.50 ISO IC928	.157	.500	.271	.0016	.0157	.0236	1			•							
06IL 0.75 ISO IC228	.157	.750	.271	.0024	.0197	.0236	1		•								
06IR 0.75 ISO IC228	.157	.750	.271	.0024	.0197	.0236	1		•								
06IR 0.75 ISO IC908	.157	.750	.271	.0024	.0197	.0236	1									•	
06IR 0.75 ISO IC928	.157	.750	.271	.0024	.0197	.0236	1			•							
06IL 1.00 ISO IC228	.157	1.000	.271	.0020	.0236	.0236	1		•								
06IR 1.00 ISO IC228	.157	1.000	.271	.0020	.0236	.0236	1		•								
06IR 1.00 ISO IC908	.157	1.000	.271	.0020	.0236	.0236	1									•	
06IR 1.00 ISO IC928	.157	1.000	.271	.0020	.0236	.0236	1			•							
06IL 1.25 ISO IC228	.157	1.250	.271	.0027	.0236	.0236	1		•								
06IR 1.25 ISO IC228	.157	1.250	.271	.0027	.0236	.0236	1		•								
06IR 1.25 ISO IC908	.157	1.250	.271	.0027	.0236	.0236	1									•	
06IR 1.25 ISO IC928	.157	1.250	.271	.0027	.0236	.0236	1			•							
08IL 0.50 ISO IC228	.197	.500	.324	.0016	.0157	.0236	1		•								
08IR 0.50 ISO IC228	.197	.500	.324	.0016	.0157	.0236	1		•								
08IR 0.50 ISO IC908	.197	.500	.324	.0016	.0157	.0236	1									•	
08IR 0.50 ISO IC928	.197	.500	.324	.0016	.0157	.0236	1			•							
08IR 0.75 ISO IC228	.197	.750	.324	.0024	.0177	.0236	1		•								
08IR 0.75 ISO IC908	.197	.750	.324	.0024	.0197	.0236	1									•	
08IR 0.75 ISO IC928	.197	.750	.324	.0024	.0197	.0236	1			•							
08IL 1.00 ISO IC228	.197	1.000	.324	.0027	.0236	.0236	1		•								
08IR 1.00 ISO IC228	.197	1.000	.324	.0027	.0236	.0236	1		•								
08IR 1.00 ISO IC908	.197	1.000	.324	.0027	.0236	.0236	1									•	
08IR 1.00 ISO IC928	.197	1.000	.324	.0027	.0236	.0236	1			•							
08IL 1.25 ISO IC228	.197	1.250	.324	.0035	.0276	.0236	1		•								
08IR 1.25 ISO IC228	.197	1.250	.341	.0035	.0276	.0236	1		•								
08IR 1.25 ISO IC908	.197	1.250	.324	.0035	.0276	.0236	1									•	
08IR 1.25 ISO IC928	.197	1.250	.324	.0035	.0276	.0236	1			•							
08IL 1.50 ISO IC228	.197	1.500	.324	.0047	.0276	.0236	1		•								
08IR 1.50 ISO IC228	.197	1.500	.324	.0047	.0276	.0236	1		•								
08IR 1.50 ISO IC28	.197	1.500	.324	.0047	.0276	.0236	1	•									
08IR 1.50 ISO IC908	.197	1.500	.324	.0047	.0276	.0236	1									•	
08IR 1.50 ISO IC928	.197	1.500	.324	.0047	.0276	.0236	1			•							
08IL 1.75 ISO IC228	.197	1.750	.324	.0059	.0354	.0236	1		•								
08IR 1.75 ISO IC228	.197	1.750	.341	.0059	.0354	.0236	1		•								
08IR 1.75 ISO IC908	.197	1.750	.324	.0059	.0354	.0236	1									•	
08IR 1.75 ISO IC928	.197	1.750	.324	.0059	.0335	.0236	1			•							
08UIRL 2.00 ISO IC228	.197	2.000	.341	.0055	.1705	.0315	1		•								
11IL 0.35 ISO IC08	.250	.350	.433	.0012	.0118	.0236	1						•				
11IR 0.35 ISO IC908	.250	.350	.433	.0012	.0118	.0236	1									•	
11IR 0.40 ISO IC908	.250	.400	.433	.0012	.0157	.0315	1									•	
11IL 0.50 ISO IC908	.250	.500	.433	.0016	.0236	.0315	1									•	
11IR 0.50 ISO IC08	.250	.500	.433	.0016	.0236	.0315	1						•				
11IR 0.50 ISO IC250	.250	.500	.433	.0016	.0236	.0315	1					•					
11IR 0.50 ISO IC908	.250	.500	.433	.0016	.0236	.0315	1									•	
11IRB 0.50 ISO IC908	.250	.500	.433	.0016	.0236	.0315	1									•	
11IRM 0.50 ISO IC908	.250	.500	.433	.0016	.0157	.0118	1									•	

• For Insert Identification System, see page 645 • Tolerance: Class 6H • For technical information and detailed cutting data, see pages 797-812

(1) With pressed chipformer

(2) Multi-tooth

(3) Thread pitch

(4) Number of teeth per corner

For tools, see pages: E-SIR-HEAD (740) • MGSIR/L (740) • MTET Single Point (1219) • PICIN-A-SIR/L (480) • PICIN-MGSIR/L (480) • SIR/L (738)

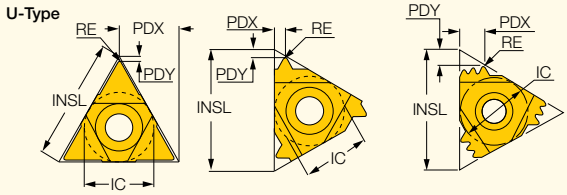
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ISCARTHREAD

IR/L-ISO

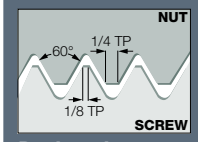
Internal ISO Metric
(DIN13 12-1986 class 6H)
Laydown Threading Inserts
for General Applications





Internal left-hand shown

I N C H



Designation	Dimensions IC	TP mm[3]	INSL	RE	PDX	PDY	NT[4]	Tough ↔ Hard IC28	IC228	IC928	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
11IR 0.70 ISO IC908	.250	.700	.433	.0020	.0236	.0236	1									•	
11IL 0.75 ISO IC908	.250	.750	.433	.0020	.0236	.0236	1									•	
11IR 0.75 ISO IC908	.250	.750	.433	.0020	.0236	.0236	1									•	
11IRB 0.75 ISO IC908	.250	.750	.433	.0020	.0236	.0039	1									•	
11IRM 0.75 ISO IC908	.250	.750	.433	.0024	.0197	.0118	1									•	
11IR 0.80 ISO IC908	.250	.800	.433	.0016	.0236	.0236	1									•	
11IRB 0.80 ISO IC908	.250	.800	.433	.0016	.0236	.0236	1									•	
11IL 1.00 ISO IC908	.250	1.000	.433	.0028	.0256	.0236	1									•	
11IR 1.00 ISO IC08	.250	1.000	.433	.0028	.0256	.0236	1						•				
11IR 1.00 ISO IC1007	.250	1.000	.433	.0028	.0256	.0303	1										•
11IR 1.00 ISO IC228	.250	1.000	.433	.0028	.0256	.0236	1		•								
11IR 1.00 ISO IC250	.250	1.000	.433	.0028	.0256	.0236	1					•					
11IR 1.00 ISO IC50M	.250	1.000	.433	.0028	.0256	.0236	1				•						
11IR 1.00 ISO IC908	.250	1.000	.433	.0028	.0256	.0303	1									•	
11IRB 1.00 ISO IC908	.250	1.000	.433	.0027	.0236	.0236	1									•	
11IRM 1.00 ISO IC1007	.250	1.000	.433	.0020	.0276	.0236	1										•
11IRM 1.00 ISO IC808 (1)	.250	1.000	.433	.0020	.0276	.0236	1								•		
11IRM 1.00 ISO IC908 (1)	.250	1.000	.433	.0020	.0276	.0236	1									•	
11IL 1.25 ISO IC908	.250	1.250	.433	.0035	.0315	.0315	1									•	
11IR 1.25 ISO IC908	.250	1.250	.433	.0035	.0315	.0315	1									•	
11IRB 1.25 ISO IC908	.250	1.250	.433	.0035	.0354	.0315	1									•	
11IL 1.50 ISO IC250	.250	1.500	.433	.0047	.0394	.0315	1					•					
11IL 1.50 ISO IC908	.250	1.500	.433	.0047	.0374	.0315	1									•	
11IR 1.50 ISO IC08	.250	1.500	.433	.0047	.0374	.0315	1						•				
11IR 1.50 ISO IC1007	.250	1.500	.433	.0047	.0374	.0315	1										•
11IR 1.50 ISO IC228	.250	1.500	.433	.0047	.0374	.0315	1		•								
11IR 1.50 ISO IC250	.250	1.500	.433	.0047	.0374	.0315	1					•					
11IR 1.50 ISO IC50M	.250	1.500	.433	.0047	.0374	.0315	1				•						
11IR 1.50 ISO IC908	.250	1.500	.433	.0047	.0374	.0315	1									•	
11IRB 1.50 ISO IC908	.250	1.500	.433	.0047	.0374	.0315	1									•	
11IRM 1.50 ISO IC1007 (1)	.250	1.500	.433	.0031	.0394	.0315	1										•
11IRM 1.50 ISO IC250 (1)	.250	1.500	.433	.0031	.0394	.0315	1					•					
11IRM 1.50 ISO IC908 (1)	.250	1.500	.433	.0031	.0394	.0315	1									•	
11IL 1.75 ISO IC50M	.250	1.750	.433	.0047	.0394	.0315	1				•						
11IL 1.75 ISO IC908	.250	1.750	.433	.0047	.0394	.0315	1									•	
11IR 1.75 ISO IC908	.250	1.750	.433	.0047	.0394	.0315	1									•	
11IRB 1.75 ISO IC908	.250	1.750	.433	.0047	.0394	.0315	1									•	
11IRM 1.75 ISO IC908	.250	1.750	.433	.0059	.0354	.0236	1									•	
11IL 2.00 ISO IC908	.250	2.000	.433	.0059	.0354	.0315	1									•	
11IR 2.00 ISO IC1007	.250	2.000	.433	.0059	.0394	.0315	1										•
11IR 2.00 ISO IC228	.250	2.000	.433	.0059	.0394	.0315	1		•								
11IR 2.00 ISO IC250	.250	2.000	.433	.0059	.0394	.0315	1					•					
11IR 2.00 ISO IC508	.250	2.000	.433	.0059	.0394	.0315	1							•			
11IR 2.00 ISO IC908	.250	2.000	.433	.0059	.0394	.0315	1									•	
11IRM 2.00 ISO IC908	.250	2.000	.433	.0063	.0394	.0236	1									•	
11IR 2.5 ISO IC908	.250	2.500	.433	.0071	.0472	.0315	1									•	
16IR 0.35 ISO IC908	.375	.350	.649	.0008	.0118	.0236	1									•	
16IL 0.40 ISO IC908	.375	.400	.649	.0012	.0157	.0236	1									•	
16IR 0.40 ISO IC908	.375	.400	.649	.0012	.0157	.0236	1									•	
16IL 0.45 ISO IC908	.375	.450	.649	.0008	.0157	.0315	1									•	

• For Insert Identification System, see page 645 • Tolerance: Class 6H • For technical information and detailed cutting data, see pages 797-812

(1) With pressed chipformer

(2) Multi-tooth

(3) Thread pitch

(4) Number of teeth per corner

For tools, see pages: E-SIR-HEAD (740) • MGSIR/L (740) • MTET Single Point (1219) • PICIN-A-SIR/L (480) • PICIN-MGSIR/L (480) • SIR/L (738)

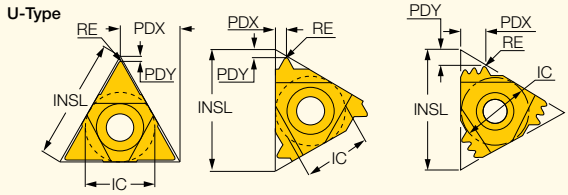
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ISCARTHREAD

IR/L-ISO

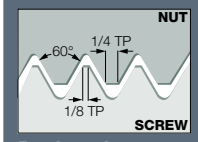
Internal ISO Metric
(DIN13 12-1986 class 6H)
Laydown Threading Inserts
for General Applications





Internal left-hand shown

I N C H



Designation	Dimensions IC	TP mm[3]	INSL	RE	PDX	PDY	NT[4]	Tough ↔ Hard IC28	IC228	IC928	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
16IL 0.50 ISO IC908	.375	.500	.649	.0016	.0236	.0236	1									•	
16IR 0.50 ISO IC08	.375	.500	.649	.0016	.0236	.0236	1						•				
16IR 0.50 ISO IC250	.375	.500	.649	.0016	.0236	.0236	1					•					
16IR 0.50 ISO IC908	.375	.500	.649	.0016	.0236	.0236	1									•	
16IR 0.60 ISO IC908	.375	.600	.649	.0016	.0236	.0236	1									•	
16IR 0.70 ISO IC250	.375	.700	.649	.0020	.0236	.0236	1					•					
16IR 0.70 ISO IC908	.375	.700	.649	.0020	.0236	.0236	1									•	
16IL 0.75 ISO IC908	.375	.750	.649	.0024	.0236	.0394	1									•	
16IR 0.75 ISO IC08	.375	.750	.649	.0024	.0236	.0394	1						•				
16IR 0.75 ISO IC908	.375	.750	.649	.0024	.0236	.0394	1									•	
16IL 0.80 ISO IC50M	.375	.800	.649	.0020	.0236	.0236	1				•						
16IR 0.80 ISO IC250	.375	.800	.649	.0020	.0236	.0236	1					•					
16IL 1.00 ISO IC908	.375	1.000	.649	.0027	.0315	.0276	1									•	
16IR 1.00 ISO IC08	.375	1.000	.649	.0027	.0315	.0276	1						•				
16IR 1.00 ISO IC1007	.375	1.000	.649	.0027	.0315	.0276	1										•
16IR 1.00 ISO IC250	.375	1.000	.649	.0027	.0315	.0276	1					•					
16IR 1.00 ISO IC50M	.375	1.000	.649	.0027	.0315	.0276	1				•						
16IR 1.00 ISO IC908	.375	1.000	.649	.0027	.0315	.0276	1									•	
16IR 1.00 ISO 3M IC908 [2]	.375	1.000	.649	.0027	.0984	.0590	3									•	
16IRB 1.00 ISO IC908 [1]	.375	1.000	.649	.0027	.0315	.0276	1									•	
16IRM 1.00 ISO IC1007 [1]	.375	1.000	.649	.0020	.0276	.0236	1										•
16IRM 1.00 ISO IC250 [1]	.375	1.000	.649	.0020	.0276	.0236	1					•					
16IRM 1.00 ISO IC50M [1]	.375	1.000	.649	.0020	.0276	.0236	1				•						
16IRM 1.00 ISO IC508 [1]	.375	1.000	.649	.0020	.0276	.0236	1							•			
16IRM 1.00 ISO IC808 [1]	.375	1.000	.649	.0020	.0276	.0236	1								•		
16IRM 1.00 ISO IC908 [1]	.375	1.000	.649	.0020	.0276	.0236	1									•	
16IL 1.25 ISO IC08	.375	1.250	.649	.0035	.0354	.0315	1						•				
16IL 1.25 ISO IC50M	.375	1.250	.649	.0035	.0354	.0315	1				•						
16IL 1.25 ISO IC908	.375	1.250	.649	.0035	.0354	.0315	1									•	
16IR 1.25 ISO IC08	.375	1.250	.649	.0035	.0354	.0315	1						•				
16IR 1.25 ISO IC250	.375	1.250	.649	.0035	.0354	.0315	1					•					
16IR 1.25 ISO IC908	.375	1.250	.649	.0035	.0354	.0315	1									•	
16IRB 1.25 ISO IC908 [1]	.375	1.250	.649	.0035	.0315	.0276	1									•	
16IRM 1.25 ISO IC1007	.375	1.250	.649	.0024	.0354	.0315	1										•
16IRM 1.25 ISO IC250 [1]	.375	1.250	.649	.0024	.0354	.0315	1					•					
16IRM 1.25 ISO IC908 [1]	.375	1.250	.649	.0024	.0354	.0315	1									•	
16IL 1.50 ISO IC1007	.375	1.500	.649	.0047	.0453	.0354	1										•
16IL 1.50 ISO IC250	.375	1.500	.649	.0047	.0472	.0354	1					•					
16IL 1.50 ISO IC50M	.375	1.500	.649	.0047	.0453	.0354	1				•						
16IL 1.50 ISO IC908	.375	1.500	.649	.0047	.0453	.0354	1									•	
16IR 1.50 ISO IC08	.375	1.500	.649	.0047	.0394	.0354	1						•				
16IR 1.50 ISO IC1007	.375	1.500	.649	.0047	.0394	.0354	1										•
16IR 1.50 ISO IC228	.375	1.500	.649	.0047	.0453	.0354	1		•								
16IR 1.50 ISO IC250	.375	1.500	.649	.0047	.0394	.0354	1					•					
16IR 1.50 ISO IC50M	.375	1.500	.649	.0047	.0453	.0354	1				•						
16IR 1.50 ISO IC908	.375	1.500	.649	.0047	.0394	.0354	1									•	
16IR 1.50 ISO 2M IC908 [2]	.375	1.500	.649	.0039	.0906	.0590	2									•	
16IRB 1.50 ISO IC908 [1]	.375	1.500	.649	.0047	.0453	.0354	1									•	
16IRM 1.50 ISO IC1007 [1]	.375	1.500	.649	.0031	.0394	.0315	1										•
16IRM 1.50 ISO IC250 [1]	.375	1.500	.649	.0031	.0394	.0315	1					•					

• For Insert Identification System, see page 645 • Tolerance: Class 6H • For technical information and detailed cutting data, see pages 797-812

[1] With pressed chipformer

[2] Multi-tooth

[3] Thread pitch

[4] Number of teeth per corner

For tools, see pages: E-SIR-HEAD (740) • MGSIR/L (740) • MTET Single Point (1219) • PICIN-A-SIR/L (480) • PICIN-MGSIR/L (480) • SIR/L (738)

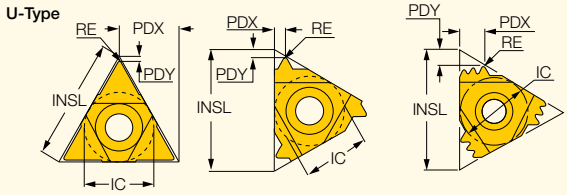
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ISCARTHREAD

IR/L-ISO

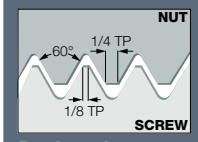
Internal ISO Metric
(DIN13 12-1986 class 6H)
Laydown Threading Inserts
for General Applications





Internal left-hand shown

I N C H



Designation	Dimensions IC	TP mm[3]	INSL	RE	PDX	PDY	NT[4]	Tough ↔ Hard IC28	IC228	IC928	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
16IRM 1.50 ISO IC50M [1]	.375	1.500	.649	.0031	.0394	.0315	1				•						
16IRM 1.50 ISO IC508 [1]	.375	1.500	.649	.0031	.0394	.0315	1							•			
16IRM 1.50 ISO IC808 [1]	.375	1.500	.649	.0031	.0394	.0315	1								•		
16IRM 1.50 ISO IC908 [1]	.375	1.500	.649	.0031	.0394	.0315	1									•	
16IL 1.75 ISO IC908	.375	1.750	.649	.0047	.0472	.0354	1									•	
16IR 1.75 ISO IC08	.375	1.750	.649	.0047	.0472	.0354	1						•				
16IR 1.75 ISO IC250	.375	1.750	.649	.0047	.0472	.0354	1					•					
16IR 1.75 ISO IC908	.375	1.750	.649	.0047	.0472	.0354	1									•	
16IRB 1.75 ISO IC908 [1]	.375	1.750	.649	.0047	.0472	.0354	1									•	
16IRM 1.75 ISO IC1007	.375	1.750	.649	.0039	.0472	.0354	1										•
16IRM 1.75 ISO IC250 [1]	.375	1.750	.649	.0039	.0472	.0354	1					•					
16IRM 1.75 ISO IC808 [1]	.375	1.750	.649	.0039	.0472	.0354	1								•		
16IRM 1.75 ISO IC908 [1]	.375	1.750	.649	.0039	.0472	.0354	1									•	
16IL 2.00 ISO IC250	.375	2.000	.649	.0063	.0472	.0354	1					•					
16IL 2.00 ISO IC908	.375	2.000	.649	.0063	.0472	.0354	1									•	
16IR 2.00 ISO IC1007	.375	2.000	.649	.0063	.0472	.0354	1										•
16IR 2.00 ISO IC228	.375	2.000	.649	.0063	.0472	.0354	1		•								
16IR 2.00 ISO IC250	.375	2.000	.649	.0063	.0472	.0354	1					•					
16IR 2.00 ISO IC508	.375	2.000	.649	.0063	.0472	.0354	1							•			
16IR 2.00 ISO IC908	.375	2.000	.649	.0063	.0472	.0354	1									•	
16IR 2.00 ISO 2M IC908 [2]	.375	2.000	.649	.0055	.1063	.0630	2									•	
16IRB 2.00 ISO IC908 [1]	.375	2.000	.649	.0063	.0453	.0394	1									•	
16IRM 2.00 ISO IC1007 [1]	.375	2.000	.649	.0043	.0512	.0394	1										•
16IRM 2.00 ISO IC250 [1]	.375	2.000	.649	.0043	.0512	.0394	1					•					
16IRM 2.00 ISO IC508 [1]	.375	2.000	.649	.0043	.0512	.0394	1							•			
16IRM 2.00 ISO IC808 [1]	.375	2.000	.649	.0043	.0512	.0394	1								•		
16IRM 2.00 ISO IC908 [1]	.375	2.000	.649	.0043	.0512	.0394	1									•	
16IL 2.50 ISO IC908	.375	2.500	.649	.0075	.0551	.0453	1									•	
16IR 2.50 ISO IC1007	.375	2.500	.649	.0075	.0551	.0472	1										•
16IR 2.50 ISO IC228	.375	2.500	.649	.0075	.0551	.0453	1		•								
16IR 2.50 ISO IC250	.375	2.500	.649	.0075	.0551	.0453	1					•					
16IR 2.50 ISO IC908	.375	2.500	.649	.0075	.0551	.0453	1									•	
16IRB 2.50 ISO IC908	.375	2.500	.649	.0075	.0591	.0472	1									•	
16IRM 2.50 ISO IC1007 [1]	.375	2.500	.649	.0055	.0590	.0433	1										•
16IRM 2.50 ISO IC250 [1]	.375	2.500	.649	.0055	.0590	.0433	1					•					
16IRM 2.50 ISO IC808 [1]	.375	2.500	.649	.0055	.0590	.0433	1								•		
16IRM 2.50 ISO IC908 [1]	.375	2.500	.649	.0055	.0590	.0433	1									•	
16IL 3.00 ISO IC908	.375	3.000	.649	.0083	.0590	.0433	1									•	
16IR 3.00 ISO IC1007	.375	3.000	.649	.0083	.0590	.0433	1										•
16IR 3.00 ISO IC228	.375	3.000	.649	.0083	.0590	.0433	1		•								
16IR 3.00 ISO IC250	.375	3.000	.649	.0083	.0590	.0433	1					•					
16IR 3.00 ISO IC908	.375	3.000	.649	.0083	.0590	.0433	1									•	
16IRB 3.00 ISO IC908 [1]	.375	3.000	.649	.0083	.0590	.0433	1									•	
16IRM 3.00 ISO IC1007 [1]	.375	3.000	.649	.0087	.0590	.0433	1										•
16IRM 3.00 ISO IC250 [1]	.375	3.000	.649	.0087	.0590	.0433	1					•					
16IRM 3.00 ISO IC508 [1]	.375	3.000	.649	.0087	.0590	.0433	1							•			
16IRM 3.00 ISO IC808 [1]	.375	3.000	.649	.0087	.0590	.0433	1								•		
16IRM 3.00 ISO IC908 [1]	.375	3.000	.649	.0087	.0590	.0433	1									•	
16IR 3.50 ISO IC1007	.375	3.500	.649	.0102	.0630	.0591	1										•

• For Insert Identification System, see page 645 • Tolerance: Class 6H • For technical information and detailed cutting data, see pages 797-812

[1] With pressed chipformer

[2] Multi-tooth

[3] Thread pitch

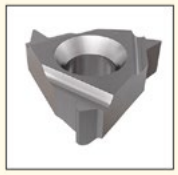
[4] Number of teeth per corner

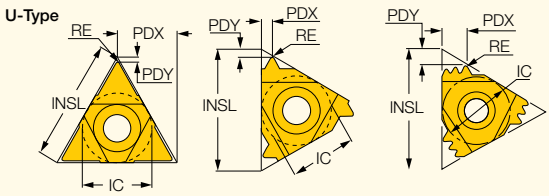
For tools, see pages: E-SIR-HEAD (740) • MGSIR/L (740) • MTET Single Point (1219) • PICIN-A-SIR/L (480) • PICIN-MGSIR/L (480) • SIR/L (738)

ISCARTHREAD

IR/L-UN

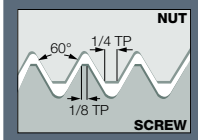
Internal American UN Full Profile (UN, UNC, UNF, UNEF) Laydown Threading Inserts for General Applications





Internal left-hand shown

M E T R I C



Designation	Dimensions IC	TPI[3]	INSL	RE	PDX	PDY	NT[4]	Tough ↔ Hard IC228	IC928	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
06IR 32 UN IC228	4.00	32.0	6.88	0.05	0.50	0.60	1	•								
06IR 28 UN IC908	4.00	28.0	6.88	0.07	0.50	0.60	1								•	
06IR 28 UN IC228	4.00	28.0	6.88	0.07	0.50	0.60	1	•								
06IL 24 UN IC228	4.00	24.0	6.88	0.08	0.60	0.60	1	•								
06IR 24 UN IC228	4.00	24.0	6.88	0.08	0.60	0.60	1	•								
06IR 24 UN IC908	4.00	24.0	6.88	0.08	0.60	0.60	1								•	
06IR 20 UN IC228	4.00	20.0	6.88	0.09	0.60	0.60	1	•								
06IL 18 UN IC228	4.00	18.0	6.88	0.07	0.70	0.60	1	•								
06IR 18 UN IC228	4.00	18.0	6.88	0.10	0.70	0.60	1	•								
08IR 32 UN IC228	5.00	32.0	8.24	0.06	0.50	0.50	1	•								
08IL 28 UN IC228	5.00	28.0	8.24	0.07	0.60	0.50	1	•								
08IR 28 UN IC228	5.00	28.0	8.24	0.07	0.60	0.50	1	•								
08IR 28 UN IC908	5.00	28.0	8.24	0.07	0.60	0.50	1								•	
08IR 27 UN IC228	5.00	27.0	8.24	0.08	0.50	0.50	1	•								
08IL 24 UN IC228	5.00	24.0	8.24	0.08	0.55	0.57	1	•								
08IR 24 UN IC228	5.00	24.0	8.24	0.08	0.60	0.60	1	•								
08IR 24 UN IC908	5.00	24.0	8.24	0.08	0.55	0.60	1								•	
08IL 20 UN IC228	5.00	20.0	8.24	0.08	0.70	0.70	1	•								
08IR 20 UN IC228	5.00	20.0	8.24	0.09	0.65	0.65	1	•								
08IR 18 UN IC228	5.00	18.0	8.24	0.12	0.70	0.50	1	•								
08IR 18 UN IC908	5.00	18.0	8.24	0.12	0.70	0.55	1								•	
08IR 16 UN IC228	5.00	16.0	8.24	0.12	0.70	0.60	1	•								
08IR 14 UN IC228	5.00	14.0	8.24	0.13	0.72	0.54	1	•								
08IR 14 UN IC908	5.00	14.0	8.24	0.13	0.72	0.54	1								•	
08IR 13 UN IC228	5.00	13.0	8.24	0.14	0.85	0.60	1	•								
08IR 13 UN IC908	5.00	13.0	8.24	0.14	0.85	0.60	1								•	
08UIRL 13 UN IC908	5.00	13.0	8.66	0.14	4.33	0.75	1								•	
08UIRL 12 UN IC928	5.00	12.0	8.66	0.13	4.33	0.80	1		•							
08UIRL 11 UN IC228	5.00	11.0	8.66	0.10	4.33	0.90	1	•								
11IR 64 UN IC250	6.35	64.0	11.00	0.04	0.40	0.78	1				•					
11IR 48 UN IC250	6.35	48.0	11.00	0.04	0.92	0.77	1				•					
11IR 44 UN IC250	6.35	44.0	11.00	0.04	0.92	0.77	1				•					
11IR 40 UN IC250	6.35	40.0	11.00	0.05	0.92	0.76	1				•					
11IR 36 UN IC908	6.35	36.0	11.00	0.06	0.60	0.60	1								•	
11IL 32 UN IC908	6.35	32.0	11.00	0.04	0.60	0.60	1								•	
11IR 32 UN IC908	6.35	32.0	11.00	0.05	0.60	0.60	1								•	
11IRB 32 UN IC908	6.35	32.0	11.00	0.04	0.60	0.60	1								•	
11IL 28 UN IC908	6.35	28.0	11.00	0.04	0.70	0.60	1								•	
11IR 28 UN IC908	6.35	28.0	11.00	0.05	0.60	0.60	1								•	
11IRB 28 UN IC908	6.35	28.0	11.00	0.05	0.60	0.60	1								•	
11IL 24 UN IC908	6.35	24.0	11.00	0.07	0.80	0.80	1								•	
11IR 24 UN IC1007	6.35	24.0	11.00	0.07	0.80	0.80	1									•
11IR 24 UN IC908	6.35	24.0	11.00	0.07	0.80	0.70	1								•	
11IRB 24 UN IC908	6.35	24.0	11.00	0.08	0.60	0.60	1								•	
11IL 20 UN IC908	6.35	20.0	11.00	0.09	0.90	0.80	1								•	
11IR 20 UN IC908	6.35	20.0	11.00	0.09	0.90	0.80	1								•	
11IRB 20 UN IC908	6.35	20.0	11.00	0.09	0.90	0.80	1								•	
11IL 18 UN IC908	6.35	18.0	11.00	0.10	1.00	0.90	1								•	
11IR 18 UN IC1007	6.35	18.0	11.00	0.07	1.00	0.80	1									•
11IR 18 UN IC250	6.35	18.0	11.00	0.10	1.00	0.90	1				•					

• For Insert Identification System, see page 645 • Tolerance: class 2B, ANSI B1, 3M-1986 • For technical information and detailed cutting data, see pages 797-812

(1) With pressed chipformer

(2) Multi-tooth

(3) Threads per inch

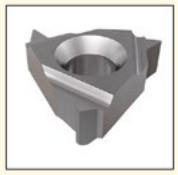
(4) Number of teeth per corner

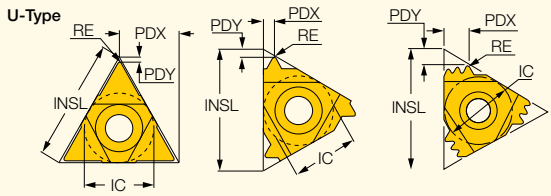
For tools, see pages: E-SIR-HEAD (740) • MGSIR/L (740) • MTET Single Point (1219) • PICIN-A-SIR/L (480) • PICIN-MGSIR/L (480) • SIR/L (738)

ISCARTHREAD

IR/L-UN

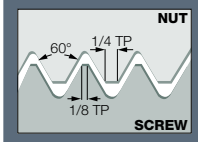
Internal American UN Full Profile (UN, UNC, UNF, UNEF) Laydown Threading Inserts for General Applications





Internal left-hand shown

M E T R I C



Designation	Dimensions IC	TPI[3]	INSL	RE	PDX	PDY	NT[4]	Tough ↔ Hard IC228	IC928	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
11IR 18 UN IC908	6.35	18.0	11.00	0.10	1.00	0.90	1								•	
11IRB 18 UN IC908	6.35	18.0	11.00	0.10	1.00	0.90	1								•	
11IL 16 UN IC908	6.35	16.0	11.00	0.11	1.00	0.90	1								•	
11IR 16 UN IC250	6.35	16.0	11.00	0.09	1.10	0.90	1				•					
11IR 16 UN IC1007	6.35	16.0	11.00	0.11	1.00	0.90	1									•
11IR 16 UN IC908	6.35	16.0	11.00	0.11	1.00	0.90	1								•	
11IRB 16 UN IC908	6.35	16.0	11.00	0.11	1.00	0.90	1								•	
11IL 14 UN IC250	6.35	14.0	11.00	0.10	1.10	0.90	1				•					
11IL 14 UN IC908	6.35	14.0	11.00	0.10	1.10	0.90	1								•	
11IR 14 UN IC250	6.35	14.0	11.00	0.10	1.10	0.90	1				•					
11IR 14 UN IC50M	6.35	14.0	11.00	0.13	1.00	0.90	1			•						
11IR 14 UN IC908	6.35	14.0	11.00	0.13	1.00	0.90	1								•	
11IRB 14 UN IC908	6.35	14.0	11.00	0.13	1.00	0.90	1								•	
11IR 13 UN IC908	6.35	13.0	11.00	0.15	0.95	0.75	1								•	
11IR 12 UN IC250	6.35	12.0	11.00	0.15	1.00	0.75	1				•					
11IR 12 UN IC908	6.35	12.0	11.00	0.15	1.00	0.75	1								•	
11IRB 12 UN IC908	6.35	12.0	11.00	0.15	1.00	0.75	1								•	
11IR 11 UN IC250	6.35	11.0	11.00	0.14	1.10	0.80	1				•					
11IR 11 UN IC908	6.35	11.0	11.00	0.14	1.00	0.80	1								•	
11IR 10 UN IC908	6.35	10.0	11.00	0.19	1.23	0.85	1								•	
16IR 64 UN IC250	9.52	64.0	16.49	0.04	0.40	0.58	1				•					
16IR 40 UN IC908	9.52	40.0	16.49	0.05	0.40	0.60	1								•	
16IR 36 UN IC908	9.52	36.0	16.49	0.06	0.60	0.58	1								•	
16IR 32 UN IC250	9.52	32.0	16.49	0.04	0.60	0.60	1				•					
16IR 32 UN IC908	9.52	32.0	16.49	0.05	0.60	0.60	1								•	
16IL 28 UN IC908	9.52	28.0	16.49	0.04	0.70	0.60	1								•	
16IR 28 UN IC908	9.52	28.0	16.49	0.05	0.60	0.60	1								•	
16IL 24 UN 2M IC908	9.52	24.0	16.49	0.08	1.50	1.30	2								•	
16IR 24 UN IC250	9.52	24.0	16.49	0.05	0.80	0.70	1				•					
16IR 24 UN IC908	9.52	24.0	16.49	0.08	0.80	0.70	1								•	
16IRB 24 UN IC908 [1]	9.52	24.0	16.49	0.07	0.80	0.70	1								•	
16IL 20 UN IC250	9.52	20.0	16.49	0.06	0.90	0.80	1				•					
16IL 20 UN IC908	9.52	20.0	16.49	0.09	0.90	0.80	1								•	
16IR 20 UN IC08	9.52	20.0	16.49	0.09	0.90	0.80	1					•				
16IR 20 UN IC1007	9.52	20.0	16.49	0.09	0.90	0.80	1									•
16IR 20 UN IC250	9.52	20.0	16.49	0.06	0.90	0.80	1				•					
16IR 20 UN IC50M	9.52	20.0	16.49	0.09	0.90	0.80	1			•						
16IR 20 UN IC908	9.52	20.0	16.49	0.09	0.90	0.80	1								•	
16IR 20 UN 2M IC250	9.52	20.0	16.49	0.11	2.00	1.60	2				•					
16IRB 20 UN IC908 [1]	9.52	20.0	16.49	0.09	0.80	0.80	1								•	
16IRM 20 UN IC1007	9.52	20.0	16.49	0.06	0.90	0.80	1									•
16IRM 20 UN IC908 [1]	9.52	20.0	16.49	0.06	0.90	0.80	1								•	
16IL 18 UN IC908	9.52	18.0	16.49	0.08	0.80	0.70	1								•	
16IR 18 UN IC1007	9.52	18.0	16.49	0.12	0.80	0.70	1									•
16IR 18 UN IC250	9.52	18.0	16.49	0.10	1.00	0.80	1				•					
16IR 18 UN IC908	9.52	18.0	16.49	0.10	1.00	0.80	1								•	
16IRB 18 UN IC908 [1]	9.52	18.0	16.49	0.12	0.80	0.70	1								•	
16IRM 18 UN IC808 [1]	9.52	18.0	16.49	0.08	1.00	0.80	1							•		
16IRM 18 UN IC908 [1]	9.52	18.0	16.49	0.08	1.00	0.80	1								•	
16IL 16 UN IC908	9.52	16.0	16.49	0.11	1.20	1.00	1								•	

• For Insert Identification System, see page 645 • Tolerance: class 2B, ANSI B1, 3M-1986 • For technical information and detailed cutting data, see pages 797-812

[1] With pressed chipformer

[2] Multi-tooth

[3] Threads per inch

[4] Number of teeth per corner

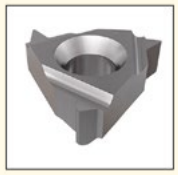
For tools, see pages: E-SIR-HEAD (740) • MGSIR/L (740) • MTET Single Point (1219) • PICIN-A-SIR/L (480) • PICIN-MGSIR/L (480) • SIR/L (738)

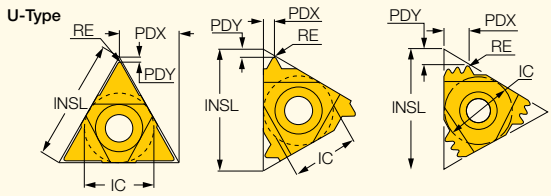
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ISCARTHREAD

IR/L-UN

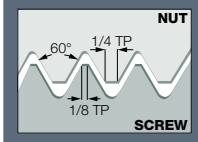
Internal American UN Full Profile (UN, UNC, UNF, UNEF) Laydown Threading Inserts for General Applications





Internal left-hand shown

M E T R I C



Designation	Dimensions IC	TPI[3]	INSL	RE	PDX	PDY	NT[4]	Tough ↔ Hard IC228	IC928	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
16IR 16 UN IC250	9.52	16.0	16.49	0.11	1.20	0.90	1				•					
16IR 16 UN IC908	9.52	16.0	16.49	0.11	1.20	0.90	1								•	
16IR 16 UN-2M IC508 [2]	9.52	16.0	16.49	0.09	2.30	1.50	2						•			
16IR 16 UN-2M IC908	9.52	16.0	16.49	0.09	2.30	1.50	2								•	
16IRB 16 UN IC908 [3]	9.52	16.0	16.49	0.11	1.20	0.90	1								•	
16IRM 16 UN IC1007 [1]	9.52	16.0	16.49	0.09	1.10	0.90	1									•
16IRM 16 UN IC250 [1]	9.52	16.0	16.49	0.09	1.10	0.90	1				•					
16IRM 16 UN IC908 [1]	9.52	16.0	16.49	0.09	1.10	0.90	1								•	
16IL 14 UN IC250	9.52	14.0	16.49	0.10	1.20	0.90	1				•					
16IL 14 UN IC908	9.52	14.0	16.49	0.13	1.20	0.90	1								•	
16IR 14 UN IC250	9.52	14.0	16.49	0.13	1.20	0.90	1				•					
16IR 14 UN IC908	9.52	14.0	16.49	0.13	1.20	0.90	1								•	
16IRB 14 UN IC908 [1]	9.52	14.0	16.49	0.13	1.20	0.90	1								•	
16IRM 14 UN IC1007	9.52	14.0	16.49	0.11	1.20	0.90	1									•
16IRM 14 UN IC250 [1]	9.52	14.0	16.49	0.11	1.20	0.90	1				•					
16IRM 14 UN IC808	9.52	14.0	16.49	0.11	1.20	0.90	1							•		
16IRM 14 UN IC908 [1]	9.52	14.0	16.49	0.11	1.20	0.90	1								•	
16IL 13 UN IC250	9.52	13.0	16.49	0.14	1.00	1.50	1				•					
16IR 13 UN IC908	9.52	13.0	16.49	0.14	1.00	1.50	1								•	
16IL 12 UN IC250	9.52	12.0	16.49	0.15	1.40	1.10	1				•					
16IL 12 UN IC908	9.52	12.0	16.49	0.15	1.10	1.00	1								•	
16IR 12 UN IC08	9.52	12.0	16.49	0.15	1.10	1.00	1					•				
16IR 12 UN IC1007	9.52	12.0	16.49	0.15	1.10	1.00	1									•
16IR 12 UN IC250	9.52	12.0	16.49	0.15	1.10	1.00	1				•					
16IR 12 UN IC908	9.52	12.0	16.49	0.15	1.10	1.00	1								•	
16IRB 12 UN IC908 [1]	9.52	12.0	16.49	0.13	1.20	1.00	1								•	
16IRM 12 UN IC1007 [1]	9.52	12.0	16.49	0.12	1.40	1.10	1									•
16IRM 12 UN IC250 [1]	9.52	12.0	16.49	0.12	1.40	1.10	1				•					
16IRM 12 UN IC808 [1]	9.52	12.0	16.49	0.12	1.40	1.10	1							•		
16IRM 12 UN IC908 [1]	9.52	12.0	16.49	0.12	1.40	1.10	1								•	
16IR 11.5 UN IC908	9.52	11.5	16.49	0.14	1.10	1.00	1								•	
16IL 11 UN IC908	9.52	11.0	16.49	0.18	1.00	1.00	1								•	
16IR 11 UN IC908	9.52	11.0	16.49	0.18	1.00	1.00	1								•	
16IL 10 UN IC250	9.52	10.0	16.49	0.15	1.50	1.10	1				•					
16IL 10 UN IC908	9.52	10.0	16.49	0.15	1.50	1.10	1								•	
16IR 10 UN IC250	9.52	10.0	16.49	0.15	1.50	1.10	1				•					
16IR 10 UN IC908	9.52	10.0	16.49	0.15	1.50	1.10	1								•	
16IRB 10 UN IC908 [1]	9.52	10.0	16.49	0.15	1.50	1.10	1								•	
16IR 9 UN IC908	9.52	9.0	16.49	0.17	1.70	1.20	1								•	
16IL 8 UN IC08	9.52	8.0	16.49	0.22	1.45	1.04	1					•				
16IL 8 UN IC250	9.52	8.0	16.49	0.23	1.50	1.10	1				•					
16IL 8 UN IC908	9.52	8.0	16.49	0.23	1.50	1.10	1								•	
16IR 8 UN IC08	9.52	8.0	16.49	0.23	1.50	1.10	1					•				
16IR 8 UN IC1007	9.52	8.0	16.49	0.23	1.50	1.10	1									•
16IR 8 UN IC250	9.52	8.0	16.49	0.23	1.50	1.10	1				•					
16IR 8 UN IC908	9.52	8.0	16.49	0.23	1.50	1.10	1								•	
16IRB 8 UN IC908 [1]	9.52	8.0	16.49	0.23	1.50	1.10	1								•	
16IRM 8 UN IC1007	9.52	8.0	16.49	0.20	1.50	1.10	1									•
16IRM 8 UN IC250 [1]	9.52	8.0	16.49	0.20	1.50	1.10	1				•					
16IRM 8 UN IC808 [1]	9.52	8.0	16.49	0.20	1.50	1.10	1							•		
16IRM 8 UN IC908 [1]	9.52	8.0	16.49	0.20	1.50	1.10	1								•	

• For Insert Identification System, see page 645 • Tolerance: class 2B, ANSI B1, 3M-1986 • For technical information and detailed cutting data, see pages 797-812

[1] With pressed chipformer

[2] Multi-tooth

[3] Threads per inch

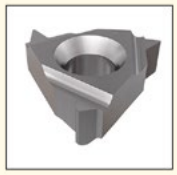
[4] Number of teeth per corner

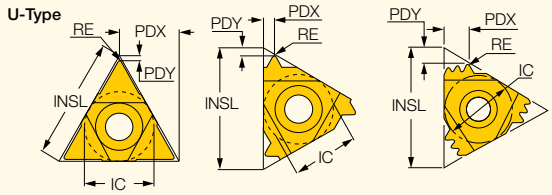
For tools, see pages: E-SIR-HEAD (740) • MGSIR/L (740) • MTET Single Point (1219) • PICIN-A-SIR/L (480) • PICIN-MGSIR/L (480) • SIR/L (738)

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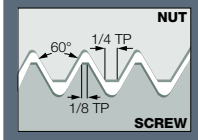
Internal American UN Full Profile (UN, UNC, UNF, UNEF) Laydown Threading Inserts for General Applications





Internal left-hand shown

I N C H



Designation	Dimensions IC	TPI[4]	INSL	RE	PDX	PDY	NT[5]	Tough ↔ Hard IC228	IC928	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
06IR 32 UN IC228	.157	32.0	.271	.0020	.0197	.0236	1	•								
06IR 28 UN IC908	.157	28.0	.271	.0028	.0197	.0236	1								•	
06IR 28 UN IC228	.157	28.0	.271	.0028	.0197	.0236	1	•								
06IL 24 UN IC228	.157	24.0	.271	.0032	.0236	.0236	1	•								
06IR 24 UN IC228	.157	24.0	.271	.0031	.0236	.0236	1	•								
06IR 24 UN IC908	.157	24.0	.271	.0032	.0236	.0236	1								•	
06IR 20 UN IC228	.157	20.0	.271	.0035	.0236	.0236	1	•								
06IL 18 UN IC228	.157	18.0	.271	.0027	.0276	.0236	1	•								
06IR 18 UN IC228	.157	18.0	.271	.0039	.0276	.0236	1	•								
08IR 32 UN IC228	.197	32.0	.324	.0024	.0197	.0197	1	•								
08IL 28 UN IC228	.197	28.0	.324	.0026	.0236	.0197	1	•								
08IR 28 UN IC228	.197	28.0	.324	.0026	.0236	.0197	1	•								
08IR 28 UN IC908	.197	28.0	.324	.0026	.0236	.0197	1								•	
08IR 27 UN IC228	.197	27.0	.324	.0032	.0197	.0197	1	•								
08IL 24 UN IC228	.197	24.0	.324	.0032	.0216	.0224	1	•								
08IR 24 UN IC228	.197	24.0	.324	.0031	.0236	.0236	1	•								
08IR 24 UN IC908	.197	24.0	.324	.0032	.0216	.0236	1								•	
08IL 20 UN IC228	.197	20.0	.324	.0031	.0276	.0276	1	•								
08IR 20 UN IC228	.197	20.0	.324	.0035	.0256	.0256	1	•								
08IR 18 UN IC228	.197	18.0	.324	.0047	.0276	.0197	1	•								
08IR 18 UN IC908	.197	18.0	.324	.0047	.0276	.0216	1								•	
08IR 16 UN IC228	.197	16.0	.324	.0047	.0276	.0236	1	•								
08IR 14 UN IC228	.197	14.0	.324	.0051	.0284	.0213	1	•								
08IR 14 UN IC908	.197	14.0	.324	.0051	.0284	.0213	1								•	
08IR 13 UN IC228	.197	13.0	.324	.0055	.0335	.0236	1	•								
08IR 13 UN IC908	.197	13.0	.324	.0055	.0335	.0236	1								•	
08UIRL 13 UN IC908	.197	13.0	.341	.0055	.1705	.0295	1								•	
08UIRL 12 UN IC928	.197	12.0	.341	.0051	.1705	.0315	1		•							
08UIRL 11 UN IC228	.197	11.0	.341	.0039	.1705	.0354	1	•								
11IR 64 UN IC250	.250	64.0	.433	.0014	.0158	.0307	1				•					
11IR 48 UN IC250	.250	48.0	.433	.0016	.0362	.0303	1				•					
11IR 44 UN IC250	.250	44.0	.433	.0018	.0362	.0303	1				•					
11IR 40 UN IC250	.250	40.0	.433	.0020	.0362	.0299	1				•					
11IR 36 UN IC908	.250	36.0	.433	.0024	.0236	.0236	1								•	
11IL 32 UN IC908	.250	32.0	.433	.0016	.0236	.0236	1								•	
11IR 32 UN IC908	.250	32.0	.433	.0020	.0236	.0236	1								•	
11IRB 32 UN IC908	.250	32.0	.433	.0016	.0236	.0236	1								•	
11IL 28 UN IC908	.250	28.0	.433	.0016	.0276	.0236	1								•	
11IR 28 UN IC908	.250	28.0	.433	.0020	.0236	.0236	1								•	
11IRB 28 UN IC908	.250	28.0	.433	.0020	.0236	.0236	1								•	
11IL 24 UN IC908	.250	24.0	.433	.0027	.0315	.0315	1								•	
11IR 24 UN IC1007	.250	24.0	.433	.0029	.0315	.0315	1									•
11IR 24 UN IC908	.250	24.0	.433	.0027	.0315	.0276	1								•	
11IRB 24 UN IC908	.250	24.0	.433	.0031	.0236	.0236	1								•	
11IL 20 UN IC908	.250	20.0	.433	.0035	.0354	.0315	1								•	
11IR 20 UN IC908	.250	20.0	.433	.0035	.0354	.0315	1								•	
11IRB 20 UN IC908	.250	20.0	.433	.0035	.0354	.0315	1								•	
11IL 18 UN IC908	.250	18.0	.433	.0039	.0394	.0354	1								•	
11IR 18 UN IC1007	.250	18.0	.433	.0027	.0394	.0315	1									•
11IR 18 UN IC250	.250	18.0	.433	.0039	.0394	.0354	1				•					

• For Insert Identification System, see page 645 • Tolerance: class 2B, ANSI B1, 3M-1986 • For technical information and detailed cutting data, see pages 797-812

(1) With pressed chipformer

(2) Multi-tooth

(3) With pressed chipformer

(4) Threads per inch

(5) Number of teeth per corner

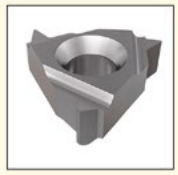
For tools, see pages: E-SIR-HEAD (740) • MGSIR/L (740) • MTET Single Point (1219) • PICIN-A-SIR/L (480) • PICIN-MGSIR/L (480) • SIR/L (738)

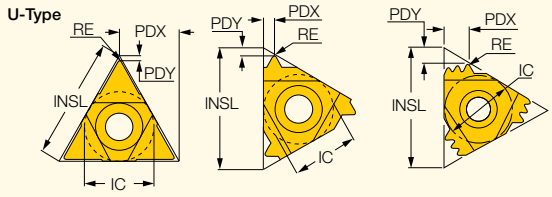
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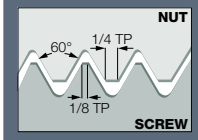
Internal American UN Full Profile (UN, UNC, UNF, UNEF) Laydown Threading Inserts for General Applications





Internal left-hand shown

I N C H



Designation	Dimensions IC	TPI[4]	INSL	RE	PDX	PDY	NT[5]	Tough ↔ Hard IC228	IC928	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
11IR 18 UN IC908	.250	18.0	.433	.0039	.0394	.0354	1								•	
11IRB 18 UN IC908	.250	18.0	.433	.0039	.0394	.0354	1								•	
11IL 16 UN IC908	.250	16.0	.433	.0043	.0394	.0354	1								•	
11IR 16 UN IC250	.250	16.0	.433	.0035	.0433	.0354	1				•					
11IR 16 UN IC1007	.250	16.0	.433	.0043	.0394	.0354	1									•
11IR 16 UN IC908	.250	16.0	.433	.0043	.0394	.0354	1								•	
11IRB 16 UN IC908	.250	16.0	.433	.0043	.0394	.0354	1								•	
11IL 14 UN IC250	.250	14.0	.433	.0039	.0433	.0354	1				•					
11IL 14 UN IC908	.250	14.0	.433	.0039	.0433	.0354	1								•	
11IR 14 UN IC250	.250	14.0	.433	.0039	.0433	.0354	1				•					
11IR 14 UN IC50M	.250	14.0	.433	.0051	.0394	.0354	1			•						
11IR 14 UN IC908	.250	14.0	.433	.0051	.0394	.0354	1								•	
11IRB 14 UN IC908	.250	14.0	.433	.0051	.0394	.0354	1								•	
11IR 13 UN IC908	.250	13.0	.433	.0059	.0374	.0295	1								•	
11IR 12 UN IC250	.250	12.0	.433	.0059	.0394	.0295	1				•					
11IR 12 UN IC908	.250	12.0	.433	.0059	.0394	.0295	1								•	
11IRB 12 UN IC908	.250	12.0	.433	.0059	.0394	.0295	1								•	
11IR 11 UN IC250	.250	11.0	.433	.0055	.0433	.0315	1				•					
11IR 11 UN IC908	.250	11.0	.433	.0055	.0394	.0315	1								•	
11IR 10 UN IC908	.250	10.0	.433	.0075	.0484	.0335	1								•	
16IR 64 UN IC250	.375	64.0	.649	.0014	.0158	.0228	1				•					
16IR 40 UN IC908	.375	40.0	.649	.0020	.0158	.0236	1								•	
16IR 36 UN IC908	.375	36.0	.649	.0024	.0236	.0228	1								•	
16IR 32 UN IC250	.375	32.0	.649	.0016	.0236	.0236	1				•					
16IR 32 UN IC908	.375	32.0	.649	.0020	.0236	.0236	1								•	
16IL 28 UN IC908	.375	28.0	.649	.0016	.0276	.0236	1								•	
16IR 28 UN IC908	.375	28.0	.649	.0020	.0236	.0236	1								•	
16IL 24 UN 2M IC908	.375	24.0	.649	.0032	.0591	.0512	2								•	
16IR 24 UN IC250	.375	24.0	.649	.0020	.0315	.0276	1				•					
16IR 24 UN IC908	.375	24.0	.649	.0031	.0315	.0276	1								•	
16IRB 24 UN IC908 [1]	.375	24.0	.649	.0027	.0315	.0276	1								•	
16IL 20 UN IC250	.375	20.0	.649	.0024	.0354	.0315	1				•					
16IL 20 UN IC908	.375	20.0	.649	.0035	.0354	.0315	1								•	
16IR 20 UN IC08	.375	20.0	.649	.0035	.0354	.0315	1					•				
16IR 20 UN IC1007	.375	20.0	.649	.0035	.0354	.0315	1									•
16IR 20 UN IC250	.375	20.0	.649	.0024	.0354	.0315	1				•					
16IR 20 UN IC50M	.375	20.0	.649	.0035	.0354	.0315	1			•						
16IR 20 UN IC908	.375	20.0	.649	.0035	.0354	.0315	1								•	
16IR 20 UN 2M IC250	.375	20.0	.649	.0043	.0787	.0630	2				•					
16IRB 20 UN IC908 [1]	.375	20.0	.649	.0035	.0315	.0315	1								•	
16IRM 20 UN IC1007	.375	20.0	.649	.0024	.0354	.0315	1									•
16IRM 20 UN IC908 [1]	.375	20.0	.649	.0024	.0354	.0315	1								•	
16IL 18 UN IC908	.375	18.0	.649	.0031	.0315	.0276	1								•	
16IR 18 UN IC1007	.375	18.0	.649	.0047	.0315	.0276	1									•
16IR 18 UN IC250	.375	18.0	.649	.0039	.0394	.0315	1				•					
16IR 18 UN IC908	.375	18.0	.649	.0039	.0394	.0315	1								•	
16IRB 18 UN IC908 [1]	.375	18.0	.649	.0047	.0315	.0276	1								•	
16IRM 18 UN IC808 [1]	.375	18.0	.649	.0031	.0394	.0315	1							•		
16IRM 18 UN IC908 [1]	.375	18.0	.649	.0031	.0394	.0315	1								•	
16IL 16 UN IC908	.375	16.0	.649	.0043	.0472	.0394	1								•	

• For Insert Identification System, see page 645 • Tolerance: class 2B, ANSI B1, 3M-1986 • For technical information and detailed cutting data, see pages 797-812

[1] With pressed chipformer
[2] Multi-tooth
[3] With pressed chipformer
[4] Threads per inch
[5] Number of teeth per corner

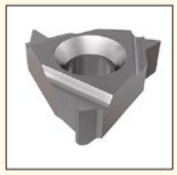
For tools, see pages: E-SIR-HEAD (740) • MGSIR/L (740) • MTET Single Point (1219) • PICIN-A-SIR/L (480) • PICIN-MGSIR/L (480) • SIR/L (738)

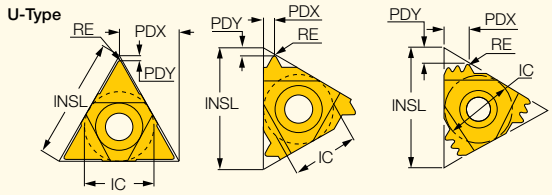
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ISCARTHREAD

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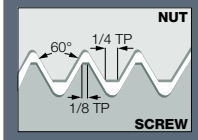
Internal American UN Full Profile (UN, UNC, UNF, UNEF) Laydown Threading Inserts for General Applications





Internal left-hand shown

I N C H



Designation	Dimensions IC	TPI[4]	INSL	RE	PDX	PDY	NT[5]	Tough ↔ Hard IC228	IC928	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
16IR 16 UN IC250	.375	16.0	.649	.0043	.0472	.0354	1				•					
16IR 16 UN IC908	.375	16.0	.649	.0043	.0472	.0354	1								•	
16IR 16 UN 2M IC508 [2]	.375	16.0	.649	.0035	.0906	.0590	2						•			
16IR 16 UN 2M IC908	.375	16.0	.649	.0035	.0906	.0590	2								•	
16IRB 16 UN IC908 [3]	.375	16.0	.649	.0043	.0472	.0354	1								•	
16IRM 16 UN IC1007 [1]	.375	16.0	.649	.0035	.0433	.0354	1									•
16IRM 16 UN IC250 [1]	.375	16.0	.649	.0035	.0433	.0354	1				•					
16IRM 16 UN IC908 [1]	.375	16.0	.649	.0035	.0433	.0354	1								•	
16IL 14 UN IC250	.375	14.0	.649	.0039	.0472	.0354	1				•					
16IL 14 UN IC908	.375	14.0	.649	.0051	.0472	.0354	1								•	
16IR 14 UN IC250	.375	14.0	.649	.0051	.0472	.0354	1				•					
16IR 14 UN IC908	.375	14.0	.649	.0051	.0472	.0354	1								•	
16IRB 14 UN IC908 [1]	.375	14.0	.649	.0051	.0472	.0354	1								•	
16IRM 14 UN IC1007	.375	14.0	.649	.0043	.0472	.0354	1									•
16IRM 14 UN IC250 [1]	.375	14.0	.649	.0043	.0472	.0354	1				•					
16IRM 14 UN IC808	.375	14.0	.649	.0043	.0472	.0354	1							•		
16IRM 14 UN IC908 [1]	.375	14.0	.649	.0043	.0472	.0354	1								•	
16IL 13 UN IC250	.375	13.0	.649	.0055	.0394	.0591	1				•					
16IR 13 UN IC908	.375	13.0	.649	.0055	.0394	.0591	1								•	
16IL 12 UN IC250	.375	12.0	.649	.0059	.0551	.0433	1				•					
16IL 12 UN IC908	.375	12.0	.649	.0059	.0433	.0394	1								•	
16IR 12 UN IC08	.375	12.0	.649	.0059	.0433	.0394	1					•				
16IR 12 UN IC1007	.375	12.0	.649	.0059	.0433	.0394	1									•
16IR 12 UN IC250	.375	12.0	.649	.0059	.0433	.0394	1				•					
16IR 12 UN IC908	.375	12.0	.649	.0059	.0433	.0394	1								•	
16IRB 12 UN IC908 [1]	.375	12.0	.649	.0051	.0472	.0394	1								•	
16IRM 12 UN IC1007 [1]	.375	12.0	.649	.0047	.0551	.0433	1									•
16IRM 12 UN IC250 [1]	.375	12.0	.649	.0047	.0551	.0433	1				•					
16IRM 12 UN IC808 [1]	.375	12.0	.649	.0047	.0551	.0433	1							•		
16IRM 12 UN IC908 [1]	.375	12.0	.649	.0047	.0551	.0433	1								•	
16IR 11.5 UN IC908	.375	11.5	.649	.0055	.0433	.0394	1								•	
16IL 11 UN IC908	.375	11.0	.649	.0071	.0394	.0394	1								•	
16IR 11 UN IC908	.375	11.0	.649	.0071	.0394	.0394	1								•	
16IL 10 UN IC250	.375	10.0	.649	.0059	.0590	.0433	1				•					
16IL 10 UN IC908	.375	10.0	.649	.0059	.0590	.0433	1								•	
16IR 10 UN IC250	.375	10.0	.649	.0059	.0590	.0433	1				•					
16IR 10 UN IC908	.375	10.0	.649	.0059	.0590	.0433	1								•	
16IRB 10 UN IC908 [1]	.375	10.0	.649	.0059	.0590	.0433	1								•	
16IR 9 UN IC908	.375	9.0	.649	.0067	.0669	.0472	1								•	
16IL 8 UN IC08	.375	8.0	.649	.0087	.0571	.0409	1					•				
16IL 8 UN IC250	.375	8.0	.649	.0091	.0590	.0433	1				•					
16IL 8 UN IC908	.375	8.0	.649	.0091	.0590	.0433	1								•	
16IR 8 UN IC08	.375	8.0	.649	.0091	.0590	.0433	1					•				
16IR 8 UN IC1007	.375	8.0	.649	.0091	.0590	.0433	1									•
16IR 8 UN IC250	.375	8.0	.649	.0091	.0590	.0433	1				•					
16IR 8 UN IC908	.375	8.0	.649	.0091	.0590	.0433	1								•	
16IRB 8 UN IC908 [1]	.375	8.0	.649	.0091	.0590	.0433	1								•	
16IRM 8 UN IC1007	.375	8.0	.649	.0079	.0590	.0433	1									•
16IRM 8 UN IC250 [1]	.375	8.0	.649	.0079	.0590	.0433	1				•					
16IRM 8 UN IC808 [1]	.375	8.0	.649	.0079	.0590	.0433	1							•		
16IRM 8 UN IC908 [1]	.375	8.0	.649	.0079	.0590	.0433	1								•	

• For Insert Identification System, see page 645 • Tolerance: class 2B, ANSI B1, 3M-1986 • For technical information and detailed cutting data, see pages 797-812

[1] With pressed chipformer

[2] Multi-tooth

[3] With pressed chipformer

[4] Threads per inch

[5] Number of teeth per corner

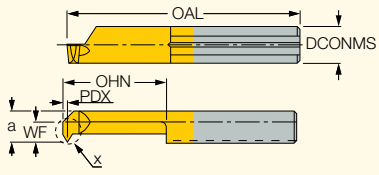
For tools, see pages: E-SIR-HEAD (740) • MGSIR/L (740) • MTET Single Point (1219) • PICIN-A-SIR/L (480) • PICIN-MGSIR/L (480) • SIR/L (738)

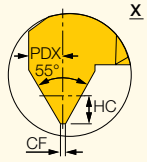
PICCOCUT

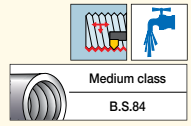
PICCO-55°-Thread

Inserts for 55° Internal Thread Profile



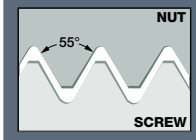






Right hand shown

M E T R I C



Designation	Dimensions											IC228
	DCONMS	DMIN	HC	CF	PDX	WF	a	OHN(1)	OAL	TPIN(2)	TPIX(3)	
PICCO R 005.5548-15	5.00	4.80	0.40	0.06	0.50	1.90	4.40	15.0	30.00	24.00	48.00	●
PICCO R 006.5548-15	6.00	6.00	0.40	0.06	0.50	2.30	5.30	15.0	30.00	24.00	48.00	●
PICCO R 006.5524-15	6.00	6.00	0.81	0.12	0.80	2.30	5.30	15.0	30.00	16.00	24.00	●
PICCO R 007.5524-15	7.00	7.00	0.81	0.12	0.80	2.80	6.30	15.0	30.00	16.00	24.00	●

• All mini-bars have sharp corners • For detailed cutting data, see pages 797-812

(1) Minimum overhang

(2) Threads per inch minimum

(3) Threads per inch maximum

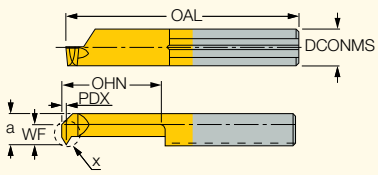
For holders, see pages: GHPCOR (438) • PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

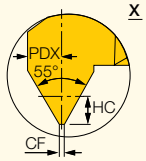
PICCOCUT

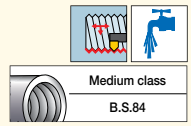
PICCO-55°-Thread

Inserts for 55° Internal Thread Profile



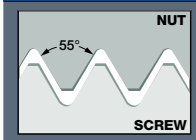






Right hand shown

I N C H



Designation	Dimensions											IC228
	DCONMS	DMIN	HC	CF	PDX	WF	a	OHN(1)	OAL	TPIN(2)	TPIX(3)	
PICCO R 005.5548-15	.197	.189	.016	.002	.0197	.075	.173	.59	1.181	24.00	48.00	●
PICCO R 006.5548-15	.236	.236	.016	.002	.0197	.091	.209	.59	1.181	24.00	48.00	●
PICCO R 006.5524-15	.236	.236	.032	.005	.0315	.091	.209	.59	1.181	16.00	24.00	●
PICCO R 007.5524-15	.276	.276	.032	.005	.0315	.110	.248	.59	1.181	16.00	24.00	●

• All mini-bars have sharp corners • For detailed cutting data, see pages 797-812

(1) Minimum overhang

(2) Threads per inch minimum

(3) Threads per inch maximum

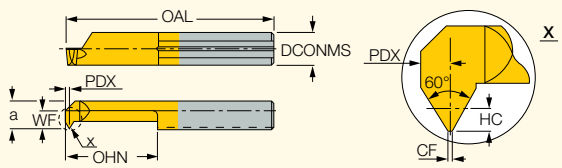
For holders, see pages: GHPCOR (438) • PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

PICCOCUT

PICCO R/L-60°-Thread

Inserts with a 60° Internal Thread Profile for 2.4 mm Min. Bore Diameter





Right hand shown

M E T R I C

Designation	DCONMS	DMIN	HC	CF	PDX	WF	a	OHN(1)	OAL	TPN(2)	TPX(3)	TPIN(4)	TPIX(5)	Tough ↔ Hard IC228	IC908
PICCO R 003.0105-8	4.00	2.40	0.27	0.04	0.30	0.30	2.30	8.0	22.00	0.500	0.700	36.00	48.00		●
PICCO R 004.0105-10	4.00	3.20	0.27	0.09	0.40	1.00	3.00	10.0	24.00	0.500	0.750	36.00	48.00		●
PICCO R/L 004.0205-15	4.00	4.00	0.27	0.06	0.40	1.50	3.50	15.0	30.00	0.500	0.750	36.00	48.00	●	
PICCO R/L 005.0205-15	5.00	5.00	0.27	0.06	0.40	1.90	4.40	15.0	30.00	0.500	0.750	36.00	48.00	●	
PICCO L 005.0407-15	5.00	5.00	0.40	0.09	0.50	1.90	4.40	15.0	30.00	0.750	1.000	24.00	36.00	●	
PICCO R 005.0407-15	5.00	5.00	0.40	0.09	0.50	1.90	4.40	15.0	30.00	0.750	1.000	24.00	36.00	●	●
PICCO R 005.0407-20	5.00	5.00	0.40	0.09	0.50	1.90	4.40	20.0	35.00	0.750	1.000	24.00	36.00		●
PICCO R/L 005.0510-15	5.00	4.80	0.55	0.12	0.60	1.90	4.40	15.0	30.00	1.000	1.250	20.00	24.00	●	
PICCO R 005.0510-20	5.00	4.80	0.55	0.12	0.60	1.90	4.40	20.0	35.00	1.000	1.250	20.00	24.00		●
PICCO R/L 006.0510-15	6.00	6.00	0.55	0.12	0.60	2.30	5.30	15.0	30.00	1.000	1.250	20.00	24.00	●	
PICCO R 006.0510-22	6.00	6.00	0.55	0.12	0.60	2.30	5.30	22.0	37.00	1.000	1.250	20.00	24.00		●
PICCO R/L 006.0612-15	6.00	6.00	0.68	0.15	0.70	2.30	5.30	15.0	30.00	1.250	1.500	16.00	20.00	●	
PICCO R 006.0612-22	6.00	6.00	0.68	0.15	0.70	2.30	5.30	22.0	37.00	1.250	1.500	16.00	20.00		●
PICCO R/L 006.0815-15	6.00	6.00	0.81	0.18	0.80	2.30	5.30	15.0	30.00	1.500	1.750	14.00	16.00	●	
PICCO R 006.0815-22	6.00	6.00	0.81	0.18	0.80	2.30	5.30	22.0	37.00	1.500	1.750	14.00	16.00		●
PICCO R/L 007.0815-15	7.00	7.00	0.81	0.18	0.80	2.70	6.30	15.0	30.00	1.500	1.750	14.00	16.00	●	

• For detailed cutting data, see pages 797-812 • DIN13, ISO 68-1, ISO 965 (1&2) - Internal tolerance: 6H • ANSI/ASME B1.1 - Internal tolerance: 2B

(1) Minimum overhang
(2) Thread pitch minimum (mm)
(3) Thread pitch maximum (mm)
(4) Threads per inch minimum
(5) Threads per inch maximum

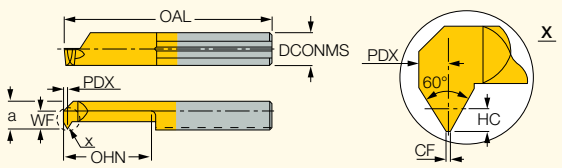
For holders, see pages: GHPCOR (438) • PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

PICCOCUT

PICCO R/L-60°-Thread

Inserts with a 60° Internal Thread Profile for .094" Min. Bore Diameter





Right hand shown

I N C H

Designation	DCONMS	DMIN	HC	CF	PDX	WF	a	OHN(1)	OAL	TPN (mm)(2)	TPX (mm)(3)	TPIN(4)	TPIX(5)	Tough ↔ Hard IC228	IC908
PICCO R 003.0105-8	.157	.094	.011	.002	.0118	.012	.091	.31	.866	.500	.700	36.00	48.00		●
PICCO R 004.0105-10	.157	.126	.011	.004	.0157	.039	.118	.39	.945	.500	.750	36.00	48.00		●
PICCO R/L 004.0205-15	.157	.157	.011	.002	.0157	.059	.138	.59	1.181	.500	.750	36.00	48.00	●	
PICCO R/L 005.0205-15	.197	.197	.011	.002	.0157	.075	.173	.59	1.181	.500	.750	36.00	48.00	●	
PICCO L 005.0407-15	.197	.197	.016	.004	.0197	.075	.173	.59	1.181	.750	1.000	24.00	36.00	●	
PICCO R 005.0407-15	.197	.197	.016	.004	.0197	.075	.173	.59	1.181	.750	1.000	24.00	36.00	●	●
PICCO R 005.0407-20	.197	.197	.016	.004	.0197	.075	.173	.79	1.378	.750	1.000	24.00	36.00		●
PICCO R/L 005.0510-15	.197	.189	.022	.005	.0236	.075	.173	.59	1.181	1.000	1.250	20.00	24.00	●	
PICCO R 005.0510-20	.197	.189	.022	.005	.0236	.075	.173	.79	1.378	1.000	1.250	20.00	24.00		●
PICCO R/L 006.0510-15	.236	.236	.022	.005	.0236	.091	.209	.59	1.181	1.000	1.250	20.00	24.00	●	
PICCO R 006.0510-22	.236	.236	.022	.005	.0236	.091	.209	.87	1.457	1.000	1.250	20.00	24.00		●
PICCO R/L 006.0612-15	.236	.236	.027	.006	.0276	.091	.209	.59	1.181	1.250	1.500	16.00	20.00	●	
PICCO R 006.0612-22	.236	.236	.027	.006	.0276	.091	.209	.87	1.457	1.250	1.500	16.00	20.00		●
PICCO R/L 006.0815-15	.236	.236	.032	.007	.0315	.091	.209	.59	1.181	1.500	1.750	14.00	16.00	●	
PICCO R 006.0815-22	.236	.236	.032	.007	.0315	.091	.209	.87	1.457	1.500	1.750	14.00	16.00		●
PICCO R/L 007.0815-15	.276	.276	.032	.007	.0315	.106	.248	.59	1.181	1.500	1.750	14.00	16.00	●	

• For detailed cutting data, see pages 797-812 • DIN13, ISO 68-1, ISO 965 (1&2) - Internal tolerance: 6H • ANSI/ASME B1.1 - Internal tolerance: 2B

(1) Minimum overhang
(2) Thread pitch minimum (mm)
(3) Thread pitch maximum (mm)
(4) Threads per inch minimum
(5) Threads per inch maximum

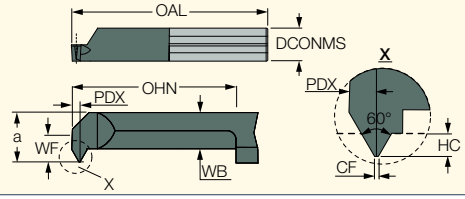
For holders, see pages: GHPCOR (438) • PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

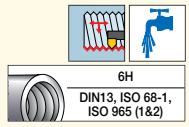
PICCOCUT

PICCO ISO Full Profile

ISO Standard Inserts for
Full Profile Threads

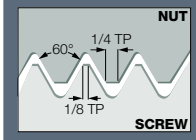






Right hand shown

M E T R I C



Designation	Dimensions											IC908
	DCONMS	DMIN	HC	CF	PDX	WF	a	WB	OHN(1)	OAL	TP(2)	
PICCO R/L 105.0510-15	5.00	4.80	0.54	0.12	0.60	1.90	4.40	3.30	15.0	30.00	1.000	●
PICCO R/L 106.0612-15	6.00	6.00	0.67	0.15	0.70	2.30	5.30	3.40	15.0	30.00	1.250	●
PICCO R/L 106.0815-15	6.00	6.00	0.81	0.18	0.80	2.30	5.30	3.40	15.0	30.00	1.500	●
PICCO R/L 107.0815-15	7.00	7.00	0.81	0.18	0.80	2.80	6.30	3.80	15.0	30.00	1.500	●

(1) Minimum overhang
(2) Thread pitch

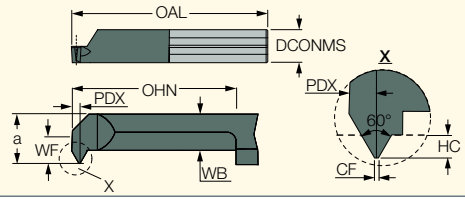
For holders, see pages: GHPCOR (438) • PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

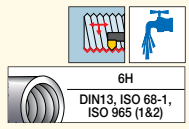
PICCOCUT

PICCO ISO Full Profile

ISO Standard Inserts for
Full Profile Threads

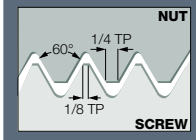






Right hand shown

I N C H



Designation	Dimensions											IC908
	DCONMS	DMIN	HC	CF	PDX	WF	a	WB	OHN(1)	OAL	TP mm(2)	
PICCO R/L 105.0510-15	.197	.189	.021	.005	.0236	.075	.173	.1299	.59	1.181	1.000	●
PICCO R/L 106.0612-15	.236	.236	.026	.006	.0276	.091	.209	.1339	.59	1.181	1.250	●
PICCO R/L 106.0815-15	.236	.236	.032	.007	.0315	.091	.209	.1339	.59	1.181	1.500	●
PICCO R/L 107.0815-15	.276	.276	.032	.007	.0315	.110	.248	.1496	.59	1.181	1.500	●

(1) Minimum overhang
(2) Thread pitch

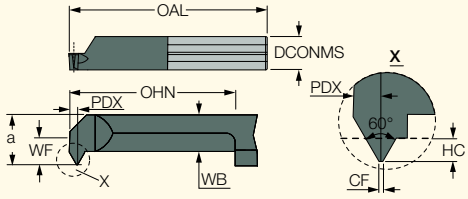
For holders, see pages: GHPCOR (438) • PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

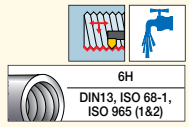
PICCOCUT

PICCO ISO Full Profile Fine

ISO Fine Pitch Inserts for
Full Profile Threads

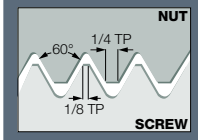






Right hand shown

M E T R I C



Designation	Dimensions											IC908
	DCONMS	DMIN	HC	CF	PDX	WF	a	OHN(1)	WB	OAL	TP(2)	
PICCO R/L 104.0205-15	5.00	4.00	0.27	0.06	0.40	1.50	3.50	15.0	2.40	30.00	0.500	●
PICCO R/L 105.0205-15	5.00	5.00	0.27	0.06	0.40	1.90	4.40	15.0	3.30	30.00	0.500	●
PICCO R/L 105.0407-15	5.00	5.00	0.40	0.09	0.50	1.90	4.40	15.0	3.30	30.00	0.750	●
PICCO R/L 106.0510-15	6.00	6.00	0.54	0.12	0.60	2.30	5.30	15.0	3.40	30.00	1.000	●

(1) Minimum overhang
(2) Thread pitch

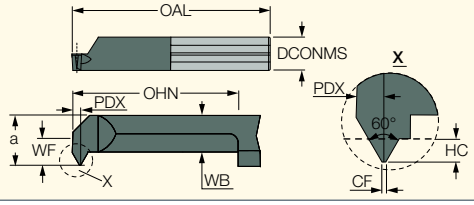
For holders, see pages: GHPCOR (438) • PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

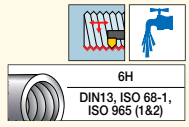
PICCOCUT

PICCO ISO Full Profile Fine

ISO Fine Pitch Inserts for
Full Profile Threads

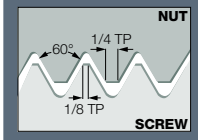






Right hand shown

I N C H



Designation	Dimensions											IC908
	DCONMS	DMIN	HC	CF	PDX	WF	a	OHN(1)	WB	OAL	TP mm(2)	
PICCO R/L 104.0205-15	.197	.157	.011	.002	.0157	.059	.138	.59	.094	1.181	.500	●
PICCO R/L 105.0205-15	.197	.197	.011	.002	.0157	.075	.173	.59	.130	1.181	.500	●
PICCO R/L 105.0407-15	.197	.197	.016	.004	.0197	.075	.173	.59	.130	1.181	.750	●
PICCO R/L 106.0510-15	.236	.236	.021	.005	.0236	.091	.209	.59	.134	1.181	1.000	●

(1) Minimum overhang
(2) Thread pitch

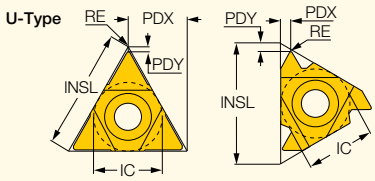
For holders, see pages: GHPCOR (438) • PICCO ACE (436) • PICCO/MG PCO (Holder) (439) • SC-PICCO (836)

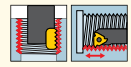
ISCARTHREAD

IR/L-60°

Internal Laydown Threading Inserts with a 60° Partial Profile for General Applications

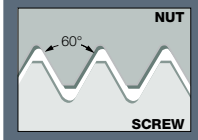






Internal left-hand shown

M E T R I C



Designation	Dimensions									Tough ↔ Hard								
	IC	TPN[2]	TPX[3]	TPIN[4]	TPIX[5]	INSL	RE	PDY	PDX	IC28	IC228	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
06IL A 60 IC228	4.00	0.500	1.250	20.00	48.00	6.88	0.05	0.50	0.60		•							
06IR A 60 IC908	4.00	0.500	1.250	20.00	48.00	6.88	0.05	0.50	0.60								•	
06IR A 60 IC228	4.00	0.500	1.250	20.00	48.00	6.88	0.05	0.50	0.60		•							
06IR A 60 IC28	4.00	0.500	1.250	20.00	48.00	6.88	0.05	0.50	0.60	•								
06IRM A 60 IC228 [1]	4.00	0.500	1.250	20.00	48.00	6.88	0.05	0.50	0.60		•							
08IL A 60 IC228	5.00	0.500	1.500	16.00	48.00	8.24	0.05	0.60	0.70		•							
08IR A 60 IC08	5.00	0.500	1.500	16.00	48.00	8.24	0.05	0.50	0.70					•				
08IR A 60 IC1007	5.00	0.500	1.500	16.00	48.00	8.24	0.05	0.50	0.70									•
08IR A 60 IC228	5.00	0.500	1.500	16.00	48.00	8.24	0.05	0.50	0.70		•							
08IR A 60 IC28	5.00	0.500	1.500	16.00	48.00	8.24	0.05	0.50	0.70	•								
08IR A 60 IC908	5.00	0.500	1.500	16.00	48.00	8.24	0.05	0.50	0.70								•	
08IRM A 60 IC1007 [1]	5.00	0.500	1.500	16.00	48.00	8.24	0.05	0.60	0.70									•
08IRM A 60 IC228 [1]	5.00	0.500	1.500	16.00	48.00	8.24	0.05	0.60	0.70		•							
08IRM A 60 IC808 [1]	5.00	0.500	1.500	16.00	48.00	8.24	0.04	0.60	0.70							•		
08IRM A 60 IC908 [1]	5.00	0.500	1.500	16.00	48.00	8.24	0.05	0.60	0.70								•	
08UIRL U 60 IC228	5.00	1.250	2.000	12.00	18.00	8.66	0.10	0.80	4.33		•							
11IL A 60 IC250	6.35	0.500	1.500	16.00	48.00	11.00	0.05	0.80	0.90				•					
11IL A 60 IC50M	6.35	0.500	1.500	16.00	48.00	11.00	0.05	0.80	0.90			•						
11IL A 60 IC908	6.35	0.500	1.500	16.00	48.00	11.00	0.05	0.80	0.90								•	
11IR A 60 IC08	6.35	0.500	1.500	16.00	48.00	11.00	0.05	0.80	0.90					•				
11IR A 60 IC1007	6.35	0.500	1.500	16.00	48.00	11.00	0.05	0.80	0.90									•
11IR A 60 IC228	6.35	0.500	1.500	16.00	48.00	11.00	0.05	0.80	0.90		•							
11IR A 60 IC250	6.35	0.500	1.500	16.00	48.00	11.00	0.05	0.80	0.90				•					
11IR A 60 IC50M	6.35	0.500	1.500	16.00	48.00	11.00	0.05	0.80	0.90			•						
11IR A 60 IC908	6.35	0.500	1.500	16.00	48.00	11.00	0.05	0.80	0.90								•	
11IRM A 60 IC1007 [1]	6.35	0.500	1.500	16.00	48.00	11.00	0.05	0.70	0.90									•
11IRM A 60 IC250 [1]	6.35	0.500	1.500	16.00	48.00	11.00	0.05	0.70	0.90				•					
11IRM A 60 IC808 [1]	6.35	0.500	1.500	16.00	48.00	11.00	0.05	0.70	0.90							•		
11IRM A 60 IC908 [1]	6.35	0.500	1.500	16.00	48.00	11.00	0.05	0.70	0.90								•	
16IL A 60 IC250	9.52	0.500	1.500	16.00	48.00	16.49	0.05	0.70	0.80				•					
16IL A 60 IC908	9.52	0.500	1.500	16.00	48.00	16.49	0.05	0.70	0.80								•	
16IR A 60 IC1007	9.52	0.500	1.500	16.00	48.00	16.49	0.05	0.80	0.90									•
16IR A 60 IC228	9.52	0.500	1.500	16.00	48.00	16.49	0.05	0.70	0.80		•							
16IR A 60 IC250	9.52	0.500	1.500	16.00	48.00	16.49	0.05	0.70	0.80				•					
16IR A 60 IC50M	9.52	0.500	1.500	16.00	48.00	16.49	0.05	0.70	0.80			•						
16IR A 60 IC908	9.52	0.500	1.500	16.00	48.00	16.49	0.05	0.70	0.80								•	
16IRB A 60 IC908 [1]	9.52	0.500	1.500	16.00	48.00	16.49	0.04	0.80	0.80								•	
16IRM A 60 IC1007 [1]	9.52	0.500	1.500	16.00	48.00	16.49	0.05	0.80	0.90									•
16IRM A 60 IC250 [1]	9.52	0.500	1.500	16.00	48.00	16.49	0.05	0.80	0.90				•					
16IRM A 60 IC808 [1]	9.52	0.500	1.500	16.00	48.00	16.49	0.05	0.80	0.90							•		
16IRM A 60 IC908 [1]	9.52	0.500	1.500	16.00	48.00	16.49	0.05	0.80	0.90								•	
16IL AG 60 IC08	9.52	0.500	3.000	8.00	48.00	16.49	0.05	1.20	1.70					•				
16IL AG 60 IC1007	9.52	0.500	3.000	8.00	48.00	16.49	0.05	1.20	1.70									•
16IL AG 60 IC250	9.52	0.500	3.000	8.00	48.00	16.49	0.05	1.20	1.70				•					
16IL AG 60 IC908	9.52	0.500	3.000	8.00	48.00	16.49	0.05	1.20	1.70								•	
16IR AG 60 IC1007	9.52	0.500	3.000	8.00	48.00	16.49	0.05	1.20	1.70									•
16IR AG 60 IC228	9.52	0.500	3.000	8.00	48.00	16.49	0.05	1.20	1.70		•							
16IR AG 60 IC250	9.52	0.500	3.000	8.00	48.00	16.49	0.05	1.20	1.70				•					
16IR AG 60 IC50M	9.52	0.500	3.000	8.00	48.00	16.49	0.05	1.20	1.70			•						
16IR AG 60 IC508	9.52	0.500	3.000	8.00	48.00	16.49	0.05	1.20	1.70						•			

- For Insert Identification System, see page 645 • For technical information and detailed cutting data, see pages 797-812
- DIN13, ISO 68-1, ISO 965 (1&2) - Internal tolerance: 6H • ANSI/ASME B1.1 - Internal tolerance: 2B

(1) With a pressed chipformer
(2) Thread pitch minimum (mm)
(3) Thread pitch maximum (mm)
(4) Threads per inch minimum
(5) Threads per inch maximum

For tools, see pages: E-SIR-HEAD (740) • MGSIR/L (740) • MTET Single Point (1219) • PICIN-A-SIR/L (480) • PICIN-MGSIR/L (480) • SIR/L (738)

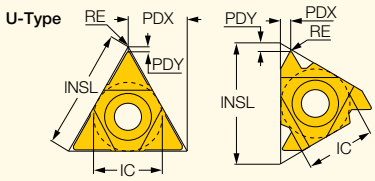
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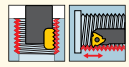
ISCARTHREAD

IR/L-60°

Internal Laydown Threading Inserts with a 60° Partial Profile for General Applications

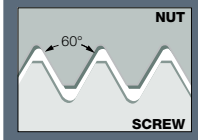






Internal left-hand shown

M E T R I C



Designation	Dimensions IC	TPN[2]	TPX[3]	TPIN[4]	TPIX[5]	INSL	RE	PDY	PDX	Tough ↔ Hard IC28	IC228	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
16IR AG 60 IC908	9.52	0.500	3.000	8.00	48.00	16.49	0.05	1.20	1.70								●	
16IRB AG 60 IC908 [1]	9.52	0.500	3.000	8.00	48.00	16.49	0.05	1.20	1.70								●	
16IRM AG 60 IC1007 [1]	9.52	0.500	3.000	8.00	48.00	16.49	0.05	1.20	1.70									●
16IRM AG 60 IC250 [1]	9.52	0.500	3.000	8.00	48.00	16.49	0.05	1.20	1.70				●					
16IRM AG 60 IC50M [1]	9.52	0.500	3.000	8.00	48.00	16.49	0.05	1.20	1.70			●						
16IRM AG 60 IC808 [1]	9.52	0.500	3.000	8.00	48.00	16.49	0.05	1.20	1.70							●		
16IRM AG 60 IC908 [1]	9.52	0.500	3.000	8.00	48.00	16.49	0.05	1.20	1.70								●	
16IL G 60 IC908	9.52	1.750	3.000	8.00	14.00	16.49	0.13	1.20	1.70								●	
16IR G 60 IC08	9.52	1.750	3.000	8.00	14.00	16.49	0.13	1.20	1.70					●				
16IR G 60 IC1007	9.52	1.750	3.000	8.00	14.00	16.49	0.13	1.20	1.70									●
16IR G 60 IC228	9.52	1.750	3.000	8.00	14.00	16.49	0.13	1.20	1.70		●							
16IR G 60 IC250	9.52	1.750	3.000	8.00	14.00	16.49	0.13	1.20	1.70				●					
16IR G 60 IC50M	9.52	1.750	3.000	8.00	14.00	16.49	0.13	1.20	1.70			●						
16IR G 60 IC908	9.52	1.750	3.000	8.00	14.00	16.49	0.13	1.20	1.70								●	
16IRB G 60 IC908 [1]	9.52	1.750	3.000	8.00	14.00	16.49	0.13	1.20	1.70								●	
16IRM G 60 IC1007 [1]	9.52	1.750	3.000	8.00	14.00	16.49	0.10	1.20	1.70									●
16IRM G 60 IC250 [1]	9.52	1.750	3.000	8.00	14.00	16.49	0.10	1.20	1.70				●					
16IRM G 60 IC50M [1]	9.52	1.750	3.000	8.00	14.00	16.49	0.10	1.20	1.70			●						
16IRM G 60 IC808 [1]	9.52	1.750	3.000	8.00	14.00	16.49	0.10	1.20	1.70							●		
16IRM G 60 IC908 [1]	9.52	1.750	3.000	8.00	14.00	16.49	0.10	1.20	1.70								●	

- For Insert Identification System, see page 645 • For technical information and detailed cutting data, see pages 797-812
- DIN13, ISO 68-1, ISO 965 (1&2) - Internal tolerance: 6H • ANSI/ASME B1.1 - Internal tolerance: 2B

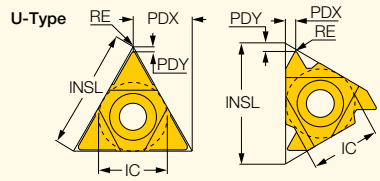
[1] With a pressed chipformer
[2] Thread pitch minimum (mm)
[3] Thread pitch maximum (mm)
[4] Threads per inch minimum
[5] Threads per inch maximum

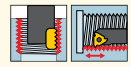
For tools, see pages: E-SIR-HEAD (740) • MGSIR/L (740) • MTET Single Point (1219) • PICIN-A-SIR/L (480) • PICIN-MGSIR/L (480) • SIR/L (738)

ISCARTHREAD

IR/L-60°

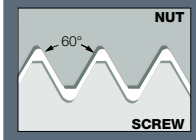
Internal Laydown Threading Inserts with a 60° Partial Profile for General Applications





Internal left-hand shown

I N C H



Designation	Dimensions IC	TPN (mm)[2]	TPX (mm)[3]	TPIN[4]	TPIX[5]	INSL	RE	PDY	PDX	Tough ↔ Hard IC28	IC228	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
06IL A 60 IC228	.157	.500	1.250	20.00	48.00	.271	.0020	.0197	.0236		•							
06IR A 60 IC908	.157	.500	1.250	20.00	48.00	.271	.0020	.0197	.0236								•	
06IR A 60 IC228	.157	.500	1.250	20.00	48.00	.271	.0020	.0197	.0236		•							
06IR A 60 IC28	.157	.500	1.250	20.00	48.00	.271	.0020	.0197	.0236	•								
06IRM A 60 IC228 (1)	.157	.500	1.250	20.00	48.00	.271	.0020	.0197	.0236		•							
08IL A 60 IC228	.197	.500	1.500	16.00	48.00	.324	.0020	.0236	.0276		•							
08IR A 60 IC08	.197	.500	1.500	16.00	48.00	.324	.0020	.0197	.0276					•				
08IR A 60 IC1007	.197	.500	1.500	16.00	48.00	.324	.0020	.0197	.0276									•
08IR A 60 IC228	.197	.500	1.500	16.00	48.00	.324	.0020	.0197	.0276		•							
08IR A 60 IC28	.197	.500	1.500	16.00	48.00	.324	.0020	.0197	.0276	•								
08IR A 60 IC908	.197	.500	1.500	16.00	48.00	.324	.0020	.0197	.0276								•	
08IRM A 60 IC1007 (1)	.197	.500	1.500	16.00	48.00	.324	.0020	.0236	.0276									•
08IRM A 60 IC228 (1)	.197	.500	1.500	16.00	48.00	.324	.0020	.0236	.0276		•							
08IRM A 60 IC808 (1)	.197	.500	1.500	16.00	48.00	.324	.0016	.0236	.0276							•		
08IRM A 60 IC908 (1)	.197	.500	1.500	16.00	48.00	.324	.0020	.0236	.0276								•	
08UIRL U 60 IC228	.197	1.250	2.000	12.00	18.00	.341	.0039	.0315	.1705		•							
11IL A 60 IC250	.250	.500	1.500	16.00	48.00	.433	.0020	.0315	.0354				•					
11IL A 60 IC50M	.250	.500	1.500	16.00	48.00	.433	.0020	.0315	.0354			•						
11IL A 60 IC908	.250	.500	1.500	16.00	48.00	.433	.0020	.0315	.0354								•	
11IR A 60 IC08	.250	.500	1.500	16.00	48.00	.433	.0020	.0315	.0354					•				
11IR A 60 IC1007	.250	.500	1.500	16.00	48.00	.433	.0020	.0315	.0354									•
11IR A 60 IC228	.250	.500	1.500	16.00	48.00	.433	.0020	.0315	.0354		•							
11IR A 60 IC250	.250	.500	1.500	16.00	48.00	.433	.0020	.0315	.0354				•					
11IR A 60 IC50M	.250	.500	1.500	16.00	48.00	.433	.0020	.0315	.0354			•						
11IR A 60 IC908	.250	.500	1.500	16.00	48.00	.433	.0020	.0315	.0354								•	
11IRM A 60 IC1007 (1)	.250	.500	1.500	16.00	48.00	.433	.0020	.0276	.0354									•
11IRM A 60 IC250 (1)	.250	.500	1.500	16.00	48.00	.433	.0020	.0276	.0354				•					
11IRM A 60 IC808 (1)	.250	.500	1.500	16.00	48.00	.433	.0020	.0276	.0354							•		
11IRM A 60 IC908 (1)	.250	.500	1.500	16.00	48.00	.433	.0020	.0276	.0354								•	
16IL A 60 IC250	.375	.500	1.500	16.00	48.00	.649	.0020	.0276	.0315				•					
16IL A 60 IC908	.375	.500	1.500	16.00	48.00	.649	.0020	.0276	.0315								•	
16IR A 60 IC1007	.375	.500	1.500	16.00	48.00	.649	.0020	.0315	.0354									•
16IR A 60 IC228	.375	.500	1.500	16.00	48.00	.649	.0020	.0276	.0315		•							
16IR A 60 IC250	.375	.500	1.500	16.00	48.00	.649	.0020	.0276	.0315				•					
16IR A 60 IC50M	.375	.500	1.500	16.00	48.00	.649	.0020	.0276	.0315			•						
16IR A 60 IC908	.375	.500	1.500	16.00	48.00	.649	.0020	.0276	.0315								•	
16IRB A 60 IC908 (1)	.375	.500	1.500	16.00	48.00	.649	.0016	.0315	.0315								•	
16IRM A 60 IC1007 (1)	.375	.500	1.500	16.00	48.00	.649	.0020	.0315	.0354									•
16IRM A 60 IC250 (1)	.375	.500	1.500	16.00	48.00	.649	.0020	.0315	.0354				•					
16IRM A 60 IC808 (1)	.375	.500	1.500	16.00	48.00	.649	.0020	.0315	.0354							•		
16IRM A 60 IC908 (1)	.375	.500	1.500	16.00	48.00	.649	.0020	.0315	.0354								•	
16IL AG 60 IC08	.375	.500	3.000	8.00	48.00	.649	.0020	.0472	.0669					•				
16IL AG 60 IC1007	.375	.500	3.000	8.00	48.00	.649	.0020	.0472	.0669									•
16IL AG 60 IC250	.375	.500	3.000	8.00	48.00	.649	.0020	.0472	.0669				•					
16IL AG 60 IC908	.375	.500	3.000	8.00	48.00	.649	.0020	.0472	.0669								•	
16IR AG 60 IC1007	.375	.500	3.000	8.00	48.00	.649	.0020	.0472	.0669									•
16IR AG 60 IC228	.375	.500	3.000	8.00	48.00	.649	.0020	.0472	.0669		•							
16IR AG 60 IC250	.375	.500	3.000	8.00	48.00	.649	.0020	.0472	.0669				•					
16IR AG 60 IC50M	.375	.500	3.000	8.00	48.00	.649	.0020	.0472	.0669			•						
16IR AG 60 IC508	.375	.500	3.000	8.00	48.00	.649	.0020	.0472	.0669						•			

- For Insert Identification System, see page 645 • For technical information and detailed cutting data, see pages 797-812
- DIN13, ISO 68-1, ISO 965 (1&2) - Internal tolerance: 6H • ANSI/ASME B1.1 - Internal tolerance: 2B

(1) With a pressed chipformer
(2) Thread pitch minimum (mm)
(3) Thread pitch maximum (mm)
(4) Threads per inch minimum
(5) Threads per inch maximum

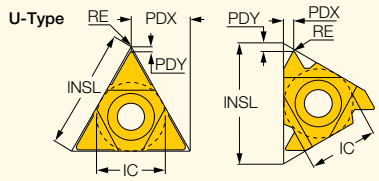
For tools, see pages: E-SIR-HEAD (740) • MGSIR/L (740) • MTET Single Point (1219) • PICIN-A-SIR/L (480) • PICIN-MGSIR/L (480) • SIR/L (738)

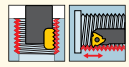
ISCARTHREAD

IR/L-60°

Internal Laydown Threading Inserts with a 60° Partial Profile for General Applications







Internal left-hand shown

I N C H

Designation	Dimensions									Tough ↔ Hard								
	IC	TPN (mm)[2]	TPX (mm)[3]	TPIN[4]	TPIX[5]	INSL	RE	PDY	PDX	IC28	IC228	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
16IR AG 60 IC908	.375	.500	3.000	8.00	48.00	.649	.0020	.0472	.0669								●	
16IRB AG 60 IC908 [1]	.375	.500	3.000	8.00	48.00	.649	.0020	.0472	.0669								●	
16IRM AG 60 IC1007 [1]	.375	.500	3.000	8.00	48.00	.649	.0020	.0472	.0669									●
16IRM AG 60 IC250 [1]	.375	.500	3.000	8.00	48.00	.649	.0020	.0472	.0669				●					
16IRM AG 60 IC50M [1]	.375	.500	3.000	8.00	48.00	.649	.0020	.0472	.0669			●						
16IRM AG 60 IC808 [1]	.375	.500	3.000	8.00	48.00	.649	.0020	.0472	.0669							●		
16IRM AG 60 IC908 [1]	.375	.500	3.000	8.00	48.00	.649	.0020	.0472	.0669								●	
16IL G 60 IC908	.375	1.750	3.000	8.00	14.00	.649	.0051	.0472	.0669								●	
16IR G 60 IC08	.375	1.750	3.000	8.00	14.00	.649	.0051	.0472	.0669					●				
16IR G 60 IC1007	.375	1.750	3.000	8.00	14.00	.649	.0051	.0472	.0669									●
16IR G 60 IC228	.375	1.750	3.000	8.00	14.00	.649	.0051	.0472	.0669		●							
16IR G 60 IC250	.375	1.750	3.000	8.00	14.00	.649	.0051	.0472	.0669				●					
16IR G 60 IC50M	.375	1.750	3.000	8.00	14.00	.649	.0051	.0472	.0669			●						
16IR G 60 IC908	.375	1.750	3.000	8.00	14.00	.649	.0051	.0472	.0669								●	
16IRB G 60 IC908 [1]	.375	1.750	3.000	8.00	14.00	.649	.0051	.0472	.0669								●	
16IRM G 60 IC1007 [1]	.375	1.750	3.000	8.00	14.00	.649	.0039	.0472	.0669									●
16IRM G 60 IC250 [1]	.375	1.750	3.000	8.00	14.00	.649	.0039	.0472	.0669				●					
16IRM G 60 IC50M [1]	.375	1.750	3.000	8.00	14.00	.649	.0039	.0472	.0669			●						
16IRM G 60 IC808 [1]	.375	1.750	3.000	8.00	14.00	.649	.0039	.0472	.0669							●		
16IRM G 60 IC908 [1]	.375	1.750	3.000	8.00	14.00	.649	.0039	.0472	.0669								●	

- For Insert Identification System, see page 645 • For technical information and detailed cutting data, see pages 797-812
- DIN13, ISO 68-1, ISO 965 (1&2) - Internal tolerance: 6H • ANSI/ASME B1.1 - Internal tolerance: 2B

[1] With a pressed chipformer
[2] Thread pitch minimum (mm)
[3] Thread pitch maximum (mm)
[4] Threads per inch minimum
[5] Threads per inch maximum

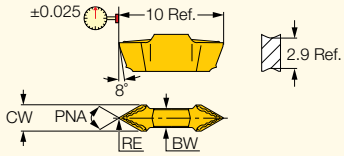
For tools, see pages: E-SIR-HEAD (740) • MGSIR/L (740) • MTET Single Point (1219) • PICIN-A-SIR/L (480) • PICIN-MGSIR/L (480) • SIR/L (738)

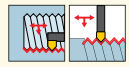
CUTGRIP

GEPI-MT

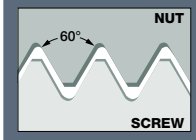
Precision Ground Internal Double-Ended Threading Inserts with a 60° Partial Profile for General Applications







M E T R I C



Designation	Dimensions CW	RE	RETOL(1)	PNA	BW	TPN(2)	TPX(3)	TPIN(4)	TPIX(5)	Tough ↔ Hard IC08	IC908
GEPI 2.5-MT0.05 IC08	2.50	0.05	0.030	60.0	1.80	0.910	2.540	10.00	28.00	●	
GEPI 2.5-MT0.05 IC908	2.50	0.05	0.030	60.0	1.80	0.910	2.540	10.00	28.00		●

- Toolholder seat needs to be modified according to insert profile to ensure clearance • Pitch max 0.187xD, TPI min D/5.35 • D=Diameter of thread (pitch max<=CW)
- DIN13, ISO 68-1, ISO 965 (1&2) - Internal tolerance: 6H, External tolerance: 6g • ANSI/ASME B1.1 - Internal tolerance: 2B, External tolerance: 2A

(1) Corner radius tolerance (+/-)
(2) Thread pitch minimum (mm)
(3) Thread pitch maximum (mm)
(4) Threads per inch minimum
(5) Threads per inch maximum

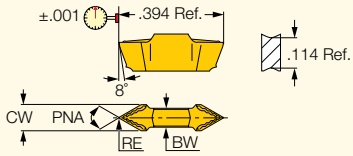
For tools, see pages: E-GEHIR / E-GHIR (425) • GEHIR/L (421) • GEHSR/L-SL (322)

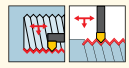
CUTGRIP

GEPI-MT

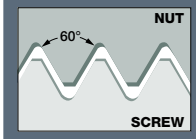
Precision Ground Internal Double-Ended Threading Inserts with a 60° Partial Profile for General Applications







I N C H



Designation	Dimensions CW	RE	RETOL(1)	PNA	BW	TPN (mm)(2)	TPX (mm)(3)	TPIN(4)	TPIX(5)	Tough ↔ Hard IC08	IC908
GEPI 2.5-MT0.05 IC08	.098	.002	.0012	60.0	.071	.910	2.540	10.00	28.00	●	
GEPI 2.5-MT0.05 IC908	.098	.002	.0012	60.0	.071	.910	2.540	10.00	28.00		●

- Toolholder seat needs to be modified according to insert profile to ensure clearance • Pitch max 0.187xD, TPI min D/5.35 • D=Diameter of thread (pitch max<=CW)
- DIN13, ISO 68-1, ISO 965 (1&2) - Internal tolerance: 6H, External tolerance: 6g • ANSI/ASME B1.1 - Internal tolerance: 2B, External tolerance: 2A

(1) Corner radius tolerance (+/-)
(2) Thread pitch minimum (mm)
(3) Thread pitch maximum (mm)
(4) Threads per inch minimum
(5) Threads per inch maximum

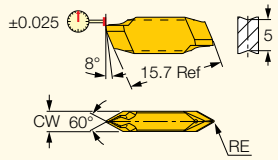
For tools, see pages: E-GEHIR / E-GHIR (425) • GEHIMR/L (419) • GEHIMR/L-SC (420) • GEHIR/L (421) • GEHIR/L-SC (423) • GEHSR/L-SL (322)

CUT-GRIP

TIPI-MT

Precision Ground Double-Ended Internal Threading Inserts with 60° Partial Profile and Chipformer for 20mm Min. Bore Dia.





M E T R I C

Designation	CW	RE	RETOL(1)	TPN(2)	TPIX(3)	TPIN(4)	TPX(5)	Tough ↔ Hard IC08	IC908
TIPI 3.4MT-0.10 IC08	3.40	0.10	0.030	1.800	14.00	8.00	3.180	●	
TIPI 3.4MT-0.10 IC908	3.40	0.10	0.030	1.800	14.00	8.00	3.180		●

- Toolholder seat needs to be modified according to insert profile to ensure clearance. • Pitch max 0.205xD, TPI min D/4.8 • D=Diameter of thread (pitch max<=CW)
- TIPI inserts are 1.6 mm longer than GIPI in the same pocket • DIN13, ISO 68-1, ISO 965 (1&2) - Internal tolerance: 6H • ANSI/ASME B1.1 - Internal tolerance: 2B

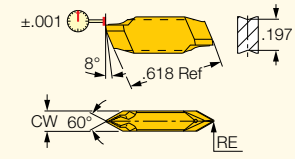
(1) Corner radius tolerance (+/-)
(2) Thread pitch minimum (mm)
(3) Threads per inch maximum
(4) Threads per inch minimum
(5) Thread pitch maximum (mm)

CUT-GRIP

TIPI-MT

Precision Ground Double-Ended Internal Threading Inserts with 60° Partial Profile and Chipformer for.787" Min. Bore Dia.





I N C H

Designation	CW	RE	RETOL(1)	TPN (mm)(2)	TPIX(3)	TPIN(4)	TPX (mm)(5)	Tough ↔ Hard IC08	IC908
TIPI 3.4MT-0.10 IC08	.134	.004	.0012	1.800	14.00	8.00	3.180	●	
TIPI 3.4MT-0.10 IC908	.134	.004	.0012	1.800	14.00	8.00	3.180		●

- Toolholder seat needs to be modified according to insert profile to ensure clearance. • Pitch max 0.205xD, TPI min D/4.8 • D=Diameter of thread (pitch max<=CW)
- TIPI inserts are .063" longer than GIPI in the same pocket • DIN13, ISO 68-1, ISO 965 (1&2) - Internal tolerance: 6H • ANSI/ASME B1.1 - Internal tolerance: 2B

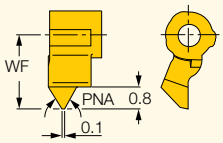
(1) Corner radius tolerance (+/-)
(2) Thread pitch minimum (mm)
(3) Threads per inch maximum
(4) Threads per inch minimum
(5) Thread pitch maximum (mm)

MINICHAM

UMGR-A60

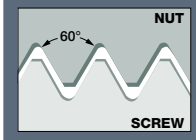
Mini Indexable Inserts with a 60° Partial Profile for Threading in 5.2 mm and Larger Holes





Right hand insert shown

M E T R I C



Designation	Dimensions							IC508
	PNA	WF	DMIN	TPN[1]	TPX[2]	TPIN[3]	TPIX[4]	
UMGR 4.0-A60 IC508	60.0	2.70	5.20	0.600	1.250	20.00	40.00	•

• For detailed cutting data, see pages 797-812 • DIN13, ISO 68-1, ISO 965 (1&2) - Internal tolerance: 6H • ANSI/ASME B1.1 - Internal tolerance: 2B

[1] Thread pitch minimum (mm)
[2] Thread pitch maximum (mm)
[3] Threads per inch minimum
[4] Threads per inch maximum

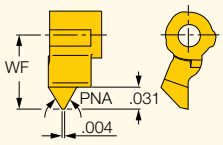
For tools, see pages: MGUHR (402)

MINICHAM

UMGR-A60

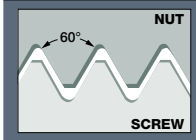
Mini Indexable Inserts with a 60° Partial Profile for Threading in .205" and Larger Holes





Right hand insert shown

I N C H



Designation	Dimensions							IC508
	PNA	WF	DMIN	TPN (mm)[1]	TPX (mm)[2]	TPIN[3]	TPIX[4]	
UMGR 4.0-A60 IC508	60.0	.106	.205	.600	1.250	20.00	40.00	•

• For detailed cutting data, see pages 797-812 • DIN13, ISO 68-1, ISO 965 (1&2) - Internal tolerance: 6H • ANSI/ASME B1.1 - Internal tolerance: 2B

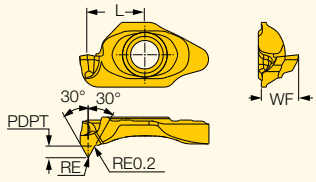
[1] Thread pitch minimum (mm)
[2] Thread pitch maximum (mm)
[3] Threads per inch minimum
[4] Threads per inch maximum

MIN CUT MINI FACE LINE

MITR 8-MT

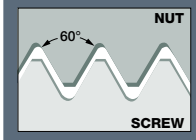
Internal ISO Metric Threading
Inserts for Partial Profile







M E T R I C



Designation	Dimensions							IC908
	PDPT(1)	RE	L	WF	DMIN(1)	TPN(2)	TPX(3)	
MITR 8-MT2-0.1 IC908	1.17	0.10	5.75	3.80	10.00	1.500	2.000	●
MITR 8-MT1-0.05 IC908	1.23	0.05	5.75	3.80	10.00	0.750	1.250	●

(1) Minimum diameter
(2) Thread pitch minimum (mm)
(3) Thread pitch maximum (mm)

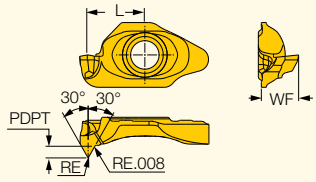
For tools, see pages: MIFHR (404)

MIN CUT MINI FACE LINE

MITR 8-MT

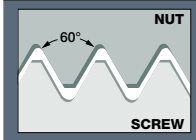
Internal ISO Metric Threading
Inserts for Partial Profile







I N C H



Designation	Dimensions							IC908
	PDPT	RE	L	WF	DMIN(1)	TPN (mm)(2)	TPX (mm)(3)	
MITR 8-MT2-0.1 IC908	.046	.0039	.226	.150	.394	1.500	2.000	●
MITR 8-MT1-0.05 IC908	.048	.0020	.226	.150	.394	.750	1.250	●

(1) Minimum diameter
(2) Thread pitch minimum (mm)
(3) Thread pitch maximum (mm)

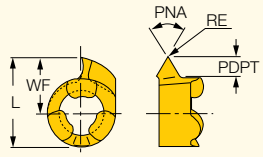
For tools, see pages: MIFHR (404)

CHAMGROOVE

GIQR/L-MT

Internal Threading Inserts with a 60° Partial Profile for Threading in 8 mm and Larger Holes

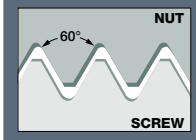






Left hand insert shown

M E T R I C



Designation	Dimensions L	RE	PNA	PDPT	WF	DMIN(1)	TPN(2)	TPX(3)	TPIN(4)	TPIX(5)	IC528
GIQR/L 8-MT-0.05 IC528	7.78	0.05	60.0	1.50	4.80	8.00	0.500	1.590	16.00	50.00	●
GIQR/L 11-MT-0.05 IC528	10.68	0.05	60.0	2.00	6.70	11.00	0.500	2.300	11.00	50.00	●

- Can be used for thread milling by circular interpolation • Pitch max 0.19xD • D-diameter of thread • For cutting speed recommendations, see pages 797-812
- DIN13, ISO 68-1, ISO 965 (1&2) - Internal tolerance: 6H • ANSI/ASME B1.1 - Internal tolerance: 2B

(1) Minimum diameter
(2) Thread pitch minimum (mm)
(3) Thread pitch maximum (mm)
(4) Threads per inch minimum
(5) Threads per inch maximum

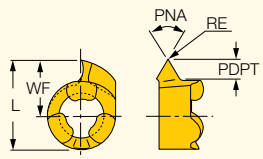
For tools, see pages: MG (407) • MGCH (408)

CHAMGROOVE

GIQR/L-MT

Internal Threading Inserts with a 60° Partial Profile for Threading in .31" and Larger Holes

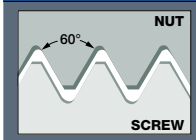






Left hand insert shown

I N C H



Designation	Dimensions L	RE	PNA	PDPT	WF	DMIN(1)	TPN (mm)(2)	TPX (mm)(3)	TPIN(4)	TPIX(5)	IC528
GIQR/L 8-MT-0.05 IC528	.306	.002	60.0	.059	.189	.315	.500	1.590	16.00	50.00	●
GIQR/L 11-MT-0.05 IC528	.420	.002	60.0	.079	.264	.433	.500	2.300	11.00	50.00	●

- Can be used for thread milling by circular interpolation. • Pitch max 0.19xD • D-diameter of thread • For cutting speed recommendations, see pages 797-812
- DIN13, ISO 68-1, ISO 965 (1&2) - Internal tolerance: 6H • ANSI/ASME B1.1 - Internal tolerance: 2B

(1) Minimum diameter
(2) Thread pitch minimum (mm)
(3) Thread pitch maximum (mm)
(4) Threads per inch minimum
(5) Threads per inch maximum

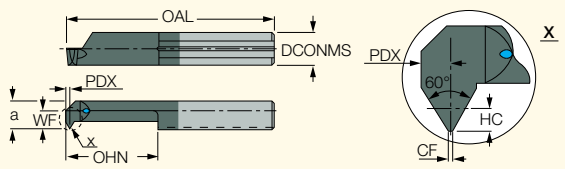
For tools, see pages: MG (407) • MGCH (408)

PICCOJET
COOLANT THROUGH

PICJ R/LTH (60° Threading)

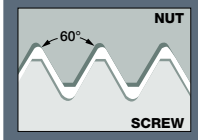
Inserts with a 60° Internal Thread Profile and Inner Coolant Channel for 2.4mm min. Bore Diameter





Right hand shown

M E T R I C



Designation	Dimensions DCONMS	DMIN	HC	CF	PDX	WF	a	OHN(1)	OAL	TPN(2)	TPX(3)	TPIN(4)	TPIX(5)	IC908
PICJ RTH7I0.50D024	4.00	2.40	0.27	0.04	0.30	0.30	2.30	8.0	22.00	0.500	0.700	36.00	48.00	●
PICJ RTH9I0.50D032	4.00	3.20	0.27	0.09	0.40	1.00	3.00	10.0	24.00	0.500	0.750	36.00	48.00	●
PICJ RTH14I0.50D040	4.00	4.00	0.27	0.06	0.40	1.50	3.50	15.0	30.00	0.500	0.750	36.00	48.00	●
PICJ RTH14I0.50D050	5.00	5.00	0.27	0.06	0.40	1.90	4.40	15.0	30.00	0.500	0.750	36.00	48.00	●
PICJ RTH14I0.75D050	5.00	5.00	0.40	0.09	0.50	1.90	4.40	15.0	30.00	0.750	1.000	24.00	36.00	●
PICJ R/LTH14I1.00D048	5.00	4.80	0.55	0.12	0.60	1.90	4.40	15.0	30.00	1.000	1.250	20.00	24.00	●
PICJ RTH19I1.00D048	5.00	4.80	0.55	0.12	0.60	1.90	4.40	20.0	35.00	1.000	1.250	20.00	24.00	●
PICJ RTH14I1.00D060	6.00	6.00	0.55	0.12	0.60	2.30	5.30	15.0	30.00	1.000	1.250	20.00	24.00	●
PICJ RTH21I1.00D060	6.00	6.00	0.55	0.12	0.60	2.30	5.30	22.0	37.00	1.000	1.250	20.00	24.00	●
PICJ RTH14I1.25D060	6.00	6.00	0.68	0.15	0.70	2.30	5.30	15.0	30.00	1.250	1.500	16.00	20.00	●
PICJ RTH14I1.50D060	6.00	6.00	0.81	0.18	0.80	2.30	5.30	15.0	30.00	1.500	1.750	14.00	16.00	●
PICJ R/LTH14I1.5D070	7.00	7.00	0.81	0.18	0.80	2.70	6.30	15.0	30.00	1.500	1.750	14.00	16.00	●

- For detailed cutting data, see pages 797-812 • DIN13, ISO 68-1, ISO 965 (1&2) - Internal tolerance: 6H • ANSI/ASME B1.1 - Internal tolerance: 2B
- PICJ items are suitable for PICCO/MG PCO, PICCO ACE, SC-PICCO type holders only

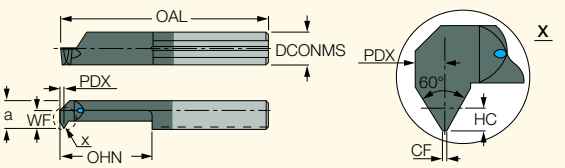
(1) Minimum overhang
(2) Thread pitch minimum (mm)
(3) Thread pitch maximum (mm)
(4) Threads per inch minimum
(5) Threads per inch maximum

PICCOJET
COOLANT THROUGH

PICJ R/LTH (60° Threading)

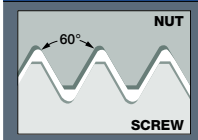
Inserts with a 60° Internal Thread Profile and Inner Coolant Channel for .094" Min. Bore Diameter





Right hand shown

I N C H



Designation	Dimensions DCONMS	DMIN	HC	CF	PDX	WF	a	OHN(1)	OAL	TPN (mm)(2)	TPX (mm)(3)	TPIN(4)	TPIX(5)	IC908
PICJ RTH7I0.50D024	.157	.094	.011	.002	.0118	.012	.091	.31	.866	.500	.700	36.00	48.00	●
PICJ RTH9I0.50D032	.157	.126	.011	.004	.0157	.039	.118	.39	.945	.500	.750	36.00	48.00	●
PICJ RTH14I0.50D040	.157	.157	.011	.002	.0157	.059	.138	.59	1.181	.500	.750	36.00	48.00	●
PICJ RTH14I0.50D050	.197	.197	.011	.002	.0157	.075	.173	.59	1.181	.500	.750	36.00	48.00	●
PICJ RTH14I0.75D050	.197	.197	.016	.004	.0197	.075	.173	.59	1.181	.750	1.000	24.00	36.00	●
PICJ R/LTH14I1.00D048	.197	.189	.022	.005	.0236	.075	.173	.59	1.181	1.000	1.250	20.00	24.00	●
PICJ RTH19I1.00D048	.197	.189	.022	.005	.0236	.075	.173	.79	1.378	1.000	1.250	20.00	24.00	●
PICJ RTH14I1.00D060	.236	.236	.022	.005	.0236	.091	.209	.59	1.181	1.000	1.250	20.00	24.00	●
PICJ RTH21I1.00D060	.236	.236	.022	.005	.0236	.091	.209	.87	1.457	1.000	1.250	20.00	24.00	●
PICJ RTH14I1.25D060	.236	.236	.027	.006	.0276	.091	.209	.59	1.181	1.250	1.500	16.00	20.00	●
PICJ RTH14I1.50D060	.236	.236	.032	.007	.0315	.091	.209	.59	1.181	1.500	1.750	14.00	16.00	●
PICJ R/LTH14I1.5D070	.276	.276	.032	.007	.0315	.106	.248	.59	1.181	1.500	1.750	14.00	16.00	●

- For detailed cutting data, see pages 797-812 • DIN13, ISO 68-1, ISO 965 (1&2) - Internal tolerance: 6H • ANSI/ASME B1.1 - Internal tolerance: 2B
- PICJ items are suitable for PICCO/MG PCO, PICCO ACE, SC-PICCO type holders only

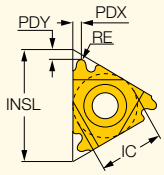
(1) Minimum overhang
(2) Thread pitch minimum (mm)
(3) Thread pitch maximum (mm)
(4) Threads per inch minimum
(5) Threads per inch maximum

ISCARTHREAD

IR/L-RND

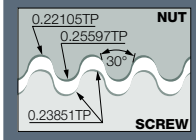
Internal DIN 405 Round Laydown Threading Inserts for Fire Fighting and Food Industry Pipe Couplings





Internal left-hand shown

M E T R I C



Designation	Dimensions IC	TPI[2]	INSL	RE	PDX	PDY	Tough ↔ Hard IC250	IC908
16IR 10 RND IC908	9.52	10.0	16.49	0.36	1.20	1.10		●
16IL 8 RND IC908	9.52	8.0	16.49	0.70	1.40	1.40		●
16IR 8 RND IC908	9.52	8.0	16.49	0.70	1.40	1.40		●
16IL 6 RND IC908	9.52	6.0	16.49	0.94	1.50	1.40		●
16IR 6 RND IC250	9.52	6.0	16.49	0.94	1.50	1.40	●	
16IR 6 RND IC908	9.52	6.0	16.49	0.94	1.40	1.50		●
16IRM 6 RND IC908 [1]	9.52	6.0	16.49	0.94	1.50	1.40		●

• For Insert Identification System, see page 645 • Tolerance: Class 7H • For technical information and detailed cutting data, see pages 797-812

[1] With pressed chipformer

[2] Threads per inch

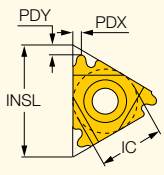
For tools, see pages: E-SIR-HEAD (740) • SIR/L (738)

ISCARTHREAD

IR/L-RND

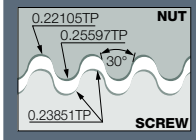
Internal DIN 405 Round Laydown Threading Inserts for Fire Fighting and Food Industry Pipe Couplings





Internal left-hand shown

I N C H



Designation	Dimensions IC	TPI[2]	INSL	RE	PDX	PDY	Tough ↔ Hard IC250	IC908
16IR 10 RND IC908	.375	10.0	.649	.0142	.0472	.0433		●
16IL 8 RND IC908	.375	8.0	.649	.0276	.0551	.0551		●
16IR 8 RND IC908	.375	8.0	.649	.0276	.0551	.0551		●
16IL 6 RND IC908	.375	6.0	.649	.0370	.0590	.0551		●
16IR 6 RND IC250	.375	6.0	.649	.0370	.0590	.0551	●	
16IR 6 RND IC908	.375	6.0	.649	.0370	.0551	.0590		●
16IRM 6 RND IC908 [1]	.375	6.0	.649	.0370	.0590	.0551		●

• For Insert Identification System, see page 645 • Tolerance: Class 7H • For technical information and detailed cutting data, see pages 797-812

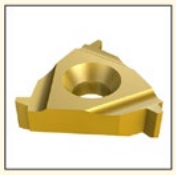
[1] With pressed chipformer

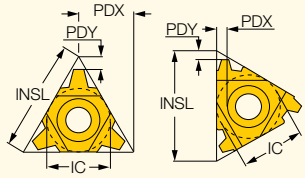
[2] Threads per inch

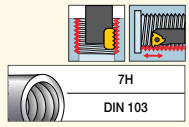
For tools, see pages: E-SIR-HEAD (740) • SIR/L (738)

ISCARTHREAD

IR/L-TR
Internal Trapezoid Shaped
DIN 103 Laydown Threading
Inserts for Feed Screws







Internal left-hand shown

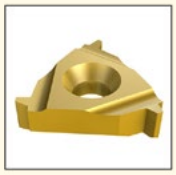
M E T R I C

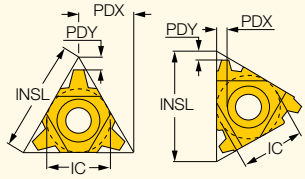
Designation	Dimensions IC	INSL	TP[2]	PDX	PDY	Tough ↔ Hard IC228	IC50M	IC250	IC908
08IR 1.5 TR IC228 [1]	5.00	8.24	1.500	0.60	0.60	•			
08UIRL 2 TR IC228	5.00	8.66	2.000	4.33	0.90	•			
16IL 2 TR IC250	9.52	16.49	2.000	1.30	1.00			•	
16IL 2 TR IC908	9.52	16.49	2.000	1.30	1.00				•
16IL 3 TR IC908	9.52	16.49	3.000	1.50	1.30				•
16IR 1.5 TR IC250	9.52	16.49	1.500	1.00	1.00			•	
16IR 1.5 TR IC908	9.52	16.49	1.500	1.10	1.00				•
16IR 2 TR IC250	9.52	16.49	2.000	1.30	1.00			•	
16IR 2 TR IC908	9.52	16.49	2.000	1.10	1.00				•
16IR 3 TR IC228	9.52	16.49	3.000	1.50	1.30	•			
16IR 3 TR IC908	9.52	16.49	3.000	1.50	1.30				•

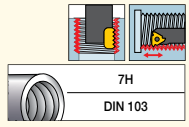
• For Insert Identification System, see page 645 • Tolerance: Class 7H • For technical information and detailed cutting data, see pages 797-812
[1] A single threading corner
[2] Thread pitch
For tools, see pages: E-SIR-HEAD (740) • MTET Single Point (1219) • SIR/L (738)

ISCARTHREAD

IR/L-TR
Internal Trapezoid Shaped
DIN 103 Laydown Threading
Inserts for Feed Screws







Internal left-hand shown

I N C H

Designation	Dimensions IC	INSL	TP mm[2]	PDX	PDY	Tough ↔ Hard IC228	IC50M	IC250	IC908
08IR 1.5 TR IC228 [1]	.197	.324	1.500	.0236	.0236	•			
08UIRL 2 TR IC228	.197	.341	2.000	.1705	.0354	•			
16IL 2 TR IC250	.375	.649	2.000	.0512	.0394			•	
16IL 2 TR IC908	.375	.649	2.000	.0512	.0394				•
16IL 3 TR IC908	.375	.649	3.000	.0590	.0512				•
16IR 1.5 TR IC250	.375	.649	1.500	.0394	.0394			•	
16IR 1.5 TR IC908	.375	.649	1.500	.0433	.0394				•
16IR 2 TR IC250	.375	.649	2.000	.0512	.0394			•	
16IR 2 TR IC908	.375	.649	2.000	.0433	.0394				•
16IR 3 TR IC228	.375	.649	3.000	.0590	.0512	•			
16IR 3 TR IC908	.375	.649	3.000	.0590	.0512				•

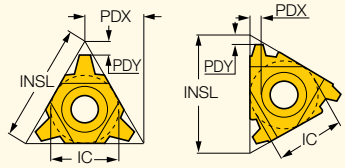
• For Insert Identification System, see page 645 • Tolerance: Class 7H • For technical information and detailed cutting data, see pages 797-812
[1] A single threading corner
[2] Thread pitch
For tools, see pages: E-SIR-HEAD (740) • MTET Single Point (1219) • SIR/L (738)

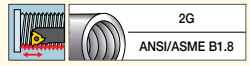
ISCARTHREAD

IR/L-STACME

Internal STUB ACME Laydown Threading Inserts with a Shallow ACME Profile for Control Valves

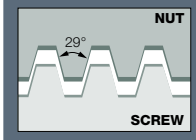






Internal left-hand shown

M E T R I C



Designation	Dimensions IC	TPI[1]	INSL	PDX	PDY	Tough ↔ Hard IC50M	IC250	IC908
16IR 16 STACME IC50M	9.52	16.0	16.49	1.00	1.00	●		
16IR 16 STACME IC908	9.52	16.0	16.49	1.00	1.00			●
16IR 12 STACME IC908	9.52	12.0	16.49	1.20	1.20			●
16IR 10 STACME IC50M	9.52	10.0	16.49	1.30	1.30	●		
16IR 10 STACME IC908	9.52	10.0	16.49	1.20	1.20			●
16IL 8 STACME IC908	9.52	8.0	16.49	1.50	1.60			●
16IR 8 STACME IC50M	9.52	8.0	16.49	1.50	1.60	●		
16IR 8 STACME IC908	9.52	8.0	16.49	1.50	1.60			●
16IR 6 STACME IC250	9.52	6.0	16.49	1.80	1.80		●	
16IR 6 STACME IC908	9.52	6.0	16.49	1.70	1.60			●

• For Insert Identification System, see page 645 • Tolerance: Class • For technical information and detailed cutting data, see pages 797-812

[1] Threads per inch

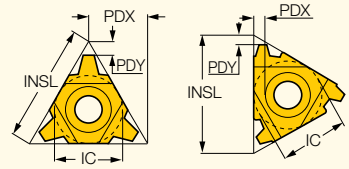
For tools, see pages: E-SIR-HEAD (740) • SIR/L (738)

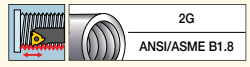
ISCARTHREAD

IR/L-STACME

Internal STUB ACME Laydown Threading Inserts with a Shallow ACME Profile for Control Valves

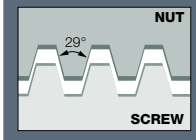






Internal left-hand shown

I N C H



Designation	Dimensions IC	TPI[1]	INSL	PDX	PDY	Tough ↔ Hard IC50M	IC250	IC908
16IR 16 STACME IC50M	.375	16.0	.649	.0394	.0394	●		
16IR 16 STACME IC908	.375	16.0	.649	.0394	.0394			●
16IR 12 STACME IC908	.375	12.0	.649	.0472	.0472			●
16IR 10 STACME IC50M	.375	10.0	.649	.0512	.0512	●		
16IR 10 STACME IC908	.375	10.0	.649	.0472	.0472			●
16IL 8 STACME IC908	.375	8.0	.649	.0591	.0630			●
16IR 8 STACME IC50M	.375	8.0	.649	.0591	.0630	●		
16IR 8 STACME IC908	.375	8.0	.649	.0591	.0630			●
16IR 6 STACME IC250	.375	6.0	.649	.0709	.0709		●	
16IR 6 STACME IC908	.375	6.0	.649	.0669	.0630			●

• For Insert Identification System, see page 645 • Tolerance: Class 2G • For technical information and detailed cutting data, see pages 797-812

[1] Threads per inch

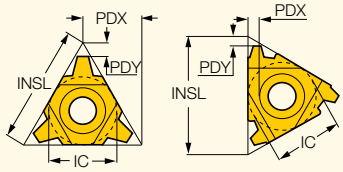
For tools, see pages: E-SIR-HEAD (740) • SIR/L (738)

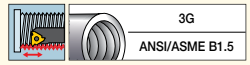
ISCARTHREAD

IR/L-ACME

Internal ACME Profile
Laydown Threading Inserts
for Feed Screws







Internal left-hand shown

M E T R I C

Designation	IC	TPI[2]	INSL	PDX	PDY	IC50M	IC250	IC08	IC508	IC908	IC1007
	Dimensions					Tough ↔ Hard					
16IL 16 ACME IC50M	9.52	16.0	16.49	1.00	0.90	•					
16IR 16 ACME IC250	9.52	16.0	16.49	1.00	0.90		•				
16IR 16 ACME IC50M	9.52	16.0	16.49	1.00	0.90	•					
16IL 14 ACME IC50M	9.52	14.0	16.49	1.20	1.00	•					
16IL 12 ACME IC50M	9.52	12.0	16.49	1.20	1.10	•					
16IR 12 ACME IC08	9.52	12.0	16.49	1.20	1.10			•			
16IR 12 ACME IC250	9.52	12.0	16.49	1.20	1.10		•				
16IR 12 ACME IC908	9.52	12.0	16.49	1.20	1.10					•	
16IL 10 ACME IC50M	9.52	10.0	16.49	1.30	1.30	•					
16IR 10 ACME IC250	9.52	10.0	16.49	1.40	1.30		•				
16IL 8 ACME IC908	9.52	8.0	16.49	1.50	1.50					•	
16IR 8 ACME IC250	9.52	8.0	16.49	1.50	1.30		•				
16IR 8 ACME IC908	9.52	8.0	16.49	1.50	1.30					•	
16IR 6 ACME IC250 [1]	9.52	6.0	16.49	1.65	1.40		•				
16IR 6 ACME IC1007 [1]	9.52	6.0	16.49	1.65	1.40						•
16IR 6 ACME IC908 [1]	9.52	6.0	16.49	1.65	1.40					•	

• For Insert Identification System, see page 645 • ACME ASME/ANSI B1.5-1988 Class 3G • For technical information and detailed cutting data, see pages 797-812

[1] Can be used only on special/modificated holders

[2] Threads per inch

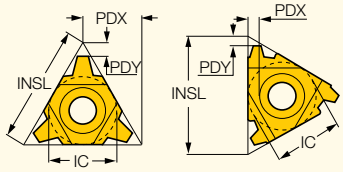
For tools, see pages: E-SIR-HEAD (740) • SIR/L (738)

ISCARTHREAD

IR/L-ACME

Internal ACME Profile
Laydown Threading Inserts
for Feed Screws







Internal left-hand shown

I N C H

Designation	IC	TPI[2]	INSL	PDX	PDY	IC50M	IC250	IC08	IC508	IC908	IC1007
	Dimensions					Tough ↔ Hard					
16IL 16 ACME IC50M	.375	16.0	.649	.0394	.0354	•					
16IR 16 ACME IC250	.375	16.0	.649	.0394	.0354		•				
16IR 16 ACME IC50M	.375	16.0	.649	.0394	.0354	•					
16IL 14 ACME IC50M	.375	14.0	.649	.0472	.0394	•					
16IL 12 ACME IC50M	.375	12.0	.649	.0472	.0433	•					
16IR 12 ACME IC08	.375	12.0	.649	.0472	.0433			•			
16IR 12 ACME IC250	.375	12.0	.649	.0472	.0433		•				
16IR 12 ACME IC908	.375	12.0	.649	.0472	.0433					•	
16IL 10 ACME IC50M	.375	10.0	.649	.0512	.0512	•					
16IR 10 ACME IC250	.375	10.0	.649	.0551	.0512		•				
16IL 8 ACME IC908	.375	8.0	.649	.0590	.0590					•	
16IR 8 ACME IC250	.375	8.0	.649	.0590	.0512		•				
16IR 8 ACME IC908	.375	8.0	.649	.0590	.0512					•	
16IR 6 ACME IC250 [1]	.375	6.0	.649	.0650	.0551		•				
16IR 6 ACME IC1007 [1]	.375	6.0	.649	.0650	.0551						•
16IR 6 ACME IC908 [1]	.375	6.0	.649	.0650	.0551					•	

• For Insert Identification System, see page 645 • ACME ASME/ANSI B1.5-1988 Class 3G • For technical information and detailed cutting data, see pages 797-812

[1] Can be used only on special/modificated holders

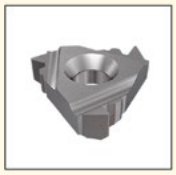
[2] Threads per inch

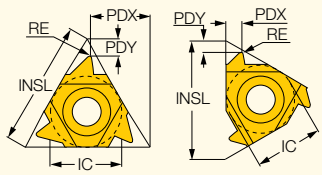
For tools, see pages: E-SIR-HEAD (740) • SIR/L (738)

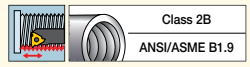
ISCARTHREAD

IR/L-ABUT

Internal American Buttress Laydown Threading Inserts for High Force Transmission in One Direction

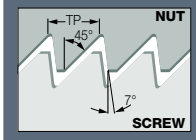






Internal left-hand shown

M E T R I C



Designation	Dimensions IC	TPI[1]	INSL	RE	PDX	PDY	Tough ↔ Hard IC50M	IC250	IC908
11IR 20 ABUT IC908	6.35	20.0	11.00	0.07	1.20	0.85			•
11IL 16 ABUT IC250	6.35	16.0	11.00	0.09	1.50	1.00		•	
11IR 16 ABUT IC908	6.35	16.0	11.00	0.09	1.50	1.00			•
16IR 20 ABUT IC250	9.52	20.0	16.49	0.07	1.30	1.00		•	
16IR 20 ABUT IC908	9.52	20.0	16.49	0.07	1.30	1.00			•
16IL 16 ABUT IC908	9.52	16.0	16.49	0.09	1.50	1.00			•
16IR 16 ABUT IC908	9.52	16.0	16.49	0.09	1.50	1.00			•
16IL 12 ABUT IC908	9.52	12.0	16.49	0.12	2.00	1.40			•
16IR 12 ABUT IC250	9.52	12.0	16.49	0.12	2.00	1.40		•	
16IR 12 ABUT IC908	9.52	12.0	16.49	0.12	2.00	1.40			•
16IL 10 ABUT IC908	9.52	10.0	16.49	0.15	2.40	1.50			•
16IR 10 ABUT IC250	9.52	10.0	16.49	0.15	2.40	1.50		•	
16IR 10 ABUT IC908	9.52	10.0	16.49	0.15	2.40	1.50			•

• For Insert Identification System, see page 645 • ANSI B1.9-1973 Class 2 • For technical information and detailed cutting data, see pages 797-812

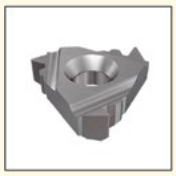
(1) Threads per inch

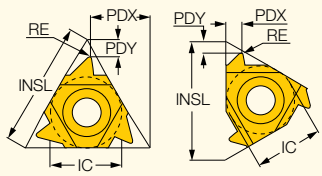
For tools, see pages: E-SIR-HEAD (740) • MTET Single Point (1219) • SIR/L (738)

ISCARTHREAD

IR/L-ABUT

Internal American Buttress Laydown Threading Inserts for High Force Transmission in One Direction

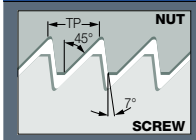






Internal left-hand shown

I N C H



Designation	Dimensions IC	TPI[1]	INSL	RE	PDX	PDY	Tough ↔ Hard IC50M	IC250	IC908
11IR 20 ABUT IC908	.250	20.0	.433	.0028	.0472	.0335			•
11IL 16 ABUT IC250	.250	16.0	.433	.0035	.0590	.0394		•	
11IR 16 ABUT IC908	.250	16.0	.433	.0035	.0590	.0394			•
16IR 20 ABUT IC250	.375	20.0	.649	.0027	.0512	.0394		•	
16IR 20 ABUT IC908	.375	20.0	.649	.0027	.0512	.0394			•
16IL 16 ABUT IC908	.375	16.0	.649	.0035	.0590	.0394			•
16IR 16 ABUT IC908	.375	16.0	.649	.0035	.0590	.0394			•
16IL 12 ABUT IC908	.375	12.0	.649	.0047	.0787	.0551			•
16IR 12 ABUT IC250	.375	12.0	.649	.0047	.0787	.0551		•	
16IR 12 ABUT IC908	.375	12.0	.649	.0047	.0787	.0551			•
16IL 10 ABUT IC908	.375	10.0	.649	.0059	.0945	.0591			•
16IR 10 ABUT IC250	.375	10.0	.649	.0059	.0945	.0591		•	
16IR 10 ABUT IC908	.375	10.0	.649	.0059	.0945	.0591			•

• For Insert Identification System, see page 645 • ANSI B1.9-1973 Class 2 • For technical information and detailed cutting data, see pages 797-812

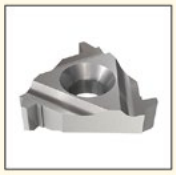
(1) Threads per inch

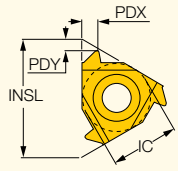
For tools, see pages: E-SIR-HEAD (740) • MTET Single Point (1219) • SIR/L (738)

ISCARTHREAD

IR/L-SAGE

Internal Sagengenwinde (DIN 513) Thread Application for High Force in One Direction Application

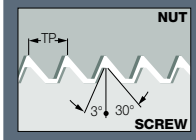






Internal left-hand shown

M E T R I C



Designation	Dimensions IC	INSL	TP[2]	PDX	PDY	IC908
16IL 2 SAGE IC908	9.52	16.49	2.000	1.70	1.20	●
16IR 2 SAGE IC908	9.52	16.49	2.000	1.70	1.20	●

• For Insert Identification System, see page 645 • For technical information and detailed cutting data, see pages 797-812

(1) Requires special anvil

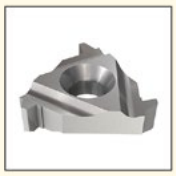
(2) Thread pitch

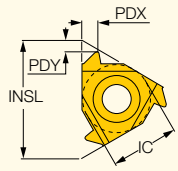
For tools, see pages: E-SIR-HEAD (740) • SIR/L (738)

ISCARTHREAD

IR/L-SAGE

Internal Sagengenwinde (DIN 513) Thread Application for High Force in One Direction Application

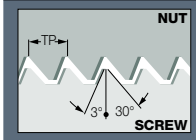






Internal left-hand shown

I N C H



Designation	Dimensions IC	INSL	TP mm[2]	PDX	PDY	IC908
16IL 2 SAGE IC908	.375	.649	2.000	.0669	.0472	●
16IR 2 SAGE IC908	.375	.649	2.000	.0669	.0472	●

• For Insert Identification System, see page 645 • For technical information and detailed cutting data, see pages 797-812

(1) Requires special anvil

(2) Thread pitch

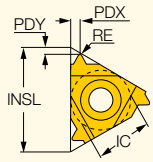
For tools, see pages: E-SIR-HEAD (740) • SIR/L (738)

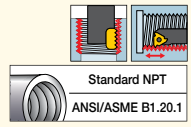
ISCARTHREAD

IR/L-NPT

Internal NPT (National Pipe Threads) Full Profile Laydown Threading Inserts for Steam, Gas and Water Pipes

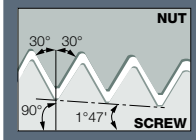






Internal left-hand shown

M E T R I C



Designation	Dimensions IC	TPI[3]	INSL	RE	PDX	PDY	NT[4]	Tough ↔ Hard IC228	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
06IR 27 NPT IC228	4.00	27.0	6.88	0.04	0.60	0.60	1	•							
08IR 18 NPT IC228	5.00	18.0	8.24	0.06	0.80	0.60	1	•							
08IR 18 NPT IC908	5.00	18.0	8.24	0.06	0.80	0.60	1							•	
11IL 18 NPT IC908	6.35	18.0	11.00	0.06	1.00	0.80	1							•	
11IR 18 NPT IC250	6.35	18.0	11.00	0.06	1.00	0.80	1			•					
11IR 18 NPT IC908	6.35	18.0	11.00	0.06	1.00	0.80	1							•	
11IRB 18 NPT IC908	6.35	18.0	11.00	0.06	1.00	0.80	1							•	
11IL 14 NPT IC250	6.35	14.0	11.00	0.07	1.00	0.80	1			•					
11IR 14 NPT IC1007	6.35	14.0	11.00	0.07	1.00	0.80	1								•
11IR 14 NPT IC250	6.35	14.0	11.00	0.07	1.00	0.80	1			•					
11IR 14 NPT IC908	6.35	14.0	11.00	0.07	1.00	0.80	1							•	
16IL 27 NPT IC250	9.52	27.0	16.49	0.05	0.80	0.70	1			•					
16IR 27 NPT IC908	9.52	27.0	16.49	0.05	0.80	0.70	1							•	
16IR 18 NPT IC908	9.52	18.0	16.49	0.06	1.00	0.80	1							•	
16IRM 14 NPT IC1007 [1]	9.52	14.0	16.49	0.05	1.20	0.90	1								•
16IRM 14 NPT IC250 [1]	9.52	14.0	16.49	0.05	1.20	0.90	1			•					
16IRM 14 NPT IC808 [1]	9.52	14.0	16.49	0.05	1.20	0.90	1						•		
16IRM 14 NPT IC908 [1]	9.52	14.0	16.49	0.05	1.20	0.90	1							•	
16IRB 14 NPT IC908 [1]	9.52	14.0	16.49	0.07	1.20	0.90	1							•	
16IL 14 NPT IC908	9.52	14.0	16.49	0.08	1.20	0.90	1							•	
16IR 14 NPT IC1007	9.52	14.0	16.49	0.08	1.20	0.90	1								•
16IR 14 NPT IC228	9.52	14.0	16.49	0.08	1.20	0.90	1	•							
16IR 14 NPT IC250	9.52	14.0	16.49	0.08	1.20	0.90	1			•					
16IR 14 NPT IC908	9.52	14.0	16.49	0.08	1.20	0.90	1							•	
16IRB 11.5 NPT IC908 [1]	9.52	11.5	16.49	0.09	1.50	1.10	1							•	
16IRM 11.5 NPT IC1007 [1]	9.52	11.5	16.49	0.09	1.50	1.10	1								•
16IRM 11.5 NPT IC508 [1]	9.52	11.5	16.49	0.09	1.50	1.10	1					•			
16IRM 11.5 NPT IC808 [1]	9.52	11.5	16.49	0.09	1.50	1.10	1						•		
16IRM 11.5 NPT IC908 [1]	9.52	11.5	16.49	0.09	1.50	1.10	1							•	
16IL 11.5 NPT IC250	9.52	11.5	16.49	0.09	1.50	1.10	1			•					
16IL 11.5 NPT IC908	9.52	11.5	16.49	0.09	1.50	1.10	1							•	
16IR 11.5 NPT IC1007	9.52	11.5	16.49	0.09	1.50	1.10	1								•
16IR 11.5 NPT IC50M	9.52	11.5	16.49	0.09	1.50	1.10	1		•						
16IR 11.5 NPT IC908	9.52	11.5	16.49	0.09	1.50	1.10	1							•	
16IRM 8 NPT IC1007 [1]	9.52	8.0	16.49	0.12	1.80	1.30	1								•
16IRM 8 NPT IC808 [1]	9.52	8.0	16.49	0.12	1.80	1.30	1						•		
16IRM 8 NPT IC908 [1]	9.52	8.0	16.49	0.12	1.80	1.30	1							•	
16IRB 8 NPT IC908 [1]	9.52	8.0	16.49	0.11	1.70	1.20	1							•	
16IL 8 NPT IC250	9.52	8.0	16.49	0.11	1.80	1.30	1			•					
16IL 8 NPT IC908	9.52	8.0	16.49	0.11	1.80	1.30	1							•	
16IR 8 NPT IC08	9.52	8.0	16.49	0.11	1.80	1.30	1				•				
16IR 8 NPT IC250	9.52	8.0	16.49	0.11	1.80	1.30	1			•					
16IR 8 NPT IC908	9.52	8.0	16.49	0.11	1.70	1.20	1							•	

• For Insert Identification System, see page 645 • National Pipe Threads ANSI/ASME B1.20.1-1983 • For technical information and detailed cutting data, see pages 797-812

[1] With pressed chipformer

[2] Multi-tooth

[3] Threads per inch

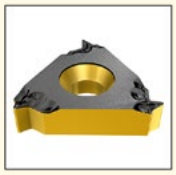
[4] Number of teeth per corner

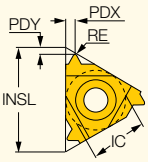
For tools, see pages: E-SIR-HEAD (740) • MGSIR/L (740) • MTET Single Point (1219) • PICIN-A-SIR/L (480) • PICIN-MGSIR/L (480) • SIR/L (738)

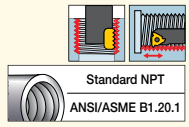
ISCARTHREAD

IR/L-NPT

Internal NPT (National Pipe Threads) Full Profile Laydown Threading Inserts for Steam, Gas and Water Pipes

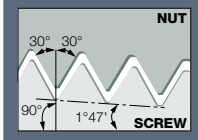






Internal left-hand shown

I N C H



Designation	Dimensions IC	TPI[3]	INSL	RE	PDX	PDY	NT[4]	Tough ↔ Hard IC228	IC50M	IC250	IC08	IC508	IC808	IC908	IC1007
06IR 27 NPT IC228	.157	27.0	.271	.0016	.0236	.0236	1	•							
08IR 18 NPT IC228	.197	18.0	.324	.0024	.0315	.0236	1	•							
08IR 18 NPT IC908	.197	18.0	.324	.0024	.0315	.0236	1							•	
11IL 18 NPT IC908	.250	18.0	.433	.0024	.0394	.0315	1							•	
11IR 18 NPT IC250	.250	18.0	.433	.0024	.0394	.0315	1			•					
11IR 18 NPT IC908	.250	18.0	.433	.0024	.0394	.0315	1							•	
11IRB 18 NPT IC908	.250	18.0	.433	.0024	.0394	.0315	1							•	
11IL 14 NPT IC250	.250	14.0	.433	.0027	.0394	.0315	1			•					
11IR 14 NPT IC1007	.250	14.0	.433	.0027	.0394	.0315	1								•
11IR 14 NPT IC250	.250	14.0	.433	.0027	.0394	.0315	1			•					
11IR 14 NPT IC908	.250	14.0	.433	.0027	.0394	.0315	1							•	
16IL 27 NPT IC250	.375	27.0	.649	.0018	.0315	.0276	1			•					
16IR 27 NPT IC908	.375	27.0	.649	.0018	.0315	.0276	1							•	
16IR 18 NPT IC908	.375	18.0	.649	.0024	.0394	.0315	1							•	
16IRM 14 NPT IC1007 [1]	.375	14.0	.649	.0020	.0472	.0354	1								•
16IRM 14 NPT IC250 [1]	.375	14.0	.649	.0020	.0472	.0354	1			•					
16IRM 14 NPT IC808 [1]	.375	14.0	.649	.0020	.0472	.0354	1						•		
16IRM 14 NPT IC908 [1]	.375	14.0	.649	.0020	.0472	.0354	1							•	
16IRB 14 NPT IC908 [1]	.375	14.0	.649	.0027	.0472	.0354	1							•	
16IL 14 NPT IC908	.375	14.0	.649	.0032	.0472	.0354	1							•	
16IR 14 NPT IC1007	.375	14.0	.649	.0032	.0472	.0354	1								•
16IR 14 NPT IC228	.375	14.0	.649	.0032	.0472	.0354	1	•							
16IR 14 NPT IC250	.375	14.0	.649	.0031	.0472	.0354	1			•					
16IR 14 NPT IC908	.375	14.0	.649	.0032	.0472	.0354	1							•	
16IRB 11.5 NPT IC908 [1]	.375	11.5	.649	.0035	.0590	.0433	1							•	
16IRM 11.5 NPT IC1007 [1]	.375	11.5	.649	.0035	.0590	.0433	1								•
16IRM 11.5 NPT IC508 [1]	.375	11.5	.649	.0035	.0590	.0433	1					•			
16IRM 11.5 NPT IC808 [1]	.375	11.5	.649	.0035	.0590	.0433	1						•		
16IRM 11.5 NPT IC908 [1]	.375	11.5	.649	.0035	.0590	.0433	1							•	
16IL 11.5 NPT IC250	.375	11.5	.649	.0035	.0590	.0433	1			•					
16IL 11.5 NPT IC908	.375	11.5	.649	.0035	.0590	.0433	1							•	
16IR 11.5 NPT IC1007	.375	11.5	.649	.0035	.0590	.0433	1								•
16IR 11.5 NPT IC50M	.375	11.5	.649	.0035	.0590	.0433	1		•						
16IR 11.5 NPT IC908	.375	11.5	.649	.0035	.0590	.0433	1							•	
16IRM 8 NPT IC1007 [1]	.375	8.0	.649	.0047	.0709	.0512	1								•
16IRM 8 NPT IC808 [1]	.375	8.0	.649	.0047	.0709	.0512	1						•		
16IRM 8 NPT IC908 [1]	.375	8.0	.649	.0047	.0709	.0512	1							•	
16IRB 8 NPT IC908 [1]	.375	8.0	.649	.0043	.0669	.0472	1							•	
16IL 8 NPT IC250	.375	8.0	.649	.0043	.0709	.0512	1			•					
16IL 8 NPT IC908	.375	8.0	.649	.0043	.0709	.0512	1							•	
16IR 8 NPT IC08	.375	8.0	.649	.0043	.0709	.0512	1				•				
16IR 8 NPT IC250	.375	8.0	.649	.0043	.0709	.0512	1			•					
16IR 8 NPT IC908	.375	8.0	.649	.0043	.0669	.0472	1							•	

• For Insert Identification System, see page 645 • National Pipe Threads ANSI/ASME B1.20.1-1983 • For technical information and detailed cutting data, see pages 797-812

[1] With pressed chipformer

[2] Multi-tooth

[3] Threads per inch

[4] Number of teeth per corner

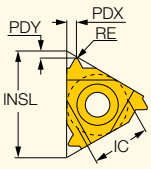
For tools, see pages: E-SIR-HEAD (740) • MGSIR/L (740) • MTET Single Point (1219) • PICIN-A-SIR/L (480) • PICIN-MGSIR/L (480) • SIR/L (738)

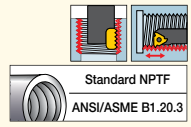
ISCARTHREAD

IR/L-NPTF

Internal NPTF (National Pipe Threads) Full Profile Laydown Threading Inserts for Steam, Gas and Water Pipes

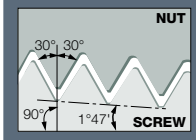






Internal left-hand shown

M E T R I C

 Designation	Dimensions IC	TPI(1)	INSL	RE	PDX	PDY	Tough ↔ Hard IC228	IC250	IC908
06IR 27 NPTF IC228	4.00	27.0	6.88	0.04	0.60	0.70	•		
08IR 27 NPTF IC228	5.00	27.0	8.24	0.04	0.60	0.60	•		
08IL 18 NPTF IC228	5.00	18.0	8.24	0.04	0.80	0.58	•		
08IR 18 NPTF IC228	5.00	18.0	8.24	0.04	0.80	0.60	•		
11IR 18 NPTF IC908	6.35	18.0	11.00	0.04	1.00	0.80			•
11IRB 18 NPTF IC908	6.35	18.0	11.00	0.04	1.00	0.80			•
11IR 14 NPTF IC908	6.35	14.0	16.49	0.04	1.10	0.80			•
16IR 18 NPTF IC908	9.52	18.0	16.49	0.06	1.00	0.80			•
16IL 14 NPTF IC908	9.52	14.0	16.49	0.07	1.20	0.90			•
16IR 14 NPTF IC250	9.52	14.0	16.49	0.07	1.20	0.90		•	
16IR 14 NPTF IC908	9.52	14.0	16.49	0.04	1.20	0.90			•
16IR 11.5 NPTF IC250	9.52	11.5	16.49	0.06	1.45	1.00		•	
16IR 11.5 NPTF IC908	9.52	11.5	16.49	0.05	1.45	1.00			•

- For Insert Identification System, see page 645 • (National Pipe Threads-Dry seal) ANSI/ASME B1.20.1-1976
- For technical information and detailed cutting data, see pages 797-812

(1) Threads per inch

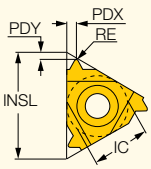
For tools, see pages: E-SIR-HEAD (740) • MGSIR/L (740) • MTET Single Point (1219) • PICIN-A-SIR/L (480) • PICIN-MGSIR/L (480) • SIR/L (738)

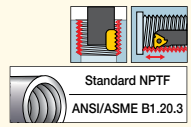
ISCARTHREAD

IR/L-NPTF

Internal NPTF (National Pipe Threads) Full Profile Laydown Threading Inserts, for Steam, Gas and Water Pipes

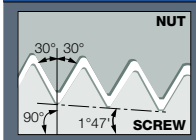






Internal left-hand shown

I N C H

 Designation	Dimensions IC	TPI(1)	INSL	RE	PDX	PDY	Tough ↔ Hard IC228	IC250	IC908
06IR 27 NPTF IC228	.157	27.0	.271	.0016	.0236	.0276	•		
08IR 27 NPTF IC228	.197	27.0	.324	.0016	.0236	.0236	•		
08IL 18 NPTF IC228	.197	18.0	.324	.0016	.0315	.0228	•		
08IR 18 NPTF IC228	.197	18.0	.324	.0016	.0315	.0236	•		
11IR 18 NPTF IC908	.250	18.0	.433	.0016	.0394	.0315			•
11IRB 18 NPTF IC908	.250	18.0	.433	.0016	.0394	.0315			•
11IR 14 NPTF IC908	.250	14.0	.649	.0016	.0433	.0315			•
16IR 18 NPTF IC908	.375	18.0	.649	.0024	.0394	.0315			•
16IL 14 NPTF IC908	.375	14.0	.649	.0027	.0472	.0354			•
16IR 14 NPTF IC250	.375	14.0	.649	.0027	.0472	.0354		•	
16IR 14 NPTF IC908	.375	14.0	.649	.0016	.0472	.0354			•
16IR 11.5 NPTF IC250	.375	11.5	.649	.0024	.0571	.0394		•	
16IR 11.5 NPTF IC908	.375	11.5	.649	.0020	.0571	.0394			•

- For Insert Identification System, see page 645 • (National Pipe Threads-Dry seal) ANSI/ASME B1.20.1-1976
- For technical information and detailed cutting data, see pages 797-812

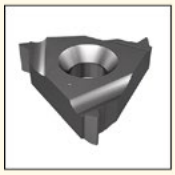
(1) Threads per inch

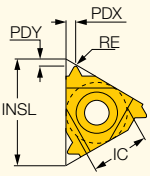
For tools, see pages: E-SIR-HEAD (740) • MGSIR/L (740) • MTET Single Point (1219) • PICIN-A-SIR/L (480) • PICIN-MGSIR/L (480) • SIR/L (738)

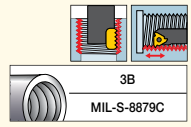
ISCARTHREAD

IR/L-UNJ

Internal UNJ Profile Laydown Threading Inserts for the Aviation and Aerospace Industries

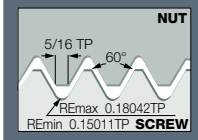






Internal left-hand shown

M E T R I C



Designation	Dimensions IC	TPI[1]	INSL	RE	PDX	PDY	Tough ↔ Hard IC228	IC50M	IC250	IC08	IC908	IC806
08IR 20 UNJ IC228	5.00	20.0	8.24	0.09	0.65	0.57	•					
08IR 18 UNJ IC228	5.00	18.0	8.24	0.10	0.65	0.57	•					
11IR 40 UNJ IC250	6.35	40.0	11.00	0.04	0.50	0.63			•			
11IR 32 UNJ IC908	6.35	32.0	11.00	0.04	0.60	0.60					•	
11IRB 32 UNJ IC908	6.35	32.0	11.00	0.04	0.60	0.60					•	
11IR 28 UNJ IC908	6.35	28.0	11.00	0.05	0.60	0.60					•	
11IR 24 UNJ IC08	6.35	24.0	11.00	0.05	0.80	0.70				•		
11IR 24 UNJ IC908	6.35	24.0	11.00	0.05	0.80	0.70					•	
11IRB 24 UNJ IC908	6.35	24.0	11.00	0.05	0.60	0.60					•	
11IR 20 UNJ IC908	6.35	20.0	11.00	0.07	0.90	0.80					•	
11IR 18 UNJ IC806	6.35	18.0	11.00	0.08	0.90	0.80						•
11IR 18 UNJ IC908	6.35	18.0	11.00	0.08	0.90	0.80					•	
11IR 16 UNJ IC908	6.35	16.0	11.00	0.09	0.90	0.80					•	
11IR 16 UNJ IC806	6.35	16.0	11.00	0.09	0.90	0.80						•
11IRB 14 UNJ IC908	6.35	14.0	11.00	0.10	0.90	0.80					•	
16IR 32 UNJ IC908	9.52	32.0	16.49	0.04	0.40	0.60					•	
16IR 24 UNJ IC908	9.52	24.0	16.49	0.06	0.80	0.70					•	
16IR 24 UNJ IC50M	9.52	24.0	16.49	0.06	0.80	0.70		•				
16IR 20 UNJ IC908	9.52	20.0	16.49	0.07	0.80	0.80					•	
16IR 18 UNJ IC908	9.52	18.0	16.49	0.08	0.80	0.70					•	
16IR 18 UNJ IC806	9.52	18.0	16.49	0.07	0.80	0.70						•
16IR/L 16 UNJ IC908	9.52	16.0	16.49	0.09	1.20	1.00					•	
16IR 16 UNJ IC250	9.52	16.0	16.49	0.09	1.20	1.00			•			
16IR 16 UNJ IC806	9.52	16.0	16.49	0.09	1.20	1.00						•
16IR 14 UNJ IC908	9.52	14.0	16.49	0.10	1.10	1.10					•	
16IR 14 UNJ IC806	9.52	14.0	16.49	0.10	1.20	1.00						•
16IR/L 12 UNJ IC908	9.52	12.0	16.49	0.12	1.00	1.10					•	
16IR 12 UNJ IC806	9.52	12.0	16.49	0.12	1.00	1.10						•
16IR 10 UNJ IC908	9.52	10.0	16.49	0.14	1.45	1.20					•	
16IR/L 8 UNJ IC908	9.52	8.0	16.49	0.19	1.60	1.20					•	

• Thread milling application available only for inserts size 06, 08, 11 • For Insert Identification System, see page 645

• For technical information and detailed cutting data, see pages 797-812

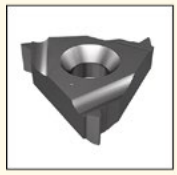
[1] Threads per inch

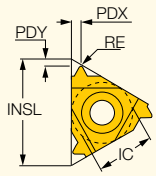
For tools, see pages: E-SIR-HEAD (740) • MTET Single Point (1219) • SIR/L (738)

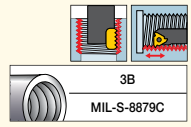
ISCARTHREAD

IR/L-UNJ

Internal UNJ Profile Laydown Threading Inserts for the Aviation and Aerospace Industries

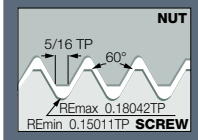






Internal left-hand shown

I N C H



Designation	Dimensions IC	TPI[1]	INSL	RE	PDX	PDY	Tough ↔ Hard IC228	IC50M	IC250	IC08	IC908	IC806
08IR 20 UNJ IC228	.197	20.0	.324	.0035	.0256	.0224	●					
08IR 18 UNJ IC228	.197	18.0	.324	.0039	.0256	.0224	●					
11IR 40 UNJ IC250	.250	40.0	.433	.0014	.0197	.0248			●			
11IR 32 UNJ IC908	.250	32.0	.433	.0016	.0236	.0236					●	
11IRB 32 UNJ IC908	.250	32.0	.433	.0016	.0236	.0236					●	
11IR 28 UNJ IC908	.250	28.0	.433	.0020	.0236	.0236					●	
11IR 24 UNJ IC08	.250	24.0	.433	.0020	.0315	.0276				●		
11IR 24 UNJ IC908	.250	24.0	.433	.0020	.0315	.0276					●	
11IRB 24 UNJ IC908	.250	24.0	.433	.0020	.0236	.0236					●	
11IR 20 UNJ IC908	.250	20.0	.433	.0027	.0354	.0315					●	
11IR 18 UNJ IC806	.250	18.0	.433	.0031	.0354	.0315						●
11IR 18 UNJ IC908	.250	18.0	.433	.0031	.0354	.0315					●	
11IR 16 UNJ IC908	.250	16.0	.433	.0035	.0354	.0315					●	
11IR 16 UNJ IC806	.250	16.0	.433	.0035	.0354	.0315						●
11IRB 14 UNJ IC908	.250	14.0	.433	.0039	.0354	.0315					●	
16IR 32 UNJ IC908	.375	32.0	.649	.0018	.0158	.0236					●	
16IR 24 UNJ IC908	.375	24.0	.649	.0024	.0315	.0276					●	
16IR 24 UNJ IC50M	.375	24.0	.649	.0024	.0315	.0276		●				
16IR 20 UNJ IC908	.375	20.0	.649	.0027	.0315	.0315					●	
16IR 18 UNJ IC908	.375	18.0	.649	.0031	.0315	.0276					●	
16IR 18 UNJ IC806	.375	18.0	.649	.0027	.0315	.0276						●
16IR/L 16 UNJ IC908	.375	16.0	.649	.0035	.0472	.0394					●	
16IR 16 UNJ IC250	.375	16.0	.649	.0035	.0472	.0394			●			
16IR 16 UNJ IC806	.375	16.0	.649	.0035	.0472	.0394						●
16IR 14 UNJ IC908	.375	14.0	.649	.0039	.0433	.0433					●	
16IR 14 UNJ IC806	.375	14.0	.649	.0039	.0472	.0394						●
16IR/L 12 UNJ IC908	.375	12.0	.649	.0047	.0394	.0433					●	
16IR 12 UNJ IC806	.375	12.0	.649	.0047	.0394	.0433						●
16IR 10 UNJ IC908	.375	10.0	.649	.0053	.0571	.0472					●	
16IR/L 8 UNJ IC908	.375	8.0	.649	.0075	.0630	.0472					●	

- Thread milling application available only for inserts size 06, 08, 11 • For Insert Identification System, see page 645
- For technical information and detailed cutting data, see pages 797-812

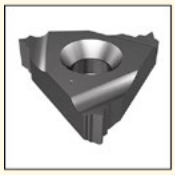
[1] Threads per inch

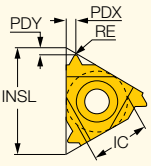
For tools, see pages: E-SIR-HEAD (740) • MTET Single Point (1219) • SIR/L (738)

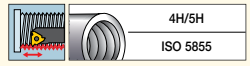
ISCARTHREAD

IR-MJ

Internal MJ ISO 5855 Metric Full Profile Laydown Threading Inserts for the Aviation and Aerospace Industries

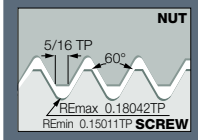






Internal left-hand shown

M E T R I C



Designation	Dimensions IC	TP(1)	INSL	RE	PDX	PDY	Tough ↔ Hard IC908	IC806
11IR 1.00 MJ IC908	6.35	1.000	11.00	0.05	0.60	0.60	•	
11IR 1.00 MJ IC806	6.35	1.000	11.00	0.05	0.60	0.60		•
11IRB 1.00 MJ IC908	6.35	1.000	11.00	0.05	0.60	0.60	•	
11IR 1.25 MJ IC908	6.35	1.250	11.00	0.07	0.90	0.80	•	
11IR 1.25 MJ IC806	6.35	1.250	11.00	0.07	0.90	0.80		•
11IR 1.50 MJ IC908	6.35	1.500	11.00	0.08	1.00	0.80	•	
11IR 1.50 MJ IC806	6.35	1.500	11.00	0.08	1.00	0.80		•
11IRB 1.50 MJ IC908	6.35	1.500	11.00	0.08	0.90	0.80	•	
11IR 2.00 MJ IC908	6.35	2.000	11.00	0.12	1.00	0.90	•	
11IR 2.00 MJ IC806	6.35	2.000	11.00	0.12	1.00	0.90		•
16IR 1.00 MJ IC908	9.52	1.000	16.49	0.05	0.70	1.00	•	
16IR 1.00 MJ IC806	9.52	1.000	16.49	0.05	0.70	1.00		•
16IR 1.25 MJ IC908	9.52	1.250	16.49	0.07	0.90	0.80	•	
16IR 1.25 MJ IC806	9.52	1.250	16.49	0.07	0.90	0.80		•
16IR 1.50 MJ IC908	9.52	1.500	16.49	0.08	1.20	1.10	•	
16IR 1.50 MJ IC806	9.52	1.500	16.49	0.08	1.20	1.10		•

- Thread milling application available only for inserts size 06, 08, 11 • For Insert Identification System, see page 645
- For technical information and detailed cutting data, see pages 797-812

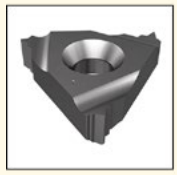
(1) Thread pitch

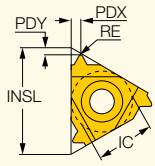
For tools, see pages: E-SIR-HEAD (740) • MTET Single Point (1219) • SIR/L (738)

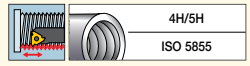
ISCARTHREAD

IR-MJ

Internal MJ ISO 5855 Metric Full Profile Laydown Threading Inserts for the Aviation and Aerospace Industries

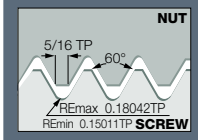






Internal left-hand shown

I N C H

 Designation	Dimensions IC	TP mm[1]	INSL	RE	PDX	PDY	Tough ↔ Hard IC908	IC806
11IR 1.00 MJ IC908	.250	1.000	.433	.0020	.0236	.0236	●	
11IR 1.00 MJ IC806	.250	1.000	.433	.0020	.0236	.0236		●
11IRB 1.00 MJ IC908	.250	1.000	.433	.0020	.0236	.0236	●	
11IR 1.25 MJ IC908	.250	1.250	.433	.0027	.0354	.0315	●	
11IR 1.25 MJ IC806	.250	1.250	.433	.0027	.0354	.0315		●
11IR 1.50 MJ IC908	.250	1.500	.433	.0031	.0394	.0315	●	
11IR 1.50 MJ IC806	.250	1.500	.433	.0031	.0394	.0315		●
11IRB 1.50 MJ IC908	.250	1.500	.433	.0031	.0354	.0315	●	
11IR 2.00 MJ IC908	.250	2.000	.433	.0047	.0394	.0354	●	
11IR 2.00 MJ IC806	.250	2.000	.433	.0047	.0394	.0354		●
16IR 1.00 MJ IC908	.375	1.000	.649	.0020	.0276	.0394	●	
16IR 1.00 MJ IC806	.375	1.000	.649	.0020	.0276	.0394		●
16IR 1.25 MJ IC908	.375	1.250	.649	.0027	.0354	.0315	●	
16IR 1.25 MJ IC806	.375	1.250	.649	.0027	.0354	.0315		●
16IR 1.50 MJ IC908	.375	1.500	.649	.0031	.0472	.0433	●	
16IR 1.50 MJ IC806	.375	1.500	.649	.0031	.0472	.0433		●

- Thread milling application available only for inserts size 06, 08, 11 • For Insert Identification System, see page 645
- For technical information and detailed cutting data, see pages 797-812

[1] Thread pitch

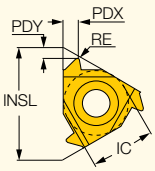
For tools, see pages: E-SIR-HEAD (740) • MTET Single Point (1219) • SIR/L (738)

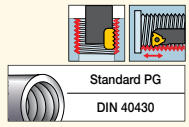
ISCARTHREAD

IR/L-PG

Internal Thread Profile Inserts
for the Electric Industry

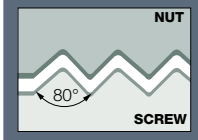






Internal left-hand shown

M E T R I C



Designation	Dimensions IC	TPI(1)	INSL	RE	PDX	PDY	Tough ↔ Hard IC228	IC908
08IR 20 PG IC228	5.00	20.0	8.24	0.14	0.70	0.55	●	
11IR 18 PG IC908	6.35	18.0	11.00	0.15	0.90	0.80		●
16IR 18 PG IC908	9.52	18.0	16.49	0.15	0.90	0.80		●
16IR 16 PG IC908	9.52	16.0	16.49	0.17	0.90	0.70		●

• For Insert Identification System, see page 645

(1) Threads per inch

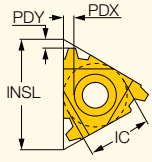
For tools, see pages: E-SIR-HEAD (740) • MTET Single Point (1219) • SIR/L (738)

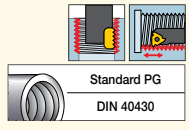
ISCARTHREAD

IR/L-PG

Internal Thread Profile Inserts
for the Electric Industry

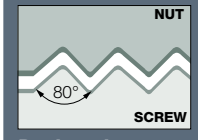






Internal left-hand shown

I N C H



Designation	Dimensions IC	TPI(1)	INSL	RE	PDX	PDY	Tough ↔ Hard IC228	IC908
08IR 20 PG IC228	.197	20.0	.324	.0055	.0276	.0216	●	
11IR 18 PG IC908	.250	18.0	.433	.0059	.0354	.0315		●
16IR 18 PG IC908	.375	18.0	.649	.0059	.0354	.0315		●
16IR 16 PG IC908	.375	16.0	.649	.0067	.0354	.0276		●

• For Insert Identification System, see page 645

(1) Threads per inch

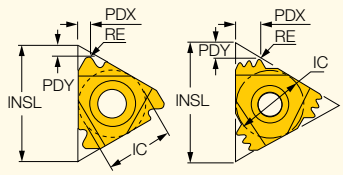
For tools, see pages: E-SIR-HEAD (740) • MTET Single Point (1219) • SIR/L (738)

ISCARTHREAD

IR/L-API RD

Internal API - Oil Thread Round Profile Laydown Threading Inserts

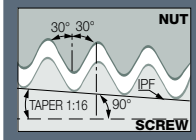






Internal left-hand shown

M E T R I C



Designation	Dimensions IC	IPF	TPI(2)	INSL	RE	PDX	PDY	NT(3)	Tough ↔ Hard IC250	IC908
16IL 10 API RD IC908	9.52	0.75	10.0	16.49	0.36	1.45	1.30	1		●
16IR 10 API RD IC250	9.52	0.75	10.0	16.49	0.36	1.50	1.30	1	●	
16IR 10 API RD IC908	9.52	0.75	10.0	16.49	0.36	1.50	1.30	1		●
16IL 8 API RD IC250	9.52	0.75	8.0	16.49	0.43	1.45	1.10	1	●	
16IR 8 API RD IC250	9.52	0.75	8.0	16.49	0.43	1.50	1.10	1	●	
16IR 8 API RD IC908	9.52	0.75	8.0	16.49	0.43	1.50	1.10	1		●

• For Insert Identification System, see page 645 • API Spec 5B8-1996 • For technical information and detailed cutting data, see pages 797-812

(1) Multi-tooth

(2) Threads per inch

(3) Number of teeth per corner

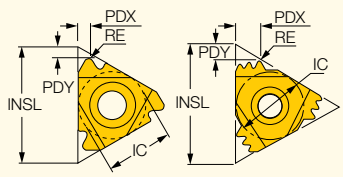
For tools, see pages: E-SIR-HEAD (740) • SIR/L (738)

ISCARTHREAD

IR/L-API RD

Internal API - Oil Thread Round Profile Laydown Threading Inserts

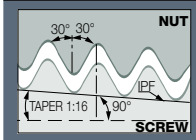






Internal left-hand shown

I N C H



Designation	Dimensions IC	IPF	TPI(2)	INSL	RE	PDX	PDY	NT(3)	Tough ↔ Hard IC250	IC908
16IL 10 API RD IC908	.375	0.75	10.0	.649	.0142	.0571	.0512	1		●
16IR 10 API RD IC250	.375	0.75	10.0	.649	.0142	.0590	.0512	1	●	
16IR 10 API RD IC908	.375	0.75	10.0	.649	.0142	.0590	.0512	1		●
16IL 8 API RD IC250	.375	0.75	8.0	.649	.0169	.0571	.0433	1	●	
16IR 8 API RD IC250	.375	0.75	8.0	.649	.0169	.0590	.0433	1	●	
16IR 8 API RD IC908	.375	0.75	8.0	.649	.0169	.0590	.0433	1		●

• For Insert Identification System, see page 645 • API Spec 5B8-1996 • For technical information and detailed cutting data, see pages 797-812

(1) Multi-tooth

(2) Threads per inch

(3) Number of teeth per corner

For tools, see pages: wE-SIR-HEAD (740) • SIR/L (738)

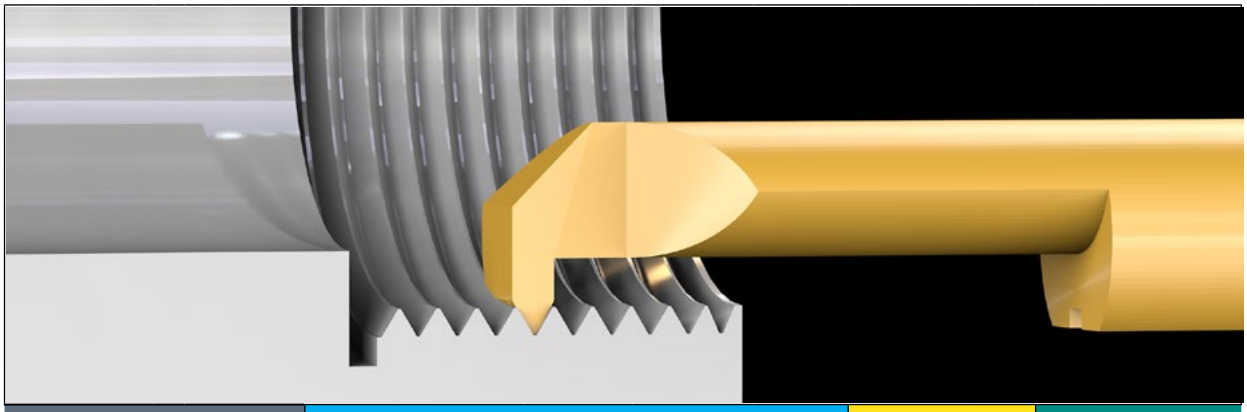
Machining Data for Threading (Metric)

ISO	Material		Condition	Tensile Strength (N/mm^2)	Hardness HB	Material Group No.	Coated			
							IC228	IC908	IC808	IC1007
							Cutting Speed (m/min)			
P	non-alloy steel and cast steel, free cutting steel	<0.25% C	annealed	420	125	1	60-100	115-190	125-205	135-230
P		≥0.25% C	annealed	650	190	2	60-95	110-180	120-195	130-220
P		<0.55% C	quenched and tempered	850	250	3	50-90	100-175	105-185	120-210
P		≥0.55% C	annealed	750	220	4	45-85	90-165	95-175	110-200
P			quenched and tempered	1000	300	5	45-85	90-165	95-175	110-200
P	low alloy and cast steel (less than 5% of alloying elements)		annealed	600	200	6	50-95	100-180	105-195	120-215
P			quenched and tempered	930	275	7	40-75	75-140	80-150	90-170
P				1000	300	8	35-70	70-135	75-145	85-160
P				1200	350	9	35-70	70-135	75-145	85-160
P	high alloyed steel, cast steel and tool steel		annealed	680	200	10	40-65	80-120	85-130	95-145
P			quenched and tempered	1100	325	11	25-50	50-100	55-105	60-120
P	stainless steel and cast steel		ferritic / martensitic	680	200	12	35-70	70-130	75-140	85-155
P			martensitic	820	240	13	45-60	85-110	90-120	100-130
M	stainless steel and cast steel		austenitic, duplex	600	180	14	45-75	90-140	95-150	110-170
N	aluminum-wrought alloys		not hardenable		60	21	50-195	100-365	105-390	120-440
N			hardenable		100	22	40-115	80-220	85-235	95-265
N	aluminum-cast alloys	≤12% Si	not hardenable		75	23	105-215	200-400	215-430	240-480
N			hardenable		90	24	105-150	200-280	215-300	240-335
N		>12% Si	high temperature		130	25	105-150	200-280	215-300	240-335
N	copper alloys	>1% Pb	free cutting		110	26	40-135	80-255	85-275	95-305
N			brass		90	27	40-135	80-255	85-275	95-305
N			electrolytic copper		100	28	40-130	80-255	85-275	95-305
N	non metallic		duroplastics, fiber plastics			29	40-130	80-250	85-265	95-300
N			hard rubber			30	40-130	80-250	85-265	95-300
S	high temperature alloys	Fe based	annealed		200	31	25-30	45-60	50-65	55-70
S			hardened		280	32	15-25	35-50	35-55	40-60
S		Ni or Co based	annealed		250	33	10-15	20-30	20-30	25-35
S			hardened		350	34	5-10	15-25	15-25	18-30
S			cast		320	35	5-10	15-25	15-25	18-30
S	titanium alloys		pure	400		36	75-90	140-170	150-180	170-205
S			alpha+beta alloys, hardened	1050		37	25-35	50-70	55-75	60-85
H	hardened steel		hardened		55 HRC	38	25-30	45-60	50-65	55-70
H			hardened		60 HRC	39	25-30	45-60	50-65	55-70
H	chilled cast iron		cast		400	40	25-30	45-60	50-65	55-70
H	cast iron		hardened		55 HRC	41	25-30	45-60	50-65	55-70

Machining Data for Threading (Imperial)

ISO	Material		Condition	Tensile Strength [ksi]	Hardness HB	Material Group No.	Coated			
							IC228	IC908	IC808	IC1007
							Cutting Speed (SFM)			
P	non-alloy steel and cast steel, free cutting steel	<0.25% C	annealed	61	125	1	200 - 330	380 - 620	410 - 670	440 - 750
		≥0.25% C	annealed	94	190	2	200 - 310	360 - 590	390 - 640	430 - 720
		<0.55% C	quenched and tempered	123	250	3	160 - 300	330 - 570	340 - 610	390 - 690
		≥0.55% C	annealed	109	220	4	150 - 280	300 - 540	310 - 570	360 - 660
			quenched and tempered	145	300	5	150 - 280	300 - 540	310 - 570	360 - 660
	low alloy and cast steel (less than 5% of alloying elements)		annealed	87	200	6	160 - 310	330 - 590	340 - 640	390 - 710
			quenched and tempered	135	275	7	130 - 250	250 - 460	260 - 490	300 - 560
				145	300	8	110 - 230	230 - 440	250 - 480	280 - 520
				174	350	9	110 - 230	230 - 440	250 - 480	280 - 520
	high alloyed steel, cast steel and tool steel		annealed	99	200	10	130 - 210	260 - 390	280 - 430	310 - 480
			quenched and tempered	160	325	11	80 - 160	160 - 330	180 - 340	200 - 390
	stainless steel and cast steel		ferritic / martensitic	99	200	12	110 - 230	230 - 430	250 - 460	280 - 510
			martensitic	119	240	13	150 - 200	280 - 360	300 - 390	330 - 430
M	stainless steel and cast steel		austenitic, duplex	87	180	14	150 - 250	300 - 460	310 - 490	360 - 560
N	aluminum-wrought alloys		not hardenable		60	21	160 - 640	330 - 1200	340 - 1280	390 - 1440
			hardenable		100	22	130 - 380	260 - 720	280 - 770	310 - 870
	aluminum-cast alloys	≤12% Si	not hardenable		75	23	340 - 710	660 - 1310	710 - 1410	790 - 1570
			hardenable		90	24	340 - 490	660 - 920	710 - 980	790 - 1100
		>12% Si	high temperature		130	25	340 - 490	660 - 920	710 - 980	790 - 1100
	copper alloys	>1% Pb	free cutting		110	26	130 - 440	260 - 840	280 - 900	310 - 1000
			brass		90	27	130 - 440	260 - 840	280 - 900	310 - 1000
			electrolytic copper		100	28	130 - 440	260 - 840	280 - 900	310 - 1000
	non metallic		duroplastics, fiber plastics			29	130 - 430	260 - 820	280 - 870	310 - 980
			hard rubber			30	130 - 430	260 - 820	280 - 870	310 - 980
S	high temperature alloys	Fe based	annealed		200	31	80 - 100	150 - 200	160 - 210	180 - 230
			hardened		280	32	50 - 80	110 - 160	110 - 180	130 - 200
		Ni or Co based	annealed		250	33	30 - 50	70 - 100	70 - 100	80 - 110
			hardened		350	34	20 - 30	50 - 80	50 - 80	60 - 100
			cast		320	35	20 - 30	50 - 80	50 - 80	60 - 100
	titanium alloys		pure	58	190	36	250 - 300	460 - 560	490 - 590	560 - 670
			alpha+beta alloys, hardened	152	310	37	80 - 110	160 - 230	180 - 250	200 - 280
H	hardened steel		hardened		55 HRC	38	80 - 100	150 - 200	160 - 210	180 - 230
			hardened		60 HRC	39	80 - 100	150 - 200	160 - 210	180 - 230
	chilled cast iron		cast		400	40	80 - 100	150 - 200	160 - 210	180 - 230
	cast iron		hardened		55 HRC	41	80 - 100	150 - 200	160 - 210	180 - 230

Cutting Data



Carbide Grade		Steel (N/mm Tensile Strength)					Stainless Steel	Non-ferrous
		400-500	500-700	700-850	850-1150	>1150		
Cutting Speed V_c (m/min)	IC228	160	140	120	90	70	90	300
	IC908	185	160	140	105	80	105	350
Carbide Grade		**Steel (KSI Tensile Strength)**					**Stainless Steel**	**Non-ferrous**
		65	**87**	**112**	**145**	**>167**		
Cutting Speed Vc SFM	**IC228**	525	460	395	295	230	295	985
	IC908	610	525	460	340	260	340	1150

Pitch (p) mm	TPI	No. of Passes							
0.5	48	6	6	7	7	8	8	7	6
0.75	32	8	8	9	9	10	10	9	8
1.0	24	10	10	12	12	12	12	12	10
1.25	20-19	12	12	14	14	15	15	14	12
1.5	16	15	15	17	17	18	18	17	15

For internal threading of small diameters, the PVD coated grade IC228 is recommended.

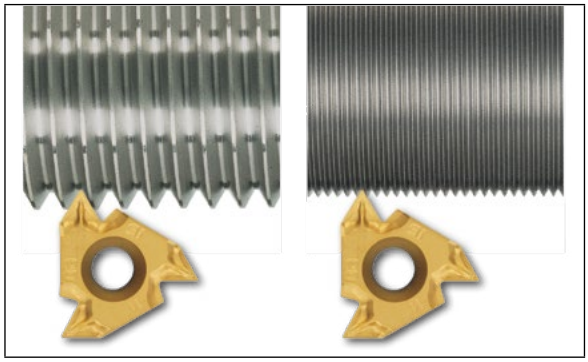
Material Groups	ISO P		ISO M	ISO N	ISO S	ISO H
	1-11	12-13	14	21-28	31-37	38-41
	Steel	Stainless Steel Ferritic & Martensitic	Stainless Steel Austenitic & Duplex (Ferritic-Austenitic)	Non-ferrous	High Temperature Alloys	Hard Steel & Cast Iron
Harder	**IC1007**	IC1007	IC1007	IC08	**IC806**	**IC1007**
↕	IC808 (IC908)				IC1007	
↕	IC250 (IC950)	**IC808 (IC908)**	**IC808 (IC908)**	**IC228**	IC808 (IC908)	IC808 (IC908)
Tougher	IC228	IC228	IC228	IC28		

User Guide and Cutting Data

Types and Profiles of Threading Inserts

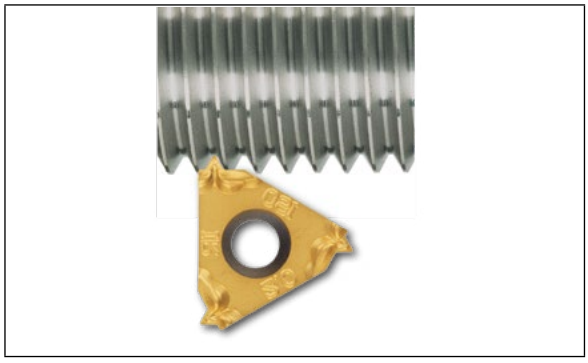
Partial Profile

- Performs different thread standards and is suitable for a wide range of pitches that have a common angle (60º or 55º)
- Inserts with a small root-corner radius suitable for the smallest pitch of the range
- Additional operations to complete the outer/ internal diameter are necessary
- Not recommended for mass production
- Eliminates the need for different inserts

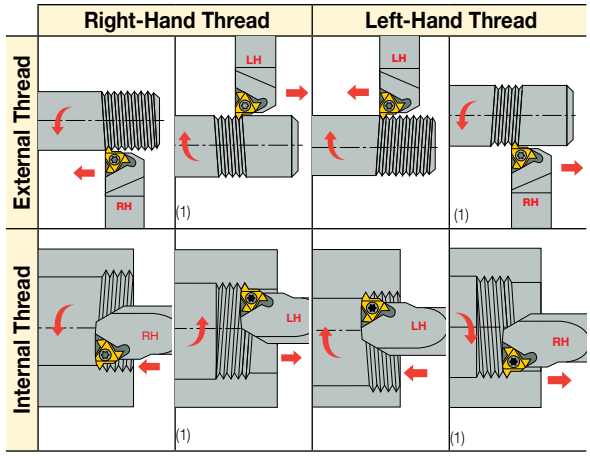


Full Profile

- Performs a complete thread profile
- Root corner radius is only suitable for the relevant pitch
- Recommended for mass production
- Suitable for one profile only



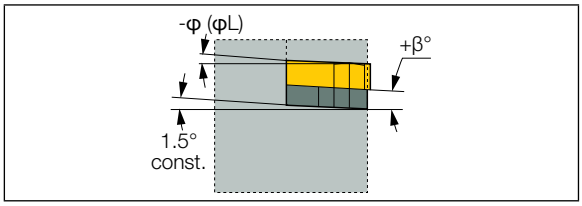
Thread Turning Methods



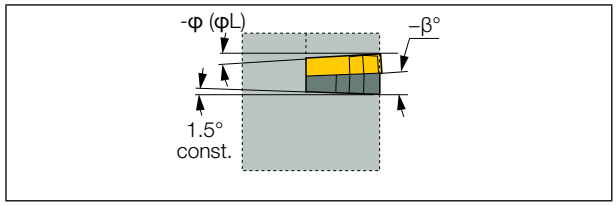
(1) Change anvil to negative

Anvil Selection According to Thread Helix Angle φ

Standard								
Thread Helix Angle φ		>4°	3°-4°	2°-3°	1°-2°	0°-1°	Negative Anvils	
	Inclination Angle β	4.5°	3.5°	2.5°	1.5°	0.5°	-0.5°	-1.5°
l (d)	Toolholder	Anvil Designation						
16	EX RH OR IN LH	AE16+4.5	AE16+3.5	AE16+2.5	AE16	AE16+0.5	AE16-0.5	AE16-1.5
(3/8)	EX LH OR IN RH	AI16+4.5	AI16+3.5	AI16+2.5	AI16	AI16+0.5	AI16-0.5	AI16-1.5
22	EX RH OR IN LH	AE22+4.5	AE22+3.5	AE22+2.5	AE22	AE22+0.5	AE22-0.5	AE22-1.5
(1/2)	EX LH OR IN RH	AI22+4.5	AI22+3.5	AI22+2.5	AI22	AI22+0.5	AI22-0.5	AI22-1.5
27	EX RH OR IN LH	AE27+4.5	AE27+3.5	AE27+2.5	AE27	AE27+0.5	AE27-0.5	AE27-1.5
(5/8)	EX LH OR IN RH	AI27+4.5	AI27+3.5	AI27+2.5	AI27	AI27+0.5	AI27-0.5	AI27-1.5
22U	EX RH OR IN LH	AE22U+4.5	AE22U+3.5	AE22U+2.5	AE22U	AE22U+0.5	AE22U-0.5	AE22U-1.5
(1/2U)	EX LH OR IN RH	AI22U+4.5	AI22U+3.5	AI22U+2.5	AI22U	AI22U+0.5	AI22U-0.5	AI22U-1.5
27U	EX RH OR IN LH	AE27U+4.5	AE27U+3.5	AE27U+2.5	AE27U	AE27U+0.5	AE27U-0.5	AE27U-1.5
(5/8U)	EX LH OR IN RH	AI27U+4.5	AI27U+3.5	AI27U+2.5	AI27U	AI27U+0.5	AI27U-0.5	AI27U-1.5



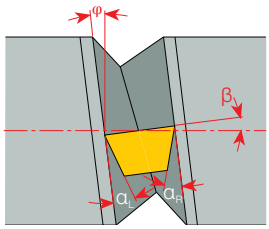
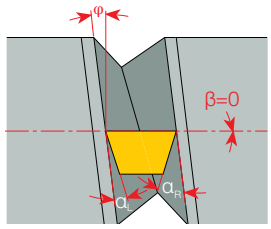
Anvils for positive inclination angle applicable when turning RH thread with RH holders or LH thread with LH toolholders.



Anvils for negative inclination used when turning RH thread with LH holder or LH thread with RH toolholder.

Anvils for Laydown Inserts

The parameter for tilting the threading insert relative to the helix angle of threading is of great importance when threading is produced. This parameter ensures proper operation of the insert during threading production in terms of equal load distribution applied to the insert, equal distribution of forces operating on the insert, development of uniform wear on both sides of the cutting edge, and avoiding friction of the insert with the side of the threading profile. If the side clearance insert angles (α) are not equal in relation to the helix angle (φ), the insert must be tilted. This is performed by using anvils.

Recommended	Less Recommended
$\alpha_L=\alpha_R$	$\alpha_L\neq\alpha_R$
	

Quick and Easy Way to Select a Correct Anvil

Helix (Lead) angle calculation by formula

or

Helix (Lead) angle area from the graph

↓

Recommendation for an inclination angle (β°) according to the thread turning method definition and dependent on the thread standard

↓

Recommendation for a suitable anvil according to the insert size and type of toolholder (internal or external)

The anvil should be selected from the table according to the thread ing standard. The correct anvil depends on the right inclination angle (β) and insert size.
The inclination angle (β) is obtained by selecting the thread turning method and finding the helix angle (φ) for single-start threading, or lead angle (φ_L) for the multi-start threading.
The helix angle (φ) and the lead angle (φ_L) are determined as exact values by using the formula below or as a graph area (see below: Helix (Lead) angle area by using graph, depending on the threading diameter and lead.)

Helix Angle (φ) Calculation by Using The Single-Start Threading Formula	Lead Angle (φ_L) Calculation by Using The Multi-Start Threading Formula
$\varphi = \arctan\left(\frac{\text{Lead}}{\pi \times D_{pitch}}\right)$	$\varphi L = \arctan\left(\frac{\text{Lead}}{\pi \times D_{pitch}}\right)$ $\text{Lead} = n \times P$
When: φ = Helix angle **Dpitch** = Pitch diameter* * effective diameter of threading **P** = Threading pitch **π** ≈ 3.142	When: φ_L = Lead angle **Dpitch** = Pitch diameter* * effective diameter of threading **P** = Threading pitch **n** = number of threading starts **π** ≈ 3.142

Usable Formulas

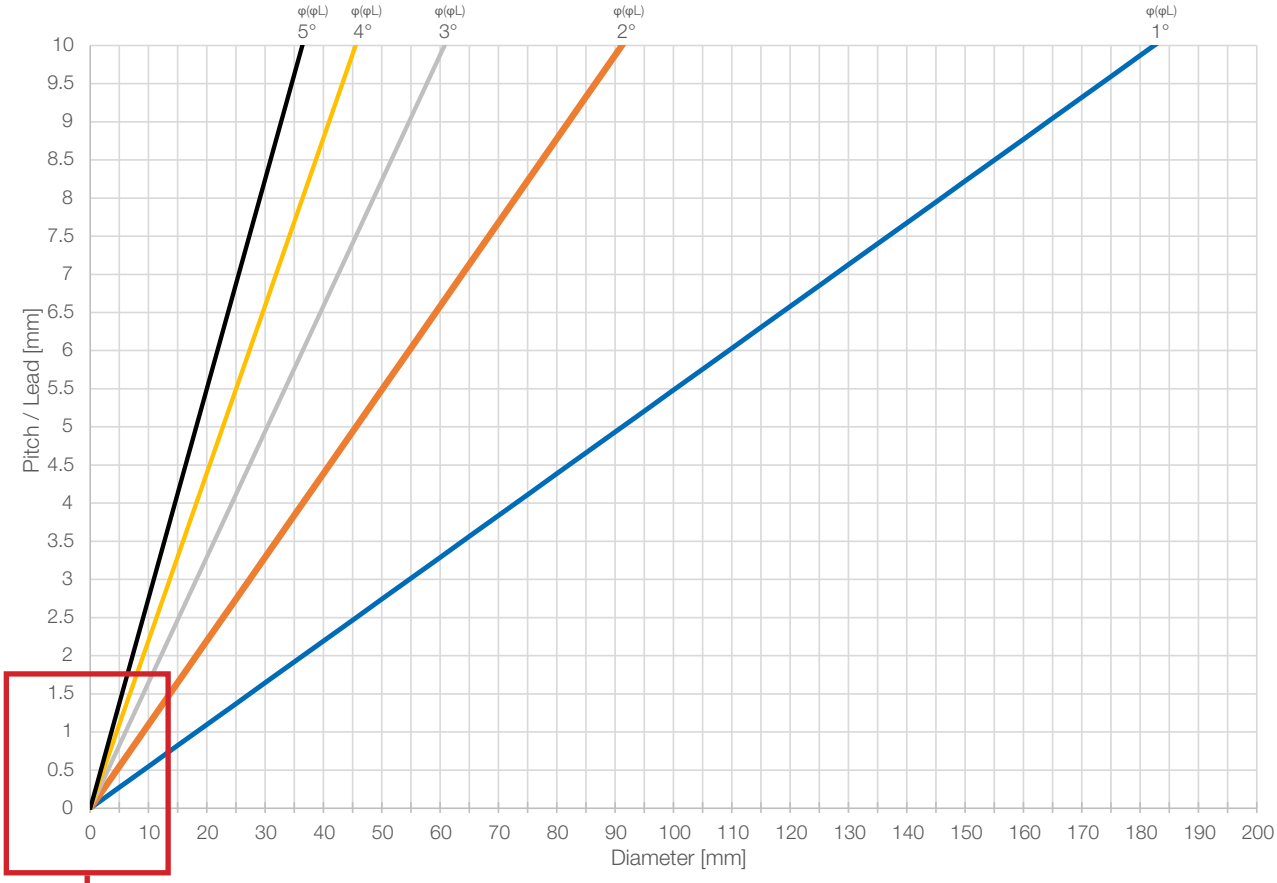
Lead (inch)= $\frac{1\text{ inch}}{\text{TPI}}$ **×No. of starts**

TPI = No. of threading per inch
1 inch = 25.4 mm

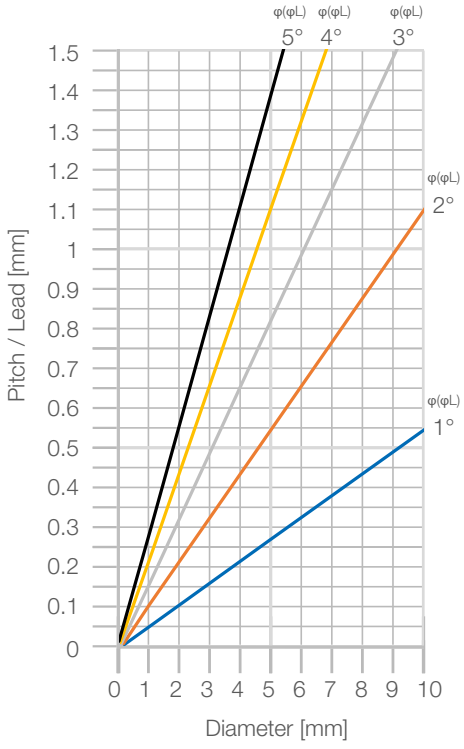
Pitch (mm)= $\frac{25.4}{\text{TPI}}$

Helix (Lead) Angle Area by Using Graph

Helix angle evaluation

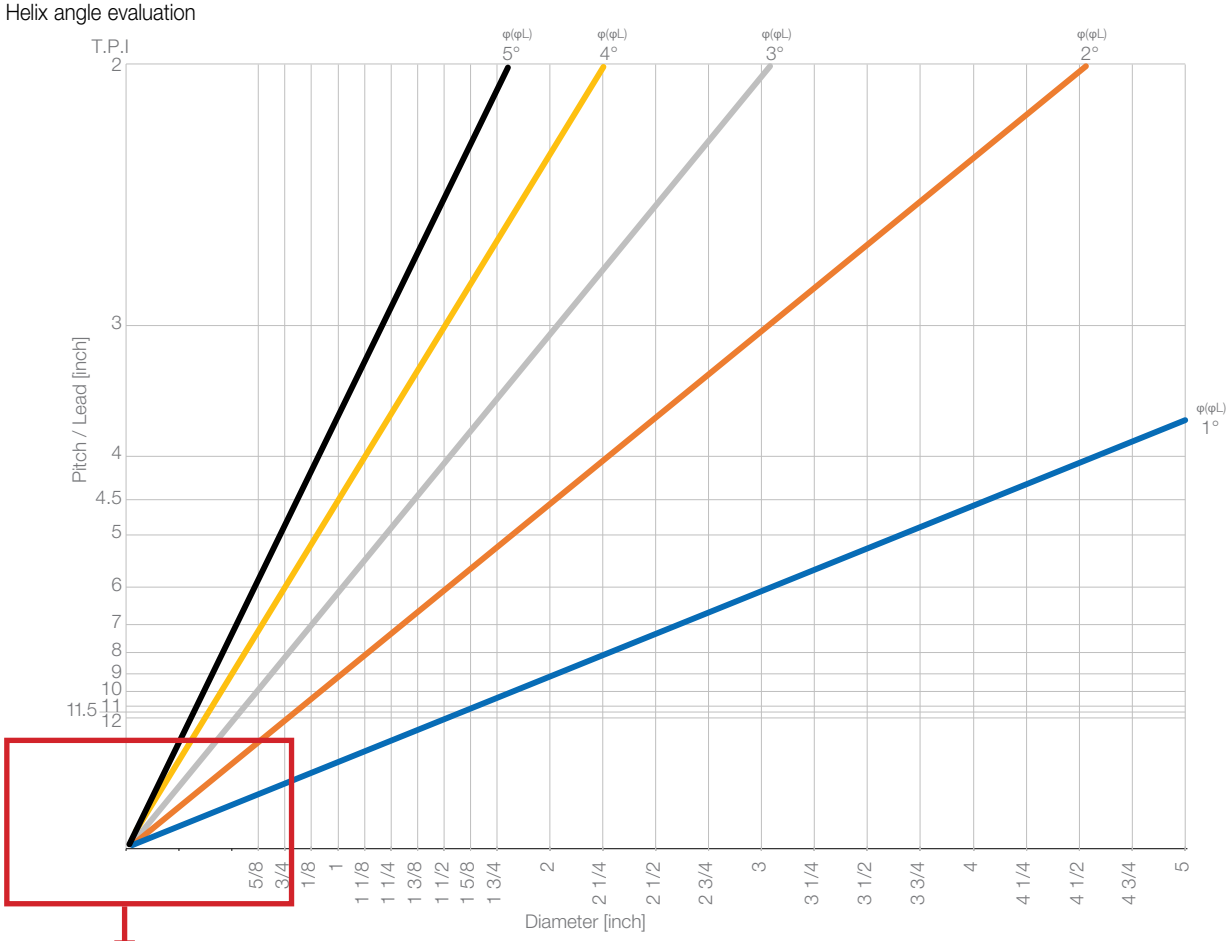


Detailed view for small pitch/diameter

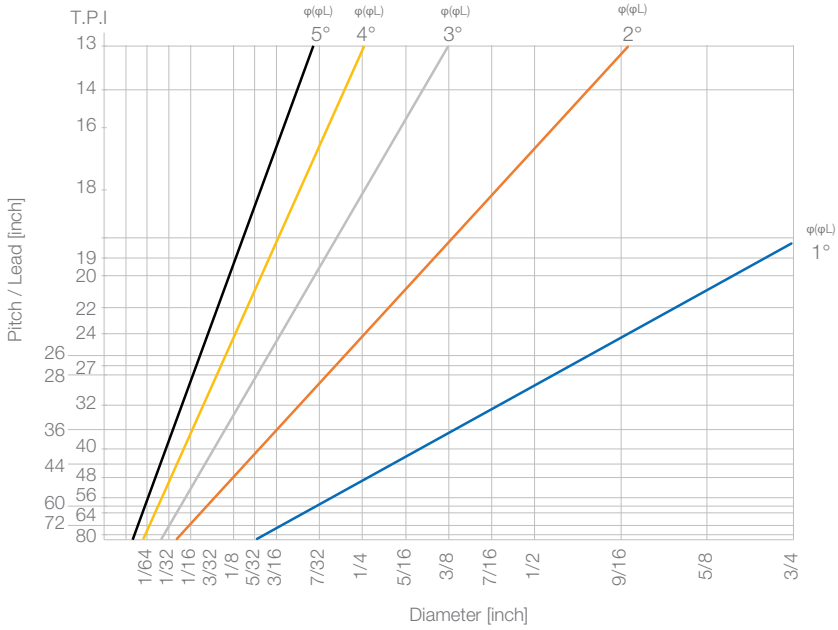


Helix (Lead) Angle Area by Using Graph

Helix angle evaluation



Detailed view for small pitch/diameter



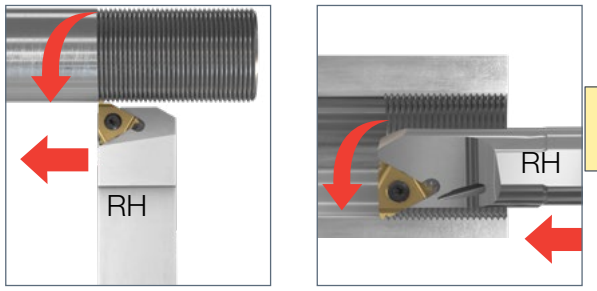
Anvil Selection for Symmetric Threading Profiles

The table below defines the recommended insert inclination angle (β) and anvil selection according to the helix angle (φ) for single-start threading and the lead angle (φL) for multi-start threading, depending on the threading turning method for machining the following symmetric threading profiles:

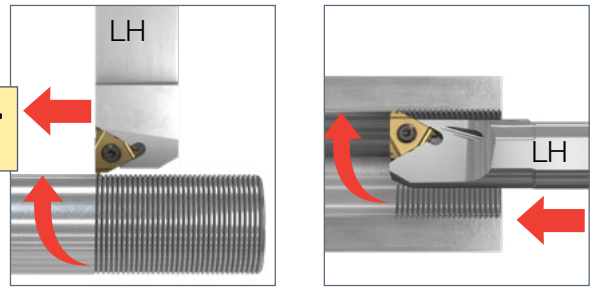
- partial profile threading with an angle profile of 60°, 55° only
- full profile threading according to ISO, UN, Whitworth, NPT, BSPT, Trapeze, ACME, RD standards only

Thread Turning Method

Production of right-hand threading with right-hand holder



Production of left-hand threading with left-hand holder



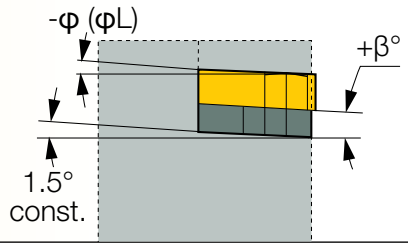
Anvil Selection

			Positive Anvils				
Threading Helix (lead) Angle φ (φL)		**Φ (φL)≥ 5°**	**4°≤φ (φL)<5°**	**3°<φ (φL)≤4°**	**2°<φ (φL)≤3°**	**1°<φ (φL)≤2°**	**0°<φ (φL)≤1°**
Inclination Angle β			**4.5°**	**3.5°**	**2.5°**	**1.5° (std)**	**0.5°**
IC	**Toolholder**	**Anvil Designation**					
16 (3/8)	EX RH OR IN LH EX RH OR IN LH	special solution	AE 16+4.5 AI 16+4.5	AE 16+3.5 AI 16-3.5	AE 16+2.5 AI 16+2.5	* AE 16+1.5 * AI 16+1.5	AE 16+0.5 AI 16+0.5

* Standard anvil supplied with tool

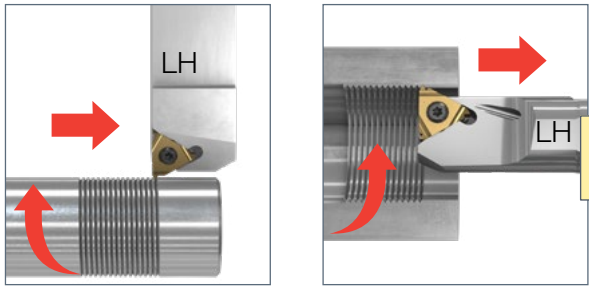
Positive Anvils

Feed Towards the Chuck



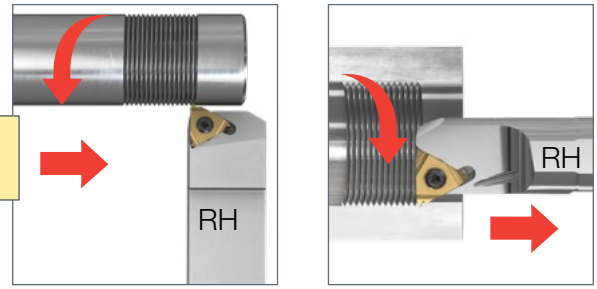
Thread Turning Method

Production of right-hand threading with left-hand holder*



* Change anvil to negative

Production of left-had threading with right-hand holder*



* Change anvil to negative

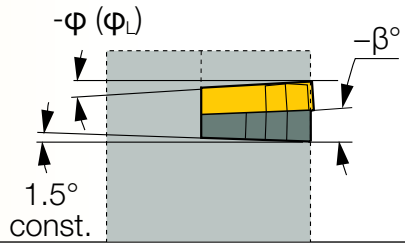
Anvil Selection

		Negative Anvils		
Threading Helix (lead) Angle φ (φL)		**0°<φ (φL)≤1°**	**1°<φ (φL)≤2°**	**Φ (φL)≥2°**
Inclination Angle β		**-0.5°**	**-1.5°**	
LC	**Toolholder**	**Anvil Designation**		
16 (3/8)	EX RH OR IN LH EX RH OR IN LH	AE 16-0.5 AI 16-0.5	AE 16-1.5 AI 16-1.5	special solution

- EX - Anvil for external threading
- IN - Anvil for internal threading

Negative Anvils

Feed Towards the Tailstock

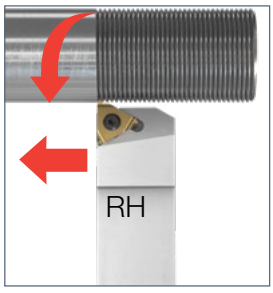


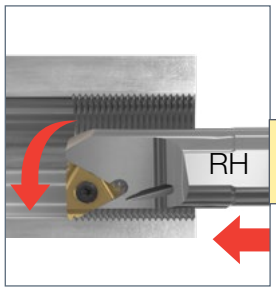
Anvil Selection for ABUT Threading Standard Only

The table below defines the recommended insert inclination angle (β) and anvil selection according to helix angle (φ) for single-start threading and according to lead angle (φL) for multi-start threading, depending on the threading turning method for machining asymmetric threading profile according to ABUT threading standard only.

Threading Turning Method

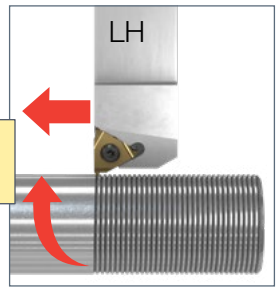
Production of right-hand threading with right-hand holder

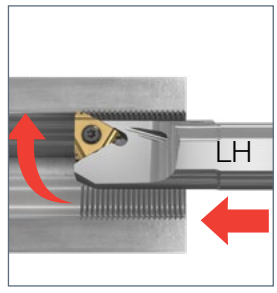




or

Production of left-hand threading with left-hand holder





Anvil Selection

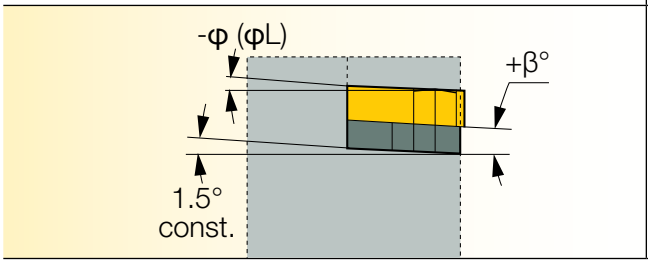
			Positive Anvils		Negative Anvils	
Threading Helix (lead) Angle φ (φL)		**Φ (φL)>3.5°**	**3°<φ (φL)≤3.5°**	**2°<φ (φL)≤3°**	**1°<φ (φL)≤2°**	**0°<φ (φL)≤1°**
Inclination Angle β			**1.5° (std)**	**0.5**	**-0.5°**	**-1.5°**
LC	**Toolholder**	**Anvil Designation**				
16 (3/8)	EX RH OR IN LH EX LH OR IN RH	special solution	* AE 16 +1.5 * AI16 +1.5	AE 16 +0.5 AI16 +0.5	AE 16 -0.5 AI 16 -0.5	AE 16 -1.5 AI 16 -1.5

* Standard anvil supplied with tool

- EX - Anvil for external threading
- IN - Anvil for internal threading

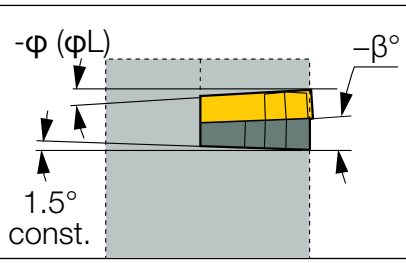
Positive Anvils

Feed Towards the Chuck



Negative Anvils

Feed Towards the Tailstock

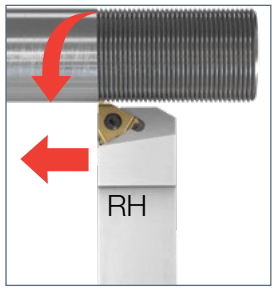


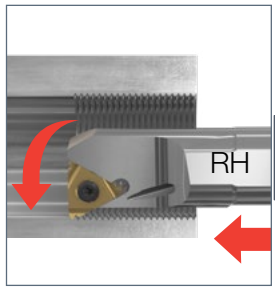
Anvil Selection for SAGE Threading Standard Only

The table below defines the recommended insert inclination angle (β) and anvil selection according to helix angle (φ) for single-start threading and according to lead angle (φL) for multi-start threading, depending on the thread turning method for machining asymmetric threading profile according to SAGE thread standard only.

Thread Turning Method

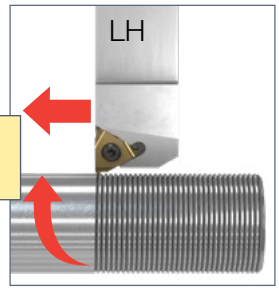
Production of right-hand threading with right-hand holder

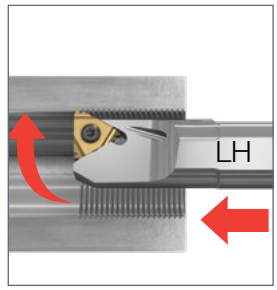




or

Production of left-hand threading with left-hand holder



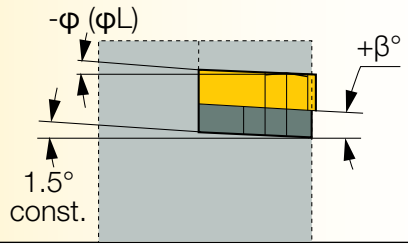
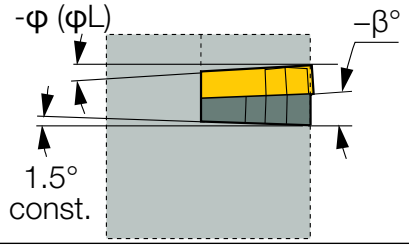


Anvil Selection

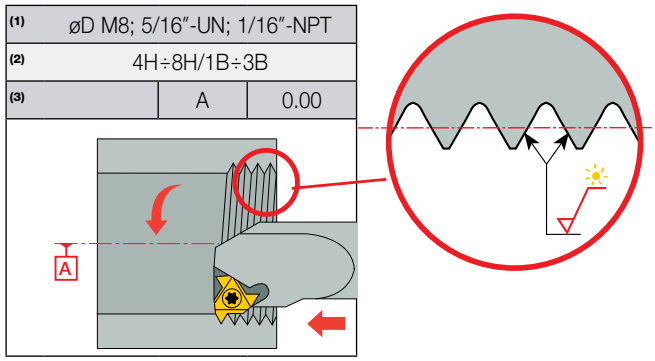
			Positive Anvils			Negative Anvils	
Threading Helix (lead) Angle φ (φL)		**Φ (φL)>5.6°**	**5°<φ (φL)≤5.6°**	**3°<φ (φL)≤5°**	**2°<φ (φL)≤3°**	**1°<φ (φL)≤2°**	**0°<φ (φL)≤1°**
Inclination Angle β			**2.5°**	**1.5°(std)**	**0.5°**	**-0.5°**	**-1.5°**
LC	**Toolholder**	**Anvil Designation**					
16 (3/8)	EX RH OR IN LH EX RH OR IN LH	special solution	AE 16 +2.5 AI 16 +2.5	* AE 16 +1.5 * AI 16 +1.5	AE 16 +0.5 AI16 +0.5	AE 16 -0.5 AI 16 -0.5	AE 16 -1.5 AI 16 -1.5

* Standard anvil supplied with tool

- EX - Anvil for external threading
- IN - Anvil for internal threading

Positive Anvils	Negative Anvils
Feed Towards the Chuck	Feed Towards the Tailstock
	

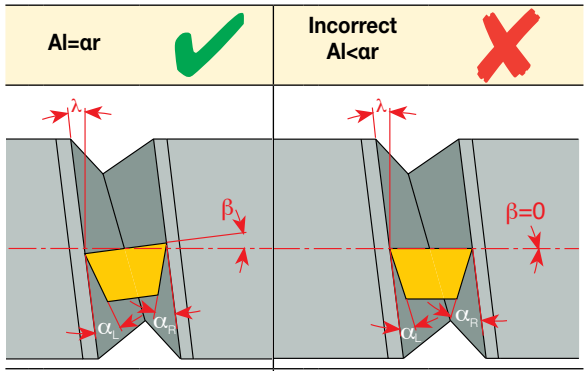
Mini-Tool Features



(1) Smallest possible thread
(2) All tolerances
(3) Minimum runout
(4) High surface quality

Flank Clearance and Effective Inclination Angle

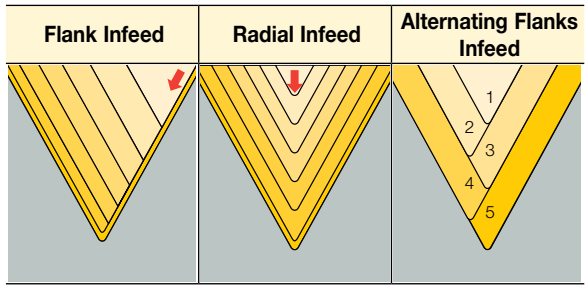
Inclination angle β of the cutting edges corresponds to a specific thread helix angle l and ensures an equal clearance angle on both sides of the insert.



α - Flank clearance angle
λ - Helix angle
β - Effective inclination angle is achieved by selecting the suitable anvil

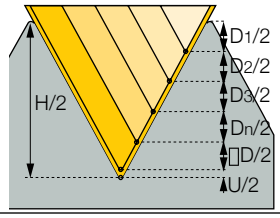
H - Depth of thread profile (on ø)
D - Depth of pass (on ø)
U - Depth of finishing pass (on ø)

Infeed Methods for Threading Operations



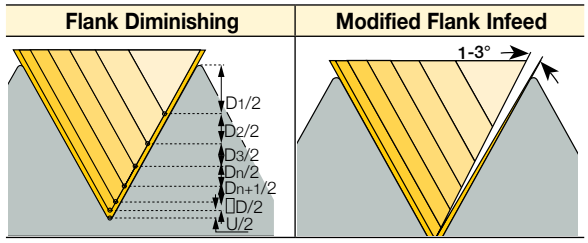
Flank Equal

Equal Depth of Cut for Each Pass



$$\frac{D_1}{2} = \frac{D_2}{2} = \frac{D_3}{2} = \frac{D_n}{2}$$

Diminished Depth of Cut for Each Pass



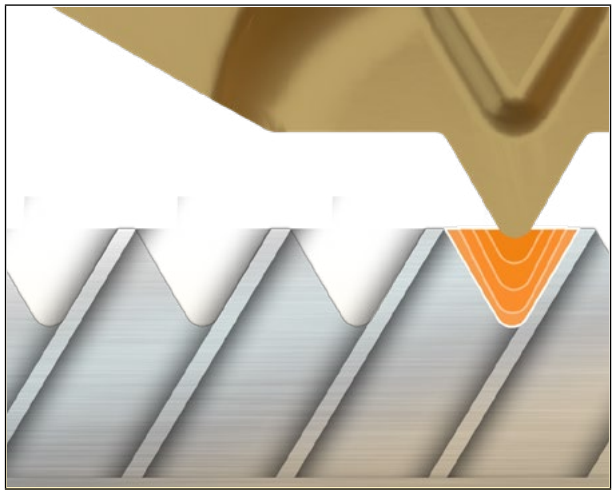
$$\frac{D_1}{2} > \frac{D_2}{2} > \frac{D_3}{2} > \frac{D_n}{2} > \frac{D_{n+1}}{2}$$

Depth Per Pass and Number of Passes

In order to produce threads, the cutting tool needs to make several numbers of cuts along the workpiece surface. The parameters of depth per pass and number of passes have a very important role in threading production. These parameters have a direct effect on cutting edge wear, tool life, threading surface quality, and threading production stability.
The two methods most common in determining the depth per pass and the number of passes are constant chip area by decreasing depth per pass or constant depth per pass. The choice of method does not depend on the selected infeed methods (radial infeed, flank infeed, modified flank infeed, alternating flank infeed), which are described in chapter 2.12.
The depth per pass and number of passes parameters depend on the type of equipment, tool overhang, machine stability, workpiece material, cutter geometry and the threading depth required.

Constant Chip Area by Decreasing Depth Per Pass (Recommended)

This is the most common method and is generally recommended, as in most cases it ensures high productivity. The principle of this method is that the initial cutting depth at the first pass is the largest, and then gradually decreases at each pass to ensure material removal within a constant chip area.
The calculation of passes is designed so that the last pass, which is destined to be a finish pass, will be 0.05 - 0.1 mm (0.0019 - 0.0039 inches). Using this method ensures constant loads on cutting edge and uniform wear, which increases tool life.



Formula for Calculation of Depth Per Pass

$$\Delta a_{p(i)} = \frac{a_p}{\sqrt{a_n - 1}} \times \sqrt{C}$$

When:

$\Delta a_{p(i)}$ — Depth of cut i pass ($i = 1...n_a$)

i — Pass

a_p — Total depth of cut

n_a — Number of passes

C — Constant value:
For 1st pass: C=0.3; For 2nd pass: C=1; For 3rd pass and higher: C = i – 1

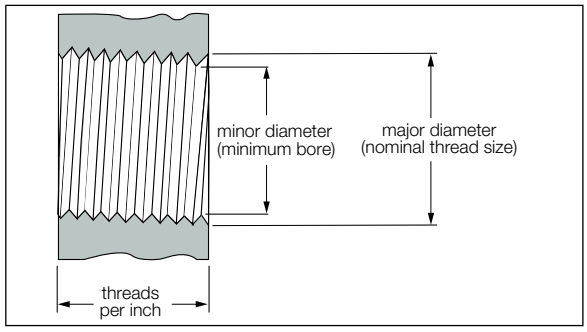
Threading Limits with Standard NOTCH-GRIP Inserts

The following charts list the largest pitch 6.

60˚ V-Threading Limits

FLT-2 Inserts	Internal Threading Limitations		
Threads Per Inch	Nominal Thread Size	Minimum Minor Diameter	
		Inch	mm
6	1-7/8	1.695	43.05
7	1-3/4	1.595	40.51
8	1-5/8	1.490	37.85
9	1-9/16	1.442	36.63
10	1-1/2	1.392	35.36
11	1-7/16	1.339	34.01
12	1-3/8	1.285	32.64
13	1-5/16	1.229	31.22
14	1-1/4	1.173	29.79
16	1-1/4	1.182	30.02
18	1-1/8	1.065	27.05
20	1-1/8	1.071	27.20
24	1-1/16	1.017	25.83

* 24 TPI and finer can be cut with a #2 series insert provided that the minor diameter is 1.000 or larger.



FLT-3 & 4 Inserts	Internal Threading Limitations		
Threads Per Inch	Nominal Thread Size	Minimum Minor Diameter	
		Inch	mm
4**	3	2.729	69.32
4-1/2**	2-7/8	2.634	66.90
5	2-3/4	2.534	64.36
6	2-1/2	2.320	58.93
7	2-1/4	2.095	53.21
8	2	1.865	47.37
9	1-15/16	1.817	46.15
10	1-7/8	1.767	44.88
11	1-13/16	1.714	43.54
12	1-3/4	1.660	42.16
13	1-5/8	1.542	39.17
14	1-9/16	1.485	37.72
16*	1-7/16	1.370	34.80

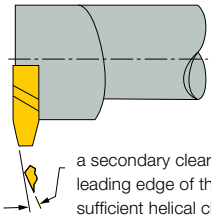
* 16 pitch acme threads and finer can be cut provided the minor diameter is 1.370 or larger.

** FLT-4 only.

Acme Threading Limits

FLA-2	Internal Threading Limitations		
Threads Per Inch	Nominal Thread Size	Minimum Minor Diameter	
		Inch	mm
6	2-1/2	2.333	59.26
8	2-1/4	2.125	53.98
10	2	1.900	48.26
12	1-3/4	1.667	42.34
14	1-5/8	1.554	39.47
16*	1-1/2	1.438	36.53

* 16 pitch acme threads and finer can be cut provided the minor diameter is 1.438 or larger.



a secondary clearance can be ground on the leading edge of the form of the insert to provide sufficient helical clear ance for machining courser threads and multiple start threads

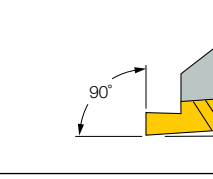
Modified standard inserts may be produced for special threads or ones not listed on the charts shown. quoted upon request.

FLA-3, 4 & 6	Internal Threading Limitations		
Threads Per Inch	Nominal Thread Size	Minimum Minor Diameter	
		Inch	mm
2*	5	4.500	114.30
2-1/2**	4-1/2	4.100	104.14
3**	4	3.665	93.09
4	3-1/2	3.250	82.55
5	3	2.800	71.12
6	2-1/2	2.333	59.26
8	2-1/4	2.125	23.98
10	2	1.900	48.26
12	1-3/4	1.667	42.34
14	1-5/8	1.554	39.47
16*	1-1/2	1.438	36.53

* 16 pitch acme threads and finer can be cut provided the minor diameter is 1.438 or larger.

** FLA-6 only.

Note: positive rake ACME inserts are recommended for stainless steels and high-temp alloy appl cations.
Quoted upon request.



Note: tool holders are designed to locate the insert at a 3˚ angle to provide back clearance down the side.

FLTB-2A & 2B	Internal Threading Limitations		
Threads Per Inch	Nominal Thread Size	Minimum Minor Diameter	
		Inch	mm
8	1-3/4	1.600	40.64
10	1-5/8	1.505	38.23
12	1-1/2	1.400	35.56
16	1-1/4	1.175	29.85
20	1-1/16	1.002	25.45

FLTB-3A & 4A	Internal Threading Limitations		
Threads Per Inch	Nominal Thread Size	Minimum Minor Diameter	
		Inch	mm
4*	2-1/2	2.200	55.88
5	2-1/4	2.010	51.05
6	2	1.800	45.72
8	1-3/4	1.600	40.64
10	1-5/8	1.505	38.23
12**	1-1/2	1.400	35.56

* FLTB-4A insert only

** 16 or 20 threads per inch can be cut providing minor diameter is 1.375 or larger.

FLTB-3B & 4B	Internal Threading Limitations		
Threads Per Inch	Nominal Thread Size	Minimum Minor Diameter	
		Inch	mm
4	*2-7/8	2.575	65.41
5	2-3/4	2.510	63.75
6	2-3/8	1.175	29.85
8	2-1/8	1.975	50.17
10	1-7/8	1.755	44.58
12	1-5/8	1.525	38.74
16	1-1/2	1.407	35.74
20	1-7/16	1.378	35.00

* FLTB-4B insert only

American Standard Buttress Thread Designations

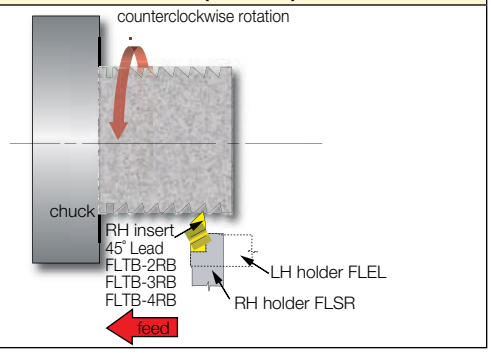
When only the designation BUTT is used, the thread is a "pull" type buttress (external thread pulls) with the clearance flank (45˚) leading and the pressure flank (7˚) following.

When the designation PUSH-BUTT is used, the thread is a push type buttress (external thread pushes) with the load flank (7˚) leading and the 45˚ clearance flank following.

Whenever possible this description should be confirmed by a simplified view showing thread angles on the drawing of the product that has the buttress thread.

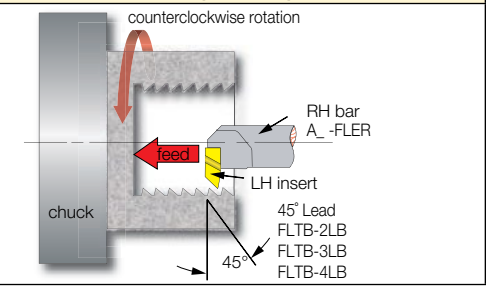
Always remember that the position of your holder and direction of your feed will determine the lead angle on the insert.

External Buttress (45˚ Lead) Thread



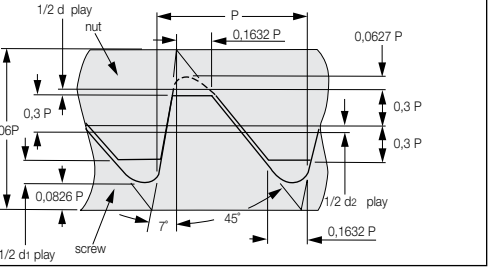
45˚ clearance angle of this buttress thread becomes the leading angle in this application.

Internal Buttress (45˚ Lead) Thread



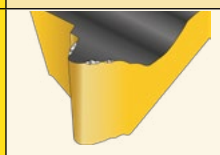
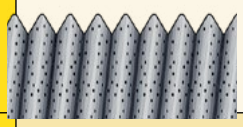
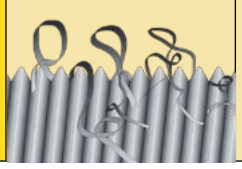
45˚ clearance flank of this buttress thread becomes the leading angle in this application.

American Standard Buttress



Use: fittings and pipe couplings

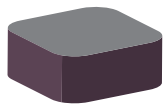
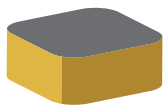
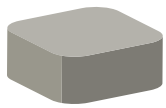
Troubleshooting

		Cause	Solution
Plastic Deformation		• Excessive heat in cutting zone • Wrong carbide grade • Inadequate coolant supply • Depth of cut too large • Cutting speed too high • Nose radius too small	• Reduce RPM / Reduce depth of cut / Check turned dia. • Use coated grade / Use harder grade • Apply coolant • Reduce depth of cut / Increase no. of passes • Reduce cutting speed • If possible use insert with larger radius
Premature Wear		• Cutting speed too high • Infeed depth too small • Highly abrasive material • Inadequate coolant supply • Wrong inclination anvil • Wrong turned dia. prior to threading • Insert is above center line	• Reduce RPM • Modify flank infeed / Increase depth of cut • Use coated grade • Apply coolant • Reselect anvil • Check turned dia. • Check center height
Insert Breakage		• Wrong turned dia. prior to threading • Wrong grade • Poor chip control • Incorrect center height	• Check turned dia. • Use tougher grade • Change to M-Type / B-Type inserts and use modified flank infeed • Check center height
Build Up Edge		• Cutting edge too cold • Wrong grade • Inadequate coolant supply • Incorrect cutting speed	• Increase RPM / Increase depth of cut • Use coated grade • Apply coolant • Increase cutting speed
Vibration		• Incorrect workpiece clamping • Incorrect tool setup • Incorrect cutting speed • Incorrect center height	• Use soft jaws • Check tool overhang / Use anti-vibration bars • Increase cutting speed • Check center height
Incorrect Thread Profile		• Unsuitable threading profile • Incorrect center height • Incorrect pitch in the program	• Adjust to correct tool, anvil, and insert • Adjust center height • Change the program
Broken Nose During 1st Pass		• Cutting edge too cold • Depth of cut too large • Wrong grade • Wrong turned dia. prior to threading • Incorrect center height • Infeed depth too shallow • Wrong inclination anvil • Tool overhang tool long	• Reduce RPM • Reduce depth of cut/Increase number of infeed passes • Use tougher grade • Check turned dia. • Adjust center height • Change depth of cut • Reselect anvil • Reduce tool overhang / Use Anti-vibration bar
Poor Surface Finish		• Wrong cutting speed • Excessive heat in cutting zone • Poor chip control • Inadequate coolant supply • Wrong inclination anvil • Tool overhang too long • Incorrect center height	• Increase/reduce RPM • Reduce depth of cut • Modify flank infeed • Apply coolant • Reselect anvil • Reduce tool overhang • Check center height
Poor Chip Control		• Excessive heat in cutting zone • Wrong grade • Inadequate coolant supply • Wrong turned dia. prior to threading • Incorrect method of infeed	• Reduce RPM /change depth of cut /check turned dia. • Use coated grade /check turned dia./use M/B-Type inserts • Apply coolant • Check turned dia. • Modify flank infeed 3-5°

THREADING GRADES



Threading Materials Grades Chart

	Grade	ISO	Grade Description	Coating Layers	Coating Color*
PVD COATED	IC228	P30-P45 M25-M40	A very though substrate with PVD coating, suitable for machining steels and stainless steel at low to medium cutting speeds.	TiN TiAlN Base	
	IC250	P15-P35 M20-M40	A tough substrate with PVD coating. Suitable for machining steels and alloy steels at low to medium cutting speeds.	TiN TICN Base	
	IC806	M05-M15 S10-S20	A hard submicron grain size substrate with PVD coating and a special SUMOTEC surface treatment. Excellent for machining high temperature alloys and Titanium alloys, at moderate to relatively high cutting speeds. Features high wear resistance and plastic deformation durability.	TiAlN AlTiN Base	
	IC808	P15-P30 M20-M30 K20-K40 S15-S30 H20-H30	A tough submicron grain size substrate with PVD coating and a special SUMOTEC surface treatment. Recommended for general use for a large variety of applications and materials such as steels, alloy steels, austenitic stainless steel and high temperature alloys at moderate cutting speeds and feeds. Features high wear resistance and chipping durability.	TiN TiAlN Base	
	IC908	P15-P30 M20-M30 K20-K40 S15-S30 H20-H30	A tough submicron grain size substrate with PVD coating, recommended for general use in a large variety of operations and materials such as steels, alloy steels, austenitic stainless steel and high temperature alloys at moderate cutting speeds. Features high wear resistance and chipping durability.	TiAlN Base	
	IC1007	P10-P20 M05-M15 K15-K30 S10-S20 H05-H15	A hard submicron grain size substrate with PVD coating, suitable for a wide range of materials such as steels, alloy steels, hard steels, austenitic stainless steel and heat resistant alloys at moderate to high speeds under stable conditions. Features high wear resistance and plastic deformation durability. Good choice for non-ferrous materials and cast iron.	TiN TiAlN Base	

* For coated grades

	Grade	ISO	Grade Description	Coating Layers	Uncoated
UNCOATED	IC08	M15-M30 N10-N25 S20-S30	A tough uncoated submicron carbide grade, suitable for steels, stainless steel and high temperature alloys at low cutting speeds. Good choice for non-ferrous materials.	Base	

Special Request Form Thread Turning

Project Information

Customer _____ Industry _____ Country _____

Customer Goal (Productivity, Economy, etc.):

Proposal for: ☐ Finish Insert ☐ Rough Insert ☐ Holder ☐ Machining Concept

ISCAR Representative: Email: _____ Tel: _____

Competitors: _____ Target Price: _____ Annual Consumption: _____

Threading

Designation _____ Pitch _____ Standard _____ Tolerance Clas _____

Major Dia. _____ Minor Dia. _____ Pitch Dia. _____ Number of Starts _____

Threading Depth _____ ☐ Through Hole ☐ Blind Hole

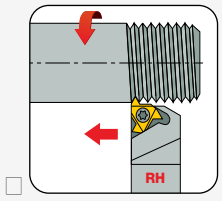
Special Form _____

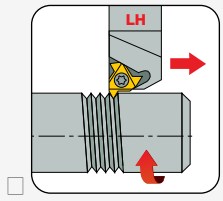
For non-standard profiles, detailed information must be supplied (drawing, dimensions & tolerances)

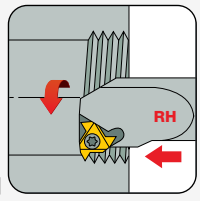
Application

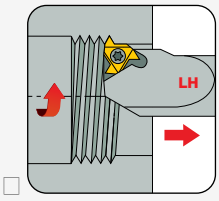
Part _____ Material _____ Hardness _____

RH Right-hand Threading

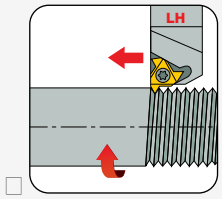


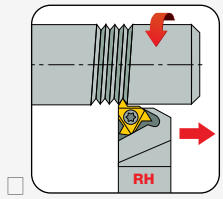


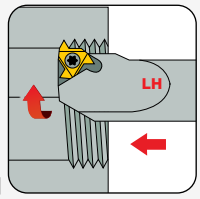


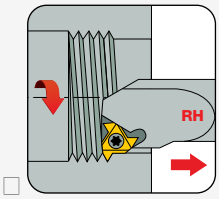


LH Left-hand Threading

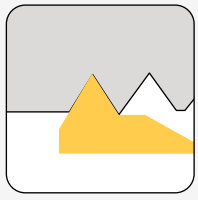




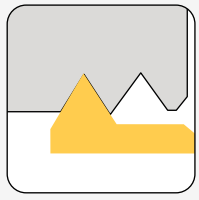




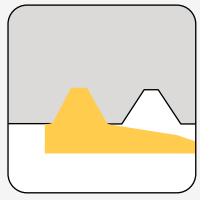
Insert Profile:



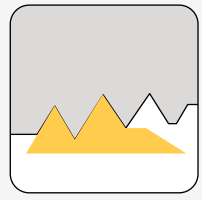
☐ Full



☐ Partial

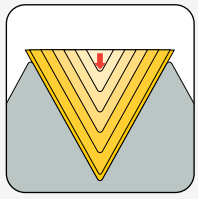


☐ Semi-Partial

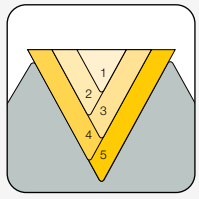


☐ Multi-Point

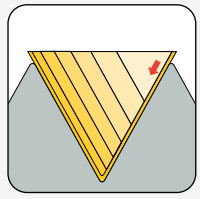
Infeed:



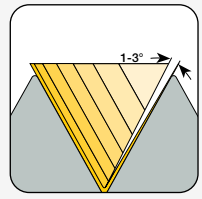
☐ Radial



☐ Incremental



☐ Flank



☐ Modified Flank

Attachments ☐ Drawing ☐ Model ☐ Sketch ☐ Photo

Machine Model _____ Shank Type/Size _____

Coolant: ☐ Internal ☐ External ☐ None Type: _____

Remarks: _____

BACKWORKING



Back Working System identification Code

SBT	B	26	70	□□	JHP	R
1	2	3	4	5	6	7

SBT	T	L	SDJCR11	JHP
1	2	8	9	6

SBT	H	ER11	JHP
1	2	10	6

SBT	S	15S	JHP
1	2	10	6

1 Back Working System

2 Tool Type

- **B** Base Holder
- **H** Holder Head
- **T** Cutting Head
- **S** Spacer

3 Base Shaft Diameter

4 Base Shaft Length

5 Machine Designation (optional)

6 HP Coolant Availability

7 Coolant Inlet Position

- **R** rear/axial coolant supply
- **T** top coolant supply

8 Cutting Head Overhang

- **S** 23mm
- **M** 30mm
- **L** 40mm

9 Cutting Head Geometry and Insert Size (for More Details See Full Catalog)

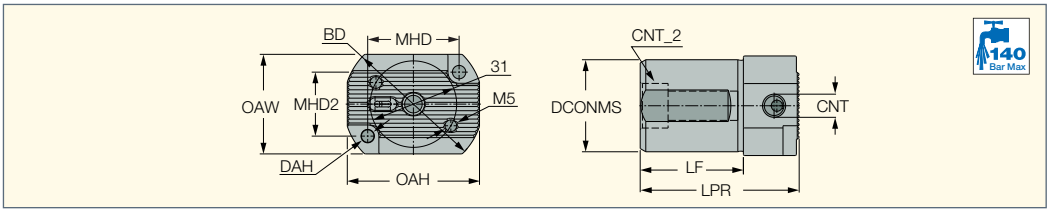
10 Holder Type / Shank Size / Spacer Size

- **ER##** Collet chuck holder size
- **##S** Spacer width
- **## ##** Square shank tool size
- **PICCO** PICCO insert holder

QUICKSWISS

SBTB-JHP-T/R

JET-CUT Base Holders
for Back-End Machining
Heads Intended
for Swiss-Type Machines



M E T R I C											
Designation	**DCONMS**	**BD**	**LF**	**LPR**	**MHD**	**MHD2**	**DAH**	**OAH**	**OAW**	**CNT**	**CNT_2**
SBTB1620SRWD	16.00	45.00	20.00	30.00	-	-	-	-	24.00	-	-
SBTB1660-JHP-R	16.00	45.00	60.00	70.00	-	-	-	-	24.00	-	M8X1
SBTB1960-JHP-R	19.05	45.00	60.00	70.00	-	-	-	-	24.00	-	G1/8
SBTB20125-JHP-R	20.00	45.00	120.00	130.00	-	-	-	-	24.00	-	G1/8
SBTB2060-JHP-R	20.00	45.00	60.00	70.00	-	-	-	-	24.00	-	G1/8
SBTB2270-JHP-R	22.00	45.00	70.00	80.00	-	-	-	-	24.00	-	G1/8
SBTB2225SW-JHP-T	22.00	47.00	25.00	45.00	30.00	25.0	4.50	37.50	32.50	M8X1	-
SBTB2225SRWD	22.00	48.00	25.00	35.00	26.90	26.9	5.50	-	38.00	-	-
SBTB2225SRR-JHP-T	22.00	52.00	25.00	45.00	37.60	13.7	5.50	-	28.00	M8X1	-
SBTB25100-JHP-R	25.00	45.00	100.00	110.00	-	-	-	-	24.00	-	G1/8
SBTB2560-JHP-R	25.00	45.00	60.00	70.00	-	-	-	-	24.00	-	G1/8
SBTB2670-JHP-R	25.40	45.00	70.00	80.00	-	-	-	-	24.00	-	G1/8
SBTB2885-JHP-R	28.00	45.00	85.00	95.00	-	-	-	-	24.00	-	M12X1.5
SBTB2885-JHP-T	28.00	45.00	85.00	105.00	-	-	-	-	24.00	M8X1	M12X1.5
SBTB2836CT20-JHP-T	28.00	46.00	36.00	56.00	27.00	27.0	4.50	36.00	34.50	M8X1	-
SBTB3115CIT-JHP-T	31.00	60.00	15.00	35.00	40.70	23.5	5.50	59.00	34.00	M8X1	-
SBTB3225HA32-JHP-T	32.00	50.00	25.00	45.00	28.40	28.4	4.50	39.00	39.00	M8X1	-
SBTB3337HA20-JHP-T	33.00	50.00	37.00	57.00	32.80	22.9	4.50	47.40	35.70	M8X1	-
SBTB3440-JHP-T	34.00	50.00	44.00	64.00	29.70	29.7	4.50	37.50	37.50	M8X1	-

For tools, see pages: SBTT#-16ER/L-JHP (830) • SBTT#-MIFHR-JHP (832) • SBTT#-PCHRS/LS-17-JHP (831) • SBTT#-SCHR/L22-JHP (832)
• SBTT#-SCLCR/L-JHP (822) • SBTT#-SDJCR/L-JHP (824) • SBTT#-SVJBR/L-JHP (829) • SBTT#-SVJCR/L-JHP (827) • SBTT#-SVQCR/L-JHP (829)
• SBTT#-SVUCR/L-JHP (828) • SBTT-PCLXR/L09-JHP (823) • SBTT-SDNCN-JHP (825) • SBTT-SVVCN-JHP (828) • SBTT/L/A-SDJNR/L07-JHP (826)

Designation	**Machines**
SBTB1620SRWD	STAR SR16 / SST16 / SR20 / RNC16
SBTB2225SRWD	STAR SR32 / SR32J (old)
SBTB2225SRR-JHP-T	STAR SR10J / SB16 / SB20 / SR20J / SR20JN / SR20 R / II / III / SR32J / SR32JN / ECAS12 / ECAS20 / SR20R IV (Positions T21 - T24)
SBTB2225SW-JHP-T	STAR SB12R / SB20R / SR20R IV / SW20 / SV20R / SR32J II / SR38 / SW12R II / SR20J II
SBTB3440-JHP-T	STAR SV38R / ECAS32, MAIER
SBTB1660-JHP-R	STAR, TRAUB, MANURHIN
SBTB1960-JHP-R	CITIZEN L20/C16/M16
SBTB2060-JHP-R	CITIZEN B12, TSUGAMI BS12 / BS20
SBTB20125-JHP-R	TORNOS DECO, MANURHIN Swing 7-13
SBTB2270-JHP-R	STAR (most 12/16/20/32mm machines), TORNOS DELTA20 / GAMMA20
SBTB2560-JHP-R	CITIZEN L20, TORNOS, HANWHA STL32 / STL35H / STL33 / STL35J, TSUGAMI BS12 / BS20, MANURHIN Swing
SBTB25100-JHP-R	TORNOS DECO , MANURHIN KMX 5/20 / KMX 5/26 / KMX 5/32 / Swing 7-20 / Swing 7-26
SBTB2670-JHP-R	CITIZEN M32 / C32 / L32
SBTB2836CT20-JHP-T	TORNOS CT20
SBTB2885-JHP-R	TRAUB TNL 12 / TNL16
SBTB2885-JHP-T	TRAUB TNL 12 / TNL16
SBTB3115CIT-JHP-T	CITIZEN A32-VII / L32
SBTB3225HA32-JHP-T	HANWHA STL38H
SBTB3337HA20-JHP-T	HANWHA XD20H /XD20J / XD32H / XD32J

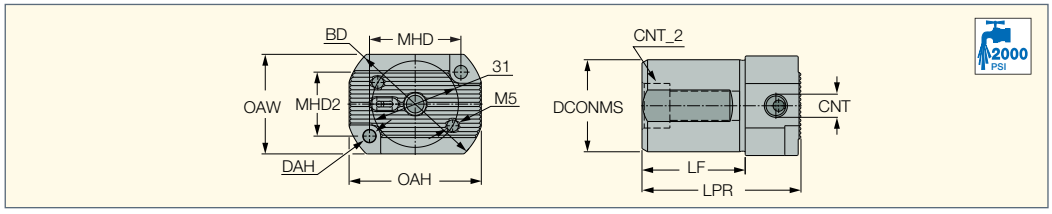
Spare Parts

Designation									
SBTB1620SRWD	SBTA-IK-HOP	SBTA-EXB	SBTA-QR5.28X1.78	HW 3.0	FLAT RING-SW-S5	SR M5X18 DIN7984			
SBTB1660-JHP-R	SBTA-IK-HOP	SBTA-EXB	SBTA-QR5.28X1.78	HW 3.0	FLAT RING-SW-S5	SR M5X18 DIN7984	SR M8X1X6 DIN913		
SBTB1960-JHP-R	SBTA-IK-HOP	SBTA-EXB	SBTA-QR5.28X1.78	HW 3.0	FLAT RING-SW-S5	SR M5X18 DIN7984	PLG G1/8 TL360		
SBTB20125-JHP-R	SBTA-IK-HOP	SBTA-EXB	SBTA-QR5.28X1.78	HW 3.0	FLAT RING-SW-S5	SR M5X18 DIN7984	PLG G1/8 TL360		
SBTB2060-JHP-R	SBTA-IK-HOP	SBTA-EXB	SBTA-QR5.28X1.78	HW 3.0	FLAT RING-SW-S5	SR M5X18 DIN7984	PLG G1/8 TL360		
SBTB2270-JHP-R	SBTA-IK-HOP	SBTA-EXB	SBTA-QR5.28X1.78	HW 3.0	FLAT RING-SW-S5	SR M5X18 DIN7984	PLG G1/8 TL360		
SBTB2225SW-JHP-T	SBTA-IK-HOP	SBTA-EXB	SBTA-QR5.28X1.78	HW 3.0	FLAT RING-SW-S5	SR M5X18 DIN7984	SR M8X1X8 DIN906		SR M4X10DIN912
SBTB2225SRWD	SBTA-IK-HOP	SBTA-EXB	SBTA-QR5.28X1.78	HW 3.0	FLAT RING-SW-S5	SR M5X18 DIN7984			SR M5X10 DIN7984
SBTB2225SRR-JHP-T	SBTA-IK-HOP	SBTA-EXB	SBTA-QR5.28X1.78	HW 3.0	FLAT RING-SW-S5	SR M5X18 DIN7984	SR M8X1X8 DIN906		SR M5X10 DIN7984
SBTB25100-JHP-R	SBTA-IK-HOP	SBTA-EXB	SBTA-QR5.28X1.78	HW 3.0	FLAT RING-SW-S5	SR M5X18 DIN7984	PLG G1/8 TL360		
SBTB2560-JHP-R	SBTA-IK-HOP	SBTA-EXB	SBTA-QR5.28X1.78	HW 3.0	FLAT RING-SW-S5	SR M5X18 DIN7984	PLG G1/8 TL360		
SBTB2670-JHP-R	SBTA-IK-HOP	SBTA-EXB	SBTA-QR5.28X1.78	HW 3.0	FLAT RING-SW-S5	SR M5X18 DIN7984	PLG G1/8 TL360		
SBTB2885-JHP-R	SBTA-IK-HOP	SBTA-EXB	SBTA-QR5.28X1.78	HW 3.0	FLAT RING-SW-S5	SR M5X18 DIN7984	SR M12X1.5X10 DIN913		
SBTB2885-JHP-T	SBTA-IK-HOP	SBTA-EXB	SBTA-QR5.28X1.78	HW 3.0	FLAT RING-SW-S5	SR M5X18 DIN7984	SR M8X1X8 DIN906	SR M12X1.5X10 DIN913	
SBTB2836CT20-JHP-T	SBTA-IK-HOP	SBTA-EXB	SBTA-QR5.28X1.78	HW 3.0	FLAT RING-SW-S5	SR M5X18 DIN7984	SR M8X1X8 DIN906		SR M4X10DIN912
SBTB3115CIT-JHP-T	SBTA-IK-HOP	SBTA-EXB	SBTA-QR5.28X1.78	HW 3.0	FLAT RING-SW-S5	SR M5X18 DIN7984	SR M8X1X8 DIN906		
SBTB3225HA32-JHP-T	SBTA-IK-HOP	SBTA-EXB	SBTA-QR5.28X1.78	HW 3.0	FLAT RING-SW-S5	SR M5X18 DIN7984	SR M8X1X8 DIN906		SR M4X20 DIN912
SBTB3337HA20-JHP-T	SBTA-IK-HOP	SBTA-EXB	SBTA-QR5.28X1.78	HW 3.0	FLAT RING-SW-S5	SR M5X18 DIN7984	SR M8X1X8 DIN906		SR M4X25DIN912
SBTB3440-JHP-T	SBTA-IK-HOP	SBTA-EXB	SBTA-QR5.28X1.78	HW 3.0	FLAT RING-SW-S5	SR M5X18 DIN7984	SR M8X1X8 DIN906		SR M4X10DIN912

QUICKSWISS

SBTB-JHP-T/R

JET-CUT Base Holders for Back-End Machining Heads Intended for Swiss-Type Machines



INCH											
Designation	**DCONMS**	**BD**	**LF**	**LPR**	**MHD**	**MHD2**	**DAH**	**OAH**	**OAW**	**CNT**	**CNT_2**
SBTB1620SRWD	.630	1.7716	.787	1.181	-	-	-	-	.945	-	-
SBTB1660-JHP-R	.630	1.7716	2.362	2.756	-	-	-	-	.945	-	M8X1
SBTB1960-JHP-R	.750	1.7716	2.362	2.756	-	-	-	-	.945	-	G1/8
SBTB20125-JHP-R	.787	1.7716	4.724	5.118	-	-	-	-	.945	-	G1/8
SBTB2060-JHP-R	.787	1.7716	2.362	2.756	-	-	-	-	.945	-	G1/8
SBTB2270-JHP-R	.866	1.7716	2.756	3.150	-	-	-	-	.945	-	G1/8
SBTB2225SW-JHP-T	.866	1.8504	.984	1.772	1.181	.98	.177	1.476	1.280	M8X1	-
SBTB2225SRWD	.866	1.8898	.984	1.378	1.059	1.06	.217	-	1.496	-	-
SBTB2225SRR-JHP-T	.866	2.0472	.984	1.772	1.480	.54	.217	-	1.102	M8X1	-
SBTB25100-JHP-R	.984	1.7716	3.937	4.331	-	-	-	-	.945	-	G1/8
SBTB2560-JHP-R	.984	1.7716	2.362	2.756	-	-	-	-	.945	-	G1/8
SBTB2670-JHP-R	1.000	1.7716	2.756	3.150	-	-	-	-	.945	-	G1/8
SBTB2885-JHP-R	1.102	1.7716	3.346	3.740	-	-	-	-	.945	-	M12X1.5
SBTB2885-JHP-T	1.102	1.7716	3.346	4.134	-	-	-	-	.945	M8X1	M12X1.5
SBTB2836CT20-JHP-T	1.102	1.8110	1.417	2.205	1.063	1.06	.177	1.417	1.358	M8X1	-
SBTB3115CIT-JHP-T	1.220	2.3622	.591	1.378	1.602	.93	.217	2.323	1.339	M8X1	-
SBTB3225HA32-JHP-T	1.260	1.9685	.984	1.772	1.118	1.12	.177	1.535	1.535	M8X1	-
SBTB3337HA20-JHP-T	1.299	1.9685	1.457	2.244	1.291	.90	.177	1.866	1.406	M8X1	-
SBTB3440-JHP-T	1.339	1.9685	1.732	2.520	1.169	1.17	.177	1.476	1.476	M8X1	-

For tools, see pages: SBTT#-16ER/L-JHP (830) • SBTT#-MIFHR-JHP (832) • SBTT#-PCHRS/LS-17-JHP (831) • SBTT#-SCHR/L22-JHP (832)
• SBTT#-SCLCR/L-JHP (822) • SBTT#-SDJCR/L-JHP (824) • SBTT#-SVJBR/L-JHP (829) • SBTT#-SVJCR/L-JHP (827) • SBTT#-SVQCR/L-JHP (829)
• SBTT#-SVUCR/L-JHP (828) • SBTT-PCLXR/L09-JHP (823) • SBTT-SDNCN-JHP (825) • SBTT-SVVCN-JHP (828) • SBTT/L/A-SDJNR/L07-JHP (826)

Designation	Machines
SBTB1620SRWD	STAR SR16 / SST16 / SR20 / RNC16
SBTB2225SRWD	STAR SR32 / SR32J (old)
SBTB2225SRR-JHP-T	STAR SR10J / SB16 / SB20 / SR20J / SR20JN / SR20 R / II / III / SR32J / SR32JN / ECAS12 / ECAS20 / SR20R IV (Positions T21 - T24)
SBTB2225SW-JHP-T	STAR SB12R / SB20R / SR20R IV / SW20 / SV20R / SR32J II / SR38 / SW12R II / SR20J II
SBTB3440-JHP-T	STAR SV38R / ECAS32, MAIER
SBTB1660-JHP-R	STAR, TRAUB, MANURHIN
SBTB1960-JHP-R	CITIZEN L20/C16/M16
SBTB2060-JHP-R	CITIZEN B12, TSUGAMI BS12 / BS20
SBTB20125-JHP-R	TORNOS DECO, MANURHIN Swing 7-13
SBTB2270-JHP-R	STAR (most 12/16/20/32mm machines), TORNOS DELTA20 / GAMMA20
SBTB2560-JHP-R	CITIZEN L20, TORNOS, HANWHA STL32 / STL35H / STL33 / STL35J, TSUGAMI BS12 / BS20, MANURHIN Swing
SBTB25100-JHP-R	TORNOS DECO , MANURHIN KMX 5/20 / KMX 5/26 / KMX 5/32 / Swing 7-20 / Swing 7-26
SBTB2670-JHP-R	CITIZEN M32 / C32 / L32
SBTB2836CT20-JHP-T	TORNOS CT20
SBTB2885-JHP-R	TRAUB TNL 12 / TNL16
SBTB2885-JHP-T	TRAUB TNL 12 / TNL16
SBTB3115CIT-JHP-T	CITIZEN A32-VII / L32
SBTB3225HA32-JHP-T	HANWHA STL38H
SBTB3337HA20-JHP-T	HANWHA XD20H /XD20J / XD32H / XD32J

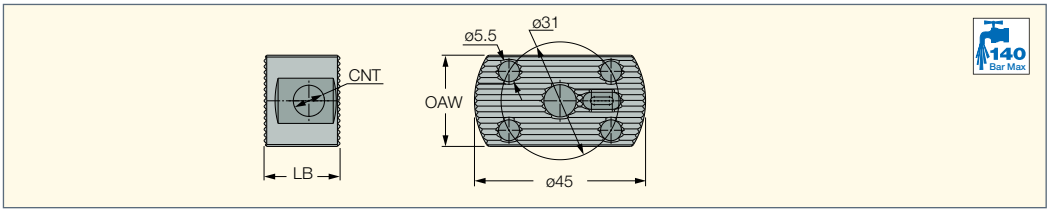
Spare Parts

Designation									
SBTB1620SRWD	SBTA-IK-HOP	SBTA-EXB	SBTA-QR5.28X1.78	HW 3.0	FLAT RING-SW-S5	SR M5X18 DIN7984			
SBTB1660-JHP-R	SBTA-IK-HOP	SBTA-EXB	SBTA-QR5.28X1.78	HW 3.0	FLAT RING-SW-S5	SR M5X18 DIN7984	SR M8X1X6 DIN913		
SBTB1960-JHP-R	SBTA-IK-HOP	SBTA-EXB	SBTA-QR5.28X1.78	HW 3.0	FLAT RING-SW-S5	SR M5X18 DIN7984	PLG G1/8 TL360		
SBTB20125-JHP-R	SBTA-IK-HOP	SBTA-EXB	SBTA-QR5.28X1.78	HW 3.0	FLAT RING-SW-S5	SR M5X18 DIN7984	PLG G1/8 TL360		
SBTB2060-JHP-R	SBTA-IK-HOP	SBTA-EXB	SBTA-QR5.28X1.78	HW 3.0	FLAT RING-SW-S5	SR M5X18 DIN7984	PLG G1/8 TL360		
SBTB2270-JHP-R	SBTA-IK-HOP	SBTA-EXB	SBTA-QR5.28X1.78	HW 3.0	FLAT RING-SW-S5	SR M5X18 DIN7984	PLG G1/8 TL360		
SBTB2225SW-JHP-T	SBTA-IK-HOP	SBTA-EXB	SBTA-QR5.28X1.78	HW 3.0	FLAT RING-SW-S5	SR M5X18 DIN7984	SR M8X1X8 DIN906		SR M4X10DIN912
SBTB2225SRWD	SBTA-IK-HOP	SBTA-EXB	SBTA-QR5.28X1.78	HW 3.0	FLAT RING-SW-S5	SR M5X18 DIN7984			SR M5X10 DIN7984
SBTB2225SRR-JHP-T	SBTA-IK-HOP	SBTA-EXB	SBTA-QR5.28X1.78	HW 3.0	FLAT RING-SW-S5	SR M5X18 DIN7984	SR M8X1X8 DIN906		SR M5X10 DIN7984
SBTB25100-JHP-R	SBTA-IK-HOP	SBTA-EXB	SBTA-QR5.28X1.78	HW 3.0	FLAT RING-SW-S5	SR M5X18 DIN7984	PLG G1/8 TL360		
SBTB2560-JHP-R	SBTA-IK-HOP	SBTA-EXB	SBTA-QR5.28X1.78	HW 3.0	FLAT RING-SW-S5	SR M5X18 DIN7984	PLG G1/8 TL360		
SBTB2670-JHP-R	SBTA-IK-HOP	SBTA-EXB	SBTA-QR5.28X1.78	HW 3.0	FLAT RING-SW-S5	SR M5X18 DIN7984	PLG G1/8 TL360		
SBTB2885-JHP-R	SBTA-IK-HOP	SBTA-EXB	SBTA-QR5.28X1.78	HW 3.0	FLAT RING-SW-S5	SR M5X18 DIN7984	SR M12X1.5X10 DIN913		
SBTB2885-JHP-T	SBTA-IK-HOP	SBTA-EXB	SBTA-QR5.28X1.78	HW 3.0	FLAT RING-SW-S5	SR M5X18 DIN7984	SR M8X1X8 DIN906	SR M12X1.5X10 DIN913	
SBTB2836CT20-JHP-T	SBTA-IK-HOP	SBTA-EXB	SBTA-QR5.28X1.78	HW 3.0	FLAT RING-SW-S5	SR M5X18 DIN7984	SR M8X1X8 DIN906		SR M4X10DIN912
SBTB3115CIT-JHP-T	SBTA-IK-HOP	SBTA-EXB	SBTA-QR5.28X1.78	HW 3.0	FLAT RING-SW-S5	SR M5X18 DIN7984	SR M8X1X8 DIN906		
SBTB3225HA32-JHP-T	SBTA-IK-HOP	SBTA-EXB	SBTA-QR5.28X1.78	HW 3.0	FLAT RING-SW-S5	SR M5X18 DIN7984	SR M8X1X8 DIN906		SR M4X20 DIN912
SBTB3337HA20-JHP-T	SBTA-IK-HOP	SBTA-EXB	SBTA-QR5.28X1.78	HW 3.0	FLAT RING-SW-S5	SR M5X18 DIN7984	SR M8X1X8 DIN906		SR M4X25DIN912
SBTB3440-JHP-T	SBTA-IK-HOP	SBTA-EXB	SBTA-QR5.28X1.78	HW 3.0	FLAT RING-SW-S5	SR M5X18 DIN7984	SR M8X1X8 DIN906		SR M4X10DIN912

QUICKSWISS

SBTS##S-JHP

Spacer for Tool Extension for Height Adjustable Modular Back-End Machining System for Swiss-Type Machines



M E T R I C			
Designation	**OAW**	**LB**	**CNT**
SBTS10S (1)	24.00	10.00	-
SBTS15S-JHP	24.00	15.00	M8X1
SBTS20S-JHP	24.00	20.00	M8X1
SBTS25S-JHP	24.00	25.00	M8X1
SBTS30S-JHP	24.00	30.00	M8X1

• For user guide, see pages 837-848

(1) Without coolant connection

For tools, see pages: SBTT#-16ER/L-JHP (830) • SBTT#-MIFHR-JHP (832) • SBTT#-PCHRS/LS-17-JHP (831) • SBTT#-SCHR/L22-JHP (832) • SBTT#-SCLCR/L-JHP (822) • SBTT#-SDJCR/L-JHP (824) • SBTT#-SVJBR/L-JHP (829) • SBTT#-SVJCR/L-JHP (827) • SBTT#-SVQCR/L-JHP (829) • SBTT#-SVUCR/L-JHP (828) • SBTT-PCLXR/L09-JHP (823) • SBTT-SDNCN-JHP (825) • SBTT-SVVCN-JHP (828) • SBTT/L/A-SDJNR/L07-JHP (826)

Spare Parts

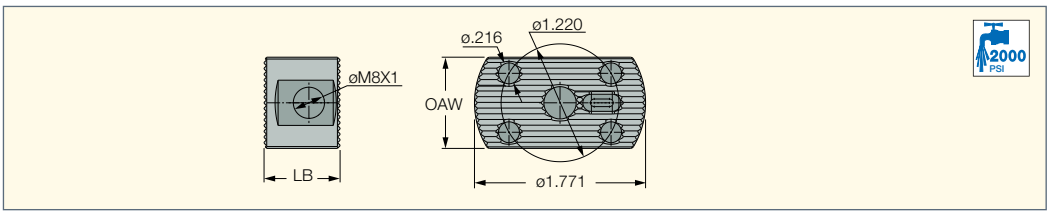
Designation							
SBTS10S	SBTA-IK-HOP	SBTA-IK-SP1	SBTA-IK-SP2	SBTA-ZEN10	SBTA-EXB10	SBTA-QR5.28X1.78	FLAT RING-SW-S5
SBTS15S-JHP	SBTA-IK-HOP	SBTA-IK-SP1	SBTA-IK-SP2	SBTA-ZEN15	SBTA-EXB15	SBTA-QR5.28X1.78	FLAT RING-SW-S5
SBTS20S-JHP	SBTA-IK-HOP	SBTA-IK-SP1	SBTA-IK-SP2	SBTA-ZEN20	SBTA-EXB20	SBTA-QR5.28X1.78	FLAT RING-SW-S5
SBTS25S-JHP	SBTA-IK-HOP	SBTA-IK-SP1	SBTA-IK-SP2	SBTA-ZEN25	SBTA-EXB25	SBTA-QR5.28X1.78	FLAT RING-SW-S5
SBTS30S-JHP	SBTA-IK-HOP	SBTA-IK-SP1	SBTA-IK-SP2	SBTA-ZEN30	SBTA-EXB30	SBTA-QR5.28X1.78	FLAT RING-SW-S5

Designation							
SBTS10S	SR M5X25 DIN7984	SR M5X35 DIN7984	SR M5X40 DIN7984	SR M5X45 DIN7984	SR M5X50 DIN7984	SR M5X55 DIN7984	
SBTS15S-JHP	SR M5X30 DIN7984	SR M5X40 DIN7984	SR M5X45 DIN7984	SR M5X50 DIN7984	SR M5X55 DIN7984	SR M5X60 DIN7984	SR M8X1X8 DIN906
SBTS20S-JHP	SR M5X35 DIN7984	SR M5X45 DIN7984	SR M5X50 DIN7984	SR M5X55 DIN7984	SR M5X60 DIN7984	SR M5X65 DIN7984	SR M8X1X8 DIN906
SBTS25S-JHP	SR M5X45 DIN7984	SR M5X50 DIN7984	SR M5X55 DIN7984	SR M5X60 DIN7984	SR M5X65 DIN7984	SR M5X70 DIN7984	SR M8X1X8 DIN906
SBTS30S-JHP		SR M5X45 DIN7984	SR M5X55 DIN7984	SR M5X65 DIN7984	SR M5X70 DIN7984	SR M5X75 DIN7984	SR M8X1X8 DIN906

QUICKSWISS

SBTS##S-JHP

Spacer for Tool Extension for Height Adjustable Modular Back-End Machining System for Swiss-Type Machines



I N C H			
Designation	**OAW**	**LB**	**CNT**
SBTS10S (1)	.945	.394	-
SBTS15S-JHP	.945	.591	M8X1
SBTS20S-JHP	.945	.787	M8X1
SBTS25S-JHP	.945	.984	M8X1
SBTS30S-JHP	.945	1.181	M8X1

• For user guide, see pages 837-848

(1) Without coolant connection

For tools, see pages: SBTT#-16ER/L-JHP (830) • SBTT#-MIFHR-JHP (832) • SBTT#-PCHRS/LS-17-JHP (831) • SBTT#-SCHR/L22-JHP (832) • SBTT#-SCLCR/L-JHP (822) • SBTT#-SDJCR/L-JHP (824) • SBTT#-SVJBR/L-JHP (829) • SBTT#-SVJCR/L-JHP (827) • SBTT#-SVQCR/L-JHP (829) • SBTT#-SVUCR/L-JHP (828) • SBTT-PCLXR/L09-JHP (823) • SBTT-SDNCN-JHP (825) • SBTT-SVVCN-JHP (828) • SBTT/L/A-SDJNR/L07-JHP (826)

Spare Parts

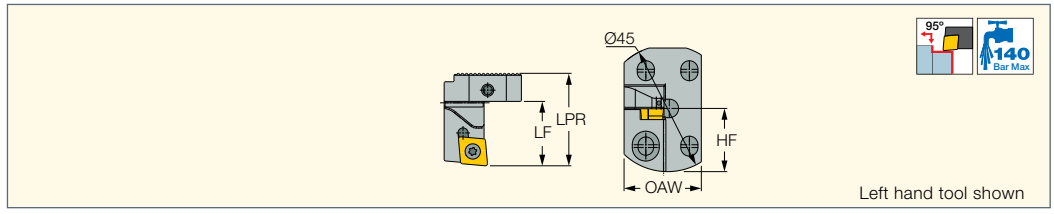
Designation							
SBTS10S	SBTA-IK-HOP	SBTA-IK-SP1	SBTA-IK-SP2	SBTA-ZEN10	SBTA-EXB10	SBTA-QR5.28X1.78	FLAT RING-SW-S5
SBTS15S-JHP	SBTA-IK-HOP	SBTA-IK-SP1	SBTA-IK-SP2	SBTA-ZEN15	SBTA-EXB15	SBTA-QR5.28X1.78	FLAT RING-SW-S5
SBTS20S-JHP	SBTA-IK-HOP	SBTA-IK-SP1	SBTA-IK-SP2	SBTA-ZEN20	SBTA-EXB20	SBTA-QR5.28X1.78	FLAT RING-SW-S5
SBTS25S-JHP	SBTA-IK-HOP	SBTA-IK-SP1	SBTA-IK-SP2	SBTA-ZEN25	SBTA-EXB25	SBTA-QR5.28X1.78	FLAT RING-SW-S5
SBTS30S-JHP	SBTA-IK-HOP	SBTA-IK-SP1	SBTA-IK-SP2	SBTA-ZEN30	SBTA-EXB30	SBTA-QR5.28X1.78	FLAT RING-SW-S5

Designation							
SBTS10S	SR M5X25 DIN7984	SR M5X35 DIN7984	SR M5X40 DIN7984	SR M5X45 DIN7984	SR M5X50 DIN7984	SR M5X55 DIN7984	
SBTS15S-JHP	SR M5X30 DIN7984	SR M5X40 DIN7984	SR M5X45 DIN7984	SR M5X50 DIN7984	SR M5X55 DIN7984	SR M5X60 DIN7984	SR M8X1X8 DIN906
SBTS20S-JHP	SR M5X35 DIN7984	SR M5X45 DIN7984	SR M5X50 DIN7984	SR M5X55 DIN7984	SR M5X60 DIN7984	SR M5X65 DIN7984	SR M8X1X8 DIN906
SBTS25S-JHP	SR M5X45 DIN7984	SR M5X50 DIN7984	SR M5X55 DIN7984	SR M5X60 DIN7984	SR M5X65 DIN7984	SR M5X70 DIN7984	SR M8X1X8 DIN906
SBTS30S-JHP		SR M5X45 DIN7984	SR M5X55 DIN7984	SR M5X65 DIN7984	SR M5X70 DIN7984	SR M5X75 DIN7984	SR M8X1X8 DIN906

QUICKSWISS

SBTT#-SCLCR/L-JHP

Screw Lock JET-CUT Modular Heads Mount 7° Clearance 80° Rhombic Inserts for Back-End Machining on Swiss-Type Machines



M E T R I C

Designation	LF	LPR	HF	OAW	MIID[2]			
SBTT-SCLCR/L06-JHP [1]	23.00	33.00	22.5	28.00	CCMT 060202-PF	SR 14-548	T-7/5	SR M5X30 DIN7984
SBTT-SCLCR/L09-JHP	23.00	33.00	22.5	27.50	CCMT 09T302-PF	SR 16-236	T-15/5	SR M5X30 DIN7984
SBTTL-SCLCR09-JHP	39.00	49.00	22.5	27.50	CCMT 09T302-PF	SR 16-236	T-15/5	SR M5X45 DIN7984

[1] Available on request

[2] Master insert identification

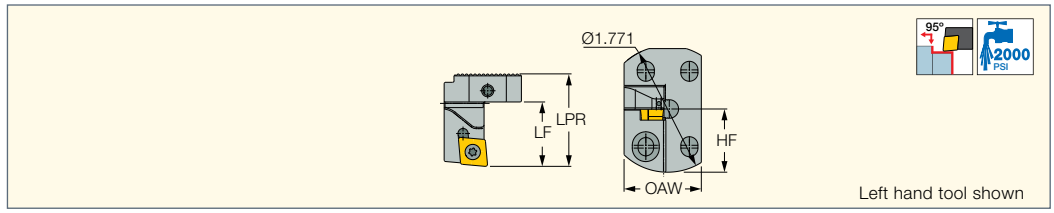
For inserts, see pages: CCET-WF (158) • CCGT-AF (159) • CCGT-AS (160) • CCGT-F1M-12P (155) • CCGT-F1M-20P (156) • CCGW/CCMT (CBN) (162) • CCGW/CCMW-2 (CBN) (163) • CCMT-14 (152) • CCMT-CERMET (161) • CCMT-F3M (148) • CCMT-F3P (146) • CCMT-M3M (149) • CCMT-M3P (147) • CCMT-PF (153) • CCMT-WG (154) • CCMT/CCGT (150) • CCMT/CCGT-SM (151)

For holders, see pages: SBTB-JHP-T/R (819) • SBTS##S-JHP (821)

QUICKSWISS

SBTT#-SCLCR/L-JHP

Screw Lock JET-CUT Modular Heads Mount 7° Clearance 80° Rhombic Inserts for Back-End Machining on Swiss-Type Machines



I N C H

Designation	LF	LPR	HF	OAW	MIID[2]			
SBTT-SCLCR/L06-JHP [1]	.906	1.299	.886	1.102	CCMT 2-0-PF	SR 14-548	T-7/5	SR M5X30 DIN7984
SBTT-SCLCR/L09-JHP	.906	1.299	.886	1.083	CCMT 3-0-PF	SR 16-236	T-15/5	SR M5X30 DIN7984
SBTTL-SCLCR09-JHP	1.535	1.929	.886	1.083	CCMT 3-0-PF	SR 16-236	T-15/5	SR M5X45 DIN7984

[1] Available on request

[2] Master insert identification

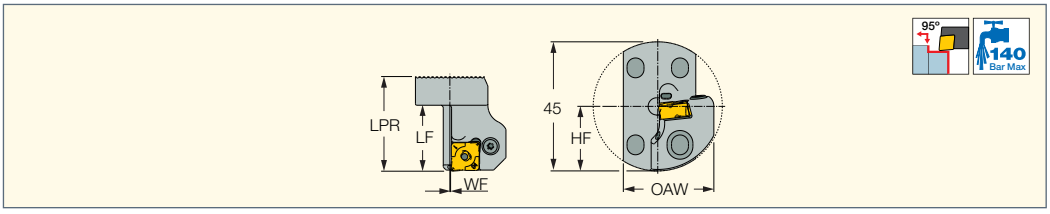
For inserts, see pages: CCET-WF (158) • CCGT-AF (159) • CCGT-AS (160) • CCGT-F1M-12P (155) • CCGT-F1M-20P (156) • CCGW/CCMT (CBN) (162) • CCGW/CCMW-2 (CBN) (163) • CCMT-14 (152) • CCMT-CERMET (161) • CCMT-F3M (148) • CCMT-F3P (146) • CCMT-M3M (149) • CCMT-M3P (147) • CCMT-PF (153) • CCMT-WG (154) • CCMT/CCGT (150) • CCMT/CCGT-SM (151)

For holders, see pages: SBTB-JHP-T/R (819) • SBTS##S-JHP (821)

QUICKSWISS

SBTT-PCLXR/L09-JHP

Lever Lock JET-CUT Modular Heads on which Double-Sided 80° Rhombic Inserts are Mounted for Back-End Machining



M E T R I C

Designation	LF	HF	LPR	OAW	WF	MIID(1)			
SBTT-PCLXR/L09-JHP	23.00	22.5	33.00	31.60	0.25	CXMG 090408	SR M6XL11.5V	LR 3X SET	T-8/5

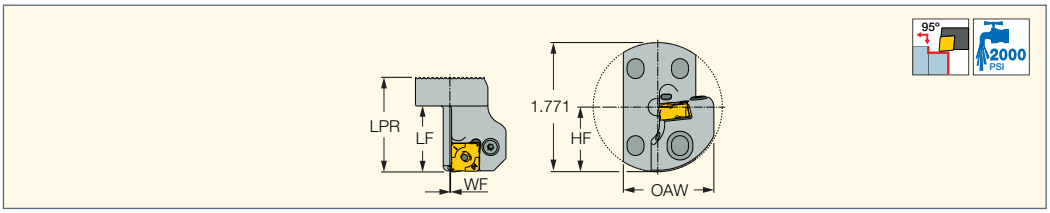
(1) Master insert identification

For inserts, see pages: CXMG-F3M (144) • CXMG-F3P (143) • CXMG-M3M (145) • CXMG-M3P (144)
For holders, see pages: SBTB-JHP-T/R (819) • SBTS##S-JHP (821)

QUICKSWISS

SBTT-PCLXR/L09-JHP

Lever Lock JET-CUT Modular Heads on which Double-Sided 80° Rhombic Inserts are Mounted for Back-End Machining



I N C H

Designation	LF	HF	LPR	OAW	WF	MIID(1)			
SBTT-PCLXR/L09-JHP	.906	.886	1.299	1.244	.010	CXMG 090408	SR M6XL11.5V	LR 3X SET	T-8/5

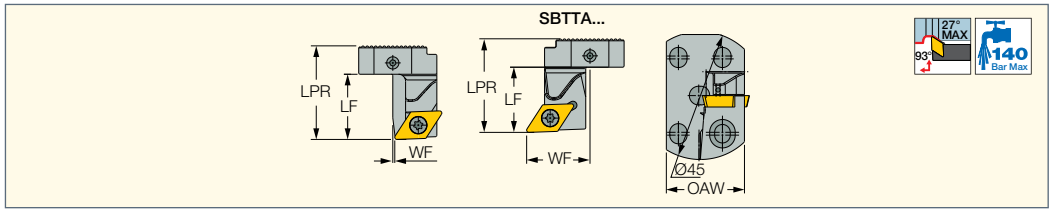
(1) Master insert identification

For inserts, see pages: CXMG-F3M (144) • CXMG-F3P (143) • CXMG-M3M (145) • CXMG-M3P (144)
For holders, see pages: SBTB-JHP-T/R (819) • SBTS##S-JHP (821)

QUICKSWISS

SBTT#-SDJCR/L-JHP

Screw Lock JET-CUT Modular Heads Mount 7° Clearance 55° Rhombic Inserts for Back-End Machining on Swiss-Type Machines



M E T R I C

Designation	LF	LPR	OAW	WF	MIID[1]			
SBTT-SDJCR/L07-JHP	23.00	33.00	27.50	0.17	DCGT 070202	SR 14-548	T-7/5	SR M5X30 DIN7984
SBTT-SDJCR/L11-JHP	23.00	33.00	27.50	0.70	DCGT 11T302	SR 16-236	T-15/5	SR M5X30 DIN7984
SBTTA-SDJCR/L11-JHP	23.00	33.00	28.00	22.30	DCGT 11T302	SR 16-236	T-15/5	SR M5X30 DIN7984
SBTTL-SDJCR/L07-JHP	40.00	50.00	27.50	0.17	DCGT 070202	SR 14-548	T-7/5	SR M5X45 DIN7984
SBTTL-SDJCR/L11-JHP	40.00	50.00	27.50	0.70	DCGT 11T302	SR 16-236	T-15/5	SR M5X45 DIN7984

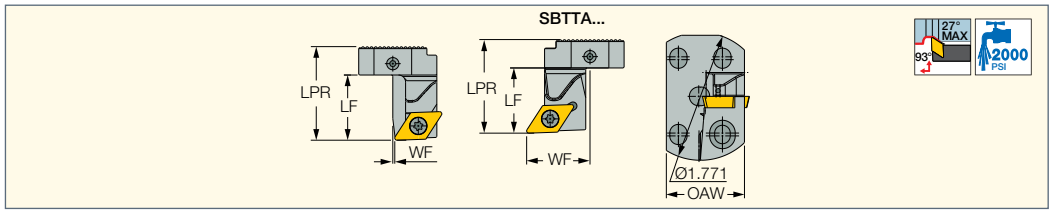
[1] Master insert identification

For inserts, see pages: DCGT-AF (179) • DCGT-AS (181) • DCGT-F1M-12P (177) • DCGT-F1M-20P (178) • DCGW/DCMW-2 (CBN) (182) • DCMT (CBN) (183) • DCMT-14 (173) • DCMT-CERMET (175) • DCMT-F3P (164) • DCMT-M3M (167) • DCMT-M3P (166) • DCMT/DCGT (174) • DCMT/DCGT-PF (171) • DCMT/DCGT-SM (169)
For holders, see pages: SBTB-JHP-T/R (819) • SBTS##S-JHP (821)

QUICKSWISS

SBTT#-SDJCR/L-JHP

Screw Lock JET-CUT Modular Heads Mount 7° Clearance 55° Rhombic Inserts for Back-End Machining on Swiss-Type Machines



I N C H

Designation	LF	LPR	OAW	WF	MIID[1]			
SBTT-SDJCR/L07-JHP	.906	1.299	1.083	.007	DCGT 2-0	SR 14-548	T-7/5	SR M5X30 DIN7984
SBTT-SDJCR/L11-JHP	.906	1.299	1.083	.028	DCGT 3-0	SR 16-236	T-15/5	SR M5X30 DIN7984
SBTTA-SDJCR/L11-JHP	.906	1.299	1.102	.878	DCGT 3-0	SR 16-236	T-15/5	SR M5X30 DIN7984
SBTTL-SDJCR/L07-JHP	1.575	1.968	1.083	.007	DCGT 2-0	SR 14-548	T-7/5	SR M5X45 DIN7984
SBTTL-SDJCR/L11-JHP	1.575	1.968	1.083	.028	DCGT 3-0	SR 16-236	T-15/5	SR M5X45 DIN7984

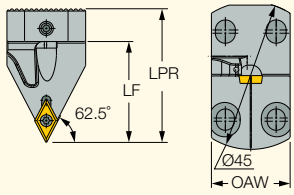
[1] Master insert identification

For inserts, see pages: DCGT-AF (179) • DCGT-AS (181) • DCGT-F1M-12P (177) • DCGT-F1M-20P (178) • DCGW/DCMW-2 (CBN) (182) • DCMT (CBN) (183) • DCMT-14 (173) • DCMT-CERMET (175) • DCMT-F3P (164) • DCMT-M3M (167) • DCMT-M3P (166) • DCMT/DCGT (174) • DCMT/DCGT-PF (171) • DCMT/DCGT-SM (169)
For holders, see pages: SBTB-JHP-T/R (819) • SBTS##S-JHP (821)

QUICKSWISS

SBTT-SDNCN-JHP

Screw Lock JET-CUT Modular Heads Mount 7° Clearance 55° Rhombic Inserts for Back-End Machining on Swiss-Type Machines





M E T R I C

Designation	LF	LPR	OAW	MIID(1)			
SBTT-SDNCN07-JHP	31.00	41.00	24.00	DCGT 070204	SR 14-548	SR M5X25 DIN7984	T-7/5
SBTT-SDNCN11-JHP	31.00	41.00	24.00	DCGT 11T302	SR 16-236	SR M5X25 DIN7984	T-15/5

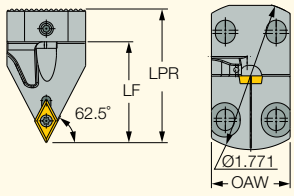
(1) Master insert identification

For inserts, see pages: DCGT-AF (179) • DCGT-AS (181) • DCGT-F1M-12P (177) • DCGT-F1M-20P (178) • DCGW/DCMW-2 (CBN) (182) • DCMT (CBN) (183) • DCMT-14 (173) • DCMT-CERMET (175) • DCMT-F3P (164) • DCMT-M3M (167) • DCMT-M3P (166) • DCMT/DCGT (174) • DCMT/DCGT-PF (171) • DCMT/DCGT-SM (169)
For holders, see pages: SBTB-JHP-T/R (819) • SBTS##S-JHP (821)

QUICKSWISS

SBTT-SDNCN-JHP

Screw Lock JET-CUT Modular Heads Mount 7° Clearance 55° Rhombic Inserts for Back-End Machining on Swiss-Type Machines





I N C H

Designation	LF	LPR	OAW	MIID(1)			
SBTT-SDNCN07-JHP	1.220	1.614	.945	DCGT 2-0	SR 14-548	SR M5X25 DIN7984	T-7/5
SBTT-SDNCN11-JHP	1.220	1.614	.945	DCGT 3-0	SR 16-236	SR M5X25 DIN7984	T-15/5

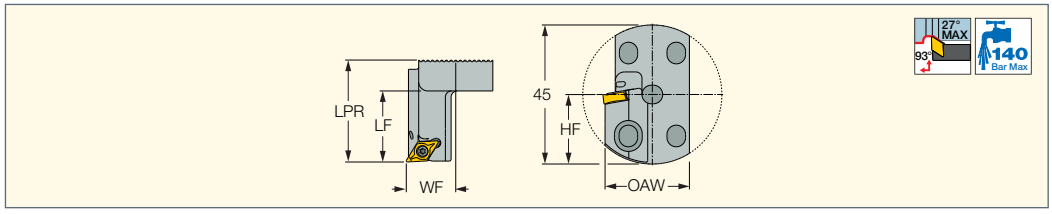
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For inserts, see pages: DCGT-AF (179) • DCGT-AS (181) • DCGT-F1M-12P (177) • DCGT-F1M-20P (178) • DCGW/DCMW-2 (CBN) (182) • DCMT (CBN) (183) • DCMT-14 (173) • DCMT-CERMET (175) • DCMT-F3P (164) • DCMT-M3M (167) • DCMT-M3P (166) • DCMT/DCGT (174) • DCMT/DCGT-PF (171) • DCMT/DCGT-SM (169)
For holders, see pages: SBTB-JHP-T/R (819) • SBTS##S-JHP (821)

QUICKSWISS

SBTT/L/A-SDJNR/L07-JHP

Screw Lock JET-CUT Modular Heads on which Positive Double-Sided 55° Rhombic Inserts are Mounted for Back-End Machining



Designation	LF	HF	LPR	OAW	WF	MIID[1]
METRIC						
SBTT-SDJNL07-JHP	23.00	22.5	33.00	27.00	0.25	DNGP 070302R
SBTT-SDJNR07-JHP	23.00	22.5	33.00	27.00	0.25	DNGP 070302L
SBTTA-SDJNL07-JHP	23.00	22.5	33.00	27.30	16.00	DNGP 070302R
SBTTA-SDJNR07-JHP	23.00	22.5	33.00	27.30	16.00	DNGP 070302L
SBTTL-SDJNL07-JHP	40.00	22.5	50.00	27.00	0.25	DNGP 070302R
SBTTL-SDJNR07-JHP	40.00	22.5	50.00	27.00	0.25	DNGP 070302L

[1] Master insert identification

For inserts, see pages: DNGP-F2M (264) • DNGP-F2P (265)
For holders, see pages: SBTB-JHP-T/R (819) • SBTS##S-JHP (821)

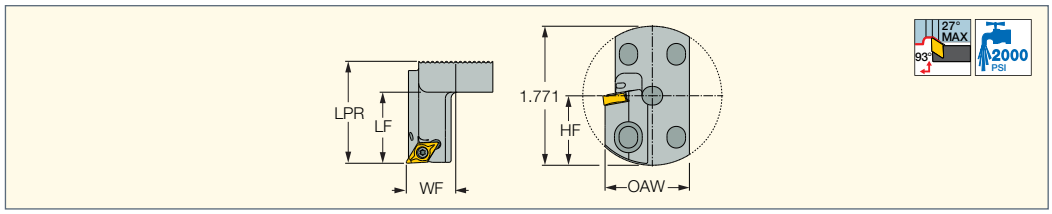
Spare Parts

Designation		
SBTT/L/A-SDJNR/L07-JHP	SR 34-514	T-7/5

QUICKSWISS

SBTT/L/A-SDJNR/L07-JHP

Screw Lock JET-CUT Modular Heads on which Positive Double-Sided 55° Rhombic Inserts are Mounted for Back-End Machining



Designation	LF	HF	LPR	OAW	WF	MIID[1]
INCH						
SBTT-SDJNL07-JHP	.906	.886	1.299	1.063	.010	DNGP 220.5R
SBTT-SDJNR07-JHP	.906	.886	1.299	1.063	.010	DNGP 220.5L
SBTTA-SDJNL07-JHP	.906	.886	1.299	1.075	.630	DNGP 220.5R
SBTTA-SDJNR07-JHP	.906	.886	1.299	1.075	.630	DNGP 220.5L
SBTTL-SDJNL07-JHP	1.575	.886	1.968	1.063	.010	DNGP 220.5R
SBTTL-SDJNR07-JHP	1.575	.886	1.968	1.063	.010	DNGP 220.5L

[1] Master insert identification

For inserts, see pages: DNGP-F2M (264) • DNGP-F2P (265)
For holders, see pages: SBTB-JHP-T/R (819) • SBTS##S-JHP (821)

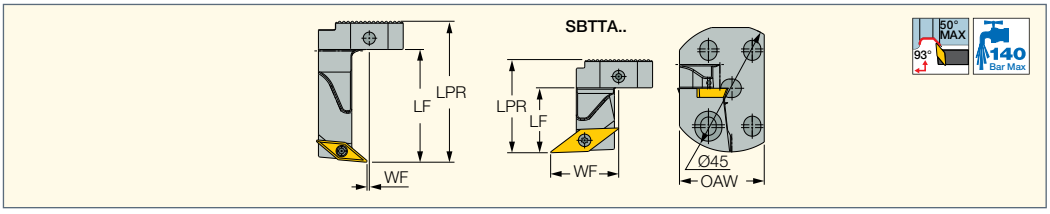
Spare Parts

Designation		
SBTT/L/A-SDJNR/L07-JHP	SR 34-514	T-7/5

QUICKSWISS

SBTT#-SVJCR/L-JHP

Screw Lock JET-CUT Modular Heads Mount 7° Clearance 35° Rhombic Inserts for Back-End Machining on Swiss-Type Machines



M E T R I C

Designation	LF	LPR	OAW	WF	MIID(2)			
SBTT-SVJCR/L11-JHP	23.00	33.00	30.00	0.80	VCMT 110302-F3P	SR 14-560	T-8/5	SR M5X30 DIN7984
SBTTA-SVJCR13-JHP (1)	23.00	33.00	27.00	24.00	VCGT 130302-PF	SR 14-513	T-8/5	SR M5X30 DIN7984
SBTTL-SVJCR/L11-JHP	40.00	50.00	30.00	0.80	VCMT 110302-F3P	SR 14-560	T-8/5	SR M5X45 DIN7984

(1) Available on request

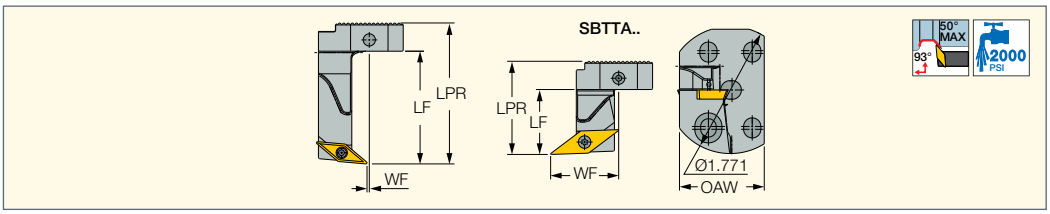
(2) Master insert identification

For inserts, see pages: VCGT-AS (191) • VCGT-F1M-12P (192) • VCGT-F1M-20P (193) • VCMT-F3M (186) • VCMT-F3P (184) • VCMT-M3P (185) • VCMT-SM (188)
For holders, see pages: SBTB-JHP-T/R (819) • SBTS##S-JHP (821)

QUICKSWISS

SBTT#-SVJCR/L-JHP

Screw Lock JET-CUT Modular Heads Mount 7° Clearance 35° Rhombic Inserts for Back-End Machining on Swiss-Type Machines



I N C H

Designation	LF	LPR	OAW	WF	MIID(2)			
SBTT-SVJCR/L11-JHP	.906	1.299	1.181	.031	VCMT 220-F3P	SR 14-560	T-8/5	SR M5X30 DIN7984
SBTTA-SVJCR13-JHP (1)	.906	1.299	1.063	.945	VCGT 130302-PF	SR 14-513	T-8/5	SR M5X30 DIN7984
SBTTL-SVJCR/L11-JHP	1.575	1.968	1.181	.031	VCMT 220-F3P	SR 14-560	T-8/5	SR M5X45 DIN7984

(1) Available on request

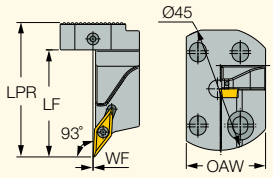
(2) Master insert identification

For inserts, see pages: VCGT-AS (191) • VCGT-F1M-12P (192) • VCGT-F1M-20P (193) • VCMT-F3M (186) • VCMT-F3P (184) • VCMT-M3P (185) • VCMT-SM (188)
For holders, see pages: SBTB-JHP-T/R (819) • SBTS##S-JHP (821)

QUICKSWISS

SBTT#-SVUCR/L-JHP

Screw Lock JET-CUT Modular Heads Mount 7° Clearance 35° Rhombic Inserts for Back-End Machining on Swiss-Type Machines





Right hand tool shown

M E T R I C

Designation	LF	LPR	OAW	WF	MIID(2)			
SBTT-SVUCR/L11-JHP	23.00	33.00	29.00	0.00	VCMT 110302-F3M	SR 14-560	T-8/5	SR M5X25 DIN7984
SBTTL-SVUCR11-JHP (1)	40.00	50.00	29.00	0.00	VCMT 110302-F3M	SR 14-560	T-8/5	SR M5X40 DIN7984

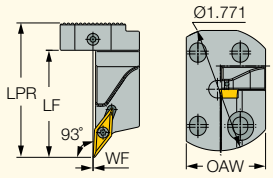
(1) Available on request
(2) Master insert identification

For inserts, see pages: VCGT-AS (191) • VCGT-F1M-12P (192) • VCGT-F1M-20P (193) • VCMT-F3M (186) • VCMT-F3P (184) • VCMT-M3P (185) • VCMT-SM (188)
For holders, see pages: SBTB-JHP-T/R (819) • SBTS##S-JHP (821)

QUICKSWISS

SBTT#-SVUCR/L-JHP

Screw Lock JET-CUT Modular Heads Mount 7° Clearance 35° Rhombic Inserts for Back-End Machining on Swiss-Type Machines





Right hand tool shown

I N C H

Designation	LF	LPR	OAW	WF	MIID(2)			
SBTT-SVUCR/L11-JHP	.906	1.299	1.142	0	VCGT 220-F3M	SR 14-560	T-8/5	SR M5X25 DIN7984
SBTTL-SVUCR11-JHP (1)	1.575	1.968	1.142	0	VCGT 220-F3M	SR 14-560	T-8/5	SR M5X40 DIN7984

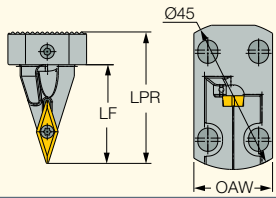
(1) Available on request
(2) Master insert identification

For inserts, see pages: VCGT-AS (191) • VCGT-F1M-12P (192) • VCGT-F1M-20P (193) • VCMT-F3M (186) • VCMT-F3P (184) • VCMT-M3P (185) • VCMT-SM (188)
For holders, see pages: SBTB-JHP-T/R (819) • SBTS##S-JHP (821)

QUICKSWISS

SBTT-SVVCN-JHP

Screw Lock JET-CUT Modular Heads Mount 7° Clearance 35° Rhombic Inserts for Back-End Machining on Swiss-Type Machines





M E T R I C

Designation	LF	LPR	OAW	MIID(1)		
SBTT-SVVCN11-JHP	30.00	40.00	24.00	VCMT 110302-F3P	SR 14-560	T-8/5

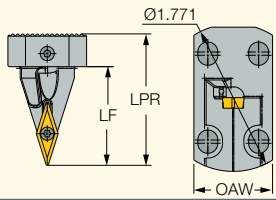
(1) Master insert identification

For inserts, see pages: VCGT-AS (191) • VCGT-F1M-12P (192) • VCGT-F1M-20P (193) • VCMT-F3M (186) • VCMT-F3P (184) • VCMT-M3P (185) • VCMT-SM (188)
For holders, see pages: SBTB-JHP-T/R (819) • SBTS##S-JHP (821)

QUICKSWISS

SBTT-SVVCN-JHP

Screw Lock JET-CUT Modular Heads Mount 7° Clearance 35° Rhombic Inserts for Back-End Machining on Swiss-Type Machines





I N C H

Designation	LF	LPR	OAW	MIID(1)		
SBTT-SVVCN11-JHP	1.181	1.575	.945	VCMT 220-F3P	SR 14-560	T-8/5

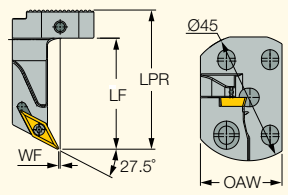
(1) Master insert identification

For inserts, see pages: VCGT-AS (191) • VCGT-F1M-12P (192) • VCGT-F1M-20P (193) • VCMT-F3M (186) • VCMT-F3P (184) • VCMT-M3P (185) • VCMT-SM (188)
For holders, see pages: SBTB-JHP-T/R (819) • SBTS##S-JHP (821)

QUICKSWISS

SBTT#-SVQCR/L-JHP

Screw Lock JET-CUT Modular Heads Mount 7° Clearance 35° Rhombic Inserts for Back-End Machining on Swiss-Type Machines





Left hand tool shown

M E T R I C

Designation	LF	LPR	OAW	WF	MIID(2)			
SBTT-SVQCR/L11-JHP	23.00	33.00	29.00	0.50	VCMT 110302-F3P	SR 14-560	T-8/5	SR M5X30 DIN7984
SBTTL-SVQCR/L11-JHP (1)	40.00	50.00	29.00	0.50	VCMT 110302-F3P	SR 14-560	T-8/5	SR M5X45 DIN7984

(1) Available on request

(2) Master insert identification

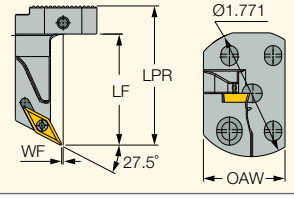
For inserts, see pages: VCGT-AS (191) • VCGT-F1M-12P (192) • VCGT-F1M-20P (193) • VCMT-F3M (186) • VCMT-F3P (184) • VCMT-M3P (185) • VCMT-SM (188)

For holders, see pages: SBTB-JHP-T/R (819) • SBTS##S-JHP (821)

QUICKSWISS

SBTT#-SVQCR/L-JHP

Screw Lock JET-CUT Modular Heads Mount 7° Clearance 35° Rhombic Inserts for Back-End Machining on Swiss-Type Machines





Left hand tool shown

I N C H

Designation	LF	LPR	OAW	WF	MIID(2)			
SBTT-SVQCR/L11-JHP	.906	1.299	1.142	.020	VCMT 220-F3P	SR 14-560	T-8/5	SR M5X30 DIN7984
SBTTL-SVQCR/L11-JHP (1)	1.575	1.968	1.142	.020	VCMT 220-F3P	SR 14-560	T-8/5	SR M5X45 DIN7984

(1) Available on request

(2) Master insert identification

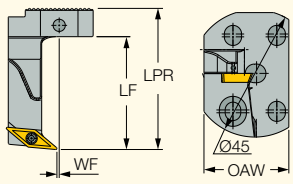
For inserts, see pages: VCGT-AS (191) • VCGT-F1M-12P (192) • VCGT-F1M-20P (193) • VCMT-F3M (186) • VCMT-F3P (184) • VCMT-M3P (185) • VCMT-SM (188)

For holders, see pages: SBTB-JHP-T/R (819) • SBTS##S-JHP (821)

QUICKSWISS

SBTT#-SVJBR/L-JHP

Screw Lock JET-CUT Modular Heads Mount 5° Clearance 35° Rhombic Inserts for Back-End Machining on Swiss-Type Machines





Left hand tool shown

M E T R I C

Designation	LF	LPR	OAW	WF	MIID(2)			
SBTT-SVJBR/L11-JHP (1)	23.00	33.00	30.00	0.80	VBGW 110304-F2	SR 11201753-3	T-8/5	SR M5X30 DIN7984
SBTTM-SVJBR/L11-JHP (1)	31.00	41.00	30.00	0.80	VBGW 110304-F2	SR 11201753-3	T-8/5	SR M5X35 DIN7984
SBTTM-SVJBR1102-JHP (1)	31.00	41.00	30.00	0.80	VBGW 110204-F	SR 14-560	T-8/5	SR M5X35 DIN7984
SBTTL-SVJBR/L11-JHP (1)	40.00	50.00	30.00	0.80	VBGW 110304-F2	SR 11201753-3	T-8/5	SR M5X45 DIN7984

• For inserts, see ISCAR CBN PCD catalog

(1) Available on request

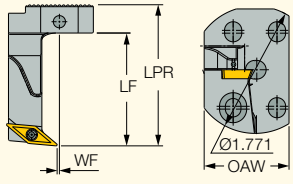
(2) Master insert identification

For holders, see pages: SBTB-JHP-T/R (819) • SBTS##S-JHP (821)

QUICKSWISS

SBTT#-SVJBR/L-JHP

Screw Lock JET-CUT Modular Heads Mount 5° Clearance 35° Rhombic Inserts for Back-End Machining on Swiss-Type Machines





Left hand tool shown

I N C H

Designation	LF	LPR	OAW	WF	MIID(2)			
SBTT-SVJBR/L11-JHP (1)	.906	1.299	1.181	.031	VBGW 221-F2	SR 11201753-3	T-8/5	SR M5X30 DIN7984
SBTTM-SVJBR/L11-JHP (1)	1.220	1.614	1.181	.031	VBGW 221-F2	SR 11201753-3	T-8/5	SR M5X35 DIN7984
SBTTM-SVJBR1102-JHP (1)	1.220	1.614	1.181	.031	VBGW 21.51F	SR 14-560	T-8/5	SR M5X35 DIN7984
SBTTL-SVJBR/L11-JHP (1)	1.575	1.968	1.181	.031	VBGW 221-F2	SR 11201753-3	T-8/5	SR M5X45 DIN7984

• For inserts, see ISCAR CBN PCD catalog

(1) Available on request

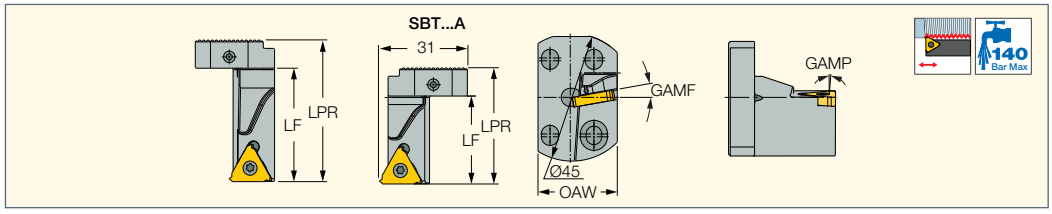
(2) Master insert identification

For holders, see pages: SBTB-JHP-T/R (819) • SBTS##S-JHP (821)

QUICKSWISS

SBTT#-16ER/L-JHP

Screw Lock JET-CUT Modular Heads Mount ISO Laydown Threading Inserts for Back-End Machining on Swiss-Type Machines



M E T R I C

Designation	LF	LPR	OAW	GAMP(2)	GAMF(3)	MIID(4)			
SBTT-16ER-0-JHP (1)	31.00	41.00	28.00	0.0	10.0	16ER A 60	SR 5-40-L9.7-S16S	T-10/5	SR M5X35 DIN7984
SBTT-16ER-15-JHP	31.00	41.00	28.00	1.5	10.0	16ER A 60	SR 5-40-L9.7-S16S	T-10/5	SR M5X35 DIN7984
SBTT-16ER-3-JHP	31.00	41.00	28.00	3.0	10.0	16ER A 60	SR 5-40-L9.7-S16S	T-10/5	SR M5X35 DIN7984
SBTTA-16ER-0-JHP (1)	31.00	41.00	28.00	0.0	10.0	16ER A 60	SR 5-40-L9.7-S16S	T-10/5	SR M5X35 DIN7984
SBTTA-16ER-15-JHP (1)	31.00	41.00	28.00	1.5	10.0	16ER A 60	SR 5-40-L9.7-S16S	T-10/5	SR M5X35 DIN7984
SBTTA-16ER-3-JHP (1)	31.00	41.00	28.00	3.0	10.0	16ER A 60	SR 5-40-L9.7-S16S	T-10/5	SR M5X35 DIN7984
SBTTL-16EL-15-JHP	40.00	50.00	28.00	1.5	10.0	16EL A 60	SR 5-40-L9.7-S16S	T-10/5	SR M5X45 DIN7984
SBTTL-16ER-0-JHP	40.00	50.00	28.00	0.0	10.0	16ER A 60	SR 5-40-L9.7-S16S	T-10/5	SR M5X45 DIN7984
SBTTL-16ER-15-JHP	40.00	50.00	28.00	1.5	10.0	16ER A 60	SR 5-40-L9.7-S16S	T-10/5	SR M5X35 DIN7984
SBTTL-16ER-3-JHP	40.00	50.00	28.00	3.0	10.0	16ER A 60	SR 5-40-L9.7-S16S	T-10/5	SR M5X45 DIN7984
SBTTLA-16ER-15-JHP (1)	40.00	50.00	28.00	1.5	10.0	16ER A 60	SR 5-40-L9.7-S16S	T-10/5	SR M5X45 DIN7984

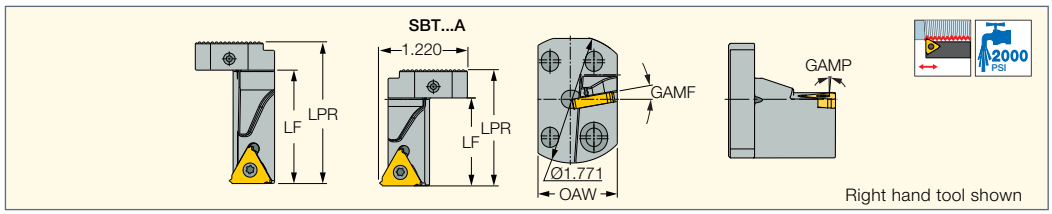
(1) Available on request
(2) Rake angle axial
(3) Rake angle radial
(4) Master insert identification

For inserts, see pages: ER-MJ (727) • ER-NPTF (732) • ER-PG (733) • ER/L-55° (651) • ER/L-60° (656) • ER/L-ABUT (723) • ER/L-ACME (722) • ER/L-API RD (734) • ER/L-BSPT (716) • ER/L-ISO (663) • ER/L-NPT (728) • ER/L-RND (719) • ER/L-SAGE (724) • ER/L-STACME (721) • ER/L-TR (720) • ER/L-UN (701) • ER/L-UNJ (725) • ER/L-W (710) • GTGA (433) • GTMA (434)
For holders, see pages: SBTB-JHP-T/R (819) • SBTS##S-JHP (821)

QUICKSWISS

SBTT#-16ER/L-JHP

Screw Lock JET-CUT Modular Heads Mount ISO Laydown Threading Inserts for Back-End Machining on Swiss-Type Machines



I N C H

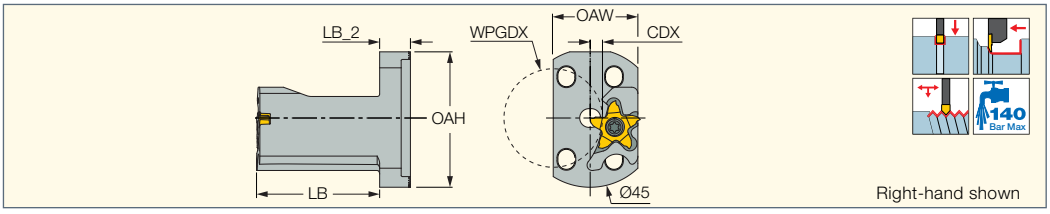
Designation	LF	LPR	OAW	GAMP(2)	GAMF(3)	MIID(4)			
SBTT-16ER-0-JHP (1)	1.220	1.614	1.102	0	10.0	16ER A 60	SR 5-40-L9.7-S16S	T-10/5	SR M5X35 DIN7984
SBTT-16ER-15-JHP	1.220	1.614	1.102	1.5	10.0	16ER A 60	SR 5-40-L9.7-S16S	T-10/5	SR M5X35 DIN7984
SBTT-16ER-3-JHP	1.220	1.614	1.102	3.0	10.0	16ER A 60	SR 5-40-L9.7-S16S	T-10/5	SR M5X35 DIN7984
SBTTA-16ER-0-JHP (1)	1.220	1.614	1.102	0	10.0	16ER A 60	SR 5-40-L9.7-S16S	T-10/5	SR M5X35 DIN7984
SBTTA-16ER-15-JHP (1)	1.220	1.614	1.102	1.5	10.0	16ER A 60	SR 5-40-L9.7-S16S	T-10/5	SR M5X35 DIN7984
SBTTA-16ER-3-JHP (1)	1.220	1.614	1.102	3.0	10.0	16ER A 60	SR 5-40-L9.7-S16S	T-10/5	SR M5X35 DIN7984
SBTTL-16EL-15-JHP	1.575	1.968	1.102	1.5	10.0	16EL A 60	SR 5-40-L9.7-S16S	T-10/5	SR M5X45 DIN7984
SBTTL-16ER-0-JHP	1.575	1.968	1.102	0	10.0	16ER A 60	SR 5-40-L9.7-S16S	T-10/5	SR M5X45 DIN7984
SBTTL-16ER-15-JHP	1.575	1.968	1.102	1.5	10.0	16ER A 60	SR 5-40-L9.7-S16S	T-10/5	SR M5X35 DIN7984
SBTTL-16ER-3-JHP	1.575	1.968	1.102	3.0	10.0	16ER A 60	SR 5-40-L9.7-S16S	T-10/5	SR M5X45 DIN7984
SBTTLA-16ER-15-JHP (1)	1.575	1.968	1.102	1.5	10.0	16ER A 60	SR 5-40-L9.7-S16S	T-10/5	SR M5X45 DIN7984

(1) Available on request
(2) Rake angle axial
(3) Rake angle radial
(4) Master insert identification

For inserts, see pages: ER-MJ (727) • ER-NPTF (732) • ER-PG (733) • ER/L-55° (651) • ER/L-60° (656) • ER/L-ABUT (723) • ER/L-ACME (722) • ER/L-API RD (734) • ER/L-BSPT (716) • ER/L-ISO (663) • ER/L-NPT (728) • ER/L-RND (719) • ER/L-SAGE (724) • ER/L-STACME (721) • ER/L-TR (720) • ER/L-UN (701) • ER/L-UNJ (725) • ER/L-W (710) • GTGA (433) • GTMA (434)
For holders, see pages: SBTB-JHP-T/R (819) • SBTS##S-JHP (821)

QUICKSWISS

SBTT#-PCHRS/LS-17-JHP
Screw Lock JET-CUT
Modular Heads Mount
PENTA 17 Grooving Inserts
for Back-End Machining on
Swiss-Type Machines



M E T R I C

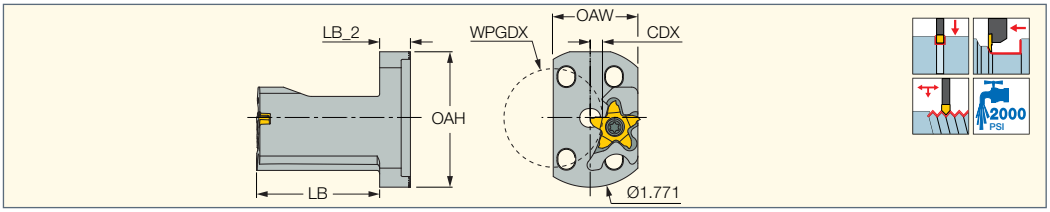
Designation	LB	LB_2	OAW	OAH	CDX	WPGDX	MIID[1]		
SBTT-PCHRS17-JHP	23.00	10.00	27.50	44.00	4.00	32.0	PENTA 17...RS	SR M4-39432L[a]	T-15/5
SBTT-PCHLS17-JHP	23.00	10.00	27.50	44.00	4.00	32.0	PENTA 17...LS	SR M4-39432[a]	T-15/5
SBTTL-PCHRS17-JHP	40.00	10.00	27.50	44.00	4.00	32.0	PENTA 17...RS	SR M4-39432L[a]	T-15/5
SBTTL-PCHLS17-JHP	40.00	10.00	27.50	44.00	4.00	32.0	PENTA 17...LS	SR M4-39432[a]	T-15/5

(1) Master insert identification
(a) Recommended tightening torque:2.5 N*m

For inserts, see pages: PENTA 17-NX-RS (539) • PENTA 17-NP-RS/LS (537) • PENTA 17-P-RS/LS (541) • PENTA 17-MT-RS/LS (671) • PENTA 17-WT-RS/LS (653) • PENTA 17-P-RS/LS (full radius) (544) • PENTA 17R/L-P-RS (545) • PENTA 17R/L-SP-RS (546)
For holders, see pages: SBTB-JHP-T/R (819) • SBTS##S-JHP (821)

QUICKSWISS

SBTT#-PCHRS/LS-17-JHP
Screw Lock JET-CUT
Modular Heads Mount
PENTA 17 Grooving Inserts
for Back-End Machining on
Swiss-Type Machines



I N C H

Designation	LB	LB_2	OAW	OAH	CDX	WPGDX	MIID[1]		
SBTT-PCHRS17-JHP	.906	.394	1.083	1.732	.157	1.260	PENTA 17...RS	SR M4-39432L[a]	T-15/5
SBTT-PCHLS17-JHP	.906	.394	1.083	1.732	.157	1.260	PENTA 17...LS	SR M4-39432[a]	T-15/5
SBTTL-PCHRS17-JHP	1.575	.394	1.083	1.732	.157	1.260	PENTA 17...RS	SR M4-39432L[a]	T-15/5
SBTTL-PCHLS17-JHP	1.575	.394	1.083	1.732	.157	1.260	PENTA 17...LS	SR M4-39432[a]	T-15/5

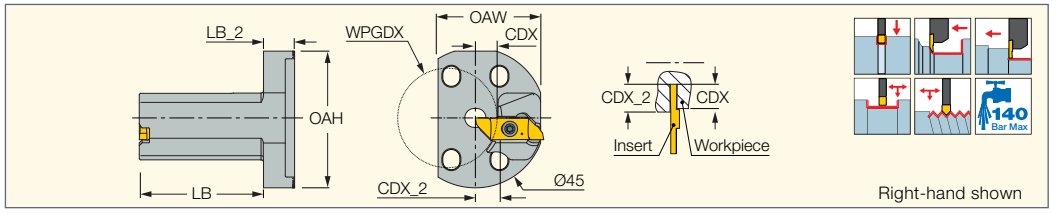
(1) Master insert identification
(a) Recommended tightening torque:2.5 N*m

For inserts, see pages: PENTA 17-NX-RS (539) • PENTA 17-NP-RS/LS (537) • PENTA 17-P-RS/LS (541) • PENTA 17-MT-RS/LS (671) • PENTA 17-WT-RS/LS (653) • PENTA 17-P-RS/LS (full radius) (544) • PENTA 17R/L-P-RS (545) • PENTA 17R/L-SP-RS (546)
For holders, see pages: SBTB-JHP-T/R (819) • SBTS##S-JHP (821)

QUICKSWISS

SBTT#-SCHR/L22-JHP

Screw Lock JET-CUT Modular Heads Mount SWISS-CUT Groove-Turn Inserts for Back-End Machining on Swiss-Type Machines



M E T R I C

Designation	LB	LB_2	OAW	OAH	CDX	CDX_2	WPGDX	MIID(1)		
SBTT-SCHR22-JHP	23.00	10.00	33.00	44.00	7.00	8.00	32.0	SCIR 22-...		
SBTT-SCHL22-JHP	23.00	10.00	33.00	44.00	7.00	8.00	32.0	SCIL 22-...	SR M4X0.7-19425	T-8/5
SBTTL-SCHR22-JHP	40.00	10.00	33.00	44.00	7.00	8.00	32.0	SCIR 22-...		
SBTTL-SCHL22-JHP	40.00	10.00	33.00	44.00	7.00	8.00	32.0	SCIL 22-...	SR M4X0.7-19425	T-8/5

(1) Master insert identification

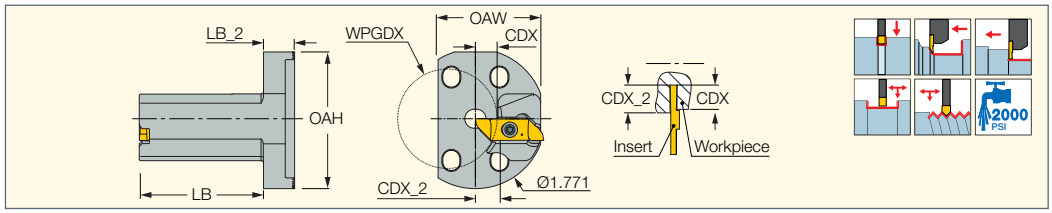
For inserts, see pages: SCIR/L-22-AD (311) • SCIR/L-22-NX (314) • SCIR/L-22-AR/AL (312) • SCIR/L-22-BR/BL/BRA/BLA (307) • SCIR/L-22-ER/EL/ERA/ELA (308) • SCIR/L-22-MTR/MTL (661) • SCIR/L-22-N/R/L (310) • SCIR/L-22-NP (313) • SCIR-22-MTR-ISO (662)

For holders, see pages: SBTB-JHP-T/R (819) • SBTS##S-JHP (821)

QUICKSWISS

SBTT#-SCHR/L22-JHP

Screw Lock JET-CUT Modular Heads Mount SWISS-CUT Groove-Turn Inserts for Back-End Machining on Swiss-Type Machines



I N C H

Designation	LB	LB_2	OAW	OAH	CDX	CDX_2	WPGDX	MIID(1)		
SBTT-SCHR22-JHP	.906	.394	1.299	1.732	.276	.315	1.260	SCIR 22-...		
SBTT-SCHL22-JHP	.906	.394	1.299	1.732	.276	.315	1.260	SCIL 22-...	SR M4X0.7-19425	T-8/5
SBTTL-SCHR22-JHP	1.575	.394	1.299	1.732	.276	.315	1.260	SCIR 22-...		
SBTTL-SCHL22-JHP	1.575	.394	1.299	1.732	.276	.315	1.260	SCIL 22-...	SR M4X0.7-19425	T-8/5

(1) Master insert identification

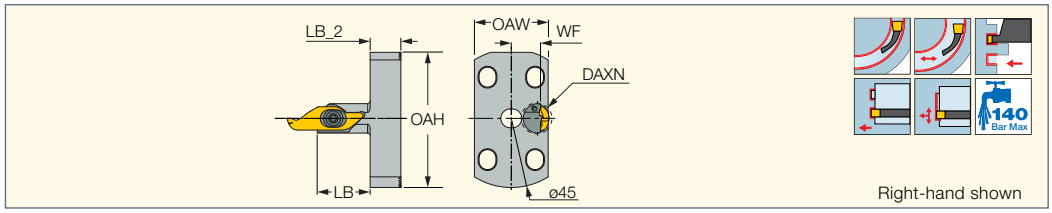
For inserts, see pages: SCIR/L-22-AD (311) • SCIR/L-22-NX (314) • SCIR/L-22-AR/AL (312) • SCIR/L-22-BR/BL/BRA/BLA (307) • SCIR/L-22-ER/EL/ERA/ELA (308) • SCIR/L-22-MTR/MTL (661) • SCIR/L-22-N/R/L (310) • SCIR/L-22-NP (313) • SCIR-22-MTR-ISO (662)

For holders, see pages: SBTB-JHP-T/R (819) • SBTS##S-JHP (821

QUICKSWISS

SBTT#-MIFHR-JHP

Screw Lock JET-CUT Modular Heads Mount MINCUT Face Grooving Inserts for Back-End Machining on Swiss-Type Machines



M E T R I C

Designation	LB	LB_2	OAW	WF	OAH	DAXN(1)	MIID(2)		
SBTT-MIFHR-8-JHP	12.50	10.00	24.00	7.50	44.00	8.0	MIFR 8-...	SR 14-297	T-8/5
SBTT-MIFHR-10-JHP	17.20	10.00	24.00	9.50	44.00	10.0	MIFR 10-...	SR 34-506 M3X0.5	T-9/5
SBTTM-MIFHR-15-JHP	15.00	10.00	24.00	7.70	44.00	18.5	MIFR 15-...	SR 34-506/L	T-9/5

(1) Minimum axial grooving diameter

(2) Master insert identification

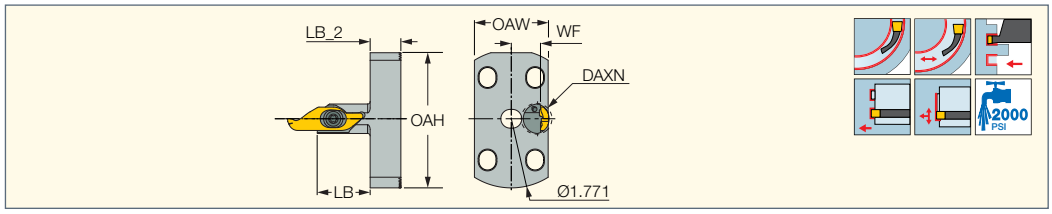
For inserts, see pages: MIFR (629) • MEFL (628)

For holders, see pages: SBTB-JHP-T/R (819) • SBTS##S-JHP (821)

QUICKSWISS

SBTT#-MIFHR-JHP

Screw Lock JET-CUT Modular Heads Mount MINCUT Face Grooving Inserts for Back-End Machining on Swiss-Type Machines



I N C H

Designation	LB	LB_2	OAW	WF	OAH	DAXN(1)	MIID(2)		
SBTT-MIFHR-8-JHP	.492	.394	.945	.295	1.732	.31	MIFR 8-...	SR 14-297	T-8/5
SBTT-MIFHR-10-JHP	.677	.394	.945	.374	1.732	.39	MIFR 10-...	SR 34-506 M3X0.5	T-9/5
SBTTM-MIFHR-15-JHP	.591	.394	.945	.303	1.732	.73	MIFR 15-...	SR 34-506/L	T-9/5

(1) Minimum axial grooving diameter

(2) Master insert identification

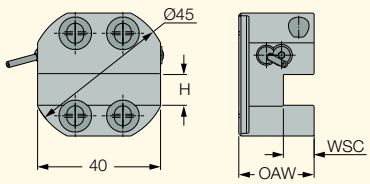
For inserts, see pages: MIFR (629) • MEFL (628)

For holders, see pages: SBTB-JHP-T/R (819) • SBTS##S-JHP (821)

QUICKSWISS

SBTH-JHP

Square Shank Tool Holders
for Height Adjustable Modular
Back-End Machining Systems
for Swiss-Type Machines





M E T R I C			
Designation	**WSC**	**OAW**	**H**
SBTH-1010-JHP	10.0	24.50	10.0
SBTH-1212-JHP	12.0	24.50	12.0

• Due to assembly parts' tolerances a possible deviation of ±0.5° may occur. When using grooving tools, the surface flatness should be checked and preset manually if needed.

For holders, see pages: SBTB-JHP-T/R (819) • SBTS##S-JHP (821)

Spare Parts

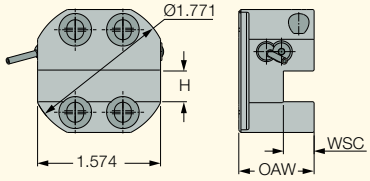
Designation								
SBTH-1010-JHP	SBTA-IK-SP1	SBTA-ZEN1	HW 3.0	SBTA-QR5.28X1.78	FLAT RING-SW-S5	SBTA-BALL-5.5	SBTA-BCN-L16	SR M5X16 DIN7984
SBTH-1212-JHP	SBTA-IK-SP1	SBTA-ZEN2	HW 3.0	SBTA-QR5.28X1.78	FLAT RING-SW-S5	SBTA-BALL-5.5	SBTA-BCN-L16	SR M5X14 DIN7984

Designation							
SBTH-1010-JHP	SR M5X30 DIN7984	SR M6X12 DIN916	SR M5X0.5X16 DIN913	SCREW DIN 7991 M3 X 8	SR M6X20 DIN916		
SBTH-1212-JHP	SR M5X35 DIN7984	SR M7X12 DIN916	SR M5X0.5X12 DIN913	SCREW DIN 7991 M3 X 8	SR M7X16 DIN916	SR M5X8 DIN7984	SBTA-1212AP

QUICKSWISS

SBTH-JHP

Square Shank Tool Holders
for Height Adjustable Modular
Back-End Machining Systems
for Swiss-Type Machines





I N C H			
Designation	**WSC**	**OAW**	**H**
SBTH-1010-JHP	.39	.965	.394
SBTH-1212-JHP	.47	.965	.472

• Due to assembly parts' tolerances a possible deviation of ±0.5° may occur. When using grooving tools, the surface flatness should be checked and preset manually if needed.

For holders, see pages: SBTB-JHP-T/R (819) • SBTS##S-JHP (821)

Spare Parts

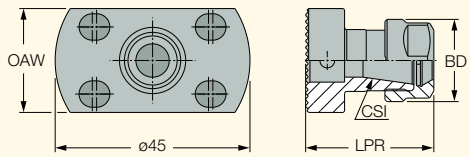
Designation								
SBTH-1010-JHP	SBTA-IK-SP1	SBTA-ZEN1	HW 3.0	SBTA-QR5.28X1.78	FLAT RING-SW-S5	SBTA-BALL-5.5	SBTA-BCN-L16	SR M5X16 DIN7984
SBTH-1212-JHP	SBTA-IK-SP1	SBTA-ZEN2	HW 3.0	SBTA-QR5.28X1.78	FLAT RING-SW-S5	SBTA-BALL-5.5	SBTA-BCN-L16	SR M5X14 DIN7984

Designation							
SBTH-1010-JHP	SR M5X30 DIN7984	SR M6X12 DIN916	SR M5X0.5X16 DIN913	SCREW DIN 7991 M3 X 8	SR M6X20 DIN916		
SBTH-1212-JHP	SR M5X35 DIN7984	SR M7X12 DIN916	SR M5X0.5X12 DIN913	SCREW DIN 7991 M3 X 8	SR M7X16 DIN916	SR M5X8 DIN7984	SBTA-1212AP

QUICKSWISS

SBTH-ER

DIN6499 ER Collet Chuck Holders for Height adjustable Modular Back-End Machining System for Swiss-Type Machines



M E T R I C

Designation	BD	CSI	OAW	LPR
SBTH-ER11	19.00	ER11	24.00	31.60
SBTH-ER16	22.00	ER16	24.00	42.00

For holders, see pages: SBTB-JHP-T/R (819) • SBTS##S-JHP (821)

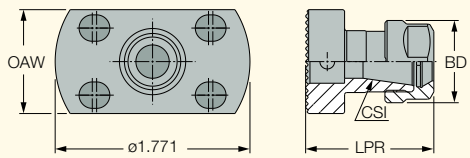
Spare Parts

Designation					
SBTH-ER11	SBTA-IK-SP1	SBTA-ZEN1	SBTA-QR5.28X1.78	NUT ER11 UM	SR M5X0.5X16 DIN913
SBTH-ER16	SBTA-IK-SP1	SBTA-ZEN1	SBTA-QR5.28X1.78	NUT ER16 MINI	SR M5X0.5X16 DIN913

QUICKSWISS

SBTH-ER

DIN6499 ER Collet Chuck Holders for Height adjustable Modular Back-End Machining System for Swiss-Type Machines



I N C H

Designation	BD	CSI	OAW	LPR
SBTH-ER11	.7480	ER11	.945	1.244
SBTH-ER16	.8661	ER16	.945	1.654

For holders, see pages: SBTB-JHP-T/R (819) • SBTS##S-JHP (821)

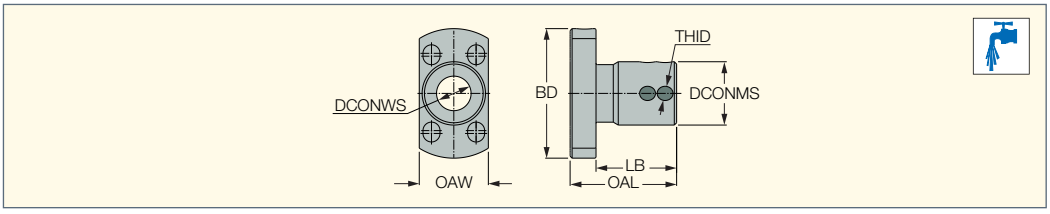
Spare Parts

Designation					
SBTH-ER11	SBTA-IK-SP1	SBTA-ZEN1	SBTA-QR5.28X1.78	NUT ER11 UM	SR M5X0.5X16 DIN913
SBTH-ER16	SBTA-IK-SP1	SBTA-ZEN1	SBTA-QR5.28X1.78	NUT ER16 MINI	SR M5X0.5X16 DIN913

QUICKSWISS

SBTH-PICCO

Height-Adjustable Modular Back-End Machining System for Swiss-Type Machines with Round Shank Holders



METRIC							
Designation	**DCONMS**	**DCONWS**	**BD**	**OAL**	**LB**	**OAW**	**THID**
SBTH-PICCO	22.00	12.00	45.00	37.00	28.00	24.00	M5x0.5

For holders, see pages: SBTB-JHP-T/R (819) • SBTS##S-JHP (821)

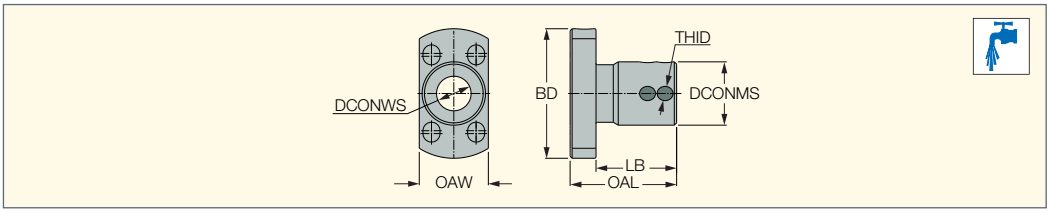
Spare Parts

Designation					
SBTH-PICCO	SR M5X0.5X16 DIN913	SBTA-IK-SP1	SBTA-ZEN1	SBTA-QR5.28X1.78	SR M5X0.5X8 DIN913

QUICKSWISS

SBTH-PICCO

Height-Adjustable Modular Back-End Machining System for Swiss-Type Machines with Round Shank Holders



INCH							
Designation	**DCONMS**	**DCONWS**	**BD**	**OAL**	**LB**	**OAW**	**THID**
SBTH-PICCO	.866	.4724	1.7716	1.457	1.102	.945	M5x0.5

For holders, see pages: SBTB-JHP-T/R (819) • SBTS##S-JHP (821)

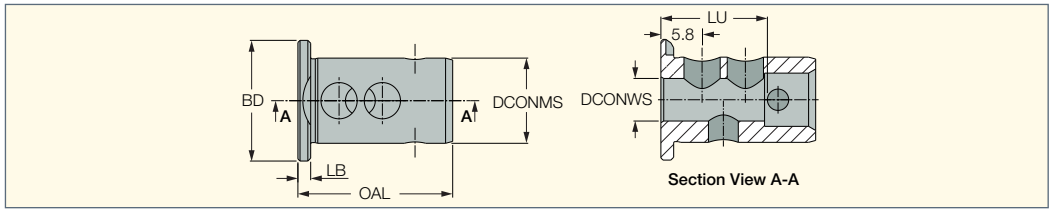
Spare Parts

Designation					
SBTH-PICCO	SR M5X0.5X16 DIN913	SBTA-IK-SP1	SBTA-ZEN1	SBTA-QR5.28X1.78	SR M5X0.5X8 DIN913

QUICKSWISS

SC-PICCO

Reduction Sleeves for Round Shank Holders for Modular Back-End Machining System



M E T R I C

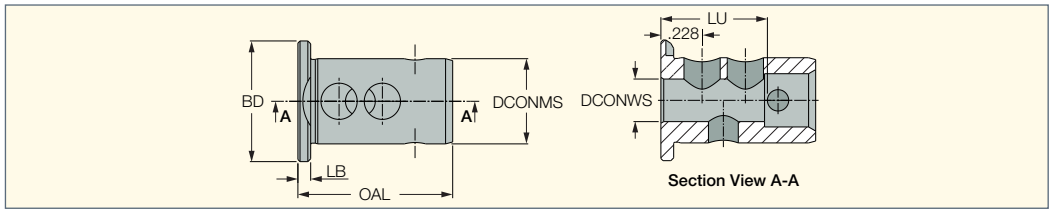
Designation	DCONMS	DCONWS	LSCMS	LU	BD	OAL	LB
SC-12-4-PICCO	12.00	4.00	15.00	15.00	17.00	21.80	1.80
SC-12-5-PICCO	12.00	5.00	15.00	15.00	17.00	21.80	1.80
SC-12-6-PICCO	12.00	6.00	15.00	15.00	17.00	21.80	1.80
SC-12-7-PICCO	12.00	7.00	15.00	15.00	17.00	21.80	1.80
SC-12-8-PICCO	12.00	8.00	15.00	15.00	17.00	21.80	1.80

For tools, see pages: A/E-SCLXR/L-06X (84)

QUICKSWISS

SC-PICCO

Reduction Sleeves for Round Shank Holders for Modular Back-End Machining System

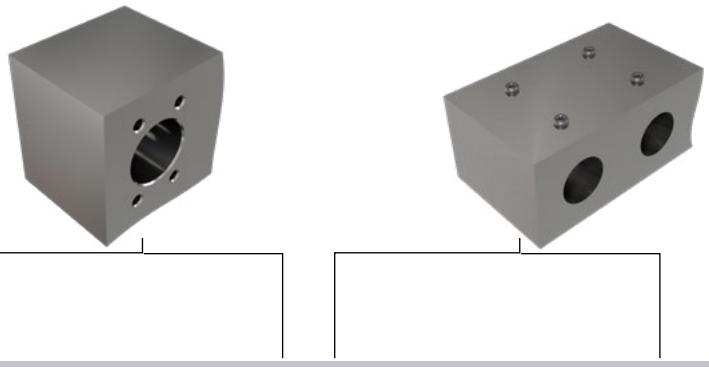


I N C H

Designation	DCONMS	DCONWS	LSCMS	LU	BD	OAL	LB
SC-12-4-PICCO	.472	.1575	.591	.5906	.6693	.858	.071
SC-12-5-PICCO	.472	.1969	.591	.5906	.6693	.858	.071
SC-12-6-PICCO	.472	.2362	.591	.5906	.6693	.858	.071
SC-12-7-PICCO	.472	.2756	.591	.5906	.6693	.858	.071
SC-12-8-PICCO	.472	.3150	.591	.5906	.6693	.858	.071

For tools, see pages: A/E-SCLXR/L-06X (84)

Back Tool Post / Sleeve Holder



Base Holder



Spacers (Optional, Overhang Extension)



Cutting Heads / Holders

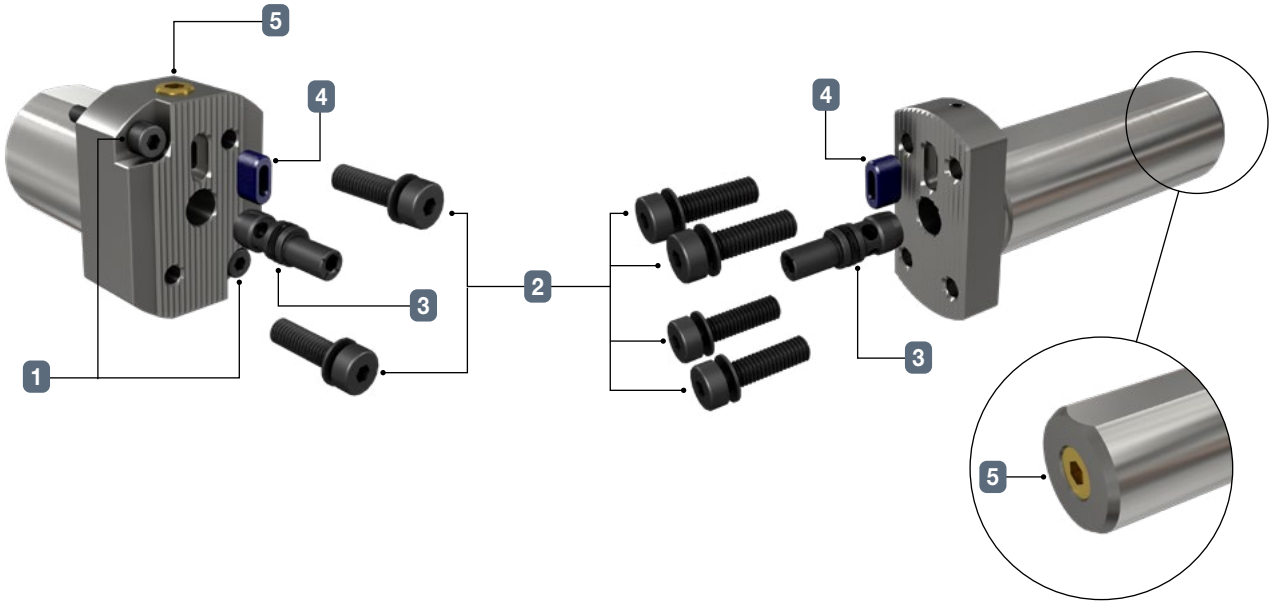


Base Holder

The base holders are clamped onto the tool posts, primarily on the back tool post, and are designed for backend machining on sub-spindles of Swiss-type machines. Each base holder corresponds to the clamping interface of a specific Swiss-type machine's tool post. The appropriate base holder can be selected from the matching table using the machine model name or interface parameters such as clamping hole dimensions and shaft diameter. Most base holders are equipped with a coolant supply inlet, either at the top or axially.

The base holders come with the following accessories:

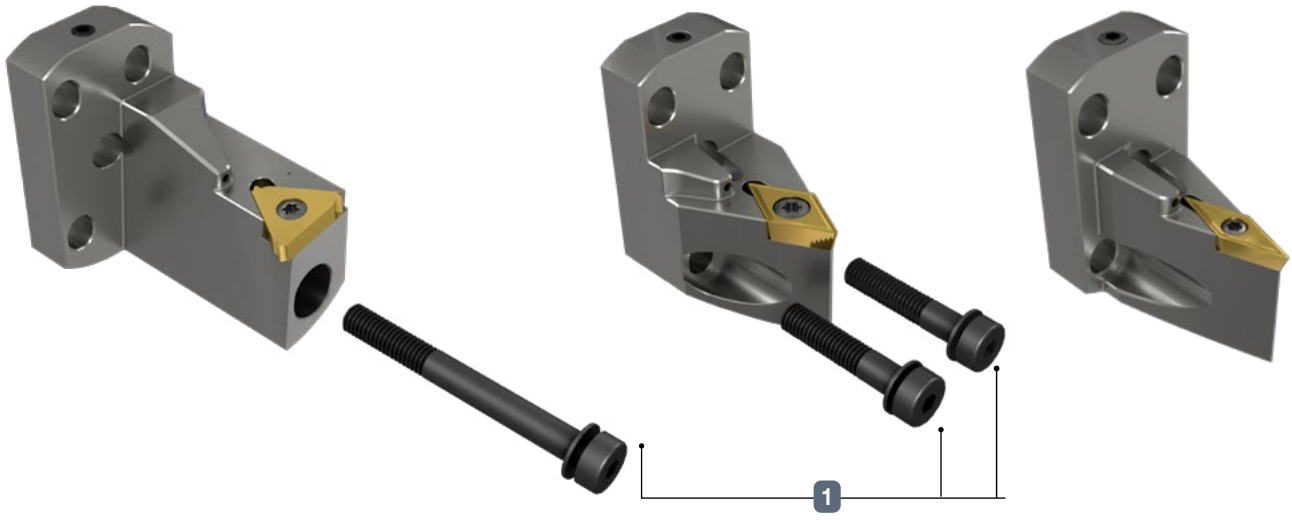
1 Screws for clamping the base holder to the tool post (optional, depending on the specific base holder).
2 Screws and washers for directly clamping the cutting heads or ER/PICCO holders.
3 Eccentric height adjustment pin with O-ring.
4 Coolant handover O-ring.
5 Coolant Inlet plugs.



Cutting Heads

The cutting heads can be clamped directly onto any base holder or with the use of spacers, depending on the desired overall tool overhang from the tool post. There is a wide variety of cutting heads available for different insert geometries, such as ISO turning, threading, grooving, and more. It is possible to supply pinpointed high-pressure coolant to the cutting zone, which helps improve chip evacuation and extend the life of the insert.

The cutting heads come with or without one or two clamping screws of specific lengths, depending on the head configuration (1). They are available with different overhangs and can be used for right-hand, left-hand, or neutral tool orientation.

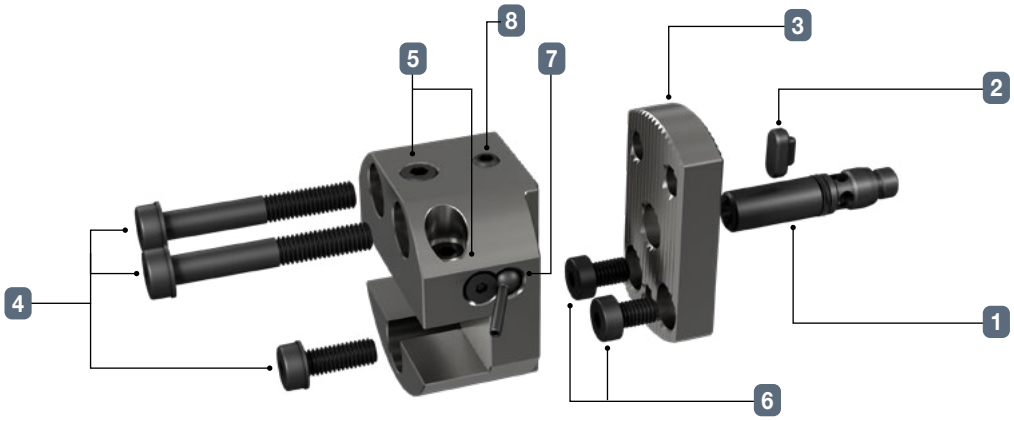


Holder Heads

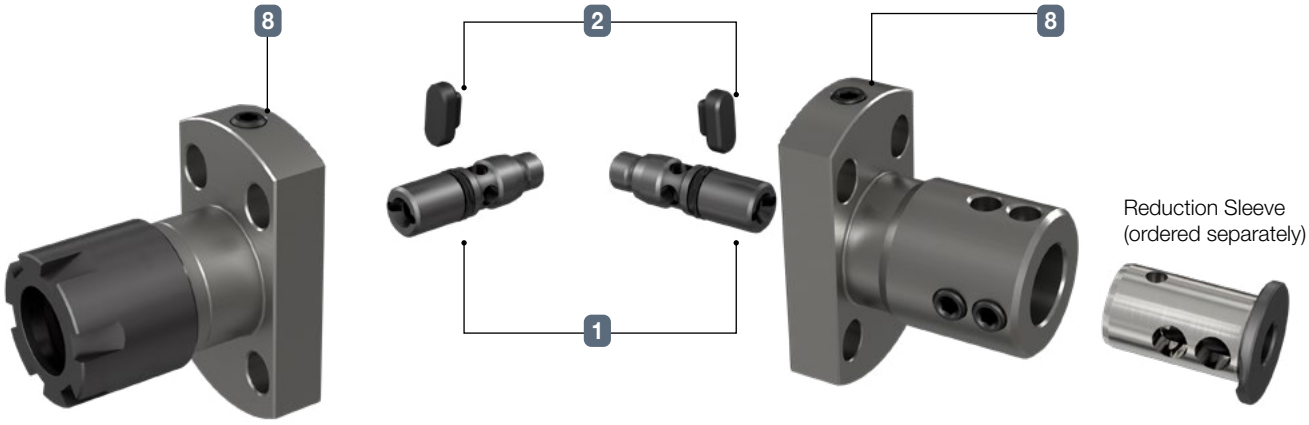
There are three types of holder heads available. The first type is designed for square shank tools with sizes of 10mm and 12mm. The second type is for PICCO inserts, and the third type is for ER11 and ER16 collet chuck heads, which are suitable for round shank tools with a maximum shank diameter of 10mm. These holder heads can also be clamped directly onto any base holder or with the use of spacers, depending on the desired overall tool overhang from the tool post.

The holder heads for square shanks include the following accessories:

1 A coolant handover pin with o-ring
2 A coolant plug (to prevent leakage from unused coolant channels)
3 An auxiliary connection plate
4 Clamping screws
5 Clamping screws for a square shank tool
6 Clamping screws for the connection plate
7 A coolant nozzle
8 A set screw



The PICCO and ER.. collet chuck holders include the same accessories.

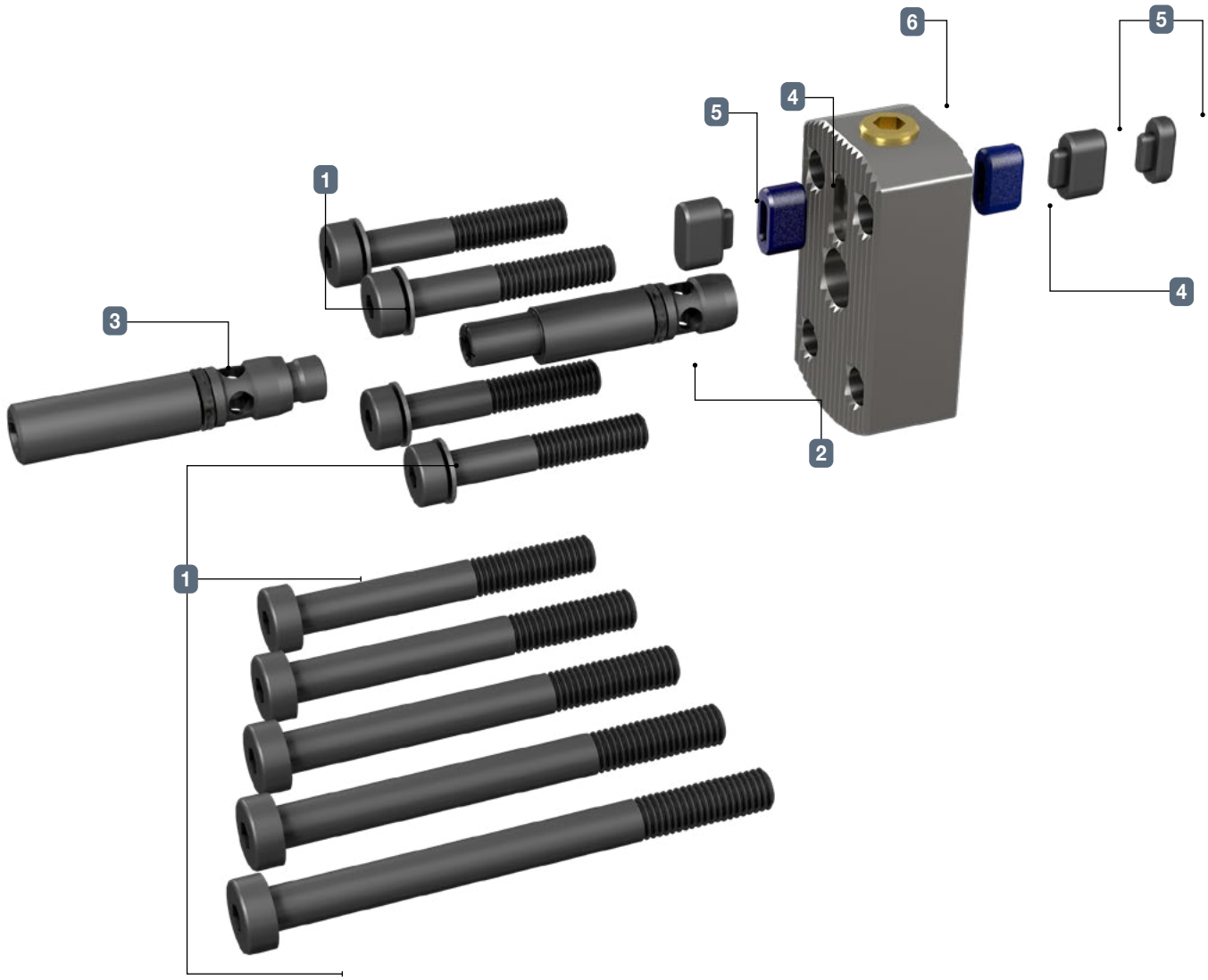


Spacers

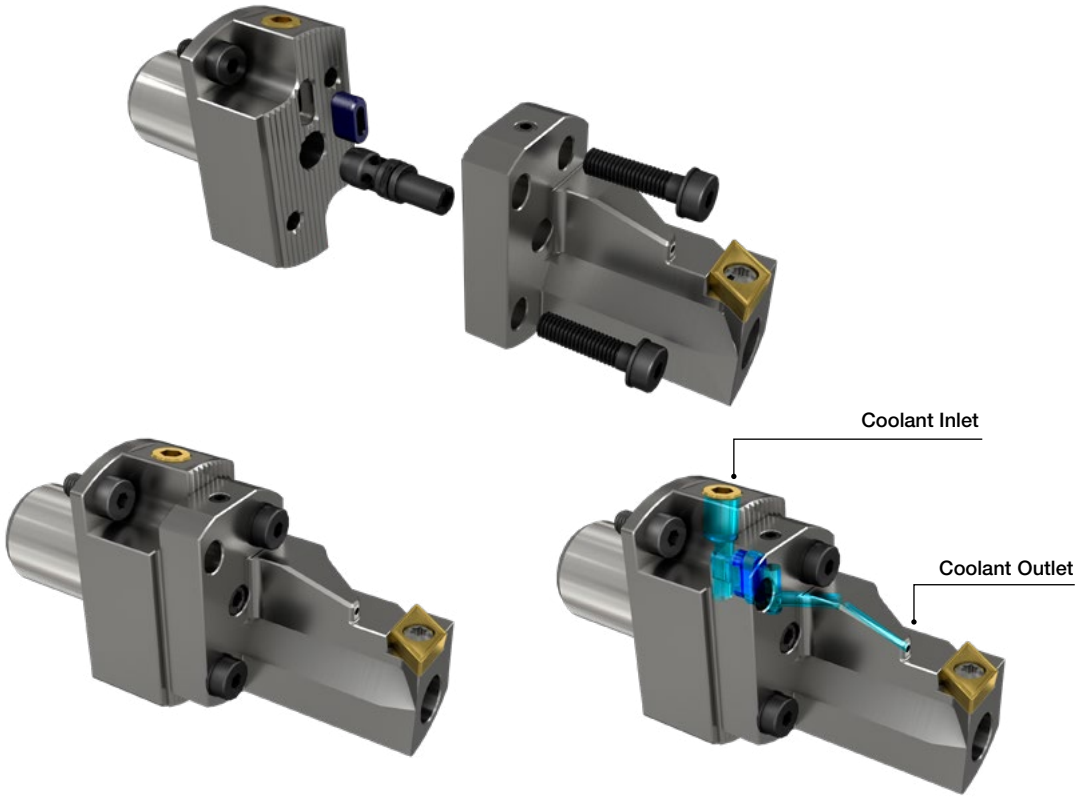
The spacers are inserted between the base holder and the cutting head/holder head to increase the tool overhang from the tool post. Most of the spacers have a Coolant Inlet, providing an additional option for coolant supply.

The spacers come with the following extended accessories to ensure proper mounting of the heads:

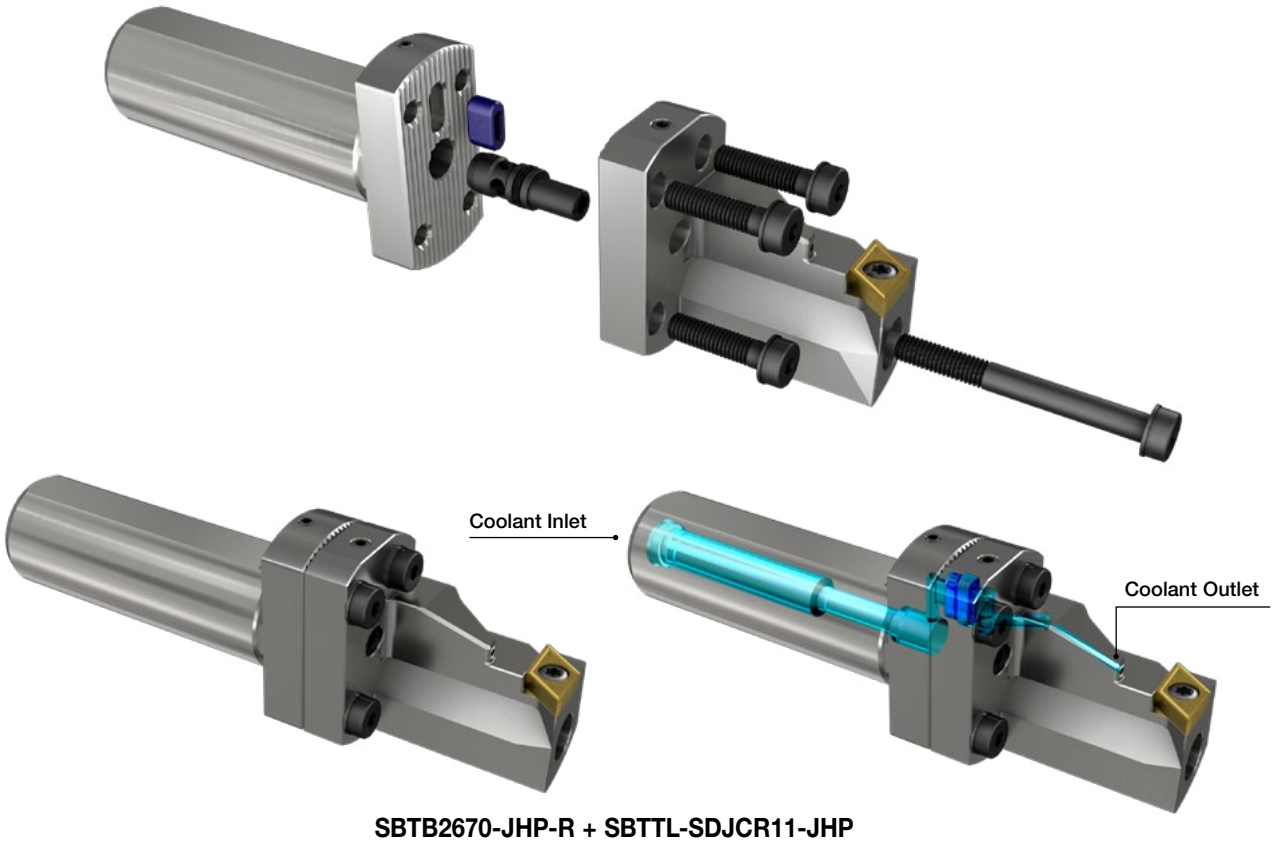
1 Extended screws matched to each specific spacer for mounting all head variations
2 An extended eccentric adjustment pin with o-ring for cutting heads
3 An extended coolant handover pin with o-ring for holder heads
4 A coolant handover O-ring
5 A coolant plug for different combinations of heads and coolant supply schemes
6 A Coolant Inlet plug



Assembly Examples - Direct Mount

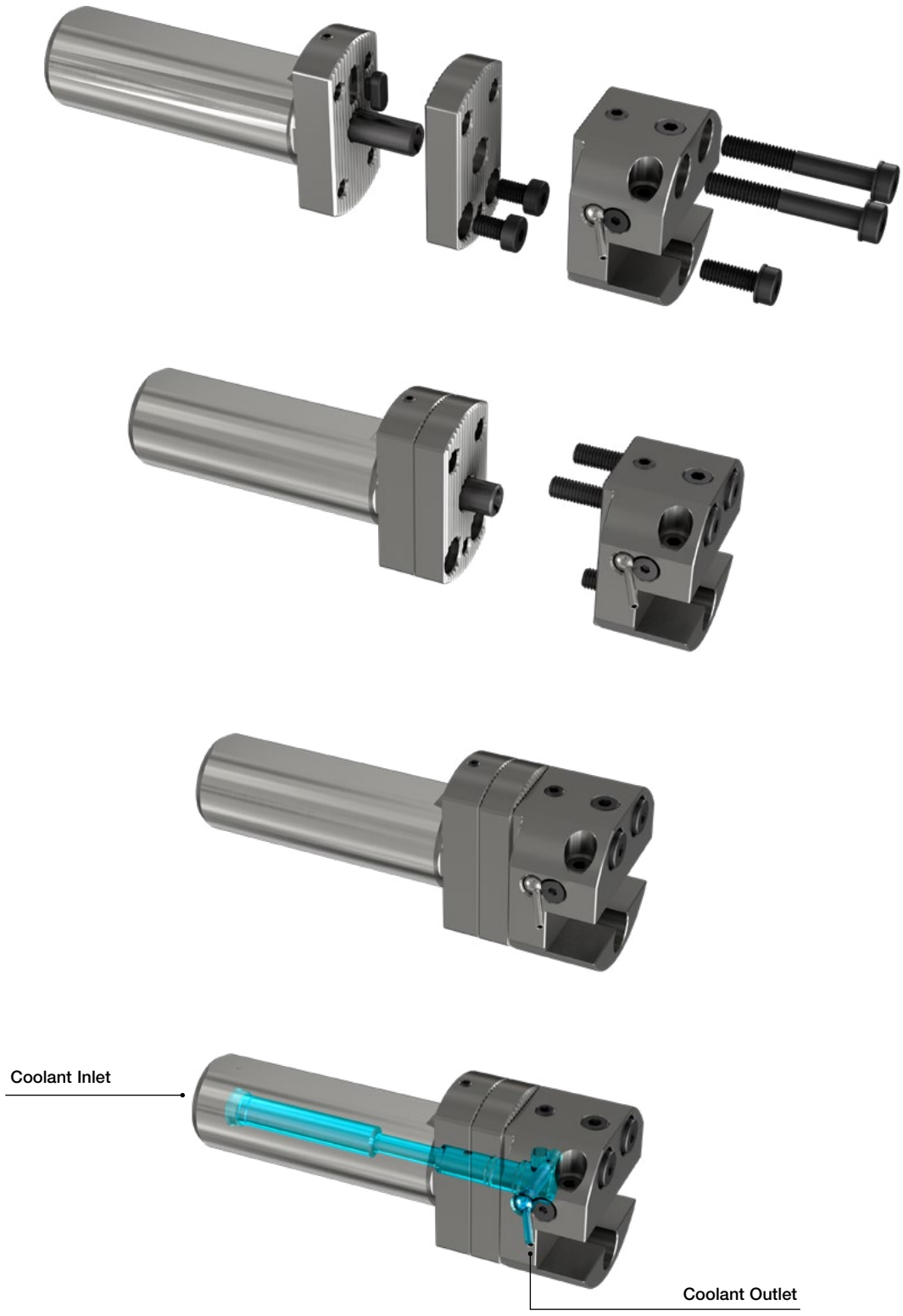


SBTB2225SRR-JHP-T + SBTTL-SDJCR11-JHP



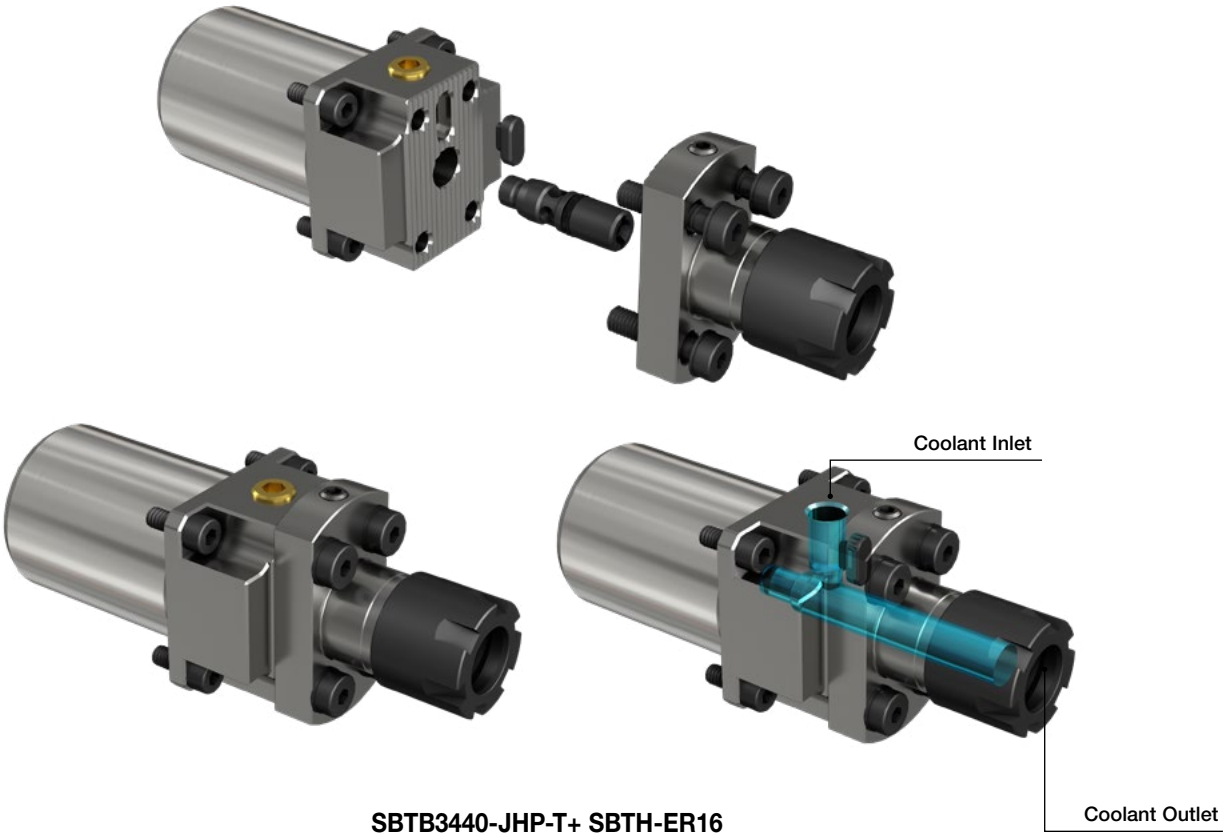
SBTB2670-JHP-R + SBTTL-SDJCR11-JHP

Assembly Examples - Direct Mount

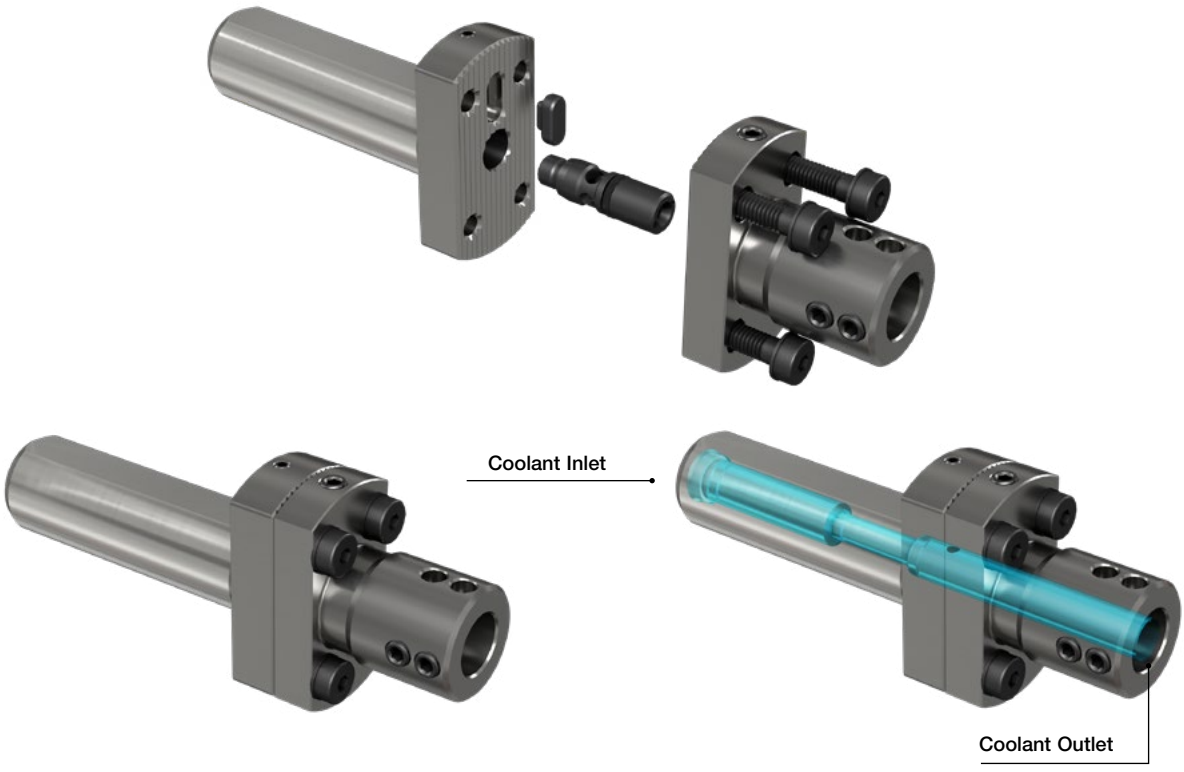


SBTB2060-JHP-R+ SBTH-PICCO

Assembly Examples - Direct Mount

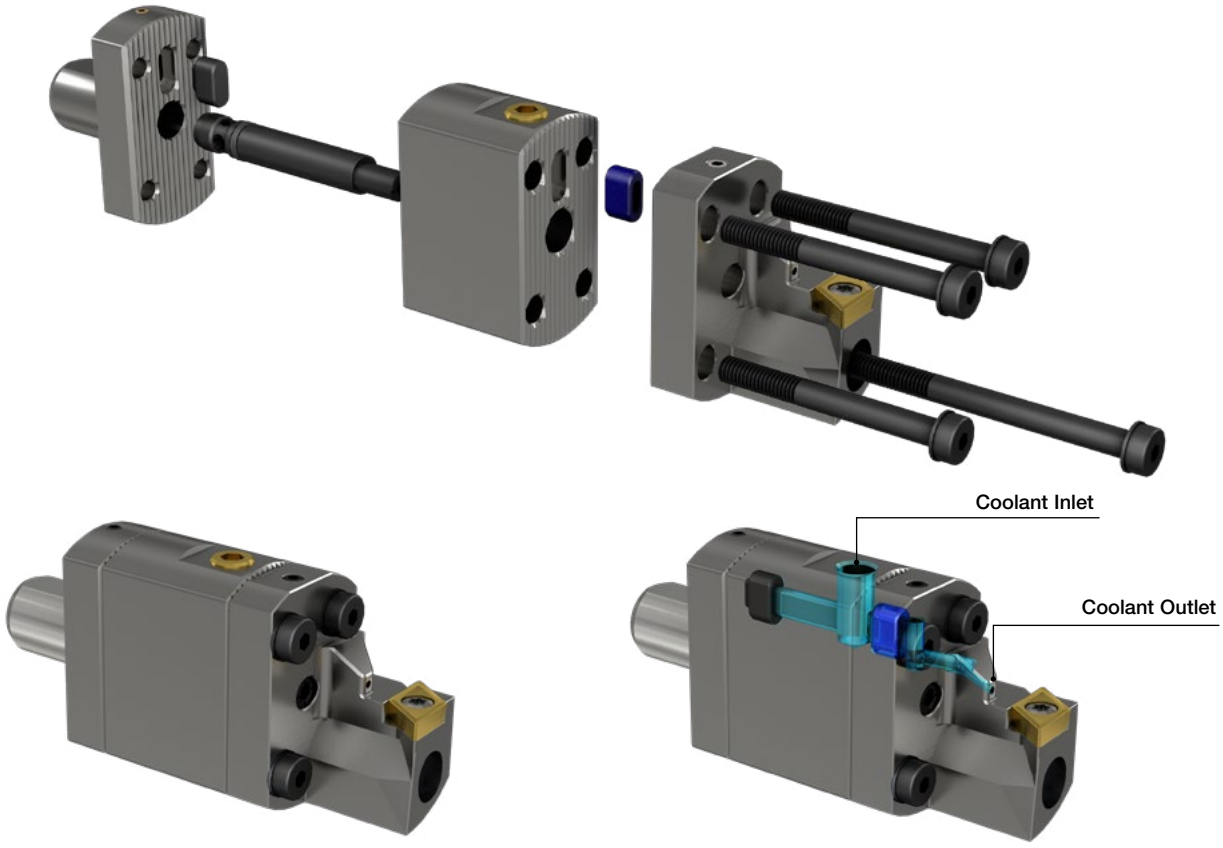


SBTB3440-JHP-T+ SBTH-ER16

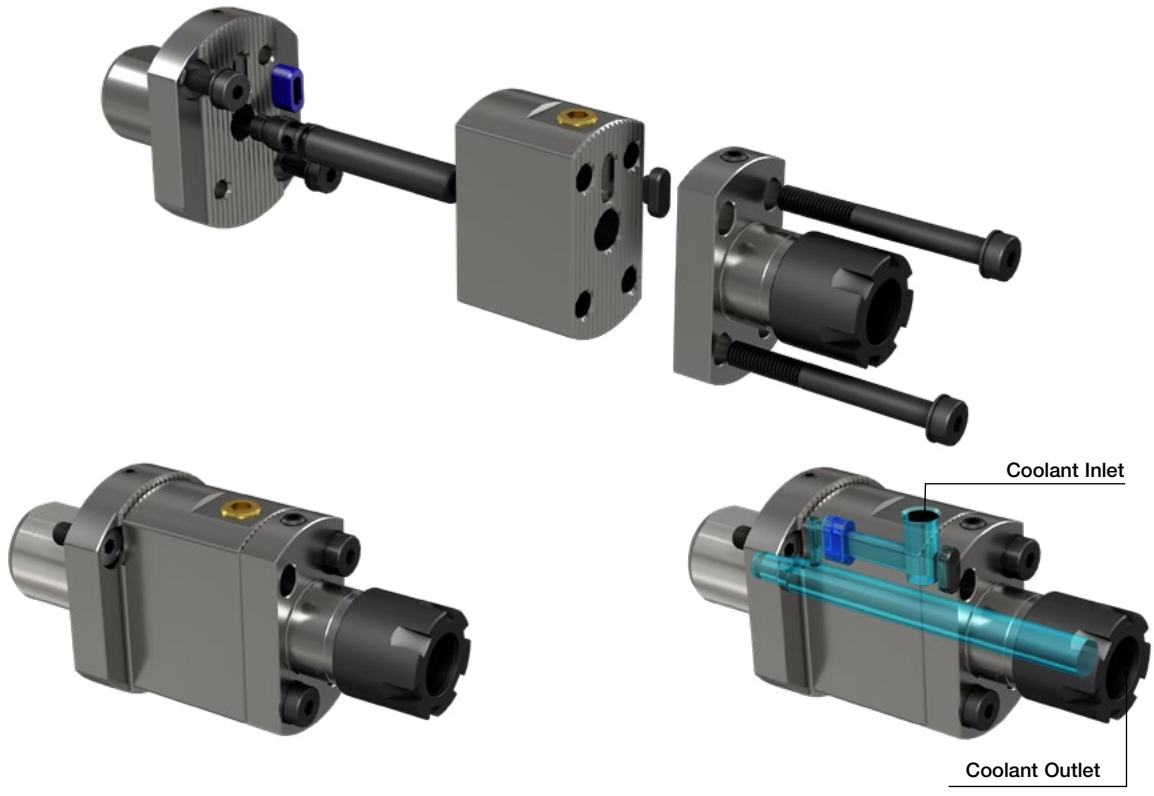


SBTB2060-JHP-R+ SBTH-PICCO

Assembly Examples - Extended Overhang

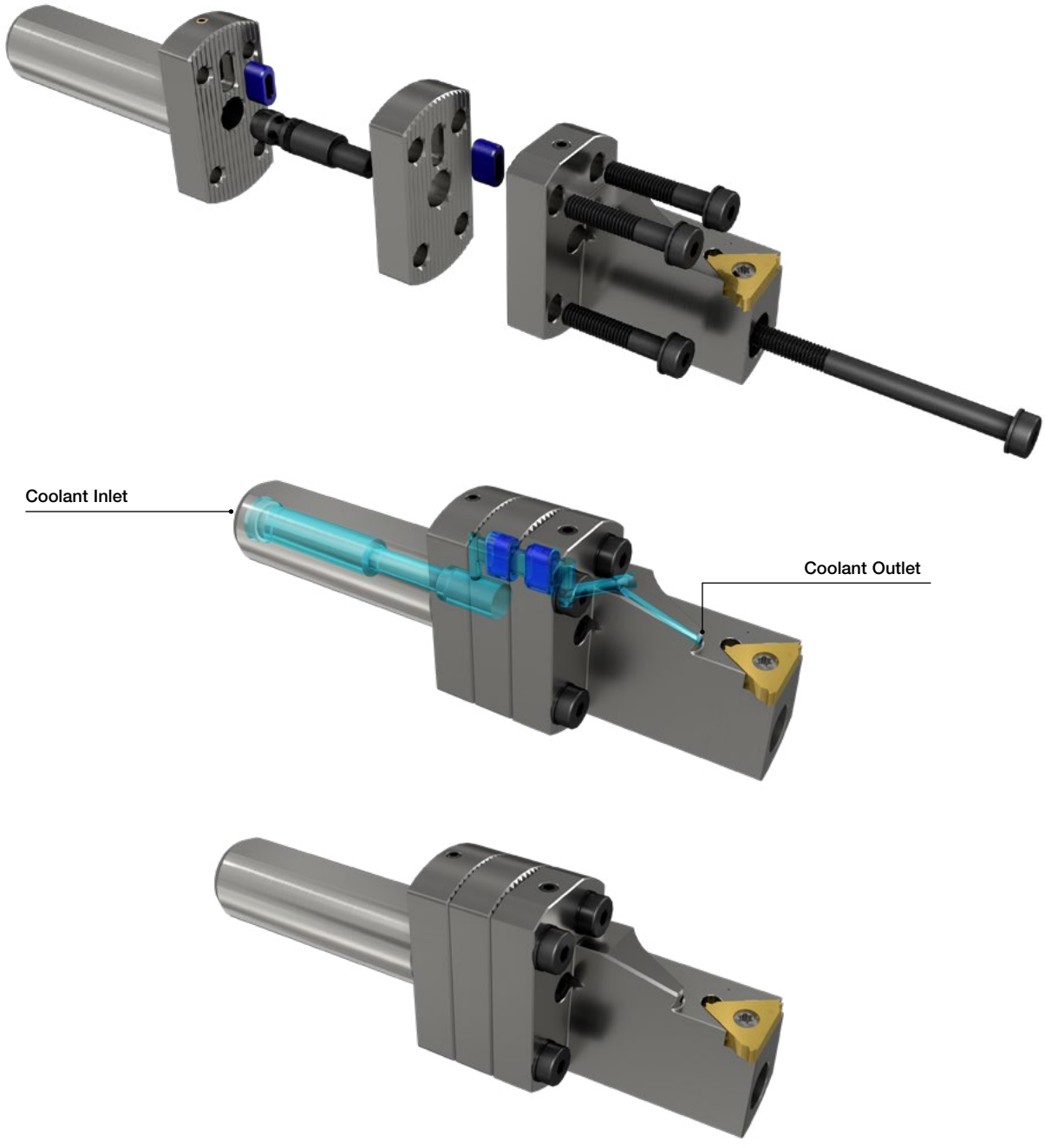


SBTB1620SRWD + SBTS30S-JHP + SBTT-SDJCR11-JHP



SBTB2225SRWD + SBTS30S-JHP + SBTH-ER16

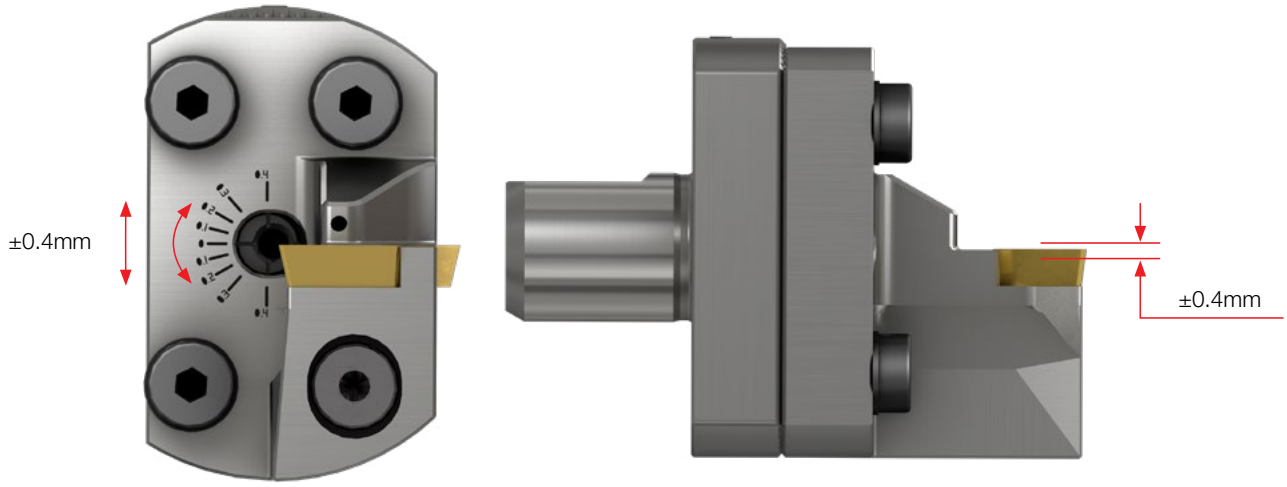
Assembly Examples - Extended Overhang



SBTB2060-JHP-R + SBTS10S + SBTTL-16ER-15-JHP

Center Height Adjustment Feature

The system features a center height adjustment within the range of ±0.4mm with a step of 0.1mm



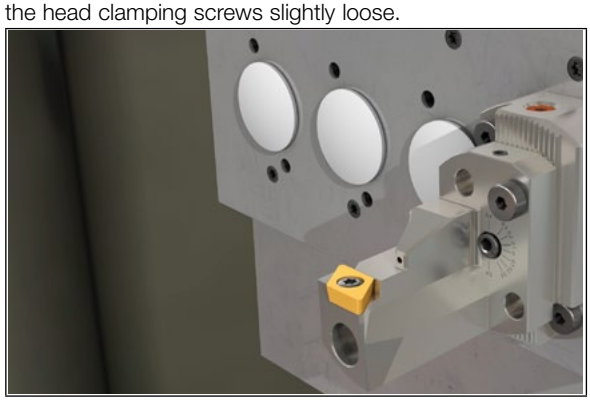
Useful for the machines without the possibility to preset an offset in the Y-axis direction on the back tool post.



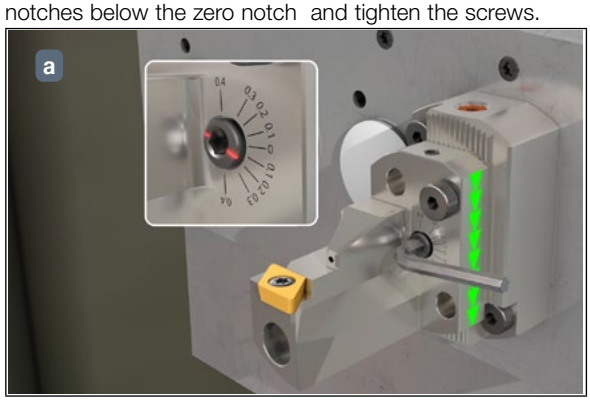
Assembly Examples

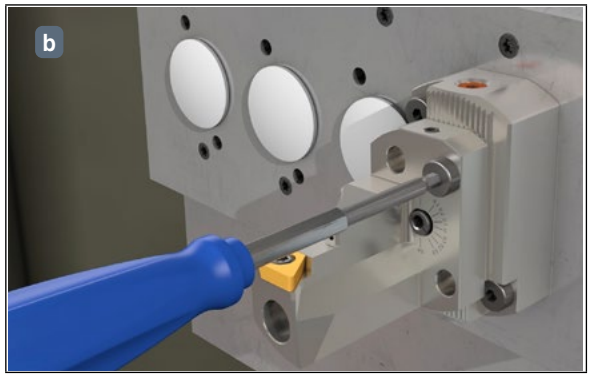
An Option of the Cutting-edge Height Adjustment

1 Mount the tool on the back tool post, leaving the head clamping screws slightly loose.

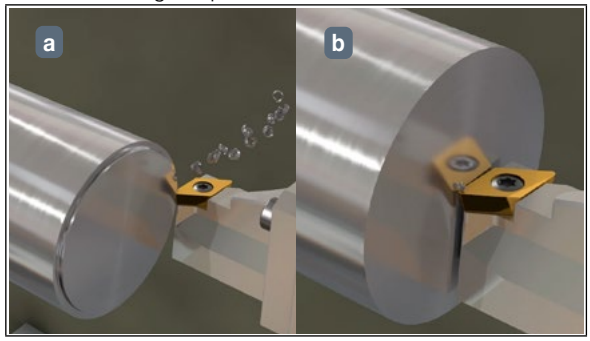


2 Turn the center adjustment eccentric screw a few notches below the zero notch and tighten the screws.





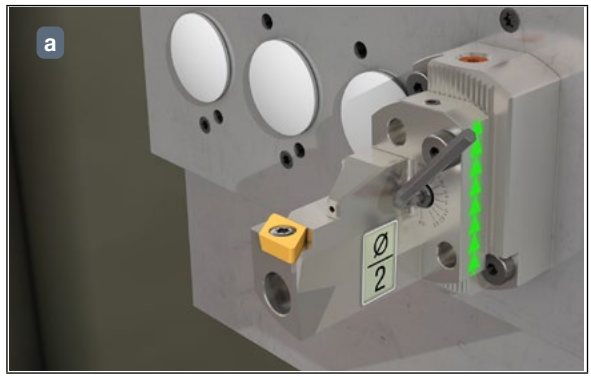
3 Perform a facing cut pass.

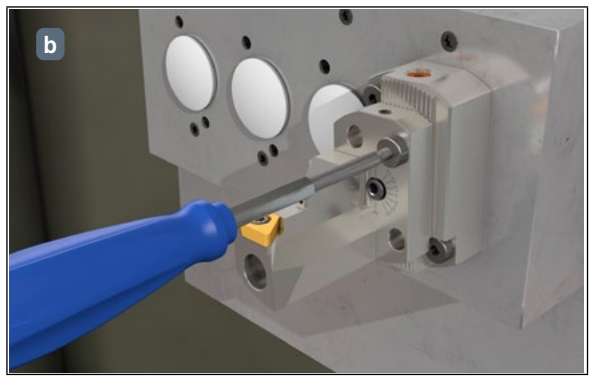


4 Measure the diameter of the remaining core on the workpiece.

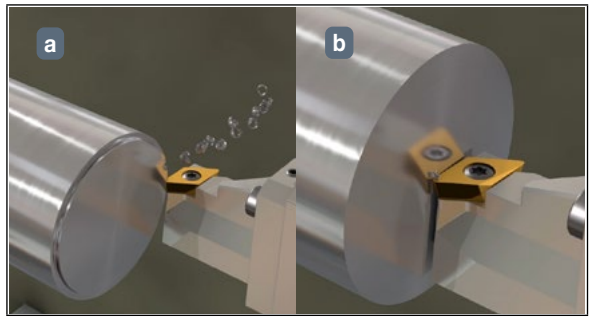


5 Loosen the screws, turn the adjustment screw up by half of the measured diameter, and then tighten the screws.
* Note that turning the tuning screw by one notch moves the head 0.1mm in the vertical direction.





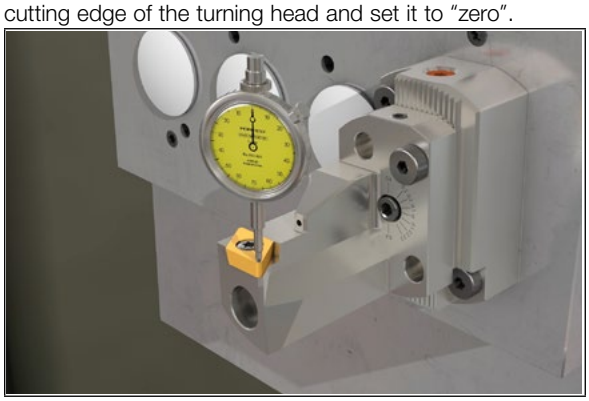
6 Perform a facing cut pass again.
Ensure there is no remaining core on the workpiece.
If necessary, repeat steps 4 and 5 until the remaining core of the material is eliminated.



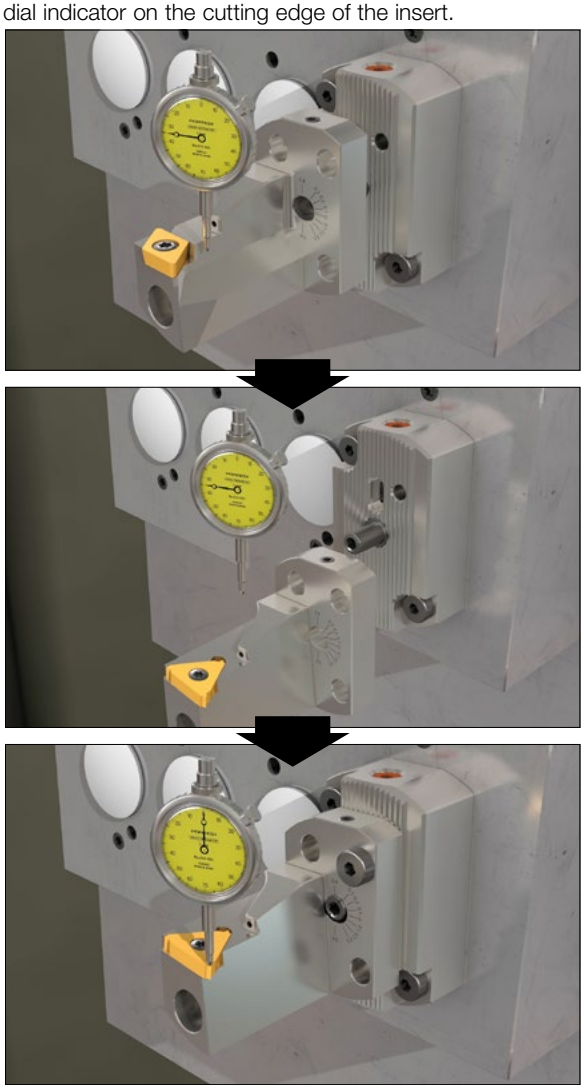
An Option of the Cutting-edge Height Adjustment

If the cutting head geometry is unable to perform a facing cut operation (e.g., a threading head), it is possible to use a previously adjusted turning head as shown below.

1 Put a dial indicator on the previously adjusted insert cutting edge of the turning head and set it to "zero".



2 Replace the turning head with a different head on the same base holder and carefully move the head in the X and Z directions to align the preset dial indicator on the cutting edge of the insert.



3 Loosen the head clamping screws, turn the center adjustment screw to achieve "zero" on dial indicator then tighten the clamping screws.
The tool is ready for machining.

