Complete Machining Solutions
Non-Rotating Tool Lines

Turning • Grooving • Threading • Parting

Inch Version Catalog 2019



INSERTS

TOOLS

GRADES

ISO TURNING | GROOVING | PARTING | FACE GROOVING | TOOL BLOCKS | THREADING | TOOL HOLDERS | GRADES

Member IMC Group

ISCAR

www.iscar.com



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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Complete Machining Solutions
ISOTURN TOOLS AND INSERTS



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ISOTURN TOOLS

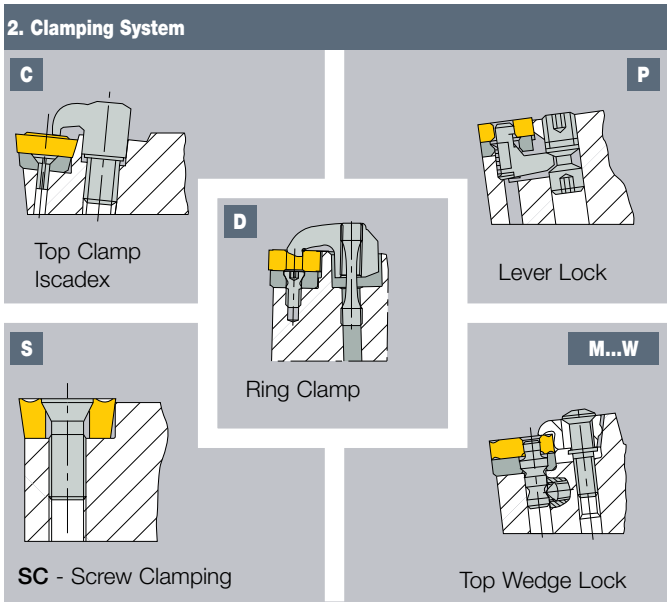


ISCAR Toolholder Identification System

1. Boring Bar

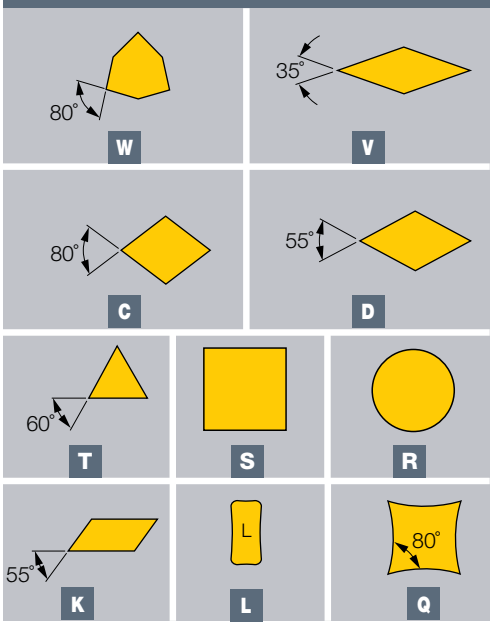
S	Steel Shank
A	Coolant Through Steel Shank
C	Solid Carbide Shank
E	Coolant Through Carbide Shank

2. Clamping System

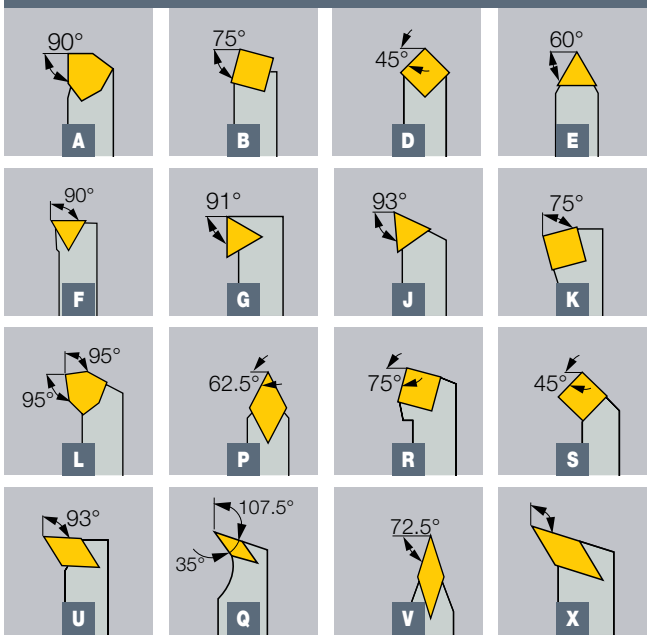


Toolholder		M	W	L	N	R	
		2	3	4	5	6	
Boring Bar	S	–	M	W	L	N	R
	1		2	3	4	5	6

3. Insert Shape

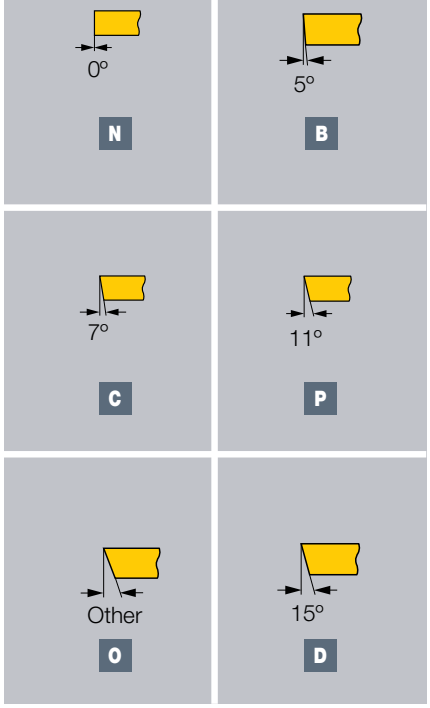


4. Approach Angle

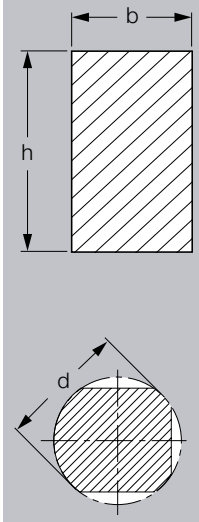


ISCAR Toolholder Identification System

5. Insert Clearance Angle

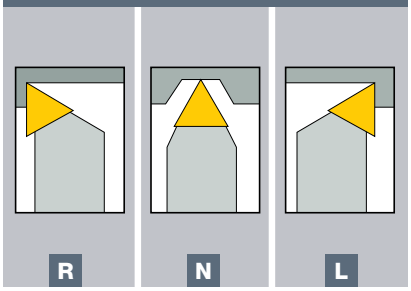


7, 8. Shank Size



Digits	Size (inch) b	h	d
05	.312	.312	
06	.375	.375	
08	.500	.500	
10	.625	.625	
12	.750	.750	
16	1.000	1.000	
20	1.250	1.250	
24	1.500	1.500	
32	2.000	2.000	
85	1.000	1.250	
86	1.000	1.500	
06			.375
08			.500
10			.625
12			.750
16			1.000
20			1.250
24			1.500

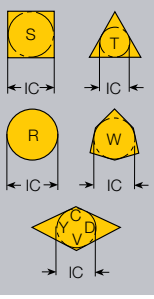
6. Hand of Tool



20	-	4	W
7-8		9	10
20	-	4	W
7-8		9	10

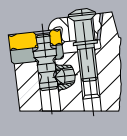
9. Insert Size IC

Cutting edge length

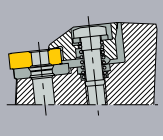


10. Wedge Lock

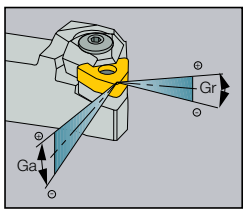
W-Top wedge



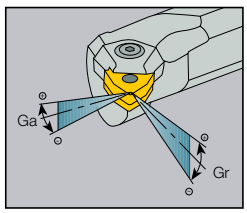
MW-Multi-wedge



Axial Ga and Radial Gr Rake Angles



Toolholder

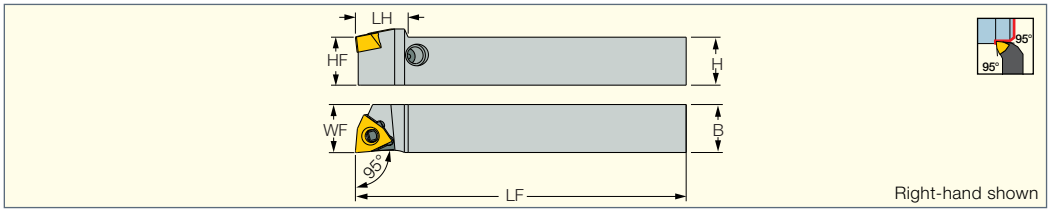


Boring Bar

ISOTURN

PWLNR/L-S

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



Designation	H	HF	B	LF	LH	WF	Insert				
PWLNR/L 1010X-04S	.394	.394	.394	4.724	.433	.394	WNGP 04	SR 10400611	HW 2.0/5	SL LV-2	SL-PI-2
PWLNR/L 1212F-04S	.472	.472	.472	3.150	.433	.472	WNGP 04	SR 10400611	HW 2.0/5	SL LV-2	SL-PI-2
PWLNR/L 1212X-04S	.472	.472	.472	4.724	.433	.472	WNGP 04	SR 10400611	HW 2.0/5	SL LV-2	SL-PI-2
PWLNR/L 1616X-04S	.630	.630	.630	4.724	.512	.630	WNGP 04	SR 10400611	HW 2.0/5	SL LV-2	SL-PI-2

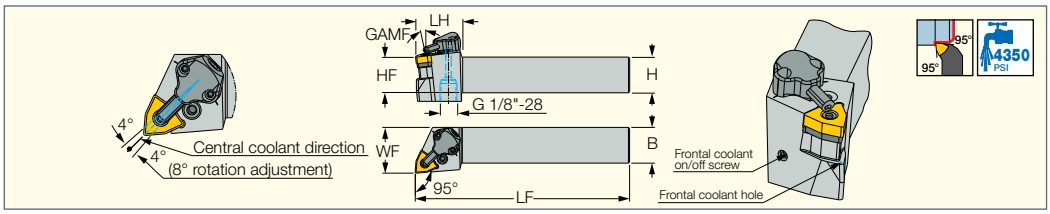
• Use a left-hand insert on a right-hand tool and vice versa.

For inserts, see pages: WNGP-F2M (107) • WNGP-F2P (105)

ISOTURN JETCUT

PWLNR/L-4-JHP

Lever Lock Toolholders for Trigon Inserts with Channels for High Pressure Coolant



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
PWLNR/L 16-4-JHP	1.000	1.000	1.000	6.000	1.300	1.250	-6	-6	WNMG 43..

• For user guide see pages 60-68

For inserts, see pages: WNMG-CERMET (106) • WNMG-F3S (108) • WNMG-F3P (105) • WNMG-M3P (106) • WNMG-F3M (108) • WNMG-M3M (108) • WNMG-TF (111) • WNMG-GN (112) • WNMG-NR (112) • WNMG-PP (111) • WNMG-VL (109) • WNMG-TNM (113) • WNMG-NF (109) • WNMM-NM (112) • WNMG-WF (110) • WNMA/WNMA-WG (113) • WNMG-WG (110) • WNGA-Ceramic (186) • WNGA-M3 (CBN) (194) • WNGA-MC/M6 (CBN) (195)

Spare Parts

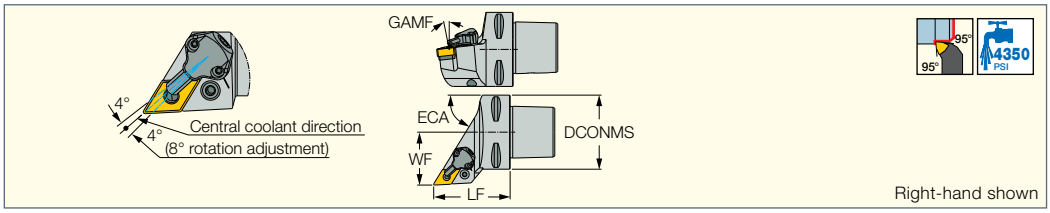
Designation										
PWLNR/L 16-4-JHP	TWN 423	SP 4	PN 3-4	LR 4	SR 117-2010	T-8/5	SR M4X4 DIN913 TL360	CU-CW-JHP	HW 2.0	HW 3.0

ISOTURN JETCUT

CAMFIX

C#-PWLNR/L-08-JHP

Lever Lock Tools with CAMFIX Exchangeable Shanks and Channels for High Pressure Coolant Carrying the Trigon Inserts



Designation	DCONMS	WF	LF	L3	GAMP	GAMF	Insert
C6 PWLNR/L-45065-08-JHP	2.480	1.772	2.559	1.457	-6	-6	WNMG 43..

• For user guide, see pages 60-68

For inserts, see pages: WNMG-CERMET (106) • WNMG-F3S (108) • WNMG-F3P (105) • WNMG-M3P (106) • WNMG-F3M (108) • WNMG-M3M (108) • WNMG-TF (111) • WNMG-GN (112) • WNMG-NR (112) • WNMG-PP (111) • WNMG-VL (109) • WNMG-TNM (113) • WNMG-NF (109) • WNMM-NM (112) • WNMG-WF (110) • WNMA/WNMA-WG (113) • WNMG-WG (110) • WNGA-Ceramic (186) • WNGA-M3 (CBN) (194) • WNGA-MC/M6 (CBN) (195)

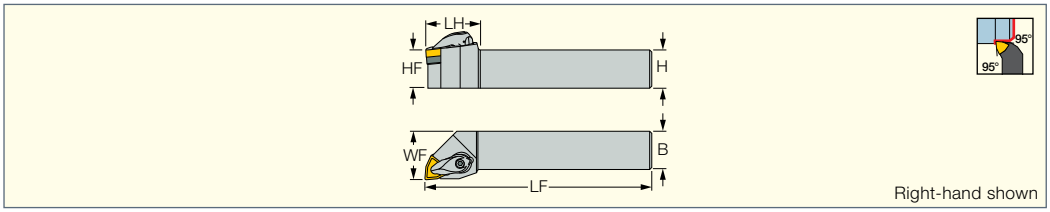
Spare Parts

Designation										
C6 PWLNL-45065-08-JHP	TWN 423	SP 4	LR 4	SR 117-2010	T-8/5	PN 3-4	CU-CW-JHP	OR 6.4X0.9N	HW 3.0	
C6 PWLNR-45065-08-JHP	TWN 423	SP 4	LR 4	SR 117-2010	T-8/5	PN 3-4	CU-CW-JHP	OR 6.4X0.9N	HW 3.0	HW 1.5

ISOTURN

DWLNR/L

External 95° Lead Tools
Carrying the Negative
WNMG Trigon Inserts



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
DWLNR/L 10-3A	.625	.625	.625	4.000	.980	.750	-6	-6	WNMG 33.
DWLNR/L 12-3B	.750	.750	.750	4.500	.940	1.000	-6	-6	WNMG 33.
DWLNR/L 16-3D	1.000	1.000	1.000	6.000	.940	1.250	-6	-6	WNMG 33.
DWLNR/L 12-4	.750	.750	.750	4.500	1.400	1.000	-6	-6	WNMG 43.
DWLNR/L 16-4	1.000	1.000	1.000	6.000	1.400	1.250	-6	-6	WNMG 43.
DWLNR/L 20-4	1.250	1.250	1.250	6.000	1.400	1.500	-6	-6	WNMG 43.

For inserts, see pages: WNMG-F3S (108) • WNMX-M3/4MW (114) • WNMX-M3/4PW (114) • WNMG-F3P (105) • WNMG-M3P (106) • WNMG-CERMET (106) • WNGG-F3N (179) • WNMG-F3M (108) • WNMG-M3M (108) • WNMG-TF (111) • WNMG-GN (112) • WNMG-NR (112) • WNMG-PP (111) • WNMG-VL (109) • WNMG-TNM (113) • WNMG-SF (109) • WNMG-NF (109) • WNMM-NM (112) • WNMG-WF (110) • WNMA/WNMA-WG (113) • WNMG-WG (110) • WNGA-Ceramic (186) • WNGA-M3 (CBN) (194) • WNGA-MC/M6 (CBN) (195)

Spare Parts

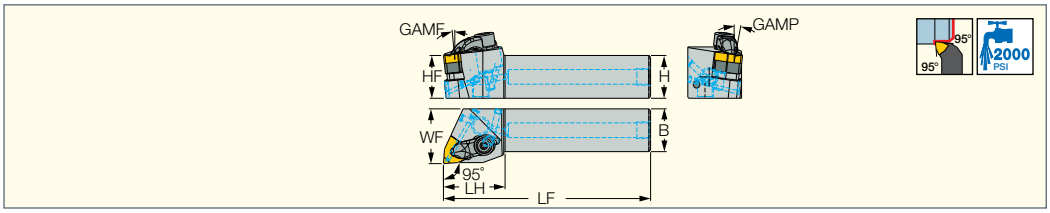
Designation									
DWLNR/L 10-3A	RWT 322	RWT 3-2[a]*		SR 40090I	LCGR-3	SR RC3	KSP 3		HW 2.5
DWLNR/L 12-3B	RWT 322	RWT 3-2[a]*		SR 40090I	LCGR-3	SR RC3	KSP 3		HW 2.5
DWLNR/L 16-3D	RWT 322	RWT 3-2[a]*		SR 40090I	LCGR-3	SR RC3	KSP 3		HW 2.5
DWLNR/L 12-4	RWT 443	RWT 443-TNM[b]*	TWH 4[c]*	SR 14-506	LCGR-4	SR 10400270-25.5		T-15/5	
DWLNR/L 16-4	RWT 443	RWT 443-TNM[b]*	TWH 4[c]*	SR 14-506	LCGR-4	SR 10400270-25.5		T-15/5	
DWLNR/L 20-4	RWT 443	RWT 443-TNM[b]*	TWH 4[c]*	SR 14-506	LCGR-4	SR 10400270-25.5		T-15/5	

* Optional, should be ordered separately
[a] RWT 3-2 seat, for WNMG 3-.. insert
[b] RWT 443-TNM seat, for WNMG 43..-TNM insert
[c] TWH 4 seat, for WNMX 45... insert

ISOTURN
JETRTURN RIGID CLAMP

DWLNR/L-JHP-MC

Rigid Clamp Tools with Channels
for High Pressure Coolant
Carrying the 80° Trigon Inserts



Designation	B	H	HF	LF	LH	WF	GAMP	GAMF	Insert
DWLNR/L 12-4-JHP-MC	.750	.750	.750	4.500	1.417	1.000	6.0	6.0	WNMG 43..
DWLNR/L 16-4-JHP-MC	1.000	1.000	1.000	6.000	1.417	1.250	6.0	6.0	WNMG 43..

For inserts, see pages: WNGA-Ceramic (186) • WNGA-M3 (CBN) (194) • WNGA-MC/M6 (CBN) (195) • WNMA/WNMA-WG (113) • WNMG-CERMET (106) • WNMG-F3M (108) • WNMG-F3P (105) • WNMG-F3S (108) • WNMG-GN (112) • WNMG-M3M (108) • WNMG-M3P (106) • WNMG-NF (109) • WNMG-NR (112) • WNMG-PP (111) • WNMG-TF (111) • WNMG-TNM (113) • WNMG-VL (109) • WNMG-WF (110) • WNMG-WG (110) • WNMM-NM (112) • WNMX-M3/4MW (114) • WNMX-M3/4PW (114)

Spare Parts

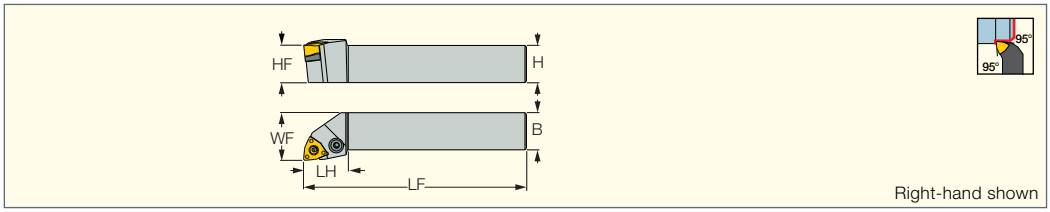
Designation									
DWLNL 12-4-JHP-MC	RWT 443	TWH 4*	RWT 443-TNM*	LCGL-4JC SET	SR 14-506	T-20/3	PLUG G1/8-6.5 TL360	SR M4X4 DIN913 TL360	OR 4X3 NBR70
DWLNR 12-4-JHP-MC	RWT 443	TWH 4*	RWT 443-TNM*	LCGR-4JC SET	SR 14-506	T-20/3	PLUG G1/8-6.5 TL360	SR M4X4 DIN913 TL360	OR 4X3 NBR70
DWLNL 16-4-JHP-MC	RWT 443	TWH 4*	RWT 443-TNM*	LCGL-4JC SET	SR 14-506	T-20/3	PLUG G1/8-6.5 TL360	SR M4X4 DIN913 TL360	OR 4X3 NBR70
DWLNR 16-4-JHP-MC	RWT 443	TWH 4*	RWT 443-TNM*	LCGR-4JC SET	SR 14-506	T-20/3	PLUG G1/8-6.5 TL360	SR M4X4 DIN913 TL360	OR 4X3 NBR70

* Optional, should be ordered separately

HELITURN LD

PWLNR/L-X

Lever Lock External Turning Tools Carrying the HELITURN LD WNMX or WNMG Trigon Inserts

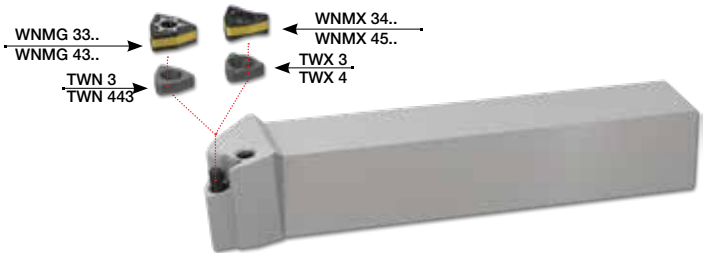


Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
PWLNR/L 12-3X (1)	.750	.750	.750	4.500	1.000	1.250	-6	-6	WNMX 34. WNMG 33.
PWLNR/L 16-3X (1)	1.000	1.000	1.000	6.000	1.000	1.250	-6	-6	WNMX 34. WNMG 33.
PWLNR/L 16-4X (2)	1.000	1.000	1.000	6.000	1.180	1.250	-6	-6	WNMX 45. WNMG 43.
PWLNR/L 20-4X (2)	1.250	1.250	1.250	7.000	1.180	1.250	-6	-6	WNMX 45. WNMG 43.

(1) Supplied with TWX 3 seat for WNMX 34. inserts and TWN 3 seat for WNMG 33. inserts.

(2) Supplied with TWX 4 seat for WNMX 45. inserts and TWN 443 seat for WNMG 43. inserts.

For inserts, see pages: WNGG-F3N (179) • WNMG-CERMET (106) • WNMG-F3S (108) • WNMG-F3P (105) • WNMG-M3P (106) • WNMX-M3/4PW (114) • WNMG-F3M (108) • WNMG-M3M (108) • WNMX-M3/4MW (114) • WNMG-TF (111) • WNMG-GN (112) • WNMG-NR (112) • WNMG-PP (111) • WNMG-VL (109) • WNMG-TNM (113) • WNMG-NF (109) • WNMM-NM (112) • WNMG-WF (110) • WNMA/WNMA-WG (113) • WNMG-WG (110) • WNGA-Ceramic (186) • WNGA-M3 (CBN) (194) • WNGA-MC/M6 (CBN) (195)



Spare Parts

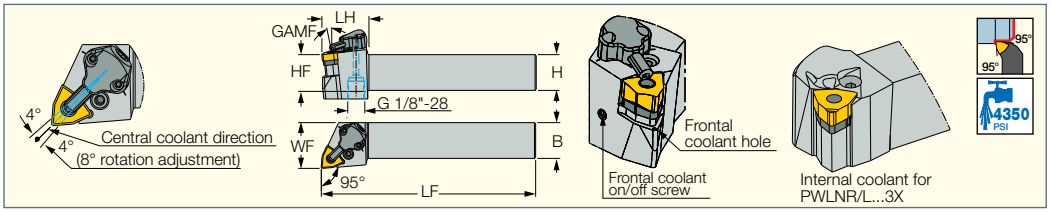
Designation							
PWLNR/L 12-3X	TWX 3	TWN 3	SP 3	LR 3	SR 117-2014	HW 2.5/5	PN 3-4
PWLNL 16-3X	TWX 3	TWN 3	SP 3	LR 3	SR 117-2014	HW 2.5/5	PN 3-4
PWLNR 16-3X	TWX 3	TWN 3	SP 3	LR 3	SR 117-2014		PN 3-4
PWLNR/L 16-4X	TWX 4	TWN 443	SP 4	LR 4DH	SR 117-2010	HW 3.0	PN 3-4L
PWLNR/L 20-4X	TWX 4	TWN 443	SP 4	LR 4DH	SR 117-2010	HW 3.0	PN 3-4L

HELITURN LD

JETCUT

PWLNR/L-X-JHP

Lever Lock Tools with Channels for High Pressure Coolant Carrying the HELITURN LD WNMX or WNMG Trigon Inserts



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
PWLNR/L 12-3X-JHP (1)	.750	.750	.750	4.500	1.000	1.250	-6	-6	WNMX 34. WNMG 33.
PWLNR/L 16-3X-JHP (1)	1.000	1.000	1.000	6.000	1.000	1.250	-6	-6	WNMX 34. WNMG 33.
PWLNR/L 16-4X-JHP (2)	1.000	1.000	1.000	6.000	1.300	1.250	-6	-6	WNMX 45. WNMG 43.
PWLNR/L 20-4X-JHP (2)	1.250	1.250	1.250	6.000	1.300	1.500	-6	-6	WNMX 45. WNMG 43.

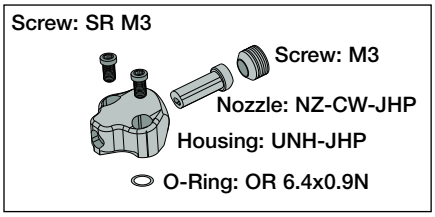
• For user guide, see pages 60-68

(1) Supplied with TWX 3 seat for WNMX 34. inserts and TWN 3 seat for WNMG 33. inserts.

(2) Supplied with TWX 4 seat for WNMX 45. inserts and TWN 443 seat for WNMG 43. inserts.

For inserts, see pages: WNGG-F3N (179) • WNMG-CERMET (106) • WNMG-F3S (108) • WNMG-F3P (105) • WNMG-M3P (106) • WNMX-M3/4PW (114) • WNMG-F3M (108) • WNMG-M3M (108) • WNMX-M3/4MW (114) • WNMG-TF (111) • WNMG-GN (112) • WNMG-NR (112) • WNMG-PP (111) • WNMG-VL (109) • WNMG-TNM (113) • WNMG-NF (109) • WNMM-NM (112) • WNMG-WF (110) • WNMA/WNMA-WG (113) • WNMG-WG (110) • WNGA-Ceramic (186) • WNGA-M3 (CBN) (194) • WNGA-MC/M6 (CBN) (195)

CU-CW-JHP





Spare Parts

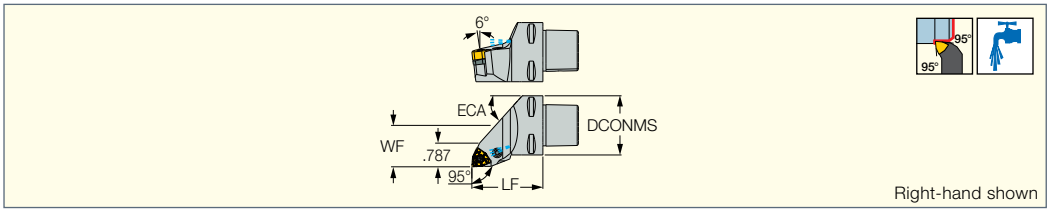
Designation												
PWLNR/L 12-3X-JHP	TWX 3	TWN 3	SP 3	LR 3	SR 117-2014	PN 3-4				HW 2.5		
PWLNR/L 16-3X-JHP	TWX 3	TWN 3	SP 3	LR 3	SR 117-2014	PN 3-4				HW 2.5		
PWLNL 16-4X-JHP	TWX 4	TWN 443	SP 4	LR 4DH	SR 117-2010	PN 3-4L	CU-CW-JHP	OR 6.4X0.9N	T-8/5	HW 2.0	HW 3.0	SR M4X4 DIN913 TL360
PWLNR 16-4X-JHP	TWX 4	TWN 443	SP 4	LR 4DH	SR 117-2010	PN 3-4L	CU-CW-JHP		T-8/5	HW 2.0	HW 3.0	SR M4X4 DIN913 TL360
PWLNR/L 20-4X-JHP	TWX 4	TWN 443	SP 4	LR 4DH	SR 117-2010	PN 3-4L	CU-CW-JHP	OR 6.4X0.9N	T-8/5	HW 2.0	HW 3.0	SR M4X4 DIN913 TL360

HELITURN LD

CAMFIX

C#-PWLNR/L-X

Lever Lock Tools with CAMFIX Shanks Carrying HELITURN LD WNMX or WNMG Inserts



Designation	DCONMS	WF	LF	ECA	GAMF	Insert
C4 PWLNR/L-27050-06X (1)	1.575	1.063	1.968	45	6.0	WNMX 0606, WNMG 0604
C5 PWLNL-25060-06X (1)	1.968	.984	2.362	48	6.0	WNMX 0606, WNMG 0604
C4 PWLNR/L-27050-08X (2)	1.575	1.063	1.968	45	6.0	WNMX 0807, WNMG 0804
C5 PWLNR/L-35060-08X (2)	1.968	1.378	2.362	48	6.0	WNMX 0807, WNMG 0804

(1) Supplied with TWX 3 seat for WNMX 34. inserts and TWN 3 seat for WNMG 33. inserts.

(2) Supplied with TWX 4 seat for WNMX 45. inserts and TWN 443 seat for WNMG 43. inserts.

For inserts, see pages: WNMG-F3S (108) • WNMX-M3/4MW (114) • WNMX-M3/4PW (114) • WNMG-F3P (105) • WNMG-M3P (106) • WNMG-F3M (108) • WNMG-M3M (108) • WNMG-TF (111) • WNMG-GN (112) • WNMG-PP (111) • WNMG-NF (109) • WNMG-WF (110) • WNMA/WNMA-WG (113) • WNMG-WG (110)

Spare Parts

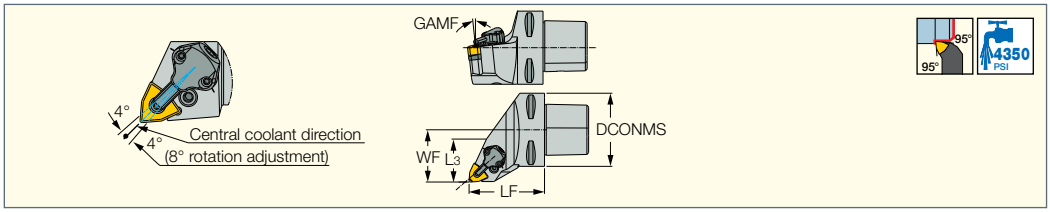
Designation								
C4 PWLNR/L-27050-06X	TWX 3	TWN 3	SP 3	LR 3	SR 117-2014	PN 3-4	EZ 62	HW 2.5/5
C5 PWLNL-25060-06X	TWX 3	TWN 3	SP 3	LR 3	SR 117-2014	PN 3-4	EZ 83	HW 2.5/5
C4 PWLNR/L-27050-08X	TWX 4	TWN 443	SP 4	LR 4DH	SR 117-2010	PN 3-4L	EZ 62	HW 3.0
C5 PWLNR/L-35060-08X	TWX 4	TWN 443	SP 4	LR 4DH	SR 117-2010	PN 3-4L	EZ 83	HW 3.0

HELITURN LD

JETCUT CAMFIX

C#-PWLNR/L-X-JHP

Lever Lock Tools with CAMFIX Shanks and Channels for High Pressure Coolant, Carrying WNMX or WNMG Inserts



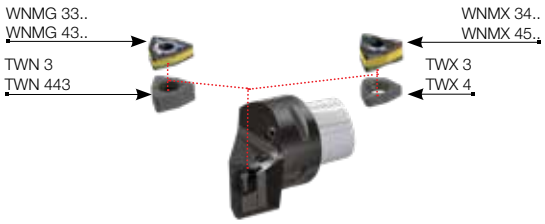
Designation	DCONMS	LF	WF	L3	GAMP	GAMF	Insert
C3 PWLNR-22045-06X-JHP (1)	1.260	1.772	.866	1.024	-6	-6	WNMX 34. WNMG 33.
C3 PWLNR-22045-08X-JHP (2)	1.260	1.772	.866	.866	-6	-6	WNMX 45. WNMG 43.
C4 PWLNR/L-27050-08X-JHP (2)	1.575	1.968	1.063	.866	-6	-6	WNMX 45. WNMG 43.
C5 PWLNR/L-35060-08X-JHP (2)	1.968	2.362	1.378	.984	-6	-6	WNMX 45. WNMG 43.
C6 PWLNR/L-45065-08X-JHP (2)	2.480	2.559	1.772	1.457	-6	-6	WNMX 45. WNMG 43.

• For user guide, see pages 60-68

(1) Supplied with TWX 3 seat for WNMX 34. inserts and TWN 3 seat for WNMG 33. inserts.

(2) Supplied with TWX 4 seat for WNMX 45. inserts and TWN 443 seat for WNMG 43. inserts.

For inserts, see pages: WNMG-F3S (108) • WNMX-M3/4MW (114) • WNMX-M3/4PW (114) • WNMG-F3P (105) • WNMG-M3P (106) • WNMG-F3M (108) • WNMG-M3M (108) • WNMG-TF (111) • WNMG-GN (112) • WNMG-PP (111) • WNMG-NF (109) • WNMG-WF (110) • WNMA/WNMA-WG (113) • WNMG-WG (110)



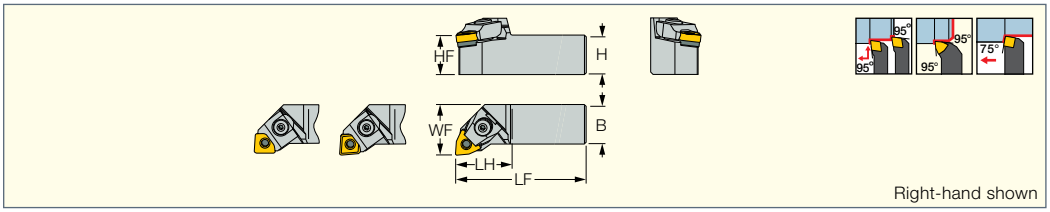
Spare Parts

Designation									
C3 PWLNR-22045-06X-JHP	TWX 3	TWN 3	SP 3	PN 3-4	LR 3	SR 117-2014	CU-CW-JHP	T-8/5	HW 2.5
C3 PWLNR-22045-08X-JHP	TWX 4	TWN 443	SP 4	PN 3-4L	LR 4DH	SR 117-2010	CU-CW-JHP	T-8/5	HW 3.0
C4 PWLNR/L-27050-08X-JHP	TWX 4	TWN 443	SP 4	PN 3-4L	LR 4DH	SR 117-2010	CU-CW-JHP	T-8/5	HW 3.0
C5 PWLNR/L-35060-08X-JHP	TWX 4	TWN 443	SP 4	PN 3-4L	LR 4DH	SR 117-2010	CU-CW-JHP	T-8/5	HW 3.0
C6 PWLNR/L-45065-08X-JHP	TWX 4	TWN 443	SP 4	PN 3-4L	LR 4DH	SR 117-2010	CU-CW-JHP	T-8/5	HW 3.0

MULTI-WEDGE

MULNR/L-MW

MULTI-WEDGE Lock, External Toolholders for Negative 80° Rhombic, Trigon and Square Inserts

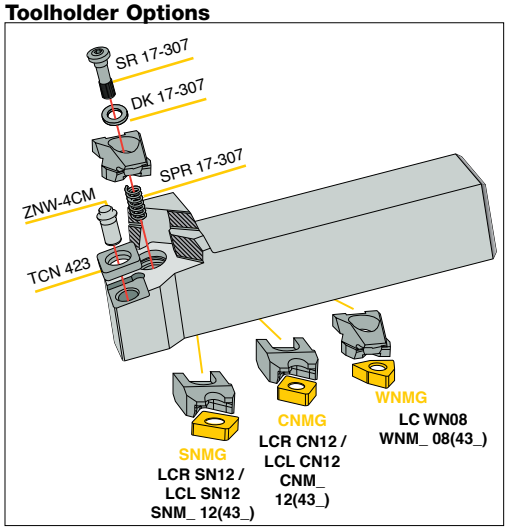


Designation	H	h_1	B	LF	LH	WF	GAMP	GAMF
MULNR/L 16-4MW	1.000	1.000	1.000	6.000	1.370	1.250	-6	-6

• Only LC WN08 is supplied with the toolholder. The other two wedges should be ordered separately • R.H. wedge for R.H. tool, L.H. wedge for L.H. tool

For inserts, see pages: CNMG-CERMET (115) • CNMG-F3S (119) • SNMG-F3S (144) • WNMG-CERMET (106) • WNMG-F3S (108) • WNMG-F3P (105) • WNMG-M3P (106) • WNMG-F3M (108) • WNMG-M3M (108) • WNMG-TF (111) • WNMG-GN (112) • WNMG-NR (112) • WNMG-PP (111) • WNMG-VL (109) • WNMG-TNM (113) • WNMG-NF (109) • WNMM-NM (112) • WNMG-WF (110) • WNMA/WNMA-WG (113) • WNMG-WG (110) • WNGA-Ceramic (186) • WNGA-M3 (CBN) (194) • WNGA-MC/M6 (CBN) (195) • CNMG-F3P (114) • CNMG-M3P (115) • CNMM-R3P (116) • CNMM-M4PW (124) • CNMG-F3M (117) • CNMG-M3M (118) • CNMG/CNGG-TF (122) • CNMG-GN (122) • CNMG-NR (123) • CNMG/CNGG-PP (121) • CNMG-VL (119) • CNMG/CNGG-SF (119) • CNMG-NF (120) • CNMG-WF (120) • CNMG-WG/NRW (120) • CNMA (121) • CNGA-Ceramic (187) • CNMG-Ceramic (186) • CNGA-2 (CBN) (196) • CNGA-4 (CBN) (196) • CNGG-M4HF/M4HM (CBN) (197) • CNMA-MW4 (CBN) (195) • CNMA-T/M1/WG (CBN) (195) • CNMA (PCD) (192) • SNMG-F3P (142) • SNMG-M3P (142) • SNMM-R3P (148) • SNMG-F3M (143) • SNMG-M3M (144) • SNMG-TF (145) • SNMG-GN (146) • SNMG-NR (147) • SNMG-PP (145) • SNMG-VL (145) • SNMA (147) • SNGA-Ceramic (188) • SNMA (CBN) (205)

Toolholder Options



Spare Parts

Designation										
MULNR/L 16-4MW	TCN 423	LC WN08	LCR/L CN12*	LCR/L SN12*	SR 17-307	HW 3.0	ZNW 4CM	SPR 17-307	DK 17-307	SR M4X8

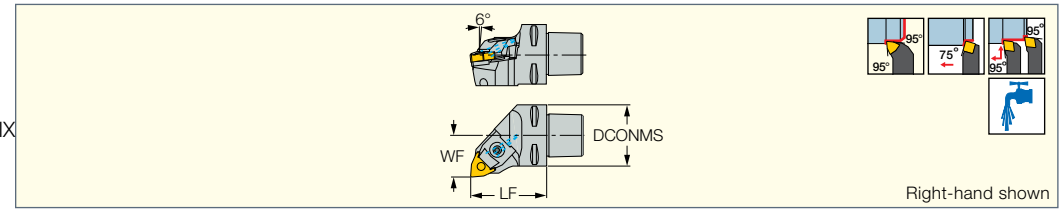
* Optional, should be ordered separately

MULTI-WEDGE

CAMFIX

C#-MULNR/L-MW

MULTI-WEDGE Tools with CAMFIX Exchangeable Shanks Carrying the 80° Negative Rhombic or Trigon or Square Inserts



Designation	DCONMS	WF	LF	GAMF	Insert
C4 MULNR/L 27050-12MW	1.575	1.063	1.968	6.0	W/C/SNMG 1204..
C5 MULNR/L 35060-12MW	1.968	1.378	2.362	6.0	W/C/SNMG 1204..
C6 MULNR/L-45065-12MW	2.480	1.772	2.559	6.0	W/C/SNMG 1204..

• R.H. wedge for R.H. tool, L.H. wedge for L.H. tool

For inserts, see pages: CNMG-CERMET (115) • CNMG-F3S (119) • SNMG-F3S (144) • WNMG-CERMET (106) • WNMG-F3S (108) • WNMG-F3P (105) • WNMG-M3P (106) • WNMG-F3M (108) • WNMG-M3M (108) • WNMG-TF (111) • WNMG-GN (112) • WNMG-NR (112) • WNMG-PP (111) • WNMG-VL (109) • WNMG-TNM (113) • WNMG-NF (109) • WNMM-NM (112) • WNMG-WF (110) • WNMA/WNMA-WG (113) • WNMG-WG (110) • WNGA-Ceramic (186) • WNGA-M3 (CBN) (194) • WNGA-MC/M6 (CBN) (195) • CNMG-F3P (114) • CNMG-M3P (115) • CNMM-R3P (116) • CNMM-M4PW (124) • CNMG-F3M (117) • CNMG-M3M (118) • CNMG/CNGG-TF (122) • CNMG-GN (122) • CNMG-NR (123) • CNMG/CNGG-PP (121) • CNMG-VL (119) • CNMG/CNGG-SF (119) • CNMG-NF (120) • CNMG-WF (120) • CNMG-WG/NRW (120) • CNMA (121) • CNGA-Ceramic (187) • CNMG-Ceramic (186) • CNGA-2 (CBN) (196) • CNGA-4 (CBN) (196) • CNGG-M4HF/M4HM (CBN) (197) • CNMA-MW4 (CBN) (195) • CNMA-T/M1/WG (CBN) (195) • CNMA (PCD) (192) • SNMG-F3P (142) • SNMG-M3P (142) • SNMM-R3P (148) • SNMG-F3M (143) • SNMG-M3M (144) • SNMG-TF (145) • SNMG-GN (146) • SNMG-NR (147) • SNMG-PP (145) • SNMG-VL (145) • SNMA (147) • SNGA-Ceramic (188) • SNMA (CBN) (205)

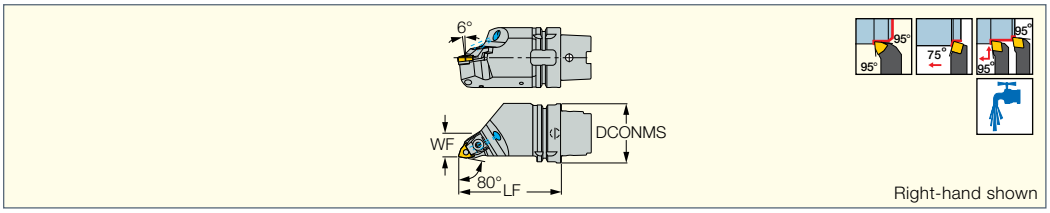
Spare Parts

Designation								
C4 MULNR/L 27050-12MW	TCN 423	ZNW 4CMI	LC WN08	HW 3.0	SR 17-307	DK 17-307	SPR 17-307	EZ 62
C5 MULNR/L 35060-12MW	TCN 423	ZNW 4CMI	LC WN08	HW 3.0	SR 17-307	DK 17-307	SPR 17-307	EZ 83
C6 MULNR/L-45065-12MW	TCN 423	ZNW 4CMI	LC WN08	HW 3.0	SR 17-307	DK 17-307	SPR 17-307	EZ 104

HSK MULTI-WEDGE

HSK A63WH-MULNR/L-MW

MULTI-WEDGE Toolholders with HSK Taper Shanks for 80° Rhombic, Trigon and Square Inserts



Designation	DCONMS	LF	WF	GAMP	GAMF	Insert
HSK A63WH MULNR/L J12MW	2.480	4.331	.984	-6	-6	W/C/SNMG 43..

• Complies with ICTM standard (ISO 12164-3) • A cooling tube must be used with all coolant through HSK spindles (should be ordered separately)

• For shank dimensions, see page 710

For inserts, see pages: CNMG-CERMET (115) • CNMG-F3S (119) • SNMG-F3S (144) • WNMG-CERMET (106) • WNMG-F3S (108) • WNMG-F3P (105) • WNMG-M3P (106) • WNMG-F3M (108) • WNMG-M3M (108) • WNMG-TF (111) • WNMG-GN (112) • WNMG-NR (112) • WNMG-PP (111) • WNMG-VL (109) • WNMG-TNM (113) • WNMG-NF (109) • WNMM-NM (112) • WNMG-WF (110) • WNMA/WNMA-WG (113) • WNMG-WG (110) • WNGA-Ceramic (186) • WNGA-M3 (CBN) (194) • WNGA-MC/M6 (CBN) (195) • CNMG-F3P (114) • CNMG-M3P (115) • CNMM-R3P (116) • CNMM-M4PW (124) • CNMG-F3M (117) • CNMG-M3M (118) • CNMG/CNGG-TF (122) • CNMG-GN (122) • CNMG-NR (123) • CNMG/CNGG-PP (121) • CNMG-VL (119) • CNMG/CNGG-SF (119) • CNMG-NF (120) • CNMG-WF (120) • CNMG-WG/NRW (120) • CNMA (121) • CNMG-Ceramic (186) • CNGA-2 (CBN) (196) • CNGA-4 (CBN) (196) • CNGA-Ceramic (187) • CNGG-M4HF/M4HM (CBN) (197) • CNMA-MW4 (CBN) (195) • CNMA-T/M1/WG (CBN) (195) • CNMA (PCD) (192) • SNMG-F3P (142) • SNMG-M3P (142) • SNMM-R3P (148) • SNMG-F3M (143) • SNMG-M3M (144) • SNMG-TF (145) • SNMG-GN (146) • SNMG-NR (147) • SNMG-PP (145) • SNMG-VL (145) • SNMA (147) • SNGA-Ceramic (188) • SNMA (CBN) (205)

Spare Parts

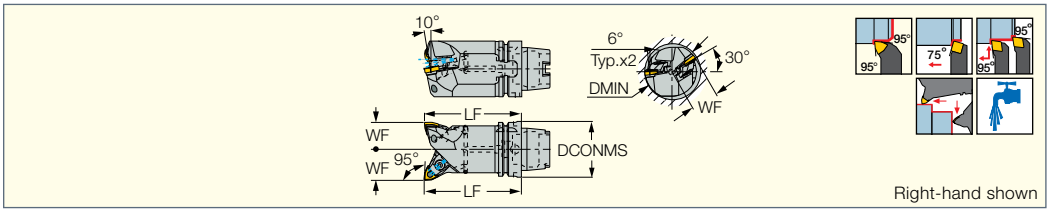
Designation											
HSK A63WH MULNL J12MW	TCN 423	LCL CN12*	LCL SN12*	LC WN08	ZNW 4CM	SR 17-307	HW 3.0	DK 17-307	SPR 17-307	SR M4X8	EZ 104
HSK A63WH MULNR J12MW	TCN 423	LCR CN12*	LCR SN12*	LC WN08	ZNW 4CM	SR 17-307	HW 3.0	DK 17-307	SPR 17-307	SR M4X8	EZ 104

* Optional, should be ordered separately

MULTI-WEDGE HSK

HSK A63WH-MULNR-J12MWX2

MULTI-WEDGE, Twin Toolholders with HSK Taper Shanks for 80° Rhombic, Trigon and Square Inserts



Designation	DCONMS	LF	WF	DMIN	Insert
HSK A63WH-MULNR-J12MWX2	2.480	4.331	1.378	2.835	W/C/SNMG 43..

• Complies with ICTM standard (ISO 12164-3) • A cooling tube must be used with all coolant through HSK spindles (should be ordered separately)
• For shank dimensions, see page 710

For inserts, see pages: CNMG-CERMET (115) • CNMG-F3S (119) • SNMG-F3S (144) • WNMG-CERMET (106) • WNMG-F3S (108) • WNMG-F3P (105) • WNMG-M3P (106) • WNMG-F3M (108) • WNMG-M3M (108) • WNMG-TF (111) • WNMG-GN (112) • WNMG-NR (112) • WNMG-PP (111) • WNMG-VL (109) • WNMG-TNM (113) • WNMG-NF (109) • WNMM-NM (112) • WNMG-WF (110) • WNMA/WNMA-WG (113) • WNMG-WG (110) • WNGA-Ceramic (186) • WNGA-M3 (CBN) (194) • WNGA-MC/M6 (CBN) (195) • CNMG-F3P (114) • CNMG-M3P (115) • CNMM-R3P (116) • CNMM-M4PW (124) • CNMG-F3M (117) • CNMG-M3M (118) • CNMG/CNGG-TF (122) • CNMG-GN (122) • CNMG-NR (123) • CNMG/CNGG-PP (121) • CNMG-VL (119) • CNMG/CNGG-SF (119) • CNMG-NF (120) • CNMG-WF (120) • CNMG-WG/NRW (120) • CNMA (121) • CNGA-Ceramic (187) • CNMG-Ceramic (186) • CNGA-2 (CBN) (196) • CNGA-4 (CBN) (196) • CNGG-M4HF/M4HM (CBN) (197) • CNMA-MW4 (CBN) (195) • CNMA-T/M1/WG (CBN) (195) • CNMA (PCD) (192) • SNMG-F3P (142) • SNMG-M3P (142) • SNMM-R3P (148) • SNMG-F3M (143) • SNMG-M3M (144) • SNMG-TF (145) • SNMG-GN (146) • SNMG-NR (147) • SNMG-PP (145) • SNMG-VL (145) • SNMA (147) • SNGA-Ceramic (188) • SNMA (CBN) (205)

Spare Parts

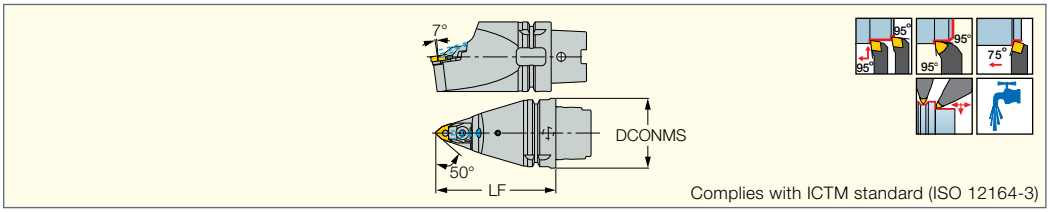
Designation									
HSK A63WH-MULNR-J12MWX2	TCN 423	LC WN08	LCR CN12*	LCR SN12*	ZNW 4CMI	DK 17-307	SPR 17-307	SR 17-307	HW 3.0

* Optional, should be ordered separately

HSK MULTI-WEDGE

HSK A63WH-MUMNN-MW

MULTI-WEDGE Tools with HSK Exchangeable Shanks Carrying the 80° Negative Rhombic or Trigon or Square Inserts



Designation	DCONMS	LF	Insert
HSK A63WH MUMNN J12MW	2.480	4.331	W/C/SNMG 1204

• A cooling tube must be used with all coolant through HSK spindles (should be ordered separately). • For shank dimensions, see page 710

For inserts, see pages: CNMG-CERMET (115) • CNMG-F3S (119) • SNMG-F3S (144) • WNMG-CERMET (106) • WNMG-F3S (108) • WNMG-F3P (105) • WNMG-M3P (106) • WNMG-F3M (108) • WNMG-M3M (108) • WNMG-TF (111) • WNMG-GN (112) • WNMG-NR (112) • WNMG-PP (111) • WNMG-VL (109) • WNMG-TNM (113) • WNMG-NF (109) • WNMM-NM (112) • WNMG-WF (110) • WNMA/WNMA-WG (113) • WNMG-WG (110) • WNGA-Ceramic (186) • WNGA-M3 (CBN) (194) • WNGA-MC/M6 (CBN) (195) • CNMG-F3P (114) • CNMG-M3P (115) • CNMM-R3P (116) • CNMM-M4PW (124) • CNMG-F3M (117) • CNMG-M3M (118) • CNMG/CNGG-TF (122) • CNMG-GN (122) • CNMG-NR (123) • CNMG/CNGG-PP (121) • CNMG-VL (119) • CNMG/CNGG-SF (119) • CNMG-NF (120) • CNMG-WF (120) • CNMG-WG/NRW (120) • CNMA (121) • CNGA-Ceramic (187) • CNMG-Ceramic (186) • CNGA-2 (CBN) (196) • CNGA-4 (CBN) (196) • CNGG-M4HF/M4HM (CBN) (197) • CNMA-MW4 (CBN) (195) • CNMA-T/M1/WG (CBN) (195) • CNMA (PCD) (192) • SNMG-F3P (142) • SNMG-M3P (142) • SNMM-R3P (148) • SNMG-F3M (143) • SNMG-M3M (144) • SNMG-TF (145) • SNMG-GN (146) • SNMG-NR (147) • SNMG-PP (145) • SNMG-VL (145) • SNMA (147) • SNGA-Ceramic (188) • SNMA (CBN) (205)

Spare Parts

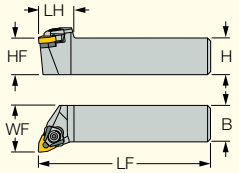
Designation											
HSK A63WH MUMNN J12MW	LC WN08	LCR CN12*	LCR SN12*	TCN 423	ZNW 4CM	SR 17-307	HW 3.0	DK 17-307	SPR 17-307	EZ 83	SR M4X8

* Optional, should be ordered separately

ISOTURN

MWLNR/L-W

Top Wedge Lock External Tools
Carrying the Trigon Inserts





Right-hand shown

Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
MWLNR/L 10-3W	.625	.625	.625	4.000	1.000	.880	-6	-6	WN.. 3
MWLNR/L 12-3W	.750	.750	.750	4.500	1.000	1.000	-6	-6	WN.. 3
MWLNR/L 16-3W	1.000	1.000	1.000	6.000	1.000	1.250	-6	-6	WN.. 3
MWLNR/L 12-4W	.750	.750	.750	4.500	1.250	1.000	-6	-6	WN.. 4
MWLNR/L 16-4W	1.000	1.000	1.000	6.000	1.250	1.250	-6	-6	WN.. 4
MWLNR/L 20-4W	1.250	1.250	1.250	6.000	1.250	1.500	-6	-6	WN.. 4

For inserts, see pages: WNGG-F3N (179) • WNMG-CERMET (106) • WNMG-F3S (108) • WNMG-F3P (105) • WNMG-M3P (106) • WNMG-F3M (108) • WNMG-M3M (108) • WNMG-TF (111) • WNMG-GN (112) • WNMG-NR (112) • WNMG-PP (111) • WNMG-VL (109) • WNMG-TNM (113) • WNMG-SF (109) • WNMG-NF (109) • WNMM-NM (112) • WNMG-WF (110) • WNMA/WNMA-WG (113) • WNMG-WG (110) • WNGA-Ceramic (186) • WNGA-M3 (CBN) (194) • WNGA-MC/M6 (CBN) (195)

Spare Parts

Designation						
MWLNR/L 10-3W	IWSN 322W	IWSN 3-2W[(a)]*	ZNW 3W	SR 14-564	LC 250 SET 1	HW 2.5
MWLNR/L 12-3W	IWSN 322W	IWSN 3-2W[(a)]*	ZNW 3W	SR 14-564	LC 250 SET 1	HW 2.5
MWLNR/L 16-3W	IWSN 322W	IWSN 3-2W[(a)]*	ZNW 3W	SR 14-564	LC 250 SET 1	HW 2.5
MWLNR/L 12-4W	IWSN 433	IWSN 433M[(b)]*	ZNW 4W	SR M4X8	LC 252 SET 1	HW 3.0
MWLNR/L 16-4W	IWSN 433	IWSN 433M[(b)]*	ZNW 4W	SR M4X8	LC 252 SET 1	HW 3.0
MWLNR/L 20-4W	IWSN 433	IWSN 433M[(b)]*	ZNW 4W	SR M4X8	LC 252 SET 1	HW 3.0

* Optional, should be ordered separately

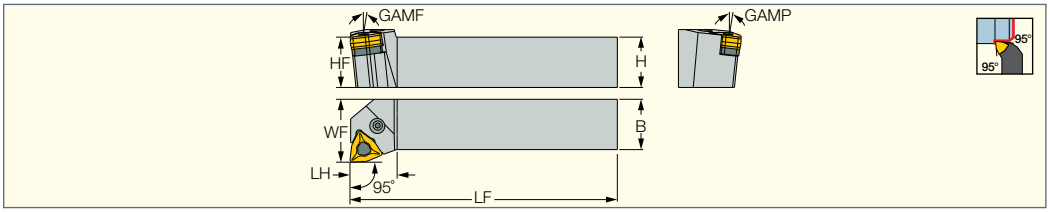
[(a)] Use IWSN 3-2W optional seat for WNMG 33. inserts

[(b)] Use IWSN 433M optional seat for WNMG 43.-TNM inserts

DOVE IQ TURN HEAVY DUTY LINE

PWLOR/L-IQ

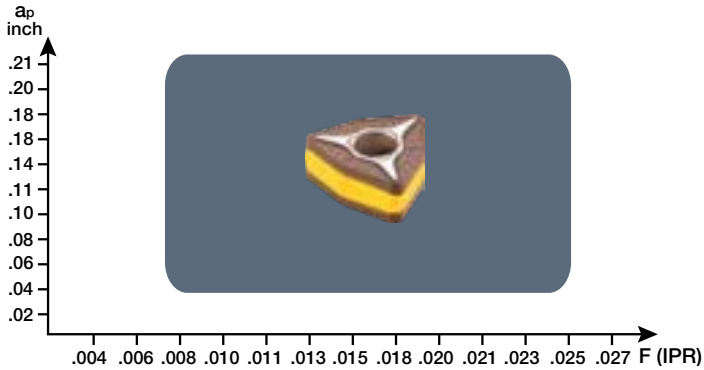
Lever Lock and Dovetail Pocket Rigid Clamping Tools Carrying the Unique Double-Sided Trigon Inserts



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
PWLOR/L 16-5-IQ	1.000	1.000	1.000	6.000	1.000	1.300	-6	-6	WOMG 554-IQ
PWLOL 20-5-IQ	1.250	1.250	1.250	6.000	1.200	1.600	-6	-6	WOMG 554-IQ
PWLOR/L 20-6-IQ	1.250	1.250	1.250	6.000	1.200	1.600	-6.5	-6.5	WOMG 64-IQ
PWLOR/L 24-6-IQ	1.500	1.500	1.500	7.000	1.200	1.900	-6.5	-6.5	WOMG 64-IQ

For inserts, see pages: WOMG-5-T3P-IQ (107) • WOMG-6-R3P-IQ (107)

Application Range on PWLOR/L-IQ Tools



Spare Parts

Designation					
PWLOR/L 16-5-IQ	TWN 5-4-IQ	SP D1.5-L10[a]	SR LCS 5	LR 5	HW 3.0
PWLOL 20-5-IQ	TWN 5-4-IQ	SP D1.5-L10[a]	SR LCS 5	LR 5	HW 3.0
PWLOR/L 20-6-IQ	TWX 6-IQ	SP 5[a]	SR 10402352	LCL 20C-NX	HW 4.0
PWLOR/L 24-6-IQ	TWX 6-IQ	SP 5[a]	SR 10402352	LCL 20C-NX	HW 4.0

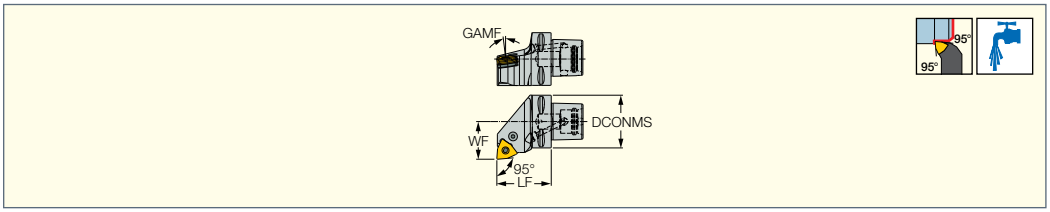
[a] Seat Pin

DOVE IQ TURN HEAVY DUTY LINE

CAMFIX

C#-PWLOR/L-IQ

Lever Lock and Dovetail Rigid Clamping Pocket with CAMFIX Shank Tools Carrying the Unique Double-Sided Trigon Inserts



Designation	DCONMS	WF	LF	GAMP	GAMF	Insert
C6 PWLOR/L-45065-13-IQ	2.480	1.772	2.559	-6.5	-6.5	WOMG 64..-IQ

For inserts, see pages: WOMG-6-R3P-IQ (107)

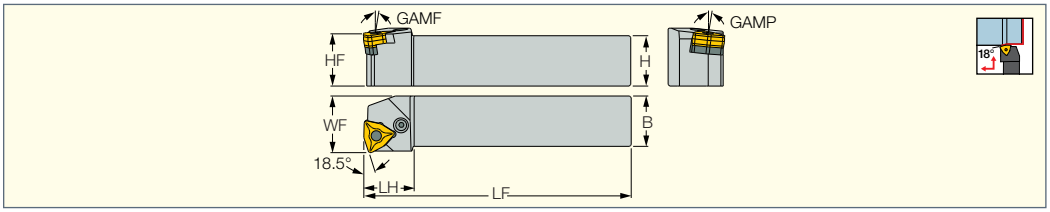
Spare Parts

Designation						
C#-PWLOR/L-IQ	TWX 6-IQ	LCL 20C-NX	SR 10402352	HW 4.0	SP 5	SATZ-M10X1-M5

DOVEIQTURN HEAVY DUTY LINE
FEEDTURN

PWXOR/L-TF-IQ

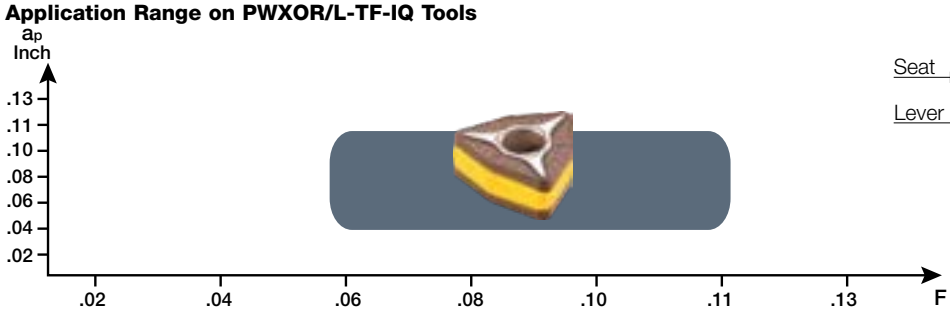
Lever Lock Tools for Fast Feed Longitudinal Turning

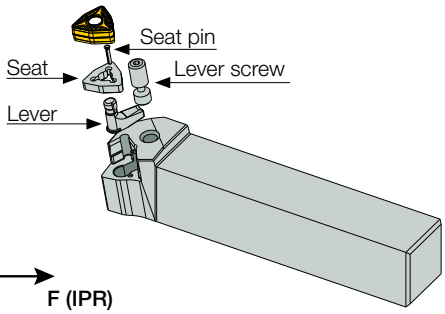


Designation	H	HF	B	WT	LH	WF	GAMP	GAMF	Insert
PWXOR/L 16-5-TF-IQ	1.000	1.000	1.000	6.000	1.250	1.200	-6	-6	WOMG 55-IQ
PWXOR/L 20-5-TF-IQ	1.250	1.250	1.250	6.000	1.250	1.450	-6	-6	WOMG 55-IQ
PWXOR/L 24-5-TF-IQ	1.500	1.500	1.500	7.000	1.250	1.750	-6	-6	WOMG 55-IQ

For inserts, see pages: WOMG-5-T3P-IQ (107)

Application Range on PWXOR/L-TF-IQ Tools





Spare Parts

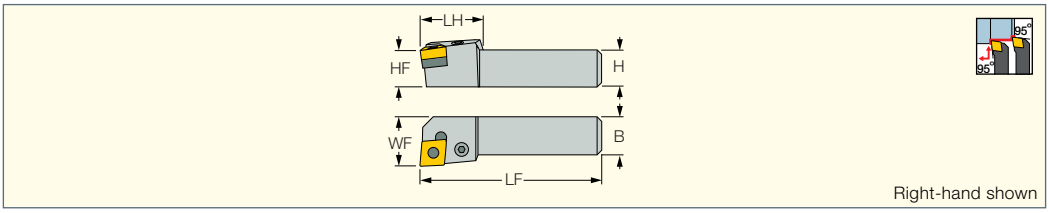
Designation					
PWXOR/L-TF-IQ	TWN 5-4-IQ	SP D1.5-L10[a]	SR LCS 5	LR 5	HW 3.0

[a] Seat Pin

ISOTURN

PCLNR

Lever Lock Tools Carrying the 80° Negative Rhombic Inserts



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
PCLNR 20-6	1.250	1.250	1.250	6.000	1.610	1.500	-6	-6	CNM..64..

For inserts, see pages: CNMG-M3P (115) • CNMM-R3P (116) • CNMG-M3M (118) • CNMG-R3M (118) • CNMG/CNGG-TF (122) • CNMG-GN (122) • CNMG-NR (123) • CNMM-NR (124) • CNMG/CNGG-PP (121) • CNMG-MR (123) • CNMA (121)

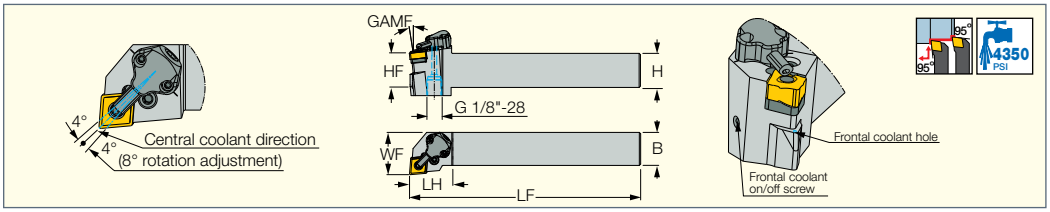
Spare Parts

Designation					
PCLNR	TCN 63	SP 66	LR 6	SR 10402352	HW 4.0

ISOTURN JETCUT

PCLNR/L-4-JHP

Lever Lock Toolholders for 80° Negative Rhombic Inserts with Channels for High Pressure Coolant



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
PCLNR/L 16-4-JHP	1.000	1.000	1.000	6.000	1.300	1.250	-6	-6	CNMG 43
PCLNR/L 20-4-JHP	1.250	1.250	1.250	6.000	1.300	1.500	-6	-6	CNMG 43

• For user guide see pages 60-68

For inserts, see pages: CNMG-CERMET (115) • CNMG-F3S (119) • CNMG-F3P (114) • CNMG-M3P (115) • CNMM-R3P (116) • CNMM-M4PW (124) • CNMG-F3M (117) • CNMG-M3M (118) • CNMG/CNGG-TF (122) • CNMG-GN (122) • CNMG-NR (123) • CNMG/CNGG-PP (121) • CNMG-VL (119) • CNMG/CNGG-SF (119) • CNMG-NF (120) • CNMG-WF (120) • CNMG-WG/NRW (120) • CNMS-12 (184) • CNMA (121) • CNGA-Ceramic (187) • CNMG-Ceramic (186) • CNGA-2 (CBN) (196) • CNGA-4 (CBN) (196) • CNGG-M4HF/M4HM (CBN) (197) • CNMA-MW4 (CBN) (195) • CNMA-T/M1/WG (CBN) (195) • CNMA (PCD) (192)

Spare Parts

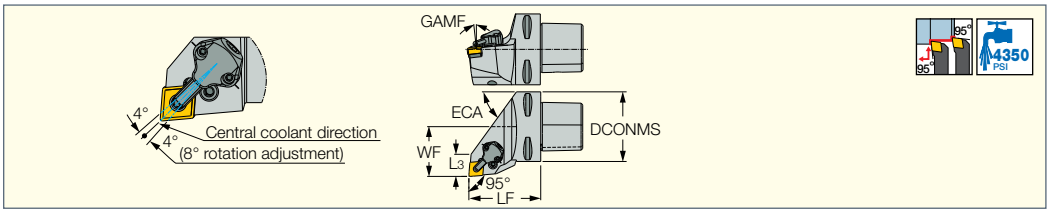
Designation										
PCLNR/L-4-JHP	TCN 423	SP 4	LR 4	SR 117-2010	PN 3-4	CU-CW-JHP	SR M4X4 DIN913 TL360	HW 2.0	HW 3.0	T-8/5

ISOTURN JETCUT

CAMFIX

C#-PCLNR/L-12-JHP

Lever Lock Tools with Channels for High Pressure Coolant and CAMFIX Shanks Carrying the 80° Negative Rhombic Inserts



Designation	DCONMS	WF	LF	L3	ECA	GAMP	GAMF	Insert
C6 PCLNR/L-45065-12-JHP	2.480	1.772	2.559	.787	54	-6	-6	CNMG 43

• For user guide, see pages 60-68

For inserts, see pages: CNMG-CERMET (115) • CNMG-F3S (119) • CNMG-F3P (114) • CNMG-M3P (115) • CNMM-R3P (116) • CNMM-M4PW (124) • CNMG-F3M (117) • CNMG-M3M (118) • CNMG/CNGG-TF (122) • CNMG-GN (122) • CNMG-NR (123) • CNMG/CNGG-PP (121) • CNMG-VL (119) • CNMG/CNGG-SF (119) • CNMG-NF (120) • CNMG-WF (120) • CNMG-WG/NRW (120) • CNMS-12 (184) • CNMA (121) • CNGA-Ceramic (187) • CNMG-Ceramic (186) • CNGA-2 (CBN) (196) • CNGA-4 (CBN) (196) • CNGG-M4HF/M4HM (CBN) (197) • CNMA-MW4 (CBN) (195) • CNMA-T/M1/WG (CBN) (195) • CNMA (PCD) (192)

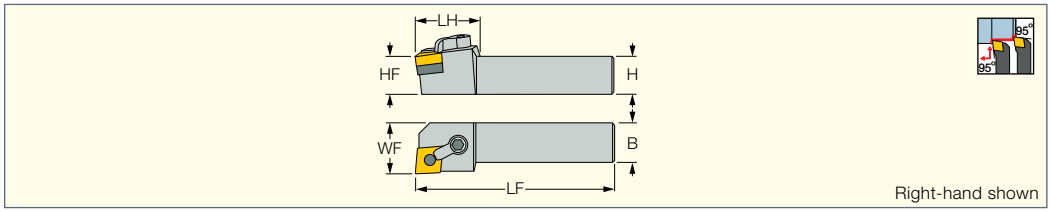
Spare Parts

Designation									
C6 PCLNR/L-45065-12-JHP	TCN 423	SP 4	LR 4	SR 117-2010	PN 3-4	CU-CW-JHP	HW 3.0	T-8/5	SR M5X5 DIN913 TL360

ISOTURN

MCLNR/L

Comlock Tools Carrying the 80° Negative Rhombic Inserts



Designation	H	HF	B	LF	LH	WF	GAMF	GAMP
MCLNR/L 12-4	.750	.750	.750	4.500	1.190	1.000	-6	-6
MCLNR/L 16-4	1.000	1.000	1.000	6.000	1.190	1.250	-6	-6

For inserts, see pages: CNMG-CERMET (115) • CNMG-F3S (119) • CNMG-F3P (114) • CNMG-M3P (115) • CNMM-R3P (116) • CNMM-M4PW (124) • CNMG-F3M (117) • CNMG-M3M (118) • CNMG/CNGG-TF (122) • CNMG-GN (122) • CNMG-NR (123) • CNMG/CNGG-PP (121) • CNMG-VL (119) • CNMG/CNGG-SF (119) • CNMG-NF (120) • CNMG-WF (120) • CNMG-WG/NRW (120) • CNMA (121) • CNGA-Ceramic (187) • CNMG-Ceramic (186) • CNGA-2 (CBN) (196) • CNGA-4 (CBN) (196) • CNGG-M4HF/M4HM (CBN) (197) • CNMA-MW4 (CBN) (195) • CNMA-T/M1/WG (CBN) (195) • CNMA (PCD) (192)

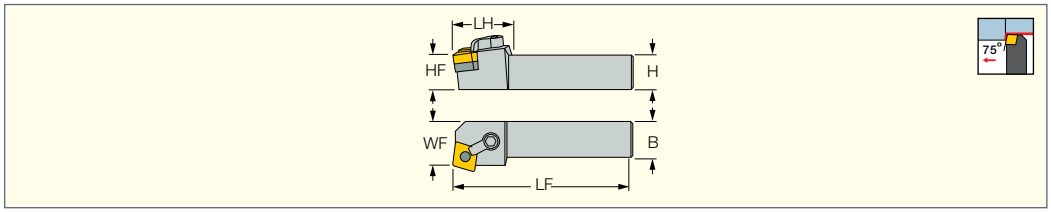
Spare Parts

Designation						
MCLNR/L	ICSN 433	NL-46	HW 3/32"	CL 20	XNS 48	HW 1/8"

ISOTURN

MCRNR

Comlock 75° Lead Angle Holders for Negative 80° Inserts



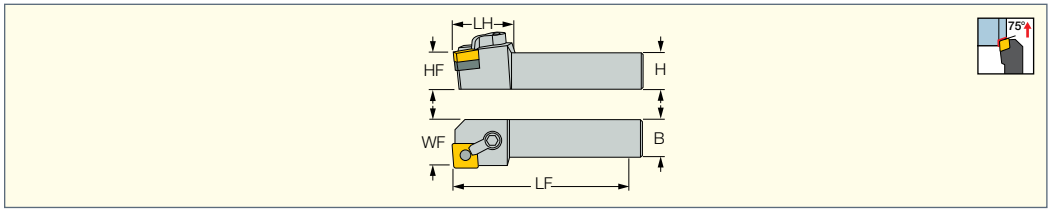
Designation	H	HF	B	LF	LH	WF	GAMP	GAMF
MCRNR 16-4	1.000	1.000	1.000	6.000	1.250	1.250	-5	-5

For inserts, see pages: CNMG-CERMET (115) • CNMG-F3S (119) • CNMG-F3P (114) • CNMG-M3P (115) • CNMM-R3P (116) • CNMM-M4PW (124) • CNMG-F3M (117) • CNMG-M3M (118) • CNMG/CNGG-TF (122) • CNMG-GN (122) • CNMG-NR (123) • CNMG/CNGG-PP (121) • CNMG-VL (119) • CNMG/CNGG-SF (119) • CNMG-NF (120) • CNMG-WF (120) • CNMG-WG/NRW (120) • CNMA (121) • CNGA-Ceramic (187) • CNMG-Ceramic (186) • CNGA-2 (CBN) (196) • CNGA-4 (CBN) (196) • CNGG-M4HF/M4HM (CBN) (197) • CNMA-MW4 (CBN) (195) • CNMA-T/M1/WG (CBN) (195)

ISOTURN

MCKNR

Comlock 75° Lead Angle Facing Holders for Negative 100° Rhombic Inserts



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF
MCKNR 16-4	1.000	1.000	1.000	999.000	1.190	1.250	-5	-5

For inserts, see pages: CNMG-CERMET (115) • CNMG-F3S (119) • CNMG-F3P (114) • CNMG-M3P (115) • CNMM-R3P (116) • CNMM-M4PW (124) • CNMG-F3M (117) • CNMG-M3M (118) • CNMG/CNGG-TF (122) • CNMG-GN (122) • CNMG-NR (123) • CNMG/CNGG-PP (121) • CNMG-VL (119) • CNMG/CNGG-SF (119) • CNMG-NF (120) • CNMG-WF (120) • CNMG-WG/NRW (120) • CNMA (121) • CNGA-Ceramic (187) • CNMG-Ceramic (186) • CNGA-2 (CBN) (196) • CNGA-4 (CBN) (196) • CNGG-M4HF/M4HM (CBN) (197) • CNMA-MW4 (CBN) (195) • CNMA-T/M1/WG (CBN) (195)

Spare Parts

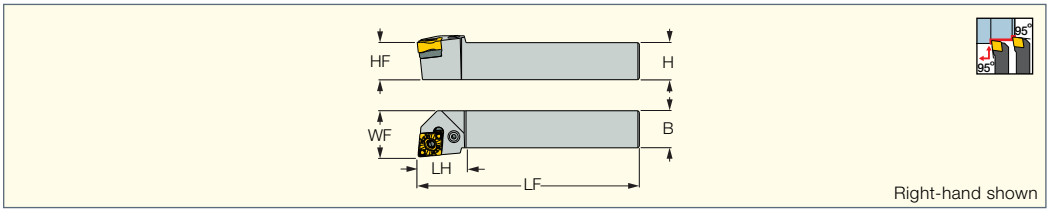
Designation						
MCKNR 16-4	ICSN 433	NL-46	HW 3/32"	CL 20	XNS 48	HW 1/8"

HELITURN LD

FLASHTURN ECO LINE

PCLNR/L-X

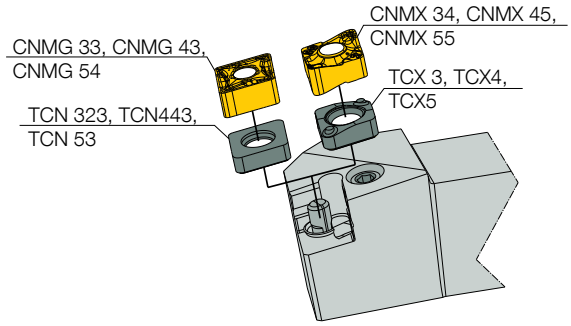
Lever Lock Tools Carrying the CNMX/CNMG 80° Rhombic Inserts



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
PCLNR/L 10-3X	.625	.625	.625	4.500	1.000	1.000	-6	-6	CNMX 34. CNMG 33.
PCLNR/L 12-3X	.750	.750	.750	4.500	1.000	1.000	-6	-6	CNMX 34. CNMG 33.
PCLNR/L 16-3X	1.000	1.000	1.000	6.000	1.000	1.250	-6	-6	CNMX 34. CNMG 33.
PCLNR/L 12-4X	.750	.750	.750	4.500	1.220	1.250	-6	-6	CNMX 45. CNMG 43.
PCLNR/L 16-4X	1.000	1.000	1.000	6.000	1.220	1.250	-6	-6	CNMX 45. CNMG 43.
PCLNR/L 20-4X	1.250	1.250	1.250	6.000	1.220	1.500	-6	-6	CNMX 45. CNMG 43.
PCLNR/L 20-5X	1.250	1.250	1.250	7.000	1.260	1.570	-6	-6	CNMX 55. CNMG 54.
PCLNR 24-5X	1.500	1.500	1.500	7.000	1.850	2.000	-6	-6	CNMX 55. CNMG 54.

• Supplied with TCX 3 seat for CNMX 34. inserts and TCN 323 seat for CNMG 33. inserts, TCX 4 seat for CNMX 45. inserts and TCN 443 seat for CNMG 43. inserts, TCX 5 seat for CNMX 55. inserts and TCN 53 seat for CNMG 54. inserts.

For inserts, see pages: CNMG-F3S (119) • CNMG-F3P (114) • CNMG-M3P (115) • CNMM-R3P (116) • CNGX-M3N (180) • CNMX-M3/4PW (123) • CNMM-M4PW (124) • CNGG-F3N (179) • CNMG-F3M (117) • CNMG-M3M (118) • CNMG-R3M (118) • CNMX-M3/4MW (124) • CNMG/CNGG-TF (122) • CNMG-GN (122) • CNMG-NR (123) • CNMG/CNGG-PP (121) • CNMG-VL (119) • CNMG-MR (123) • CNMG/CNGG-SF (119) • CNMG-NF (120) • CNMG-WF (120) • CNMG-WG/NRW (120) • CNMS-12 (184) • CNMA (121) • CNGA-Ceramic (187) • CNMG-Ceramic (186) • CNGA-2 (CBN) (196) • CNGA-4 (CBN) (196) • CNGG-M4HF/M4HM (CBN) (197) • CNMA-MW4 (CBN) (195) • CNMA-T/M1/WG (CBN) (195) • CNMA (PCD) (192) • CNMG-CERMET (115)



Spare Parts

Designation							
PCLNR/L 12-3X	TCX 3	TCN 323	SP 3	LR 3	SR 117-2014	HW 2.5	PN 3-4
PCLNR/L 16-3X	TCX 3	TCN 323	SP 3	LR 3	SR 117-2014	HW 2.5	PN 3-4
PCLNR/L 12-4X	TCX 4	TCN 443	SP 4	LR 4DH	SR 117-2010	HW 3.0	PN 3-4L
PCLNR/L 16-4X	TCX 4	TCN 443	SP 4	LR 4DH	SR 117-2010	HW 3.0	PN 3-4L
PCLNR/L 20-4X	TCX 4	TCN 443	SP 4	LR 4DH	SR 117-2010	HW 3.0	PN 3-4L
PCLNR/L 20-5X	TCX 5	TCN 53	SP 5	LR 5	SR LCS 5	HW 3.0	SPP 5-6*
PCLNR 24-5X	TCX 5	TCN 53	SP 5	LR 5	SR LCS 5	HW 3.0	SPP 5-6*

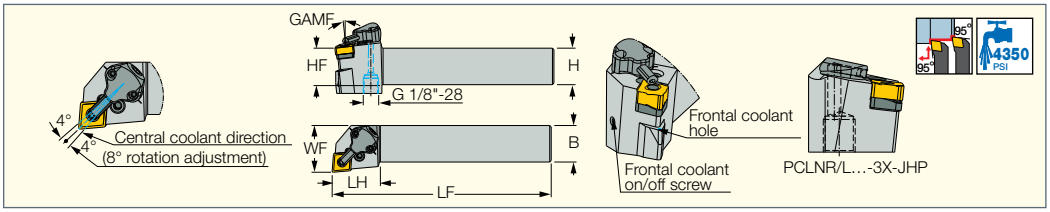
* Optional, should be ordered separately

HELITURN LD

JETCUT

PCLNR/L-X-JHP

Lever Lock Tools with Channels for High Pressure Coolant Carrying the CNMX/ CNMG 80° Rhombic Inserts



Designation	B	H	HF	LF	LH	WF	GAMP	GAMF	Insert
PCLNR/L 10-3X-JHP	.625	.625	.625	6.000	1.300	1.250	-6	-6	CNMX 34. CNMG 33.
PCLNR/L 12-3X-JHP	.750	.750	.750	4.500	1.300	1.250	-6	-6	CNMX 34. CNMG 33.
PCLNR/L 16-3X-JHP	1.000	1.000	1.000	6.000	1.300	1.250	-6	-6	CNMX 34. CNMG 33.
PCLNR/L 16-4X-JHP	1.000	1.000	1.000	6.000	1.300	1.250	-6	-6	CNMX 45. CNMG 43.
PCLNR/L 20-4X-JHP	1.250	1.250	1.250	6.000	1.300	1.500	-6	-6	CNMX 45. CNMG 43.

• Supplied with TCX 3 seat for CNMX 34. inserts and TCN 323 seat for CNMG 33. inserts. TCX 4 seat for CNMX 45. inserts and TCN 443 seat for CNMG 43. inserts.
• For user guide, see pages 60-68

For inserts, see pages: CNGX-M3N (180) • CNMG-F3S (119) • CNMG-F3P (114) • CNMG-M3P (115) • CNMM-R3P (116) • CNMX-M3/4PW (123) • CNMM-M4PW (124) • CNGG-F3N (179) • CNMG-CERMET (115) • CNMG-F3M (117) • CNMG-M3M (118) • CNMX-M3/4MW (124) • CNMG/CNGG-TF (122) • CNMG-GN (122) • CNMG-NR (123) • CNMG/CNGG-PP (121) • CNMG-VL (119) • CNMG/CNGG-SF (119) • CNMG-NF (120) • CNMG-WF (120) • CNMG-WG/NRW (120) • CNMS-12 (184) • CNMA (121) • CNGA-Ceramic (187) • CNMG-Ceramic (186) • CNGA-2 (CBN) (196) • CNGA-4 (CBN) (196) • CNGG-M4HF/M4HM (CBN) (197) • CNMA-MW4 (CBN) (195) • CNMA-T/M1/WG (CBN) (195) • CNMA (PCD) (192)

Spare Parts

Designation												
PCLNL 10-3X-JHP	TCX 3[a]	TCN 323[c]	SP 3	LR 3	SR 117-2014	PN 3-4			HW 2.5/5			
PCLNR 10-3X-JHP	TCX 3[a]	TCN 323[c]	SP 3	LR 3	SR 117-2014	PN 3-4			HW 2.5			
PCLNR/L 12-3X-JHP	TCX 3[a]	TCN 323[c]	SP 3	LR 3	SR 117-2014	PN 3-4			HW 2.5			
PCLNR/L 16-3X-JHP	TCX 3[a]	TCN 323[c]	SP 3	LR 3	SR 117-2014	PN 3-4			HW 2.5			
PCLNR/L 16-4X-JHP	TCX 4[b]	TCN 443[d]	SP 4	LR 4DH	SR 117-2010	PN 3-4L	CU-CW-JHP	T-8/5	HW 2.0	HW 3.0	SR M4X4 DIN913 TL360	
PCLNR/L 20-4X-JHP	TCX 4[b]	TCN 443[d]	SP 4	LR 4DH	SR 117-2010	PN 3-4L	CU-CW-JHP	T-8/5	HW 2.0	HW 3.0	SR M4X4 DIN913 TL360	

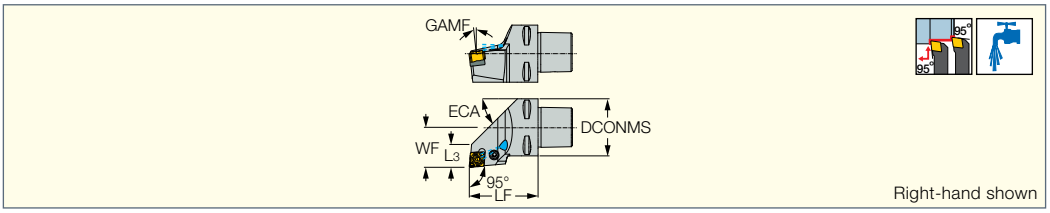
[a] For CNMX 0906.. (CNMX 34.) inserts
[b] For CNMX 1207.. (CNMX 45.) inserts
[c] For CNMG 0904.. (CNMG 33.) inserts
[d] For CNMG 1204.. (CNMG 43.) inserts

HELITURN LD

CAMFIX

C#-PCLNR/L-X

Lever Lock Tools with CAMFIX Exchangeable Shanks Carrying the CNMX and CNMG Rhombic Inserts



Designation	DCONMS	WF	LF	GAMF	L3	ECA	Insert
C4 PCLNR/L-27050-12X [1]	1.575	1.063	1.968	6.0	.787	40	CNMX 1207, CNMG 1204
C5 PCLNR/L-35060-12X [1]	1.968	1.378	2.362	6.0	.787	45	CNMX 1207, CNMG 1204
C6 PCLNR/L-45065-12X [1]	2.480	1.772	2.559	6.0	.787	54	CNMX 1207, CNMG 1204
C4 PCLNR/L-27050-16X	1.575	1.063	1.968	6.0	.827	40	CNMX 1607, CNMG 1606
C5 PCLNR/L-35060-16X	1.968	1.378	2.362	6.0	.827	45	CNMX 1607, CNMG 1606
C6 PCLNR/L-45065-16X	2.480	1.772	2.559	6.0	.827	54	CNMX 1607, CNMG 1606

[1] Supplied with TCX 4 seat for CNMX 45. inserts and TCN 443 seat for CNMG 43. inserts.

For inserts, see pages: CNMG-CERMET (115) • CNMG-F3S (119) • CNMX-M3/4PW (123) • CNMX-M3/4MW (124) • CNMG-F3P (114) • CNMG-M3P (115) • CNMM-R3P (116) • CNMM-M4PW (124) • CNMG-F3M (117) • CNMG-M3M (118) • CNMG-R3M (118) • CNMG/CNGG-TF (122) • CNMG-GN (122) • CNMG-NR (123) • CNMG/CNGG-PP (121) • CNMG-VL (119) • CNMG-MR (123) • CNMG/CNGG-SF (119) • CNMG-NF (120) • CNMG-WF (120) • CNMG-WG/NRW (120) • CNMS-12 (184) • CNMA (121) • CNGA-Ceramic (187) • CNMG-Ceramic (186) • CNGA-2 (CBN) (196) • CNGA-4 (CBN) (196) • CNGG-M4HF/M4HM (CBN) (197) • CNMA-MW4 (CBN) (195) • CNMA-T/M1/WG (CBN) (195) • CNMA (PCD) (192)

Spare Parts

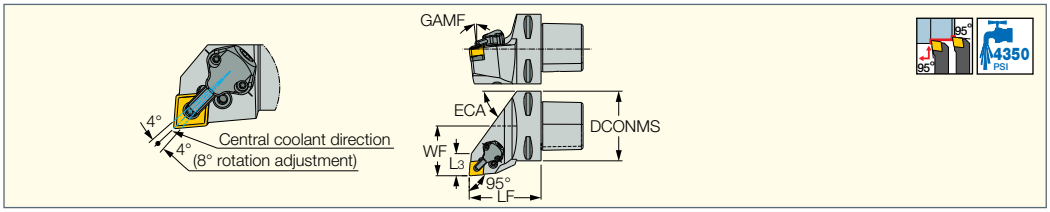
Designation								
C4 PCLNR/L-27050-12X	TCX 4	TCN 443	SP 4	PN 3-4L	LR 4DH	SR 117-2010	HW 3.0	EZ 62
C5 PCLNR/L-35060-12X	TCX 4	TCN 443	SP 4	PN 3-4L	LR 4DH	SR 117-2010	HW 3.0	EZ 83
C6 PCLNR/L-45065-12X	TCX 4	TCN 443	SP 4	PN 3-4L	LR 4DH	SR 117-2010	HW 3.0	EZ 83
C4 PCLNR/L-27050-16X	TCX 5	TCN 53	SP 5		LR 5	SR LCS 5	HW 3.0	EZ 104
C5 PCLNR/L-35060-16X	TCX 5	TCN 53	SP 5		LR 5	SR LCS 5	HW 3.0	EZ 125
C6 PCLNR/L-45065-16X	TCX 5	TCN 53	SP 5	SPP 5-6	LR 5	SR LCS 5	HW 3.0	EZ 125

HELITURN LD

JETCUT CAMFIX

C#-PCLNR/L-X-JHP

Lever Lock Tools with CAMFIX Shanks and Channels for High Pressure Coolant Carrying CNMX or CNMG Inserts



Designation	DCONMS	WF	LF	L3	ECA	GAMP	GAMF	Insert
C3 PCLNR-22045-09X-JHP (1)	1.260	.866	1.772	.866	45	-6	-6	CNMX 34. CNMG 33.
C4 PCLNR/L-27050-09X-JHP (1)	1.575	1.063	1.968	.945	45	-6	-6	CNMX 34. CNMG 33.
C5 PCLNR/L-35060-09X-JHP (1)	1.968	1.378	2.362	1.024	45	-6	-6	CNMX 34. CNMG 33.
C4 PCLNR/L-27050-12X-JHP (2)	1.575	1.063	1.968	.709	54	-6	-6	CNMX 45. CNMG 43.
C5 PCLNR/L-35060-12X-JHP (2)	1.968	1.378	2.362	.787	50	-6	-6	CNMX 45. CNMG 43.
C6 PCLNR/L-45065-12X-JHP (2)	2.480	1.772	2.559	.787	54	-6	-6	CNMX 45. CNMG 43.

• For user guide, see pages 60-68

(1) Supplied with TCX 3 seat for CNMX 34.. inserts and TCN 323 seat for CNMG 33. inserts.

(2) Supplied with TCX 4 seat for CNMX 45. inserts and TCN 443 seat for CNMG 43. inserts.

For inserts, see pages: CNGG-F3N (179) • CNGX-M3N (180) • CNMG-CERMET (115) • CNMG-F3S (119) • CNMX-M3/4MW (124) • CNMX-M3/4PW (123) • CNMG-F3P (114) • CNMG-M3P (115) • CNMM-R3P (116) • CNMM-M4PW (124) • CNMG-F3M (117) • CNMG-M3M (118) • CNMG/CNGG-TF (122) • CNMG-GN (122) • CNMG-NR (123) • CNMG/CNGG-PP (121) • CNMG-VL (119) • CNMG/CNGG-SF (119) • CNMG-NF (120) • CNMG-WF (120) • CNMG-WG/NRW (120) • CNMS-12 (184) • CNMA (121) • CNGA-Ceramic (187) • CNMG-Ceramic (186) • CNGA-2 (CBN) (196) • CNGA-4 (CBN) (196) • CNGG-M4HF/M4HM (CBN) (197) • CNMA-MW4 (CBN) (195) • CNMA-T/M1/WG (CBN) (195) • CNMA (PCD) (192)

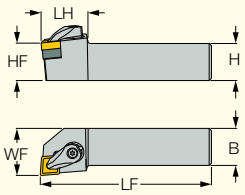
Spare Parts

Designation									
C3 PCLNR-22045-09X-JHP	TCX 3	TCN 323	SP 3	LR 3	SR 117-2014	PN 3-4	CU-CW-JHP	T-8/5	HW 2.5
C4 PCLNR/L-27050-09X-JHP	TCX 3	TCN 323	SP 3	LR 3	SR 117-2014	PN 3-4	CU-CW-JHP	T-8/5	HW 2.5
C5 PCLNR/L-35060-09X-JHP	TCX 3	TCN 323	SP 3	LR 3	SR 117-2014	PN 3-4	CU-CW-JHP	T-8/5	HW 2.5
C4 PCLNR/L-27050-12X-JHP	TCX 4	TCN 443	SP 4	LR 4DH	SR 117-2010	PN 3-4L	CU-CW-JHP	T-8/5	HW 3.0
C5 PCLNL-35060-12X-JHP	TCX 4	TCN 443	SP 4	LR 4DH	SR 117-2010	PN 3-4L	CU-CW-JHP		HW 3.0
C5 PCLNR-35060-12X-JHP	TCX 4	TCN 443	SP 4	LR 4DH	SR 117-2010	PN 3-4L	CU-CW-JHP	T-8/5	HW 3.0
C6 PCLNR/L-45065-12X-JHP	TCX 4	TCN 443	SP 4	LR 4DH	SR 117-2010	PN 3-4L	CU-CW-JHP	T-8/5	HW 3.0

ISOTURN

DCLNR/L

R-Clamp Tools with 95° Lead Angle Carrying the 80° Negative Rhombic Inserts





Right-hand shown

Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
DCLNR/L 12-4 (1)	.750	.750	.750	4.500	1.400	1.000	-6	-6	CNMG 43 CNMX 45
DCLNR/L 16-4 (1)	1.000	1.000	1.000	6.000	1.400	1.250	-6	-6	CNMG 43 CNMX 45
DCLNR/L 20-4 (1)	1.250	1.250	1.250	6.000	1.500	1.500	-6	-6	CNMG 43 CNMX 45
DCLNR/L 16-5	1.000	1.000	1.000	6.000	1.420	1.250	-6	-6	CN..54
DCLNR/L 20-5	1.250	1.250	1.250	6.000	1.420	1.500	-6	-6	CN..54
DCLNR/L 20-6	1.250	1.250	1.250	6.000	1.610	1.500	-6	-6	CN..64
DCLNR 24-6	1.500	1.500	1.500	6.000	1.610	2.000	-6	-6	CN..64

(1) Use TCH 4 seat (optional) for CNMX 45... insert.

For inserts, see pages: CNMG-F3S (119) • CNMG-F3P (114) • CNMG-M3P (115) • CNMM-R3P (116) • CNMM-M4PW (124) • CNMX-M3/4PW (123) • CNMG-F3M (117) • CNMG-M3M (118) • CNMG-R3M (118) • CNMX-M3/4MW (124) • CNMG/CNGG-TF (122) • CNMG-GN (122) • CNMG-NR (123) • CNMM-NR (124) • CNMG/CNGG-PP (121) • CNMG-VL (119) • CNMG-MR (123) • CNMG/CNGG-SF (119) • CNMG-NF (120) • CNMG-WF (120) • CNMG-WG/NRW (120) • CNMA (121) • CNGA-Ceramic (187) • CNMG-Ceramic (186) • CNGA-2 (CBN) (196) • CNGA-4 (CBN) (196) • CNGG-M4HF/M4HM (CBN) (197) • CNMA-MW4 (CBN) (195) • CNMA-T/M1/WG (CBN) (195) • CNMA (PCD) (192) • CNMG-CERMET (115)

Spare Parts

Designation									
DCLNR/L 12-4	RCT 443	TCH 4*	SR 14-506	LCGR-4	SR 10400270-25.5			T-15/5	
DCLNR/L 16-4	RCT 443	TCH 4*	SR 14-506	LCGR-4	SR 10400270-25.5			T-15/5	
DCLNR/L 20-4	RCT 443	TCH 4*	SR 14-506	LCGR-4	SR 10400270-25.5			T-15/5	
DCLNR/L 16-5	RCT 544		SR 10402265	LCGR-5		SR 10402267	KSP 5		HW 4.0
DCLNR/L 20-5	RCT 544		SR 10402265	LCGR-5		SR 10402267	KSP 5		HW 4.0
DCLNR/L 20-6	TCN 63		SR 10402266	LCGR-6		SR 10402267	KSP 5		HW 4.0
DCLNR 24-6	TCN 63		SR 10402266	LCGR-6		SR 10402267	KSP 5		HW 4.0

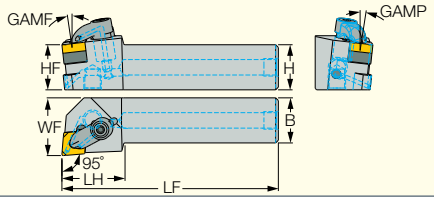
* Optional, should be ordered separately

ISOTURN

JETRTURN RIGID CLAMP

DCLNR/L-JHP-MC

Rigid Clamp Tools with Channels for High Pressure Coolant Carrying the 80° Rhombic Inserts



Designation	B	H	HF	LF	LH	WF	GAMP	GAMF	Insert
DCLNR/L 12-4-JHP-MC	.750	.750	.750	4.500	1.378	1.000	6.0	6.0	CNMG 43..
DCLNR/L 16-4-JHP-MC	1.000	1.000	1.000	6.000	1.378	1.250	6.0	6.0	CNMG 43..

For inserts, see pages: CNGA-2 (CBN) (196) • CNGA-4 (CBN) (196) • CNGA-Ceramic (187) • CNGG-M4HF/M4HM (CBN) (197) • CNMA (121) • CNMA (PCD) (192) • CNMA-MW4 (CBN) (195) • CNMA-T/M1/WG (CBN) (195) • CNMG-Ceramic (186) • CNMG-CERMET (115) • CNMG-F3M (117) • CNMG-F3P (114) • CNMG-F3S (119) • CNMG-GN (122) • CNMG-M3M (118) • CNMG-M3P (115) • CNMG-NF (120) • CNMG-NR (123) • CNMG-VL (119) • CNMG-WF (120) • CNMG-WG/NRW (120) • CNMG/CNGG-PP (121) • CNMG/CNGG-SF (119) • CNMG/CNGG-TF (122) • CNMM-M4PW (124) • CNMM-R3P (116)

Spare Parts

Designation								
DCLNL 12-4-JHP-MC	RCT 443	TCH 4*	LCGL-4JC SET[a]	SR 14-506	T-20/3	PLUG G1/8-6.5 TL360	SR M5X5 DIN913 TL360	OR 4X3 NBR70
DCLNR 12-4-JHP-MC	RCT 443	TCH 4*	LCGR-4JC SET[a]	SR 14-506	T-20/3	PLUG G1/8-6.5 TL360	SR M5X5 DIN913 TL360	OR 4X3 NBR70
DCLNL 16-4-JHP-MC	RCT 443	TCH 4*	LCGL-4JC SET[a]	SR 14-506	T-20/3	PLUG G1/8-6.5 TL360	SR M5X5 DIN913 TL360	OR 4X3 NBR70
DCLNR 16-4-JHP-MC	RCT 443	TCH 4*	LCGR-4JC SET[a]	SR 14-506	T-20/3	PLUG G1/8-6.5 TL360	SR M5X5 DIN913 TL360	OR 4X3 NBR70

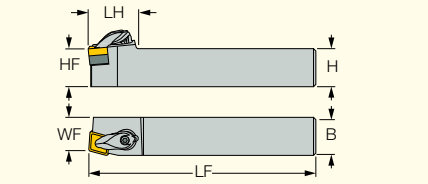
* Optional, should be ordered separately

[a] Recommended tightening torque 4Nm(35.4 lbf*in) for R-Clamp Screw

ISOTURN

DCBNR/L

R-Clamp Tools with 75° Lead Angle Using the 100° Corner of CNMG Inserts



Designation	H	HF	B	LF	WF	LH	GAMP	GAMF	Insert
DCBNR/L 16-4	1.000	1.000	1.000	6.000	.880	1.400	-6	-8	CN..43

For inserts, see pages: CNMG-CERMET (115) • CNMG-F3S (119) • CNMG-F3P (114) • CNMG-M3P (115) • CNMM-R3P (116) • CNMM-M4PW (124) • CNMG-F3M (117) • CNMG-M3M (118) • CNMG/CNGG-TF (122) • CNMG-GN (122) • CNMG-NR (123) • CNMG/CNGG-PP (121) • CNMG-VL (119) • CNMG/CNGG-SF (119) • CNMG-NF (120) • CNMG-WF (120) • CNMG-WG/NRW (120) • CNMA (121) • CNGA-Ceramic (187) • CNMG-Ceramic (186)

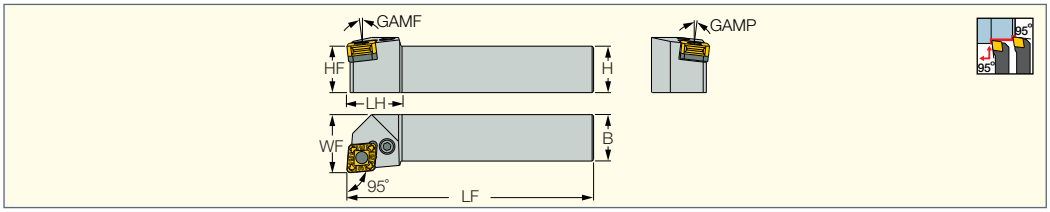
Spare Parts

Designation					
DCBNR/L	RCT 443	SR 14-506	LCGR-4	SR 10400270-25.5	T-15/5

DOVE IQ TURN HEAVY DUTY LINE

PCLOR/L-IQ

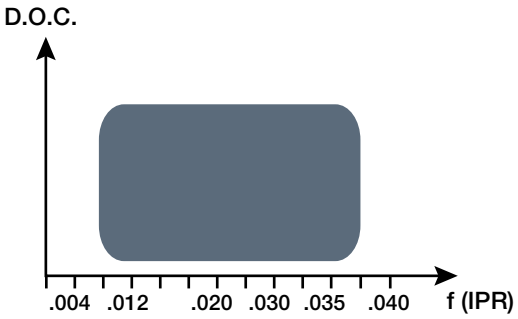
Lever Lock and Dovetail Pocket Rigid Clamping Toolholders for Unique Double-Sided 80° Rhombic Inserts



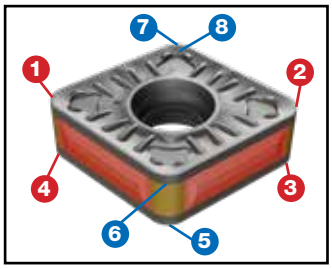
Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
PCLOR/L 20-5-IQ	1.250	1.250	1.250	6.000	1.300	1.600	-6	-6	COMG 54
PCLOR/L 20-6-IQ	1.250	1.250	1.250	6.000	1.500	1.600	-6	-6	COMG 64
PCLOR/L 24-6-IQ	1.500	1.500	1.500	7.000	1.500	2.000	-6	-6	COMG 64
PCLOR/L 24-8-IQ	1.500	1.500	1.500	7.000	2.000	2.000	-6	-6	COMG 86
PCLOR/L 32-8-IQ	2.000	2.000	2.000	8.000	2.000	2.400	-6	-6	COMG 86

For inserts, see pages: COMG-R3P-IQ (116) • COMM-R3P-IQ (117)

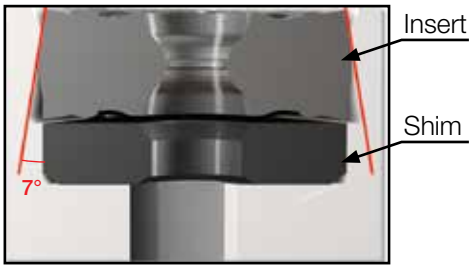
New Dovetail ☐OMG-R3P-IQ Inserts



4 Cutting Edges for 80° and 4 Cutting Edges for 100°



DOVETAIL Clamping



Spare Parts

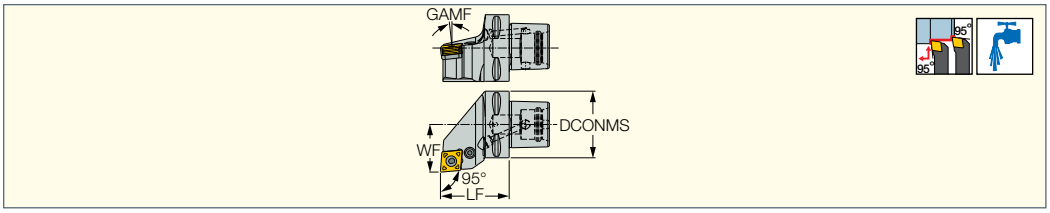
Designation					
PCLOR/L 20-5-IQ	TCX 5-IQ	SP 5	SR LCS 5	LCL 16-NX	HW 3.0
PCLOR/L 20-6-IQ	TCX 6-IQ	SP 5	SR 10402352	LCL 20C-NX	HW 4.0
PCLOR/L 24-6-IQ	TCX 6-IQ	SP 5	SR 10402352	LCL 20C-NX	HW 4.0
PCLOR/L 24-8-IQ	TCX 8-IQ	SP 8	SR LCS 8-L39	LCL 32-NX	HW 5.0
PCLOR/L 32-8-IQ	TCX 8-IQ	SP 8	SR LCS 8-L39	LCL 32-NX	HW 5.0

DOVE IQ TURN HEAVY DUTY LINE

CAMFIX

C#-PCLOR/L-IQ

Lever Lock and Dovetail Pocket Tools with CAMFIX Shanks Carrying the Unique Double-Sided 80° Rhombic Inserts



Designation	DCONMS	WF	LF	GAMP	GAMF	Insert
C6 PCLOR/L-45065-16-IQ	2.480	1.772	2.559	-6	-6	COMG 54..
C6 PCLOR/L-45065-19-IQ	2.480	1.772	2.559	-6	-6	COMG 64..
C8 PCLOR/L-55080-19-IQ	3.150	2.165	3.150	-6	-6	COMG 64..
C8 PCLOR/L-55080-25-IQ	3.150	2.165	3.150	-6	-6	COMG 86..

For inserts, see pages: COMG-R3P-IQ (116) • COMM-R3P-IQ (117)

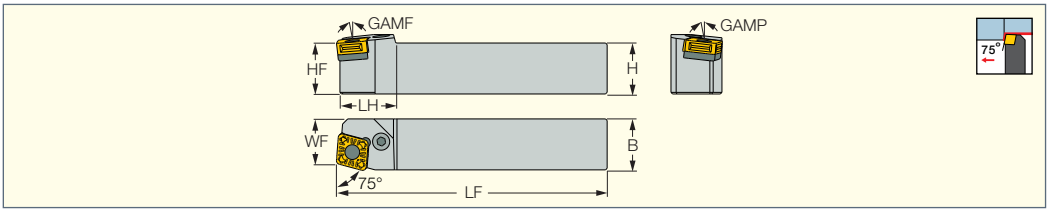
Spare Parts

Designation							
C6 PCLOR/L-45065-16-IQ	TCX 5-IQ	LCL 16-NX	SP 5	SATZ-M10X1-M5	HW 3.0	SR LCS 5-L25.5	SPP 5-6
C6 PCLOR/L-45065-19-IQ	TCX 6-IQ	LCL 20C-NX	SP 5	SATZ-M10X1-M5	HW 4.0	SR 10402352	
C8 PCLOR/L-55080-19-IQ	TCX 6-IQ	LCL 20C-NX	SP 5	SATZ-M10X1-M5	HW 4.0	SR 10402352	SPP 5-6
C8 PCLOR/L-55080-25-IQ	TCX 8-IQ	LCL 32-NX	SP 8	SATZ-M12X1-M6	HW 5.0	SR LCS 8-L39	

DOVEIQTURN HEAVY DUTY LINE

PCBOR/L-IQ

Lever Lock and Dovetail Pocket Rigid Clamping Tools Carrying the Unique Double-Sided 80° Rhombic Inserts



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
PCBOR/L 20-5-IQ	1.250	1.250	1.250	6.000	1.250	1.060	-6	-6	COMG 54
PCBOR/L 20-6-IQ	1.250	1.250	1.250	6.000	1.500	1.100	-6	-6	COMG 64
PCBOR/L 24-6-IQ	1.500	1.500	1.500	7.000	1.500	1.400	-6	-6	COMG 64
PCBOR 24-8-IQ	1.500	1.500	1.500	7.000	2.000	1.300	-6	-6	COMG 86
PCBOR 32-8-IQ	2.000	2.000	2.000	8.000	2.000	1.800	-6	-6	COMG 86

For inserts, see pages: COMG-R3P-IQ (116) • COMM-R3P-IQ (117)

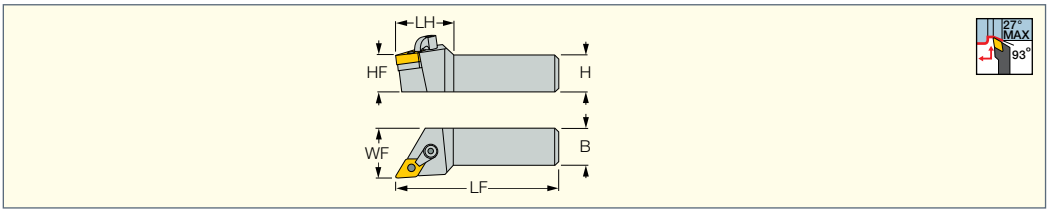
Spare Parts

Designation					
PCBOR/L 20-5-IQ	TCX 5-IQ	SP 5	SR LCS 5	LCL 16-NX	HW 3.0
PCBOR/L 20-6-IQ	TCX 6-IQ	SP 5	SR 10402352	LCL 20C-NX	HW 4.0
PCBOR/L 24-6-IQ	TCX 6-IQ	SP 5	SR 10402352	LCL 20C-NX	HW 4.0
PCBOR 24-8-IQ	TCX 8-IQ	SP 8	SR LCS 8-L39	LCL 32-NX	HW 5.0
PCBOR 32-8-IQ	TCX 8-IQ	SP 8	SR LCS 8-L39	LCL 32-NX	HW 5.0

ISOTURN

MDJNR/L

Comlock 93° Lead Angle Holders for Negative 55° Inserts



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
MDJNR/L 10-3	.625	.625	.625	4.000	1.190	.750	-6	-7	DN.. 3
MDJNR/L 12-3	.750	.750	.750	4.500	1.190	1.000	-6	-7	DN.. 3
MDJNR/L 16-3	1.000	1.000	1.000	6.000	1.190	1.250	-6	-7	DN.. 3
MDJNR 12-4	.750	.750	.750	4.500	1.670	1.000	-6	-7	DN.. 4
MDJNR/L 16-4	1.000	1.000	1.000	6.000	1.430	1.250	-6	-6	DN.. 4

For inserts, see pages: DNMG-CERMET (127) • DNMG-F3S (127) • DNMG-F3P (125) • DNMG-M3P (125) • DNMX-M3P (132) • DNMM-R3P (131) • DNMG-F3M (126) • DNMG-M3M (126) • DNMG/DNGG-TF (130) • DNMG-GN (130) • DNMG-NR (130) • DNMG/DNGG-PP (129) • DNMG-VL (129) • DNMG-PF (129) • DNMG/DNGG-SF (128) • DNMG-NF (128) • DNMM-NM (131) • DNMG-WG (128) • DNMA (131) • DNGA-Ceramic (188) • DNGA-2 (CBN) (199) • DNGA-4 (CBN) (199) • DNGG-M4HF/M4HM (CBN) (199) • DNMA (CBN) (198)

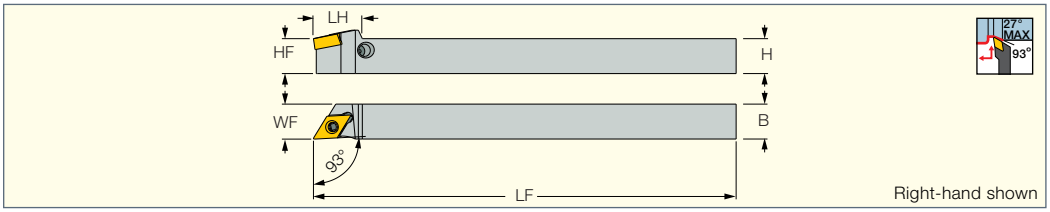
Spare Parts

Designation						
MDJNR/L 10-3	IDSN 322	NL 34-L	HW 5/64"	CL 5	XNS 35 COM	HW 3/32"
MDJNR/L 12-3	IDSN 322	NL 34-L	HW 5/64"	CL 5	XNS 35 COM	HW 3/32"
MDJNR/L 16-3	IDSN 322	NL 34-L	HW 5/64"	CL 5	XNS 35 COM	HW 3/32"
MDJNR 12-4	IDSN 433	NL-46	HW 1/8"	CL 6		HW 3/32"
MDJNR/L 16-4	IDSN 433	NL-46	HW 1/8"	CL 6		HW 3/32"

ISOTURN

PDJNR/L-S

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



Designation	H	HF	B	LF	LH	WF	Insert				
PDJNR/L 1010X-07S	.394	.394	.394	4.724	.551	.394	DNGP 07	SR 10400611	HW 2.0/5	SL LV-2	SL-PI-2
PDJNR/L 1212F-07S	.472	.472	.472	3.150	.551	.472	DNGP 07	SR 10400611	HW 2.0/5	SL LV-2	SL-PI-2
PDJNR/L 1212X-07S	.472	.472	.472	4.724	.551	.472	DNGP 07	SR 10400611	HW 2.0/5	SL LV-2	SL-PI-2
PDJNR/L 1616X-07S	.630	.630	.630	4.724	.710	.630	DNGP 07	SR 10400611	HW 2.0/5	SL LV-2	SL-PI-2

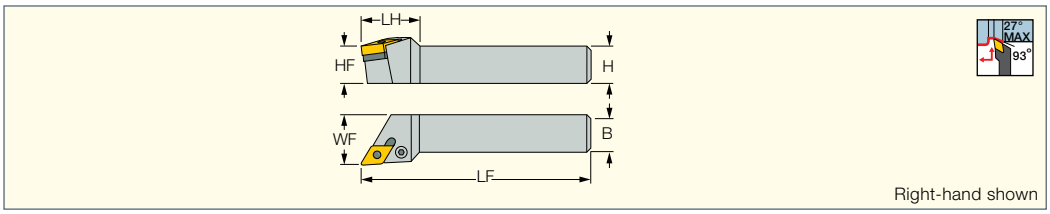
• Use a left-hand insert on a right-hand tool and vice versa.

For inserts, see pages: DNGP-F2M (126) • DNGP-F2P (125)

ISOTURN

PDJNR/L

Lever Lock Tools Carrying the 55° Negative Rhombic Inserts



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF
PDJNR 12-4	.750	.750	.750	4.500	1.400	1.000	-6	-6
PDJNR/L 16-4	1.000	1.000	1.000	6.000	1.400	1.250	-6	-6
PDJNR/L 20-4	1.250	1.250	1.250	6.000	1.500	1.500	-6	-6

• For DN.. 44. inserts use TDN 422 seat (ordered separately)

For inserts, see pages: DNMG-CERMET (127) • DNMG-F3S (127) • DNMG-F3P (125) • DNMG-M3P (125) • DNMX-M3P (132) • DNMM-R3P (131) • DNMG-F3M (126) • DNMG-M3M (126) • DNMG/DNGG-TF (130) • DNMG-GN (130) • DNMG-NR (130) • DNMG/DNGG-PP (129) • DNMG-VL (129) • DNMG-PF (129) • DNMG/DNGG-SF (128) • DNMG-NF (128) • DNMM-NM (131) • DNMG-WG (128) • DNMS-12 (184) • DNMA (131) • DNGA-Ceramic (188) • DNGA-2 (CBN) (199) • DNGA-4 (CBN) (199) • DNGG-M4HF/M4HM (CBN) (199) • DNMA (CBN) (198)

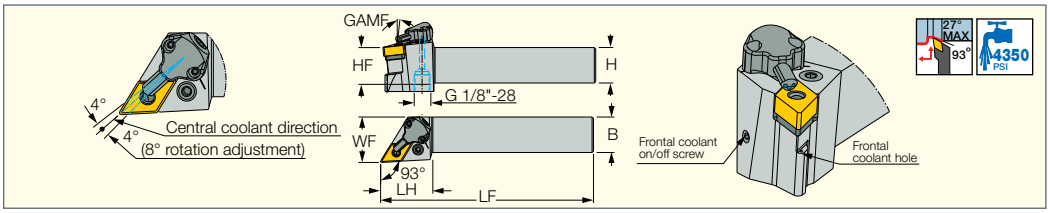
Spare Parts

Designation						
PDJNR/L	TDN 432	SP 4	PN 3-4	LR 4D	SR 117-2010	HW 3.0

ISOTURN JETCUT

PDJNR/L-4-JHP

Lever Lock Tools with Channels for High Pressure Coolant Carrying the 55° Negative Rhombic Inserts



Designation	B	H	HF	LF	LH	WF	GAMP	GAMF	Insert
PDJNR/L 16-4-JHP	1.000	1.000	1.000	6.000	1.450	1.250	-6	-6	DNMG 44
PDJNR/L 20-4-JHP	1.250	1.250	1.250	6.000	1.450	1.500	-6	-6	DNMG 44

• For DN.. 44. inserts use TDN 422 seat (ordered separately) • For user guide, see pages 60-68

For inserts, see pages: DNMG-CERMET (127) • DNMG-F3S (127) • DNMG-F3P (125) • DNMG-M3P (125) • DNMX-M3P (132) • DNMM-R3P (131) • DNMG-F3M (126) • DNMG-M3M (126) • DNMG/DNGG-TF (130) • DNMG-GN (130) • DNMG-NR (130) • DNMG/DNGG-PP (129) • DNMG-VL (129) • DNMG-PF (129) • DNMG/DNGG-SF (128) • DNMG-NF (128) • DNMM-NM (131) • DNMG-WG (128) • DNMS-12 (184) • DNMA (131) • DNGA-Ceramic (188) • DNGA-2 (CBN) (199) • DNGA-4 (CBN) (199) • DNGG-M4HF/M4HM (CBN) (199) • DNMA (CBN) (198)

Spare Parts

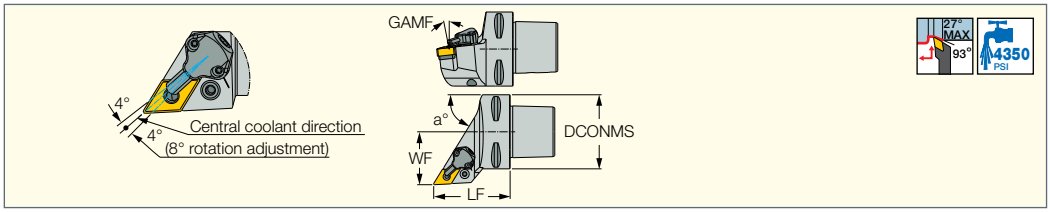
Designation									
PDJNL 16-4-JHP	TDN 422	HW 2.5	LR 4D	HW 3.0	SR 117-2010	T-8/5	CU-D-JHP	SP 4	PN 3-4
PDJNR 16-4-JHP	TDN 432	HW 2.0	LR 4D	HW 3.0	SR 117-2010	T-8/5	CU-D-JHP	SP 4	PN 3-4
PDJNR/L 20-4-JHP	TDN 432	HW 2.0	LR 4D	HW 3.0	SR 117-2010	T-8/5	CU-D-JHP	SP 4	PN 3-4

ISOTURN JETCUT

CAMFIX

C#-PDJNR/L-JHP

Lever Lock Tools with CAMFIX Exchangeable Shanks and Channels for High Pressure Coolant Carrying Negative 55° Insert



Designation	DCONMS	WF	LF	GAMP	GAMF	ECA	Insert
C3 PDJNR-22045-11-JHP	1.260	.866	1.772	-6	-6	58	DN.. 11..
C4 PDJNR/L 27050-11-JHP	1.575	1.063	2.165	-6	-6	58	DN.. 11..
C5 PDJNR/L 35060-11-JHP	1.968	1.378	2.362	-6	-6	58	DN.. 11..
C4 PDJNR/L 27055-15-JHP	1.575	1.063	2.165	-6	-6	58	DN.. 15..
C5 PDJNR/L 35060-15-JHP	1.968	1.378	2.362	-6	-6	58	DN.. 15..
C6 PDJNR/L 45065-15-JHP	2.480	1.772	2.559	-6	-6	58	DN.. 15..

• For user guide, see pages 60-68

For inserts, see pages: DNMG-F3S (127) • DNMG-F3P (125) • DNMG-M3P (125) • DNMX-M3P (132) • DNMM-R3P (131) • DNMG-F3M (126) • DNMG-M3M (126) • DNMG/DNGG-TF (130) • DNMG-GN (130) • DNMG-NR (130) • DNMG/DNGG-PP (129) • DNMG-VL (129) • DNMG-PF (129) • DNMG/DNGG-SF (128) • DNMG-NF (128) • DNMM-NM (131) • DNMG-WG (128) • DNMS-12 (184) • DNMA (131) • DNGA-Ceramic (188) • DNGA-2 (CBN) (199) • DNGA-4 (CBN) (199) • DNGG-M4HF/M4HM (CBN) (199) • DNMA (CBN) (198) • DNMG-CERMET (127)

Spare Parts

Designation									
C3 PDJNR-22045-11-JHP	TDN 322		LR 3D	SR 117-2014	SP 3	PN 3-4	CU-D-JHP	T-8/5	HW 2.5/5
C4 PDJNR/L 27050-11-JHP	TDN 322		LR 3D	SR 117-2014	SP 3	PN 3-4	CU-D-JHP	T-8/5	HW 2.5/5
C5 PDJNR/L 35060-11-JHP	TDN 322		LR 3D	SR 117-2014	SP 3	PN 3-4	CU-D-JHP	T-8/5	HW 2.5/5
C4 PDJNR/L 27055-15-JHP	TDN 422	TDN 432[(a)]*	LR 4D	SR 117-2010	SP 4	PN 3-4	CU-D-JHP	T-8/5	HW 3.0
C5 PDJNR/L 35060-15-JHP	TDN 422	TDN 432[(a)]*	LR 4D	SR 117-2010	SP 4	PN 3-4	CU-D-JHP	T-8/5	HW 3.0
C6 PDJNR/L 45065-15-JHP	TDN 422	TDN 432[(a)]*	LR 4D	SR 117-2010	SP 4	PN 3-4	CU-D-JHP	T-8/5	HW 3.0

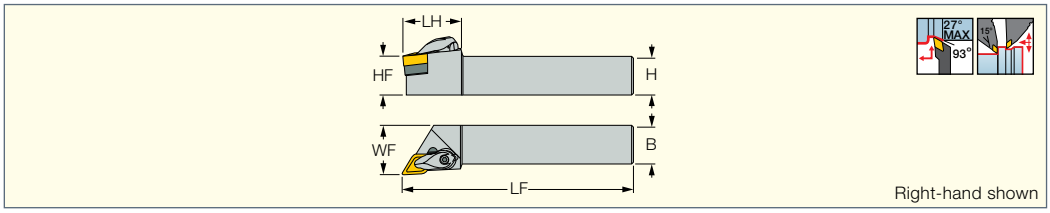
* Optional, should be ordered separately

[(a)] Use for DNMG 1504.. inserts

ISOTURN

DDJNR/L

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



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
DDJNR/L 10-3A	.625	.625	.625	4.000	1.180	.750	-7	-6	DNMG 33.
DDJNR/L 12-3B	.750	.750	.750	4.500	1.180	1.000	-7	-6	DNMG 33.
DDJNR/L 16-3D	1.000	1.000	1.000	6.000	1.180	1.250	-7	-6	DNMG 33.
DDJNR/L 12-4	.750	.750	.750	4.500	1.540	1.000	-6	-6	DNMG 4..
DDJNR/L 16-4	1.000	1.000	1.000	6.000	1.540	1.250	-6	-6	DNMG 4..

• For DNMG 44... inserts use RDT 433 seat (ordered separately)

For inserts, see pages: DNMG-F3S (127) • DNMG-F3P (125) • DNMG-M3P (125) • DNMX-M3P (132) • DNMM-R3P (131) • DNMG-CERMET (127) • DNMG-F3M (126) • DNMG-M3M (126) • DNMG/DNGG-TF (130) • DNMG-GN (130) • DNMG-NR (130) • DNMG/DNGG-PP (129) • DNMG-VL (129) • DNMG-PF (129) • DNMG/DNGG-SF (128) • DNMG-NF (128) • DNMM-NM (131) • DNMG-WG (128) • DNMA (131) • DNGA-Ceramic (188) • DNGA-2 (CBN) (199) • DNGA-4 (CBN) (199) • DNGG-M4HF/M4HM (CBN) (199) • DNMA (CBN) (198)

Spare Parts

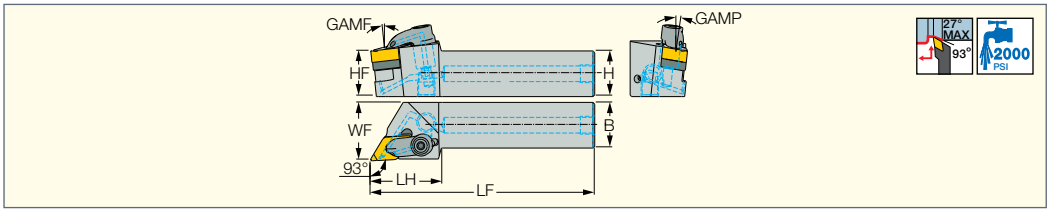
Designation							
DDJNR/L 10-3A	RDT 3-2	SR 40085I	LCGR-3	SR RC3	HW 2.5	KSP 3	
DDJNR/L 12-3B	RDT 3-2	SR 40085I	LCGR-3	SR RC3	HW 2.5	KSP 3	
DDJNR/L 16-3D	RDT 3-2	SR 40085I	LCGR-3	SR RC3	HW 2.5	KSP 3	
DDJNR/L 12-4	RDT 443	SR 14-506	LCGR-4	SR 10400270-25.5			T-15/5
DDJNR/L 16-4	RDT 443	SR 14-506	LCGR-4	SR 10400270-25.5			T-15/5

ISOTURN

JETRTURN RIGID CLAMP

DDJNR/L-JHP-MC

Rigid Clamp Tools with Channels for High Pressure Coolant Carrying the 55° Rhombic Inserts



Designation	B	H	HF	LF	LH	WF	GAMP	GAMF	Insert
DDJNR/L 12-4-JHP-MC	.750	.750	.750	4.500	1.575	1.000	6.0	6.0	DNMG/X 43
DDJNR/L 16-4-JHP-MC	1.000	1.000	1.000	6.000	1.575	1.250	6.0	6.0	DNMG/X 43

• Use RDT 433 seat for DNMX inserts

For inserts, see pages: DNGA-2 (CBN) (199) • DNGA-4 (CBN) (199) • DNGA-Ceramic (188) • DNGG-M4HF/M4HM (CBN) (199) • DNMA (131) • DNMA (CBN) (198) • DNMG-CERMET (127) • DNMG-F3M (126) • DNMG-F3P (125) • DNMG-F3S (127) • DNMG-GN (130) • DNMG-M3M (126) • DNMG-M3P (125) • DNMG-NF (128) • DNMG-NR (130) • DNMG-PF (129) • DNMG-VL (129) • DNMG-WG (128) • DNMG/DNGG-PP (129) • DNMG/DNGG-SF (128) • DNMG/DNGG-TF (130) • DNMM-NM (131) • DNMM-R3P (131) • DNMX-M3P (132)

Spare Parts

Designation								
DDJNL 12-4-JHP-MC	RDT 443	RDT 433*	LCGL-4JC SET[a]	SR 14-506	T-20/3	PLUG G1/8-6.5 TL360	SR M4X4 DIN913 TL360	OR 4X3 NBR70
DDJNR 12-4-JHP-MC	RDT 443	RDT 433*	LCGR-4JC SET[a]	SR 14-506	T-20/3	PLUG G1/8-6.5 TL360	SR M4X4 DIN913 TL360	OR 4X3 NBR70
DDJNL 16-4-JHP-MC	RDT 443	RDT 433*	LCGL-4JC SET[a]	SR 14-506	T-20/3	PLUG G1/8-6.5 TL360	SR M4X4 DIN913 TL360	OR 4X3 NBR70
DDJNR 16-4-JHP-MC	RDT 443	RDT 433*	LCGR-4JC SET[a]	SR 14-506	T-20/3	PLUG G1/8-6.5 TL360	SR M4X4 DIN913 TL360	OR 4X3 NBR70

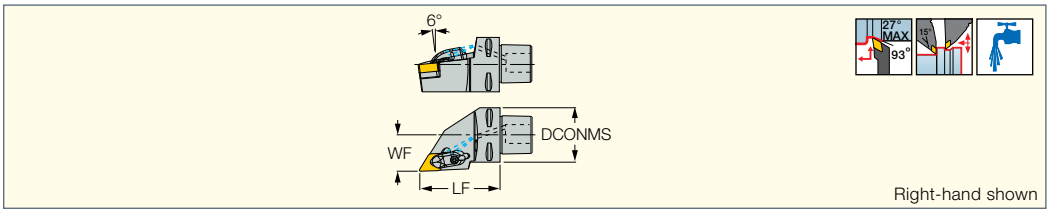
* Optional, should be ordered separately

[a] Recommended tightening torque 4Nm for R-Clamp Screw

ISOTURN CAMFIX

C#-DDJNR/L

Tools with CAMFIX Exchangeable Tapered Shanks Carrying the Negative 55° Rhombic Inserts



Designation	DCONMS	WF	LF	Insert	GAMF							
C4 DDJNR/L-27060-15	1.575	1.063	2.362	DN..4..	6.0	RDT 433	RDT 443*	T-15/5	LCGR-4	SR 10400270-25.5	SR 14-506	EZ 62
C5 DDJNR/L-35060-15	1.968	1.378	2.362	DN..4..	6.0	RDT 433		T-15/5	LCGR-4	SR 10400270-25.5	SR 14-506	EZ 83
C6 DDJNR/L-45065-15	2.480	1.772	2.559	DN..4..	6.0	RDT 433	RDT 443*	T-15/5	LCGR-4	SR 10400270-25.5	SR 14-506	EZ 104

• Use RDT 443 seat for DN.. 43. inserts

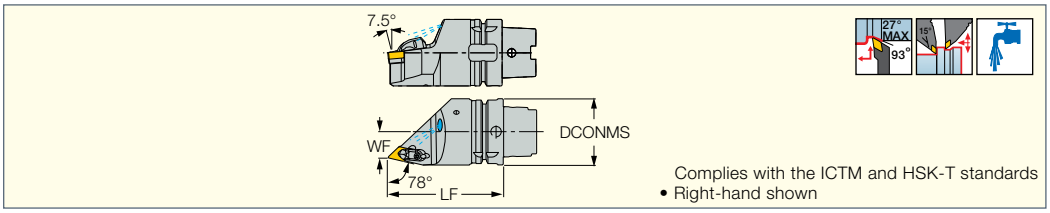
* Optional, should be ordered separately

For inserts, see pages: DNMG-F3S (127) • DNMG-F3P (125) • DNMG-M3P (125) • DNMX-M3P (132) • DNMM-R3P (131) • DNMG-F3M (126) • DNMG-M3M (126) • DNMG/DNGG-TF (130) • DNMG-GN (130) • DNMG-NR (130) • DNMG/DNGG-PP (129) • DNMG-VL (129) • DNMG-PF (129) • DNMG/DNGG-SF (128) • DNMG-NF (128) • DNMM-NM (131) • DNMG-WG (128) • DNMA (131) • DNGA-Ceramic (188) • DNGA-2 (CBN) (199) • DNGA-4 (CBN) (199) • DNGG-M4HF/M4HM (CBN) (199) • DNMA (CBN) (198) • DNMG-CERMET (127)

R-CLAMP HSK

HSK A63WH-DDJNR/L

R-Clamp Turning Tools with HSK Taper Shank Carrying Negative DNMG Inserts for 15° Mounting on Turn-Mill Machines



Designation	DCONMS	LF	WF	Insert	GAMF							
HSK A63WH DDJNR/L J15 [1]	2.480	4.331	.984	DN.. 15	7.5	RDT 433	RDT 443*	SR 14-506	LCGR-4	SR 10400270-25.5	T-15/5	EZ 104

• Complies with ICTM standard (ISO 12164-3). • A cooling tube must be used with all coolant through HSK spindles (should be ordered separately).

• For shank dimensions, see page 710

[1] RDT 443 for DN__ 43.. insert.

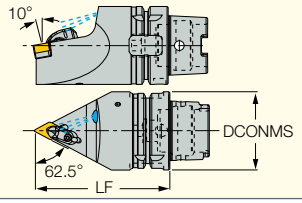
* Optional, should be ordered separately

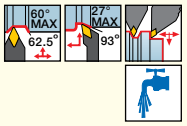
For inserts, see pages: DNMG-CERMET (127) • DNMG-F3S (127) • DNMG-F3P (125) • DNMG-M3P (125) • DNMX-M3P (132) • DNMM-R3P (131) • DNMG-F3M (126) • DNMG-M3M (126) • DNMG/DNGG-TF (130) • DNMG-GN (130) • DNMG-NR (130) • DNMG/DNGG-PP (129) • DNMG-VL (129) • DNMG-PF (129) • DNMG/DNGG-SF (128) • DNMG-NF (128) • DNMM-NM (131) • DNMA (131) • DNGA-Ceramic (188) • DNGA-2 (CBN) (199) • DNGA-4 (CBN) (199) • DNGG-M4HF/M4HM (CBN) (199) • DNMA (CBN) (198)

R-CLAMP HSK

HSK A63WH-DDNNN

R-Clamp Turning Tools with HSK Taper Shank Carrying the Negative DNMG Inserts





Complies with ICTM standard (ISO 12164-3)

Designation	LF	Insert	DCONMS	GAMF							
HSK A63WH DDNNN J15 (1)	4.331	DN.. 15	2.480	10.0	RDT 433	RDT 443*	SR 14-506	LCGR-4	SR 10400270-25.5(a)	T-15/5	EZ 104

• A cooling tube must be used with all coolant through HSK spindles (should be ordered separately). • For shank dimensions, see page 710

(1) RDT 443 for DN__ 43.. insert.

* Optional, should be ordered separately

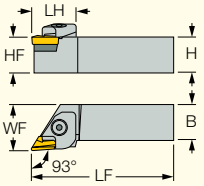
(a) **Recommended tightening torque:**3 N*m

For inserts, see pages: DNMG-CERMET (127) • DNMG-F3S (127) • DNMG-F3P (125) • DNMG-M3P (125) • DNMX-M3P (132) • DNMM-R3P (131) • DNMG-F3M (126) • DNMG-M3M (126) • DNMG/DNGG-TF (130) • DNMG-GN (130) • DNMG-NR (130) • DNMG/DNGG-PP (129) • DNMG-VL (129) • DNMG-PF (129) • DNMG/DNGG-SF (128) • DNMG-NF (128) • DNMM-NM (131) • DNMG-WG (128) • DNMA (131) • DNGA-Ceramic (188) • DNGA-2 (CBN) (199) • DNGA-4 (CBN) (199) • DNGG-M4HF/M4HM (CBN) (199) • DNMA (CBN) (198)

ISOTURN

CKJNR

Top Clamp Toolholders with 93° Lead Angle for Negative, 55° Parallelogram Inserts





Right-hand shown

Designation	H	HF	B	LF	LH	WF	GAMP	GAMF
CKJNR 16-3	1.000	1.000	1.000	6.000	1.310	1.250	-6	0

For inserts, see pages: KNMX (132) • KNUX (132)

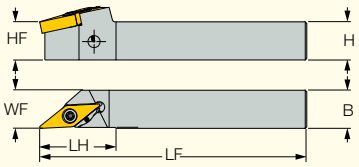
Spare Parts

Designation								
CKJNR 16-3	CSK 1604 R	SR M3X0.5X10DIN7991 10.9	KSP 90	KSP 48	KSP 48S	CL 16KR	CLS 16K	HW 4.0

ISOTURN

SVANR/L-FS

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





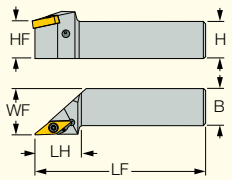
Designation	H	B	LF	LH	WF	GAMP	GAMF				
SVANR/L 08-2.5FS	.500	.500	5.000	1.000	.500	-6	-12	AV 12	PA 12	SR 14-551	T-9/5
SVANR/L 10-2.5FS	.625	.625	5.000	1.000	.630	-6	-12	AV 12	PA 12	SR 14-551	T-9/5

For inserts, see pages: VNMG-F3M (133) • VNMG-F3S (134) • VNMG-FNF-CERMET (134) • VNMG-SF (134) • VNMG/VNGG-NF (135) • VNMM-PP (135)

ISOTURN

SVJNR/L-F

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





Right-hand shown

Designation	H	HF	B	LF	LH	WF	GAMP	GAMF				
SVJNR/L 10-2.5F	.625	.625	.625	4.000	1.000	.800	-6	-12	SR 14-551	T-9/5	AV 12	PA 12
SVJNR/L 12-2.5F	.750	.750	.750	5.000	1.000	1.000	-6	-12	SR 14-551	T-9/5	AV 12	PA 12
SVJNR/L 16-2.5F	1.000	1.000	1.000	6.000	1.190	1.250	-6	-12	SR 14-551	T-9/5	AV 12	PA 12

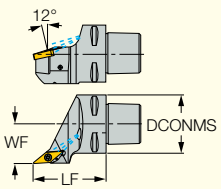
• Repeatability: For VNMG IS ±.0024", for VNGG IS ±.0008"

For inserts, see pages: VNMG-F3M (133) • VNMG-F3S (134) • VNMG-FNF-CERMET (134) • VNMG-SF (134) • VNMG/VNGG-NF (135) • VNMM-PP (135)

ISOTURN CAMFIX

C#-SVJNR/L-F

Screw Lock Tools with CAMFIX Exchangeable Shanks Carrying the 35° Negative Rhombic Inserts





Right-hand shown

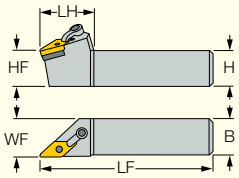
Designation	DCONMS	WF	LF	Insert	GAMF	AV 12	PA 12	SR 14-551	T-9/5	EZ 83
C4 SVJNR/L-27050-12F	1.575	1.063	1.968	VN.. 12T3	12.0					

For inserts, see pages: VNMG-F3M (133) • VNMG-F3S (134) • VNMG-FNF-CERMET (134) • VNMG-SF (134) • VNMG/VNGG-NF (135) • VNMM-PP (135)

ISOTURN

MVJNR/L

Comlock Tools Carrying the 35° Negative Rhombic Inserts





Right-hand shown

Designation	H	HF	B	LF	LH	WF	GAMP	GAMF
MVJNR/L 12-3	.750	.750	.750	6.000	1.690	1.000	-5.5	-10.5
MVJNR 16-3	1.000	1.000	1.000	6.000	1.690	1.250	-5.5	-10.5

For inserts, see pages: VNMG-F3M (133) • VNMG-F3P (133) • VNMG-M3M (133) • VNMG-TF (135) • YNMG-F3P (136) • VNMG/VNGG-NF (135) • VNMS-12 (184) • VNGA-Ceramic (189) • VNGA-2 (CBN) (201) • VNGA-4 (CBN) (201) • VNGG-M4HM (CBN) (201)

Spare Parts

Designation								
MVJNL 12-3	IVSN 322			NL 34-L	CL 30-INJ	XNS 510	HW 5/32"	HW 5/64"
MVJNR 12-3	IVSN 322	IVSN 323[a]*	IYSN 322[b]*	NL 34-L	CL 30-INJ	XNS 510	HW 5/32"	HW 5/64"
MVJNR 16-3	IVSN 322	IVSN 323[a]*	IYSN 322[b]*	NL 34-L	CL 30-INJ	XNS 510	HW 5/32"	HW 5/64"

* Optional, should be ordered separately

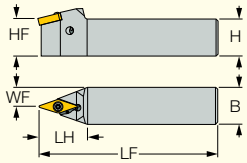
[a] Use for VNMG 333 inserts

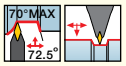
[b] Use for YNMG inserts

ISOTURN

SVVNN-F

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



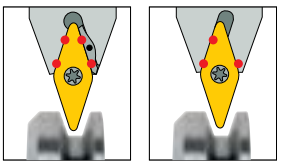


Designation	H	HF	B	LF	LH	WF	GAMP	GAMF				
SVVNN 10-2.5F	.625	.625	.625	4.000	1.030	.310	0	-14	SR 14-551	T-9/5	PA 12	AV 12
SVVNN 12-2.5F	.750	.750	.750	5.000	1.030	.380	0	-14	SR 14-551	T-9/5	PA 12	AV 12
SVVNN 16-2.5F	1.000	1.000	1.000	6.000	1.030	.500	0	-14	SR 14-551	T-9/5	PA 12	AV 12

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

For inserts, see pages: VNMG-F3M (133) • VNMG-F3S (134) • VNMG-FNF-CERMET (134) • VNMG-SF (134) • VNMG/VNGG-NF (135) • VNMM-PP (135)

4 contact points ensure secure and precise clamping

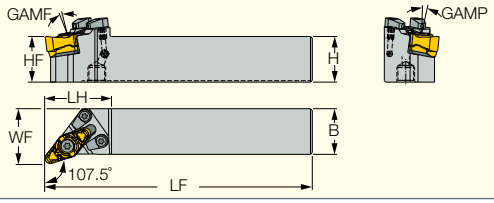


Conventional Clamping

ISOTURN JETCUT

SVHNR/L-JHP

Screw Lock Tools with Channels for High Pressure Coolant Carrying 35° Rhombic Inserts



Designation	H	B	HF	LF	LH	WF	GAMP	GAMF	Insert
SVHNR/L 16-4-AL-JHP	1.000	1.000	1.000	5.761	1.431	1.182	7.0	6.0	VNGU 22..

For inserts, see pages: VNGU-R3N (180)

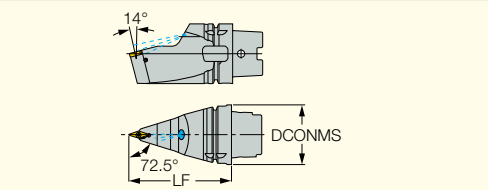
Spare Parts

Designation							
SVHNR/L-JHP	TVX 2230	SR TC-4	SW6-T-SH	BLD T20/S7	SR 14-591/L-SN	HW 3.0	CH-1.9D-JHP-A SET

ISOTURN HSK

HSK A63WH-SVVNN-F

72.5° Lead Angle Tools with HSK Exchangeable Tapered Shanks Carrying the 35° Negative Inserts



Designation	DCONMS	LF	Insert	GAMF					
HSK A63WH-SVVNN-J12F	2.480	4.331	VNM. 12T3	14.0	SR 14-551	T-9/5	AV 12	PA 12	EZ 104

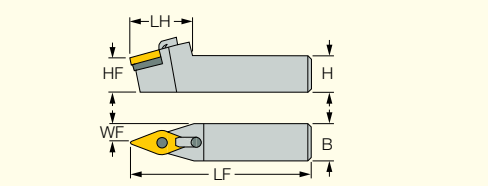
• Complies with ICTM standard (ISO 12164-3) • A cooling tube must be used with all coolant through HSK spindles (should be ordered separately)
• For shank dimensions, see page 710

For inserts, see pages: VNMG-F3M (133) • VNMG-F3S (134) • VNMG-FNF-CERMET (134) • VNMG-SF (134) • VNMG/VNGG-NF (135) • VNMM-PP (135)

ISOTURN

MVVNN

Pin and Clamp Tools Carrying the 35° Negative Rhombic Inserts



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
MVVNN 12-3	.750	.750	.750	5.000	1.890	.380	-4.5	-14	VNMG 33..
MVVNN 16-3	1.000	1.000	1.000	6.000	1.890	.500	-4.5	-14	VNMG 33..

For inserts, see pages: VNMG-F3M (133) • VNMG-F3P (133) • VNMG-M3M (133) • VNMG-TF (135) • YNMG-F3P (136) • VNMG/VNGG-NF (135) • VNMS-12 (184) • VNGA-Ceramic (189) • VNGA-2 (CBN) (201) • VNGA-4 (CBN) (201) • VNGG-M4HM (CBN) (201)

Spare Parts

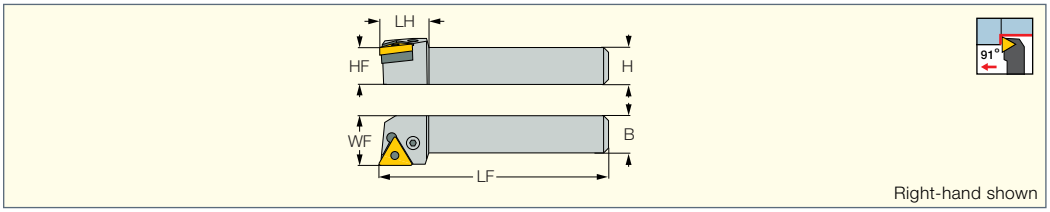
Designation						
MVVNN	IVSN 322	NL 34-L	CL 30-INJ	XNS 510	HW 5/32"	HW 5/64"

* Optional, should be ordered separately
[a] Use for VNMG 160412 inserts
[b] Use for YNMG inserts

HELITURN LD

PTGNR/L-X

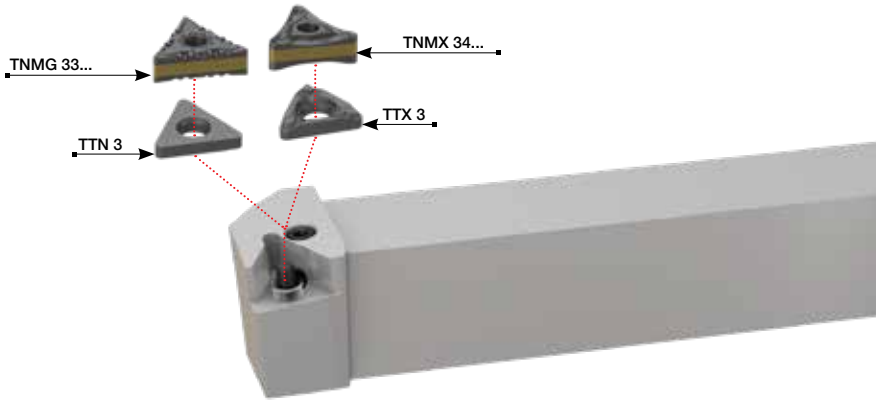
91° Lead Angle Lever Lock External Turning Tools Carrying the Negative Triangular Inserts



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
PTGNR/L 12-3X	.750	.750	.750	4.500	.780	1.000	-6	-6	TNMX 34.. TNMG 33..
PTGNR/L 16-3X	1.000	1.000	1.000	6.000	.780	1.250	-6	-6	TNMX 34.. TNMG 33..

• Use TTX 3 seat for TNMX 34. inserts and TTN 3 seat for TNMG33. inserts

For inserts, see pages: TNMG-F3S (138) • TNMG-FFG-CERMET (138) • TNMG-F3P (136) • TNMG-M3P (136) • TNMX-M3/4PW (137) • TNMG-F3M (137) • TNMG-M3M (137) • TNMX-M3/4MW (138) • TNMG-TF (139) • TNMG-GN (141) • TNMG/TNGG-PP (140) • TNMG-VL (140) • TNMG-PF (139) • TNMG-SF (139) • TNMG-NF (140) • TNMS-12 (183) • TNMA (141) • TNGA-Ceramic (190) • TNGA-M3 (CBN) (204) • TNGA-MC/M6 (CBN) (203) • TNMA (CBN) (203)



Spare Parts

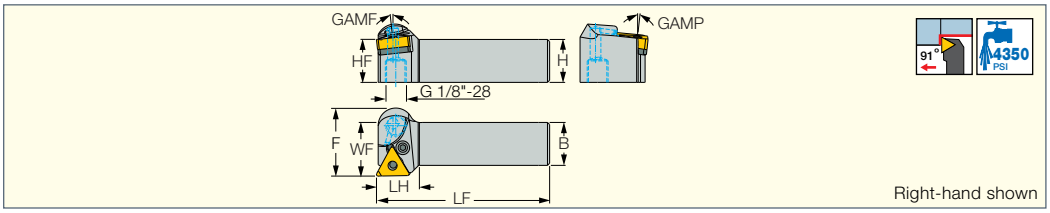
Designation							
PTGNR/L-X	TTX 3	TTN 3	SP 3	LR 3	SR 117-2014	HW 2.5	PN 3-4

HELITURN LD

JETCUT

PTGNR/L-X-JHP

91° Lead Lever Lock Tools with Channels for High Pressure Coolant Carrying the Negative Triangular Inserts



Designation	H	HF	B	LF	LH	WF	F1	GAMP	GAMF	Insert
PTGNR/L 12-3X-JHP	.750	.750	.750	4.500	.790	1.000	1.30	-6	-6	TNMX 34., TNMG 33.
PTGNR/L 16-3X-JHP	1.000	1.000	1.000	6.000	.790	1.300	-	-6	-6	TNMX 34., TNMG 33.

• Supplied with TTX 3 seat for TNMX 34. inserts and TTN 3 seat for TNMG 33. inserts • For user guide, see pages 60-68

For inserts, see pages: TNMG-F3S (138) • TNMG-FFG-CERMET (138) • TNMG-F3P (136) • TNMG-M3P (136) • TNMX-M3/4PW (137) • TNMG-F3M (137) • TNMG-M3M (137) • TNMX-M3/4MW (138) • TNMG-TF (139) • TNMG-GN (141) • TNMG/TNGG-PP (140) • TNMG-VL (140) • TNMG-PF (139) • TNMG-SF (139) • TNMG-NF (140) • TNMS-12 (183) • TNMA (141) • TNGA-Ceramic (190) • TNGA-M3 (CBN) (204) • TNGA-MC/M6 (CBN) (203) • TNMA (CBN) (203)

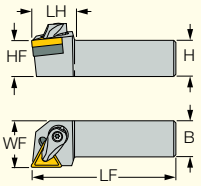
Spare Parts

Designation							
PTGNR/L-X-JHP	TTX 3	TTN 3	SP 3	LR 3	SR 117-2014	HW 2.5	PN 3-4

ISOTURN

DTGNR/L

91° Lead Angle R-Clamp External Turning Tools Carrying the Negative Triangular Inserts





Right-hand shown

Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
DTGNR 12-3B	.750	.750	.750	4.500	.980	1.000	-6	-6	TN.. 3..
DTGNR 16-3D	1.000	1.000	1.000	6.000	1.000	1.250	-6	-6	TN.. 3..
DTGNL 16-4	1.000	1.000	1.000	6.000	1.250	1.250	-6	-6	TN.. 4..

For inserts, see pages: TNMG-F3S (138) • TNMG-FFG-CERMET (138) • TNMG-F3P (136) • TNMG-M3P (136) • TNMG-F3M (137) • TNMG-M3M (137) • TNMG-TF (139) • TNMG-GN (141) • TNMM-NR (141) • TNMG/TNGG-PP (140) • TNMG-VL (140) • TNMG-PF (139) • TNMG-SF (139) • TNMG-NF (140) • TNMA (141) • TNGA-Ceramic (190) • TNGA-M3 (CBN) (204) • TNGA-MC/M6 (CBN) (203) • TNMA (CBN) (203)

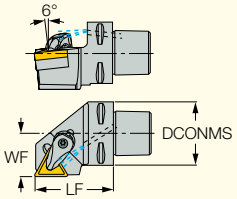
Spare Parts

Designation							
DTGNR 12-3B	RTT 322	SR 35080I	LCGR-3	SR RC3	KSP 3	HW 2.5	
DTGNR 16-3D	RTT 322	SR 35080I	LCGR-3	SR RC3	KSP 3	HW 2.5	
DTGNL 16-4	RTT 443	SR 14-506	LCGR-4	SR 10400270-25.5			T-15/5

ISOTURN CAMFIX

C#-DTGNR/L

91° Lead R-Clamp External Turning Tools with CAMFIX Exchangeable Shanks Carrying the Negative Triangular Inserts





Right-hand shown

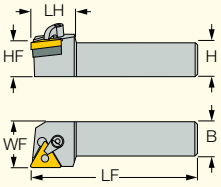
Designation	DCONMS	WF	LF	Insert						
C6 DTGNR/L-45065-22	2.480	1.772	2.559	TN.. 22	RTT 443	SR 14-506	LCGR-4	SR 10400270-25.5	T-15/5	EZ 104

For inserts, see pages: TNMG-F3S (138) • TNMG-F3P (136) • TNMG-M3P (136) • TNMG-F3M (137) • TNMG-M3M (137) • TNMG-TF (139) • TNMG-GN (141) • TNMM-NR (141) • TNMG/TNGG-PP (140) • TNMA (141) • TNGA-Ceramic (190)

ISOTURN

MTGNR

Comlock 90° Lead Angle Holders for Negative Triangular Inserts





Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
MTGNR 12-3	.750	.750	.750	4.500	.940	1.000	-6	-6	TN..3..
MTGNR 16-4	1.000	1.000	1.000	6.000	1.190	1.250	-6	-6	TN..4..

For inserts, see pages: TNMG-F3S (138) • TNMG-FFG-CERMET (138) • TNMG-F3P (136) • TNMG-M3P (136) • TNMG-F3M (137) • TNMG-M3M (137) • TNMG-TF (139) • TNMG-GN (141) • TNMM-NR (141) • TNMG/TNGG-PP (140) • TNMG-VL (140) • TNMG-PF (139) • TNMG-SF (139) • TNMG-NF (140) • TNMA (141) • TNGA-Ceramic (190) • TNGA-M3 (CBN) (204) • TNGA-MC/M6 (CBN) (203) • TNMA (CBN) (203)

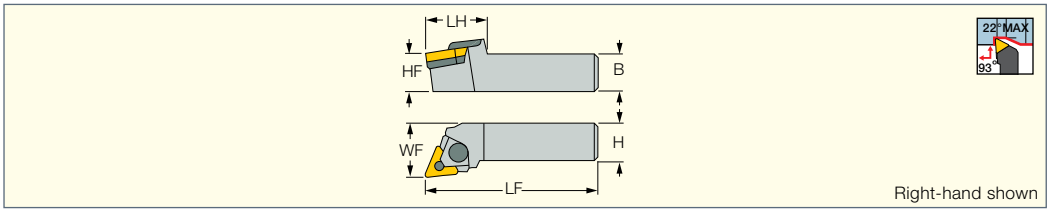
Spare Parts

Designation						
MTGNR 12-3		NL 34-L		CL 6		
MTGNR 16-4	ITSN 434	NL-46	HW 3/32"	CL 9	XNS 510	HW 4.0

ISOTURN

MTJNR/L-W

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



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
MTJNR/L 10-3W-M	.625	.625	.625	4.000	1.250	.750	-6	-6	TNMG 33..
MTJNR/L 12-3W-M	.750	.750	.750	4.500	1.250	1.000	-6	-6	TNMG 33..
MTJNR/L 16-3W-M	1.000	1.000	1.000	6.000	1.250	1.250	-6	-6	TNMG 33..
MTJNR/L 16-4W	1.000	1.000	1.000	6.000	1.500	1.250	-6	-6	TNMG 43..

For inserts, see pages: TNMG-F3S (138) • TNMG-F3P (136) • TNMG-M3P (136) • TNMG-F3M (137) • TNMG-M3M (137) • TNMG-TF (139) • TNMG-GN (141) • TNMM-NR (141) • TNMG/TNGG-PP (140) • TNMG-VL (140) • TNMG-PF (139) • TNMG-SF (139) • TNMG-NF (140) • TNMA (141) • TNGA-Ceramic (190) • TNGA-M3 (CBN) (204) • TNGA-MC/M6 (CBN) (203) • TNMA (CBN) (203) • TNMG-FFG-CERMET (138)

Spare Parts

Designation								
MTJNR/L 10-3W-M	TTT 322N	TTT 332N[(a)]*	ZNW 3WN	HW 3.0	LC 291N CLAMP	SR 17-317N		E RING N
MTJNR/L 12-3W-M	TTT 322N	TTT 332N[(a)]*	ZNW 3WN	HW 3.0	LC 291N CLAMP	SR 17-317N		E RING N
MTJNR/L 16-3W-M	TTT 322N	TTT 332N[(a)]*	ZNW 3WN	HW 3.0	LC 291N CLAMP	SR 17-317N		E RING N
MTJNR/L 16-4W	TTT 434		ZNW 4	HW 2.5	LC 281 SET 1A	SR 17-295	HW 1/8"	

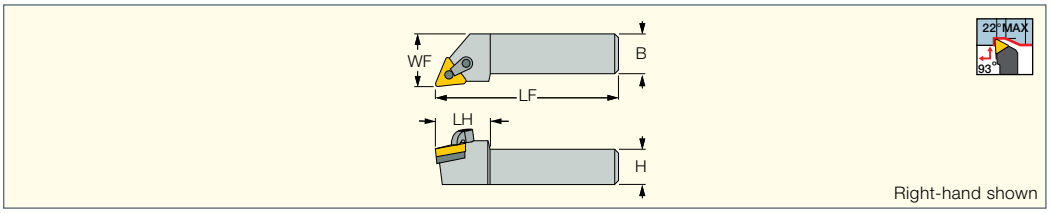
* Optional, should be ordered separately

[(a)] Use for inserts TNMG 32. .125" thick

ISOTURN

MTJNR/L

93° Lead Angle, Comlock Turning Tools for Negative Triangular Inserts



Designation	H	B	LF	LH	WF	GAMP	GAMF	Insert
MTJNR 12-3	.750	.750	4.500	1.000	1.000	-5	-5	TN..3..
MTJNR/L 16-4	1.000	1.000	6.000	1.260	1.250	-5	5	TN..4..

For inserts, see pages: TNMG-F3S (138) • TNMG-FFG-CERMET (138) • TNMG-F3P (136) • TNMG-M3P (136) • TNMG-F3M (137) • TNMG-M3M (137) • TNMG-TF (139) • TNMG-GN (141) • TNMM-NR (141) • TNMG/TNGG-PP (140) • TNMG-VL (140) • TNMG-PF (139) • TNMG-SF (139) • TNMG-NF (140) • TNMA (141) • TNGA-Ceramic (190) • TNGA-M3 (CBN) (204) • TNGA-MC/M6 (CBN) (203) • TNMA (CBN) (203)

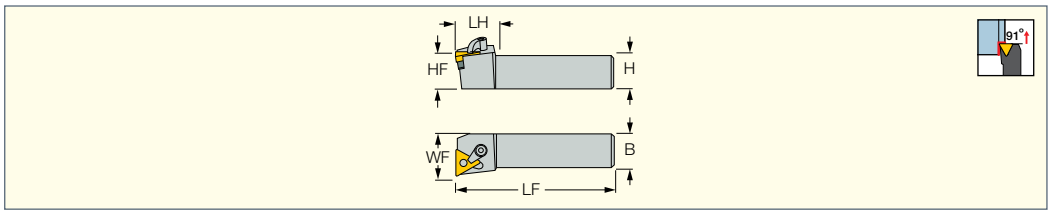
Spare Parts

Designation						
MTJNR 12-3		NL 34-L	HW 3/32"	CL 6		HW 5/64"
MTJNR/L 16-4	ITSN 434	NL-46	HW 3/32"	CL 9	XNS 510	HW 4.0

ISOTURN

MTFNR/L

Comlock Holders for Facing with Negative Triangular Inserts



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
MTFNR 12-3	.750	.750	.750	4.500	.880	1.000	-6	-6	TN..3..
MTFNL 16-4	1.000	1.000	1.000	6.000	1.220	1.250	-6	-6	TN..4..

For inserts, see pages: TNMG-F3S (138) • TNMG-FFG-CERMET (138) • TNMG-F3P (136) • TNMG-M3P (136) • TNMG-F3M (137) • TNMG-M3M (137) • TNMG-TF (139) • TNMG-GN (141) • TNMM-NR (141) • TNMG/TNGG-PP (140) • TNMG-VL (140) • TNMG-PF (139) • TNMG-SF (139) • TNMG-NF (140) • TNMA (141) • TNGA-Ceramic (190) • TNGA-M3 (CBN) (204) • TNGA-MC/M6 (CBN) (203) • TNMA (CBN) (203)

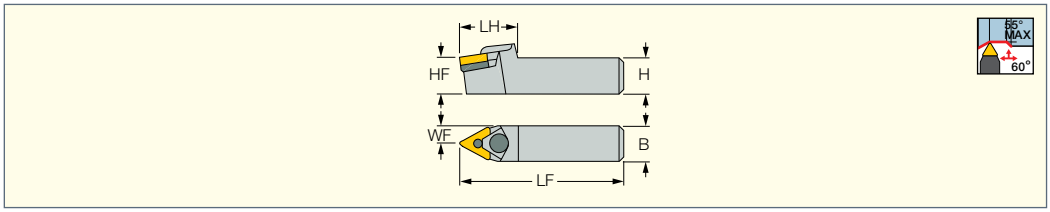
Spare Parts

Designation						
MTFNR 12-3		NL 34-L	HW 3/32"	CL 6		HW 5/64"
MTFNL 16-4	ITSN 434	NL-46	HW 3/32"	CL 9	XNS 510	HW 4.0

ISOTURN

MTENN-W

Neutral Wedge Lock Turning Tools Carrying the Negative Triangular Inserts



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF
MTENN 12-3W-M	.750	.750	.750	4.500	1.370	.380	0	-8
MTENN 16-3W-M	1.000	1.000	1.000	6.000	1.370	.500	0	-8

For inserts, see pages: TNMG-F3S (138) • TNMG-FFG-CERMET (138) • TNMG-F3P (136) • TNMG-M3P (136) • TNMG-F3M (137) • TNMG-M3M (137) • TNMG-TF (139) • TNMG-GN (141) • TNMG/TNGG-PP (140) • TNMG-VL (140) • TNMG-PF (139) • TNMG-SF (139) • TNMG-NF (140) • TNMA (141) • TNGA-Ceramic (190) • TNGA-M3 (CBN) (204) • TNGA-MC/M6 (CBN) (203) • TNMA (CBN) (203)

Spare Parts

Designation							
MTENN-W	TTT 322N	TTT 332N[(a)]*	ZNW 3WN	HW 3.0	LC 291N CLAMP	E RING N	SR 17-317N

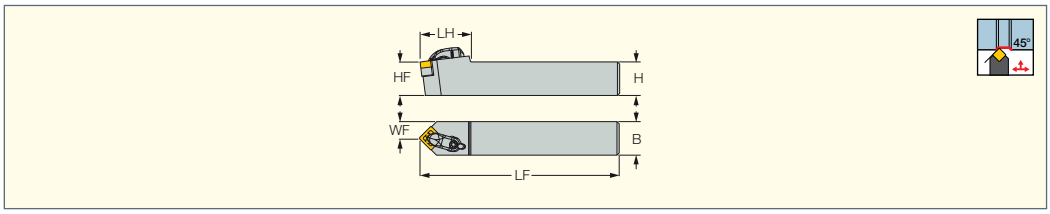
* Optional, should be ordered separately

[(a)] Use for inserts TNMG 32. .125" thick

ISOTURN

DSDNN

45° Lead Angle R-Clamp External Turning Tools Carrying the ISO Negative SNMG Inserts



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
DSDNN 16-5	1.000	1.000	1.000	6.000	1.650	.500	0	-8.5	SN..54.

For inserts, see pages: SNMG-M3P (142) • SNMM-R3P (148) • SNMG-M3M (144) • SNMG-GN (146) • SNMG-NR (147)

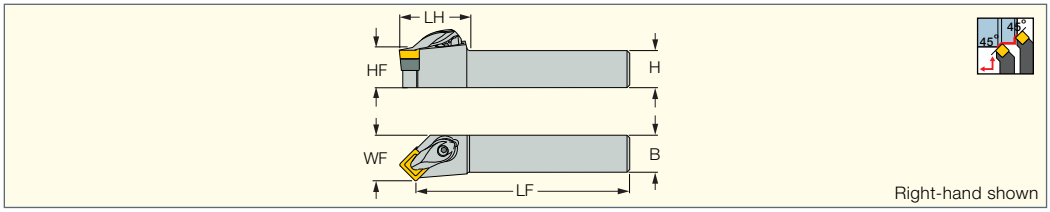
Spare Parts

Designation						
DSDNN	RST 54	SR 10402265	LCGR-5	SR 10402267	KSP 5	HW 4.0

ISOTURN

DSSNR/L

45° Lead Angle R-Clamp Tools Carrying the Negative Square Inserts for Longitudinal and Facing Applications



Designation	H	HF	B	OAL	LH	WF	GAMP	GAMF	Insert
DSSNR/L 16-4 [(1)]	1.000	1.000	1.000	-	1.140	1.250	-5.5	-5.5	SN.. 43
DSSNR 20-6	1.250	1.500	1.250	-	1.770	1.500	-5.5	-5.5	SN.. 64

[(1)] Using SNMG.....-EM-M/R inserts requires the use of RST 443R/L SET(ordered separately)

For inserts, see pages: SNMG-F3S (144) • SNMG-R3M (144) • SNMG-F3P (142) • SNMG-M3P (142) • SNMM-R3P (148) • SNMG-F3M (143) • SNMG-M3M (144) • SNMG-TF (145) • SNMG-GN (146) • SNMG-NR (147) • SNMM-NR (148) • SNMG-PP (145) • SNMG-VL (145) • SNMG-EM-M/R (146) • SNMM-NM (148) • SNMA (147) • SNGA-Ceramic (188) • SNMA (CBN) (205)

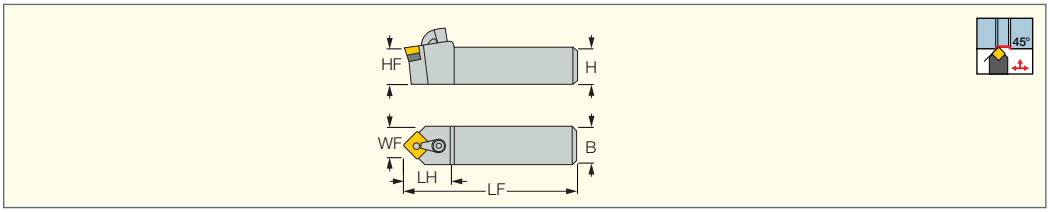
Spare Parts

Designation								
DSSNR/L 16-4	RST 443	SR 14-506	LCGR-4	SR 10400270-25.5				T-15/5
DSSNR 20-6	RST 634	SR 10402266	LCGR-6		SR 10402267	KSP 5	HW 4.0	

ISOTURN

MSDNN

Comlock 45° Lead Angle Holders for Negative Square Inserts



Designation	H	h_1	B	LF	LH	WF	GAMP	GAMF
MSDNN 16-4	1.000	1.000	1.000	6.000	1.370	.500	0	-7.5

For inserts, see pages: SNMG-F3S (144) • SNMG-F3P (142) • SNMG-M3P (142) • SNMM-R3P (148) • SNMG-F3M (143) • SNMG-M3M (144) • SNMG-TF (145) • SNMG-GN (146) • SNMG-NR (147) • SNMG-PP (145) • SNMG-VL (145) • SNMA (147) • SNGA-Ceramic (188) • SNMA (CBN) (205)

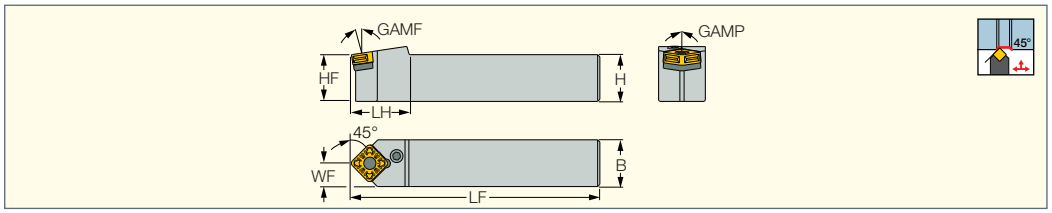
Spare Parts

Designation						
MSDNN 16-4	ISSN 433	NL-46	HW 3/32"	CL 9	XNS 59 SCREW COM	HW 5/32"

DOVE IQ TURN HEAVY DUTY LINE

PSDON-IQ

Lever Lock and Dovetail Pocket Rigid Clamping Tools Carrying the Unique Double-Sided Square Inserts



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
PSDON 20-5-IQ	1.250	1.250	1.250	6.000	1.400	.650	0	-8.5	SOMG 54
PSDON 20-6-IQ	1.250	1.250	1.250	6.000	1.560	.660	0	-8.5	SOMG 64
PSDON 24-6-IQ	1.500	1.500	1.500	7.000	1.560	.790	0	-8.5	SOMG 64
PSDON 24-8-IQ	1.500	1.500	1.500	7.000	2.050	.790	0	-8.5	SOMG 86
PSDON 32-8-IQ	2.000	2.000	2.000	8.000	2.050	1.040	0	-8.5	SOMG 86

For inserts, see pages: SOMG-R3P-IQ (143)

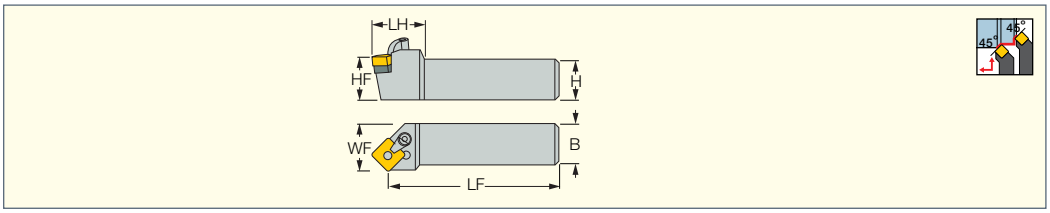
Spare Parts

Designation					
PSDON 20-5-IQ	TSX 5-IQ	SP 5	SR LCS 5	LCL 16-NX	HW 3.0
PSDON 20-6-IQ	TSX 6-IQ	SP 5	SR 10402352	LCL 20C-NX	HW 4.0
PSDON 24-6-IQ	TSX 6-IQ	SP 5	SR 10402352	LCL 20C-NX	HW 4.0
PSDON 24-8-IQ	TSX 8-IQ	SP 8	SR LCS 8-L39	LCL 32-NX	HW 5.0
PSDON 32-8-IQ	TSX 8-IQ	SP 8	SR 10402264	LCL 32-NX	HW 5.0

ISOTURN

MSSNR

Comlock Holders for Negative Square Inserts, 45° Face and Longitudinal Lead Angles



Designation	H	h_1	B	LF	LH	WF	GAMP	GAMF
MSSNR 16-4	1.000	1.000	1.000	-	1.230	.910	0	-8

For inserts, see pages: SNMG-F3S (144) • SNMG-F3P (142) • SNMG-M3P (142) • SNMM-R3P (148) • SNMG-F3M (143) • SNMG-M3M (144) • SNMG-TF (145) • SNMG-GN (146) • SNMG-NR (147) • SNMG-PP (145) • SNMG-VL (145) • SNMA (147) • SNGA-Ceramic (188) • SNMA (CBN) (205)

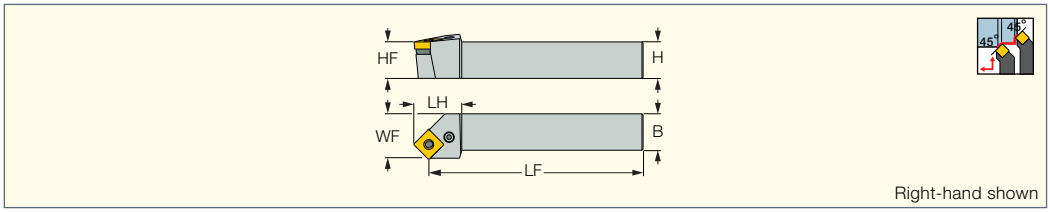
Spare Parts

Designation						
MSSNR 16-4	ISSN 433	NL-46	HW 3/32"	CL 9	XNS 59 SCREW COM	HW 5/32"

ISOTURN

PSSNR/L

45° Lead Angle Lever Lock Tools Carrying the Negative Square Inserts for Longitudinal and Facing Applications



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
PSSNR/L 12-3	.750	.750	.750	4.500	1.000	1.000	-5.5	-5.5	SNMG 33
PSSNR/L 16-3	1.000	1.000	1.000	6.000	1.000	1.250	-5.5	-5.5	SNMG 33

For inserts, see pages: SNMG-F3S (144) • SNMG-F3P (142) • SNMG-M3P (142) • SNMG-F3M (143) • SNMG-M3M (144) • SNMG-TF (145)

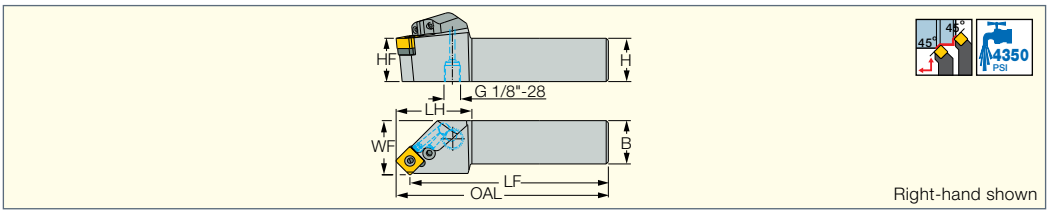
Spare Parts

Designation							
PSSNR/L	TSN 333	TSN 323	SP 3	LR 3	SR 117-2014	HW 2.5	PN 3-3L

ISOTURN JETCUT

PSSNR/L-JHP

Lever Lock 45° Longitudinal and Facing Tools for Negative Square Inserts with Channels for High Pressure Coolant



Designation	H	B	LF	LH	WF	GAMP	GAMF	OAL	Insert
PSSNR/L 12-3-JHP	.750	.750	4.500	1.378	1.000	-5.5	-5.5	4.791	SNMG 3..

• For user guide, see pages 60-68

For inserts, see pages: SNMG-F3S (144) • SNMG-F3M (143) • SNMG-F3P (142) • SNMG-M3M (144) • SNMG-M3P (142) • SNMG-TF (145)

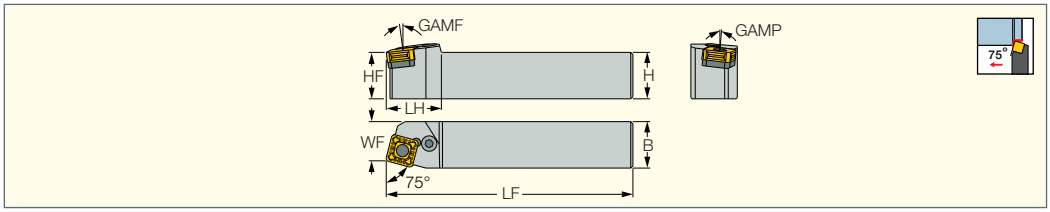
Spare Parts

Designation							
PSSNR/L 12-3-JHP	TSN 323	TSN 333	SP 3	PN 3-3L	LR 3	SR 117-2014	HW 2.5

DOVEIQTURN HEAVY DUTY LINE

PSBOR/L-IQ

Lever Lock and Dovetail Pocket Rigid Clamping Tools Carrying the Unique SOMG Double-Sided Square Inserts



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
PSBOR/L 20-5-IQ	1.250	1.250	1.250	6.000	1.400	1.060	-4.7	-7.5	SOMG 54
PSBOR/L 20-6-IQ	1.250	1.250	1.250	6.000	1.500	1.060	-4.7	-7.5	SOMG 64
PSBOR/L 24-6-IQ	1.500	1.500	1.500	7.000	1.500	1.300	-4.7	-7.5	SOMG 64
PSBOR/L 24-8-IQ	1.500	1.500	1.500	7.000	2.000	1.300	-4.7	-7.5	SOMG 86
PSBOR/L 32-8-IQ	2.000	2.000	2.000	8.000	2.000	1.800	-4.7	-7.5	SOMG 86

For inserts, see pages: SOMG-R3P-IQ (143)

Spare Parts

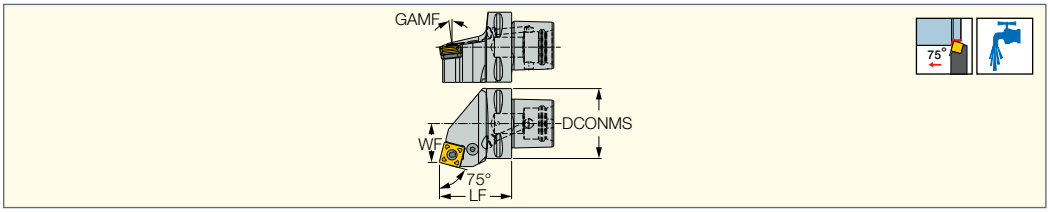
Designation					
PSBOR/L 20-5-IQ	TSX 5-IQ	SP 5	SR LCS 5	LCL 16-NX	HW 3.0
PSBOR/L 20-6-IQ	TSX 6-IQ	SP 5	SR 10402352	LCL 20C-NX	HW 4.0
PSBOR/L 24-6-IQ	TSX 6-IQ	SP 5	SR 10402352	LCL 20C-NX	HW 4.0
PSBOR/L 24-8-IQ	TSX 8-IQ	SP 8	SR LCS 8-L39	LCL 32-NX	HW 5.0
PSBOR/L 32-8-IQ	TSX 8-IQ	SP 8	SR LCS 8-L39	LCL 32-NX	HW 5.0

DOVE IQ TURN HEAVY DUTY LINE

CAMFIX

C#-PSROR/L-IQ

Lever Lock and Dovetail Pocket Tools with CAMFIX Shanks Carrying the Unique SOMG Double-Sided Square Inserts



Designation	DCONMS	WF	LF	GAMP	GAMF	Insert
C6 PSROR/L-35065-15-IQ	2.480	1.378	2.559	-4.74	-7.46	SOMG 54..
C6 PSROR/L-35065-19-IQ	2.480	1.378	2.559	-4.74	-7.46	SOMG 64..
C8 PSROR/L-45080-19-IQ	3.150	2.165	3.150	-4.74	-7.46	SOMG 64..
C8 PSROR/L-45085-25-IQ	3.150	2.165	3.150	-4.74	-7.46	SOMG 86..

For inserts, see pages: SOMG-R3P-IQ (143)

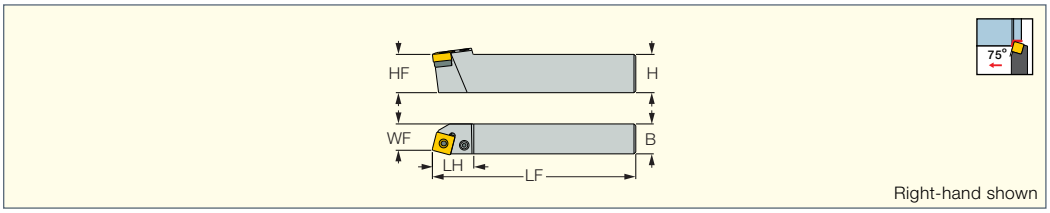
Spare Parts

Designation							
C6 PSROR/L-35065-15-IQ	TSX 5-IQ	LCL 16-NX	SP 5	SATZ-M10X1-M5	HW 3.0	SR LCS 5-L25.5	
C6 PSROR/L-35065-19-IQ	TSX 6-IQ	LCL 20C-NX	SP 5	SATZ-M10X1-M5	HW 4.0	SR 10402352	
C8 PSROR/L-45080-19-IQ	TSX 6-IQ	LCL 20C-NX	SP 5	SATZ-M10X1-M5	HW 4.0	SR 10402352	SPP 5-6
C8 PSROR/L-45085-25-IQ	TSX 8-IQ	LCL 32-NX	SP 8	SATZ-M12X1-M6	HW 5.0	SR LCS 8-L39	

ISOTURN

PSBNR/L

Lever Lock 75° Lead Angle Turning Tools Carrying the ISO Negative Square Inserts



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
PSBNR/L 12-3	.750	.750	.750	4.500	.787	.630	-6	-6	SNMG 33
PSBNR/L 16-3	1.000	1.000	1.000	6.000	.787	.880	-6	-6	SNMG 33

For inserts, see pages: SNMG-F3S (144) • SNMG-F3P (142) • SNMG-M3P (142) • SNMG-F3M (143) • SNMG-M3M (144) • SNMG-TF (145)

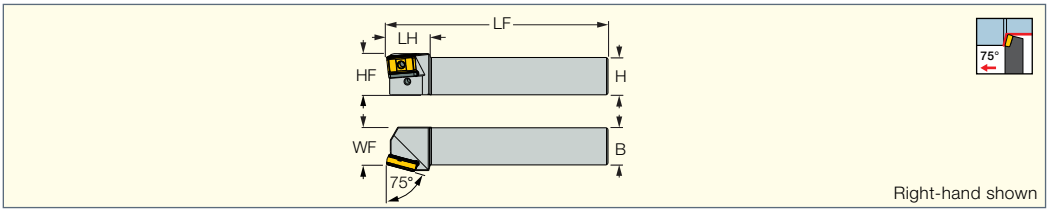
Spare Parts

Designation							
PSBNR/L	TSN 333	TSN 323	SP 3	PN 3-3L	LR 3	SR 117-2014	HW 2.5

HEAVY SUPER TURN

PLBOR/L

Lever Lock Tools Carrying the LOMX Tangentially Clamped Super Heavy Turning Inserts

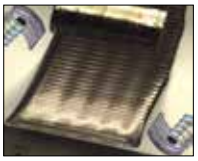


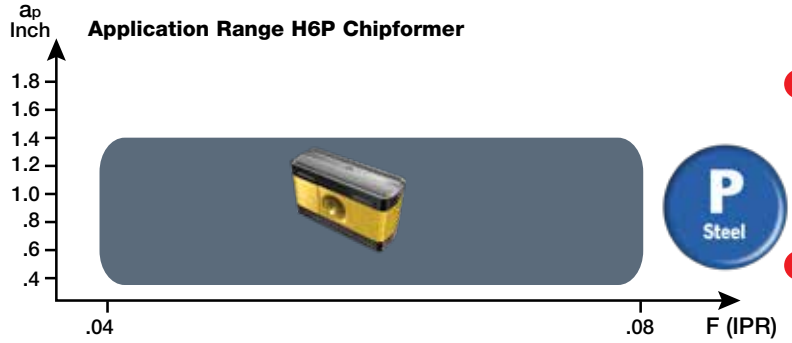
Designation	H	HF	B	LF	LH	WF	GAMP	GAMF
PLBOR/L 32-40	2.000	2.000	2.000	12.000	2.360	1.970	-6	-6
PLBOR/L 40-40	2.500	2.500	2.500	16.000	2.360	2.470	-6	-6

For inserts, see pages: LOMX-H6P (149)

ISCAR's tangential LOMX 402224-H6P insert for very heavy turning applications

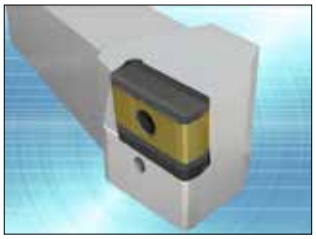
This tangentially clamped insert with 4 cutting edges is made from the tough grade IC8250. It can machine at up to 1.4" depth of cut and up to .08 IPR feed. The insert is clamped on a very rigid lever lock pocket equipped with a protective seat.



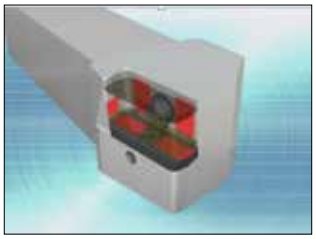




Tangentially Clamped Insert



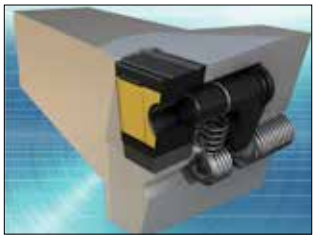
Clamping Surfaces



Protective Seat



Lever Lock Accessible from Both Tool Sides



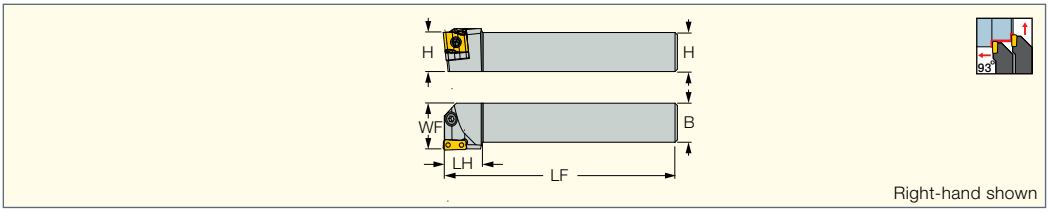
Spare Parts

Designation							
PLBOR/L	TLN 40	SR 10402265	LR 8	SR 10643960	SP D7.5XL23	HW 6.0	T-20/5

HELITURN TANGENTIAL LINE

PLANR/L-TANG

Lever Lock Tools Carrying the LNMX.. Tangentially Clamped Inserts



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF
PLANR 16-15 TANG	1.000	1.000	1.000	6.000	1.000	1.180	-6	-6
PLANR/L 20-15 TANG	1.250	1.250	1.250	6.000	1.250	1.450	-6	-6

For inserts, see pages: LNMX-HM (150) • LNMX-HT (149) • LNMX-WG (150)

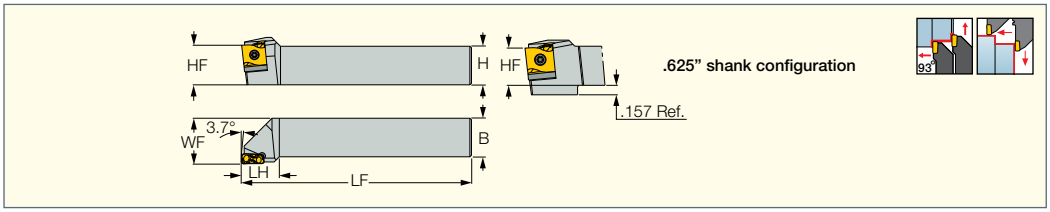
Spare Parts

Designation						
PLANR 16-15 TANG	TLN 15R-HT	SR RS4	T-6/5	LR T15	SR TL-15	HW 3.5
PLANL 20-15 TANG	TLN 15L-HT	SR RS4	T-6/5	LR T15	SR TL-15	HW 3.5
PLANR 20-15 TANG	TLN 15R-HT	SR RS4	T-6/5	LR T15	SR TL-15	HW 3.5

HELITURN TANGENTIAL LINE

SLANR/L-TANG

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



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
SLANR/L 10-11 TANG	.625	.625	.625	4.000	.790	.750	-6	-6	LNMX 11
SLANR 12-11 TANG	.750	.750	.750	4.500	1.000	1.000	-6	-6	LNMX 11
SLANR/L 16-11 TANG	1.000	1.000	1.000	6.000	1.000	1.250	-6	-6	LNMX 11
SLANR 12-15 TANG	.750	.750	.750	4.500	1.000	1.000	-6	-6	LNMX 15
SLANR/L 16-15 TANG	1.000	1.000	1.000	6.000	.980	1.180	-6	-6	LNMX 15
SLANR/L 20-15 TANG	1.250	1.250	1.250	6.000	1.370	1.460	-6	-6	LNMX 15
SLANR/L 24-15 TANG	1.500	1.500	1.500	7.000	1.380	1.700	-6	-6	LNMX 15
SLANR/L 20-22 TANG	1.250	1.250	1.250	6.000	1.380	1.500	-6	-6	LNMX 22
SLANR/L 24-22 TANG	1.500	1.500	1.500	7.000	1.500	1.780	-6	-6	LNMX 22
SLANR/L 32-22 TANG	2.000	2.000	2.000	8.000	1.600	2.280	-6	-6	LNMX 22

• ap max for facing: LNMX 11-.110", LNMX 15-.150", LNMX 22-.228"

For inserts, see pages: LNMX-HM (150) • LNMX-HT (149) • LNMX-WG (150)

The **HELITURN** system features a unique, double-sided insert with 4 cutting edges for **F**ast **M**etal **R**emoval **(FMR)** turning.
The **HELITURN** is a tangentially clamped insert with a unique helical shaped cutting edge, useful for large depths of cut and higher than normal feed rate.

The **LNMX...-HT HELITURN** insert is 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 allow machining to a 90° shoulder.
Depths of cut up to .315" and facing depths to .126" at up to .047 **IPR** are achievable with **HELITURN**.

The high positive rake angle of these tools allows 10-15% less power usage than conventional tools at the same parameters.
By using **HELITURN** tools, huge cost savings and profitability in lathe operations are guaranteed.

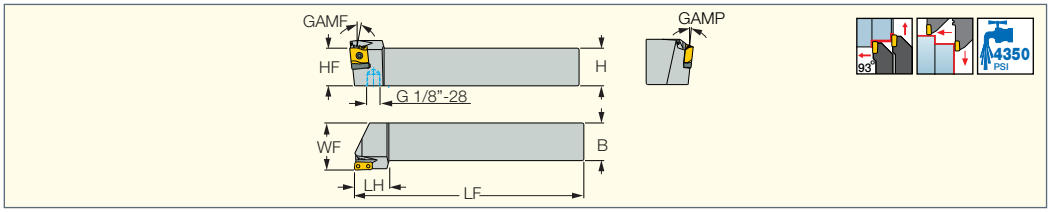
Spare Parts

Designation						
SLANL 10-11 TANG	TLN 11L-HT	SR RS4	T-6/5	SR 34-550-C	BLD T10/S7	SW6-SD
SLANR 10-11 TANG	TLN 11R-HT	SR RS4	T-6/5	SR 34-550-C	BLD T10/S7	SW6-SD
SLANR 12-11 TANG	TLN 11R-HT	SR RS4	T-6/5	SR 34-550-C	BLD T10/S7	SW6-SD
SLANL 16-11 TANG	TLN 11L-HT	SR RS4	T-6/5	SR 34-550-C	BLD T10/S7	SW6-SD
SLANR 16-11 TANG	TLN 11R-HT	SR RS4	T-6/5	SR 34-550-C	BLD T10/S7	SW6-SD
SLANR 12-15 TANG	TLN 15R-HT	SR RS4	T-6/5	SR 34-535-SN	BLD T15/S7	SW6-T-SH
SLANL 16-15 TANG	TLN 15L-HT	SR RS4	T-6/5	SR 34-535-SN	BLD T15/S7	SW6-T-SH
SLANR 16-15 TANG	TLN 15R-HT	SR RS4	T-6/5	SR 34-535-SN	BLD T15/S7	SW6-T-SH
SLANL 20-15 TANG	TLN 15L-HT	SR RS4	T-6/5	SR 34-535-SN	BLD T15/S7	SW6-T-SH
SLANR 20-15 TANG	TLN 15R-HT	SR RS4	T-6/5	SR 34-535-SN	BLD T15/S7	SW6-T-SH
SLANL 24-15 TANG	TLN 15L-HT	SR RS4	T-6/5	SR 34-535-SN	BLD T15/S7	SW6-T-SH
SLANR 24-15 TANG	TLN 15R-HT	SR RS4	T-6/5	SR 34-535-SN	BLD T15/S7	SW6-T-SH
SLANL 20-22 TANG	TLN 22L-HT	SR 10500401	T-7/5	SR 14-591/L-SN	BLD T20/S7	SW6-T-SH
SLANR 20-22 TANG	TLN 22R-HT	SR 10500401	T-7/5	SR 14-591/L-SN	BLD T20/S7	SW6-T-SH
SLANL 24-22 TANG	TLN 22L-HT	SR 10500401	T-7/5	SR 14-591/L-SN	BLD T20/S7	SW6-T-SH
SLANR 24-22 TANG	TLN 22R-HT	SR 10500401	T-7/5	SR 14-591/L-SN	BLD T20/S7	SW6-T-SH
SLANL 32-22 TANG	TLN 22L-HT	SR 10500401	T-7/5	SR 14-591/L-SN	BLD T20/S7	SW6-T-SH
SLANR 32-22 TANG	TLN 22R-HT	SR 10500401	T-7/5	SR 14-591/L-SN	BLD T20/S7	SW6-T-SH

HELITURN LD
JETCUT

SLANR/L-15-TANG-JHP

Screw-Lock Tools with Channels for High Pressure Coolant Carrying the LNMX Tangentially Clamped Inserts

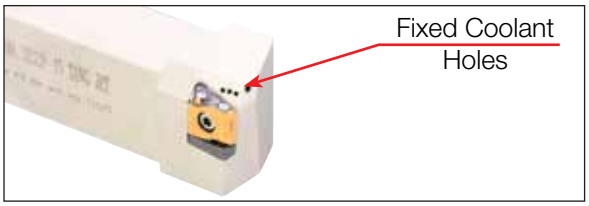


Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
SLANR/L 20-15 TANG-JHP	1.250	1.250	1.250	6.000	1.370	1.500	-6	-6	LNMX 1506

• ap max for facing .15" • For user guide, see pages 60-68

For inserts, see pages: LNMX-HM (150) • LNMX-HT (149) • LNMX-WG (150)

The tools with LNMX 1506... inserts feature fixed coolant holes





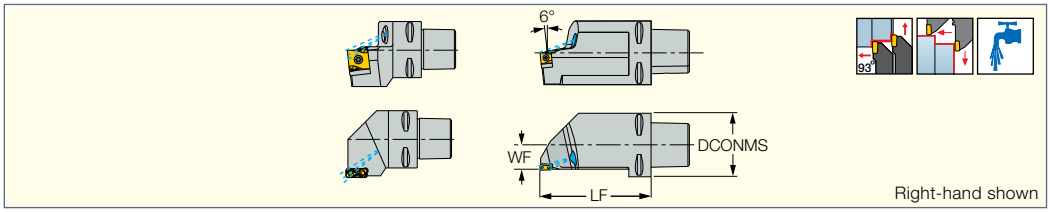
Spare Parts

Designation						
SLANL 20-15 TANG-JHP	TLN 15L-HT	SR RS4	T-6/5	SR 34-535-SN	BLD T15/S7	SW6-T-SH
SLANR 20-15 TANG-JHP	TLN 15R-HT	SR RS4	T-6/5	SR 34-535-SN	BLD T15/S7	SW6-T-SH

HELITURN CAMFIX TANGENTIAL LINE

C#-SLANR/L-TANG

Tools with CAMFIX Shanks Carrying the LNMX-HT Tangentially Screw Clamped Inserts for High Production Cutting



Designation	DCONMS	LF	WF	GAMP	GAMF	Insert
C4 SLANR-27050-11 TANG	1.575	1.968	1.063	-6	-6	LNMX 1104..
C6 SLANR 25110-11 TANG (1)	2.480	4.331	.984	-6	-6	LNMX 1104..
C4 SLANR/L-27050-15 TANG	1.575	1.968	1.063	-6	-6	LNMX 1506..
C5 SLANR/L-35060-15 TANG	1.968	2.362	1.378	-6	-6	LNMX 1506..
C6 SLANR 25110-15 TANG (1)	2.480	4.331	.984	-6	-6	LNMX 1506..
C6 SLANR/L-45065-15 TANG	2.480	2.559	1.772	-6	-6	LNMX 1506..
C6 SLANR/L-45065-22 TANG	2.480	2.559	1.772	-6	-6	LNMX 2210..

• ap max for facing: LNMX 11-.11", LNMX 15-.15"

(1) Designed for mill-turn machines

For inserts, see pages: LNMX-HM (150) • LNMX-HT (149) • LNMX-WG (150)

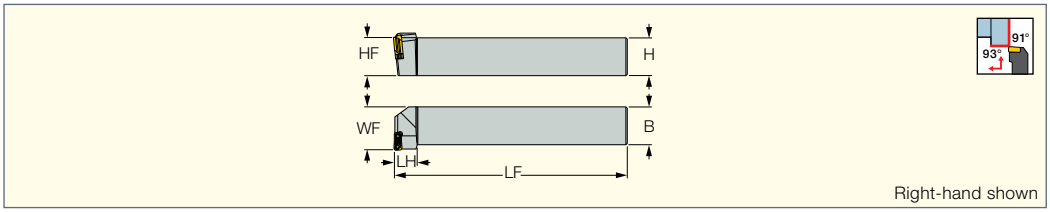
Spare Parts

Designation								
C4 SLANR-27050-11 TANG	TLN 11R-HT	SR RS4	T-6/5	SR 34-550-C	BLD T10/S7		SW6-SD	EZ 83
C6 SLANR 25110-11 TANG	TLN 11R-HT	SR RS4	T-6/5	SR 34-550-C	BLD T10/S7		SW6-SD	EZ 146
C4 SLANL-27050-15 TANG	TLN 15L-HT	SR RS4	T-6/5	SR 34-535-SN	BLD T15/S7	SW6-T-SH		EZ 104
C4 SLANR-27050-15 TANG	TLN 15R-HT	SR RS4	T-6/5	SR 34-535-SN	BLD T15/S7	SW6-T-SH		EZ 104
C5 SLANL-35060-15 TANG	TLN 15L-HT	SR RS4	T-6/5	SR 34-535-SN	BLD T15/S7	SW6-T-SH		EZ 104
C5 SLANR-35060-15 TANG	TLN 15R-HT	SR RS4	T-6/5	SR 34-535-SN	BLD T15/S7	SW6-T-SH		EZ 104
C6 SLANR 25110-15 TANG	TLN 15R-HT	SR RS4	T-6/5	SR 34-535-SN	BLD T15/S7	SW6-T-SH		EZ 146
C6 SLANL-45065-15 TANG	TLN 15L-HT	SR RS4	T-6/5	SR 34-535-SN	BLD T15/S7	SW6-T-SH		EZ 104
C6 SLANR-45065-15 TANG	TLN 15R-HT	SR RS4	T-6/5	SR 34-535-SN	BLD T15/S7	SW6-T-SH		EZ 104
C6 SLANL-45065-22 TANG	TLN 22L-HT	SR 10500401	T-7/5	SR 14-591/L-SN	BLD T20/S7	SW6-T-SH		EZ 104
C6 SLANR-45065-22 TANG	TLN 22R-HT	SR 10500401	T-7/5	SR 14-591/L-SN	BLD T20/S7	SW6-T-SH		EZ 104

HELITURN TANGENTIAL LINE

SLFNR-TANG

Toolholders for LNMX
Tangentially Clamped Inserts



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF
SLFNR 16-15 TANG	1.000	1.000	1.000	6.000	1.050	1.180	-6	-6
SLFNR 20-15 TANG	1.250	1.250	1.250	6.000	1.400	1.450	-6	-6

• Left-hand insert and seat for right-hand holder • ap max for longitudinal turning is .228"

For inserts, see pages: LNMX-HM (150) • LNMX-HT (149) • LNMX-WG (150)

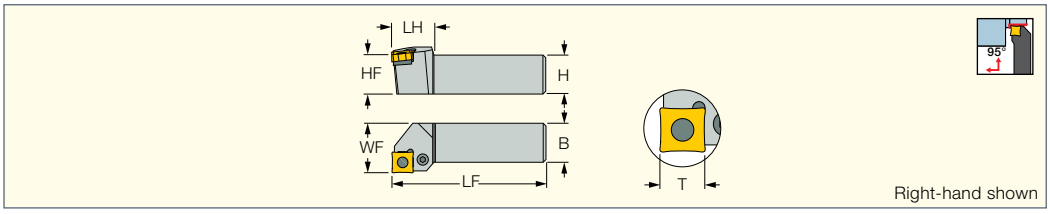
Spare Parts

Designation						
SLFNR-TANG	TLN 15L-HT	SR RS4	T-6/5	SR 34-535-SN	BLD T15/S7	SW6-T-SH

ISOTURN

PQLNR/L

Lever Lock Tools Carrying
the Negative Inserts with
Four 80° Corners



Designation	H	HF	B	LF	LH	WF	T(1)	GAMP	GAMF	Insert
PQLNR 10-3	.625	.625	.625	4.000	.830	.880	.315	-6	-6	QNMG 3
PQLNR 12-3	.750	.750	.750	4.500	1.000	1.000	.315	-6	-6	QNMG 3
PQLNR 16-3	1.000	1.000	1.000	6.000	1.000	1.250	.315	-6	-6	QNMG 3
PQLNR/L 16-4	1.000	1.000	1.000	6.000	1.000	1.250	.394	-6	-6	QNMG 4

(1) T for r.0315

For inserts, see pages: QNMG-GN (152) • QNMG-NF (151) • QNMG-PP (151) • QNMG-TF (151)

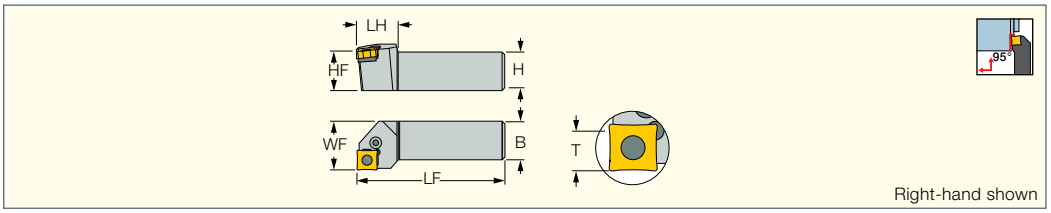
Spare Parts

Designation						
PQLNR 10-3	TXC 322	SP 3	PN 3-4	LR 3	SR 117-2014	HW 2.5
PQLNR 12-3	TXC 322	SP 3	PN 3-4	LR 3	SR 117-2014	HW 2.5
PQLNR 16-3	TXC 322	SP 3	PN 3-4	LR 3	SR 117-2014	HW 2.5
PQLNR/L 16-4	TSN 423	SP 4	PN 3-4	LR 4	SR 117-2010	HW 3.0

ISOTURN

PQFNR/L

Lever Lock Face Turning Tools
Carrying the Negative Inserts
with Four 80° Corners



Designation	H	HF	B	LF	LH	WF	T(1)	GAMP	GAMF	Insert
PQFNR/L 16-4	1.000	1.000	1.000	6.000	1.000	1.250	.394	-6	-6	QNMG 4

(1) T for r.0315

For inserts, see pages: QNMG-GN (152) • QNMG-NF (151) • QNMG-PP (151) • QNMG-TF (151)

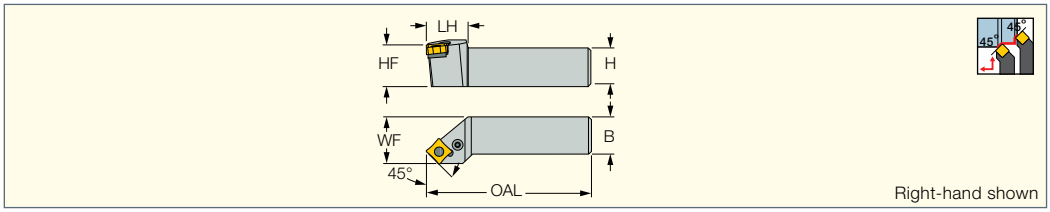
Spare Parts

Designation						
PQFNR/L	TSN 423	SP 4	PN 3-4	LR 4	SR 117-2010	HW 3.0

ISOTURN

PQSNR

External 45° Lead Toolholders for Negative Inserts with Four 80° Corners



Designation	H	HF	B	OAL	LH	WF	GAMP	GAMF
PQSNR 16-4	1.000	1.000	1.000	6.000	1.250	1.250	-4.5	-5.5

For inserts, see pages: QNMG-GN (152) • QNMG-NF (151) • QNMG-PP (151) • QNMG-TF (151)

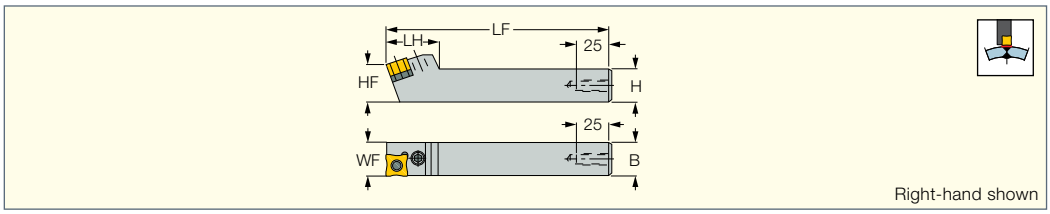
Spare Parts

Designation						
PQSNR	TSN 423	SP 4	PN 3-4	LR 4	SR 117-2010	HW 3.0

ISOTURN

PSANR/L

Lever Lock Tools Carrying the Negative Square Pipe Skiving Inserts



Designation	M E T R I C								
	H	B	HF	LF	LH	WF	GAMP	GAMF	Insert
PSANR/L 2525M-15 (1)	25.0	25.0	26.0	150.00	38.0	25.00	0	20	SNMX 1507

(1) TXN 5-2 for SNMX 150608R-.. inserts without chipbreaker for hard materials.

For inserts, see pages: SNMX 150608R-.. (185) • SNMX 150708R-.. (185)

Spare Parts

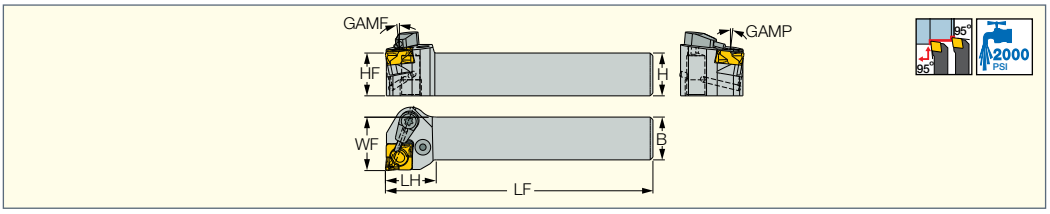
Designation					
PSANR/L 2525M-15	TXN 532	TXN 5-2*	SR 117-2020	LR 5S	HW 3.0

* Optional, should be ordered separately

LOGIQ4TURN POSITIVE DOUBLE SIDED
JETCUT

PCLXR/L-JHP

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



Designation	B	H	HF	LF	LH	WF	GAMP	GAMF	Insert
PCLXR/L 08-3X-JHP	.500	.500	.500	3.250	.875	.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..
PCLXR/L 12-4X-JHP	.750	.750	.750	4.500	1.000	1.000	6.0	6.0	CXMG 12..
PCLXR/L 16-4X-JHP	1.000	1.000	1.000	6.000	1.000	1.250	6.0	6.0	CXMG 12..

• For user guide, see pages: 60-68

For inserts, see pages: CXMG-F3M (153) • CXMG-F3P (152) • CXMG-M3M (153) • CXMG-M3P (152)

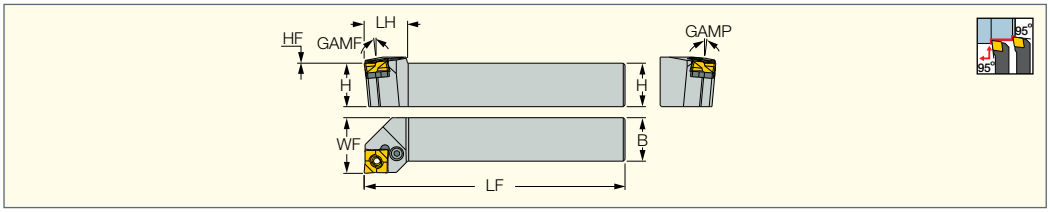
Spare Parts

Designation								
PCLXR/L 08-3X-JHP		LR 3X SET	SR M6XL11.5V			T-8/5		S-CU-JHP-A SET
PCLXR/L 10-3X-JHP		LR 3X SET	SR M6XL11.5V			T-8/5		S-CU-JHP-A SET
PCLXR/L 12-4X-JHP	TCNX 423	LR 4X	SR LCS 5	SP 4	HW 3.0		PN 3-4	CH-1.9D-JHP-A SET
PCLXR/L 16-4X-JHP	TCNX 423	LR 4X	SR LCS 5	SP 4	HW 3.0		PN 3-4	CH-1.9D-JHP-A SET

LOGIQ4TURN POSITIVE DOUBLE SIDED

PCLXR/L

Lever Lock Tools Carrying the CXMG 80° Rhombic Inserts



Designation	B	H	HF	LF	LH	WF	GAMP	GAMF	Insert
PCLXR/L 08-3X	.500	.500	.500	3.250	.875	.625	6.0	6.0	CXMG 09..
PCLXR/L 10-3X	.625	.625	.625	4.000	.800	.800	6.0	6.0	CXMG 09..
PCLXR/L 12-4X	.750	.750	.750	4.500	1.000	1.000	6.0	6.0	CXMG 12..
PCLXR/L 16-4X	1.000	1.000	1.000	6.000	1.000	1.250	6.0	6.0	CXMG 12..

For inserts, see pages: CXMG-F3M (153) • CXMG-F3P (152) • CXMG-M3M (153) • CXMG-M3P (152)

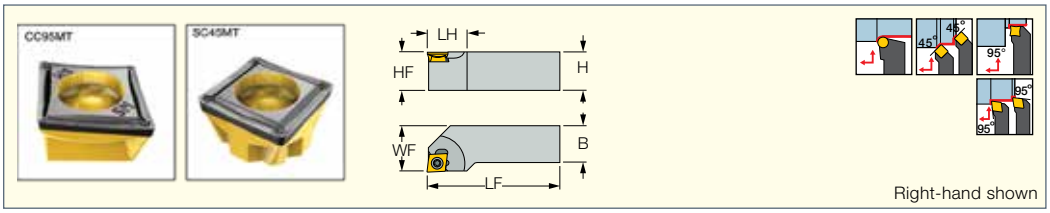
Spare Parts

Designation							
PCLXR/L 08-3X		LR 3X SET		SR M6XL11.5V			T-8/5
PCLXR/L 10-3X		LR 3X SET		SR M6XL11.5V			T-8/5
PCLXR/L 12-4X	TCNX 423	LR 4X	HW 3.0	SR LCS 5	PN 3-4	SP 4	
PCLXR/L 16-4X	TCNX 423	LR 4X	HW 3.0	SR LCS 5	PN 3-4	SP 4	

CHAMTURN

SUXCR-CM

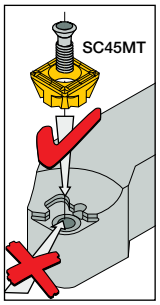
Screw Lock Toolholders for Four Different 7° Clearance Geometries



Designation	H	HF	B	LF	LH	GAMP	GAMF	WF
SUXCR 10-10 CM	.625	.625	.625	4.000	1.000	0	0	.750
SUXCR 12-10 CM	.750	.750	.750	4.500	1.000	0	0	1.000
SUXCR 16-10 CM	1.000	1.000	1.000	6.000	1.000	0	0	1.250

For inserts, see pages: CC95MT-SM (178) • SC45MT-SM (179)

Designation	H	HF	LF	LH	GAMP	GAMF	WF	Inserts
SUXCR 10-10 CM	.625	.625	4.000	1.00	0	0	.75 .797	CC95MT... SC45MT...
SUXCR/L 12-10 CM	.750	.750	4.500	1.00	0	0	1.000 1.047	CC95MT... SC45MT...
SUXCR 16-10 CM	1.000	1.000	6.000	1.00	0	0	1.250 1.297	CC95MT... 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

Clamping direction for SC45MT...

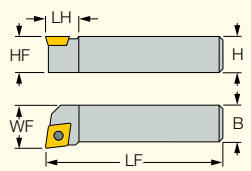
Spare Parts

Designation		
SUXCR-CM	SR 14-544/S	T-15/5

ISOTURN

SCLCR/L

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





Right-hand shown

Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
SCLCR/L 06-2	.375	.375	.375	2.500	.500	.500	0	0	CC.. 2
SCLCR/L 06-3	.375	.375	.375	2.500	.560	.500	0	0	CC.. 3
SCLCR/L 08-3	.500	.500	.500	3.500	.560	.630	0	0	CC.. 3
SCLCR/L 10-3	.625	.625	.625	4.500	.560	.750	0	0	CC.. 3
SCLCR/L 12-4	.750	.750	.750	4.500	.710	1.000	0	0	CC.. 4
SCLCR/L 16-3	1.000	1.000	1.000	6.000	.710	1.250	0	0	CC.. 3
SCLCR/L 16-4	1.000	1.000	1.000	6.000	.780	1.250	0	0	CC.. 4

For inserts, see pages: CCMT-CERMET (155) • CCMT-F3P (153) • CCMT-M3P (154) • CCMT-F3M (154) • CCMT-M3M (155) • CCMT-PF (156) • CCMT/CCGT-SM (156) • CCET-WF (157) • CCMT-WG (157) • CCGT-AS (182) • CCGT-AF (182) • CCMT-14 (156) • CCMT/CCGT (157) • CCGW/CCMT (CBN) (197) • CCGW/CCMW-2 (CBN) (198) • CCMT (PCD) (192)

Spare Parts

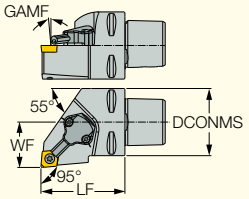
Designation					
SCLCR/L 06-2	SR 14-548	T-7/5			
SCLCR/L 06-3	SR 16-236	T-15/5			
SCLCR/L 08-3	SR 16-236	T-15/5			
SCLCR/L 10-3	SR 16-236	T-15/5			
SCLCR/L 12-4	SR 16-212	T-20/5			
SCLCR/L 16-3	SR 16-236	T-15/5			
SCLCR/L 16-4	SR 16-212	T-20/5	TCC 4-2	SR TC-4	HW 3.0

ISOTURN JETCUT

CAMFIX

C#-SCLCR/L-JHP

Screw Clamp Tools with CAMFIX Shanks and Channels for High Pressure Coolant Carrying Positive 80° Rhombic Inserts





Right-hand shown

Designation	DCONMS	WF	LF	GAMP	GAMF	Insert					
C3 SCLCR-22045-09-JHP	1.260	.866	1.772	0	0	CC.. 09T3	SR 16-236	T-15/5	CU-CW-JHP		T-8/5
C4 SCLCR/L 27050-09-JHP	1.575	1.063	1.968	0	0	CC.. 09T3	SR 16-236	T-15/5	CU-CW-JHP	SR M5X5 DIN913 TL360	T-8/5
C5 SCLCR/L 35060-09-JHP	1.968	1.378	2.362	0	0	CC.. 09T3	SR 16-236	T-15/5	CU-CW-JHP	SR M5X5 DIN913 TL360	T-8/5

• For user guide, see pages 60-68

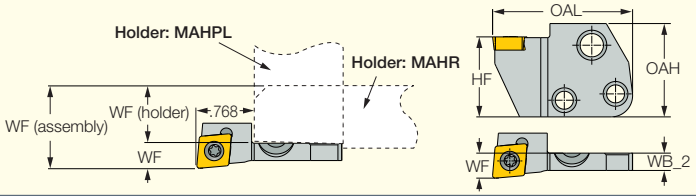
For inserts, see pages: CCMT-CERMET (155) • CCMT-F3P (153) • CCMT-M3P (154) • CCMT-F3M (154) • CCMT-M3M (155) • CCMT-PF (156) • CCMT/CCGT-SM (156) • CCET-WF (157) • CCMT-WG (157) • CCGT-AS (182) • CCGT-AF (182) • CCMT-14 (156) • CCMT/CCGT (157) • CCGW/CCMT (CBN) (197) • CCGW/CCMW-2 (CBN) (198) • CCMT (PCD) (192)

ISOTURN

MODULARGRIP

SCLCR-PAD

Screw Lock Adapter Carrying the 80° Diamond Inserts with 7° Clearance Angle





Designation	HF	OAL	H	WF	WB_2	GAMP	GAMF	Insert
SCLCR-09-PAD	.945	1.654	1.102	.295	.205	0	0	CCGT/CCMT 09T3

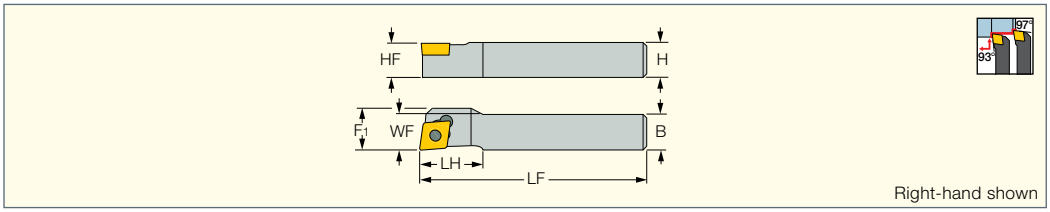
For inserts, see pages: CCMT-CERMET (155) • CCMT-F3P (153) • CCMT-M3P (154) • CCMT-F3M (154) • CCMT-M3M (155) • CCMT-PF (156) • CCMT/CCGT-SM (156) • CCET-WF (157) • CCMT-WG (157) • CCGT-AS (182) • CCGT-AF (182) • CCMT-14 (156) • CCMT/CCGT (157) • CCGW/CCMT (CBN) (197) • CCGW/CCMW-2 (CBN) (198) • CCMT (PCD) (192)

For holders, see pages: C#-MAHPD-JHP (623) • C#-MAHD-JHP (622) • MAHPR/L-JHP (255) • MAHR/L-JHP (254) • MAHR/L (254) • MAHPR/L (255) • C#-MAHD (622) • C#-MAHPD (623) • C#-MAHUR/L (621) • C#-MAHDR-45 (620) • C#-MAHDOR (621) • HSK A63WH-MAHUR/L (631) • HSK A63WH-MAHDR-45 (630) • HSK A63WH-MAHDOR (630) • IM-MAHD (632) • IM-MAHPD (632) • HMSN-New Britain (493) • HMSDV (493) • DGHAL-DECO (Metric) (492) • HSTBS (493)

ISOTURN

SCACR/L-S

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



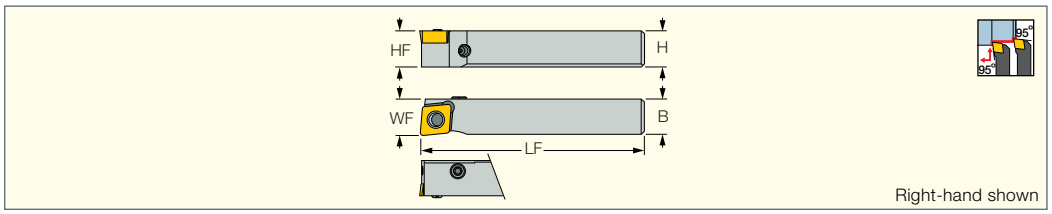
Designation	H	HF	B	LF	LH	WF	F1	GAMP	GAMF	Insert		
SCACR/L 0808K-06S	.315	.315	.315	4.921	.315	.323	-	0	0	CC.. 0602	SR 14-548	T-7/5
SCACR 1010K-06S	.394	.394	.394	5.906	-	.394	-	0	0	CC.. 0602	SR 14-548	T-7/5
SCACR/L 1616K-06S	.630	.630	.630	4.921	-	.638	-	0	0	CC.. 0602	SR 14-548	T-7/5
SCACR/L 1010K-09S	.394	.394	.394	4.921	.598	.402	-	0	0	CC.. 09T3	SR 16-236	T-15/5
SCACR 1212K-09S	.472	.472	.472	4.921	.551	.478	.49	0	0	CC.. 09T3	SR 16-236	T-15/5
SCACR/L 1616K-09S	.630	.630	.630	4.921	-	.638	-	0	0	CC.. 09T3	SR 16-236	T-15/5

For inserts, see pages: CCMT-CERMET (155) • CCMT-F3P (153) • CCMT-M3P (154) • CCMT-F3M (154) • CCMT-M3M (155) • CCMT-PF (156) • CCMT/CCGT-SM (156) • CCET-WF (157) • CCMT-WG (157) • CCGT-AS (182) • CCMT-14 (156) • CCMT/CCGT (157) • CCGW/CCMT (CBN) (197) • CCGW/CCMW-2 (CBN) (198) • CCMT (PCD) (192)

ISOTURN

PCLCR/L-S

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



Designation	H	HF	B	LF	WF	GAMP	GAMF				
PCLCR 06-3S	.375	.375	.500	5.900	.510	0	0	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5
PCLCR 08-3S	.500	.500	.500	5.900	.500	0	0	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5
PCLCR/L 10-3S	.625	.625	.625	5.900	.630	0	0	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5
PCLCR 12-3S	.750	.750	.750	5.900	.000	0	0	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5

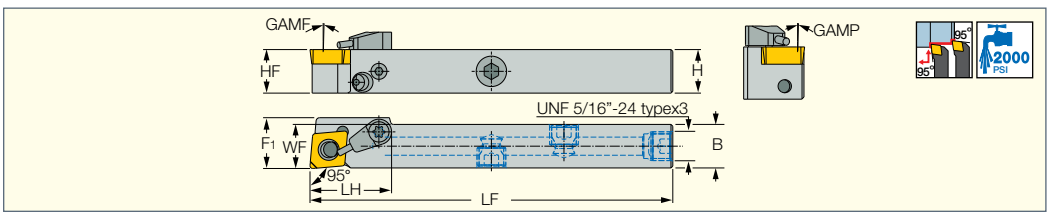
• The clamping screw may by transferred to the opposite side if needed

For inserts, see pages: CCMT-CERMET (155) • CCMT-F3P (153) • CCMT-M3P (154) • CCMT-F3M (154) • CCMT-M3M (155) • CCMT-PF (156) • CCMT/CCGT-SM (156) • CCET-WF (157) • CCMT-WG (157) • CCGT-AS (182) • CCGT-AF (182) • CCMT-14 (156) • CCMT/CCGT (157) • CCGW/CCMT (CBN) (197) • CCGW/CCMW-2 (CBN) (198) • CCMT (PCD) (192)

ISOTURN JETCUT

PCLCR/L-S-JHP

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



Designation	H	HF	B	LF	LH	WF	F1	GAMP	GAMF	Insert
PCLCR/L 08-3S-JHP	.500	.500	.500	4.000	.900	.510	.55	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 60-68

For inserts, see pages: CCMT-CERMET (155) • CCMT-F3P (153) • CCMT-M3P (154) • CCMT-F3M (154) • CCMT-M3M (155) • CCMT-PF (156) • CCMT/CCGT-SM (156) • CCET-WF (157) • CCMT-WG (157) • CCGT-AS (182) • CCGT-AF (182) • CCMT-14 (156) • CCMT/CCGT (157) • CCGW/CCMT (CBN) (197) • CCGW/CCMW-2 (CBN) (198) • CCMT (PCD) (192)

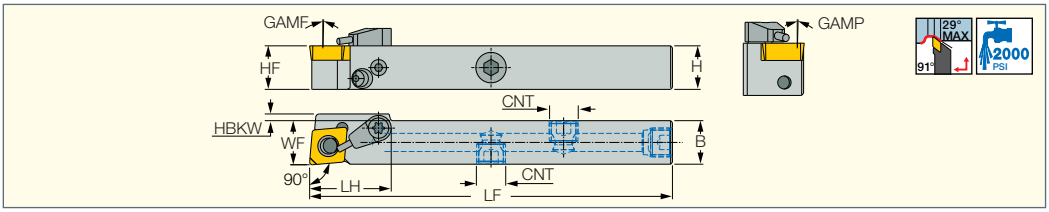
Spare Parts

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 JETCUT

PCACR/L-JHP

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



Designation	H	HF	B	LF	LH	WF	HBKW	GAMP	GAMF	CNT	Insert
PCACR/L 08-3S-JHP	.500	.500	.500	4.000	.900	.510	.04	0	0	UNF 5/16"	CC..3..

• For user guide see pages 60-68

For inserts, see pages: CCMT-CERMET (155) • CCMT-F3P (153) • CCMT-M3P (154) • CCMT-F3M (154) • CCMT-M3M (155) • CCMT-PF (156) • CCMT/CCGT-SM (156) • CCET-WF (157) • CCMT-WG (157) • CCGT-AS (182) • CCGT-AF (182) • CCMT-14 (156) • CCMT/CCGT (157) • CCGW/CCMT (CBN) (197) • CCGW/CCMW-2 (CBN) (198) • CCMT (PCD) (192)

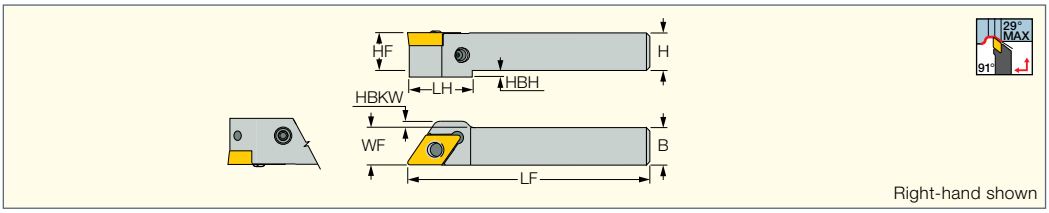
Spare Parts

Designation							
PCACR/L 08-3S-JHP	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5	SR 5/16UNF TL360	SR M4X4 DIN913 TL360	S-CU-JHP-A SET

ISOTURN

PDACR/L-S

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



Designation	H	HF	LH	HBH	B	LF	WF	HBKW	GAMP	GAMF				
PDACR 06-3S	.375	.375	.830	.12	.500	5.900	.510	.08	0	0	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5
PDACR/L 08-3S	.500	.500	-	-	.500	5.900	.510	.08	0	0	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5
PDACR/L 10-3S	.625	.625	-	-	.625	5.900	.630	-	0	0	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5
PDACR 12-3S	.750	.750	-	-	.750	5.900	.790	-	0	0	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5

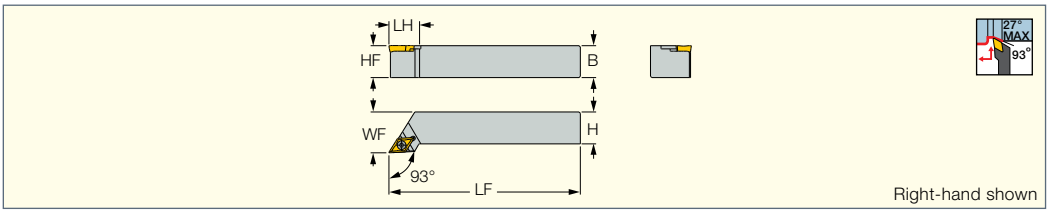
• The clamping screw may by transferred to the opposite side if needed

For inserts, see pages: DCMT-PF (162) • DCMT/DCGT-SM (162) • DCET-WF (163) • DCGT-AS (182) • DCGT-AF (183) • DCMT-14 (163) • DCMT/DCGT (163) • DCGW/DCMW-2 (CBN) (200) • DCMT (CBN) (200) • DCMT (PCD) (193)

T-LOCK ISOTURN

SDJCR/L-13-SL

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



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert		
SDJCR/L 10-13-SL	.625	.625	.625	4.000	.940	.830	0	0	DCMT 13T5-SL	SR M4X0.7-L9.6 IP15	IP-15/5
SDJCR/L 12-13-SL	.750	.750	.750	5.000	.940	1.060	0	0	DCMT 13T5-SL	SR M4X0.7-L9.6 IP15	IP-15/5
SDJCL 16-13-SL	1.000	1.000	1.000	6.000	.940	1.260	0	0	DCMT 13T5-SL	SR M4X0.7-L9.6 IP15	IP-15/5

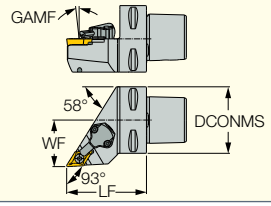
• Insert clamping torque 27 lbfxin

For inserts, see pages: DCMT-F3P-SL (159) • DCMT-M3M-SL (160) • DCMT-PF-SL (161) • DCMT-SM-SL (162)

T-LOCK JETCUT CAMFIX

C#-SDJCR/L-13-SL-JHP

Screw Clamp Tools with CAMFIX Shanks and Channels for High Pressure Coolant Carrying the Positive 55° Rhombic Inserts





Right-hand shown

Designation	DCONMS	WF	LF	GAMP	GAMF	Insert
C3 SDJCR-22040-13-SL-JHP	1.260	.866	1.575	0	0	DCMT 13T5-SL
C4 SDJCR/L-27055-13-SL-JHP	1.575	1.063	2.165	0	0	DCMT 13T5-SL
C5 SDJCR/L-35060-13-SL-JHP	1.968	1.378	2.362	0	0	DCMT 13T5-SL

• For user guide, see pages: 60-68

For inserts, see pages: DCMT-F3P-SL (159) • DCMT-M3M-SL (160) • DCMT-PF-SL (161) • DCMT-SM-SL (162)

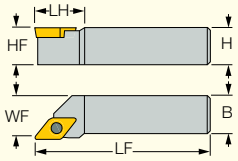
Spare Parts

Designation					
C3 SDJCR-22040-13-SL-JHP	CH-1.9D-JHP	SR M4X4 DIN913 TL360		SR M4X0.7-L9.5 IP15	
C4 SDJCR/L-27055-13-SL-JHP	CU-D-JHP	SR M5X5 DIN913 TL360	IP-15/5	SR M4X0.7-L9.6 IP15	T-8/5
C5 SDJCL-35060-13-SL-JHP	CU-D-JHP	SR M5X5 DIN913 TL360	IP-15/5	SR M4X0.7-L9.6 IP15	T-8/5
C5 SDJCR-35060-13-SL-JHP	CU-D-JHP	SR M5X5 DIN913 TL360	IP-15/5	SR M4X0.7-L9.6 IP15	

ISOTURN

SDJCR/L

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





Right-hand shown

Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
SDJCR 06-2	.375	.375	.375	3.000	.400	.440	0	0	DC.. 2
SDJCR/L 08-3	.500	.500	.500	3.500	.780	.630	0	0	DC.. 3
SDJCR/L 10-3	.625	.625	.625	4.500	.780	.750	0	0	DC.. 3
SDJCR/L 12-3	.750	.750	.750	4.500	.780	1.000	0	0	DC.. 3
SDJCR/L 16-3	1.000	1.000	1.000	6.000	.780	1.250	0	0	DC.. 3

For inserts, see pages: DCMT-PF (162) • DCMT/DCGT-SM (162) • DCET-WF (163) • DCGT-AS (182) • DCGT-AF (183) • DCMT-14 (163) • DCMT/DCGT (163) • DCGW/DCMW-2 (CBN) (200) • DCMT (CBN) (200) • DCMT (PCD) (193)

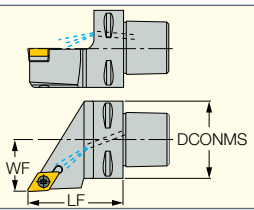
Spare Parts

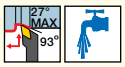
Designation					
SDJCR 06-2	SR 14-548	T-7/5			
SDJCR/L 08-3	SR 16-236 P	T-15/5			
SDJCR/L 10-3	SR 16-236 P	T-15/5			
SDJCR/L 12-3	SR 16-236 P	T-15/5			
SDJCR/L 16-3	SR 16-236 P	T-15/5	TDC 3-1P	SR TC-3P	HW 4.0

ISOTURN CAMFIX

C#-SDJCR/L

Screw Lock Tools with CAMFIX Exchangeable Shanks Carrying the 55° Rhombic Inserts with 7° Clearance Angle





Right-hand shown

Designation	DCONMS	WF	LF	Insert						
C4 SDJCR-27050-11	1.575	1.063	1.968	DC.. 11T3	TDC 3-1P	SR TC-3P	HW 4.0	SR 16-236 P	T-15/5	EZ 83
C5 SDJCR/L-35060-11	1.968	1.378	2.362	DC.. 11T3	TDC 3-1P	SR TC-3P	HW 4.0	SR 16-236 P	T-15/5	EZ 104

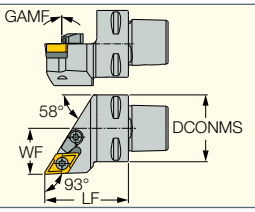
For inserts, see pages: DCMT-CERMET (161) • DCMT-F3P (159) • DCMT-M3M (160) • DCMT-PF (162) • DCMT/DCGT-SM (162) • DCET-WF (163) • DCGT-AS (182) • DCGT-AF (183) • DCMT-14 (163) • DCMT/DCGT (163) • DCGW/DCMW-2 (CBN) (200) • DCMT (CBN) (200) • DCMT (PCD) (193)

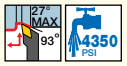
ISOTURN JETCUT

CAMFIX

C#-SDJCR-JHP

Screw Clamp Tools with CAMFIX Shanks and Channels for High Pressure Coolant Carrying Positive 55° Rhombic Inserts





Right-hand shown

Designation	DCONMS	WF	LF	Insert
C3 SDJCR-22040-11-JHP	1.260	.866	1.575	DC.. 3..

• For user guide, see pages 60-68

For inserts, see pages: DCMT-CERMET (161) • DCMT-F3P (159) • DCMT-M3M (160) • DCMT-PF (162) • DCMT/DCGT-SM (162) • DCET-WF (163) • DCGT-AS (182) • DCGT-AF (183) • DCMT-14 (163) • DCMT/DCGT (163) • DCGW/DCMW-2 (CBN) (200) • DCMT (CBN) (200) • DCMT (PCD) (193)

Spare Parts

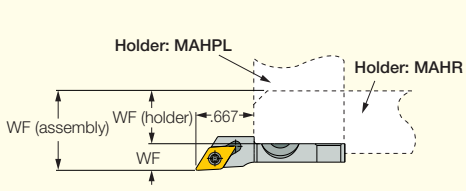
Designation								
C3 SDJCR-22040-11-JHP	TDC 3-1P	SR TC-3P	SR 16-236 P	T-15/5	CH-1.9D-JHP	WASHER 4.2X5.6X0.5	SR M4X4 DIN913 TL360	HW 4.0

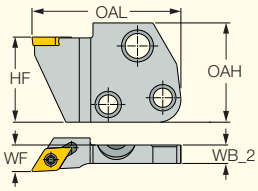
ISOTURN

MODULARGRIP

SDJCR-PAD

Screw Lock Adapter for 55° Diamond Inserts with 7° Clearance Angle







Designation	HF	OAH	OAL	WF	WB_2	GAMP	GAMF	Insert		
SDJCR-07-PAD	.945	1.102	1.654	.295	.205	0	0	DCMT/DCGT 0702	SR 14-548	T-7/5

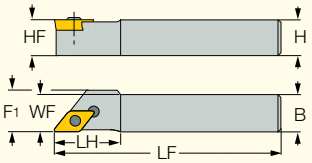
For inserts, see pages: DCMT-F3P (159) • DCMT-M3M (160) • DCMT-PF (162) • DCMT/DCGT-SM (162) • DCET-WF (163) • DCGT-AS (182) • DCMT/DCGT (163) • DCGW/DCMW-2 (CBN) (200)

For holders, see pages: C#-MAHPD-JHP (623) • C#-MAHD-JHP (622) • MAHPR/L-JHP (255) • MAHR/L-JHP (254) • MAHR/L (254) • MAHPR/L (255) • C#-MAHD (622) • C#-MAHPD (623) • C#-MAHUR/L (621) • C#-MAHDR-45 (620) • C#-MAHDOR (621) • HSK A63WH-MAHUR/L (631) • HSK A63WH-MAHDR-45 (630) • HSK A63WH-MAHDOR (630) • IM-MAHD (632) • IM-MAHPD (632) • HMSN-New Britain (493) • HMSDV (493) • DGHAL-DECO (Metric) (492) • HSTBS (493)

ISOTURN

SDACR/L

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





Right-hand shown

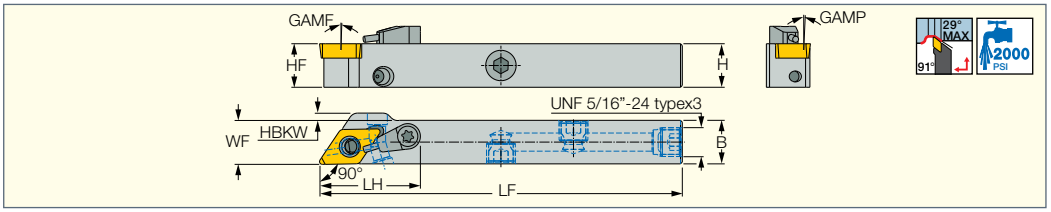
Designation	H	HF	B	LF	LH	WF	F1	GAMP	GAMF	Insert		
SDACR/L 1010K-07S	.394	.394	.394	4.921	-	.394	-	0	0	DC.. 2	SR 14-548	T-7/5
SDACR/L 1212K-07S	.472	.472	.472	4.921	-	.472	-	0	0	DC.. 2	SR 14-548	T-7/5
SDACR/L 1212K-11S	.472	.472	.472	4.921	.787	.472	.55	0	0	DC.. 3	SR 16-236 P	T-15/5
SDACR/L 1616K-11S	.630	.630	.630	4.921	-	.630	-	0	0	DC.. 3	SR 16-236 P	T-15/5

For inserts, see pages: DCMT-CERMET (161) • DCMT-F3P (159) • DCMT-M3M (160) • DCMT-PF (162) • DCMT/DCGT-SM (162) • DCET-WF (163) • DCGT-AS (182) • DCGT-AF (183) • DCMT-14 (163) • DCMT/DCGT (163) • DCGW/DCMW-2 (CBN) (200) • DCMT (CBN) (200) • DCMT (PCD) (193)

ISOTURN JETCUT

PDACR/L-JHP

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



Designation	H	HF	B	LF	LH	WF	HBKW	GAMP	GAMF	Insert
PDACR/L 08-3S-JHP	.500	.500	.500	4.000	1.100	.510	.12	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	4.000	1.100	.790	-	0	0	DCMT 3..

• For user guide see pages 60-68

For inserts, see pages: DCMT-PF (162) • DCMT/DCGT-SM (162) • DCET-WF (163) • DCGT-AS (182) • DCGT-AF (183) • DCMT-14 (163) • DCMT/DCGT (163) • DCGW/DCMW-2 (CBN) (200) • DCMT (CBN) (200) • DCMT (PCD) (193)

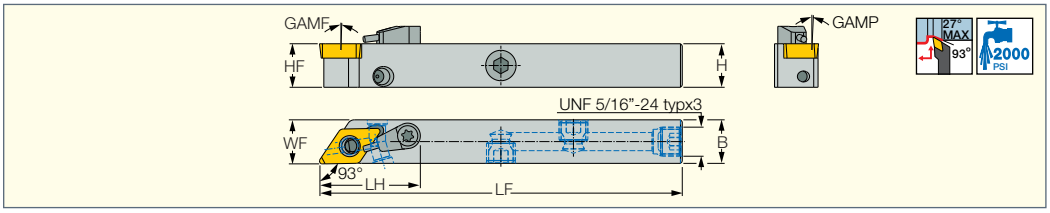
Spare Parts

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

ISOTURN JETCUT

PDJCR/L-JHP

Lever Lock Tools with Channels for High Pressure Coolant for 55° Positive Rhombic Inserts for Swiss Automatic Machines



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	a°	Insert
PDJCR/L 08-3S-JHP	.500	.500	.500	4.000	1.100	.510	0	0	93	DCMT 3..
PDJCR/L 10-3S-JHP	.625	.625	.625	4.000	1.100	.630	0	0	93	DCMT 3..

• For user guide see pages 60-68

For inserts, see pages: DCMT-PF (162) • DCMT/DCGT-SM (162) • DCET-WF (163) • DCGT-AS (182) • DCGT-AF (183) • DCMT-14 (163) • DCMT/DCGT (163) • DCGW/DCMW-2 (CBN) (200) • DCMT (CBN) (200) • DCMT (PCD) (193)

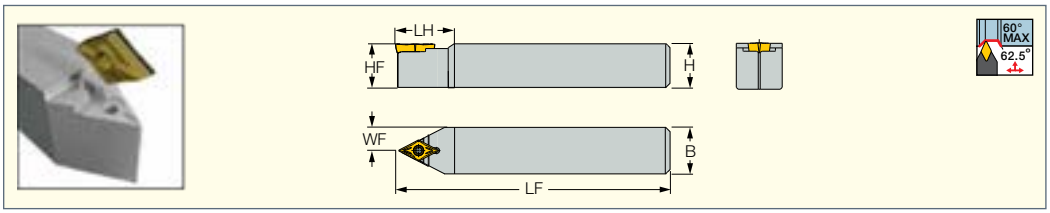
Spare Parts

Designation						
PDJCR/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 ISOTURN

SDNCN-13-SL

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



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
SDNCN 10-13-SL	.625	.625	.625	4.000	.980	.310	0	0	DCMT 13T5-SL
SDNCN 12-13-SL	.750	.750	.750	5.000	.980	.380	0	0	DCMT 13T5-SL
SDNCN 16-13-SL	1.000	1.000	1.000	6.000	.980	.380	0	0	DCMT 13T5-SL

• Insert clamping torque 27 lbfxin

For inserts, see pages: DCMT-F3P-SL (159) • DCMT-M3M-SL (160) • DCMT-PF-SL (161) • DCMT-SM-SL (162)

Spare Parts

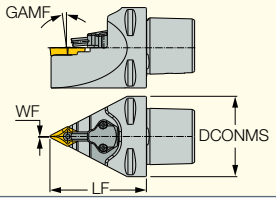
Designation		
SDNCN-13-SL	SR M4X0.7-L9.6 IP15	IP-15/5

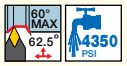
T-LOCK JETCUT

CAMFIX

C#-SDNCN-13-SL-JHP

Screw Clamp Tools with CAMFIX Shanks and Channels for High Pressure Coolant Carrying the Positive 55° Rhombic Inserts





Designation	DCONMS	WF	LF	GAMP	GAMF	Insert
C3 SDNCN-00045-13-SL-JHP	1.260	.020	1.772	0	0	DCMT 13T5-SL
C4 SDNCN-00060-13-SL-JHP	1.575	.020	2.362	0	0	DCMT 13T5-SL
C5 SDNCN-00060-13-SL-JHP	1.968	.020	2.362	0	0	DCMT 13T5-SL

• For user guide, see pages 60-68

For inserts, see pages: DCMT-F3P-SL (159) • DCMT-M3M-SL (160) • DCMT-PF-SL (161) • DCMT-SM-SL (162)

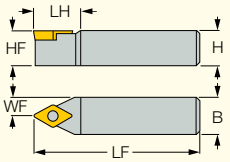
Spare Parts

Designation						
C3 SDNCN-00045-13-SL-JHP	CH-1.9D-JHP	WASHER 4.2X5.6X0.5		SR M4X4 DIN913 TL360	SR M4X0.7-L9.5 IP15	
C4 SDNCN-00060-13-SL-JHP	CU-D-JHP		IP-15/5		SR M4X0.7-L9.6 IP15	T-8/5
C5 SDNCN-00060-13-SL-JHP	CU-D-JHP		IP-15/5		SR M4X0.7-L9.6 IP15	T-8/5

ISOTURN

SDPCN

Screw Lock Holders for 7° Clearance 55° Diamond Inserts





Designation	H	HF	B	LF	LH	WF	GAMP	GAMF
SDPCN 08-3	.500	.500	.500	3.500	.980	.250	0	0
SDPCN 10-3	.625	.625	.625	4.500	.980	.310	0	0
SDPCN 12-3	.750	.750	.750	4.500	.980	.380	0	0
SDPCN 16-3	1.000	1.000	1.000	6.000	.980	.500	0	0

For inserts, see pages: DCMT-PF (162) • DCMT/DCGT-SM (162) • DCGT-AS (182) • DCGT-AF (183) • DCMT-14 (163) • DCMT/DCGT (163) • DCGW/DCMW-2 (CBN) (200) • DCMT (CBN) (200) • DCMT (PCD) (193)

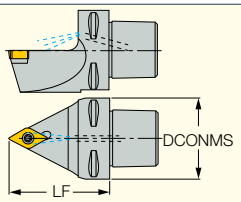
Spare Parts

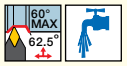
Designation					
SDPCN 08-3	SR 16-236 P	T-15/5			
SDPCN 10-3	SR 16-236 P	T-15/5			
SDPCN 12-3	SR 16-236 P	T-15/5			
SDPCN 16-3	SR 16-236 P	T-15/5	TDC 3-1P	SR TC-3P	HW 4.0

ISOTURN CAMFIX

C#-SDNCN

Screw Lock Tools with CAMFIX Exchangeable Shanks Carrying the 55° Rhombic Inserts with 7° Clearance Angle





Designation	DCONMS	LF	Insert						
C4 SDNCN-00050-11	1.575	1.968	DC.. 11T3	TDC 3-1P	SR TC-3P	HW 4.0	SR 16-236 P	T-15/5	EZ 104

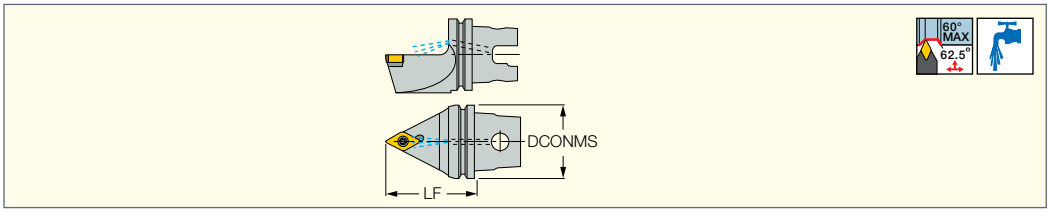
For inserts, see pages: DCMT-CERMET (161) • DCMT-F3P (159) • DCMT-M3M (160) • DCMT-PF (162) • DCMT/DCGT-SM (162) • DCGT-AS (182) • DCGT-AF (183) • DCMT-14 (163) • DCMT/DCGT (163) • DCGW/DCMW-2 (CBN) (200) • DCMT (CBN) (200) • DCMT (PCD) (193)

ISO 26622-1 XMZ

ISOTURN

IM-SDNCN

Screw Lock Tools with ISO 26622-1 Tapered Shanks Carrying the 55° Rhombic Inserts with 7° Clearance Angle



Designation	DCONMS	LF	Insert						
IM40 SDNCN-11	1.575	1.575	DC.. 11T3	TDC 3-1P	SR TC-3P	HW 4.0	SR 16-236 P	T-15/5	EZ 104

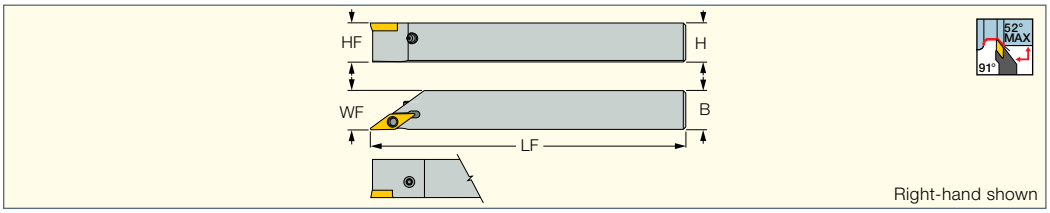
• Tools with orientation holes in the flange groove can be supplied on request

For inserts, see pages: DCMT-CERMET (161) • DCMT-F3P (159) • DCMT-M3M (160) • DCMT-PF (162) • DCMT/DCGT-SM (162) • DCGT-AS (182) • DCGT-AF (183) • DCMT-14 (163) • DCMT/DCGT (163) • DCGW/DCMW-2 (CBN) (200) • DCMT (CBN) (200) • DCMT (PCD) (193)

ISOTURN

PVACR-S

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



Designation	H	HF	B	LF	WF	GAMP	GAMF				
PVACR 06-2S	.375	.375	.375	5.905	.400	0	0	SL LV-2	SL-PI-2	SR 10400611	HW 2.0/5
PVACR 08-2S	.500	.500	.500	5.905	.530	0	0	SL LV-2	SL-PI-2	SR 10400611	HW 2.0/5
PVACR 10-2S	.625	.625	.625	5.905	.650	0	0	SL LV-2	SL-PI-2	SR 10400611	HW 2.0/5
PVACR 12-2S	.750	.750	.750	5.905	.760	0	0	SL LV-2	SL-PI-2	SR 10400611	HW 2.0/5

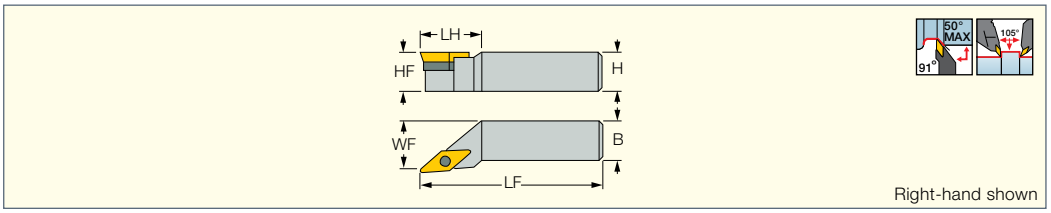
• The clamping screw may by transferred to the opposite side if needed

For inserts, see pages: VCMT-F3P (164) • VCMT-M3P (164) • VCMT-F3M (164) • VCMT-SM (166) • VCET-WF (166) • VCGT-AS (181)

ISOTURN

SVJCR/L

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



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF
SVJCR 10-3	.625	.625	.625	2.900	1.430	.750	0	0
SVJCR/L 12-3	.750	.750	.750	4.500	1.180	1.000	0	0
SVJCR/L 16-3	1.000	1.000	1.000	6.000	1.180	1.250	0	0

For inserts, see pages: VCMT-FPC-CERMET (165) • VCMT-F3P (164) • VCGW-2 (CBN) (203) • VCMT-M3P (164) • VCMT-F3M (164) • VCMT-M3M (165) • VCMT-SM (166) • VCGT-AS (181) • VCMT-14 (166) • VCMW (167) • VCMT (CBN) (202) • VCGT (PCD) (193) • VCGT-DW (PCD) (193)

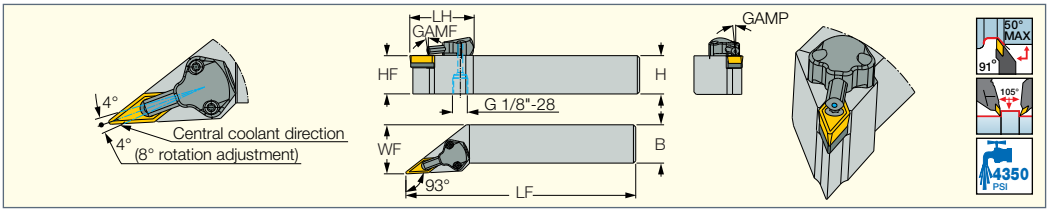
Spare Parts

Designation					
SVJCR 10-3	SR 16-236 P	T-15/5			
SVJCR/L 12-3	SR 16-236 P	T-15/5	TVC 3-1	SR TC-3	HW 2.5
SVJCR/L 16-3	SR 16-236 P	T-15/5	TVC 3-1	SR TC-3	HW 2.5

ISOTURN JETCUT

SVJCR/L-3-JHP

Screw Lock Toolholders for 35° Rhombic Inserts with 7° Clearance Angle and Channels for High Pressure Coolant



Designation	H	B	HF	LF	LH	WF	GAMP	GAMF	Insert
SVJCR/L 16-3-JHP	1.000	1.000	1.000	6.000	1.650	1.250	0	0	VC..33

• For user guide, see pages 60-68

For inserts, see pages: VCMT-FPC-CERMET (165) • VCMT-F3P (164) • VCGW-2 (CBN) (203) • VCMT-M3P (164) • VCMT-F3M (164) • VCMT-M3M (165) • VCMT-SM (166) • VCGT-AS (181) • VCMT-14 (166) • VCMW (167) • VCMT (CBN) (202) • VCGT (PCD) (193) • VCGT-DW (PCD) (193)

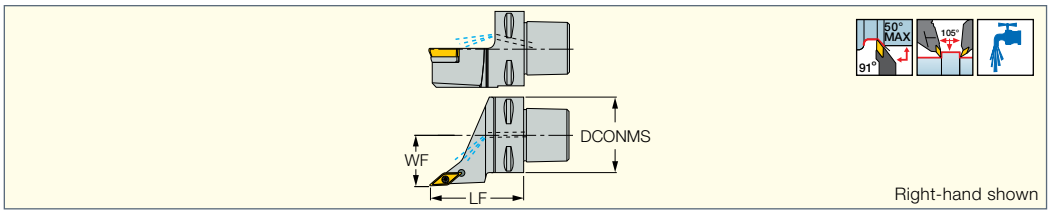
Spare Parts

Designation							
SVJCR/L 16-3-JHP	TVC 3-1	SR TC-3	T-8/5	HW 2.5	CU-V-JHP	SR 16-236 P	T-15/5

ISOTURN CAMFIX

C#-SVJCR/L

Screw Lock Tools with CAMFIX Exchangeable Shanks Carrying 35° Rhombic Inserts with 7° Clearance Angle



Designation	DCONMS	WF	LF	Insert						
C4 SVJCR/L-27050-11	1.575	1.063	1.968	VC.. 1103				SR 14-560/S	T-8/5	EZ 83
C4 SVJCR/L-27050-16	1.575	1.063	1.968	VC.. 1604	TVC 3-1	SR TC-3	HW 2.5	SR 16-236 P	T-15/5	EZ 83
C5 SVJCR-35060-11	1.968	1.378	2.362	VC.. 1103				SR 14-560/S	T-8/5	EZ 104
C5 SVJCR/L-35060-16	1.968	1.378	2.362	VC.. 1604	TVC 3-1	SR TC-3	HW 2.5	SR 16-236 P	T-15/5	EZ 104
C6 SVJCR/L-45065-16	2.480	1.772	2.559	VC.. 1604	TVC 3-1	SR TC-3	HW 2.5	SR 16-236 P	T-15/5	EZ 125

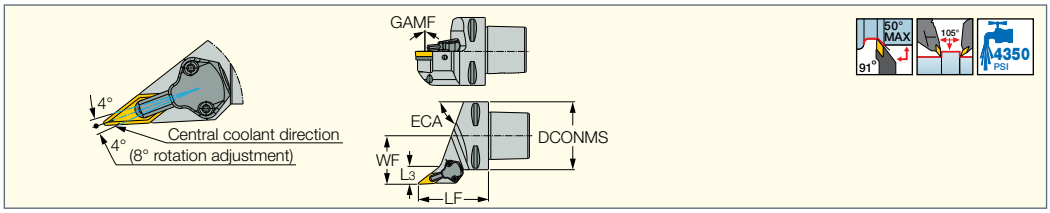
For inserts, see pages: VCMT-FPC-CERMET (165) • VCMT-F3P (164) • VCGW-2 (CBN) (203) • VCMT-M3P (164) • VCMT-F3M (164) • VCMT-M3M (165) • VCMT-SM (166) • VCET-WF (166) • VCGT-AS (181) • VCMT-14 (166) • VCMW (167) • VCMT (CBN) (202) • VCGT (PCD) (193) • VCGT-DW (PCD) (193)

ISOTURN JETCUT

CAMFIX

C#-SVJCR/L-JHP

Screw Lock Tools with CAMFIX Exchangeable Shanks Carrying 35° Rhombic Inserts with 7° Clearance Angle



Designation	DCONMS	WF	LF	GAMP	GAMF	ECA	L3	Insert
C3 SVJCR-22040-11-JHP	1.260	.866	1.575	0	0	55	-	VCMT 1103
C4 SVJCR/L-27055-16-JHP	1.575	1.063	2.165	0	0	55	-	VCMT 1604
C5 SVJCR/L-35060-16-JHP	1.968	1.378	2.362	0	0	55	-	VCMT 1604
C6 SVJCR-45065-16-JHP	2.480	1.772	2.559	0	0	70	.661	VCMT 1604

• For user guide, see pages 60-68

For inserts, see pages: VCMT-FPC-CERMET (165) • VCMT-F3P (164) • VCGW-2 (CBN) (203) • VCMT-M3P (164) • VCMT-F3M (164) • VCMT-M3M (165) • VCMT-SM (166) • VCET-WF (166) • VCGT-AS (181) • VCMT-14 (166) • VCMW (167) • VCMT (CBN) (202) • VCGT (PCD) (193) • VCGT-DW (PCD) (193)

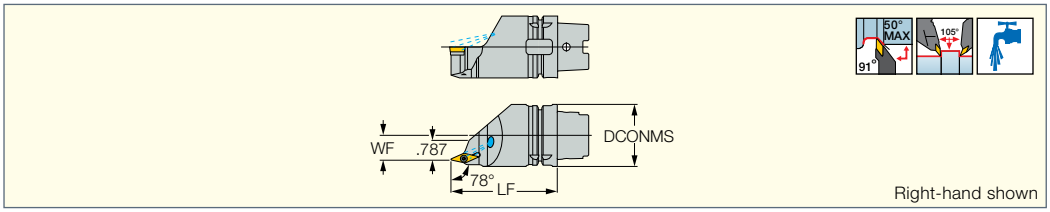
Spare Parts

Designation								
C3 SVJCR-22040-11-JHP				SR 14-560	CH-1.9D-JHP		T-8/5	
C4 SVJCR/L-27055-16-JHP	TVC 3-1	SR TC-3	T-15/5	SR 16-236 P	CU-V-JHP		T-8/5	HW 2.5
C5 SVJCR/L-35060-16-JHP	TVC 3-1	SR TC-3	T-15/5	SR 16-236 P	CU-V-JHP	OR 6.4X0.9N	T-8/5	HW 2.5
C6 SVJCR-45065-16-JHP	TVC 3-1	SR TC-3	T-15/5	SR 16-236 P	CU-V-JHP		T-8/5	HW 2.5

ISOTURN HSK

HSK A63WH-SVJCR/L

Tools with HSK Exchangeable Tapered Shanks Carrying the Positive 35° Inserts for 15° Mounting on Turn-Mill Machines



Designation	DCONMS	LF	WF	Insert						
HSK A63WH-SVJCR/L-J16	2.480	4.331	.984	VC.. 1604	TVC 3-1	SR TC-3	HW 2.5	SR 16-236 P	T-15/5	EZ 104

• Complies with ICTM standard (ISO 12164-3). • A cooling tube must be used with all coolant through HSK spindles (should be ordered separately).
• For shank dimensions, see page 710

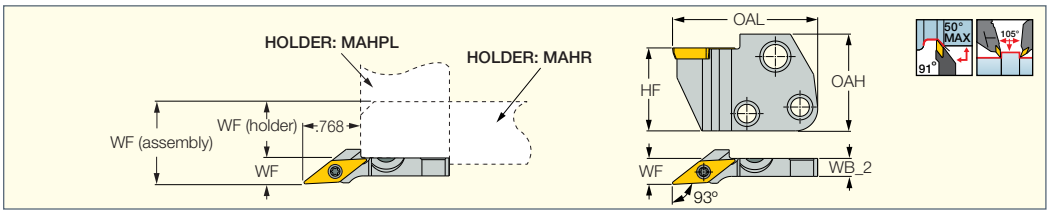
For inserts, see pages: VCMT-FPC-CERMET (165) • VCMT-F3P (164) • VCGW-2 (CBN) (203) • VCMT-M3P (164) • VCMT-F3M (164) • VCMT-M3M (165) • VCMT-SM (166) • VCGT-AS (181) • VCMT-14 (166) • VCMW (167) • VCMT (CBN) (202) • VCGT (PCD) (193) • VCGT-DW (PCD) (193)

ISOTURN

MODULAR-GRIP

SVJCR-PAD

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



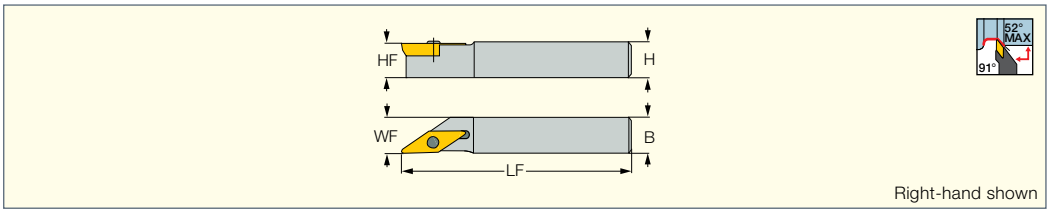
Designation	HF	OAH	OAL	WF	WB_2	GAMP	GAMF	Insert		
SVJCR-11-PAD	.945	1.102	1.654	.295	.205	0	0	VC.. 1103	SR 14-560	T-8/5

For inserts, see pages: VCMT-F3P (164) • VCMT-M3P (164) • VCMT-F3M (164) • VCMT-SM (166) • VCET-WF (166) • VCGT-AS (181)
For holders, see pages: C#-MAHPD-JHP (623) • C#-MAHD-JHP (622) • MAHPR/L-JHP (255) • MAHR/L-JHP (254) • MAHR/L (254) • MAHPR/L (255) • C#-MAHD (622) • C#-MAHPD (623) • C#-MAHUR/L (621) • C#-MAHDR-45 (620) • C#-MAHDOR (621) • HSK A63WH-MAHUR/L (631) • HSK A63WH-MAHDR-45 (630) • HSK A63WH-MAHDOR (630) • IM-MAHD (632) • IM-MAHPD (632) • HMSN-New Britain (493) • HMSDV (493) • DGHAL-DECO (Metric) (492) • HSTBS (493)

ISOTURN

SVACR/L

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



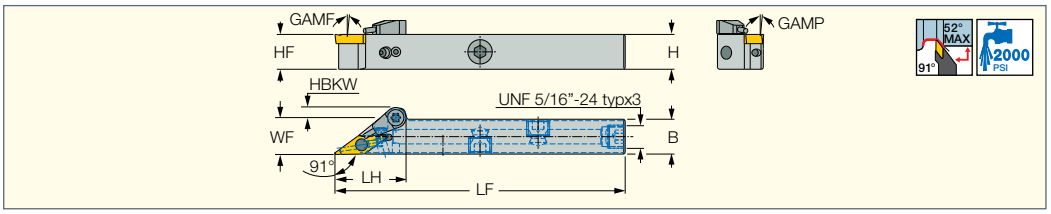
Designation	H	B	HF	LF	WF	GAMP	GAMF	Insert		
SVACR/L 1212K-11S	.472	.472	.472	4.921	.472	0	0	VC..11..	SR 14-560	T-8/5
SVACR 1616K-11S	.630	.630	.630	4.921	.630	0	0	VC..11..	SR 14-560	T-8/5
SVACR/L 1212K-13S	.472	.472	.472	4.921	.472	0	0	VC..13..	SR 14-513	T-8/5
SVACR/L 1616K-13S	.630	.630	.630	4.921	.630	0	0	VC..13..	SR 14-513	T-8/5
SVACR/L 2020K-13S	.787	.787	.787	4.921	.790	0	0	VC..13..	SR 14-513	T-8/5

For inserts, see pages: VCMT-F3P (164) • VCMT-M3P (164) • VCMT-F3M (164) • VCGT-PF (165) • VCMT-SM (166) • VCET-WF (166) • VCGT-AS (181)

ISOTURN JETCUT

PVACR/L-JHP

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



Designation	H	HF	B	LF	LH	WF	HBKW	GAMP	GAMF	Insert
PVACR/L 08-2S-JHP	.500	.500	.500	4.000	1.000	.510	.12	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 60-68

For inserts, see pages: VCMT-F3P (164) • VCMT-M3P (164) • VCMT-F3M (164) • VCMT-SM (166) • VCET-WF (166) • VCGT-AS (181)

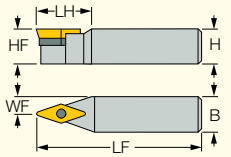
Spare Parts

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

ISOTURN

SVVCN

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





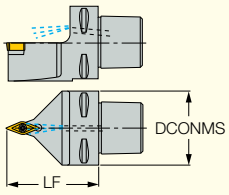
Designation	H	HF	B	LF	LH	WF	GAMP	GAMF					
SVVCN 12-3	.750	.750	.750	4.500	1.130	.380	0	0	SR 16-236 P	T-15/5	TVC 3-1	SR TC-3	HW 2.5
SVVCN 16-3	1.000	1.000	1.000	6.000	1.500	.500	0	0	SR 16-236 P	T-15/5	TVC 3-1	SR TC-3	HW 2.5

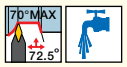
For inserts, see pages: VCMT-FPC-CERMET (165) • VCMT-F3P (164) • VCGW-2 (CBN) (203) • VCMT-M3P (164) • VCMT-F3M (164) • VCMT-M3M (165) • VCMT-SM (166) • VCGT-AS (181) • VCMT-14 (166) • VCMW (167) • VCMT (CBN) (202) • VCGT (PCD) (193) • VCGT-DW (PCD) (193)

ISOTURN CAMFIX

C#-SVVCN

Screw Lock Tools with CAMFIX Exchangeable Shanks Carrying the 35° Rhombic Inserts with 7° Clearance Angle





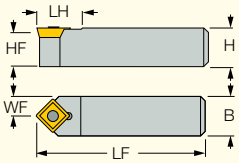
Designation	DCONMS	LF	Insert							
C4 SVVCN-00050-11	1.575	1.575	VC.. 1103				SR 14-560/S	T-8/5	EZ 83	
C4 SVVCN-00050-16	1.575	1.575	VC.. 1604	TVC 3-1	SR TC-3	HW 2.5	SR 16-236 P	T-15/5	EZ 83	
C5 SVVCN-00060-16	1.968	1.968	VC.. 1604	TVC 3-1	SR TC-3	HW 2.5	SR 16-236 P	T-15/5	EZ 125	

For inserts, see pages: VCMT-FPC-CERMET (165) • VCMT-F3P (164) • VCGW-2 (CBN) (203) • VCMT-M3P (164) • VCMT-F3M (164) • VCMT-M3M (165) • VCMT-SM (166) • VCGT-AS (181) • VCMT-14 (166) • VCMW (167) • VCMT (CBN) (202) • VCGT (PCD) (193) • VCGT-DW (PCD) (193)

ISOTURN

SSDCN

Screw Lock Neutral Holders for 7° Clearance Square Inserts





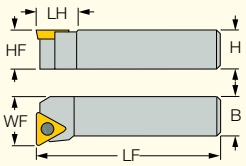
Designation	H	h_1	B	LF	LH	WF	GAMP	GAMF	Insert		
SSDCN 08-3	.500	.500	.500	3.500	.690	.250	0	0	SC.. 3	SR 16-236	T-15/5
SSDCN 10-4	.625	.625	.625	4.500	.840	.310	0	0	SC.. 4	SR 16-212	T-20/5
SSDCN 12-4	.750	.750	.750	4.500	.840	.380	0	0	SC.. 4	SR 16-212	T-20/5

For inserts, see pages: SCMT-F3P (167) • SCMT-M3P (167) • SCMT-F3M (168) • SCMT-M3M (168) • SCMT-SM (168) • SCGT-AS (180) • SCMT-14 (169) • SCMT-19 (169)

ISOTURN

STFCR/L

Screw Lock Tools Carrying the Triangular Inserts with 7° Clearance Angle





Right-hand shown

Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
STFCR 06-2	.375	.375	.375	2.500	.500	.500	0	0	TC.. 2
STFCR/L 08-2	.500	.500	.500	3.500	.500	.630	0	0	TC.. 2
STFCR 10-2	.625	.625	.625	4.500	.500	.750	0	0	TC.. 2
STFCR 12-3	.750	.750	.750	4.500	.720	1.000	0	0	TC.. 3
STFCR 16-3	1.000	1.000	1.000	6.000	.720	1.250	0	0	TC.. 3

For inserts, see pages: TCMT-F3P (170) • TCMT-M3M (170) • TCMT-PF (170) • TCMT-SM (171) • TCGT-AS (181) • TCMT (CBN) (204) • TCMT (PCD) (194)

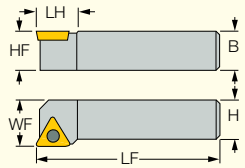
Spare Parts

Designation					
STFCR 06-2	SR 14-548	T-7/5			
STFCR/L 08-2	SR 14-548	T-7/5			
STFCR 10-2	SR 14-548	T-7/5			
STFCR 12-3	SR 16-236	T-15/5			
STFCR 16-3	SR 16-236	T-15/5	TTC 3-2	SR TC-3	HW 2.5

ISOTURN

STGCR/L

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





Right-hand shown

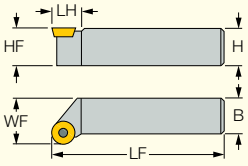
Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert		
STGCR 06-2	.375	.375	.375	2.500	.500	.500	0	0	TC.. 2	SR 14-548	T-7/5
STGCR/L 08-2	.500	.500	.500	3.500	.500	.630	0	0	TC.. 2	SR 14-548	T-7/5
STGCR 10-2	.625	.625	.625	4.500	.500	.750	0	0	TC.. 2	SR 14-548	T-7/5
STGCR/L 12-3	.750	.750	.750	4.500	.720	1.000	0	0	TC.. 3	SR 16-236	T-15/5

For inserts, see pages: TCMT-F3P (170) • TCMT-M3M (170) • TCMT-PF (170) • TCMT-SM (171) • TCGT-AS (181) • TCMT (CBN) (204) • TCMT (PCD) (194)

ISOTURN

SRGCR/L

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





Right-hand shown

Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
SRGCR/L 08-08	.500	.500	.500	3.500	.440	.630	0	0	RC.. 08
SRGCR/L 16-10	1.000	1.000	1.000	6.000	.750	1.250	0	0	RC.. 10
SRGCR 16-12	1.000	1.000	1.000	6.000	.750	1.250	0	0	RC.. 12

For inserts, see pages: RCGT-AS (183) • RCMT-14 (171) • RCMT-SR (171)

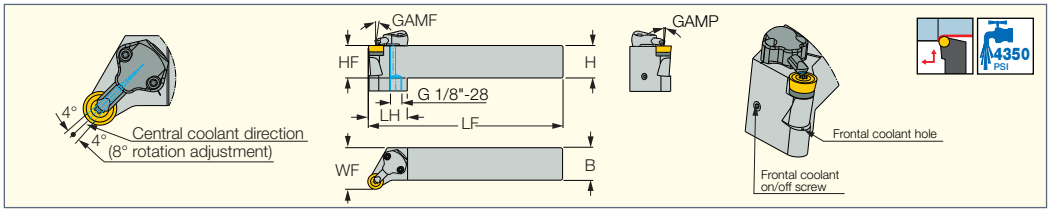
Spare Parts

Designation					
SRGCR/L 08-08	SR 14-513	T-8/5			
SRGCR/L 16-10	SR 16-236	T-15/5	TRC 3-0	SR TC-3	HW 2.5
SRGCR 16-12	SR 16-212	T-20/5	TRC 4-0	SR TC-4	HW 3.0

ISOTURN JETCUT

SRGCR-12-JHP

Screw Lock Tools with Channels for High Pressure Coolant Carrying the Round Inserts with 7° Clearance Angle



Designation	H	B	HF	LF	LH	WF	GAMP	GAMF	Insert
SRGCR 16-12-JHP	1.000	1.000	1.000	6.000	1.200	1.250	0	0	RCMT 1204

• For user guide, see pages 60-68

For inserts, see pages: RCMT-14 (171)

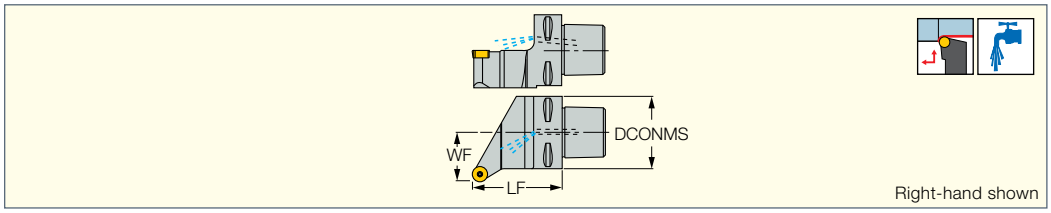
Spare Parts

Designation									
SRGCR 16-12-JHP	TRC 4-0	SR TC-4	T-8/5	SR 16-212	T-20/5	CU-R-JHP	SR M4X4 DIN913 TL360	HW 2.0	HW 3.0

ISOTURN CAMFIX

C#-SRGCR/L

Screw Lock Tools with CAMFIX Exchangeable Shanks Carrying the Round Inserts with 7° Clearance Angle



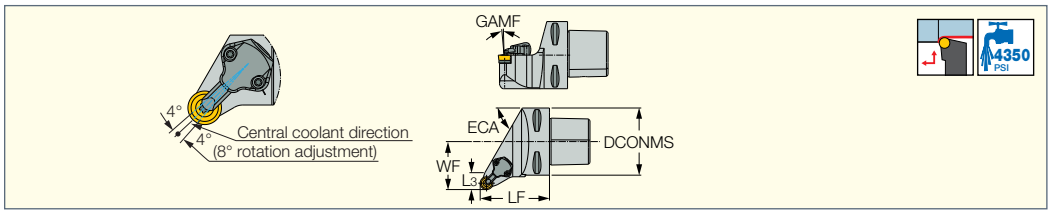
Designation	DCONMS	WF	LF	Insert						
C5 SRGCR-35060-12	1.968	1.378	2.362	RCMT 1204MO	TRC 4-0	SR TC-4	HW 3.0	SR 16-212	T-20/5	EZ 104

For inserts, see pages: RCMT-14 (171)

ISOTURN JETCUT CAMFIX

C#-SRGCR-12-JHP

Screw Lock Tools with CAMFIX Exchangeable Shanks Carrying Round Inserts with 7° Clearance Angle



Designation	DCONMS	WF	LF	ECA	L3	Insert							
C6 SRGCR-45065-12-JHP	2.480	1.772	2.559	60	.630	RCMT 1204MO	TRC 4-0	SR TC-4	T-20/5	SR 16-212	HW 3.0	CU-R-JHP	T-8/5

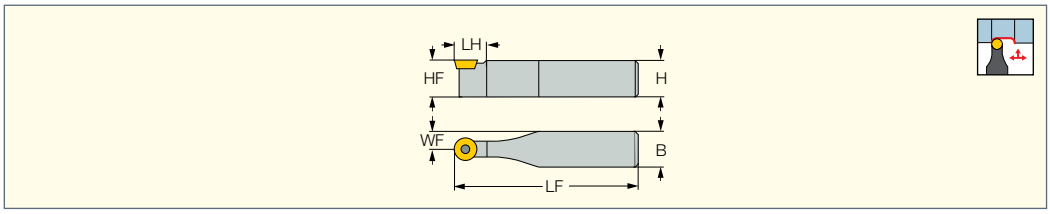
• For user guide, see pages 60-68

For inserts, see pages: RCMT-14 (171)

ISOTURN

SRNCN

Screw Lock Neutral Holders for 7° Clearance Round Inserts



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF	Insert
SRNCN 10-08	.625	.625	.625	4.500	.620	.310	0	0	RC.. 08
SRNCN 12-10	.750	.750	.750	4.500	.790	.370	0	0	RC.. 10
SRNCN 16-12	1.000	1.000	1.000	6.000	.980	.500	0	0	RC.. 12
SRNCN 16-16	1.000	1.000	1.000	6.000	2.000	.500	0	0	RC.. 16
SRNCN 20-20	1.250	1.250	1.250	6.000	2.000	.630	0	0	RC.. 20

For inserts, see pages: RCGT-AS (183) • RCMT-14 (171) • RCMT-SR (171)

Spare Parts

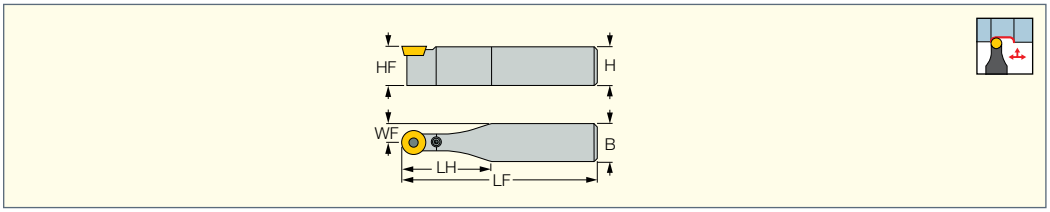
Designation								
SRNCN 10-08	SR 14-513		T-8/5					
SRNCN 12-10	SR 16-236		T-15/5					
SRNCN 16-12	SR 16-212	SR 16-236*	T-20/5			TRC 4-0	SR TC-4	HW 3.0
SRNCN 16-16	SR 16-212		T-20/5			TRC 5-0	SR TC-4	HW 3.0
SRNCN 20-20	SR 14-519			SW6-T-SH	BLD T20/S7	TRC 6-0	SR TC-6	HW 4.0

* Optional, should be ordered separately

ISOTURN

PRDCN

Lever Lock Tools Carrying the RCMX Round Inserts



Designation	H	HF	B	OAL	LH	WF	GAMP	GAMF	Insert
PRDCN 24-25	1.500	1.500	1.500	7.000	3.070	.750	0	0	RCMX 2507

For inserts, see pages: RCMX-NR (172)

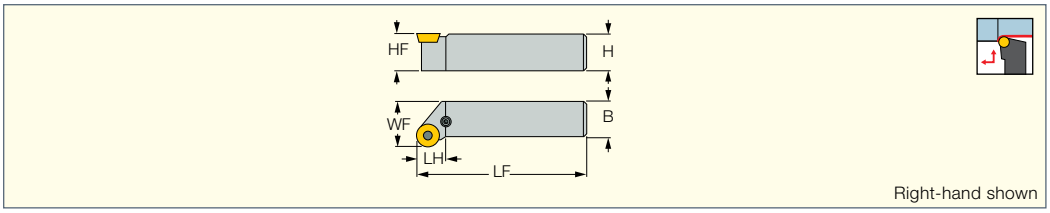
Spare Parts

Designation					
PRDCN	TRC 25	SP 66	LR 25C	SR 10402289	HW 4.0

ISOTURN

PRGCR

Lever Lock Tools Carrying the RCMX Round Inserts



Designation	H	B	HF	OAL	LH	WF	GAMP	GAMF	Insert
PRGCR 32-32	2.000	2.000	2.000	8.000	1.510	2.500	0	0	RCMX 3209

For inserts, see pages: RCMX-NR (172)

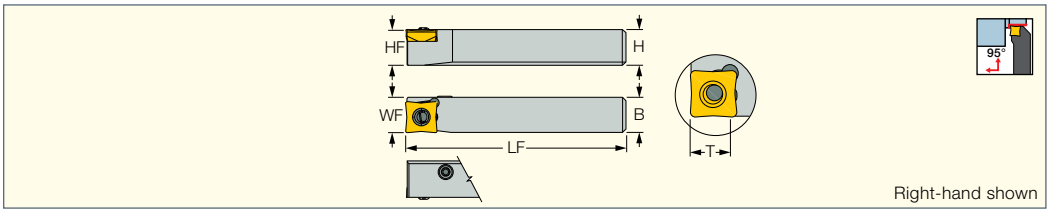
Spare Parts

Designation					
PRGCR	TRC 32	SP 8	LR 32C	SR 10402264	HW 5.0

ISOTURN

PQLCR-S

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



Designation	H	HF	B	OAL	LH	T	WF	GAMP	GAMF
PQLCR 08-3S	.500	.500	.500	.590	.790	.335	.500	0	0
PQLCR 10-3S	.625	.500	.625	.590	.790	.335	.500	0	0

For inserts, see pages: QCMT-PF (172) • QCMT-SM (173)

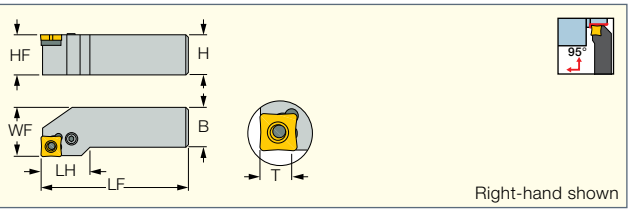
Spare Parts

Designation				
PQLCR-S	SL LV-3	SL PI-3	SR 10400150	HW 2.5/5

ISOTURN

PQLCR/L

Lever Lock Tools Carrying the 80° Positive 4-Cornered Inserts



Designation	H	HF	B	LF	LH	WF	T	GAMP	GAMF
PQLCL 10-3	.625	.625	.625	4.000	1.000	.880	.335	0	0
PQLCR 16-3	1.000	1.000	1.000	6.000	1.000	1.250	.335	0	0

For inserts, see pages: QCMT-PF (172) • QCMT-SM (173)

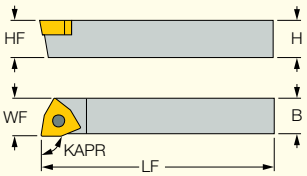
Spare Parts

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

ISOTURN

SWAPR/L

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



	M E T R I C								
Designation	H	HF	B	LF	WF	KAPR	Insert		
SWAPR/L 0808-04	8.0	8.0	8.0	140.00	8.10	90.0	WPEB/X 04..	T-8/5	SR-M3.0L
SWAPR 1010-04	10.0	10.0	10.0	150.00	10.10	90.0	WPEB/X 04..	T-8/5	SR-M3.0R.
SWAPR/L 1010-05	10.0	10.0	10.0	150.00	10.10	90.0	WPEB/X 05..	T-8/5	SR-M3.5L
SWAPL 1212-05	12.0	12.0	12.0	150.00	12.10	90.0	WPEB/X 05..	T-8/5	SR-M3.5L
SWAPR/L 1212-06	12.0	12.0	12.0	150.00	12.10	90.0	WPEB/X 06..	T-8/5	SR-M3.5L
SWAPR 1414-06	14.0	14.0	14.0	150.00	14.10	90.0	WPEB/X 06..	T-8/5	SR-M3.5R
SWAPR/L 1616-06	16.0	16.0	16.0	150.00	16.10	90.0	WPEB/X 06..	T-8/5	SR-M3.5L

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

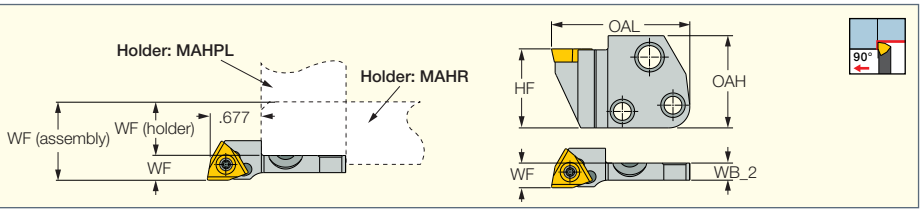
For inserts, see pages: WPEX (178)

ISOTURN

MODULAR-GRIP

SWAPR-PAD

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



Designation	HF	OAH	OAL	WF	WB_2	GAMP	GAMF	Insert
SWAPR-06-PAD	.945	1.102	1.654	.295	.205	0	0	WPEX/B 0604

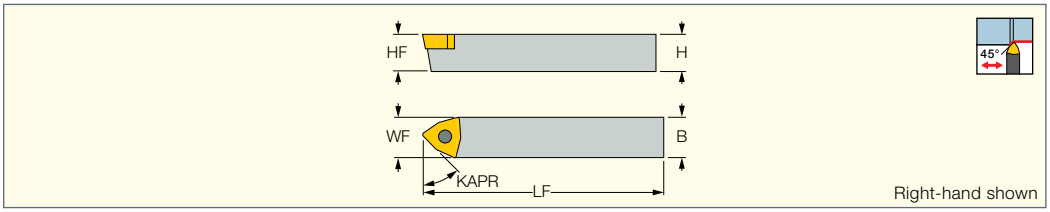
For inserts, see pages: WPEX (178)

For holders, see pages: C#-MAHD-JHP (622) • C#-MAHPD-JHP (623) • MAHPR/L-JHP (255) • MAHR/L-JHP (254) • MAHR/L (254) • MAHPR/L (255) • C#-MAHD (622) • C#-MAHPD (623) • C#-MAHUR/L (621) • C#-MAHDR-45 (620) • C#-MAHDOR (621) • HSK A63WH-MAHUR/L (631) • HSK A63WH-MAHDR-45 (630) • HSK A63WH-MAHDOR (630) • IM-MAHD (632) • IM-MAHPD (632) • HMSN-New Britain (493) • HMSDV (493) • DGHAL-DECO (Metric) (492) • HSTBS (493)

ISOTURN

SWDPR/L

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



Designation	M E T R I C								
	H	HF	B	LF	WF	KAPR	Insert		
SWDPR 1010-04	10.0	10.0	10.0	150.00	10.10	45.0	WPEB/X 04..	T-8/5	SR-M3.0R.
SWDPR/L 1212-05	12.0	12.0	12.0	150.00	12.10	45.0	WPEB/X 05..	T-8/5	SR-M3.5L
SWDPR 1616-06	16.0	16.0	16.0	150.00	16.10	45.0	WPEB/X 06..	T-8/5	SR-M3.5R

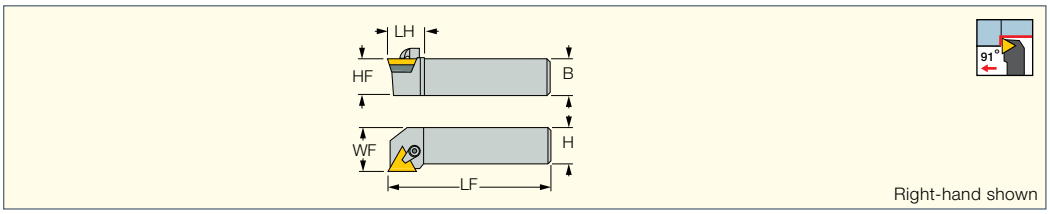
• For R.H. tool use -R screw, for L.H. tool use -L screw

For inserts, see pages: WPEX (178)

ISOTURN

CTGPR

Clamp Lock Toolholders for 11° Clearance Triangular Inserts



Designation	H	HF	B	LF	LH	WF	GAMP	GAMF				
CTGPR 12-3U	.750	.750	.750	4.500	1.020	1.000	5	0	ITBP 122	SP 16	LC 30 SET 1A	HW 1/8"
CTGPR 16-3U	1.000	1.000	1.000	6.000	1.020	1.250	5	0	ITBP 123	SP 16	LC 30 SET 1A	HW 1/8"

For inserts, see pages: TPG-Ceramic (190) • TPMR (173) • TPMR-FTF (174) • TPMR-PF (174)

JET HIGH PRESSURE TOOLS



High Pressure Coolant

Important Features

- Up to 200% increased cutting speed when machining titanium and heat resistant alloys
- Effective chip control on problematic materials
- Up to 100% increased tool life when machining titanium, heat resistant alloys and alloy steel

JHP tools are essential and important for the aviation, aerospace and medical industries.

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

- Shorter machining time – cutting speed may be increased by up to 200% when machining titanium and heat resistant alloys
- Longer tool life – increased tool life by up to 100% not only on titanium and heat resistant alloys, but also on stainless and alloy steels
- Improved chip control – small chips can be obtained even on the most ductile and problematic materials
- Effective cooling down of the cutting edge, reducing sensitivity to heat fluctuations
- Safer and more stable process

JHP tools provide advantageous performance, also when conventional pressure is applied.

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 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

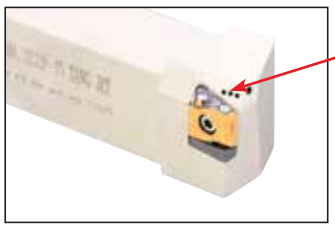
- The coolant flow will start to break the chips at a certain pressure, depending on the specific tool and the workpiece material. If the chips are not breaking, the pressure should be increased until chip control is achieved. As the pressure is increased, the chips become smaller and smaller. It is possible to control the size of the chips by modifying the pressure.

There are 4 various telescopic tubes intended for various insert geometries (see table). Each tube possesses a different profile optimized for the specific geometry of the insert.
The flow rate for each tube is listed in the table below.

Flow Rate for Various JHP Nozzles

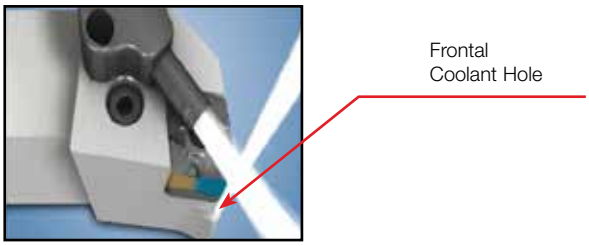
Insert	Channel Shape Inside the Nozzle Tube	Nozzle Tube	Flow Rate gallon/min			
			1000 PSI	1450 PSI	2000 PSI	4350 PSI
		NZ-CW-JHP	4.5	5.3	6.35	9.25
		NZ-D-JHP	4.2	5	5.8	8.45
		NZ-V-JHP	2.9	3.4	3.95	5.8
		NZ-R-JHP	3.7	4.2	5	7.65
		NZ-S-JHP	4.75	5.55	6.6	9.8
		Holes	3.95	4.75	5.55	8.45
Frontal Coolant Hole(1)		Hole	.47-.68	.55-.90	.66-.95	.98-1.27

The tools with LNMX 1506... inserts feature fixed coolant channels.

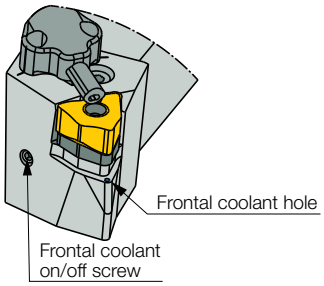


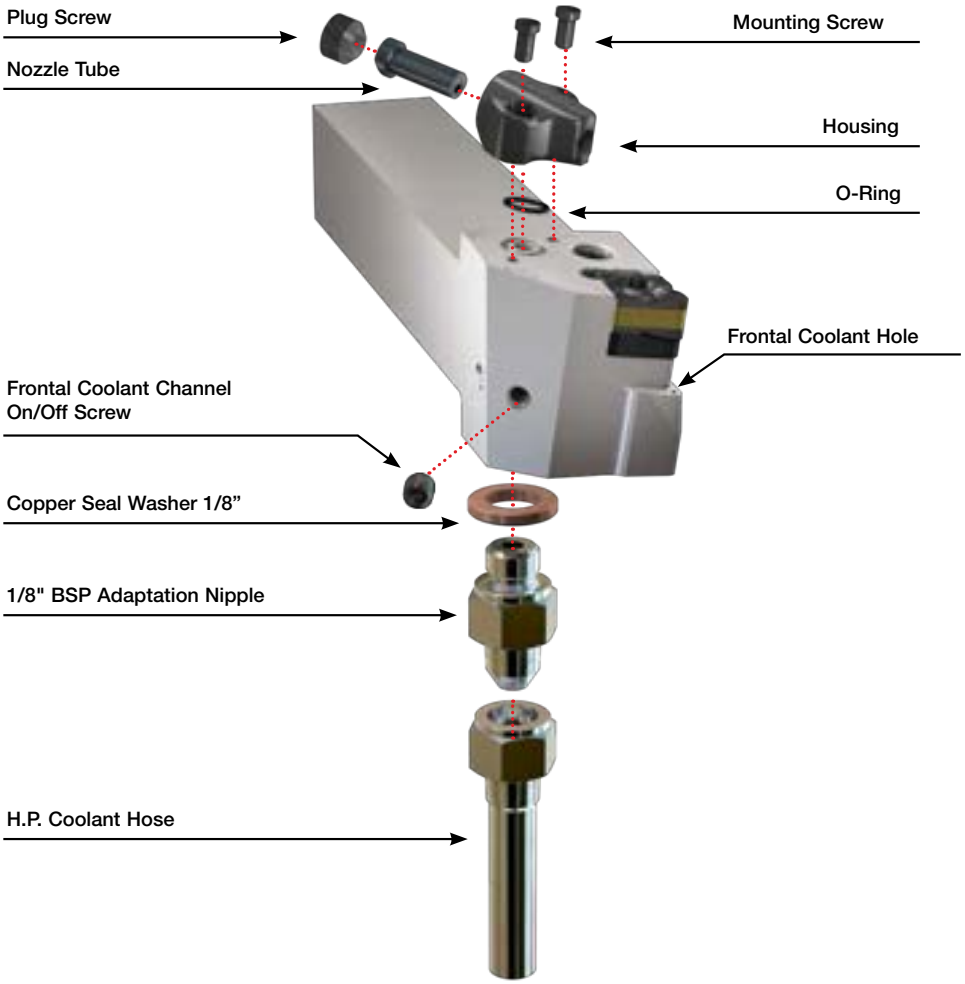


For most of the tools which have a square shank, a frontal coolant hole has been added underneath the seat of the insert to enable coolant flow to be directed to the flank area of the insert. The frontal coolant jet increases the amount of coolant to the cutting zone. By closing or opening a screw, it acts as a valve that monitors the rate of coolant flow.



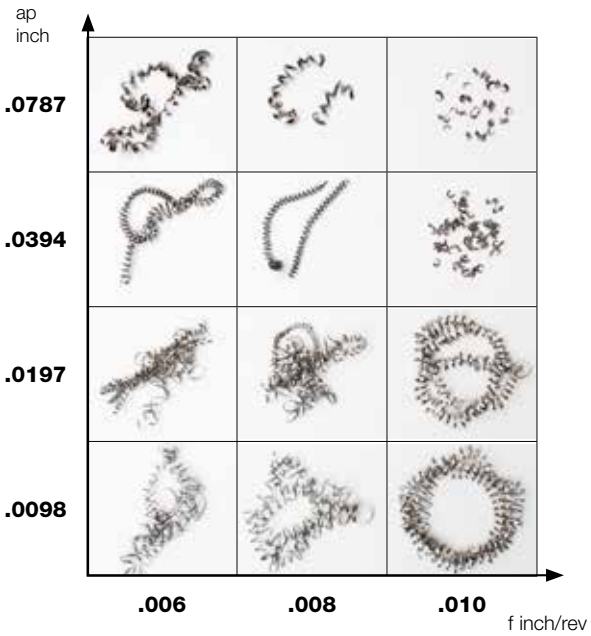
The **SLAN**-15-**TANG JHP** tools for **LNMX** 1506**...** inserts, **SVJCR/L**-3-**JHP** for **VCMT** 33.. inserts and all the high pressure coolant tools with **CAMFIX** shanks do not have the frontal coolant channel option.



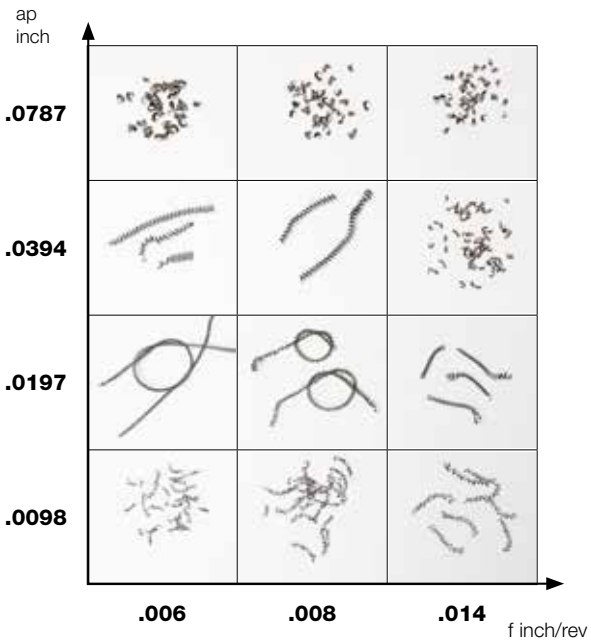


Inconel 718 - Chip Control with CNMX 452-M4MW IC807 Vc = 230 SFM

Normal Pressure



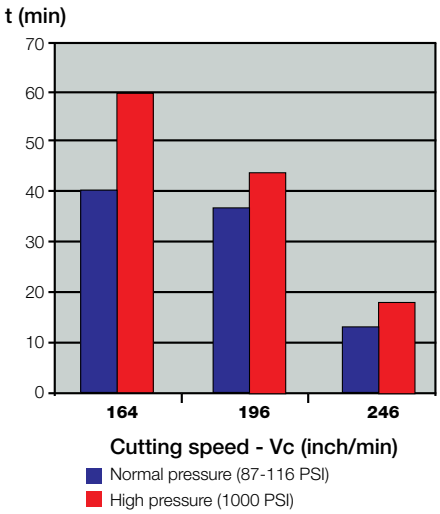
High Pressure - 1160 PSI

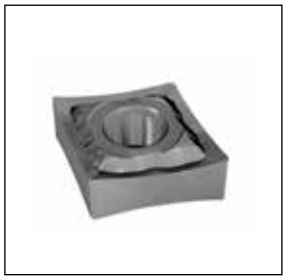


Test Report

Material: Titanium (Ti6Al4V)
Operation: Turning
Tool: **PCLNL** 16-4-**JHP**
Insert: **CNMG** 433-**PP IC20**
ap: .1”
f: .012 inch/rev

Pressure Influence on Tool Life





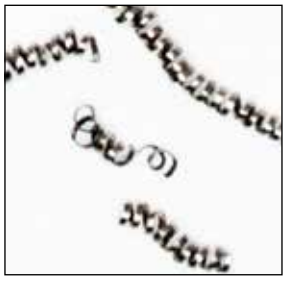


Pressure Influence on Chip Control

High Pressure



Normal Pressure



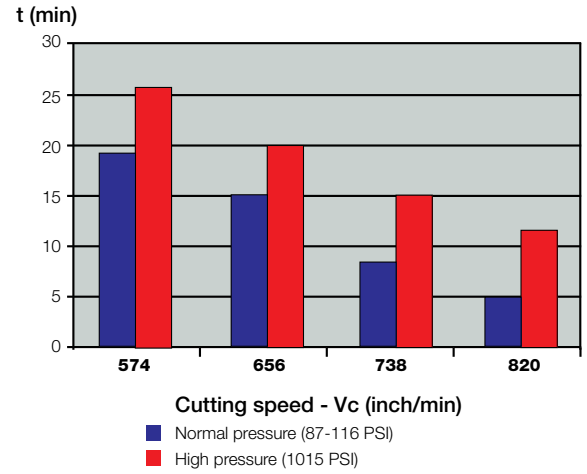
Test Report

Material: Stainless steel **316L**
Operation: Turning
Tool: **PCLNL** 16-4-**JHP**
Insert: **CNMG** 432-**TF IC908**
ap: .1”
f: .012 inch/rev





Pressure Influence on Tool Life



Pressure Influence on Chip Control

High Pressure



Normal Pressure

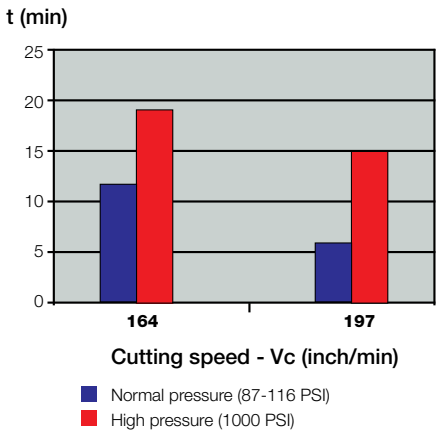


Test Report

Material: Inconel 718 (46 **HRC**)
Operation: Turning
Tool: **PCLNL** 16-4-**JHP**
Insert: **CNMG** 432-**TF IC808**
ap: .1”
f: .012 inch/rev



Pressure Influence on Tool Life



Pressure Influence on Chip Control

High Pressure



Normal Pressure



Assembly and Safety Guidelines When Using the **JET HP** ISO Turning and Grooving Tools

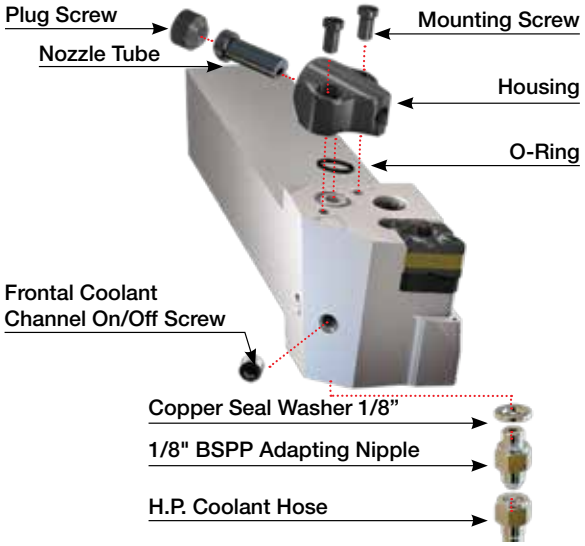
Before use, please ensure that:

- The machine door is in a fully closed position
- The coolant hose is in the correct location and fully tightened with all seals in position
- A blank plug is inserted into the unused coolant hole
- All O-rings and washers are in place
- The coolant hose is tightened securely to the toolholder and tool block to prevent coolant leakage

Important
Always pay attention not to exceed the maximum safe working pressure of 4350 **PSI**.

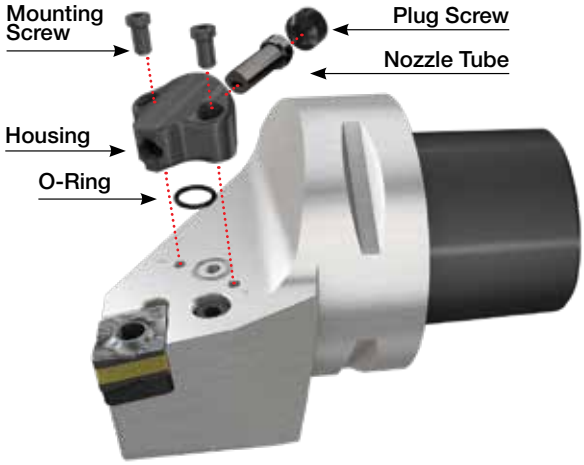


Maximum Pressure 4350 PSI



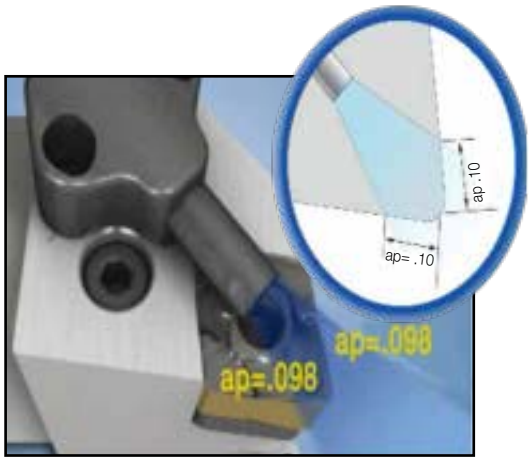


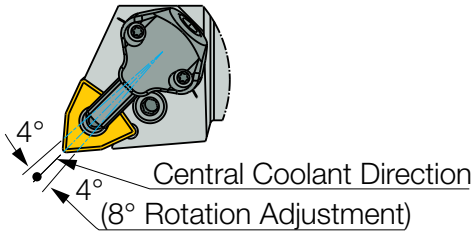
Maximum Pressure 4350 PSI



ISOTURN JHP Tools

The unique high pressure coolant system is composed of a static housing and telescopic tube to direct the coolant exactly to the cutting edge of the insert. The telescopic tube embedded in the housing skews right and left, according to the working direction of the tool (see drawing). The advantage of this system is that there is no need to detach the housing of the tool when changing an insert. This reduces setup time.





To mount or change an insert: 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.

Insert Indexing Procedure

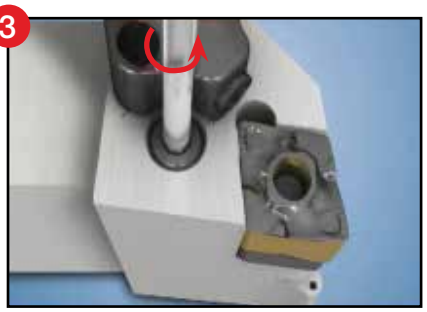
1



2



3

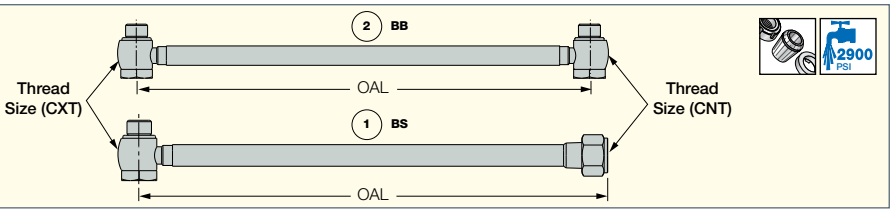


4



Accessories

JHP HOSE
High Pressure Coolant Hose



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

Spare Parts

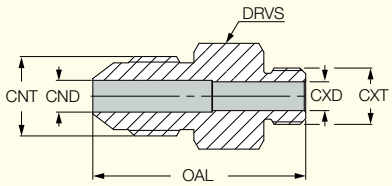
Designation		
JHP HOSE 5/16-7/16-200BS	JHP BANJO BOLT 5/16" UNF	JHP COPPER SEAL 5/16"
JHP HOSE G1/8-G1/8-200BB	JHP BANJO BOLT G1/8"*	JHP COPPER SEAL 1/8"*
JHP HOSE G1/8-G1/8-250BB	JHP BANJO BOLT G1/8"*	JHP COPPER SEAL 1/8"*

* Optional, should be ordered separately

Accessories

JHP NIPPLE
High Pressure Adaptation Nipple





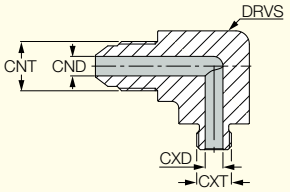


Designation	CXT	CNT	OAL	CND	CXD	DRVS(1)
JHP NIPPLE G1/8"-7/16"UNF	1/8"-28 BSPP	7/16"-20 UNF	1.132	.157	.157	.563
JHP NIPPLE 1/8NPT-7/16UNF	1/8"-27 NPT	7/16"-20 UNF	1.220	.189	.173	.500
JHP NIPPLE 1/4NPT-7/16UNF	1/4"-18 NPT	7/16"-20 UNF	1.417	.173	.173	.563
JHP NIPPL 5/16UNF-7/16UNF	5/16"-24 UNF	7/16"-20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

(1) Key flat size

Accessories

JHP ELBOW
High Pressure Adaptation Elbow





Designation	CNT	CND	CXT	CXD	DRVS(2)
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) Key flat size

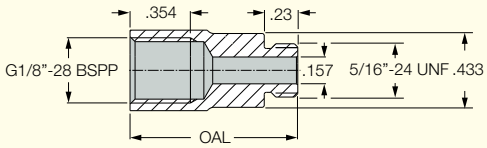
Spare Parts

Designation	
JHP ELBOW 90-5/16-7/16UNF	JHP COPPER SEAL 5/16"-2.5
JHP ELBOW 90-G1/8-7/16UNF	JHP COPPER SEAL 1/8"

Accessories

JHP CONNECTOR
High Pressure Connector







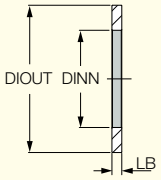
Designation	OAL	DRVS[1]
JHP CONECTOR 5/16"-G1/8"	.984	.472

[1] Key flat size

Accessories

JHP COPPER SEAL
High Pressure Copper Seal





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

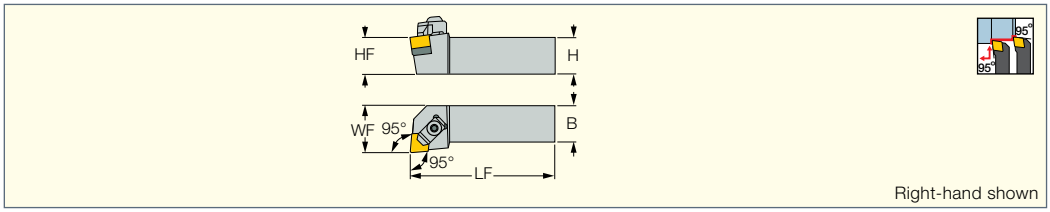
TOOLS FOR CERAMIC INSERTS



ISOTURN

CCLNR

Clamp Lock Toolholders for Ceramic 80° Rhombic Negative Inserts



Right-hand shown

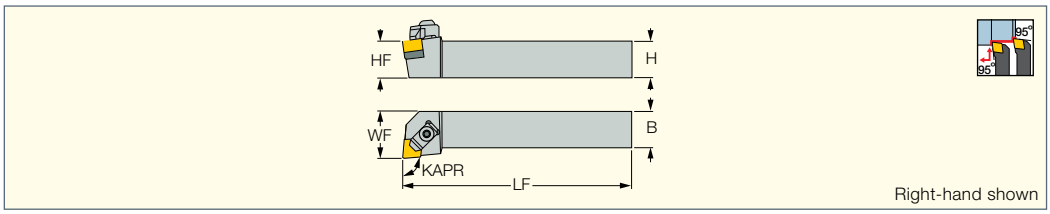
Designation	H	HF	B	LF	WF	GAMP	GAMF	Insert					
CCLNR 12-4CEA	.750	.750	.750	4.500	1.000	-4	-6	CNG 43..	S 48	SR M5X0.8X10	HW 4.0	SR M6X1X25 ISO7380	BCL 6 CLAMP
CCLNR 16-4CE	1.000	1.000	1.000	6.000	1.250	-4	-6	CNG 45..	S 48	SR M5X0.8X10	HW 4.0	SR M6X1X25 ISO7380	BCL 6 CLAMP

For inserts, see pages: CNG-Ceramic (186)

ISOTURN

CCLNR/L

Clamp Lock Tools Carrying Ceramic Negative 80° Rhombic Inserts



Right-hand shown

Designation	M E T R I C								
	H	HF	B	LF	WF	KAPR	GAMP	GAMF	Insert
CCLNR 2020K-12CEA	20.0	20.0	20.0	125.00	25.00	95.0	-4	-6	CNGN 1204
CCLNR/L 2525M-12CEA	25.0	25.0	25.0	150.00	32.00	95.0	-4	-6	CNGN 1204

For inserts, see pages: CNGN-Ceramic (186)

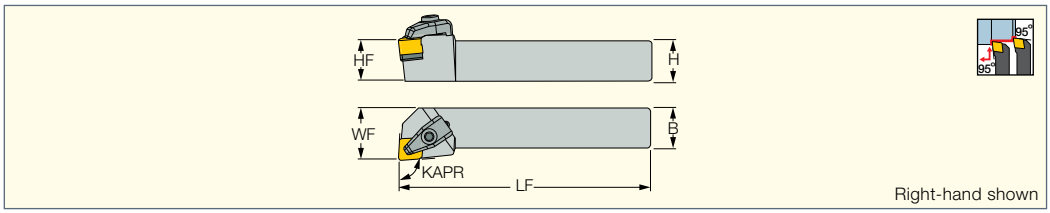
Spare Parts

Designation					
CCLNR/L	S 48	HW 4.0	BCL 6 CLAMP	SR M6X1X25 ISO7380	SR M5X0.8X10

ISOTURN

TCLNR/L-CH

95° Lead Angle Tools Carrying the Negative CNGX 80° Rhombic Ceramic Dimpled Inserts



Right-hand shown

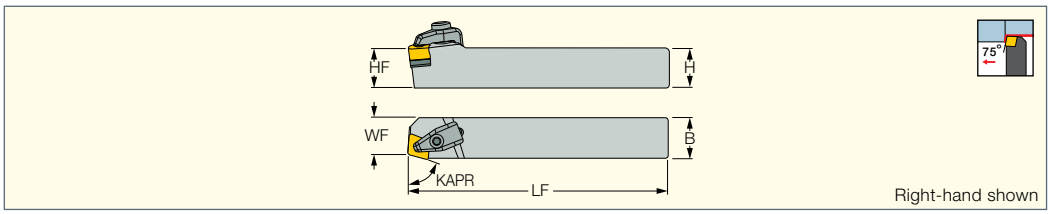
Designation	M E T R I C												
	H	HF	B	LF	WF	KAPR	Insert						
TCLNR/L 2525M-12CH	25.0	25.0	25.0	150.00	32.00	95.0	CNGX 1207...T	S 48	SR M5X0.8X10	CCL 4	KSP 5	CSC 4	HW 4.0

For inserts, see pages: CNGX-Ceramic (187)

ISOTURN

TCBNR/L-CH

75° Lead Angle Toolholders Using the 100° Corner of CNGX 80° Negative Rhombic Ceramic Dimpled Inserts



Right-hand shown

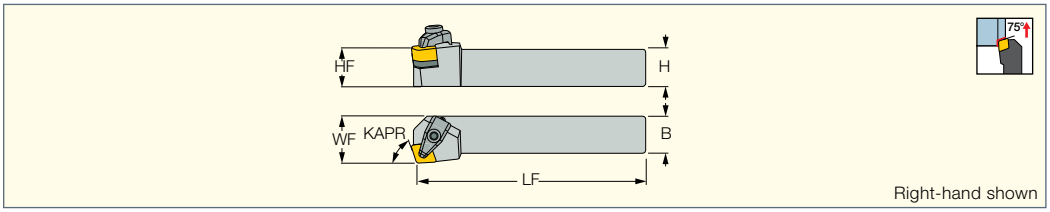
Designation	M E T R I C												
	H	HF	B	LF	WF	KAPR	Insert						
TCBNR/L 2525M-12CH	25.0	25.0	25.0	150.00	22.00	75.0	CNGX 1207...T	S 48	SR M5X0.8X10	CCL 4	KSP 5	CSC 4	HW 4.0

For inserts, see pages: CNGX-Ceramic (187)

ISOTURN

TCKNR/L-CH

75° Lead Angle Tools Carrying the 100° Corner of CNGX 80° Negative Rhombic Ceramic Dimpled Inserts for Facing



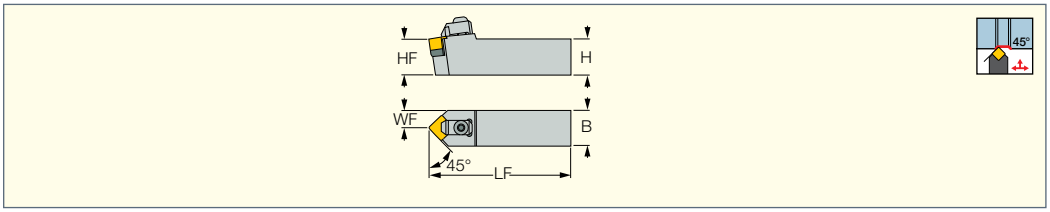
Designation	M E T R I C												
	H	HF	B	LF	WF	KAPR	Insert						
TCKNR/L 2525M-12CH	25.0	25.0	25.0	150.00	32.00	75.0	CNGX 1207...T	S 48	SR M5X0.8X10	CCL 4	KSP 5	CSC 4	HW 4.0

For inserts, see pages: CNGX-Ceramic (187)

ISOTURN

CSDNN-CE

45° Lead Angle Toolholders Using Square Ceramic Inserts



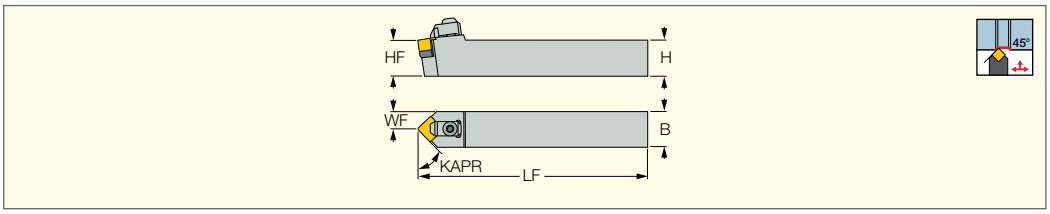
Designation	H	HF	B	LF	WF	Insert					
CSDNN 20-4CE	1.250	1.250	1.250	7.000	.630	SNG 45..	S 40 (SEAT)	SR M5X0.8X10	HW 4.0	SR M6X1X25 ISO7380	BCL 6 CLAMP

For inserts, see pages: SNG-Ceramic (157)

ISOTURN

CSDNN-CE/CEA

45° Lead Angle Tools Carrying the Square Ceramic Inserts



Designation	M E T R I C						
	H	HF	B	LF	WF	KAPR	Insert
CSDNN 2525M-12CEA	25.0	25.0	25.0	150.00	12.50	45.0	SNGN 1204

For inserts, see pages: SNGN-Ceramic (157)

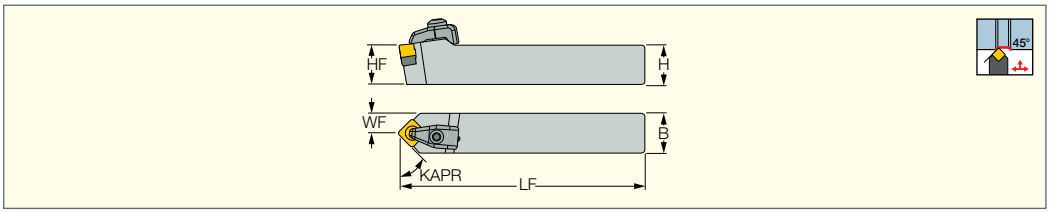
Spare Parts

Designation						
CSDNN 2525M-12CEA	S 40 (SEAT)	SR M5X0.8X10	BCL 6 CLAMP	SR M6X1X25 ISO7380	HW 4.0	HW 3.0

ISOTURN

TSDNN-CH

45° Lead Angle Tools Carrying the Square Ceramic Dimpled Inserts



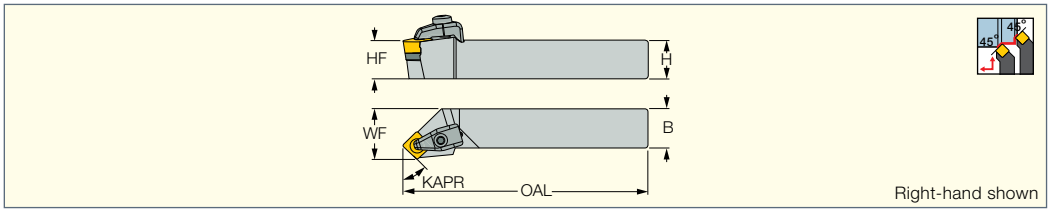
Designation	M E T R I C											
	H	HF	B	LF	WF	KAPR						
TSDNN 2525M-12CH	25.0	25.0	25.0	150.00	12.50	45.0	S 40 (SEAT)	SR M5X0.8X10	CCL 4	KSP 5	CSC 4	HW 4.0

For inserts, see pages: SNGX-Ceramic (157)

ISOTURN

TSSNR/L-CH

45° Lead Angle Tools Carrying the Square Ceramic Dimpled Inserts for Longitudinal and Face Turning



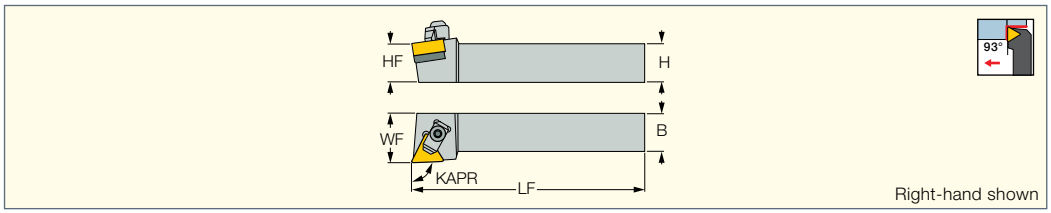
	M E T R I C												
Designation	H	HF	B	OAL	WF	KAPR	Insert						
TSSNR/L 2525M-12CH	25.0	25.0	25.0	150.00	32.00	45.0	SNGX 1207..T	S 40 (SEAT)	SR M5X0.8X10	CCL 4	KSP 5	CSC 4	HW 4.0

For inserts, see pages: SNGX-Ceramic (157)

ISOTURN

CTJNR/L

93° Lead Angle Tools Carrying the Triangular Ceramic Inserts for Longitudinal Turning



	M E T R I C								
Designation	H	HF	B	LF	WF	KAPR	GAMP	GAMF	Insert
CTJNR 2525M-16CEA	25.0	25.0	25.0	150.00	32.00	93.0	-4	-4	TNGN 1604

For inserts, see pages: TNGN-Ceramic (189)

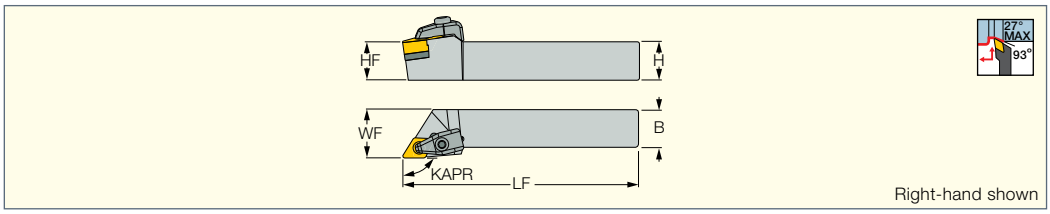
Spare Parts

Designation					
CTJNR/L	S 3	HW 4.0	BCL 6 CLAMP	SR M6X1X25 ISO7380	SR M4X8 ISO7380 SS

ISOTURN

TDJNR/L-CH

93° Lead Angle Tools Carrying the 55° Rhombic Dimpled Ceramic Inserts



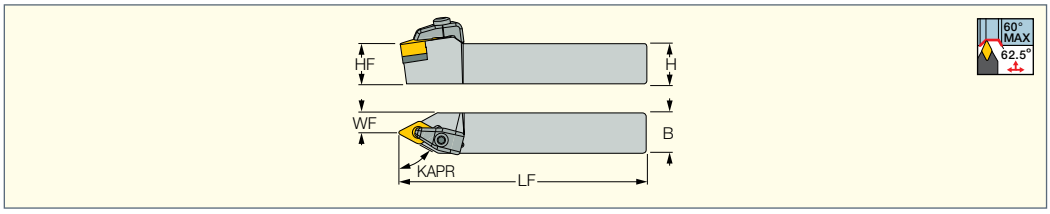
	M E T R I C											
Designation	H	HF	B	LF	WF	KAPR	Insert					
TDJNR/L 2525M-15CH	25.0	25.0	25.0	150.00	32.00	93.0	DNGX 1507..T	SR M5X0.8X10	CCL 4	KSP 5	CSC 4	HW 4.0

For inserts, see pages: DNGX-Ceramic (189)

ISOTURN

TDNNN-CH

62.5° Lead Angle Tools Carrying the 55° Rhombic Dimpled Ceramic Inserts



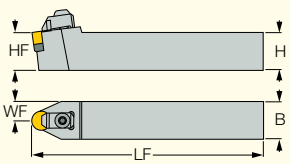
	M E T R I C											
Designation	H	HF	B	LF	WF	KAPR	Insert					
TDNNN 2525M-15CH	25.0	25.0	25.0	150.00	12.50	62.5	DNGX 1507..T	SR M5X0.8X10	CCL 4	KSP 5	CSC 4	HW 4.0

For inserts, see pages: DNGX-Ceramic (189)

ISOTURN

CRDNN

Clamp Lock Neutral Tools Carrying Ceramic Round Negative Inserts



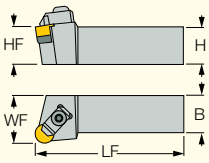
Designation	M E T R I C												
	H	HF	B	LF	WF	GAMP	GAMF	Insert					
CRDNN 2525M-12CE	25.0	25.0	25.0	150.00	12.50	-8.5	0	RNGN 120700	S 43	SR M5X0.8X10	BCL 6 CLAMP	SR M6X1X25 ISO7380	HW 4.0
CRDNN 2525M-12CEA	25.0	25.0	25.0	150.00	12.50	-8.5	0	RNGN 120400	S 43	SR M5X0.8X10	BCL 6 CLAMP	SR M6X1X25 ISO7380	HW 4.0
CRDNN 3225P-12CE	32.0	32.0	25.0	170.00	12.50	-8.5	0	RNGN 120700					

For inserts, see pages: RNGN-Ceramic (191)

ISOTURN

CRGNR

Clamp Lock Toolholders for Ceramic Round Negative Inserts



Right-hand shown

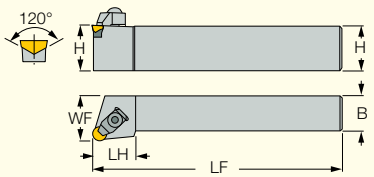
Designation	H	HF	B	LF	WF	GAMP	GAMF	Insert					
CRGNR 16-4CE	1.000	1.000	1.000	6.000	1.250	-6	-6	RNG 45..	S 43	SR M5X0.8X10	HW 4.0	SR M6X1X25 ISO7380	BCL 6 CLAMP
CRGNR 16-4CEA	1.000	1.000	1.000	6.000	1.250	-6	-6	RNG 43..	S 43	SR M5X0.8X10	HW 4.0	SR M6X1X25 ISO7380	BCL 6 CLAMP
CRGNR 20-4CE	1.250	1.250	1.250	7.000	1.500	-6	-6	RNG 45..	S 43	SR M5X0.8X10	HW 4.0	SR M6X1X25 ISO7380	BCL 6 CLAMP

For inserts, see pages: RNG-Ceramic (191)

ISOTURN

CRGCR/L

Clamp Lock Tools Carrying Ceramic Round 7° Positive Inserts



Right-hand shown

Designation	M E T R I C											
	H	B	LF	WF	LH	GAMP	GAMF	Insert				
CRGCR/L 3225P-09-120	32.0	25.0	170.00	32.00	30.0	0	0	RCGX 090700	SR M2.5X10 ISO7380*	BCL 6-20A*	CERS 09*	HW 4.0
CRGCR/L 3225P-12-120	32.0	25.0	170.00	32.00	32.0	0	0	RCGX 120700	SR M2.5X10 ISO7380*	BCL 6 CLAMP*		HW 4.0

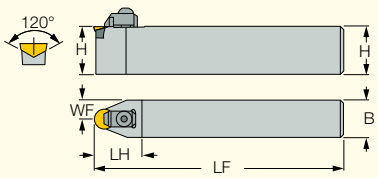
* Optional, should be ordered separately

For inserts, see pages: RCGX-Ceramic (191) • RPGX-Ceramic (192)

ISOTURN

CRDCN

Clamp Lock Neutral Tools Carrying Ceramic Round 7° Positive Inserts

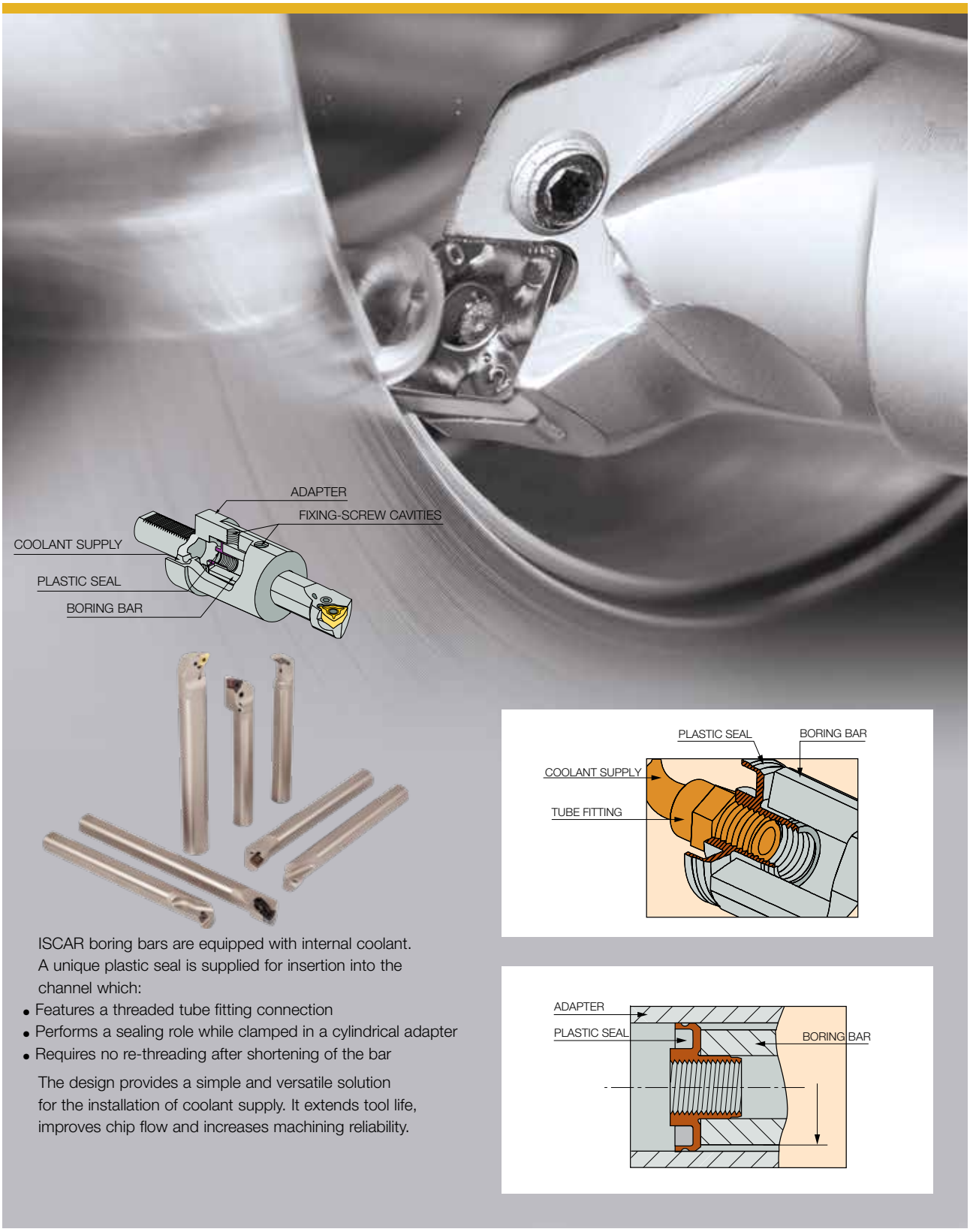


Designation	M E T R I C											
	H	B	LF	WF	LH	GAMP	GAMF	Insert				
CRDCN 3225P-09-120	32.0	170.0	25.00	30.00	12.5	0	0	RCGX 090700	SR M2.5X10 ISO7380*	HW 4.0	BCL 6-20A*	CERS 09*
CRDCN 3225P-12-120	32.0	170.0	25.00	32.00	12.5	0	0	RCGX 120700	SR M2.5X10 ISO7380*	HW 4.0	BCL 6 CLAMP*	

* Optional, should be ordered separately

For inserts, see pages: RCGX-Ceramic (191) • RPGX-Ceramic (192)

ISOTURN BORING BARS



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

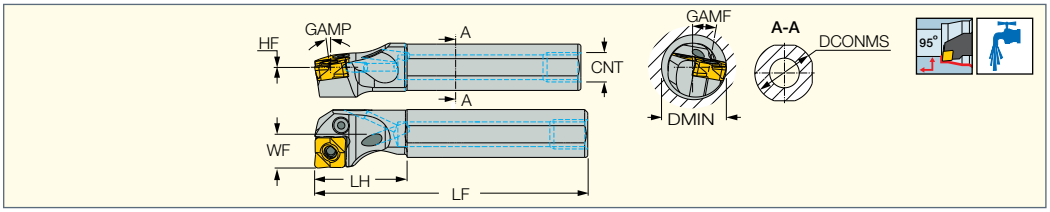
- Features a threaded tube fitting connection
- Performs a sealing role while clamped in a cylindrical adapter
- Requires no re-threading after shortening of the bar

The design provides a simple and versatile solution for the installation of coolant supply. It extends tool life, improves chip flow and increases machining reliability.

LOGIQ4TURN POSITIVE DOUBLE SIDED

A-PCLXR/L

Lever Lock Boring Bars
Carrying the Negative CXMG
80° Rhombic Inserts



Designation	DCONMS	LF	LDRED	WF	HF	GAMP	GAMF	DMIN	CNT	Insert
A-PCLXR/L 10-3X	.625	7.000	1.18	.433	.000	8.0	10.0	.750	UNC 3/8"-16	CXMG 09..
A-PCLXR/L 12-3X	.750	8.000	1.18	.512	.000	8.0	10.0	1.000	UNC 3/8"-16	CXMG 09..
A-PCLXR/L 16-3X	1.000	8.000	1.57	.640	.000	5.0	8.0	1.250	UNC 1/2"-20	CXMG 09..

For inserts, see pages: CXMG-F3M (153) • CXMG-F3P (152) • CXMG-M3M (153) • CXMG-M3P (152)

Spare Parts

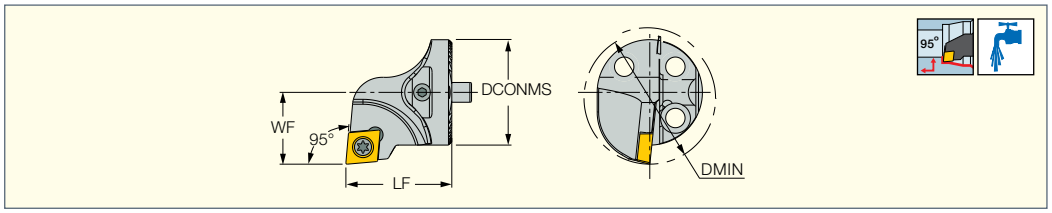
Designation					
A-PCLXR/L 10-3X	LR 3X SET	SR M6XL11.5V	PL 062	T-8/5	
A-PCLXR/L 12-3X	LR 3X SET	SR M6XL11.5V	PL 075	T-8/5	HW 2.0
A-PCLXR/L 16-3X	LR 3X SET	SR M6XL11.5V	PL 100	T-8/5	

ISOTURN

WHISPERLINE ANTI-VIBRATION

AVC-SCLCR/L

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



Designation	WF	DCONMS	DMIN	LF				
AVC-D16-SCLCR/L-06	.433	.630	.787	.787	SR 14-548*	T-7/5*		
AVC-D20-SCLCR/L-09	.512	.787	.984	.787	SR 16-236*	T-15/5*		
AVC-D25-SCLCR/L-09	.669	.984	1.260	.787	SR 16-236*	T-15/5*		
AVC-D32-SCLCR/L-09	.866	1.260	1.575	1.260	SR 16-236*	T-15/5		
AVC-D40-SCLCR/L-12T	1.063	1.575	1.968	1.496	SR 16-212*	T-20/5*	SR TC-4*	TCC 4-2*

* Optional, should be ordered separately

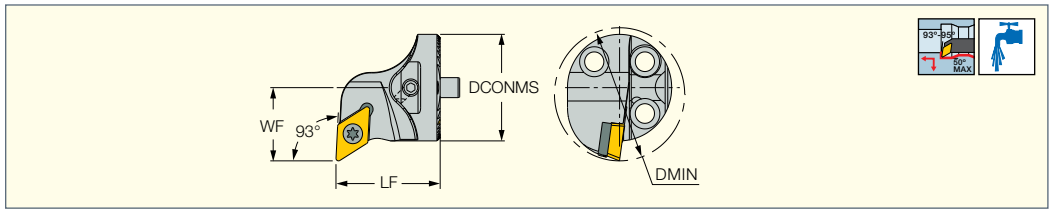
For inserts, see pages: CCET-WF (157) • CCGT-AF (182) • CCGT-AS (182) • CCGW/CCMT (CBN) (197) • CCGW/CCMW-2 (CBN) (198) • CCMT (PCD) (192) • CCMT-14 (156) • CCMT-F3M (154) • CCMT-M3M (155) • CCMT-M3P (154) • CCMT-PF (156) • CCMT-WG (157) • CCMT/CCGT (157) • CCMT/CCGT-SM (156)
For holders, see pages: AV-D (78) • C#-SH-E-JHP (629) • C#-SH-JHP (628)

ISOTURN

WHISPERLINE ANTI-VIBRATION

AVC-SDUCR/L

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



Designation	WF	DCONMS	DMIN	LF				
AVC-D16-SDUCR/L-07	.433	.630	.787	.787	SR 14-548*	T-7/5*		
AVC-D20-SDUCR/L-11	.512	.787	.984	.787	SR 16-236 P*	T-15/5*		
AVC-D25-SDUCR/L-11	.669	.984	1.260	.787	SR 16-236 P*	T-15/5*		
AVC-D32-SDUCR/L-11T	.866	1.260	1.575	1.260	SR 16-236 P*	T-15/5*	SR TC-3P*	TDC 3-1P*
AVC-D40-SDUCR/L-11T	1.063	1.575	1.968	1.260	SR 16-236 P*	T-15/5*	SR TC-3P*	TDC 3-1P*

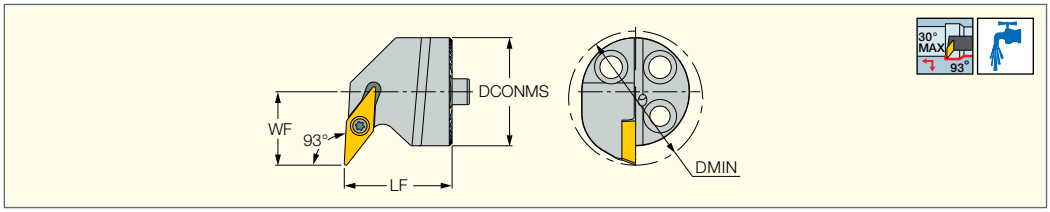
* Optional, should be ordered separately

For inserts, see pages: DCET-WF (163) • DCGT-AF (183) • DCGT-AS (182) • DCGW/DCMW-2 (CBN) (200) • DCMT (CBN) (200) • DCMT (PCD) (193) • DCMT-14 (163) • DCMT-CERMET (161) • DCMT-F3P (159) • DCMT-M3M (160) • DCMT-PF (162) • DCMT/DCGT (163) • DCMT/DCGT-SM (162)
For holders, see pages: AV-D (78) • C#-SH-E-JHP (629) • C#-SH-JHP (628)

ISOTURN
WHISPERLINE ANTI-VIBRATION

AVC-SVUCR/L

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



Designation	WF	DCONMS	DMIN	LF		
AVC-D20-SVUCR/L-11	.630	.787	1.063	.787	SR 14-560*	T-8/5*
AVC-D25-SVUCR/L-11	.669	.984	1.260	.984	SR 14-560*	T-8/5*

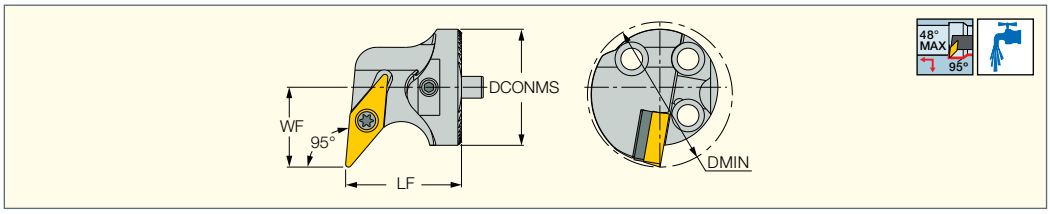
* Optional, should be ordered separately

For inserts, see pages: VCGT-AS (181) • VCMT-F3M (164) • VCMT-M3P (164) • VCMT-SM (166)
For holders, see pages: AV-D (78) • C#-SH-E-JHP (629) • C#-SH-JHP (628)

ISOTURN
WHISPERLINE ANTI-VIBRATION

AVC-SVLCR/L

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



Designation	WF	DCONMS	DMIN	LF				
AVC-D32-SVLCR/L-16T	.866	1.260	1.575	1.260	SR 16-236 P*	T-15/5*	SR TC-3P*	TVC 3-1P*
AVC-D40-SVLCR/L-16T	1.063	1.575	1.968	1.260	SR 16-236 P*	T-15/5*	SR TC-3P*	TVC 3-1P*

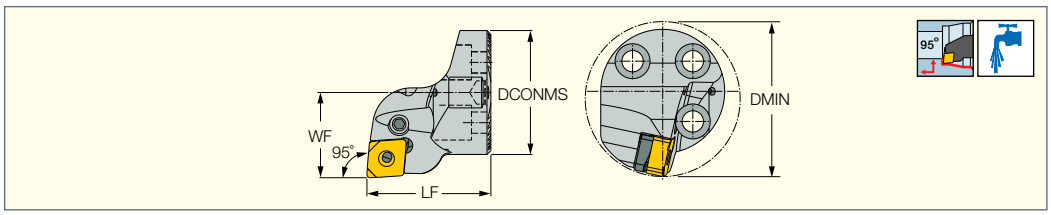
* Optional, should be ordered separately

For inserts, see pages: VCGT (PCD) (193) • VCGT-AS (181) • VCGT-DW (PCD) (193) • VCGW-2 (CBN) (203) • VCMT (CBN) (202) • VCMT-14 (166) • VCMT-F3M (164) • VCMT-F3P (164) • VCMT-FPC-CERMET (165) • VCMT-M3M (165) • VCMT-M3P (164) • VCMT-SM (166) • VCMW (167)
For holders, see pages: AV-D (78) • C#-SH-E-JHP (629) • C#-SH-JHP (628)

FLASHTURN ECO LINE
WHISPERLINE ANTI-VIBRATION

AVC-PCLNR/L

Interchangeable Boring Heads for 80° Rhombic Inserts



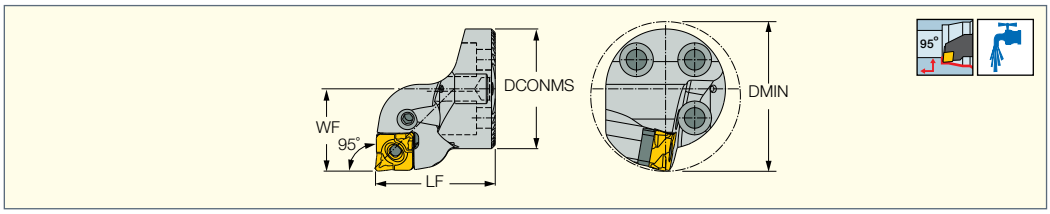
Designation	WF	DCONMS	DMIN	LF							
AVC-D20-PCLNR/L-09	.512	.787	.984	1.024			LR 3S	SR 117-2009	HW 2.0		
AVC-D25-PCLNR/L-09	.669	.984	1.260	1.102	TCN 323	TCX 3	LR 3	SR 117-2014	HW 2.5	SP 3	PN 3-4
AVC-D32-PCLNR/L-09	.866	1.260	1.575	1.260	TCN 323	TCX 3	LR 3	SR 117-2014	HW 2.5	SP 3	PN 3-4

For inserts, see pages: CNMG-F3S (119) • CNGG-F3N (179) • CNMG-F3M (117) • CNMG-F3P (114) • CNMG-M3M (118) • CNMG-M3P (115) • CNMG/CNGG-TF (122)
For holders, see pages: AV-D (78) • C#-SH-E-JHP (629) • C#-SH-JHP (628)

LOGIQ4TURN POSITIVE DOUBLE SIDED
WHISPERLINE ANTI-VIBRATION

AVC-PCLXR/L

Interchangeable Boring Heads for 80° Rhombic Inserts



Designation	WF	DCONMS	DMIN	LF							
AVC-D20-PCLXR-09X	.512	.787	.984	1.024		LR 3X SET	SR M6XL11.5V		T-8/5		
AVC-D25-PCLXR/L-09X	.669	.984	1.260	1.102		LR 3X SET	SR M6XL11.5V		T-8/5		
AVC-D32-PCLXR/L-09X	.866	1.260	1.575	1.260	TSN 323	LR 3W	SR 117-2014	HW 2.5		SP 3	PN 3-4
AVC-D40-PCLXR/L-12X	1.063	1.575	1.968	1.378	TCNX 423	LR 4X	SR LCS 5	HW 3.0		SP 4	PN 3-4

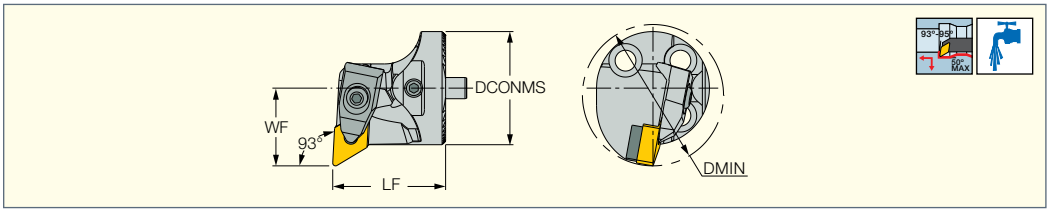
For inserts, see pages: CXMG-F3M (153) • CXMG-F3P (152) • CXMG-M3M (153) • CXMG-M3P (152)
For holders, see pages: AV-D (78) • C#-SH-E-JHP (629) • C#-SH-JHP (628)

ISOTURN

WHISPERLINE ANTI-VIBRATION

AVC-DDUNR/L

Interchangeable Boring Heads
for 55° Rhombic Inserts



Designation	WF	DCONMS	DMIN	LF							
AVC-D32-DDUNR/L-11T	.866	1.260	1.575	1.260	RDT 3-2*	SR RC3*	SR 40085I*	HW 2.5*	T-15/5*	LCGR-3*	KSP 3*
AVC-D40-DDUNR/L-15T	1.063	1.575	1.968	1.496	RDT 433*	DLS 4*	SR 14-506*		T-15/5*	DLM 4*	DSP 4*

* Optional, should be ordered separately

For inserts, see pages: DNGA-4 (CBN) (199) • DNGA-Ceramic (188) • DNMA (131) • DNMA (CBN) (198) • DNMG-F3M (126) • DNMG-F3P (125) • DNMG-F3S (127) • DNMG-GN (130) • DNMG-M3M (126) • DNMG-M3P (125) • DNMG-NF (128) • DNMG-NR (130) • DNMG-PF (129) • DNMG-VL (129) • DNMG-WG (128) • DNMG/DNGG-PP (129) • DNMG/DNGG-SF (128) • DNMG/DNGG-TF (130) • DNMM-NM (131) • DNMM-R3P (131)

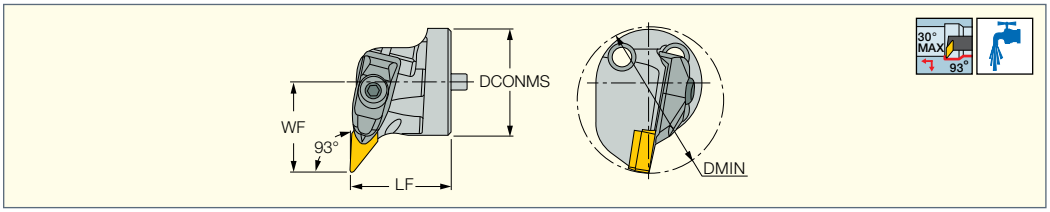
For holders, see pages: AV-D (78) • C#-SH-E-JHP (629) • C#-SH-JHP (628)

ISOTURN

WHISPERLINE ANTI-VIBRATION

AVC-DVUNR/L

Interchangeable Boring Heads
for 35° Rhombic Inserts



Designation	WF	DCONMS	DMIN	LF							
AVC-D40-DVUNR/L-16T	1.339	1.575	2.205	1.496	DLM 3V	SR 10402267	HW 4.0	KSP 5	ASV322 D30	T-15/5	SR 35080I

* Optional, should be ordered separately

For inserts, see pages: VNMG-F3M (133) • VNMG-F3P (133) • VNMG-M3M (133) • VNMG-TF (135) • VNMG/VNGG-NF (135)

For holders, see pages: AV-D (78) • C#-SH-E-JHP (629) • C#-SH-JHP (628)

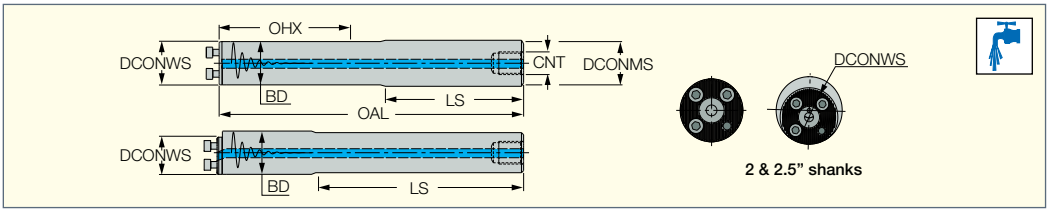


ISOTURN
WHISPERLINE ANTI-VIBRATION

Straight Shank

AV-D

Anti-Vibration Bars with Through Coolant for Interchangeable Turning Heads



Designation	DCONWS	DCONMS	BD	OAL	LS	OHX[1]	CNT	BMC[2]
AV-D.625-7D-C	.630	.625	.6300	6.140	3.60	3.500	G1/8	S
AV-D.625-10D-E	.630	.625	.6300	8.030	5.22	5.500	-	H
AV-D.750-7D-C	.787	.750	.7870	7.870	4.94	4.400	G1/4	S
AV-D.750-10D-E	.787	.750	.7870	10.240	6.77	7.000	-	H
AV-D1.00-7D-C	.984	1.000	.9840	10.200	6.83	6.200	G1/4	S
AV-D1.00-10D-C	.984	1.000	.9840	13.210	8.65	9.200	G1/4	S
AV-D1.25-7D-C	1.260	1.250	1.2600	12.480	7.37	7.500	G3/8	S
AV-D1.25-10D-C	1.260	1.250	1.2600	16.240	9.67	11.200	G3/8	S
AV-D1.50-7D-C	1.575	1.500	1.5750	15.260	9.13	9.200	G1/2	S
AV-D1.50-10D-C	1.575	1.500	1.5750	19.800	13.35	13.700	G1/2	S
AV-D2.00-7D-C	1.575	2.000	2.0000	20.740	-	12.700	G1/2	S
AV-D2.00-10D-C	1.575	2.000	2.0000	26.730	-	18.700	G1/2	S
AV-D2.50-7D-C	1.575	2.500	2.5000	26.200	-	16.200	G3/4	S
AV-D2.50-10D-C	1.575	2.500	2.5000	33.720	-	23.700	G3/4	S

(1) Maximum overhang
(2) S-steel body, H-solid carbide body

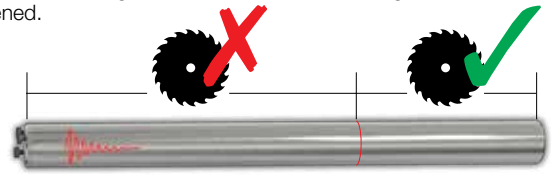
For tools, see pages: AVC-DDUNR/L (77) • AVC-DVUNR/L (77) • AVC-PCLNR/L (76) • AVC-PCLXR/L (76) • AVC-SCLCR/L (75) • AVC-SDUCR/L (75) • AVC-SVLCR/L (76) • AVC-SVUCR/L (76)

Bar Diameter	Minimum Length After Shortening	
DCONMS (inch)	OAL 7D (inch)	OAL 10D (inch)
.625	4.60	--[1]
.750	5.60	--[1]
1.00	6.70	10.3
1.25	9.00	12.5
1.50	11.4	15.1
2.00	12.4	21.0
2.50	16.8	26.8

(1) Cannot be shortened

Shortening the bar

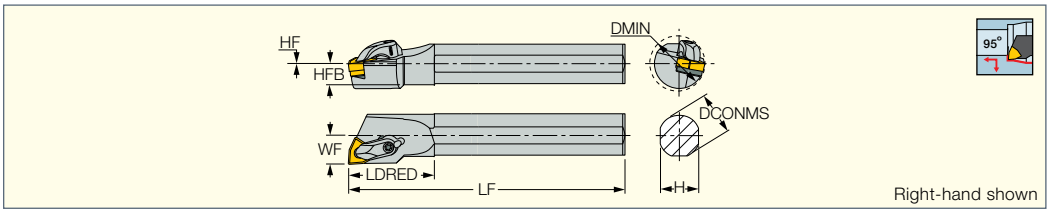
In case the bar is too long for your machine or application, it is possible to shorten it. Each bar has a red marking that shows the minimum length to which the bar can be shortened.



ISOTURN

S-DWLNR/L

R-Clamp Boring Bars Carrying the Negative Trigon Inserts



Designation	DCONMS	LF	LDRED	H	HFB	WF	DMIN	GAMP	GAMF
S-DWLNR 20-4	1.250	14.000	2.160	1.140	.620	.760	1.450	-6	-10
S-DWLNR 24-4	1.500	14.000	2.160	1.420	.740	1.000	1.700	-6	-10
S-DWLNR 32-4	2.000	16.000	2.550	1.890	1.000	1.280	2.330	-6	-10

For inserts, see pages: WNMG-CERMET (106) • WNMG-F3S (108) • WNMG-F3P (105) • WNMG-M3P (106) • WNMG-F3M (108) • WNMG-M3M (108) • WNMG-TF (111) • WNMG-GN (112) • WNMG-NR (112) • WNMG-PP (111) • WNMG-VL (109) • WNMG-TNM (113) • WNMG-NF (109) • WNMM-NM (112) • WNMG-WF (110) • WNMA/WNMA-WG (113) • WNMG-WG (110) • WNGA-Ceramic (186) • WNGA-M3 (CBN) (194) • WNGA-MC/M6 (CBN) (195)

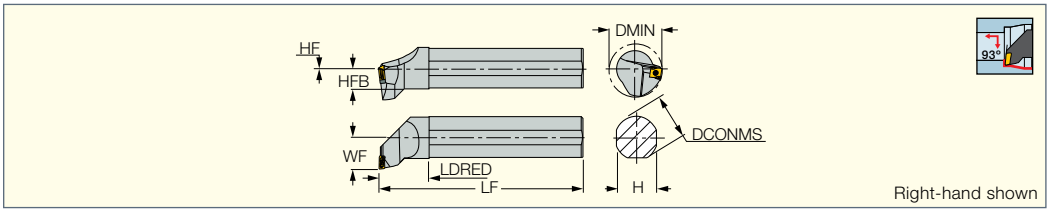
Spare Parts

Designation					
S-DWLNR/L	TWN 423	SP 4	LCGR-4	SR 10400270-25.5	T-15/5

HELITURN TANGENTIAL LINE

S-SLANR/L-TANG

Boring Bars Carrying the LNMX Tangentially Screw Clamped Inserts with 4 Cutting Edges for High Metal Removal Rates



Designation	DCONMS	LF	LDRED	H	HFB	WF	DMIN	GAMP	GAMF	Insert
S-SLANR/L 20-11 TANG	1.250	14.000	1.970	1.171	.040	.870	2.087	-6	-15	LNMX 1104..
S-SLANR 32-15 TANG	2.000	16.000	2.360	1.890	.055	1.460	3.350	-6	-10	LNMX 1506..

• Right-hand inserts for left-hand bars. Left-hand inserts for right-hand bars.

For inserts, see pages: LNMX-HM (150) • LNMX-HT (149) • LNMX-WG (150)

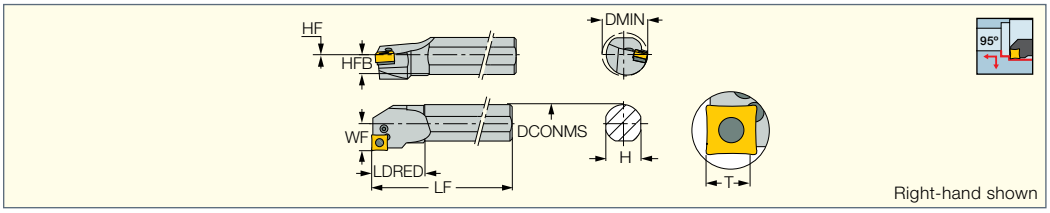
Spare Parts

Designation							
S-SLANL 20-11 TANG	TLN 11R-HTI	SR RS4	T-6/5	SR 34-550-C	BLD T10/S7		SW6-SD
S-SLANR 20-11 TANG	TLN 11L-HTI	SR RS4	T-6/5	SR 34-550-C	BLD T10/S7		SW6-SD
S-SLANR 32-15 TANG	TLN 15L-HTI	SR RS4	T-6/5	SR 34-535-SN	BLD T15/S7	SW6-T-SH	

ISOTURN

S-PQLNR

Lever Lock Boring Bars for Negative Square Inserts with 80° Corners



Designation	DCONMS	LF	LDRED	H	HFB	WF	T	DMIN	GAMP	GAMF	Insert
S-PQLNR 12-3	.750	10.000	1.500	.670	.340	.500	.315	1.000	-6	-12	QNMG 3..
S-PQLNR 16-3	1.000	12.000	1.500	.910	.460	.640	.315	1.180	-6	-10	QNMG 3..
S-PQLNR 24-4	1.500	14.000	2.000	1.420	.710	.890	.354	1.750	-6	-10	QNMG 4..

For inserts, see pages: QNMG-GN (152) • QNMG-NF (151) • QNMG-PP (151) • QNMG-TF (151)

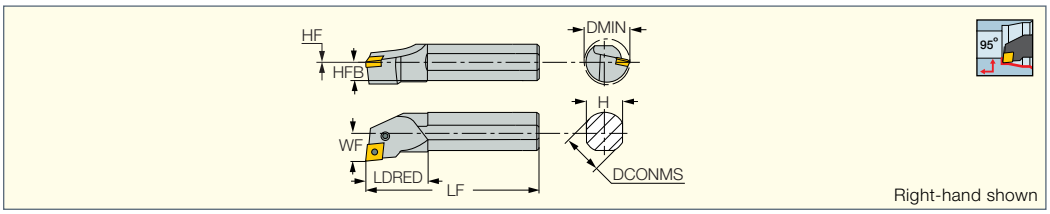
Spare Parts

Designation						
S-PQLNR 12-3				LR 3S	SR 117-2016	HW 2.0
S-PQLNR 16-3				LR 3S	SR 117-2016	HW 2.0
S-PQLNR 24-4	TSN 423	SP 4	PN 3-4	LR 4	SR 117-2010	HW 3.0

ISOTURN

S-PCLNR

Lever Lock Boring Bars for Negative 80° Rhombic Inserts



Designation	DCONMS	LF	LDRED	H	HFB	WF	GAMP	GAMF	DMIN	Insert
S-PCLNR 32-5	2.000	16.000	2.160	1.881	.940	1.280	-7	-11	2.500	CN..54..

For inserts, see pages: CNMG-M3P (115) • CNMM-R3P (116) • CNMG-M3M (118) • CNMG-R3M (118) • CNMG/CNGG-TF (122) • CNMG-GN (122) • CNMG-NR (123) • CNMG-MR (123) • CNMA (121)

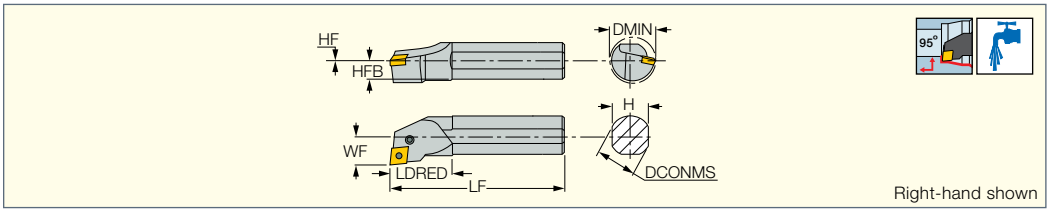
Spare Parts

Designation					
S-PCLNR	TCN 53	SP 5	LR 5	SR LCS 5	HW 3.0

HELITURN LD

A-PCLNR/L-X/G

Lever Lock Boring Bars
for CNMX Inserts



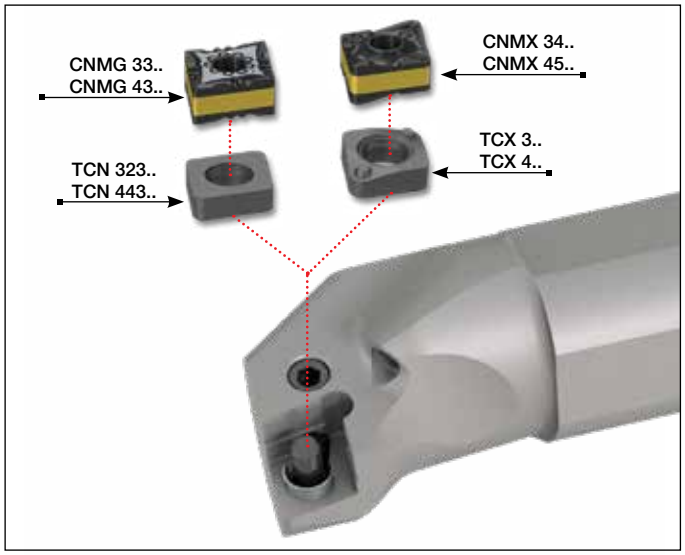
Designation	DCONMS	LF	LDRED	H	HFB	WF	GAMP	GAMF	DMIN	Insert
A-PCLNR/L 10-3G (1)	.625	6.000	1.181	.570	.285	.430	-12	-16	.830	CNMG 33.
A-PCLNR/L 12-3G (1)	.750	7.000	1.181	.680	.340	.500	-6	-15	1.000	CNMG 33.
A-PCLNR/L 16-3X (2)	1.000	8.000	1.378	.920	.460	.640	-6	-15	1.250	CNMX 34. CNMG 33.
A-PCLNR/L 20-3X (2)	1.250	10.000	1.575	1.142	.571	.770	-6	-13	1.551	CNMX 34. CNMG 33.
A-PCLNR 16-4X (3)	1.000	12.000	2.000	.910	.450	.650	-7	-14	1.970	CNMX 45. CNMG 43.
A-PCLNR/L 20-4X (3)	1.250	12.000	2.000	1.140	.570	.760	-6	-13	2.130	CNMX 45. CNMG 43.
A-PCLNR/L 24-4X (3)	1.500	14.000	2.000	1.417	.700	.890	-6	-12	2.360	CNMX 45. CNMG 43.
A-PCLNR 32-4X (3)	2.000	16.000	2.480	1.890	.940	1.280	-6	-12	2.560	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

For inserts, see pages: CNGG-F3N (179) • CNGX-M3N (180) • CNMG-CERMET (115) • CNMG-F3S (119) • CNMX-M3/4MW (124) • CNMX-M3/4PW (123) • CNMG-F3P (114) • CNMG-M3P (115) • CNMG-F3M (117) • CNMG-M3M (118) • CNGA-2 (CBN) (196) • CNGA-4 (CBN) (196) • CNGA-Ceramic (187) • CNGG-M4HF/M4HM (CBN) (197) • CNMA (121) • CNMA (PCD) (192) • CNMA-MW4 (CBN) (195) • CNMA-T/M1/WG (CBN) (195) • CNMG-Ceramic (186) • CNMG-GN (122) • CNMG-NF (120) • CNMG-NR (123) • CNMG-VL (119) • CNMG-WF (120) • CNMG-WG/NRW (120) • CNMG/CNGG-PP (121) • CNMG/CNGG-SF (119) • CNMG/CNGG-TF (122) • CNMM-R3P (116) • CNMS-12 (184)



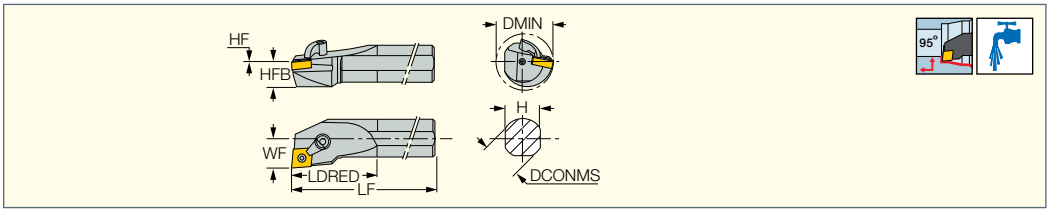
Spare Parts

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/L 20-3X	TCX 3	TCN 323	SP 3	PN 3-4	LR 3	SR 117-2014	HW 2.5	PL 125
A-PCLNR 16-4X	TCX 4	TCN 443	SP 4	PN 3-4L	LR 4DH	SR 117-2010	HW 3.0	PL 100
A-PCLNR/L 20-4X	TCX 4	TCN 443	SP 4	PN 3-4L	LR 4DH	SR 117-2010	HW 3.0	PL 125
A-PCLNR/L 24-4X	TCX 4	TCN 443	SP 4	PN 3-4L	LR 4DH	SR 117-2010	HW 3.0	PL 150
A-PCLNR 32-4X	TCX 4	TCN 443	SP 4	PN 3-4L	LR 4DH	SR 117-2010	HW 3.0	PL 150

ISOTURN

A-MCLNR/L

Comlock Boring Bars for Negative 80° Diamond Inserts



Designation	DCONMS	WF	LF	LDRED	H	HFB	DMIN	GAMP	GAMF
A-MCLNR/L 16-4	1.000	.640	12.000	1.570	.906	.453	1.400	-6	-12
A-MCLNR 20-4	1.250	.770	12.000	-	1.142	.571	1.530	-5	-12

For inserts, see pages: CNMG-CERMET (115) • CNMG-F3S (119) • CNMG-F3P (114) • CNMG-M3P (115) • CNMM-R3P (116) • CNMM-M4PW (124) • CNMG-F3M (117) • CNMG-M3M (118) • CNMG/CNGG-TF (122) • CNMG-GN (122) • CNMG-NR (123) • CNMG/CNGG-PP (121) • CNMG-VL (119) • CNMG/CNGG-SF (119) • CNMG-NF (120) • CNMG-WF (120) • CNMG-WG/NRW (120) • CNMA (121) • CNGA-Ceramic (187) • CNMG-Ceramic (186) • CNGA-2 (CBN) (196) • CNGA-4 (CBN) (196) • CNGG-M4HF/M4HM (CBN) (197) • CNMA-MW4 (CBN) (195) • CNMA-T/M1/WG (CBN) (195) • CNMA (PCD) (192)

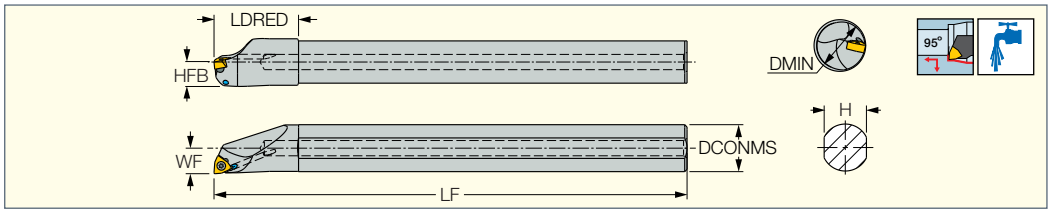
Spare Parts

Designation						
A-MCLNR/L 16-4		NL-44	HW 3/32"	CL 20	XNS-47	HW 1/8"
A-MCLNR 20-4	ICSN 433	NL-46	HW 3/32"	CL 20	XNS-47	HW 1/8"

ISOTURN

A/E-SWLNR/L-04

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



Designation	DCONMS	LF	LDRED	H	HFB	WF	GAMP	GAMF	DMIN	Insert		
A10K SWLNR/L-04	.394	4.921	.787	.354	.217	.236	-10	-16	.472	WNGP 04	SR 34-514	T-7F
A12M SWLNR/L-04	.472	5.906	.945	.433	.256	.276	-10	-14	.551	WNGP 04	SR 34-514	T-7F
A16Q SWLNR/L-04	.630	7.087	1.260	.591	.335	.354	-10	-11	.709	WNGP 04	SR 34-514	T-7F
A20R SWLNR/L-04	.787	7.874	1.417	.709	.413	.433	-10	-10	.866	WNGP 04	SR 34-514	T-7F
E10M SWLNR/L-04	.394	5.906	.984	.354	.217	.236	-10	-16	.472	WNGP 04	SR 34-514	T-7F
E12Q SWLNR/L-04	.472	7.087	1.063	.433	.256	.276	-10	-14	.551	WNGP 04	SR 34-514	T-7F
E16R SWLNR/L-04	.630	7.874	1.260	.591	.335	.354	-10	-11	.709	WNGP 04	SR 34-514	T-7F
E20S SWLNR/L-04	.787	9.843	1.417	.709	.413	.433	-10	-10	.866	WNGP 04	SR 34-514	T-7F

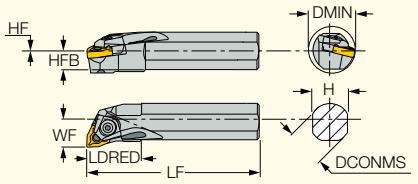
• Use left-hand inserts on right-hand bars and vice versa. • A - steel shank with coolant hole, E - carbide shank with coolant hole.

For inserts, see pages: WNGP-F2M (107) • WNGP-F2P (105)

ISOTURN

A/S-MWLNR/L-W

Top Wedge Lock Boring Bars Carrying the Double-Sided Trigon Inserts



Right-hand shown

Designation	DCONMS	LF	LDRED	WF	H	HFB	DMIN	GAMP	GAMF	Insert	CSP[1]
A-MWLNR/L 12-3W	.750	10.000	1.100	.500	.670	.340	1.000	-6	-10	WNMG 3..	1
A-MWLNR/L 16-3W	1.000	12.000	1.380	.640	.910	.460	1.180	-6	-14	WNMG 3..	1
A-MWLNR/L 20-3W	1.250	14.000	1.570	.770	1.140	.570	1.460	-6	-10	WNMG 3..	1
S-MWLNR/L 12-3W	.750	10.000	1.100	.500	.670	.340	1.000	-6	-10	WNMG 3..	0
S-MWLNR/L 16-3W	1.000	12.000	1.380	.640	.910	.460	1.180	-6	-14	WNMG 3..	0
S-MWLNR 20-3W	1.250	14.000	1.570	.770	1.140	.570	1.460	-6	-10	WNMG 3..	0
A-MWLNR/L 16-4W	1.000	12.000	1.380	.640	.910	.460	1.220	-6	-12	WNMG 43..	1
A-MWLNR/L 20-4W	1.250	14.000	1.770	.770	1.140	.571	1.460	-6	-12	WNMG 43..	1
A-MWLNR/L 24-4W	1.500	14.000	2.160	.890	1.420	.720	1.760	-6	-10	WNMG 43..	1
S-MWLNR/L 16-4W	1.000	12.000	1.380	.640	.910	.460	1.220	-6	-12	WNMG 43..	0
S-MWLNR/L 20-4W	1.250	14.000	1.770	.770	1.140	.580	1.460	-6	-12	WNMG 43..	0
S-MWLNR/L 24-4W	1.500	14.000	1.970	.890	1.420	.720	1.760	-6	-10	WNMG 43..	0
S-MWLNR 32-6W	2.000	16.000	2.480	1.280	1.890	.940	2.362	-6	-12	WNMG 64..	0

[1] 0 - Without coolant supply, 1 - With coolant supply

For inserts, see pages: WNMG-F3S (108) • WNMG-F3P (105) • WNMG-M3P (106) • WNMG-F3M (108) • WNMG-M3M (108) • WNMG-TF (111) • WNMG-GN (112) • WNMG-NR (112) • WNMG-PP (111) • WNMG-VL (109) • WNMG-TNM (113) • WNMG-SF (109) • WNMG-NF (109) • WNMM-NM (112) • WNMG-WF (110) • WNMA/WNMA-WG (113) • WNMG-WG (110) • WNGA-Ceramic (186) • WNGA-M3 (CBN) (194) • WNGA-MC/M6 (CBN) (195) • WNMG-CERMET (106) • WNGG-F3N (179)

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[a]*	ZNW 3W	LC 250 SET 1				HW 2.5	PL 100
A-MWLNR/L 20-3W	IWSN 322W	IWSN 3-2W[a]*	ZNW 3W	LC 250 SET 1				HW 2.5	PL 125
S-MWLNR/L 12-3W			ZNW 3WI	LC 250 SET 1				HW 2.5	
S-MWLNR/L 16-3W	IWSN 322W	IWSN 3-2W[a]*	ZNW 3W	LC 250 SET 1				HW 2.5	
S-MWLNR 20-3W	IWSN 322W	IWSN 3-2W[a]*	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
A-MWLNR/L 20-4W	TWN 423		ZNW-4WI	LC 252 SET 1				HW 3.0	PL 125
A-MWLNR/L 24-4W	TWN 423		ZNW-4WI	LC 252 SET 1				HW 3.0	PL 150
S-MWLNR/L 16-4W	TWN 423		ZNW-4WI	LC 252 SET 2				HW 3.0	
S-MWLNR/L 20-4W	TWN 423		ZNW-4WI	LC 252 SET 1				HW 3.0	
S-MWLNR/L 24-4W	TWN 423		ZNW-4WI	LC 252 SET 1				HW 3.0	
S-MWLNR 32-6W	IWSN 635		ZNW 6W	LC 253	SPR 17-362	WA FL M8	SR 17-362	HW 4P	

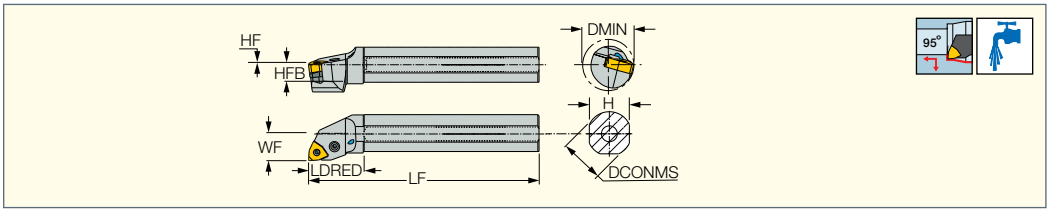
* Optional, should be ordered separately

[a] Use IWSN 3-2W optional seat for WNMG 33. inserts

HELITURN LD

A-PWLNR/L-X/G

Lever Lock Boring Bars with Coolant Holes Carrying the HELITURN LD WNMX or WNMG Trigon Inserts



Designation	DCONMS	H	HFB	LF	LH	WF	GAMP	GAMF	DMIN	Insert
A-PWLNR/L 10-3G (1)	.625	.570	.285	6.000	1.300	.430	-12	-16	.780	WNMG 33.
A-PWLNR/L 12-3G (1)	.750	.680	.340	10.000	1.200	.500	-6	-14	1.000	WNMG 33.
A-PWLNR/L 16-3G (1)	1.000	.920	.460	8.000	1.500	.640	-6	-14	1.250	WNMG 33.
A-PWLNR/L 20-3G (1)	1.250	1.140	.570	14.000	1.570	.770	-6	-12	1.550	WNMG 33.
A-PWLNR 16-4X (2)	1.000	.905	.452	12.000	2.000	.650	-7	-14	1.970	WNMX 45. WNMG 43.
A-PWLNR 20-4X (2)	1.250	1.140	.570	12.000	2.000	.770	-6	-13	2.126	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

For inserts, see pages: WNGG-F3N (179) • WNMA/WNMA-WG (113) • WNMG-F3M (108) • WNMG-F3P (105) • WNMG-F3S (108) • WNMG-GN (112) • WNMG-M3M (108) • WNMG-M3P (106) • WNMG-NF (109) • WNMG-PP (111) • WNMG-TF (111) • WNMG-WF (110) • WNMG-WG (110) • WNMX-M3/4MW (114) • WNMX-M3/4PW (114)

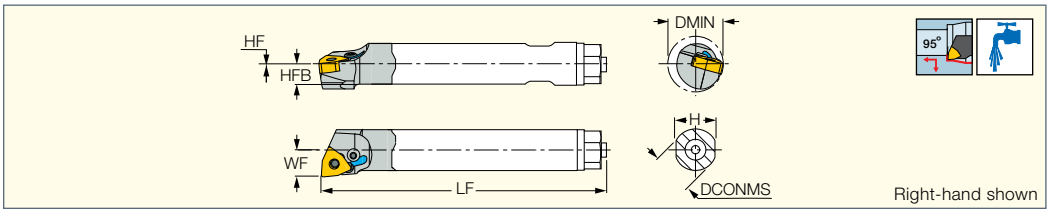
Spare Parts

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/L 20-3G		TWN 3	SP 3	LR 3W	SR 117-2014	HW 2.5	PN 3-4	PL 125
A-PWLNR 16-4X	TWX 4	TWN 443	SP 4	LR 4DH	SR 117-2010	HW 3.0	PN 3-4L	PL 100
A-PWLNR 20-4X	TWX 4	TWN 443	SP 4	LR 4DH	SR 117-2010	HW 3.0	PN 3-4L	PL 125

ISOTURN

E-PWLNR-HEAD

Lever Lock Interchangeable Boring Heads for Negative WNMG Trigon Inserts, Clamped on a Solid Carbide Shank



Designation	DCONMS	LF	LDRED	H	HFB	WF	GAMP	GAMF	DMIN
E-PWLNR 10-3 HEAD	.625	7.000	1.170	.590	.295	.430	-6	-14	.866

For inserts, see pages: WNMG-CERMET (106) • WNMG-M3P (106) • WNMG-TF (111) • WNMG-GN (112) • WNMG-PP (111) • WNMG-VL (109) • WNMG-SF (109) • WNMG-NF (109) • WNMA/WNMA-WG (113) • WNMG-WG (110)

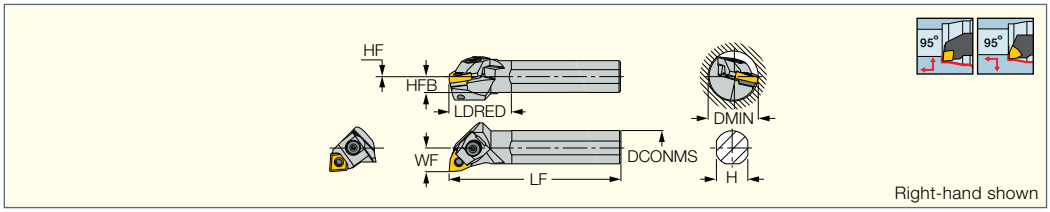
Spare Parts

Designation			
E-PWLNR-HEAD	LR 3S	SR 117-2009	HW 2.0/5

MULTI-WEDGE

S/A-MULNR/L-MW

MULTI-WEDGE Lock, Boring Bars for Negative 80° Rhombic, Trigon and Square Inserts

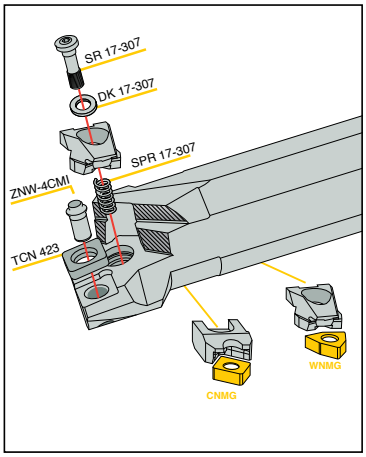


Designation	DCONMS	LF	LDRED	H	HFB	WF	DMIN	GAMP	GAMF	CSP(1)
A-MULNR/L 20-4MW	1.250	14.000	1.730	1.142	.571	.770	1.496	6	12	1
S-MULNL 16-4MW	1.000	12.000	1.770	.910	.460	.660	1.420	6	12	0

• Only LC WN08 is supplied with the boring bar. The other wedge should be ordered separately. • R.H. wedge for R.H. tool, L.H. wedge for L.H. tool.
(1) 0 - Without coolant supply, 1 - With coolant supply

For inserts, see pages: CNMG-CERMET (115) • CNMG-F3S (119) • WNMG-CERMET (106) • WNMG-F3S (108) • WNMG-F3P (105) • WNMG-M3P (106) • WNMG-F3M (108) • WNMG-M3M (108) • WNMG-TF (111) • WNMG-GN (112) • WNMG-NR (112) • WNMG-PP (111) • WNMG-VL (109) • WNMG-TNM (113) • WNMG-NF (109) • WNMM-NM (112) • WNMG-WF (110) • WNMA/WNMA-WG (113) • WNMG-WG (110) • WNGA-Ceramic (186) • WNGA-M3 (CBN) (194) • WNGA-MC/M6 (CBN) (195) • CNMG-F3P (114) • CNMG-M3P (115) • CNMM-R3P (116) • CNMM-M4PW (124) • CNMG-F3M (117) • CNMG-M3M (118) • CNMG/CNGG-TF (122) • CNMG-GN (122) • CNMG-NR (123) • CNMG/CNGG-PP (121) • CNMG-VL (119) • CNMG/CNGG-SF (119) • CNMG-NF (120) • CNMG-WF (120) • CNMG-WG/NRW (120) • CNMA (121) • CNGA-Ceramic (187) • CNMG-Ceramic (186) • CNGA-2 (CBN) (196) • CNGA-4 (CBN) (196) • CNGG-M4HF/M4HM (CBN) (197) • CNMA-MW4 (CBN) (195) • CNMA-T/M1/WG (CBN) (195) • CNMA (PCD) (192)

Toolholder Options



Spare Parts

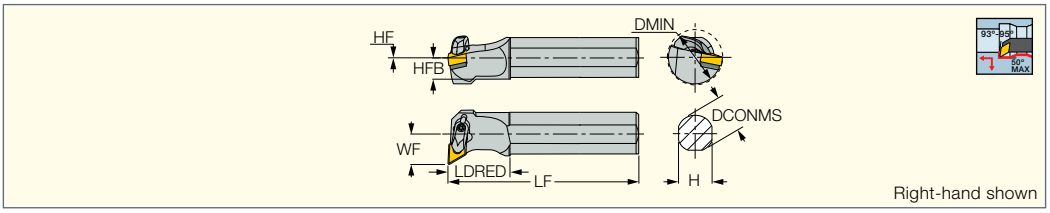
Designation									
A-MULNR/L 20-4MW	TCN 423	ZNW 4CMI	LC WN08		SPR 17-307	DK 17-307	SR 17-307	HW 3.0	PL 125
S-MULNL 16-4MW	TCN 423	ZNW 4CMI	LC WN08	LCL CN12*	SPR 17-307	DK 17-307	SR 17-307	HW 3.0	

* Optional, should be ordered separately

ISOTURN

S-DDUNR

R-Clamp Boring Bars, for ISO Negative DNMG Inserts



Designation	DCONMS	LF	LDRED	H	HFB	WF	DMIN	GAMP	GAMF
S-DDUNR 20-4	1.250	14.000	1.770	1.140	.620	.880	1.654	-6	-10

For inserts, see pages: DNMG-F3S (127) • DNMG-F3P (125) • DNMG-M3P (125) • DNMG-F3M (126) • DNMG-M3M (126) • DNMG/DNGG-TF (130) • DNMG-GN (130) • DNMG/DNGG-PP (129) • DNMG-VL (129) • DNMG-NF (128) • DNMG-WG (128) • DNMA (131) • DNGA-Ceramic (188) • DNGA-2 (CBN) (199) • DNGA-4 (CBN) (199) • DNGG-M4HF/M4HM (CBN) (199) • DNMA (CBN) (198) • DNMG-CERMET (127)

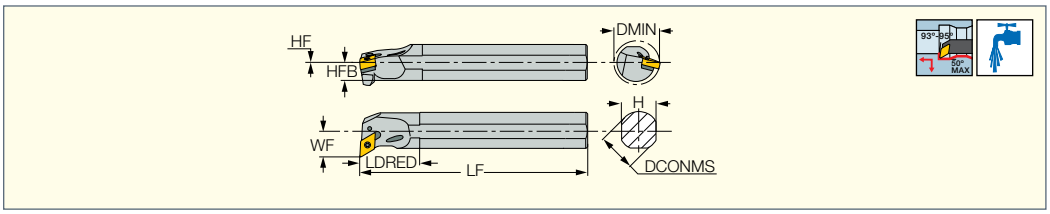
Spare Parts

Designation					
S-DDUNR	TDN 422	SP 4	LCGR-4	SR 10400270-25.5	T-15/5

ISOTURN

A-PDUNR/L

Lever Lock Boring Bars for 55° Negative Rhombic Inserts



Designation	DCONMS	LF	LDRED	H	HFB	WF	GAMP	GAMF	DMIN	Insert
A-PDUNR/L 20-4	1.250	12.000	1.874	29.000	14.500	1.000	-6	-13	42.000	DNMG 4..
A-PDUNR/L 24-4	1.500	12.000	2.244	34.000	17.000	1.060	-6	-12	47.000	DNMG 4..
A-PDUNR/L 32-4	2.000	14.000	2.992	46.000	23.000	1.380	-6	-9	61.000	DNMG 4..

For inserts, see pages: DNMG-CERMET (127) • DNMG-F3S (127) • DNMG-F3P (125) • DNMG-M3P (125) • DNMX-M3P (132) • DNMM-R3P (131) • DNMG-F3M (126) • DNMG-M3M (126) • DNMM-NM (131) • DNMG/DNGG-TF (130) • DNMG-GN (130) • DNMG-NR (130) • DNMG/DNGG-PP (129) • DNMG-VL (129) • DNMG-PF (129) • DNMG/DNGG-SF (128) • DNMG-NF (128) • DNMG-WG (128) • DNMS-12 (184) • DNMA (131) • DNGA-Ceramic (188) • DNGA-4 (CBN) (199) • DNMA (CBN) (198)

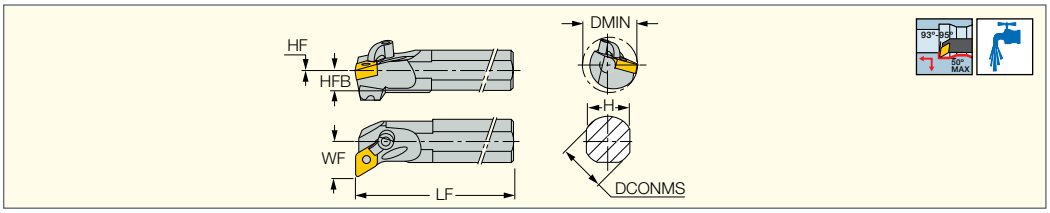
Spare Parts

Designation								
A-PDUNR/L 20-4	TDN 432	SP 4	LR 4D	SR 117-2010	HW 3.0	PL 125	SR M6X6 DIN913 TL360	PN 3-4
A-PDUNR/L 24-4	TDN 432	SP 4	LR 4D	SR 117-2010	HW 3.0	PL 150	SR M8X6 DIN913 TL360	PN 3-4
A-PDUNR/L 32-4	TDN 432	SP 4	LR 4D	SR 117-2010	HW 3.0	PL 150	SR M8X6 DIN913 TL360	PN 3-4

ISOTURN

A-MDUNR/L

Clamp Lock Boring Bars with Coolant Holes for Negative 55° Inserts



Designation	DCONMS	WF	LF	LDRED	HFB	DMIN	GAMP	GAMF
A-MDUNR/L 12-3	.750	.630	8.000	1.380	.343	1.160	-14	-6
A-MDUNR/L 16-3	1.000	.670	10.000	1.580	.461	1.250	-13	-6
A-MDUNR/L 20-3	1.250	.880	12.000	1.770	.571	1.580	-11	-6

For inserts, see pages: DNMG-CERMET (127) • DNMG-F3S (127) • DNMG-F3P (125) • DNMG-M3P (125) • DNMG-F3M (126) • DNMG-M3M (126) • DNMG/DNGG-TF (130) • DNMG-GN (130) • DNMG/DNGG-PP (129) • DNMG-VL (129) • DNMG-PF (129) • DNMG/DNGG-SF (128) • DNMG-NF (128)

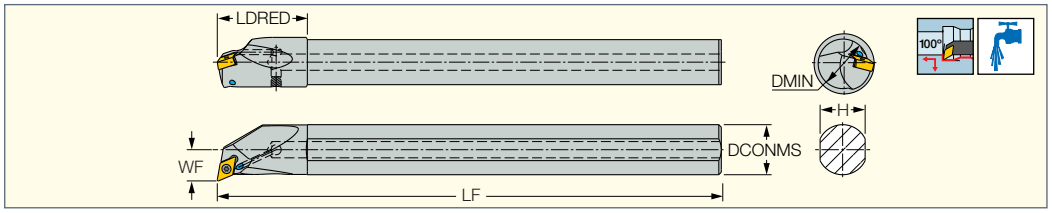
Spare Parts

Designation							
A-MDUNR/L 12-3		NL 34-L	CL 5	XNS 35 COM	HW 3/32"	HW 5/64"	PL 075
A-MDUNR/L 16-3	IDSN 322	NL 34-L	CL 5	XNS 35 COM	HW 3/32"	HW 5/64"	PL 100
A-MDUNR/L 20-3	IDSN 322	NL 34-L	CL 5	XNS 35 COM	HW 3/32"	HW 5/64"	PL 125

ISOTURN

A/E-SDXNR/L-07

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



Designation	DCONMS	LF	LDRED	H	WF	DMIN	GAMP	GAMF	Insert		
A10K SDXNR/L-07	.394	4.921	.787	.354	.300	.512	-14	-16	DNGP 07	SR 34-514	T-7F
A12M SDXNR/L-07	.472	5.906	.945	.433	.340	.630	-14	-14	DNGP 07	SR 34-514	T-7F
A16Q SDXNR/L-07	.630	7.087	1.260	.591	.420	.787	-13	-13	DNGP 07	SR 34-514	T-7F
A20R SDXNR/L-07	.787	7.874	1.417	.709	.500	.945	-13	-12	DNGP 07	SR 34-514	T-7F
E10M SDXNR/L-07	.394	5.906	.787	.354	.300	.512	-14	-16	DNGP 07	SR 34-514	T-7F
E12Q SDXNR/L-07	.472	7.087	.945	.433	.340	.630	-14	-14	DNGP 07	SR 34-514	T-7F
E16R SDXNR/L-07	.630	7.874	1.260	.591	.420	.787	-13	-13	DNGP 07	SR 34-514	T-7F
E20S SDXNR/L-07	.787	9.843	1.417	.709	.500	.945	-13	-12	DNGP 07	SR 34-514	T-7F

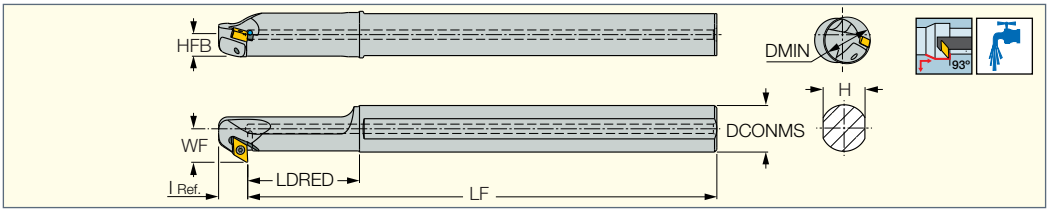
• Use left-hand inserts on right-hand bars and vice versa. • A - steel shank with coolant hole, E - carbide shank with coolant hole.

For inserts, see pages: DNGP-F2M (126) • DNGP-F2P (125)

ISOTURN

A/E-SDZNR/L-07

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



Designation	DCONMS	LF	LDRED	l Ref.	H	h1	WF	DMIN	GAMP	GAMF	Insert		
A12M SDZNR/L-07	.472	5.906	1.496	.512	.433	.217	.413	.551	-10	-14	DNGP 07	SR 34-514	T-7F
A16Q SDZNR/L-07	.630	7.087	1.693	.512	.591	.295	.492	.630	-10	-12.5	DNGP 07	SR 34-514	T-7F
A20R SDZNR/L-07	.787	7.874	1.890	.492	.709	.354	.571	.787	-10	-10.5	DNGP 07	SR 34-514	T-7F
E12Q SDZNR/L-07	.472	7.087	-	.512	.433	.217	.413	.709	-11	-11	DNGP 07	SR 34-514	T-7F
E16R SDZNR/L-07	.630	7.874	-	.512	.591	.295	.492	.866	-11	-9	DNGP 07	SR 34-514	T-7F

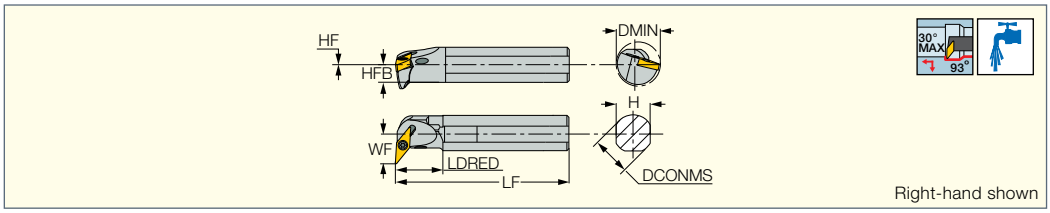
• Use right-hand inserts on right-hand bars and vice versa. • A - steel shank with coolant hole, E - carbide shank with coolant hole.

For inserts, see pages: DNGP-F2M (126) • DNGP-F2P (125)

ISOTURN

A-SVUNR/L

Boring Bars with Internal Coolant Holes Carrying the 35° Negative Rhombic Inserts



Designation	DCONMS	H	HFB	WF	LF	LDRED	DMIN	GAMP	GAMF			
A-SVUNR/L 12-2.5	.750	.677	.339	.630	7.000	1.200	1.040	-6	-14	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	-14	SR 14-551	T-9/5	PL 100
A-SVUNR/L 20-2.5	1.250	1.142	.571	.910	10.000	1.970	1.460	-6	-14	SR 14-551	T-9/5	PL 125

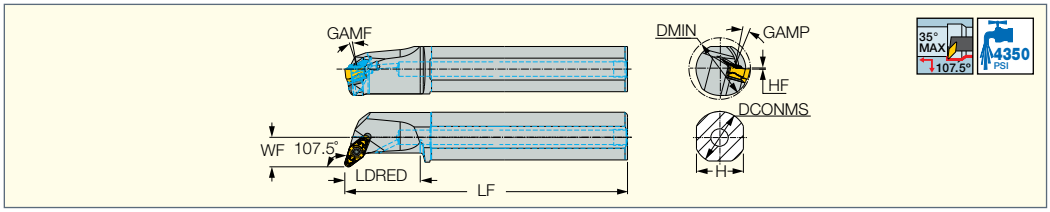
• For inserts with corner radius of .031" and larger, seat needs to be modified to ensure clearance.

For inserts, see pages: VNMG-F3M (133) • VNMG-F3S (134) • VNMG-FNF-CERMET (134) • VNMG-SF (134) • VNMG/VNGG-NF (135) • VNMM-PP (135)

ISOTURN

A-SVQNR/L-AL-JHP

Screw Lock Boring Bars Carrying the 35° Rhombic Inserts



Designation	DCONMS	LF	LDRED	H	HF	WF	DMIN	GAMP	GAMF	Insert
A-SVQNR/L 24-4-AL-JHP	1.500	13.705	2.36	1.417	.004	.921	1.929	6.5	14.5	VNGU 22..

For inserts, see pages: VNGU-R3N (180)

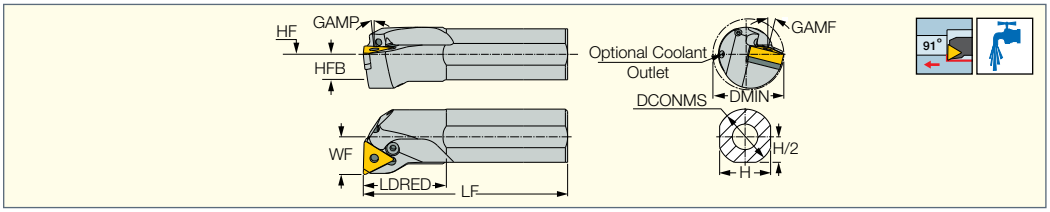
Spare Parts

Designation							
A-SVQNR/L-AL-JHP	TVX 2230	SR TC-4	SW6-T-SH	BLD T20/S7	SR 14-591/L-SN	HW 3.0	PL 150

HELITURN LD

A-PTFNR/L-X/G

91° Lead Angle Lever Lock Boring Bars Carrying the Negative TNMX or TNMG Triangular Inserts



Designation	DCONMS	LF	LDRED	H	HFB	WF	GAMP	GAMF	DMIN	Insert
A-PTFNR/L 10-3G	.630	7.000	1.100	.600	.300	.400	-12	-16	.780	TNMG 33.
A-PTFNR/L 12-3G	.750	7.000	1.100	.700	.300	.500	-6	-14	1.000	TNMG 33.
A-PTFNR/L 16-3X	1.000	8.000	1.500	.900	.500	.600	-6	-14	1.250	TNMX 34. TNMG 33.
A-PTFNR/L 20-3X	1.250	14.000	1.600	1.100	.600	.800	-6	-12	1.550	TNMX 34. TNMG 33.

• Use TTX 3 seat for TNMX 34. inserts and TTN 3 seat for TNMG 33. inserts

For inserts, see pages: TNMG-F3S (138) • TNMX-M3/4PW (137) • TNMX-M3/4MW (138) • TNMG-F3P (136) • TNMG-M3P (136) • TNMG-F3M (137) • TNMG-M3M (137) • TNMG-FFG-CERMET (138) • TNMG-TF (139) • TNMG-GN (141) • TNMG/TNGG-PP (140) • TNMG-VL (140) • TNMG-PF (139) • TNMG-SF (139) • TNMG-NF (140) • TNMS-12 (183) • TNMA (141) • TNGA-Ceramic (190) • TNGA-M3 (CBN) (204) • TNGA-MC/M6 (CBN) (203) • TNMA (CBN) (203)

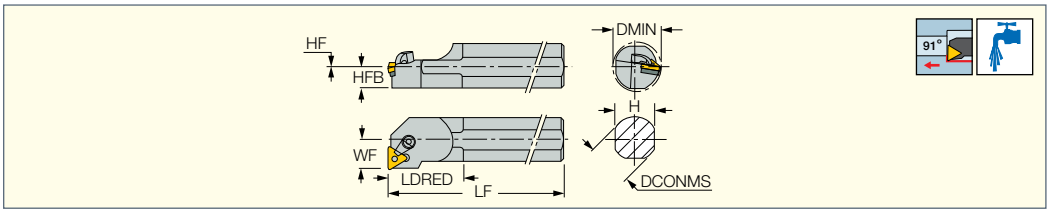
Spare Parts

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	
A-PTFNR/L 20-3X	TTX 3	TTN 3	SP 3	PN 3-4	LR 3	SR 117-2014	SR M4X4 DIN913 TL360	HW 2.5	PL 125	

ISOTURN

A-MTFNR

Comlock Boring Bars for Negative Triangular Inserts



Designation	DCONMS	WF	LF	DMIN	GAMP	GAMF	Insert
A-MTFNR 16-3	1.000	.640	10.000	1.280	-5	-12	TN..32..
A-MTFNR 24-4	1.500	1.030	14.000	2.062	-6	-12	TN..43..

For inserts, see pages: TNMG-F3S (138) • TNMG-FFG-CERMET (138) • TNMG-F3P (136) • TNMG-M3P (136) • TNMG-F3M (137) • TNMG-M3M (137) • TNMG-TF (139) • TNMG-GN (141) • TNMM-NR (141) • TNMG/TNGG-PP (140) • TNMG-VL (140) • TNMG-PF (139) • TNMG-SF (139) • TNMG-NF (140) • TNMA (141) • TNGA-Ceramic (190) • TNGA-M3 (CBN) (204) • TNGA-MC/M6 (CBN) (203) • TNMA (CBN) (203)

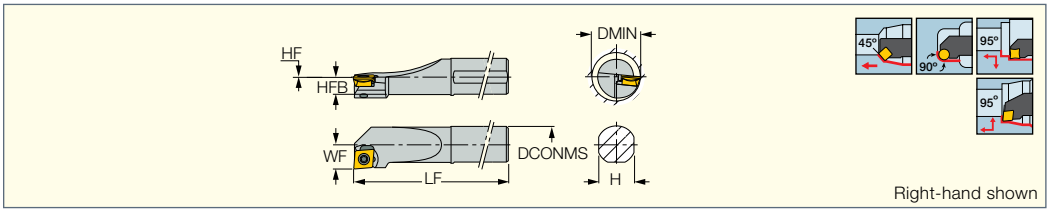
Spare Parts

Designation						
A-MTFNR 16-3	CL 7	XNS 35 COM				
A-MTFNR 24-4	CL 9	XNS 59 SCREW COM	HW 3/32"	NL-46	ITSN 434	HW 4.0

CHAMTURN

S-SUXCR/L-CM

Screw Lock Boring Bars
Carrying Four Different 7°
Clearance Geometries

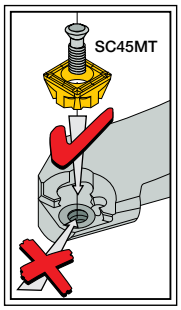


Right-hand shown

Designation	DCONMS	LF	LDRED	H	HFB	DMIN	GAMP	GAMF	WF
S-SUXCR 10-10 CM	.625	10.000	1.750	.590	.300	.780	0	-12	.406
S-SUXCR 12-10 CM	.750	10.000	2.000	.670	.340	1.000	0	-6	.500
S-SUXCR/L 16-10 CM	1.000	12.000	2.000	.910	.460	1.260	0	-4	.640

For inserts, see pages: CC95MT-SM (178) • SC45MT-SM (179)

Designation	DCONMS	LF	LDRED	H	HFB	DMIN	GAMP	GAMF	WF	Inserts
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...



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
  Clamping direction for SC45MT...

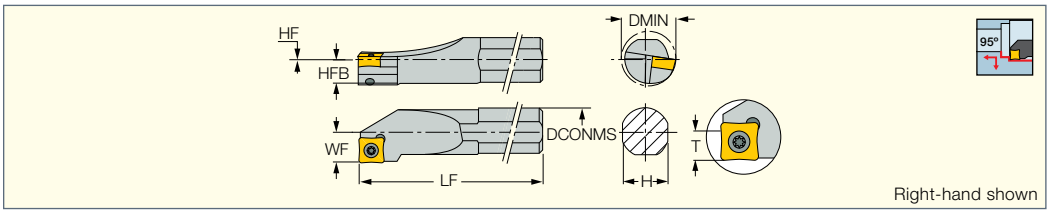
Spare Parts

Designation		
S-SUXCR/L-CM	SR 14-544/S	T-15/5

ISOTURN

S-SQLCR

Screw-Lock Boring Bars for 80°
Square Inserts with 7° Clearance



Right-hand shown

Designation	DCONMS	LF	LDRED	H	HFB	WF	T	DMIN	GAMP	GAMF
S-SQLCR 10-3	.625	7.000	1.750	.590	.300	.410	.335	.780	0	-12

For inserts, see pages: QCMT-SM (173)

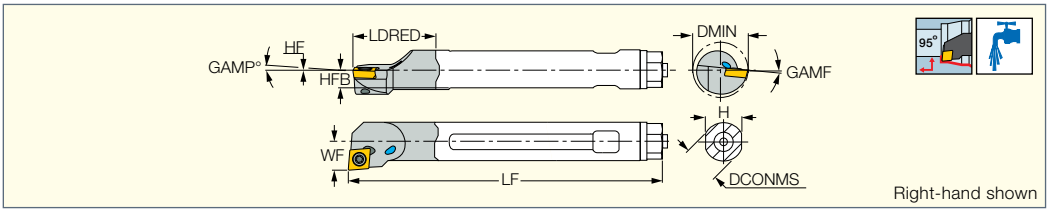
Spare Parts

Designation		
S-SQLCR	SR 16-236	T-15/5

ISOTURN

E-SCLCR/L-HEAD

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



Right-hand shown

Designation	DCONMS	LF	LDRED	H	HFB	WF	GAMP	GAMF	DMIN	Insert
E-SCLCR/L 8-2 HEAD	.500	7.000	.980	.460	.230	.350	0	-7	.630	CCMT/CCGT 2
E-SCLCR/L 10-3 HEAD	.625	7.000	1.170	.590	.295	.430	0	-6	.787	CCMT/CCGT 3

For inserts, see pages: CCMT-CERMET (155) • CCMT-F3P (153) • CCMT-M3P (154) • CCMT-F3M (154) • CCMT-M3M (155) • CCMT-PF (156) • CCMT/CCGT-SM (156) • CCET-WF (157) • CCMT-WG (157) • CCGT-AS (182) • CCGT-AF (182) • CCMT-14 (156) • CCMT/CCGT (157) • CCGW/CCMT (CBN) (197) • CCGW/CCMW-2 (CBN) (198) • CCMT (PCD) (192)

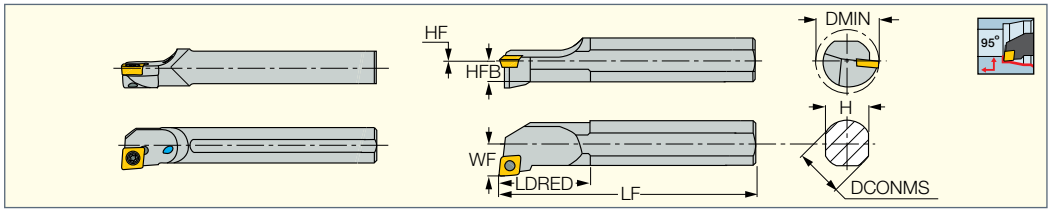
Spare Parts

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

ISOTURN

A/E/S-SCLCR/L

Screw Lock Boring Bars
Carrying the 80° Rhombic
Inserts with 7° Clearance for
.787" Minimum Bore Diameter



Designation	DCONMS	LF	LDRED	WF	H	HFB	HF	DMIN	CSP(1)	GAMP	GAMF	TQ	Insert
A04F SCLCR/L-03	.157	3.150	.315	.098	.150	.075	.000	.197	1	0	-15	5.30	CCGT 03X1
A05F SCLCR/L-03	.197	3.150	.354	.118	.189	.094	.000	.236	1	0	-13	5.30	CCGT 03X1
A06G SCLCR/L-04	.236	3.543	.394	.138	.228	.114	.000	.276	1	0	-13	5.30	CCGT 04T1
A07G SCLCR/L-04	.276	3.543	.433	.157	.268	.134	.000	.315	1	0	-11	5.30	CCGT 04T1
A20R SCLCR/L-09	.787	7.874	1.378	.512	.709	.354	.000	.984	1	0	-4	26.50	CC.. 09T3
A25S SCLCR/L-09	.984	9.843	1.378	.669	.906	.453	.000	1.260	1	0	-4	26.50	CC.. 09T3
E04G SCLCR/L-03	.157	3.543	.354	.098	.150	.075	.000	.197	1	0	-15	5.30	CCGT 03X1
E05G SCLCR/L-03	.197	3.543	.394	.118	.189	.094	.000	.236	1	0	-13	5.30	CCGT 03X1
E06H SCLCR/L-04	.236	3.937	.472	.138	.228	.114	.000	.276	1	0	-13	5.30	CCGT 04T1
E07H SCLCR/L-04	.276	3.937	.551	.157	.268	.134	.000	.315	1	0	-11	5.30	CCGT 04T1
E08K SCLCR/L-06	.315	4.921	-	.197	.299	.150	.000	.394	1	3	-11	8.85	CC.. 0602
E10M SCLCR/L-06	.394	5.906	-	.276	.362	.181	.000	.551	1	3	-7	8.85	CC.. 0602
E12Q SCLCR/L-06	.472	7.087	-	.354	.433	.217	.000	.630	1	0	-7	8.85	CC.. 0602
E16R SCLCR/L-06	.630	7.874	-	.433	.551	.276	.000	.787	1	0	-7	8.85	CC.. 0602
E16R SCLCR/L-09	.630	7.874	-	.433	.591	.295	.000	.787	1	0	-6	26.50	CC.. 09T3
S08K SCLCR/L-06	.315	4.921	.472	.197	.315	.150	.000	.413	0	0	-11	8.85	CC.. 0602
S10L SCLCR/L-06	.394	5.512	.787	.276	.354	.177	.000	.512	0	0	-7	8.85	CC.. 0602
S12M SCLCR/L-06	.472	5.906	.472	.354	.472	.217	.000	.630	0	0	-7	8.85	CC.. 0602
S16Q SCLCR/L-09	.630	7.087	1.772	.433	.591	.295	.000	.787	0	0	-6	26.50	CC.. 09T3
S20R SCLCR/L-09	.787	7.874	1.968	.512	.709	.354	.000	.984	0	0	-4	26.50	CC.. 09T3
S25S SCLCR/L-09	.984	9.843	2.165	.669	.906	.453	.000	1.378	0	0	-4	26.50	CC.. 09T3

• S - steel shank, A - steel shank with coolant hole, E - carbide shank with coolant hole
(1) 0 - Without coolant supply, 1 - With coolant supply

For inserts, see pages: CCMT-CERMET (155) • CCGT-F1P (158) • CCMT-F3P (153) • CCMT-M3P (154) • CCMT-F3M (154) • CCMT-M3M (155) • CCMT-PF (156) • CCMT/CCGT-SM (156) • CCET-WF (157) • CCMT-WG (157) • CCGT-AS (182) • CCGT-AF (182) • CCMT-14 (156) • CCMT/CCGT (157) • CCGW/CCMT (CBN) (197) • CCGW/CCMW-2 (CBN) (198) • CCMT (PCD) (192)

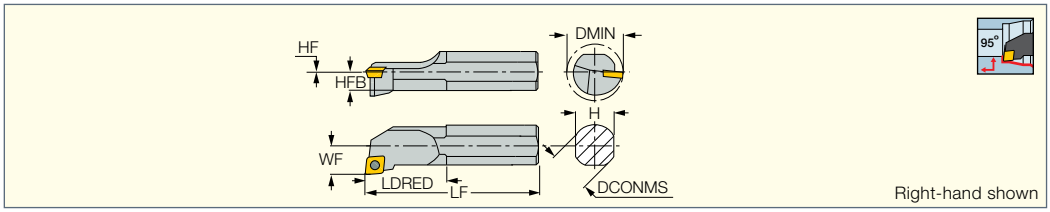
Spare Parts

Designation				
A04F SCLCR/L-03	CSTA-1.6	T-6F		
A05F SCLCR/L-03	CSTA-1.6	T-6F		
A06G SCLCR/L-04	CSTB-2	T-6F		
A07G SCLCR/L-04	CSTB-2	T-6F		
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-6F		
E05G SCLCR/L-03	CSTA-1.6	T-6F		
E06H SCLCR/L-04	CSTB-2	T-6F		
E07H SCLCR/L-04	CSTB-2	T-6F		
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		

ISOTURN

S-SCLCR/L

Screw Lock Boring Bars for 80° Rhombic Inserts with 7° Clearance



Designation	DCONMS	LF	LDRED	H	HFB	WF	DMIN	GAMP	GAMF	Insert
S-SCLCR 6-2	.375	6.000	-	.340	.189	.250	.449	3	-7	CC.. 2
S-SCLCR/L 8-2	.500	6.000	-	.580	.310	.350	.622	0	-7	CC.. 2
S-SCLCR/L 10-3	.625	8.000	1.770	.670	.350	.440	.780	0	-6	CC.. 3
S-SCLCR/L 12-3	.750	10.000	1.970	.920	.470	.500	.985	0	-5	CC.. 3
S-SCLCR 16-4	1.000	12.000	2.170	.460	.250	.630	1.220	0	-5	CC.. 4

For inserts, see pages: CCMT-CERMET (155) • CCMT-F3P (153) • CCMT-M3P (154) • CCMT-F3M (154) • CCMT-M3M (155) • CCMT-PF (156) • CCMT/CCGT-SM (156) • CCET-WF (157) • CCMT-WG (157) • CCGT-AS (182) • CCGT-AF (182) • CCMT-14 (156) • CCMT/CCGT (157) • CCGW/CCMT (CBN) (197) • CCGW/CCMW-2 (CBN) (198) • CCMT (PCD) (192)

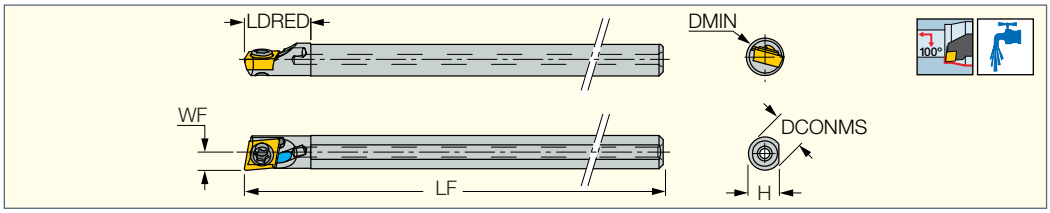
Spare Parts

Designation		
S-SCLCR 6-2	SR 14-548	T-7/5
S-SCLCR/L 8-2	SR 14-548	T-7/5
S-SCLCR/L 10-3	SR 16-236/L8.6	T-15/5
S-SCLCR/L 12-3	SR 16-236	T-15/5
S-SCLCR 16-4	SR 16-212	T-20/5

ISOTURN

A/E-SEXPR/L-03

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



Designation	DCONMS	LF	LDRED	H	HFB	WF	DMIN	GAMP	GAMF	Insert		
A04F SEXPR/L-03	.157	3.150	.315	.150	.000	.091	.177	0	-15	EPGT 03	CSTA-1.6	T-6F
E04G SEXPR/L-03	.157	3.543	.354	.150	.000	.091	.177	0	-15	EPGT 03	CSTA-1.6	T-6F

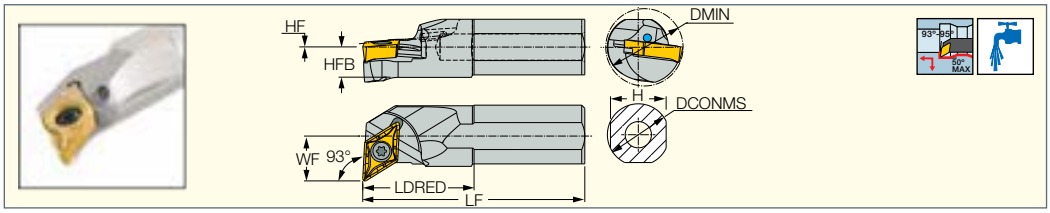
• A - steel shank with coolant hole, E - carbide shank with coolant hole

For inserts, see pages: EPGT-F1P (159)

ISOTURN

A-SDUCR/L-13-SL

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



Designation	DCONMS	LF	LDRED	H	HFB	WF	DMIN	GAMP	GAMF	Shank m.	Insert
A-SDUCR/L 12-13-SL	.750	10.000	1.400	.670	.339	.570	1.000	0	-7	S	DCMT 13T5-SL
A-SDUCR/L 16-13-SL	1.000	12.000	1.800	.920	.460	.670	1.250	0	-6	S	DCMT 13T5-SL

For inserts, see pages: DCMT-F3P-SL (159) • DCMT-M3M-SL (160) • DCMT-PF-SL (161) • DCMT-SM-SL (162)

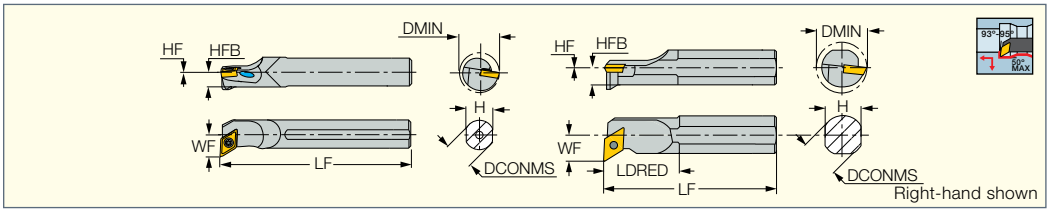
Spare Parts

Designation			
A-SDUCR/L 12-13-SL	SR M4X0.7-L9.6 IP15	IP-15/5	PL 20
A-SDUCR/L 16-13-SL	SR M4X0.7-L9.6 IP15	IP-15/5	PL 25

ISOTURN

E/S-SDUCR/L

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



Designation	DCONMS	WF	LF	LDRED	H	HFB	DMIN	GAMP	GAMF	CSP(1)	Shank m.(2)	Insert
E-SDUCR 6-2	.375	.350	6.000	-	.330	.186	.562	3	-9	1	C	DC.. 2
E-SDUCR 8-2	.500	.350	7.000	-	.456	.230	.629	3	-9	1	C	DC.. 2
E-SDUCR 10-2	.625	.430	8.000	-	.591	.316	.787	0	-8	1	C	DC.. 2
S-SDUCR 6-2	.375	.350	6.000	-	.330	.190	.562	0	-9	0	S	DC.. 2
S-SDUCR 8-2	.500	.350	6.000	-	.460	.230	.629	0	-9	0	S	DC.. 2
S-SDUCR 10-2	.625	.430	8.000	-	.575	.316	.787	0	-8	0	S	DC.. 2
S-SDUCR 12-3	.750	.500	10.000	1.770	.670	.330	.985	0	-6	0	S	DC.. 3
S-SDUCR/L 16-3	1.000	.630	12.000	2.170	.920	.480	1.220	0	-5	0	S	DC.. 3

• E type tools with carbide shank and internal coolant
(1) 0 - Without coolant supply, 1 - With coolant supply
(2) S-Steel, C-carbide

For inserts, see pages: DCMT-PF (162) • DCMT/DCGT-SM (162) • DCET-WF (163) • DCGT-AS (182) • DCGT-AF (183) • DCMT-14 (163) • DCMT/DCGT (163) • DCGW/DCMW-2 (CBN) (200) • DCMT (CBN) (200) • DCMT (PCD) (193)

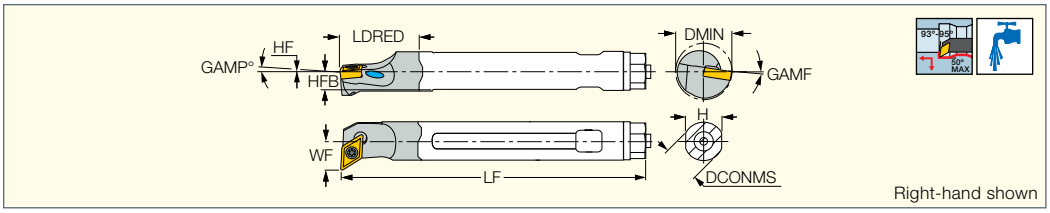
Spare Parts

Designation					
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 16-236 P	T-15/5	SR TC-3P	HW 4.0

ISOTURN

E-SDUCR-HEAD

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



Designation	DCONMS	LF	LDRED	H	HFB	WF	GAMP	GAMF	DMIN
E-SDUCR 10-2 HEAD	.625	7.000	1.170	.590	.295	.430	0	-8	.787

For inserts, see pages: DCMT-F3P (159) • DCMT-M3M (160) • DCMT-PF (162) • DCMT/DCGT-SM (162) • DCET-WF (163) • DCGT-AS (182) • DCMT/DCGT (163) • DCGW/DCMW-2 (CBN) (200)

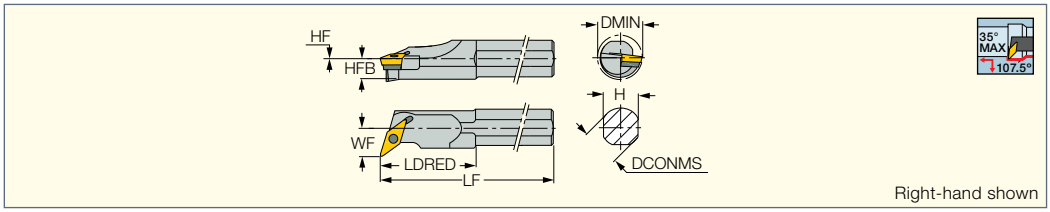
Spare Parts

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

ISOTURN

A/S-SVQCR/L

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



Designation	DCONMS	LF	LDRED	H	HFB	WF	DMIN	CSP(1)	GAMP	GAMF	Insert
S-SVQCR/L 16-3	1.000	12.000	2.440	.920	.480	.630	1.220	0	0	-5	VC..33..
A-SVQCR 24-4	1.500	13.780	2.520	1.417	.709	1.000	1.770	1	0	-8	VC..2205..

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

For inserts, see pages: VCMT-F3P (164) • VCGW-2 (CBN) (203) • VCMT-M3P (164) • VCMT-F3M (164) • VCMT-M3M (165) • VCMT-FPC-CERMET (165) • VCMT-SM (166) • VCGT-AS (181) • VCGT-AF (181) • VCMT-14 (166) • VCMW (167) • VCMT (CBN) (202) • VCGT (PCD) (193) • VCGT-DW (PCD) (193)

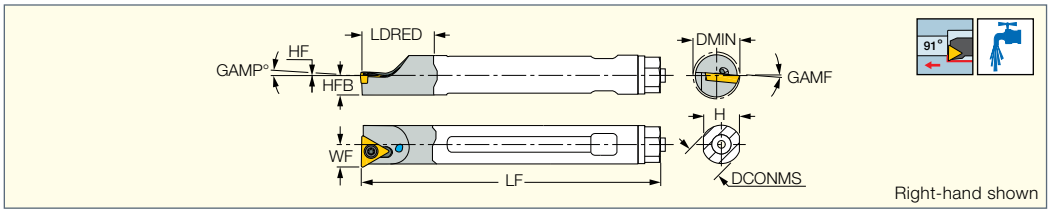
Spare Parts

Designation						
S-SVQCR/L 16-3	SR 16-236 P	T-15/5	TVC 3-1P	SR TC-3P	HW 4.0	
A-SVQCR 24-4	SR 14-536	T-20/5	TVC 22T330	SR TC-3	HW 2.5	PL 150

ISOTURN

E-STFCR-HEAD

Interchangeable Screw Clamped Boring Heads Carrying the Positive 7° Clearance Triangular Inserts Mounted on Carbide Bars



Designation	DCONMS	LF	LDRED	H	HFB	WF	GAMP	GAMF	DMIN
E-STFCR 8-2 HEAD	.500	7.000	.980	.460	.230	.280	0	-6	.555
E-STFCR 10-2 HEAD	.625	7.000	1.170	.590	.295	.350	0	-6	.689

For inserts, see pages: TCMT-F3P (170) • TCMT-M3M (170) • TCMT-PF (170) • TCMT-SM (171) • TCGT-AS (181) • TCMT (CBN) (204) • TCMT (PCD) (194)

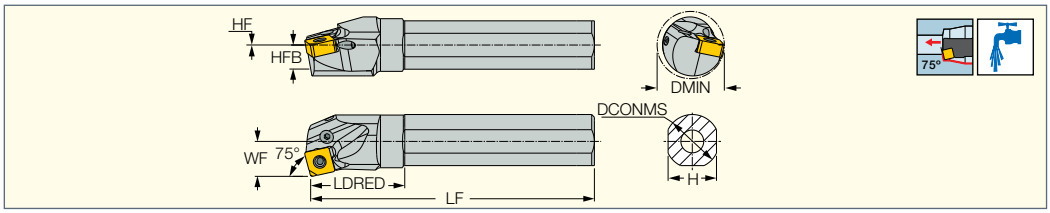
Spare Parts

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

ISOTURN

A-PSKNR/L-3

Lever Lock Boring Bars for 90° Negative Square Inserts



Designation	DCONMS	LF	LDRED	H	HFB	WF	GAMP	GAMF	DMIN	Insert
A-PSKNR/L 10-3	.625	7.000	1.380	.570	.285	.430	-14	-16	.866	SNMG 33
A-PSKNR/L 12-3	.750	10.000	1.380	.680	.340	.500	-10	-14	.984	SNMG 33
A-PSKNR/L 16-3	1.000	12.000	1.380	.920	.460	.640	-15	-15	1.260	SNMG 32 SNMG 33
A-PSKNR/L 20-3	1.250	14.000	1.570	1.140	.570	.770	-13	-13	1.417	SNMG 32 SNMG 33

For inserts, see pages: SNMG-F3S (144) • SNMG-F3P (142) • SNMG-M3P (142) • SNMG-F3M (143) • SNMG-M3M (144) • SNMG-TF (145)

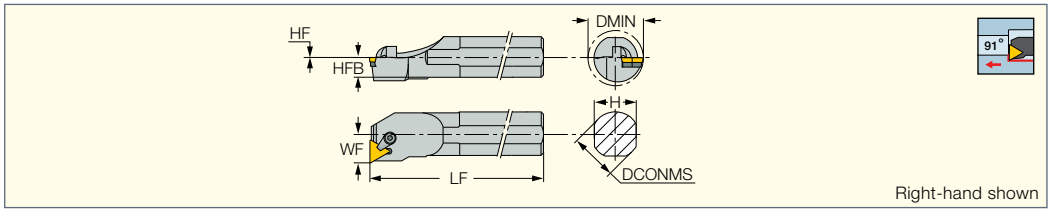
Spare Parts

Designation									
A-PSKNR/L 16-3	TSN 323	TSN 333	SR 117-2014	HW 2.5	SR M4X5 DIN913	LR 3	SP 3	PL 100	PN 3-3L
A-PSKNR/L 20-3	TSN 323	TSN 333	SR 117-2014	HW 2.5	SR M4X5 DIN913	LR 3	SP 3	PL 125	PN 3-3L

ISOTURN

S-CTFPR

Clamp Lock Boring Bars for 11° Clearance Triangular Inserts



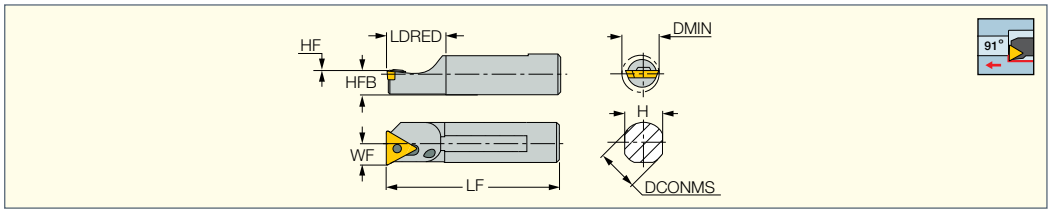
Designation	DCONMS	WF	H	HFB	LF	DMIN	GAMP	GAMF		
S-CTFPR 12-3	.750	.520	.669	.354	10.000	.945	0	4	LC 30 SET 2A	HW 1/8"
S-CTFPR 16-3	1.000	.580	.921	.461	12.000	1.156	0	5	LC 30 SET 2A	HW 1/8"

For inserts, see pages: TPG-Ceramic (190) • TPMR (173) • TPMR-FTF (174) • TPMR-PF (174)

ISOTURN

E-STFPR

Screw Lock Boring Bars for 11° Clearance Triangular Inserts



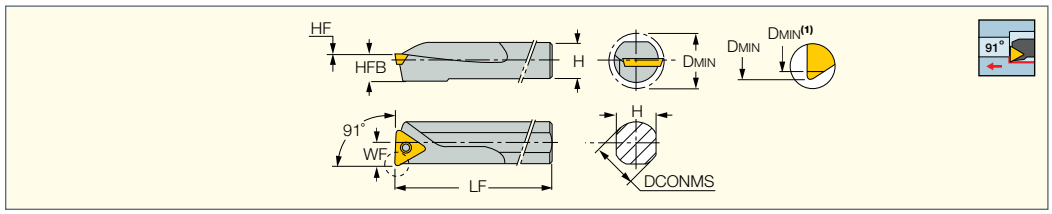
Designation	DCONMS	LF	H	HFB	WF	GAMP	GAMF	DMIN		
E-STFPR 6-2	.375	6.000	.342	.201	.240	3	0	.448	SR 14-505	T-7/5
E-STFPR 8-2	.500	7.000	.464	.264	.290	4	0	.555	SR 14-505	T-7/5
E-STFPR 10-2	.625	8.000	.574	.287	.350	4	0	.689	SR 14-505	T-7/5

For inserts, see pages: TPMT-PF (175) • TPGT-SP (174) • TPGB-XL (176) • TPGH-XL (176) • TPGB (175) • TPMT (175) • TPGW-M3 (CBN) (205)

ISOTURN

BBS

Screw Lock Boring Bars for 11° Clearance Triangular Inserts



Designation	DCONMS	WF	LF	H	HFB	DMIN	GAMP	GAMF	Insert		
BBS 6-2	.500	.220	5.000	.180	.260	.394	3	0	TP.. 2	SR 14-505	T-7/5
BBS 8-2	.500	.290	6.000	.460	.260	.551	4	0	TP.. 2	SR 14-505	T-7/5
BBS 10-2	.625	.350	8.000	.580	.310	.670	5	0	TP.. 2	SR 14-505	T-7/5
BBS 12-3	.750	.400	10.000	.710	.370	.846	5	0	TP.. 3	SR 14-541	T-15/5

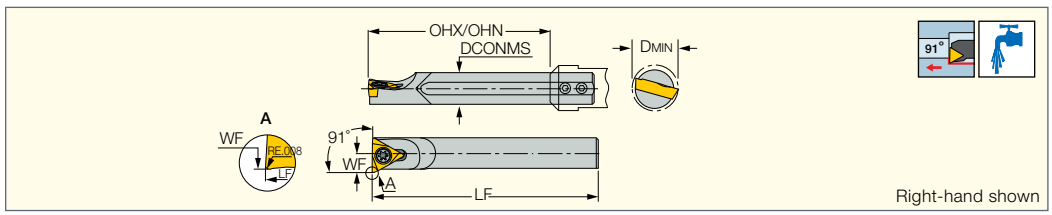
• (1) When used with insert TPG-XL Dmin=Dmin -.046

For inserts, see pages: TPMT-PF (175) • TPGB-XL (176) • TPGH-R/L (176) • TPGH-XL (176) • TPGB (175) • TPMT (175) • TPGW-M3 (CBN) (205)

ISOTURN

MG STFPR-X

Solid Carbide Boring Bar Carrying the TPGX Inserts for Small Diameters



Designation	DCONMS	LF	OHN(1)	OHX(2)	WF	GAMP	GAMF	DMIN		
MG 08-STFPR-09X	.315	3.110	.79	2.205	.193	5	-15	.374	SR 14-298	T-8/5

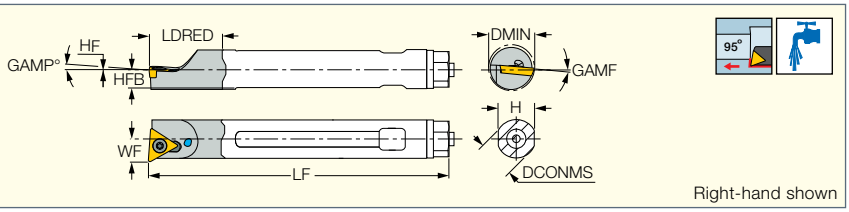
(1) Minimum overhang in adjustment range
(2) Maximum overhang in adjustment range

For inserts, see pages: TPGX (177) • TPGX (CBN) (204) • TPGX (PCD) (194)

ISOTURN

E-STLPL-HEAD

Interchangeable Screw Clamped Boring Heads for Positive 11° Clearance Triangular Inserts, Mounted on Carbide Bars



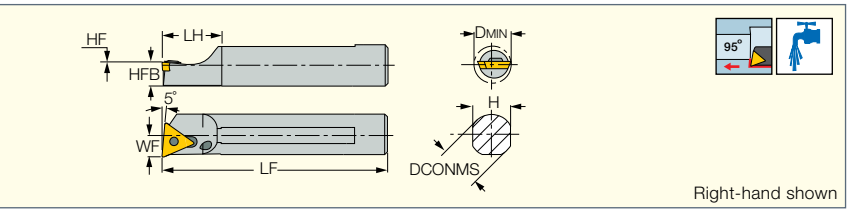
Designation	DCONMS	LF	LDRED	H	HFB	WF	GAMP	GAMF	DMIN		
E-STLPL 8-2 HEAD	.500	7.000	.980	.230	.460	.290	4	-6	.547	SR 14-505	T-7/5

For inserts, see pages: TPMT-PF (175) • TPGB-XL (176) • TPGH-R/L (176) • TPGH-XL (176) • TPGB (175) • TPMT (175) • TPGW-M3 (CBN) (205)

ISOTURN

E-STLPR

Screw Lock Boring Bars for 11° Clearance Triangular Inserts, Carbide Shank with Coolant Holes



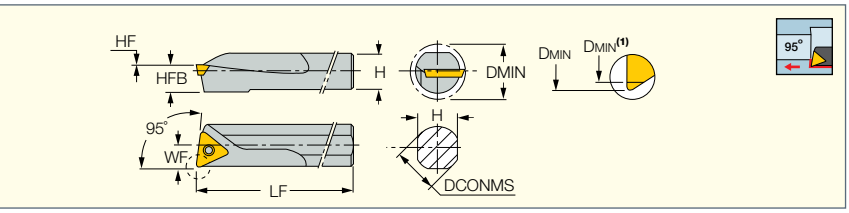
Designation	WF	LF	DCONMS	HFB	DMIN	GAMP	GAMF		
E-STLPR 12-3	.420	10.000	.750	.395	.815	5	0	SR 14-541	T-15/5

For inserts, see pages: TPGH-R/L (176) • TPGB (175) • TPMT (175)

ISOTURN

BBN

Screw Lock Boring Bars for 11° Clearance Triangular Inserts



Designation	DCONMS	WF	LF	H	HFB	DMIN	GAMP	GAMF	Insert
BBN 6-2	.500	.220	5.000	.180	.260	.394	3	0	TP.. 2
BBN 8-2	.500	.290	6.000	.460	.260	.551	4	0	TP.. 2
BBN 10-2	.625	.350	8.000	.580	.310	.670	5	0	TP.. 2
BBN 10-3	.625	.360	7.000	.580	.330	.709	5	5	TP.. 3
BBN 12-3	.750	.400	10.000	.710	.370	.846	5	0	TP.. 3

• (1) When used with insert TPG-XL Dmin=Dmin -.046

For inserts, see pages: TPMT-PF (175) • TPGB-XL (176) • TPGH-R/L (176) • TPGH-XL (176) • TPGB (175) • TPMT (175) • TPGW-M3 (CBN) (205)

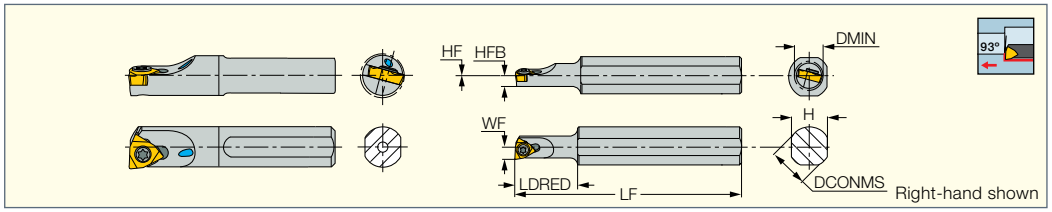
Spare Parts

Designation		
BBN 6-2	SR 14-505	T-7/5
BBN 8-2	SR 14-505	T-7/5
BBN 10-2	SR 14-505	T-7/5
BBN 10-3	SR 14-541	T-15/5
BBN 12-3	SR 14-541	T-15/5

ISOTURN

E/S-SWUBR/L

Screw Clamp Miniature Boring Bars Carrying the Small WBMT Trigon Inserts



Designation	DCONMS	LF	LDRED	H	HFB	WF	GAMP	GAMF	DMIN	CSP(1)	Shank m.(2)	Insert
E-SWUBR 4-5	.250	4.000	-	.220	.109	.140	0	-15	.275	1	C	WB.. 520L
E-SWUBR 5-5	.312	5.000	-	.291	.148	.160	0	-12	.330	1	C	WB.. 520L
E-SWUBR 6-5	.375	6.000	-	.342	.175	.210	0	-12	.413	1	C	WB.. 520L
S-SWUBR 4-5	.250	4.000	-	.230	.118	.140	0	-12	.275	0	S	WB.. 520L
S-SWUBR 5-5	.312	4.500	-	.293	.150	.170	0	-12	.330	0	S	WB.. 520L
S-SWUBR 6-5	.375	5.000	-	.354	.181	.210	0	-12	.413	0	S	WB.. 520L
S6 SWUBR/L-065	.375	4.000	.781	.354	.181	.120	0	-15	.236	0	S	WB.. 520L/R (3)
S7 SWUBR/L-065	.375	4.000	.937	.354	.181	.140	0	-13	.276	0	S	WB.. 520L/R (3)

(1) 0 - Without coolant supply, 1 - With coolant supply
(2) S-Steel, C-Carbide
(3) WBMT 520R for LH holder.• WBMT 520L for RH holder.

For inserts, see pages: WBGT (177) • WBMT (177)

Spare Parts

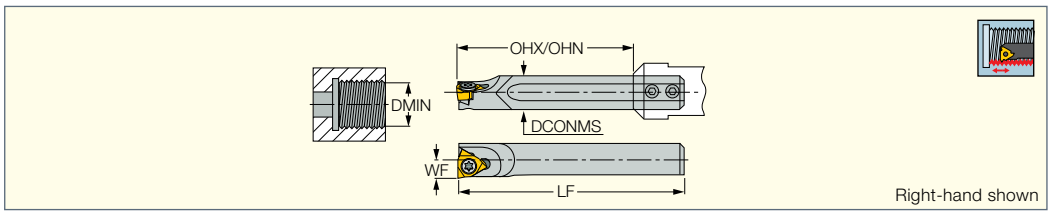
Designation		
E/S-SWUBR/L	SR 14-552	T-6/5

ISOTURN

ISCARTHREAD

MGSIR/L

Solid Carbide Bars for Internal Turning and Threading



Designation	DCONMS	LF	OHN(1)	OHX(2)	WF	DMIN		
MGSIR/L 06-06	.236	2.323	.63	1.654	.154	.276	SR 14-552	T-6/5
MGSIR/L 08-06	.315	2.835	.79	2.205	.197	.362	SR 14-552	T-6/5

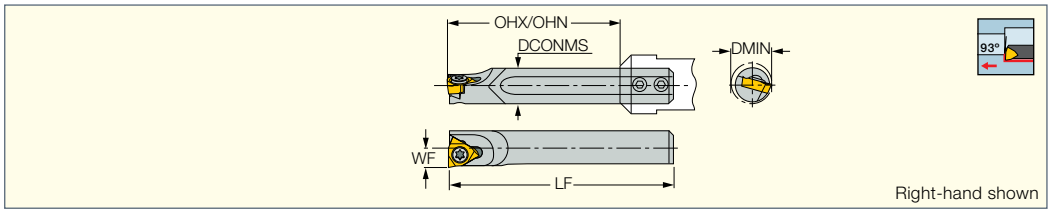
• In order to maintain high machining reliability, we strongly recommend replacing the clamping screw every 10 insert indexes
(1) Minimum overhang in adjustment range
(2) Maximum overhang in adjustment range

For inserts, see pages: IR/L-55° (640) • IR/L-60° (646) • IR/L-BSPT (668) • IR/L-ISO (653) • IR/L-NPT (665) • IR/L-NPTF (667) • IR/L-UN (658) • IR/L-W (662)
For holders, see pages: SBB (97)

ISOTURN

MG-SWUBR/L

Solid Carbide Bars for Internal Turning



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

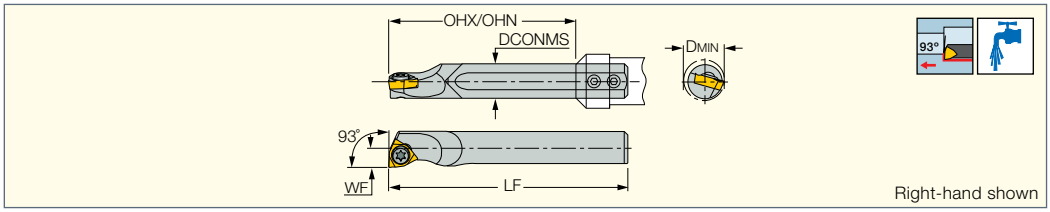
• Use right-hand WBMT 52...R inserts on left-hand tools and left-hand WBMT 52...L inserts on right-hand tools
(1) Minimum overhang in adjustment range
(2) Maximum overhang in adjustment range

For inserts, see pages: WBGT (177) • WBMT (177)
For holders, see pages: SBB (79)

ISOTURN

MG-SWUCR

Solid Carbide Boring Bars
Carrying the WCGT Trigon
Inserts for Small Diameters



Designation	DCONMS	LF	OHN(1)	OHX(2)	WF	GAMP	GAMF	DMIN	Insert		
MG 06-SWUCR-02	.236	2.362	.63	1.654	.130	0	15	.260	WCGT 0201	SR 14-299	T-6/5
MG 08-SWUCR-02	.315	2.980	.79	2.205	.169	0	12	.346	WCGT 0201	SR 14-299	T-6/5

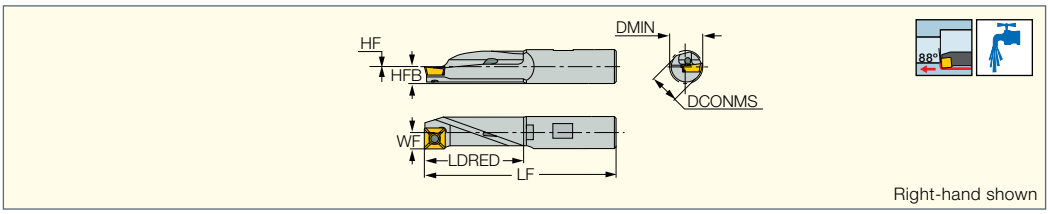
(1) Minimum overhang in adjustment range
(2) Maximum overhang in adjustment range

For inserts, see pages: WCGT (178)
For holders, see pages: SBB (97)

ISOTURN

A-SXFOR

Boring Bars with Coolant
Holes Using XOMT Inserts



Designation	DCONMS	WF	LF	LDRED	HFB	DMIN	GAMP	GAMF
A06J SXFOR-2	.375	.190	4.500	1.125	.193	.395	6	1.75
A08K SXFOR-2	.500	.190	5.000	1.125	.255	.395	6	1.75

For inserts, see pages: XOMT-DT (169)

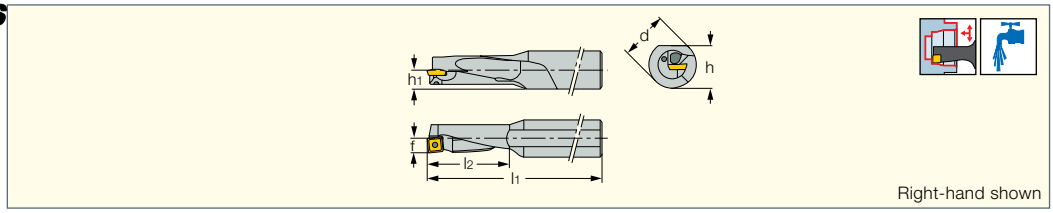
Spare Parts

Designation		
A-SXFOR	SR 34-508	T-7/5

MULTIFUNCTION TOOLS

A-SXFOR-DR

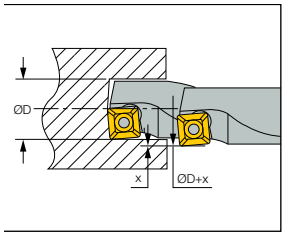
Boring and Drilling Bars
with Coolant Holes Carrying
the XOMT Inserts



Designation	DC	DCONMS	LSCMS	LCF	LU	WF	HF	GAMP	GAMF	H	DCN(1)	Insert
A12 SXFOR-105DR	.472	.625	7.000	.83	.750	.240	.320	0	0	.550	.492	XOMT

(1) Cutting diameter minimum

For inserts, see pages: XOMT-DT (169)



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**

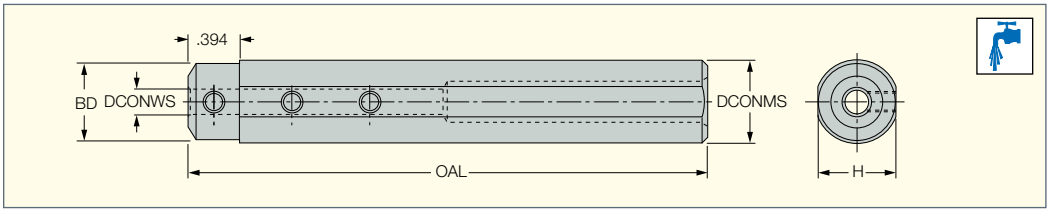
Spare Parts

Designation			
A-SXFOR-DR	SR 34-508	T-7/51	PL 062

ISOTURN

SBB

Holders for Small Diameter Metric (4-7 mm) Boring Bars



Designation	DCONMS	DCONWS	BD	H	OAL			
SBB D159-4	.625	.157	.591	.591	3.937	SR M4X4	HW 2.0	PL 16*
SBB D159-5	.625	.197	.591	.591	3.937	SR M4X4	HW 2.0	PL 16*
SBB D159-6	.625	.236	.591	.591	3.937	SR M4X4	HW 2.0	PL 16*
SBB D159-7	.625	.276	.591	.591	3.937	SR M4X4	HW 2.0	PL 16*
SBB D19-4	.750	.157	.709	.709	3.937	SR M4X4	HW 2.0	PL 16*
SBB D19-5	.750	.197	.709	.709	3.937	SR M4X4	HW 2.0	PL 16*
SBB D19-6	.750	.236	.709	.709	3.937	SR M4X4	HW 2.0	PL 16*
SBB D19-7	.750	.276	.709	.709	3.937	SR M4X4	HW 2.0	PL 16*

• Holders are suitable for left- and right-hand inserts, and boring bars

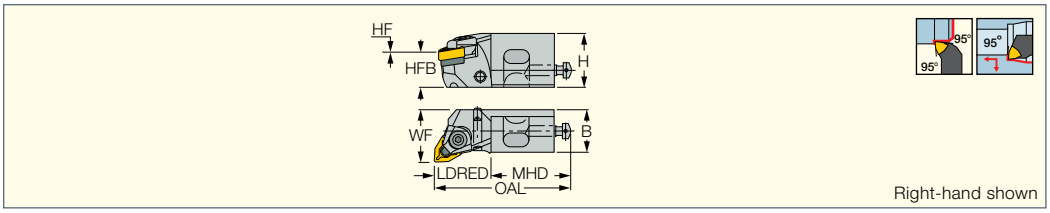
* Optional, should be ordered separately

For tools, see pages: A/E-SEXPR/L-03 (90) • A/E/S-SCLCR/L (89) • MG-SWUBR/L (95) • MG-SWUCR (96) • MGCH (429) • MGSIR/L (694)

ISOTURN

MWLNR/L-CA-W

Top Wedge Lock Cartridges Carrying the Negative Trigon Inserts



Designation	OAL	LDRED	B	H	HFB	HF	WF	GAMP	GAMF	MHD
MWLNR/L 16CA-06W	2.480	1.039	.787	.984	.630	.138	.984	-8	-8	1.441

For inserts, see pages: WNGG-F3N (179) • WNMG-CERMET (106) • WNMG-F3S (108) • WNMG-F3P (105) • WNMG-M3P (106) • WNMG-F3M (108) • WNMG-M3M (108) • WNMG-TF (111) • WNMG-GN (112) • WNMG-PP (111) • WNMG-VL (109) • WNMG-SF (109) • WNMG-NF (109) • WNMG-WF (110) • WNMA/WNMA-WG (113) • WNMG-WG (110)

Spare Parts

Designation								
MWLNL 16CA-06W	IWSN 322W	IWSN 3-2W[a]*	ZNW 3W	LC 250 SET 1	HW 2.0	SR 76-1401	SR M4X10 DIN913	HW 2.5
MWLNR 16CA-06W	IWSN 322W	IWSN 3-2W[a]*	ZNW 3W	LC 250 SET 1		SR 76-1401	SR M4X10 DIN916	HW 2.5

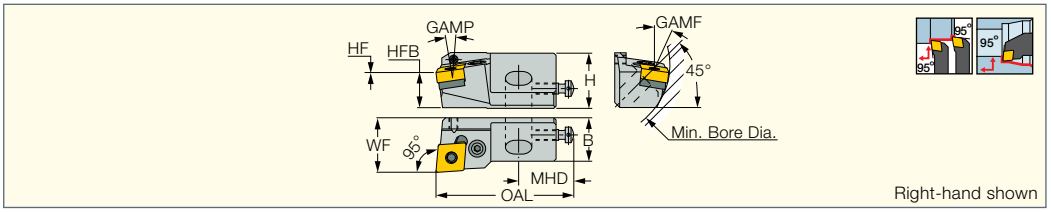
* Optional, should be ordered separately

[a] Use WNMG 33..(0604..) inserts

ISOTURN

PCLNR/L-CA

95° Lead Angle Exchangeable Cartridges Carrying the Negative 80° Diamond Inserts



Designation	H	HFB	B	OAL	HF	WF	DMIN[1]	GAMP	GAMF	MHD
PCLNR/L 16CA-12	.984	.630	.787	2.480	.138	.984	2.165	-8	-8	.984

[1] For axial mounting

For inserts, see pages: CNGA-2 (CBN) (196) • CNGA-4 (CBN) (196) • CNGA-Ceramic (187) • CNGG-M4HF/M4HM (CBN) (197) • CNMA (121) • CNMA (PCD) (192) • CNMA-MW4 (CBN) (195) • CNMA-T/M1/WG (CBN) (195) • CNMG-Ceramic (186) • CNMG-CERMET (115) • CNMG-F3M (117) • CNMG-F3P (114) • CNMG-F3S (119) • CNMG-GN (122) • CNMG-M3M (118) • CNMG-M3P (115) • CNMG-NF (120) • CNMG-NR (123) • CNMG-VL (119) • CNMG-WF (120) • CNMG-WG/NRW (120) • CNMG/CNGG-PP (121) • CNMG/CNGG-SF (119) • CNMG/CNGG-TF (122) • CNMM-M4PW (124) • CNMM-R3P (116) • CNMS-12 (184)

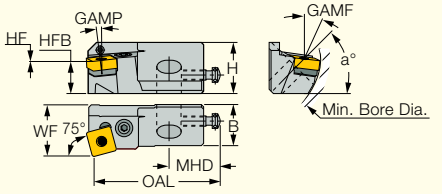
Spare Parts

Designation									
PCLNL 16CA-12	TCN 423	SP 4	LR 4	LCS 4S	HW 3.0	SR 76-1401	SR M4X5 DIN916	HW 2.0	PN 3-4
PCLNR 16CA-12	TCN 423	SP 4	LR 4	LCS 4S	HW 3.0	SR 76-1401	SR M4X5 DIN913	HW 2.0	PN 3-4

ISOTURN

PSKNR/L-CA

75° Lead Angle Cartridges Carrying the Negative Square Inserts



Right-hand shown

Designation	H	HFB	B	LF	HF	WF	DMIN(1)	GAMP	GAMF	a°	MHD
PSKNR 12CA-12	.787	.472	.591	2.165	.079	.787	1.968	-6	-8	20	.787
PSKNR/L 16CA-12	.984	.630	.787	2.480	.138	.984	2.362	-4	-8	45	.984

(1) For axial mounting

For inserts, see pages: SNMG-F3S (144) • SNMG-F3P (142) • SNMG-M3P (142) • SNMM-R3P (148) • SNMG-F3M (143) • SNMG-M3M (144) • SNMG-TF (145) • SNMG-GN (146) • SNMG-NR (147) • SNMG-PP (145) • SNMG-VL (145) • SNMA (147) • SNGA-Ceramic (188) • SNMA (CBN) (205)

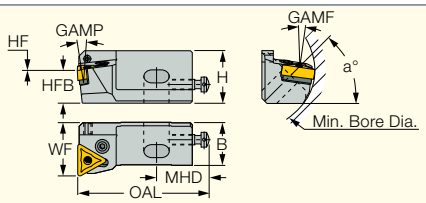
Spare Parts

Designation									
PSKNR 12CA-12				LR 4M	SR 117-2011	HW 2.5/5	SR 76-1401	SR M4X5 DIN913	HW 2.0
PSKNR/L 16CA-12	TSN 423	SP 4	PN 3-4	LR 4	LCS 4S	HW 3.0	SR 76-1401	SR M4X5 DIN913	HW 2.0

ISOTURN

PTFNR-CA

91° Lead Angle Lever Lock Face Turning Cartridges Carrying the Negative Triangular Inserts



Right-hand shown

Designation	H	HFB	B	OAL	HF	WF	DMIN(1)	GAMP	GAMF	a°	MHD
PTFNR 12CA-16	.787	.472	.591	2.165	.079	.787	1.968	-6	-9	20	.787
PTFNR 16CA-16	.984	.630	.787	2.480	.138	.984	2.165	-6	-8	45	.984

(1) For axial mounting

For inserts, see pages: TNMG-F3S (138) • TNMG-FFG-CERMET (138) • TNMG-F3P (136) • TNMG-M3P (136) • TNMG-F3M (137) • TNMG-M3M (137) • TNMG-TF (139) • TNMG-GN (141) • TNMG/TNGG-PP (140) • TNMG-VL (140) • TNMG-PF (139) • TNMG-SF (139) • TNMG-NF (140) • TNMS-12 (183) • TNMA (141) • TNGA-Ceramic (190) • TNGA-M3 (CBN) (204) • TNGA-MC/M6 (CBN) (203) • TNMA (CBN) (203)

Spare Parts

Designation										
PTFNR 12CA-16		TTN 332(a)*			LR 3S	SR 117-2009		SR 76-1401	SR M4X5 DIN913	HW 2.0
PTFNR 16CA-16	TTN 322	TTN 332(a)*	SP 3	PN 3-4	LR 3	SR 117-2014	HW 2.5	SR 76-1401	SR M4X5 DIN913	HW 2.0

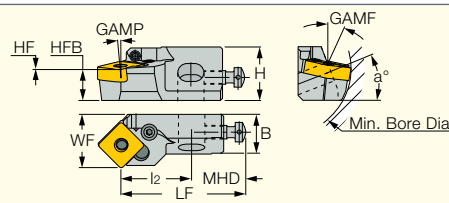
* Optional, should be ordered separately

(a) Use for TNMG 32..(1603..) inserts

ISOTURN

PSSNR-CA

45° Lead Angle Cartridges Carrying the Negative Square Inserts for Face and Longitudinal Turning



Right-hand shown

Designation	LF	B	H	HFB	HF	WF	GAMP	GAMF	a°	DMIN(1)	MHD
PSSNR 12CA-12	1.850	.591	.787	.472	.079	.787	-3	-10	20	1.968	.787
PSSNR 16CA-12	2.087	.787	.984	.630	.138	.984	0	-11	45	2.165	.945

(1) For axial mounting

For inserts, see pages: SNMG-F3S (144) • SNMG-F3P (142) • SNMG-M3P (142) • SNMM-R3P (148) • SNMG-F3M (143) • SNMG-M3M (144) • SNMG-TF (145) • SNMG-GN (146) • SNMG-NR (147) • SNMG-PP (145) • SNMG-VL (145) • SNMA (147) • SNGA-Ceramic (188) • SNMA (CBN) (205)

Spare Parts

Designation									
PSSNR 12CA-12				LR 4M	SR 117-2011	HW 2.5	SR 76-1401	SR M4X5 DIN913	HW 2.0
PSSNR 16CA-12	TSN 423	SP 4	PN 3-4	LR 4	LCS 4S	HW 3.0	SR 76-1401	SR M4X5 DIN913	HW 2.0

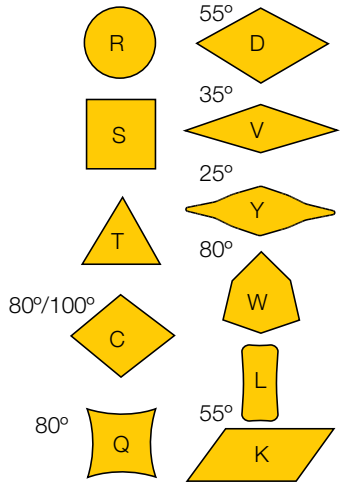
ISOTURN INSERTS



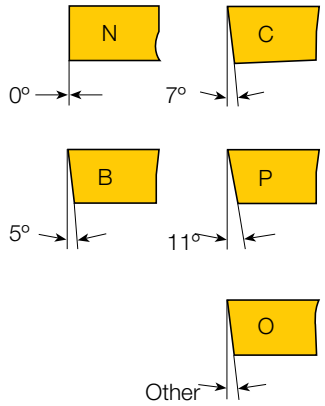
Insert Identification System

ISCAR Insert Identification System

1. Shape

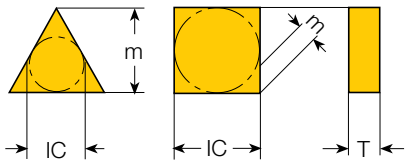


2. Clearance Angle



W	N	M	G
1	2	3	4

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 Inches			
	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

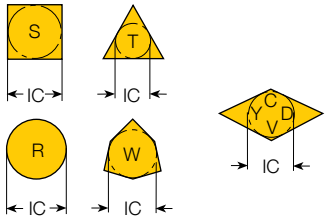
4. Type

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 & countersink
P	Neg/pos on one or both sides, with hole
Z, X	Special

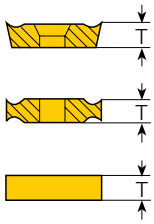
5. Cutting Edge Length

di		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

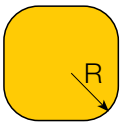


Symbol ANSI	ISO	Thickness inch
1 [2]*	01	.063
– [3]**	02	.094
2	03	.125
–	T3	.156
3	04	.187
–	05	.218
4	06	.250
5	07	.312

* For WBMT 520
** For TPMR 731
Note: Inch symbol in parentheses for small inserts (under .25" IC)

4	3	2	E	GN
5	6	7	8	9

7. Corner Radius



Corner radii given in 1/64"

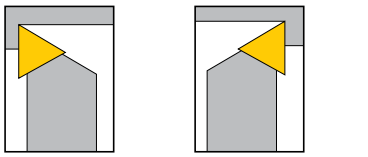
0	=	.000-.005
1	=	1/64
2	=	1/32
3	=	3/64
4	=	1/16
5	=	5/64
6	=	3/32

8. Cutting Edge (optional)

	Symbol
Sharp	F
Honed (Rounded)	E
Chamfered (Negative Land)	T
Chamfered + Honed	S

9. Chipformer Designation Examples

SF	WF	TF	NM
PF	WG	PP	TNM
NF	VL	GN	NR
SM	AS/AF	14	RP



Right-hand Left-hand

R ☐
L ☐

Selection Guide for Chipformers and Grades

ISO P - Steel Finishing

SF		IC520N
PF		IC530N
NF/SM		IC570
F3P		IC8150
RF/LF		
WF/WG - Wiper		IC8250

TIGHT – OPEN – HARD – TOUGH

ISO P - Steel Medium

M3P		IC8150
PP		
TF		IC8250
GN		

TIGHT – OPEN – HARD – TOUGH

ISO P - Steel Roughing

GN		IC8150
R3P		IC8250
NR		
HT/ WG		
HTW		IC8350
NM/ TNM		
T3P		
H6P		IC3028

TIGHT – OPEN – HARD – TOUGH

First Choice

IS0 N - Aluminum Finishing

NF		ID5
.CGT-AS		IC520
		IC20

OPEN – TIGHT – TOUGH – HARD

IS0 N - Aluminum Medium

PP		ID5
.CGT-AS		IC520
		IC20

OPEN – TIGHT – TOUGH – HARD

IS0 N - Aluminum Roughing

.CGT-AS		IC20
.NMS-12		

OPEN – TIGHT – TOUGH – HARD

First Choice

IS0 K - Cast Iron
Finishing


GN

IN11
IS6
IS80
IS8

IC9007

IC5005


...A

TIGHT — OPEN — HARD — TOUGH

IS0 K - Cast Iron
Medium


GN

IS6

IS80

IS8

IN23


NR

IC9007

IC5005
IC428

IC 5010


...A

IC8150

TIGHT — OPEN — HARD — TOUGH

IS0 K - Cast Iron
Roughing


GN

IS6

IS80

IS8


NR

IN23
IC5005
IC428

IC5010


...A

IC8150

TIGHT — OPEN — HARD — TOUGH

First Choice

ISO M - Stainless Steel
Finishing


SF

IC6015
IC807
IC907


PF


NF/SM

IC6025


F3M

IC570


VL

IC808
IC908


RF/LF

TIGHT — OPEN — HARD — TOUGH

ISO M - Stainless Steel
Medium


PP

IC6015
IC807
IC907

IC6025


TF

IC808
IC908


M3M

IC3028

TIGHT — OPEN — HARD — TOUGH

ISO M - Stainless Steel
Roughing


M4MW

IC807
IC907


MR

IC6025
IC808
IC908


R3M

IC3028


HM

TIGHT — OPEN — HARD — TOUGH

First Choice

IS0 S - High Temp. Alloys
Finishing

TIGHT → OPEN / HARD → TOUGH


F3S
IW7


SF/PF
IC804


PF
IC806
IC07


TF
IC807
IC907


PP
IC20

IS0 S - High Temp. Alloys
Medium

TIGHT → OPEN / HARD → TOUGH


PP
IW7


TF
IC804
IC806


EM-M
IC07
IC807
IC907
IC908

IS0 S - High Temp. Alloys
Roughing

TIGHT → OPEN / HARD → TOUGH


HM
IW7
IC804


M4MW
IC806
IC807
IC907


EM-R
IC808
IC908


MR
IC3028

■ First Choice

IS0 H - Hardened Steel
Finishing

TIGHT → OPEN / HARD → TOUGH


GN
IB05H
IB10HC
IB50
IB10H


.NMA
IB55
IB20H


.NGA
IN22
IC807
IC907

IS0 H - Hardened Steel
Medium

TIGHT → OPEN / HARD → TOUGH


.NMA
IB55
IB20HC


.NGA
IB20H
IB25HA
IB25HC
IB90
IN22
IC807
IC907


GN
IC808
IC908

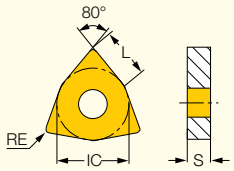
■ First Choice

ISOTURN

WNGP-F2P

Double-Sided Trigon Inserts
for Super Finish Machining
Conditions on Alloyed Steel







Designation	Dimensions L	IC	S	RE	IC530N	Recommended Machining Data a_p (inch)	f (IPR)
WNGP 220.5R/L-F2P	.171	.250	.125	.008	●	.012-.079	.0031-.0118
WNGP 221R/L-F2P	.171	.250	.125	.016	●	.012-.079	.0031-.0118
WNGP 222L-F2P	.171	.250	.125	.031	●	.012-.079	.0031-.0118

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

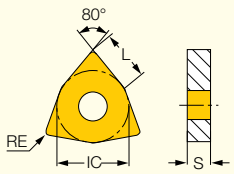
For tools, see pages: A/E-SWLNR/L-04 (81) • PWLNR/L-S (6)

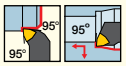
ISOTURN

WNMG-F3P

Double-Sided Trigon Inserts
for Semi-Finishing and
Finishing Applications







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	.016	●	●	●	●	●	●	.020-.098	.0027-.0098
WNMG 332-F3P	.257	.375	.187	.031	●	●	●	●	●	●	.035-.118	.0031-.0098
WNMG 333-F3P	.257	.375	.187	.047	●	●	●			●	.051-.118	.0039-.0098
WNMG 431-F3P	.343	.500	.187	.016	●	●	●			●	.020-.138	.0027-.0098
WNMG 432-F3P	.343	.500	.187	.031	●	●	●			●	.035-.138	.0031-.0098
WNMG 433-F3P	.343	.500	.187	.047	●	●	●			●	.051-.138	.0039-.0098

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

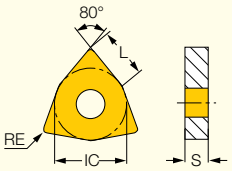
For tools, see pages: A-PWLNR/L-X/G (83) • A/S-MWLNR/L-W (82) • C#-MULNR/L-MW (12) • C#-PWLNR/L-08-JHP (6) • C#-PWLNR/L-X (9) • C#-PWLNR/L-X-JHP (10) • DWLNR/L (7) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MULNR/L-MW (11) • MWLNR/L-CA-W (97) • MWLNR/L-W (14) • PWLNR/L-4-JHP (6) • PWLNR/L-X (8) • PWLNR/L-X-JHP (9) • S-DWLNR/L (78) • S/A-MULNR/L-MW (84) • DWLNR/L-JHP-MC (7)

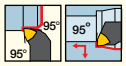
ISOTURN

WNMG-M3P

Double-Sided Trigon Inserts for Medium Machining Conditions on Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8350	IC8250	IC8150	IC5010	IC807	Recommended Machining Data a_p (inch)	f (IPR)
WNMG 3-1-M3P	.257	.375	.156	.016	●		●	●			.018-.098	.0039-.0177
WNMG 3-2-M3P	.257	.375	.156	.031	●	●	●	●			.020-.118	.0059-.0197
WNMG 3-3-M3P	.257	.375	.156	.047	●		●				.031-.118	.0071-.0236
WNMG 331-M3P	.257	.375	.187	.016	●		●	●		●	.018-.098	.0039-.0177
WNMG 332-M3P	.257	.375	.187	.031	●		●	●		●	.020-.118	.0059-.0197
WNMG 333-M3P	.257	.375	.187	.047	●			●		●	.031-.118	.0071-.0236
WNMG 431-M3P	.343	.500	.187	.016	●		●	●		●	.016-.138	.0039-.0177
WNMG 432-M3P	.343	.500	.187	.031	●		●	●	●	●	.020-.157	.0059-.0197
WNMG 433-M3P	.343	.500	.187	.047	●		●	●	●	●	.031-.157	.0071-.0236
WNMG 434-M3P	.343	.500	.187	.063	●		●			●	.039-.157	.0091-.0256

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

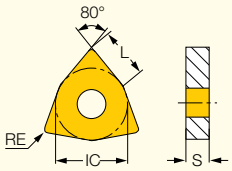
For tools, see pages: A-PWLNR/L-X/G (83) • A/S-MWLNR/L-W (82) • C#-MULNR/L-MW (12) • C#-PWLNR/L-08-JHP (6) • C#-PWLNR/L-X (9) • C#-PWLNR/L-X-JHP (10) • DWLNR/L (7) • E-PWLNR-HEAD (83) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MULNR/L-MW (11) • MWLNR/L-CA-W (97) • MWLNR/L-W (14) • PWLNR/L-4-JHP (6) • PWLNR/L-X (8) • PWLNR/L-X-JHP (9) • S-DWLNR/L (78) • S/A-MULNR/L-MW (84) • DWLNR/L-JHP-MC (7)

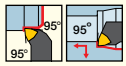
ISOTURN

WNMG-CERMET

Double-Sided Trigon Cermet Grade Inserts for Semi-Finishing and Finishing Applications



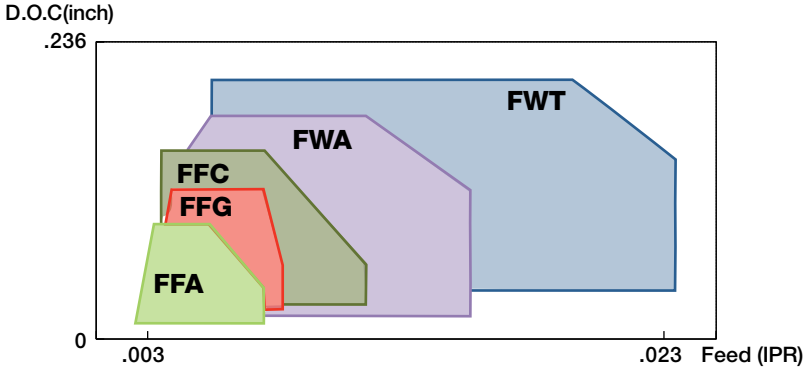




Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC20N	IC520N	Recommended Machining Data a_p (inch)	f (IPR)
WNMG 3-0-FFC	.257	.375	.156	.008	●	●	.039-.098	.0020-.0098
WNMG 3-1-FFC	.257	.375	.156	.016	●	●	.039-.098	.0020-.0098
WNMG 3-1-FFG	.257	.375	.156	.016		●	.039-.098	.0020-.0098
WNMG 3-1-FWA	.257	.375	.156	.016		●	.020-.118	.0047-.0197
WNMG 3-2-FFC	.257	.375	.156	.031	●		.039-.098	.0020-.0098
WNMX 331-FWA	.257	.375	.187	.016		●	.020-.118	.0047-.0197
WNMG 3-0-FFA	.257	.391	.156	.008		●	.012-.059	.0020-.0063
WNMG 431-FFC	.343	.500	.187	.016	●	●	.039-.098	.0020-.0098
WNMG 432-FFC	.343	.500	.187	.031		●	.039-.098	.0020-.0098
WNMG 432-FWT	.343	.500	.187	.031		●	.055-.197	.0059-.0236

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

For tools, see pages: A/S-MWLNR/L-W (82) • C#-MULNR/L-MW (12) • C#-PWLNR/L-08-JHP (6) • DWLNR/L (7) • E-PWLNR-HEAD (83) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MULNR/L-MW (11) • MWLNR/L-CA-W (97) • MWLNR/L-W (14) • PWLNR/L-4-JHP (6) • PWLNR/L-X (8) • PWLNR/L-X-JHP (9) • S-DWLNR/L (78) • S/A-MULNR/L-MW (84) • DWLNR/L-JHP-MC (7)



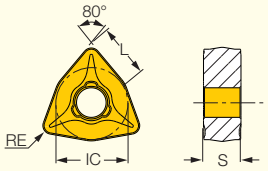
DOVEIQTURN HEAVY DUTY LINE

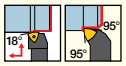
FEEDTURN

WOMG-5-T3P-IQ

Double-Sided 6° Negative Side Flank Trigon Inserts for High Feed Turning of Steel





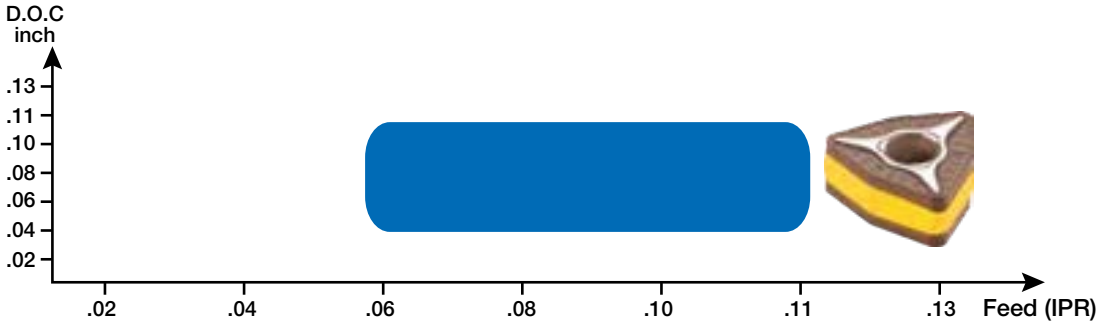


Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8350	IC8250	IC8150	Recommended Machining Data a_p (inch)	f (IPR)
WOMG 554-T3P-IQ	.428	.625	.313	.063	●	●	●	.039-.110	.0591-.1181

• **The specified machining recommendations in the above table are valid only for PWXOR/L-TF-IQ tools. For PWLOR/L-IQ tools:** ap= .118-.276", ft= .012-.031 inch/rev.

• For user guide, see pages 100-104, 206-228

For tools, see pages: PWLOR/L-IQ (15) • PWXOR/L-TF-IQ (16)

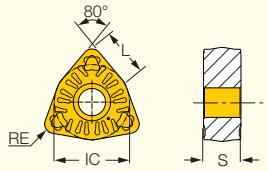


DOVEIQTURN HEAVY DUTY LINE

WOMG-6-R3P-IQ

Double-Sided 7° Negative Side Flank Trigon Inserts for Heavy Turning of Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8250	IC8150	Recommended Machining Data a_p (inch)	f (IPR)
WOMG 643-R3P-IQ	.513	.750	.250	.047	●	●	.138-.315	.0118-.0315
WOMG 644-R3P-IQ	.513	.750	.250	.063	●	●	.157-.315	.0157-.0335
WOMG 646-R3P-IQ	.513	.750	.250	.094	●	●	.157-.315	.0157-.0394

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

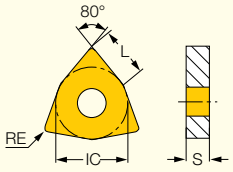
For tools, see pages: C#-PWLOR/L-IQ (15) • PWLOR/L-IQ (15)

ISOTURN

WNGP-F2M

Double-Sided Trigon Inserts for Super Finish Machining Conditions on Stainless Steel







Designation	Dimensions L	IC	S	RE	IC908	Recommended Machining Data a_p (inch)	f (IPR)
WNGP 220.5R/L-F2M	.171	.250	.125	.008	●	.012-.079	.0031-.0118
WNGP 221R/L-F2M	.171	.250	.125	.016	●	.012-.079	.0031-.0118
WNGP 222L-F2M	.171	.250	.125	.031	●	.012-.079	.0031-.0118

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

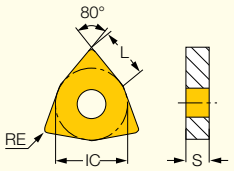
For tools, see pages: A/E-SWLNR/L-04 (81) • PWLNR/L-S (6)

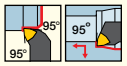
ISOTURN

WNMG-F3M

Double-Sided Trigon Inserts for Stainless Steel Finishing Applications







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC6015	IC806	IC807	Recommended Machining Data a_p (inch)	f (IPR)
WNMG 331-F3M	.257	.375	.187	.016	●	●	●	●	●	.004-.059	.0020-.0118
WNMG 332-F3M	.257	.375	.187	.031	●	●	●	●	●	.004-.059	.0039-.0157
WNMG 333-F3M	.257	.375	.187	.047		●	●	●	●	.008-.098	.0059-.0197
WNMG 431-F3M	.343	.500	.187	.016	●	●	●	●	●	.004-.059	.0020-.0118
WNMG 432-F3M	.343	.500	.187	.031	●	●	●	●	●	.004-.059	.0039-.0157
WNMG 433-F3M	.343	.500	.187	.047	●	●	●	●	●	.008-.098	.0059-.0197

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

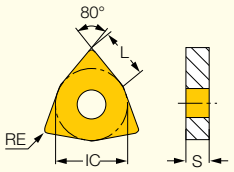
For tools, see pages: A-PWLNR/L-X/G (83) • A/S-MWLNR/L-W (82) • C#-MULNR/L-MW (12) • C#-PWLNR/L-08-JHP (6) • C#-PWLNR/L-X (9) • C#-PWLNR/L-X-JHP (10) • DWLNR/L (7) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MULNR/L-MW (11) • MWLNR/L-CA-W (97) • MWLNR/L-W (14) • PWLNR/L-4-JHP (6) • PWLNR/L-X (8) • PWLNR/L-X-JHP (9) • S-DWLNR/L (78) • S/A-MULNR/L-MW (84) • DWLNR/L-JHP-MC (7)

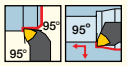
ISOTURN

WNMG-M3M

Double-Sided Trigon Inserts for Machining Stainless and Low Carbon Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC6015	IC806	IC807	IC804	Recommended Machining Data a_p (inch)	f (IPR)
WNMG 331-M3M	.257	.375	.187	.016	●	●	●	●	●		.020-.138	.0047-.0157
WNMG 332-M3M	.257	.375	.187	.031	●	●	●	●	●		.020-.138	.0059-.0197
WNMG 333-M3M	.257	.375	.187	.047	●	●	●	●	●		.020-.138	.0079-.0236
WNMG 431-M3M	.343	.500	.187	.016	●				●		.020-.197	.0047-.0157
WNMG 432-M3M	.343	.500	.187	.031	●	●	●	●	●	●	.020-.197	.0059-.0197
WNMG 433-M3M	.343	.500	.187	.047	●	●	●	●	●		.020-.197	.0079-.0236
WNMG 434-M3M	.343	.500	.187	.063					●		.020-.197	.0098-.0276

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

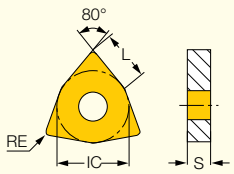
For tools, see pages: A-PWLNR/L-X/G (83) • A/S-MWLNR/L-W (82) • C#-MULNR/L-MW (12) • C#-PWLNR/L-08-JHP (6) • C#-PWLNR/L-X (9) • C#-PWLNR/L-X-JHP (10) • DWLNR/L (7) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MULNR/L-MW (11) • MWLNR/L-CA-W (97) • MWLNR/L-W (14) • PWLNR/L-4-JHP (6) • PWLNR/L-X (8) • PWLNR/L-X-JHP (9) • S-DWLNR/L (78) • S/A-MULNR/L-MW (84) • DWLNR/L-JHP-MC (7)

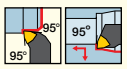
ISOTURN

WNMG-F3S

Double-Sided 80° Trigon Inserts for Titanium and Heat Resistant Materials. Used for Finishing Applications.







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC806	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 100-104, 206-228

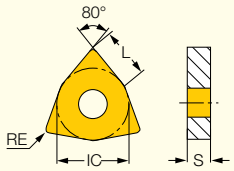
For tools, see pages: A-PWLNR/L-X/G (83) • A/S-MWLNR/L-W (82) • C#-MULNR/L-MW (12) • C#-PWLNR/L-08-JHP (6) • C#-PWLNR/L-X (9) • C#-PWLNR/L-X-JHP (10) • DWLNR/L (7) • DWLNR/L-JHP-MC (7) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MULNR/L-MW (11) • MWLNR/L-CA-W (97) • MWLNR/L-W (14) • PWLNR/L-4-JHP (6) • PWLNR/L-X (8) • PWLNR/L-X-JHP (9) • S-DWLNR/L (78) • S/A-MULNR/L-MW (84)

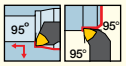
ISOTURN

WNMG-SF

Double-Sided Trigon Inserts
for Super Finishing







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	.008	●				.012-.059	.0008-.0059
WNMG 3-1-SF	.257	.375	.156	.016	●	●	●	●	.012-.059	.0020-.0059

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

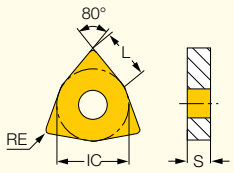
For tools, see pages: A/S-MWLNR/L-W (82) • DWLNR/L (7) • E-PWLNR-HEAD (83) • MWLNR/L-CA-W (97) • MWLNR/L-W (14)

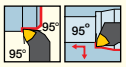
ISOTURN

WNMG-NF

Double-Sided Trigon Inserts
for Semi-Finishing and
Finishing Applications







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8350	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	.004			●										.008-.039	.0020-.0059
WNMG 3-0-NF	.257	.375	.156	.008	●	●		●	●	●	●		●		●	●	.012-.059	.0031-.0067
WNMG 3-1-NF	.257	.375	.156	.016	●	●		●	●	●	●	●	●	●	●	●	.016-.098	.0027-.0098
WNMG 3-2-NF	.257	.375	.156	.031	●	●				●	●	●	●				.024-.118	.0031-.0098
WNMG 330-NF	.257	.375	.187	.008											●	●	.012-.118	.0020-.0079
WNMG 331-NF	.257	.375	.187	.016		●									●	●	.024-.118	.0031-.0098
WNMG 332-NF	.257	.375	.187	.031							●						.031-.118	.0031-.0098
WNMG 431-NF	.343	.500	.187	.016		●			●				●				.016-.138	.0027-.0098
WNMG 432-NF	.343	.500	.187	.031		●			●		●						.031-.138	.0031-.0098
WNMG 433-NF	.343	.500	.187	.047							●						.047-.138	.0031-.0098

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

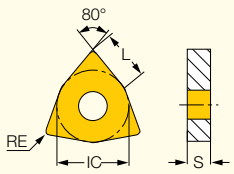
For tools, see pages: A/S-MWLNR/L-W (82) • C#-MULNR/L-MW (12) • C#-PWLNR/L-08-JHP (6) • C#-PWLNR/L-X (9) • C#-PWLNR/L-X-JHP (10) • DWLNR/L (7) • E-PWLNR-HEAD (83) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MULNR/L-MW (11) • MWLNR/L-CA-W (97) • MWLNR/L-W (14) • PWLNR/L-4-JHP (6) • PWLNR/L-X (8) • PWLNR/L-X-JHP (9) • S-DWLNR/L (78) • S/A-MULNR/L-MW (84) • A-PWLNR/L-X/G (83) • DWLNR/L-JHP-MC (7)

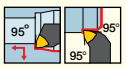
ISOTURN

WNMG-VL

Double-Sided Trigon Inserts
with a Chipformer for High
Temperature Alloys and
Stainless Steel Valves







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	.031	●			.020-.118	.0027-.0098
WNMG 431-VL	.343	.500	.187	.016		●	●	.012-.118	.0020-.0059
WNMG 432-VL	.343	.500	.187	.031	●	●		.020-.157	.0039-.0098
WNMG 433-VL	.343	.500	.187	.047	●			.039-.177	.0047-.0098

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

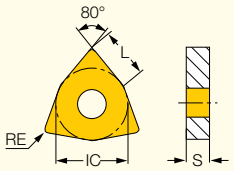
For tools, see pages: A/S-MWLNR/L-W (82) • C#-MULNR/L-MW (12) • C#-PWLNR/L-08-JHP (6) • DWLNR/L (7) • E-PWLNR-HEAD (83) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MULNR/L-MW (11) • MWLNR/L-CA-W (97) • MWLNR/L-W (14) • PWLNR/L-4-JHP (6) • PWLNR/L-X (8) • PWLNR/L-X-JHP (9) • S-DWLNR/L (78) • S/A-MULNR/L-MW (84) • DWLNR/L-JHP-MC (7)

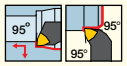
ISOTURN

WNMG-WG

Double-Sided Trigon Wiper Inserts for High Surface Finish at High Feed Turning







Designation	Dimensions IC	L	S	RE	Tough ↔ Hard IC8250	IC530N	IC8150	IC20N	IC520N	IC428	IC5005	IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
WNMG 3-1-WG	.375	.257	.156	.016	●	●	●	●	●					.016-.118	.0039-.0138
WNMG 3-2-WG	.375	.257	.156	.031	●		●		●			●	●	.024-.138	.0039-.0197
WNMG 331-WG	.375	.257	.187	.016	●	●	●					●		.016-.118	.0039-.0138
WNMG 332-WG	.375	.257	.187	.031	●		●					●		.024-.138	.0039-.0197
WNMG 432-WG	.500	.343	.187	.031	●	●	●	●	●	●	●	●	●	.039-.138	.0039-.0197
WNMG 433-WG	.500	.343	.187	.047	●		●			●	●			.047-.157	.0118-.0315

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

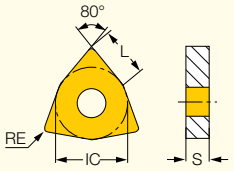
For tools, see pages: A-PWLNR/L-X/G (83) • A/S-MWLNR/L-W (82) • C#-MULNR/L-MW (12) • C#-PWLNR/L-08-JHP (6) • C#-PWLNR/L-X (9) • C#-PWLNR/L-X-JHP (10) • DWLNR/L (7) • E-PWLNR-HEAD (83) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MULNR/L-MW (11) • MWLNR/L-CA-W (97) • MWLNR/L-W (14) • PWLNR/L-4-JHP (6) • PWLNR/L-X (8) • PWLNR/L-X-JHP (9) • S-DWLNR/L (78) • S/A-MULNR/L-MW (84) • DWLNR/L-JHP-MC (7)

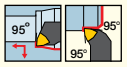
ISOTURN

WNMG-WF

Double-Sided Trigon Wiper Inserts for Finishing Operations at High Feeds







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	.008				●	.008-.118	.0020-.0098
WNMG 331-WF	.257	.375	.187	.016			●	●	.020-.118	.0020-.0118
WNMG 332-WF	.257	.375	.187	.031				●	.031-.138	.0027-.0118
WNMG 432-WF	.343	.500	.187	.031	●	●			.031-.138	.0027-.0138
WNMG 433-WF	.343	.500	.187	.047		●			.031-.138	.0028-.0138

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

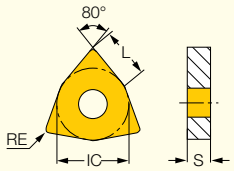
For tools, see pages: A-PWLNR/L-X/G (83) • A/S-MWLNR/L-W (82) • C#-MULNR/L-MW (12) • C#-PWLNR/L-08-JHP (6) • C#-PWLNR/L-X (9) • C#-PWLNR/L-X-JHP (10) • DWLNR/L (7) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MULNR/L-MW (11) • MWLNR/L-CA-W (97) • MWLNR/L-W (14) • PWLNR/L-4-JHP (6) • PWLNR/L-X (8) • PWLNR/L-X-JHP (9) • S-DWLNR/L (78) • S/A-MULNR/L-MW (84) • DWLNR/L-JHP-MC (7)

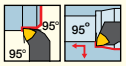
ISOTURN

WNMG-PP

Double-Sided Trigon Inserts for Machining Very Ductile Materials at Medium Cutting Conditions







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC28	IC830	IC8350	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	.016			●		●		●	●		●					●	●	.039-.118	.0055-.0118
WNMG 3-2-PP	.257	.375	.156	.031		●	●		●					●					●	●	.039-.118	.0055-.0118
WNMG 331-PP	.257	.375	.187	.016			●		●										●	●	.039-.118	.0055-.0118
WNMG 332-PP	.257	.375	.187	.031			●												●	●	.039-.118	.0055-.0118
WNMG 431-PP	.343	.500	.187	.016		●	●	●	●			●	●	●					●	●	.039-.138	.0055-.0118
WNMG 432-PP	.343	.500	.187	.031	●	●	●	●	●			●	●	●	●		●	●	●	●	.039-.157	.0055-.0118
WNMG 433-PP	.343	.500	.187	.047					●	●						●					.059-.197	.0071-.0157

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

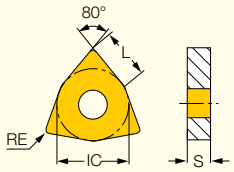
For tools, see pages: A-PWLNR/L-X/G (83) • A/S-MWLNR/L-W (82) • C#-MULNR/L-MW (12) • C#-PWLNR/L-08-JHP (6) • C#-PWLNR/L-X (9) • C#-PWLNR/L-X-JHP (10) • DWLNR/L (7) • E-PWLNR-HEAD (83) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MULNR/L-MW (11) • MWLNR/L-CA-W (97) • MWLNR/L-W (14) • PWLNR/L-4-JHP (6) • PWLNR/L-X (8) • PWLNR/L-X-JHP (9) • S-DWLNR/L (78) • S/A-MULNR/L-MW (84) • DWLNR/L-JHP-MC (7)

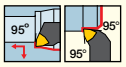
ISOTURN

WNMG-TF

Double-Sided Trigon Inserts for Machining a Wide Range of Materials at Medium Cutting Conditions







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8350	IC6025	IC8250	IC908	IC6015	IC8150	IC520M	IC20	IC20N	IC5010	IC806	IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
WNMG 3-1-TF	.257	.375	.156	.016	●			●					●				●	●	.039-.118	.0047-.0138
WNMG 3-2-TF	.257	.375	.156	.031	●			●			●		●	●		●	●	●	.039-.118	.0047-.0138
WNMG 3-3-TF	.257	.375	.156	.047													●	●	.039-.157	.0059-.0157
WNMG 331-TF	.257	.375	.187	.016				●									●	●	.039-.118	.0047-.0138
WNMG 332-TF	.257	.375	.187	.031	●			●			●						●	●	.039-.118	.0047-.0138
WNMG 333-TF	.257	.375	.187	.047													●	●	.039-.157	.0059-.0138
WNMG 431-TF	.343	.500	.187	.016	●		●	●		●	●		●			●	●	●	.039-.157	.0047-.0138
WNMG 432-TF	.343	.500	.187	.031	●	●	●	●	●	●	●	●	●		●	●	●	●	.039-.157	.0047-.0138
WNMG 433-TF	.343	.500	.187	.047	●		●	●	●	●	●		●				●	●	.059-.177	.0059-.0157

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

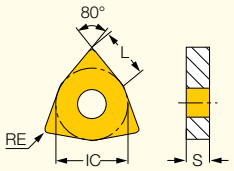
For tools, see pages: A-PWLNR/L-X/G (83) • A/S-MWLNR/L-W (82) • C#-MULNR/L-MW (12) • C#-PWLNR/L-08-JHP (6) • C#-PWLNR/L-X (9) • C#-PWLNR/L-X-JHP (10) • DWLNR/L (7) • E-PWLNR-HEAD (83) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MULNR/L-MW (11) • MWLNR/L-CA-W (97) • MWLNR/L-W (14) • PWLNR/L-4-JHP (6) • PWLNR/L-X (8) • PWLNR/L-X-JHP (9) • S-DWLNR/L (78) • S/A-MULNR/L-MW (84) • DWLNR/L-JHP-MC (7)

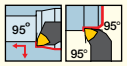
ISOTURN

WNMG-GN

Double-Sided Trigon Inserts
for General Applications







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC928	IC8350	IC6025	IC8250	IC6015	IC8150	IC20	IC5010	IC5005	IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
WNMG 3-1-GN	.257	.375	.156	.016	●				●		●	●					.039-.138	.0055-.0157
WNMG 3-2-GN	.257	.375	.156	.031	●		●		●		●						.039-.138	.0063-.0177
WNMG 3-3-GN	.257	.375	.156	.047					●								.059-.157	.0071-.0177
WNMG 331-GN	.257	.375	.187	.016					●								.039-.138	.0055-.0157
WNMG 332-GN	.257	.375	.187	.031					●								.039-.138	.0063-.0177
WNMG 333-GN	.257	.375	.187	.047							●						.059-.157	.0071-.0177
WNMG 431-GN	.343	.500	.187	.016	●				●		●		●	●			.039-.177	.0055-.0157
WNMG 432-GN	.343	.500	.187	.031	●	●	●	●	●	●	●	●	●	●	●	●	.039-.177	.0063-.0177
WNMG 433-GN	.343	.500	.187	.047	●		●		●		●		●	●			.059-.177	.0087-.0197
WNMG 434-GN	.343	.500	.187	.063					●								.079-.236	.0098-.0236
WNMG 643-GN	.513	.750	.250	.047			●		●								.098-.217	.0118-.0197
WNMG 644-GN	.513	.750	.250	.063					●								.098-.236	.0118-.0197

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

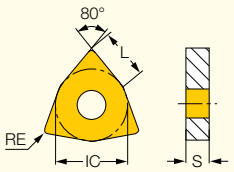
For tools, see pages: A/S-MWLNR/L-W (82) • C#-MULNR/L-MW (12) • C#-PWLNR/L-08-JHP (6) • C#-PWLNR/L-X (9) • C#-PWLNR/L-X-JHP (10) • DWLNR/L (7) • E-PWLNR-HEAD (83) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MULNR/L-MW (11) • MWLNR/L-CA-W (97) • MWLNR/L-W (14) • PWLNR/L-4-JHP (6) • PWLNR/L-X (8) • PWLNR/L-X-JHP (9) • S-DWLNR/L (78) • S/A-MULNR/L-MW (84) • A-PWLNR/L-X/G (83) • DWLNR/L-JHP-MC (7)

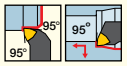
ISOTURN

WNMM-NM

Single-Sided Trigon Inserts
for Roughing Applications







Designation	Dimensions L	IC	S	RE	IC8250	Recommended Machining Data a_p (inch)	f (IPR)
WNMM 432-NM	.343	.500	.187	.031	●	.059-.197	.0079-.0197

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

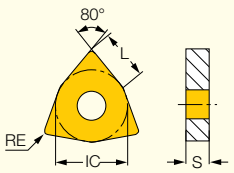
For tools, see pages: A/S-MWLNR/L-W (82) • C#-MULNR/L-MW (12) • C#-PWLNR/L-08-JHP (6) • DWLNR/L (7) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MULNR/L-MW (11) • MWLNR/L-W (14) • PWLNR/L-4-JHP (6) • PWLNR/L-X (8) • PWLNR/L-X-JHP (9) • S-DWLNR/L (78) • S/A-MULNR/L-MW (84) • DWLNR/L-JHP-MC (7)

ISOTURN

WNMG-NR

Double-Sided Trigon Inserts
with a Special Chipformer
for Heavy Machining







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8250	IC8150	IC5010	IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
WNMG 432-NR	.343	.500	.187	.031	●		●	●	●	.039-.197	.0071-.0197
WNMG 433-NR	.343	.500	.187	.047	●	●	●	●	●	.079-.197	.0091-.0216
WNMG 434-NR	.343	.500	.187	.063	●	●				.079-.197	.0118-.0236

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

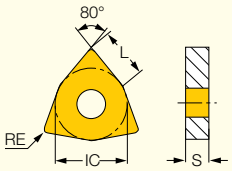
For tools, see pages: A/S-MWLNR/L-W (82) • C#-MULNR/L-MW (12) • C#-PWLNR/L-08-JHP (6) • DWLNR/L (7) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MULNR/L-MW (11) • MWLNR/L-W (14) • PWLNR/L-4-JHP (6) • PWLNR/L-X (8) • PWLNR/L-X-JHP (9) • S-DWLNR/L (78) • S/A-MULNR/L-MW (84) • DWLNR/L-JHP-MC (7)

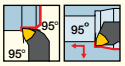
ISOTURN

WNMG-TNM

Double-Sided Trigon Inserts
for Semi-Roughing and
Roughing Applications







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8350	IC8250	IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
WNMG 432-TNM	.343	.500	.187	.031			●			.079-.177	.0098-.0177
WNMG 433-TNM	.343	.500	.187	.047			●			.079-.177	.0098-.0177
WNMG 643-TNM	.513	.750	.250	.047		●	●	●	●	.098-.276	.0098-.0256
WNMG 644-TNM	.513	.750	.250	.063		●	●			.098-.276	.0098-.0256
WNMG 646-TNM	.513	.750	.250	.094	●		●			.118-.276	.0118-.0256

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

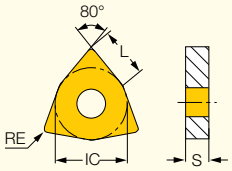
For tools, see pages: A/S-MWLNR/L-W (82) • C#-MULNR/L-MW (12) • C#-PWLNR/L-08-JHP (6) • DWLNR/L (7) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MULNR/L-MW (11) • MWLNR/L-W (14) • PWLNR/L-4-JHP (6) • PWLNR/L-X (8) • PWLNR/L-X-JHP (9) • S-DWLNR/L (78) • S/A-MULNR/L-MW (84) • DWLNR/L-JHP-MC (7)

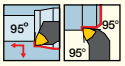
ISOTURN

WNMA/WNMA-WG

Double-Sided Trigon Inserts
for Short Chipping Materials
such as Cast Iron







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8150	IC5010	IC428	IC5005	Recommended Machining Data a_p (inch)	f (IPR)
WNMA 3-1	.257	.375	.156	.016		●	●	●	.020-.079	.0012-.0118
WNMA 3-2	.257	.375	.156	.031		●	●	●	.039-.118	.0012-.0157
WNMA 3-3	.257	.375	.156	.047			●	●	.059-.138	.0012-.0177
WNMA 331	.257	.375	.187	.016		●		●	.039-.118	.0012-.0197
WNMA 332	.257	.375	.187	.031		●	●	●	.039-.118	.0012-.0197
WNMA 333	.257	.375	.187	.047		●		●	.039-.118	.0012-.0197
WNMA 432	.343	.500	.187	.031	●	●	●	●	.039-.157	.0012-.0189
WNMA 432-WG	.343	.500	.187	.031			●		.039-.138	.0039-.0236
WNMA 433	.343	.500	.187	.047		●	●	●	.059-.157	.0012-.0216
WNMA 434	.343	.500	.187	.063		●		●	.079-.197	.0012-.0216
WNMA 644	.513	.750	.250	.063			●	●	.118-.315	.0012-.0315

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

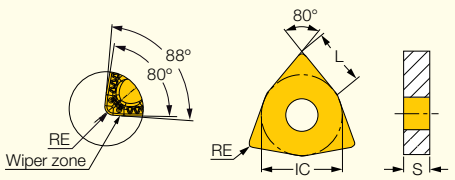
For tools, see pages: A-PWLNR/L-X/G (83) • A/S-MWLNR/L-W (82) • C#-MULNR/L-MW (12) • C#-PWLNR/L-08-JHP (6) • C#-PWLNR/L-X (9) • C#-PWLNR/L-X-JHP (10) • DWLNR/L (7) • E-PWLNR-HEAD (83) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MULNR/L-MW (11) • MWLNR/L-CA-W (97) • MWLNR/L-W (14) • PWLNR/L-4-JHP (6) • PWLNR/L-X (8) • PWLNR/L-X-JHP (9) • S-DWLNR/L (78) • S/A-MULNR/L-MW (84) • DWLNR/L-JHP-MC (7)

HELITURN LD

WNMX-M3/4PW

Double-Sided Trigon Inserts with High Helical Cutting Edge for High Metal Removal Rates





Designation	Dimensions IC	RE	S	L	Tough ↔ Hard IC830	IC8250	IC8150	IC520N	IC807	Recommended Machining Data a_p (inch)	f (IPR)
WNMX 341-M3PW	.375	.016	.174	.256	●	●	●			.039-.157	.0079-.0197
WNMX 342-M3PW	.375	.031	.174	.256	●	●	●	●	●	.059-.157	.0098-.0236
WNMX 452-M4PW	.500	.031	.267	.343		●	●		●	.059-.197	.0098-.0236
WNMX 453-M4PW	.500	.047	.267	.343		●	●			.079-.197	.0118-.0315
WNMX 454-M4PW	.500	.063	.267	.343		●	●			.079-.197	.0118-.0394

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

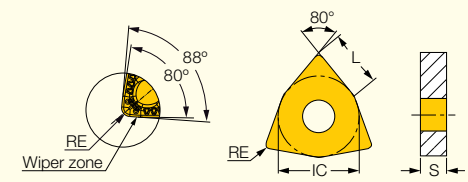
For tools, see pages: A-PWLNR/L-X/G (83) • C#-PWLNR/L-X (9) • C#-PWLNR/L-X-JHP (10) • DWLNR/L (7) • DWLNR/L-JHP-MC (7) • PWLNR/L-X (8) • PWLNR/L-X-JHP (9)

HELITURN LD

WNMX-M3/4MW

Double-Sided Trigon Inserts for Machining Stainless Steel, High Temperature Alloys and Soft, Low Carbon Steel





Designation	Dimensions IC	RE	S	L	Tough ↔ Hard IC830	IC6025	IC8250	IC6015	IC8150	IC806	IC807	Recommended Machining Data a_p (inch)	f (IPR)
WNMX 341-M3MW	.375	.016	.174	.256	●	●		●				.031-.157	.0059-.0197
WNMX 342-M3MW	.375	.031	.174	.256	●	●		●				.039-.197	.0079-.0236
WNMX 451-M4MW	.500	.016	.267	.343		●	●	●	●	●	●	.031-.197	.0059-.0197
WNMX 452-M4MW	.500	.031	.267	.343		●	●	●	●	●	●	.039-.197	.0079-.0236
WNMX 453-M4MW	.500	.047	.267	.343		●		●		●	●	.047-.197	.0098-.0276

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

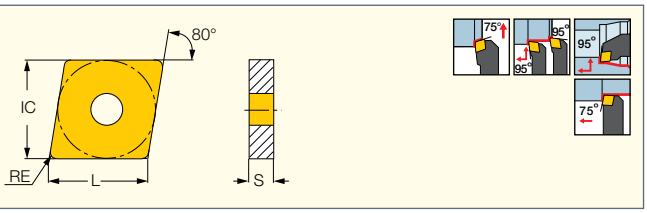
For tools, see pages: A-PWLNR/L-X/G (83) • C#-PWLNR/L-X (9) • C#-PWLNR/L-X-JHP (10) • DWLNR/L (7) • DWLNR/L-JHP-MC (7) • PWLNR/L-X (8) • PWLNR/L-X-JHP (9)

ISOTURN

CNMG-F3P

Double-Sided 80° Rhombic Inserts for Semi-Finishing and Finishing Applications





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	.016	●		●	●	●	●	●	.020-.138	.0027-.0098
CNMG 332-F3P	.381	.375	.187	.031	●		●	●	●	●	●	.035-.138	.0031-.0098
CNMG 431-F3P	.508	.500	.187	.016	●	●	●	●			●	.020-.138	.0027-.0098
CNMG 432-F3P	.508	.500	.187	.031	●		●	●		●	●	.035-.138	.0031-.0098
CNMG 433-F3P	.508	.500	.187	.047	●		●	●			●	.051-.138	.0039-.0098

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

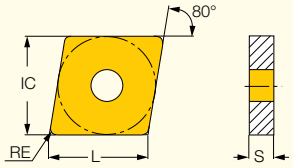
For tools, see pages: A-MCLNR/L (81) • C#-MULNR/L-MW (12) • C#-PCLNR/L-12-JHP (17) • C#-PCLNR/L-X (20) • C#-PCLNR/L-X-JHP (21) • DCBNR/L (22) • DCLNR/L (21) • DCLNR/L-JHP-MC (22) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MCKNR (18) • MCLNR/L (18) • MCRNR (18) • MULNR/L-MW (11) • PCLNR/L-4-JHP (17) • PCLNR/L-CA (97) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • S/A-MULNR/L-MW (84) • AVC-PCLNR/L (76) • A-PCLNR/L-X/G (80)

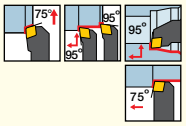
ISOTURN

CNMG-M3P

Double-Sided 80° Rhombic Inserts for Medium Machining Conditions on Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8350	IC8250	IC8150	IC5010	IC5005	IC807	Recommended Machining Data a_p (inch)	f (IPR)
CNMG 331-M3P	.381	.375	.187	.016	●		●	●			●	.016-.157	.0039-.0118
CNMG 332-M3P	.381	.375	.187	.031	●		●	●			●	.020-.177	.0059-.0197
CNMG 431-M3P	.508	.500	.187	.016	●		●	●			●	.016-.217	.0039-.0118
CNMG 432-M3P	.508	.500	.187	.031	●		●	●	●	●	●	.020-.217	.0059-.0197
CNMG 433-M3P	.508	.500	.187	.047	●		●	●			●	.031-.217	.0071-.0236
CNMG 543-M3P	.635	.625	.250	.047	●	●	●	●			●	.031-.283	.0071-.0236
CNMG 544-M3P	.635	.625	.250	.063	●		●	●			●	.031-.283	.0071-.0236
CNMG 642-M3P	.760	.750	.250	.031	●		●				●	.020-.339	.0059-.0197
CNMG 643-M3P	.760	.750	.250	.047	●		●				●	.031-.339	.0071-.0236

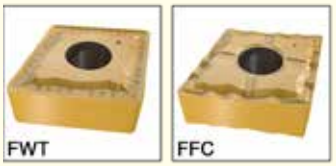
• For user guide and cutting speed recommendations, see pages 100-104, 206-228

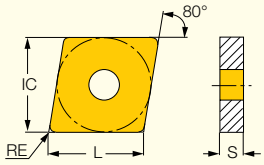
For tools, see pages: A-MCLNR/L (81) • C#-MULNR/L-MW (12) • C#-PCLNR/L-12-JHP (17) • C#-PCLNR/L-X (20) • C#-PCLNR/L-X-JHP (21) • DCBNR/L (22) • DCLNR/L (21) • DCLNR/L-JHP-MC (22) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MCKNR (18) • MCLNR/L (18) • MCRNR (18) • MULNR/L-MW (11) • PCLNR (16) • PCLNR/L-4-JHP (17) • PCLNR/L-CA (97) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • S-PCLNR (79) • S/A-MULNR/L-MW (84) • AVC-PCLNR/L (76) • A-PCLNR/L-X/G (80)

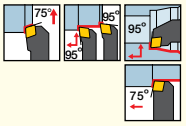
ISOTURN

CNMG-CERMET

Double-Sided 80° Rhombic Cermet Grade Inserts for Semi-Finishing and Finishing Applications



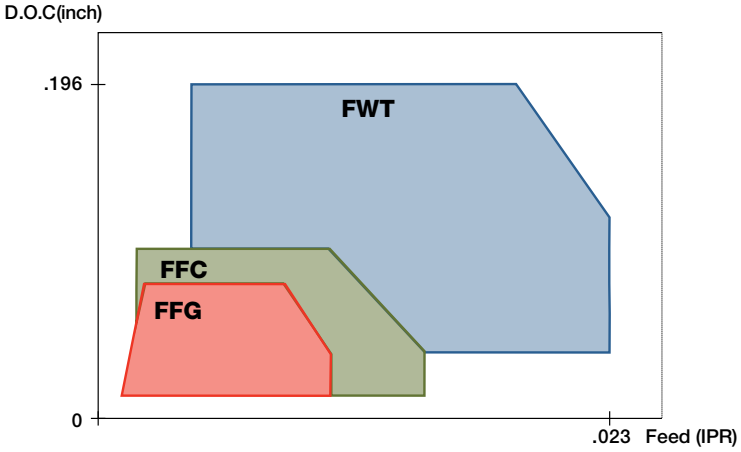




Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC20N	IC520N	Recommended Machining Data a_p (inch)	f (IPR)
CNMG 430-FFG	.508	.500	.187	.008		●	.016-.138	.0027-.0098
CNMG 431-FFC	.508	.500	.187	.016	●	●	.020-.138	.0027-.0098
CNMG 432-FFC	.508	.500	.187	.031	●		.039-.098	.0020-.0098
CNMG 432-FWT	.508	.500	.187	.031		●	.000-.197	.0059-.0000

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

For tools, see pages: A-MCLNR/L (81) • A-PCLNR/L-X/G (80) • C#-MULNR/L-MW (12) • C#-PCLNR/L-12-JHP (17) • C#-PCLNR/L-X (20) • C#-PCLNR/L-X-JHP (21) • DCBNR/L (22) • DCLNR/L (21) • DCLNR/L-JHP-MC (22) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MCKNR (18) • MCLNR/L (18) • MCRNR (18) • MULNR/L-MW (11) • PCLNR/L-4-JHP (17) • PCLNR/L-CA (97) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • S/A-MULNR/L-MW (84)

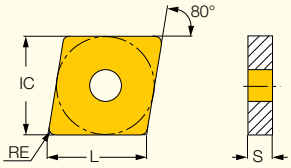


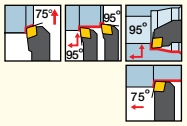
ISOTURN

CNMM-R3P

Single-Sided 80° Rhombic Inserts for Rough Turning Applications on Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	Recommended Machining Data a_p (inch)	f (IPR)
CNMM 432-R3P	.508	.500	.187	.031	●	●	●	.028-.295	.0079-.0217
CNMM 433-R3P	.508	.500	.187	.047	●	●	●	.039-.295	.0098-.0276
CNMM 434-R3P	.508	.500	.187	.063	●	●	●	.059-.295	.0118-.0354
CNMM 542-R3P	.635	.625	.250	.031	●	●	●	.079-.374	.0079-.0217
CNMM 543-R3P	.635	.625	.250	.047	●	●	●	.079-.374	.0118-.0276
CNMM 544-R3P	.635	.625	.250	.063	●	●	●	.079-.374	.0118-.0354
CNMM 643-R3P	.761	.750	.250	.047	●	●	●	.118-.472	.0098-.0315
CNMM 644-R3P	.761	.750	.250	.063	●	●	●	.138-.472	.0118-.0354
CNMM 646-R3P	.761	.750	.250	.094	●	●	●	.138-.472	.0118-.0472
CNMM 866-R3P	1.015	1.000	.375	.094	●	●	●	.157-.591	.0157-.0472

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

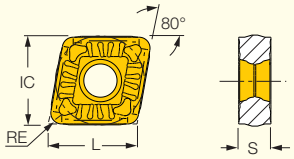
For tools, see pages: A-MCLNR/L (81) • C#-MULNR/L-MW (12) • C#-PCLNR/L-12-JHP (17) • C#-PCLNR/L-X (20) • C#-PCLNR/L-X-JHP (21) • DCBNR/L (22) • DCLNR/L (21) • DCLNR/L-JHP-MC (22) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MCKNR (18) • MCLNR/L (18) • MCRNR (18) • MULNR/L-MW (11) • PCLNR (16) • PCLNR/L-4-JHP (17) • PCLNR/L-CA (97) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • S-PCLNR (79) • S/A-MULNR/L-MW (84) • A-PCLNR/L-X/G (80)

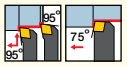
DOVEIQTURN HEAVY DUTY LINE

COMG-R3P-IQ

Double-Sided 7° Negative Side Flank 80° Rhombic Inserts for Heavy Turning of Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8250	IC8150	Recommended Machining Data a_p (inch)	f (IPR)
COMG 542-R3P-IQ	.635	.625	.250	.031	●	●	.079-.354	.0098-.0197
COMG 543-R3P-IQ	.635	.625	.250	.047	●	●	.079-.354	.0118-.0236
COMG 544-R3P-IQ	.635	.625	.250	.063	●	●	.079-.354	.0118-.0276
COMG 643-R3P-IQ	.761	.750	.250	.047	●	●	.118-.472	.0118-.0315
COMG 644-R3P-IQ	.761	.750	.250	.063	●	●	.138-.472	.0138-.0354
COMG 646-R3P-IQ	.761	.750	.250	.094	●	●	.138-.472	.0138-.0354
COMG 866-R3P-IQ	1.015	1.000	.375	.094	●	●	.157-.591	.0157-.0394

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

For tools, see pages: C#-PCLOR/L-IQ (23) • PCBOR/L-IQ (24) • PCLOR/L-IQ (23)





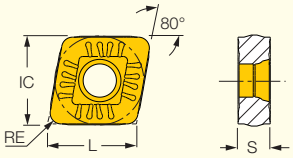
DOVETAIL GEOMETRY

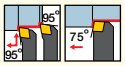
DOVEIQTURN HEAVY DUTY LINE

COMM-R3P-IQ

Single-Sided 7° Negative Side Flank 80° Rhombic Inserts for Heavy Turning of Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8250	IC8150	Recommended Machining Data a_p (inch)	f (IPR)
COMM 646-R3P-IQ	.761	.750	.250	.094	●	●	.138-.472	.0138-.0472

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

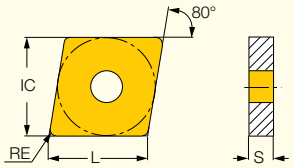
For tools, see pages: C#-PCLOR/L-IQ (23) • PCBOR/L-IQ (24) • PCLOR/L-IQ (23)

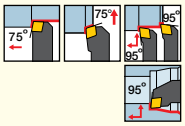
ISOTURN

CNMG-F3M

Double-sided 80° Rhombic Inserts for Stainless Steel Finishing Applications







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC6015	IC806	IC807	IC4	IC804	Recommended Machining Data a_p (inch)	f (IPR)
CNMG 331-F3M	.381	.375	.187	.016	●	●	●	●	●			.004-.059	.0020-.0118
CNMG 332-F3M	.381	.375	.187	.031	●	●	●	●	●			.004-.059	.0039-.0157
CNMG 431-F3M	.508	.500	.187	.016	●	●	●	●	●			.004-.059	.0020-.0118
CNMG 432-F3M	.508	.500	.187	.031	●	●	●	●	●		●	.004-.059	.0039-.0157
CNMG 433-F3M	.508	.500	.187	.047	●	●	●	●	●	●	●	.008-.079	.0059-.0197

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

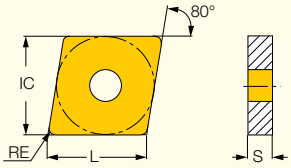
For tools, see pages: A-MCLNR/L (81) • C#-MULNR/L-MW (12) • C#-PCLNR/L-12-JHP (17) • C#-PCLNR/L-X (20) • C#-PCLNR/L-X-JHP (21) • DCBNR/L (22) • DCLNR/L (21) • DCLNR/L-JHP-MC (22) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MCKNR (18) • MCLNR/L (18) • MCRNR (18) • MULNR/L-MW (11) • PCLNR/L-4-JHP (17) • PCLNR/L-CA (97) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • S/A-MULNR/L-MW (84) • AVC-PCLNR/L (76) • A-PCLNR/L-X/G (80)

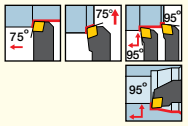
ISOTURN

CNMG-M3M

Double-Sided 80° Rhombic Inserts for Machining Stainless and Low Carbon Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC6015	IC806	IC807	IC804	Recommended Machining Data a_p (inch)	f (IPR)
CNMG 331-M3M	.381	.375	.187	.016	●	●	●	●	●		.016-.157	.0047-.0157
CNMG 332-M3M	.381	.375	.187	.031	●	●	●	●	●		.020-.177	.0059-.0197
CNMG 431-M3M	.508	.500	.187	.016	●				●		.020-.197	.0059-.0197
CNMG 432-M3M	.508	.500	.187	.031	●	●	●	●	●	●	.020-.197	.0059-.0197
CNMG 433-M3M	.508	.500	.187	.047	●	●	●	●	●	●	.020-.197	.0079-.0236
CNMG 434-M3M	.508	.500	.187	.063	●	●	●	●			.020-.197	.0098-.0276
CNMG 542-M3M	.635	.625	.250	.031	●	●	●	●			.020-.276	.0059-.0197
CNMG 543-M3M	.635	.625	.250	.047	●	●	●	●	●		.020-.276	.0079-.0236
CNMG 544-M3M	.635	.625	.250	.063	●	●	●	●	●		.020-.276	.0098-.0276
CNMG 642-M3M	.761	.750	.250	.031	●	●	●		●		.118-.394	.0118-.0276
CNMG 643-M3M	.761	.750	.250	.047	●	●	●		●		.118-.394	.0138-.0315

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

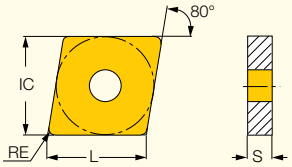
For tools, see pages: A-MCLNR/L (81) • C#-MULNR/L-MW (12) • C#-PCLNR/L-12-JHP (17) • C#-PCLNR/L-X (20) • C#-PCLNR/L-X-JHP (21) • DCBNR/L (22) • DCLNR/L (21) • DCLNR/L-JHP-MC (22) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MCKNR (18) • MCLNR/L (18) • MCRNR (18) • MULNR/L-MW (11) • PCLNR (16) • PCLNR/L-4-JHP (17) • PCLNR/L-CA (97) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • S-PCLNR (79) • S/A-MULNR/L-MW (84) • AVC-PCLNR/L (76) • A-PCLNR/L-X/G (80)

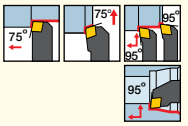
ISOTURN

CNMG-R3M

Double-Sided 80° Rhombic Inserts for Rough Machining of Stainless and Low Carbon Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC806	Recommended Machining Data a_p (inch)	f (IPR)
CNMG 543-R3M	.635	.625	.250	.047	●	●		.079-.354	.0118-.0354
CNMG 544-R3M	.635	.625	.250	.063	●	●		.079-.394	.0157-.0394
CNMG 546-R3M	.635	.625	.250	.094		●		.079-.433	.0197-.0472
CNMG 643-R3M	.761	.750	.250	.047	●	●	●	.079-.354	.0118-.0354
CNMG 644-R3M	.761	.750	.250	.063	●	●	●	.079-.394	.0157-.0394
CNMG 646-R3M	.761	.750	.250	.094	●	●		.079-.433	.0197-.0472

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

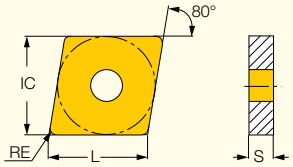
For tools, see pages: C#-PCLNR/L-X (20) • DCLNR/L (21) • PCLNR (16) • PCLNR/L-X (19) • S-PCLNR (79)

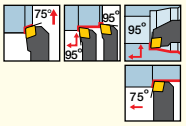
ISOTURN

CNMG-F3S

Double-Sided 80° Rhombic Inserts for Titanium and Heat Resistant Materials. Used for Finishing Applications.







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC806	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 100-104, 206-228

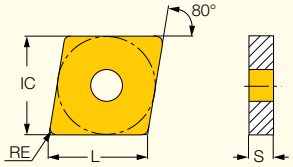
For tools, see pages: A-MCLNR/L (81) • A-PCLNR/L-X/G (80) • AVC-PCLNR/L (76) • C#-MULNR/L-MW (12) • C#-PCLNR/L-12-JHP (17) • C#-PCLNR/L-X (20) • C#-PCLNR/L-X-JHP (21) • DCBNR/L (22) • DCLNR/L (21) • DCLNR/L-JHP-MC (22) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MCKNR (18) • MCLNR/L (18) • MCRNR (18) • MULNR/L-MW (11) • PCLNR/L-4-JHP (17) • PCLNR/L-CA (97) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • S/A-MULNR/L-MW (84)

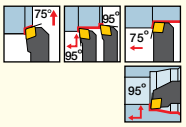
ISOTURN

CNMG-VL

Double-Sided 80° Rhombic Inserts with a Chipformer for High Temperature Alloys and Stainless Steel Valves







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC806	IC804	Recommended Machining Data a_p (inch)	f (IPR)
CNMG 431-VL	.508	.500	.187	.016	●		.012-.118	.0020-.0059
CNMG 432-VL	.508	.500	.187	.031	●	●	.020-.157	.0039-.0098

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

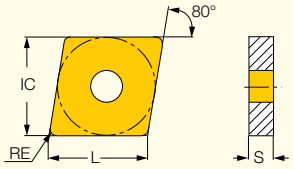
For tools, see pages: A-MCLNR/L (81) • C#-MULNR/L-MW (12) • C#-PCLNR/L-12-JHP (17) • C#-PCLNR/L-X (20) • C#-PCLNR/L-X-JHP (21) • DCBNR/L (22) • DCLNR/L (21) • DCLNR/L-JHP-MC (22) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MCKNR (18) • MCLNR/L (18) • MCRNR (18) • MULNR/L-MW (11) • PCLNR/L-4-JHP (17) • PCLNR/L-CA (97) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • S/A-MULNR/L-MW (84) • A-PCLNR/L-X/G (80)

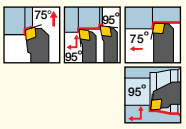
ISOTURN

CNMG/CNGG-SF

Double-Sided 80° Rhombic Inserts for Super-Finishing; Controls Chip Flow at Very Low Feeds and Depths of Cut







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	.008		●	●		.012-.079	.0012-.0098
CNMG 431-SF	.508	.500	.187	.016	●				.012-.079	.0020-.0098
CNGG 430-SF	.508	.500	.187	.004				●	.008-.059	.0012-.0059
CNGG 430.5-SF	.508	.500	.187	.008				●	.012-.079	.0012-.0079
CNGG 431-SF	.508	.500	.187	.016				●	.012-.079	.0012-.0079

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

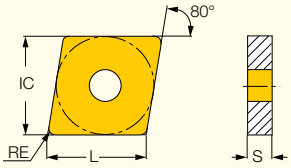
For tools, see pages: A-MCLNR/L (81) • C#-MULNR/L-MW (12) • C#-PCLNR/L-12-JHP (17) • C#-PCLNR/L-X (20) • C#-PCLNR/L-X-JHP (21) • DCBNR/L (22) • DCLNR/L (21) • DCLNR/L-JHP-MC (22) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MCKNR (18) • MCLNR/L (18) • MCRNR (18) • MULNR/L-MW (11) • PCLNR/L-4-JHP (17) • PCLNR/L-CA (97) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • S/A-MULNR/L-MW (84) • A-PCLNR/L-X/G (80)

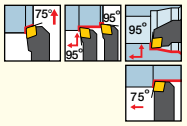
ISOTURN

CNMG-NF

Double-Sided 80° Rhombic Inserts for Semi-Finishing and Finishing Applications







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	.016	●	●	●	●	●	●	●	.000-.000	.0000-.0000
CNMG 432-NF	.508	.500	.187	.031	●			●	●	●	●	.031-.138	.0031-.0098

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

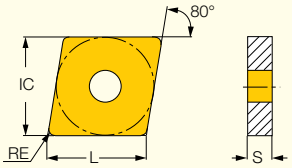
For tools, see pages: A-MCLNR/L (81) • C#-MULNR/L-MW (12) • C#-PCLNR/L-12-JHP (17) • C#-PCLNR/L-X (20) • C#-PCLNR/L-X-JHP (21) • DCBNR/L (22) • DCLNR/L (21) • DCLNR/L-JHP-MC (22) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MCKNR (18) • MCLNR/L (18) • MCRNR (18) • MULNR/L-MW (11) • PCLNR/L-4-JHP (17) • PCLNR/L-CA (97) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • S/A-MULNR/L-MW (84) • A-PCLNR/L-X/G (80)

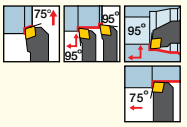
ISOTURN

CNMG-WF

Double-Sided 80° Rhombic Wiper Inserts for Finishing Operations at High Feeds







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8250	IC8150	Recommended Machining Data a_p (inch)	f (IPR)
CNMG 432-WF	.508	.500	.187	.031	●	●	.031-.138	.0039-.0138

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

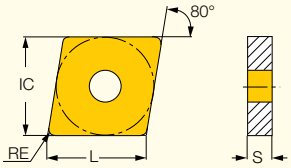
For tools, see pages: A-MCLNR/L (81) • C#-MULNR/L-MW (12) • C#-PCLNR/L-12-JHP (17) • C#-PCLNR/L-X (20) • C#-PCLNR/L-X-JHP (21) • DCBNR/L (22) • DCLNR/L (21) • DCLNR/L-JHP-MC (22) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MCKNR (18) • MCLNR/L (18) • MCRNR (18) • MULNR/L-MW (11) • PCLNR/L-4-JHP (17) • PCLNR/L-CA (97) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • S/A-MULNR/L-MW (84) • A-PCLNR/L-X/G (80)

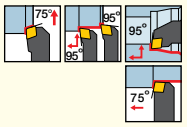
ISOTURN

CNMG-WG/NRW

Double-Sided 80° Rhombic Wiper Inserts for High Feed Turning and High Surface Finish







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC3250	IC8150	IC520N	IC428	IC5005	IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
CNMG 432-WG	.508	.500	.187	.031	●	●	●	●	●	●	●	.031-.138	.0039-.0197
CNMG 433-WG	.508	.500	.187	.047	●	●						.059-.157	.0118-.0315
CNMG 434-NRW	.508	.500	.187	.063	●	●						.079-.177	.0118-.0315

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

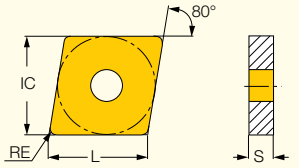
For tools, see pages: A-MCLNR/L (81) • C#-MULNR/L-MW (12) • C#-PCLNR/L-12-JHP (17) • C#-PCLNR/L-X (20) • C#-PCLNR/L-X-JHP (21) • DCBNR/L (22) • DCLNR/L (21) • DCLNR/L-JHP-MC (22) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MCKNR (18) • MCLNR/L (18) • MCRNR (18) • MULNR/L-MW (11) • PCLNR/L-4-JHP (17) • PCLNR/L-CA (97) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • S/A-MULNR/L-MW (84) • A-PCLNR/L-X/G (80)

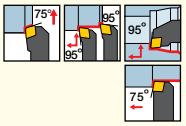
ISOTURN

CNMA

Double-Sided 80° Rhombic Inserts for Short Chipping Materials such as Cast Iron







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8150	IC20	IC5010	IC428	IC5005	IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
CNMA 431	.508	.500	.187	.016			●	●	●			.039-.157	.0012-.0134
CNMA 432	.508	.500	.187	.031	●	●	●	●	●			.039-.157	.0020-.0169
CNMA 432F (1)	.508	.500	.187	.031						●	●	.039-.157	.0020-.0197
CNMA 433	.508	.500	.187	.047	●	●	●	●	●			.059-.177	.0031-.0236
CNMA 434	.508	.500	.187	.063			●	●	●			.079-.236	.0118-.0236
CNMA 543	.635	.625	.250	.047			●		●			.079-.394	.0039-.0315
CNMA 544	.635	.625	.250	.063			●		●			.079-.394	.0118-.0236
CNMA 643	.760	.750	.250	.047		●		●	●			.079-.394	.0039-.0315
CNMA 644	.760	.750	.250	.063					●			.098-.394	.0118-.0394

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

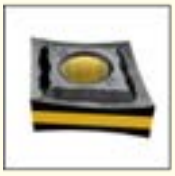
(1) Sharp edge

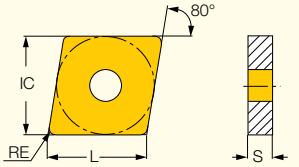
For tools, see pages: A-MCLNR/L (81) • A-PCLNR/L-X/G (80) • C#-MULNR/L-MW (12) • C#-PCLNR/L-12-JHP (17) • C#-PCLNR/L-X (20) • C#-PCLNR/L-X-JHP (21) • DCBNR/L (22) • DCLNR/L (21) • DCLNR/L-JHP-MC (22) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MCKNR (18) • MCLNR/L (18) • MCRNR (18) • MULNR/L-MW (11) • PCLNR (16) • PCLNR/L-4-JHP (17) • PCLNR/L-CA (97) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • S-PCLNR (79) • S/A-MULNR/L-MW (84)

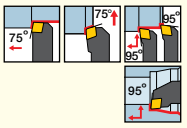
ISOTURN

CNMG/CNGG-PP

Double-Sided 80° Rhombic Inserts for Machining Very Ductile Materials at Medium Cutting Conditions







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC28	IC830	IC8350	IC6025	IC8250	IC10	IC6015	IC8150	IC428	IC806	IC807	IC907	IC804	Recommended Machining Data a_p (inch)	f (IPR)
CNMG 431-PP	.508	.500	.187	.016		●	●	●	●	●	●				●	●		.039-.157	.0055-.0118
CNMG 432-PP	.508	.500	.187	.031	●	●	●	●	●	●	●	●	●	●	●	●		.039-.157	.0055-.0118
CNMG 433-PP	.508	.500	.187	.047					●						●	●		.059-.157	.0071-.0157
CNMG 643-PP	.760	.750	.250	.047											●	●		.079-.315	.0118-.0236
CNGG 430-PP	.508	.500	.187	.004												●		.016-.079	.0020-.0079
CNGG 430.5-PP	.508	.500	.187	.008												●		.016-.098	.0031-.0098
CNGG 431-PP	.508	.500	.187	.016												●		.031-.118	.0039-.0118
CNGG 432-PP	.508	.500	.187	.031										●		●	●	.039-.157	.0039-.0118
CNGG 433-PP	.508	.500	.187	.047										●				.039-.157	.0039-.0118
CNGG 643-PP	.760	.750	.250	.047												●		.079-.354	.0118-.0236

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

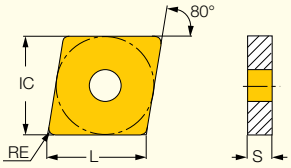
For tools, see pages: A-MCLNR/L (81) • A-PCLNR/L-X/G (80) • C#-MULNR/L-MW (12) • C#-PCLNR/L-12-JHP (17) • C#-PCLNR/L-X (20) • C#-PCLNR/L-X-JHP (21) • DCBNR/L (22) • DCLNR/L (21) • DCLNR/L-JHP-MC (22) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MCKNR (18) • MCLNR/L (18) • MCRNR (18) • MULNR/L-MW (11) • PCLNR (16) • PCLNR/L-4-JHP (17) • PCLNR/L-CA (97) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • S/A-MULNR/L-MW (84)

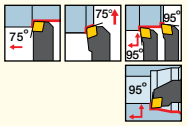
ISOTURN

CNMG/CNGG-TF

Double-Sided 80° Rhombic Inserts for Machining a Wide Range of Materials at Medium Cutting Conditions







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8350	IC6025	IC8250	IC908	IC6015	IC8150	IC20	IC20N	IC806	IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
CNMG 321-TF	.382	.375	.125	.016				●			●						.039-.118	.0047-.0138
CNMG 322-TF	.382	.375	.125	.031	●			●			●						.039-.157	.0047-.0138
CNMG 431-TF	.508	.500	.187	.016	●		●	●		●		●		●	●	●	.039-.157	.0047-.0138
CNMG 432-TF	.508	.500	.187	.031	●	●	●	●	●	●	●	●	●	●	●	●	.039-.157	.0047-.0138
CNMG 433-TF	.508	.500	.187	.047	●		●	●	●	●	●	●		●	●	●	.059-.177	.0059-.0157
CNMG 542-TF	.635	.625	.250	.031											●	●	.039-.236	.0047-.0138
CNMG 543-TF	.635	.625	.250	.047				●									.059-.236	.0059-.0177
CNMG 643-TF	.760	.750	.250	.047				●									.059-.256	.0079-.0217
CNGG 432-TF	.510	.500	.187	.031												●	.039-.157	.0047-.0138
CNGG 643-TF	.760	.750	.250	.047												●	.079-.354	.0118-.0276

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

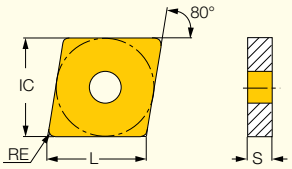
For tools, see pages: A-MCLNR/L (81) • A-PCLNR/L-X/G (80) • AVC-PCLNR/L (76) • C#-MULNR/L-MW (12) • C#-PCLNR/L-12-JHP (17) • C#-PCLNR/L-X (20) • C#-PCLNR/L-X-JHP (21) • DCBNR/L (22) • DCLNR/L (21) • DCLNR/L-JHP-MC (22) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MCKNR (18) • MCLNR/L (18) • MCRNR (18) • MULNR/L-MW (11) • PCLNR (16) • PCLNR/L-4-JHP (17) • PCLNR/L-CA (97) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • S-PCLNR (79) • S/A-MULNR/L-MW (84)

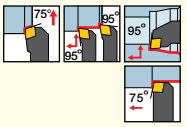
ISOTURN

CNMG-GN

Double-Sided 80° Rhombic Inserts for General Applications







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8350	IC6025	IC8250	IC6015	IC8150	IC20	IC5010	IC428	IC5005	IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
CNMG 431-GN	.508	.500	.187	.016	●	●		●		●	●		●				.039-.157	.0055-.0157
CNMG 432-GN	.508	.500	.187	.031	●	●	●	●	●	●	●	●		●	●	●	.039-.177	.0063-.0177
CNMG 433-GN	.508	.500	.187	.047	●	●		●		●			●	●	●	●	.059-.197	.0087-.0197
CNMG 543-GN	.635	.625	.250	.047	●			●		●		●					.079-.276	.0087-.0236
CNMG 544-GN	.635	.625	.250	.063				●									.079-.276	.0087-.0295
CNMG 642-GN	.760	.750	.250	.031				●									.059-.315	.0079-.0276
CNMG 643-GN	.760	.750	.250	.047	●	●		●		●							.079-.314	.0098-.0276

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

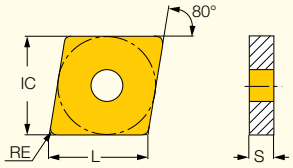
For tools, see pages: A-MCLNR/L (81) • A-PCLNR/L-X/G (80) • C#-MULNR/L-MW (12) • C#-PCLNR/L-12-JHP (17) • C#-PCLNR/L-X (20) • C#-PCLNR/L-X-JHP (21) • DCBNR/L (22) • DCLNR/L (21) • DCLNR/L-JHP-MC (22) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MCKNR (18) • MCLNR/L (18) • MCRNR (18) • MULNR/L-MW (11) • PCLNR (16) • PCLNR/L-4-JHP (17) • PCLNR/L-CA (97) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • S-PCLNR (79) • S/A-MULNR/L-MW (84)

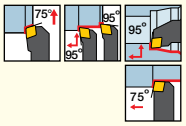
ISOTURN

CNMG-NR

Double-Sided 80° Rhombic Inserts with a Special Chipformer for Heavy Machining







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8350	IC6025	IC8250	IC6015	IC8150	IC5010	IC428	IC5005	IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
CNMG 432-NR	.508	.500	.187	.031		●	●	●	●	●	●	●	●	●	●	.039-.197	.0059-.0197
CNMG 433-NR	.508	.500	.187	.047	●	●		●		●	●		●			.039-.197	.0091-.0216
CNMG 434-NR	.508	.500	.187	.063						●						.039-.197	.0118-.0236
CNMG 542-NR	.635	.625	.250	.031		●		●								.059-.236	.0098-.0197
CNMG 543-NR	.635	.625	.250	.047		●		●						●	●	.079-.276	.0118-.0236
CNMG 544-NR	.635	.625	.250	.063	●	●		●		●		●	●	●	●	.098-.276	.0118-.0276
CNMG 642-NR	.760	.750	.250	.031		●		●								.138-.315	.0118-.0283
CNMG 643-NR	.760	.750	.250	.047		●		●						●	●	.138-.315	.0118-.0315
CNMG 644-NR	.760	.750	.250	.063	●	●		●		●				●	●	.157-.394	.0157-.0335
CNMG 646-NR	.760	.750	.250	.094				●								.157-.394	.0157-.0472
CNMG 866-NR	1.015	1.000	.375	.094				●								.236-.472	.0157-.0472

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

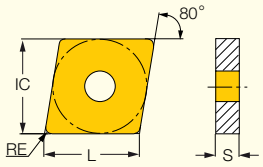
For tools, see pages: A-MCLNR/L (81) • C#-MULNR/L-MW (12) • C#-PCLNR/L-12-JHP (17) • C#-PCLNR/L-X (20) • C#-PCLNR/L-X-JHP (21) • DCBNR/L (22) • DCLNR/L (21) • DCLNR/L-JHP-MC (22) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MCKNR (18) • MCLNR/L (18) • MCRNR (18) • MULNR/L-MW (11) • PCLNR (16) • PCLNR/L-4-JHP (17) • PCLNR/L-CA (97) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • S-PCLNR (79) • S/A-MULNR/L-MW (84) • A-PCLNR/L-X/G (80)

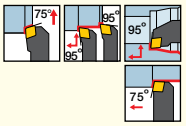
ISOTURN

CNMG-MR

Double-Sided 80° Rhombic Inserts for Rough Turning on Stainless Steel and Soft Materials







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8350	IC8250	IC8150	IC807	Recommended Machining Data a_p (inch)	f (IPR)
CNMG 543-MR	.635	.625	.250	.047	●	●	●	●	.079-.394	.0118-.0354
CNMG 643-MR	.749	.750	.250	.047	●	●	●	●	.079-.394	.0118-.0354

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

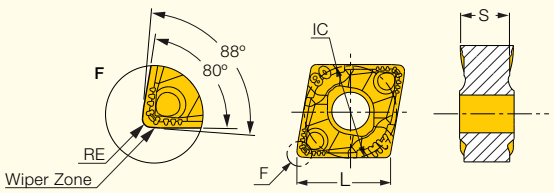
For tools, see pages: C#-PCLNR/L-X (20) • DCLNR/L (21) • PCLNR (16) • PCLNR/L-X (19) • S-PCLNR (79)

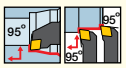
HELITURN LD

CNMX-M3/4PW

Double-Sided 80° Rhombic Inserts with High Helical Cutting Edge for High Metal Removal Rates







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8350	IC8250	IC8150	IC20N	IC520N	IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
CNMX 341-M3PW	.381	.375	.173	.016	●		●	●					.039-.177	.0079-.0197
CNMX 342-M3PW	.381	.375	.173	.031	●		●	●	●	●			.059-.197	.0098-.0236
CNMX 452-M4PW	.508	.500	.267	.031		●	●	●			●	●	.059-.236	.0098-.0236
CNMX 453-M4PW	.508	.500	.267	.047		●	●	●			●	●	.079-.236	.0118-.0315
CNMX 454-M4PW	.508	.500	.267	.063		●	●	●			●	●	.079-.236	.0118-.0394
CNMX 553-M4PW	.635	.625	.252	.047			●	●			●		.079-.315	.0118-.0315
CNMX 554-M4PW	.635	.625	.252	.063			●	●			●		.079-.315	.0118-.0394

• 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 100-104, 206-228

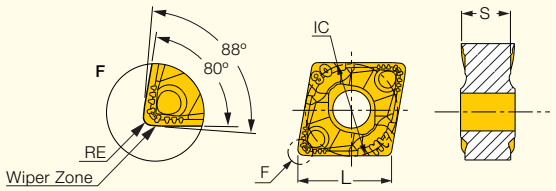
For tools, see pages: A-PCLNR/L-X/G (80) • C#-PCLNR/L-X (20) • C#-PCLNR/L-X-JHP (21) • DCLNR/L (21) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20)

HELITURN LD

CNMX-M3/4MW

Double-Sided 80° Rhombic Inserts with High Helical Cutting Edge for High Metal Removal Rates of Stainless Steel





Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC6015	IC8150	IC806	IC807	Recommended Machining Data a_p (inch)	f (IPR)
CNMX 341-M3MW	.381	.375	.173	.016	●	●	●				.031-.157	.0059-.0177
CNMX 342-M3MW	.381	.375	.173	.031	●	●	●				.039-.197	.0079-.0236
CNMX 451-M4MW	.508	.500	.267	.016			●		●	●	.031-.197	.0059-.0177
CNMX 452-M4MW	.508	.500	.267	.031	●	●	●	●	●	●	.039-.236	.0079-.0236
CNMX 453-M4MW	.508	.500	.267	.047		●	●	●	●	●	.079-.236	.0118-.0315

• 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 100-104, 206-228

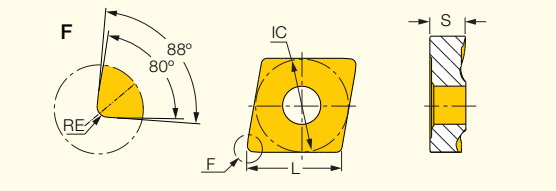
For tools, see pages: A-PCLNR/L-X/G (80) • C#-PCLNR/L-X (20) • C#-PCLNR/L-X-JHP (21) • DCLNR/L (21) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20)

HELITURN LD

CNMM-M4PW

Very Positive Radial Insert with Helical Cutting Edge and Positive Rake for Heavy Machining Applications





Designation	Dimensions IC	S	RE	L	Tough ↔ Hard IC8250	IC8150	Recommended Machining Data a_p (inch)	f (IPR)
CNMM 432-M4PW	.500	.187	.031	.508	●	●	.059-.197	.0094-.0232

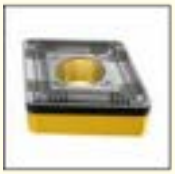
• For user guide and cutting speed recommendations, see pages 100-104, 206-228

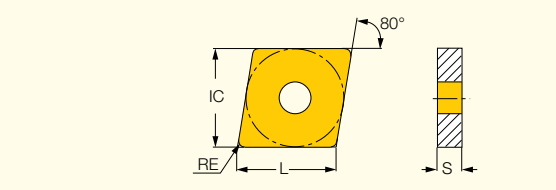
For tools, see pages: A-MCLNR/L (81) • C#-MULNR/L-MW (12) • C#-PCLNR/L-12-JHP (17) • C#-PCLNR/L-X (20) • C#-PCLNR/L-X-JHP (21) • DCBNR/L (22) • DCLNR/L (21) • DCLNR/L-JHP-MC (22) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MCKNR (18) • MCLNR/L (18) • MCRNR (18) • MULNR/L-MW (11) • PCLNR/L-4-JHP (17) • PCLNR/L-CA (97) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • S/A-MULNR/L-MW (84)

ISOTURN

CNMM-NR

Single-Sided 80° Rhombic Inserts for Rough Turning Applications





Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8150	IC907	Recommended Machining Data a_p (inch)	f (IPR)
CNMM 644-NR	.749	.750	.250	.063	●	●	.079-.394	.0157-.0394

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

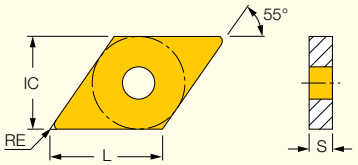
For tools, see pages: DCLNR/L (21) • PCLNR (16)

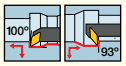
ISOTURN

DNGP-F2P

Double-Sided 55° Rhombic Inserts for Semi-Finishing and Finishing Applications on Alloyed Steel







Designation	Dimensions L	IC	S	RE	IC530N	Recommended Machining Data a_p (inch)	f (IPR)
DNGP 220.5R/L-F2P	.303	.250	.125	.008	●	.012-.079	.0031-.0118
DNGP 221R/L-F2P	.303	.250	.125	.016	●	.012-.079	.0031-.0118
DNGP 222L-F2P	.303	.250	.125	.031	●	.012-.079	.0031-.0118

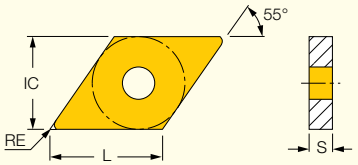
• For user guide and cutting speed recommendations, see pages 100-104, 206-228

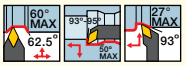
ISOTURN

DNMG-F3P

Double-Sided 55° Rhombic Inserts for Semi-Finishing and Finishing on Steel







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	.016	●	●	●	●	.031-.118	.0027-.0098
DNMG 332-F3P	.458	.375	.187	.031	●	●	●	●	.039-.138	.0031-.0098
DNMG 333-F3P	.458	.375	.187	.047	●	●	●	●	.055-.157	.0039-.0098
DNMG 431-F3P	.610	.500	.187	.016	●	●	●	●	.031-.118	.0027-.0098
DNMG 432-F3P	.610	.500	.187	.031	●	●	●	●	.039-.138	.0031-.0098
DNMG 433-F3P	.610	.500	.187	.047	●	●	●	●	.055-.157	.0039-.0098
DNMG 441-F3P	.610	.500	.250	.016	●	●	●	●	.031-.118	.0027-.0098
DNMG 442-F3P	.610	.500	.250	.031	●	●	●	●	.039-.138	.0031-.0098
DNMG 443-F3P	.610	.500	.250	.047	●	●	●	●	.055-.157	.0039-.0098

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

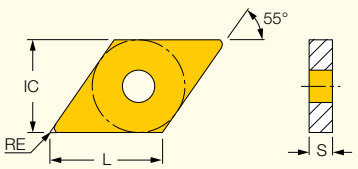
For tools, see pages: A-MDUNR/L (85) • A-PDUNR/L (85) • C#-DDJNR/L (27) • C#-PDJNR/L-JHP (26) • DDJNR/L (26) • DDJNR/L-JHP-MC (27) • HSK A63WH-DDJNR/L (27) • HSK A63WH-DDNNN (28) • MDJNR/L (24) • PDJNR/L (25) • PDJNR/L-4-JHP (25) • S-DDUNR (84) • AVC-DDUNR/L (77)

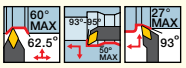
ISOTURN

DNMG-M3P

Double-Sided 55° Rhombic Inserts for Medium Machining Conditions on Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	IC5010	IC5005	IC807	Recommended Machining Data a_p (inch)	f (IPR)
DNMG 332-M3P	.458	.375	.187	.031	●	●	●			●	.020-.197	.0059-.0197
DNMG 333-M3P	.458	.375	.187	.047	●		●			●	.031-.197	.0071-.0236
DNMG 432-M3P	.610	.500	.187	.031	●	●	●	●	●	●	.020-.236	.0059-.0197
DNMG 433-M3P	.610	.500	.187	.047	●					●	.031-.236	.0071-.0236
DNMG 442-M3P	.610	.500	.250	.031	●	●	●			●	.020-.236	.0059-.0197
DNMG 443-M3P	.610	.500	.250	.047	●	●	●			●	.031-.236	.0071-.0236

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

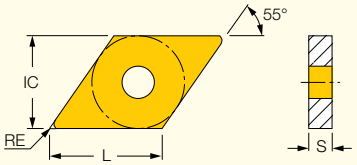
For tools, see pages: A-MDUNR/L (85) • A-PDUNR/L (85) • AVC-DDUNR/L (77) • C#-DDJNR/L (27) • C#-PDJNR/L-JHP (26) • DDJNR/L (26) • DDJNR/L-JHP-MC (27) • HSK A63WH-DDJNR/L (27) • HSK A63WH-DDNNN (28) • MDJNR/L (24) • PDJNR/L (25) • PDJNR/L-4-JHP (25) • S-DDUNR (84)

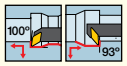
ISOTURN

DNGP-F2M

Double-Sided 55° Rhombic Inserts for Semi-Finishing and Finishing on Stainless Steel







Designation	Dimensions L	IC	S	RE	IC908	Recommended Machining Data a_p (inch)	f (IPR)
DNGP 220.5R/L-F2M	.303	.250	.125	.008	●	.012-.079	.0031-.0118
DNGP 221R/L-F2M	.303	.250	.125	.016	●	.012-.079	.0031-.0118
DNGP 222L-F2M	.303	.250	.125	.031	●	.012-.079	.0031-.0118

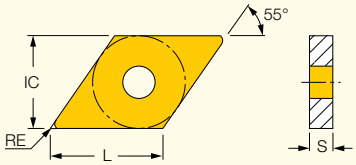
• For user guide and cutting speed recommendations, see pages 100-104, 206-228

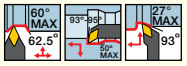
ISOTURN

DNMG-F3M

Double-Sided 55° Rhombic Inserts for Finish Turning of Stainless and Low Carbon Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC6015	IC806	IC807	IC804	Recommended Machining Data a_p (inch)	f (IPR)
DNMG 331-F3M	.458	.375	.187	.016	●	●	●	●	●		.004-.059	.0020-.0126
DNMG 332-F3M	.458	.375	.187	.031	●	●	●	●	●		.004-.059	.0039-.0165
DNMG 333-F3M	.458	.375	.187	.047		●	●	●	●		.006-.079	.0059-.0205
DNMG 431-F3M	.610	.500	.187	.016	●	●	●	●	●	●	.004-.059	.0020-.0118
DNMG 432-F3M	.610	.500	.187	.031	●	●	●	●	●		.004-.059	.0039-.0157
DNMG 433-F3M	.610	.500	.187	.047		●	●	●	●		.008-.098	.0059-.0197
DNMG 441-F3M	.610	.500	.250	.016	●	●	●	●	●		.004-.059	.0020-.0118
DNMG 442-F3M	.610	.500	.250	.031	●	●	●	●	●		.004-.059	.0039-.0157
DNMG 443-F3M	.610	.500	.250	.047	●	●	●	●	●		.008-.098	.0059-.0197

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

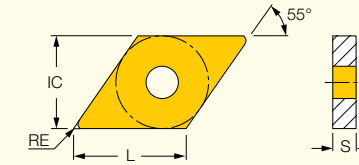
For tools, see pages: A-MDUNR/L (85) • A-PDUNR/L (85) • C#-DDJNR/L (27) • C#-PDJNR/L-JHP (26) • DDJNR/L (26) • DDJNR/L-JHP-MC (27) • HSK A63WH-DDJNR/L (27) • HSK A63WH-DDNNN (28) • MDJNR/L (24) • PDJNR/L (25) • PDJNR/L-4-JHP (25) • S-DDUNR (84) • AVC-DDUNR/L (77)

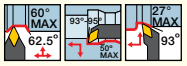
ISOTURN

DNMG-M3M

Double-Sided 55° Rhombic Inserts for Machining Stainless and Low Carbon Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC6015	IC806	IC807	IC804	Recommended Machining Data a_p (inch)	f (IPR)
DNMG 331-M3M	.458	.375	.187	.016	●	●	●	●	●		.020-.138	.0047-.0157
DNMG 332-M3M	.458	.375	.187	.031	●	●	●	●	●		.020-.157	.0059-.0197
DNMG 333-M3M	.458	.375	.187	.047	●	●	●	●	●		.020-.157	.0079-.0236
DNMG 432-M3M	.610	.500	.187	.031	●	●	●	●	●	●	.020-.197	.0059-.0197
DNMG 433-M3M	.610	.500	.187	.047	●	●	●	●	●		.020-.197	.0079-.0236
DNMG 442-M3M	.610	.500	.250	.031	●	●	●	●	●		.020-.197	.0059-.0197
DNMG 443-M3M	.610	.500	.250	.047	●	●	●	●	●		.020-.197	.0079-.0236

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

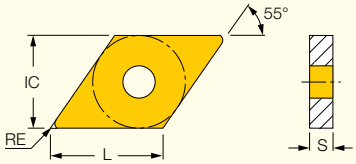
For tools, see pages: A-MDUNR/L (85) • A-PDUNR/L (85) • C#-DDJNR/L (27) • C#-PDJNR/L-JHP (26) • DDJNR/L (26) • DDJNR/L-JHP-MC (27) • HSK A63WH-DDJNR/L (27) • HSK A63WH-DDNNN (28) • MDJNR/L (24) • PDJNR/L (25) • PDJNR/L-4-JHP (25) • S-DDUNR (84) • AVC-DDUNR/L (77)

ISOTURN

DNMG-F3S

Double-Sided 55° Rhombic Inserts for Titanium and Heat Resistant Materials. Used for Finishing Applications.





Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC806	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
DNMG 431-F3S	.610	.500	.187	.0157	●	●	.004-.059	.0020-.0126
DNMG 432-F3S	.610	.500	.187	.0315	●	●	.004-.059	.0039-.0157
DNMG 441-F3S	.610	.500	.250	.0157	●	●	.004-.059	.0020-.0126
DNMG 442-F3S	.610	.500	.250	.0315	●	●	.004-.059	.0039-.0157

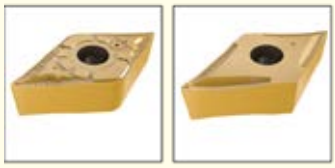
• For user guide and cutting speed recommendations, see pages 100-104, 206-228

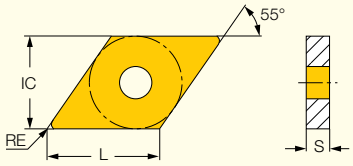
For tools, see pages: A-MDUNR/L (85) • A-PDUNR/L (85) • AVC-DDUNR/L (77) • C#-DDJNR/L (27) • C#-PDJNR/L-JHP (26) • DDJNR/L (26) • DDJNR/L-JHP-MC (27) • HSK A63WH-DDJNR/L (27) • HSK A63WH-DDNNN (28) • MDJNR/L (24) • PDJNR/L (25) • PDJNR/L-4-JHP (25) • S-DDUNR (84)

ISOTURN

DNMG-CERMET

Double-Sided 55° Rhombic Cermet Grade Inserts for Semi-Finishing and Finishing Applications

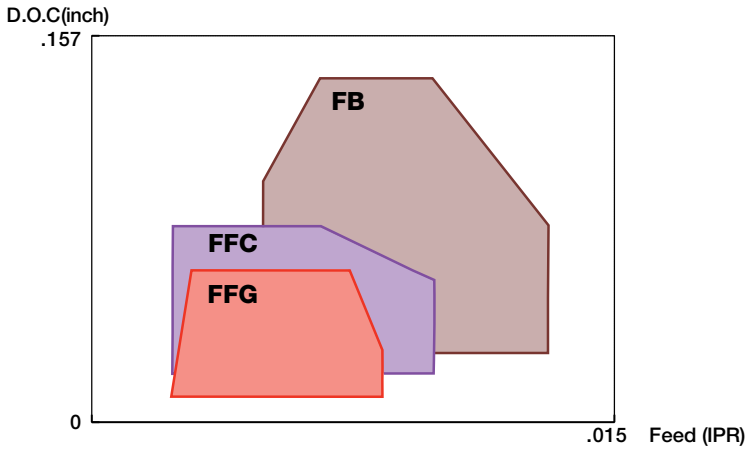




Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC20N	IC520N	Recommended Machining Data a_p (inch)	f (IPR)
DNMG 331-FFG	.458	.000	.187	.016		●	.028-.079	.0027-.0087
DNMG 330-FFC	.458	.375	.187	.008	●		.016-.098	.0020-.0079
DNMG 331-FFC	.458	.375	.187	.016	●	●	.031-.118	.0027-.0098
DNMG 332-FFC	.458	.375	.187	.031	●	●	.039-.138	.0031-.0098
DNMG 431-FFC	.610	.500	.187	.016		●	.031-.118	.0027-.0098
DNMG 441-FB	.610	.500	.250	.016	●		.020-.118	.0027-.0091
DNMG 441-FFC	.610	.500	.250	.016		●	.031-.118	.0031-.0098

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

For tools, see pages: A-MDUNR/L (85) • A-PDUNR/L (85) • C#-DDJNR/L (27) • C#-PDJNR/L-JHP (26) • DDJNR/L (26) • DDJNR/L-JHP-MC (27) • HSK A63WH-DDJNR/L (27) • HSK A63WH-DDNNN (28) • MDJNR/L (24) • PDJNR/L (25) • PDJNR/L-4-JHP (25) • S-DDUNR (84)

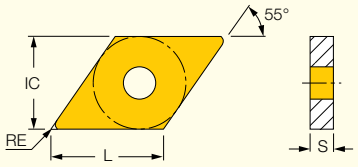


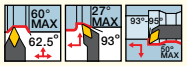
ISOTURN

DNMG/DNGG-SF

Double-Sided 55° Rhombic Inserts for Super-Finishing; Controls Chip Flow at Very Low Feeds and Depths of Cut







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC530N	IC520N	IC907	Recommended Machining Data a_p (inch)	f (IPR)
DNMG 331-SF	.458	.375	.187	.016	●	●		.020-.118	.0020-.0098
DNGG 430-SF	.610	.500	.187	.004			●	.010-.079	.0012-.0059
DNGG 430.5-SF	.610	.500	.187	.008			●	.016-.098	.0020-.0079

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

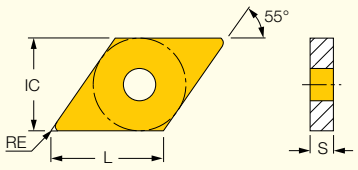
For tools, see pages: A-MDUNR/L (85) • A-PDUNR/L (85) • C#-DDJNR/L (27) • C#-PDJNR/L-JHP (26) • DDJNR/L (26) • DDJNR/L-JHP-MC (27) • HSK A63WH-DDJNR/L (27) • HSK A63WH-DDNNN (28) • MDJNR/L (24) • PDJNR/L (25) • PDJNR/L-4-JHP (25) • AVC-DDUNR/L (77)

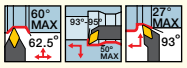
ISOTURN

DNMG-NF

Double-Sided 55° Rhombic Inserts for Semi-Finishing and Finishing Applications







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8350	IC8250	IC530N	IC8150	IC20N	IC520N	IC5010	IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
DNMG 330-NF	.458	.375	.187	.008		●	●		●	●			●	●	.016-.098	.0027-.0071
DNMG 331-NF	.458	.375	.187	.016	●		●		●	●	●	●	●	●	.031-.118	.0027-.0098
DNMG 332-NF	.458	.375	.187	.031	●		●	●	●	●			●	●	.039-.138	.0031-.0098
DNMG 431-NF	.610	.500	.187	.016			●	●					●	●	.031-.138	.0027-.0098
DNMG 432-NF	.610	.500	.187	.031			●		●						.039-.138	.0031-.0098
DNMG 441-NF	.610	.500	.250	.016			●	●					●	●	.031-.138	.0027-.0098

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

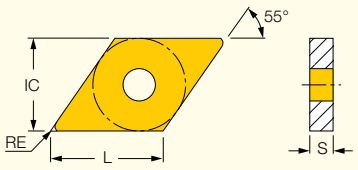
For tools, see pages: A-MDUNR/L (85) • A-PDUNR/L (85) • C#-DDJNR/L (27) • C#-PDJNR/L-JHP (26) • DDJNR/L (26) • DDJNR/L-JHP-MC (27) • HSK A63WH-DDJNR/L (27) • HSK A63WH-DDNNN (28) • MDJNR/L (24) • PDJNR/L (25) • PDJNR/L-4-JHP (25) • S-DDUNR (84) • AVC-DDUNR/L (77)

ISOTURN

DNMG-WG

Double-Sided 55° Rhombic Wiper Inserts for High Surface Finish at High Feed Turning







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8250	IC8150	IC5010	IC807	Recommended Machining Data a_p (inch)	f (IPR)
DNMG 432-WG	.610	.500	.187	.031	●	●			.039-.098	.0071-.0157
DNMG 442-WG	.610	.500	.250	.031	●			●	.039-.098	.0071-.0157
DNMG 443-WG	.610	.500	.250	.047	●		●		.039-.118	.0079-.0315

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

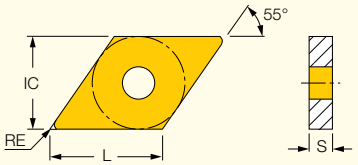
For tools, see pages: A-PDUNR/L (85) • C#-DDJNR/L (27) • C#-PDJNR/L-JHP (26) • DDJNR/L (26) • DDJNR/L-JHP-MC (27) • HSK A63WH-DDNNN (28) • MDJNR/L (24) • PDJNR/L (25) • PDJNR/L-4-JHP (25) • S-DDUNR (84) • AVC-DDUNR/L (77)

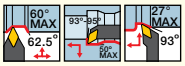
ISOTURN

DNMG-PF

Double-Sided 55° Rhombic Inserts for Finishing Applications on Alloyed and Stainless Steel







Designation	Dimensions L	IC	S	RE	IC8150	Recommended Machining Data a_p (inch)	f (IPR)
DNMG 332-PF	.458	.375	.187	.031	●	.012-.118	.0028-.0118
DNMG 443-PF	.610	.500	.250	.047	●	.039-.157	.0039-.0118

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

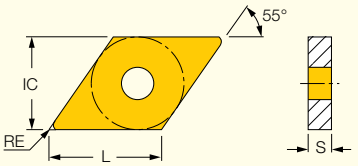
For tools, see pages: A-MDUNR/L (85) • A-PDUNR/L (85) • C#-DDJNR/L (27) • C#-PDJNR/L-JHP (26) • DDJNR/L (26) • DDJNR/L-JHP-MC (27) • HSK A63WH-DDJNR/L (27) • HSK A63WH-DDNNN (28) • MDJNR/L (24) • PDJNR/L (25) • PDJNR/L-4-JHP (25) • AVC-DDUNR/L (77)

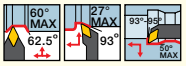
ISOTURN

DNMG/DNGG-PP

55° Double-Sided Rhombic Inserts for Machining Very Ductile Materials at Medium Cutting Conditions







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8350	IC6025	IC8250	IC10	IC6015	IC8150	IC20	IC806	IC807	IC907	IC804	Recommended Machining Data a_p (inch)	f (IPR)
DNMG 331-PP	.458	.375	.187	.016		●		●				●					.016-.118	.0047-.0118
DNMG 332-PP	.458	.375	.187	.031	●			●	●		●						.039-.138	.0047-.0118
DNMG 432-PP	.610	.500	.187	.031	●			●				●					.039-.157	.0047-.0118
DNMG 441-PP	.610	.500	.250	.016										●	●		.020-.157	.0047-.0118
DNMG 442-PP	.610	.500	.250	.031	●	●	●	●		●		●		●	●		.039-.138	.0047-.0118
DNGG 441-PP	.610	.500	.250	.016											●		.020-.157	.0047-.0118
DNGG 442-PP	.610	.500	.250	.031									●		●	●	.039-.157	.0047-.0118

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

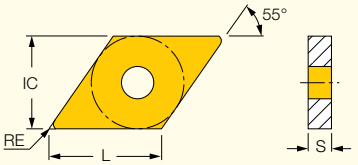
For tools, see pages: A-MDUNR/L (85) • A-PDUNR/L (85) • AVC-DDUNR/L (77) • C#-DDJNR/L (27) • C#-PDJNR/L-JHP (26) • DDJNR/L (26) • DDJNR/L-JHP-MC (27) • HSK A63WH-DDJNR/L (27) • HSK A63WH-DDNNN (28) • MDJNR/L (24) • PDJNR/L (25) • PDJNR/L-4-JHP (25) • S-DDUNR (84)

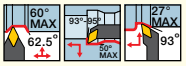
ISOTURN

DNMG-VL

Double-Sided 55° Rhombic Inserts with a Chipformer for High Temperature Alloys and Stainless Steel Valves







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC908	IC806	Recommended Machining Data a_p (inch)	f (IPR)
DNMG 331-VL	.458	.375	.187	.016	●	●	.020-.138	.0039-.0098
DNMG 332-VL	.458	.375	.187	.031	●	●	.020-.138	.0039-.0098
DNMG 431-VL	.610	.500	.187	.016		●	.020-.138	.0039-.0098
DNMG 432-VL	.610	.500	.187	.031	●	●	.020-.138	.0039-.0098

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

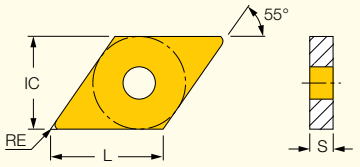
For tools, see pages: A-MDUNR/L (85) • A-PDUNR/L (85) • C#-DDJNR/L (27) • C#-PDJNR/L-JHP (26) • DDJNR/L (26) • DDJNR/L-JHP-MC (27) • HSK A63WH-DDJNR/L (27) • HSK A63WH-DDNNN (28) • MDJNR/L (24) • PDJNR/L (25) • PDJNR/L-4-JHP (25) • S-DDUNR (84) • AVC-DDUNR/L (77)

ISOTURN

DNMG/DNGG-TF

Double-Sided 55° Rhombic Inserts for Machining a Wide Range of Materials at Medium Cutting Conditions







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC8250	IC530N	IC6015	IC8150	IC20	IC20N	IC806	IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
DNMG 331-TF	.458	.375	.187	.016			●	●			●					.039-.118	.0047-.0118
DNMG 333-TF	.458	.375	.187	.047			●									.059-.157	.0059-.0138
DNMG 431-TF	.610	.500	.187	.016	●		●				●			●	●	.039-.118	.0059-.0118
DNMG 432-TF	.610	.500	.187	.031	●	●	●		●	●	●		●	●	●	.039-.138	.0059-.0118
DNMG 433-TF	.610	.500	.187	.047			●									.059-.157	.0047-.0157
DNMG 441-TF	.610	.500	.250	.016		●	●		●	●	●	●		●	●	.039-.118	.0055-.0118
DNMG 442-TF	.610	.500	.250	.031	●	●	●		●	●	●	●	●	●	●	.039-.138	.0059-.0118
DNMG 443-TF	.610	.500	.250	.047	●	●	●		●	●	●		●	●	●	.059-.157	.0043-.0138
DNGG 431-TF	.610	.500	.187	.016											●	.039-.118	.0059-.0118
DNGG 432-TF	.610	.500	.187	.031											●	.039-.138	.0059-.0118

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

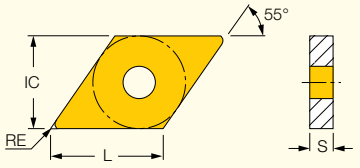
For tools, see pages: A-MDUNR/L (85) • A-PDUNR/L (85) • C#-DDJNR/L (27) • C#-PDJNR/L-JHP (26) • DDJNR/L (26) • DDJNR/L-JHP-MC (27) • HSK A63WH-DDJNR/L (27) • HSK A63WH-DDNNN (28) • MDJNR/L (24) • PDJNR/L (25) • PDJNR/L-4-JHP (25) • S-DDUNR (84) • AVC-DDUNR/L (77)

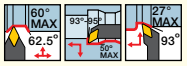
ISOTURN

DNMG-GN

Double-Sided 55° Rhombic Inserts for General Applications







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8350	IC8250	IC8150	IC20N	IC5010	IC428	IC5005	Recommended Machining Data a_p (inch)	f (IPR)
DNMG 332-GN	.458	.375	.187	.031			●	●		●			.039-.157	.0071-.0150
DNMG 333-GN	.458	.375	.187	.047			●	●					.059-.177	.0071-.0150
DNMG 432-GN	.610	.500	.187	.031	●		●	●					.039-.157	.0071-.0071
DNMG 433-GN	.610	.500	.187	.047	●	●	●	●		●			.059-.197	.0071-.0169
DNMG 442-GN	.610	.500	.250	.031	●	●	●	●	●		●	●	.039-.157	.0071-.0150
DNMG 443-GN	.610	.500	.250	.047	●		●	●			●	●	.059-.197	.0071-.0169

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

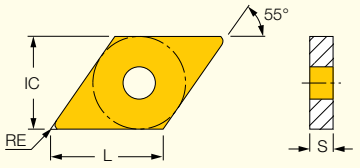
For tools, see pages: A-MDUNR/L (85) • A-PDUNR/L (85) • C#-DDJNR/L (27) • C#-PDJNR/L-JHP (26) • DDJNR/L (26) • DDJNR/L-JHP-MC (27) • HSK A63WH-DDJNR/L (27) • HSK A63WH-DDNNN (28) • MDJNR/L (24) • PDJNR/L (25) • PDJNR/L-4-JHP (25) • S-DDUNR (84) • AVC-DDUNR/L (77)

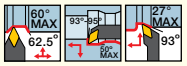
ISOTURN

DNMG-NR

Double-Sided 55° Rhombic Inserts with a Special Chipformer for Heavy Machining







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8250	IC8150	Recommended Machining Data a_p (inch)	f (IPR)
DNMG 443-NR	.610	.500	.250	.047	●	●	.079-.236	.0091-.0197
DNMG 444-NR	.610	.500	.250	.063	●	●	.079-.236	.0098-.0197

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

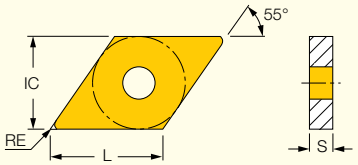
For tools, see pages: A-PDUNR/L (85) • C#-DDJNR/L (27) • C#-PDJNR/L-JHP (26) • DDJNR/L (26) • DDJNR/L-JHP-MC (27) • HSK A63WH-DDJNR/L (27) • HSK A63WH-DDNNN (28) • MDJNR/L (24) • PDJNR/L (25) • PDJNR/L-4-JHP (25) • AVC-DDUNR/L (77)

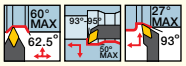
ISOTURN

DNMA

Double-Sided 55° Rhombic Inserts for Short Chipping Materials such as Cast Iron







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC5010	IC428	IC5005	Recommended Machining Data a_p (inch)	f (IPR)
DNMA 433	.610	.500	.187	.047		●	●	.059-.157	.0020-.0157
DNMA 442	.610	.500	.250	.031	●	●	●	.059-.157	.0012-.0157
DNMA 443	.610	.500	.250	.047	●	●	●	.059-.157	.0020-.0157

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

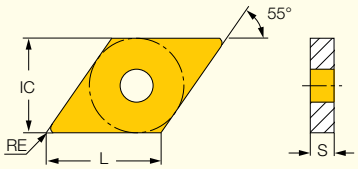
For tools, see pages: A-PDUNR/L (85) • C#-DDJNR/L (27) • C#-PDJNR/L-JHP (26) • DDJNR/L (26) • DDJNR/L-JHP-MC (27) • HSK A63WH-DDJNR/L (27) • HSK A63WH-DDNNN (28) • MDJNR/L (24) • PDJNR/L (25) • PDJNR/L-4-JHP (25) • S-DDUNR (84) • AVC-DDUNR/L (77)

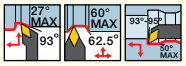
ISOTURN

DNMM-R3P

Single-Sided 55° Rhombic Inserts for Rough Turning Applications on Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	Recommended Machining Data a_p (inch)	f (IPR)
DNMM 442-R3P	.610	.500	.250	.031	●	●	.028-.236	.0079-.0217
DNMM 443-R3P	.610	.500	.250	.047	●	●	.039-.236	.0098-.0276
DNMM 444-R3P	.610	.500	.250	.063	●	●	.059-.236	.0126-.0354

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

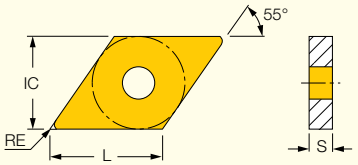
For tools, see pages: A-PDUNR/L (85) • C#-DDJNR/L (27) • C#-PDJNR/L-JHP (26) • DDJNR/L (26) • DDJNR/L-JHP-MC (27) • HSK A63WH-DDJNR/L (27) • HSK A63WH-DDNNN (28) • MDJNR/L (24) • PDJNR/L (25) • PDJNR/L-4-JHP (25) • AVC-DDUNR/L (77)

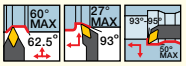
ISOTURN

DNMM-NM

Single-Sided 55° Rhombic Inserts for Roughing Applications







Designation	Dimensions L	IC	S	RE	IC8250	Recommended Machining Data a_p (inch)	f (IPR)
DNMM 443-NM	.610	.500	.250	.047	●	.059-.177	.0098-.0157

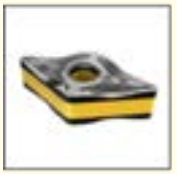
• For user guide and cutting speed recommendations, see pages 100-104, 206-228

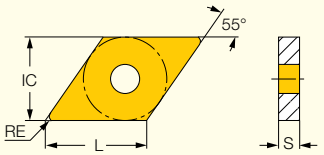
For tools, see pages: A-PDUNR/L (85) • C#-DDJNR/L (27) • C#-PDJNR/L-JHP (26) • DDJNR/L (26) • DDJNR/L-JHP-MC (27) • HSK A63WH-DDJNR/L (27) • HSK A63WH-DDNNN (28) • MDJNR/L (24) • PDJNR/L (25) • PDJNR/L-4-JHP (25) • AVC-DDUNR/L (77)

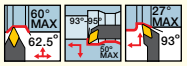
HELITURN LD

DNMX-M3P

Double-Sided 55° Rhombic Inserts with High Helical Cutting Edge for High Metal Removal Rates







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8350	IC6025	IC8250	IC6015	IC8150	IC806	IC807	Recommended Machining Data a_p (inch)	f (IPR)
DNMX 442-M3P	.610	.500	.250	.031	●		●	●	●	●	●	●	.079-.276	.0098-.0197
DNMX 443-M3P	.610	.500	.250	.047	●	●	●	●	●	●	●	●	.098-.276	.0118-.0236
DNMX 444-M3P	.610	.500	.250	.063	●			●		●			.098-.217	.0118-.0236

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

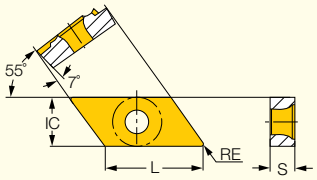
For tools, see pages: A-PDUNR/L (85) • C#-DDJNR/L (27) • C#-PDJNR/L-JHP (26) • DDJNR/L (26) • DDJNR/L-JHP-MC (27) • HSK A63WH-DDJNR/L (27) • HSK A63WH-DDNNN (28) • MDJNR/L (24) • PDJNR/L (25) • PDJNR/L-4-JHP (25)

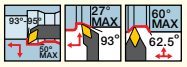
ISOTURN

KNMX

55° Parallelogram Profiling Inserts







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8250	IC8150	IC5010	IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
KNMX 3331-R/LP	.776	.375	.187	.020	●	●		●	●	.039-.157	.0039-.0157
KNMX 3332-LP	.776	.375	.187	.039	●	●	●		●	.059-.157	.0059-.0177

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

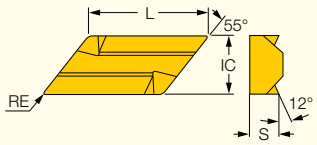
For tools, see pages: CKJNR (28)

ISOTURN

KNUX

55° Parallelogram Profiling Inserts







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC9025	IC9015	IC20	Recommended Machining Data a_p (inch)	f (IPR)
KNUX 3331 R/L11	.776	.375	.187	.020	●	●	●	.039-.157	.0039-.0157
KNUX 3331 R/L12	.776	.375	.187	.020	●	●		.059-.157	.0039-.0157
KNUX 3332 L11	.776	.375	.187	.039	●	●		.059-.157	.0059-.0177
KNUX 3332 L12	.776	.375	.187	.039		●		.059-.157	.0059-.0177

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

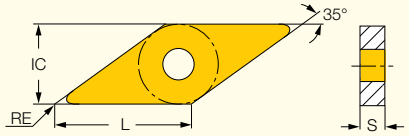
For tools, see pages: CKJNR (28)

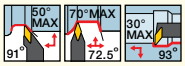
ISOTURN

VNMG-F3P

Double-Sided 35° Rhombic Inserts for Semi-Finishing and Finishing Applications on Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	IC807	Recommended Machining Data a_p (inch)	f (IPR)
VNMG 331-F3P	.654	.375	.187	.016	●	●	●	●	.028-.079	.0027-.0094
VNMG 332-F3P	.654	.375	.187	.031	●	●	●	●	.039-.118	.0031-.0094

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

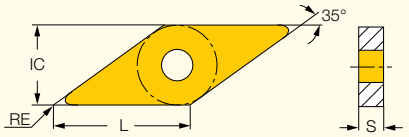
For tools, see pages: AVC-DVUNR/L (77) • MVJNR/L (29) • MVVNN (30)

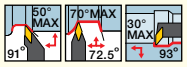
ISOTURN

VNMG-F3M

Double-Sided 35° Rhombic Inserts for Finishing on Stainless Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC6015	IC806	IC807	IC804	Recommended Machining Data a_p (inch)	f (IPR)
VNMG 2.5-0-F3M	.488	.281	.156	.008				●		●	.004-.059	.0012-.0079
VNMG 2.5-1-F3M	.488	.281	.156	.016				●		●	.004-.059	.0020-.0118
VNMG 2.5-2-F3M	.488	.281	.156	.031				●		●	.004-.059	.0020-.0118
VNMG 331-F3M	.654	.375	.187	.016	●	●	●		●		.004-.059	.0020-.0118
VNMG 332-F3M	.654	.375	.187	.031	●				●		.004-.059	.0020-.0118

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

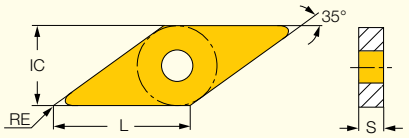
For tools, see pages: A-SVUNR/L (86) • AVC-DVUNR/L (77) • C#-SVJNR/L-F (29) • HSK A63WH-SVVNN-F (30) • MVJNR/L (29) • MVVNN (30) • SVANR/L-FS (28) • SVJNR/L-F (28) • SVVNN-F (29)

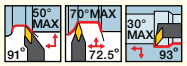
ISOTURN

VNMG-M3M

Double-Sided 35° Rhombic Inserts for Machining Stainless and Low Carbon Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC6015	IC806	IC4	IC804	Recommended Machining Data a_p (inch)	f (IPR)
VNMG 331-M3M	.654	.375	.187	.016	●	●	●	●			.028-.118	.0027-.0079
VNMG 332-M3M	.654	.375	.187	.031	●	●	●	●	●	●	.004-.059	.0020-.0118

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

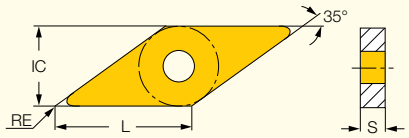
For tools, see pages: AVC-DVUNR/L (77) • MVJNR/L (29) • MVVNN (30)

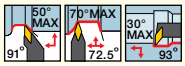
ISOTURN

VNMG-F3S

Double-Sided 35° Rhombic Inserts for Titanium and Heat Resistant Materials. Used for Finishing Applications.







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC806	IC804	Recommended Machining Data a_p (inch)	f (IPR)
VNMG 2.5-0-F3S	.488	.281	.156	.0079	●	●	.004-.059	.0020-.0079
VNMG 2.5-1-F3S	.488	.281	.156	.0157	●	●	.004-.059	.0020-.0118
VNMG 2.5-2-F3S	.488	.281	.156	.0315	●	●	.004-.059	.0020-.0118

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

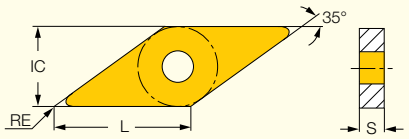
For tools, see pages: A-SVUNR/L (86) • C#-SVJNR/L-F (29) • HSK A63WH-SVVNN-F (30) • SVANR/L-FS (28) • SVJNR/L-F (28) • SVVNN-F (29)

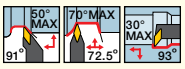
ISOTURN

VNMG-SF

Double-Sided 35° Rhombic Inserts for Super-Finishing







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	.008	●	●	.012-.079	.0012-.0079
VNMG 2.5-1-SF	.488	.281	.156	.016	●	●	.020-.118	.0020-.0098

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

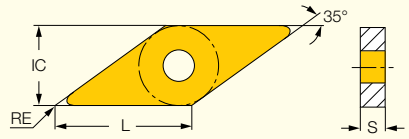
For tools, see pages: A-SVUNR/L (86) • C#-SVJNR/L-F (29) • HSK A63WH-SVVNN-F (30) • SVANR/L-FS (28) • SVJNR/L-F (28) • SVVNN-F (29)

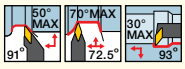
ISOTURN

VNMG-FNF-CERMET

Double-Sided 35° Rhombic Inserts for Semi-Finishing and Finishing Applications







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	.156	.008	●		.020-.118	.0027-.0091
VNMG 2.5-1-FNF	.488	.281	.156	.016	●	●	.020-.118	.0027-.0091
VNMG 2.5-2-FNF	.488	.281	.156	.031	●		.020-.118	.0027-.0091

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

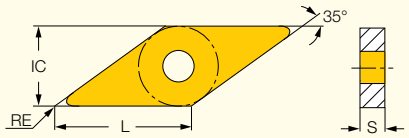
For tools, see pages: A-SVUNR/L (86) • C#-SVJNR/L-F (29) • HSK A63WH-SVVNN-F (30) • SVANR/L-FS (28) • SVJNR/L-F (28) • SVVNN-F (29)

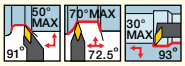
ISOTURN

VNMG/VNGG-NF

Double-Sided 35° Rhombic Inserts for Semi-Finishing and Finishing Applications







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8350	IC6025	IC8250	IC530N	IC10	IC6015	IC8150	IC20	IC20N	IC5010	IC428	IC5005	IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
VNMG 2.5-0-NF	.488	.281	.156	.008	●		●	●		●	●			●				●	●	.016-.098	.0028-.0071
VNMG 2.5-1-NF	.488	.281	.156	.016	●	●	●	●	●	●	●	●		●		●		●	●	.028-.079	.0028-.0094
VNMG 2.5-2-NF	.488	.281	.156	.031	●	●	●	●		●	●	●		●	●	●	●	●	●	.039-.118	.0031-.0094
VNMG 331-NF	.654	.375	.187	.016	●		●	●			●	●						●	●	.028-.098	.0028-.0094
VNMG 332-NF	.654	.375	.187	.031				●					●							.039-.118	.0031-.0098
VNGG 2.5-0-NF	.488	.281	.154	.008															●	.016-.098	.0020-.0067
VNGG 2.5-1-NF	.488	.281	.154	.016															●	.020-.118	.0020-.0098

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

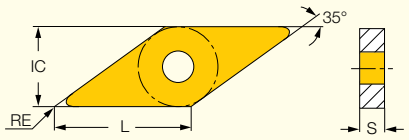
For tools, see pages: A-SVUNR/L (86) • AVC-DVUNR/L (77) • C#-SVJNR/L-F (29) • HSK A63WH-SVVNN-F (30) • MVJNR/L (29) • MVVNN (30) • SVANR/L-FS (28) • SVJNR/L-F (28) • SVVNN-F (29)

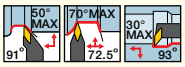
ISOTURN

VNMM-PP

Single-Sided 35° Rhombic Inserts for Machining Very Ductile Materials at Medium Cutting Conditions







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	.016	●	●	.031-.098	.0047-.0079
VNMM 2.5-2-PP	.488	.281	.156	.031	●	●	.039-.098	.0047-.0098

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

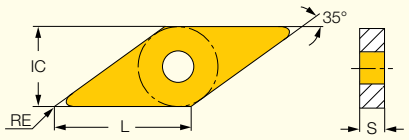
For tools, see pages: A-SVUNR/L (86) • C#-SVJNR/L-F (29) • HSK A63WH-SVVNN-F (30) • SVANR/L-FS (28) • SVJNR/L-F (28) • SVVNN-F (29)

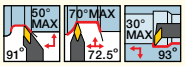
ISOTURN

VNMG-TF

Double-Sided 35° Rhombic Inserts for Machining a Wide Range of Materials at Medium Cutting Conditions







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC8250	IC6015	IC8150	IC806	IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
VNMG 332-TF	.654	.375	.187	.031	●	●	●	●	●	●	●	●	.039-.138	.0039-.0118
VNMG 333-TF	.654	.375	.187	.047							●	●	.039-.157	.0047-.0150
VNMG 432-TF	.866	.500	.187	.031			●						.039-.138	.0055-.0142

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

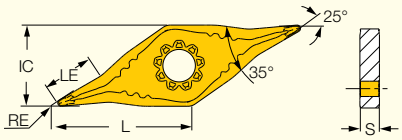
For tools, see pages: AVC-DVUNR/L (77) • MVJNR/L (29) • MVVNN (30)

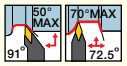
ISOTURN

YNMG-F3P

Double-Sided 25° Corner Inserts for Internal and External Deep and Narrow Profiling and Undercutting







Designation	Dimensions L	IC	LE	S	RE	Tough ↔ Hard IC8250	IC8150	Recommended Machining Data a_p (inch)	f (IPR)
YNMG 331-F3P	.654	.375	.22	.187	.016	●	●	.016-.118	.0012-.0047
YNMG 332-F3P	.654	.375	.21	.187	.031	●	●	.035-.157	.0020-.0059

• Use IYSN 322 seat for these inserts • For user guide, see pages 100-104, 206-228

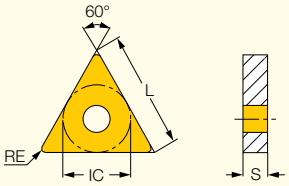
For tools, see pages: MVJNR/L (29) • MVVNN (30)

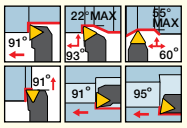
ISOTURN

TNMG-F3P

Double-Sided Triangular Inserts for Semi-Finishing and Finishing Applications







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	.016	●	●	●	●	.020-.079	.0027-.0098
TNMG 332-F3P	.650	.375	.187	.031	●	●	●	●	.035-.118	.0031-.0098
TNMG 333-F3P	.650	.375	.187	.047	●	●	●	●	.051-.157	.0039-.0098
TNMG 432-F3P	.866	.500	.187	.031	●	●	●	●	.035-.118	.0031-.0098
TNMG 433-F3P	.866	.500	.187	.047	●	●	●	●	.051-.157	.0039-.0098

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

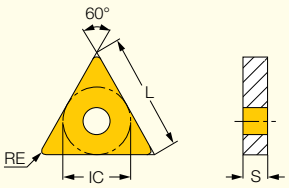
For tools, see pages: A-MTFNR (87) • A-PTFNR/L-X/G (87) • C#-DTGNR/L (32) • DTGNR/L (32) • MTENN-W (34) • MTFNR/L (33) • MTGNR (32) • MTJNR/L (33) • MTJNR/L-W (33) • PTFNR-CA (98) • PTGNR/L-X (31) • PTGNR/L-X-JHP (31)

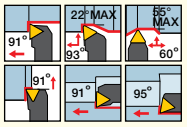
ISOTURN

TNMG-M3P

Double-Sided Triangular Inserts for Medium Machining Conditions on Steel







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	.016	●	●	●	●	.016-.197	.0039-.0118
TNMG 332-M3P	.650	.375	.187	.031	●	●	●	●	.020-.197	.0059-.0197
TNMG 333-M3P	.650	.375	.187	.047	●	●	●	●	.031-.197	.0071-.0236
TNMG 432-M3P	.866	.500	.187	.031	●	●	●	●	.020-.260	.0059-.0197
TNMG 433-M3P	.866	.500	.187	.047	●		●	●	.031-.260	.0071-.0236
TNMG 434-M3P	.866	.500	.187	.063	●	●	●	●	.039-.260	.0091-.0256

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

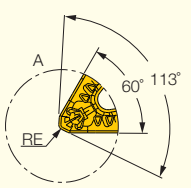
For tools, see pages: A-MTFNR (87) • A-PTFNR/L-X/G (87) • C#-DTGNR/L (32) • DTGNR/L (32) • MTENN-W (34) • MTFNR/L (33) • MTGNR (32) • MTJNR/L (33) • MTJNR/L-W (33) • PTFNR-CA (98) • PTGNR/L-X (31) • PTGNR/L-X-JHP (31)

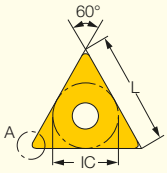
HELITURN LD

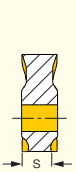
TNMX-M3/4PW

Double-Sided Triangular Inserts with High Helical Cutting Edge for High Metal Removal Rates on Steel











Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	Recommended Machining Data a_p (inch)	f (IPR)
TNMX 341-M3PW	.650	.375	.173	.016	●	●	●	.079-.197	.0098-.0157
TNMX 342-M3PW	.650	.375	.173	.031	●	●	●	.098-.217	.0118-.0197
TNMX 453-M4PW	.866	.500	.291	.047		●	●	.118-.236	.0138-.0236
TNMX 454-M4PW	.866	.500	.291	.063		●	●	.138-.256	.0157-.0276

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

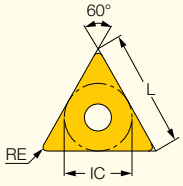
For tools, see pages: A-PTFNR/L-X/G (87) • PTGNR/L-X (31) • PTGNR/L-X-JHP (31)

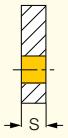
ISOTURN

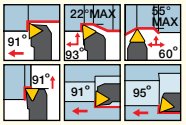
TNMG-F3M

Double-Sided Triangular Inserts for Finish Turning on Stainless and Low Carbon Steel









Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC6025	IC6015	IC20N	IC520N	IC806	IC807	IC804	Recommended Machining Data a_p (inch)	f (IPR)
TNMG 331-F3M	.650	.375	.187	.016	●	●	●	●	●	●	●		.004-.059	.0020-.0126
TNMG 332-F3M	.650	.375	.187	.031	●	●	●	●	●	●	●	●	.004-.059	.0039-.0165
TNMG 333-F3M	.650	.375	.187	.047	●	●	●			●	●		.006-.079	.0059-.0205
TNMG 431-F3M	.866	.500	.187	.016	●	●	●			●	●		.004-.059	.0020-.0126
TNMG 432-F3M	.866	.500	.187	.031	●	●	●			●	●		.004-.059	.0039-.0165
TNMG 433-F3M	.866	.500	.187	.047		●	●			●	●		.006-.079	.0059-.0205

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

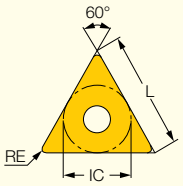
For tools, see pages: A-MTFNR (87) • A-PTFNR/L-X/G (87) • C#-DTGNR/L (32) • DTGNR/L (32) • MTENN-W (34) • MTFNR/L (33) • MTGNR (32) • MTJNR/L (33) • MTJNR/L-W (33) • PTFNR-CA (98) • PTGNR/L-X (31) • PTGNR/L-X-JHP (31)

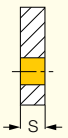
ISOTURN

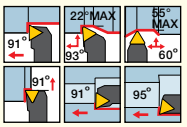
TNMG-M3M

Double-Sided Triangular Inserts for Machining Stainless and Low Carbon Steel









Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC5500	IC6025	IC6015	IC807	IC804	Recommended Machining Data a_p (inch)	f (IPR)
TNMG 331-M3M	.650	.375	.187	.016	●				●		.020-.157	.0059-.0197
TNMG 332-M3M	.650	.375	.187	.031	●	●	●	●	●	●	.020-.157	.0059-.0197
TNMG 333-M3M	.650	.375	.187	.047	●		●	●	●		.020-.157	.0079-.0236
TNMG 432-M3M	.866	.500	.187	.031	●		●	●	●		.020-.197	.0059-.0197
TNMG 433-M3M	.866	.500	.187	.047	●		●	●	●		.020-.197	.0079-.0236
TNMG 434-M3M	.866	.500	.187	.063	●		●	●	●		.020-.197	.0118-.0256

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

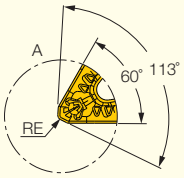
For tools, see pages: A-MTFNR (87) • A-PTFNR/L-X/G (87) • C#-DTGNR/L (32) • DTGNR/L (32) • MTENN-W (34) • MTFNR/L (33) • MTGNR (32) • MTJNR/L (33) • MTJNR/L-W (33) • PTFNR-CA (98) • PTGNR/L-X (31) • PTGNR/L-X-JHP (31)

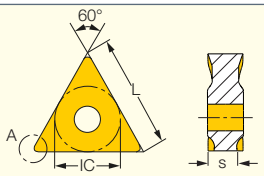
HELITURN LD

TNMX-M3/4MW

Double-Sided Triangular Inserts with High Helical Cutting Edge for High Metal Removal Rates on Stainless Steel









Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC6025	IC6015	IC806	IC807	Recommended Machining Data a_p (inch)	f (IPR)
TNMX 341-M3MW	.650	.375	.173	.016	●	●			.079-.197	.0047-.0157
TNMX 342-M3MW	.650	.375	.173	.031	●	●			.098-.217	.0059-.0197
TNMX 451-M4MW	.866	.500	.313	.016	●	●	●	●	.079-.197	.0047-.0157
TNMX 452-M4MW	.866	.500	.313	.031	●		●	●	.098-.217	.0059-.0197
TNMX 453-M4MW	.866	.500	.313	.047	●	●	●	●	.118-.236	.0071-.0197

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

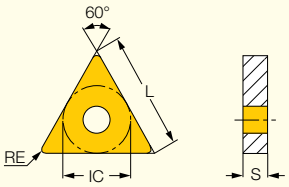
For tools, see pages: A-PTFNR/L-X/G (87) • PTGNR/L-X (31) • PTGNR/L-X-JHP (31)

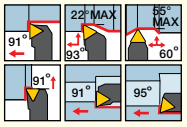
ISOTURN

TNMG-F3S

Double-Sided 60° Triangular Inserts for Titanium and Heat Resistant Materials. Used for Finishing Applications.







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC806	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
TNMG 431-F3S	.866	.500	.187	.0157	●	●	.004-.059	.0020-.0126
TNMG 432-F3S	.866	.500	.187	.0315	●	●	.004-.059	.0039-.0157

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

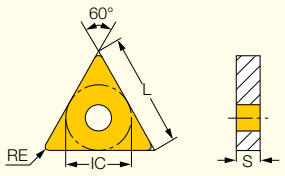
For tools, see pages: A-MTFNR (87) • A-PTFNR/L-X/G (87) • C#-DTGNR/L (32) • DTGNR/L (32) • MTENN-W (34) • MTFNR/L (33) • MTGNR (32) • MTJNR/L (33) • MTJNR/L-W (33) • PTFNR-CA (98) • PTGNR/L-X (31) • PTGNR/L-X-JHP (31)

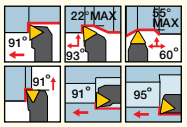
ISOTURN

TNMG-FFG-CERMET

Double-Sided Triangular Inserts for Semi-Finishing and Finishing Applications on Steel and Cast Iron







Designation	Dimensions L	IC	S	RE	IC520N	Recommended Machining Data a_p (inch)	f (IPR)
TNMG 331-FFG	.650	.375	.187	.016	●	.020-.079	.0027-.0098
TNMG 332-FFG	.650	.375	.187	.031	●	.035-.098	.0031-.0098

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

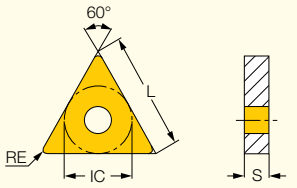
For tools, see pages: A-MTFNR (87) • A-PTFNR/L-X/G (87) • DTGNR/L (32) • MTENN-W (34) • MTFNR/L (33) • MTGNR (32) • MTJNR/L (33) • MTJNR/L-W (33) • PTFNR-CA (98) • PTGNR/L-X (31) • PTGNR/L-X-JHP (31)

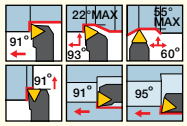
ISOTURN

TNMG-SF

Triangular Double-Sided Inserts for Super-Finishing; Controls Chip Flow at Very Low Feeds and Depths of Cut







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	.016		●	●	.016-.079	.0016-.0098
TNMG 332-SF	.650	.375	.187	.031	●	●		.039-.118	.0024-.0118

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

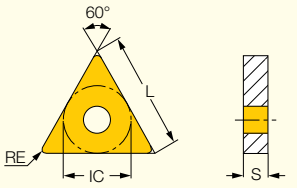
For tools, see pages: A-MTFNR (87) • A-PTFNR/L-X/G (87) • DTGNR/L (32) • MTENN-W (34) • MTFNR/L (33) • MTGNR (32) • MTJNR/L (33) • MTJNR/L-W (33) • PTFNR-CA (98) • PTGNR/L-X (31) • PTGNR/L-X-JHP (31)

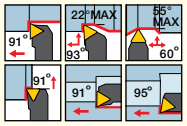
ISOTURN

TNMG-PF

Triangular Double-Sided Inserts for Finishing on Alloyed and Stainless Steel







Designation	Dimensions L	IC	S	RE	IC8150	Recommended Machining Data a_p (inch)	f (IPR)
TNMG 332-PF	.650	.375	.187	.031	●	.031-.118	.0031-.0118

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

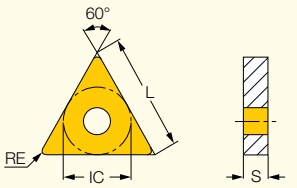
For tools, see pages: A-MTFNR (87) • A-PTFNR/L-X/G (87) • DTGNR/L (32) • MTENN-W (34) • MTFNR/L (33) • MTGNR (32) • MTJNR/L (33) • MTJNR/L-W (33) • PTFNR-CA (98) • PTGNR/L-X (31) • PTGNR/L-X-JHP (31)

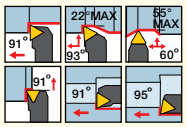
ISOTURN

TNMG-TF

Double-Sided Triangular Inserts for Machining a Wide Range of Materials at Medium Cutting Conditions







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC908	IC6015	IC8150	IC20	IC20N	IC806	IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
TNMG 321-TF	.650	.375	.125	.016		●									.039-.118	.0047-.0118
TNMG 322-TF	.650	.375	.125	.031										●	.039-.118	.0047-.0118
TNMG 331-TF	.650	.375	.187	.016	●	●		●	●	●		●	●	●	.039-.118	.0047-.0118
TNMG 332-TF	.650	.375	.187	.031	●	●	●	●	●		●	●	●	●	.039-.118	.0047-.0118
TNMG 333-TF	.650	.375	.187	.047		●			●				●	●	.039-.197	.0047-.0157
TNMG 431-TF	.866	.500	.187	.016	●	●			●				●	●	.039-.138	.0055-.0138
TNMG 432-TF	.866	.500	.187	.031		●			●			●	●	●	.039-.157	.0059-.0157
TNMG 433-TF	.866	.500	.187	.047		●							●	●	.039-.177	.0071-.0157

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

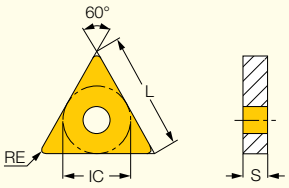
For tools, see pages: A-MTFNR (87) • A-PTFNR/L-X/G (87) • C#-DTGNR/L (32) • DTGNR/L (32) • MTENN-W (34) • MTFNR/L (33) • MTGNR (32) • MTJNR/L (33) • MTJNR/L-W (33) • PTFNR-CA (98) • PTGNR/L-X (31) • PTGNR/L-X-JHP (31)

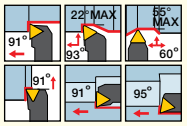
ISOTURN

TNMG-VL

Double-Sided Triangular Inserts with a Chipformer for High Temperature Alloys and Stainless Steel Valves







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	.016		●			.031-.138	.0039-.0098
TNMG 332-VL	.650	.375	.187	.031	●	●	●	●	.031-.138	.0039-.0098

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

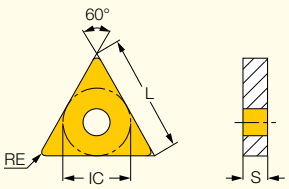
For tools, see pages: A-MTFNR (87) • A-PTFNR/L-X/G (87) • DTGNR/L (32) • MTENN-W (34) • MTFNR/L (33) • MTGNR (32) • MTJNR/L (33) • MTJNR/L-W (33) • PTFNR-CA (98) • PTGNR/L-X (31) • PTGNR/L-X-JHP (31)

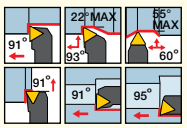
ISOTURN

TNMG/TNGG-PP

Double-Sided Triangular Inserts for Machining Very Ductile Materials at Medium Cutting Conditions







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8350	IC8250	IC8150	IC20	IC907	Recommended Machining Data a_p (inch)	f (IPR)
TNGG 330.5-PP	.650	.375	.187	.008						●	.020-.059	.0020-.0098
TNMG 331-PP	.650	.375	.187	.016		●	●		●		.020-.118	.0051-.0118
TNMG 332-PP	.650	.375	.187	.031	●		●	●	●		.039-.118	.0047-.0118
TNMG 431-PP	.866	.500	.187	.016	●		●				.020-.138	.0055-.0126
TNMG 432-PP	.866	.500	.187	.031			●	●	●		.039-.138	.0055-.0126

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

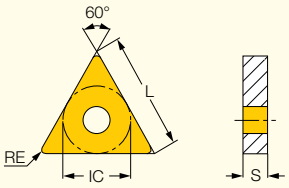
For tools, see pages: A-MTFNR (87) • A-PTFNR/L-X/G (87) • C#-DTGNR/L (32) • DTGNR/L (32) • MTENN-W (34) • MTFNR/L (33) • MTGNR (32) • MTJNR/L (33) • MTJNR/L-W (33) • PTFNR-CA (98) • PTGNR/L-X (31) • PTGNR/L-X-JHP (31)

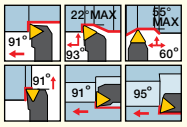
ISOTURN

TNMG-NF

Double-Sided Triangular Inserts for Semi-Finishing and Finishing Applications







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8250	IC8150	Recommended Machining Data a_p (inch)	f (IPR)
TNMG 221-NF	.433	.250	.125	.016	●		.016-.079	.0028-.0098
TNMG 332-NF	.650	.375	.187	.031	●	●	.039-.118	.0031-.0098

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

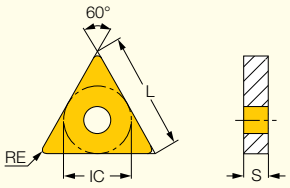
For tools, see pages: A-MTFNR (87) • A-PTFNR/L-X/G (87) • DTGNR/L (32) • MTENN-W (34) • MTFNR/L (33) • MTGNR (32) • MTJNR/L (33) • MTJNR/L-W (33) • PTFNR-CA (98) • PTGNR/L-X (31) • PTGNR/L-X-JHP (31)

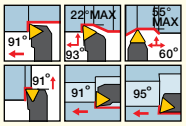
ISOTURN

TNMG-GN

Double-Sided Triangular Inserts
for General Applications







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8350	IC8250	IC8150	IC20	IC5010	IC428	IC5005	IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
TNMG 331-GN	.650	.375	.187	.016							●	●			.039-.118	.0047-.0118
TNMG 332-GN	.650	.375	.187	.031	●	●	●	●	●	●	●	●	●	●	.039-.138	.0071-.0154
TNMG 333-GN	.650	.375	.187	.047			●	●							.059-.157	.0071-.0169
TNMG 432-GN	.866	.500	.187	.031	●	●	●	●							.039-.157	.0071-.0157
TNMG 433-GN	.866	.500	.187	.047	●	●	●								.059-.177	.0071-.0177
TNMG 434-GN	.866	.500	.187	.063			●								.079-.197	.0098-.0177
TNMG 543-GN	1.083	.625	.250	.047	●		●								.079-.236	.0098-.0177

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

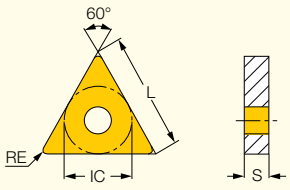
For tools, see pages: A-MTFNR (87) • A-PTFNR/L-X/G (87) • C#-DTGNR/L (32) • DTGNR/L (32) • MTENN-W (34) • MTFNR/L (33) • MTGNR (32) • MTJNR/L (33) • MTJNR/L-W (33) • PTFNR-CA (98) • PTGNR/L-X (31) • PTGNR/L-X-JHP (31)

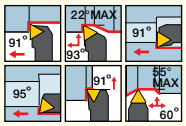
ISOTURN

TNMM-NR

Single-Sided Triangular Inserts
with a Special Chipformer
for Heavy Machining







Designation	Dimensions L	IC	S	RE	IC8150	Recommended Machining Data a_p (inch)	f (IPR)
TNMM 434-NR	.866	.500	.187	.063	●	.098-.236	.0118-.0197

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

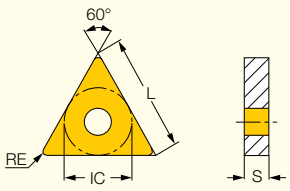
For tools, see pages: A-MTFNR (87) • C#-DTGNR/L (32) • DTGNR/L (32) • MTFNR/L (33) • MTGNR (32) • MTJNR/L (33) • MTJNR/L-W (33)

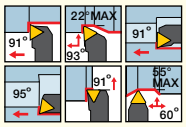
ISOTURN

TNMA

Double-Sided Triangular
Inserts with No Chipformer
for Short Chipping Materials
Such as Cast Iron







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC20	IC5010	IC428	IC5005	Recommended Machining Data a_p (inch)	f (IPR)
TNMA 331	.650	.375	.187	.016		●	●	●	.020-.118	.0020-.0083
TNMA 332	.650	.375	.187	.031	●	●	●	●	.039-.157	.0020-.0098
TNMA 333	.650	.375	.187	.047		●	●	●	.059-.177	.0039-.0114
TNMA 334	.650	.375	.187	.063		●			.059-.177	.0039-.0157
TNMA 432	.866	.500	.187	.031	●		●	●	.059-.197	.0020-.0130
TNMA 433	.866	.500	.187	.047		●	●	●	.059-.197	.0039-.0130
TNMA 434	.866	.500	.187	.063			●	●	.059-.197	.0039-.0146

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

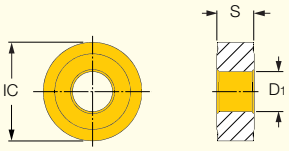
For tools, see pages: A-MTFNR (87) • A-PTFNR/L-X/G (87) • C#-DTGNR/L (32) • DTGNR/L (32) • MTENN-W (34) • MTFNR/L (33) • MTGNR (32) • MTJNR/L (33) • MTJNR/L-W (33) • PTFNR-CA (98) • PTGNR/L-X (31) • PTGNR/L-X-JHP (31)

ISOTURN

RNMG

Double-Sided Round Negative Insert for Medium and Rough Profiling







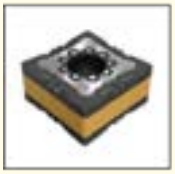
Designation	Dimensions IC	S	D1	Tough ↔ Hard IC8250	IC8150	Recommended Machining Data ap (inch)	f (IPR)
RNMG 43	.500	.187	.203	●	●	.079-.197	.0118-.0236

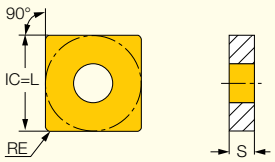
• For user guide and cutting speed recommendations, see pages 100-104, 206-228

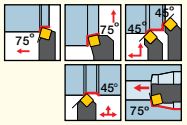
ISOTURN

SNMG-F3P

Double-Sided Square Inserts for Semi-Finishing and Finishing on Steel







Designation	Dimensions IC	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	IC20N	IC520N	IC807	Recommended Machining Data ap (inch)	f (IPR)
SNMG 331-F3P	.375	.187	.016	●	●	●	●		●	.020-.138	.0028-.0098
SNMG 332-F3P	.375	.187	.031	●			●	●	●	.035-.138	.0031-.0098
SNMG 432-F3P	.500	.187	.031	●	●	●			●	.035-.138	.0031-.0098
SNMG 433-F3P	.500	.187	.047	●	●	●			●	.035-.138	.0039-.0098

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

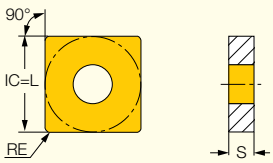
For tools, see pages: A-PSKNR/L-3 (92) • C#-MULNR/L-MW (12) • DSSNR/L (34) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MSDNN (35) • MSSNR (35) • MULNR/L-MW (11) • PSBNR/L (37) • PSKNR/L-CA (98) • PSSNR-CA (98) • PSSNR/L (36) • PSSNR/L-JHP (36)

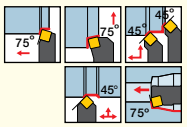
ISOTURN

SNMG-M3P

Double-Sided Square Inserts for Medium Machining Conditions on Steel







Designation	Dimensions IC	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	IC807	Recommended Machining Data ap (inch)	f (IPR)
SNMG 331-M3P	.375	.187	.016	●	●	●	●	.020-.138	.0059-.0197
SNMG 332-M3P	.375	.187	.031	●	●	●	●	.020-.138	.0059-.0216
SNMG 432-M3P	.500	.187	.031	●	●	●	●	.020-.236	.0059-.0197
SNMG 433-M3P	.500	.187	.047	●		●	●	.031-.236	.0071-.0236
SNMG 543-M3P	.625	.250	.047	●	●		●	.031-.295	.0071-.0236
SNMG 544-M3P	.625	.250	.063	●		●	●	.047-.295	.0079-.0276

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

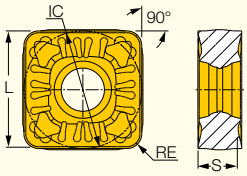
For tools, see pages: A-PSKNR/L-3 (92) • C#-MULNR/L-MW (12) • DSDNN (34) • DSSNR/L (34) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MSDNN (35) • MSSNR (35) • MULNR/L-MW (11) • PSBNR/L (37) • PSKNR/L-CA (98) • PSSNR-CA (98) • PSSNR/L (36) • PSSNR/L-JHP (36)

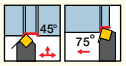
DOVEIQTURN HEAVY DUTY LINE

SOMG-R3P-IQ

Double-Sided 7° Negative Side Flank Square Inserts for Heavy Turning on Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8250	IC8150	Recommended Machining Data a_p (inch)	f (IPR)
SOMG 543-R3P-IQ	.625	.625	.250	.047	●	●	.079-.354	.0118-.0236
SOMG 544-R3P-IQ	.625	.625	.250	.063	●	●	.079-.354	.0118-.0276
SOMG 643-R3P-IQ	.750	.750	.250	.047	●	●	.118-.472	.0118-.0315
SOMG 644-R3P-IQ	.750	.750	.250	.063	●	●	.138-.472	.0138-.0335
SOMG 646-R3P-IQ	.750	.750	.250	.094	●	●	.138-.472	.0157-.0394
SOMG 866-R3P-IQ	1.000	1.000	.375	.094	●	●	.157-.591	.0157-.0394

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

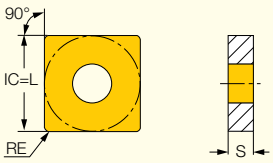
For tools, see pages: C#-PSROR/L-IQ (37) • PSBOR/L-IQ (36) • PSDON-IQ (35)

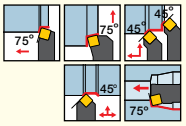
ISOTURN

SNMG-F3M

Double-Sided Square Inserts for Stainless Steel Finishing Applications







Designation	Dimensions IC	S	RE	Tough ↔ Hard IC830	IC6025	IC6015	IC806	IC807	IC804	Recommended Machining Data a_p (inch)	f (IPR)
SNMG 331-F3M	.375	.187	.016		●	●	●	●		.020-.138	.0020-.0118
SNMG 332-F3M	.375	.187	.031	●			●	●		.020-.138	.0020-.0118
SNMG 431-F3M	.500	.187	.016	●			●	●		.035-.138	.0039-.0157
SNMG 432-F3M	.500	.187	.031	●	●	●	●	●	●	.035-.138	.0039-.0157
SNMG 433-F3M	.500	.187	.047	●	●	●	●	●		.035-.138	.0039-.0157

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

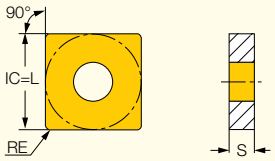
For tools, see pages: A-PSKNR/L-3 (92) • C#-MULNR/L-MW (12) • DSSNR/L (34) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MSDNN (35) • MSSNR (35) • MULNR/L-MW (11) • PSBNR/L (37) • PSKNR/L-CA (98) • PSSNR-CA (98) • PSSNR/L (36) • PSSNR/L-JHP (36)

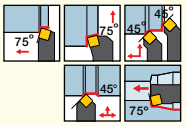
ISOTURN

SNMG-M3M

Double-Sided Square Inserts with a Special Chipformer for Heavy Machining







Designation	Dimensions IC	S	RE	Tough ↔ Hard IC830	IC6025	IC6015	IC806	IC807	IC804	Recommended Machining Data a_p (inch)	f (IPR)
SNMG 331-M3M	.375	.187	.016	●				●		.020-.177	.0059-.0197
SNMG 332-M3M	.375	.187	.031	●	●	●		●		.020-.177	.0059-.0197
SNMG 432-M3M	.500	.187	.031	●	●	●		●	●	.020-.197	.0059-.0197
SNMG 433-M3M	.500	.187	.047	●	●	●	●	●		.020-.197	.0079-.0236
SNMG 434-M3M	.500	.187	.063	●	●	●				.020-.197	.0098-.0276
SNMG 543-M3M	.625	.250	.047	●	●	●		●		.020-.315	.0039-.0236
SNMG 544-M3M	.625	.250	.063	●	●	●		●		.020-.315	.0039-.0256
SNMG 643-M3M	.750	.250	.047		●	●				.004-.374	.0039-.0236
SNMG 644-M3M	.750	.250	.063		●	●				.004-.374	.0039-.0256

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

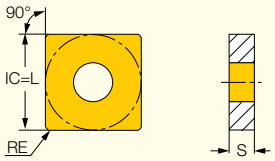
For tools, see pages: A-PSKNR/L-3 (92) • C#-MULNR/L-MW (12) • DSDNN (34) • DSSNR/L (34) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MSDNN (35) • MSSNR (35) • MULNR/L-MW (11) • PSBNR/L (37) • PSKNR/L-CA (98) • PSSNR-CA (98) • PSSNR/L (36) • PSSNR/L-JHP (36)

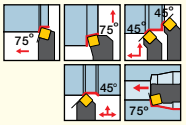
ISOTURN

SNMG-R3M

Double-Sided 90° Square Inserts for Rough Machining on Stainless and Low Carbon Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC806	Recommended Machining Data a_p (inch)	f (IPR)
SNMG 643 R3M	.750	.750	.250	.047		●	.079-.433	.0118-.0354
SNMG 644-R3M	.750	.750	.250	.063	●	●	.079-.433	.0118-.0354

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

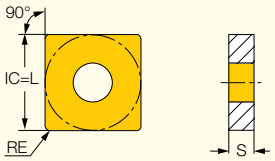
For tools, see pages: DSSNR/L (34)

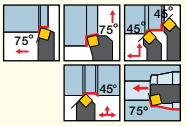
ISOTURN

SNMG-F3S

Double-Sided 90° Square Inserts for Titanium and Heat Resistant Materials. Used for Finishing Applications.







Designation	Dimensions IC	S	RE	Tough ↔ Hard IC806	IC804	Recommended Machining Data a_p (inch)	f (IPR)
SNMG 331-F3S	.375	.187	.0157	●	●	.004-.059	.0020-.0138
SNMG 332-F3S	.375	.187	.0315	●	●	.004-.059	.0020-.0138
SNMG 431-F3S	.500	.187	.0157	●	●	.004-.059	.0020-.0138
SNMG 432-F3S	.500	.187	.0315	●	●	.004-.059	.0020-.0138

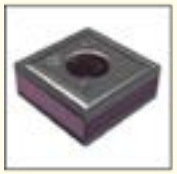
• For user guide and cutting speed recommendations, see pages 100-104, 206-228

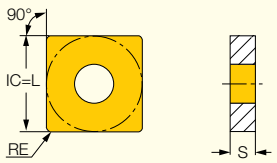
For tools, see pages: A-PSKNR/L-3 (92) • C#-MULNR/L-MW (12) • DSSNR/L (34) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MSDNN (35) • MSSNR (35) • MULNR/L-MW (11) • PSBNR/L (37) • PSKNR/L-CA (98) • PSSNR-CA (98) • PSSNR/L (36) • PSSNR/L-JHP (36)

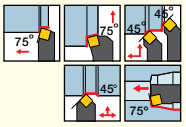
ISOTURN

SNMG-VL

Double-Sided Square Insert with a Chipformer for High Temperature Alloys and Stainless Steel Valves







Designation	Dimensions IC	S	RE	Tough ↔ Hard IC806	IC907	Recommended Machining Data a_p (inch)	f (IPR)
SNMG 431-VL	.500	.187	.016	●		.039-.197	.0039-.0098
SNMG 432-VL	.500	.187	.031	●	●	.039-.197	.0039-.0098

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

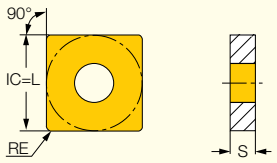
For tools, see pages: C#-MULNR/L-MW (12) • DSSNR/L (34) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MSDNN (35) • MSSNR (35) • MULNR/L-MW (11) • PSKNR/L-CA (98) • PSSNR-CA (98)

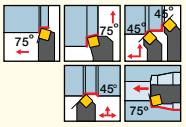
ISOTURN

SNMG-PP

Double-Sided Square Inserts for Machining Very Ductile Materials at Medium Cutting Conditions







Designation	Dimensions IC	S	RE	IC830	Recommended Machining Data a_p (inch)	f (IPR)
SNMG 432-PP	.500	.187	.031	●	.039-.157	.0055-.0118

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

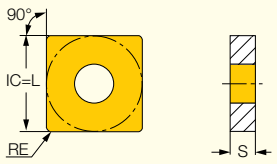
For tools, see pages: C#-MULNR/L-MW (12) • DSSNR/L (34) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MSDNN (35) • MSSNR (35) • MULNR/L-MW (11) • PSKNR/L-CA (98) • PSSNR-CA (98)

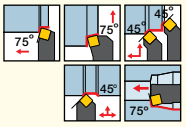
ISOTURN

SNMG-TF

Double-Sided Square Inserts for Machining a Wide Range of Materials at Medium Cutting Conditions







Designation	Dimensions IC	S	RE	Tough ↔ Hard IC830	IC8250	IC6015	IC8150	IC20	IC806	IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
SNMG 322-TF	.375	.125	.016		●							.031-.118	.0039-.0118
SNMG 431-TF	.500	.187	.016		●						●	.039-.157	.0047-.0138
SNMG 432-TF	.500	.187	.031	●	●	●			●	●	●	.039-.157	.0051-.0138
SNMG 433-TF	.500	.187	.047	●	●		●	●		●	●	.059-.157	.0059-.0157

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

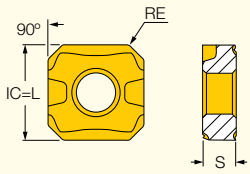
For tools, see pages: A-PSKNR/L-3 (92) • C#-MULNR/L-MW (12) • DSSNR/L (34) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MSDNN (35) • MSSNR (35) • MULNR/L-MW (11) • PSBNR/L (37) • PSKNR/L-CA (98) • PSSNR-CA (98) • PSSNR/L (36) • PSSNR/L-JHP (36)

ISOTURN

SNMG-EM-M/R

Double-Sided Square Inserts
for Medium Machining on
High Temperature Alloys







Designation	Dimensions IC	S	RE	Tough ↔ Hard IC806	IC907	Recommended Machining Data a_p (inch)	f (IPR)
SNMG 432-EM-M	.500	.187	.031	●		.039-.118	.0080-.0160
SNMG 432-EM-R	.500	.187	.031	●	●	.118-.236	.0098-.0197

- Requires the use of RST 443R/L SET - seat when used on DSSNR/L tools and TSN 423-PIN SET seat when used on PSSNR/L-JHP and PSDNN-JHP tools
- For user guide and cutting speed recommendations, see pages 100-104, 206-228

For tools, see pages: DSSNR/L (34)

The insert has 4 cutting edges (2 on each side) with truncated radii – a configuration which facilitates heat transfer from the cutting area.
The two edges without chipbreakers (flat) are not used.
The inserts are produced from grade **IC907.** This is a fine grain **PVD** coated substrate, which is our best grade for machining **HTA**.

Toolholders
These inserts require the use of **RST 443R/L SET -** special seats. These seats were designed to be used on the **R-**Clamp holders: **DSSNR/L ...4**.
The standard seat should be replaced with the special one which has a pin whose purpose is to prevent using the non-working flat cutting corners.

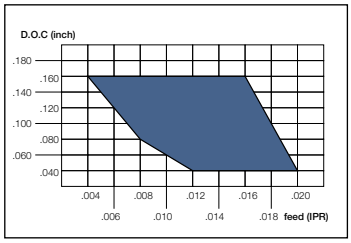
Advantages
- Increased cutting speed (due to better heat transfer)
- Reduced notch wear (due to 45º approach angle)
- Increased feed (the 45º approach angle produces a thin chip)
- Increased productivity of up to **50%**
- Ability to machine in two directions with the same tool, longitudinal and face turning


Correct insert position

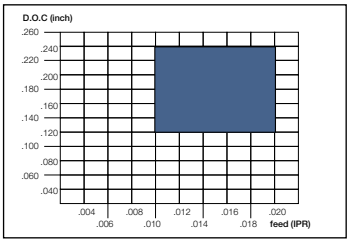

Wrong positioning


Orientation pin

Chipbreaking Range
SNMG 120408-EM-M



Chipbreaking Range
SNMG 120408-EM-R



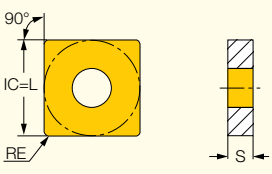
Material: Inconel **718** Vc: **150** sfm With coolant

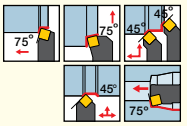
ISOTURN

SNMG-GN

Double-Sided Square Inserts
for General Applications







Designation	Dimensions IC	S	RE	Tough ↔ Hard IC830	IC8350	IC8250	IC8150	IC20	IC5010	IC428	IC5005	Recommended Machining Data a_p (inch)	f (IPR)
SNMG 432-GN	.500	.187	.031		●	●	●	●	●	●	●	.039-.197	.0079-.0177
SNMG 433-GN	.500	.187	.047				●					.055-.197	.0098-.0197
SNMG 543-GN	.625	.250	.047	●		●		●				.079-.276	.0118-.0236
SNMG 643-GN	.750	.250	.047	●	●	●						.079-.276	.0118-.0236
SNMG 644-GN	.750	.250	.063	●								.079-.354	.0118-.0256

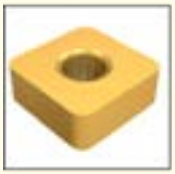
- For user guide and cutting speed recommendations, see pages 100-104, 206-228

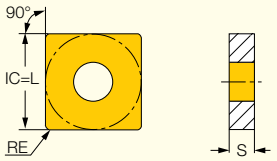
For tools, see pages: C#-MULNR/L-MW (12) • DSDNN (34) • DSSNR/L (34) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MSDNN (35) • MSSNR (35) • MULNR/L-MW (11) • PSKNR/L-CA (98) • PSSNR-CA (98)

ISOTURN

SNMA

Double-Sided Square Inserts
Without a Chipformer for
Short Chipping Materials





Designation	Dimensions IC	S	RE	Tough ↔ Hard IC20	IC5010	IC428	IC5005	Recommended Machining Data a_p (inch)	f (IPR)
SNMA 432	.500	.187	.031	●	●	●	●	.059-.197	.0020-.0197
SNMA 433	.500	.187	.047	●	●	●	●	.059-.197	.0039-.0197
SNMA 434	.500	.187	.063		●	●	●	.079-.236	.0039-.0236
SNMA 643	.750	.250	.047	●	●		●	.079-.276	.0039-.0236
SNMA 644	.750	.250	.063		●	●		.098-.394	.0039-.0236

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

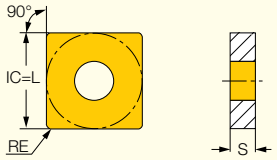
For tools, see pages: C#-MULNR/L-MW (12) • DSSNR/L (34) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MSDNN (35) • MSSNR (35) • MULNR/L-MW (11) • PSKNR/L-CA (98) • PSSNR-CA (98)

ISOTURN

SNMG-NR

Double-Sided Square Inserts
with a Special Chipformer
for Heavy Machining





Designation	Dimensions IC	S	RE	Tough ↔ Hard IC830	IC8350	IC8250	IC8150	IC5010	IC428	IC5005	IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
SNMG 433-NR	.500	.187	.047			●			●	●			.079-.197	.0118-.0276
SNMG 434-NR	.500	.187	.063		●	●	●						.098-.236	.0118-.0276
SNMG 542-NR	.625	.250	.031			●							.098-.315	.0118-.0276
SNMG 543-NR	.625	.250	.047		●	●							.098-.315	.0118-.0276
SNMG 544-NR	.625	.250	.063			●	●	●		●			.098-.315	.0118-.0276
SNMG 643-NR	.750	.250	.047			●					●	●	.118-.315	.0157-.0276
SNMG 644-NR	.750	.250	.063	●	●	●	●						.138-.394	.0157-.0276
SNMG 856-NR	1.000	.313	.094		●								.197-.591	.0157-.0394
SNMG 866-NR	1.000	.375	.094	●	●	●							.197-.591	.0157-.0394

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

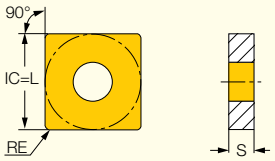
For tools, see pages: C#-MULNR/L-MW (12) • DSDNN (34) • DSSNR/L (34) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MSDNN (35) • MSSNR (35) • MULNR/L-MW (11) • PSKNR/L-CA (98) • PSSNR-CA (98)

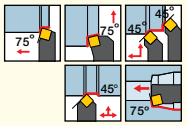
ISOTURN

SNMM-R3P

Single-Sided Square Inserts for Rough Turning Applications on Steel







Designation	Dimensions IC	S	RE	Tough ↔ Hard IC830	IC8350	IC8250	IC8150	Recommended Machining Data a_p (inch)	f (IPR)
SNMM 432-R3P	.500	.187	.031	●		●	●	.028-.295	.0079-.0217
SNMM 433-R3P	.500	.187	.047	●		●	●	.039-.295	.0098-.0276
SNMM 434-R3P	.500	.187	.063	●		●		.079-.295	.0118-.0354
SNMM 543-R3P	.625	.250	.047	●		●	●	.079-.374	.0118-.0276
SNMM 544-R3P	.625	.250	.063	●		●	●	.098-.374	.0118-.0354
SNMM 643-R3P	.750	.250	.047	●		●	●	.118-.472	.0098-.0315
SNMM 644-R3P	.750	.250	.063	●	●	●	●	.138-.472	.0118-.0354
SNMM 646-R3P	.750	.250	.094	●		●	●	.138-.472	.0118-.0472
SNMM 866-R3P	1.000	.375	.094	●		●	●	.157-.591	.0157-.0472

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

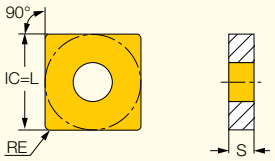
For tools, see pages: C#-MULNR/L-MW (12) • DSDNN (34) • DSSNR/L (34) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MSDNN (35) • MSSNR (35) • MULNR/L-MW (11) • PSKNR/L-CA (98) • PSSNR-CA (98)

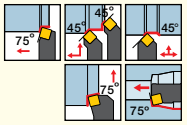
ISOTURN

SNMM-NM

Single-Sided Square Inserts for Roughing Applications







Designation	Dimensions IC	S	RE	Tough ↔ Hard IC830	IC8250	Recommended Machining Data a_p (inch)	f (IPR)
SNMM 644-NM	.750	.250	.063	●	●	.098-.394	.0118-.0276

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

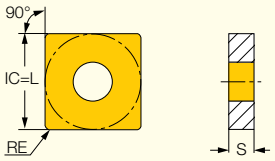
For tools, see pages: DSSNR/L (34)

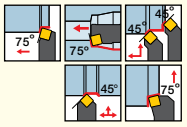
ISOTURN

SNMM-NR

Single-Sided Square Inserts with a Special Chipformer for Heavy Machining







Designation	Dimensions IC	S	RE	Tough ↔ Hard IC8350	IC8250	IC8150	Recommended Machining Data a_p (inch)	f (IPR)
SNMM 644-NR	.750	.250	.063		●		.098-.315	.0138-.0394
SNMM 856-NR	1.000	.313	.094	●	●	●	.197-.591	.0138-.0394

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

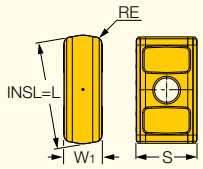
For tools, see pages: DSSNR/L (34)

HEAVY SUPER TURN

LOMX-H6P

Tangential Inserts with 4 Cutting Edges for High Metal Removal of up to 1.4" D.O.C. on Steel





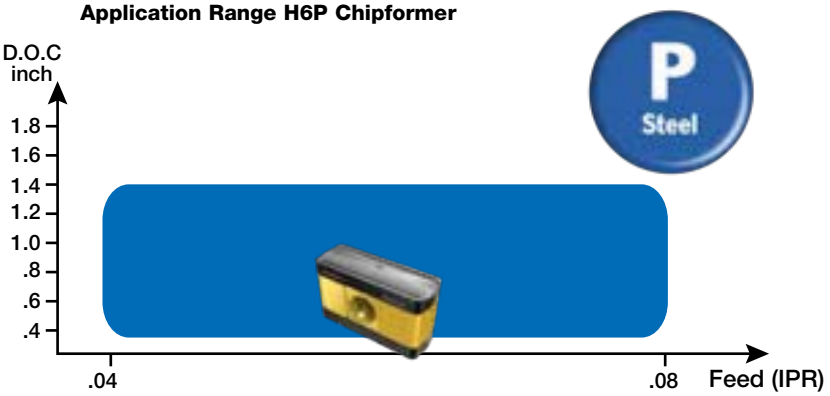


Designation	Dimensions W1	INSL	S	RE	Tough ↔ Hard IC8250	IC8150	Recommended Machining Data ap (inch)	f (IPR)
LOMX 402224-H6P	.567	1.587	.890	.094	●	●	.276-1.378	.0394-.0787

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

For tools, see pages: PLBOR/L (38)

Application Range H6P Chipformer

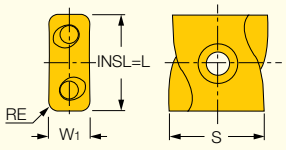


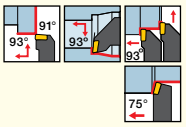
HELITURN TANGENTIAL LINE

LNMX-HT

Tangential Inserts with 4 Cutting Edges and a Positive Rake Angle for High Metal Removal Rates







Designation	Dimensions W1	INSL	S	RE	Tough ↔ Hard IC830	IC8350	IC8250	IC908	IC8150	IC428	IC5005	IC807	IC907	Recommended Machining Data ap (inch)	f (IPR)
LNMX 110408R/L-HT	.187	.433	.449	.031	●	●	●	●	●	●		●	●	.020-.197	.0059-.0236
LNMX 110412R/L-HT	.187	.433	.449	.047	●		●	●	●	●				.031-.197	.0079-.0315
LNMX 150608R/L-HT	.252	.591	.528	.031	●	●	●	●	●	●	●	●	●	.039-.236	.0098-.0236
LNMX 150612R/L-HT	.252	.591	.528	.047	●	●	●	●	●	●	●		●	.059-.276	.0118-.0315
LNMX 150616L-HT	.252	.591	.528	.063	●	●	●	●	●	●	●		●	.079-.315	.0118-.0394
LNMX 221016R/L-HT	.370	.866	.787	.063		●	●		●					.157-.591	.0118-.0394
LNMX 221024R/L-HT	.370	.866	.787	.094		●	●		●					.197-.591	.0118-.0433

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

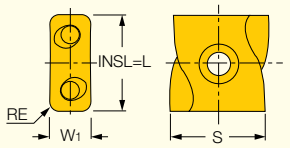
For tools, see pages: C#-SLANR/L-TANG (40) • PLANR/L-TANG (38) • S-SLANR/L-TANG (79) • SLANR/L-15-TANG-JHP (40) • SLANR/L-TANG (39) • SLFNR-TANG (41)

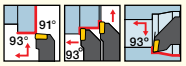
HELITURN TANGENTIAL LINE

LNMX-HM

Tangential Inserts with a Positive Rake Angle for High Metal Removal on Soft and Ductile Materials







Designation	Dimensions INSL	W1	S	RE	Tough ↔ Hard IC8250	IC6015	IC806	IC807	IC907	Recommended Machining Data ap (inch)	f (IPR)
LNMX 110408R/L-HM	.433	.187	.449	.031	●	●		●		.039-.197	.0039-.0157
LNMX 110412R/L-HM	.433	.187	.449	.047	●	●				.039-.197	.0039-.0157
LNMX 150608R/L-HM	.591	.252	.528	.031	●		●	●	●	.039-.236	.0039-.0197
LNMX 150612R/L-HM	.591	.252	.528	.047	●		●		●	.059-.276	.0059-.0276

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

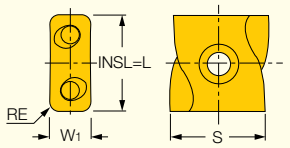
For tools, see pages: C#-SLANR/L-TANG (40) • PLANR/L-TANG (38) • S-SLANR/L-TANG (79) • SLANR/L-15-TANG-JHP (40) • SLANR/L-TANG (39) • SLFNR-TANG (41)

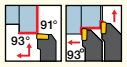
HELITURN TANGENTIAL LINE

LNMX-WG

Tangentially Clamped Inserts with a Wiper Corner Design for High Production Cutting and Excellent Surface Finish







Designation	Dimensions INSL	W1	S	RE	IC8250	Recommended Machining Data ap (inch)	f (IPR)
LNMX 150612R/L-WG	.591	.252	.528	.047	●	.059-.276	.0118-.0315

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

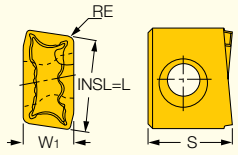
For tools, see pages: C#-SLANR/L-TANG (40) • PLANR/L-TANG (38) • S-SLANR/L-TANG (79) • SLANR/L-15-TANG-JHP (40) • SLANR/L-TANG (39) • SLFNR-TANG (41)

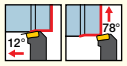
FEEDTURN

LNMX-HF

High Feed (up to .094 ipr) Tangentially Clamped Rough Turning Inserts







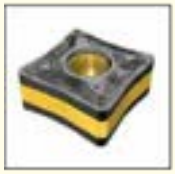
Designation	Dimensions W1	INSL	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	Recommended Machining Data ap (inch)	f (IPR)
LNMX 1608R/L-HF	.335	.630	.551	.047	●	●	●	.020-.094	.0591-.0945

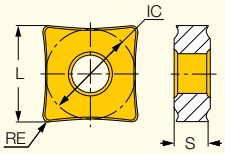
• For user guide and cutting speed recommendations, see pages 100-104, 206-228

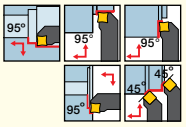
ISOTURN

QNMG-NF

Double-Sided Inserts
with Four 80° Corners for
Finishing Applications







Designation	Dimensions L	IC	S	RE	IC8150	Recommended Machining Data a_p (inch)	f (IPR)
QNMG 432-NF	.525	.500	.187	.031	●	.031-.118	.0031-.0098

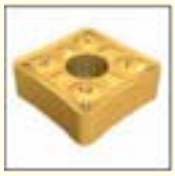
• For user guide and cutting speed recommendations, see pages 100-104, 206-228

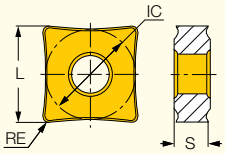
For tools, see pages: PQFNR/L (41) • PQLNR/L (41) • PQSNR (42) • S-PQLNR (79)

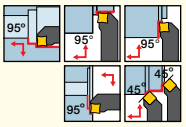
ISOTURN

QNMG-TF

Double-Sided Inserts
with Four 80° Corners for
General Applications







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	.016	●	●	●	.039-.157	.0047-.0138
QNMG 332-TF	.406	.375	.187	.031	●	●	●	.039-.157	.0047-.0138
QNMG 431-TF	.528	.500	.187	.016	●	●		.039-.157	.0047-.0138
QNMG 432-TF	.525	.500	.187	.031	●	●	●	.039-.157	.0047-.0138
QNMG 433-TF	.522	.500	.187	.047			●	.059-.177	.0059-.0157

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

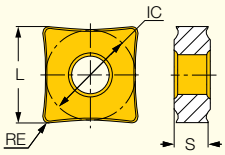
For tools, see pages: PQFNR/L (41) • PQLNR/L (41) • PQSNR (42) • S-PQLNR (79)

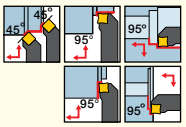
ISOTURN

QNMG-PP

Double-Sided Inserts
with Four 80° Corners for
General Applications







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	Recommended Machining Data a_p (inch)	f (IPR)
QNMG 332-PP	.406	.375	.187	.031	●		.039-.157	.0055-.0118
QNMG 432-PP	.525	.500	.187	.031	●	●	.039-.157	.0055-.0118

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

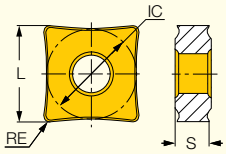
For tools, see pages: PQFNR/L (41) • PQLNR/L (41) • PQSNR (42) • S-PQLNR (79)

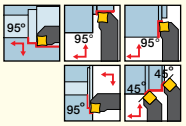
ISOTURN

QNMG-GN

Double-Sided Inserts with Four 80° Corners for General Applications







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	IC428	Recommended Machining Data a_p (inch)	f (IPR)
QNMG 332-GN	.406	.375	.187	.031	●		●		.039-.177	.0063-.0177
QNMG 432-GN	.525	.500	.187	.031	●	●	●	●	.039-.177	.0063-.0177
QNMG 433-GN	.522	.500	.187	.047	●	●	●	●	.059-.197	.0087-.0197

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

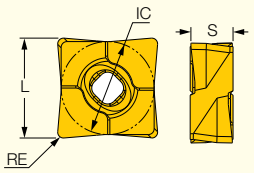
For tools, see pages: PQFNR/L (41) • PQLNR/L (41) • PQSNR (42) • S-PQLNR (79)

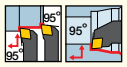
LOGIQ4TURN POSITIVE DOUBLE SIDED

CXMG-F3P

80° Double-Sided and Double-Positive Inserts with a Positive Rake for Finishing on Alloyed Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8150	IC807	Recommended Machining Data a_p (inch)	f (IPR)
CXMG 090402-F3P	.409	.382	.183	.0079	●	●	.012-.079	.0012-.0059
CXMG 090404-F3P	.409	.382	.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 100-104, 206-228

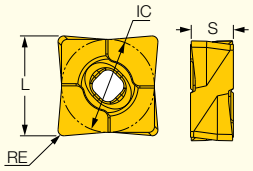
For tools, see pages: A-PCLXR/L (75) • AVC-PCLXR/L (76) • PCLXR/L (43) • PCLXR/L-JHP (42)

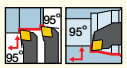
LOGIQ4TURN POSITIVE DOUBLE SIDED

CXMG-M3P

80° Double-Sided and Double-Positive Inserts with a Positive Rake for Medium Machining on Alloyed Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC8250	IC8150	Recommended Machining Data a_p (inch)	f (IPR)
CXMG 090408-M3P	.406	.382	.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 100-104, 206-228

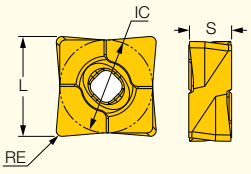
For tools, see pages: A-PCLXR/L (75) • AVC-PCLXR/L (76) • PCLXR/L (43) • PCLXR/L-JHP (42)

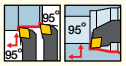
LOGIQ4TURN POSITIVE DOUBLE SIDED

CXMG-F3M

80° Double-Sided and Double-Positive Inserts with a Positive Rake for Finishing on Stainless Steel and H.T.A.







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC6025	IC806	IC807	Recommended Machining Data a_p (inch)	f (IPR)
CXMG 090404-F3M	.409	.382	.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 100-104, 206-228

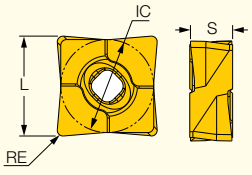
For tools, see pages: A-PCLXR/L (75) • AVC-PCLXR/L (76) • PCLXR/L (43) • PCLXR/L-JHP (42)

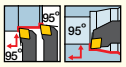
LOGIQ4TURN POSITIVE DOUBLE SIDED

CXMG-M3M

80° Double-Sided and Double-Positive Inserts with a Positive Rake for Medium Machining on Stainless Steel and H.T.A.







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC6025	IC806	IC807	Recommended Machining Data a_p (inch)	f (IPR)
CXMG 090408-M3M	.406	.382	.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 100-104, 206-228

For tools, see pages: A-PCLXR/L (75) • AVC-PCLXR/L (76) • PCLXR/L (43) • PCLXR/L-JHP (42)

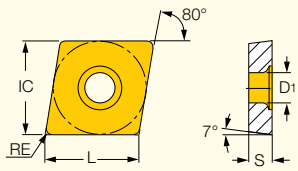
ISOTURN

CCMT-F3P

80° Rhombic Positive Flank Inserts, for Semi-Finishing and Finishing Turning of Steel









Designation	Dimensions L	IC	S	RE	D_1	Tough ↔ Hard IC8250	IC8150	Recommended Machining Data a_p (inch)	f (IPR)
CCMT 2-0-F3P	.248	.250	.094	.008	.110	●	●	.002-.067	.0012-.0047
CCMT 2-1-F3P	.248	.250	.094	.016	.110	●	●	.004-.067	.0020-.0071
CCMT 3-0-F3P	.382	.375	.156	.008	.173	●	●	.003-.079	.0016-.0063
CCMT 3-1-F3P	.382	.375	.156	.016	.173	●	●	.004-.079	.0024-.0098
CCMT 3-2-F3P	.382	.375	.156	.031	.173	●	●	.006-.079	.0031-.0126
CCMT 431-F3P	.508	.500	.187	.016	.217	●	●	.004-.079	.0024-.0098

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

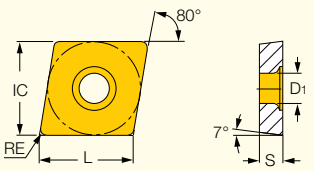
For tools, see pages: A/E/S-SCLCR/L (89) • C#-SCLCR/L-JHP (44) • E-SCLCR/L-HEAD (88) • PCACR/L-JHP (46) • PCLCR/L-S (45) • PCLCR/L-S-JHP (45) • S-SCLCR/L (90) • SCACR/L-S (45) • SCLCR-PAD (44) • SCLCR/L (44)

ISOTURN

CCMT-M3P

80° Rhombic Positive Flank Inserts for Medium Machining Conditions on Steel







Designation	Dimensions L	IC	S	RE	D_1	Tough ↔ Hard IC8250	IC8150	IC807	Recommended Machining Data a_p (inch)	f (IPR)
CCMT 2-1-M3P	.248	.250	.094	.016	.110	●	●		.020-.079	.0039-.0098
CCMT 2-2-M3P	.248	.250	.094	.031	.110	●	●		.039-.157	.0039-.0118
CCMT 3-1-M3P	.382	.375	.156	.016	.173	●	●		.020-.118	.0039-.0079
CCMT 3-2-M3P	.382	.375	.156	.031	.173	●	●		.039-.157	.0039-.0118
CCMT 3-3-M3P	.382	.375	.156	.047	.173	●	●	●	.051-.197	.0059-.0157
CCMT 431-M3P	.508	.500	.187	.016	.217	●	●		.020-.118	.0039-.0079
CCMT 433-M3P	.508	.500	.187	.047	.217	●	●		.051-.197	.0059-.0157

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

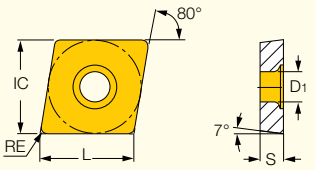
For tools, see pages: A/E/S-SCLCR/L (89) • C#-SCLCR/L-JHP (44) • E-SCLCR/L-HEAD (88) • PCACR/L-JHP (46) • PCLCR/L-S (45) • PCLCR/L-S-JHP (45) • S-SCLCR/L (90) • SCACR/L-S (45) • SCLCR-PAD (44) • SCLCR/L (44) • AVC-SCLCR/L (75)

ISOTURN

CCMT-F3M

80° Rhombic Positive Flank Inserts for Stainless Steel Finishing Applications







Designation	Dimensions L	IC	S	RE	D_1	Tough ↔ Hard IC6025	IC6015	IC806	IC807	Recommended Machining Data a_p (inch)	f (IPR)
CCMT 2-0-F3M	.248	.250	.094	.008	.110	●	●	●		.002-.067	.0012-.0047
CCMT 2-1-F3M	.248	.250	.094	.016	.110	●	●	●	●	.004-.067	.0020-.0071
CCMT 2-2-F3M	.248	.250	.094	.031	.110	●	●	●	●	.005-.067	.0031-.0087
CCMT 3-0-F3M	.382	.375	.156	.008	.173	●	●	●	●	.003-.079	.0016-.0063
CCMT 3-1-F3M	.382	.375	.156	.016	.173	●	●	●	●	.004-.079	.0024-.0098
CCMT 3-2-F3M	.382	.375	.156	.031	.173	●	●	●		.006-.079	.0031-.0126
CCMT 430-F3M	.508	.500	.187	.008	.217	●	●	●		.004-.079	.0024-.0071
CCMT 431-F3M	.508	.500	.187	.016	.217	●	●	●		.006-.079	.0031-.0098
CCMT 432-F3M	.508	.500	.187	.031	.217	●	●	●		.007-.079	.0039-.0126

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

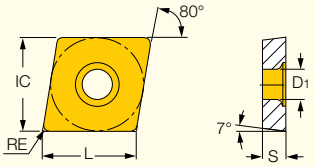
For tools, see pages: A/E/S-SCLCR/L (89) • C#-SCLCR/L-JHP (44) • E-SCLCR/L-HEAD (88) • PCACR/L-JHP (46) • PCLCR/L-S (45) • PCLCR/L-S-JHP (45) • S-SCLCR/L (90) • SCACR/L-S (45) • SCLCR-PAD (44) • SCLCR/L (44) • AVC-SCLCR/L (75)

ISOTURN

CCMT-M3M

80° Rhombic Positive Flank Inserts, for Machining Stainless and Low Carbon Steel







Designation	Dimensions L	IC	S	RE	D_1	Tough ↔ Hard IC6025	IC6015	IC807	Recommended Machining Data a_p (inch)	f (IPR)
CCMT 2-1-M3M	.248	.250	.094	.016	.110	●	●		.016-.098	.0028-.0091
CCMT 2-2-M3M	.248	.250	.094	.031	.110	●	●		.031-.098	.0039-.0098
CCMT 3-1-M3M	.382	.375	.156	.016	.173	●	●		.016-.118	.0028-.0098
CCMT 3-2-M3M	.382	.375	.156	.031	.173	●	●		.031-.118	.0039-.0118
CCMT 431-M3M	.508	.500	.187	.016	.217	●	●		.016-.138	.0039-.0118
CCMT 432-M3M	.508	.500	.187	.031	.217	●	●		.031-.138	.0047-.0134
CCMT 433-M3M	.508	.500	.187	.047	.217	●	●	●	.047-.138	.0055-.0157

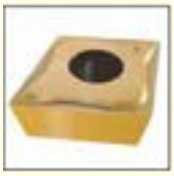
• For user guide and cutting speed recommendations, see pages 100-104, 206-228

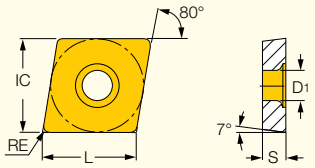
For tools, see pages: A/E/S-SCLCR/L (89) • C#-SCLCR/L-JHP (44) • E-SCLCR/L-HEAD (88) • PCACR/L-JHP (46) • PCLCR/L-S (45) • PCLCR/L-S-JHP (45) • S-SCLCR/L (90) • SCACR/L-S (45) • SCLCR-PAD (44) • SCLCR/L (44) • AVC-SCLCR/L (75)

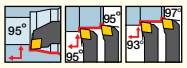
ISOTURN

CCMT-CERMET

Single-Sided 80° Rhombic Cermet Grade Inserts for Semi-Finishing and Finishing Applications



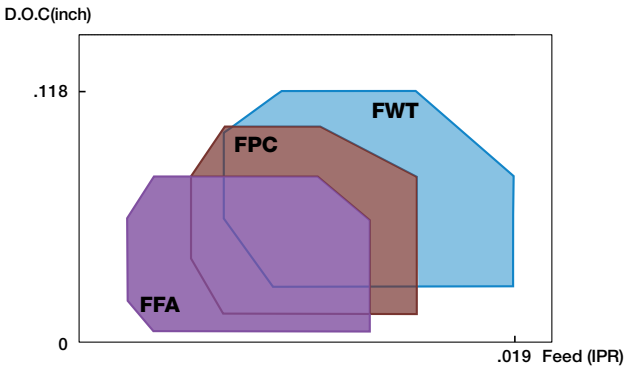




Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC20N	IC520N	Recommended Machining Data a_p (inch)	f (IPR)
CCMT 3-0-FFA	.382	.375	.156	.008	●	●	.001-.079	.0016-.0059
CCMT 3-0-FWT	.382	.375	.156	.008	●		.059-.118	.0000-.0197
CCMT 3-1-FPC	.382	.375	.156	.016	●	●	.020-.098	.0012-.0079
CCMT 3-2-FPC	.382	.375	.156	.031		●	.020-.110	.0012-.0087

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

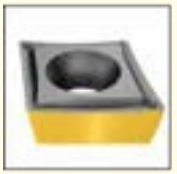
For tools, see pages: A/E/S-SCLCR/L (89) • C#-SCLCR/L-JHP (44) • E-SCLCR/L-HEAD (88) • PCACR/L-JHP (46) • PCLCR/L-S (45) • PCLCR/L-S-JHP (45) • S-SCLCR/L (90) • SCACR/L-S (45) • SCLCR-PAD (44) • SCLCR/L (44)

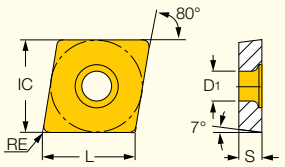


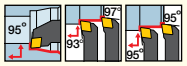
ISOTURN

CCMT/CCGT-SM

Single-Sided Turning Inserts for Semi-Finishing and Finishing on Soft Materials and Exotic Alloys







Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC6025	IC8250	IC6015	IC8150	IC20	IC5010	IC428	IC5005	IC806	IC807	IC907	Recommended Machining Data ap (inch)	f (IPR)
CCGT 2-.004-SM	.254	.250	.094	.004	.110											●	.010-.079	.0020-.0079
CCGT 2-0-SM	.254	.250	.094	.008	.110											●	.010-.079	.0020-.0098
CCMT 2-0-SM	.254	.250	.094	.008	.110		●		●					●			.010-.079	.0020-.0098
CCMT 2-1-SM	.254	.250	.094	.016	.110	●	●	●	●					●	●	●	.020-.098	.0027-.0098
CCMT 2-2-SM	.254	.250	.094	.031	.110	●		●							●	●	.020-.098	.0027-.0098
CCMT 3-0-SM	.382	.375	.156	.008	.173	●	●	●						●	●	●	.020-.098	.0024-.0098
CCMT 3-1-SM	.382	.375	.156	.016	.173	●	●		●	●	●	●	●	●	●	●	.020-.098	.0024-.0098
CCMT 3-2-SM	.382	.375	.156	.031	.173	●	●	●	●		●		●	●	●	●	.020-.118	.0027-.0098
CCMT 431-SM	.508	.500	.187	.016	.217		●		●					●	●	●	.028-.138	.0027-.0098
CCMT 432-SM	.508	.500	.187	.031	.217	●	●	●	●						●	●	.028-.138	.0027-.0118

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

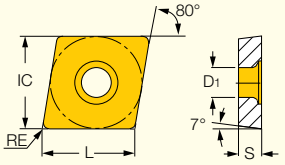
For tools, see pages: A/E/S-SCLCR/L (89) • C#-SCLCR/L-JHP (44) • E-SCLCR/L-HEAD (88) • PCACR/L-JHP (46) • PCLCR/L-S (45) • PCLCR/L-S-JHP (45) • S-SCLCR/L (90) • SCACR/L-S (45) • SCLCR-PAD (44) • SCLCR/L (44) • AVC-SCLCR/L (75)

ISOTURN

CCMT-PF

80° Rhombic Inserts with a Positive Flank for Semi-Finishing and Finishing on Soft Materials and Exotic Alloys







Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC6025	IC6015	IC806	IC807	IC907	IC804	Recommended Machining Data ap (inch)	f (IPR)
CCMT 2-0-PF	.248	.250	.094	.008	.110	●	●	●		●	●	●	.008-.098	.0016-.0098
CCMT 2-1-PF	.248	.250	.094	.016	.110	●	●	●	●	●	●		.016-.098	.0016-.0118
CCMT 3-0-PF	.382	.375	.156	.008	.173	●			●	●	●	●	.020-.118	.0020-.0118
CCMT 3-1-PF	.382	.375	.156	.016	.173	●	●	●	●	●	●	●	.020-.138	.0020-.0138

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

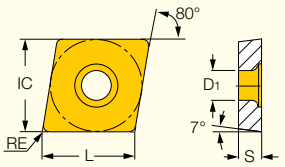
For tools, see pages: A/E/S-SCLCR/L (89) • C#-SCLCR/L-JHP (44) • E-SCLCR/L-HEAD (88) • PCACR/L-JHP (46) • PCLCR/L-S (45) • PCLCR/L-S-JHP (45) • S-SCLCR/L (90) • SCACR/L-S (45) • SCLCR-PAD (44) • SCLCR/L (44) • AVC-SCLCR/L (75)

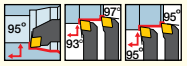
ISOTURN

CCMT-14

80° Rhombic Inserts with a 7° Positive Flank for Semi-Finishing and Finish Turning







Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC8250	IC20	IC428	IC5005	IC807	IC907	Recommended Machining Data ap (inch)	f (IPR)
CCMT 2-1-14	.248	.250	.094	.016	.110	●		●	●	●	●	●	.020-.098	.0055-.0098
CCMT 3-1-14	.382	.375	.156	.016	.173		●				●	●	.020-.118	.0055-.0098
CCMT 3-2-14	.382	.375	.156	.031	.173	●	●	●	●	●			.031-.118	.0055-.0118
CCMT 432-14	.508	.500	.187	.031	.217	●		●					.031-.118	.0055-.0118

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

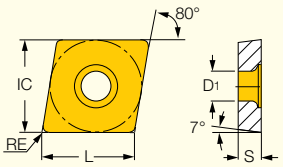
For tools, see pages: A/E/S-SCLCR/L (89) • AVC-SCLCR/L (75) • C#-SCLCR/L-JHP (44) • E-SCLCR/L-HEAD (88) • PCACR/L-JHP (46) • PCLCR/L-S (45) • PCLCR/L-S-JHP (45) • S-SCLCR/L (90) • SCACR/L-S (45) • SCLCR-PAD (44) • SCLCR/L (44)

ISOTURN

CCMT/CCGT

80° Rhombic Inserts with a 7° Positive Flank for Semi-Finishing and Finish Turning







Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC8250	IC30N	IC20	IC20N	IC520N	Recommended Machining Data ap (inch)	f (IPR)
CCGT 2-0	.254	.250	.094	.008	.110		●				.020-.079	.0039-.0079
CCGT 2-0L (1)	.254	.250	.094	.008	.110		●	●			.020-.079	.0039-.0079
CCGT 2-1	.254	.250	.094	.016	.110		●				.020-.079	.0039-.0079
CCGT 2-1L (1)	.254	.250	.094	.016	.110		●				.020-.079	.0039-.0079
CCMT 2-0	.254	.250	.094	.008	.110	●			●		.020-.079	.0039-.0079
CCMT 2-1	.254	.250	.094	.016	.110		●		●	●	.020-.079	.0047-.0087
CCMT 3-0	.382	.375	.156	.008	.173				●	●	.020-.098	.0047-.0098
CCMT 3-1	.382	.375	.156	.016	.173				●	●	.020-.098	.0047-.0098
CCMT 3-2	.382	.375	.156	.031	.173				●	●	.031-.118	.0055-.0098

• Use left-hand inserts for left-hand external tools and for right-hand internal tools • For user guide and cutting speed recommendations, see pages 100-104, 206-228

(1) Left-hand insert

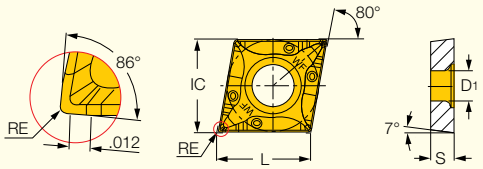
For tools, see pages: A/E/S-SCLCR/L (89) • C#-SCLCR/L-JHP (44) • E-SCLCR/L-HEAD (88) • PCACR/L-JHP (46) • PCLCR/L-S (45) • PCLCR/L-S-JHP (45) • S-SCLCR/L (90) • SCACR/L-S (45) • SCLCR-PAD (44) • SCLCR/L (44) • AVC-SCLCR/L (75)

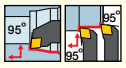
ISOTURN

CCET-WF

80° Rhombic Inserts with a 7° Positive Flank and a Wiper Near the Corner for High Feed Finishing







Designation	Dimensions L	IC	S	RE	D1	IC907	Recommended Machining Data ap (inch)	f (IPR)
CCET 2-.002-WF	.248	.250	.094	.002	.110	●	.002-.079	.0004-.0079
CCET 3-.002-WF	.374	.375	.156	.002	.173	●	.002-.079	.0004-.0079

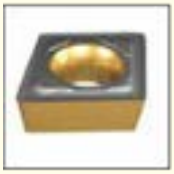
• For user guide and cutting speed recommendations, see pages 100-104, 206-228

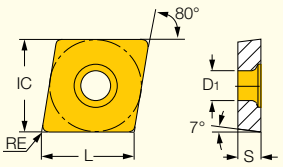
For tools, see pages: A/E/S-SCLCR/L (89) • C#-SCLCR/L-JHP (44) • E-SCLCR/L-HEAD (88) • PCACR/L-JHP (46) • PCLCR/L-S (45) • PCLCR/L-S-JHP (45) • S-SCLCR/L (90) • SCACR/L-S (45) • SCLCR-PAD (44) • SCLCR/L (44) • AVC-SCLCR/L (75)

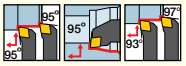
ISOTURN

CCMT-WG

80° Rhombic Inserts with a 7° Positive Flank and a Wiper Near the Corner for High Feed Finishing







Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC8250	IC807	IC907	Recommended Machining Data ap (inch)	f (IPR)
CCMT 2-1-WG	.248	.250	.094	.016	.110		●	●	.016-.079	.0039-.0138
CCMT 3-1-WG	.382	.375	.156	.016	.173	●			.016-.079	.0055-.0118
CCMT 3-2-WG	.382	.375	.156	.031	.173	●			.020-.098	.0079-.0150
CCMT 432-WG	.508	.500	.187	.031	.217	●			.020-.118	.0079-.0142

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

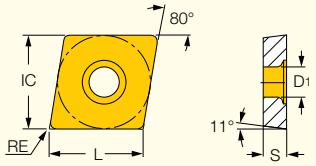
For tools, see pages: A/E/S-SCLCR/L (89) • C#-SCLCR/L-JHP (44) • E-SCLCR/L-HEAD (88) • PCACR/L-JHP (46) • PCLCR/L-S (45) • PCLCR/L-S-JHP (45) • S-SCLCR/L (90) • SCACR/L-S (45) • SCLCR-PAD (44) • SCLCR/L (44) • AVC-SCLCR/L (75)

ISOTURN

CPGT-SM

80° Rhombic Inserts with an 11° Positive Flank for Semi-Finishing and Finish Turning on Soft Materials and Exotic Alloys







Designation	Dimensions L	IC	S	RE	D_1	IC907	Recommended Machining Data a_p (inch)	f (IPR)
CPGT 2-.004-SM	.254	.250	.094	.004	.110	●	.010-.079	.0020-.0079
CPGT 2-0-SM	.254	.250	.094	.008	.110	●	.010-.079	.0020-.0118
CPGT 2-1-SM	.254	.250	.094	.016	.110	●	.020-.118	.0039-.0138
CPGT 3-.004-SM	.381	.375	.156	.004	.173	●	.010-.079	.0020-.0098
CPGT 3-0-SM	.381	.375	.156	.008	.173	●	.020-.098	.0039-.0118
CPGT 3-1-SM	.381	.375	.156	.016	.173	●	.024-.138	.0039-.0138

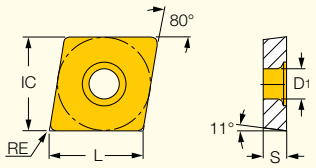
• For user guide and cutting speed recommendations, see pages 100-104, 206-228

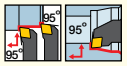
ISOTURN

CPMT-PF

80° Rhombic Inserts with a Positive Flank for Semi-Finishing and Finishing on Soft Materials and Exotic Alloys







Designation	Dimensions L	IC	S	RE	D_1	Tough ↔ Hard IC330	IC6025	IC6015	IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
CPMT 2-1-PF	.248	.250	.094	.016	.110	●	●	●	●	●	.020-.098	.0016-.0118
CPMT 2-2-PF	.248	.250	.094	.031	.110	●			●	●	.020-.098	.0031-.0118
CPMT 3-1-PF	.374	.375	.156	.016	.173	●			●	●	.020-.118	.0020-.0138
CPMT 3-2-PF	.374	.375	.156	.031	.173	●	●	●	●	●	.020-.138	.0039-.0138

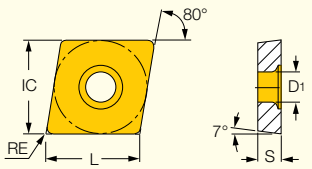
• For user guide and cutting speed recommendations, see pages 100-104, 206-228

ISOTURN

CCGT-F1P

80° Rhombic Inserts with a Positive Flank for Very Low Finish Turning Conditions on Steel







Designation	Dimensions L	IC	S	RE	D_1	IC908	Recommended Machining Data a_p (inch)	f (IPR)
CCGT 03X101-F1P	.142	.141	.055	.004	.075	●	.004-.020	.0004-.0020
CCGT 03X102-F1P	.142	.141	.055	.008	.075	●	.004-.020	.0008-.0039
CCGT 03X104-F1P	.142	.141	.055	.016	.075	●	.004-.020	.0020-.0059
CCGT 04T101-F1P	.173	.172	.070	.004	.091	●	.004-.020	.0004-.0020
CCGT 04T102-F1P	.173	.172	.070	.008	.091	●	.004-.020	.0008-.0039
CCGT 04T104-F1P	.173	.172	.070	.016	.091	●	.004-.020	.0020-.0059

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

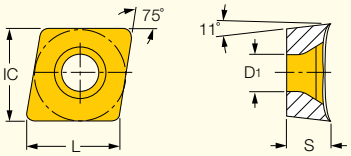
For tools, see pages: A/E/S-SCLCR/L (89)

ISOTURN

EPGT-F1P

75° Rhombic Inserts with a Positive Flank for Very Low Finish Turning Conditions on Steel





Designation	Dimensions L	IC	S	RE	D1	IC908	Recommended Machining Data ap (inch)	f (IPR)
EPGT 03X101-F1P	.146	.141	.055	.004	.075	●	.004-.020	.0004-.0020
EPGT 03X102-F1P	.146	.141	.055	.008	.075	●	.004-.020	.0008-.0039
EPGT 03X104-F1P	.146	.141	.055	.016	.075	●	.004-.020	.0020-.0059

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

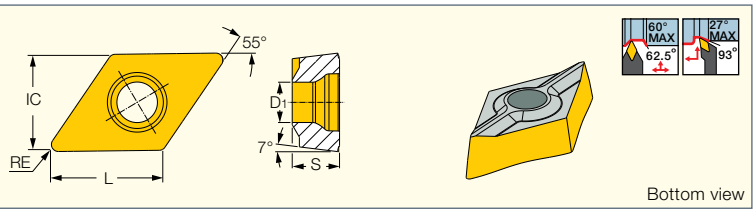
For tools, see pages: A/E-SEXPR/L-03 (90)

T-LOCK

DCMT-F3P-SL

55° Rhombic Inserts with a Positive Flank with a Locating Bottom Ridge for Semi-Finishing and Finishing on Steel





Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC8250	IC8150	Recommended Machining Data ap (inch)	f (IPR)
DCMT 13T504-F3P-SL	.528	.433	.201	.016	.177	●	●	.020-.118	.0020-.0098
DCMT 13T508-F3P-SL	.528	.433	.201	.031	.177	●	●	.035-.138	.0039-.0098

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

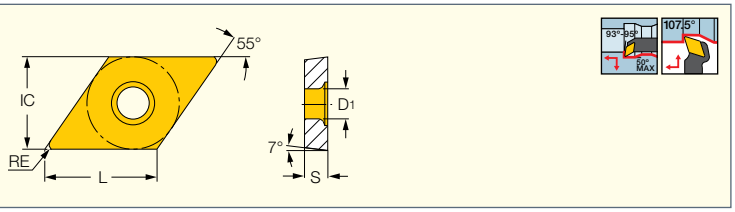
For tools, see pages: A-SDUCR/L-13-SL (90) • C#-SDJCR/L-13-SL-JHP (47) • C#-SDNCN-13-SL-JHP (50) • SDJCR/L-13-SL (46) • SDNCN-13-SL (49)

ISOTURN

DCMT-F3P

55° Rhombic Inserts with a Positive Flank for Semi-Finishing and Finish Turning on Steel





Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC8250	IC8150	IC807	Recommended Machining Data ap (inch)	f (IPR)
DCMT 2-0-F3P	.303	.250	.094	.008	.110	●	●	●	●	.002-.059	.0012-.0047
DCMT 2-1-F3P	.303	.250	.094	.016	.110	●	●	●	●	.003-.059	.0020-.0071
DCMT 3-0-F3P	.457	.375	.156	.008	.173	●	●	●	●	.003-.079	.0016-.0063
DCMT 3-1-F3P	.457	.375	.156	.016	.173	●	●	●	●	.004-.079	.0024-.0098
DCMT 3-2-F3P	.457	.375	.156	.031	.173	●	●	●	●	.006-.079	.0031-.0126

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

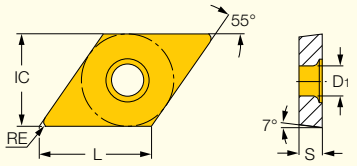
For tools, see pages: AVC-SDUCR/L (75) • C#-SDJCR-JHP (48) • C#-SDJCR/L (47) • C#-SDNCN (50) • E-SDUCR-HEAD (91) • IM-SDNCN (51) • SDACR/L (48) • SDJCR-PAD (48)

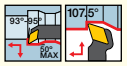
ISOTURN

DCMT-M3M

55° Rhombic Positive Flank Inserts, for Machining Stainless and Low Carbon Steel







Designation	Dimensions L	IC	S	RE	D_1	Tough ↔ Hard IC6025	IC6015	IC806	IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
DCMT 2-1-M3M	.303	.250	.094	.016	.110	●	●		●		.016-.098	.0028-.0091
DCMT 2-2-M3M	.303	.250	.094	.031	.110	●	●		●		.031-.098	.0039-.0098
DCMT 3-1-M3M	.457	.375	.156	.016	.173	●	●		●		.016-.118	.0028-.0098
DCMT 3-2-M3M	.457	.375	.156	.016	.173			●	●	●	.031-.118	.0039-.0118
DCMT 3-3-M3M	.457	.375	.156	.047	.173	●	●		●		.047-.118	.0051-.0138

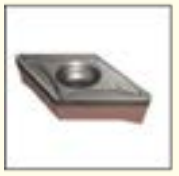
• For user guide and cutting speed recommendations, see pages 100-104, 206-228

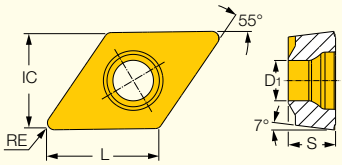
For tools, see pages: AVC-SDUCR/L (75) • C#-SDJCR-JHP (48) • C#-SDJCR/L (47) • C#-SDNCN (50) • E-SDUCR-HEAD (91) • IM-SDNCN (51) • SDACR/L (48) • SDJCR-PAD (48)

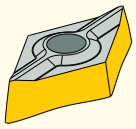
T-LOCK

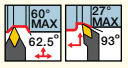
DCMT-M3M-SL

55° Rhombic Inserts with a Positive Flank and Locating Bottom Ridge for Machining Stainless and Low Carbon Steel







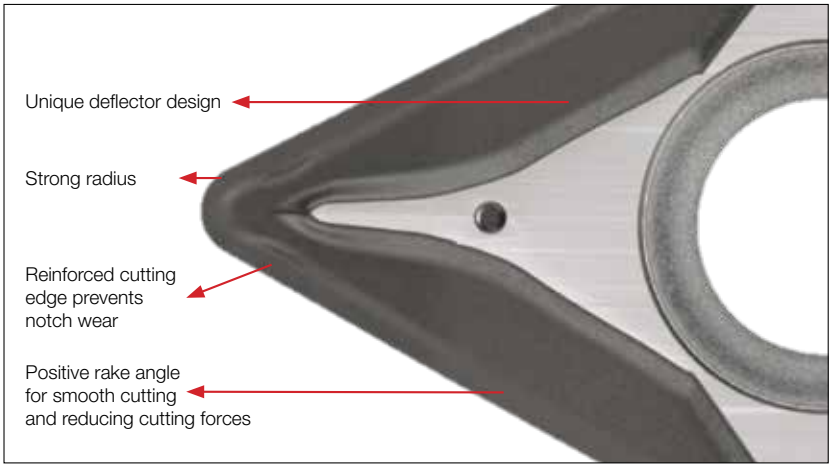


Bottom view

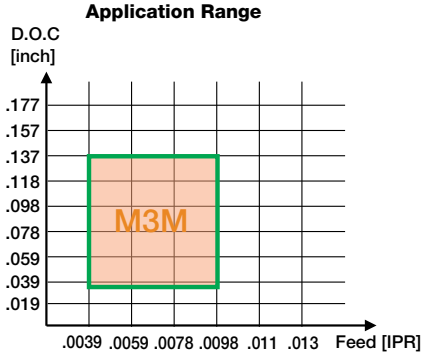
Designation	Dimensions L	IC	S	RE	D_1	Tough ↔ Hard IC6025	IC6015	Recommended Machining Data a_p (inch)	f (IPR)
DCMT 13T508-M3M-SL	.528	.433	.201	.031	.177	●	●	.035-.138	.0039-.0098
DCMT 13T512-M3M-SL	.528	.433	.201	.047	.177	●	●	.035-.138	.0059-.0118

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

For tools, see pages: A-SDUCR/L-13-SL (90) • C#-SDJCR/L-13-SL-JHP (47) • C#-SDNCN-13-SL-JHP (50) • SDJCR/L-13-SL (46) • SDNCN-13-SL (49)



DCMT 13T508-M3M-SL
Application Range

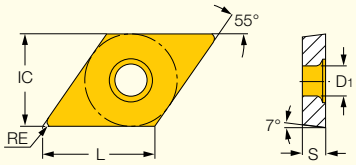


ISOTURN

DCMT-CERMET

Single-Sided 55° Rhombic Cermet Grade Inserts for Semi-Finishing and Finishing Applications

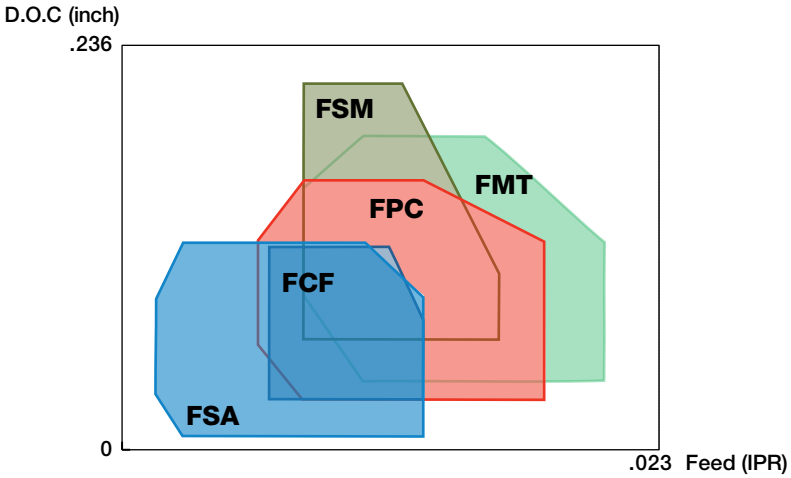




Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC20N	IC520N	Recommended Machining Data a_p (inch)	f (IPR)
DCGT 3-0-FSA	.457	.375	.156	.008	●		.012-.079	.0008-.0059
DCGT 3-1-FSA	.457	.375	.156	.016	●		.016-.079	.0012-.0059
DCMT 3-0-FCF	.457	.375	.156	.008	●	●	.020-.098	.0027-.0087
DCMT 3-0-FSM	.457	.375	.156	.008		●	.020-.118	.0020-.0087
DCMT 3-1-FPC	.457	.375	.156	.016	●	●	.020-.106	.0016-.0098
DCMT 3-1-FSM	.457	.375	.156	.016		●	.020-.118	.0027-.0098
DCMT 3-2-FPC	.457	.375	.156	.031	●	●	.020-.106	.0016-.0098
DCMT 3-3-FMT	.457	.375	.156	.047		●	.059-.197	.0059-.0197

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

For tools, see pages: AVC-SDUCR/L (75) • C#-SDJCR-JHP (48) • C#-SDJCR/L (47) • C#-SDNCN (50) • IM-SDNCN (51) • SDACR/L (48)

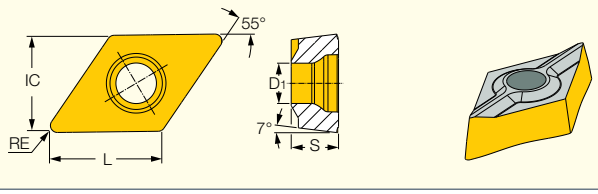


T-LOCK

DCMT-PF-SL

55° Rhombic Inserts with a Positive Flank and Locating Bottom Ridge for Finish Turning on Soft Materials & Exotic Alloys





Designation	Dimensions L	IC	S	RE	D_1	IC8150	Recommended Machining Data a_p (inch)	f (IPR)
DCMT 13T504-PF-SL	.528	.433	.201	.016	.177	●	.020-.118	.0020-.0098
DCMT 13T508-PF-SL	.528	.433	.201	.031	.177	●	.028-.118	.0020-.0098

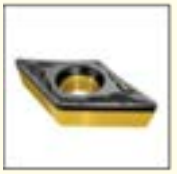
• For user guide and cutting speed recommendations, see pages 100-104, 206-228

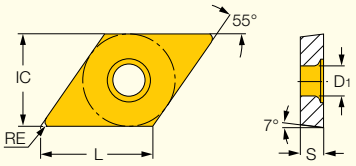
For tools, see pages: A-SDUCR/L-13-SL (90) • C#-SDJCR/L-13-SL-JHP (47) • C#-SDNCN-13-SL-JHP (50) • SDJCR/L-13-SL (46) • SDNCN-13-SL (49)

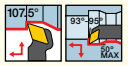
ISOTURN

DCMT-PF

55° Rhombic Inserts with a Positive Flank for Semi-Finishing and Finishing on Soft Materials and Exotic Alloys







Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC6025	IC8250	IC6015	IC806	IC807	IC907	IC804	Recommended Machining Data ap (inch)	f (IPR)
DCMT 2-.004-PF	.303	.250	.094	.004	.110						●	●		.012-.118	.0008-.0098
DCMT 2-0-PF	.303	.250	.094	.008	.110	●								.016-.118	.0012-.0098
DCMT 2-1-PF	.303	.250	.094	.016	.110	●								.020-.138	.0020-.0118
DCMT 2-2-PF	.303	.250	.094	.031	.110						●	●		.028-.118	.0031-.0118
DCMT 3-0-PF	.457	.375	.156	.008	.173	●				●	●	●	●	.012-.098	.0016-.0098
DCMT 3-1-PF	.457	.375	.156	.016	.173	●	●	●	●	●	●	●	●	.020-.118	.0020-.0098
DCMT 3-2-PF	.457	.375	.156	.031	.173	●	●	●	●	●	●	●	●	.028-.118	.0039-.0098

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

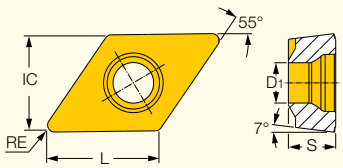
For tools, see pages: AVC-SDUCR/L (75) • C#-SDJCR-JHP (48) • C#-SDJCR/L (47) • C#-SDNCN (50) • E-SDUCR-HEAD (91) • E/S-SDUCR/L (91) • IM-SDNCN (51) • PDACR/L-JHP (49) • PDACR/L-S (46) • PDJCR/L-JHP (49) • SDACR/L (48) • SDJCR-PAD (48) • SDJCR/L (47) • SDPCN (50)

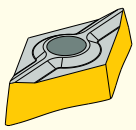
T-LOCK

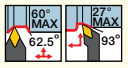
DCMT-SM-SL

55° Rhombic Inserts with a Positive Flank and Locating Bottom Ridge for Finish Turning on Soft Materials & Exotic Alloys









Designation	Dimensions L	IC	S	RE	D1	IC8150	Recommended Machining Data ap (inch)	f (IPR)
DCMT 13T504-SM-SL	.528	.433	.201	.016	.177	●	.020-.098	.0028-.0106
DCMT 13T508-SM-SL	.528	.433	.201	.031	.177	●	.039-.118	.0028-.0106

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

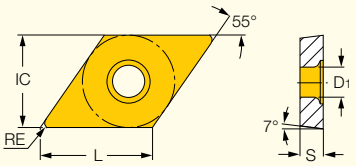
For tools, see pages: A-SDUCR/L-13-SL (90) • C#-SDJCR/L-13-SL-JHP (47) • C#-SDNCN-13-SL-JHP (50) • SDJCR/L-13-SL (46) • SDNCN-13-SL (49)

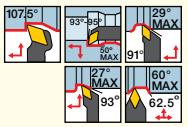
ISOTURN

DCMT/DCGT-SM

55° Rhombic Inserts with a 7° Positive Flank for Semi-Finishing and Finish Turning on Soft Materials and Exotic Alloys







Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC8350	IC6025	IC8250	IC530N	IC6015	IC8150	IC520N	IC806	IC807	IC907	Recommended Machining Data ap (inch)	f (IPR)
DCMT 2-0-SM	.303	.250	.094	.008	.110		●			●				●	●	.020-.079	.0016-.0079
DCMT 2-1-SM	.303	.250	.094	.016	.110		●	●		●	●		●	●	●	.020-.098	.0020-.0098
DCMT 2-2-SM	.303	.250	.094	.031	.110			●								.020-.118	.0027-.0098
DCGT 3-0-SM	.457	.375	.156	.008	.173										●	.020-.098	.0020-.0098
DCGT 3-1-SM	.457	.375	.156	.016	.173										●	.020-.098	.0020-.0098
DCMT 3-0-SM	.457	.375	.156	.008	.173		●	●	●	●				●	●	.020-.098	.0020-.0098
DCMT 3-1-SM	.457	.375	.156	.016	.173	●	●	●	●		●		●	●	●	.020-.098	.0027-.0098
DCMT 3-2-SM	.457	.375	.156	.031	.173	●	●	●		●	●			●	●	.039-.118	.0027-.0098
DCMT 3-3-SM	.457	.375	.156	.047	.173							●				.039-.138	.0039-.0110

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

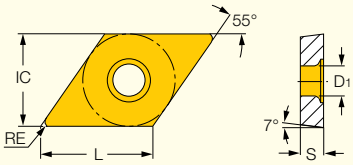
For tools, see pages: AVC-SDUCR/L (75) • C#-SDJCR-JHP (48) • C#-SDJCR/L (47) • C#-SDNCN (50) • E-SDUCR-HEAD (91) • E/S-SDUCR/L (91) • IM-SDNCN (51) • PDACR/L-JHP (49) • PDACR/L-S (46) • PDJCR/L-JHP (49) • SDACR/L (48) • SDJCR-PAD (48) • SDJCR/L (47) • SDPCN (50)

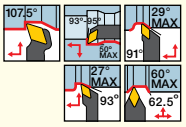
ISOTURN

DCMT/DCGT

55° Rhombic Inserts with a 7° Positive Clearance for Finishing Applications







Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC8250	IC908	IC30N	IC530N	IC8150	IC20N	IC520N	Recommended Machining Data ap (inch)	f (IPR)
DCGT 2-.004R (1)	.303	.250	.094	.004	.110			●						.010-.059	.0020-.0059
DCGT 2-0	.303	.250	.094	.008	.110				●					.020-.079	.0031-.0079
DCGT 2-1	.303	.250	.094	.016	.110				●					.031-.098	.0039-.0098
DCMT 2-0	.303	.250	.094	.008	.110	●	●				●	●	●	.020-.079	.0031-.0079
DCMT 2-1	.303	.250	.094	.016	.110	●	●		●		●	●	●	.020-.079	.0031-.0087
DCGT 3-0	.457	.375	.156	.008	.173				●					.020-.079	.0031-.0079
DCGT 3-1	.457	.375	.156	.016	.173				●			●		.039-.098	.0047-.0098
DCMT 3-0	.457	.375	.156	.008	.173				●	●		●	●	.020-.079	.0031-.0079
DCMT 3-1	.457	.375	.156	.016	.173				●			●	●	.020-.079	.0047-.0098
DCMT 3-2	.457	.375	.156	.031	.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 100-104, 206-228

(1) Right-hand insert

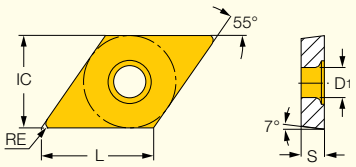
For tools, see pages: AVC-SDUCR/L (75) • C#-SDJCR-JHP (48) • C#-SDJCR/L (47) • C#-SDNCN (50) • E-SDUCR-HEAD (91) • E/S-SDUCR/L (91) • IM-SDNCN (51) • PDACR/L-JHP (49) • PDACR/L-S (46) • PDJCR/L-JHP (49) • SDACR/L (48) • SDJCR-PAD (48) • SDJCR/L (47) • SDPCN (50)

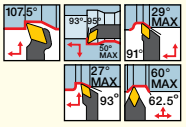
ISOTURN

DCMT-14

55° Rhombic Inserts with a Positive Flank for Semi-Finishing and Finish Turning on Soft Materials and Exotic Alloys







Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC8150	IC20	IC428	IC5005	Recommended Machining Data ap (inch)	f (IPR)
DCMT 3-1-14	.457	.375	.156	.016	.173	●	●	●			.039-.098	.0055-.0098
DCMT 3-2-14	.457	.375	.156	.031	.173		●	●	●	●	.059-.118	.0055-.0114

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

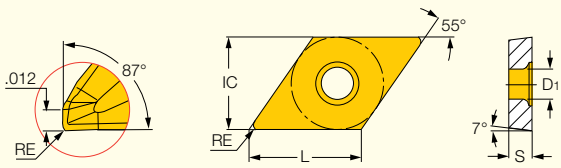
For tools, see pages: AVC-SDUCR/L (75) • C#-SDJCR-JHP (48) • C#-SDJCR/L (47) • C#-SDNCN (50) • E/S-SDUCR/L (91) • IM-SDNCN (51) • PDACR/L-JHP (49) • PDACR/L-S (46) • PDJCR/L-JHP (49) • SDACR/L (48) • SDJCR/L (47) • SDPCN (50)

ISOTURN

DCET-WF

55° Rhombic Wiper Inserts for Finishing Operations at High Feeds







Right-hand shown

Designation	Dimensions L	IC	S	RE	D1	IC907	Recommended Machining Data ap (inch)	f (IPR)
DCET 2-.002R/L-WF	.303	.250	.094	.002	.110	●	.002-.118	.0004-.0079
DCET 3-.002R/L-WF	.457	.375	.156	.002	.173	●	.002-.118	.0004-.0079

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

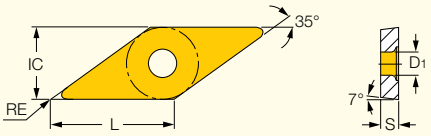
For tools, see pages: AVC-SDUCR/L (75) • C#-SDJCR-JHP (48) • C#-SDJCR/L (47) • E-SDUCR-HEAD (91) • E/S-SDUCR/L (91) • PDACR/L-JHP (49) • PDACR/L-S (46) • PDJCR/L-JHP (49) • SDACR/L (48) • SDJCR-PAD (48) • SDJCR/L (47)

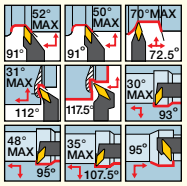
ISOTURN

VCMT-F3P

35° Rhombic Positive Flank Inserts, for Semi-Finishing and Finishing Turning of Steel







Designation	Dimensions L	IC	S	RE	D_1	Tough ↔ Hard IC8250	IC8150	IC807	Recommended Machining Data a_p (inch)	f (IPR)
VCMT 220-F3P	.437	.250	.125	.008	.110	●	●		.002-.067	.0012-.0055
VCMT 221-F3P	.437	.250	.125	.016	.110	●	●		.004-.067	.0020-.0079
VCMT 222-F3P	.437	.250	.125	.031	.110	●	●		.005-.067	.0028-.0110
VCMT 223-F3P	.437	.250	.125	.047	.110	●	●	●	.005-.067	.0031-.0130
VCMT 330-F3P	.654	.375	.187	.008	.173	●	●		.003-.071	.0016-.0059
VCMT 331-F3P	.654	.375	.187	.016	.173	●	●		.004-.071	.0020-.0079
VCMT 332-F3P	.654	.375	.187	.031	.173	●	●		.006-.071	.0028-.0114
VCMT 333-F3P	.654	.375	.187	.047	.173	●	●		.006-.071	.0035-.0134

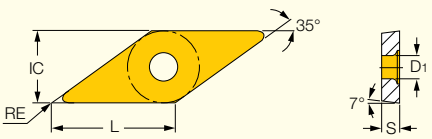
• For user guide and cutting speed recommendations, see pages 100-104, 206-228

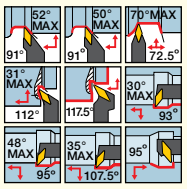
For tools, see pages: A/S-SVQCR/L (470) • C#-SVJCR/L (52) • C#-SVJCR/L-JHP (52) • C#-SVVCN (54) • HSK A63WH-SVJCR/L (53) • PVACR-S (51) • PVACR/L-JHP (53) • SVACR/L (53) • SVJCR-PAD (53) • SVJCR/L (469) • SVJCR/L-3-JHP (470) • SVVCN (470) • AVC-SVLCR/L (76)

ISOTURN

VCMT-M3P

35° Rhombic Positive Flank Inserts, for Medium Machining Conditions on Steel





Designation	Dimensions L	IC	S	RE	D_1	Tough ↔ Hard IC8250	IC8150	IC807	Recommended Machining Data a_p (inch)	f (IPR)
VCMT 221-M3P	.437	.250	.125	.016	.110	●	●	●	.000-.000	.0000-.0000
VCMT 222-M3P	.437	.250	.125	.031	.110	●	●	●	.000-.000	.0000-.0000
VCMT 331-M3P	.654	.375	.187	.016	.173	●	●	●	.000-.000	.0000-.0000
VCMT 332-M3P	.654	.375	.187	.031	.173		●	●	.000-.000	.0000-.0000
VCMT 333-M3P	.654	.375	.187	.047	.173	●	●	●	.000-.000	.0000-.0000

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

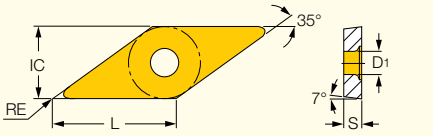
For tools, see pages: A/S-SVQCR/L (470) • AVC-SVUCR/L (76) • C#-SVJCR/L (52) • C#-SVJCR/L-JHP (52) • C#-SVVCN (54) • HSK A63WH-SVJCR/L (53) • PVACR-S (51) • PVACR/L-JHP (53) • SVACR/L (53) • SVJCR-PAD (53) • SVJCR/L (469) • SVJCR/L-3-JHP (470) • SVVCN (470) • AVC-SVLCR/L (76)

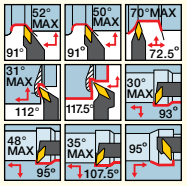
ISOTURN

VCMT-F3M

35° Rhombic Positive Flank Inserts, for Stainless Steel Finishing Applications







Designation	Dimensions L	IC	S	RE	D_1	Tough ↔ Hard IC6025	IC6015	IC806	IC807	Recommended Machining Data a_p (inch)	f (IPR)
VCMT 220-F3M	.437	.250	.125	.008	.112	●	●	●	●	.002-.067	.0012-.0055
VCMT 221-F3M	.437	.250	.125	.016	.112	●	●	●		.004-.067	.0020-.0079
VCMT 222-F3M	.437	.250	.125	.031	.112	●	●	●	●	.005-.067	.0028-.0110
VCMT 330-F3M	.654	.375	.187	.008	.177	●	●	●	●	.002-.071	.0012-.0055
VCMT 331-F3M	.654	.375	.187	.016	.177	●	●	●	●	.004-.071	.0020-.0079
VCMT 332-F3M	.654	.375	.187	.031	.177	●	●	●	●	.005-.071	.0028-.0110

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

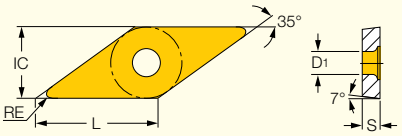
For tools, see pages: A/S-SVQCR/L (470) • AVC-SVLCR/L (76) • AVC-SVUCR/L (76) • C#-SVJCR/L (52) • C#-SVJCR/L-JHP (52) • C#-SVVCN (54) • HSK A63WH-SVJCR/L (53) • PVACR-S (51) • PVACR/L-JHP (53) • SVACR/L (53) • SVJCR-PAD (53) • SVJCR/L (469) • SVJCR/L-3-JHP (470) • SVVCN (470)

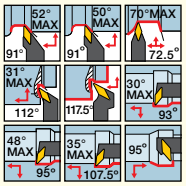
ISOTURN

VCMT-M3M

35° Rhombic Positive Flank Inserts, for Machining Stainless and Low Carbon Steel







Designation	Dimensions L	IC	S	RE	D_1	Tough ↔ Hard IC6025	IC6015	Recommended Machining Data a_p (inch)	f (IPR)
VCMT 331-M3M	.654	.375	.187	.016	.173	●	●	.039-.197	.0028-.0098
VCMT 333-M3M	.654	.375	.187	.047	.173	●	●	.039-.197	.0051-.0138

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

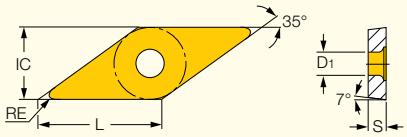
For tools, see pages: A/S-SVQCR/L (470) • C#-SVJCR/L (52) • C#-SVJCR/L-JHP (52) • C#-SVVCN (54) • HSK A63WH-SVJCR/L (53) • SVJCR/L (469) • SVJCR/L-3-JHP (470) • SVVCN (470) • AVC-SVLCR/L (76)

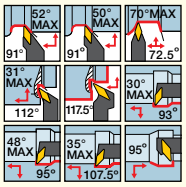
ISOTURN

VCMT-FPC-CERMET

35° Rhombic Positive Flank Inserts for Semi-Finish Turning of Steel and Automotive Components







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC20N	IC520N	Recommended Machining Data a_p (inch)	f (IPR)
VCMT 331-FPC	.654	.375	.187	.016	●	●	.028-.079	.0016-.0087
VCMT 332-FPC	.654	.375	.187	.031		●	.028-.079	.0016-.0087

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

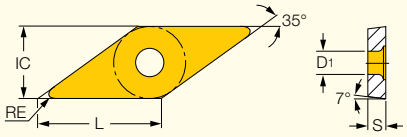
For tools, see pages: A/S-SVQCR/L (470) • C#-SVJCR/L (52) • C#-SVJCR/L-JHP (52) • C#-SVVCN (54) • HSK A63WH-SVJCR/L (53) • SVJCR/L (469) • SVJCR/L-3-JHP (470) • SVVCN (470) • AVC-SVLCR/L (76)

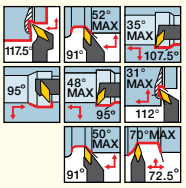
ISOTURN

VCGT-PF

35° Rhombic Inserts with a Positive Flank for Semi-Finishing and Finishing on Soft Materials and Exotic Alloys







Designation	Dimensions L	IC	S	RE	D_1	IC830	Recommended Machining Data a_p (inch)	f (IPR)
VCGT 130304-PF	.512	.313	.125	.016	.134	●	.020-.118	.0020-.0098

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

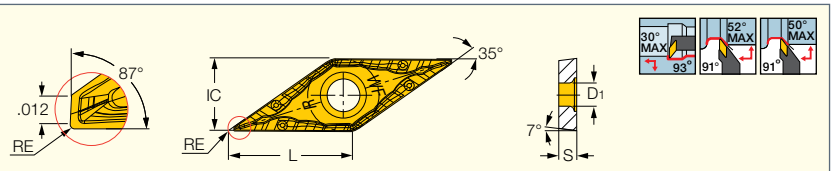
For tools, see pages: SVACR/L (53)

ISOTURN

VCET-WF

35° Rhombic Wiper Inserts for Finishing Operations at High Feeds





Right-hand shown

Designation	Dimensions L	IC	S	RE	D1	IC907	Recommended Machining Data ap (inch)	f (IPR)
VCET 22.002R/L-WF	.437	.250	.125	.002	.114	●	.002-.157	.0004-.0079

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

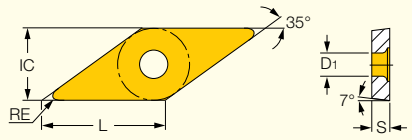
For tools, see pages: C#-SVJCR/L (52) • C#-SVJCR/L-JHP (52) • PVACR-S (51) • PVACR/L-JHP (53) • SVACR/L (53) • SVJCR-PAD (53)

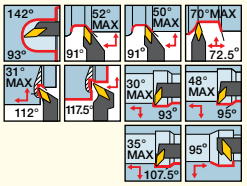
ISOTURN

VCMT-SM

35° Rhombic Inserts with a 7° Positive Flank for Semi-Finishing and Finish Turning on Soft Materials and Exotic Alloys







Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC6025	IC8250	IC908	IC6015	IC8150	IC806	IC807	IC907	IC4	IC804	Recommended Machining Data ap (inch)	f (IPR)
VCMT 220-SM	.437	.250	.125	.008	.114				●				●	●			.008-.098	.0016-.0079
VCMT 221-SM	.437	.250	.125	.016	.114		●		●	●		●	●	●			.020-.118	.0027-.0094
VCMT 222-SM	.437	.250	.125	.031	.114				●								.020-.079	.0027-.0098
VCMT 330-SM	.654	.375	.187	.008	.173		●			●			●	●			.020-.098	.0020-.0079
VCMT 331-SM	.654	.375	.187	.016	.173		●	●			●	●	●	●			.020-.098	.0020-.0098
VCMT 332-SM	.654	.375	.187	.031	.173	●	●	●		●	●	●	●	●	●	●	.005-.071	.0027-.0098
VCMT 333-SM	.654	.375	.187	.047	.173								●	●			.020-.118	.0039-.0098

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

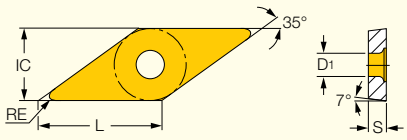
For tools, see pages: A/S-SVQCR/L (470) • AVC-SVLCR/L (76) • AVC-SVUCR/L (76) • C#-SVJCR/L (52) • C#-SVJCR/L-JHP (52) • C#-SVVCN (54) • HSK A63WH-SVJCR/L (53) • PVACR-S (51) • PVACR/L-JHP (53) • SVACR/L (53) • SVJCR-PAD (53) • SVJCR/L (469) • SVJCR/L-3-JHP (470) • SVVCN (470)

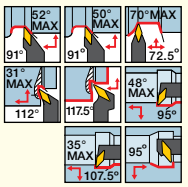
ISOTURN

VCMT-14

35° Rhombic Inserts with a 7° Positive Flank for Semi-Finishing and Finish Turning on Soft Materials and Exotic Alloys







Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC20	IC20N	IC520N	Recommended Machining Data ap (inch)	f (IPR)
VCMT 331-14	.654	.375	.187	.016	.173	●	●	●	●	.039-.197	.0047-.0098
VCMT 332-14	.654	.375	.187	.031	.173	●	●		●	.039-.197	.0047-.0118

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

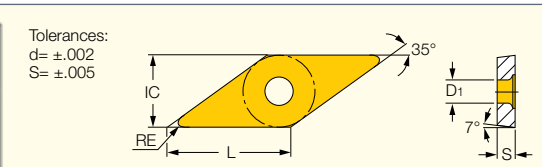
For tools, see pages: A/S-SVQCR/L (470) • AVC-SVLCR/L (76) • C#-SVJCR/L (52) • C#-SVJCR/L-JHP (52) • C#-SVVCN (54) • HSK A63WH-SVJCR/L (53) • SVJCR/L (469) • SVJCR/L-3-JHP (470) • SVVCN (470)

ISOTURN

VCMW

35° Rhombic Inserts with a 7° Positive Flank for Short Chipping Materials such as Cast Iron





Designation	Dimensions L	IC	S	RE	D1	IC20	Recommended Machining Data ap (inch)	f (IPR)
VCMW 331	.654	.375	.187	.016	.173	●	.028-.157	.0020-.0098
VCMW 332	.654	.375	.187	.031	.173	●	.039-.197	.0020-.0098

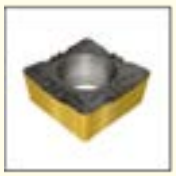
• For user guide and cutting speed recommendations, see pages 100-104, 206-228

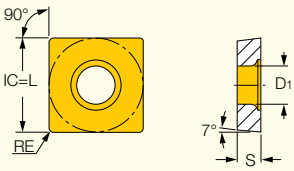
For tools, see pages: A/S-SVQCR/L (470) • C#-SVJCR/L (52) • C#-SVJCR/L-JHP (52) • C#-SVVCN (54) • HSK A63WH-SVJCR/L (53) • SVJCR/L (469) • SVJCR/L-3-JHP (470) • SVVCN (470) • AVC-SVLCR/L (76)

ISOTURN

SCMT-F3P

Square Positive Flank Inserts, for Semi-Finishing and Finish Turning of Steel





Designation	Dimensions L	S	RE	D1	Tough ↔ Hard IC8250	IC8150	IC807	Recommended Machining Data ap (inch)	f (IPR)
SCMT 3-1-F3P	.375	.156	.016	.173	●	●	●	.004-.079	.0024-.0098
SCMT 3-2-F3P	.375	.156	.031	.173	●	●	●	.006-.079	.0031-.0126

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

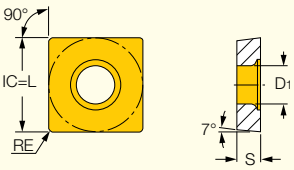
For tools, see pages: SSDCN (54)

ISOTURN

SCMT-M3P

Square Positive Flank Inserts for Medium Machining Conditions on Steel





Designation	Dimensions L	S	RE	D1	Tough ↔ Hard IC8250	IC8150	IC807	Recommended Machining Data ap (inch)	f (IPR)
SCMT 3-1-M3P	.375	.156	.016	.173	●	●	●	.000-.000	.0000-.0000
SCMT 3-2-M3P	.375	.156	.031	.173	●	●	●	.000-.000	.0000-.0000
SCMT 431-M3P	.500	.187	.016	.217	●	●		.000-.000	.0000-.0000
SCMT 432-M3P	.500	.187	.031	.217	●	●		.000-.000	.0000-.0000
SCMT 433-M3P	.500	.187	.047	.217	●	●	●	.000-.000	.0000-.0000

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

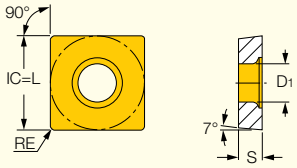
For tools, see pages: SSDCN (54)

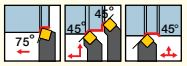
ISOTURN

SCMT-F3M

Square Positive Flank Inserts for Stainless Steel Finishing Applications







Designation	Dimensions L	S	RE	D1	Tough ↔ Hard IC6025	IC6015	IC806	IC807	Recommended Machining Data ap (inch)	f (IPR)
SCMT 3-0-F3M	.375	.156	.008	.173	●	●	●	●	.000-.000	.0000-.0000
SCMT 3-1-F3M	.375	.156	.016	.173	●	●	●	●	.000-.000	.0000-.0000
SCMT 3-2-F3M	.375	.156	.031	.173	●	●	●	●	.000-.000	.0000-.0000
SCMT 430-F3M	.500	.187	.008	.217	●	●	●	●	.000-.000	.0000-.0000
SCMT 431-F3M	.500	.187	.016	.217	●	●	●	●	.000-.000	.0000-.0000
SCMT 432-F3M	.500	.187	.031	.217	●	●	●	●	.000-.000	.0000-.0000

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

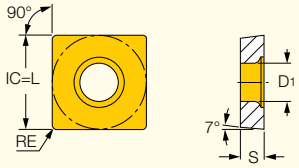
For tools, see pages: SSDCN (54)

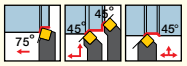
ISOTURN

SCMT-M3M

Square Positive Flank Inserts, for Machining Stainless and Low Carbon Steel







Designation	Dimensions L	S	RE	D1	Tough ↔ Hard IC6025	IC6015	IC807	Recommended Machining Data ap (inch)	f (IPR)
SCMT 3-1-M3M	.375	.156	.016	.173	●	●	●	.016-.150	.0028-.0098
SCMT 3-2-M3M	.375	.156	.031	.173	●	●	●	.031-.150	.0039-.0118
SCMT 431-M3M	.500	.187	.016	.217	●	●	●	.016-.157	.0039-.0098
SCMT 432-M3M	.500	.187	.031	.217	●	●	●	.031-.157	.0047-.0134
SCMT 433-M3M	.500	.187	.047	.217	●	●	●	.047-.157	.0055-.0169

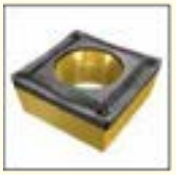
• For user guide and cutting speed recommendations, see pages 100-104, 206-228

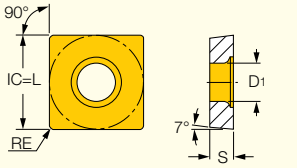
For tools, see pages: SSDCN (54)

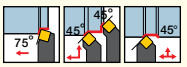
ISOTURN

SCMT-SM

Square Inserts with a 7° Positive Flank for Semi-Finishing and Finish Turning on Soft Materials and Exotic Alloys







Designation	Dimensions L	S	RE	D1	Tough ↔ Hard IC830	IC6025	IC8250	IC8150	IC5005	IC807	IC907	Recommended Machining Data ap (inch)	f (IPR)
SCMT 3-1-SM	.375	.156	.016	.173			●	●		●	●	.020-.118	.0027-.0098
SCMT 3-2-SM	.375	.156	.031	.173	●	●	●	●	●	●	●	.020-.118	.0039-.0118
SCMT 431-SM	.500	.187	.016	.217				●				.020-.138	.0039-.0098
SCMT 432-SM	.500	.187	.031	.217			●	●		●	●	.039-.157	.0039-.0118

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

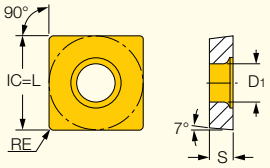
For tools, see pages: SSDCN (54)

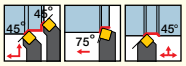
ISOTURN

SCMT-14

Square Inserts with a 7° Positive Flank for Semi-Finishing and Finish Turning on Soft Materials and Exotic Alloys







Designation	Dimensions L	S	RE	D1	Tough ↔ Hard IC8250	IC807	IC907	Recommended Machining Data ap (inch)	f (IPR)
SCMT 3-1-14	.375	.156	.016	.173		●	●	.039-.138	.0047-.0118
SCMT 431-14	.500	.187	.016	.217	●			.039-.157	.0047-.0118

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

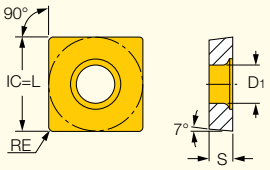
For tools, see pages: SSDCN (54)

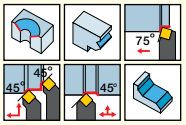
ISOTURN

SCMT-19

Square Inserts with a 7° Positive Flank for Semi-Roughing at Medium to High Feeds







Designation	Dimensions L	S	RE	D1	Tough ↔ Hard IC830	IC20	IC5005	IC807	IC907	Recommended Machining Data ap (inch)	fz (IPR)
SCMT 432-19	.500	.187	.031	.217	●	●	●	●	●	.118-.315	.0031-.0059
SCMT 433-19	.500	.187	.047	.217		●				.118-.315	.0031-.0059

• For cutting speed recommendations, see pages

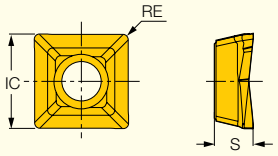
For tools, see pages: SSDCN (54)

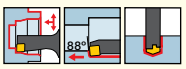
DRDRILLS

XOMT-DT

Inserts for DR Drills and Boring Bars







Designation	Dimensions IC	S	RE	Tough ↔ Hard IC28	IC328	IC250	IC350	IC908	IC520M
XOMT 060204-DT	.243	.101	.016	●	●	●	●	●	●

• Two cutting edges • For hard materials and interrupted cut

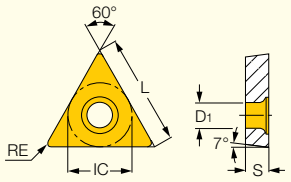
For tools, see pages: A-SXFOR (96) • A-SXFOR-DR (96)

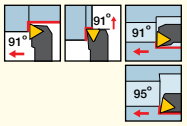
ISOTURN

TCMT-F3P

Triangular Inserts with a Positive Flank for Semi-Finishing and Finish Turning on Steel







Designation	Dimensions L	S	RE	D_1	Tough ↔ Hard IC830	IC8250	IC8150	IC807	Recommended Machining Data a_p (inch)	f (IPR)
TCMT 730-F3P	.378	.094	.008	.098	●	●	●	●	.002-.067	.0012-.0055
TCMT 731-F3P	.378	.094	.016	.098	●	●	●		.004-.067	.0020-.0079
TCMT 2-0-F3P	.433	.094	.008	.110	●	●	●		.002-.067	.0012-.0055
TCMT 2-1-F3P	.433	.094	.016	.110	●	●	●		.004-.067	.0020-.0079
TCMT 2-2-F3P	.433	.094	.031	.110	●	●	●		.005-.067	.0028-.0110
TCMT 3-1-F3P	.650	.156	.016	.173	●	●	●		.004-.067	.0020-.0079

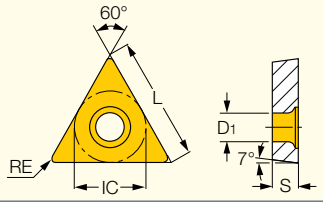
• For user guide and cutting speed recommendations, see pages 100-104, 206-228

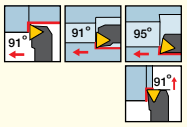
For tools, see pages: E-STFCR-HEAD (92) • STFCR/L (55) • STGCR/L (55)

ISOTURN

TCMT-M3M

Triangular Positive Flank Inserts, for Machining Stainless and Low Carbon Steel





Designation	Dimensions L	IC	S	RE	D_1	Tough ↔ Hard IC6025	IC6015	IC807	Recommended Machining Data a_p (inch)	f (IPR)
TCMT 2-1-M3M	.433	.250	.094	.016	.110	●	●	●	.016-.098	.0028-.0091
TCMT 2-2-M3M	.433	.250	.094	.031	.110	●	●	●	.031-.098	.0039-.0098
TCMT 3-1-M3M	.650	.375	.156	.016	.173	●	●	●	.016-.118	.0028-.0098
TCMT 3-2-M3M	.650	.375	.156	.031	.173	●	●	●	.031-.118	.0039-.0118
TCMT 3-3-M3M	.650	.375	.156	.047	.173	●	●	●	.047-.118	.0051-.0138
TCMT 432-M3M	.866	.500	.187	.031	.217	●	●	●	.031-.138	.0047-.0134

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

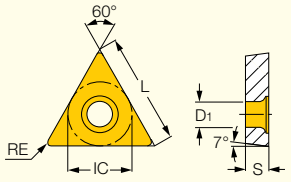
For tools, see pages: E-STFCR-HEAD (92) • STFCR/L (55) • STGCR/L (55)

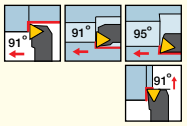
ISOTURN

TCMT-PF

Triangular Inserts with a Positive Flank for Semi-Finishing and Finishing on Soft Materials and Exotic Alloys







Designation	Dimensions L	IC	S	RE	D_1	Tough ↔ Hard IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
TCMT 2-0-PF	.433	.250	.094	.008	.112	●	●	.008-.118	.0020-.0098

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

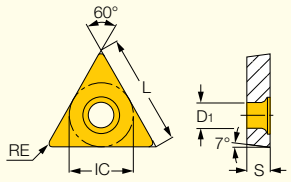
For tools, see pages: E-STFCR-HEAD (92) • STFCR/L (55) • STGCR/L (55)

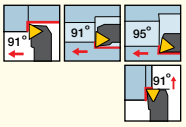
ISOTURN

TCMT-SM

Triangular Inserts with a 7° Positive Flank for Semi-Finishing and Finish Turning on Soft Materials and Exotic Alloys







Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC8350	IC8250	IC908	IC8150	IC5010	IC428	IC5005	IC807	IC907	Recommended Machining Data ap (inch)	f (IPR)
TCMT 2-1-SM	.433	.250	.094	.016	.110		●	●	●	●	●		●	●	●	.008-.118	.0020-.0098
TCMT 2-2-SM	.433	.250	.094	.031	.110			●						●	●	.020-.098	.0027-.0098
TCMT 3-1-SM	.650	.375	.156	.016	.173	●		●		●		●	●	●	●	.020-.118	.0024-.0098
TCMT 3-2-SM	.650	.375	.156	.031	.173	●		●		●			●	●	●	.020-.118	.0031-.0110
TCMT 3-2-SM*	.650	.375	.156	.031	.173		●									.020-.118	.0031-.0110

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

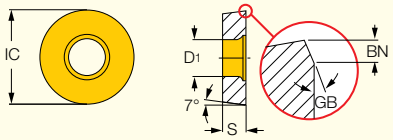
For tools, see pages: E-STFCR-HEAD (92) • STFCR/L (55) • STGCR/L (55)

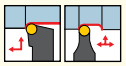
ISOTURN

RCMT-SR

Round Inserts with a 7° Positive Flank for Medium Profiling on a Wide Range of Materials







Designation	Dimensions IC	S	D1	GB	BN	IC8150	Recommended Machining Data ap (inch)	f (IPR)
RCMT 0803M0-SR	.315	.125	.134	15.0	.006	●	.039-.177	.0118-.0177
RCMT 1606M0-SR	.630	.250	.217	15.0	.007	●	.079-.315	.0157-.0236

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

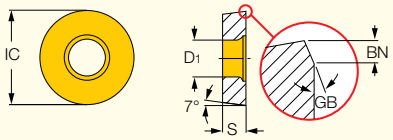
For tools, see pages: SRGCR/L (55) • SRNCN (56)

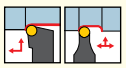
ISOTURN

RCMT-14

Round Inserts with a 7° Positive Flank for Medium and Finish Profiling on a Wide Range of Materials







Designation	Dimensions IC	S	D1	GB	BN	Tough ↔ Hard IC354	IC8250	IC8150	IC20	IC5010	IC806	IC807	IC907	Recommended Machining Data ap (inch)	f (IPR)
RCMT 0803M0-14	.315	.125	.134	15.0	.006				●					.039-.157	.0118-.0177
RCMT 0803M0-14*	.315	.125	.134	15.0	.006		●							.039-.157	.0118-.0177
RCMT 10T3M0-14	.394	.156	.173	15.0	.006	●	●	●	●					.059-.197	.0118-.0197
RCMT 1204M0-14	.472	.187	.217	15.0	.006		●	●	●		●	●	●	.059-.236	.0118-.0197
RCMT 1606M0-14	.630	.250	.217	15.0	.010		●	●	●					.079-.315	.0157-.0236
RCMT 2006M0-14	.787	.250	.256	15.0	.010			●	●	●				.098-.394	.0197-.0276
RCMT 2006M0E-14	.787	.250	.256	15.0	.010			●						.098-.394	.0197-.0276

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

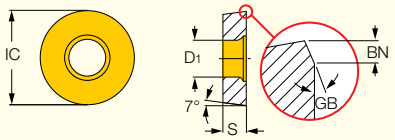
For tools, see pages: C#-SRGCR-12-JHP (56) • C#-SRGCR/L (56) • SRGCR-12-JHP (56) • SRGCR/L (55) • SRNCN (56)

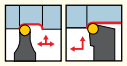
ISOTURN

RCMX

Round Inserts with a 7° Positive Flank and Reinforced Cutting Edge for Semi-Roughing and Rough Profiling







Designation	Dimensions IC	S	D_1	GB	BN	Tough ⟷ Hard IC8250	IC8150	Recommended Machining Data a_p (inch)	f (IPR)
RCMX 100300	.394	.125	.142	15.0	.000	●		.059-.197	.0118-.0197
RCMX 120400	.472	.187	.165	15.0	.006	●	●	.059-.236	.0118-.0197
RCMX 200600	.787	.250	.256	15.0	.000	●		.098-.394	.0197-.0197

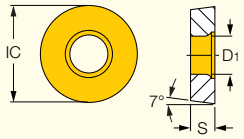
• For user guide and cutting speed recommendations, see pages 100-104, 206-228

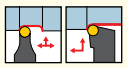
ISOTURN

RCMX-NR

Round 7° Inserts with a Positive Flank and Strong Cutting Edge for Rough Turning







Designation	Dimensions IC	S	D_1	IC8250	Recommended Machining Data a_p (inch)	f (IPR)
RCMX 250700-NR	.984	.313	.283	●	.157-.394	.0197-.0590
RCMX 3209M0-NR	1.260	.375	.394	●	.276-.512	.0276-.0787

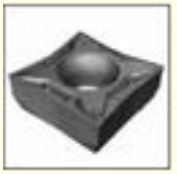
• For user guide and cutting speed recommendations, see pages 100-104, 206-228

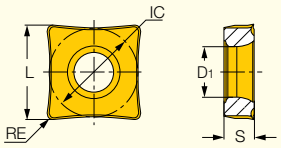
For tools, see pages: PRDCN (57)

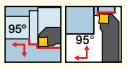
ISOTURN

QCMT-PF

Four 80° Cornered Insert with a Positive 7° Clearance and Chipformer for Finishing Applications







Designation	Dimensions IC	S	RE	D_1	IC908	Recommended Machining Data a_p (inch)	f (IPR)
QCMT 3-0-PF	.380	.156	.008	.173	●	.020-.098	.0020-.0118

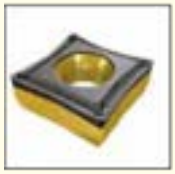
• For user guide and cutting speed recommendations, see pages 100-104, 206-228

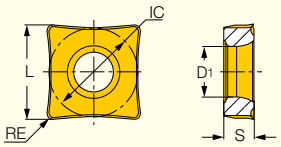
For tools, see pages: PQLCR-S (57) • PQLCR/L (58)

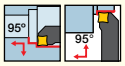
ISOTURN

QCMT-SM

Inserts with a Positive 7° Clearance and Chipformer for Finishing Applications







Designation	Dimensions L	IC	S	RE	D_1	Tough ↔ Hard IC830	IC8250	IC8150	Recommended Machining Data a_p (inch)	f (IPR)
QCMT 3-1-SM	.409	.380	.156	.016	.173	●	●	●	.020-.098	.0024-.0098

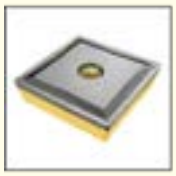
• For user guide and cutting speed recommendations, see pages 100-104, 206-228

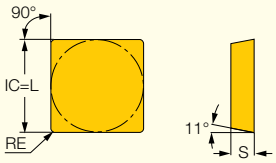
For tools, see pages: PQLCR-S (57) • PQLCR/L (58) • S-SQLCR (88)

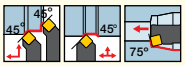
ISOTURN

SPMR

Square Inserts with a Positive Chipformer Exerting Low Cutting Forces for Semi-Finishing and Finishing Applications







Designation	Dimensions L	S	RE	Tough ↔ Hard IC830	IC8250	IC8150	IC20N	Recommended Machining Data a_p (inch)	f (IPR)
SPMR 321	.375	.125	.016		●		●	.059-.197	.0059-.0118
SPMR 322	.375	.125	.031	●	●			.059-.236	.0063-.0138
SPMR 421	.500	.125	.016	●	●	●		.059-.197	.0059-.0138
SPMR 422	.500	.125	.031		●			.059-.236	.0063-.0157
SPMR 423	.500	.125	.047		●	●		.059-.236	.0079-.0157

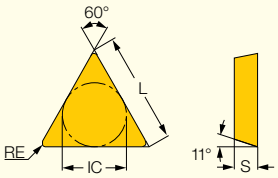
• For user guide and cutting speed recommendations, see pages 100-104, 206-228

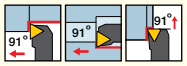
ISOTURN

TPMR

Triangular 11° Positive Inserts with a Positive Chipformer Exerting Low Cutting Forces for Internal Finish Turning







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC8350	IC8250	IC20N	IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
TPMR 730	.378	.219	.094	.008						●	.039-.118	.0039-.0079
TPMR 731	.378	.219	.094	.016			●				.039-.138	.0059-.0079
TPMR 221	.433	.250	.125	.016	●			●			.039-.138	.0059-.0098
TPMR 222	.433	.250	.125	.031	●						.039-.138	.0059-.0118
TPMR 321	.650	.375	.125	.016	●	●		●	●	●	.039-.157	.0059-.0130
TPMR 322	.650	.375	.125	.031	●			●	●	●	.039-.157	.0059-.0138

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

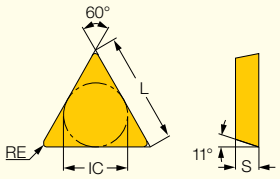
For tools, see pages: CTGPR (59) • S-CTFPR (93)

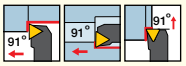
ISOTURN

TPMR-PF

Triangular 11° Positive Inserts with a Positive Chipformer Exerting Low Cutting Forces for Internal Finish Turning







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	.016	●	●	●	●	.016-.118	.0031-.0098
TPMR 222-PF	.433	.250	.125	.031	●			●	.020-.138	.0028-.0110
TPMR 321-PF	.650	.375	.125	.016	●	●	●	●	.020-.138	.0024-.0098
TPMR 322-PF	.650	.375	.125	.031	●	●		●	.031-.118	.0031-.0110

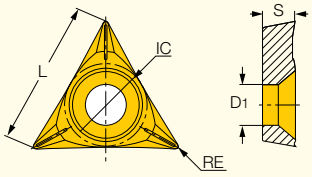
• For user guide and cutting speed recommendations, see pages 100-104, 206-228
For tools, see pages: CTGPR (59) • S-CTFPR (93)

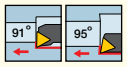
ISOTURN

TPGT-SP

Super Positive Triangular Inserts with 11° Clearance for Fine Boring and Finish Turning







Designation	Dimensions L	IC	S	RE	D_1	Tough ↔ Hard IC908	IC907	Recommended Machining Data a_p (inch)	f (IPR)
TPGT 2-0-SP	.433	.250	.094	.008	.118	●	●	.016-.039	.0020-.0059

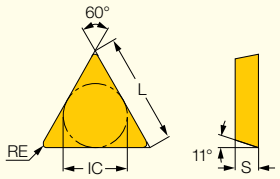
• For user guide and cutting speed recommendations, see pages 100-104, 206-228
For tools, see pages: E-STFPR (93)

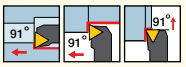
ISOTURN

TPMR-FTF

11° Positive Triangular Inserts with a Positive Chipformer, Low Cutting Forces for Finish Turning Applications







Designation	Dimensions L	IC	S	RE	IC20N	Recommended Machining Data a_p (inch)	f (IPR)
TPMR 221-FTF	.433	.250	.125	.016	●	.020-.118	.0027-.0098
TPMR 321-FTF	.650	.375	.125	.016	●	.020-.118	.0027-.0098

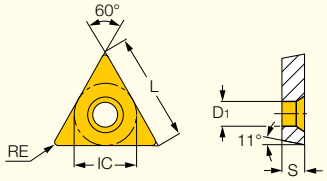
• For user guide and cutting speed recommendations, see pages 100-104, 206-228
For tools, see pages: CTGPR (59) • S-CTFPR (93)

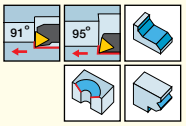
ISOTURN

TPMT

Triangular 11° Positive Inserts with a Positive Chipformer Exerting Low Cutting Forces for Internal Finish Turning







Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC830	IC635	IC50M	IC8350	IC8250	IC8150	IC520M	IC20	IC806	IC807	IC907	Recommended Machining Data ap (inch)(1)	f (IPR)(2)
TPMT 2-0	.433	.250	.094	.008	.118	●									●	●	.008-.079	.0020-.0098
TPMT 2-1	.433	.250	.094	.016	.118	●				●	●		●		●	●	.039-.118	.0047-.0118
TPMT 2-2	.433	.250	.094	.031	.118	●				●	●		●				.039-.157	.0059-.0118
TPMT 321	.650	.375	.125	.016	.169	●			●	●			●		●	●	.039-.157	.0047-.0118
TPMT 322	.650	.375	.125	.031	.169	●	●	●		●		●	●	●	●	●	.197-.472	.0059-.0138

• For cutting speed recommendations, see pages ..

(1) For turning

(2) For turning

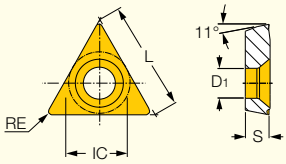
For tools, see pages: BBN (94) • BBS (93) • E-STFPR (93) • E-STLPL-HEAD (94) • E-STLPR (94)

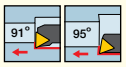
ISOTURN

TPMT-PF

Triangular 11° Positive Inserts for Semi-Finishing and Finishing Applications







Designation	Dimensions L	IC(1)	S	RE	D1	Tough ↔ Hard IC8250	IC8150	Recommended Machining Data ap (inch)	f (IPR)
TPMT 2-1-PF	.433	.250	.094	.016	.118	●	●	.020-.118	.0039-.0118

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

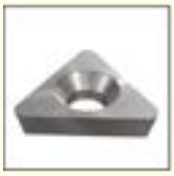
(1) Actual di=.247" to be used in .250" pocket size

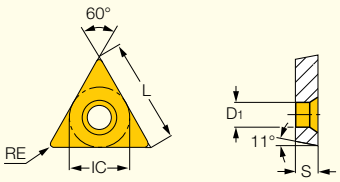
For tools, see pages: BBN (94) • BBS (93) • E-STFPR (93) • E-STLPL-HEAD (94)

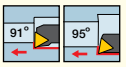
ISOTURN

TPGB

Triangular Inserts with an 11° Positive Flank for Short Chipping Materials







Designation	Dimensions L	IC	S	RE	D1	IC20	Recommended Machining Data ap (inch)	f (IPR)
TPGB 2-1	.433	.250	.094	.016	.118	●	.039-.118	.0020-.0098

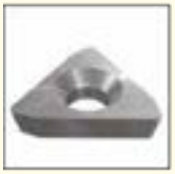
• For user guide and cutting speed recommendations, see pages 100-104, 206-228

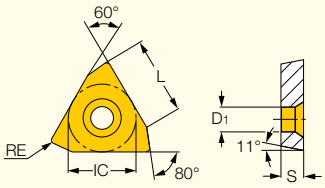
For tools, see pages: BBN (94) • BBS (93) • E-STFPR (93) • E-STLPL-HEAD (94) • E-STLPR (94)

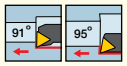
ISOTURN

TPGB-XL

Triangular Inserts with an 11° Positive Flank for Short Chipping Materials







Designation	Dimensions L	IC	S	RE	D1	IC20	Recommended Machining Data ap (inch)	f (IPR)
TPGB 2-1-XL	.433	.250	.094	.016	.118	●	.039-.118	.0020-.0098

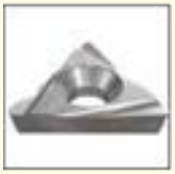
• For user guide and cutting speed recommendations, see pages 100-104, 206-228

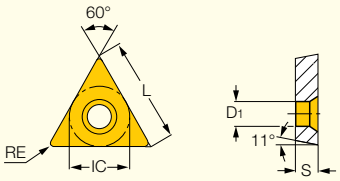
For tools, see pages: BBN (94) • BBS (93) • E-STFPR (93) • E-STLPL-HEAD (94)

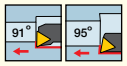
ISOTURN

TPGH-R/L

Triangular Inserts with an 11° Positive and Ground Chipformer for Finish Turning







Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC908	IC20	Recommended Machining Data ap (inch)	f (IPR)
TPGH 2-1-L	.433	.250	.094	.016	.118		●	.039-.118	.0020-.0098
TPGH 2-2-L	.433	.250	.094	.031	.118	●		.039-.118	.0020-.0098
TPGH 321-R/L	.650	.375	.125	.016	.169		●	.039-.157	.0020-.0118
TPGH 322-L	.650	.375	.125	.031	.169		●	.039-.157	.0020-.0118

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

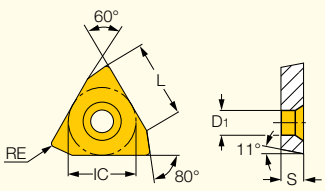
For tools, see pages: BBN (94) • BBS (93) • E-STLPL-HEAD (94) • E-STLPR (94)

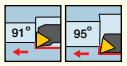
ISOTURN

TPGH-XL

Triangular Inserts with an 11° Positive and Ground Chipformer for Finish Turning







Designation	Dimensions L	IC	S	RE	D1	IC20	Recommended Machining Data ap (inch)	f (IPR)
TPGH 2-1-XL	.433	.250	.094	.016	.118	●	.039-.118	.0020-.0098

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

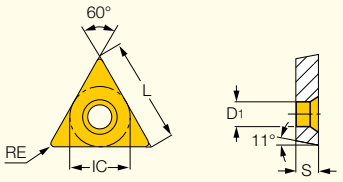
For tools, see pages: BBN (94) • BBS (93) • E-STFPR (93) • E-STLPL-HEAD (94)

ISOTURN

TPGX

Triangular Inserts with an 11° Positive Flank and Ground Chipformer for Finish Turning







Designation	Dimensions L	IC	S	RE	D_1	Tough ↔ Hard IC908	IC20	IC20N	IC520N	Recommended Machining Data a_p (inch)	f (IPR)
TPGX 730-L	.375	.219	.094	.008	.118	●	●	●	●	.039-.079	.0039-.0079
TPGX 731-L	.375	.219	.094	.016	.118	●	●	●	●	.039-.098	.0059-.0079
TPGX 220-L	.433	.250	.125	.008	.138	●	●	●	●	.039-.098	.0039-.0079
TPGX 221-L	.433	.250	.125	.016	.138	●	●	●	●	.039-.118	.0059-.0079
TPGX 222-L	.433	.250	.125	.031	.138		●			.039-.138	.0059-.0098

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

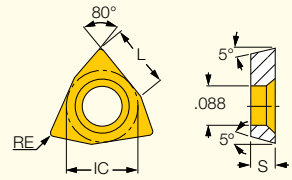
For tools, see pages: MG STFPR-X (93)

ISOTURN

WBGT

Trigon Inserts with a 5° Positive Flank Ground Chipformer for Finish Turning







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC830	IC908	IC807	IC907	Recommended Machining Data a_p (inch)	f (IPR)
WBGT 520L	.086	.156	.063	.008	●	●	●	●	.004-.039	.0020-.0039

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

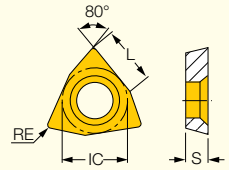
For tools, see pages: E/S-SWUBR/L (95) • MG-SWUBR/L (95)

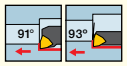
ISOTURN

WBMT

Trigon Inserts with a 5° Positive Flank Ground Chipformer for Finish Turning







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	.004				●					.016-.079	.0039-.0059
WBMT 520R/L	.086	.156	.063	.008	●	●	●		●	●	●	●	.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 100-104, 206-228

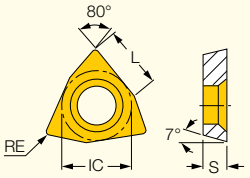
For tools, see pages: E/S-SWUBR/L (95) • MG-SWUBR/L (95)

ISOTURN

WCGT

Trigon Inserts with a 7° Positive Flank and Chipformer for Finish Turning







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IC908	IC30N	Recommended Machining Data a_p (inch)	f (IPR)
WCGT 020102L	.086	.156	.063	.008	●	●	.016-.079	.0020-.0039
WCGT 020104L	.086	.156	.063	.016	●	●	.016-.079	.0039-.0059

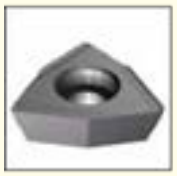
• For user guide and cutting speed recommendations, see pages 100-104, 206-228

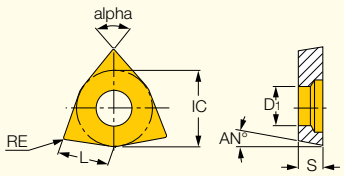
For tools, see pages: MG-SWUCR (96)

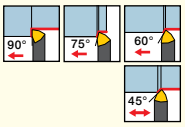
ISOTURN

WPEX

80° and 84° Precision Trigon Inserts with Positive 8° and 12° Clearance for Finishing Applications







Designation	Dimensions L	S	RE	IC	D_1	EPSR	AN	Tough ↔ Hard IC08	IC908	Recommended Machining Data a_p (inch)	f (IPR)
WPEX 040200R/L08	.157	.098	.000	.260	.126	84.0	8.0	●		.008-.079	.0020-.0079
WPEX 040200R12	.157	.098	.000	.260	.126	84.0	12.0	●		.008-.079	.0020-.0079
WPEX 040202L08	.157	.098	.008	.260	.126	84.0	8.0	●		.008-.079	.0020-.0079
WPEX 050300R/L08	.197	.125	.000	.313	.146	80.0	8.0	●	●	.008-.098	.0020-.0079
WPEX 050300R12	.197	.125	.000	.313	.146	80.0	12.0	●	●	.008-.098	.0020-.0079
WPEX 050302L08	.197	.125	.008	.313	.146	80.0	8.0	●	●	.008-.098	.0020-.0079
WPEX 050302R12	.197	.125	.008	.313	.146	80.0	12.0		●	.008-.098	.0020-.0079
WPEX 050304L08	.197	.125	.016	.313	.146	80.0	8.0	●	●	.008-.098	.0020-.0079
WPEX 050304R12	.197	.125	.016	.313	.146	80.0	12.0		●	.008-.098	.0020-.0079
WPEX 060400R/L08	.236	.157	.000	.375	.146	80.0	8.0	●	●	.008-.118	.0020-.0079
WPEX 060400R/L12	.236	.157	.000	.375	.146	80.0	12.0	●	●	.008-.118	.0020-.0079
WPEX 060402L08	.236	.157	.008	.375	.146	80.0	8.0	●	●	.008-.118	.0020-.0079
WPEX 060402L12	.236	.157	.008	.375	.146	80.0	12.0	●	●	.008-.118	.0020-.0079
WPEX 060404L08	.236	.157	.016	.375	.146	80.0	8.0	●	●	.008-.118	.0020-.0079
WPEX 060404R12	.236	.157	.016	.375	.146	80.0	12.0	●	●	.008-.118	.0020-.0079

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

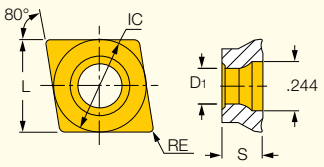
For tools, see pages: SWAPR-PAD (58) • SWAPR/L (Metric) (58) • SWDPR/L (Metric) (59)

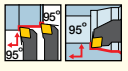
CHAMTURN

CC95MT-SM

Single-Sided 80° Rhombic Inserts for Finishing (CHAMELEON Multifunction Pocket System)







Designation	Dimensions L	IC	S	RE	D_1	Tough ↔ Hard IC830	IC8250	IC8150	Recommended Machining Data a_p (inch)	f (IPR)
CC95MT 100504-SM	.374	.375	.197	.016	.177	●	●	●	.020-.118	.0027-.0094

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

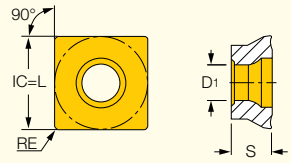
For tools, see pages: S-SUXCR/L-CM (88) • SUXCR-CM (43)

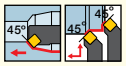
CHAMTURN

SC45MT-SM

Single-Sided Square Inserts for Finishing Applications (CHAMELEON Multifunction Pocket System)







Designation	Dimensions L	S	RE	D1	Tough ↔ Hard IC830	IC8250	IC8150	Recommended Machining Data ap (inch)	f (IPR)
SC45MT 100508-SM	.375	.197	.031	.177	●	●	●	.020-.118	.0039-.0118

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

For tools, see pages: S-SUXCR/L-CM (88) • SUXCR-CM (43)

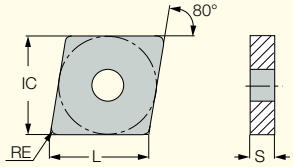
ISOTURN

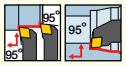
ALUPTURN POSITIVE DOUBLE SIDED

CNGG-F3N

Double-Sided Sharp-Edged Positive and Polished Rake Inserts for Finishing on Aluminum and Other Non-Ferrous Materials







Designation	Dimensions L	IC	S	RE	IC20	Recommended Machining Data ap (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 100-104, 206-228

For tools, see pages: A-PCLNR/L-X/G (80) • C#-PCLNR/L-X-JHP (21) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • AVC-PCLNR/L (76)

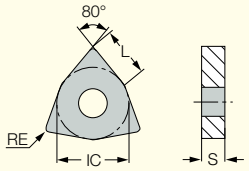
ISOTURN

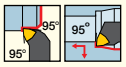
ALUPTURN POSITIVE DOUBLE SIDED

WNGG-F3N

Double-Sided Sharp-Edged Positive and Polished Rake Inserts for Finishing on Aluminum and Other Non-Ferrous Materials







Designation	Dimensions L	IC	S	RE	IC20	Recommended Machining Data ap (inch)	f (IPR)
WNGG 330-F3N-P	.257	.375	.187	.0079	●	.012-.118	.0039-.0118
WNGG 331-F3N-P	.257	.375	.187	.0157	●	.012-.118	.0039-.0118
WNGG 332-F3N-P	.257	.375	.187	.0315	●	.012-.118	.0039-.0118

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

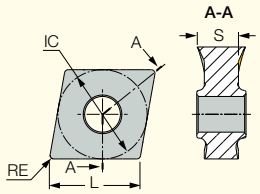
For tools, see pages: A-PWLNR/L-X/G (83) • A/S-MWLNR/L-W (82) • DWLNR/L (7) • MWLNR/L-CA-W (97) • MWLNR/L-W (14) • PWLNR/L-X (8) • PWLNR/L-X-JHP (9)

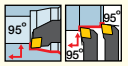
HELITURN LD

CNGX-M3N

Double-Sided Positive Rake Inserts with High Helical and Sharp Edge for Medium Machining on Non-Ferrous Materials







Designation	Dimensions L	IC	S	RE	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 100-104, 206-228

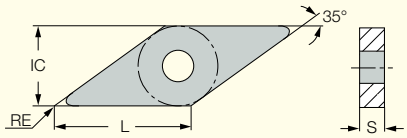
For tools, see pages: A-PCLNR/L-X/G (80) • C#-PCLNR/L-X-JHP (21) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20)

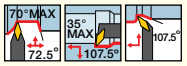
ISOTURN

VNGU-R3N

Double-Sided Sharp-Edged Positive Rake Inserts for Rough Machining on Aluminum and Other Non-Ferrous Materials







Designation	Dimensions L	IC	S	RE	IC20	Recommended Machining Data a_p (inch)	f (IPR)
VNGU 220616-R3N	.866	.500	.250	.0630	●	.020-.118	.0039-.0098
VNGU 220630-R3N	.866	.500	.250	.1181	●	.059-.177	.0059-.0118

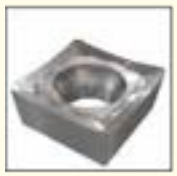
• For user guide and cutting speed recommendations, see pages 100-104, 206-228

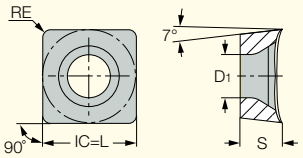
For tools, see pages: A-SVQNR/L-AL-JHP (473) • SVHNR/L-JHP (30) • SVVNN-JHP (473)

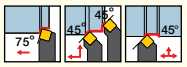
ISOTURN

SCGT-AS

Square Inserts with a 7° Positive Flank, Very Positive Rake Angle and Sharp Cutting Edge for Machining Aluminum







Designation	Dimensions L	IC	S	RE	D_1	IC20	Recommended Machining Data a_p (inch)	f (IPR)
SCGT 3-2-AS	.375	.375	.156	.031	.173	●	.020-.118	.0039-.0118
SCGT 431-AS	.500	.500	.187	.016	.217	●	.039-.157	.0039-.0118
SCGT 432-AS	.500	.500	.187	.031	.217	●	.039-.157	.0039-.0118

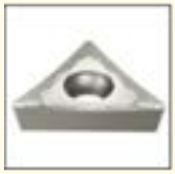
• For user guide and cutting speed recommendations, see pages 100-104, 206-228

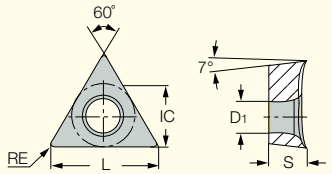
For tools, see pages: SSDCN (54)

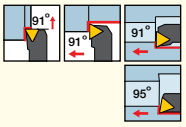
ISOTURN

TCGT-AS

Triangular Inserts with a 7° Positive Flank, Very Positive Rake Angle and Sharp Cutting Edge for Machining Aluminum







Designation	Dimensions L	IC	S	RE	D1	IC20	Recommended Machining Data ap (inch)	f (IPR)
TCGT 2-1-AS	.433	.250	.094	.016	.110	●	.008-.118	.0020-.0118
TCGT 3-1-AS	.650	.375	.156	.016	.173	●	.020-.118	.0020-.0118
TCGT 3-2-AS	.650	.375	.156	.031	.173	●	.020-.118	.0039-.0118

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

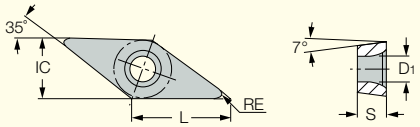
For tools, see pages: E-STFCR-HEAD (92) • STFCR/L (55) • STGCR/L (55)

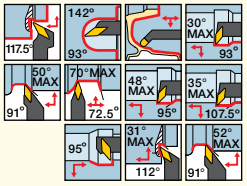
ISOTURN

VCGT-AS

35° Rhombic Inserts with a 7° Positive Flank, Very Positive Rake Angle and Sharp Cutting Edge for Machining Aluminum







Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC920	IC20	Recommended Machining Data ap (inch)	f (IPR)
VCGT 220-AS	.437	.250	.125	.008	.114	●	●	.008-.098	.0020-.0079
VCGT 221-AS	.437	.250	.125	.016	.114		●	.020-.118	.0020-.0098
VCGT 33-.004-AS	.654	.375	.187	.004	.173		●	.008-.098	.0020-.0079
VCGT 330-AS	.654	.375	.187	.008	.173		●	.020-.098	.0020-.0098
VCGT 331-AS	.654	.375	.187	.016	.173		●	.020-.118	.0020-.0098
VCGT 332-AS	.654	.375	.187	.031	.173		●	.020-.118	.0039-.0098
VCGT 333-AS	.654	.375	.187	.047	.173		●	.020-.118	.0039-.0098
VCGT 220530-AS	.870	.500	.219	.118	.217		●	.059-.177	.0059-.0118

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

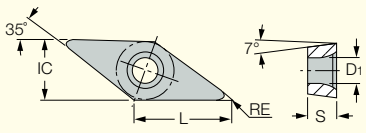
For tools, see pages: A/S-SVQCR/L (470) • AVC-SVUCR/L (76) • C#-SVJCR/L (52) • C#-SVJCR/L-JHP (52) • C#-SVVCN (54) • HSK A63WH-SVJCR/L (53) • PVACR-S (51) • PVACR/L-JHP (53) • SVACR/L (53) • SVJCR-PAD (53) • SVJCR/L (469) • SVJCR/L-3-JHP (470) • SVVCN (470) • AVC-SVLCR/L (76)

ISOTURN

VCGT-AF

Inserts with a Very Positive Rake Angle and Sharp Cutting Edge for Semi-Finishing and Finishing on Aluminum







Designation	Dimensions L	IC	S	RE	D1	IC20	Recommended Machining Data ap (inch)	f (IPR)
VCGT 220508-AF	.870	.500	.219	.031	.217	●	.039-.177	.0039-.0098
VCGT 220512-AF	.870	.500	.219	.047	.217	●	.039-.177	.0039-.0118
VCGT 220516-AF	.870	.500	.219	.063	.217	●	.059-.177	.0039-.0138

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

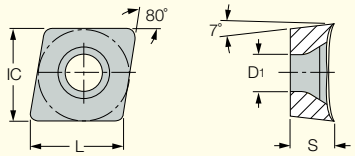
For tools, see pages: A/S-SVQCR/L (470)

ISOTURN

CCGT-AS

80° Rhombic Inserts with a 7° Positive Flank, Very Positive Rake Angle and Sharp Cutting Edge for Machining Aluminum







Designation	Dimensions L	IC	S	RE	D1	IC20	Recommended Machining Data ap (inch)	f (IPR)
CCGT 2-.004-AS	.252	.250	.094	.004	.110	●	.020-.079	.0039-.0079
CCGT 2-0-AS	.252	.250	.094	.008	.110	●	.020-.079	.0039-.0079
CCGT 2-1-AS	.252	.250	.094	.016	.110	●	.020-.079	.0039-.0098
CCGT 3-.004-AS	.382	.375	.156	.004	.173	●	.020-.098	.0039-.0098
CCGT 3-0-AS	.382	.375	.156	.008	.173	●	.020-.098	.0039-.0098
CCGT 3-1-AS	.382	.375	.156	.016	.173	●	.020-.098	.0039-.0098
CCGT 3-2-AS	.382	.375	.156	.031	.173	●	.031-.118	.0039-.0118
CCGT 430-AS	.508	.500	.187	.008	.217	●	.020-.098	.0039-.0098
CCGT 431-AS	.508	.500	.187	.016	.217	●	.020-.098	.0039-.0098
CCGT 432-AS	.508	.500	.187	.031	.217	●	.039-.138	.0039-.0118

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

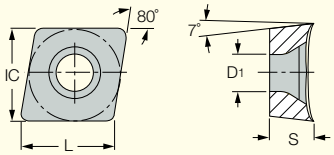
For tools, see pages: A/E/S-SCLCR/L (89) • C#-SCLCR/L-JHP (44) • E-SCLCR/L-HEAD (88) • PCACR/L-JHP (46) • PCLCR/L-S (45) • PCLCR/L-S-JHP (45) • S-SCLCR/L (90) • SCACR/L-S (45) • SCLCR-PAD (44) • SCLCR/L (44) • AVC-SCLCR/L (75)

ISOTURN

CCGT-AF

80° Rhombic Inserts with a 7° Positive Flank, Very Positive Rake Angle and Sharp Cutting Edge for Machining Aluminum







Designation	Dimensions L	IC	S	RE	D1	IC20	Recommended Machining Data ap (inch)	f (IPR)
CCGT 3-2-AF	.382	.375	.156	.031	.173	●	.031-.118	.0059-.0098
CCGT 432-AF	.508	.500	.187	.031	.217	●	.039-.138	.0059-.0118

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

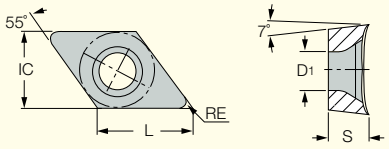
For tools, see pages: A/E/S-SCLCR/L (89) • C#-SCLCR/L-JHP (44) • E-SCLCR/L-HEAD (88) • PCACR/L-JHP (46) • PCLCR/L-S (45) • PCLCR/L-S-JHP (45) • S-SCLCR/L (90) • SCLCR-PAD (44) • SCLCR/L (44) • AVC-SCLCR/L (75)

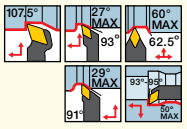
ISOTURN

DCGT-AS

55° Rhombic Inserts with a 7° Positive Flank, Very Positive Rake Angle and Sharp Cutting Edge for Machining Aluminum







Designation	Dimensions L	IC	S	RE	D1	Tough ↔ Hard IC920	IC20	IC320	IC907	Recommended Machining Data ap (inch)	f (IPR)
DCGT 2-.004-AS	.305	.250	.094	.004	.110		●			.020-.079	.0012-.0079
DCGT 2-0-AS	.305	.250	.094	.008	.110	●	●			.020-.079	.0020-.0079
DCGT 2-1-AS	.305	.250	.094	.016	.110		●			.020-.098	.0020-.0098
DCGT 3-.004-AS	.457	.375	.156	.004	.173		●			.020-.098	.0020-.0098
DCGT 3-0-AS	.457	.375	.156	.008	.173		●	●	●	.020-.098	.0020-.0102
DCGT 3-1-AS	.457	.375	.156	.016	.173		●	●	●	.020-.098	.0020-.0098
DCGT 3-2-AS	.457	.375	.156	.031	.173		●	●		.031-.118	.0031-.0118

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

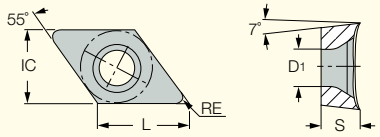
For tools, see pages: AVC-SDUCR/L (75) • C#-SDJCR-JHP (48) • C#-SDJCR/L (47) • C#-SDNCN (50) • E-SDUCR-HEAD (91) • E/S-SDUCR/L (91) • IM-SDNCN (51) • PDACR/L-JHP (49) • PDACR/L-S (46) • PDJCR/L-JHP (49) • SDACR/L (48) • SDJCR-PAD (48) • SDJCR/L (47) • SDPCN (50)

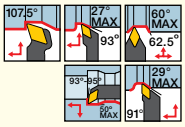
ISOTURN

DCGT-AF

Inserts with a Very Positive Rake Angle and Sharp Cutting Edge for Semi-Finishing and Finishing on Aluminum







Designation	Dimensions L	IC	S	RE	D1	IC20	Recommended Machining Data ap (inch)	f (IPR)
DCGT 3-1-AF	.457	.375	.156	.016	.173	●	.020-.098	.0020-.0098

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

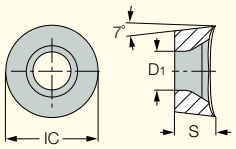
For tools, see pages: AVC-SDUCR/L (75) • C#-SDJCR-JHP (48) • C#-SDJCR/L (47) • C#-SDNCN (50) • E/S-SDUCR/L (91) • IM-SDNCN (51) • PDACR/L-JHP (49) • PDACR/L-S (46) • PDJCR/L-JHP (49) • SDACR/L (48) • SDJCR/L (47) • SDPCN (50)

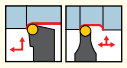
ISOTURN

RCGT-AS

Round Inserts with a 7° Positive Flank, Very Positive Rake Angle and Sharp Cutting Edge for Machining Aluminum







Designation	Dimensions IC	S	D1	IC20	Recommended Machining Data ap (inch)	f (IPR)
RCGT 0803M0-AS	.315	.125	.134	●	.039-.157	.0079-.0157
RCGT 1003M0-AS	.394	.125	.157	●	.039-.197	.0079-.0157
RCGT 10T3M0-AS	.394	.156	.173	●	.039-.197	.0079-.0157

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

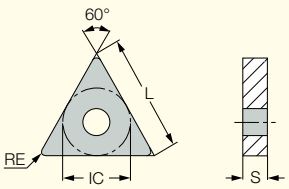
For tools, see pages: SRGCR/L (55) • SRNCN (56)

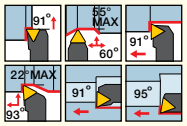
ISOTURN

TNMS-12

Triangular Single-Sided Inserts for Soft and Nonferrous Materials







Designation	Dimensions L	IC	S	RE	IC20	Recommended Machining Data ap (inch)	f (IPR)
TNMS 331-12	.650	.375	.187	.016	●	.020-.118	.0027-.0126
TNMS 332-12	.650	.375	.187	.031	●	.020-.118	.0039-.0138
TNMS 431-12	.866	.500	.187	.016	●	.039-.157	.0027-.0126
TNMS 432-12	.866	.500	.187	.031	●	.039-.157	.0039-.0138

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

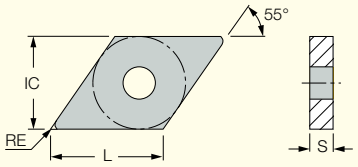
For tools, see pages: A-PTFNR/L-X/G (87) • PTFNR-CA (98) • PTGNR/L-X (31) • PTGNR/L-X-JHP (31)

ISOTURN

DNMS-12

55° Rhombic Single-Sided Inserts for Soft and Nonferrous Materials







Designation	Dimensions L	IC	S	RE	IC20	Recommended Machining Data a_p (inch)	f (IPR)
DNMS 432-12	.610	.500	.187	.031	●	.039-.157	.0027-.0138

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

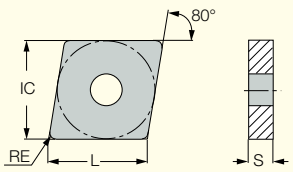
For tools, see pages: A-PDUNR/L (85) • C#-PDJNR/L-JHP (26) • PDJNR/L (25) • PDJNR/L-4-JHP (25)

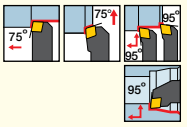
ISOTURN

CNMS-12

80° Rhombic Single-Sided Inserts for Soft and Nonferrous Materials







Designation	Dimensions L	IC	S	RE	IC20	Recommended Machining Data a_p (inch)	f (IPR)
CNMS 432-12	.508	.500	.187	.031	●	.039-.157	.0039-.0138

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

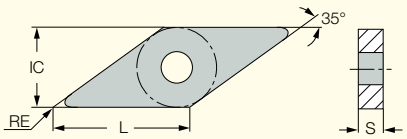
For tools, see pages: C#-PCLNR/L-12-JHP (17) • C#-PCLNR/L-X (20) • C#-PCLNR/L-X-JHP (21) • PCLNR/L-4-JHP (17) • PCLNR/L-CA (97) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • A-PCLNR/L-X/G (80)

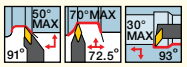
ISOTURN

VNMS-12

35° Rhombic Single-Sided Inserts for Soft and Nonferrous Materials







Designation	Dimensions L	IC	S	RE	IC20	Recommended Machining Data a_p (inch)	f (IPR)
VNMS 331-12	.654	.375	.187	.016	●	.039-.118	.0027-.0118
VNMS 332-12	.654	.375	.187	.031	●	.039-.138	.0027-.0131

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

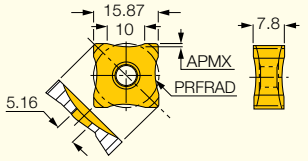
For tools, see pages: MVJNR/L (29) • MVVNN (30)

ISOTURN

SNMX 150708R-..

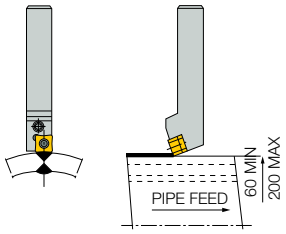
Pipe Skiving Inserts with a Positive Rake Used to Remove the Burr of Welded Tubes





Designation	M E T R I C PRFRAD	APMX	Tough ↔ Hard IC8150	IC418
SNMX 150708R-11	11.00	1.20	●	
SNMX 150708R-13	13.00	1.00	●	
SNMX 150708R-15	15.00	0.86	●	
SNMX 150708R-18	18.00	0.71	●	
SNMX 150708R-20	20.00	0.64	●	
SNMX 150708R-22	22.00	0.58	●	
SNMX 150708R-25	25.00	0.50	●	
SNMX 150708R-27	27.00	0.47	●	
SNMX 150708R-30	30.00	0.42	●	
SNMX 150708R-35	35.00	0.36	●	
SNMX 150708R-40	40.00	0.31	●	
SNMX 150708R-45	45.00	0.28	●	
SNMX 150708R-50	50.00	0.25	●	●
SNMX 150708R-60	60.00	0.21	●	
SNMX 150708R-65	65.00	0.19	●	
SNMX 150708R-70	70.00	0.18	●	
SNMX 150708R-75	75.00	0.17	●	
SNMX 150708R-90	90.00	0.14	●	

For tools, see pages: PSANR/L (42)



These inserts remove the burr immediately after the welding process (material temperature is usually 300-400°C). Cutting speed varies from 40 to 150 m/min, depending on the diameter of the tube.

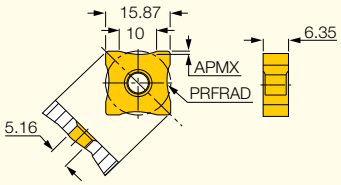
Recommended: $R=\frac{D\ (pipe)}{2}$ +(1-2 mm)

ISOTURN

SNMX 150608R-..

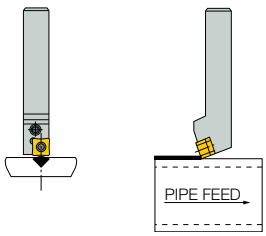
Pipe Skiving Inserts Used to Remove the Burr of Welded Tubes





Designation	M E T R I C PRFRAD	APMX	IC418
SNMX 150608R-15	15.00	0.86	●
SNMX 150608R-90	90.00	0.14	●

For tools, see pages: PSANR/L (42)



These inserts remove the burr immediately after the welding process (material temperature is usually 300-400° C). Cutting speed varies from 40 to 150 m/min, depending on the diameter of the tube.

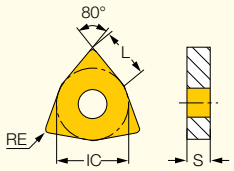
Recommended: $R=\frac{D\ (pipe)}{2}$ +(1-2 mm)

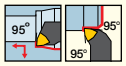
ISOTURN

WNGA-Ceramic

Double-Sided Flat Rake Ceramic Inserts for Machining Cast Iron







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IS8	IS80	IS6	Recommended Machining Data a_p (inch)	f (IPR)
WNGA 432T	.343	.500	.187	.031	●			.079-.157	.0079-.0236
WNGA 433T	.343	.500	.187	.047	●	●	●	.079-.197	.0012-.0374

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

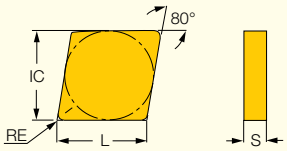
For tools, see pages: A/S-MWLNR/L-W (82) • C#-MULNR/L-MW (12) • C#-PWLNR/L-08-JHP (6) • DWLNR/L (7) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MULNR/L-MW (11) • MWLNR/L-W (14) • PWLNR/L-4-JHP (6) • PWLNR/L-X (8) • PWLNR/L-X-JHP (9) • S-DWLNR/L (78) • S/A-MULNR/L-MW (84) • DWLNR/L-JHP-MC (7)

ISOTURN

CNG-Ceramic

80° Rhombic Double-Sided Ceramic Inserts with a T-Land for Machining Cast Iron, Hardened Steel and Nickel Based Alloys







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IW7	IS35	IS25	IS8	IS80	IN23	IN22	IN420	Recommended Machining Data a_p (inch)	f (IPR)
CNG 431T	.508	.500	.187	.016	●					●			.039-.118	.0039-.0169
CNG 432E	.508	.500	.187	.031		●							.039-.118	.0039-.0197
CNG 432T	.508	.500	.187	.031	●			●		●	●	●	.039-.118	.0039-.0197
CNG 432T0225-WG (1)	.508	.500	.187	.031	●								.039-.118	.0039-.0197
CNG 433E	.508	.500	.187	.047		●							.039-.197	.0039-.0197
CNG 433T	.508	.500	.187	.047	●					●			.039-.157	.0039-.0197
CNG 434T	.508	.500	.187	.063	●			●					.039-.197	.0039-.0197
CNG 452E	.508	.500	.313	.031		●							.039-.157	.0039-.0197
CNG 452T	.508	.500	.313	.031	●	●	●			●			.039-.157	.0039-.0197
CNG 453E	.508	.500	.313	.047		●							.039-.197	.0039-.0197
CNG 453T	.508	.500	.313	.047	●		●	●					.039-.157	.0039-.0197
CNG 454T	.508	.500	.313	.063	●		●		●				.039-.197	.0039-.0197
CNG 543T	.635	.625	.250	.047				●					.039-.197	.0039-.0197

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

(1) Wiper edge configuration for finishing operations at high feeds

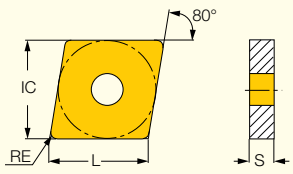
For tools, see pages: CCLNR (70) • CCLNR/L (70)

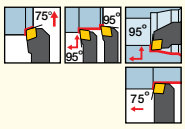
ISOTURN

CNMG-Ceramic

80° Rhombic Double-Sided Inserts with a T-Land for Machining Cast Iron and Hardened Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IN23	IN22	Recommended Machining Data a_p (inch)	f (IPR)
CNMG 431T	.508	.500	.187	.016	●		.039-.118	.0020-.0079
CNMG 432T	.508	.500	.187	.031	●	●	.039-.118	.0020-.0079

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

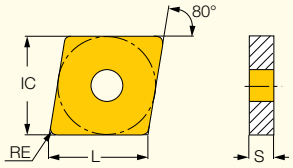
For tools, see pages: A-MCLNR/L (81) • C#-MULNR/L-MW (12) • C#-PCLNR/L-12-JHP (17) • C#-PCLNR/L-X (20) • C#-PCLNR/L-X-JHP (21) • DCBNR/L (22) • DCLNR/L (21) • DCLNR/L-JHP-MC (22) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MCKNR (18) • MCLNR/L (18) • MCRNR (18) • MULNR/L-MW (11) • PCLNR/L-4-JHP (17) • PCLNR/L-CA (97) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • S/A-MULNR/L-MW (84) • A-PCLNR/L-X/G (80)

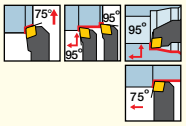
ISOTURN

CNGA-Ceramic

80° Rhombic Double-Sided Inserts with a T-Land for Machining Cast Iron and Hardened Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IS35	IS25	IS8	IS80	IS6	IN23	IN22	IN420	Recommended Machining Data a_p (inch)	f (IPR)
CNGA 431T	.508	.500	.187	.016						●	●	●	.039-.118	.0020-.0079
CNGA 432T	.508	.500	.187	.031	●	●	●	●	●	●	●	●	.039-.157	.0020-.0079
CNGA 433T	.508	.500	.187	.047			●		●	●	●	●	.039-.157	.0020-.0079
CNGA 434T	.508	.500	.187	.063			●	●		●			.039-.197	.0020-.0079

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

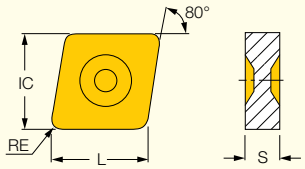
For tools, see pages: A-MCLNR/L (81) • A-PCLNR/L-X/G (80) • C#-MULNR/L-MW (12) • C#-PCLNR/L-12-JHP (17) • C#-PCLNR/L-X (20) • C#-PCLNR/L-X-JHP (21) • DCBNR/L (22) • DCLNR/L (21) • DCLNR/L-JHP-MC (22) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MCKNR (18) • MCLNR/L (18) • MCRNR (18) • MULNR/L-MW (11) • PCLNR/L-4-JHP (17) • PCLNR/L-CA (97) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • S/A-MULNR/L-MW (84)

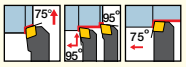
ISOTURN

CNGX-Ceramic

80° Rhombic Double-Sided Dimpled Ceramic Inserts with a T-Land for Machining Cast Iron







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IS8	IS80	IS6	Recommended Machining Data a_p (inch)	f (IPR)
CNGX 453T	.508	.500	.313	.047	●	●	●	.039-.118	.0027-.0169
CNGX 454T	.508	.500	.313	.063	●	●	●	.039-.118	.0027-.0169

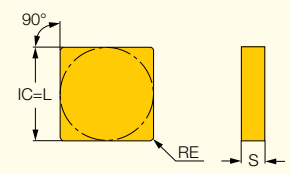
• For user guide and cutting speed recommendations, see pages 100-104, 206-228

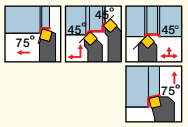
ISOTURN

SNG-Ceramic

Square Double-Sided Ceramic Inserts with a Flat Rake for Machining Cast Iron, Hardened Steel and Super Alloys







Designation	Dimensions IC	S	RE	Tough ↔ Hard IW7	IS8	IS80	IS6	IN23	IN22	IN420	IN110	Recommended Machining Data a_p (inch)	f (IPR)
SNG 431T	.500	.187	.016						●			.004-.138	.0039-.0197
SNG 432T	.500	.187	.031	●	●			●	●	●		.004-.138	.0039-.0197
SNG 433T	.500	.187	.047	●	●	●	●	●	●	●	●	.004-.197	.0039-.0197
SNG 434T	.500	.187	.063	●	●	●			●	●		.004-.197	.0039-.0197
SNG 452T	.500	.313	.031	●					●	●		.004-.197	.0039-.0197
SNG 453T	.500	.313	.047	●		●		●			●	.004-.197	.0039-.0197
SNG 454T	.500	.313	.063		●				●		●	.004-.197	.0039-.0197
SNG 553T	.625	.250	.047	●								.004-.197	.0039-.0197

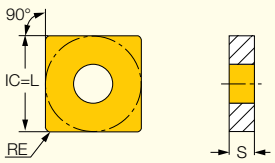
• For user guide and cutting speed recommendations, see pages 100-104, 206-228

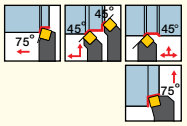
ISOTURN

SNGA-Ceramic

Square Double-Sided Ceramic Inserts with a Flat Rake for Machining Cast Iron and Hardened Steel







Designation	Dimensions IC	S	RE	Tough ↔ Hard IS8	IN23	IN22	IN420	Recommended Machining Data a_p (inch)	f (IPR)
SNGA 431T	.500	.187	.016			●		.004-.118	.0020-.0118
SNGA 432T	.500	.187	.031		●	●	●	.004-.138	.0020-.0118
SNGA 433T	.500	.187	.047	●	●			.004-.157	.0020-.0118
SNGA 434T	.500	.187	.063	●				.004-.177	.0020-.0118

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

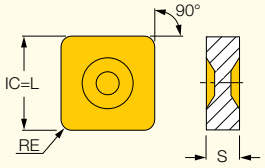
For tools, see pages: C#-MULNR/L-MW (12) • DSSNR/L (34) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MSDNN (35) • MSSNR (35) • MULNR/L-MW (11) • PSKNR/L-CA (98) • PSSNR-CA (98)

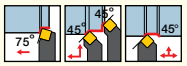
ISOTURN

SNGX-Ceramic

Square Double-Sided Dimpled Ceramic Inserts with a Flat Rake for Machining Cast Iron







Designation	Dimensions IC	S	RE	L	Tough ↔ Hard IS8	IS80	IS6	Recommended Machining Data a_p (inch)	f (IPR)
SNGX 453T	.500	.313	.047	.500	●	●	●	.004-.197	.0039-.0197
SNGX 454T	.500	.313	.063	.500	●	●	●	.004-.197	.0039-.0197

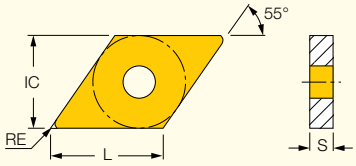
• For user guide and cutting speed recommendations, see pages 100-104, 206-228

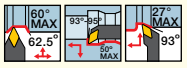
ISOTURN

DNGA-Ceramic

55° Rhombic Double-Sided Ceramic Inserts for Machining Cast Iron and Hardened Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IS8	IN23	IN22	IN420	Recommended Machining Data a_p (inch)	f (IPR)
DNGA 431T	.610	.500	.187	.016		●	●		.004-.118	.0027-.0197
DNGA 432T	.610	.500	.187	.031	●	●	●	●	.004-.138	.0027-.0197
DNGA 433T	.610	.500	.187	.047		●			.004-.157	.0027-.0197
DNGA 441T	.610	.500	.250	.016		●		●	.004-.138	.0027-.0197
DNGA 442T	.610	.500	.250	.031		●	●	●	.004-.157	.0027-.0197
DNGA 443T	.610	.500	.250	.047			●	●	.004-.197	.0027-.0197

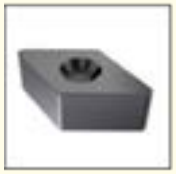
• For user guide and cutting speed recommendations, see pages 100-104, 206-228

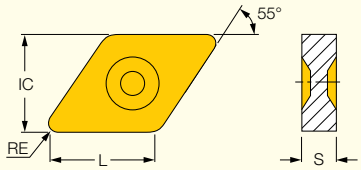
For tools, see pages: A-PDUNR/L (85) • C#-DDJNR/L (27) • C#-PDJNR/L-JHP (26) • DDJNR/L (26) • DDJNR/L-JHP-MC (27) • HSK A63WH-DDJNR/L (27) • HSK A63WH-DDNNN (28) • MDJNR/L (24) • PDJNR/L (25) • PDJNR/L-4-JHP (25) • S-DDUNR (84) • AVC-DDUNR/L (77)

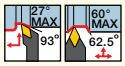
ISOTURN

DNGX-Ceramic

55° Rhombic Double-Sided Dimpled Ceramic Inserts for Machining Cast Iron







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IS8	IS80	IS6	Recommended Machining Data a_p (inch)	f (IPR)
DNGX 453T	.500	.500	.313	.047	●	●	●	.004-.157	.0039-.0197
DNGX 454T	.610	.500	.313	.063	●			.004-.197	.0039-.0197

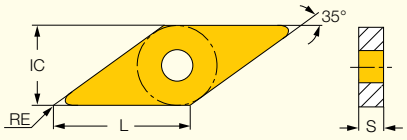
• For user guide and cutting speed recommendations, see pages 100-104, 206-228

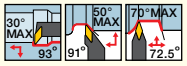
ISOTURN

VNGA-Ceramic

35° Rhombic Double-Sided Ceramic Inserts with a T-Land for Machining Cast Iron and Hardened Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IN22	IN420	Recommended Machining Data a_p (inch)	f (IPR)
VNGA 331T	.654	.375	.187	.016	●	●	.028-.098	.0024-.0118
VNGA 332T	.654	.375	.187	.031		●	.031-.118	.0031-.0138

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

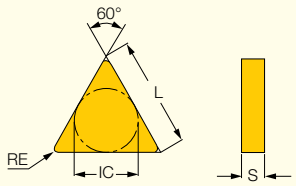
For tools, see pages: MVJNR/L (29) • MVVNN (30)

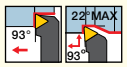
ISOTURN

TNG-Ceramic

Triangular Double-Sided Ceramic Inserts for Machining Cast Iron, Hardened Steel and Nickel Based Alloys







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IW7	IS8	IS80	IN23	IN22	IN420	Recommended Machining Data a_p (inch)	f (IPR)
TNG 332T	.650	.375	.187	.031		●		●	●	●	.039-.138	.0039-.0138
TNG 333T	.650	.375	.187	.047	●	●	●				.004-.157	.0039-.0157

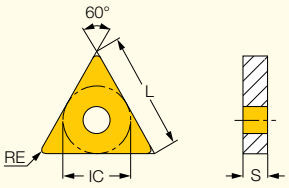
• For user guide and cutting speed recommendations, see pages 100-104, 206-228

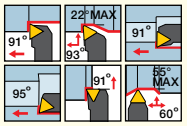
ISOTURN

TNGA-Ceramic

Triangular Double-Sided Ceramic Inserts for Machining Super Alloys and Hardened Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IN23	IN22	IN420	Recommended Machining Data a_p (inch)	f (IPR)
TNGA 331T	.650	.375	.187	.016	●	●	●	.004-.118	.0027-.0197
TNGA 332T	.650	.375	.187	.031	●	●	●	.004-.138	.0027-.0197
TNGA 333T	.650	.375	.187	.047	●			.004-.157	.0027-.0197
TNGA 432T	.866	.500	.187	.031	●	●	●	.004-.197	.0027-.0197
TNGA 434T	.866	.500	.187	.063	●			.004-.197	.0027-.0197

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

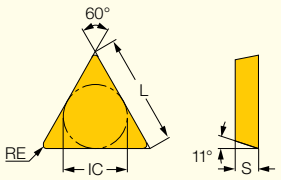
For tools, see pages: A-MTFNR (87) • A-PTFNR/L-X/G (87) • C#-DTGNR/L (32) • DTGNR/L (32) • MTENN-W (34) • MTFNR/L (33) • MTGNR (32) • MTJNR/L (33) • MTJNR/L-W (33) • PTFNR-CA (98) • PTGNR/L-X (31) • PTGNR/L-X-JHP (31)

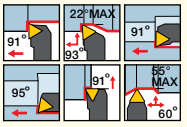
ISOTURN

TPG-Ceramic

Triangular Ceramic Inserts with an 11° Positive Flank for Machining Hardened Steel







Designation	Dimensions L	IC	S	RE	Tough ↔ Hard IN23	IN22	IN420	Recommended Machining Data a_p (inch)	f (IPR)
TPG 731T	.378	.219	.094	.016		●		.004-.059	.0027-.0118
TPG 221T	.433	.250	.125	.016	●	●	●	.004-.059	.0027-.0118
TPG 222T	.433	.250	.125	.031	●	●	●	.004-.118	.0027-.0157
TPG 321T	.650	.375	.125	.016	●	●	●	.004-.157	.0027-.0197
TPG 322T	.650	.375	.125	.031	●	●	●	.004-.157	.0027-.0197

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

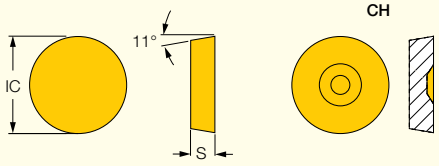
For tools, see pages: CTGPR (59) • S-CTFPR (93)

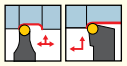
ISOTURN

RPG-Ceramic

Round Ceramic Inserts for Machining Nickel Based Alloys and Hardened Steel







Designation	Dimensions IC	S	Tough ↔ Hard IW7	IS35	IS25	Recommended Machining Data a_p (inch)	f (IPR)
RPG 32E	.375	.125	●			.004-.079	.0027-.0079
RPG 43E	.500	.187		●	●	.004-.118	.0027-.0079
RPG 43E-CH [1]	.500	.187		●	●	.004-.118	.0027-.0079
RPG 43T	.500	.187	●	●	●	.004-.118	.0027-.0079
RPG 43T-CH [1]	.500	.187		●	●	.004-.118	.0027-.0079

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

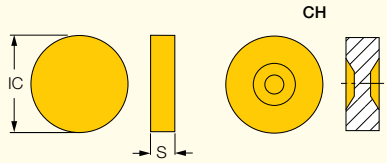
[1] Insert with a dimple

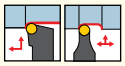
ISOTURN

RNG-Ceramic

Round Double-Sided Ceramic Inserts for Machining Cast Iron, Nickel Based Alloys and Hardened Steel







Designation	Dimensions IC	S	Tough ↔ Hard IW7	IS35	IS25	IN23	IN22	IN420	Recommended Machining Data a_p (inch)	f (IPR)
RNG 32T	.375	.125	●				●		.004-.079	.0027-.0079
RNG 33T	.375	.187	●						.004-.079	.0027-.0079
RNG 43T	.500	.187	●				●	●	.004-.138	.0027-.0197
RNG 45 S6 (1)	.500	.313	●						.039-.079	-
RNG 45E	.500	.313	●	●	●				.004-.079	.0027-.0079
RNG 45E-CH (2)	.500	.313		●	●				.004-.079	.0027-.0079
RNG 45T	.500	.313	●	●	●	●	●	●	.004-.177	.0027-.0197
RNG 45T-CH (2)	.500	.313		●	●				.004-.177	.0027-.0197
RNG 45TE	.500	.313		●	●				.004-.177	.0027-.0197
RNG 45T02020	.500	.313	●						.004-.079	.0027-.0079
RNG 55T	.625	.313	●						.004-.118	.0027-.0079
RNG 65T	.750	.313	●						.004-.118	.0027-.0079
RNG 65TE	.750	.313		●	●				.004-.118	.0027-.0079

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

(1) **For milling nickel based superalloys; reference recommendations for milling Inconel 718:** .005 IPR 3000-3300 SFM

(2) Insert with a dimple

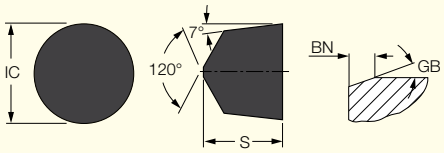
For tools, see pages: CRDNN (73) • CRGNR (73)

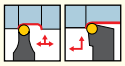
ISOTURN

RCGX-Ceramic

Round Ceramic Inserts for Machining Nickel Based Alloys and Hardened Steel







Designation	Dimensions IC	S	GB	BN	Tough ↔ Hard IW7	IS35	IS25	IN23	Recommended Machining Data a_p (inch)	f (IPR)
RCGX 35E	.375	.313	25.0	.008	●	●	●		.004-.118	.0027-.0197
RCGX 35T	.375	.313	25.0	.008	●	●	●	●	.004-.118	.0027-.0197
RCGX 35TE	.375	.313	25.0	.008			●		.004-.118	.0027-.0197
RCGX 45E	.500	.313	25.0	.008	●	●	●		.004-.157	.0027-.0197
RCGX 45T	.500	.313	25.0	.008	●			●	.004-.157	.0027-.0197

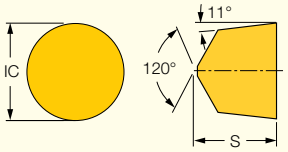
• For user guide and cutting speed recommendations, see pages 100-104, 206-228

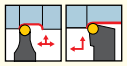
ISOTURN

RPGX-Ceramic

Round Ceramic Inserts for Machining Nickel Based Alloys and Hardened Steel







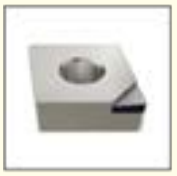
Designation	Dimensions IC	S	Tough ↔ Hard IW7	IS35	IS25	Recommended Machining Data a_p (inch)	f (IPR)
RPGX 35E	.375	.313		●	●	.020-.118	.0039-.0177
RPGX 35T	.375	.313	●	●	●	.020-.118	.0039-.0177
RPGX 45E	.500	.313		●	●	.020-.177	.0039-.0177
RPGX 45T	.500	.313	●	●	●	.020-.177	.0039-.0177

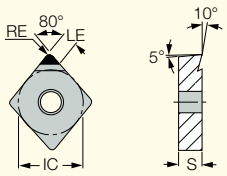
• Tools can be supplied on request. • For user guide and cutting speed recommendations, see pages 100-104, 206-228

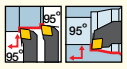
ISOTURN

CNMA (PCD)

80° Rhombic Inserts with a Single PCD Top Corner Tip and Positive Rake for Finishing Applications







Designation	Dimensions L	IC	S	RE	LE	ID5	Recommended Machining Data a_p (inch)	f (IPR)
CNMA 431D	.508	.500	.187	.016	.15	●	.004-.118	.0020-.0102
CNMA 432D	.508	.500	.187	.031	.14	●	.004-.118	.0020-.0102

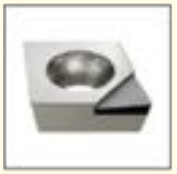
• For user guide and cutting speed recommendations, see pages 100-104, 206-228

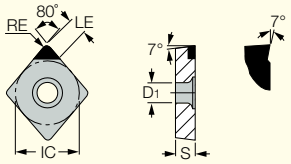
For tools, see pages: A-MCLNR/L (81) • C#-MULNR/L-MW (12) • C#-PCLNR/L-12-JHP (17) • C#-PCLNR/L-X (20) • C#-PCLNR/L-X-JHP (21) • DCLNR/L (21) • DCLNR/L-JHP-MC (22) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MCLNR/L (18) • MULNR/L-MW (11) • PCLNR/L-4-JHP (17) • PCLNR/L-CA (97) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • S/A-MULNR/L-MW (84) • A-PCLNR/L-X/G (80)

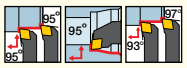
ISOTURN

CCMT (PCD)

Inserts with a Single PCD Top Corner Tip, 7° Clearance and Positive Rake Angle for Finishing Aluminum







Designation	Dimensions L	IC	S	RE	LE	D_1	ID5	Recommended Machining Data a_p (inch)	f (IPR)
CCMT 2-0D	.248	.250	.094	.008	.12	.110	●	.003-.118	.0020-.0118
CCMT 2-1D	.248	.250	.094	.016	.12	.110	●	.004-.118	.0020-.0118
CCMT 3-1D	.382	.375	.156	.016	.15	.173	●	.004-.118	.0020-.0118

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

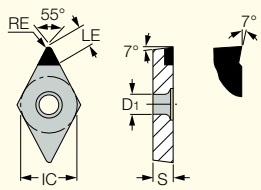
For tools, see pages: A/E/S-SCLCR/L (89) • C#-SCLCR/L-JHP (44) • E-SCLCR/L-HEAD (88) • PCACR/L-JHP (46) • PCLCR/L-S (45) • PCLCR/L-S-JHP (45) • S-SCLCR/L (90) • SCACR/L-S (45) • SCLCR-PAD (44) • SCLCR/L (44) • AVC-SCLCR/L (75)

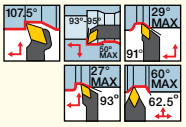
ISOTURN

DCMT (PCD)

55° Rhombic Inserts with a Single PCD Top Corner Tip, 7° Clearance and Positive Rake Angle for Finishing Applications







Designation	Dimensions L	IC	S	RE	LE	D1	ID5	Recommended Machining Data ap (inch)	f (IPR)
DCMT 3-0D	.457	.375	.156	.008	.15	.173	●	.004-.118	.0020-.0118
DCMT 3-1D	.457	.375	.156	.016	.14	.173	●	.004-.118	.0020-.0118
DCMT 3-2D	.457	.375	.156	.031	.13	.173	●	.004-.118	.0020-.0114

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

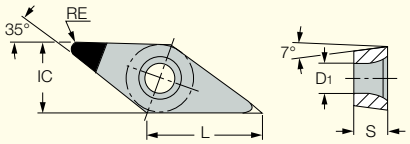
For tools, see pages: AVC-SDUCR/L (75) • C#-SDJCR-JHP (48) • C#-SDJCR/L (47) • C#-SDNCN (50) • E/S-SDUCR/L (91) • IM-SDNCN (51) • PDACR/L-JHP (49) • PDACR/L-S (46) • PDJCR/L-JHP (49) • SDACR/L (48) • SDJCR/L (47) • SDPCN (50)

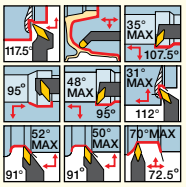
ISOTURN

VCGT-DW (PCD)

Inserts with 7° Clearance and a Single PCD Top Corner Tip Chipformer for Machining Aluminum







Designation	Dimensions L	IC	S	RE	D1	ID5	Recommended Machining Data ap (inch)	f (IPR)
VCGT 331-DW	.654	.375	.187	.016	.173	●	.004-.118	.0020-.0118
VCGT 332-DW	.654	.375	.187	.031	.173	●	.004-.118	.0020-.0118
VCGT 333-DW	.654	.375	.187	.047	.173	●	.004-.118	.0020-.0118
VCGT 220516-DW	.870	.500	.219	.063	.217	●	.004-.118	.0020-.0118
VCGT 220520-DW	.870	.500	.219	.079	.217	●	.004-.118	.0020-.0118
VCGT 220530-DW	.870	.500	.219	.118	.217	●	.004-.118	.0020-.0118

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

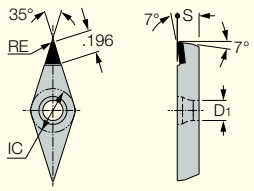
For tools, see pages: A/S-SVQCR/L (470) • C#-SVJCR/L (52) • C#-SVJCR/L-JHP (52) • C#-SVVCN (54) • HSK A63WH-SVJCR/L (53) • SVJCR/L (469) • SVJCR/L-3-JHP (470) • SVVCN (470) • AVC-SVLCR/L (76)

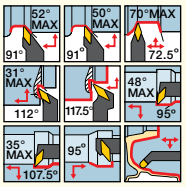
ISOTURN

VCGT (PCD)

35° Rhombic Single Brazed Tip Corner Inserts for Finishing Aluminum (PCD)







Designation	Dimensions IC	S	RE	L	D1	ID5	Recommended Machining Data ap (inch)	f (IPR)
VCGT 331D	.375	.187	.016	.654	.173	●	.004-.118	.0020-.0118
VCGT 332D	.375	.187	.031	.654	.173	●	.004-.118	.0020-.0118

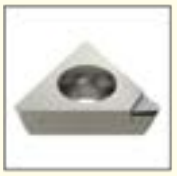
• For user guide and cutting speed recommendations, see pages 100-104, 206-228

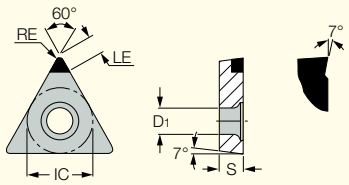
For tools, see pages: A/S-SVQCR/L (470) • C#-SVJCR/L (52) • C#-SVJCR/L-JHP (52) • C#-SVVCN (54) • HSK A63WH-SVJCR/L (53) • SVJCR/L (469) • SVJCR/L-3-JHP (470) • SVVCN (470) • AVC-SVLCR/L (76)

ISOTURN

TCMT (PCD)

Inserts with a Single PCD Top Corner Tip, 7° Clearance and Positive Rake Angle for Finishing Aluminum





Designation	Dimensions L	IC	S	RE	LE	D1	ID5	Recommended Machining Data ap (inch)	f (IPR)
TCMT 2-1D	.433	.250	.094	.016	.15	.110	●	.004-.118	.0020-.0118

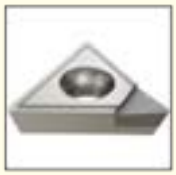
• For user guide and cutting speed recommendations, see pages 100-104, 206-228

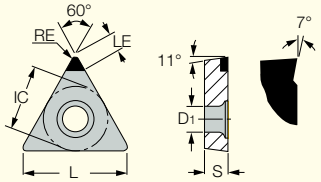
For tools, see pages: E-STFCR-HEAD (92) • STFCR/L (55) • STGCR/L (55)

ISOTURN

TPGX (PCD)

Triangular Inserts with a Single PCD Top Corner Tip, 11° Clearance and Positive Rake Angle for Finishing Aluminum





Designation	Dimensions L	IC	S	RE	LE	D1	ID5	Recommended Machining Data ap (inch)	f (IPR)
TPGX 730	.375	.219	.094	.008	.12	.098	●	.004-.118	.0020-.0118
TPGX 731	.375	.219	.094	.016	.12	.098	●	.004-.118	.0020-.0118
TPGX 220	.433	.250	.125	.008	.13	.138	●	.004-.118	.0020-.0118
TPGX 221	.433	.250	.125	.016	.15	.138	●	.004-.118	.0020-.0118

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

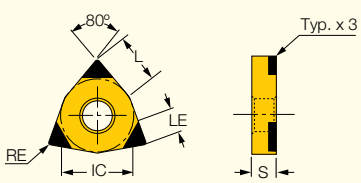
For tools, see pages: MG STFPR-X (93)

ISOTURN

WNGA-M3 (CBN)

Multi-Cornered CBN Inserts for Machining Hardened Steel





Designation	Dimensions L	IC	S	RE	LE	IB20H	Recommended Machining Data ap (inch)	f (IPR)
WNGA 432-M3	.343	.500	.187	.031	.09	●	.002-.020	.0020-.0079

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

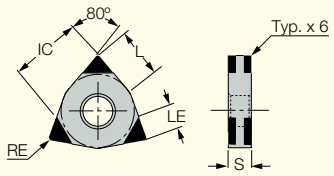
For tools, see pages: A/S-MWLNR/L-W (82) • C#-MULNR/L-MW (12) • C#-PWLNR/L-08-JHP (6) • DWLNR/L (7) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MULNR/L-MW (11) • MWLNR/L-W (14) • PWLNR/L-4-JHP (6) • PWLNR/L-X (8) • PWLNR/L-X-JHP (9) • S-DWLNR/L (78) • S/A-MULNR/L-MW (84) • DWLNR/L-JHP-MC (7)

ISOTURN

WNGA-MC/M6 (CBN)

Multi-Cornered CBN Inserts for Machining Hardened Steel





Designation	Dimensions L	IC	S	RE	LE	Tough ↔ Hard IB55	IB10HC	Recommended Machining Data a_p (inch)	f (IPR)
WNGA 431T-MC	.343	.500	.187	.016	.12	●		.002-.020	.0020-.0079
WNGA 432-M6	.343	.500	.187	.031	.09		●	.002-.020	.0020-.0079
WNGA 432T-MC	.343	.500	.187	.031	.12	●		.002-.020	.0020-.0079
WNGA 433T-MC	.343	.500	.187	.047	.12	●		.002-.020	.0020-.0079

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

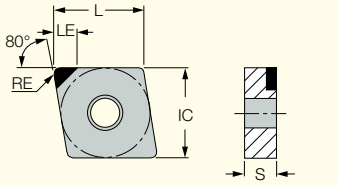
For tools, see pages: A/S-MWLNR/L-W (82) • C#-MULNR/L-MW (12) • C#-PWLNR/L-08-JHP (6) • DWLNR/L (7) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MULNR/L-MW (11) • MWLNR/L-W (14) • PWLNR/L-4-JHP (6) • PWLNR/L-X (8) • PWLNR/L-X-JHP (9) • S-DWLNR/L (78) • S/A-MULNR/L-MW (84) • DWLNR/L-JHP-MC (7)

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





Designation	Dimensions L	IC	S	RE	LE	Tough ↔ Hard IB90	IB85	IB20H	IB55	IB50	Recommended Machining Data a_p (inch)	f (IPR)
CNMA 431T	.508	.500	.187	.016	.13	●			●	●	.002-.020	.0020-.0102
CNMA 432-M1	.508	.500	.187	.031	.14			●			.002-.020	.0020-.0118
CNMA 432T	.508	.500	.187	.031	.13	●	●		●		.002-.020	.0020-.0118
CNMA 432T-WG (1)	.508	.500	.187	.031	.14	●	●		●	●	.002-.020	.0020-.0118
CNMA 433-M1	.508	.500	.187	.047	.14			●			.002-.020	.0020-.0118
CNMA 433T	.508	.500	.187	.047	.16				●		.002-.020	.0020-.0118

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

(1) Wiper insert for high feed finishing, eliminates grinding.

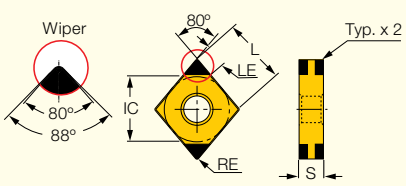
For tools, see pages: A-MCLNR/L (81) • C#-MULNR/L-MW (12) • C#-PCLNR/L-12-JHP (17) • C#-PCLNR/L-X (20) • C#-PCLNR/L-X-JHP (21) • DCLNR/L (21) • DCLNR/L-JHP-MC (22) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MCKNR (18) • MCLNR/L (18) • MCRNR (18) • MULNR/L-MW (11) • PCLNR/L-4-JHP (17) • PCLNR/L-CA (97) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • S/A-MULNR/L-MW (84) • A-PCLNR/L-X/G (80)

ISOTURN

CNMA-MW4 (CBN)

80° Rhombic Inserts with 4 CBN Wiper Edge Tips for Machining Hardened Steel





Designation	Dimensions L	IC	S	RE	LE	IB25HC	Recommended Machining Data a_p (inch)	f (IPR)
CNMA 432-MW4	.508	.500	.187	.031	.09	●	.002-.020	.0020-.0157
CNMA 433-MW4	.508	.500	.187	.047	.09	●	.002-.020	.0020-.0157

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

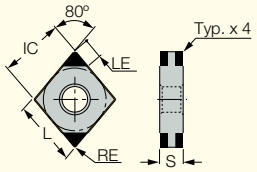
For tools, see pages: A-MCLNR/L (81) • C#-MULNR/L-MW (12) • C#-PCLNR/L-12-JHP (17) • C#-PCLNR/L-X (20) • C#-PCLNR/L-X-JHP (21) • DCLNR/L (21) • DCLNR/L-JHP-MC (22) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MCKNR (18) • MCLNR/L (18) • MCRNR (18) • MULNR/L-MW (11) • PCLNR/L-4-JHP (17) • PCLNR/L-CA (97) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • S/A-MULNR/L-MW (84) • A-PCLNR/L-X/G (80)

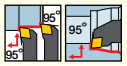
ISOTURN

CNGA-4 (CBN)

4-Cornered CBN Inserts for Machining Hardened Steel







Designation	Dimensions L	IC	S	RE	LE	Tough ↔ Hard IB25HC	IB55	IB10HC	Recommended Machining Data a_p (inch)	f (IPR)
CNGA 431T-MC	.508	.500	.187	.016	.12		●		.002-.020	.0020-.0079
CNGA 432-M4	.508	.500	.187	.031	.09	●		●	.002-.020	.0020-.0079
CNGA 432T-MC	.508	.500	.187	.031	.12		●		.002-.020	.0020-.0079
CNGA 432T-WG-MC (1)	.508	.500	.187	.031	.12		●		.002-.020	.0020-.0079
CNGA 433-M4	.508	.500	.187	.047	.09	●		●	.002-.020	.0020-.0079
CNGA 433T-MC	.508	.500	.187	.047	.12		●		.002-.020	.0020-.0079

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

(1) Wiper corner configuration

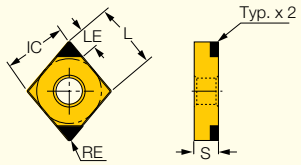
For tools, see pages: A-MCLNR/L (81) • C#-MULNR/L-MW (12) • C#-PCLNR/L-12-JHP (17) • C#-PCLNR/L-X (20) • C#-PCLNR/L-X-JHP (21) • DCLNR/L (21) • DCLNR/L-JHP-MC (22) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MCKNR (18) • MCLNR/L (18) • MCRNR (18) • MULNR/L-MW (11) • PCLNR/L-4-JHP (17) • PCLNR/L-CA (97) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • S/A-MULNR/L-MW (84) • A-PCLNR/L-X/G (80)

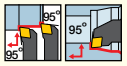
ISOTURN

CNGA-2 (CBN)

80° Rhombic Inserts with 2 CBN Tips for Machining Hardened Steel, Sintered Metals and High Temperature Alloys







Designation	Dimensions L	IC	S	RE	LE	Tough ↔ Hard IB10S	IB05S	IB20H	IB20HC	IB10H	IB10HC	Recommended Machining Data a_p (inch)	f (IPR)
CNGA 431-F2	.508	.500	.187	.016	.09				●		●	.002-.020	.0020-.0079
CNGA 431-M2	.508	.500	.187	.016	.09	●	●		●		●	.002-.012	.0020-.0079
CNGA 431-R2	.508	.500	.187	.016	.09			●				.002-.020	.0020-.0079
CNGA 432-F2	.508	.500	.187	.031	.09		●		●	●		.002-.012	.0020-.0071
CNGA 432-MW2	.508	.500	.187	.031	.09				●		●	.002-.020	.0020-.0079
CNGA 432-M2	.508	.500	.187	.031	.09	●		●		●		.002-.012	.0020-.0071
CNGA 432-R2	.508	.500	.187	.031	.09			●				.002-.020	.0020-.0079
CNGA 432-S2	.508	.500	.187	.031	.09		●					.002-.020	.0020-.0079
CNGA 433-F2	.508	.500	.187	.047	.09				●		●	.002-.020	.0020-.0079
CNGA 433-M2	.508	.500	.187	.047	.09	●		●		●	●	.002-.012	.0020-.0079
CNGA 433-R2	.508	.500	.187	.047	.09				●			.002-.020	.0020-.0079

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

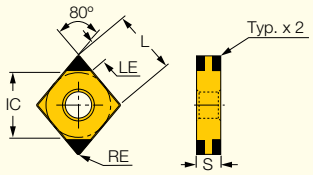
For tools, see pages: A-MCLNR/L (81) • C#-MULNR/L-MW (12) • C#-PCLNR/L-12-JHP (17) • C#-PCLNR/L-X (20) • C#-PCLNR/L-X-JHP (21) • DCLNR/L (21) • DCLNR/L-JHP-MC (22) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MCKNR (18) • MCLNR/L (18) • MCRNR (18) • MULNR/L-MW (11) • PCLNR/L-4-JHP (17) • PCLNR/L-CA (97) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • S/A-MULNR/L-MW (84) • A-PCLNR/L-X/G (80)

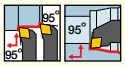
ISOTURN

CNGG-M4HF/M4HM (CBN)

80° Rhombic Inserts with 4 Chipbreaking CBN Tips for Machining Hardened Steel







Designation	Dimensions L	IC	S	RE	LE	IB25HA	Recommended Machining Data a_p (inch)	f (IPR)
CNGG 432-M4HF	.508	.500	.187	.031	.09	●	.008-.030	.0020-.0080
CNGG 433-M4HM	.508	.500	.187	.047	.09	●	.020-.039	.0020-.0080

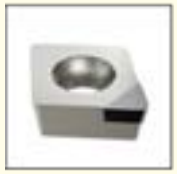
• For user guide and cutting speed recommendations, see pages 100-104, 206-228

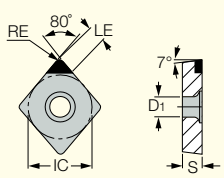
For tools, see pages: A-MCLNR/L (81) • C#-MULNR/L-MW (12) • C#-PCLNR/L-12-JHP (17) • C#-PCLNR/L-X (20) • C#-PCLNR/L-X-JHP (21) • DCLNR/L (21) • DCLNR/L-JHP-MC (22) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MCKNR (18) • MCLNR/L (18) • MCRNR (18) • MULNR/L-MW (11) • PCLNR/L-4-JHP (17) • PCLNR/L-CA (97) • PCLNR/L-X (19) • PCLNR/L-X-JHP (20) • S/A-MULNR/L-MW (84) • A-PCLNR/L-X/G (80)

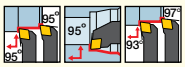
ISOTURN

CCGW/CCMT (CBN)

80° Rhombic Inserts with a Single CBN Top Corner Tip and 7° Clearance for Machining Hardened Steel







Designation	Dimensions L	IC	S	RE	LE	D_1	Tough ↔ Hard IB05H	IB55	IB10H	Recommended Machining Data a_p (inch)	f (IPR)
CCGW 03X102T01015-1	.143	.141	.055	.008	.08	.075	●		●	.002-.020	.0020-.0079
CCGW 03X104T01015-1	.143	.141	.055	.016	.09	.075	●		●	.002-.020	.0020-.0079
CCGW 04T102T01015-1	.175	.172	.070	.008	.08	.091	●		●	.002-.020	.0020-.0079
CCGW 04T104T01015-1	.175	.172	.070	.016	.09	.091	●		●	.002-.020	.0020-.0079
CCMT 2-0T	.248	.250	.094	.008	.10	.110		●		.002-.020	.0020-.0079
CCMT 2-1T	.248	.250	.094	.016	.11	.110		●		.002-.020	.0020-.0079
CCMT 3-1T	.382	.375	.156	.016	.11	.173		●		.002-.020	.0020-.0079
CCMT 3-2T	.382	.375	.156	.031	.14	.173		●		.002-.020	.0020-.0079

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

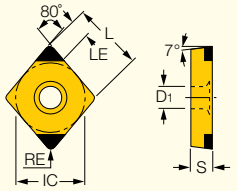
For tools, see pages: A/E/S-SCLCR/L (89) • C#-SCLCR/L-JHP (44) • E-SCLCR/L-HEAD (88) • PCACR/L-JHP (46) • PCLCR/L-S (45) • PCLCR/L-S-JHP (45) • S-SCLCR/L (90) • SCACR/L-S (45) • SCLCR-PAD (44) • SCLCR/L (44) • AVC-SCLCR/L (75)

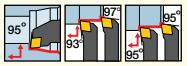
ISOTURN

CCGW/CCMW-2 (CBN)

80° Positive Rhombic Inserts with 2 CBN Tips for Machining Hardened Steel, Sintered Metals and High Temperature Alloys







Designation	Dimensions IC	L	S	RE	LE	D_1	Tough ↔ Hard IB05S	IB20H	IB20HC	IB10H	IB10HC	Recommended Machining Data a_p (inch)	f (IPR)
CCGW 2-0-F2	.250	.248	.094	.008	.09	.110			●		●	.002-.020	.0020-.0079
CCGW 2-1-F2	.250	.248	.094	.016	.09	.110			●		●	.002-.020	.0020-.0079
CCGW 3-1-F2	.375	.382	.156	.016	.09	.173			●		●	.002-.020	.0020-.0079
CCGW 3-2-F2	.375	.382	.156	.031	.09	.173			●		●	.002-.020	.0020-.0079
CCGW 2-0-M2	.250	.248	.094	.008	.09	.110					●	.002-.020	.0020-.0079
CCGW 2-1-M2	.250	.248	.094	.016	.09	.110	●				●	.002-.020	.0020-.0079
CCMW 2-0-M2	.250	.248	.094	.008	.09	.110		●		●		.002-.020	.0020-.0079
CCMW 2-1-M2	.250	.248	.094	.016	.09	.110		●		●		.002-.020	.0020-.0079
CCGW 3-1-M2	.375	.382	.156	.016	.09	.173	●				●	.002-.020	.0020-.0118
CCGW 3-2-M2	.375	.382	.156	.031	.09	.173	●		●		●	.002-.020	.0020-.0118
CCMW 3-1-M2	.375	.382	.156	.016	.09	.173		●		●		.002-.020	.0020-.0059
CCMW 3-2-M2	.375	.382	.156	.031	.09	.173		●		●		.002-.020	.0020-.0118
CCGW 2-1-R2	.250	.248	.094	.016	.09	.110			●			.002-.020	.0020-.0079
CCGW 3-1-R2	.375	.382	.156	.016	.09	.173			●			.002-.020	.0020-.0079
CCGW 3-2-R2	.375	.382	.156	.031	.09	.173			●			.002-.020	.0020-.0079

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

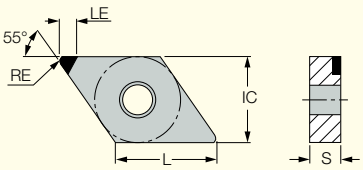
For tools, see pages: A/E/S-SCLCR/L (89) • C#-SCLCR/L-JHP (44) • E-SCLCR/L-HEAD (88) • PCACR/L-JHP (46) • PCLCR/L-S (45) • PCLCR/L-S-JHP (45) • S-SCLCR/L (90) • SCACR/L-S (45) • SCLCR-PAD (44) • SCLCR/L (44) • AVC-SCLCR/L (75)

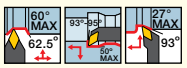
ISOTURN

DNMA (CBN)

CBN Inserts with a Flat Rake for Machining Hardened Steel







Designation	Dimensions L	IC	S	RE	LE	Tough ↔ Hard IB55	IB50	Recommended Machining Data a_p (inch)	f (IPR)
DNMA 431T	.610	.500	.187	.016	.11	●		.002-.020	.0020-.0079
DNMA 432T	.610	.500	.187	.031	.13	●	●	.002-.020	.0020-.0079
DNMA 433T	.610	.500	.187	.047	.12	●		.002-.020	.0020-.0079
DNMA 441T	.610	.500	.250	.016	.11	●		.002-.020	.0020-.0079
DNMA 442T	.610	.500	.250	.031	.13	●		.002-.020	.0020-.0079
DNMA 443T	.610	.500	.250	.047	.12	●	●	.002-.020	.0020-.0079

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

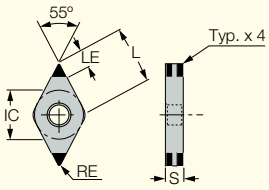
For tools, see pages: A-PDUNR/L (85) • C#-DDJNR/L (27) • C#-PDJNR/L-JHP (26) • DDJNR/L (26) • DDJNR/L-JHP-MC (27) • HSK A63WH-DDJNR/L (27) • HSK A63WH-DDNNN (28) • MDJNR/L (24) • PDJNR/L (25) • PDJNR/L-4-JHP (25) • S-DDUNR (84) • AVC-DDUNR/L (77)

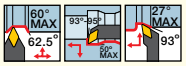
ISOTURN

DNGA-4 (CBN)

55° Rhombic 4-Cornered CBN Inserts for Machining Hardened Steel







Designation	Dimensions L	IC	S	RE	LE	Tough ↔ Hard IB25HC	IB55	IB10HC	Recommended Machining Data a_p (inch)	f (IPR)
DNGA 431T-MC	.610	.500	.187	.016	.11		●		.002-.020	.0020-.0071
DNGA 432-M4	.610	.500	.187	.031	.08	●		●	.002-.020	.0020-.0071
DNGA 432T-MC	.610	.500	.187	.031	.12		●		.002-.020	.0020-.0071
DNGA 433-M4	.610	.500	.187	.047	.08	●		●	.002-.020	.0020-.0071
DNGA 433T-MC	.610	.500	.187	.047	.12		●		.002-.020	.0020-.0071
DNGA 441T-MC	.610	.500	.250	.016	.11		●		.002-.020	.0020-.0071
DNGA 442T-MC	.610	.500	.250	.031	.12		●		.002-.020	.0020-.0071
DNGA 443T-MC	.610	.500	.250	.047	.12		●		.002-.020	.0020-.0071

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

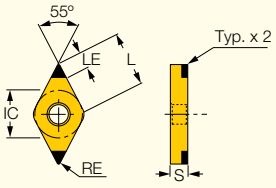
For tools, see pages: A-PDUNR/L (85) • C#-DDJNR/L (27) • C#-PDJNR/L-JHP (26) • DDJNR/L (26) • DDJNR/L-JHP-MC (27) • HSK A63WH-DDJNR/L (27) • HSK A63WH-DDNNN (28) • MDJNR/L (24) • PDJNR/L (25) • PDJNR/L-4-JHP (25) • S-DDUNR (84) • AVC-DDUNR/L (77)

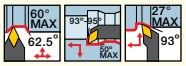
ISOTURN

DNGA-2 (CBN)

55° Rhombic Inserts with 2 CBN Tips for Machining Hardened Steel, Sintered Metals and High Temperature Alloys







Designation	Dimensions L	IC	S	RE	LE	Tough ↔ Hard IB10S	IB20H	IB20HC	IB10H	IB10HC	Recommended Machining Data a_p (inch)	f (IPR)
DNGA 431-F2	.610	.500	.187	.016	.10			●		●	.004-.020	.0020-.0118
DNGA 431-M2	.610	.500	.187	.016	.10	●		●		●	.004-.020	.0020-.0118
DNGA 432-F2	.610	.500	.187	.031	.08			●		●	.004-.020	.0020-.0118
DNGA 432-M2	.610	.500	.187	.031	.08	●		●		●	.004-.020	.0020-.0118
DNGA 432-R2	.610	.500	.187	.031	.08		●				.002-.020	.0020-.0079
DNGA 433-F2	.610	.500	.187	.047	.08			●	●		.004-.020	.0020-.0118
DNGA 433-M2	.610	.500	.187	.047	.08	●		●		●	.004-.020	.0020-.0118
DNGA 433-R2	.610	.500	.187	.047	.08		●				.002-.020	.0020-.0079

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

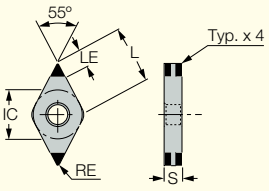
For tools, see pages: C#-DDJNR/L (27) • C#-PDJNR/L-JHP (26) • DDJNR/L (26) • DDJNR/L-JHP-MC (27) • HSK A63WH-DDJNR/L (27) • HSK A63WH-DDNNN (28) • MDJNR/L (24) • PDJNR/L (25) • PDJNR/L-4-JHP (25) • S-DDUNR (84)

ISOTURN

DNGG-M4HF/M4HM (CBN)

55° Rhombic Inserts with 4 Chipbreaking CBN Tips for Machining Hardened Steel







Designation	Dimensions L	IC	S	RE	LE	IB25HA	Recommended Machining Data a_p (inch)	f (IPR)
DNGG 432-M4HF	.610	.500	.187	.031	.08	●	.008-.030	.0020-.0080
DNGG 433-M4HM	.610	.500	.187	.047	.08	●	.020-.039	.0020-.0080

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

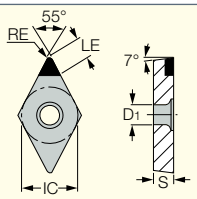
For tools, see pages: C#-DDJNR/L (27) • C#-PDJNR/L-JHP (26) • DDJNR/L (26) • DDJNR/L-JHP-MC (27) • HSK A63WH-DDJNR/L (27) • HSK A63WH-DDNNN (28) • MDJNR/L (24) • PDJNR/L (25) • PDJNR/L-4-JHP (25) • S-DDUNR (84)

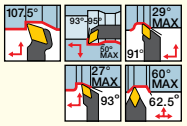
ISOTURN

DCMT (CBN)

55° Rhombic Inserts with a Single CBN Top Corner Tip and 7° Clearance for Machining Hardened Steel







Designation	Dimensions L	IC	S	RE	LE	D1	IB55	Recommended Machining Data ap (inch)	f (IPR)
DCMT 3-1T	.457	.375	.156	.016	.13	.173	●	.002-.020	.0020-.0079
DCMT 3-2T	.457	.375	.156	.031	.12	.173	●	.002-.020	.0020-.0079

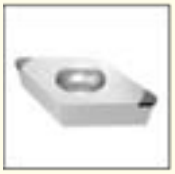
• For user guide and cutting speed recommendations, see pages 100-104, 206-228

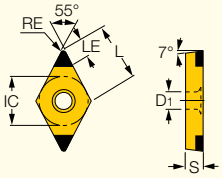
For tools, see pages: AVC-SDUCR/L (75) • C#-SDJCR-JHP (48) • C#-SDJCR/L (47) • C#-SDNCN (50) • E/S-SDUCR/L (91) • IM-SDNCN (51) • PDACR/L-JHP (49) • PDACR/L-S (46) • PDJCR/L-JHP (49) • SDACR/L (48) • SDJCR/L (47) • SDPCN (50)

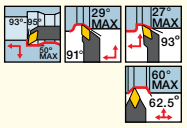
ISOTURN

DCGW/DCMW-2 (CBN)

55° Positive Rhombic Inserts with 2 CBN Tips for Machining Hardened Steel, Sintered Metals and High Temperature Alloys







Designation	Dimensions L	IC	S	RE	LE	D1	Tough ↔ Hard IB05S	IB20H	IB20HC	IB10H	IB10HC	Recommended Machining Data ap (inch)	f (IPR)
DCGW 2-0-F2	.303	.250	.094	.008	.10	.110			●		●	.002-.020	.0020-.0118
DCGW 2-1-F2	.303	.250	.094	.016	.10	.110			●		●	.002-.020	.0020-.0118
DCGW 3-0-F2	.457	.375	.156	.008	.10	.173			●		●	.002-.020	.0020-.0118
DCGW 3-1-F2	.457	.375	.156	.016	.10	.173			●		●	.002-.020	.0020-.0118
DCGW 3-2-F2	.457	.375	.156	.031	.08	.173			●		●	.002-.020	.0020-.0118
DCGW 2-0-M2	.303	.250	.094	.008	.10	.110			●		●	.002-.020	.0020-.0118
DCGW 2-1-M2	.303	.250	.094	.016	.10	.110	●		●		●	.002-.020	.0020-.0118
DCGW 2-2-M2	.303	.250	.094	.031	.10	.110	●					.002-.020	.0020-.0118
DCGW 3-0-M2	.457	.375	.156	.008	.08	.173			●		●	.002-.020	.0020-.0118
DCMW 3-1-M2	.457	.375	.156	.016	.10	.173		●		●	●	.002-.020	.0020-.0047
DCGW 3-2-M2	.457	.375	.156	.031	.08	.173	●					.002-.020	.0020-.0118
DCMW 3-2-M2	.457	.375	.156	.031	.08	.173		●		●	●	.002-.020	.0020-.0059
DCGW 3-1T01315	.457	.375	.156	.016	.10	.173	●					.002-.020	.0020-.0118
DCGW 3-1-S2	.457	.375	.156	.016	.10	.173	●					.002-.020	.0020-.0118

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

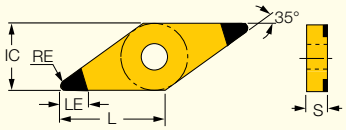
For tools, see pages: AVC-SDUCR/L (75) • C#-SDJCR-JHP (48) • C#-SDJCR/L (47) • C#-SDNCN (50) • E-SDUCR-HEAD (91) • E/S-SDUCR/L (91) • IM-SDNCN (51) • PDACR/L-JHP (49) • PDACR/L-S (46) • PDJCR/L-JHP (49) • SDACR/L (48) • SDJCR-PAD (48) • SDJCR/L (47) • SDPCN (50)

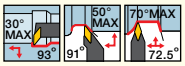
ISOTURN

VNGA-2 (CBN)

35° Rhombic Inserts with 2 CBN Tips for Machining Hardened Steel, Sintered Metals and High Temperature Alloys







Designation	Dimensions L	IC	S	RE	LE	Tough ↔ Hard IB10S	IB20H	IB20HC	IB10H	IB10HC	Recommended Machining Data a_p (inch)	f (IPR)
VNGA 331-F2	.654	.375	.187	.016	.12			●		●	.002-.020	.0020-.0118
VNGA 331-M2	.654	.375	.187	.016	.12	●		●		●	.002-.020	.0020-.0118
VNGA 332-F2	.654	.375	.187	.031	.09			●		●	.002-.020	.0020-.0118
VNGA 332-M2	.654	.375	.187	.031	.09	●		●	●		.002-.020	.0020-.0118
VNGA 332-R2	.654	.375	.187	.031	.09		●				.002-.020	.0020-.0118

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

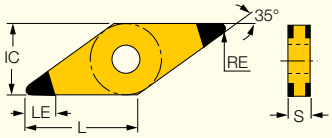
For tools, see pages: MVJNR/L (29) • MVVNN (30)

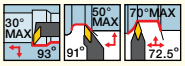
ISOTURN

VNGA-4 (CBN)

35° Rhombic Inserts with 4 CBN Tips for Machining Hardened Steel







Designation	Dimensions L	IC	S	RE	LE	Tough ↔ Hard IB25HC	IB10HC	Recommended Machining Data a_p (inch)	f (IPR)
VNGA 332-M4	.654	.375	.187	.031	.09	●	●	.002-.012	.0010-.0118

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

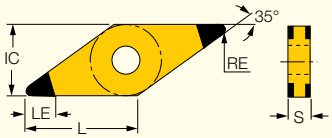
For tools, see pages: MVJNR/L (29) • MVVNN (30)

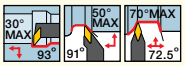
ISOTURN

VNGG-M4HM (CBN)

35° Rhombic Insert with 4 Chipbreaking CBN Tips for Machining Hardened Steel







Designation	Dimensions L	IC	S	RE	LE	IB25HA	Recommended Machining Data a_p (inch)	f (IPR)
VNGG 332-M4HM	.654	.375	.187	.031	.09	●	.020-.031	.0020-.0079

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

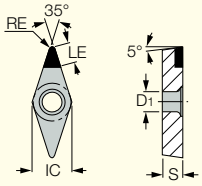
For tools, see pages: MVJNR/L (29) • MVVNN (30)

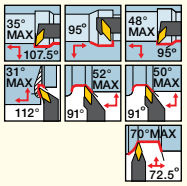
ISOTURN

VBMT (CBN)

Single Corner CBN Tipped Inserts with a Flat Rake for Machining Hardened Steel







Designation	Dimensions L	IC	S	RE	LE	D1	Tough ↔ Hard IB55	IB50	Recommended Machining Data ap (inch)	f (IPR)
VBMT 331T	.654	.375	.187	.016	.18	.173	●	●	.002-.015	.0020-.0043

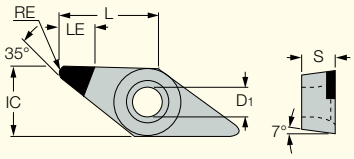
• For user guide and cutting speed recommendations, see pages 100-104, 206-228

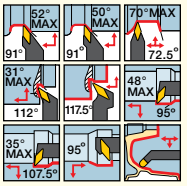
ISOTURN

VCMT (CBN)

35° Rhombic Single Brazed Tip Corner Inserts for Finishing Cast Iron







Designation	Dimensions IC	S	RE	L	D1	IB55	Recommended Machining Data ap (inch)	f (IPR)
VCMT 331T	.375	.187	.016	.654	.173	●	.004-.118	.0020-.0118
VCMT 332T	.375	.187	.031	.654	.173	●	.004-.118	.0020-.0118

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

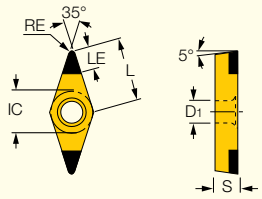
For tools, see pages: A/S-SVQCR/L (470) • C#-SVJCR/L (52) • C#-SVJCR/L-JHP (52) • C#-SVVCN (54) • HSK A63WH-SVJCR/L (53) • SVJCR/L (469) • SVJCR/L-3-JHP (470) • SVVCN (470) • AVC-SVLCR/L (76)

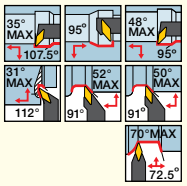
ISOTURN

VBGW/VBMW-2 (CBN)

35° Positive Rhombic Inserts with 2 CBN Tips for Machining Hardened Steel







Designation	Dimensions L	IC	S	RE	LE	D1	Tough ↔ Hard IB20H	IB20HC	IB10H	IB10HC	Recommended Machining Data ap (inch)	f (IPR)
VBGW 221-F2	.437	.250	.125	.016	.12	.110		●		●	.004-.020	.0020-.0079
VBGW 331-F2	.654	.375	.187	.016	.12	.173		●		●	.004-.020	.0020-.0079
VBGW 332-F2	.654	.375	.187	.031	.09	.173		●		●	.004-.020	.0020-.0079
VBMW 221-M2	.437	.250	.125	.016	.12	.110	●		●	●	.002-.020	.0020-.0079
VBGW 331-M2	.654	.375	.187	.016	.12	.173				●	.002-.020	.0020-.0079
VBMW 331-M2	.654	.375	.187	.016	.12	.173	●		●		.002-.020	.0020-.0079
VBGW 332-M2	.654	.375	.187	.031	.09	.173				●	.002-.020	.0020-.0079
VBMW 332-M2	.654	.375	.187	.031	.09	.173	●		●		.002-.015	.0020-.0043

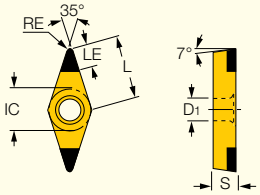
• For user guide and cutting speed recommendations, see pages 100-104, 206-228

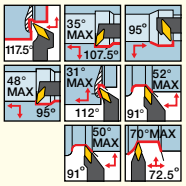
ISOTURN

VCGW-2 (CBN)

35° Positive Rhombic Inserts with 2 CBN Tips for Machining Hardened Steel







Designation	Dimensions L	IC	S	RE	LE	D_1	Tough ↔ Hard IB20HC	IB10HC	Recommended Machining Data a_p (inch)	f (IPR)
VCGW 331-F2	.654	.375	.187	.016	.12	.173	●	●	.004-.020	.0020-.0118
VCGW 331-M2	.654	.375	.187	.016	.12	.173	●	●	.004-.020	.0020-.0118
VCGW 332-F2	.654	.375	.187	.031	.09	.173	●	●	.004-.020	.0020-.0118
VCGW 332-M2	.654	.375	.187	.031	.09	.173	●	●	.004-.020	.0020-.0118

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

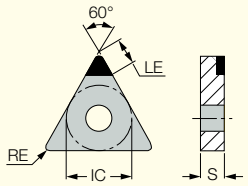
For tools, see pages: A/S-SVQCR/L (470) • AVC-SVLCR/L (76) • C#-SVJCR/L (52) • C#-SVJCR/L-JHP (52) • C#-SVVCN (54) • HSK A63WH-SVJCR/L (53) • SVJCR/L (469) • SVJCR/L-3-JHP (470) • SVVCN (470)

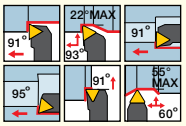
ISOTURN

TNMA (CBN)

Triangular Inserts with a Single Corner CBN Tip for Machining Cast Iron and Hardened Steel







Designation	Dimensions L	IC	S	RE	LE	Tough ↔ Hard IB90	IB85	IB55	IB50	Recommended Machining Data a_p (inch)	f (IPR)
TNMA 331T	.650	.375	.187	.016	.15		●	●	●	.002-.020	.0020-.0098
TNMA 332T	.650	.375	.187	.031	.14	●		●		.002-.020	.0020-.0098

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

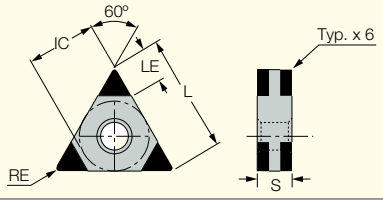
For tools, see pages: A-MTFNR (87) • A-PTFNR/L-X/G (87) • DTGNR/L (32) • MTENN-W (34) • MTFNR/L (33) • MTGNR (32) • MTJNR/L (33) • MTJNR/L-W (33) • PTFNR-CA (98) • PTGNR/L-X (31) • PTGNR/L-X-JHP (31)

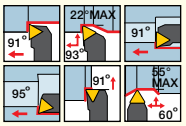
ISOTURN

TNGA-MC/M6 (CBN)

Triangular Multi-Cornered CBN Inserts for Machining Hardened Steel







Designation	Dimensions L	IC	S	RE	LE	Tough ↔ Hard IB25HC	IB55	IB10HC	Recommended Machining Data a_p (inch)	f (IPR)
TNGA 331T-MC	.650	.375	.187	.016	.13		●		.002-.020	.0020-.0079
TNGA 332-M6	.650	.375	.187	.031	.07	●		●	.002-.020	.0020-.0079
TNGA 332T-MC	.650	.375	.187	.031	.07		●		.002-.020	.0020-.0079

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

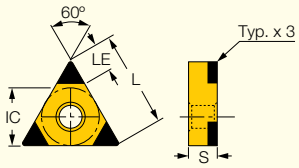
For tools, see pages: A-MTFNR (87) • A-PTFNR/L-X/G (87) • DTGNR/L (32) • MTENN-W (34) • MTFNR/L (33) • MTGNR (32) • MTJNR/L (33) • MTJNR/L-W (33) • PTFNR-CA (98) • PTGNR/L-X (31) • PTGNR/L-X-JHP (31)

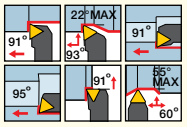
ISOTURN

TNGA-M3 (CBN)

Triangular Inserts with 3 CBN Tips for Machining Hardened Steel, Sintered Metals and High Temperature Alloys







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	.016	.09	●		.004-.020	.0020-.0118
TNGA 332-M3	.650	.375	.187	.031	.07	●	●	.002-.020	.0020-.0118
TNGA 333-M3	.650	.375	.187	.047	.09	●		.004-.020	.0020-.0118

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

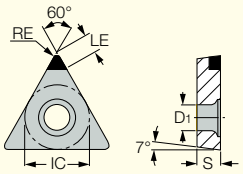
For tools, see pages: A-MTFNR (87) • A-PTFNR/L-X/G (87) • DTGNR/L (32) • MTENN-W (34) • MTFNR/L (33) • MTGNR (32) • MTJNR/L (33) • MTJNR/L-W (33) • PTFNR-CA (98) • PTGNR/L-X (31) • PTGNR/L-X-JHP (31)

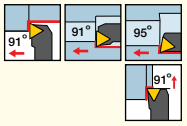
ISOTURN

TCMT (CBN)

Triangular Positive Inserts with a Single CBN Flat Rake Tip for Machining Hardened Steel







Designation	Dimensions L	IC	S	RE	LE	D_1	Tough ↔ Hard IB55	IB50	Recommended Machining Data a_p (inch)	f (IPR)
TCMT 2-1T	.433	.250	.094	.016	.14	.112	●	●	.002-.020	.0020-.0051

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

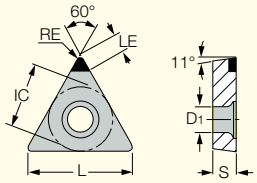
For tools, see pages: E-STFCR-HEAD (92) • STFCR/L (55) • STGCR/L (55)

ISOTURN

TPGX (CBN)

Triangular Inserts with a Single CBN Top Corner Tip, 11° Clearance for Machining Cast Iron and Hardened Steel







Designation	Dimensions L	IC	S	RE	LE	D_1	Tough ↔ Hard IB90	IB50	Recommended Machining Data a_p (inch)	f (IPR)
TPGX 730T	.375	.219	.094	.008	.10	.098	●	●	.002-.002	.0012-.0079
TPGX 731T	.375	.219	.094	.016	.10	.098	●	●	.002-.002	.0012-.0079
TPGX 220T	.433	.250	.125	.008	.13	.138	●	●	.002-.002	.0012-.0079
TPGX 221T	.433	.250	.125	.016	.12	.138	●	●	.002-.002	.0012-.0079

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

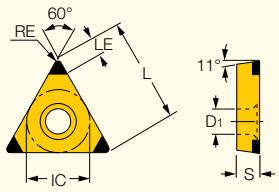
For tools, see pages: MG STFPR-X (93)

ISOTURN

TPGW-M3 (CBN)

Triangular Positive Inserts with 3 CBN Tips for Machining Sintered Metals and High Temperature Alloys





Designation	Dimensions L	IC	S	RE	LE	D1	IB05S	Recommended Machining Data ap (inch)	f (IPR)
TPGW 2-1-M3	.433	.250	.094	.016	.09	.110	●	.002-.020	.0020-.0118
TPGW 2-2-M3	.433	.250	.094	.031	.09	.110	●	.002-.020	.0020-.0118
TPGW 221-M3	.433	.250	.125	.016	.09	.134	●	.002-.020	.0020-.0118
TPGW 222-M3	.433	.250	.125	.031	.08	.134	●	.002-.020	.0020-.0118

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

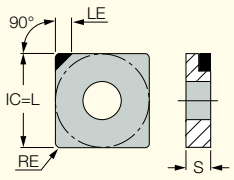
For tools, see pages: BBN (94) • BBS (93) • E-STFPR (93) • E-STLPL-HEAD (94)

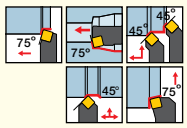
ISOTURN

SNMA (CBN)

Square CBN Tipped Inserts with a Single Flat Rake for Machining Cast Iron and Hardened Steel







Designation	Dimensions IC	S	RE	LE	IB55	Recommended Machining Data ap (inch)	f (IPR)
SNMA 432T	.500	.187	.031	.18	●	.002-.020	.0020-.0118

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

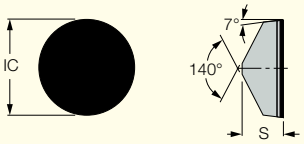
For tools, see pages: C#-MULNR/L-MW (12) • DSSNR/L (34) • HSK A63WH-MULNR-J12MWX2 (13) • HSK A63WH-MULNR/L-MW (12) • HSK A63WH-MUMNN-MW (13) • MSDNN (35) • MSSNR (35) • MULNR/L-MW (11) • PSKNR/L-CA (98) • PSSNR-CA (98)

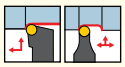
ISOTURN

RCGX (CBN)

CBN Round Inserts with a Flat Rake for Machining Cast Iron and Hardened Steel

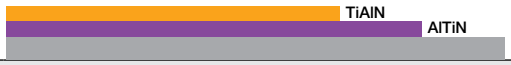
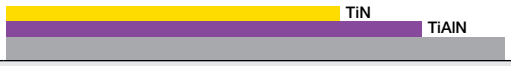
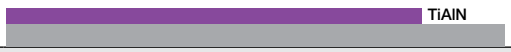
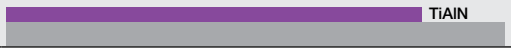
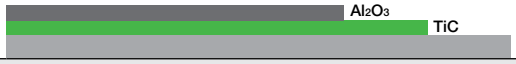
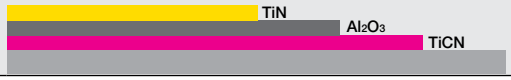
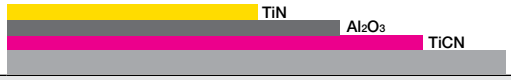
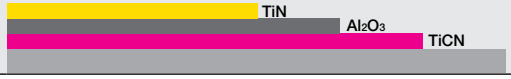
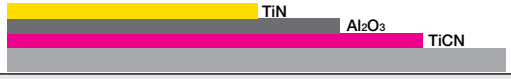
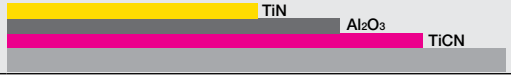
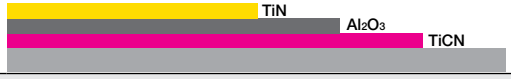
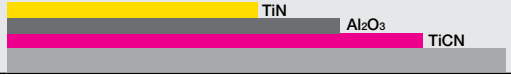






Designation	Dimensions IC	S	IB90	Recommended Machining Data ap (inch)	f (IPR)
RCGX 22T	.250	.125	●	.002-.020	.0020-.0098
RCGX 32T	.375	.125	●	.002-.020	.0020-.0098
RCGX 43T	.500	.187	●	.002-.020	.0020-.0098

• For user guide and cutting speed recommendations, see pages 100-104, 206-228

Grades	ISO	Coating Layers
IC520N PVD COATED CERMET	P05-P25 M05-M15	
IC530N PVD COATED CERMET	P10-P30 M10-M20	
S.T. IC804	S05-S15	
S.T. IC806	S10-S20 M05-M15	
S.T. IC807	P10-P20 M05-M15 S10-S20 K15-K30 H05-H15	
S.T. IC830	P30-P45 M25-M45	
IC907	P10-P20 M05-M15 S10-S20 K15-K30 H05-H15	
IC908	P15-P30 M20-M30 K20-K40 S15-S30 H20-H30	
IC428	K05-K20	
S.T. IC5005	K05-K20 P05-P15	
S.T. IC5010	K10-K25	
S.T. IC6015	M05-M25 S15-S25	
S.T. IC6025	M15-M35 S20-S30	
S.T. IC8150	P05-P25 K10-K25 M10-M20	
S.T. IC8250	P10-P35 M15-M25	
S.T. IC8350	P20-P45 M20-M30	

S.T. SUMO TEC ■ PVD COATED ■ CVD COATED

Recommended Applications
A hard cermet **TiCN + TiN PVD** coated grade. Used for turning, semi-finishing and finishing operations. Recommended for steels at high cutting speeds and low feeds, provides excellent surface finish, resistance to wear and plastic deformation. Features excellent wear resistance and prevents build-up edge.
A cermet **TiCN + TiN PVD** coated grade. Used for turning, semi-finishing and finishing operations. Recommended for steels at medium to high cutting speeds and low to medium feeds, provides excellent surface finish and prevents build-up edge.
A very hard submicron substrate with **AlTiN + TiAlN PVD** coating and a special **SUMO TEC** surface treatment. Suitable for semi finishing and finishing operations of hard high temperature alloys at relatively high cutting speeds.
A hard submicron substrate with **AlTiN + TiAlN PVD** coating and a special **SUMO TEC** surface treatment. First choice for turning of high temperature alloys. Suitable also for titanium alloys, at medium to relatively high cutting speeds.
A hard submicron substrate with **TiAlN + TiN PVD** coating and a special **SUMO TEC** surface treatment. Suitable for turning of steel, alloy steels, austenitic stainless steel, high temperature alloys and hard steels at medium cutting speeds.
TiAlN + TiN PVD coated grade with a special **SUMO TEC** surface treatment on very tough substrate for turning of steel and stainless steel at low to medium speeds and medium to high feeds. The grade is recommended for interrupted cut and machining at unstable conditions.
A hard submicron substrate with **TiAlN PVD** coating. Suitable for turning of steel, alloy steels, austenitic stainless steel, high temperature alloys and hard steels at medium cutting speeds.
A tough submicron substrate with **TiAlN PVD** coating. Recommended for general use in turning operations on large variety of materials as well as steel, alloy steels, austenitic stainless steel high temperature alloys at low to medium cutting speeds.
A **TiC + Al_2O_3** multilayer **CVD** coated grade. Used for turning and grooving of grey and nodular cast iron at medium to high cutting speeds.
A hard substrate with **MTCVD TiCN** and a thick alpha **Al_2O_3 CVD** coating with a special **SUMO TEC** surface treatment. Used for turning of grey and nodular cast iron at high cutting speeds with stable conditions.
A hard substrate with **MTCVD TiCN** and a thick alpha **Al_2O_3 CVD** coating with a special **SUMO TEC** surface treatment. Used for machining of grey and nodular cast iron at medium to high cutting speeds with good resistance to chipping.
A hard substrate with **MTCVD TiCN** and a thick alpha **Al_2O_3 CVD** coating with cobalt enriched outer layer and a special **SUMO TEC** surface treatment. Used for finishing and medium turning of stainless steel at high cutting speeds. Features long tool life and high wear resistance.
A tough substrate with **MTCVD TiCN** and a thick alpha **Al_2O_3 CVD** coating and a special **SUMO TEC** surface treatment. Recommended for machining stainless steel at high feeds and unfavorable conditions at medium cutting speed.
A hard substrate with a cobalt enriched layer, **MTCVD TiCN** and a thick **Al_2O_3 CVD** coating with a special **SUMO TEC** surface treatment. Recommended for high speed machining of steels and martensitic stainless steel with moderate feeds at stable conditions. Features excellent thermal stability and resistance to wear and plastic deformation.
A tough substrate with a cobalt enriched layer combined with **MTCVD TiCN** and a thick alpha **Al_2O_3 CVD** coating with a special **SUMO TEC** surface treatment. Recommended for general use machining of steels and martensitic stainless steel in a wide range of conditions, features high toughness and wear resistance.
A very tough substrate with a cobalt enriched layer combined with **MTCVD TiCN** and a thick alpha **Al_2O_3 CVD** coating with a special **SUMO TEC** surface treatment. Recomended for steels and martensitic stainless steel. Features high toughness with excellent results at unstable conditions and interrupted cut.

Grades	ISO	Coating Layers
IC20N	P05-P25 M05-M15	
IC30N	P10-P30 M10-M20 H10-H25	
IC08	M10-M30 N10-N25 S10-S30	
IC20	N05-N25 S05-S20 K10-K20 H05-H15	
IB05S	S05	
IB10S	S10	
IB05H	H05	
IB10H	H10	
IB10HC	H10	TiN
IB20H	H20	
IB20HC	H20	TiN
IB25HA	H25	TiN
IB25HC	H25	TiN
IB50	K01-K10 H01-H10	
IB55	K05-K15 H10-H25	
IB90	K05-K15 S01-S10	
ID5	N01-N10	

CERMET UNCOATED CBN PCD

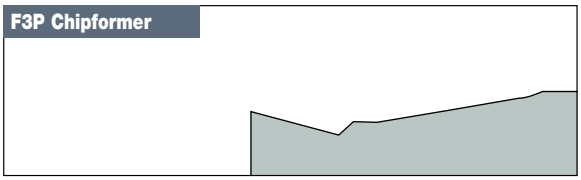
Recommended Applications
A hard cermet grade, used for turning applications. Recommended for steels at high cutting speeds and low feeds, provides excellent surface finish. Features improved wear resistance and prevents build-up edge.
A cermet grade, used for turning applications. Recommended for steels and stainless steel at medium to high cutting speeds and low feeds, provides excellent surface finish. Features very good wear resistance and prevents build-up edge.
An uncoated submicron carbide grade, used for steels, stainless steel and high temperature alloys at low cutting speeds.
An uncoated carbide grade. Used for turning of aluminum and other nonferrous materials at medium to high cutting speeds. Suitable also for high temperature and titanium alloys machining at low cutting speeds.
Uncoated grade that contains 95% **PCBN** composed of super fine grain size in a special binder. Used for finishing operations with continuous conditions on sintered metals at high cutting speeds. Features high hardness and ensures very good surface finish.
Fine grain, composed of fine grain size in a special binder, very hard **95% PCBN** grade. Used for finishing operations on sintered metals at high cutting speeds and also for valve seats and titanium alloys at continuous up to light interrupted cutting conditions. Features high hardness and good wear resistance.
High speed, continuous machining grade. The binding force between particles is improved by using relatively coarse **PCBN** grains. Excellent wear resistance.
Extra fine grain **53% PCBN**. Used for finishing operations of hardened steels at medium to high cutting speeds in continuous up to light interrupted cutting conditions. Features very good wear resistance with excellent surface finish results.
Extra fine grain **53% PCBN** with **TiN PVD** coating for hardened steel turning. Excellent crater wear resistance for high speed machining. Newly developed **PCBN** substrate for high speed cutting.
A combination of coarse and fine grain **65% PCBN**. Used as a general purpose grade for finishing operations of hardened steels at medium cutting speeds in continuous up to medium interrupted cutting conditions. Features good balance between wear resistance and impact resistance.
Coated **PCBN** grade for hardened steel turning. Excellent crater wear resistance for high speed machining. Newly developed **PCBN** substrate for high speed cutting.
TiN PVD coated, very tough grade **75% PCBN**. Used for hardened steel turning. High chipping resistance & extremely tough substrate for all-round use.
TiN PVD coated, medium grained **PCBN** particles are bound with special binder **75% PCBN** substrate. Used for medium and light interrupted cut turning of hardened steel. The surface is coated with dedicated coating material.
A **50% PCBN** used for finishing operations of hardened steels **(45-65 HRc)** at medium to high cutting speeds in continuous conditions. Features excellent wear resistance with very high surface finish results.
A **55% PCBN** used for finishing operations of hardened steels **(45-65 HRc)** at medium cutting speeds in continuous up to light interrupted cutting conditions. Features very good toughness properties at medium feeds and depths of cut.
A **90% PCBN** used for finishing operations of cast iron at high cutting speeds and also for medium speeds on hardened steels with heavy interrupted cutting conditions. Features very high toughness and impact resistance.
A **PCD** brazed tip, suitable for machining aluminum and other nonferrous materials at very high cutting speeds.

Grades	ISO	Coating Layers
IN110 WHITE CERAMICS	K01-K10 S01-S10	
IN22 BLACK CERAMICS	H05-H25 K05-K10	
IN23 BLACK CERAMICS	K05-K15 H10-H30	
IS6 SILICON NITRIDE	K01-K10	
IS8 SILICON NITRIDE	K01-K20	
IS9 SILICON NITRIDE	S20-S30	
IS25	S10-S20	
IS35 SiAlON	S15-S25	
IS80 SILICON NITRIDE	K01-K20	TiN
IN420 BLACK CERAMICS	K05-K10 H05-H25	TiN
IW7 WHISKER CERAMICS	S20-S30 H05-H25	

Recommended Applications
White ceramic features high toughness and wear resistance, used for high speed turning of cast iron, especially high speed dry machining of cylinder liner.
Black Ceramic (**Al_2O_3 + TiCN**), mainly used for high speed machining of light roughing & finishing of hardened steel. Also suitable for finishing operation of chilled cast iron.
Black Ceramic (**Al_2O_3 + TiCN**), mostly recommended for machining cast iron at finish to medium conditions. Also suitable for light interrupted cut of hardened steel.
SiAlON High fracture toughness and thermal shock resistance. Used for very high speed machining (up to 1200 m/min) roughing to finishing of cast iron, especially for automotive parts.
A **Silicon Nitride** grade. High wear resistance with good toughness and thermal shock resistance. Used for high speed machining roughing to finishing of cast iron.
A **Silicon Nitride** ceramic grade. A very tough grade with high cutting edge stability. Used for roughing to finishing applications on Ni base high temperature alloys and ductile cast iron.
Reinforced **SiAlON** composite grade, features high hardness, excellent for machining at continuos conditions of high temperature alloys such as Inconel, Waspaloy etc.
Reinforced **SiAlON** composite grade, provides high hardness with excellent toughness for machining high temperature alloys such as Inconel, Waspaloy etc. Suitable for high feeds and depth of cut.
A **Si_3N_4** ceramic grade with **CVD** coating. High wear resistance with good toughness and thermal shock resistance. Used for high speed machining roughing to finishing of cast iron.
Black Ceramic (**Al_2O_3 + TiCN**) with **TiN PVD** coating, used for high speed finishing machining of hardened steel. Improved tool life up to 50% compared to uncoated grade.
Whiskers reinforced ceramic grade, provides high hardness with good toughness for machining Ni based high temperature alloys such as Inconel, Waspaloy etc.

Chipformers for Finishing

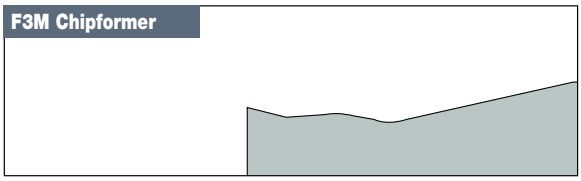
F3P Chipformer





Double-sided insert with a positive rack angle to reduce cutting forces for finish machining on steel.

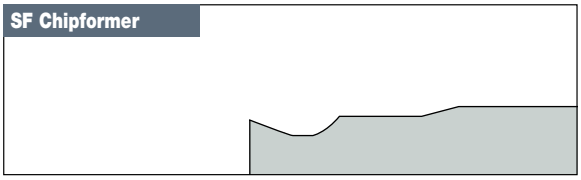
F3M Chipformer





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.

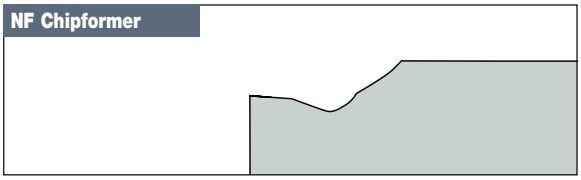
SF Chipformer





A unique super-finishing chipformer that controls chip flow at very low feeds and cutting depths. Designed to reduce crater wear.

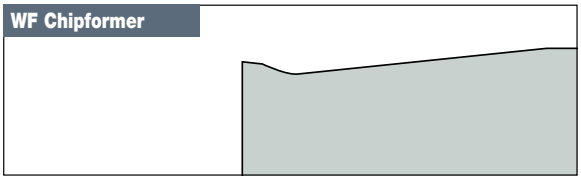
NF Chipformer





Double-sided for semi-finishing and finishing applications. Low cutting forces are due to a very sharp edge and positive rake.

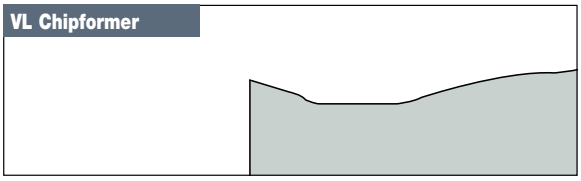
WF Chipformer





Wiper geometry for high feed finishing on soft and gummy materials. Small depths of cut.

VL Chipformer

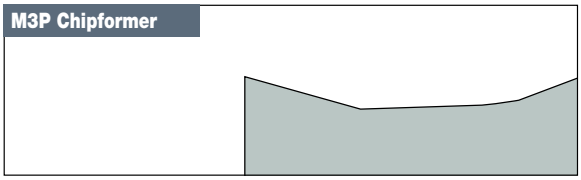




High positive rake and a special edge preparation used for rough and finish turning on high temperature alloys. Excellent performance on parts such as automotive valves.

Chipformers for Medium Machining

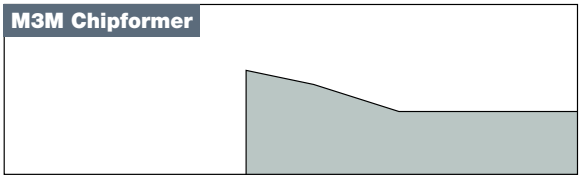
M3P Chipformer





Double-sided insert for medium machining on steel with a reinforced cutting edge to increase tool life.

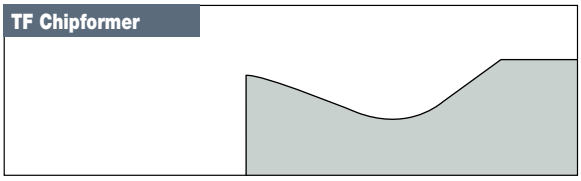
M3M Chipformer





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.

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.

Chipformers for Medium Machining

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.

GN Chipformer



Double-sided for general applications. Secure cutting edge for medium- and semi-roughing on steel and cast iron.

EM-M Chipformer



Double-sided sharp cutting edge with a 16° positive rake angle for machining high temperature alloys at ap<.12".

12 Chipformer



Single-sided for medium to rough machining on aluminum and soft materials.

Chipformers for Roughing

R3P Chipformer



Chip-breaker for rough machining on steel with a positive rake angle and reinforced cutting edge for better performance and longer tool life.

R3M Chipformer



Double-sided insert for rough machining on stainless steel with a unique deflector geometry to improve chip control. Includes a wavy surface to prevent chip hammering.

T3P Chipformer



Double-sided 6° negative flank trigone insert for high feed turning on steel.

TNM Chipformer



Double-sided trigon for roughing applications. Feed ranges: .010 to .026 in/rev. Depth of cut from .08 to .28".

EM-R Chipformer

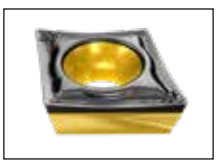


Double-sided sharp cutting edge with a 13° positive rake angle for machining high temperature alloys at ap <.24".

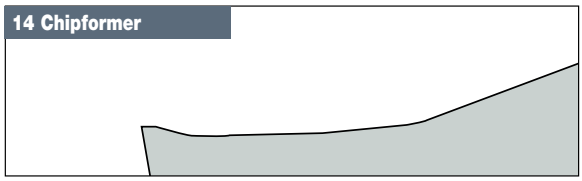
Chipformers for Roughing

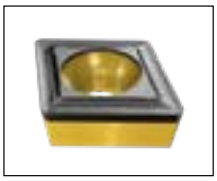
NR Chipformer		Double-sided sharp cutting edge with a 13º positive rake angle for machining high temperature alloys at ap <.24”.
M4PW Chipformer		Double-sided for roughing applications. Feed range: .010 to .032 in/rev. Depth of cut from .08 to .40”.
M4MW Chipformer		Chipformer for heavy machining applications on stainless steel. The inserts feature a very positive radial helical cutting edge and a positive rake angle.
HT/WG Chipformer		Double-sided for roughing applications. Feed range: .010 to .032 in/rev. Depth of cut from .08 to .40”.
HM Chipformer		Feed range: .003 to .03 in/rev Depth of cut from .06 to .32”.
H6P Chipformer		Tangential insert with 4 cutting edges for high metal removal on steel up to 1.4” DOC

Main Chipformers for Positive Clearance Inserts

PF Chipformer		Super finishing and finishing applications, mainly on positive inserts. Feed range: .001 to .008 in/rev. DOC .01 to .12”.
SM Chipformer		Finishing and boring applications. Feed range: .002 to .010 in/rev. DOC .02 to .10”
AS Chipformer		For general use machining on aluminum and soft materials.

Additional Chipformer for Positive Clearance Inserts

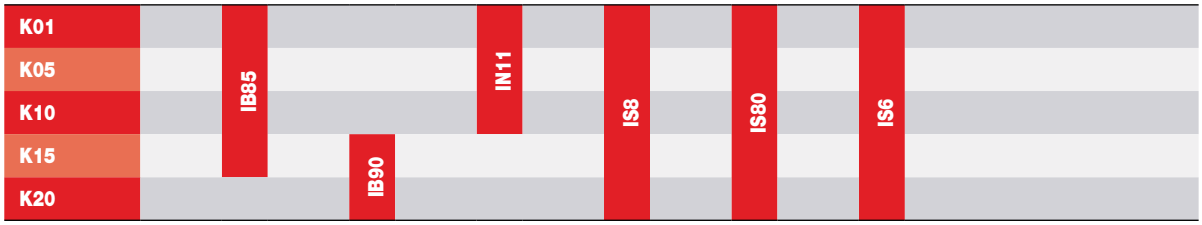




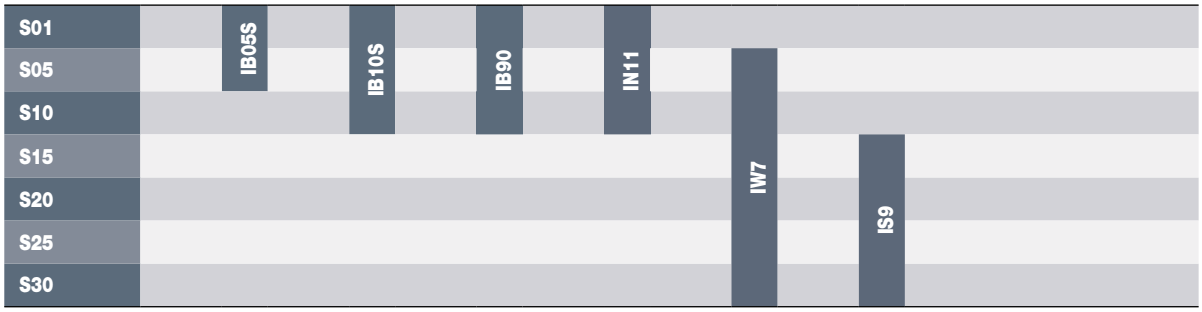
Semi-finishing and finishing.
Medium feeds.

Application Range of Ceramic Inserts According to ISO Standard

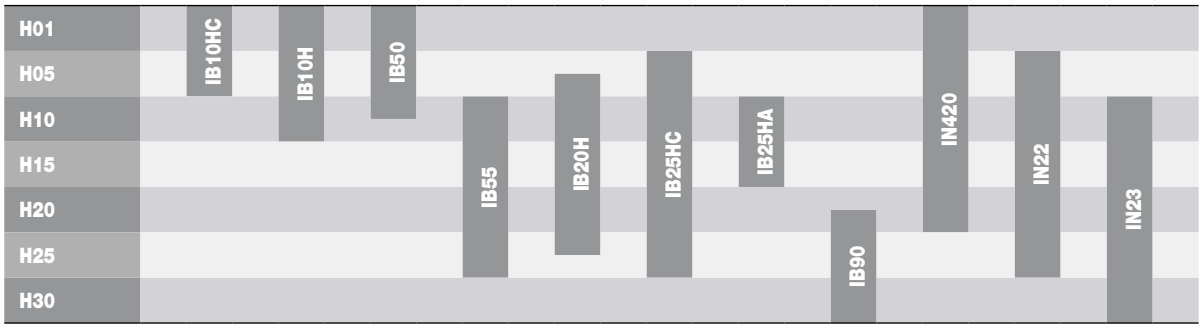
Turning Grey and Nodular Cast Iron



Turning Nickel Based High Temperature Alloys



Turning Hardened Steel 45-65 HRc



Ceramic Cutting Tools

IN11 Al_2O_3

High Speed Finishing on Cast Iron and Steel

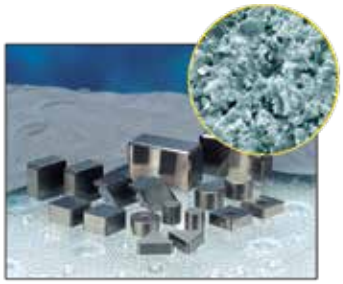
- Improves toughness and wear resistance
- ZrO2 additive
- Good for high speed turning on steel and cast iron



IN22 Al_2O_3-TiCN

Turning of Hardened Steel and Difficult-to-Cut Material

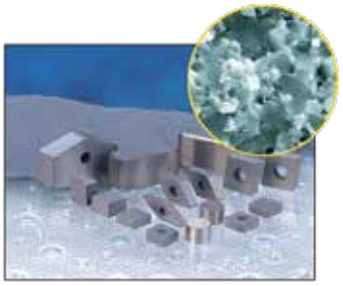
- High speed machining of steel, tool steel, hardened steel, chilled cast iron, high chromium steel, etc.
- Suitable for light roughing-to-finishing of cast iron



IN23 Al_2O_3-TiC

Medium-to-Finishing Cutting on Cast Iron

- Light interrupted turning on grey cast iron and nodular cast iron
- Milling with finishing conditions on grey cast iron

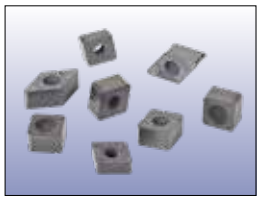


(1) Coolant is not recomended for interrupted cutting.

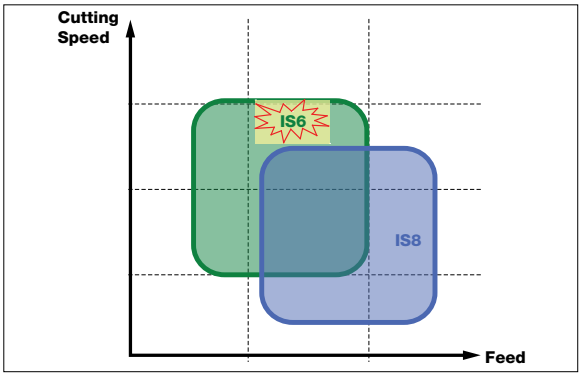
IS6 SiAlON

Features

- High speed roughing and finish machining on cast iron
- Higher cutting speeds, when compared to SiN based ceramic grades
- Can be used for both wet and dry machining
- Suitable for turning automotive parts such as brake drums, brake disks, etc.
- High productivity in rough turning on steel mill rolls composed of high-Cr steel, HSS (High Speed Steel) and adamite



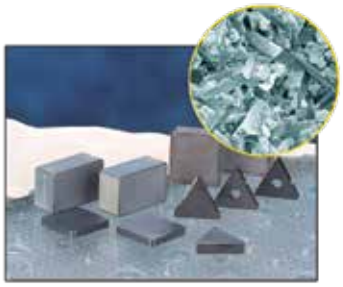
Application Range for Machining Cast Iron



IS8 Si_3N_4

Turning and Milling of Grey Cast Iron

- Roughing and interrupted (1) cutting on cast iron
- Machining on nodular cast iron and superalloy



IS80 CVD Coated Si3N4

High Speed Rough Turning on Grey Cast Iron

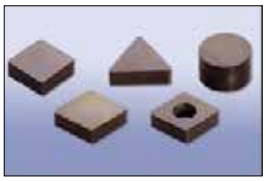
- Multi-layered coating on **IS8** matrix
  Roughing and interrupted [1] cutting on cast iron



IS9 Si3N4

Turning Nickel Based Alloys

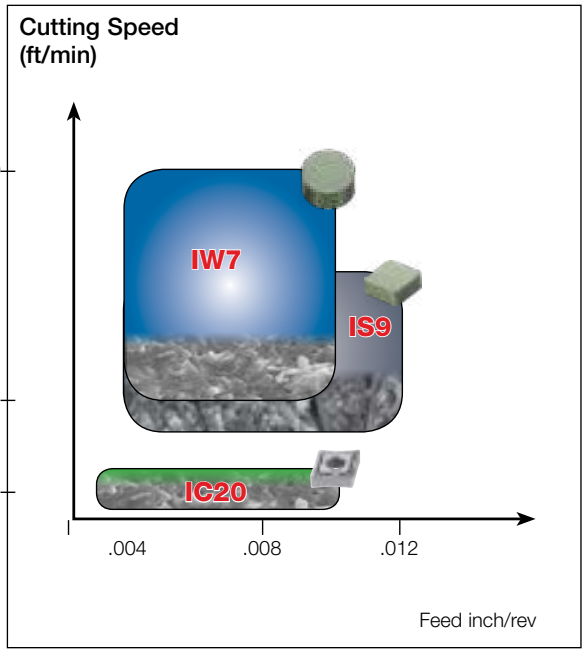
- Very tough Si3N4 ceramic grade with high cutting edge stability
- Machining on nickel based high temprature alloys, in roughing to finishing applications
- Honing is the standard edge preparation

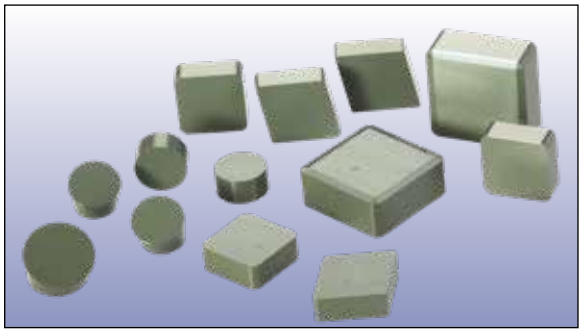


IW7 AL2O3+Sic Whiskers

Main Advantages

- High hardness (Hv 2,100)
- High fracture toughness due to SiC (silicon carbide) whisker reinforced ceramics
- Excellent thermal shock resistance, which enables using coolant and interrupted cut machining
- Excellent for roughing and semi-finishing operations at 8-10 times faster cutting speeds when compared with carbide grades
- Good oxidation resistance due to its alumina substrate





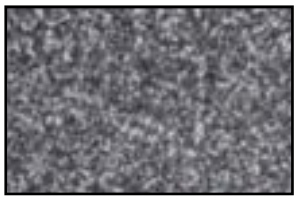
[1] Coolant is not recomended for interrupted cutting.

ISO-H Hard Materials Turning

IB10H (fine grain 20 µinch)
Uncoated, fine grain **PCBN** grade.

Application
Used at medium cutting speed, continuous or light interrupted cut on hardened steels.
Provides excellent surface finish.
Workpiece hardness range: 50-65 **HRc.**



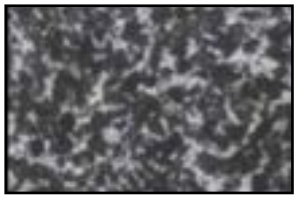


CBN Content	53.5%
Binder	TiN-Al

IB20H
Uncoated, general purpose **PCBN** grade. Good balance between wear and impact resistance. Composed of both fine and medium **CBN** grain sizes.

Application
Continuous to medium interrupted cut on hardened steel.

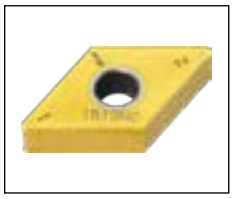




CBN Content	65%
Binder	TiN-Al

IB10HC
TiN coated, **PCBN** grade with excellent wear resistance. Composed of very fine grain **CBN**.

Application
Medium to high speed, continuous machining on hardened steel.





CBN Content	53.5%
Binder	TiN-Al

IB25HC
Ti (**C**, **N**, **O**) coated grade, composed of medium **CBN** grain.

Application
High speed, continuous to light interrupted machining.



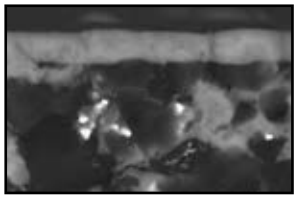


CBN Content	75%
Binder	TiN-Al

IB25HA
Ti (**C**,**N**,**O**) coated grade composed of medium **CBN** grain.

Application
General purpose machining on hardened steel.





CBN Content	65%
Binder	TiN-Al

ISO-S

IB05S
Super fine, **CBN** grain with a very high **CBN** content.

Application
Turning on ferrous sintered metals.





CBN Content	95%
Binder	Co-Al-WC

IB10S
A very high **CBN** content grade, featuring high hardness.

Application
Turning on ferrous sintered metals such as valve seats and Ti alloys components.

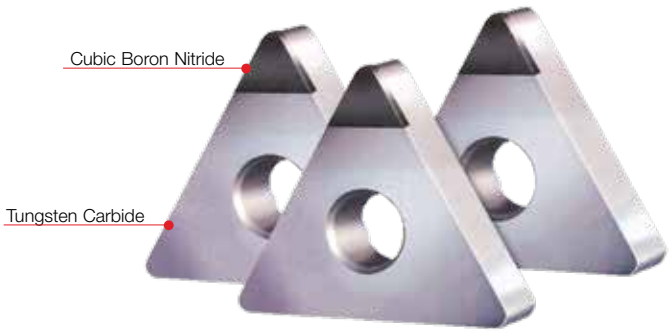




CBN Content	95%
Binder	Co-Al-WC

CBN Inserts

Features
- Suitable for difficult-to-cut materials such as sintered metal, hardened steel and super alloys.
- Saves machining costs and shortens the work cycle by enabling machining of hardened steel.
- Provides an excellent surface finish.
- Significant improvement in productivity by high speed machining on hardened steel.
- Capable of high speed cutting of cast iron.



ISCAR's **CBN** upgrade supports the worldwide increase in demand for **CBN** tipped inserts. **ISCAR** features 7 **CBN** (Cubic Boron Nitride) grades for two main workpiece material groups:

For hardened steel:
ISO-H: IB10H, **IB20H**, **IB10HC**, **IB25HC**, **IB25HA**

For high temperature alloys:
ISO-S: IB05S, **IB10S**



CBN Grades

Grades & Applications for Hardened Steel

	Material		New Grade	Composition (% CBN)	Features and Applications
ISO-H UNCOATED	Hardened Steels	Wear Resistance ↕ Toughness	**IB10H**	53.5	Excellent surface finish. Super fine grain. Continuous cut.
			IB20H	65	Composed of both fine and medium **CBN** grains. General-purpose grade for continuous to light interrupted machining.
			IB50	50	Finishing on hardened steel (45 - 65 **HRc**) and nodular cast iron. Continuous cutting.
			IB55	60	Semi-finishing on hardened steel (45 - 65 **HRc**) and nodular cast iron. Interrupted cutting.
ISO-H COATED		Wear Resistance ↕ Toughness	**IB10HC**	53.5	TiN coated grade very fine **CBN** grain. High speed continuous machining.
			IB25HC	75	Ti (**C**, **N**, **O**) coated **CBN** grade. High speed continuous to interrupted machining.
			IB25HA	65	Ti (**C**, **N**) coated **CBN** grade. High toughness. General purpose coated grade. Available with two types of chipbreakers (**HF**, **HM**).

Grades & Applications for Cast Iron

	Material		ISCAR New Grade	Composition (% CBN)	Features and Applications
ISO-K	Cast Iron & Hard Metal	Wear Resistance ↕ Toughness	**IB85**	85	Hardened steel and cast iron (>45 **HRc**). Grey cast iron and nodular cast irons. Powdered metal/sintered iron. Super alloys/ heat resistant alloys. Sintered tungsten carbide >17% **Co**. High speed cutting of cast iron.
			IB90	90	High speed cutting on cast iron, cutting cemented tungsten carbide, sintered metal and super alloy.

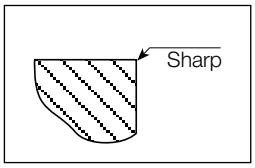
Grades & Applications for High Temperature Alloys

	Material		ISCAR New Grade	Composition (% CBN)	Features and Applications
ISO-S	Exotic Materials	Wear Resistance ↕ Toughness	**IB05S**	95	Super fine grain **CBN** for machining ferrous sintered metals.
			IB10S	95	For machining valve seats, sintered metals and Ti alloys.
			IB90	90	Cutting cemented tungsten carbide, sintered metal and super alloy.

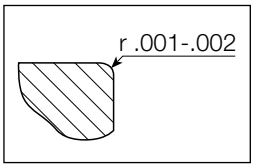
Edge Preparation and Recommended Applications

T-Land Sizes for Standard Items

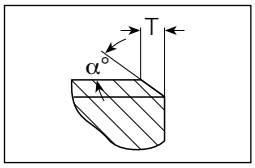
Grade	IN22	IN23	IS80	IS8	IS9	IN11	IB50	IB55	IB85	IB90	IS6	IW7
T (inch)	.008	.008	.008	.008	.004	.008	.0055	.0055	.0055	.0055	.008	.004
a°	25°	25°	25°	25°	20°	20°	20°	20°	20°	20°	20°	20°



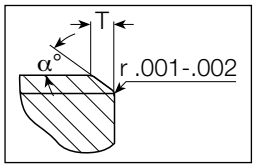
F For finishing and super finishing



E For semi-finishing and finishing
f <.008 **IPR**



T For semi-roughing and roughing
f <.008 **IPR**



S For heavy roughing and interrupted cutting

Silicon Nitride for Cast Iron and High Temperature Alloys

What is ISCANITE?

ISCANITE is a cutting tool material containing over 90% silicon nitride. **ISCANITE** is produced by unique hot pressing methods to achieve full density, and provides superior toughness along with high thermal-shock resistance. These characteristics make **ISCANITE** an ideal cutting tool material with impact resistance near that of coated carbides, and the heat and wear resistance of aluminum-oxide ceramics.

Which material can ISCANITE machine?

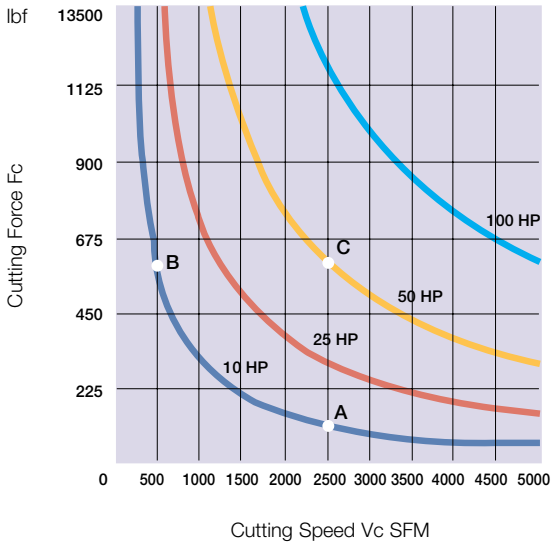
ISCANITE is primarily used on cast iron and high temperature alloys, brass and composites. Steel is the only material usually avoided because of various chemical incompatibilities.

ISCANITE Benefits

ISCANITE increases productivity through additional metal removal rates and can fully utilize a machine's potential while drastically reducing tool forces. Machining costs are reduced with increased tool life, along with less downtime for indexing, gauging, and adjustments.

Cutting Speed and Cutting Force

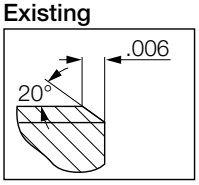
It is preferable to machine at higher cutting speeds and lower cutting forces (Point A is preferred over Point **B**) In this case, pressure is reduced on the workpiece and any tendency of the workpiece to move or vibrate. If the available machine power is higher, the machine can be stepped up. The use of higher cutting speeds of 2460 **SFM** is possible with the same cutting force as at Point **B**. (See Point **C**) The positive influence of cutting speed and feed on machining conditions: higher cutting speeds are recommended and possible for silicon nitride inserts.



New Edge Preparations

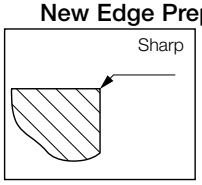
For the following grades: **IB10HC**, **IB10H**, **IB20H**, **IB25HC**, **IB25HA**, **IB05S**, **IB10S**

Existing

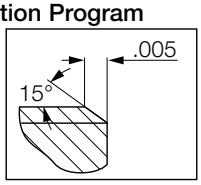


T For continuous and interrupted cut

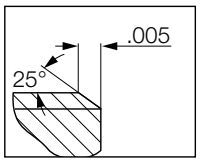
New Edge Preparation Program



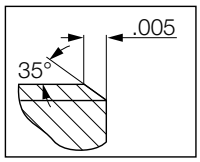
S For high surface finish



F For finishing at continuous cut



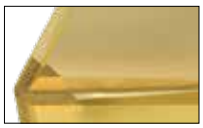
M For medium, continuous up to light interrupted cut

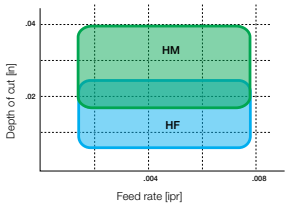


R For light to heavy interrupted cut- rough machining

Chip Breaking Area for Hardened Steel



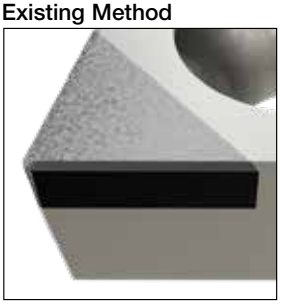




New Innovative Chipbreakers for Hardened Steel

CBN inserts with two types of chipbreakers: **HF** and **HM**

Existing Method



No chip control suitable for long linear cuts

When turning hard materials, long and tangled chips are produced.
The **HF** or **HM** chipformers provide excellent chip control at various depths of cut.

New Chipbreakers

HF Type →



Excellent chip control at small depths of cut

HM Type →



Used for large depth of cut



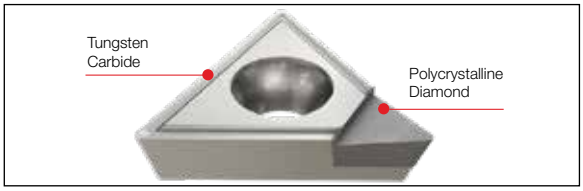


PCD Inserts

Features

- Excellent surface finishing on aluminum, nonferrous metals and non-metal materials
- Longer tool life in high speed machining, due to high wear resistance and excellent thermal conductivity

Note: Not for use on steel or cast iron



Grades and Application

Binder	Diamond Size	Grade	Feature and Application
High Cobalt	320-360 µin	ID5	Suitable for Al alloy (Si < 12%), Cu alloy general purpose cutting of nonferrous metal

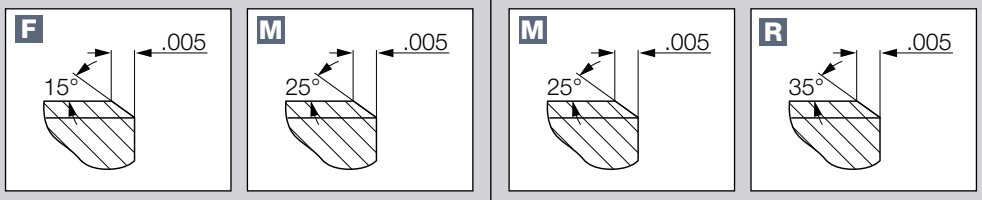
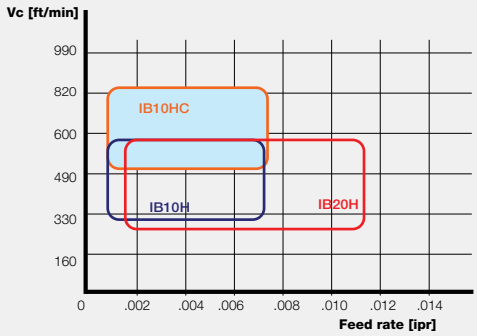
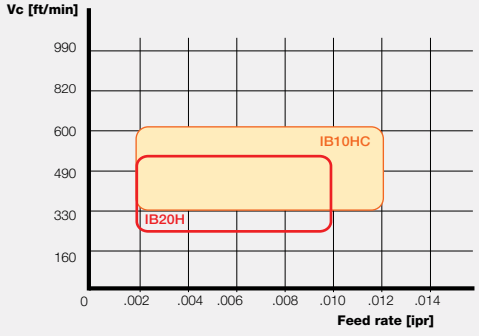
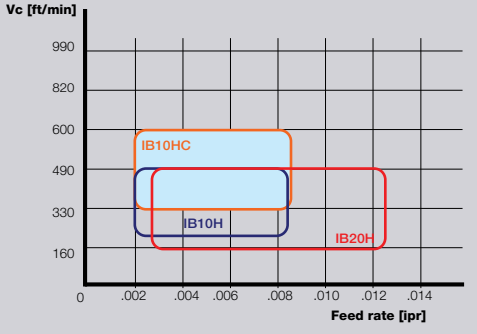
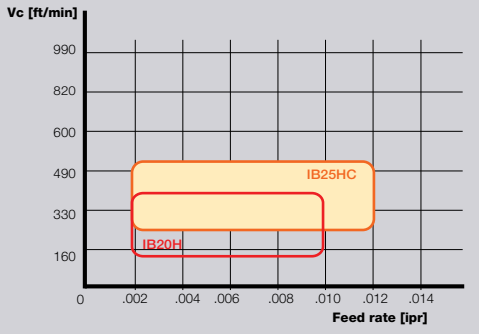
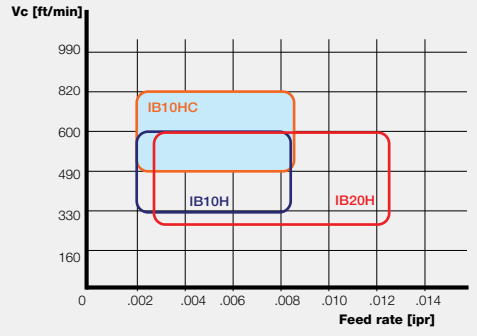
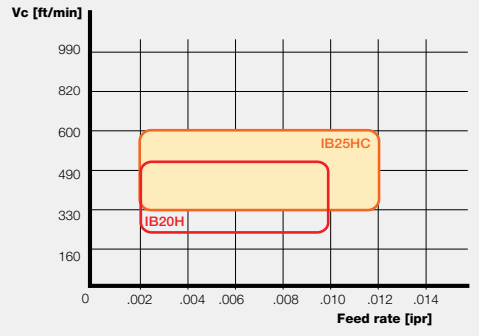
Recommended Cutting Condition Turning

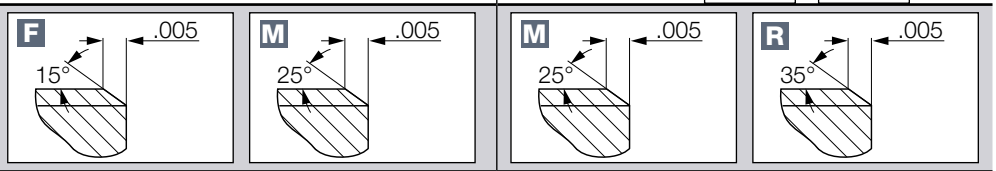
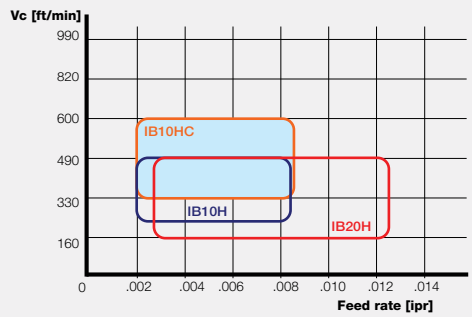
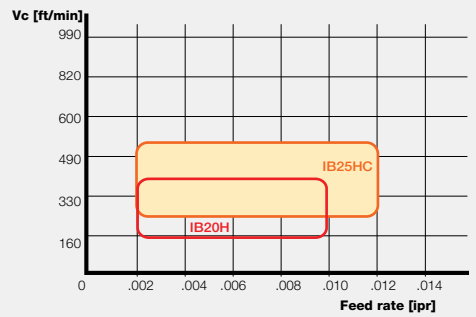
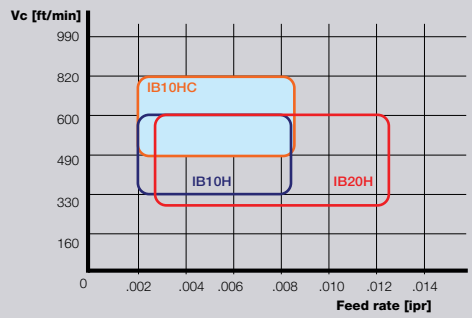
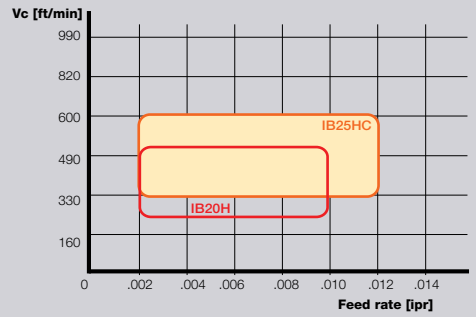
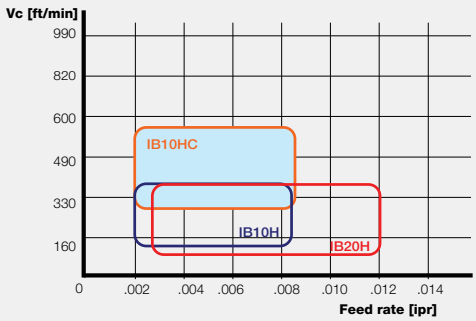
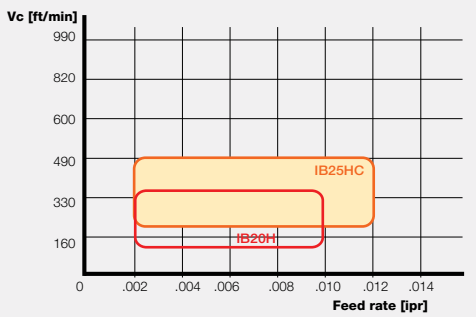
Workpiece	Cutting Speed (SFM)	Feed (IPR)	Depth of Cut (inch)	Grades
Al alloy (4-9% Si)	2500-8000	.004-.120		ID5
Al alloy (9-14% Si)	2000-4200	.004-.120	.002-.120	ID5
Cu alloy	2000-3500	.002-.008	.002-.120	ID5



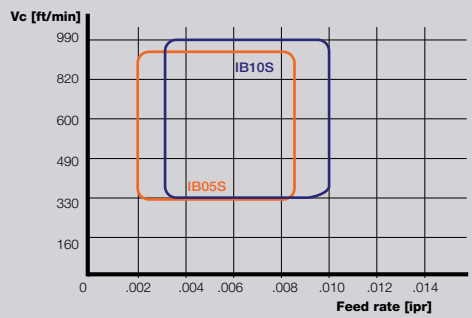
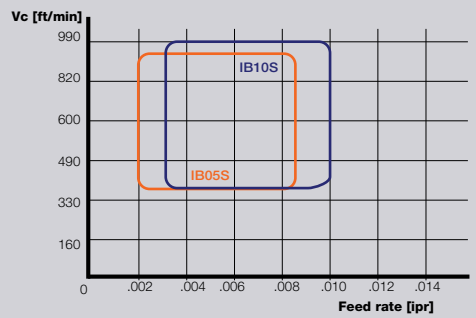
Cutting Parameters and Application Recommendations

Machining Areas of ISO-H Grades

	Continuous Cut	Interrupted Cut
Recommended Edge Preparation		
Case Hardenend Steel (55-62 HRc)		
Bearing Steel (58-65 HRc)		
High Tensile Steel (45-56 HRc)		

	Continuous Cut	Interrupted Cut
Recommended Edge Preparation		
Cold Work Tool Steel (55-64 HRc)		
Hot Work Tool Steel (45-56 HRc)		
High Speed Steel (58-66 HRc)		

Machining Areas of ISO-S Grades

Sintered Metal (45-68 HRc)		

Workpiece Materials

ISO	Material		Condition	Tensile Strength [kpsl]	Hardness HB	Material 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 steel 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		Austenitic	87	180	14
K	Grey cast iron (GG)		Ferritic/pearlitic		180	15
			Pearlitic		260	16
	Cast iron nodular (GGG)		Ferritic		160	17
			Pearlitic		250	18
	Malleable cast iron		Ferritic		130	19
			Pearlitic		230	20
N	Aluminum-wrought alloy		Not cureable		60	21
			Cured		100	22
	Aluminum-cast, alloyed	<=12% Si	Not cureable		75	23
			Cured		90	24
		>12% Si	High temperature		130	25
	Copper alloys	>1% Pb	Free cutting		110	26
			Brass		90	27
			Electrolitic copper		100	28
	Non-metallic		Duroplastics, fiber plastics			29
			Hard rubber			30
S	High temp. alloys	Fe based	Annealed		200	31
			Cured		280	32
		Ni or Co based	Annealed		250	33
			Cured		350	34
			Cast		320	35
	Titanium Ti alloys			58		36
			Alpha+beta alloys cured	152		37
H	Hardened steel		Hardened		55 HRC	38
			Hardened		60 HRC	39
	Chilled cast iron		Cast		400	40
	Cast iron		Hardened		55 HRC	41

Turning Cutting Speed Recommendations (SFM)

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 + CVD			Ceramics				Ceramics + CVD	CBN	
IC5005/428	IC5010/428	IC8150	IN11	IN23	IS6	IS8	IS80	IB90/85	IB50
500-1000	500-1000	450-900		500-1300	1650-3000	250-1000			650-1310
450-900	450-900	400-800		350-1150	1650-3000	150-800			490-1150
1150-2300	1000-2000	800-1150	1000-2600	1000-2000	1650-4000	1000-3300	1300-3300	1650-4000	
1000-2000	800-1650	650-1000	650-2000	650-1650	1650-4000	800-2600	1000-2600	1300-3300	
650-1150	800-1300	600-1050							820-1640
600-900	650-1050	500-800							490-1310

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	

Key Points for Turning with CBN

Benefits of using CBN inserts

1. Can replace grinding operations, which reduces machining costs.
2. Dimensional stability, which is especially important in mass production.
3. Minimizes the amount of scrapped parts.
4. "Green" approach, due to minimized usage of coolant.

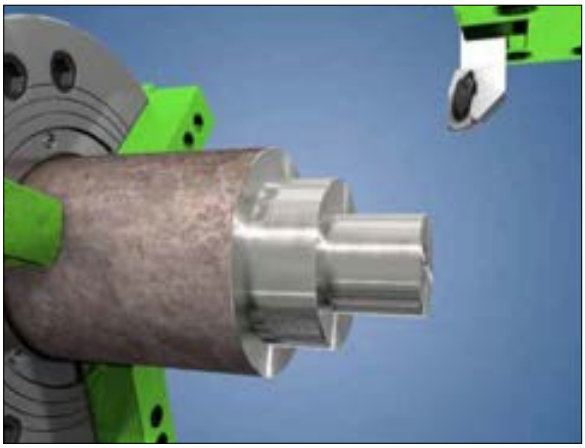
There are a few guidelines to follow to achieve the best results and high productivity when machining hard materials:

- **CBN** is characterized by hardness of 4500 **HV**. The high hardness of **CBN** enables it to machine hard materials at high speeds and feeds
- Successful **HPT** (Hard Part Turning) demands not only suitable cutting tools, but also the right conditions, preparation and environment
- **HPT** begins with a correct "soft" state machining design that will create the best possible conditions for **HPT**

The "soft" state (around 20-40 **HRc**) is the state in which the workpiece material is yet to be hardened to its final hardness.

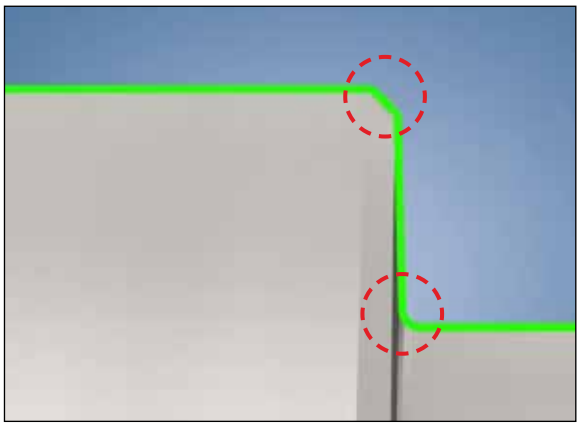
Important points when planning the "soft" machining process:

- Avoid burrs
- Keep close dimensional tolerances
- Do not enter or exit a cut suddenly
- Enter and exit by planning radius movements
- Use wiper inserts to achieve superior surface finish
- Do not leave sharp corners (round or chamfer)
- Machine stability, rigidity and thermal stability are vital conditions for producing a high quality finished part. The better the stability of the overall machine concept, the closer the tolerances will be achieved.
- Clamping the workpiece with sufficient force will prevent its movement and improve surface finish. Make sure that you employ wide clamping jaws which offer better grip on the workpiece, compared to ordinary three point jaws
- Using tailstock in long parts will add even more stability and rigidity to the machining process



Rigid clamping of the workpiece and toolholder

- Large cross section tools further add to system rigidity
- Coolant - Generally, do not use coolant when machining hard materials. **CBN** inserts tolerate high cutting temperatures, and therefore have no need for coolant. Avoiding coolant is more economical, environmentally friendly and better because as the material heats up during the turning process, it becomes slightly softer and easier to machine. However, there may be some applications that require using coolant: in cases of continuous turning when high surface finish is required.



Rounding and chamfering at the "soft" state



Use tailstock in long parts