Member IMC Group

Ingersoll Cutting Tools

NEW PRODUCTS

WINSFEED

ADVANCED MACHINING

Member IMC Group
Ingersoll
Cutting Tools

Metal Cutting Solutions for All Industries

Ingersoll Cutting Tool Company, headquartered on a state-of-the-art manufacturing and marketing campus in Rockford, IL, is proud to be part of the IMC Group of Companies with 140 subsidiaries in 65 countries. Ingersoll has been designing and manufacturing innovative metal removal tooling for more than 130 years. Since our first cutting tool patent in 1889, our primary goal has been to provide the most productive metal removal solutions on the market.

Ingersoll offers a full line of standard metal cutting tools including milling, turning, holemaking, high precision boring and reaming, PCD form tooling, gundrilling, and more. Additionally, expert Ingersoll engineers take great pride in conceptualizing and manufacturing custom-engineered special tooling for unique applications.

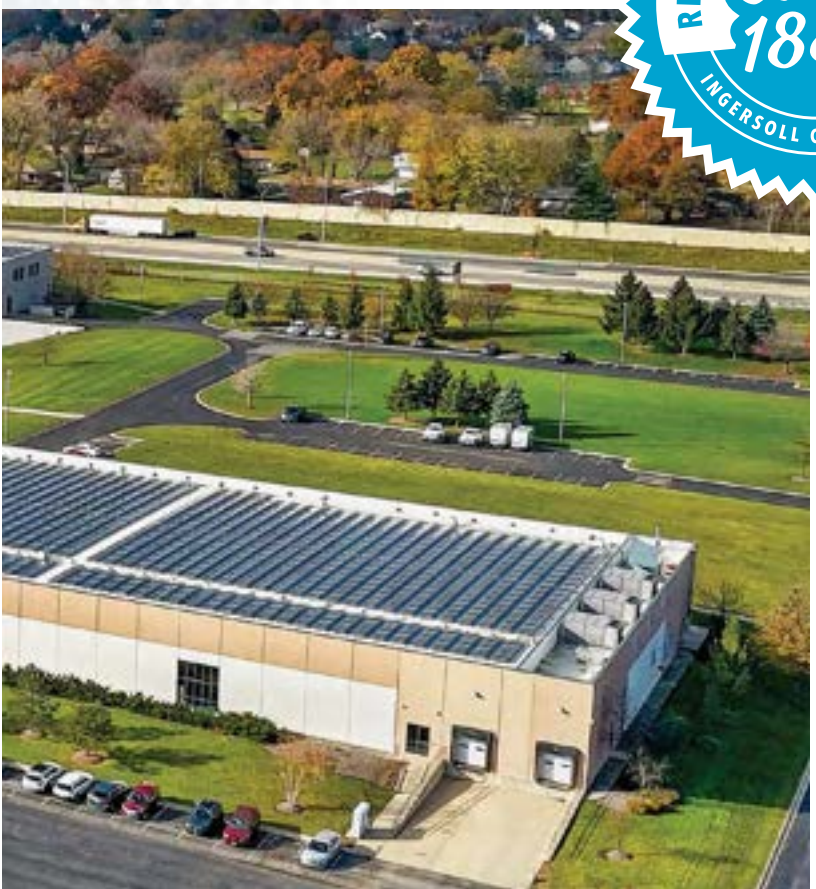
We are more than a tooling supplier; we have the resources and experience you need to make informed and effective tooling decisions that increase profitability.

Rockford, Illinois Campus

WINSFEED™

ADVANCED MACHINING

REFINING PRODUCTIVITY
Since 1889
INGERSOLL CUTTING TOOLS

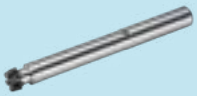


Qwik-Reference

PRODUCT OVERVIEWS

Milling	Page		Product Brief	Diameter Range
MAXSFEED™ » Expansion	8		Indexable end mills and face mills with new 8 mm insert	.750 - 3.00"
MAXSFEED™	16		Slotters and face mill with 5 mm tangential mounted inserts	.625 – 1.50"
NUMAX ILOCK™ » Expansion	22		End mills and shell mills with new 11 mm interlocking inserts	1.50 – 3.00"
GOLDSFEED™ » Expansion	28		Indexable end mills and face mills with new 6 mm insert	.625 – 2.00"
HIPOSWINV™	34		90° and Hi-Feed, high positive end mills and face mills with v-bottom insert	.625 – 3.00"
DIFEEDWINV™	42		Hi-Feed end mills and face mills with 6 mm v-bottom insert	.625 – 3.00"
DIPOSQUAD™ » Expansion	48		True 90° end mills and face mills with 8-edge economy and new 10 mm insert	1.00 – 5.00"
DIPOSQUADF™	54		45° and Hi-Feed face mills that use the same 8-edge insert	1.50 – 8.00"
CERASFEED™ » Expansion	61		Indexable ceramic Hi-Feed end mills with new 6 mm insert	.625 – 1.50"
DIPOSPROB™	64		Indexable barrel style end mills with double-sided insert	12 – 32 mm
FINEMOLD+™	70		Lens and barrel shape finishing inserts	8 – 32 mm
IABSORBER™	72		Modular damping system for shell mills	2.00 – 6.00"

Holemaking

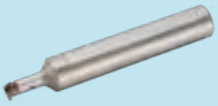
	Page		Product Brief	Diameter Range
TWISTSFEED™ » Expansion	75-80		Expanded diameter range for 3-flute replaceable tip drills	.4724 – 1.0197"
TWISTSFEED™	77, 80		8xD, 3-flute replaceable tip drills	.4724 – 1.0197"
TWISTSFEED™ » Expansion	81		Self-centering, 3-flute replaceable drill tips	.4724 – 1.0197"
TWISTSFEED™	84		Flat bottom, 3-flute replaceable drill tips	.4724 – 1.0197"
GOLDTWIST™	85		Small diameter replaceable tip drills	.1575 – .2323"
WINTWIST™	88		Replaceable tip drills with modular TopOn adaption	.2362 – .8228"
WINTWIST™	92		Replaceable tip drills with modular ChipSurfer adaption	.2362 – .4094"
SPADETWIST™	94		Self-centering replaceable tip drills for medium to large diameters	.7874 – 1.3740"
GOLDTWIN™	96		3xD, 5xD, and 7xD modular combination drills for medium to large diameters	1.062 – 1.875"
SOLIDDRILL3™	105		8xD, 3-flute solid carbide drills	.1563 – .4724"
SOLIDDRILL3™	106		3xD and 5xD flat bottom solid carbide drills	.1563 – .4724"
QWIKREAMS™	112		Replaceable head Hi-Feed reamers in small diameters	.3149 – .4724"

Turning, Parting, and Grooving products on next page »

Qwik-Reference

PRODUCT OVERVIEWS

Turning	Page		Product Brief	Product Range
WINTURN™	118		6-edge inserts and holders for all-directional and Hi-Feed turning	1.00 – 1.25"; 25 – 32 mm
FLEXTURN™	122		Modular head and holder system for turning, parting, grooving, and threading on Swiss machines	.500 – .625"; 12 – 16 mm
TMODULAR™	136		External and internal modular system for turning and boring	External: .750 – 1.500" Internal: C4, C5 & C6
TABSORBER™	142		80 mm diameter anti-vibration bars with exchangeable heads	7xD, 10xD, 12xD, 14xD
MULTITURN™	148		35° turning inserts and holders with anti-rotation seating	.625 – 1.00"; 16 – 25 mm

Parting & Grooving	Page		Product Brief	Product Range
WINCUT™	152		Triangular shaped blades and holders for deep parting and grooving	Widths: 2.0 – 3.0 mm Depths: Up to Ø 4.72"
WINIGROOVE™	158		Miniature inserts and holders for shallow internal grooving	Min Bore: 6 and 8 mm Widths: 0.5 – 2.0 mm
GOLDFLEX™	162		4-edge, wide inserts for special profile grooving	Widths: 10, 15, 20 mm Shanks: .750 – 1.00"; 20 – 25 mm
FACEFLEX™ » *Expansion*	166		Shallow face and external grooving with unique 2-edge insert	Widths: 2, 3, 4 mm Shanks: 1.00"; 25 mm
TCLAMPVT™	172		Multi-functional v-type profiling insert	Width: .110"
TCLAMP™	174		Multi-purpose TDXC insert for grooving and turning	Widths: 2 - 6 mm

Follow Ingersoll on Social Media for the most up-to-date company news and promotions.

QWIK-CUTS:
Sign up for the Ingersoll newsletter (scroll to the bottom)

Notes

MAXSFEED™

MILLING - INDEXABLE

Cutter Series (Depth of Cut)

1EJ5A End Mills (.185")
1EJ5B End Mills (.317") NEW
EJ5B, EJ6B Face Mills (.317")
1EJ5C End Mills (.385")
EJ5C, EJ6C Face Mills (.385")
EJ5D / EJ6D Face Mills (.479")

Insert Series

CGM101R, CGX101R (05 mm)
CGM212R (08 mm) NEW
CGM313R (11 mm)
CGM324R (13 mm)

Geometries

M: General Purpose
ML: General Purpose - Keen Edge

Diameter Range

0.750–3.00"

Grades

IN2505, IN2510, IN2515, IN2530, IN2535, IN2540, IN4005, IN4015, IN4030, IN4035, IN4040

Corner Radii

.015, .031, .062"

Materials

- Steel
- Stainless Steel
- Cast Iron
- Non-Ferrous
- High-Temp Alloys

New MaxSFeed 8 mm Insert Size CGM212 and Dedicated Cutters

» Strong double-sided, 4-corner, tangential insert with helical cutting edges for smooth machining.

» Exact 90° shouldering with straight and helical ramping capabilities.

» Shell mills and end mill bodies available from 0.750" to 3.00" diameter range.

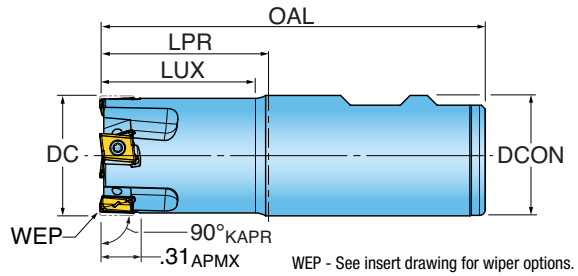
View the full line »

SFEEDUP™ HIGH SPEED & FEED EXPANSION

Face Shoulder Channel Ramp Pocket Corkscrew Coolant

Series 1EJ5B

END MILL - WELDON (8 MM INSERT)

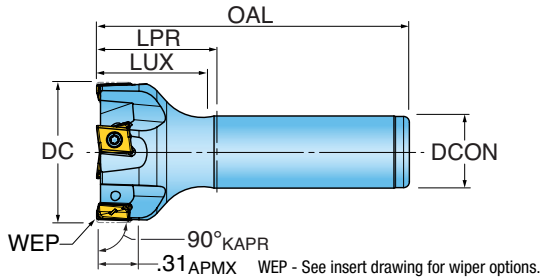


Part Number	DC Cutting Dia.	LUX Usable Length Max.	LPR Protruding Length	OAL Overall Length	ZEFF Effective Teeth	DCON Shank Dia.	RPMX Ramp Angle Max.
INCH							
1EJ5B-0701284R01	0.750	1.208	1.250	3.500	2	0.750	2.18
1EJ5B-0701280R01	0.750	0.968	1.250	3.500	2	1.000	2.18
1EJ5B-0701280R02	0.750	0.968	1.250	3.500	3	1.000	2.18
1EJ5B-0702280R01	0.750	1.968	2.250	4.500	2	1.000	2.18
1EJ5B-0703280R01	0.750	2.968	3.250	5.500	2	1.000	2.18
1EJ5B-1001780R01	1.000	1.624	1.750	4.000	3	1.000	1.41
1EJ5B-1001780R02	1.000	1.624	1.750	4.000	4	1.000	1.41
1EJ5B-1001784R01	1.000	1.750	1.750	3.750	3	0.750	1.41
1EJ5B-1003280R01	1.000	3.124	3.250	5.500	3	1.000	1.41
1EJ5B-1201781R01	1.250	1.615	1.750	4.000	3	1.250	1.05
1EJ5B-1201781R02	1.250	1.615	1.750	4.000	4	1.250	1.05
1EJ5B-1201781R03	1.250	1.615	1.750	4.000	5	1.250	1.05
1EJ5B-1201784R01	1.250	1.750	1.750	4.000	3	0.750	1.05
1EJ5B-1203281R01	1.250	3.115	3.250	5.500	4	1.250	1.05
1EJ5B-1501781R01	1.500	1.750	1.750	4.000	4	1.250	0.84
1EJ5B-1501781R02	1.500	1.750	1.750	4.000	5	1.250	0.84
1EJ5B-1501781R03	1.500	1.750	1.750	4.000	6	1.250	0.84
1EJ5B-1502281R01	1.500	2.250	2.250	4.500	5	1.250	0.84

Face | Shoulder | Channel | Ramp | Pocket | Corkscrew | Coolant

Series 1EJ5B

END MILL - CYLINDRICAL (8 MM INSERT)

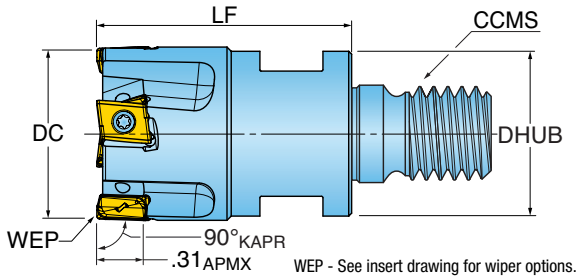


Part Number	DC Cutting Dia.	LUX Usable Length Max.	LPR Protruding Length	OAL Overall Length	ZEFF Effective Teeth	DCON Shank Dia.	RPMX Ramp Angle Max.
INCH							
1EJ5B-10012S7R01	1.000	1.250	1.250	3.250	3	0.750	1.41
1EJ5B-15012S7R01	1.500	1.250	1.250	3.250	4	0.750	0.84
1EJ5B-20012S7R01	2.000	1.250	1.250	3.250	5	0.750	0.60

Face Shoulder Channel Ramp Pocket Corkscrew Coolant

Series 1EJ5B

END MILL - TOPON (8 MM INSERT)

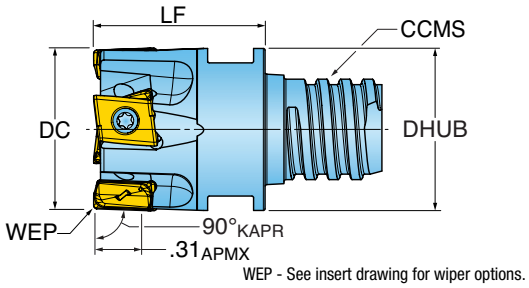


Part Number	DC Cutting Dia.	LF Functional Length	ZEFF Effective Teeth	CCMS Connection Code Machine Side	DHUB Hub Dia.	RPMX Ramp Angle Max.
INCH						
1EJ5B-07015X6R01	0.750	1.500	2	TopOn M10	0.725	2.18
1EJ5B-07015X6R02	0.750	1.500	3	TopOn M10	0.725	2.18
1EJ5B-10015X7R01	1.000	1.500	3	TopOn M12	0.817	1.41
1EJ5B-10015X7R02	1.000	1.500	4	TopOn M12	0.817	1.41
1EJ5B-12017X8R01	1.250	1.750	3	TopOn M16	1.320	1.05
1EJ5B-12017X8R02	1.250	1.750	4	TopOn M16	1.320	1.05
1EJ5B-12017X8R03	1.250	1.750	5	TopOn M16	1.320	1.05
1EJ5B-15015X9R01	1.500	1.750	4	TopOn M20	1.417	0.84
1EJ5B-15015X9R02	1.500	1.750	5	TopOn M20	1.417	0.84
1EJ5B-15015X9R03	1.500	1.750	6	TopOn M20	1.417	0.84

Face Shoulder Channel Ramp Pocket Corkscrew Coolant

Series 1EJ5B

END MILL - CHIPSURFER (8 MM INSERT)

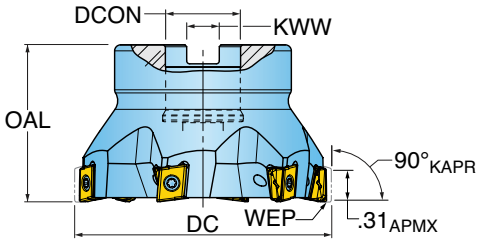


Part Number	DC Cutting Dia.	LF Functional Length	ZEFF Effective Teeth	CCMS Connection Code Machine Side	DHUB Hub Dia.	RPMX Ramp Angle Max.
INCH						
1EJ5B-07010TSR01	0.750	1.000	2	ChipSurfer T12	0.725	2.18
1EJ5B-07010TSR02	0.750	1.000	3	ChipSurfer T12	0.725	2.18
1EJ5B-10012TUR01	1.000	1.000	3	ChipSurfer T15	0.945	1.41
1EJ5B-10012TUR02	1.000	1.000	4	ChipSurfer T15	0.945	1.41

Face | Shoulder | Channel | Ramp | Pocket | Corkscrew | Coolant

Series EJ5B

FACE MILL (8 MM INSERT)

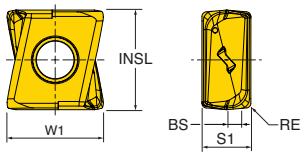


WEP - See insert drawing for wiper options.

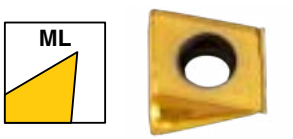
Part Number	DC Cutting Dia.	OAL Overall Length	ZEFF Effective Teeth	DCON Bore Dia.	KWW Keyway	RPMX Ramp Angle Max.
INCH						
EJ5B-01R01	1.500	1.570	6	0.500	0.250	0.84
EJ6B-01R01	1.500	1.570	5	0.500	0.250	0.84
EJ5B-02R01	2.000	1.570	10	0.750	0.312	0.60
EJ5B-02R02	2.000	1.570	7	0.750	0.312	0.60
EJ6B-02R01	2.000	1.570	5	0.750	0.312	0.60
EJ5B-02R03	2.500	1.570	9	0.750	0.312	0.47
EJ6B-02R02	2.500	1.570	6	0.750	0.312	0.47
EJ5B-03R01	3.000	1.750	14	1.000	0.375	0.38
EJ5B-03R02	3.000	1.750	10	1.000	0.375	0.38
EJ6B-03R01	3.000	1.750	7	1.000	0.375	0.38

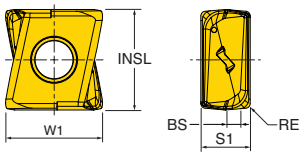
Inserts

CGM212_M



CGM212_ML





Part Number	Application	RE Corner Radius	BS Wiper Length	INSL Insert Length	W1 Insert Width	S1 Thickness (Overall)	Grades										
							IN4040	IN2540	IN2510	IN4015	IN2515	IN4005	IN2505	IN4030	IN2530	IN4035	IN2535
CGM212R001-M	General Purpose	0.015	0.069	0.345	0.336	0.169	•	•	•	•	•	•	•	•	•		
CGM212R002-M	General Purpose	0.031	0.053	0.345	0.333	0.169	•	•	•	•	•	•	•	•	•		
CGM212R003-M	General Purpose	0.062	0.022	0.345	0.325	0.169	•	•	•	•	•	•	•	•	•		
CGM212R001-ML	General Purpose - Keen Edge	0.015	0.069	0.345	0.336	0.169	•	•	•	•	•	•	•	•	•	•	•
CGM212R002-ML	General Purpose - Keen Edge	0.031	0.053	0.345	0.332	0.169	•	•	•	•	•	•	•	•	•	•	•
CGM212R003-ML	General Purpose - Keen Edge	0.062	0.022	0.345	0.324	0.169	•	•	•	•	•	•	•	•	•	•	•

Hardware

Part Number	Insert Screw	Driver	Retention Bolt	Optional: Coolant Bolt	Optional: Torque Driver Handle	Optional: Preset Torque Adapter	Optional: Torque Driver Bit
1EJ5B-0701284R01	SM30-074-21	DS-0020	-	-	DS-A00-.25-S	DT-18-.25	DS-0021
1EJ5B-0701280R01	SM30-074-21	DS-0020	-	-	DS-A00-.25-S	DT-18-.25	DS-0021
1EJ5B-0701280R02	SM30-074-21	DS-0020	-	-	DS-A00-.25-S	DT-18-.25	DS-0021
1EJ5B-0702280R01	SM30-074-21	DS-0020	-	-	DS-A00-.25-S	DT-18-.25	DS-0021
1EJ5B-0703280R01	SM30-074-21	DS-0020	-	-	DS-A00-.25-S	DT-18-.25	DS-0021
1EJ5B-1001780R01	SM30-082-81	DS-0020	-	-	DS-A00-.25-S	DT-18-.25	DS-0021
1EJ5B-1001780R02	SM30-082-81	DS-0020	-	-	DS-A00-.25-S	DT-18-.25	DS-0021
1EJ5B-1001784R01	SM30-082-81	DS-0020	-	-	DS-A00-.25-S	DT-18-.25	DS-0021
1EJ5B-1003280R01	SM30-082-81	DS-0020	-	-	DS-A00-.25-S	DT-18-.25	DS-0021
1EJ5B-1201781R01	SM30-082-81	DS-0020	-	-	DS-A00-.25-S	DT-18-.25	DS-0021
1EJ5B-1201781R02	SM30-082-81	DS-0020	-	-	DS-A00-.25-S	DT-18-.25	DS-0021
1EJ5B-1201781R03	SM30-082-81	DS-0020	-	-	DS-A00-.25-S	DT-18-.25	DS-0021
1EJ5B-1201784R01	SM30-082-81	DS-0020	-	-	DS-A00-.25-S	DT-18-.25	DS-0021
1EJ5B-1203281R01	SM30-082-81	DS-0020	-	-	DS-A00-.25-S	DT-18-.25	DS-0021
1EJ5B-1501781R01	SM30-082-21	DS-0020	-	-	DS-A00-.25-S	DT-18-.25	DS-0021
1EJ5B-1501781R02	SM30-082-21	DS-0020	-	-	DS-A00-.25-S	DT-18-.25	DS-0021
1EJ5B-1501781R03	SM30-082-21	DS-0020	-	-	DS-A00-.25-S	DT-18-.25	DS-0021
1EJ5B-1502281R01	SM30-082-21	DS-0020	-	-	DS-A00-.25-S	DT-18-.25	DS-0021
1EJ5B-10012S7R01	SM30-082-81	DS-0020	-	-	DS-A00-.25-S	DT-18-.25	DS-0021
1EJ5B-15012S7R01	SM30-082-21	DS-0020	-	-	DS-A00-.25-S	DT-18-.25	DS-0021
1EJ5B-20012S7R01	SM30-082-21	DS-0020	-	-	DS-A00-.25-S	DT-18-.25	DS-0021
1EJ5B-07015X6R01	SM30-074-21	DS-0020	-	-	DS-A00-.25-S	DT-18-.25	DS-0021

Hardware (continued)

Part Number	Insert Screw	Driver	Retention Bolt	Optional: Coolant Bolt	Optional: Torque Driver Handle	Optional: Preset Torque Adapter	Optional: Torque Driver Bit
1EJ5B-07015X6R02	SM30-074-21	DS-0020	-	-	DS-A00-.25-S	DT-18-.25	DS-0021
1EJ5B-10015X7R01	SM30-082-81	DS-0020	-	-	DS-A00-.25-S	DT-18-.25	DS-0021
1EJ5B-10015X7R02	SM30-082-81	DS-0020	-	-	DS-A00-.25-S	DT-18-.25	DS-0021
1EJ5B-12017X8R01	SM30-082-81	DS-0020	-	-	DS-A00-.25-S	DT-18-.25	DS-0021
1EJ5B-12017X8R02	SM30-082-81	DS-0020	-	-	DS-A00-.25-S	DT-18-.25	DS-0021
1EJ5B-12017X8R03	SM30-082-81	DS-0020	-	-	DS-A00-.25-S	DT-18-.25	DS-0021
1EJ5B-15015X9R01	SM30-082-21	DS-0020	-	-	DS-A00-.25-S	DT-18-.25	DS-0021
1EJ5B-15015X9R02	SM30-082-21	DS-0020	-	-	DS-A00-.25-S	DT-18-.25	DS-0021
1EJ5B-15015X9R03	SM30-082-21	DS-0020	-	-	DS-A00-.25-S	DT-18-.25	DS-0021
1EJ5B-07010TSR01	SM30-074-21	DS-0020	-	-	DS-A00-.25-S	DT-18-.25	DS-0021
1EJ5B-07010TSR02	SM30-074-21	DS-0020	-	-	DS-A00-.25-S	DT-18-.25	DS-0021
1EJ5B-10012TUR01	SM30-082-81	DS-0020	-	-	DS-A00-.25-S	DT-18-.25	DS-0021
1EJ5B-10012TUR02	SM30-082-81	DS-0020	-	-	DS-A00-.25-S	DT-18-.25	DS-0021
EJ5B-01R01	SM30-082-21	DS-0020	SD04-47	-	DS-A00-.25-S	DT-18-.25	DS-0021
EJ6B-01R01	SM30-082-21	DS-0020	SD04-47	-	DS-A00-.25-S	DT-18-.25	DS-0021
EJ5B-02R01	SM30-082-21	DS-0020	SD06-46	SD06-89	DS-A00-.25-S	DT-18-.25	DS-0021
EJ5B-02R02	SM30-082-21	DS-0020	SD06-46	SD06-89	DS-A00-.25-S	DT-18-.25	DS-0021
EJ6B-02R01	SM30-082-21	DS-0020	SD06-46	SD06-89	DS-A00-.25-S	DT-18-.25	DS-0021
EJ5B-02R03	SM30-082-21	DS-0020	SD06-46	SD06-89	DS-A00-.25-S	DT-18-.25	DS-0021
EJ6B-02R02	SM30-082-21	DS-0020	SD06-46	SD06-89	DS-A00-.25-S	DT-18-.25	DS-0021
EJ5B-03R01	SM30-082-21	DS-0020	SD08-46	SD08-92	DS-A00-.25-S	DT-18-.25	DS-0021
EJ5B-03R02	SM30-082-21	DS-0020	SD08-46	SD08-92	DS-A00-.25-S	DT-18-.25	DS-0021
EJ6B-03R01	SM30-082-21	DS-0020	SD08-46	SD08-92	DS-A00-.25-S	DT-18-.25	DS-0021

MAXSFEED™

MILLING - INDEXABLE

Featuring MULTISURFER™ adaption

Cutter Series

1EJ6A (slotter)
3EJ6A (slotter)
1EJ7A (face mill)

Insert Series

CGM101-001-ML (slotting)
CGM101R001-ML
CGX101R001-M

Diameter Range

.625–1.500"

Grades

IN2505, IN2510, IN2530

Lead Angle

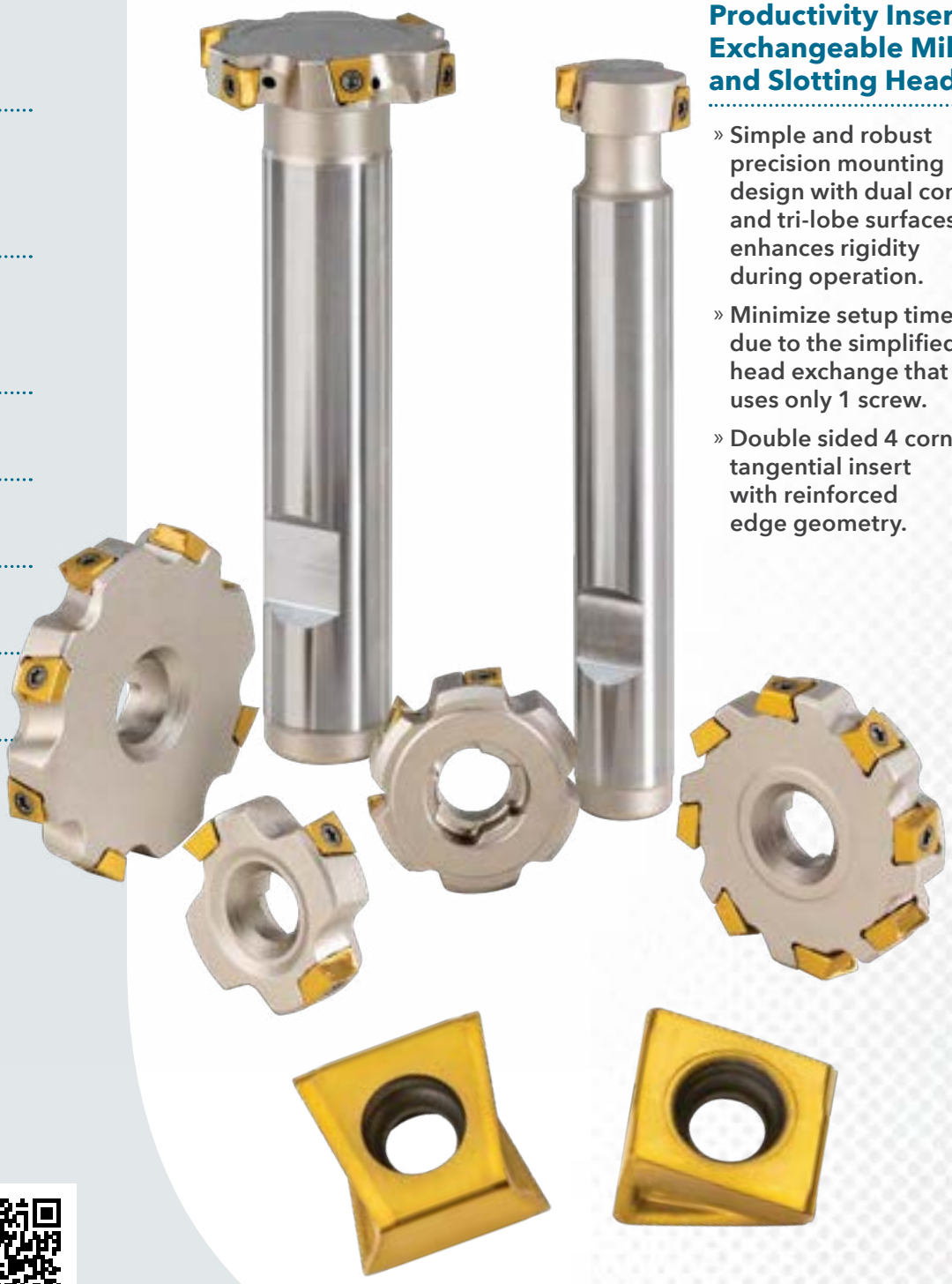
90°

Corner Radii

0.015

Materials

- Steel
- Stainless Steel
- Cast Iron
- Non-Ferrous
- High-Temp Alloys



Economical, High Productivity Insert - Exchangeable Milling and Slotting Heads

» Simple and robust precision mounting design with dual contact and tri-lobe surfaces that enhances rigidity during operation.

» Minimize setup time due to the simplified head exchange that uses only 1 screw.

» Double sided 4 corner tangential insert with reinforced edge geometry.

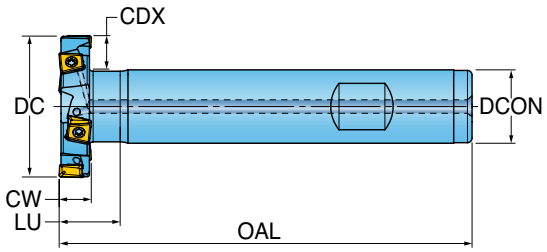
View the full line »

WINSFEED™ ADVANCED MACHINING

Slot Coolant

Series 1EJ6A

SLOTTER - INTEGRAL WELDON SHANK

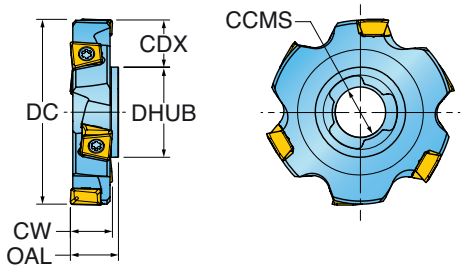


Part Number	DC Cutting Dia.	CW Cutting Width	CDX Cutting Depth Max.	LUX Functional Length	OAL Overall Length	ZEFP Effective Teeth Periphery	ZNP Peripheral Insert Count	DCON Shank Dia.	CSP Coolant
INCH									
1EJ6A-0602778R01	0.625	0.276	0.114	0.512	3.500	1	2	0.500	Yes
1EJ6A-0702778R01	0.750	0.276	0.138	0.512	3.500	2	4	0.500	Yes
1EJ6A-1002778R01	1.000	0.276	0.264	0.512	3.500	2	4	0.500	Yes
1EJ6A-1202779R01	1.250	0.276	0.311	0.512	3.500	3	6	0.625	Yes
1EJ6A-1502779R01	1.500	0.276	0.433	0.512	4.125	4	8	0.625	Yes

Slot

Series 3EJ6A

SLOTTER - MULTISURFER ADAPTION

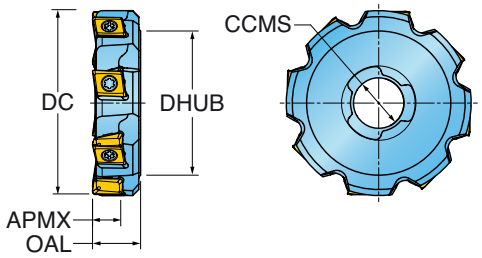


Part Number	DC Cutting Dia.	CW Cutting Width	CDX Cutting Depth Max.	DHUB Hub Dia.	OAL Overall Length	ZEFP Effective Teeth Periphery	ZNP Peripheral Insert Count	CCMS Connection Code Machine Side
INCH								
3EJ6A-09027LPR01	0.875	0.276	0.161	0.550	0.315	2	4	Multi-Surfer LP
3EJ6A-10027LPR01	1.000	0.276	0.224	0.512	0.315	2	4	Multi-Surfer LP
3EJ6A-12027LQR01	1.250	0.276	0.307	0.590	0.315	3	6	Multi-Surfer LQ
3EJ6A-15027LRR01	1.500	0.276	0.394	0.670	0.394	4	8	Multi-Surfer LR

Face Shoulder Channel Ramp Corkscrew

Series 1EJ7A

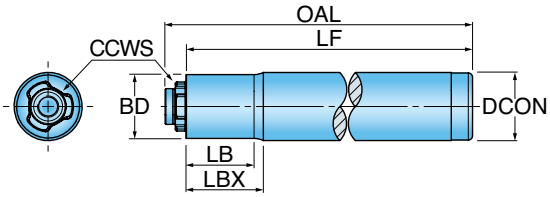
FACE MILL - MULTISURFER ADAPTION



Part Number	DC Cutting Dia.	OAL Overall Length	DHUB Hub Dia.	ZEFF Effective Teeth	APMX Depth of Cut Max.	CCMS Connection Code Machine Side	RPMX Ramp Angle Max.
INCH							
1EJ7A-10032LQR01	1.000	0.315	0.748	6	0.185	Multi-Surfer LQ	0.69
1EJ7A-12032LQR01	1.250	0.315	0.945	8	0.185	Multi-Surfer LQ	0.54
1EJ7A-15040LRR01	1.500	0.394	1.220	10	0.185	Multi-Surfer LR	0.44

Series S_L_SA

STEEL SHANK, NECKED - MULTISURFER ADAPTION

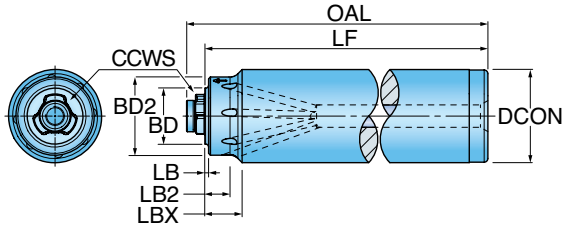


Part Number	CCWS Connection Code	LB Body Length	LBX Body Length Max.	LF Functional Length	OAL Overall Length	BD Body Dia.	DCON Shank Dia.	BMC Body Material Code
INCH								
S062LPSA-05	Multi-Surfer LP	0.600	0.650	4.000	4.170	0.510	0.625	Steel
S062LQSA-06	Multi-Surfer LQ	0.700	0.720	4.000	4.190	0.590	0.625	Steel
S062LQSA-07	Multi-Surfer LQ	0.780	0.800	5.000	5.190	0.590	0.625	Steel
S075LRSA-08	Multi-Surfer LR	0.900	0.940	5.500	5.730	0.670	0.750	Steel
METRIC								
S016LPSA-16	Multi-Surfer LP	13.00 mm	16.60 mm	100.00 mm	104.35 mm	13.00 mm	16.00 mm	Steel
S016LQSA-18	Multi-Surfer LQ	16.00 mm	18.20 mm	100.00 mm	104.90 mm	15.00 mm	16.00 mm	Steel
S016LQSA-19	Multi-Surfer LQ	16.00 mm	18.20 mm	130.00 mm	134.90 mm	15.00 mm	16.00 mm	Steel
S020LRSA-23	Multi-Surfer LR	20.20 mm	23.80 mm	140.00 mm	146.00 mm	17.00 mm	20.00 mm	Steel

*Shank modifications can be made by cutting off the back to desired length or turning back the neck for more usable length.

Series S_L_SA

STEEL SHANK - MULTISURFER ADAPTION

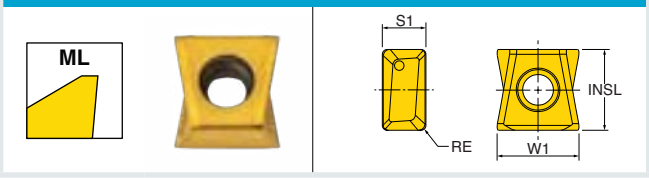


Part Number	CCWS Connection Code	LB Body Length	LB2 Body Length 2	LBX Body Length Max.	LF Functional Length	OAL Overall Length	BD Body Dia.	BD2 Body Dia. 2	DCON Shank Dia.	CNSC Coolant Entry Style Code	CXSC Coolant Exit Style Code	BMC Body Material Code
INCH												
S075LPSA-03	Multi-Surfer LP	0.030	0.300	0.380	4.250	4.420	0.510	0.625	0.750	1	1, 3	Steel
S100LQSA-03	Multi-Surfer LQ	0.030	0.300	0.380	4.250	4.440	0.590	0.812	1.000	1	1, 3	Steel
S125LRSA-03	Multi-Surfer LR	0.030	0.300	0.380	5.750	5.980	0.670	1.125	1.250	1	1, 3	Steel
METRIC												
S020LPSA-10	Multi-Surfer LP	0.76 mm	7.60 mm	10.00 mm	100.00 mm	104.35 mm	13.00 mm	16.00 mm	20.00 mm	1	1, 3	Steel
S025LQSA-10	Multi-Surfer LQ	0.76 mm	7.60 mm	10.00 mm	100.00 mm	104.90 mm	15.00 mm	21.00 mm	25.00 mm	1	1, 3	Steel
S032LRSA-10	Multi-Surfer LR	0.76 mm	7.60 mm	10.00 mm	140.00 mm	146.00 mm	17.00 mm	28.00 mm	32.00 mm	1	1, 3	Steel

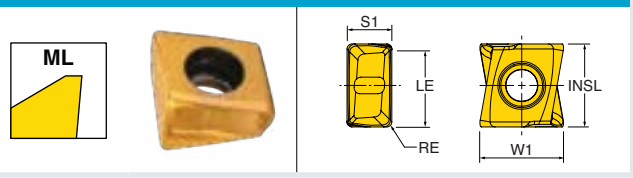
*Shank modifications can be made by cutting off the back to desired length or turning back the neck for more usable length.

Inserts

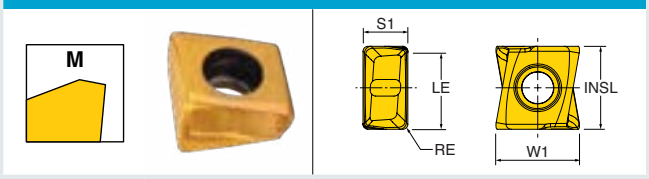
CGM101-001-ML



CGM101R001-ML



CGX101R001-M



Part Number	Application	RE Corner Radius	LE Cutting Edge Eff. Length	INSL Insert Length	W1 Insert Width	S1 Thickness (Overall)	Grade		
							IN2510	IN2505	IN2530
CGM101-001-ML	Slotting	0.015	-	0.197	0.197	0.106		•	•
CGM101R001-ML	General Purpose	0.015	0.185	0.197	0.197	0.106	•		•
CGX101R001-M	Utility	0.015	0.185	0.197	0.197	0.106	•	•	•

Hardware

Part Number	Screw	Driver
1EJ6A-0602778R01	SM18-049-00	TD 6P
1EJ6A-0702778R01	SM18-049-00	TD 6P
1EJ6A-1002778R01	SM18-049-00	TD 6P
1EJ6A-1202779R01	SM18-049-00	TD 6P
1EJ6A-1502779R01	SM18-049-00	TD 6P
3EJ6A-09027LPR01	SM18-049-00	TD 6P
3EJ6A-10027LPR01	SM18-049-00	TD 6P
3EJ6A-12027LQR01	SM18-049-00	TD 6P
3EJ6A-15027LRR01	SM18-049-00	TD 6P
1EJ7A-10032LQR01	SM18-049-00	TD 6P
1EJ7A-12032LQR01	SM18-049-00	TD 6P
1EJ7A-15040LRR01	SM18-049-00	TD 6P

NUMAX ILOCK™

MILLING - INDEXABLE

Cutter Series

2XJ3C Shell Mills NEW
2XJ3C End Mills
2XJ3J Shell Mills
2XJ3J End Mills

Insert Series

IPM313 ML (11 mm) NEW
IPM425 ML (11 mm)
IPM324 ML/MM (13 mm)
IPM426 ML/MM (13 mm)

Diameter Range

1.500-3.000" NEW

Grades

IN2505, IN4005
IN2530, IN4030
IN2535, IN4035

Corner Radius

.031",.062", .093",.125",.250"

Materials

- Steel
- Stainless Steel
- Iron
- High-Temp Alloys/Titanium

End Mills and Shell Mills With New, Smaller Size, Interlocking Inserts for Smooth/Reliable Operation

» Overlapping "V-Notch" inserts that allow for smooth chip formation at high feed-rates.

» Smaller inserts designed for lower HP machines, freer cutting conditions, and larger radial depth of cut in aggressive materials.

» Patented end station design with available corner radii inserts from .031" to .250" with no cutter body modifications needed.

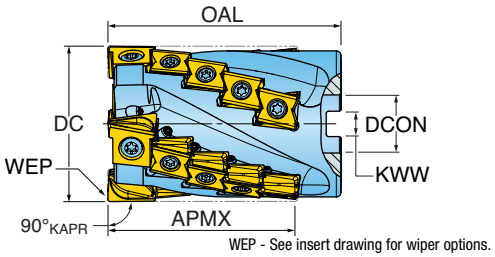
View the full line »

SFEEDUP™ HIGH SPEED & FEED EXPANSION

Face | Shoulder | Ramp | Channel | Coolant

Series 2XJ3C

90° SHELL MILL (11 MM INSERT)



WEP - See insert drawing for wiper options.

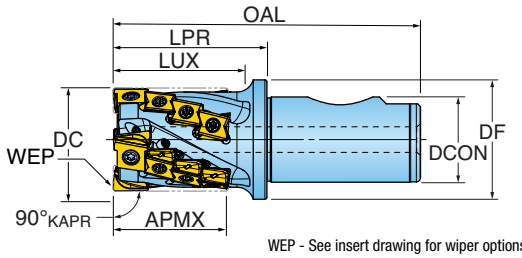
Part Number	DC Cutting Dia.	APMX Depth of Cut Max.	OAL Overall Length	ZEFF Eff. Teeth	ZEFP Eff. Teeth periphery	ZNF Face Insert Count	ZNP Periphery Insert Count	NOF Flute Count	DCON Bore Dia.	KWW Keyway	RMPX Ramp Angle Max.
INCH											
2XJ3C-20023D1R01	2.000	1.670	2.350	5	5	5	15	5	0.750	0.312	0.76
2XJ3C-20027D1R01	2.000	2.060	2.750	5	5	5	20	5	0.750	0.312	0.76
2XJ3C-20030D1R01	2.000	2.450	3.000	5	5	5	25	5	0.750	0.312	0.76
2XJ3C-20035D1R01	2.000	2.840	3.500	5	5	5	30	5	0.750	0.312	0.76
2XJ3C-25030D3R01	2.500	2.450	3.000	6	6	6	30	6	1.000	0.375	0.56
2XJ3C-25035D3R01	2.500	2.840	3.500	6	6	6	36	6	1.000	0.375	0.56
2XJ3C-25040D3R01	2.500	3.230	4.000	6	6	6	42	6	1.000	0.375	0.56
2XJ3C-25045D3R01	2.500	3.620	4.500	6	6	6	48	6	1.000	0.375	0.56
2XJ3C-25050D3R01	2.500	4.000	5.000	6	6	6	54	6	1.000	0.375	0.56
2XJ3C-30050D4R01	3.000	4.000	5.000	7	7	7	63	7	1.250	0.500	0.44
2XJ3C-30035D4R01	3.000	2.840	3.500	7	7	7	42	7	1.250	0.500	0.44
2XJ3C-30040D4R01	3.000	3.230	4.000	7	7	7	49	7	1.250	0.500	0.44
2XJ3C-30045D4R01	3.000	3.620	4.500	7	7	7	56	7	1.250	0.500	0.44

* End station insert screw tightening torque: 30-35 in lb; side station insert screw tightening torque: 25-30 in lb
** Total number of inserts = ZNF + ZNP

Series 2XJ3C

Face | Shoulder | Ramp | Channel | Coolant

90° WELDON DIMPLE STYLE END MILL (11 MM INSERT)



WEP - See insert drawing for wiper options.

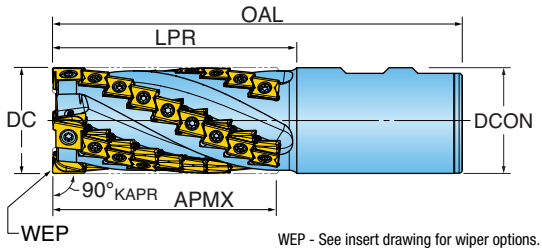
Part Number	DC Cutting Dia.	APMX Depth of Cut Max.	LUX Usable Length Max.	LPR Protruding Length	LF Funct. Length	OAL Overall Length	ZEFF Eff. Teeth	ZEFP Eff. Teeth Periphery	ZNF Face Insert Count	ZNP Periphery Insert Count	NOF Flute Count	DCON Shank Dia.	DF Flange Dia.	RMPX Ramp Angle Max.
INCH														
2XJ3C-1502281R01	1.500	1.670	1.800	2.250	2.250	4.500	4	4	4	12	4	1.250	1.750	1.22
2XJ3C-1502281R02	1.500	1.670	1.800	2.250	2.250	4.500	3	3	3	9	3	1.250	1.750	1.22
2XJ3C-1502781R01	1.500	2.060	2.300	2.750	2.750	5.000	4	4	4	16	4	1.250	1.750	1.22
2XJ3C-1502781R02	1.500	2.060	2.300	2.750	2.750	5.000	3	3	3	12	3	1.250	1.750	1.22
2XJ3C-1503281R01	1.500	2.450	2.800	3.250	3.250	5.500	4	4	4	24	4	1.250	1.750	1.22
2XJ3C-1503281R02	1.500	2.450	2.800	3.250	3.250	5.500	3	3	3	15	3	1.250	1.750	1.22
2XJ3C-2002281R01	2.000	1.670	-	2.250	2.250	4.500	5	5	5	15	5	1.250	-	0.76
2XJ3C-2002781R01	2.000	2.060	-	2.750	2.750	5.000	5	5	5	20	5	1.250	-	0.76
2XJ3C-2003081R01	2.000	2.450	-	3.000	3.000	5.250	5	5	5	25	5	1.250	-	0.76

* End station insert screw tightening torque: 30-35 in lb; side station insert screw tightening torque: 25-30 in lb
** Total number of inserts = ZNF + ZNP

Face Shoulder Ramp Channel Coolant

Series 2XJ3C

90° WELDON STYLE END MILL (11 MM INSERT)



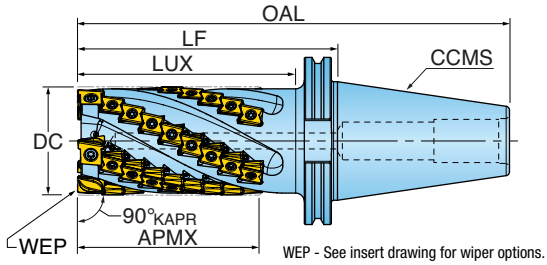
Part Number	DC Cutting Dia.	APMX Depth of Cut Max.	LPR Protruding Length	OAL Overall Length	ZEFF Eff. Teeth	ZEFP Eff. Teeth Periphery	ZNF Face Insert Count	ZNP Periphery Insert Count	NOF Flute Count	DCON Shank Dia.	RMPX Ramp Angle Max.
INCH											
2XJ3C-2004582R01	2.000	4.015	4.500	7.750	5	5	5	45	5	2.000	0.76
2XJ3C-2005082R01	2.000	4.400	5.000	8.250	5	5	5	50	5	2.000	0.76

* End station insert screw tightening torque: 30-35 in lb; side station insert screw tightening torque: 25-30 in lb
** Total number of inserts = ZNF + ZNP

Face Shoulder Ramp Channel Coolant

Series 2XJ3C

90° V-FLANGE STYLE END MILL (11 MM INSERT)

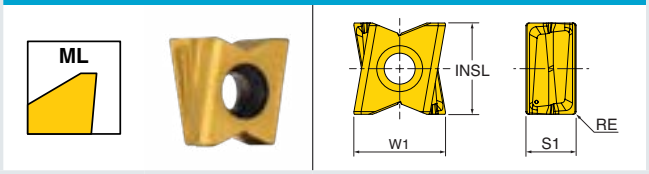


Part Number	DC Cutting Dia.	APMX Depth of Cut Max.	LUX Usable Length Max.	LF Funct. Length	OAL Overall Length	ZEFF Eff. Teeth	ZEFP Eff. Teeth Periphery	ZNF Face Insert Count	ZNP Periphery Insert Count	NOF Flute Count	CCMS Connection Code Machine Side	RMPX Ramp Angle Max.
INCH												
2XJ3C-1503629R01	1.500	2.450	2.810	3.685	6.375	4	4	4	20	4	ICTC #40 .125 Draw	1.22
2XJ3C-1503629R02	1.500	2.450	2.810	3.685	6.375	3	3	3	15	3	ICTC #40 .125 Draw	1.22
2XJ3C-2006048R01	2.000	4.015	4.630	6.000	10.000	5	5	5	45	5	ICTC #50 .125 Draw	0.76
2XJ3C-2506048R01	2.500	4.010	4.630	6.000	10.000	6	6	6	54	6	ICTC #50 .125 Draw	0.56
2XJ3C-2508048R01	2.500	5.965	6.625	8.000	12.000	6	6	6	84	6	ICTC #50 .125 Draw	0.56

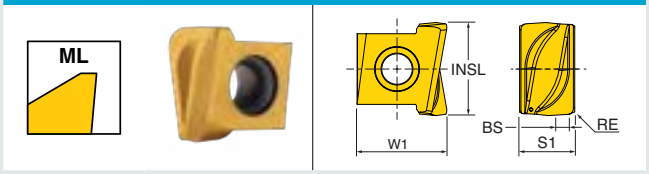
* End station insert screw tightening torque: 30-35 in lb; side station insert screw tightening torque: 25-30 in lb
** Total number of inserts = ZNF + ZNP

Inserts

IPM313_ML



IPM425_ML



Part Number	Application	Station	RE Corner Radius	BS Wiper Length	LE Cutting Edge Eff. Length	INSL Insert Length	W1 Insert Width	S1 Thick.	NOI Number of Indexes	IH Insert Hand	Grade			
											IN4030	IN2530	IN4035	IN2535
IPM313R001-ML	Multi-Purpose, Keen Edge	Periphery	0.010	-	0.423	0.433	0.433	0.236	4	Right	•	•	•	•
IPM425R001-ML	Multi-Purpose, Keen Edge	Face	0.032	0.120	0.531	0.531	0.512	0.315	2	Right	•	•	•	•
IPM425R002-ML	Multi-Purpose, Keen Edge	Face	0.062	0.090	0.531	0.531	0.508	0.315	2	Right	•	•	•	•
IPM425R003-ML	Multi-Purpose, Keen Edge	Face	0.094	0.060	0.531	0.531	0.504	0.315	2	Right	•	•	•	•
IPM425R004-ML	Multi-Purpose, Keen Edge	Face	0.125	0.029	0.531	0.531	0.499	0.315	2	Right	•	•	•	•
IPM425R009-ML	Multi-Purpose, Keen Edge	Face	0.250	0.010	0.547	0.547	0.482	0.315	2	Right	•	•	•	•

Hardware

Part Number	Driver Blade	Driver Handle	Face Insert Screw	Periphery Insert Screw	Retention Bolt	Coolant Hole Socket Set Screw	Alt. Coolant Blocking Socket Set Screw
2XJ3C-1502281R01	DS-T156B	DS-A00T	SM40-143-H0	SM35-107-H0	–	SA030-01	SA030-02
2XJ3C-1502281R02	DS-T156B	DS-A00T	SM40-143-H0	SM35-107-H0	–	SA030-01	SA030-02
2XJ3C-1502781R01	DS-T156B	DS-A00T	SM40-143-H0	SM35-107-H0	–	SA030-01	SA030-02
2XJ3C-1502781R02	DS-T156B	DS-A00T	SM40-143-H0	SM35-107-H0	–	SA030-01	SA030-02
2XJ3C-1503281R01	DS-T156B	DS-A00T	SM40-143-H0	SM35-107-H0	–	SA030-01	SA030-02
2XJ3C-1503281R02	DS-T156B	DS-A00T	SM40-143-H0	SM35-107-H0	–	SA030-01	SA030-02
2XJ3C-2002281R01	DS-T156B	DS-A00T	SM40-143-H0	SM35-107-H0	–	SA030-01	SA030-02
2XJ3C-2002781R01	DS-T156B	DS-A00T	SM40-143-H0	SM35-107-H0	–	SA030-01	SA030-02
2XJ3C-2003081R01	DS-T156B	DS-A00T	SM40-143-H0	SM35-107-H0	–	SA030-01	SA030-02
2XJ3C-2004582R01	DS-T156B	DS-A00T	SM40-143-H0	SM35-107-H0	–	SA030-01	SA030-02
2XJ3C-2005082R01	DS-T156B	DS-A00T	SM40-143-H0	SM35-107-H0	–	SA030-01	SA030-02
2XJ3C-1503629R01	DS-T156B	DS-A00T	SM40-143-H0	SM35-107-H0	–	SA030-01	SA030-02
2XJ3C-1503629R02	DS-T156B	DS-A00T	SM40-143-H0	SM35-107-H0	–	SA030-01	SA030-02
2XJ3C-2006048R01	DS-T156B	DS-A00T	SM40-143-H0	SM35-107-H0	–	SA030-01	SA030-02
2XJ3C-2506048R01	DS-T156B	DS-A00T	SM40-143-H0	SM35-107-H0	–	SA030-01	SA030-02
2XJ3C-2508048R01	DS-T156B	DS-A00T	SM40-143-H0	SM35-107-H0	–	SA030-01	SA030-02
2XJ3C-20023D1R01	DS-T156B	DS-A00T	SM40-143-H0	SM35-107-H0	SD06-50	SA030-01	SA030-02
2XJ3C-20027D1R01	DS-T156B	DS-A00T	SM40-143-H0	SM35-107-H0	SD-06-A2	SA030-01	SA030-02
2XJ3C-20030D1R01	DS-T156B	DS-A00T	SM40-143-H0	SM35-107-H0	SD06-79	SA030-01	SA030-02
2XJ3C-20035D1R01	DS-T156B	DS-A00T	SM40-143-H0	SM35-107-H0	SD06-B2	SA030-01	SA030-02
2XJ3C-25030D3R01	DS-T156B	DS-A00T	SM40-143-H0	SM35-107-H0	SD08-52	SA030-01	SA030-02
2XJ3C-25035D3R01	DS-T156B	DS-A00T	SM40-143-H0	SM35-107-H0	SD08-81	SA030-01	SA030-02
2XJ3C-25040D3R01	DS-T156B	DS-A00T	SM40-143-H0	SM35-107-H0	SD08-D3	SA030-01	SA030-02
2XJ3C-25045D3R01	DS-T156B	DS-A00T	SM40-143-H0	SM35-107-H0	SD08-53	SA030-01	SA030-02
2XJ3C-25050D3R01	DS-T156B	DS-A00T	SM40-143-H0	SM35-107-H0	SD08-54	SA030-01	SA030-02
2XJ3C-30050D4R01	DS-T156B	DS-A00T	SM40-143-H0	SM35-107-H0	SD10-04	SA030-01	SA030-02
2XJ3C-30035D4R01	DS-T156B	DS-A00T	SM40-143-H0	SM35-107-H0	SD10-B7	SA030-01	SA030-02
2XJ3C-30040D4R01	DS-T156B	DS-A00T	SM40-143-H0	SM35-107-H0	SD10-B8	SA030-01	SA030-02
2XJ3C-30045D4R01	DS-T156B	DS-A00T	SM40-143-H0	SM35-107-H0	SD10-B9	SA030-01	SA030-02

* QwikTorque optional preset torque components recommended for proper tightening screws. All components are sold separately.

GOLDSFEED™

MILLING - INDEXABLE

Cutter Series

15G1B (.024")
15G1D, 5G1D (.040") NEW
15G1F, 5G5F, 5G6F (.060")
15M1P, 5M5P, 5M6P (.088")
5G5Q, 5G6Q (.107")
5G5M, 5G6M (.145")

Insert Series

SDXS04 (04 mm)
SDXS06 (06 mm) NEW
SDXS09 (09 mm)
SDES13, SDMS13 (13 mm)
SDXS16 (16 mm)
SDES19, SDMS19 (19 mm)

Geometries

MM: Pos. Geometry
MR: Heavy Duty
MR1: HD – Keen Edge

Diameter Range

0.625–2.000"

Grades

IN2504, IN2505, IN2510, IN2530, IN2535, IN2537, IN4005, IN4030, IN4035, IN6537, IN7035

Lead Angle

12°

Adaptions

Cylindrical, TopOn, ChipSurfer, Face Mill

Materials

- Steel
- Stainless Steel
- Cast Iron
- Non-Ferrous
- High-Temp Alloys

View the full line »

Ingersoll has Expanded the Proven GoldSFeed Line with a New SDXS06 Insert and Related Cutters

- High-feed, high-positive designed 4-corner insert with wiping flats that can eliminate secondary passes.
- SDXS06 inserts feature a 12° lead-angle to produce 5x the feed rates in any material.
- Inserts include multiple types of edge reinforcement and corner configurations.

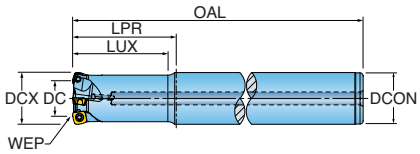
SFEEDUP™ HIGH SPEED & FEED EXPANSION

GOLDSFEED™

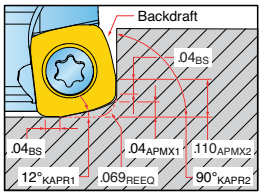
Face | Lead Angle | Shoulder | Ramp | Contour | Pocket | Corkscrew | Plunge | Coolant

Series 15G1D

CYLINDRICAL SHANK (6 MM INSERT)



WEP - See insert drawing for wiper options.

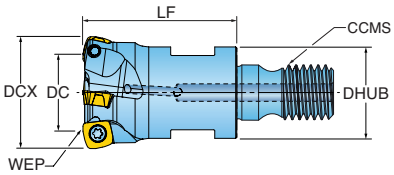


Part Number	DCX Cutting Dia. Max.	DC Cutting Dia.	LUX Usable Length Max.	LPR Protruding Length	OAL Overall Length	ZEFF Effective Teeth	REEQ Program Radius Equivalent	DCON Shank Dia.	RMPX Ramp Angle Max.
INCH									
15G1D-06015S6R01	0.625	0.314	1.500	1.500	4.000	2	0.069	0.625	2.50
15G1D-07020S7R01	0.750	0.438	2.000	2.000	5.000	3	0.069	0.750	3.50
15G1D-07030S7R01	0.750	0.438	3.000	3.000	6.000	3	0.069	0.750	3.50
15G1D-08020S8R01	0.875	0.562	2.000	2.000	7.000	4	0.069	0.875	3.00
15G1D-10020S1R01	1.000	0.686	2.000	2.000	10.000	4	0.069	1.000	2.50
15G1D-10030S1R01	1.000	0.686	3.000	3.000	7.000	4	0.069	1.000	2.50
15G1D-12030S9R01	1.250	0.936	3.000	3.000	5.500	5	0.069	1.250	2.00

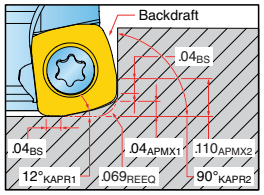
Series 15G1D

Face | Lead Angle | Shoulder | Ramp | Contour | Pocket | Corkscrew | Plunge | Coolant

TOPON (6 MM INSERT)



WEP - See insert drawing for wiper options.

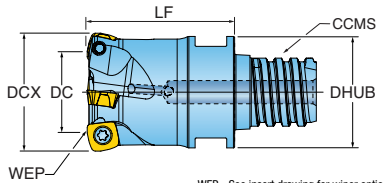


Part Number	DCX Cutting Dia. Max.	DC Cutting Dia.	LF Functional Length	ZEFF Effective Teeth	REEQ Program Radius Equivalent	DHUB Hub Dia.	CCMS Connection Code Machine Side	RMPX Ramp Angle Max.
INCH								
15G1D-06010X5R01	0.625	0.314	1.000	2	0.069	0.50	TopOn M08	2.50
15G1D-07010X6R01	0.750	0.438	1.000	3	0.069	0.70	TopOn M10	3.50
15G1D-08010X7R01	0.875	0.562	1.000	4	0.069	0.70	TopOn M12	3.00
15G1D-10013X7R01	1.000	0.686	1.380	4	0.069	0.82	TopOn M12	2.50
15G1D-12015X8R01	1.250	0.936	1.500	5	0.069	1.13	TopOn M16	2.00
15G1D-15015X8R01	1.500	1.186	1.500	6	0.069	1.13	TopOn M16	1.60
15G1D-15017X9R01	1.500	1.186	1.750	6	0.069	1.42	TopOn M20	1.60

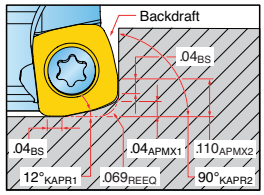
Series 15G1D

Face | Lead Angle | Shoulder | Ramp | Contour | Pocket | Corkscrew | Plunge | Coolant

CHIPSURFER (6 MM INSERT)



WEP - See insert drawing for wiper options.



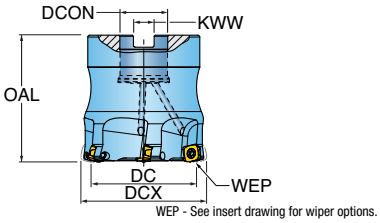
Part Number	DCX Cutting Dia. Max.	DC Cutting Dia.	LF Functional Length	ZEFF Effective Teeth	REEQ Program Radius Equivalent	DHUB Hub Dia.	CCMS Connection Code Machine Side	RMPX Ramp Angle Max.
INCH								
15G1D-06008TRR01	0.625	0.314	0.83	2	0.069	0.61	ChipSurfer T10	2.50
15G1D-07010TSR01	0.750	0.438	1.00	3	0.069	0.72	ChipSurfer T12	3.50
15G1D-10012TUR01	1.000	0.686	1.25	4	0.069	0.97	ChipSurfer T15	2.50

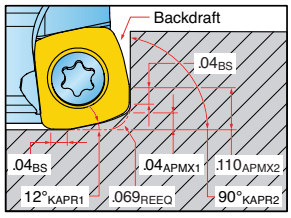
GOLDSFEED™

Face | Lead Angle | Shoulder | Ramp | Contour | Pocket | Corkscrew | Plunge | Coolant

Series 15G1D

FACE MILL (6 MM INSERT)

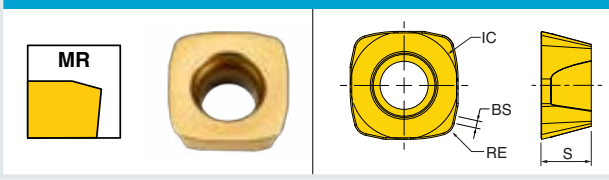




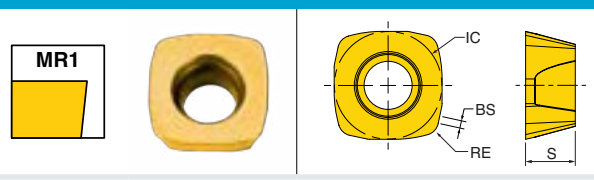
Part Number	DCX Cutting Dia. Max.	DC Cutting Dia.	OAL Overall Length	ZEFF Effective Teeth	REEQ Program Radius Equivalent	DCON Bore Dia.	KWW Keyway	RMPX Ramp Angle Max.
INCH								
5G1D-15R01	1.500	1.186	1.500	6	0.069	0.500	0.25	1.60
5G1D-20R01	2.000	1.686	2.000	6	0.069	0.750	0.31	1.00
5G1D-20R02	2.000	1.686	2.000	7	0.069	0.750	0.31	1.00

Inserts

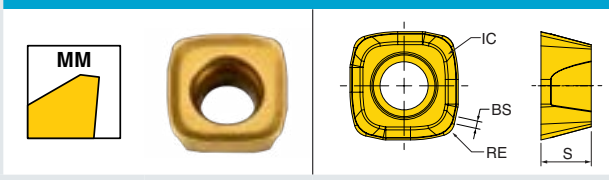
SDXS0603MPR-MR



SDXS0603MPR-MR1



SDXS0603MPR-MM



Part Number	Application	RE Corner Radius	BS Wiper Length	IC Inscribed Circle Dia.	S Thickness	NOI No. of Indexes	IH Insert Hand	Grades										
								IN2504	IN2510	IN4005	IN2505	IN4030	IN2530	IN4035	IN2535	IN7035	IN6537	IN2537
SDXS0603MPR-MR	Hi-Feed, Heavy-Duty	0.034	0.041	06 mm	0.118	4	Right	•	•	•	•	•	•		•		•	•
SDXS0603MPR-MR1	Hi-Feed, Heavy-Duty Keen Edge	0.034	0.041	06 mm	0.118	4	Right				•	•	•	•	•	•		
SDXS0603MPR-MM	Hi-Feed, Positive Geometry	0.034	0.041	06 mm	0.118	4	Right			•	•	•	•	•	•	•		

Hardware

Part Number	Insert Screw	Driver	Retention Bolt	Optional: Coolant Bolt	Optional: Torque Driver Handle	Optional: Preset Torque Adapter	Optional: Torque Driver Bit
15G1D-06015S6R01	SM25-054-00	DS-0020	-	-	DS-A00-.25-S	DT-11-.25	DS-T08B
15G1D-07020S7R01	SM25-054-00	DS-0020	-	-	DS-A00-.25-S	DT-11-.25	DS-T08B
15G1D-07030S7R01	SM25-054-00	DS-0020	-	-	DS-A00-.25-S	DT-11-.25	DS-T08B
15G1D-08020S8R01	SM25-054-00	DS-0020	-	-	DS-A00-.25-S	DT-11-.25	DS-T08B
15G1D-10020S1R01	SM25-054-00	DS-0020	-	-	DS-A00-.25-S	DT-11-.25	DS-T08B
15G1D-10030S1R01	SM25-054-00	DS-0020	-	-	DS-A00-.25-S	DT-11-.25	DS-T08B
15G1D-12030S9R01	SM25-054-00	DS-0020	-	-	DS-A00-.25-S	DT-11-.25	DS-T08B
15G1D-06010X5R01	SM25-054-00	DS-0020	-	-	DS-A00-.25-S	DT-11-.25	DS-T08B
15G1D-07011X6R01	SM25-054-00	DS-0020	-	-	DS-A00-.25-S	DT-11-.25	DS-T08B
15G1D-08010X7R01	SM25-054-00	DS-0020	-	-	DS-A00-.25-S	DT-11-.25	DS-T08B
15G1D-10013X7R01	SM25-054-00	DS-0020	-	-	DS-A00-.25-S	DT-11-.25	DS-T08B
15G1D-12015X8R01	SM25-054-00	DS-0020	-	-	DS-A00-.25-S	DT-11-.25	DS-T08B
15G1D-15015X8R01	SM25-054-00	DS-0020	-	-	DS-A00-.25-S	DT-11-.25	DS-T08B
15G1D-15017X9R01	SM25-054-00	DS-0020	-	-	DS-A00-.25-S	DT-11-.25	DS-T08B
15G1D-06008TRR01	SM25-054-00	DS-0020	-	-	DS-A00-.25-S	DT-11-.25	DS-T08B
15G1D-07010TSR01	SM25-054-00	DS-0020	-	-	DS-A00-.25-S	DT-11-.25	DS-T08B
15G1D-10012TUR01	SM25-054-00	DS-0020	-	-	DS-A00-.25-S	DT-11-.25	DS-T08B
5G1D-15R01	SM25-054-00	DS-0020	SD-04-46	-	DS-A00-.25-S	DT-11-.25	DS-T08B
5G1D-20R01	SM25-054-00	DS-0020	SD-06-48	SD-06-A6	DS-A00-.25-S	DT-11-.25	DS-T08B
5G1D-20R02	SM25-054-00	DS-0020	SD-06-48	SD-06-A6	DS-A00-.25-S	DT-11-.25	DS-T08B

HIPOS WINV™

MILLING - INDEXABLE

Cutter Series (Depth of Cut)

1VX1F / VX_F
(90°=0.39" / Hi-Feed=0.039")

Insert Series

90°: XEVT10_AL, EL, M;
Hi-Feed: XEVT10_HF

Diameter Range

0.625-3.000"

Grades

IN10K, IN2036,IN2505,
IN2510, IN2530

Lead Angle

90°

Corner Radii

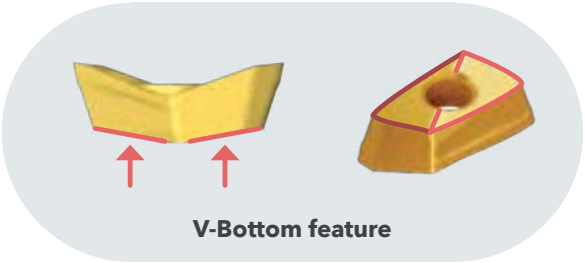
0.015", 0.031", 0.062", 0.125" R
2 mm, 3 mm R
Hi-Feed

Materials

- Steel
- Stainless Steel
- Cast Iron
- Non-Ferrous (Aluminum)
- Hi-Temp Alloys/Titanium

90° Inserts
XEVT10_AL, EL, M

Hi-Feed Insert
XEVT10_HF



V-Bottom feature

Next-Gen Shouldering Insert with V-Bottom for Strong Clamping

» Ingersoll's newest, highest positive geometry featuring balanced cutters for high RPM - ideal for aerospace materials.

» Steep concave face accommodates aggressive aluminum router ramp angles.

» 90° inserts with integrated wiper flats produce 32-63 Ra deck finishes, and hi-feed inserts.

View the full line »

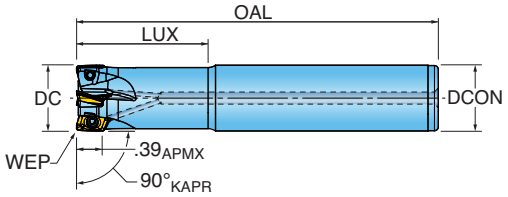
WINSFEED™ ADVANCED MACHINING

HIPOSWINV™

Series 1VX1F_R01

Face | Shoulder | Slab | Channel | Ramp | Pocket | Helical/ Corkscrew | Balanced | Coolant

90° ROUTER - CYLINDRICAL • SMALL CORNER RADIUS



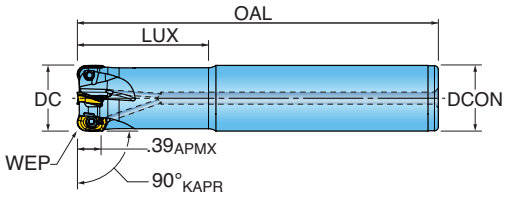
WEP - See insert drawing for wiper options.

Part Number	DC Cutting Dia.	LUX Usable Length Max.	OAL Overall Length	ZEFF Eff. Teeth	DCON Shank Dia.	RPM* Maximum
1VX1F-06015S6R01	0.625	1.50	5.00	2	0.6250	40,000
1VX1F-07015S7R01	0.750	1.50	4.50	3	0.7500	39,000
1VX1F-07025S7R01	0.750	2.50	6.00	2	0.7500	39,000
1VX1F-10020S1R01	1.000	2.00	5.50	4	1.0000	37,500
1VX1F-10030S1R01	1.000	3.00	7.00	3	1.0000	37,500
1VX1F-12020S9R01	1.250	2.00	6.00	5	1.2500	36,500
1VX1F-12030S9R01	1.250	3.00	8.00	4	1.2500	36,500
1VX1F-15020S9R01	1.500	2.00	9.00	4	1.2500	36,000

Series 1VX1F_R02

Face | Shoulder | Slab | Channel | Ramp | Pocket | Helical/ Corkscrew | Contour | Balanced | Coolant

90° ROUTER - CYLINDRICAL • LARGE CORNER RADIUS / HI-FEED



WEP - See insert drawing for wiper options.

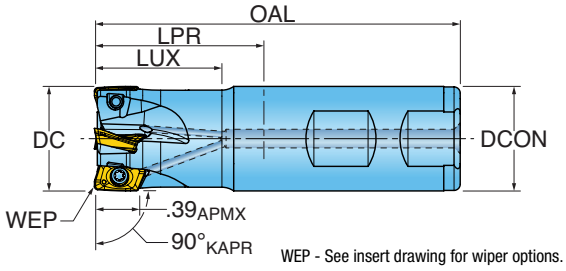
Part Number	DC Cutting Dia.	LUX Usable Length Max.	OAL Overall Length	ZEFF Eff. Teeth	DCON Shank Dia.	RPM* Maximum
1VX1F-06015S6R02	0.625	1.50	5.00	2	0.6250	40,000
1VX1F-07015S7R02	0.750	1.50	4.50	3	0.7500	39,000
1VX1F-07025S7R02	0.750	2.50	6.00	2	0.7500	39,000
1VX1F-10020S1R02	1.000	2.00	5.50	4	1.0000	37,500
1VX1F-10030S1R02	1.000	3.00	7.00	3	1.0000	37,500
1VX1F-12020S9R02	1.250	2.00	6.00	5	1.2500	36,500
1VX1F-12030S9R02	1.250	3.00	8.00	4	1.2500	36,500
1VX1F-15020S9R02	1.500	2.00	9.00	4	1.2500	36,000

*Max RPM applies to a properly balanced assembly to G2.5 (toolholder, cutter, and inserts).
Designed with modification in mind. Extend usable length by turning back the neck diameter, or shorten the overall length by cutting off the back end.

Series 1VX1F_R01

Face | Shoulder | Slab | Channel | Ramp | Pocket | Helical/ Corkscrew | Coolant

90° END MILL - WELDON • SMALL CORNER RADIUS

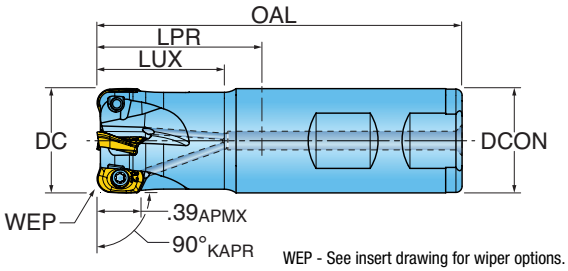


Part Number	DC Cutting Dia.	LUX Usable Length Max.	LPR Protruding Length	OAL Overall Length	ZEFF Eff. Teeth	DCON Shank Dia.
1VX1F-0601079R01	0.625	1.06	1.09	3.00	2	0.6250
1VX1F-0701284R01	0.750	1.22	1.25	3.25	3	0.7500
1VX1F-1001280R01	1.000	1.22	1.25	3.50	4	1.0000
1VX1F-1201781R01	1.250	1.72	1.75	4.00	5	1.2500
1VX1F-1502281R01	1.500	2.23	2.25	4.50	5	1.2500

Series 1VX1F_R02

Face | Shoulder | Slab | Channel | Ramp | Pocket | Helical/ CorkScrew | Contour | Coolant

90° END MILL - WELDON • LARGE CORNER RADIUS / HI-FEED

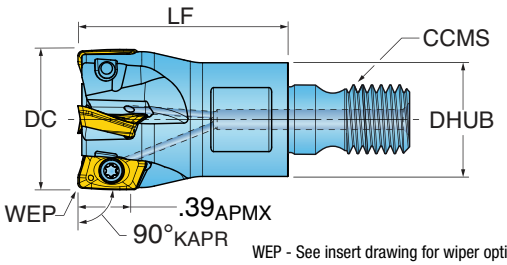


Part Number	DC Cutting Dia.	LUX Usable Length Max.	LPR Protruding Length	OAL Overall Length	ZEFF Eff. Teeth	DCON Shank Dia.
1VX1F-0601079R02	0.625	1.06	1.09	3.00	2	0.6250
1VX1F-0701284R02	0.750	1.22	1.25	3.25	3	0.7500
1VX1F-1001280R02	1.000	1.22	1.25	3.50	4	1.0000
1VX1F-1201781R02	1.250	1.72	1.75	4.00	5	1.2500
1VX1F-1502281R02	1.500	2.23	2.25	4.50	5	1.2500

Series 1VX1F_R01

Face | Shoulder | Slab | Channel | Ramp | Pocket | Helical/ Corkscrew | Coolant

90° END MILL - TOPON • SMALL CORNER RADIUS



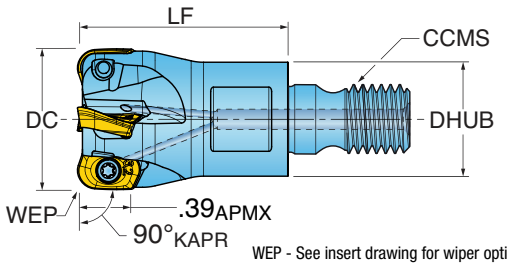
WEP - See insert drawing for wiper options.

Part Number	DC Cutting Dia.	LF Functional Length	ZEFF Eff. Teeth	CCMS Connection Code Machine Side	DHUB Hub Dia.
1VX1F-06015X5R01	0.625	1.50	2	TopOn M08	0.50
1VX1F-07015X6R01	0.750	1.50	3	TopOn M10	0.69
1VX1F-10015X7R01	1.000	1.50	4	TopOn M12	0.81
1VX1F-12017X8R01	1.250	1.75	5	TopOn M16	1.13
1VX1F-15017X8R01	1.500	1.75	5	TopOn M16	1.13

Series 1VX1F_R02

Face | Shoulder | Slab | Channel | Ramp | Pocket | Helical/ Corkscrew | Contour | Coolant

90° END MILL - TOPON • LARGE CORNER RADIUS / HI-FEED



WEP - See insert drawing for wiper options.

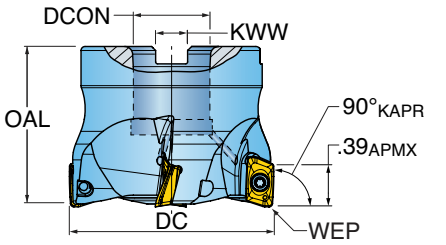
Part Number	DC Cutting Dia.	LF Functional Length	ZEFF Eff. Teeth	CCMS Connection Code Machine Side	DHUB Hub Dia.
1VX1F-06015X5R02	0.625	1.50	2	TopOn M08	0.50
1VX1F-07015X6R02	0.750	1.50	3	TopOn M10	0.69
1VX1F-10015X7R02	1.000	1.50	4	TopOn M12	0.81
1VX1F-12017X8R02	1.250	1.75	5	TopOn M16	1.13
1VX1F-15017X8R02	1.500	1.75	5	TopOn M16	1.13

HIPOSWINV™

Series VX2F_R01

Face | Shoulder | Slab | Channel | Ramp | Pocket | Helical/ Corkscrew | Balanced | Coolant

90° ROUTER - FACE MILL • SMALL CORNER RADIUS



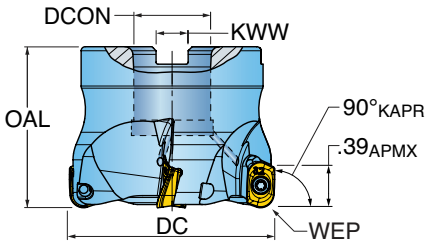
WEP - See insert drawing for wiper options.

Part Number	DC Cutting Dia.	OAL Overall Length	ZEFF Eff. Teeth	DCON Bore Dia.	KWW Keyway	RPM* Maximum
VX2F-15R01	1.500	1.570	3	0.5000	0.250	36,000
VX5F-15R01	1.500	1.570	5	0.5000	0.250	36,000
VX2F-20R01	2.000	1.570	4	0.7500	0.312	35,000
VX5F-20R01	2.000	1.570	7	0.7500	0.312	35,000
VX2F-30R01	3.000	1.750	6	1.0000	0.375	28,000
VX5F-30R01	3.000	1.750	10	1.0000	0.375	28,000

Series VX2F_R02

Face | Shoulder | Slab | Channel | Ramp | Pocket | Helical/ Corkscrew | Contour | Balanced | Coolant

90° ROUTER - FACE MILL • LARGE CORNER RADIUS / HI-FEED



WEP - See insert drawing for wiper options.

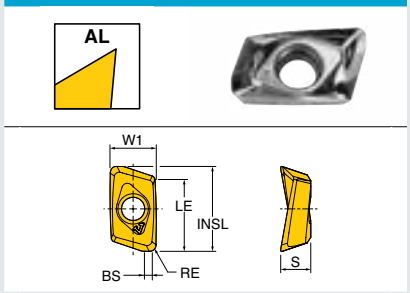
Part Number	DC Cutting Dia.	OAL Overall Length	ZEFF Eff. Teeth	DCON Bore Dia.	KWW Keyway	RPM* Maximum
VX2F-15R02	1.500	1.570	3	0.5000	0.250	36,000
VX5F-15R02	1.500	1.570	5	0.5000	0.250	36,000
VX2F-20R02	2.000	1.570	4	0.7500	0.312	35,000
VX5F-20R02	2.000	1.570	7	0.7500	0.312	35,000
VX2F-30R02	3.000	1.750	6	1.0000	0.375	28,000
VX5F-30R02	3.000	1.750	10	1.0000	0.375	28,000

*Max RPM applies to a properly balanced assembly to G2.5 (toolholder, cutter, and inserts).

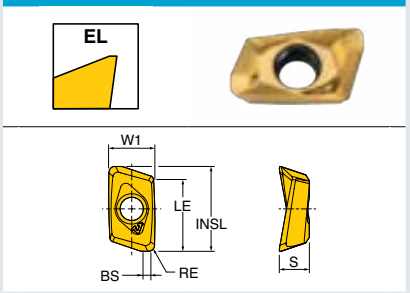
Inserts

FOR SERIES 1VX1F_R01 AND VX2F_R01 • SMALL CORNER RADIUS

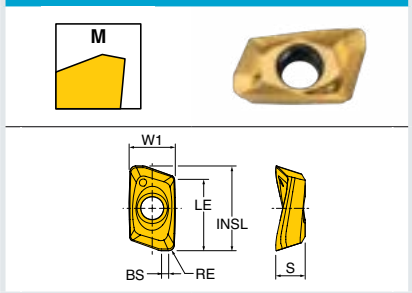
XEVT100...-AL



XEVT100...-EL



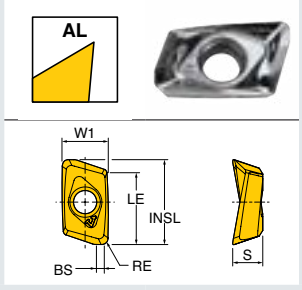
XEVT100...-M



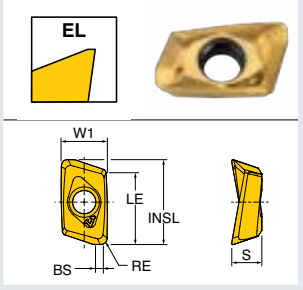
Part Number	Application	RE/BCH Corner Radius/ Chamfer	BS Wiper Length	LE Cutting Edge Length	INSL Length	W1 Width	S Thickness	NOI Number of Indexes	IH Insert Hand	Grade				
										IN10K	IN2036	IN2505	IN2510	IN2530
XEVT100404R-AL	Grd/Pol for Al	0.015	0.050	0.39	0.484	0.267	0.177	2	Right	•				
XEVT100408R-AL	Grd/Pol for Al	0.031	0.034	0.39	0.484	0.267	0.174	2	Right	•				
XEVT100416R-AL	Grd/Pol for Al	0.062	0.050	0.39	0.467	0.267	0.176	2	Right	•				
XEVT100408R-EL	SS/Hi-Temp/Ti	0.031	0.041	0.39	0.488	0.267	0.169	2	Right		•			•
XEVT100416R-EL	SS/Hi-Temp/Ti	0.062	0.025	0.39	0.479	0.267	0.169	2	Right		•			•
XEVT100408R-M	Multi-Purpose	0.031	0.039	0.39	0.488	0.267	0.169	2	Right			•	•	•
XEVT100416R-M	Multi-Purpose	0.062	0.025	0.39	0.479	0.267	0.169	2	Right			•	•	•

FOR SERIES 1VX1F_R02 AND VX2F_R02 • LARGE CORNER RADIUS / HI-FEED

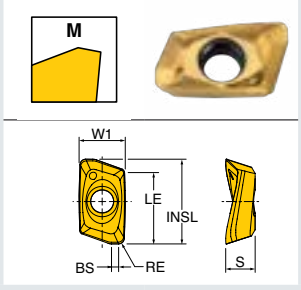
XEVT100...-AL



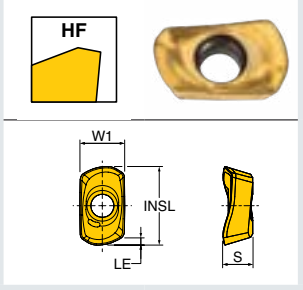
XEVT100...-EL



XEVT100...-M



XEVT100...-HF



Part Number	Application	RE/BCH Corner Radius/ Chamfer	BS Wiper Length	LE Cutting Edge Length	INSL Length	W1 Width	S Thickness	NOI Number of Indexes	IH Insert Hand	Grade			
										IN10K	IN2036	IN2505	IN2530
XEVT100420R-AL	Grd/Pol for AL	0.078	0.027	0.385	0.464	0.267	0.170	2	Right	•			
XEVT100430R-AL	Grd/Pol for AL	0.118	-	0.377	0.452	0.267	0.159	2	Right	•			
XEVT100432R-AL	Grd/Pol for AL	0.125	-	0.370	0.435	0.263	0.156	2	Right	•			
XEVT100432R-EL	SS/Hi-Temp/Ti	0.125	-	0.390	0.452	0.267	0.163	2	Right		•		•
XEVT100432R-M	Multi-Purpose	0.125	-	0.390	0.452	0.267	0.163	2	Right			•	•
XEVT1004TR-HF	Hi-Feed	-	-	0.039	0.457	0.259	0.172	2	Right		•	•	•

Hardware - End Mill (Shanks)

Part Number	Screw	Torx Driver	Optional: Torque Driver Handle	Optional: Preset Torque Adapter	Optional: Torque Driver Bit
CYLINDRICAL					
1VX1F-06015S6R01	SM30-062-60	DS-TP08S	DS-A00-.25-S	DT-11-.25	DS-TP08B
1VX1F-07015S7R01	SM30-062-60	DS-TP08S	DS-A00-.25-S	DT-11-.25	DS-TP08B
1VX1F-07025S7R01	SM30-062-60	DS-TP08S	DS-A00-.25-S	DT-11-.25	DS-TP08B
1VX1F-10020S1R01	SM30-062-60	DS-TP08S	DS-A00-.25-S	DT-11-.25	DS-TP08B
1VX1F-10030S1R01	SM30-062-60	DS-TP08S	DS-A00-.25-S	DT-11-.25	DS-TP08B
1VX1F-12020S9R01	SM30-062-60	DS-TP08S	DS-A00-.25-S	DT-11-.25	DS-TP08B
1VX1F-12030S9R01	SM30-062-60	DS-TP08S	DS-A00-.25-S	DT-11-.25	DS-TP08B
1VX1F-15020S9R01	SM30-062-60	DS-TP08S	DS-A00-.25-S	DT-11-.25	DS-TP08B
1VX1F-06015S6R02	SM30-062-60	DS-TP08S	DS-A00-.25-S	DT-11-.25	DS-TP08B
1VX1F-07015S7R02	SM30-062-60	DS-TP08S	DS-A00-.25-S	DT-11-.25	DS-TP08B
1VX1F-07025S7R02	SM30-062-60	DS-TP08S	DS-A00-.25-S	DT-11-.25	DS-TP08B
1VX1F-10020S1R02	SM30-062-60	DS-TP08S	DS-A00-.25-S	DT-11-.25	DS-TP08B
1VX1F-10030S1R02	SM30-062-60	DS-TP08S	DS-A00-.25-S	DT-11-.25	DS-TP08B
1VX1F-12020S9R02	SM30-062-60	DS-TP08S	DS-A00-.25-S	DT-11-.25	DS-TP08B
1VX1F-12030S9R02	SM30-062-60	DS-TP08S	DS-A00-.25-S	DT-11-.25	DS-TP08B
1VX1F-15020S9R02	SM30-062-60	DS-TP08S	DS-A00-.25-S	DT-11-.25	DS-TP08B
WELDON					
1VX1F-0601079R01	SM30-062-60	DS-TP08S	DS-A00-.25-S	DT-11-.25	DS-TP08B
1VX1F-0701284R01	SM30-062-60	DS-TP08S	DS-A00-.25-S	DT-11-.25	DS-TP08B
1VX1F-1001280R01	SM30-062-60	DS-TP08S	DS-A00-.25-S	DT-11-.25	DS-TP08B
1VX1F-1201781R01	SM30-062-60	DS-TP08S	DS-A00-.25-S	DT-11-.25	DS-TP08B
1VX1F-1502281R01	SM30-062-60	DS-TP08S	DS-A00-.25-S	DT-11-.25	DS-TP08B
1VX1F-0601079R02	SM30-062-60	DS-TP08S	DS-A00-.25-S	DT-11-.25	DS-TP08B
1VX1F-0701284R02	SM30-062-60	DS-TP08S	DS-A00-.25-S	DT-11-.25	DS-TP08B
1VX1F-1001280R02	SM30-062-60	DS-TP08S	DS-A00-.25-S	DT-11-.25	DS-TP08B
1VX1F-1201781R02	SM30-062-60	DS-TP08S	DS-A00-.25-S	DT-11-.25	DS-TP08B
1VX1F-1502281R02	SM30-062-60	DS-TP08S	DS-A00-.25-S	DT-11-.25	DS-TP08B

Continued on next page

Hardware - End Mill (TopOn)

Part Number	Screw	Torx Driver	Optional: Torque Driver Handle	Optional: Preset Torque Adapter	Optional: Torque Driver Bit	Optional: TopOn Wrench
1VX1F-0601079R01	SM30-062-60	DS-TP08S	DS-A00-.25-S	DT-11-.25	DS-TP08B	610MM
1VX1F-0701284R01	SM30-062-60	DS-TP08S	DS-A00-.25-S	DT-11-.25	DS-TP08B	615MM
1VX1F-1001280R01	SM30-062-60	DS-TP08S	DS-A00-.25-S	DT-11-.25	DS-TP08B	617MM
1VX1F-1201781R01	SM30-062-60	DS-TP08S	DS-A00-.25-S	DT-11-.25	DS-TP08B	622MM
1VX1F-1502281R01	SM30-062-60	DS-TP08S	DS-A00-.25-S	DT-11-.25	DS-TP08B	622MM
1VX1F-06015X5R02	SM30-062-60	DS-TP08S	DS-A00-.25-S	DT-11-.25	DS-TP08B	610MM
1VX1F-07015X6R02	SM30-062-60	DS-TP08S	DS-A00-.25-S	DT-11-.25	DS-TP08B	615MM
1VX1F-10015X7R02	SM30-062-60	DS-TP08S	DS-A00-.25-S	DT-11-.25	DS-TP08B	617MM
1VX1F-12017X8R02	SM30-062-60	DS-TP08S	DS-A00-.25-S	DT-11-.25	DS-TP08B	622MM
1VX1F-15017X8R02	SM30-062-60	DS-TP08S	DS-A00-.25-S	DT-11-.25	DS-TP08B	622MM

Hardware - Face Mill

Part Number	Screw	Torx Driver	Retention Bolt	Optional: Coolant Retention Bolt	Optional: Torque Driver Handle	Optional: Preset Torque Adapter	Optional: Torque Driver Bit
VX2F-15R01	SM30-062-60	DS-TP08S	SD-04-46	–	DS-A00-.25-S	DT-11-.25	DS-TP08B
VX5F-15R01	SM30-062-60	DS-TP08S	SD-04-46	–	DS-A00-.25-S	DT-11-.25	DS-TP08B
VX2F-20R01	SM30-062-60	DS-TP08S	SD-06-46	SD06-89	DS-A00-.25-S	DT-11-.25	DS-TP08B
VX5F-20R01	SM30-062-60	DS-TP08S	SD-06-46	SD06-89	DS-A00-.25-S	DT-11-.25	DS-TP08B
VX2F-30R01	SM30-062-60	DS-TP08S	SD-08-48	SD08-C9	DS-A00-.25-S	DT-11-.25	DS-TP08B
VX5F-30R01	SM30-062-60	DS-TP08S	SD-08-48	SD08-C9	DS-A00-.25-S	DT-11-.25	DS-TP08B
VX2F-15R02	SM30-062-60	DS-TP08S	SD-04-46	–	DS-A00-.25-S	DT-11-.25	DS-TP08B
VX5F-15R02	SM30-062-60	DS-TP08S	SD-04-46	–	DS-A00-.25-S	DT-11-.25	DS-TP08B
VX2F-20R02	SM30-062-60	DS-TP08S	SD-06-46	SD06-89	DS-A00-.25-S	DT-11-.25	DS-TP08B
VX5F-20R02	SM30-062-60	DS-TP08S	SD-06-46	SD06-89	DS-A00-.25-S	DT-11-.25	DS-TP08B
VX2F-30R02	SM30-062-60	DS-TP08S	SD-08-48	SD08-C9	DS-A00-.25-S	DT-11-.25	DS-TP08B
VX5F-30R02	SM30-062-60	DS-TP08S	SD-08-48	SD08-C9	DS-A00-.25-S	DT-11-.25	DS-TP08B

DIFEED WINV™

MILLING - INDEXABLE

Cutter Series (Depth of Cut)

TG1V (.039)
1TG1V (.039)

Insert Series

UNLV (6 mm)

Diameter Range

0.625-2.500"

Grades

IN2504, IN2505,
IN2530, IN6537

Materials

- Steel
- Stainless Steel
- Cast Iron/Iron
- Hardened Steel

Next-Gen Hi-Feed Performance, with New V-Bottom Clamping

» V-bottom clamping for super secure performance.

» 4 cutting edges per insert offer great economy.

» Higher cutter densities deliver great productivity.

View the full line »

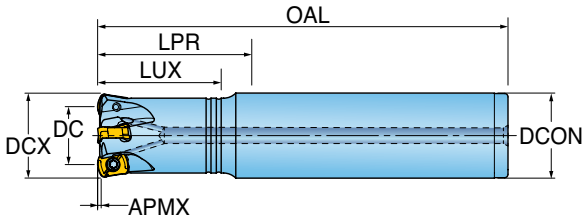
WINSFEED™ ADVANCED MACHINING

DIFEEDWINV™

Face | Shoulder | Contour | Channel | Ramp | Corkscrew | Plunge | Pocket | Coolant

Series 1TG1V

END MILL - CYLINDRICAL

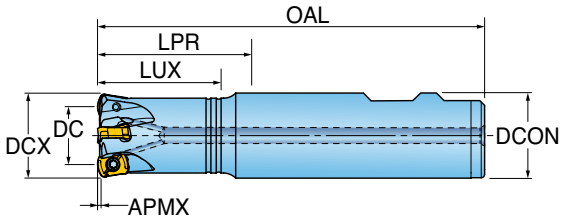


Part Number	DCX Cutting Dia. Max.	DC Cutting Dia.	APMX Depth of Cut Max.	LUX Usable Length Max.	LPR Protruding Length	OAL Overall Length	ZEFF Eff. Teeth	DCON Shank Dia.	RMPX Ramp Angle Max.
INCH									
1TG1V-06014S6R01	0.625	0.354	0.028	1.26	1.40	4.00	2	0.625"	5.1
1TG1V-06017S6R01	0.625	0.354	0.028	1.60	1.71	6.00	2	0.625"	5.1
1TG1V-06014ULR01	0.625	0.354	0.028	1.26	1.40	4.00	2	15.50 mm	5.1
1TG1V-07017UMR01	0.750	0.436	0.039	1.50	1.66	5.00	3	18.50 mm	2.7
1TG1V-07017UMR02	0.750	0.436	0.039	1.50	1.66	6.25	3	18.50 mm	2.7
1TG1V-07022S7R01	0.750	0.436	0.039	2.00	2.17	5.00	3	0.750"	2.7
1TG1V-07032S7R01	0.750	0.436	0.039	3.00	3.15	6.25	3	0.750"	2.7
1TG1V-08019UNR01	0.875	0.561	0.039	1.75	1.93	7.75	3	21.50 mm	2.4
1TG1V-10022S1R01	1.000	0.684	0.039	2.00	2.17	10.00	4	1.000"	2.4
1TG1V-10022T5R01	1.000	0.684	0.039	2.00	2.16	7.00	4	25.00 mm	2.4
1TG1V-10032S1R01	1.000	0.684	0.039	2.00	3.17	7.00	4	1.000"	2.4

Series 1TG1V

Face | Shoulder | Contour | Channel | Ramp | Corkscrew | Plunge | Pocket | Coolant

END MILL - WELDON



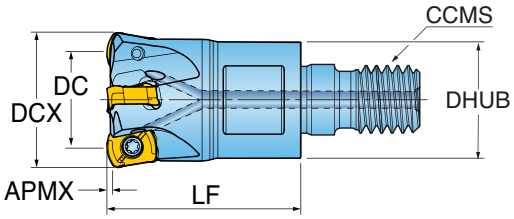
Part Number	DCX Cutting Dia. Max.	DC Cutting Dia.	APMX Depth of Cut Max.	LUX Usable Length Max.	LPR Protruding Length	OAL Overall Length	ZEFF Eff. Teeth	DCON Shank Dia.	RMPX Ramp Angle Max.
INCH									
1TG1V-1203081R01	1.250	0.93	0.039	2.77	2.91	6.00	5	1.2500	1.45
1TG1V-1205081R01	1.250	0.93	0.039	4.75	4.92	8.00	5	1.2500	1.45
1TG1V-1501081R01	1.500	1.18	0.039	-	1.00	5.00	6	1.2500	1.15
1TG1V-1503081R01	1.500	1.18	0.039	-	3.00	6.00	6	1.2500	1.15

DIFEEDWINV™

Face | Shoulder | Contour | Channel | Ramp | Corkscrew | Plunge | Pocket | Coolant

Series 1TG1V

END MILL - TOPON

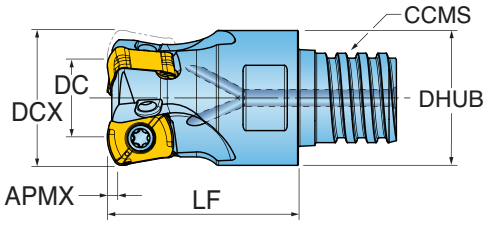


Part Number	DCX Cutting Dia. Max.	DC Cutting Dia.	APMX Depth of Cut Max.	LF Functional Length	ZEFF Eff. Teeth	CCMS Connection Code Machine Side	DHUB Hub Dia.	RMPX Ramp Angle Max.
INCH								
1TG1V-06010X5R01	0.625	0.354	0.028	0.98	2	TopOn M08	0.51	5.1
1TG1V-07011X6R01	0.750	0.436	0.039	1.18	3	TopOn M10	0.71	2.7
1TG1V-10013X7R01	1.000	0.684	0.039	1.37	4	TopOn M12	0.82	2.4
1TG1V-12015X8R01	1.250	0.933	0.039	1.57	5	TopOn M16	1.14	1.45
1TG1V-15015X8R01	1.500	1.183	0.039	1.57	6	TopOn M16	1.14	1.15
1TG1V-15017X9R01	1.500	1.183	0.039	1.75	6	TopOn M20	1.42	1.15

Face | Shoulder | Contour | Channel | Ramp | Corkscrew | Plunge | Pocket | Coolant

Series 1TG1V

END MILL - CHIPSURFER

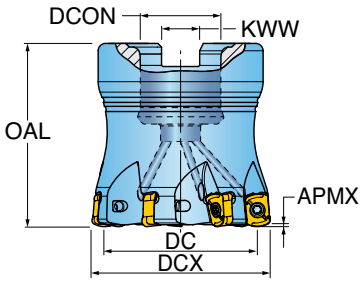


Part Number	DCX Cutting Dia. Max.	DC Cutting Dia.	APMX Depth of Cut Max.	LF Functional Length	ZEFF Eff. Teeth	CCMS Connection Code Machine Side	DHUB Hub Dia.	RMPX Ramp Angle Max.
INCH								
1TG1V-06008TRR01	0.625	0.354	0.028	0.83	2	ChipSurfer T10	0.60	5.1
1TG1V-07010TSR01	0.750	0.436	0.039	1.02	3	ChipSurfer T12	0.72	2.7
1TG1V-10012TUR01	1.000	0.683	0.039	1.26	4	ChipSurfer T15	0.95	2.4

Series TG1V

Face | Shoulder | Contour | Channel | Ramp | Corkscrew | Plunge | Pocket | Coolant

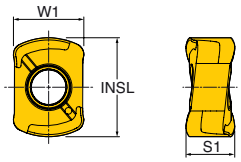
FACE MILL



Part Number	DCX Cutting Dia. Max.	DC Cutting Dia.	APMX Depth of Cut Max.	OAL Overall Length	ZEFF Eff. Teeth	DCON Bore Dia.	KWW Keyway	RMPX Ramp Angle Max.
INCH								
TG1V-20R01	2.000	1.683	0.039	1.969	7	0.75	0.312	0.8
TG1V-25R01	2.500	2.183	0.039	1.969	8	0.75	0.312	0.6

Insert

UNLV06



Part Number	Application	INSL Insert Length	W1 Insert Width	S1 Thickness (Overall)	NOI Number of Indexes	IH Insert Hand	REEQ Program Radius Equivalent	Grade			
								IN2504	IN2505	IN2530	IN6537
UNLV0603M0TR	Multi-Purpose	0.354	0.252	0.174	4	Right	0.060	•	•	•	•

Hardware

Part Number	Screw*	Driver	Retention Bolt	Optional: Coolant Retention Bolt	Optional: Torque Driver Handle	Optional: Preset Torque Adapter	Optional: Torque Driver Bit	Optional: Wrench
TG1V-20R01	SM25-064-00	DS-T08W	SD-06-48	SD-06-A6	DS-A00-.25T	DT-11.25	DS-0021	-
TG1V-25R01	SM25-064-00	DS-T08W	SD-06-48	SD-06-A6	DS-A00-.25T	DT-11.25	DS-0021	-
1TG1V-06014S6R01	SM25-064-00	DS-T08W	-	-	DS-A00-.25T	DT-11.25	DS-0021	-
1TG1V-06017S6R01	SM25-064-00	DS-T08W	-	-	DS-A00-.25T	DT-11.25	DS-0021	-
1TG1V-06014ULR01	SM25-064-00	DS-T08W	-	-	DS-A00-.25T	DT-11.25	DS-0021	-
1TG1V-07017UMR01	SM25-064-00	DS-T08W	-	-	DS-A00-.25T	DT-11.25	DS-0021	-
1TG1V-07017UMR02	SM25-064-00	DS-T08W	-	-	DS-A00-.25T	DT-11.25	DS-0021	-
1TG1V-07022S7R01	SM25-064-00	DS-T08W	-	-	DS-A00-.25T	DT-11.25	DS-0021	-
1TG1V-07032S7R01	SM25-064-00	DS-T08W	-	-	DS-A00-.25T	DT-11.25	DS-0021	-
1TG1V-08019UNR01	SM25-064-00	DS-T08W	-	-	DS-A00-.25T	DT-11.25	DS-0021	-
1TG1V-10022S1R01	SM25-064-00	DS-T08W	-	-	DS-A00-.25T	DT-11.25	DS-0021	-
1TG1V-10022T5R01	SM25-064-00	DS-T08W	-	-	DS-A00-.25T	DT-11.25	DS-0021	-
1TG1V-10032S1R01	SM25-064-00	DS-T08W	-	-	DS-A00-.25T	DT-11.25	DS-0021	-
1TG1V-1203081R01	SM25-064-00	DS-T08W	-	-	DS-A00-.25T	DT-11.25	DS-0021	-
1TG1V-1205081R01	SM25-064-00	DS-T08W	-	-	DS-A00-.25T	DT-11.25	DS-0021	-
1TG1V1501081R01	SM25-064-00	DS-T08W	-	-	DS-A00-.25T	DT-11.25	DS-0021	-
1TG1V-1503081R01	SM25-064-00	DS-T08W	-	-	DS-A00-.25T	DT-11.25	DS-0021	-
1TG1V-06010X5R01	SM25-064-00	DS-T08W	-	-	DS-A00-.25T	DT-11.25	DS-0021	610 mm
1TG1V-07011X6R01	SM25-064-00	DS-T08W	-	-	DS-A00-.25T	DT-11.25	DS-0021	615 mm
1TG1V-10013X7R01	SM25-064-00	DS-T08W	-	-	DS-A00-.25T	DT-11.25	DS-0021	617 mm
1TG1V-12015X8R01	SM25-064-00	DS-T08W	-	-	DS-A00-.25T	DT-11.25	DS-0021	622 mm
1TG1V-15015X8R01	SM25-064-00	DS-T08W	-	-	DS-A00-.25T	DT-11.25	DS-0021	622 mm
1TG1V-15017X9R01	SM25-064-00	DS-T08W	-	-	DS-A00-.25T	DT-11.25	DS-0021	630 mm
1TG1V-06008TRR01	SM25-064-00	DS-T08W	-	-	DS-A00-.25T	DT-11.25	DS-0021	WS-0044
1TG1V-07010TSR01	SM25-064-00	DS-T08W	-	-	DS-A00-.25T	DT-11.25	DS-0021	WS-0059
1TG1V-10012TUR01	SM25-064-00	DS-T08W	-	-	DS-A00-.25T	DT-11.25	DS-0021	WS-0061

*Insert screw tightening torque: 9–11.5 in lb

DIPOSQUAD™

MILLING - INDEXABLE

Cutter Series (Depth of Cut)

1DJ1E / DJ5E / DJ6E (.19)
1DJ1R / DJ5R / DJ6R (.27) NEW
DJ5G / DJ6G (.33)

Insert Series

SQGU07, **SQGU10,** NEW
SQGU12 / SQXU12

Diameter Range

0.625–6.000" (16–50 mm)

Grades

IN2504, IN2505,
IN2510, IN2530

Lead Angle

90°

Corner Radius

0.031"

Materials

- Steel
- Stainless Steel
- Cast Iron/Iron
- High-Temp Alloys/Titanium
- Hardened Steel

True 90° Shoulder Mills with 8-Edge Economy

» Integrated wiper flats produce 32-63 Ra deck finishes.

» -M insert produces minimal mismatch when stepping down a 90° wall.

» -MP & -MMP inserts have higher axial rake that reduces cutting loads and promotes smooth machining.

12 mm

NEW

10 mm

7 mm

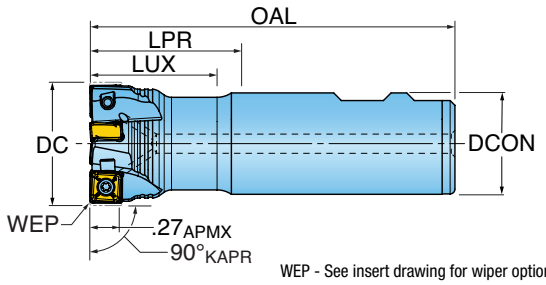
View the full line »

SPEEDUP™ HIGH SPEED & FEED EXPANSION

Face Shoulder Slab Channel Coolant

Series 1DJ1R

90° ROUGH/FINISH END MILL - WELDON (10 MM INSERT)



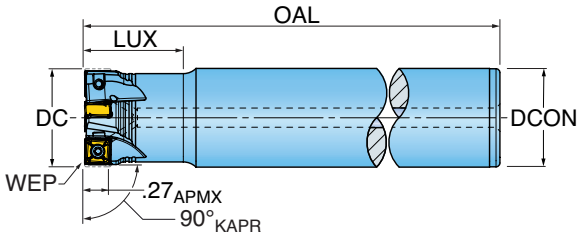
WEP - See insert drawing for wiper options.

Part Number	DC Cutting Dia.	LUX Usable Length Max.	LPR Protruding Length	OAL Overall Length	ZEFF Eff. Teeth	DCON Shank Dia.
INCH						
1DJ1R-1001780R01	1.000	1.63	1.75	4.00	2	1.0000
1DJ1R-1202281R01	1.250	2.13	2.25	4.50	3	1.2500
1DJ1R-1502281R01	1.500	2.25	2.25	4.50	4	1.2500
METRIC						
1DJ1R025030W5R00	25.00 mm	30.0 mm	44.1 mm	100.0 mm	2	25.00 mm
1DJ1R032035W6R00	32.00 mm	35.0 mm	50.1 mm	110.0 mm	3	32.00 mm
1DJ1R040040W6R00	40.00 mm	40.0 mm	50.1 mm	110.0 mm	4	32.00 mm

Face Shoulder Slab Channel Coolant

Series 1DJ1R

90° ROUGH/FINISH END MILL - CYLINDRICAL (10 MM INSERT)



WEP - See insert drawing for wiper options.

Part Number	DC Cutting Dia.	LUX Usable Length Max.	OAL Overall Length	ZEFF Eff. Teeth	DCON Shank Dia.
INCH					
1DJ1R-10012S1R01	1.000	1.40	6.00	2	1.0000
1DJ1R-12015S9R01	1.250	1.70	7.00	3	1.2500
1DJ1R-15015S5R01	1.500	1.70	8.00	4	1.5000

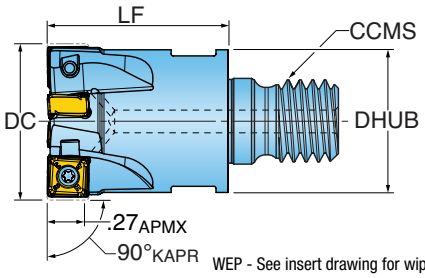
Designed with modification in mind. Extend usable length by turning back the neck diameter or shorten the overall length by cutting off back end.

DIPOSQUAD™

Face | Shoulder | Slab | Channel | Coolant

Series 1DJ1R

90° ROUGH/FINISH END MILL - TOPON (10 MM INSERT)



WEP - See insert drawing for wiper options.

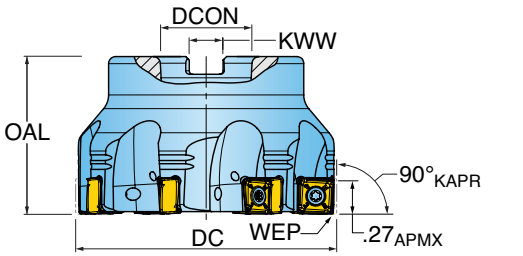
Part Number	DC Cutting Dia.	LF Functional Length	ZEFF Eff. Teeth	CCMS Connection Code Machine Side	DHUB Hub Dia.
INCH					
1DJ1R-10015X7R01	1.000	1.50	2	TopOn M12	0.82
1DJ1R-12017X8R01	1.250	1.75	3	TopOn M16	1.14
1DJ1R-15017X9R01	1.500	1.75	4	TopOn M20	1.37
METRIC					
1DJ1R025035X7R00	25.00 mm	35.0 mm	2	TopOn M12	22.0 mm
1DJ1R032043X8R00	32.00 mm	43.0 mm	3	TopOn M16	29.0 mm
1DJ1R040043X8R00	40.00 mm	43.0 mm	4	TopOn M16	29.0 mm

DIPOSQUAD™

Face | Shoulder | Slab | Channel | Coolant

Series DJ5R, DJ6R

90° ROUGH/FINISH FACE MILL (10 MM INSERT)

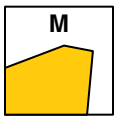


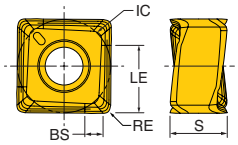
WEP - See insert drawing for wiper options.

Part Number	DC Cutting Dia.	OAL Overall Length	ZEFF Eff. Teeth	DCON Bore Dia.	KWW Keyway
INCH					
DJ6R-15R01	1.500	1.570	4	0.5000	0.250
DJ6R-20R01	2.000	1.570	5	0.7500	0.312
DJ6R-25R01	2.500	1.570	6	1.0000	0.375
DJ5R-25R01	2.500	1.570	8	1.0000	0.375
DJ6R-30R01	3.000	1.750	8	1.0000	0.375
DJ5R-30R01	3.000	1.750	10	1.0000	0.375
DJ6R-40R01	4.000	2.375	10	1.5000	0.625
DJ5R-40R01	4.000	2.375	14	1.5000	0.625
DJ6R-50R01	5.000	2.375	12	1.5000	0.625
DJ5R-50R01	5.000	2.375	16	1.5000	0.625
METRIC					
DJ5R040R00	40.00 mm	40.00 mm	4	16.00 mm	8.40 mm
DJ6R050R00	50.00 mm	40.00 mm	5	22.00 mm	10.40 mm
DJ6R063R00	63.00 mm	40.00 mm	6	22.00 mm	10.40 mm
DJ5R063R00	63.00 mm	40.00 mm	8	22.00 mm	10.40 mm
DJ6R080R00	80.00 mm	50.00 mm	8	27.00 mm	12.40 mm
DJ5R080R00	80.00 mm	50.00 mm	10	27.00 mm	12.40 mm
DJ6R100R00	100.00 mm	50.00 mm	10	32.00 mm	14.40 mm
DJ5R100R00	100.00 mm	50.00 mm	14	32.00 mm	14.40 mm
DJ6R125R00	125.00 mm	63.00 mm	12	40.00 mm	16.40 mm
DJ5R125R00	125.00 mm	63.00 mm	16	40.00 mm	16.40 mm

Inserts

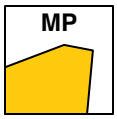
SQGU10_M

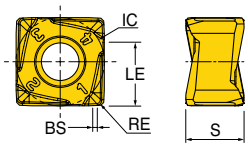


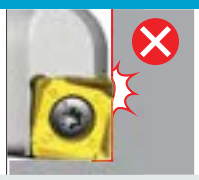


Multi-step capable

SQGU10_MP

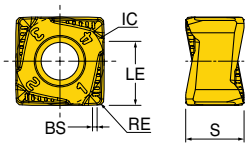


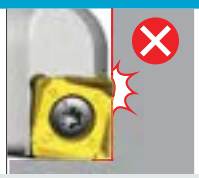




Not multi-step capable

SQGU10_MMP





Not multi-step capable

Part Number	Application	RE Corner Radius	BS Wiper Length	LE Cutting Edge Eff. Length	IC Inscribed Circle Dia.	S Thickness	NOI Number of Indexes	IH Insert Hand	Grade			
									IN2504	IN2505	IN2510	IN2530
SQGU100408TR-M	Multi-Purpose - Integrated Wiper	0.031	0.043	0.270	0.394	0.228	8	Right	•	•		•
SQGU100408PNR-MP	Medium pos. rake angle	0.031	0.043	0.270	0.394	0.228	8	Right		•	•	
SQGU100408PNR-MMP	Medium light high pos. rake angle	0.031	0.043	0.270	0.394	0.228	8	Right			•	

Hardware

Part Number	Screw	Driver Handle	Torx Driver Blade	Retention Bolt	Optional: Coolant Retention Bolt	Optional: Torque Driver Handle	Optional: Preset Torque Adapter	Optional: Torque Driver Bit
INCH								
1DJ1R-1001780R01	SM35-088-10	DS-A00T	DS-T106B	-	-	DS-A00-.25-T	DT-30-.25	DS-T10B1
1DJ1R-1202281R01	SM35-088-10	DS-A00T	DS-T106B	-	-	DS-A00-.25-T	DT-30-.25	DS-T10B1
1DJ1R-1502281R01	SM35-088-10	DS-A00T	DS-T106B	-	-	DS-A00-.25-T	DT-30-.25	DS-T10B1
1DJ1R-10012S1R01	SM35-088-10	DS-A00T	DS-T106B	-	-	DS-A00-.25-T	DT-30-.25	DS-T10B1
1DJ1R-12015S9R01	SM35-088-10	DS-A00T	DS-T106B	-	-	DS-A00-.25-T	DT-30-.25	DS-T10B1
1DJ1R-15015S5R01	SM35-088-10	DS-A00T	DS-T106B	-	-	DS-A00-.25-T	DT-30-.25	DS-T10B1
1DJ1R-10015X7R01	SM35-088-10	DS-A00T	DS-T106B	-	-	DS-A00-.25-T	DT-30-.25	DS-T10B1
1DJ1R-12017X8R01	SM35-088-10	DS-A00T	DS-T106B	-	-	DS-A00-.25-T	DT-30-.25	DS-T10B1
1DJ1R-15017X9R01	SM35-088-10	DS-A00T	DS-T106B	-	-	DS-A00-.25-T	DT-30-.25	DS-T10B1
DJ6R-15R01	SM35-088-10	DS-A00T	DS-T106B	SD-04-47	-	DS-A00-.25-T	DT-30-.25	DS-T10B1
DJ6R-20R01	SM35-088-10	DS-A00T	DS-T106B	SD-06-46	SD-06-89	DS-A00-.25-T	DT-30-.25	DS-T10B1
DJ6R-25R01	SM35-088-10	DS-A00T	DS-T106B	SD-08-47	SD-08-C9	DS-A00-.25-T	DT-30-.25	DS-T10B1
DJ5R-25R01	SM35-088-10	DS-A00T	DS-T106B	SD-08-47	SD-08-C9	DS-A00-.25-T	DT-30-.25	DS-T10B1
DJ6R-30R01	SM35-088-10	DS-A00T	DS-T106B	SD-08-47	SD-08-C9	DS-A00-.25-T	DT-30-.25	DS-T10B1
DJ5R-30R01	SM35-088-10	DS-A00T	DS-T106B	SD-08-47	SD-08-C9	DS-A00-.25-T	DT-30-.25	DS-T10B1
DJ6R-40R01	SM35-088-10	DS-A00T	DS-T106B	SD-12-82	SD-12-99	DS-A00-.25-T	DT-30-.25	DS-T10B1
DJ5R-40R01	SM35-088-10	DS-A00T	DS-T106B	SD-12-82	SD-12-99	DS-A00-.25-T	DT-30-.25	DS-T10B1
DJ6R-50R01	SM35-088-10	DS-A00T	DS-T106B	SD-12-82	SD-12-99	DS-A00-.25-T	DT-30-.25	DS-T10B1
DJ5R-50R01	SM35-088-10	DS-A00T	DS-T106B	SD-12-82	SD-12-99	DS-A00-.25-T	DT-30-.25	DS-T10B1
METRIC								
1DJ1R025030W5R00	SM35-088-10	DS-A00T	DS-T106B	-	-	DS-A00-.25-T	DT-30-.25	DS-T10B1
1DJ1R032035W6R00	SM35-088-10	DS-A00T	DS-T106B	-	-	DS-A00-.25-T	DT-30-.25	DS-T10B1
1DJ1R040040W6R00	SM35-088-10	DS-A00T	DS-T106B	-	-	DS-A00-.25-T	DT-30-.25	DS-T10B1
1DJ1R025035X7R00	SM35-088-10	DS-A00T	DS-T106B	-	-	DS-A00-.25-T	DT-30-.25	DS-T10B1
1DJ1R032043X8R00	SM35-088-10	DS-A00T	DS-T106B	-	-	DS-A00-.25-T	DT-30-.25	DS-T10B1
1DJ1R040043X8R00	SM35-088-10	DS-A00T	DS-T106B	-	-	DS-A00-.25-T	DT-30-.25	DS-T10B1
DJ5R040R00	SM35-088-10	DS-A00T	DS-T106B	SHM8X1.25X25	SHM8X1.25X25-C	DS-A00-.25-T	DT-30-.25	DS-T10B1
DJ6R050R00	SM35-088-10	DS-A00T	DS-T106B	SHM10X1.5X30	SHM10X1.5X30-C	DS-A00-.25-T	DT-30-.25	DS-T10B1
DJ6R063R00	SM35-088-10	DS-A00T	DS-T106B	SHM10X1.5X30	SHM10X1.5X30-C	DS-A00-.25-T	DT-30-.25	DS-T10B1
DJ5R063R00	SM35-088-10	DS-A00T	DS-T106B	SHM10X1.5X30	SHM10X1.5X30-C	DS-A00-.25-T	DT-30-.25	DS-T10B1
DJ6R080R00	SM35-088-10	DS-A00T	DS-T106B	SHM12X1.75X35	SHM12X1.75X35-C	DS-A00-.25-T	DT-30-.25	DS-T10B1
DJ5R080R00	SM35-088-10	DS-A00T	DS-T106B	SHM12X1.75X35	SHM12X1.75X35-C	DS-A00-.25-T	DT-30-.25	DS-T10B1
DJ6R100R00	SM35-088-10	DS-A00T	DS-T106B	SHM16X2X35	SHM16X2X35-C	DS-A00-.25-T	DT-30-.25	DS-T10B1
DJ5R100R00	SM35-088-10	DS-A00T	DS-T106B	SHM16X2X35	SHM16X2X35-C	DS-A00-.25-T	DT-30-.25	DS-T10B1
DJ6R125R00	SM35-088-10	DS-A00T	DS-T106B	SHM20X2.5X40	SHM20X2.5X40-C	DS-A00-.25-T	DT-30-.25	DS-T10B1
DJ5R125R00	SM35-088-10	DS-A00T	DS-T106B	SHM20X2.5X40	SHM20X2.5X40-C	DS-A00-.25-T	DT-30-.25	DS-T10B1

DIPOSQUADF™

MILLING - INDEXABLE

Cutter Series (Angle x Depth of Cut)

DN5G DN6G (45° x 0.165")
DG6G (20° x .070")
DN5K DN6K (45° x 0.235")
DG6K (20° x 0.100")

Insert Series

SQGU11
SQGU14

Diameter Range

1.50-8.00" (40-200 mm)

Grades

IN2505, IN2510, IN6537

Lead Angles

45°
20° (Hi-Feed)

Materials

- Steel
- Iron

45° and Hi-Feed Face Mills that share the same High-Strength, 8-Edge Insert

- Extreme geometry enjoys heavy feed rates and promotes efficient chip evacuation.
- Offered with 2 insert IC sizes for depth-of-cut and density diversity.
- Integrated wiper flats produce 32-63 Ra finishes.

11 mm

14 mm

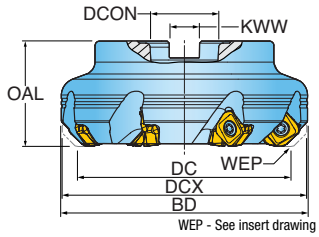
View the full line »

WINSFEED™ ADVANCED MACHINING

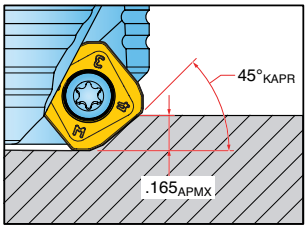
Face Lead Angle Channel

11 mm • Series DN5G, DN6G

45° FACE MILL



WEP - See insert drawing for wiper options.

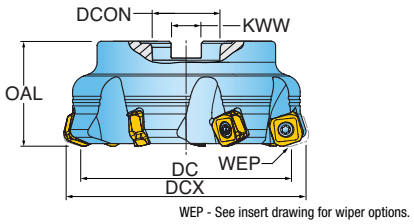


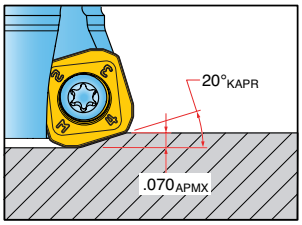
Part Number	DC Cutting Diameter	DCX Cutting Diameter Max.	OAL Overall Length	ZEFF Eff. Teeth	BD Body Diameter	DCON Bore Diameter	KWW Keyway	CSP Coolant
INCH								
DN6G-15R01	1.500	1.93	1.570	4	1.97	0.5000	0.250	Yes
DN5G-15R01	1.500	1.93	1.570	6	1.97	0.5000	0.250	Yes
DN6G-20R01	2.000	2.43	1.750	6	2.47	0.7500	0.312	Yes
DN5G-20R01	2.000	2.43	1.750	8	2.47	0.7500	0.312	Yes
DN6G-25R01	2.500	2.93	1.750	7	2.97	1.0000	0.375	Yes
DN5G-25R01	2.500	2.93	1.750	10	2.97	1.0000	0.375	Yes
DN6G-30R01	3.000	3.43	1.750	8	3.47	1.0000	0.375	Yes
DN5G-30R01	3.000	3.43	1.750	12	3.47	1.0000	0.375	Yes
DN6G-40R01	4.000	4.43	2.375	9	4.47	1.5000	0.625	Yes
DN5G-40R01	4.000	4.43	2.375	14	4.47	1.5000	0.625	Yes
DN6G-50R01	5.000	5.43	2.375	12	5.47	1.5000	0.625	Yes
DN5G-50R01	5.000	5.43	2.375	18	5.47	1.5000	0.625	Yes
DN6G-60R01	6.000	6.43	2.375	16	6.47	1.5000	0.625	No
DN5G-60R01	6.000	6.43	2.375	24	6.47	1.5000	0.625	No
METRIC								
DN5G040R00	40.00 mm	51.0 mm	40.00 mm	6	52.0 mm	16.000 mm	8.40 mm	Yes
DN6G040R00	40.00 mm	51.0 mm	40.00 mm	4	52.0 mm	16.000 mm	8.40 mm	Yes
DN5G050R00	50.00 mm	61.0 mm	40.00 mm	8	62.0 mm	22.000 mm	10.40 mm	Yes
DN6G050R00	50.00 mm	61.0 mm	40.00 mm	6	62.0 mm	22.000 mm	10.40 mm	Yes
DN5G063R00	63.00 mm	74.0 mm	50.00 mm	10	75.0 mm	22.000 mm	10.40 mm	Yes
DN6G063R00	63.00 mm	74.0 mm	50.00 mm	7	75.0 mm	22.000 mm	10.40 mm	Yes
DN5G080R00	80.00 mm	91.0 mm	50.00 mm	12	92.0 mm	27.000 mm	12.40 mm	Yes
DN6G080R00	80.00 mm	91.0 mm	50.00 mm	8	92.0 mm	27.000 mm	12.40 mm	Yes
DN5G100R00	100.00 mm	111.0 mm	50.00 mm	14	112.0 mm	32.000 mm	14.40 mm	Yes
DN6G100R00	100.00 mm	111.0 mm	50.00 mm	9	112.0 mm	32.000 mm	14.40 mm	Yes
DN5G125R00	125.00 mm	136.0 mm	63.00 mm	18	137.0 mm	40.000 mm	16.40 mm	Yes
DN6G125R00	125.00 mm	136.0 mm	63.00 mm	12	137.0 mm	40.000 mm	16.40 mm	Yes
DN5G160R00	160.00 mm	171.0 mm	63.00 mm	24	172.0 mm	40.000 mm	16.40 mm	No
DN6G160R00	160.00 mm	171.0 mm	63.00 mm	16	172.0 mm	40.000 mm	16.40 mm	No

Face | Lead Angle | Channel | Coolant

11 mm • Series DG6G

20° FACE MILL • HI-FEED



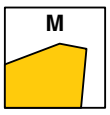


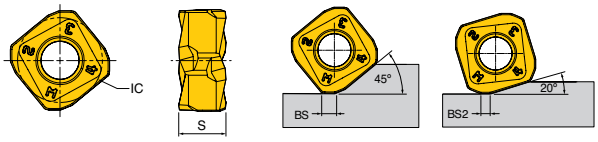
Part Number	DC Cutting Diameter	DCX Cutting Diameter Max.	OAL Overall Length	ZEFF Eff. Teeth	DCON Bore Diameter	KWW Keyway	CSP Coolant
INCH							
DG6G-20R01	2.000	2.53	1.570	4	0.7500	0.312	Yes
DG6G-25R01	2.500	3.03	1.750	5	1.0000	0.375	Yes
DG6G-30R01	3.000	3.53	1.750	6	1.0000	0.375	Yes
DG6G-40R01	4.000	4.53	2.375	8	1.5000	0.625	Yes
METRIC							
DG6G050R00	50.00 mm	63.50 mm	40.00 mm	4	22.00 mm	10.40 mm	Yes
DG6G063R00	63.00 mm	76.50 mm	50.00 mm	5	22.00 mm	10.40 mm	Yes
DG6G080R00	80.00 mm	93.50 mm	50.00 mm	6	27.00 mm	12.40 mm	Yes
DG6G100R00	100.00 mm	113.50 mm	50.00 mm	8	32.00 mm	14.40 mm	Yes

11 mm • Inserts

FOR SERIES DN5G, DN6G, AND DG6G

SQGU11_M





Part Number	Application	BS Wiper Length	BS2 Wiper Length	IC Inscribed Circle Dia.	S Thickness	NOI Number of Indexes	IH Insert Hand	Grade		
								IN2505	IN2510	IN6537
SQGU1105ANR-M	Multi-Purpose	0.075	0.039	0.44	0.248	8	Right	•	•	•

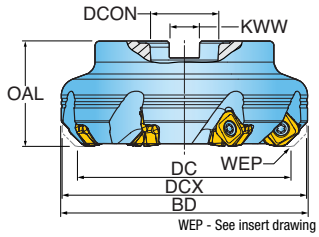
11 mm • Hardware

Part Number	Screw	Driver Handle	Torx Driver Blade	Retention Bolt	Optional: Coolant Retention Bolt	Optional: Torque Driver Handle	Optional: Preset Torque Adapter	Optional: Torque Driver Bit
INCH								
DN6G-15R01	SM40-115-00	DS-A00T	DS-T156B	SD-04-46	-	DS-A00-.25-T	DT-35-.25	DS-T15B1
DN5G-15R01	SM40-115-00	DS-A00T	DS-T156B	SD-04-46	-	DS-A00-.25-T	DT-35-.25	DS-T15B1
DN6G-20R01	SM40-115-00	DS-A00T	DS-T156B	SD-06-47	SD-06-A6	DS-A00-.25-T	DT-35-.25	DS-T15B1
DN5G-20R01	SM40-115-00	DS-A00T	DS-T156B	SD-06-47	SD-06-A6	DS-A00-.25-T	DT-35-.25	DS-T15B1
DN6G-25R01	SM40-115-00	DS-A00T	DS-T156B	SD-08-47	SD-08-C9	DS-A00-.25-T	DT-35-.25	DS-T15B1
DN5G-25R01	SM40-115-00	DS-A00T	DS-T156B	SD-08-47	SD-08-C9	DS-A00-.25-T	DT-35-.25	DS-T15B1
DN6G-30R01	SM40-115-00	DS-A00T	DS-T156B	SD-08-47	SD-08-C9	DS-A00-.25-T	DT-35-.25	DS-T15B1
DN5G-30R01	SM40-115-00	DS-A00T	DS-T156B	SD-08-47	SD-08-C9	DS-A00-.25-T	DT-35-.25	DS-T15B1
DN6G-40R01	SM40-115-00	DS-A00T	DS-T156B	SD-12-82	SD-12-99	DS-A00-.25-T	DT-35-.25	DS-T15B1
DN5G-40R01	SM40-115-00	DS-A00T	DS-T156B	SD-12-82	SD-12-99	DS-A00-.25-T	DT-35-.25	DS-T15B1
DN6G-50R01	SM40-115-00	DS-A00T	DS-T156B	SD-12-82	SD-12-99	DS-A00-.25-T	DT-35-.25	DS-T15B1
DN5G-50R01	SM40-115-00	DS-A00T	DS-T156B	SD-12-82	SD-12-99	DS-A00-.25-T	DT-35-.25	DS-T15B1
DN6G-60R01	SM40-115-00	DS-A00T	DS-T156B	-	-	DS-A00-.25-T	DT-35-.25	DS-T15B1
DN5G-60R01	SM40-115-00	DS-A00T	DS-T156B	-	-	DS-A00-.25-T	DT-35-.25	DS-T15B1
DG6G-20R01	SM40-115-00	DS-A00T	DS-T156B	SD-06-47	SD-06-A6	DS-A00-.25-T	DT-35-.25	DS-T15B1
DG6G-25R01	SM40-115-00	DS-A00T	DS-T156B	SD-08-47	SD-08-C9	DS-A00-.25-T	DT-35-.25	DS-T15B1
DG6G-30R01	SM40-115-00	DS-A00T	DS-T156B	SD-08-47	SD-08-C9	DS-A00-.25-T	DT-35-.25	DS-T15B1
DG6G-40R01	SM40-115-00	DS-A00T	DS-T156B	SD-12-82	SD-12-99	DS-A00-.25-T	DT-35-.25	DS-T15B1
METRIC								
DN5G040R00	SM40-115-00	DS-A00T	DS-T156B	SHM8X1.25X25	SHM8X1.25X25-C	DS-A00-.25-T	DT-35-.25	DS-T15B1
DN6G040R00	SM40-115-00	DS-A00T	DS-T156B	SHM8X1.25X25	SHM8X1.25X25-C	DS-A00-.25-T	DT-35-.25	DS-T15B1
DN5G050R00	SM40-115-00	DS-A00T	DS-T156B	SHLM10X1.5X25	SHLM10X1.5X25-C	DS-A00-.25-T	DT-35-.25	DS-T15B1
DN6G050R00	SM40-115-00	DS-A00T	DS-T156B	SHLM10X1.5X25	SHLM10X1.5X25-C	DS-A00-.25-T	DT-35-.25	DS-T15B1
DN5G063R00	SM40-115-00	DS-A00T	DS-T156B	SHM10X1.5X30	SHM10X1.5X30-C	DS-A00-.25-T	DT-35-.25	DS-T15B1
DN6G063R00	SM40-115-00	DS-A00T	DS-T156B	SHM10X1.5X30	SHM10X1.5X30-C	DS-A00-.25-T	DT-35-.25	DS-T15B1
DN5G080R00	SM40-115-00	DS-A00T	DS-T156B	SHLM12X1.75X30	SHLM12X1.75X30-C	DS-A00-.25-T	DT-35-.25	DS-T15B1
DN6G080R00	SM40-115-00	DS-A00T	DS-T156B	SHLM12X1.75X30	SHLM12X1.75X30-C	DS-A00-.25-T	DT-35-.25	DS-T15B1
DN5G100R00	SM40-115-00	DS-A00T	DS-T156B	SHLM16X2X35	SHLM16X2X35-C	DS-A00-.25-T	DT-35-.25	DS-T15B1
DN6G100R00	SM40-115-00	DS-A00T	DS-T156B	SHLM16X2X35	SHLM16X2X35-C	DS-A00-.25-T	DT-35-.25	DS-T15B1
DN5G125R00	SM40-115-00	DS-A00T	DS-T156B	SHM20X2.5X40	SHM20X2.5X40-C	DS-A00-.25-T	DT-35-.25	DS-T15B1
DN6G125R00	SM40-115-00	DS-A00T	DS-T156B	SHM20X2.5X40	SHM20X2.5X40-C	DS-A00-.25-T	DT-35-.25	DS-T15B1
DN5G160R00	SM40-115-00	DS-A00T	DS-T156B	-	-	DS-A00-.25-T	DT-35-.25	DS-T15B1
DN6G160R00	SM40-115-00	DS-A00T	DS-T156B	-	-	DS-A00-.25-T	DT-35-.25	DS-T15B1
DG6G050R00	SM40-115-00	DS-A00T	DS-T156B	SHM10X1.5X30	SHM10X1.5X30-C	DS-A00-.25-T	DT-35-.25	DS-T15B1
DG6G063R00	SM40-115-00	DS-A00T	DS-T156B	SHM10X1.5X30	SHM10X1.5X30-C	DS-A00-.25-T	DT-35-.25	DS-T15B1
DG6G080R00	SM40-115-00	DS-A00T	DS-T156B	SHM12X1.75X35	SHM12X1.75X35-C	DS-A00-.25-T	DT-35-.25	DS-T15B1
DG6G100R00	SM40-115-00	DS-A00T	DS-T156B	SHLM16X2X35	SHLM16X2X35-C	DS-A00-.25-T	DT-35-.25	DS-T15B1

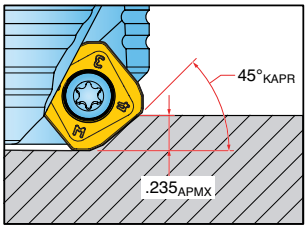
Face Lead Angle Channel

14 mm • Series DN5K, DN6K

45° FACE MILL



WEP - See insert drawing for wiper options.

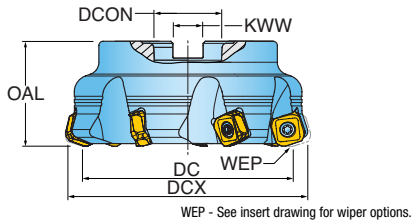


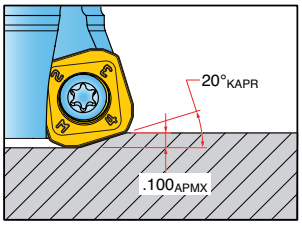
Part Number	DC Cutting Dia.	DCX Cutting Dia. Max.	OAL Overall Length	ZEFF Eff. Teeth	BD Body Dia.	DCON Bore Dia.	KWW Keyway	DBC Bolt Circle Dia.	CSP Coolant
INCH									
DN6K-20R01	2.000	2.61	1.750	4	2.67	0.7500	0.312	-	Yes
DN5K-20R01	2.000	2.61	1.750	6	2.67	0.7500	0.312	-	Yes
DN6K-25R01	2.500	3.11	1.750	6	3.17	1.0000	0.375	-	Yes
DN5K-25R01	2.500	3.11	1.750	8	3.17	1.0000	0.375	-	Yes
DN6K-30R01	3.000	3.61	1.750	7	3.67	1.0000	0.375	-	Yes
DN5K-30R01	3.000	3.61	1.750	10	3.67	1.0000	0.375	-	Yes
DN6K-40R01	4.000	4.61	2.375	8	4.67	1.5000	0.625	-	Yes
DN5K-40R01	4.000	4.61	2.375	12	4.67	1.5000	0.625	-	Yes
DN6K-50R01	5.000	5.61	2.375	10	5.67	1.5000	0.625	-	Yes
DN5K-50R01	5.000	5.61	2.375	16	5.67	1.5000	0.625	-	Yes
DN6K-60R01	6.000	6.61	2.375	12	6.67	1.5000	0.625	-	No
DN5K-60R01	6.000	6.61	2.375	20	6.67	1.5000	0.625	-	No
DN6K-80R01	8.000	8.61	2.375	18	8.67	2.5000	1.000	4.00	No
DN5K-80R01	8.000	8.61	2.375	26	8.67	2.5000	1.000	4.00	No
METRIC									
DN6K050R00	50.00 mm	65.5 mm	40.00 mm	4	67.0 mm	22.00 mm	10.40 mm	-	Yes
DN5K050R00	50.00 mm	65.5 mm	40.00 mm	6	67.0 mm	22.00 mm	10.40 mm	-	Yes
DN6K063R00	63.00 mm	78.5 mm	50.00 mm	6	80.0 mm	22.00 mm	10.40 mm	-	Yes
DN5K063R00	63.00 mm	78.5 mm	50.00 mm	8	80.0 mm	22.00 mm	10.40 mm	-	Yes
DN6K080R00	80.00 mm	95.5 mm	50.00 mm	7	97.0 mm	27.00 mm	12.40 mm	-	Yes
DN5K080R00	80.00 mm	95.5 mm	50.00 mm	10	97.0 mm	27.00 mm	12.40 mm	-	Yes
DN6K100R00	100.00 mm	115.5 mm	50.00 mm	8	117.0 mm	32.00 mm	14.40 mm	-	Yes
DN5K100R00	100.00 mm	115.5 mm	50.00 mm	12	117.0 mm	32.00 mm	14.40 mm	-	Yes
DN6K125R00	125.00 mm	140.5 mm	63.00 mm	10	142.0 mm	40.00 mm	16.40 mm	-	Yes
DN5K125R00	125.00 mm	140.5 mm	63.00 mm	16	142.0 mm	40.00 mm	16.40 mm	-	Yes
DN6K160R00	160.00 mm	175.5 mm	63.00 mm	12	177.0 mm	40.00 mm	16.40 mm	-	No
DN5K160R00	160.00 mm	175.5 mm	63.00 mm	20	177.0 mm	40.00 mm	16.40 mm	-	No
DN6K200R00	200.00 mm	215.5 mm	63.00 mm	18	217.0 mm	60.00 mm	25.70 mm	101.6 mm	No
DN5K200R00	200.00 mm	215.5 mm	63.00 mm	26	217.0 mm	60.00 mm	25.70 mm	101.6 mm	No

Face Lead Angle Channel

14 mm • Series DG6K

20° FACE MILL • HI-FEED



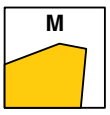


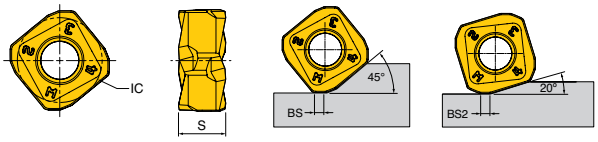
Part Number	DC Cutting Diameter	DCX Cutting Diameter Max.	OAL Overall Length	ZEFF Eff. Teeth	DCON Bore Diameter	KWW Keyway	CSP Coolant
INCH							
DG6K-25R01	2.500	3.19	1.750	5	1.00	0.375	Yes
DG6K-30R01	3.000	3.69	1.750	6	1.00	0.375	Yes
DG6K-40R01	4.000	4.69	2.375	7	1.50	0.625	Yes
DG6K-60R01	6.000	6.69	2.375	8	1.50	0.625	No
METRIC							
DG6K063R00	63.00 mm	80.6 mm	50.00 mm	5	22.00 mm	10.40 mm	Yes
DG6K080R00	80.00 mm	97.6 mm	50.00 mm	6	27.00 mm	12.40 mm	Yes
DG6K100R00	100.00 mm	117.5 mm	50.00 mm	7	32.00 mm	14.40 mm	Yes
DG6K125R00	125.00 mm	142.5 mm	63.00 mm	8	40.00 mm	16.40 mm	Yes

14 mm • Inserts

FOR SERIES DN5K, DN6K, AND DG6K

SQGU14_M





Part Number	Application	BS Wiper Length	BS2 Wiper Length	IC Inscribed Circle Dia.	S Thickness	NOI Number of Indexes	IH Insert Hand	Grade		
								IN2505	IN2510	IN6537
SQGU1406ANR-M	Multi-Purpose	0.079	0.063	0.57	0.307	8	Right	•	•	•

DIPOSQUADF™

14 mm • Hardware

Part Number	Screw	Driver Handle	Torx Driver Blade	Retention Bolt	Optional: Coolant Retention Bolt	Optional: Torque Driver Handle	Optional: Preset Torque Adapter	Optional: Torque Driver Bit
INCH								
DN6K-20R01	SM50-130-R0	DS-A00T	DS-T206B	SD-06-47	SD-06-A6	DS-A00-.25-T	DT-44-.25	DS-T20B1
DN5K-20R01	SM50-130-R0	DS-A00T	DS-T206B	SD-06-47	SD-06-A6	DS-A00-.25-T	DT-44-.25	DS-T20B1
DN6K-25R01	SM50-130-R0	DS-A00T	DS-T206B	SD-08-47	SD-08-C9	DS-A00-.25-T	DT-44-.25	DS-T20B1
DN5K-25R01	SM50-130-R0	DS-A00T	DS-T206B	SD-08-47	SD-08-C9	DS-A00-.25-T	DT-44-.25	DS-T20B1
DN6K-30R01	SM50-130-R0	DS-A00T	DS-T206B	SD-08-47	SD-08-C9	DS-A00-.25-T	DT-44-.25	DS-T20B1
DN5K-30R01	SM50-130-R0	DS-A00T	DS-T206B	SD-08-47	SD-08-C9	DS-A00-.25-T	DT-44-.25	DS-T20B1
DN6K-40R01	SM50-130-R0	DS-A00T	DS-T206B	SD-12-82	SD-12-99	DS-A00-.25-T	DT-44-.25	DS-T20B1
DN5K-40R01	SM50-130-R0	DS-A00T	DS-T206B	SD-12-82	SD-12-99	DS-A00-.25-T	DT-44-.25	DS-T20B1
DN6K-50R01	SM50-130-R0	DS-A00T	DS-T206B	SD-12-82	SD-12-99	DS-A00-.25-T	DT-44-.25	DS-T20B1
DN5K-50R01	SM50-130-R0	DS-A00T	DS-T206B	SD-12-82	SD-12-99	DS-A00-.25-T	DT-44-.25	DS-T20B1
DN6K-60R01	SM50-130-R0	DS-A00T	DS-T206B	-	-	DS-A00-.25-T	DT-44-.25	DS-T20B1
DN5K-60R01	SM50-130-R0	DS-A00T	DS-T206B	-	-	DS-A00-.25-T	DT-44-.25	DS-T20B1
DN6K-80R01	SM50-130-R0	DS-A00T	DS-T206B	-	-	DS-A00-.25-T	DT-44-.25	DS-T20B1
DN5K-80R01	SM50-130-R0	DS-A00T	DS-T206B	-	-	DS-A00-.25-T	DT-44-.25	DS-T20B1
DG6K-25R01	SM50-130-R0	DS-A00T	DS-T206B	SD-08-47	SD-08-C9	DS-A00-.25-T	DT-44-.25	DS-T20B1
DG6K-30R01	SM50-130-R0	DS-A00T	DS-T206B	SD-08-47	SD-08-C9	DS-A00-.25-T	DT-44-.25	DS-T20B1
DG6K-40R01	SM50-130-R0	DS-A00T	DS-T206B	SD-12-82	SD-12-99	DS-A00-.25-T	DT-44-.25	DS-T20B1
DG6K-60R01	SM50-130-R0	DS-A00T	DS-T206B	-	-	DS-A00-.25-T	DT-44-.25	DS-T20B1
METRIC								
DN6K050R00	SM50-130-R0	DS-A00T	DS-T206B	SHLM10X1.5X25	SHLM10X1.5X25-C	DS-A00-.25-T	DT-44-.25	DS-T20B1
DN5K050R00	SM50-130-R0	DS-A00T	DS-T206B	SHLM10X1.5X25	SHLM10X1.5X25-C	DS-A00-.25-T	DT-44-.25	DS-T20B1
DN6K063R00	SM50-130-R0	DS-A00T	DS-T206B	SHM10X1.5X30	SHM10X1.5X30-C	DS-A00-.25-T	DT-44-.25	DS-T20B1
DN5K063R00	SM50-130-R0	DS-A00T	DS-T206B	SHM10X1.5X30	SHM10X1.5X30-C	DS-A00-.25-T	DT-44-.25	DS-T20B1
DN6K080R00	SM50-130-R0	DS-A00T	DS-T206B	SHLM12X1.75X30	SHLM12X1.75X30-C	DS-A00-.25-T	DT-44-.25	DS-T20B1
DN5K080R00	SM50-130-R0	DS-A00T	DS-T206B	SHLM12X1.75X30	SHLM12X1.75X30-C	DS-A00-.25-T	DT-44-.25	DS-T20B1
DN6K100R00	SM50-130-R0	DS-A00T	DS-T206B	SHLM16X2X35	SHLM16X2X35-C	DS-A00-.25-T	DT-44-.25	DS-T20B1
DN5K100R00	SM50-130-R0	DS-A00T	DS-T206B	SHLM16X2X35	SHLM16X2X35-C	DS-A00-.25-T	DT-44-.25	DS-T20B1
DN6K125R00	SM50-130-R0	DS-A00T	DS-T206B	SHM20X2.5X40	SHM20X2.5X40-C	DS-A00-.25-T	DT-44-.25	DS-T20B1
DN5K125R00	SM50-130-R0	DS-A00T	DS-T206B	SHM20X2.5X40	SHM20X2.5X40-C	DS-A00-.25-T	DT-44-.25	DS-T20B1
DN6K160R00	SM50-130-R0	DS-A00T	DS-T206B	-	-	DS-A00-.25-T	DT-44-.25	DS-T20B1
DN5K160R00	SM50-130-R0	DS-A00T	DS-T206B	-	-	DS-A00-.25-T	DT-44-.25	DS-T20B1
DN6K200R00	SM50-130-R0	DS-A00T	DS-T206B	-	-	DS-A00-.25-T	DT-44-.25	DS-T20B1
DN5K200R00	SM50-130-R0	DS-A00T	DS-T206B	-	-	DS-A00-.25-T	DT-44-.25	DS-T20B1
DG6K063R00	SM50-130-R0	DS-A00T	DS-T206B	SHM10X1.5X30	SHM10X1.5X30-C	DS-A00-.25-T	DT-44-.25	DS-T20B1
DG6K080R00	SM50-130-R0	DS-A00T	DS-T206B	SHM12X1.75X35	SHM12X1.75X35-C	DS-A00-.25-T	DT-44-.25	DS-T20B1
DG6K100R00	SM50-130-R0	DS-A00T	DS-T206B	SHLM16X2X35	SHLM16X2X35-C	DS-A00-.25-T	DT-44-.25	DS-T20B1
DG6K125R00	SM50-130-R0	DS-A00T	DS-T206B	SHM20X2.5X40	SHM20X2.5X40-C	DS-A00-.25-T	DT-44-.25	DS-T20B1

CERASFEED™

MILLING - INDEXABLE

Cutter Series (Depth of Cut)

1ZG3D (.039") NEW
1ZG3F, TG1Q, TG2Q (.059")
DG1H, DG2H (.059")

Insert Series

LNXF06 (6 mm) NEW
LNXF09 (9 mm)
TNXN12 (12 mm)

Diameter Range

0.625–1.500"

Grade

IN76N - SiAlON

Materials

High-Temp Alloys

New Smaller Size Ceramic Hi-Feed Insert for Exceptional Productivity

- Double-sided inserts with 4 cutting edges.
- Dimpled inserts and top clamp holder design provide multi-directional clamping force.
- Smaller insert provides higher cutter densities.
- SiAlON grade IN76N allows cutting speeds up to 36 times greater than solid carbide.

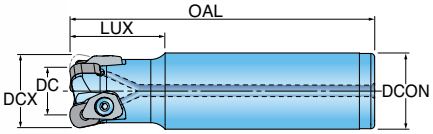
View the full line »

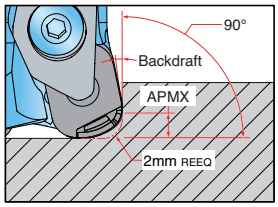
SFEEDUP™ HIGH SPEED & FEED EXPANSION

Series 1ZG3D

Face | Channel | Ramp | Pocket | Helical Int. | Contour

HI-FEED, INDEXABLE CERAMIC END MILL - CYLINDRICAL (6 MM INSERT)



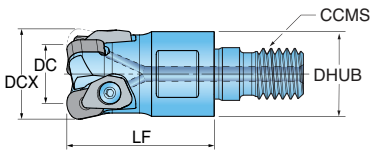


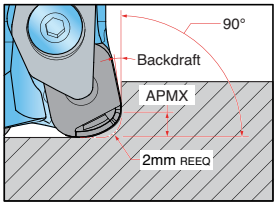
Part Number	DCX Cutting Dia Max.	DC Cutting Dia.	APMX Depth of Cut Max.	LUX Usable Length Max.	OAL Overall Length	ZEFF Eff. Teeth	DCON Shank Dia.	CSP Coolant (air only)	RMPX Ramp Angle Max.
INCH									
1ZG3D-06010R7R01	0.625	0.333	0.039	1.000	3.250	2	0.625	No	0.5°
1ZG3D-07010S7R01	0.750	0.455	0.039	1.000	3.250	3	0.750	Yes	0.5°
1ZG3D-10016S1R01	1.000	0.700	0.039	1.600	4.000	4	1.000	Yes	0.4°
1ZG3D-12016S9R01	1.250	0.948	0.039	1.600	4.750	5	1.250	Yes	0.3°

Series 1ZG3D

Face | Channel | Ramp | Pocket | Helical Int. | Contour

HI-FEED, INDEXABLE CERAMIC MODULAR END MILL - TOPON (6 MM INSERT)





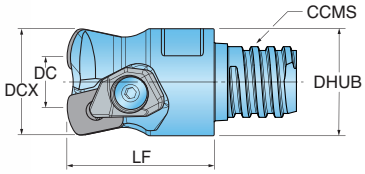
Part Number	DCX Cutting Dia Max.	DC Cutting Dia.	APMX Depth of Cut Max.	LF Functional Length	ZEFF Eff. Teeth	CCMS Connection Code Machine Side	DHUB Hub Dia.	RMPX Ramp Angle Max.	CSP Coolant (air only)
INCH									
1ZG3D-06010X5R01	0.625	0.333	0.039	0.980	2	TopOn M08	0.51	0.5°	No
1ZG3D-07012X6R01	0.750	0.455	0.039	1.180	3	TopOn M10	0.71	0.5°	Yes
1ZG3D-10014X7R01	1.000	0.700	0.039	1.370	4	TopOn M12	0.82	0.4°	Yes
1ZG3D-12016X8R01	1.250	0.984	0.039	1.570	5	TopOn M16	1.14	0.3°	Yes

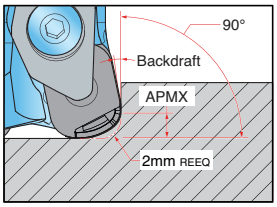
CERASFEED™

Face | Channel | Ramp | Pocket | Helical Int. | Contour

Series 1ZG3D

HI-FEED, INDEXABLE CERAMIC END MILL - CHIPSURFER (6 MM INSERT)

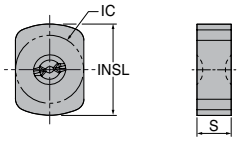




Part Number	DCX Cutting Dia Max.	DC Cutting Dia.	APMX Depth of Cut Max.	LF Functional Length	ZEFF Eff. Teeth	CCMS Connection Code Machine Side	DHUB Hub Dia.	RMPX Ramp Angle Max.	CSP Coolant (air only)
INCH									
1ZG3D-06008TRR01	0.625	0.333	0.039	0.83	2	ChipSurfer T10	0.60	0.5°	No
1ZG3D-07010TSR01	0.750	0.455	0.039	1.00	3	ChipSurfer T12	0.72	0.5°	Yes
1ZG3D-10013TUR01	1.000	0.700	0.039	1.25	4	ChipSurfer T15	0.95	0.4°	Yes

Inserts

LNXF0603R01



Part Number	Application	INSL Insert Length	IC Inscribed Circle Dia.	S Thickness	NOI Number of Indexes	IH Insert Hand
LNXF0603R01	Multi-Purpose	0.315	0.236	0.118	4	R

Hardware

Part Number	Clamp	Driver
1ZG3D...	CCL-2S-ASSY	L-W1.5

DIPOSPROB™

MILLING - INDEXABLE

Cutter Series (Depth of Cut)

6 mm IC Insert
- 12L8D: 90° (6.30 mm)
- 12M8D: 75° (6.14 mm)
- 12N8D: 45° (4.20 mm)

12 mm IC Insert
- 12L8G: 90° (12.00 mm)
- 12M8G: 75° (11.70 mm)
- 12N8G: 45° (8.40 mm)

Insert Series

CNHJ06 (6 mm)
CNHJ12 (12 mm)

Diameter Range

12–32 mm

Grade

IN2006

Adaption

TopOn M06–M16

Materials

- Steel
- Stainless Steel

High Productivity Profile Milling With Indexable Barrel Milling Technology

- » Significant cycle time reduction during finishing processes.
- » Double-sided insert technology for maximum economy.
- » 90°, 75°, and 45° cutters with TopOn connections.

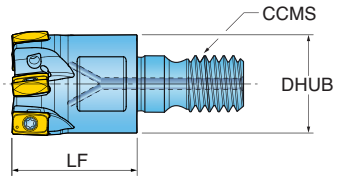
View the full line »

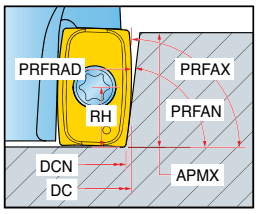
WINSFEED™ ADVANCED MACHINING

Contour Coolant

6 mm • Series 12L8D

90° BARREL, MODULAR END MILL - TOPON



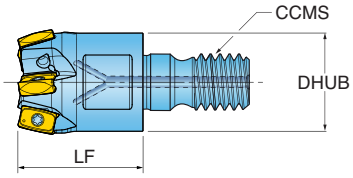


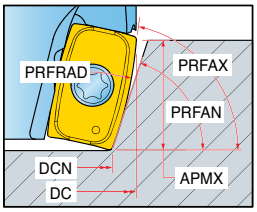
Part Number	DC Cutting Dia.	DCN Cutting Dia. Min.	APMX Depth of Cut Max.	LF Func. Length	PRFRAD Profile Radius	PRFAN Profile Angle Min.	PRFAX Profile Angle Max.	OAL Overall Length	ZEFF Eff. Teeth	CCMS Conn. Code Machine Side	DHUB Hub Dia.	DRVS Drive Size
METRIC												
12L8D012017X4R00	12 mm	10.95 mm	6.30 mm	17 mm	20 mm	80°	90°	31.5 mm	3	M06	11 mm	8 mm
12L8D016023X5R00	16 mm	14.95 mm	6.30 mm	23 mm	20 mm	80°	90°	40.5 mm	4	M08	13 mm	10 mm
12L8D020023X6R00	20 mm	18.95 mm	6.30 mm	23 mm	20 mm	80°	90°	43 mm	5	M10	18 mm	15 mm
12L8D025027X7R00	25 mm	22.95 mm	6.30 mm	27 mm	20 mm	80°	90°	49 mm	7	M12	21 mm	17 mm

Contour Coolant

6 mm • Series 12M8D

75° BARREL, MODULAR END MILL - TOPON



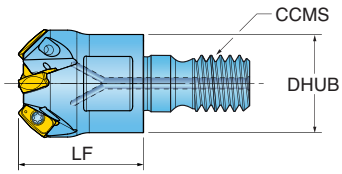


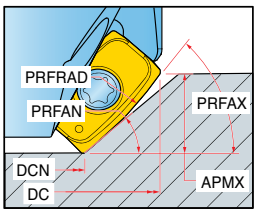
Part Number	DC Cutting Dia.	DCN Cutting Dia. Min.	APMX Depth of Cut Max.	LF Func. Length	PRFRAD Profile Radius	PRFAN Profile Angle Min.	PRFAX Profile Angle Max.	OAL Overall Length	ZEFF Eff. Teeth	CCMS Conn. Code Machine Side	DHUB Hub Dia.	DRVS Drive Size
METRIC												
12M8D016023X5R00	16 mm	12.75 mm	6.14 mm	23 mm	20 mm	69°	81°	40.5 mm	4	M08	13 mm	10 mm
12M8D020023X6R00	20 mm	16.75 mm	6.14 mm	23 mm	20 mm	69°	81°	43 mm	5	M10	18 mm	15 mm
12M8D025027X7R00	25 mm	21.75 mm	6.14 mm	27 mm	20 mm	69°	81°	49 mm	6	M12	21 mm	17 mm

Contour Coolant

6 mm • Series 12N8D

45° BARREL, MODULAR END MILL - TOPON

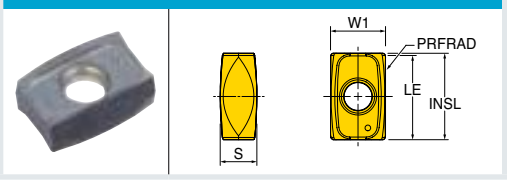




Part Number	DC Cutting Dia.	DCN Cutting Dia. Min.	APMX Depth of Cut Max.	LF Func. Length	PRFRAD Profile Radius	PRFAN Profile Angle Min.	PRFAX Profile Angle Max.	OAL Overall Length	ZEFF Eff. Teeth	CCMS Conn. Code Machine Side	DHUB Hub Dia.	DRVS Drive Size
METRIC												
12N8D016023X5R00	16 mm	7 mm	4.20 mm	23 mm	20 mm	39°	51°	40.5 mm	3	M08	13 mm	10 mm
12N8D020023X6R00	20 mm	11 mm	4.20 mm	23 mm	20 mm	39°	51°	43 mm	4	M10	18 mm	15 mm

6 mm • Inserts

CNHJ



Part Number	Application	PRFRAD Profile Radius	LE Cutting Edge	INSL Insert Circle Length	W1 Insert Width	S Thickness	IH Insert Hand	NOI Number of Indexes	Grade
									IN2006
CNHJ060220	Finishing	20 mm	6.4 mm	6.6 mm	4.2 mm	2.80 mm	Right	4	•

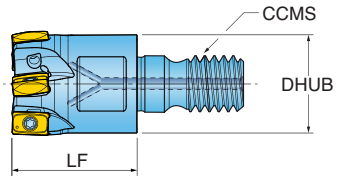
6 mm • Hardware

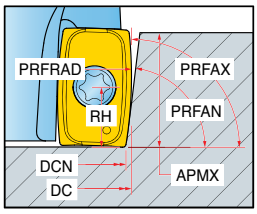
Part Number	Screw	Driver
12L8D012017X4R00	SM18-041-00	DS-TP06S
12L8D016023X5R00	SM18-041-00	DS-TP06S
12L8D020023X6R00	SM18-041-00	DS-TP06S
12L8D025027X7R00	SM18-041-00	DS-TP06S
12M8D016023X5R00	SM18-041-00	DS-TP06S
12M8D020023X6R00	SM18-041-00	DS-TP06S
12M8D025027X7R00	SM18-041-00	DS-TP06S
12M8D016023X5R00	SM18-041-00	DS-TP06S
12M8D020023X6R00	SM18-041-00	DS-TP06S

Contour Coolant

12 mm • Series 12L8G

90° BARREL, MODULAR END MILL - TOPON



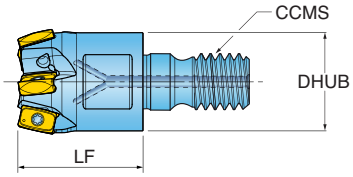


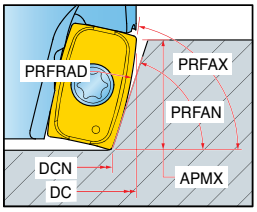
Part Number	DC Cutting Dia.	DCN Cutting Dia. Min.	APMX Depth of Cut Max.	LF Func. Length	PRFRAD Profile Radius	PRFAN Profile Angle Min.	PRFAX Profile Angle Max.	OAL Overall Length	ZEFF Eff. Teeth	CCMS Conn. Code Machine Side	DHUB Hub Dia.	DRVS Drive Size
METRIC												
12L8G020027X6R00	20 mm	17.5 mm	12.00 mm	27 mm	30 mm	75°	90°	47 mm	3	M10	18 mm	15 mm
12L8G025035X7R00	25 mm	22.8 mm	12.00 mm	35 mm	30 mm	75°	90°	57 mm	4	M12	21 mm	17 mm
12L8G032038X8R00	32 mm	29.8 mm	12.00 mm	38 mm	30 mm	75°	90°	63 mm	5	M16	29 mm	25 mm

Contour Coolant

12 mm • Series 12M8G

75° BARREL, MODULAR END MILL - TOPON



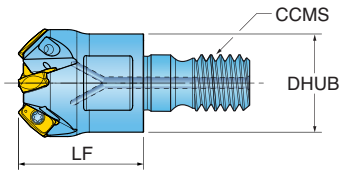


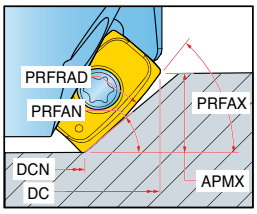
Part Number	DC Cutting Dia.	DCN Cutting Dia. Min.	APMX Depth of Cut Max.	LF Func. Length	PRFRAD Profile Radius	PRFAN Profile Angle Min.	PRFAX Profile Angle Max.	OAL Overall Length	ZEFF Eff. Teeth	CCMS Conn. Code Machine Side	DHUB Hub Dia.	DRVS Drive Size
METRIC												
12M8G020027X6R00	20 mm	13.8 mm	11.70 mm	27 mm	30 mm	67°	83°	47 mm	2	M10	18 mm	15 mm
12M8G025035X7R00	25 mm	18.8 mm	11.70 mm	38 mm	30 mm	67°	83°	57 mm	3	M12	21 mm	17 mm
12M8G032038X8R00	32 mm	25.8 mm	11.70 mm	38 mm	30 mm	67°	83°	63 mm	5	M16	29 mm	25 mm

Contour Coolant

12 mm • Series 12N8G

45° BARREL, MODULAR END MILL - TOPON

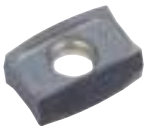


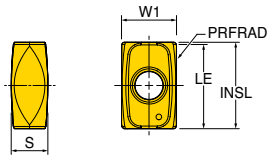


Part Number	DC Cutting Dia.	DCN Cutting Dia. Min.	APMX Depth of Cut Max.	LF Func. Length	PRFRAD Profile Radius	PRFAN Profile Angle Min.	PRFAX Profile Angle Max.	OAL Overall Length	ZEFF Eff. Teeth	CCMS Conn. Code Machine Side	DHUB Hub Dia.	DRVS Drive Size
METRIC												
12N8G032038X8R00	32 mm	15 mm	8.40 mm	38 mm	30 mm	39°	51°	63 mm	3	M16	29 mm	25 mm

12 mm • Inserts

CNHJ





Part Number	Application	PRFRAD Profile Radius	LE Cutting Edge	INSL Insert Circle Length	W1 Insert Width	S Thickness	IH Insert Hand	NOI Number of Indexes	Grade
									IN2006
CNHJ120430	Finishing	30 mm	12.2 mm	12.2 mm	7.0 mm	4.56 mm	Right	4	•

12 mm • Hardware

Part Number	Screw	Driver
12L8G020027X6R00	SM30-068-30	DS-T08S
12L8G025035X7R00	SM30-068-30	DS-T08S
12L8G032038X8R00	SM30-068-30	DS-T08S
12M8G020027X6R00	SM30-068-30	DS-T08S
12M8G025035X7R00	SM30-068-30	DS-T08S
12M8G032038X8R00	SM30-068-30	DS-T08S
12M8G032038X8R00	SM30-068-30	DS-T08S

FINEMOLD+™

MILLING - INDEXABLE

Cutter Series

12A5 and 12A8
(Solid Carbide and
Tapered Steel)

12A9
(Cylindrical Steel and
TopOn Modular)

Insert Series

NQHL (Lens) NEW
NQHB (Chamfer Barrel)

Diameter Range

8–32 mm (.315–1.260")

Grade

IN2006

Materials

- Steel
- Stainless Steel
- Cast Iron/Iron
- Hardened Steel

High Productivity Finishing Lens and Chamfer Barrel Inserts

» Improved productivity and surface roughness compared to ball type inserts.

» Larger radius cutting edges.

» Excellent runout and repeatability.

» Compatible with the existing FinishBall+ holders.

NQHB

NQHL

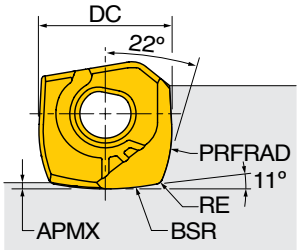
View the full line »

WINSFEED™ ADVANCED MACHINING

Contour Coolant

Insert • Series NQHL

LENS TYPE, FINISHING INSERT

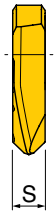


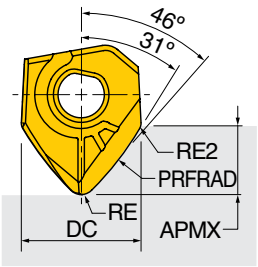
Part Number	DC Cutting Dia.	S Thickness	APMX Depth of Cut Max.	RE Corner Radius	BSR Wiper Radius	PFRAD Profile Radius	Grade IN2006
METRIC							
NQHL1203R24	12 mm	3.2 mm	0.4 mm	0.7 mm	24 mm	12 mm	•
NQHL1604R32	16 mm	4.2 mm	0.6 mm	0.8 mm	32 mm	16 mm	•
NQHL2005R40	20 mm	5.2 mm	0.7 mm	1.0 mm	40 mm	20 mm	•
NQHL2506R50	25 mm	6.2 mm	0.9 mm	1.3 mm	50 mm	25 mm	•
NQHL3007R60	30 mm	7.2 mm	1.1 mm	1.5 mm	60 mm	30 mm	•

Contour Coolant

Insert • Series NFCB

CHAMFER BARREL TYPE, FINISHING INSERT





Part Number	DC Cutting Dia.	S Thickness	APMX Depth of Cut Max.	RE Corner Radius	PFRAD Profile Radius	RE2 Corner Radius	Grade IN2006
METRIC							
NQHB0802R20	8 mm	2.2 mm	4.3 mm	1.0 mm	20.0 mm	0.6 mm	•
NQHB1003R25	10 mm	2.7 mm	5.4 mm	1.2 mm	25.0 mm	0.8 mm	•
NQHB1203R30	12 mm	3.2 mm	6.4 mm	1.5 mm	30.0 mm	1.0 mm	•
NQHB1604R40	16 mm	4.2 mm	8.5 mm	2.0 mm	40.0 mm	1.3 mm	•
NQHB2005R50	20 mm	5.2 mm	10.7 mm	2.5 mm	50.0 mm	1.6 mm	•
NQHB2506R63	25 mm	6.2 mm	13.5 mm	3.0 mm	62.5 mm	2.0 mm	•
NQHB3007R75	30 mm	7.2 mm	16.3 mm	3.5 mm	75.0 mm	2.4 mm	•

iABSORBER™

MILLING - TOOL HOLDERS

Featuring INNOFIT™ adaption

Pilot Diameters

0.750–1.500"
22–40 mm

Modular Adaptions

InnoFit Z4
InnoFit Z5

Master Shank Adapters

BT40 Z4
BT50 Z4, Z5
CAT40 Z4
CAT50 Z4, Z5
DIN69871-40 Z4
DIN69871-50 Z4, Z5
HSKA63 Z4
HSKA80 Z4, Z5
HSKA100 Z4, Z5

Modular Damping System for Shell Mills

» Damping unit reduces vibration in long reach milling applications.

» Fully compatible with all InnoFit holders and extensions.

» Modular Innofit connection features 3-point clamping for maximum rigidity.

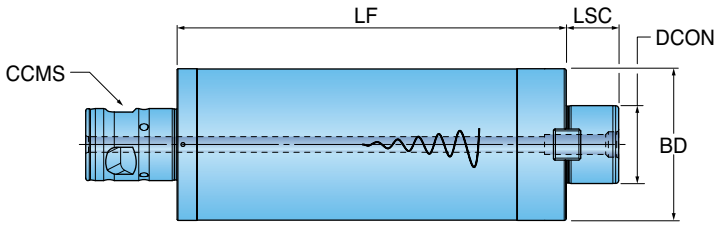
» Suitable for use with 2"–6" (50 mm–160 mm) cutter bodies.

View the full line »

WINSFEED™ ADVANCED MACHINING

Series Z_SM_UA

ANTI-VIBRATION SHELL MILL ADAPTER FOR INNOFIT MODULAR SYSTEM



Part Number	CCMS Connection Code Machine Side	DCON Pilot Diameter	LF Functional Length	BD Body Diameter	LSC Clamping Length
INCH					
Z4SM07UA-59	Z4	0.750	5.900	1.929	0.68
Z4SM07UA-78	Z4	0.750	7.870	2.400	0.68
Z4SM10UA-78	Z4	1.000	7.870	2.400	0.68
Z5SM10UA-78	Z5	1.000	7.870	3.070	0.68
Z5SM10UB-78	Z5	1.000	7.870	2.900	0.68
Z5SM12UA-78	Z5	1.250	7.870	3.070	0.68
Z5SM15UA-78	Z5	1.500	7.870	3.070	0.94
METRIC					
Z4SM22UA150	Z4	22 mm	150 mm	49 mm	19 mm
Z4SM22UA200	Z4	22 mm	200 mm	61 mm	19 mm
Z4SM27UA200	Z4	27 mm	200 mm	61 mm	21 mm
Z5SM27UA200	Z5	27 mm	200 mm	78 mm	21 mm
Z5SM32UA200	Z5	32 mm	200 mm	78 mm	24 mm
Z5SM40UA200	Z5	40 mm	200 mm	78 mm	27 mm

TWISTSFEED™

HOLEMAKING

Diameter Range

0.4724-1.0197" NEW
12.0-25.9 mm

Bodies

3xD, 5xD, **8xD** NEW
Universal Flat
Cylindrical

Geometries

3-Flute
FPC (Self-Centering)
FPF (Flat Bottom) NEW

Grade

IN2205

Materials

- Steel
- Cast Iron

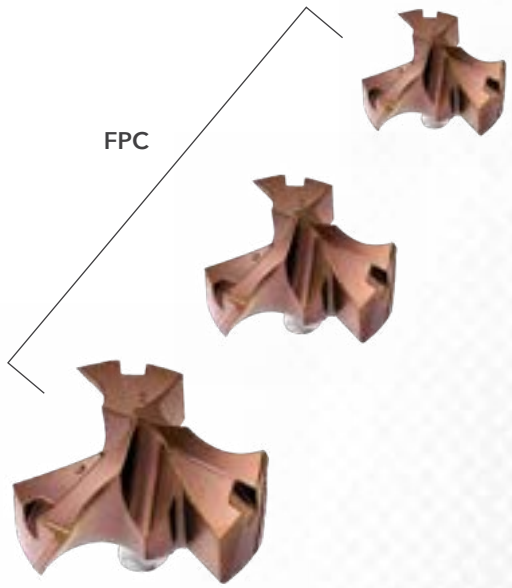
New 8xD Bodies, Diameter Range Expansion, and Flat Bottom Tips

» New, larger diameter range: 0.4724"-1.0197" (12.0-25.9 mm).

» New, 8xD body expansion following existing 3xD and 5xD bodies.

» Self-centering geometry for excellent hole precision and surface finish.

» Quick-change clamping system reduces downtime.



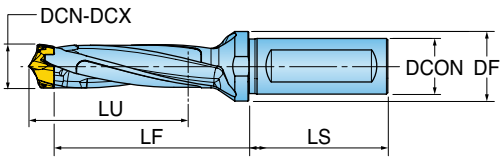
View the full line »

SFEEDUP™ HIGH SPEED & FEED EXPANSION

Drilling Coolant

3xD • Series FD

UNIVERSAL FLAT SHANK

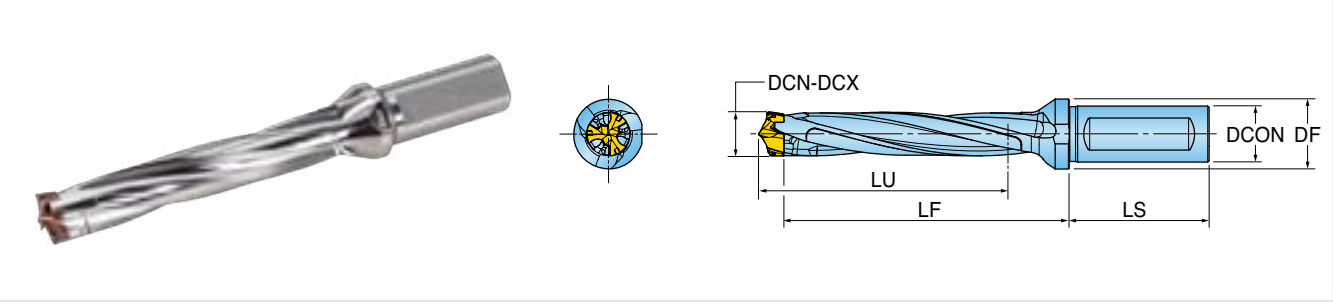


Part Number	DCN Cutting Dia. Min. INCH (MM)	DCX Cutting Dia. Max. INCH (MM)	SSC Seat Size Code	LU Usable Length	LF Functional Length	LS Shank Length	DCON Shank Dia.	DF Flange Dia.	Clamping Key
FD1200036C0R01	0.4724 (12.00 mm)	0.4882 (12.40 mm)	12	1.58	2.13	1.89	0.625	0.79	KFD12-13
FD1250038C0R01	0.4921 (12.50 mm)	0.5079 (12.90 mm)	12.5	1.63	2.20	1.89	0.625	0.79	KFD12-13
NEW FD130039C0R01	0.5118 (13.00 mm)	0.5276 (13.40 mm)	13	1.69	2.26	1.89	0.625	0.79	KFD12-13
FD1350041C0R01	0.5315 (13.50 mm)	0.5472 (13.90 mm)	13.5	1.75	2.34	1.89	0.625	0.79	KFD12-13
FD1400042C0R01	0.5512 (14.00 mm)	0.5669 (14.40 mm)	14	1.81	2.40	1.89	0.625	0.79	KFD14-15
FD1450044C0R01	0.5709 (14.50 mm)	0.5866 (14.90 mm)	14.5	1.87	2.47	1.89	0.625	0.79	KFD14-15
FD150004518R01	0.5906 (15.00 mm)	0.6260 (15.90 mm)	15	1.93	2.58	1.97	0.750	0.98	KFD14-15
FD160004818R01	0.6299 (16.00 mm)	0.6654 (16.90 mm)	16	2.05	2.76	1.97	0.750	0.98	KFD16-17
FD170005118R01	0.6693 (17.00 mm)	0.7047 (17.90 mm)	17	2.17	2.93	1.97	0.750	0.98	KFD16-17
FD1800054C8R01	0.7087 (18.00 mm)	0.7441 (18.90 mm)	18	2.28	3.15	2.20	1.000	1.26	KFD18-19
FD1900057C8R01	0.7480 (19.00 mm)	0.7835 (19.90 mm)	19	2.40	3.31	2.20	1.000	1.26	KFD18-19
FD2000060C8R01	0.7874 (20.00 mm)	0.8228 (20.90 mm)	20	2.52	3.46	2.20	1.000	1.26	KFD20-21
FD2100063C8R01	0.8270 (21.00 mm)	0.8622 (21.90 mm)	21	2.64	3.62	2.20	1.000	1.26	KFD20-21
FD2200066C8R01	0.8661 (22.00 mm)	0.9026 (22.90 mm)	22	2.76	3.78	2.20	1.000	1.26	KFD22-23
NEW FD2300069B7R01	0.9060 (23.00 mm)	0.9410 (23.90 mm)	23	2.87	3.94	2.36	1.250	1.65	KFD22-23
FD2400072B7R01	0.9450 (24.00 mm)	0.9803 (24.90 mm)	24	2.99	4.09	2.36	1.250	1.65	KFD24-25
FD2500075B7R01	0.9843 (25.00 mm)	1.0197 (25.90 mm)	25	3.11	4.25	2.36	1.250	1.65	KFD24-25

Drilling Coolant

5xD • Series FD

UNIVERSAL FLAT SHANK

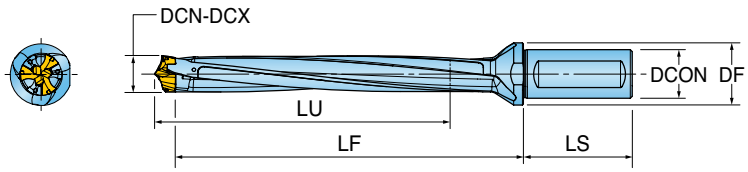


Part Number	DCN Cutting Dia. Min. INCH (MM)	DCX Cutting Dia. Max. INCH (MM)	SSC Seat Size Code	LU Usable Length	LF Functional Length	LS Shank Length	DCON Shank Dia.	DF Flange Dia.	Clamping Key
FD1200060C0R01	0.4724 (12.00 mm)	0.4882 (12.40 mm)	12	2.52	3.07	1.89	0.625	0.79	KFD12-13
FD1250063C0R01	0.4921 (12.50 mm)	0.5079 (12.90 mm)	12.5	2.62	3.18	1.89	0.625	0.79	KFD12-13
NEW FD1300065C0R01	0.5118 (13.00 mm)	0.5276 (13.40 mm)	13	2.72	3.29	1.89	0.625	0.79	KFD12-13
FD1350068C0R01	0.5315 (13.50 mm)	0.5472 (13.90 mm)	13.5	2.82	3.40	1.89	0.625	0.79	KFD12-13
FD1400070C0R01	0.5512 (14.00 mm)	0.5669 (14.40 mm)	14	2.91	3.50	1.89	0.625	0.79	KFD14-15
FD1450073C0R01	0.5709 (14.50 mm)	0.5866 (14.90 mm)	14.5	3.01	3.61	1.89	0.625	0.79	KFD14-15
FD150007518R01	0.5906 (15.00 mm)	0.6260 (15.90 mm)	15	3.11	3.76	1.97	0.750	0.98	KFD14-15
FD160008018R01	0.6299 (16.00 mm)	0.6654 (16.90 mm)	16	3.31	4.02	1.97	0.750	0.98	KFD16-17
FD170008518R01	0.6693 (17.00 mm)	0.6693 (17.90 mm)	17	3.50	4.27	1.97	0.750	0.98	KFD16-17
FD1800090C8R01	0.7087 (18.00 mm)	0.7441 (18.90 mm)	18	3.70	4.57	2.20	1.000	1.26	KFD18-19
FD1900095C8R01	0.7480 (19.00 mm)	0.7835 (19.90 mm)	19	3.90	4.80	2.20	1.000	1.26	KFD18-19
FD2000100C8R01	0.7874 (20.00 mm)	0.8228 (20.90 mm)	20	4.09	5.04	2.20	1.000	1.26	KFD20-21
FD2100105C8R01	0.8270 (21.00 mm)	0.8620 (21.90 mm)	21	4.29	5.28	2.20	1.000	1.26	KFD20-21
FD2200110C8R01	0.8661 (22.00 mm)	0.9026 (22.90 mm)	22	4.49	5.51	2.20	1.000	1.26	KFD22-23
NEW FD2300115B7R01	0.9060 (23.00 mm)	0.9410 (23.90 mm)	23	4.69	5.75	2.36	1.250	1.65	KFD22-23
FD2400120B7R01	0.9450 (24.00 mm)	0.9803 (24.90 mm)	24	4.88	5.98	2.36	1.250	1.65	KFD24-25
FD2500125B7R01	0.9843 (25.00 mm)	1.0197 (25.90 mm)	25	5.08	6.22	2.36	1.250	1.65	KFD24-25

Drilling Coolant

8xD • Series FD NEW

UNIVERSAL FLAT SHANK

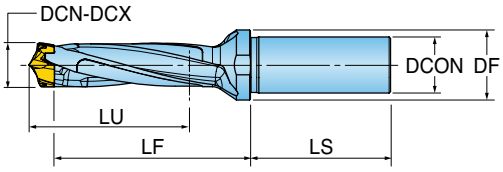


Part Number	DCN Cutting Dia. Min. INCH (MM)	DCX Cutting Dia. Max. INCH (MM)	SSC Seat Size Code	LU Usable Length	LF Functional Length	LS Shank Length	DCON Shank Dia.	DF Flange Dia.	Clamping Key
FD1200096C0R01	0.4724 (12.00 mm)	0.4882 (12.40 mm)	12	3.94	4.49	1.89	0.625	0.79	KFD12-13
FD1250100C0R01	0.4921 (12.50 mm)	0.5079 (12.90 mm)	12.5	4.09	4.66	1.89	0.625	0.79	KFD12-13
FD1300104C0R01	0.5118 (13.00 mm)	0.5276 (13.40 mm)	13	4.25	4.82	1.89	0.625	0.79	KFD12-13
FD1350108C0R01	0.5315 (13.50 mm)	0.5472 (13.90 mm)	13.5	4.41	4.99	1.89	0.625	0.79	KFD12-13
FD1400112C0R01	0.5512 (14.00 mm)	0.5669 (14.40 mm)	14	4.57	5.16	1.89	0.625	0.79	KFD14-15
FD1450116C0R01	0.5709 (14.50 mm)	0.5866 (14.90 mm)	14.5	4.72	5.33	1.89	0.625	0.79	KFD14-15
FD150012018R01	0.5906 (15.00 mm)	0.6260 (15.90 mm)	15	4.88	5.53	1.97	0.750	0.98	KFD14-15
FD160012818R01	0.6299 (16.00 mm)	0.6654 (16.90 mm)	16	5.20	5.91	1.97	0.750	0.98	KFD16-17
FD170013618R01	0.6693 (17.00 mm)	0.6693 (17.90 mm)	17	5.51	6.28	1.97	0.750	0.98	KFD16-17
FD1800144C8R01	0.7087 (18.00 mm)	0.7441 (18.90 mm)	18	5.83	6.69	2.20	1.000	1.26	KFD18-19
FD1900152C8R01	0.7480 (19.00 mm)	0.7835 (19.90 mm)	19	6.14	7.05	2.20	1.000	1.26	KFD18-19
FD2000160C8R01	0.7874 (20.00 mm)	0.8228 (20.90 mm)	20	6.46	7.40	2.20	1.000	1.26	KFD20-21
FD2100168C8R01	0.8270 (21.00 mm)	0.8620 (21.90 mm)	21	6.77	7.76	2.20	1.000	1.26	KFD20-21
FD2200176C8R01	0.8661 (22.00 mm)	0.9026 (22.90 mm)	22	7.09	8.11	2.20	1.000	1.26	KFD22-23
FD2300184B7R01	0.9060 (23.00 mm)	0.9410 (23.90 mm)	23	7.40	8.46	2.36	1.250	1.65	KFD22-23
FD2400192B7R01	0.9450 (24.00 mm)	0.9803 (24.90 mm)	24	7.72	8.82	2.36	1.250	1.65	KFD24-25
FD2500200B7R01	0.9843 (25.00 mm)	1.0197 (25.90 mm)	25	8.03	9.17	2.36	1.250	1.65	KFD24-25

Drilling Coolant

3xD • Series FD

CYLINDRICAL SHANK

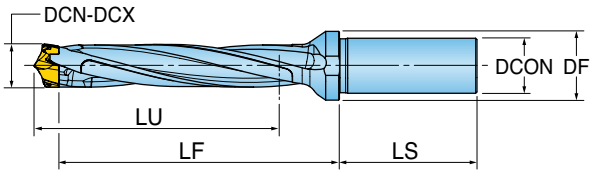


Part Number	DCN Cutting Dia. Min. INCH (MM)	DCX Cutting Dia. Max. INCH (MM)	SSC Seat Size Code	LU Usable Length	LF Functional Length	LS Shank Length	DCON Shank Dia.	DF Flange Dia.	Clamping Key
FD1200036S6R01	0.4724 (12.00 mm)	0.4882 (12.40 mm)	12	1.58	2.13	1.89	0.625	0.79	KFD12-13
FD1250038S6R01	0.4921 (12.50 mm)	0.5079 (12.90 mm)	12.5	1.63	2.20	1.89	0.625	0.79	KFD12-13
NEW FD1300039S6R01	0.5118 (13.00 mm)	0.5276 (13.40 mm)	13	1.69	2.26	1.89	0.625	0.79	KFD12-13
FD1350041S6R01	0.5315 (13.50 mm)	0.5472 (13.90 mm)	13.5	1.75	2.34	1.89	0.625	0.79	KFD12-13
FD1400042S6R01	0.5512 (14.00 mm)	0.5669 (14.40 mm)	14	1.81	2.40	1.89	0.625	0.79	KFD14-15
FD1450044S6R01	0.5709 (14.50 mm)	0.5866 (14.90 mm)	14.5	1.87	2.47	1.89	0.625	0.79	KFD14-15
FD1500045S7R01	0.5906 (15.00 mm)	0.6260 (15.90 mm)	15	1.93	2.58	1.97	0.750	0.98	KFD14-15
FD1600048S7R01	0.6299 (16.00 mm)	0.6654 (16.90 mm)	16	2.05	2.76	1.97	0.750	0.98	KFD16-17
FD1700051S7R01	0.6693 (17.00 mm)	0.6693 (17.90 mm)	17	2.17	2.93	1.97	0.750	0.98	KFD16-17
FD1800054S1R01	0.7087 (18.00 mm)	0.7441 (18.90 mm)	18	2.28	3.15	2.20	1.000	1.26	KFD18-19
FD1900057S1R01	0.7480 (19.00 mm)	0.7835 (19.90 mm)	19	2.40	3.31	2.20	1.000	1.26	KFD18-19
FD2000060S1R01	0.7874 (20.00 mm)	0.8228 (20.90 mm)	20	2.52	3.46	2.20	1.000	1.26	KFD20-21
FD2100063S1R01	0.8270 (21.00 mm)	0.8620 (21.90 mm)	21	2.64	3.62	2.20	1.000	1.26	KFD20-21
FD2200066S1R01	0.8661 (22.00 mm)	0.9026 (22.90 mm)	22	2.76	3.78	2.20	1.000	1.26	KFD22-23
NEW FD2300069S9R01	0.9060 (23.00 mm)	0.9410 (23.90 mm)	23	2.87	3.94	2.36	1.250	1.65	KFD22-23
FD2400072S9R01	0.9450 (24.00 mm)	0.9803 (24.90 mm)	24	2.99	4.10	2.36	1.250	1.65	KFD24-25
FD2500075S9R01	0.9843 (25.00 mm)	1.0197 (25.90 mm)	25	3.11	4.25	2.36	1.250	1.65	KFD24-25

Drilling Coolant

5xD • Series FD

CYLINDRICAL SHANK

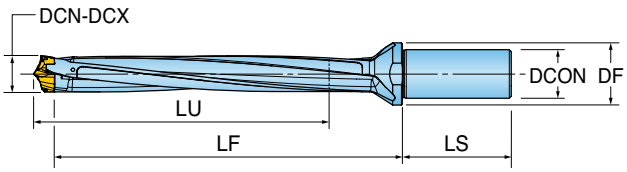


Part Number	DCN Cutting Dia. Min. INCH (MM)	DCX Cutting Dia. Max. INCH (MM)	SSC Seat Size Code	LU Usable Length	LF Functional Length	LS Shank Length	DCON Shank Dia.	DF Flange Dia.	Clamping Key
FD1200060S6R01	0.4724 (12.00 mm)	0.4882 (12.40 mm)	12	2.52	3.07	1.89	0.625	0.79	KFD12-13
FD1250063S6R01	0.4921 (12.50 mm)	0.5079 (12.90 mm)	12.5	2.62	3.18	1.89	0.625	0.79	KFD12-13
NEW FD1300065S6R01	0.5118 (13.00 mm)	0.5276 (13.40 mm)	13	2.72	3.29	1.89	0.625	0.79	KFD12-13
FD1350068S6R01	0.5315 (13.50 mm)	0.5472 (13.90 mm)	13.5	2.82	3.40	1.89	0.625	0.79	KFD12-13
FD1400070S6R01	0.5512 (14.00 mm)	0.5669 (14.40 mm)	14	2.91	3.5	1.89	0.625	0.79	KFD14-15
FD1450073S6R01	0.5709 (14.50 mm)	0.5866 (14.90 mm)	14.5	3.01	3.61	1.89	0.625	0.79	KFD14-15
FD1500075S7R01	0.5906 (15.00 mm)	0.6260 (15.90 mm)	15	3.11	3.76	1.97	0.750	0.98	KFD14-15
FD1600080S7R01	0.6299 (16.00 mm)	0.6654 (16.90 mm)	16	3.31	4.02	1.97	0.750	0.98	KFD16-17
FD1700085S7R01	0.6693 (17.00 mm)	0.6693 (17.90 mm)	17	3.50	4.27	1.97	0.750	0.98	KFD16-17
FD1800090S1R01	0.7087 (18.00 mm)	0.7441 (18.90 mm)	18	3.70	4.57	2.20	1.000	1.26	KFD18-19
FD1900095S1R01	0.7480 (19.00 mm)	0.7835 (19.90 mm)	19	3.90	4.8	2.20	1.000	1.26	KFD18-19
FD2000100S1R01	0.7874 (20.00 mm)	0.8228 (20.90 mm)	20	4.09	5.04	2.20	1.000	1.26	KFD20-21
FD2100105S1R01	0.8270 (21.00 mm)	0.8620 (21.90 mm)	21	4.29	5.28	2.20	1.000	1.26	KFD20-21
FD2200110S1R01	0.8661 (22.00 mm)	0.9026 (22.90 mm)	22	4.49	5.51	2.20	1.000	1.26	KFD22-23
NEW FD2300115S9R01	0.9060 (23.00 mm)	0.9410 (23.90 mm)	23	4.69	5.75	2.36	1.250	1.65	KFD22-23
FD2400120S9R01	0.9450 (24.00 mm)	0.9803 (24.90 mm)	24	4.88	5.98	2.36	1.250	1.65	KFD24-25
FD2500125S9R01	0.9843 (25.00 mm)	1.0197 (25.90 mm)	25	5.08	6.22	2.36	1.250	1.65	KFD24-25

Drilling Coolant

8xD • Series FD NEW

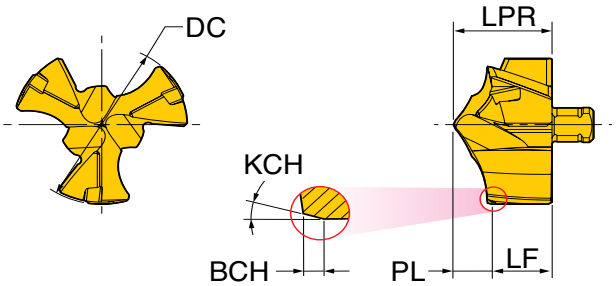
CYLINDRICAL SHANK



Part Number	DCN Cutting Dia. Min. INCH (MM)	DCX Cutting Dia. Max. INCH (MM)	SSC Seat Size Code	LU Usable Length	LF Functional Length	LS Shank Length	DCON Shank Dia.	DF Flange Dia.	Clamping Key
FD1200096S6R01	0.4724 (12.00 mm)	0.4882 (12.40 mm)	12	3.94	4.49	1.89	0.625	0.79	KFD12-13
FD1250100S6R01	0.4921 (12.50 mm)	0.5079 (12.90 mm)	12.5	4.09	4.66	1.89	0.625	0.79	KFD12-13
FD1300104S6R01	0.5118 (13.00 mm)	0.5276 (13.40 mm)	13	4.25	4.82	1.89	0.625	0.79	KFD12-13
FD1350108S6R01	0.5315 (13.50 mm)	0.5472 (13.90 mm)	13.5	4.41	4.99	1.89	0.625	0.79	KFD12-13
FD1400112S6R01	0.5512 (14.00 mm)	0.5669 (14.40 mm)	14	4.57	5.16	1.89	0.625	0.79	KFD14-15
FD1450116S6R01	0.5709 (14.50 mm)	0.5866 (14.90 mm)	14.5	4.72	5.34	1.89	0.625	0.79	KFD14-15
FD1500120S7R01	0.5906 (15.00 mm)	0.6260 (15.90 mm)	15	4.88	5.53	1.97	0.750	0.98	KFD14-15
FD1600128S7R01	0.6299 (16.00 mm)	0.6654 (16.90 mm)	16	5.20	5.91	1.97	0.750	0.98	KFD16-17
FD1700136S7R01	0.6693 (17.00 mm)	0.6693 (17.90 mm)	17	5.51	6.28	1.97	0.750	0.98	KFD16-17
FD1800144S1R01	0.7087 (18.00 mm)	0.7441 (18.90 mm)	18	5.83	6.69	2.20	1.000	1.26	KFD18-19
FD1900152S1R01	0.7480 (19.00 mm)	0.7835 (19.90 mm)	19	6.14	7.05	2.20	1.000	1.26	KFD18-19
FD2000160S1R01	0.7874 (20.00 mm)	0.8228 (20.90 mm)	20	6.46	7.40	2.20	1.000	1.26	KFD20-21
FD2100168S1R01	0.8270 (21.00 mm)	0.8620 (21.90 mm)	21	6.77	7.76	2.20	1.000	1.26	KFD20-21
FD2200176S1R01	0.8661 (22.00 mm)	0.9026 (22.90 mm)	22	7.09	8.11	2.20	1.000	1.26	KFD22-23
FD2300184S9R01	0.9060 (23.00 mm)	0.9410 (23.90 mm)	23	7.40	8.46	2.36	1.250	1.65	KFD22-23
FD2400192S9R01	0.9450 (24.00 mm)	0.9803 (24.90 mm)	24	7.72	8.82	2.36	1.250	1.65	KFD24-25
FD2500200S9R01	0.9843 (25.00 mm)	1.0197 (25.90 mm)	25	8.03	9.17	2.36	1.250	1.65	KFD24-25

Series FPC

3-FLUTE DRILL TIPS • SELF-CENTERING

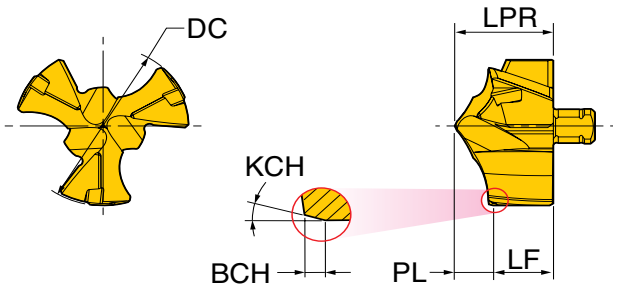


Part Number	DC Cutting Diameter INCH (MM)	SSC Seat Size Code	PL Point Length	LPR Projection Length	LF Functional Length	BCH Chamfer Length	KCH Chamfer Angle	Grade IN2205
FPC1200R01	0.4724 (12.00 mm)	12	0.108	0.264	0.156	0.016	15	•
FPC1210R01	0.4764 (12.10 mm)	12	0.108	0.264	0.156	0.016	15	•
FPC1220R01	0.4803 (12.20 mm)	12	0.108	0.264	0.156	0.016	15	•
FPC1230R01	0.4843 (12.30 mm)	12	0.108	0.264	0.156	0.016	15	•
FPC1240R01	0.4882 (12.40 mm)	12	0.108	0.264	0.156	0.016	15	•
FPC1250R01	0.4921 (12.50 mm)	12.5	0.109	0.264	0.155	0.016	15	•
FPC1260R01	0.4961 (12.60 mm)	12.5	0.109	0.264	0.155	0.016	15	•
FPC1270R01	0.5000 (12.70 mm)	12.5	0.109	0.264	0.155	0.016	15	•
FPC1280R01	0.5039 (12.80 mm)	12.5	0.109	0.264	0.155	0.016	15	•
FPC1290R01	0.5079 (12.90 mm)	12.5	0.109	0.264	0.155	0.016	15	•
FPC1300R01	0.5118 (13.00 mm)	13	0.115	0.287	0.173	0.016	15	•
FPC1310R01	0.5157 (13.10 mm)	13	0.115	0.287	0.173	0.016	15	•
FPC1320R01	0.5197 (13.20 mm)	13	0.115	0.287	0.173	0.016	15	•
FPC1330R01	0.5236 (13.30 mm)	13	0.115	0.287	0.173	0.016	15	•
FPC1340R01	0.5276 (13.40 mm)	13	0.115	0.287	0.172	0.016	15	•
FPC1350R01	0.5315 (13.50 mm)	13.5	0.115	0.287	0.172	0.016	15	•
FPC1360R01	0.5354 (13.60 mm)	13.5	0.115	0.287	0.172	0.016	15	•
NEW FPC1370R01	0.5394 (13.70 mm)	13.5	0.115	0.287	0.172	0.016	15	•
FPC1380R01	0.5433 (13.80 mm)	13.5	0.115	0.287	0.172	0.016	15	•
FPC1390R01	0.5472 (13.90 mm)	13.5	0.115	0.287	0.172	0.016	15	•
FPC1400R01	0.5512 (14.00 mm)	14	0.125	0.311	0.186	0.016	15	•
FPC1410R01	0.5551 (14.10 mm)	14	0.125	0.311	0.186	0.016	15	•
FPC1420R01	0.5591 (14.20 mm)	14	0.125	0.311	0.186	0.016	15	•
FPC1429R01	0.5625 (14.29 mm)	14	0.125	0.311	0.186	0.016	15	•
FPC1430R01	0.5630 (14.30 mm)	14	0.125	0.311	0.186	0.016	15	•
FPC1440R01	0.5669 (14.40 mm)	14	0.125	0.311	0.186	0.016	15	•
FPC1450R01	0.5709 (14.50 mm)	14.5	0.125	0.311	0.186	0.016	15	•
FPC1460R01	0.5748 (14.60 mm)	14.5	0.125	0.311	0.186	0.016	15	•
FPC1470R01	0.5787 (14.70 mm)	14.5	0.125	0.311	0.186	0.016	15	•
FPC1480R01	0.5827 (14.80 mm)	14.5	0.125	0.311	0.186	0.016	15	•
FPC1490R01	0.5866 (14.90 mm)	14.5	0.125	0.311	0.186	0.016	15	•
FPC1500R01	0.5906 (15.00 mm)	15	0.130	0.331	0.200	0.020	30	•
FPC1510R01	0.5945 (15.10 mm)	15	0.130	0.331	0.200	0.020	30	•
FPC1520R01	0.5984 (15.20 mm)	15	0.130	0.331	0.200	0.020	30	•
FPC1530R01	0.6024 (15.30 mm)	15	0.130	0.331	0.200	0.020	30	•
FPC1540R01	0.6063 (15.40 mm)	15	0.130	0.331	0.200	0.020	30	•

Continued on next page

Series FPC (continued)

3-FLUTE DRILL TIPS • SELF-CENTERING

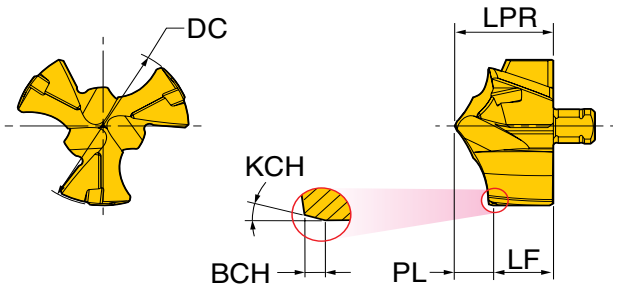


Part Number	DC Cutting Diameter INCH (MM)	SSC Seat Size Code	PL Point Length	LPR Projection Length	LF Functional Length	BCH Chamfer Length	KCH Chamfer Angle	Grade IN2205
FPC1550R01	0.6102 (15.50 mm)	15	0.131	0.331	0.200	0.020	30	•
FPC1560R01	0.6142 (15.60 mm)	15	0.131	0.331	0.200	0.020	30	•
FPC1570R01	0.6181 (15.70 mm)	15	0.131	0.331	0.200	0.020	30	•
FPC1580R01	0.6220 (15.80 mm)	15	0.131	0.331	0.200	0.020	30	•
FPC1588R01	0.6250 (15.88 mm)	15	0.131	0.331	0.200	0.020	30	•
FPC1590R01	0.6260 (15.90 mm)	15	0.131	0.331	0.200	0.020	30	•
FPC1600R01	0.6299 (16.00 mm)	16	0.146	0.354	0.208	0.028	30	•
FPC1610R01	0.6339 (16.10 mm)	16	0.146	0.354	0.208	0.028	30	•
FPC1620R01	0.6378 (16.20 mm)	16	0.146	0.354	0.208	0.028	30	•
FPC1630R01	0.6417 (16.30 mm)	16	0.146	0.354	0.208	0.028	30	•
FPC1640R01	0.6457 (16.40 mm)	16	0.146	0.354	0.208	0.028	30	•
FPC1650R01	0.6496 (16.50 mm)	16	0.146	0.354	0.208	0.028	30	•
FPC1660R01	0.6535 (16.60 mm)	16	0.146	0.354	0.208	0.028	30	•
FPC1670R01	0.6575 (16.70 mm)	16	0.146	0.354	0.208	0.028	30	•
FPC1680R01	0.6614 (16.80 mm)	16	0.146	0.354	0.208	0.028	30	•
FPC1690R01	0.6654 (16.90 mm)	16	0.146	0.354	0.208	0.028	30	•
FPC1700R01	0.6693 (17.00 mm)	17	0.154	0.374	0.221	0.028	30	•
FPC1710R01	0.6732 (17.10 mm)	17	0.154	0.374	0.221	0.028	30	•
FPC1720R01	0.6772 (17.20 mm)	17	0.154	0.374	0.221	0.028	30	•
FPC1730R01	0.6811 (17.30 mm)	17	0.154	0.374	0.221	0.028	30	•
FPC1740R01	0.6850 (17.40 mm)	17	0.154	0.374	0.221	0.028	30	•
FPC1746R01	0.6875 (17.46 mm)	17	0.154	0.374	0.221	0.028	30	•
FPC1750R01	0.6890 (17.50 mm)	17	0.153	0.374	0.221	0.028	30	•
FPC1760R01	0.6929 (17.60 mm)	17	0.153	0.374	0.221	0.028	30	•
FPC1770R01	0.6968 (17.70 mm)	17	0.153	0.374	0.221	0.028	30	•
FPC1780R01	0.7008 (17.80 mm)	17	0.153	0.374	0.221	0.028	30	•
FPC1790R01	0.7047 (17.90 mm)	17	0.153	0.374	0.221	0.028	30	•
FPC1800R01	0.7087 (18.00 mm)	18	0.160	0.398	0.237	0.028	30	•
FPC1810R01	0.7126 (18.10 mm)	18	0.160	0.398	0.237	0.028	30	•
FPC1820R01	0.7165 (18.20 mm)	18	0.160	0.398	0.237	0.028	30	•
FPC1830R01	0.7205 (18.30 mm)	18	0.160	0.398	0.237	0.028	30	•
FPC1840R01	0.7244 (18.40 mmv	18	0.160	0.398	0.237	0.028	30	•
FPC1850R01	0.7283 (18.50 mm)	18	0.161	0.398	0.237	0.028	30	•
FPC1860R01	0.7323 (18.60 mm)	18	0.161	0.398	0.237	0.028	30	•
FPC1870R01	0.7362 (18.70 mm)	18	0.161	0.398	0.237	0.028	30	•
FPC1880R01	0.7402 (18.80 mm)	18	0.161	0.398	0.237	0.028	30	•

NEW

Series FPC (continued)

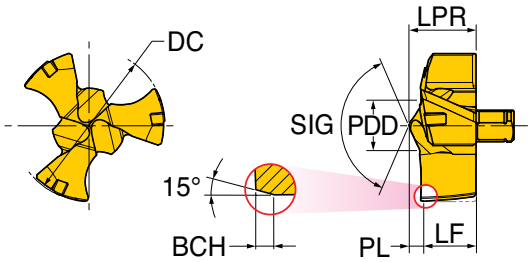
3-FLUTE DRILL TIPS • SELF-CENTERING



Part Number	DC Cutting Diameter INCH (MM)	SSC Seat Size Code	PL Point Length	LPR Projection Length	LF Functional Length	BCH Chamfer Length	KCH Chamfer Angle	Grade IN2205
FPC1890R01	0.7441 (18.90 mm)	18	0.161	0.398	0.237	0.028	30	•
FPC1900R01	0.7480 (19.00 mm)	19	0.168	0.421	0.254	0.028	30	•
FPC1905R01	0.7500 (19.05 mm)	19	0.168	0.421	0.254	0.028	30	•
FPC1910R01	0.7520 (19.10 mm)	19	0.168	0.421	0.254	0.028	30	•
FPC1920R01	0.7559 (19.20 mm)	19	0.168	0.421	0.254	0.028	30	•
FPC1930R01	0.7598 (19.30 mm)	19	0.168	0.421	0.254	0.028	30	•
FPC1940R01	0.7638 (19.40 mm)	19	0.168	0.421	0.254	0.028	30	•
FPC1950R01	0.7677 (19.50 mm)	19	0.168	0.421	0.253	0.028	30	•
FPC1960R01	0.7717 (19.60 mm)	19	0.168	0.421	0.253	0.028	30	•
FPC1970R01	0.7756 (19.70 mm)	19	0.168	0.421	0.253	0.028	30	•
FPC1980R01	0.7795 (19.80 mm)	19	0.168	0.421	0.253	0.028	30	•
FPC1990R01	0.7835 (19.90 mm)	19	0.168	0.421	0.253	0.028	30	•
FPC2000R01	0.7874 (20.00 mm)	20	0.175	0.445	0.270	0.028	30	•
FPC2010R01	0.7913 (20.10 mm)	20	0.175	0.445	0.270	0.028	30	•
FPC2020R01	0.7952 (20.20 mm)	20	0.175	0.445	0.270	0.028	30	•
FPC2030R01	0.7992 (20.30 mm)	20	0.175	0.445	0.270	0.028	30	•
FPC2040R01	0.8031 (20.40 mm)	20	0.175	0.445	0.270	0.028	30	•
FPC2050R01	0.8071 (20.50 mm)	20	0.175	0.445	0.270	0.028	30	•
FPC2060R01	0.8110 (20.60 mm)	20	0.175	0.445	0.270	0.028	30	•
FPC2070R01	0.8150 (20.70 mm)	20	0.175	0.445	0.270	0.028	30	•
FPC2080R01	0.8189 (20.80 mm)	20	0.175	0.445	0.270	0.028	30	•
FPC2090R01	0.8228 (20.90 mm)	20	0.175	0.445	0.270	0.028	30	•
FPC2100R01	0.8268 (21.00 mm)	21	0.182	0.465	0.283	0.016	15	•
FPC2150R01	0.8465 (21.50 mm)	21	0.182	0.465	0.282	0.016	15	•
FPC2200R01	0.8661 (22.00 mm)	22	0.180	0.488	0.308	0.016	15	•
FPC2222R01	0.8750 (22.22 mm)	22	0.180	0.488	0.308	0.016	15	•
NEW FPC2250R01	0.8858 (22.50 mm)	22	0.181	0.488	0.307	0.016	15	•
FPC2300R01	0.9055 (23.00 mm)	23	0.198	0.504	0.306	0.016	15	•
FPC2350R01	0.9252 (23.50 mm)	23	0.198	0.504	0.306	0.016	15	•
FPC2380R01	0.9370 (23.80 mm)	23	0.198	0.504	0.306	0.016	15	•
FPC2381R01	0.9375 (23.81 mm)	23	0.204	0.528	0.324	0.016	15	•
FPC2400R01	0.9449 (24.00 mm)	24	0.204	0.528	0.323	0.016	15	•
FPC2450R01	0.9646 (24.50 mm)	24	0.208	0.551	0.343	0.016	15	•
FPC2500R01	0.9843 (25.00 mm)	25	0.208	0.551	0.343	0.016	15	•
FPC2540R01	1.0000 (25.40 mm)	25	0.209	0.551	0.342	0.016	15	•
FPC2550R01	1.0039 (25.50 mm)	25	0.2086	0.551	0.342	0.016	15	•

Series FPF NEW

3-FLUTE DRILL TIPS • FLAT BOTTOM



Part Number	DC Cutting Diameter INCH (MM)	SSC Seat Size Code	PL Point Length	LPR Projection Length	LF Functional Length	BCH Chamfer Length	PDD Drill Point Dia.	SIG Point Angle	Grade IN2205
FPF1200R01	0.4724 (12.00 mm)	12	0.046	0.202	0.156	0.016	0.133	133	•
FPF1250R01	0.4921 (12.50 mm)	12.5	0.047	0.202	0.155	0.016	0.133	133	•
FPF1270R01	0.5000 (12.70 mm)	12.5	0.047	0.202	0.155	0.016	0.133	133	•
FPF1300R01	0.5118 (13.00 mm)	13	0.048	0.221	0.173	0.016	0.141	132	•
FPF1350R01	0.5315 (13.50 mm)	13.5	0.049	0.221	0.172	0.016	0.141	132	•
FPF1400R01	0.5512 (14.00 mm)	14	0.050	0.237	0.186	0.016	0.158	133	•
FPF1429R01	0.5625 (14.29 mm)	14	0.050	0.237	0.186	0.016	0.158	133	•
FPF1450R01	0.5709 (14.50 mm)	14.5	0.051	0.237	0.185	0.016	0.158	133	•
FPF1500R01	0.5906 (15.00 mm)	15	0.052	0.251	0.199	0.016	0.164	133	•
FPF1550R01	0.6102 (15.50 mm)	15	0.053	0.251	0.198	0.016	0.164	133	•
FPF1588R01	0.6250 (15.88 mm)	15	0.053	0.251	0.198	0.016	0.164	133	•
FPF1600R01	0.6299 (16.00 mm)	16	0.054	0.270	0.216	0.016	0.178	134	•
FPF1650R01	0.6496 (16.50 mm)	16	0.055	0.270	0.215	0.016	0.178	134	•
FPF1670R01	0.6575 (16.70 mm)	16	0.055	0.270	0.215	0.016	0.178	134	•
FPF1700R01	0.6693 (17.00 mm)	17	0.057	0.284	0.227	0.016	0.189	134	•
FPF1746R01	0.6874 (17.46 mm)	17	0.057	0.284	0.227	0.016	0.189	134	•
FPF1750R01	0.6890 (17.50 mm)	17	0.058	0.284	0.226	0.016	0.189	134	•
FPF1800R01	0.7087 (18.00 mm)	18	0.069	0.312	0.243	0.016	0.235	133	•
FPF1830R01	0.7205 (18.30 mm)	18	0.069	0.312	0.243	0.016	0.235	133	•
FPF1850R01	0.7283 (18.50 mm)	18	0.070	0.312	0.243	0.016	0.235	133	•
FPF1900R01	0.7480 (19.00 mm)	19	0.072	0.331	0.259	0.016	0.249	133	•
FPF1905R01	0.7500 (19.05 mm)	19	0.072	0.331	0.259	0.016	0.249	133	•
FPF1930R01	0.7598 (19.30 mm)	19	0.072	0.331	0.259	0.016	0.249	133	•
FPF1950R01	0.7677 (19.50 mm)	19	0.073	0.331	0.258	0.016	0.249	133	•
FPF2000R01	0.7874 (20.00 mm)	20	0.075	0.350	0.275	0.016	0.260	133	•
FPF2050R01	0.8071 (20.50 mm)	20	0.076	0.350	0.274	0.016	0.260	133	•
FPF2060R01	0.8110 (20.60 mm)	20	0.076	0.350	0.274	0.016	0.260	133	•
FPF2064R01	0.8125 (20.64 mm)	20	0.076	0.350	0.274	0.016	0.260	133	•
FPF2100R01	0.8268 (21.00 mm)	21	0.078	0.361	0.283	0.016	0.276	133	•
FPF2150R01	0.8465 (21.50 mm)	21	0.079	0.361	0.282	0.016	0.276	133	•
FPF2200R01	0.8661 (22.00 mm)	22	0.083	0.383	0.300	0.016	0.287	133	•
FPF2222R01	0.8750 (22.22 mm)	22	0.083	0.383	0.300	0.016	0.287	133	•
FPF2250R01	0.8858 (22.50 mm)	22	0.083	0.383	0.299	0.016	0.287	133	•
FPF2300R01	0.9055 (23.00 mm)	23	0.086	0.392	0.306	0.016	0.295	132	•
FPF2350R01	0.9252 (23.50 mm)	23	0.087	0.392	0.306	0.016	0.295	132	•
FPF2381R01	0.9375 (23.81 mm)	23	0.087	0.392	0.306	0.016	0.295	132	•
FPF2400R01	0.9449 (24.00 mm)	24	0.088	0.412	0.324	0.016	0.307	132	•
FPF2450R01	0.9645 (24.50 mm)	24	0.089	0.412	0.323	0.016	0.307	132	•
FPF2490R01	0.9803 (24.90 mm)	24	0.089	0.412	0.323	0.016	0.307	132	•
FPF2500R01	0.9843 (25.00 mm)	25	0.091	0.434	0.343	0.016	0.321	132	•
FPF2540R01	1.0000 (25.40 mm)	25	0.091	0.434	0.343	0.016	0.321	132	•
FPF2550R01	1.0039 (25.50 mm)	25	0.092	0.434	0.343	0.016	0.321	132	•

GOLD TWIST™

HOLEMAKING

Diameter Range

0.1575-0.2323"
4.00-5.90 mm NEW

Bodies

3xD
5xD
Cylindrical Shanks

Geometries

TPA - Steel

Grade

IN2505

Materials

Steel

TPA

Quick Change Drilling for Small Diameter Applications

- Improved productivity and reduced cost for small hole applications.
- No set-up due to quick change clamping.
- No tool length offsets required compared to reground solid carbide drills.

5xD

3xD

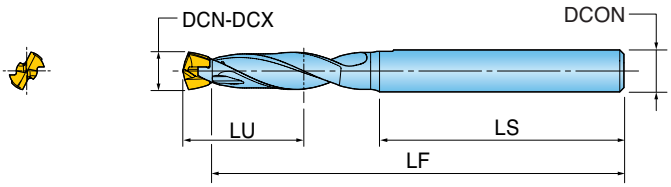
View the full line »

WINSFEED™ ADVANCED MACHINING

Drilling Coolant

3xD • Series TD

CYLINDRICAL SHANK

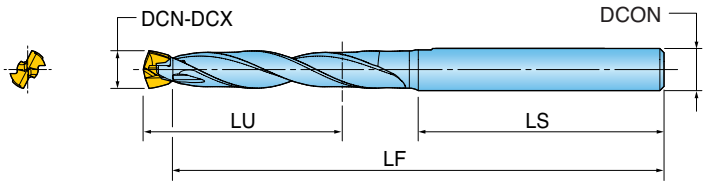


Part Number	DCN Cutting Dia. Min. INCH (MM)	DCX Cutting Dia. Max. INCH (MM)	SSC Seat Size Code	LU Usable Length	LF Functional Length	LS Shank Length	DCON Shank Dia.	Clamping Key
TD0400012R6R01	0.1575 (4.00 mm)	0.1732 (4.40 mm)	4	0.512	2.15	1.378	0.250	KTD4.0-4.9
TD0450014R6R01	0.1772 (4.50 mm)	0.1929 (4.90 mm)	4.5	0.551	2.21	1.378	0.250	KTD4.0-4.9
TD0500015R6R01	0.1969 (5.00 mm)	0.2126 (5.40 mm)	5	0.629	2.26	1.378	0.250	KTD5.0-5.9
TD0550017R6R01	0.2165 (5.50 mm)	0.2323 (5.90 mm)	5.5	0.669	2.34	1.378	0.250	KTD5.0-5.9

Drilling Coolant

5xD • Series TD

CYLINDRICAL SHANK

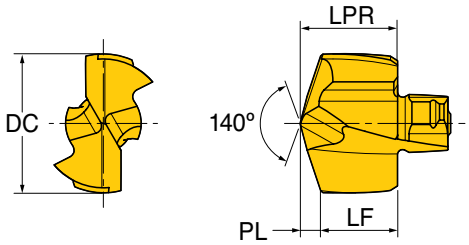


Part Number	DCN Cutting Dia. Min. INCH (MM)	DCX Cutting Dia. Max. INCH (MM)	SSC Seat Size Code	LU Usable Length	LF Functional Length	LS Shank Length	DCON Shank Dia.	Clamping Key
TD0400020R6R01	0.1575 (4.00 mm)	0.1732 (4.40 mm)	4	0.826	2.46	1.378	0.250	KTD4.0-4.9
TD0450023R6R01	0.1772 (4.50 mm)	0.1929 (4.90 mm)	4.5	0.905	2.56	1.378	0.250	KTD4.0-4.9
TD0500025R6R01	0.1969 (5.00 mm)	0.2126 (5.40 mm)	5	1.023	2.66	1.378	0.250	KTD5.0-5.9
TD0550028R6R01	0.2165 (5.50 mm)	0.2323 (5.90 mm)	5.5	1.102	2.76	1.378	0.250	KTD5.0-5.9

Drilling Coolant

Series TPA

REPLACEABLE TIPS



Part Number	DC Cutting Diameter INCH (MM)	SSC Seat Size Code	PL Point Length	LPR Projection Length	LF Functional Length	Grade IN2505
TPA0400R01	0.1575 (4.00 mm)	4	0.024	0.122	0.097	•
TPA0410R01	0.1614 (4.10 mm)	4	0.025	0.122	0.096	•
TPA0420R01	0.1654 (4.20 mm)	4	0.025	0.122	0.096	•
TPA0430R01	0.1693 (4.30 mm)	4	0.026	0.122	0.095	•
TPA0440R01	0.1732 (4.40 mm)	4	0.027	0.122	0.094	•
TPA0450R01	0.1772 (4.50 mm)	4.5	0.025	0.139	0.113	•
TPA0460R01	0.1811 (4.60 mm)	4.5	0.026	0.139	0.112	•
TPA0470R01	0.1850 (4.70 mm)	4.5	0.027	0.139	0.112	•
TPA0476R01	0.1875 (4.76 mm)	4.5	0.027	0.139	0.111	•
TPA0480R01	0.1889 (4.80 mm)	4.5	0.028	0.139	0.111	•
TPA0490R01	0.1929 (4.90 mm)	4.5	0.028	0.139	0.111	•
TPA0500R01	0.1969 (5.00 mm)	5	0.028	0.145	0.116	•
TPA0510R01	0.2008 (5.10 mm)	5	0.029	0.145	0.116	•
TPA0520R01	0.2047 (5.20 mm)	5	0.030	0.145	0.115	•
TPA0530R01	0.2087 (5.30 mm)	5	0.03	0.145	0.114	•
TPA0540R01	0.2126 (5.40 mm)	5	0.031	0.145	0.114	•
TPA0550R01	0.2165 (5.50 mm)	5.5	0.031	0.151	0.120	•
TPA0556R01	0.2188 (5.56 mm)	5.5	0.032	0.151	0.119	•
TPA0560R01	0.2205 (5.60 mm)	5.5	0.032	0.151	0.119	•
TPA0570R01	0.2244 (5.70 mm)	5.5	0.033	0.151	0.118	•
TPA0580R01	0.2283 (5.80 mm)	5.5	0.033	0.151	0.118	•
TPA0590R01	0.2323 (5.90 mm)	5.5	0.034	0.151	0.117	•

WINTWIST™

HOLEMAKING

Featuring TOPON™ adaption

Diameter Range

0.2362–0.8228"
6.0–20.9 mm

Body

3xD

Adaption

TopOn (M12)

Geometries

TPA - Steel
TMA - Stainless Steel
TKA - Cast Iron
TNA - Non-Ferrous
TPC (Self-Centering) - Steel/Cast Iron

Grades

IN2505
IN05S

Materials

- Steel
- Stainless Steel
- Cast Iron
- Non-Ferrous

Modular Quick Change Drilling with TopOn (M12) Adaption

» Accommodates a wide range of applications using the TopOn (M12) connection.

» Simplified set-up for Multi-Spindle and Swiss-type machines.

» Compatible with existing GoldTwist tips.

» Coolant thru.

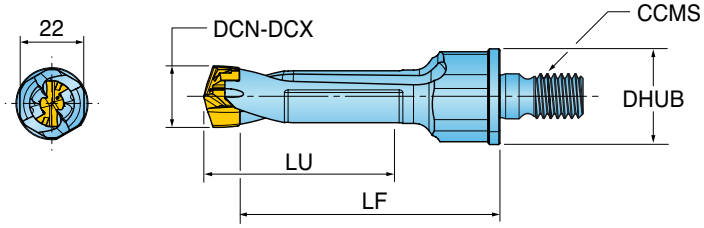
View the full line »

WINSFEED™ ADVANCED MACHINING

Drilling Coolant

3xD • Series TD_X7

TOPON



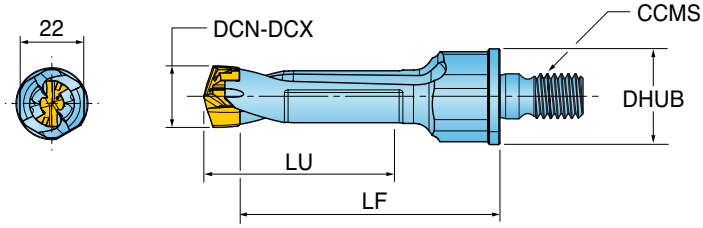
Part Number	DCN Cutting Dia. Min. INCH (MM)	DCX Cutting Dia. Max. INCH (MM)	SSC Seat Size Code	LU Usable Length	LF Functional Length	CCMS Conn. Code Machine Side	DHUB Hub Dia.	Clamping Key
TD0600018X7R00	0.2362 (6.00 mm)	0.2520 (6.40 mm)	6	0.7480	1.496	M12	.984	KTD6.0-9.9
TD0650020X7R00	0.2559 (6.50 mm)	0.2716 (6.90 mm)	6.5	0.8149	1.575	M12	.984	KTD6.0-9.9
TD0700021X7R00	0.2756 (7.00 mm)	0.2913 (7.40 mm)	7	0.8661	1.614	M12	.984	KTD6.0-9.9
TD0750023X7R00	0.2953 (7.50 mm)	0.3110 (7.90 mm)	7.5	0.9291	1.693	M12	.984	KTD6.0-9.9
TD0800024X7R00	0.3150 (8.00 mm)	0.3307 (8.40 mm)	8	0.9921	1.731	M12	.984	KTD6.0-9.9
TD0850026X7R00	0.3346 (8.50 mm)	0.3504 (8.90 mm)	8.5	1.0551	1.771	M12	.984	KTD6.0-9.9
TD0900027X7R00	0.3543 (9.00 mm)	0.3701 (9.40 mm)	9	1.1574	1.85	M12	.984	KTD6.0-9.9
TD0950029X7R00	0.3750 (9.50 mm)	0.3898 (9.80 mm)	9.5	1.1771	1.929	M12	.984	KTD6.0-9.9
TD1000030X7R00	0.3937 (10.00 mm)	0.4094 (10.40 mm)	10	1.2401	1.968	M12	.984	KTD10.0-19.9
TD1050032X7R00	0.4134 (10.50 mm)	0.4291 (10.90 mm)	10.5	1.3031	2.047	M12	.984	KTD10.0-19.9
TD1100033X7R00	0.4331 (11.00 mm)	0.4488 (11.40 mm)	11	1.3661	2.086	M12	.984	KTD10.0-19.9
TD1150035X7R00	0.4528 (11.50 mm)	0.4685 (11.90 mm)	11.5	1.4291	2.165	M12	.984	KTD10.0-19.9

Continued on next page

Drilling Coolant

3xD • Series TD_X7

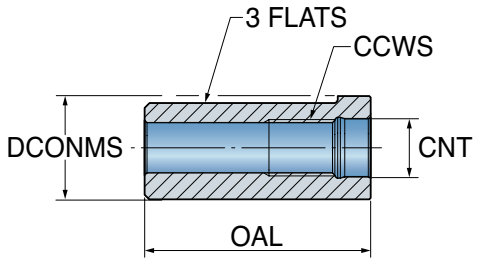
TOPON



Part Number	DCN Cutting Dia. Min. INCH (MM)	DCX Cutting Dia. Max. INCH (MM)	SSC Seat Size Code	LU Usable Length	LF Functional Length	CCMS Conn. Code Machine Side	DHUB Hub Dia.	Clamping Key
TD1200036X7R00	0.4724 (12.00 mm)	0.4882 (12.40 mm)	12	1.4881	2.204	M12	.984	KTD10.0-19.9
TD1250038X7R00	0.4921 (12.50 mm)	0.5079 (12.90 mm)	12.5	1.5511	2.243	M12	.984	KTD10.0-19.9
TD1300039X7R00	0.5118 (13.00 mm)	0.5276 (13.40 mm)	13	1.6141	2.323	M12	.984	KTD10.0-19.9
TD1350041X7R00	0.5315 (13.50 mm)	0.5472 (13.90 mm)	13.5	1.6771	2.401	M12	.984	KTD10.0-19.9
TD1400042X7R00	0.5512 (14.00 mm)	0.5570 (14.50 mm)	14	1.7362	2.442	M12	.984	KTD10.0-19.9
TD1450044X7R00	0.5709 (14.50 mm)	0.5866 (14.90 mm)	14.5	1.7992	2.521	M12	.984	KTD10.0-19.9
TD1500045X7R00	0.5906 (15.00 mm)	0.6260 (15.90 mm)	15	1.8622	2.557	M12	.984	KTD10.0-19.9
TD1600048X7R00	0.6299 (16.00 mm)	0.6654 (16.90 mm)	16	1.9842	2.677	M12	.984	KTD10.0-19.9
TD1700051X7R00	0.6693 (17.00 mm)	0.7047 (17.90 mm)	17	2.1102	2.795	M12	.984	KTD10.0-19.9
TD1800054X7R00	0.7087 (18.00 mm)	0.7441 (18.90 mm)	18	2.2322	2.913	M12	.984	KTD10.0-19.9
TD1900057X7R00	0.7480 (19.00 mm)	0.7835 (19.90 mm)	19	2.3582	3.031	M12	.984	KTD10.0-19.9
TD2000060X7R00	0.7874 (20.00 mm)	0.8228 (20.90 mm)	20	2.4803	3.149	M12	.984	KTD20.0-D26.9

Series TSL_X7

SHANK SLEEVE



Part Number	CCWS Conn. Code Workpiece Side	DCONMS Conn. Dia. Machine Side	OAL Overall Length	CNT Coolant Entry Thread Size
INCH				
TSL19.05-X7	M12	0.750	1.42	5/16 UNF
TSL25.4-X7	M12	1.000	2.13	G 1/8
METRIC				
TSL16-X7	M12	16.00 mm	1.42	5/16 UNF
TSL20-X7	M12	20.00 mm	1.42	G 1/8
TSL22-X7	M12	22.00 mm	1.89	G 1/8
TSL25-X7	M12	25.00 mm	2.13	G 1/8

WINTWIST™

HOLEMAKING

Featuring CHIPSURFER™ adaption

Diameter Range

0.2362–0.2520"
(6.00–6.40 mm)

0.3150–0.3307"
(8.00–8.40 mm)

0.3937–0.4094"
(10.00–10.40 mm)

Body

2xD

Adaptions

ChipSurfer T06 and T08

Geometries

TPA - Steel
TMA - Stainless Steel
TKA - Cast Iron
TNA - Non-Ferrous
TPC (Self-Centering) - Steel/Cast Iron

Grades

IN2505
IN05S

Materials

- Steel
- Stainless Steel
- Cast Iron
- Non-Ferrous

Modular Quick Change Drilling with ChipSurfer Adaption

» Accommodates a wide range of applications using the ChipSurfer connections.

» Simplified set-up for Multi-Spindle and Swiss-type machines.

» Compatible with existing GoldTwist tips.

» Coolant thru.

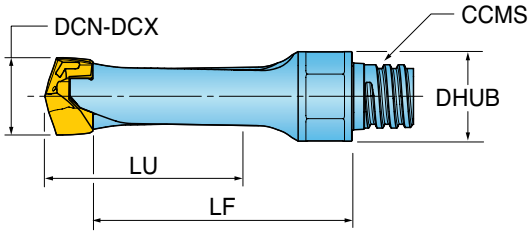
View the full line »

WINSFEED™ ADVANCED MACHINING

Drilling Coolant

2xD • Series TD_T_

CHIPSURFER



Part Number	DCN Cutting Dia. Min. INCH (MM)	DCX Cutting Dia. Max. INCH (MM)	SSC Seat Size Code	LU Usable Length	LF Functional Length	CCMS Conn. Code Machine Side	DHUB Hub Dia.	Clamping Key
TD0600012T06R00	0.2362 (6.00 mm)	0.2520 (6.40 mm)	6	0.5118	0.945	T06	0.378	KTD6.0-9.9
TD0800019T06R00	0.3150 (8.00 mm)	0.3307 (8.40 mm)	8	0.6772	1.082	T06	0.378	KTD6.0-9.9
TD1000020T08R00	0.3937 (10.00 mm)	0.4094 (10.4 mm)	10	0.8465	1.323	T08	0.465	KTD10.0-19.9

SPADE TWIST™

HOLEMAKING

Diameter Range

0.7874-1.3740"
20.0-34.9 mm NEW

Bodies

Universal Shank

Length to Diameter Ratio

3xD
5xD
8xD

Geometries

LPA - Steel/General Purpose
LPC (Self-Centering) - Steel/Cast Iron NEW
LPF - Flat Bottom

Grade

IN2505

Materials

- Steel
- Cast Iron

Self-Centering Geometry for Large Diameter Applications

» Eliminates the need for piloting for 8xD applications.

» Excellent accuracy and phenomenal surface finish.

» Improves cylindricity and straightness.

» Unique rigid, quick change clamping system.

LPC

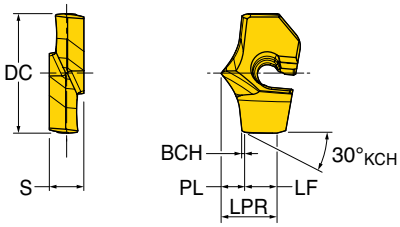
View the full line »

SPEEDUP™ HIGH SPEED & FEED EXPANSION

Drilling Coolant

Series LPC

SELF-CENTERING TIPS



Part Number	DC Cutting Diameter INCH (MM)	SSC Seat Size Code	PL Point Length	LPR Proj. Length	LF Funct. Length	BCH Chamfer Length	S Thick.	Grade IN2205
LPC2000R01	0.7874 (20.00 mm)	20	0.179	0.408	0.229	0.033	0.236	•
LPC2050R01	0.8071 (20.50 mm)	20	0.180	0.400	0.220	0.033	0.236	•
LPC2064R01	0.8125 (20.64 mm)	20	0.180	0.398	0.218	0.033	0.236	•
LPC2100R01	0.8268 (21.00 mm)	21	0.181	0.392	0.211	0.033	0.236	•
LPC2150R01	0.8465 (21.50 mm)	21	0.182	0.383	0.201	0.033	0.236	•
LPC2200R01	0.8661 (22.00 mm)	22	0.193	0.437	0.244	0.033	0.256	•
LPC2222R01	0.8750 (22.22 mm)	22	0.194	0.435	0.240	0.033	0.256	•
LPC2250R01	0.8858 (22.50 mm)	22	0.194	0.429	0.235	0.033	0.256	•
LPC2300R01	0.9055 (23.00 mm)	23	0.195	0.420	0.225	0.033	0.256	•
LPC2350R01	0.8252 (23.50 mm)	23	0.196	0.412	0.216	0.033	0.256	•
LPC2381R01	0.9375 (23.81 mm)	23	0.197	0.408	0.211	0.033	0.256	•
LPC2400R01	0.9449 (24.00 mm)	24	0.208	0.441	0.233	0.033	0.276	•
LPC2450R01	0.9646 (24.50 mm)	24	0.209	0.433	0.224	0.033	0.276	•
LPC2500R01	0.9843 (25.00 mm)	25	0.210	0.424	0.214	0.033	0.276	•
LPC2540R01	1.0000 (25.40 mm)	25	0.211	0.419	0.208	0.033	0.276	•
LPC2550R01	1.0039 (25.50 mm)	25	0.212	0.417	0.205	0.033	0.276	•
LPC2600R01	1.0236 (26.00 mm)	26	0.223	0.513	0.290	0.033	0.315	•
LPC2620R01	1.0320 (26.20 mm)	26	0.224	0.511	0.287	0.033	0.315	•
LPC2650R01	1.0433 (26.50 mm)	26	0.224	0.505	0.281	0.033	0.315	•
LPC2700R01	1.0630 (27.00 mm)	27	0.225	0.497	0.272	0.033	0.315	•
LPC2750R01	1.0827 (27.50 mm)	27	0.226	0.489	0.263	0.033	0.315	•
LPC2800R01	1.1024 (28.00 mm)	28	0.225	0.510	0.285	0.033	0.335	•
LPC2850R01	1.1220 (28.50 mm)	28	0.226	0.502	0.276	0.033	0.335	•
LPC2860R01	1.1260 (28.60 mm)	28	0.227	0.502	0.275	0.033	0.335	•
LPC2900R01	1.1417 (29.00 mm)	29	0.227	0.494	0.267	0.033	0.335	•
LPC2950R01	1.1614 (29.50 mm)	29	0.228	0.486	0.258	0.033	0.335	•
LPC2990R01	1.1772 (29.90 mm)	29	0.229	0.480	0.251	0.033	0.335	•
LPC3000R01	1.1811 (30.00 mm)	30	0.239	0.600	0.361	0.033	0.354	•
LPC3010R01	1.1850 (30.10 mm)	30	0.240	0.599	0.359	0.033	0.354	•
LPC3020R01	1.1890 (30.20 mm)	30	0.240	0.597	0.357	0.033	0.354	•
LPC3050R01	1.2008 (30.50 mm)	30	0.240	0.591	0.351	0.033	0.354	•
LPC3100R01	1.2205 (31.00 mm)	31	0.241	0.583	0.342	0.033	0.354	•
LPC3150R01	1.2402 (31.50 mm)	31	0.242	0.575	0.333	0.033	0.354	•
LPC3170R01	1.2480 (31.70 mm)	31	0.243	0.572	0.330	0.033	0.354	•
LPC3180R01	1.2520 (31.80 mm)	31	0.243	0.571	0.328	0.033	0.354	•
LPC3190R01	1.2559 (31.90 mm)	31	0.243	0.569	0.326	0.033	0.354	•
LPC3200R01	1.2598 (32.00 mm)	32	0.253	0.614	0.361	0.033	0.374	•
LPC3250R01	1.2795 (32.50 mm)	32	0.254	0.606	0.352	0.033	0.374	•
LPC3300R01	1.2992 (33.00 mm)	33	0.255	0.597	0.342	0.033	0.374	•
LPC3330R01	1.3110 (33.30 mm)	33	0.256	0.593	0.337	0.033	0.374	•
LPC3350R01	1.3189 (33.50 mm)	33	0.256	0.589	0.333	0.033	0.374	•
LPC3400R01	1.3386 (34.00 mm)	34	0.257	0.581	0.324	0.033	0.374	•
LPC3450R01	1.3583 (34.50 mm)	34	0.258	0.573	0.315	0.033	0.374	•
LPC3490R01	1.3740 (34.90 mm)	34	0.259	0.567	0.308	0.033	0.374	•

GOLDTWIN™

HOLEMAKING

Diameter Range

1.062–1.875"

Modular Bodies

3xD, 5xD, 7xD
Universal Shank with Side Coolant Port

Geometries

TPC-C (Self-Centering)

Outboard Inserts

SPGX-WG (Wiper)

Grade

IN2505

Materials

- Steel
- Stainless Steel
- Cast Iron
- Non-Ferrous
- High-Temp Alloys
- Hardened Steel

Unique Modular Drilling System for Wide Range of Diameters and Depths

» Increased feed rates achieved with 2-effective insert design.

» Self-centering geometry allows for improved straightness.

» Wiper insert allows for phenomenal surface finish.

» Guide pads greatly improve stability during machining.

» Modular design reduces inventory.

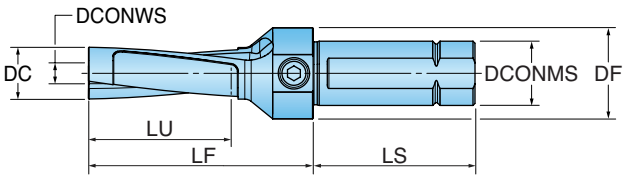
View the full line »

WINSFEED™ ADVANCED MACHINING

Drilling Coolant

3xD • Series W_Y

UNIVERSAL SHANK

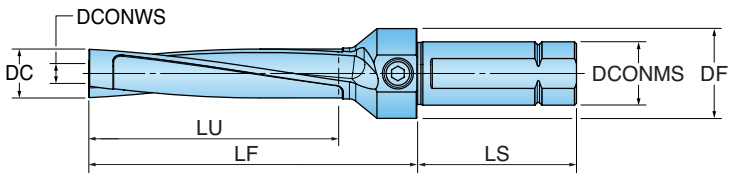


Part Number	DC Cutting Dia.	DCONWS Connection Dia. Workpiece Side	LU Usable Length	LF Functional Length	LS Shank Length	DCONMS Shank Dia.	DF Flange Dia.	ZEFF Effective Teeth
INCH								
W0318YFSA60	1.062	0.409	2.36	4.34	3.16	1.25	1.77	2
W0318YGSA64	1.125	0.441	2.52	4.58	3.16	1.25	1.77	2
W0318YHSA69	1.187	0.472	2.72	4.78	3.16	1.25	2.17	2
W0318YHSA69	1.250	0.472	2.72	4.78	3.16	1.25	2.17	2
W0318YKSA78	1.375	0.535	3.07	5.36	3.16	1.25	2.17	2
W0318YMSA86	1.500	0.598	3.39	5.80	3.16	1.25	2.17	2
W0381YNSA91	1.625	0.630	3.58	6.04	3.16	1.50	2.36	2
W0381YQSA99	1.750	0.693	3.90	6.53	3.16	1.50	2.36	2
W0381YRSA104	1.875	0.724	4.09	6.71	3.16	1.50	2.36	2

Drilling Coolant

5xD • Series W_Y

UNIVERSAL SHANK



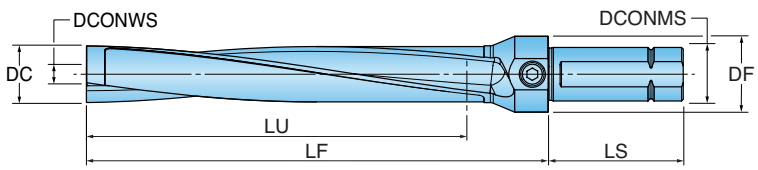
Part Number	DC Cutting Dia.	DCONWS Connection Dia. Workpiece Side	LU Usable Length	LF Functional Length	LS Shank Length	DCONMS Shank Dia.	DF Flange Dia.	ZEFF Effective Teeth
INCH								
W0318YFSA114	1.062	0.409	4.49	6.46	3.16	1.25	1.77	2
W0318YGSA122	1.125	0.441	4.80	6.87	3.16	1.25	1.77	2
W0318YHSA131	1.187	0.472	5.16	7.22	3.16	1.25	2.17	2
W0318YHSA131	1.250	0.472	5.16	7.22	3.16	1.25	2.17	2
W0318YKSA148	1.375	0.535	5.83	8.11	3.16	1.25	2.17	2
W0318YMSA164	1.500	0.598	6.46	8.87	3.16	1.25	2.17	2
W0381YNSA173	1.625	0.630	6.81	9.27	3.16	1.50	2.36	2
W0381YQSA189	1.750	0.693	7.44	10.07	3.16	1.50	2.36	2
W0381YRSA198	1.875	0.724	7.79	10.41	3.16	1.50	2.36	2

GOLDTWIN™

Drilling Coolant

7xD • Series W_Y

UNIVERSAL SHANK



Part Number	DC Cutting Dia.	DCONWS Connection Dia. Workpiece Side	LU Usable Length	LF Functional Length	LS Shank Length	DCONMS Shank Dia.	DF Flange Dia.	ZEFF Effective Teeth
INCH								
W0318YFSA168	1.062	0.409	6.61	8.59	3.16	1.25	1.77	2
W0318YGSA180	1.125	0.441	7.09	9.15	3.16	1.25	1.77	2
W0318YHSA193	1.187	0.472	7.60	9.67	3.16	1.25	2.17	2
W0318YHSA193	1.250	0.472	7.60	9.67	3.16	1.25	2.17	2
W0318YKSA218	1.375	0.535	8.58	10.87	3.16	1.25	2.17	2
W0318YMSA242	1.500	0.598	9.53	11.94	3.16	1.25	2.17	2
W0381YNSA255	1.625	0.630	10.04	12.50	3.16	1.50	2.36	2
W0381YQSA279	1.750	0.693	10.98	13.62	3.16	1.50	2.36	2
W0381YRSA292	1.875	0.724	11.49	14.11	3.16	1.50	2.36	2

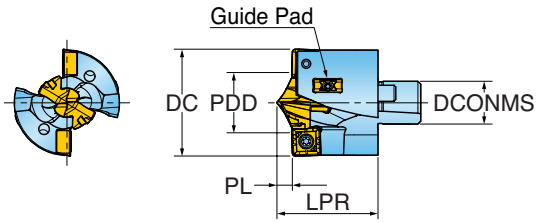
Hardware • Modular Drill Bodies

Part Number	Driver Blade	Driver Handle
W0318YFSA60	BLDH-W2.5X210	SW6-T SHORT
W0318YGSA64	BLDH-W2.5X210	SW6-T SHORT
W0318YHSA69	BLDH-W2.5X210	SW6-T SHORT
W0318YKSA78	BLDH-W2.5X210	SW6-T SHORT
W0318YMSA86	BLDH-W2.5X210	SW6-T SHORT
W0381YNSA91	BLDH-W3.0X225	SW6-T SHORT
W0381YQSA99	BLDH-W4.0X255	SW6-T SHORT
W0381YRSA104	BLDH-W4.0X255	SW6-T SHORT
W0318YFSA114	BLDH-W2.5X280	SW6-T SHORT
W0318YGSA122	BLDH-W2.5X280	SW6-T SHORT
W0318YHSA131	BLDH-W2.5X280	SW6-T SHORT
W0318YKSA148	BLDH-W2.5X280	SW6-T SHORT
W0318YMSA164	BLDH-W2.5X280	SW6-T SHORT
W0381YNSA173	BLDH-W3.0X310	SW6-T SHORT
W0381YQSA189	BLDH-W4.0X350	SW6-T SHORT
W0381YRSA198	BLDH-W4.0X350	SW6-T SHORT
W0318YFSA168	BLDH-W2.5X280	SW6-T SHORT
W0318YGSA180	BLDH-W2.5X280	SW6-T SHORT
W0318YHSA193	BLDH-W2.5X280	SW6-T SHORT
W0318YKSA218	BLDH-W2.5X280	SW6-T SHORT
W0318YMSA242	BLDH-W2.5X280	SW6-T SHORT
W0381YNSA255	BLDH-W3.0X310	SW6-T SHORT
W0381YQSA279	BLDH-W4.0X350	SW6-T SHORT
W0381YRSA292	BLDH-W4.0X350	SW6-T SHORT

Drilling Coolant

Series CD_Y

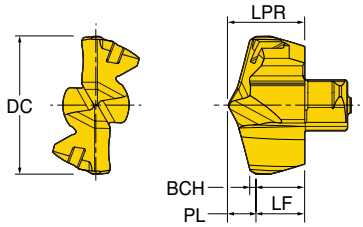
MODULAR DRILL HEADS



Part Number	DC Cutting Dia.	DCONMS Conn. Dia. Machine Side	LPR Projection Length	PL Point Length	PDD Drill Point Dia.	Clamping Key	SSC Seat Size Code	Insert Center	Insert Outboard
INCH									
CD2690025YFR01	1.062	0.409	0.980	0.157	0.6260	KTD15.0-15.9-C	15	TPC1590R01-C	SPGX 06...WG
CD2860027YGR01	1.125	0.441	1.059	0.169	0.7047	KTD17.0-17.9-C	17	TPC1790R01-C	SPGX 06...WG
CD3015028YHR01	1.187	0.472	1.114	0.163	0.6654	KTD16.0-16.9-C	16	TPC1690R01-C	SPGX 07...WG
CD3175028YHR01	1.250	0.472	1.122	0.169	0.7047	KTD17.0-17.9-C	17	TPC1790R01-C	SPGX 07...WG
CD3493032YKR01	1.375	0.535	1.244	0.163	0.6654	KTD16.0-16.9-C	16	TPC1690R01-C	SPGX 09...WG
CD3810035YMR01	1.500	0.598	1.378	0.169	0.7047	KTD17.0-17.9-C	17	TPC1790R01-C	SPGX 11...WG
CD4130037YNR01	1.625	0.630	1.461	0.188	0.8228	KTD20.0-20.9-C	20	TPC2090R01-C	SPGX 11...WG
CD4445041YQR01	1.750	0.693	1.606	0.208	0.9409	KTD23.0-23.9-C	23	TPC2390R01-C	SPGX 11...WG
CD4760042YRR01	1.875	0.724	1.665	0.201	0.9016	KTD22.0-22.9-C	22	TPC2290R01-C	SPGX 14...WG

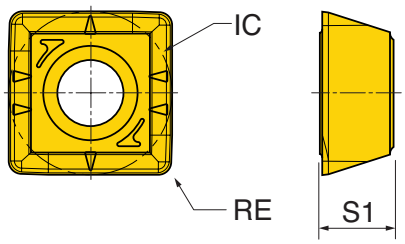
Series TPC-C

SELF-CENTERING TIPS



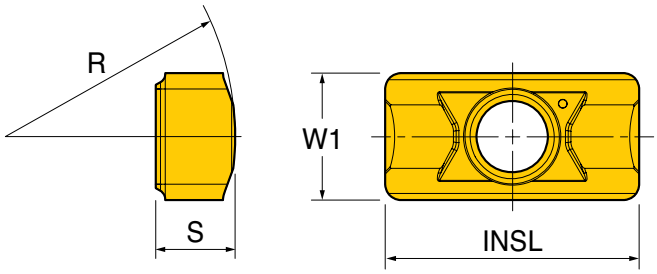
Part Number	DC Cutting Diameter INCH (MM)	SSC Seat Size Code	PL Point Length	LPR Projection Length	LF Functional Length	BCH Chamfer Length	Grade IN2505
TPC1590R01-C	0.6260 (15.90 mm)	15	0.125	0.344	0.219	0.028	•
TPC1690R01-C	0.6654 (16.90 mm)	16	0.131	0.366	0.235	0.028	•
TPC1790R01-C	0.7047 (17.90 mm)	17	0.138	0.390	0.252	0.028	•
TPC2090R01-C	0.8228 (20.90 mm)	20	0.157	0.457	0.300	0.028	•
TPC2290R01-C	0.9016 (22.90 mm)	22	0.170	0.502	0.333	0.028	•
TPC2390R01-C	0.9409 (23.90 mm)	23	0.176	0.525	0.348	0.028	•

Insert • SPGX-WG



Part Number	IC Inscribed Circle Dia.	S1 Thickness (Overall)	RE Corner Radius	NOI Number of Indexes	Grade IN2505
INCH					
SPGX060204WG	0.239	0.094	0.016	4	•
SPGX07T308WG	0.316	0.156	0.031	4	•
SPGX090408WG	0.390	0.169	0.031	4	•
SPGX110708WG	0.457	0.189	0.031	4	•
SPGX140512WG	0.567	0.205	0.047	4	•

Guide Pad for CD Modular Heads



Part Number	W1 Guide Pad Width	S Thickness	INSL Guide Pad Length	R Radius
INCH				
PAD-G04-08	0.157	0.098	0.315	0.354

Hardware • Modular Drill Heads

Part Number	Down Pitch Screw		SPGX Insert		Guide Pad	
	Screw 1	Driver 1	Screw 2	Driver 2	Screw 3	Driver 3
CD2690025YFR01	TDPS0512-W2.0	F-W2.0	TS22052I/HG	DS-T07S	SM20-043-00	DS-TP06S-NEU
CD2860027YGR01	TDPS0512-W2.0	F-W2.0	TS22052I/HG	DS-T07S	SM20-043-00	DS-TP06S-NEU
CD3015028YHR01	TDPS0512-W2.0	F-W2.0	SM25-064-00	DS-T08S	SM20-043-00	DS-TP06S-NEU
CD3175028YHR01	TDPS0512-W2.0	F-W2.0	SM25-064-00	DS-T08S	SM20-043-00	DS-TP06S-NEU
CD3493032YKR01	TDPS0512-W2.0	F-W2.0	SM35-088-60	DS-T10S	SM20-043-00	DS-TP06S-NEU
CD3810035YMR01	TDPS0618-W2.5	F-W2.5	SM40-093-20	DS-T15S	SM20-043-00	DS-TP06S-NEU
CD4130037YNR01	TDPS0618-W2.5	F-W2.5	SM40-093-20	DS-T15S	SM20-043-00	DS-TP06S-NEU
CD4445041YQR01	TDPS0722-W3.0	F-W3.0	SM40-093-20	DS-T15S	SM20-043-00	DS-TP06S-NEU
CD4760042YRR01	TDPS0722-W3.0	F-W3.0	SM50-122-50	DS-T20S	SM20-043-00	DS-TP06S-NEU

Part Number	Setting Gauge
CD2690025YFR01	SG-CD27-29
CD2860027YGR01	SG-CD27-29
CD3015028YHR01	SG-CD30-34
CD3175028YHR01	SG-CD30-34
CD3493032YKR01	SG-CD30-34
CD3810035YMR01	SG-CD36-39
CD4130037YNR01	SG-CD40-43
CD4445041YQR01	SG-CD44-50
CD4760042YRR01	SG-CD44-50

SOLIDDRILL3™

HOLEMAKING

Diameter Range

0.1562–0.4687"
4.0–12.0 mm

Bodies

Self-Centering
3xD, 5xD, **8xD** NEW

Flat Bottom
3xD, 5xD NEW

Cylindrical Shank

Geometries

3-Flute
FR (140° Self-Centering)
FF (Flat Bottom) NEW

Grade

IN2205

Materials

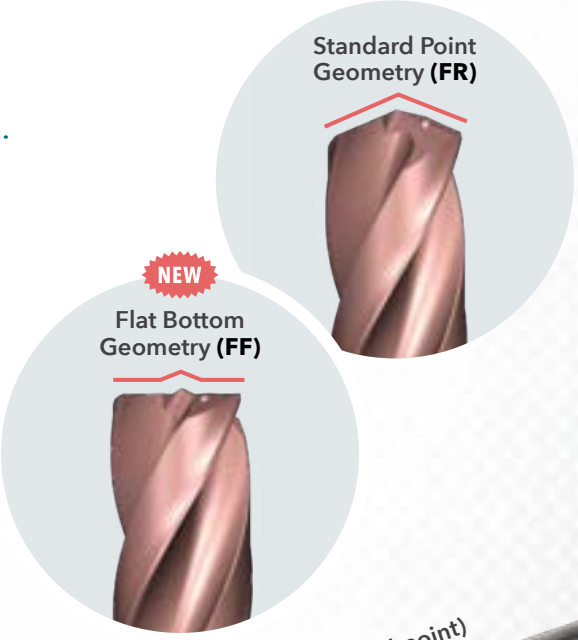
- Steel
- Cast Iron

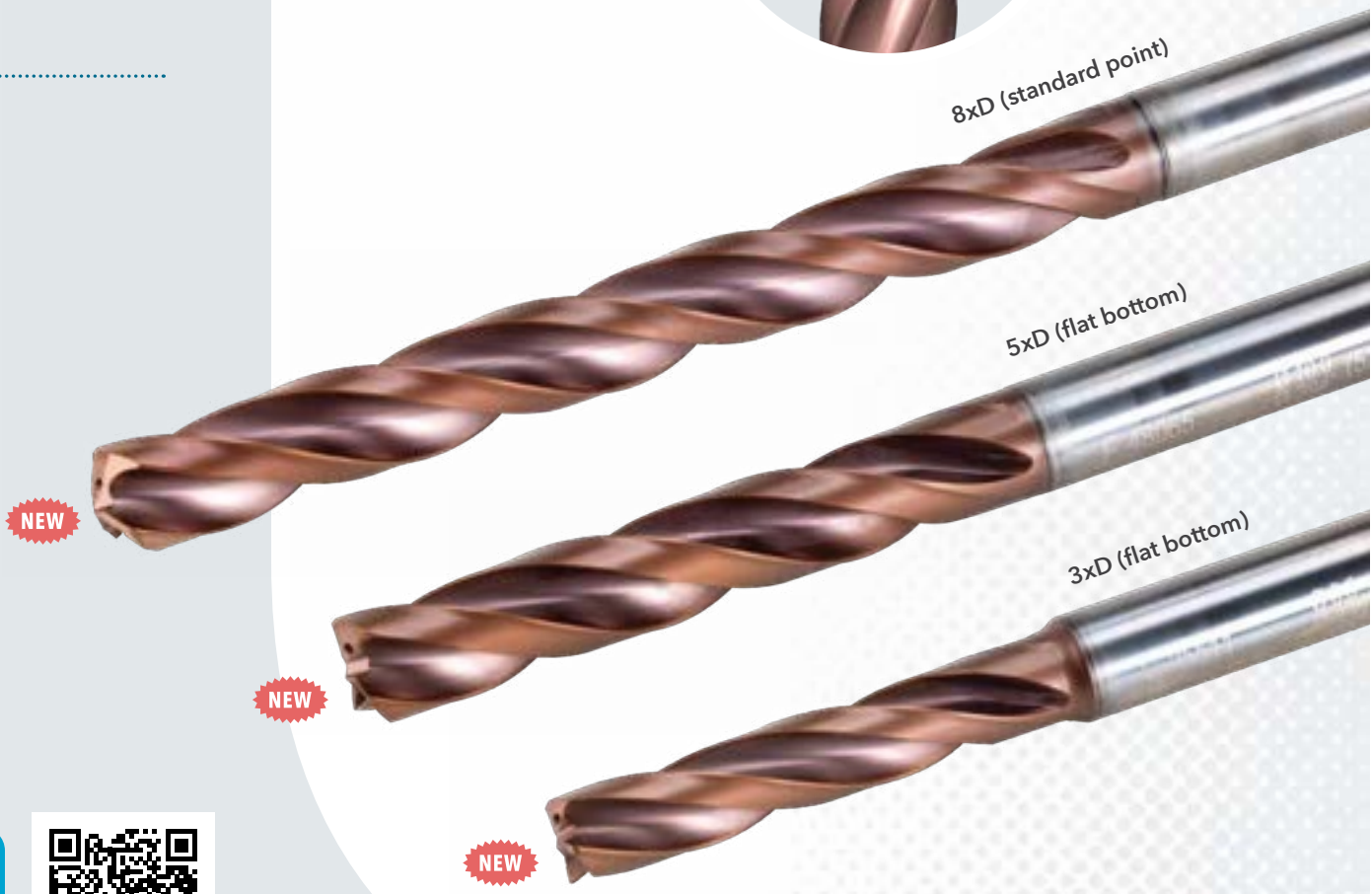
3-Flute Solid Drills Expanded to 8xD Depth and New Flat Bottom Geometry

» 3-flute design allows up to 50% higher feed rates.

» Flat bottom geometry ideal for drilling cavities in bolt holes.

» Self-centering geometry eliminates need to pilot up to 8xD.





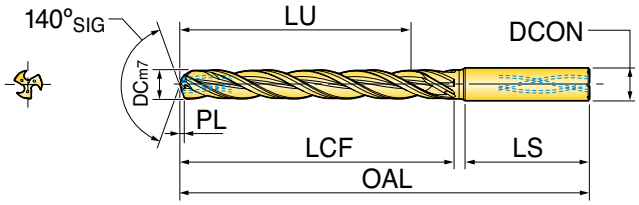
View the full line »

SPEEDUP™ HIGH SPEED & FEED EXPANSION

Drilling Coolant

8xD • Series FR

3-FLUTE SOLID CARBIDE DRILLS WITH COOLANT HOLES

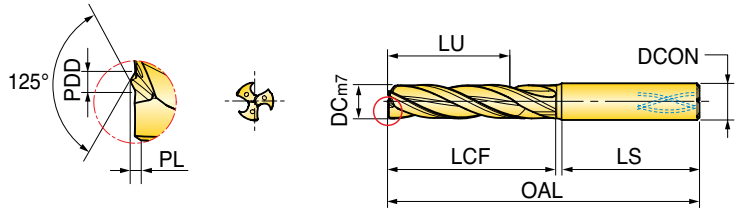


Part Number	DC Cutting Dia.		PL Point Length	LU Usable Length	LCF Chip Flute Length	LS Shank Length	OAL Overall Length	DCON Shank Dia.
	INCH (MM)	FRACTION	MM					
FR0397036T7R01	0.1563 (3.97 mm)	5/32"	0.82	36	43	35	81	6
FR0400036T7R01	0.1575 (4.00 mm)	-	0.82	36	43	35	81	6
FR0450036T7R01	0.1772 (4.50 mm)	-	0.88	36	43	35	81	6
FR0476036T7R01	0.1875 (4.76 mm)	3/16"	0.95	36	43	35	81	6
FR0500048T7R01	0.1969 (5.00 mm)	-	0.96	48	57	36	95	6
FR0550048T7R01	0.2165 (5.50 mm)	-	1.08	48	57	36	95	6
FR0556048T7R01	0.2188 (5.56 mm)	7/32"	1.12	48	57	36	95	6
FR0600048T7R01	0.2362 (6.00 mm)	-	1.17	48	57	36	95	6
FR0635064T0R01	0.2500 (6.35 mm)	1/4"	1.25	64	76	36	114	8
FR0650064T0R01	0.2559 (6.50 mm)	-	1.26	64	76	36	114	8
FR0700064T0R01	0.2756 (7.00 mm)	-	1.35	64	76	36	114	8
FR0714064T0R01	0.2813 (7.14 mm)	9/32"	1.35	64	76	36	114	8
FR0750064T0R01	0.2953 (7.50 mm)	-	1.4	64	76	36	114	8
FR0794064T0R01	0.3125 (7.94 mm)	5/16"	1.49	64	76	36	114	8
FR0800064T0R01	0.3150 (8.00 mm)	-	1.49	64	76	36	114	8
FR0850080T1R01	0.3346 (8.50 mm)	-	2.04	80	95	40	142	10
FR0873080T1R01	0.3438 (8.73 mm)	11/32"	2.09	80	95	40	142	10
FR0900080T1R01	0.3543 (9.00 mm)	-	2.16	80	95	40	142	10
FR0950080T1R01	0.3740 (9.50 mm)	-	2.29	80	95	40	142	10
FR0953080T1R01	0.3750 (9.53 mm)	3/8"	2.29	80	95	40	142	10
FR1000080T1R01	0.3937 (10.00 mm)	-	2.33	80	95	40	142	10
FR1030096T2R01	0.4055 (10.30 mm)	13/32"	2.45	96	113	45	162	12
FR1050096T2R01	0.4134 (10.50 mm)	-	2.5	96	113	45	162	12
FR1100096T2R01	0.4331 (11.00 mm)	-	2.61	96	113	45	162	12
FR1111096T2R01	0.4375 (11.11 mm)	7/16"	2.58	96	113	45	162	12
FR1150096T2R01	0.4528 (11.50 mm)	-	2.67	96	113	45	162	12
FR1191096T2R01	0.4688 (11.91 mm)	15/32"	2.77	96	113	45	162	12
FR1200096T2R01	0.4724 (12.00 mm)	-	2.8	96	113	45	162	12

Drilling Coolant

3xD • Series FF

3-FLUTE FLAT BOTTOM SOLID CARBIDE DRILLS WITH COOLANT HOLES

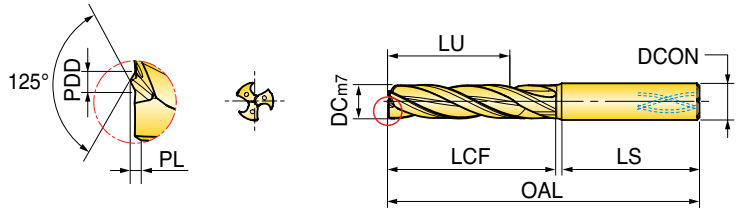


Part Number	DC Cutting Dia.		PL Point Length	LU Usable Length	LCF Chip Flute Length	LS Shank Length	OAL Overall Length	DCON Shank Dia.	PDD Drill Point Dia.
	INCH (MM)	FRACTION	MM						
FF0397017T7R01	0.1560 (3.97 mm)	5/32"	0.43	17	25	35	66	6	0.77
FF0400017T7R01	0.1575 (4.00 mm)	-	0.43	17	25	35	66	6	0.77
FF0410017T7R01	0.1614 (4.10 mm)	-	0.43	17	25	35	66	6	0.77
FF0420017T7R01	0.1654 (4.20 mm)	-	0.43	17	25	35	66	6	0.77
FF0430017T7R01	0.1693 (4.30 mm)	-	0.45	17	25	35	66	6	0.86
FF0440017T7R01	0.1732 (4.40 mm)	-	0.45	17	25	35	66	6	0.86
FF0450017T7R01	0.1772 (4.50 mm)	-	0.45	17	25	35	66	6	0.86
FF0460017T7R01	0.1811 (4.60 mm)	7/32"	0.45	17	25	35	66	6	0.86
FF0470017T7R01	0.1850 (4.70 mm)	-	0.45	17	25	35	66	6	0.86
FF0476017T7R01	0.1875 (4.76 mm)	3/16"	0.45	17	25	35	66	6	0.86
FF0480020T7R01	0.1890 (4.80 mm)	-	0.47	20	29	36	66	6	0.97
FF0490020T7R01	0.1929 (4.90 mm)	-	0.47	20	29	36	66	6	0.97
FF0500020T7R01	0.1969 (5.00 mm)	-	0.47	20	29	36	66	6	0.97
FF0510020T7R01	0.2008 (5.10 mm)	-	0.47	20	29	36	66	6	0.97
FF0520020T7R01	0.2047 (5.20 mm)	-	0.47	20	29	36	66	6	0.97
FF0530020T7R01	0.2087 (5.30 mm)	-	0.47	20	29	36	66	6	0.97
FF0540020T7R01	0.2126 (5.40 mm)	-	0.58	20	29	36	66	6	1.08
FF0550020T7R01	0.2165 (5.50 mm)	-	0.58	20	29	36	66	6	1.08
FF0556020T7R01	0.2190 (5.56 mm)	7/32"	0.58	20	29	36	66	6	1.08
FF0560020T7R01	0.2205 (5.60 mm)	-	0.58	20	29	36	66	6	1.08
FF0570020T7R01	0.2244 (5.70 mm)	-	0.58	20	29	36	66	6	1.08
FF0580020T7R01	0.2283 (5.80 mm)	-	0.58	20	29	36	66	6	1.08
FF0590020T7R01	0.2323 (5.90 mm)	-	0.58	20	29	36	66	6	1.08
FF0600020T7R01	0.2362 (6.00 mm)	-	0.58	20	29	36	66	6	1.08
FF0610024T0R01	0.2402 (6.10 mm)	-	0.62	24	35	36	79	8	1.26
FF0620024T0R01	0.2441 (6.20 mm)	-	0.62	24	35	36	79	8	1.26
FF0630024T0R01	0.2480 (6.30 mm)	-	0.62	24	35	36	79	8	1.26
FF0635024T0R01	0.2500 (6.35 mm)	1/4"	0.62	24	35	36	79	8	1.26
FF0640024T0R01	0.2520 (6.40 mm)	-	0.62	24	35	36	79	8	1.26
FF0650024T0R01	0.2559 (6.50 mm)	-	0.62	24	35	36	79	8	1.26
FF0660024T0R01	0.2598 (6.60 mm)	-	0.62	24	35	36	79	8	1.26

Drilling Coolant

3xD • Series FF (continued)

3-FLUTE FLAT BOTTOM SOLID CARBIDE DRILLS WITH COOLANT HOLES



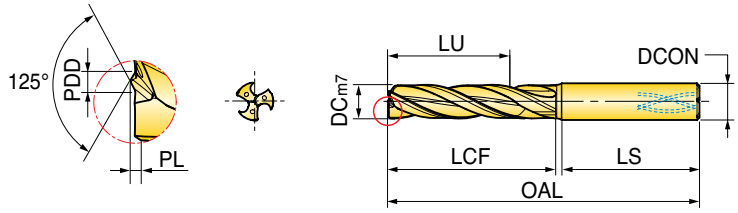
Part Number	DC Cutting Dia.		PL Point Length	LU Usable Length	LCF Chip Flute Length	LS Shank Length	OAL Overall Length	DCON Shank Dia.	PDD Drill Point Dia.
	INCH (MM)	FRACTION	MM						
FF0670024T0R01	0.2638 (6.70 mm)	-	0.62	24	35	36	79	8	1.26
FF0680024T0R01	0.2680 (6.80 mm)	-	0.62	24	35	36	79	8	1.26
FF0690024T0R01	0.2717 (6.90 mm)	-	0.62	24	35	36	79	8	1.26
FF0700024T0R01	0.2756 (7.00 mm)	-	0.62	24	35	36	79	8	1.26
FF0710024T0R01	0.2795 (7.10 mm)	-	0.66	24	42	36	79	8	1.44
FF0714029T0R01	0.2813 (7.14 mm)	9/32"	0.66	29	42	36	79	8	1.44
FF0720029T0R01	0.2835 (7.20 mm)	-	0.66	29	42	36	79	8	1.44
FF0730029T0R01	0.2874 (7.30 mm)	-	0.66	29	42	36	79	8	1.44
FF0740029T0R01	0.2913 (7.40 mm)	-	0.66	29	42	36	79	8	1.44
FF0750029T0R01	0.2953 (7.50 mm)	-	0.66	29	42	36	79	8	1.44
FF0760029T0R01	0.2992 (7.60 mm)	-	0.66	29	42	36	79	8	1.44
FF0770029T0R01	0.3031 (7.70 mm)	-	0.66	29	42	36	79	8	1.44
FF0780029T0R01	0.3071 (7.80 mm)	-	0.66	29	42	36	79	8	1.44
FF0790029T0R01	0.3110 (7.90 mm)	-	0.66	29	42	36	79	8	1.44
FF0794029T0R01	0.3130 (7.94 mm)	5/16"	0.66	29	42	36	79	8	1.44
FF0800029T0R01	0.3150 (8.00 mm)	-	0.66	29	42	36	79	8	1.44
FF0810035T1R01	0.3189 (8.10 mm)	-	0.79	35	48	40	89	10	1.62
FF0820035T1R01	0.3228 (8.20 mm)	-	0.79	35	48	40	89	10	1.62
FF0830035T1R01	0.3268 (8.30 mm)	-	0.79	35	48	40	89	10	1.62
FF0840035T1R01	0.3307 (8.40 mm)	-	0.79	35	48	40	89	10	1.62
FF0850035T1R01	0.3346 (8.50 mm)	-	0.79	35	48	40	89	10	1.62
FF0860035T1R01	0.3386 (8.60 mm)	-	0.79	35	48	40	89	10	1.62
FF0870035T1R01	0.3425 (8.70 mm)	-	0.79	35	48	40	89	10	1.62
FF0873035T1R01	0.3440 (8.73 mm)	11/32"	0.79	35	48	40	89	10	1.62
FF0880035T1R01	0.3465 (8.80 mm)	-	0.79	35	48	40	89	10	1.62
FF0890035T1R01	0.3504 (8.90 mm)	-	0.79	35	48	40	89	10	1.62
FF0900035T1R01	0.3543 (9.00 mm)	-	0.79	35	48	40	89	10	1.62
FF0910035T1R01	0.3583 (9.10 mm)	-	0.82	35	48	40	89	10	1.80
FF0920035T1R01	0.3622 (9.20 mm)	-	0.82	35	48	40	89	10	1.80
FF0930035T1R01	0.3661 (9.30 mm)	-	0.82	35	48	40	89	10	1.80

Continued on next page

Drilling Coolant

3xD • Series FF (continued)

3-FLUTE FLAT BOTTOM SOLID CARBIDE DRILLS WITH COOLANT HOLES

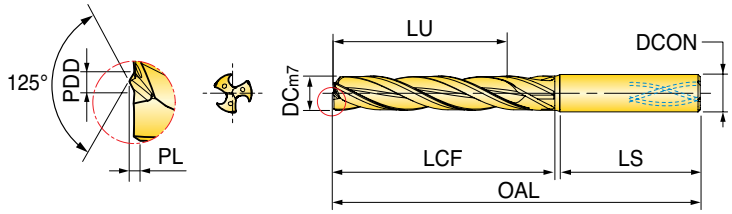


Part Number	DC Cutting Dia.		PL Point Length	LU Usable Length	LCF Chip Flute Length	LS Shank Length	OAL Overall Length	DCON Shank Dia.	PDD Drill Point Dia.
	INCH (MM)	FRACTION	MM						
FF0940035T1R01	0.3701 (9.40 mm)	-	0.82	35	48	40	89	10	1.80
FF0950035T1R01	0.3740 (9.50 mm)	-	0.82	35	48	40	89	10	1.80
FF0953035T1R01	0.3750 (9.53 mm)	3/8"	0.82	35	48	40	89	10	1.80
FF0960035T1R01	0.3780 (9.60 mm)	-	0.82	35	48	40	89	10	1.80
FF0970035T1R01	0.3819 (9.70 mm)	-	0.82	35	48	40	89	10	1.80
FF0980035T1R01	0.3858 (9.80 mm)	-	0.82	35	48	40	89	10	1.80
FF0990035T1R01	0.3998 (9.90 mm)	-	0.82	35	48	40	89	10	1.80
FF1000035T1R01	0.3937 (10.00 mm)	-	0.82	35	48	40	89	10	1.80
FF1010040T2R01	0.3976 (10.10 mm)	-	0.95	40	55	45	102	12	1.98
FF1020040T2R01	0.4016 (10.20 mm)	-	0.95	40	55	45	102	12	1.98
FF1030040T2R01	0.4055 (10.30 mm)	13/32"	0.95	40	55	45	102	12	1.98
FF1040040T2R01	0.4094 (10.40 mm)	-	0.95	40	55	45	102	12	1.98
FF1050040T2R01	0.4134 (10.50 mm)	-	0.95	40	55	45	102	12	1.98
FF1060040T2R01	0.4173 (10.60 mm)	-	0.95	40	55	45	102	12	1.98
FF1070040T2R01	0.4213 (10.70 mm)	-	0.95	40	55	45	102	12	1.98
FF1080040T2R01	0.4252 (10.80 mm)	-	0.95	40	55	45	102	12	1.98
FF1090040T2R01	0.4291 (10.90 mm)	-	0.95	40	55	45	102	12	1.98
FF1100040T2R01	0.4331 (11.00 mm)	-	0.95	40	55	45	102	12	1.98
FF1111040T2R01	0.4370 (11.10 mm)	-	0.98	40	56	45	102	12	2.16
FF1111040T2R01	0.4375 (11.11 mm)	7/16"	0.98	40	56	45	102	12	2.16
FF1120040T2R01	0.4409 (11.20 mm)	-	0.98	40	56	45	102	12	2.16
FF1130040T2R01	0.4449 (11.30 mm)	-	0.98	40	56	45	102	12	2.16
FF1140040T2R01	0.4488 (11.40 mm)	-	0.98	40	56	45	102	12	2.16
FF1150040T2R01	0.4528 (11.50 mm)	-	0.98	40	56	45	102	12	2.16
FF1160040T2R01	0.4567 (11.60 mm)	-	0.98	40	56	45	102	12	2.16
FF1170040T2R01	0.4606 (11.70 mm)	-	0.98	40	56	45	102	12	2.16
FF1180040T2R01	0.4646 (11.80 mm)	-	0.98	40	56	45	102	12	2.16
FF1190040T2R01	0.4685 (11.90 mm)	-	0.98	40	56	45	102	12	2.16
FF1191040T2R01	0.4688 (11.91 mm)	15/32"	0.98	40	56	45	102	12	2.16
FF1200040T2R01	0.4724 (12.00 mm)	-	0.98	40	56	45	102	12	2.16

Drilling Coolant

5xD • Series FF

3-FLUTE FLAT BOTTOM SOLID CARBIDE DRILLS WITH COOLANT HOLES



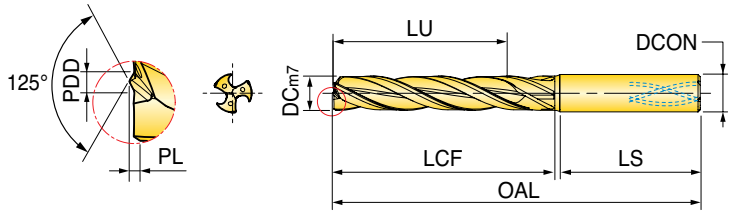
Part Number	DC Cutting Dia.		PL Point Length	LU Usable Length	LCF Chip Flute Length	LS Shank Length	OAL Overall Length	DCON Shank Dia.	PDD Drill Point Dia.
	INCH (MM)	FRACTION	MM						
FF0397029T7R01	0.1560 (3.97 mm)	5/32"	0.43	29	25	35	66	6	0.77
FF0400029T7R01	0.1575 (4.00 mm)	-	0.43	29	25	35	66	6	0.77
FF0410029T7R01	0.1614 (4.10 mm)	-	0.43	29	25	35	66	6	0.77
FF0420029T7R01	0.1654 (4.20 mm)	-	0.43	29	25	35	66	6	0.77
FF0430029T7R01	0.1693 (4.30 mm)	-	0.45	29	25	35	66	6	0.86
FF0440029T7R01	0.1732 (4.40 mm)	-	0.45	29	25	35	66	6	0.86
FF0450029T7R01	0.1772 (4.50 mm)	-	0.45	29	25	35	66	6	0.86
FF0460029T7R01	0.1811 (4.60 mm)	7/32"	0.45	29	25	35	66	6	0.86
FF0470029T7R01	0.1850 (4.70 mm)	-	0.45	29	25	35	66	6	0.86
FF0476029T7R01	0.1875 (4.76 mm)	3/16"	0.45	29	25	35	66	6	0.86
FF0480035T7R01	0.1890 (4.80 mm)	-	0.47	35	29	36	66	6	0.97
FF0490035T7R01	0.1929 (4.90 mm)	-	0.47	35	29	36	66	6	0.97
FF0500035T7R01	0.1969 (5.00 mm)	-	0.47	35	29	36	66	6	0.97
FF0510035T7R01	0.2008 (5.10 mm)	-	0.47	35	29	36	66	6	0.97
FF0520035T7R01	0.2047 (5.20 mm)	-	0.47	35	29	36	66	6	0.97
FF0530035T7R01	0.2087 (5.30 mm)	-	0.47	35	29	36	66	6	0.97
FF0540035T7R01	0.2126 (5.40 mm)	-	0.58	35	29	36	66	6	1.08
FF0550035T7R01	0.2165 (5.50 mm)	-	0.58	35	29	36	66	6	1.08
FF0556035T7R01	0.2190 (5.56 mm)	7/32"	0.58	35	29	36	66	6	1.08
FF0560035T7R01	0.2205 (5.60 mm)	-	0.58	35	29	36	66	6	1.08
FF0570035T7R01	0.2244 (5.70 mm)	-	0.58	35	29	36	66	6	1.08
FF0580035T7R01	0.2283 (5.80 mm)	-	0.58	35	29	36	66	6	1.08
FF0590035T7R01	0.2323 (5.90 mm)	-	0.58	35	29	36	66	6	1.08
FF0600035T7R01	0.2362 (6.00 mm)	-	0.58	35	29	36	66	6	1.08
FF0610043T0R01	0.2402 (6.10 mm)	-	0.62	43	35	36	79	8	1.26
FF0620043T0R01	0.2441 (6.20 mm)	-	0.62	43	35	36	79	8	1.26
FF0630043T0R01	0.2480 (6.30 mm)	-	0.62	43	35	36	79	8	1.26
FF0635024T0R01	0.2500 (6.35 mm)	1/4"	0.62	43	35	36	79	8	1.26
FF0640043T0R01	0.2520 (6.40 mm)	-	0.62	43	35	36	79	8	1.26
FF0650043T0R01	0.2559 (6.50 mm)	-	0.62	43	35	36	79	8	1.26
FF0660043T0R01	0.2598 (6.60 mm)	-	0.62	43	35	36	79	8	1.26

Continued on next page

Drilling Coolant

5xD • Series FF (continued)

3-FLUTE FLAT BOTTOM SOLID CARBIDE DRILLS WITH COOLANT HOLES

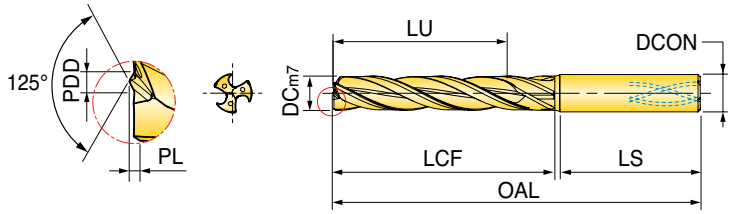


Part Number	DC Cutting Dia.		PL Point Length	LU Usable Length	LCF Chip Flute Length	LS Shank Length	OAL Overall Length	DCON Shank Dia.	PDD Drill Point Dia.
	INCH (MM)	FRACTION	MM						
FF0670043T0R01	0.2638 (6.70 mm)	-	0.62	43	35	36	79	8	1.26
FF0680043T0R01	0.2680 (6.80 mm)	-	0.62	43	35	36	79	8	1.26
FF0690043T0R01	0.2717 (6.90 mm)	-	0.62	43	35	36	79	8	1.26
FF0700043T0R01	0.2756 (7.00 mm)	-	0.62	43	35	36	79	8	1.26
FF0710043T0R01	0.2795 (7.10 mm)	-	0.66	43	42	36	79	8	1.44
FF0714043T0R01	0.2813 (7.14 mm)	9/32"	0.66	43	42	36	79	8	1.44
FF0720043T0R01	0.2835 (7.20 mm)	-	0.66	43	42	36	79	8	1.44
FF0730043T0R01	0.2874 (7.30 mm)	-	0.66	43	42	36	79	8	1.44
FF0740043T0R01	0.2913 (7.40 mm)	-	0.66	43	42	36	79	8	1.44
FF0750043T0R01	0.2953 (7.50 mm)	-	0.66	43	42	36	79	8	1.44
FF0760043T0R01	0.2992 (7.60 mm)	-	0.66	43	42	36	79	8	1.44
FF0770043T0R01	0.3031 (7.70 mm)	-	0.66	43	42	36	79	8	1.44
FF0780043T0R01	0.3071 (7.80 mm)	-	0.66	43	42	36	79	8	1.44
FF0790043T0R01	0.3110 (7.90 mm)	-	0.66	43	42	36	79	8	1.44
FF0794043T0R01	0.3130 (7.94 mm)	5/16"	0.66	43	42	36	79	8	1.44
FF0800043T0R01	0.3150 (8.00 mm)	-	0.66	43	42	36	79	8	1.44
FF0810049T1R01	0.3189 (8.10 mm)	-	0.79	49	48	40	89	10	1.62
FF0820049T1R01	0.3228 (8.20 mm)	-	0.79	49	48	40	89	10	1.62
FF0830049T1R01	0.3268 (8.30 mm)	-	0.79	49	48	40	89	10	1.62
FF0840049T1R01	0.3307 (8.40 mm)	-	0.79	49	48	40	89	10	1.62
FF0850049T1R01	0.3346 (8.50 mm)	-	0.79	49	48	40	89	10	1.62
FF0860049T1R01	0.3386 (8.60 mm)	-	0.79	49	48	40	89	10	1.62
FF0870049T1R01	0.3425 (8.70 mm)	-	0.79	49	48	40	89	10	1.62
FF0873049T1R01	0.3440 (8.73 mm)	11/32"	0.79	49	48	40	89	10	1.62
FF0880049T1R01	0.3465 (8.80 mm)	-	0.79	49	48	40	89	10	1.62
FF0890049T1R01	0.3504 (8.90 mm)	-	0.79	49	48	40	89	10	1.62
FF0900049T1R01	0.3543 (9.00 mm)	-	0.79	49	48	40	89	10	1.62
FF0910049T1R01	0.3583 (9.10 mm)	-	0.82	49	48	40	89	10	1.80
FF0920049T1R01	0.3622 (9.20 mm)	-	0.82	49	48	40	89	10	1.80
FF0930049T1R01	0.3661 (9.30 mm)	-	0.82	49	48	40	89	10	1.80

Drilling Coolant

5xD • Series FF (continued)

3-FLUTE FLAT BOTTOM SOLID CARBIDE DRILLS WITH COOLANT HOLES



Part Number	DC Cutting Dia.		PL Point Length	LU Usable Length	LCF Chip Flute Length	LS Shank Length	OAL Overall Length	DCON Shank Dia.	PDD Drill Point Dia.
	INCH (MM)	FRACTION	MM						
FF0940049T1R01	0.3701 (9.40 mm)	-	0.82	49	48	40	89	10	1.80
FF0950049T1R01	0.3740 (9.50 mm)	-	0.82	49	48	40	89	10	1.80
FF0953049T1R01	0.3750 (9.53 mm)	3/8"	0.82	49	48	40	89	10	1.80
FF0960049T1R01	0.3780 (9.60 mm)	-	0.82	49	48	40	89	10	1.80
FF0970049T1R01	0.3819 (9.70 mm)	-	0.82	49	48	40	89	10	1.80
FF0980049T1R01	0.3858 (9.80 mm)	-	0.82	49	48	40	89	10	1.80
FF0990049T1R01	0.3998 (9.90 mm)	-	0.82	49	48	40	89	10	1.80
FF1000049T1R01	0.3937 (10.00 mm)	-	0.82	49	48	40	89	10	1.80
FF1010056T2R01	0.3976 (10.10 mm)	-	0.95	56	55	45	102	12	1.98
FF1020056T2R01	0.4016 (10.20 mm)	-	0.95	56	55	45	102	12	1.98
FF1030056T2R01	0.4055 (10.30 mm)	13/32"	0.95	56	55	45	102	12	1.98
FF1040056T2R01	0.4094 (10.40 mm)	-	0.95	56	55	45	102	12	1.98
FF1050056T2R01	0.4134 (10.50 mm)	-	0.95	56	55	45	102	12	1.98
FF1060056T2R01	0.4173 (10.60 mm)	-	0.95	56	55	45	102	12	1.98
FF1070056T2R01	0.4213 (10.70 mm)	-	0.95	56	55	45	102	12	1.98
FF1080056T2R01	0.4252 (10.80 mm)	-	0.95	56	55	45	102	12	1.98
FF1090056T2R01	0.4291 (10.90 mm)	-	0.95	56	55	45	102	12	1.98
FF1100056T2R01	0.4331 (11.00 mm)	-	0.95	56	55	45	102	12	1.98
FF1110056T2R01	0.4370 (11.10 mm)	-	0.95	56	55	45	102	12	2.16
FF1111056T2R01	0.4375 (11.11 mm)	7/16"	0.98	56	56	45	102	12	2.16
FF1120056T2R01	0.4409 (11.20 mm)	-	0.98	56	56	45	102	12	2.16
FF1130056T2R01	0.4449 (11.30 mm)	-	0.98	56	56	45	102	12	2.16
FF1140056T2R01	0.4488 (11.40 mm)	-	0.98	56	56	45	102	12	2.16
FF1150056T2R01	0.4528 (11.50 mm)	-	0.98	56	56	45	102	12	2.16
FF1160056T2R01	0.4567 (11.60 mm)	-	0.98	56	56	45	102	12	2.16
FF1170056T2R01	0.4606 (11.70 mm)	-	0.98	56	56	45	102	12	2.16
FF1180056T2R01	0.4646 (11.80 mm)	-	0.98	56	56	45	102	12	2.16
FF1190056T2R01	0.4685 (11.90 mm)	-	0.98	56	56	45	102	12	2.16
FF1191056T2R01	0.4688 (11.91 mm)	15/32"	0.98	56	56	45	102	12	2.16
FF1200056T2R01	0.4724 (12.00 mm)	-	0.98	56	56	45	102	12	2.16

QWIKREAMS™

HOLEMAKING

Diameter Range

0.3149–0.4724"
8.0–12.0 mm

Bodies

3xD
5xD
Cylindrical Shanks
(inch and mm)

Head Geometries

XSA...
Straight flute/blind hole

XLB...
LH flute/through hole

Grade

IN2005

Materials

- Steel
- Stainless Steel
- Cast Iron
- Non-Ferrous

Replaceable Head Carbide Reamers, Now Available in Smaller Diameters

» Innovative clamping system provides minimal setup and machining downtime.

» Excellent hole accuracy and finish (H7 tolerance capable).

» Multiple cutting edges for high productivity.

XLB

XSA

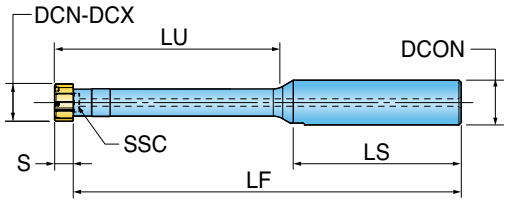
View the full line »

WINSFEED™ ADVANCED MACHINING

Ream Coolant

Series XS_RB

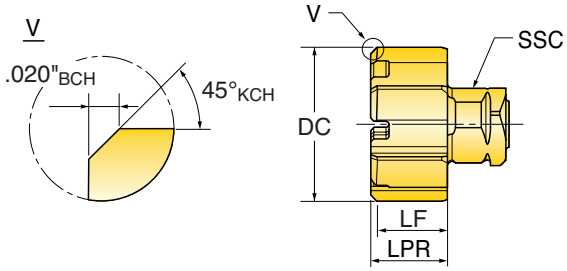
3XD, 5XD • BLIND HOLE SHANKS



Part Number	DCN Cutting Dia. Min.	DCX Cutting Dia. Max.	SSC Insert Seat Size	S Thickness	LUDR Usable Length Dia. Ratio	LU Usable Length	LF Functional Length	LS Shank Length	DCON Shank Dia.
INCH									
XS0080028R8RB1	0.3150	0.3543	XT0	0.157	3	1.10	3.03	1.77	0.375
XS1090032R8RB1	0.3543	0.3937	XT1	0.177	3	1.24	3.19	1.77	0.375
XS2100035S4RB1	0.3937	0.4330	XT2	0.197	3	1.38	3.31	1.77	0.500
XS3110039S4RB1	0.4331	0.4724	XT3	0.217	3	1.52	3.43	1.77	0.500
XS4120042S4RB1	0.4724	0.5118	XT4	0.236	3	1.65	3.54	1.77	0.500
XS0080044R8RB1	0.3150	0.3543	XT0	0.157	5	1.73	3.66	1.77	0.375
XS1090050R8RB1	0.3543	0.3937	XT1	0.177	5	1.95	3.90	1.77	0.375
XS2100055S4RB1	0.3937	0.4330	XT2	0.197	5	2.17	4.09	1.77	0.500
XS3110061S4RB1	0.4331	0.4724	XT3	0.217	5	2.38	4.29	1.77	0.500
XS4120066S4RB1	0.4724	0.5118	XT4	0.236	5	2.60	4.49	1.77	0.500
METRIC									
XS0080028T1RB1	8.000	8.999	XT0	4.0 mm	3	28.0 mm	77.0 mm	45.0 mm	10.0 mm
XS1090032T1RB1	9.000	9.999	XT1	4.5 mm	3	31.5 mm	81.0 mm	45.0 mm	10.0 mm
XS2100035T2RB1	10.000	10.999	XT2	5.0 mm	3	35.0 mm	84.0 mm	45.0 mm	12.0 mm
XS3110039T2RB1	11.000	11.999	XT3	5.5 mm	3	38.5 mm	87.0 mm	45.0 mm	12.0 mm
XS4120042T2RB1	12.000	12.999	XT4	6.0 mm	3	42.0 mm	90.0 mm	45.0 mm	12.0 mm
XS0080044T1RB1	8.000	8.999	XT0	4.0 mm	5	44.0 mm	93.0 mm	45.0 mm	10.0 mm
XS1090050T1RB1	9.000	9.999	XT1	4.5 mm	5	49.5 mm	99.0 mm	45.0 mm	10.0 mm
XS2100055T2RB1	10.000	10.999	XT2	5.0 mm	5	55.0 mm	104.0 mm	45.0 mm	12.0 mm
XS3110061T2RB1	11.000	11.999	XT3	5.5 mm	5	60.5 mm	109.0 mm	45.0 mm	12.0 mm
XS4120066T2RB1	12.000	12.999	XT4	6.0 mm	5	66.0 mm	114.0 mm	45.0 mm	12.0 mm

Series XSA

BLIND HOLE REAMER HEAD • STRAIGHT FLUTE

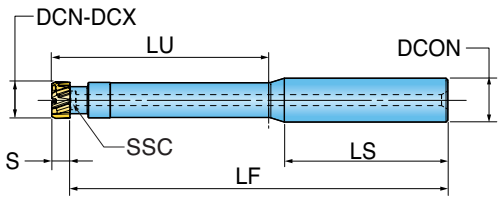


Part Number	DC Cutting Dia.	ZEFF Effective Teeth	SSC Insert Seat Size	LPR Protruding Length	LF Functional Length	FHH Flute Helix Hand	Grade IN2005
INCH							
XSA08731R71	0.3438	6	XT0	0.157	0.142	Neutral	•
XSA09525R71	0.3750	6	XT1	0.177	0.161	Neutral	•
XSA10319R71	0.4063	6	XT2	0.197	0.181	Neutral	•
XSA11113R71	0.4375	6	XT3	0.217	0.201	Neutral	•
XSA11906R71	0.4688	6	XT3	0.217	0.201	Neutral	•
XSA12700R72	0.5000	6	XT4	0.236	0.220	Neutral	•
METRIC							
XSA08000R71	8.00 mm	6	XT0	4.0 mm	3.64 mm	Neutral	•
XSA09000R71	9.00 mm	6	XT1	4.5 mm	4.14 mm	Neutral	•
XSA10000R71	10.00 mm	6	XT2	5.0 mm	4.64 mm	Neutral	•
XSA11000R71	11.00 mm	6	XT3	5.5 mm	5.14 mm	Neutral	•
XSA12000R72	12.00 mm	6	XT4	6.0 mm	5.64 mm	Neutral	•

Ream Coolant

Series XS_RT

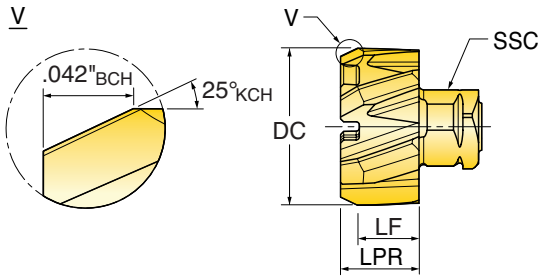
3XD, 5XD • THRU HOLE SHANKS



Part Number	DCN Cutting Dia. Min.	DCX Cutting Dia. Max.	SSC Insert Seat Size	S Thickness	LUDR Usable Length Dia. Ratio	LU Usable Length	LF Functional Length	LS Shank Length	DCON Shank Dia.
INCH									
XS0080028R8RT1	0.3150	0.3543	XT0	0.157	3	1.10	3.03	1.77	0.375
XS1090032R8RT1	0.3543	0.3937	XT1	0.177	3	1.24	3.19	1.77	0.375
XS2100035S4RT1	0.3937	0.4330	XT2	0.197	3	1.38	3.31	1.77	0.500
XS3110039S4RT1	0.4331	0.4724	XT3	0.217	3	1.52	3.43	1.77	0.500
XS4120042S4RT1	0.4724	0.5118	XT4	0.236	3	1.65	3.50	1.77	0.500
XS0080044R8RT1	0.3150	0.3543	XT0	0.157	5	1.73	3.66	1.77	0.375
XS1090050R8RT1	0.3543	0.3937	XT1	0.177	5	1.95	3.90	1.77	0.375
XS2100055S4RT1	0.3937	0.4330	XT2	0.197	5	2.17	4.09	1.77	0.500
XS3110061S4RT1	0.4331	0.4724	XT3	0.217	5	2.38	4.29	1.77	0.500
XS4120066S4RT1	0.4724	0.5118	XT4	0.236	5	2.60	4.45	1.77	0.500
METRIC									
XS0080028T1RT1	8.000	8.999	XT0	4.0 mm	3	28.0 mm	77.0 mm	45.0 mm	10.0 mm
XS1090032T1RT1	9.000	9.999	XT1	4.5 mm	3	31.5 mm	81.0 mm	45.0 mm	10.0 mm
XS2100035T2RT1	10.000	10.999	XT2	5.0 mm	3	35.0 mm	84.0 mm	45.0 mm	12.0 mm
XS3110039T2RT1	11.000	11.999	XT3	5.5 mm	3	38.5 mm	87.0 mm	45.0 mm	12.0 mm
XS4120042T2RT1	12.000	12.999	XT4	6.0 mm	3	42.0 mm	89.0 mm	45.0 mm	12.0 mm
XS0080044T1RT1	8.000	8.999	XT0	4.0 mm	5	44.0 mm	93.0 mm	45.0 mm	10.0 mm
XS1090050T1RT1	9.000	9.999	XT1	4.5 mm	5	49.5 mm	99.0 mm	45.0 mm	10.0 mm
XS2100055T2RT1	10.000	10.999	XT2	5.0 mm	5	55.0 mm	104.0 mm	45.0 mm	12.0 mm
XS3110061T2RT1	11.000	11.999	XT3	5.5 mm	5	60.5 mm	109.0 mm	45.0 mm	12.0 mm
XS4120066T2RT1	12.000	12.999	XT4	6.0 mm	5	66.0 mm	113.0 mm	45.0 mm	12.0 mm

Series XLB

THRU HOLE REAMER HEAD • LEFT HAND HELIX



Part Number	DC Cutting Dia.	ZEFF Effective Teeth	SSC Insert Seat Size	LPR Protruding Length	LF Functional Length	FHH Flute Helix Hand	Grade IN2005
INCH							
XLB08731R71	0.3438	6	XT0	0.157	0.115	Left	•
XLB09525R71	0.3750	6	XT1	0.177	0.135	Left	•
XLB10319R71	0.4063	6	XT2	0.197	0.155	Left	•
XLB11113R71	0.4375	6	XT3	0.217	0.174	Left	•
XLB11906R71	0.4688	6	XT3	0.217	0.174	Left	•
XLB12700R72	0.5000	6	XT4	0.236	0.194	Left	•
METRIC							
XLB08000R71	8.00 mm	6	XT0	4.0 mm	2.93 mm	Left	•
XLB09000R71	9.00 mm	6	XT1	4.5 mm	3.43 mm	Left	•
XLB10000R71	10.00 mm	6	XT2	5.0 mm	3.93 mm	Left	•
XLB11000R71	11.00 mm	6	XT3	5.5 mm	4.43 mm	Left	•
XLB12000R72	12.00 mm	6	XT4	6.0 mm	4.93 mm	Left	•

Hardware

DC Cutting Dia. INCH	DC Cutting Dia. MM	Head	Handle	Key
0.3150-0.3543	8.000-8.999 mm	XSA	SW6-T SHORT	W XR D08-KEY
0.3543-0.3937	9.000-9.999 mm	XSA	SW6-T SHORT	W XR D08-KEY
0.3937-0.4330	10.000-10.999 mm	XSA	SW6-T SHORT	W XR D10-KEY
0.4331-0.4724	11.000-11.999 mm	XSA	SW6-T SHORT	W XR D10-KEY
0.4724-0.5118	12.000-12.999 mm	XSA	SW6-T SHORT	W XR D12-KEY
0.3150-0.3543	8.000-8.999 mm	XLB	SW6-T SHORT	W XR D08-KEY
0.3543-0.3937	9.000-9.999 mm	XLB	SW6-T SHORT	W XR D08-KEY
0.3937-0.4330	10.000-10.999 mm	XLB	SW6-T SHORT	W XR D10-KEY
0.4331-0.4724	11.000-11.999 mm	XLB	SW6-T SHORT	W XR D10-KEY
0.4724-0.5118	12.000-12.999 mm	XLB	SW6-T SHORT	W XR D12-KEY

WINTURN™

TURNING

Number of Cutting Edges

6

Insert Series

TNMV-BM
(general purpose steel)

TNMV-BS
(stainless steel)

Feed Rates

Forward Turning:
.008–.024" ipr

Backward Turning:
.024–.047" ipr

Cutting Depths

Forward Turning:
.020–.138"

Backward Turning:
.028–.080"

Grades

CVD:
TT8115B, TT8125B, TT9225

PVD:
TT9080

Materials

- Steel
- Stainless Steel

Holders

1.00" and 1.25"
Left and right;
with or without thru coolant

6-Edge Inserts and Holders for All-Directional and Hi-Feed Turning

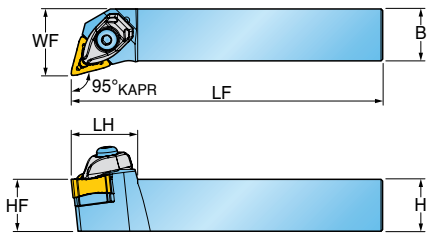
- Multi-directional turning applications including backward and forward longitudinal turning and facing.
- Hi-feed capabilities; up to .047 ipr when backward turning.
- Serrated cutting edge enables excellent chip control at a variety of cutting depths.

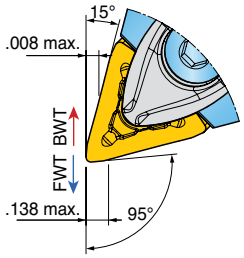
View the full line »

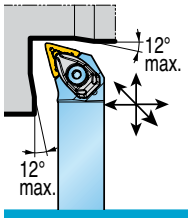
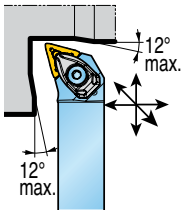
WINSFEED™ ADVANCED MACHINING

Series TTQNR/L

T-HOLDERS FOR TNMV INSERTS





Approach Angle	Part Number	H Shank Height	HF Functional Height	B Shank Width	LF Functional Length	LH Head Length	WF Functional Width	Insert
INCH								
TNMV 15°(BWT); 95°(FWT) 	TTQNR/L 16-3.9D	1.000	1.000	1.000	6.0	1.26	1.25	TNMV 3.95.72 (TNMV210908)
	TTQNR/L 20-3.9D	1.250	1.250	1.250	6.0	1.26	1.50	
METRIC								
TNMV 15°(BWT); 95°(FWT) 	TTQNR/L 2525 M2109	25 mm	25 mm	25 mm	150 mm	32 mm	32 mm	TNMV 3.95.72 (TNMV210908)
	TTQNR/L 3232 P2109	32 mm	32 mm	32 mm	170 mm	32 mm	40 mm	

BWT= backward turning • FWT = forward turning

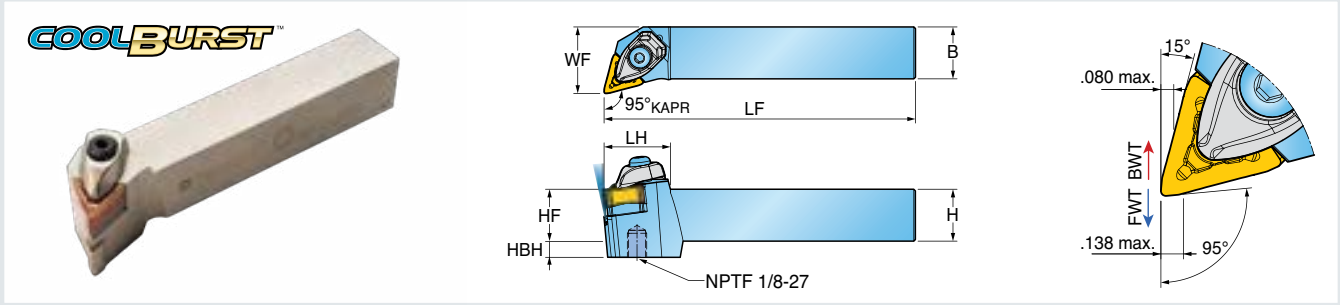
Hardware

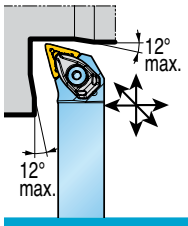
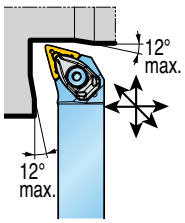
Part Number	Clamp	Clamp Screw	Clamp Spring	Shim	Shim Screw	Hex Driver	Torx Driver
TTQNR/L	DLM 4.4T-NV	DLS 5	DSP 5	TSTV 210510	TS 35083I/HG	L-W 4	T 10

Coolant

Series TTQNR/L-TB

T-HOLDERS FOR TNMV INSERTS WITH HIGH PRESSURE COOLANT



Approach Angle	Part Number	H Shank Height	HF Functional Height	B Shank Width	LF Functional Length	LH Head Length	WF Functional Width	Insert
INCH								
TNMV 15°(BWT); 95°(FWT) 	TTQNR/L 16-3.9D-TB	1.000	1.000	1.000	6.0	1.26	1.25	TNMV 3.95.72 (TNMV210908)
	TTQNR/L 20-3.9D-TB	1.250	1.250	1.250	6.0	1.26	1.50	
METRIC								
TNMV 15°(BWT); 95°(FWT) 	TTQNR/L 2525 M2109-TB	25 mm	25 mm	25 mm	150 mm	32 mm	32 mm	TNMV 3.95.72 (TNMV210908)
	TTQNR/L 3232 P2109-TB	32 mm	32 mm	32 mm	170 mm	32 mm	40 mm	

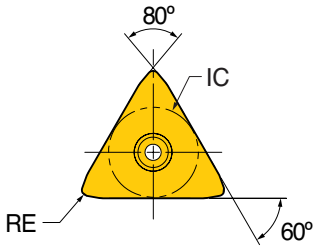
BWT= backward turning • FWT = forward turning

Hardware

Part Number	Clamp	Clamp Screw	Clamp Spring	Shim	Shim Screw	Hex Wrench	Torx Driver
TTQNR/L-TB	DLM 4.4T-NV	DLS 5	DSP 5	TSTV 210510	TS 35083I/HG	L-W 4	T 10

Series TNMV-BM

NEGATIVE TRIANGULAR INSERTS FOR STEEL



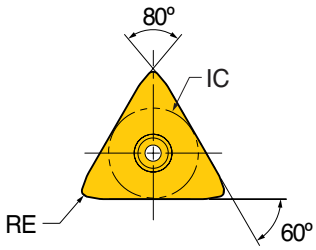
Size	Dimensions (inch)		
	IC Insert Size	S Thickness	RE Corner Radius
3.95.7	.492	.354	.031

Part Number	Backward Turning		Forward Turning		CVD Coated	
	ap (inch)	Feed (ipr)	ap (inch)	Feed (ipr)	TT8115B	TT8125B
TNMV 3.95.72 (210908)-BM	.028-.080	.024-.047	.020-.138	.008-.024	•	•

• = standard items

Series TNMV-BS

NEGATIVE TRIANGULAR INSERTS FOR STAINLESS STEEL



Size	Dimensions (inch)		
	IC Insert Size	S Thickness	RE Corner Radius
3.95.7	.492	.354	.031

Part Number	Backward Turning		Forward Turning		CVD Coated	PVD Coated
	ap (inch)	Feed (ipr)	ap (inch)	Feed (ipr)	TT9225	TT9080
TNMV 3.95.72 (210908)-BS	.028-.080	.024-.047	.040-.138	.008-.016	•	•

• = standard items

FLEXTURN™

TURNING

Shank Sizes

Inch: .500 and .625"
Metric: 12 and 16 mm

Heads (Turning Inserts)

SDJCR (DC_T32.5...)
SVJBR (VB_T22...)
SVJCR (VC_T22...)
SDJNR (DN_X2.22...)
SDJNR (DN__3.53.5...)
SFXCR (BTVC...)
SDJCR – Y-Axis (DC_T32.5...)

Heads (Grooving Inserts)

TTER/L (T-Clamp Ultra+)
TQHR/L (GoldFlex20)
TQHR – Y-Axis (GoldFlex20)

Heads (All)

With or without CoolBurst (high pressure thru coolant)

Time-saving Modular Head and Holder System for Swiss Machines

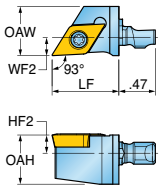
- » Improved productivity due to reduced set-up time.
- » Rigid clamping between shanks and heads, and excellent repeatability.
- » Reduced inventory due to the ability to mount multiple heads on one shank.

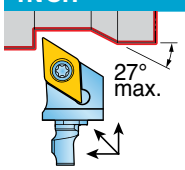
View the full line »

WINSFEED™ ADVANCED MACHINING

Series QE1-SDJCR

FOR EXTERNAL TURNING (DC_T INSERTS)

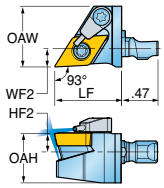


Approach Angle: 93°	Part Number Head	OAH Overall Height	LF Functional Height	OAW Overall Width	HF_2 Functional Height	WF_2 Functional Width	Shank Part Number	Insert Part Number
INCH								
	QE1-SDJCR-11	0.638	0.866	0.638	0.236	0.276	QE1-S12N-TB QE1-S12.7R-TB QE1-S15.9R-TB QE1-S16R-TB	DC_32.5... (DC_11T3...)

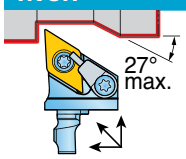
Coolant

Series QE1-SDJCR-TB

FOR EXTERNAL TURNING WITH HIGH PRESSURE COOLANT (DC_T INSERTS)



COOLBURST™

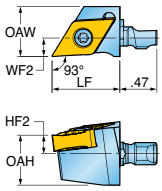
Approach Angle: 93°	Part Number Head	OAH Overall Height	LF Functional Height	OAW Overall Width	HF_2 Functional Height	WF_2 Functional Width	Shank Part Number	Insert Part Number
INCH								
	QE1-SDJCR-11-TB	0.638	0.866	0.787	0.236	0.276	QE1-S12N-TB QE1-S12.7R-TB QE1-S15.9R-TB QE1-S16R-TB	DC_32.5... (DC_11T3...)

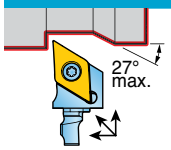
Hardware

Part Number	Screw	Oil Supply Unit	Torx Driver
TTQNR/L	SO35080I	S-CU-TB	T 15

Series QE1-SDJNR

FOR EXTERNAL TURNING (DN_X INSERTS)

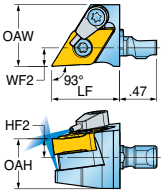


Approach Angle: 93°	Part Number Head	OAH Overall Height	LF Functional Height	OAW Overall Width	HF_2 Functional Height	WF_2 Functional Width	Shank Part Number	Insert Part Number
INCH								
	QE1-SDJNR-0803	0.638	0.866	0.638	0.236	0.276	QE1-S12N-TB QE1-S12.7R-TB QE1-S15.9R-TB QE1-S16R-TB	DN_X2.22... (DN_X0803...)
	QE1-SDJNR-1305	0.638	0.866	0.638	0.236	0.276		DN_3.53.5... (DN_1305...)

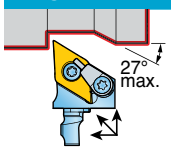
Coolant

Series QE1-SDJNR-TB

FOR EXTERNAL TURNING WITH HIGH PRESSURE COOLANT (DN_X INSERTS)



COOLBURST™

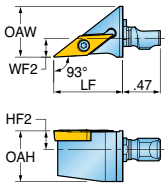
Approach Angle: 93°	Part Number Head	OAH Overall Height	LF Functional Height	OAW Overall Width	HF_2 Functional Height	WF_2 Functional Width	Shank Part Number	Insert Part Number
INCH								
	QE1-SDJNR-0803-TB	0.638	0.866	0.638	0.236	0.276	QE1-S12N-TB QE1-S12.7R-TB QE1-S15.9R-TB QE1-S16R-TB	DN_X2.22... (DN_X0803...)
	QE1-SDJNR-1305-TB	0.638	0.866	0.787	0.236	0.276		DN_3.53.5... (DN_1305...)

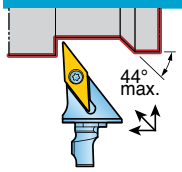
Hardware

Part Number	Screw	Oil Supply Unit	Torx Driver
QE1-SDJNR-0803	TS-25D060/HG-P	-	T7P
QE1-SDJNR-0803-TB	TS-25D060/HG-P	S-CU-TB	T7P
QE1-SDJNR-1305	SE02-78	-	T15
QE1-SDJNR-1305-TB	SE02-78	S-CU-TB	T15

Series QE1-SVJBR

FOR EXTERNAL TURNING (VB_T INSERTS)

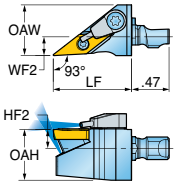


Approach Angle: 93°	Part Number Head	OAH Overall Height	LF Functional Height	OAW Overall Width	HF_2 Functional Height	WF_2 Functional Width	Shank Part Number	Insert Part Number
INCH								
	QE1-SVJBR-11	0.638	0.866	0.638	0.236	0.276	QE1-S12N-TB QE1-S12.7R-TB QE1-S15.9R-TB QE1-S16R-TB	VB_22... (VB_1103...)

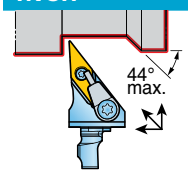
Coolant

Series QE1-SVJBR-TB

FOR EXTERNAL TURNING WITH HIGH PRESSURE COOLANT (VB_T INSERTS)



COOLBURST™

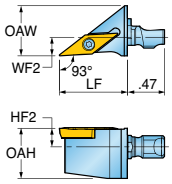
Approach Angle: 93°	Part Number Head	OAH Overall Height	LF Functional Height	OAW Overall Width	HF_2 Functional Height	WF_2 Functional Width	Shank Part Number	Insert Part Number
INCH								
	QE1-SVJBR-11-TB	0.638	0.984	0.638	0.236	0.276	QE1-S12N-TB QE1-S12.7R-TB QE1-S15.9R-TB QE1-S16R-TB	VB_22... (VB_1103...)

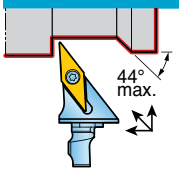
Hardware

Part Number	Screw	Oil Supply Unit	Torx Driver
QE1-SVJBR-11	SO-25065I	-	T7
QE1-SVJBR-11-TB	SO-25065I	S-CU-TB	T7

Series QE1-SVJCR

FOR EXTERNAL TURNING (VC_T INSERTS)

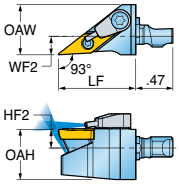


Approach Angle: 93°	Part Number Head	OAH Overall Height	LF Functional Height	OAW Overall Width	HF_2 Functional Height	WF_2 Functional Width	Shank Part Number	Insert Part Number
INCH								
	QE1-SVJCR-11	0.638	0.866	0.638	0.236	0.276	QE1-S12N-TB QE1-S12.7R-TB QE1-S15.9R-TB QE1-S16R-TB	VC_22... (VC_1103...)

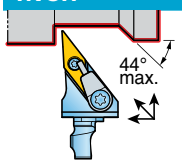
Coolant

Series QE1-SVJCR-TB

FOR EXTERNAL TURNING WITH HIGH PRESSURE COOLANT (VC_T INSERTS)



COOLBURST™

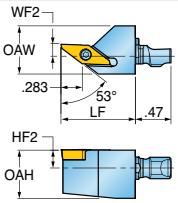
Approach Angle: 93°	Part Number Head	OAH Overall Height	LF Functional Height	OAW Overall Width	HF_2 Functional Height	WF_2 Functional Width	Shank Part Number	Insert Part Number
INCH								
	QE1-SVJCR-11-TB	0.638	0.984	0.638	0.236	0.276	QE1-S12N-TB QE1-S12.7R-TB QE1-S15.9R-TB QE1-S16R-TB	VC_22... (VC_1103...)

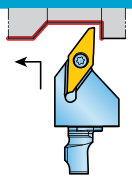
Hardware

Part Number	Screw	Oil Supply Unit	Torx Driver
QE1-SVJCR-11	SO-25065I	-	T7
QE1-SVJCR-11-TB	SO-25065I	S-CU-TB	T7

Series QE1B-SVXCR

FOR EXTERNAL BACK TURNING (BTVC INSERTS)

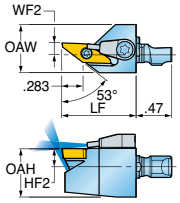


Approach Angle: 53°	Part Number Head	OAH Overall Height	LF Functional Height	OAW Overall Width	HF_2 Functional Height	WF_2 Functional Width	Shank Part Number	Insert Part Number
INCH								
	QE1B-SVXCR-11	0.638	0.984	0.638	0.236	0.118	QE1-S12N-TB QE1-S12.7R-TB QE1-S15.9R-TB QE1-S16R-TB	BTVC22... (BTVC1103...)

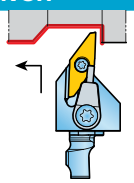
Coolant

Series QE1B-SVXCR-TB

FOR EXTERNAL BACK TURNING WITH HIGH PRESSURE COOLANT (BTVC INSERTS)



COOLBURST™

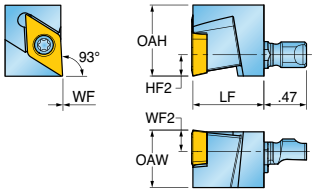
Approach Angle: 53°	Part Number Head	OAH Overall Height	LF Functional Height	OAW Overall Width	HF_2 Functional Height	WF_2 Functional Width	Shank Part Number	Insert Part Number
INCH								
	QE1B-SVXCR-11-TB	0.638	0.984	0.638	0.236	0.118	QE1-S12N-TB QE1-S12.7R-TB QE1-S15.9R-TB QE1-S16R-TB	BTVC22... (BTVC1103...)

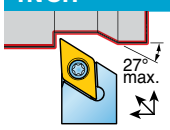
Hardware

Part Number	Screw	Oil Supply Unit	Torx Driver
QE1B-SVXCR	SO-25065I	-	T7
QE1B-SVXCR-TB	SO-25065I	S-CU-TB	T7

Series QE1Y-SDJCR

FOR Y-AXIS TURNING (DC_T INSERTS)

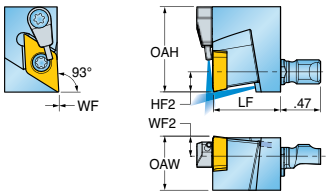


Approach Angle: 93°	Part Number Head	OAW Overall Width	OAH Overall Height	LF Functional Height	OAW Overall Width	HF_2 Functional Height	WF_2 Functional Width	Shank Part Number	Insert Part Number
INCH									
	QE1Y-SDJCR-11	0.638	0.787	0.787	0.000	0.236	0.276	QE1-S12N-TB QE1-S12.7L-TB QE1-S15.9L-TB QE1-S16L-TB	DC_32.5... (DC_11T3...)

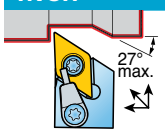
Coolant

Series QE1Y-SDJCR-TB

FOR Y-AXIS TURNING WITH HIGH PRESSURE COOLANT (DC_T INSERTS)



COOLBURST™

Approach Angle: 93°	Part Number Head	OAW Overall Width	OAH Overall Height	LF Functional Height	OAW Overall Width	HF_2 Functional Height	WF_2 Functional Width	Shank Part Number	Insert Part Number
INCH									
	QE1Y-SDJCR-11-TB	0.638	1.004	0.787	0.000	0.236	0.276	QE1-S12N-TB QE1-S12.7L-TB QE1-S15.9L-TB QE1-S16L-TB	DC_32.5... (DC_11T3...)

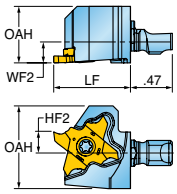
Hardware

Part Number	Screw	Oil Supply Unit	Torx Driver
QE1Y-SDJCR-11	SO-35080I	-	T15
QE1Y-SDJCR-11-TB	SO-35080I	S-CU-TB	T15

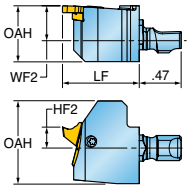
Series QE1-TQHR/L

FOR PARTING AND GROOVING (TQ_20 INSERTS)

Right



Left



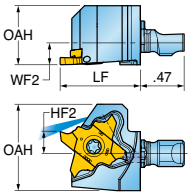
Part Number Head	OAH Overall Height	LF Functional Height	OAW Overall Width	HF_2 Functional Height	WF_2 Functional Width	Shank Part Number	Insert Part Number
INCH							
QE1-TQHR-20	0.933	0.866	0.638	0.236	0.276	QE1-S12N-TB QE1-S12.7R-TB QE1-S15.9R-TB QE1-S16R-TB	TQ_20...
QE1-TQHL-20	0.933	0.866	0.630	0.236	0.354		

Coolant

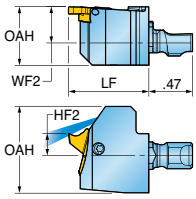
Series QE1-TQHR/L-TB

FOR PARTING AND GROOVING WITH HIGH PRESSURE COOLANT (TQ_20 INSERTS)

Right



Left



COOLBURST™

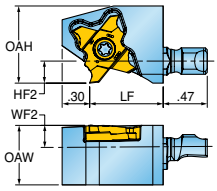
Part Number Head	OAH Overall Height	LF Functional Height	OAW Overall Width	HF_2 Functional Height	WF_2 Functional Width	Shank Part Number	Insert Part Number
INCH							
QE1-TQHR-20-TB	0.933	0.866	0.638	0.236	0.276	QE1-S12N-TB QE1-S12.7R-TB QE1-S15.9R-TB QE1-S16R-TB	TQ_20...
QE1-TQHL-20-TB	0.933	0.866	0.630	0.236	0.354		

Hardware

Part Number	Screw	Torx Driver
QE1-TQHR(-TB)	TS-40A100L	T-1508/5
QE1-TQHL(-TB)	TS-40A100	T-1508/5

Series QE1Y-TQHR

FOR Y-AXIS PARTING/GROOVING (TQ_20 INSERTS)

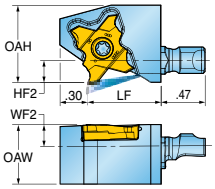


Part Number Head	OAH Overall Height	LF Functional Height	OAW Overall Width	HF_2 Functional Height	WF_2 Functional Width	Shank Part Number	Insert Part Number
INCH							
QE1Y-TQHR-20	0.827	0.787	0.638	0.236	0.276	QE1-S12N-TB QE1-S12.7L-TB QE1-S15.9L-TB QE1-S16L-TB	TQ_20...

Coolant

Series QE1Y-TQHR-TB

FOR Y-AXIS PARTING/GROOVING W/ HIGH PRESSURE COOLANT (TQ_20 INSERTS)



COOLBURST™

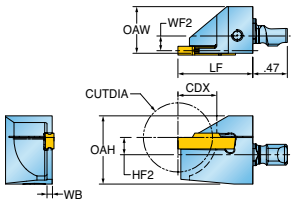
Part Number Head	OAH Overall Height	LF Functional Height	OAW Overall Width	HF_2 Functional Height	WF_2 Functional Width	Shank Part Number	Insert Part Number
INCH							
QE1Y-TQHR-20-TB	0.827	0.787	0.638	0.236	0.276	QE1-S12N-TB QE1-S12.7L-TB QE1-S15.9L-TB QE1-S16L-TB	TQ_20...

Hardware

Part Number	Screw	Torx Driver
QE1Y-TQHR-20(-TB)	TS-40A100L	T-1508/5

Series QE1-TTER

FOR EXTERNAL TURNING/GROOVING (T-CLAMP ULTRA+ INSERTS)

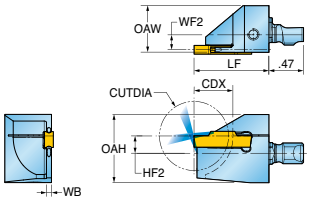


Part Number Head	SSC Insert Seat Size	OAH Overall Height	LH Length Head	OAW Overall Width	WB Body Width	CDX Cutting Depth Max.	CUT DIA Wkpc. Parting Dia. Max.	HF_2 Funct. Height	WF_2 Funct. Width	Shank Part Number	Insert Part Number
INCH											
QE1-TTER-2-12-24	2	0.933	1.024	0.638	0.071	0.472	0.945	0.236	0.240	QE1-S12N-TB QE1-S12.7R-TB QE1-S15.9R-TB QE1-S16R-TB	TDC/J/T/A TDXU/XT/XY/XC TSC/J/A TDUF/TDV
QE1-TTER-2-16-32	2	0.933	1.024	0.638	0.071	0.630	1.260	0.236	0.240		
QE1-TTER-3-12-24	3	0.933	1.024	0.638	0.094	0.472	0.945	0.236	0.228		
QE1-TTER-3-16-32	3	0.933	1.024	0.638	0.094	0.630	1.260	0.236	0.228		

Coolant

Series QE1-TTER-TB

FOR EXTERNAL TURNING/GROOVING WITH HIGH PRESSURE COOLANT (T-CLAMP ULTRA+ INSERTS)



COOLBURST™

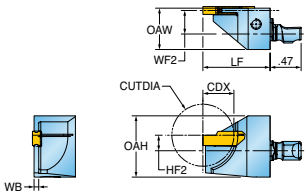
Part Number Head	SSC Insert Seat Size	OAH Overall Height	LH Length Head	OAW Overall Width	WB Body Width	CDX Cutting Depth Max.	CUT DIA Wkpc. Parting Dia. Max.	HF_2 Funct. Height	WF_2 Funct. Width	Shank Part Number	Insert Part Number
INCH											
QE1-TTER-2-12-24-TB	2	0.933	1.024	0.638	0.071	0.472	0.945	0.236	0.240	QE1-S12N-TB QE1-S12.7R-TB QE1-S15.9R-TB QE1-S16R-TB	TDC/J/T/A TDXU/XT/XY/XC TSC/J/A TDUF/TDV
QE1-TTER-2-16-32-TB	2	0.933	1.024	0.638	0.071	0.630	1.260	0.236	0.240		
QE1-TTER-3-12-24-TB	3	0.933	1.024	0.638	0.094	0.472	0.945	0.236	0.228		
QE1-TTER-3-16-32-TB	3	0.933	1.024	0.638	0.094	0.630	1.260	0.236	0.228		

Hardware

Part Number	Screw	Hex Driver
QE1-TTER(-TB)	SH-M4X0.7X16	L-W-3

Series QE1-TTEL

FOR EXTERNAL TURNING/GROOVING (T-CLAMP ULTRA+ INSERTS)

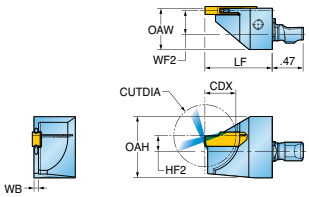


Part Number Head	SSC Insert Seat Size	OAH Overall Height	LH Length Head	OAW Overall Width	WB Body Width	CDX Cutting Depth Max.	CUT DIA Wkpc. Parting Dia. Max.	HF_2 Funct. Height	WF_2 Funct. Width	Shank Part Number	Insert Part Number
INCH											
QE1-TTEL-2-12-24	2	0.933	1.024	0.630	0.071	0.472	0.945	0.236	0.319	QE1-S12N-TB QE1-S12.7R-TB QE1-S15.9R-TB QE1-S16R-TB	TDC/J/T/A TDXU/XT/XY/XC TSC/J/A TDUF/TDV
QE1-TTEL-2-16-32	2	0.933	1.024	0.630	0.071	0.630	1.260	0.236	0.319		
QE1-TTEL-3-12-24	3	0.933	1.024	0.630	0.094	0.472	0.945	0.236	0.307		
QE1-TTEL-3-16-32	3	0.933	1.024	0.630	0.094	0.630	1.260	0.236	0.307		

Coolant

Series QE1-TTEL-TB

FOR EXTERNAL TURNING/GROOVING WITH HIGH PRESSURE COOLANT (T-CLAMP ULTRA+ INSERTS)



COOLBURST™

Part Number Head	SSC Insert Seat Size	OAH Overall Height	LH Length Head	OAW Overall Width	WB Body Width	CDX Cutting Depth Max.	CUT DIA Wkpc. Parting Dia. Max.	HF_2 Funct. Height	WF_2 Funct. Width	Shank Part Number	Insert Part Number
INCH											
QE1-TTEL-2-12-24-TB	2	0.933	1.024	0.630	0.071	0.472	0.945	0.236	0.319	QE1-S12N-TB QE1-S12.7R-TB QE1-S15.9R-TB QE1-S16R-TB	TDC/J/T/A TDXU/XT/XY/XC TSC/J/A TDUF/TDV
QE1-TTEL-2-16-32-TB	2	0.933	1.024	0.630	0.071	0.630	1.260	0.236	0.319		
QE1-TTEL-3-12-24-TB	3	0.933	1.024	0.630	0.094	0.472	0.945	0.236	0.307		
QE1-TTEL-3-16-32-TB	3	0.933	1.024	0.630	0.094	0.630	1.260	0.236	0.307		

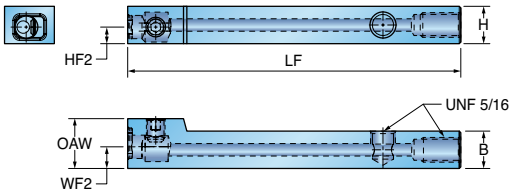
Hardware

Part Number	Screw	Hex Driver
QE1-TTEL(-TB)	SH-M4X0.7X16	L-W-3

Coolant

Series QE1-S12.7R/L-TB

.500" SHANK WITH HIGH PRESSURE COOLANT



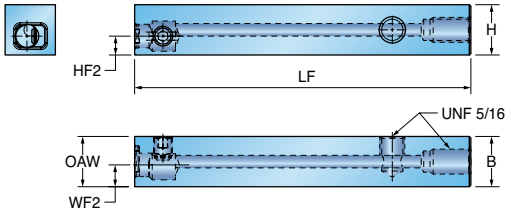
COOLBURST™

Part Number Shank	HF_2 Functional Height	WF_2 Functional Width	H Shank Height	B Functional Height	LF Functional Height	OAW Overall Width
INCH						
QE1-S12.7R/L-TB	0.236	0.276	0.500	0.500	4.210	0.630

Coolant

Series QE1Y-TQHR-TB

.625" SHANK WITH HIGH PRESSURE COOLANT



COOLBURST™

Part Number Shank	HF_2 Functional Height	WF_2 Functional Width	H Shank Height	B Functional Height	LF Functional Height	OAW Overall Width
INCH						
QE1-S15.9R/L-TB	0.236	0.276	0.625	0.625	4.210	0.625

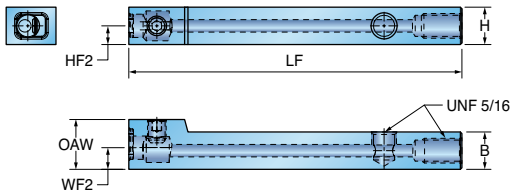
Hardware

Part Number	Screw	Plug	Hex Driver	
QE-1...-TB	SS-M6F-7	PLG-5/16-UNF	L-W-3	L-W-4

Coolant

Series QE1-S12N-TB

12 MM SHANK WITH HIGH PRESSURE COOLANT



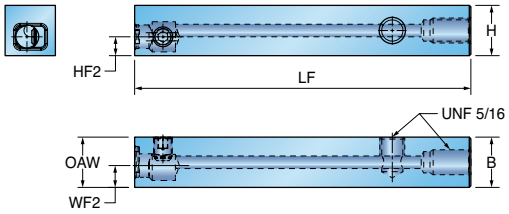
COOLBURST™

Part Number Shank	HF_2 Functional Height	WF_2 Functional Width	H Shank Height	B Functional Height	LF Functional Height	OAW Overall Width
METRIC						
QE1-S12N-TB	6.0 mm	7.0 mm	12.0 mm	12.0 mm	107.0 mm	16.0 mm

Coolant

Series QE1-S16R/L-TB

16 MM SHANK WITH HIGH PRESSURE COOLANT



COOLBURST™

Part Number Shank	HF_2 Functional Height	WF_2 Functional Width	H Shank Height	B Functional Height	LF Functional Height	OAW Overall Width
METRIC						
QE1-S16R/L-TB	6.0 mm	7.0 mm	16.0 mm	16.0 mm	107.0 mm	16.0 mm

Hardware

Part Number	Screw	Plug	Hex Driver	
QE-1...-TB	SS-M6F-7	PLG-5/16-UNF	L-W-3	L-W-4

TMODULAR™

TURNING

Series

DTA-__N: External

C-DTA: Internal with C-Adapter

DTC-D40Y: Y-Axis Heads

External Shanks

Inch: .75, 1.00, 1.25, 1.50"

Metric: 20, 25, 32, 40 mm

C-Adapter Sizes

C4, C5, C6

C-Adapter Diameters

16, 20, 25, 32, 40 mm

C-Adapter Bar Lengths

Steel: 2.5xD, 3xD, 4xD

Carbide Core: 5xD

Head/Insert Styles

Positive: CCMT, DCMT, VBMT

Negative (RhinoTurn): DNMG, VNMX

Negative (RhinoTurnM): CNMX, DNMX, WNMX

Negative (ISO): CNMG, DNMG

Y-Axis Turning: TNMV, ZNMV

Threading: 16IR/L, 22IR/L

Grooving: coming soon

Heads (All)

With or without CoolBurst (high pressure thru coolant)

External and Internal Modular Shanks for Various Turning Applications

- » Modular system with excellent stability.
- » Fully compatible with T-Absorber anti-vibration bars and heads.
- » New Y-axis heads for mill-turn applications.

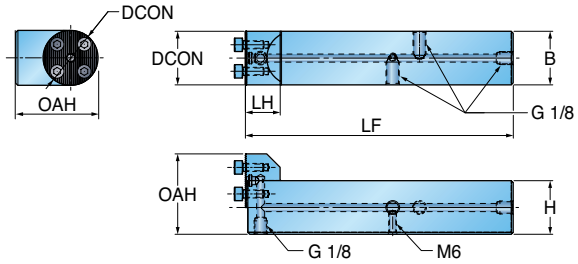
View the full line »

WINSFEED™ ADVANCED MACHINING

Coolant

Series DTA-__N

MODULAR HOLDERS WITH SQUARE SHANK AND HIGH PRESSURE COOLANT



Part Number	H Shank Height	B Shank Width	OAH Overall Height	LF Functional Length	LH Head Length	DCON Connection Diameter (mm)
INCH						
DTA-12N-D20-TB	.750	.750	1.146	3.622	.827	20 mm
DTA-12N-D25-TB	.750	.750	1.244	3.622	.827	25 mm
DTA-12N-D32-TB	.750	.750	1.382	3.622	.827	32 mm
DTA-16N-D25-TB	1.000	1.000	1.492	4.213	.827	25 mm
DTA-16N-D32-TB	1.000	1.000	1.630	4.213	.827	32 mm
DTA-16N-D40-TB	1.000	1.000	1.787	4.213	.827	40 mm
DTA-20N-D32-TB	1.250	1.250	1.882	5.984	.827	32 mm
DTA-20N-D40-TB	1.250	1.250	2.039	5.984	1.024	40 mm
DTA-24N-D40-TB	1.500	1.500	2.287	7.874	1.024	40 mm

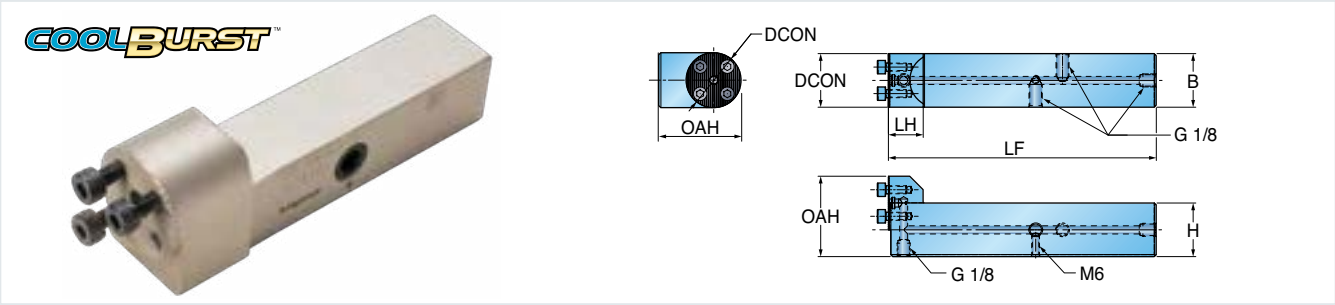
Hardware

Part Number	Screw	Plug	Plug	Hex Driver
DTA-12N-D20-TB	SH M3.5X0.6X10	RSS M6	PLG G1/8-L6.5	L-W2.5
DTA-12N-D25-TB	SH M4X0.7X12	RSS M6	PLG G1/8-L6.5	L-W3
DTA-12N-D32-TB	SH M5X0.8X12	RSS M6	PLG G1/8-L6.5	L-W4
DTA-16N-D25-TB	SH M4X0.7X12	RSS M6	PLG G1/8-L6.5	L-W3
DTA-16N-D32-TB	SH M5X0.8X12	RSS M6	PLG G1/8-L6.5	L-W4
DTA-16N-D40-TB	SH M6X1X16	RSS M6	PLG G1/8-L6.5	L-W5
DTA-20N-D32-TB	SH M5X0.8X12	-	PLG G1/8-L6.5	L-W4
DTA-20N-D40-TB	SH M6X1X16	-	PLG G1/8-L6.5	L-W5
DTA-24N-D40-TB	SH M6X1X16	-	PLG G1/8-L6.5	L-W5

Coolant

Series DTA-__N

MODULAR HOLDERS WITH SQUARE SHANK AND HIGH PRESSURE COOLANT



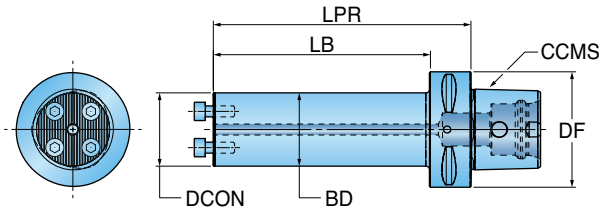
Part Number	H Shank Height	B Shank Width	OAH Overall Height	LF Functional Length	LH Head Length	DCON Connection Diameter
METRIC						
DTA-2020N-D20-TB	20 mm	20 mm	30.0 mm	92 mm	21 mm	20 mm
DTA-2020N-D25-TB	20 mm	20 mm	32.5 mm	92 mm	21 mm	25 mm
DTA-2020N-D32-TB	20 mm	20 mm	36.0 mm	92 mm	21 mm	32 mm
DTA-2525N-D25-TB	25 mm	25 mm	37.5 mm	107 mm	21 mm	25 mm
DTA-2525N-D32-TB	25 mm	25 mm	41.0 mm	107 mm	21 mm	32 mm
DTA-2525N-D40-TB	25 mm	25 mm	45.0 mm	107 mm	21 mm	40 mm
DTA-3232N-D32-TB	32 mm	32 mm	48.0 mm	152 mm	21 mm	32 mm
DTA-3232N-D40-TB	32 mm	32 mm	52.0 mm	152 mm	26 mm	40 mm
DTA-4040N-D40-TB	40 mm	40 mm	60.0 mm	200 mm	26 mm	40 mm

Hardware

Part Number	Screw	Plug	Plug	Hex Driver
DTA-12N-D20-TB	SH M3.5X0.6X10	RSS M6	PLG G1/8-L6.5	L-W2.5
DTA-12N-D25-TB	SH M4X0.7X12	RSS M6	PLG G1/8-L6.5	L-W3
DTA-12N-D32-TB	SH M5X0.8X12	RSS M6	PLG G1/8-L6.5	L-W4
DTA-16N-D25-TB	SH M4X0.7X12	RSS M6	PLG G1/8-L6.5	L-W3
DTA-16N-D32-TB	SH M5X0.8X12	RSS M6	PLG G1/8-L6.5	L-W4
DTA-16N-D40-TB	SH M6X1X16	RSS M6	PLG G1/8-L6.5	L-W5
DTA-20N-D32-TB	SH M5X0.8X12	-	PLG G1/8-L6.5	L-W4
DTA-20N-D40-TB	SH M6X1X16	-	PLG G1/8-L6.5	L-W5
DTA-24N-D40-TB	SH M6X1X16	-	PLG G1/8-L6.5	L-W5

Series C_-DTA

MODULAR HOLDERS WITH C-ADAPTER AND HIGH PRESSURE COOLANT



Part Number	CCMS Connection Code Machine Side	DCON(1) Connection Diameter	LPR Protruding Length	LB Body Length	BD Body Diameter	DF Flange Diameter	BMC(2) Body Material Code
METRIC							
C4-DTA-16A-2.5D	C4	16 mm	40 mm	20 mm	16 mm	40 mm	S
C4-DTA-20A-2.5D	C4	20 mm	50 mm	30 mm	20 mm	40 mm	S
C4-DTA-25A-2.5D	C4	25 mm	55 mm	35 mm	25 mm	40 mm	S
C4-DTA-32A-2.5D	C4	32 mm	75 mm	55 mm	32 mm	40 mm	S
C4-DTA-40A-3D	C4	40 mm	80 mm	80 mm	40 mm	40 mm	S
C5-DTA-16A-2.5D	C5	16 mm	40 mm	20 mm	16 mm	50 mm	S
C5-DTA-20A-2.5D	C5	20 mm	50 mm	30 mm	20 mm	50 mm	S
C5-DTA-25A-2.5D	C5	25 mm	55 mm	35 mm	25 mm	50 mm	S
C5-DTA-32A-2.5D	C5	32 mm	75 mm	55 mm	32 mm	50 mm	S
C5-DTA-40A-3D	C5	40 mm	100 mm	80 mm	40 mm	50 mm	S
C6-DTA-16A-2.5D	C6	16 mm	40 mm	18 mm	16 mm	63 mm	S
C6-DTA-16E-5D	C6	16 mm	80 mm	58 mm	16 mm	63 mm	H
C6-DTA-20A-2.5D	C6	20 mm	50 mm	28 mm	20 mm	63 mm	S
C6-DTA-20E-5D	C6	20 mm	100 mm	27 mm	20 mm	63 mm	H
C6-DTA-25A-2.5D	C6	25 mm	65 mm	43 mm	25 mm	63 mm	S
C6-DTA-25E-5D	C6	25 mm	115 mm	93 mm	25 mm	63 mm	H
C6-DTA-32A-3D	C6	32 mm	90 mm	68 mm	32 mm	63 mm	S
C6-DTA-32A-4D	C6	32 mm	125 mm	103 mm	32 mm	63 mm	S
C6-DTA-32E-5D	C6	32 mm	150 mm	128 mm	32 mm	63 mm	H
C6-DTA-40A-3D	C6	40 mm	100 mm	78 mm	40 mm	63 mm	S
C6-DTA-40A-4D	C6	40 mm	140 mm	118 mm	40 mm	63 mm	S
C6-DTA-40E-5D	C6	40 mm	185 mm	163 mm	40 mm	63 mm	H

(1) DCON dimension of bar must match DCONMS dimension of head
(2) S = steel body, H = carbide core

Hardware

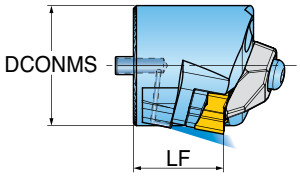
Part Number	Screw	Hex Driver
C_-DT16...	SHM3X0.5X10	L-W2.5
C_-DT20...	SHM3.5X0.6X10	L-W2.5
C_-DT25...	SHM4X0.7X12	L-W3
C_-DT32...	SHM5X0.8X12	L-W4
C_-DT40...	SHM6X1X16	L-W5

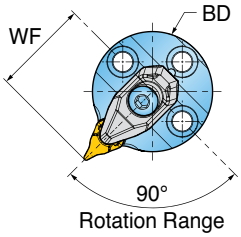
Coolant

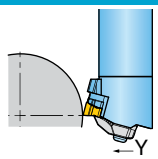
Series DTC-TZXNN-TB

Y-AXIS TURNING HEADS (ZNMV_Y-BF INSERT) W/ HIGH PRESSURE COOLANT

COOLBURST™





	Part Number	DCONMS Connection Dia. Machine Side	LF Functional Length	WF Functional Width	BD Body Diameter	Insert*
METRIC						
	DTC-TZXNN-1410-TB	40 mm	30 mm	32 mm	40 mm	ZNMV 3.36.3...Y-BF

* Use only ZNMV 3.36.3...Y-BF inserts

Hardware

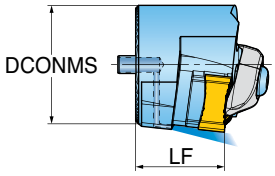
Part Number	Clamp	Clamp Screw	Clamp Spring	Shim	Shim Screw	Hex Driver	Torx Driver
DTC-TZ...3.36.3-TB	DLM 3.3Z-NV	DLS 5	DSP 5	TSZ 140310	TS 35083I/HG	L-W 4	T 10

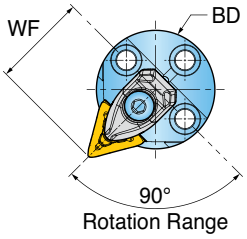
Coolant

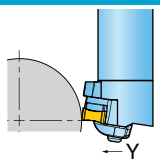
Series DTC-TTXNN-TB

Y-AXIS TURNING HEADS (TNMV INSERT) W/ HIGH PRESSURE COOLANT

COOLBURST™





	Part Number	DCONMS Connection Dia. Machine Side	LF Functional Length	WF Functional Width	BD Body Diameter	Insert
METRIC						
	DTC-TTXNN-2109-TB	40 mm	30 mm	32 mm	40 mm	TNMV 3.95.7...

Hardware

Part Number	Clamp	Clamp Screw	Clamp Spring	Shim	Shim Screw	Hex Driver	Torx Driver
DTC-TT...3.95.7-TB	DLM4.4T-NV	DLS 5	DSP 5	TSTV 210510	TS 35083I/HG	L-W 4	T 10

TABSORBER™

TURNING

Lengths

7xD
10xD
12xD (carbide)
14xD (carbide)

Shank Diameter

80 mm

Cartridges/ Insert Styles

Positive:
SDUCR/L (DC_T32.5_)
VLCR/L (VC_T33_)

Negative:
TDUNR/L (DNMG 43_)

Adapters for External Holders

.750" Square Shank
20 mm Square Shank

80 mm Anti-Vibration Boring Bars with Exchangeable Heads

- Unique damping mechanism located inside the stainless steel body.
- 80 mm coolant-thru shank; internal boring with L/D ratios of 7xD, 10xD, 12xD, and 14xD.
- Various heads, plus adapters for use with .750" and 20 mm square shank tools.

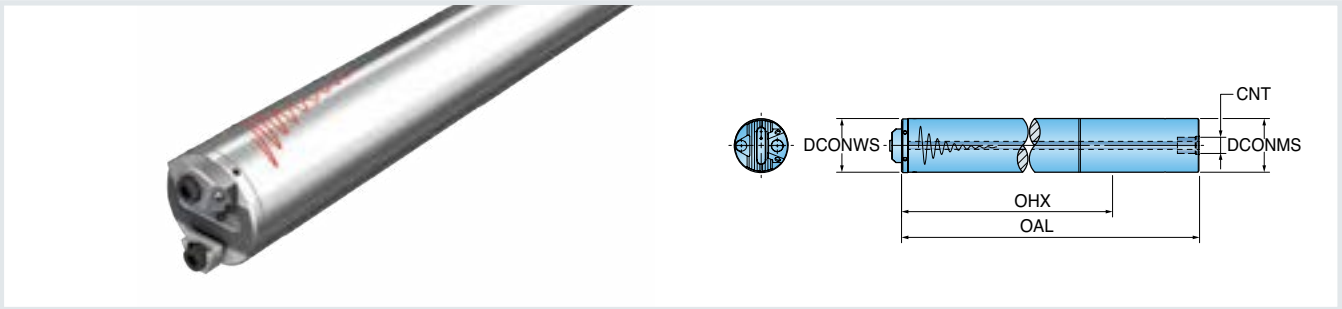
View the full line »

WINSFEED™ ADVANCED MACHINING

Coolant

Series DTA-D80

ANTI-VIBRATION SHANKS FOR BORING

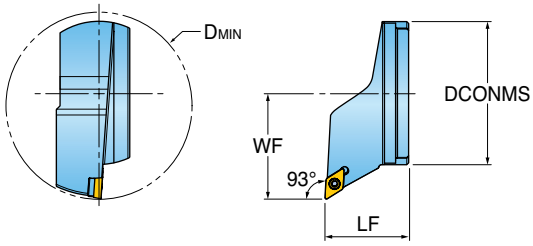


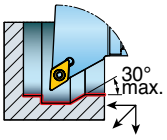
Part Number	DCONMS Connection Dia. Machine Side	DCONWS Connection Dia. Workpiece Side	OAL Overall Length	OHX Maximum Overhang	CNT Coolant Entry Thread Size	BMC* Body Material Code
INCH						
DTA-D80-7D-C	3.15 (80 mm)	3.15 (80 mm)	34.65	20.28	G 3/4"	S
DTA-D80-10D-C	3.15 (80 mm)	3.15 (80 mm)	47.24	29.72	G 3/4"	S
DTA-D80-12D-E	3.15 (80 mm)	3.15 (80 mm)	48.81	36.06	G 3/4"	H
DTA-D80-14D-E	3.15 (80 mm)	3.15 (80 mm)	55.12	42.36	G 3/4"	H

* S = steel body; H = carbide

Series DTC-SDUCR/L

SCREW TYPE BORING HEADS (POSITIVE DC_T INSERTS)



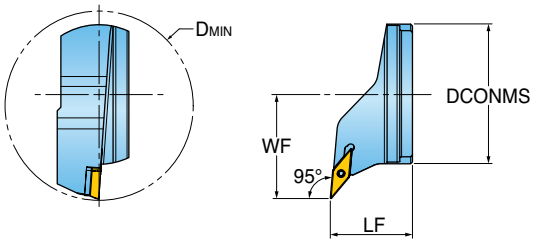
Approach Angle: 93°	Part Number	DCONMS Connection Dia. Machine Side	LF Functional Length	WF Functional Width	DMIN Minimum Bore Diameter	Insert
INCH						
	DTC-D80-SDUCR/L-11	3.03 (77 mm)	1.771	2.244	3.937	DC_T 32.5_ (11T3...)

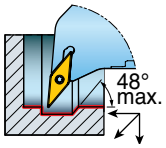
Hardware

Part Number	Screw	Shim	Shim Screw	Stopper Screw	Torx Driver	Hex Driver	Hex Driver
SDUCR/L	SR 16-236 P	TDC 3-1P	SR TC-3P	SH M3x0.5x6	DS-T15F	L-W 4	L-W 2.5

Series DTC-SVLCR/L

SCREW TYPE BORING HEADS (POSITIVE VC_T INSERTS)



Approach Angle: 95°	Part Number	DCONMS Connection Dia. Machine Side	LF Functional Length	WF Functional Width	DMIN Minimum Bore Diameter	Insert
INCH						
	DTC-D80-SVLCR/L-16	3.03 (77 mm)	1.771	2.244	3.937	VC_ T33_ (1604...)

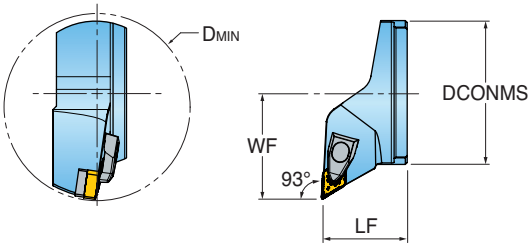
Hardware

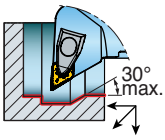
Part Number	Screw	Shim	Shim Screw	Stopper Screw	Torx Driver	Hex Driver	Hex Driver
SVLCR/L	SR 16-236 P	TVC 3-1P	SR TC-3P	SH M3x0.5x6	DS-T15F	L-W 4	L-W 2.5

Coolant

Series DTC-TDUNR/L

T- TYPE CLAMPING BORING HEADS (NEGATIVE DN_G INSERTS)



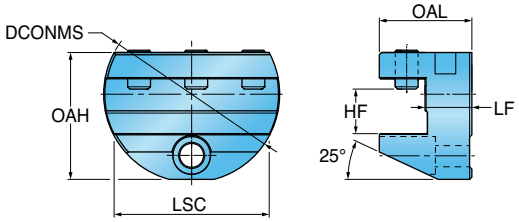
Approach Angle: 93°	Part Number	DCONMS Connection Dia. Machine Side	LF Functional Length	WF Functional Width	DMIN Minimum Bore Diameter	Insert
INCH						
	DTC-D80-TDUNR/L-1504	3.03 (77 mm)	1.811	2.244	3.937	DN_G43_ (1504...)

Hardware

Part Number	Shim	Clamp	Clamp Screw	Shim Screw	Clamp Spring	Hex Driver	Shim/Seat Screwdriver
TDUNR/L	RDT 443	DLM4	DLS4	CSTB4S	DSP4	L-W 3	DS-T15S

Series DTC-D80

PERPENDICULAR ADAPTER FOR EXTERNAL SQUARE-SHANK TOOLS



Part Number	DCONMS Connection Dia. Machine Side	LF Functional Length	HF Functional Height	OAL Overall Length	OAH Overall Height	LSC Clamping Length
INCH						
DTC-D80-12	3.03 (77 mm)	.821	.75	1.608	2.185	1.488
METRIC						
DTC-D80-2020	77 mm	20.5 mm	20.0 mm	40.5 mm	55.5 mm	67.8 mm

- For use with external 20 mm and .750" square shank holders.
- Since there is a deviation in the DMIN value for each holder, it is recommended to use the boring head after checking for interference with the workpiece.

Hardware

Part Number	Screw	Hex Driver
DTA-D80	SR M10x16 DIN913	L-W 5

MULTITURN™

TURNING

Holder Series

LVJBR
- 0.750" and 1.000"
- 20 mm and 25 mm

LVJBR-SH (Swiss)
- 0.625"
- 16 mm

Insert Series

VBMX

Corner Radii

0.008"
0.016"
0.031"

Grades

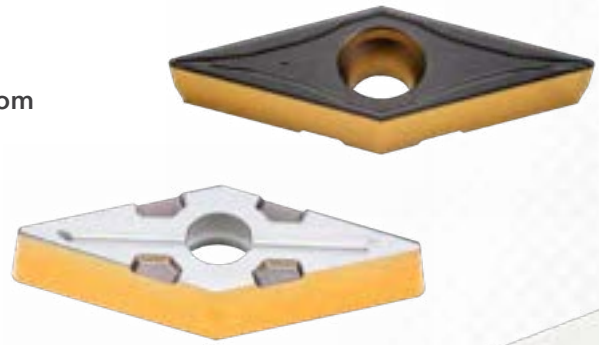
TT8115B
TT5080
TT3020
CT3000 (cermet)

VBMX Insert and Holders with Rigid Clamping

» 35° inserts and holder system for precision machining.

» Groove on insert bottom prevents insert from moving in the pocket (when used with LVJBR holders).

» Simple, screw-held clamping.

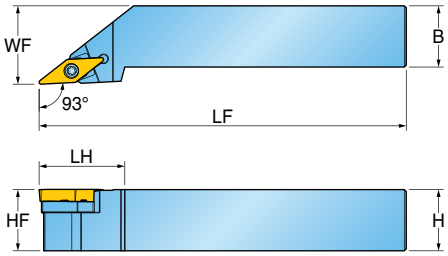


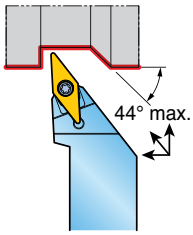
View the full line »

WINSFEED™ ADVANCED MACHINING

Series LVJBR/L

SCREW TYPE HOLDERS (VBMX INSERT)





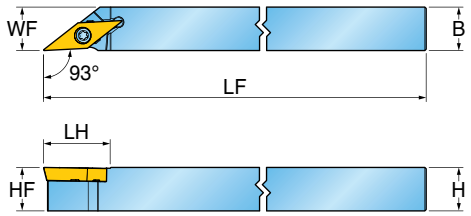
Approach Angle: 93°	Part Number	H Shank Height	HF Functional Height	B Shank Width	LF Functional Length	LH Head Length	WF Functional Width	Insert
	INCH							
	LVJBR/L 12-3B	.750	.750	.750	4.5	1.378	1.00	VBMX33... (VBMX1604...)
	LVJBR/L 16-3D	1.000	1.000	1.000	6.0	1.378	1.25	
	METRIC							
	LVJBR/L 2020 K16	20 mm	20 mm	20 mm	125 mm	35 mm	25 mm	VBMX33... (VBMX1604...)
	LVJBR/L 2525 M16	25 mm	25 mm	25 mm	150 mm	35 mm	32 mm	

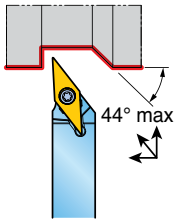
Hardware

Part Number	Screw	Shim	Shim Screw	Hex Driver	Torx Driver
LVJBR/L	SO 35124I	SSVX 32	TS 5035062S	L-W 3.5	T 15

Series LVJBR-SH

SCREW TYPE HOLDERS FOR SWISS (VBMX INSERT)



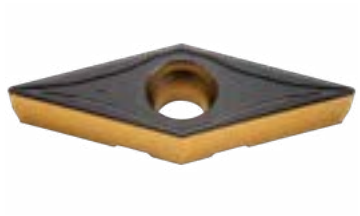
Approach Angle: 93°	Part Number	H Shank Height	HF Functional Height	B Shank Width	LF Functional Length	LH Head Length	WF Functional Width	Insert
	**INCH**							
	LVJBR 10-3C-SH	.625	.625	.625	5.0	.965	.625	VBMX33... (VBMX1604...)
	METRIC							
	LVJBR 1616K16-SH	16 mm	16 mm	16 mm	125 mm	24.5 mm	16 mm	VBMX33... (VBMX1604...)

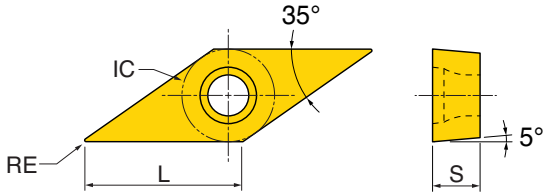
Hardware

Part Number	Screw	Shim	Shim Screw	Hex Driver	Torx Driver
LVJBR-SH	SO 35080I	-	-	-	T 15

Series VBMX

POSITIVE 5° CLEARANCE 35° RHOMBIC INSERTS





Size	Dimensions (inch)			
	IC	S	RE	L
330.5	.375	.187	.008	.654
331	.375	.187	.016	.654
332	.375	.187	.031	.654

Part Number	ap (inch)	Feed (ipr)	Cermet	CVD Coated	PVD Coated	
			CT3000	TT8115B	TT5080	TT3020
INCH						
VBMX330.5 (160402) FG	.012-.060	.002-.008	•	•	•	
VBMX331 (160404) FG	.012-.060	.003-.008	•	•	•	
VBMX332 (160408) FG	.030-.080	.004-.010	•	•	•	•

Insert can also be assembled onto an ISO holder

• = Standard Items

WINCUT™

PARTING & GROOVING

Featuring CUTSFEED™ inserts

Insert Widths

0.079" (2 mm)
0.118" (3 mm)

Chip Breakers

SFC - Frontal land geometry suitable for higher feed rates

SFJ - Sharp cutting edge for gummy materials

Max. Cutting Diameter

Up to 4.72" (1.20 mm)

Holders

Inch: 0.750", 1.00", 1.25"
Metric: 20 mm, 25 mm, 32 mm

Grades

TT9080 – PVD coated for general purpose in variety of materials

TT8020 – PVD coated with very tough substrate for difficult applications

K10 – uncoated for aluminum alloys and non-ferrous materials

Single-Ended Rigid Inserts and Holders for Parting and Deep Grooving with Unique Adapters

- » Stable insert clamping with 3-point contact area.
- » Very rigid triangular blades and dedicated holders with thru-coolant.
- » Improved productivity due to hi-feed machining capability.
- » Straighter cuts, better surface finish, longer tool life.

View the full line »

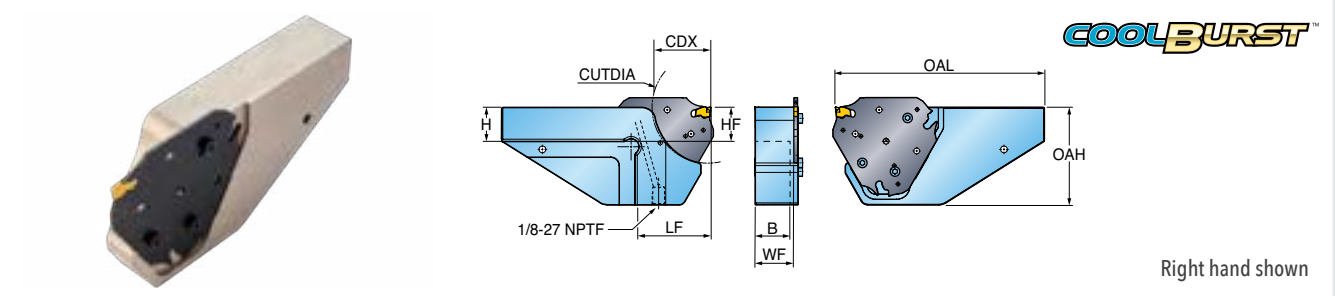
WINSFEED™ ADVANCED MACHINING

WINCUT™

Parting Grooving Coolant

Series THTBR/L-TB

HOLDERS FOR TRIANGULAR BLADE WITH HIGH PRESSURE COOLANT



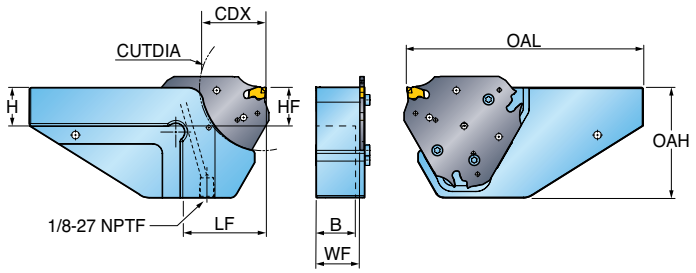
Part Number	H Shank Height	HF Functional Height	B Shank Width	OAL Overall Length	OAH Overall Height	WF Functional Width	LF Functional Length	CUTDIA Cutting Diameter	Blade
INCH									
THTBR/L 19-D52-TB	.750	.750	.689	5.0	2.05	.925	1.57	2.05	SFTB, TGTB
THTBR/L 25.4-D52-TB	1.00	1.00	.886	5.4	2.05	1.122	1.57	2.05	
THTBR/L 19-D82-TB	.750	.750	.689	5.5	2.84	.925	2.03	3.23	
THTBR/L 25.4-D82-TB	1.00	1.00	.886	6.0	2.84	1.122	2.03	3.23	
THTBR/L 25.4-D120-TB	1.00	1.00	.886	6.5	3.74	1.122	2.64	4.72	SFTB
THTBR/L 31.8-D120-TB	1.25	1.25	1.142	6.5	3.74	1.378	2.64	4.72	

Hardware

Part Number	Plug	Torx Driver
THTBR/L-TB	SH M4X0.7X10-TX	T 20

Series THTBR/L-TB

Table to determine depth of cut for grooving as a function of the workpiece diameter (CUTDIA).



CDX Cutting Depth Max.	**CUTDIA** Cutting Diameter (Max.)		
	SFTB D52	**SFTB D83**	**SFTB D120**
0.197	9.45	N.L.	N.L.
0.236	6.46	N.L.	N.L.
0.276	5.39	145.12	305.20
0.315	4.65	44.33	101.61
0.354	4.13	28.90	60.94
0.394	3.70	20.63	43.50
0.433	3.39	16.06	33.86
0.472	3.15	13.19	27.72
0.512	2.91	11.18	23.50
0.551	2.76	9.72	20.39
0.591	2.60	8.62	18.03
0.630	2.52	7.76	16.18
0.669	2.40	7.09	14.69
0.709	2.32	6.10	13.46
0.748	2.24	6.06	12.44
0.787	2.20	5.67	11.57
0.827	2.17	5.31	10.87
0.866	2.13	5.04	10.20
0.906	2.09	4.80	9.65
0.945	2.05	4.57	9.17
0.984	2.05	4.49	8.74
1.024	2.05	4.25	8.35

N.L: No Limit

CDX Cutting Depth Max.	**CUTDIA** Cutting Diameter (Max.)	
	SFTB D83	**SFTB D120**
1.063	4.09	7.99
1.102	3.98	7.68
1.142	3.86	7.40
1.181	3.78	7.17
1.220	3.66	6.93
1.260	3.58	6.73
1.299	3.54	6.54
1.339	3.46	6.38
1.378	3.43	6.22
1.417	3.39	6.06
1.457	3.35	5.94
1.496	3.31	5.83
1.535	3.27	5.71
1.575	3.23	5.63
1.614	3.23	5.51

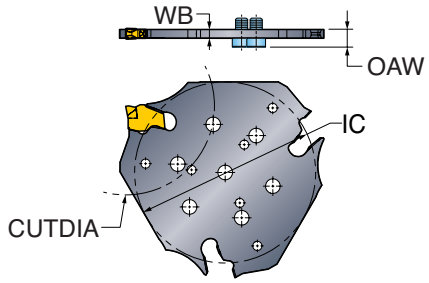
CDX Cutting Depth Max.	**CUTDIA** Cutting Diameter (Max.)
	SFTB D120
1.654	5.35
1.693	5.28
1.732	5.24
1.772	5.16
1.811	5.12
1.850	5.04
1.890	5.00
1.929	4.96
2.008	4.92
2.047	4.88
2.087	4.84
2.165	4.80
2.244	4.76
2.362	4.72

WINCUT™

Parting Grooving

Series SFTB

TRIANGULAR BLADES FOR CUTSFEED INSERT



Part Number	Insert Seat Size	IC Diameter	WB Body Width	CUTDIA Cutting Diameter	OAW Overall Width	Insert
INCH						
SFTB D52-2	2	2.094	.071	2.05	.193	SFC, SFJ
SFTB D52-3	3	2.094	.098	2.05	.220	
SFTB D82-2	2	2.531	.071	3.23	.193	
SFTB D82-3	3	2.531	.098	3.23	.220	
SFTB D120-2	2	3.364	.071	4.72	.193	
SFTB D120-3	3	3.364	.098	4.72	.220	

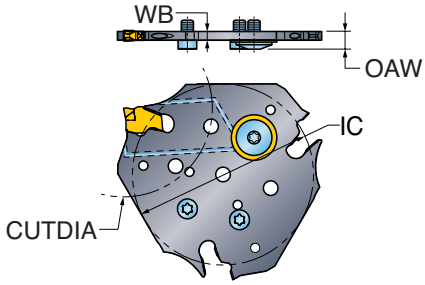
Hardware

Part Number	Extractor
SOLD SEPARATELY	
SFTB	ETG 3-4

Parting Grooving Coolant

Series SFTB-TB

TRIANGULAR BLADES FOR CUTSFEED INSERT WITH HIGH PRESSURE COOLANT



COOLBURST™

Part Number	Insert Seat Size	IC Diameter	WB Body Width	CUTDIA Cutting Diameter	OAW Overall Width	Insert
INCH						
SFTB D52-2-TB	2	2.094	.071	2.05	.193	SFC, SFJ
SFTB D52-3-TB	3	2.094	.098	2.05	.220	
SFTB D82-2-TB	2	2.531	.071	3.23	.193	
SFTB D82-3-TB	3	2.531	.098	3.23	.220	
SFTB D120-2-TB	2	3.364	.071	4.72	.193	
SFTB D120-3-TB	3	3.364	.098	4.72	.220	

Hardware

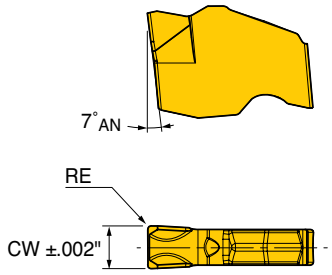
Part Number	Extractor
SOLD SEPARATELY	
SFTB	ETG 3-4

WINCUT™

Parting Grooving

Series SFC

SINGLE-ENDED CUTSFEED INSERTS WITH C-TYPE CHIP BREAKER



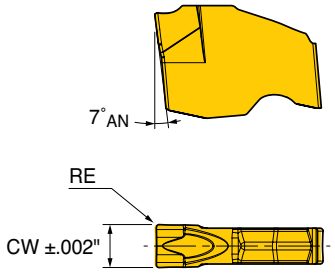
Part Number	Insert Seat Size	CW Cutting Width	RE Corner Radius	Feed (ipr)	Grade		
					TT9080	TT8020	K10
INCH							
SFC 2	2	.079" (2 mm)	.008" (.2 mm)	.003-.008	•	•	•
SFC 3	3	.118" (3 mm)	.008" (.2 mm)	.004-.010	•	•	•

• = Standard Items

Parting Grooving

Series SFJ

SINGLE-ENDED CUTSFEED INSERTS WITH J-TYPE CHIP BREAKER



Part Number	Insert Seat Size	CW Cutting Width	RE Corner Radius	Feed (ipr)	Grade		
					TT9080	TT8020	K10
INCH							
SFJ 2	2	.079" (2mm)	.008" (.2 mm)	.002-.006	•	•	
SFJ 3	3	.118" (3mm)	.008" (.2 mm)	.003-.008	•	•	•

• = Standard Items

WINGROOVE™

PARTING & GROOVING

Minimum Bore Diameter

6 mm (.236")
8 mm (.315")

Insert Widths

0.5~2.0 mm (.020~.079")

Max. Cutting Depth

0.5~1.5 mm (.020~.059")

Grades

TT4430 – PVD-AlTiCrN coated

TT8020 – PVD-TiCN coated

Shank Sizes

Carbide Shanks -
6 mm, 12 mm, and .500"

Steel Shanks -
12 mm and .500"

Applications

Small parts machining
Steel, stainless steel, titanium

Miniature Size Inserts and Holders for Shallow Internal Grooving

- Suitable for small diameter internal grooving and turning with minimum bore diameter down to .236" (6 mm).
- Unique and stable seating, capable of internal grooving up to a flat bottom surface.
- Steel and carbide shanks with thru-coolant.

View the full line »

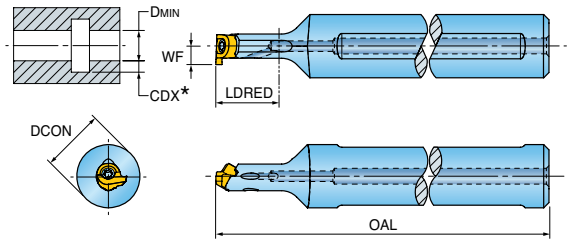
WINSFEED™ ADVANCED MACHINING

WINGROOVE™

ID Groove | ID Groove/ Turn | Coolant

Series TMIHR/L

INTERNAL BORING BARS FOR SHALLOW GROOVING IN SMALL DIAMETERS



Part Number	DCON Shank Diameter	OAL Overall Length	LDRED Reduced Body Dia. Length	WF Functional Width	DMIN Minimum Bore Diameter	Insert
INCH						
TMIHR/L 12.7-12-6	.500	3.0	.50	.138	.236	TMIR/L 6...
TMIHR/L 12.7-16-8	.500	3.0	.63	.185	.315	TMIR/L 8...
METRIC						
TMIHR/L 12-12-6	12 mm	80 mm	12 mm	3.5 mm	6.0 mm	TMIR/L 6...
TMIHR/L 12-16-8	12 mm	80 mm	16 mm	4.7 mm	8.0 mm	TMIR/L 8...

* CDX: Refer to insert dimension

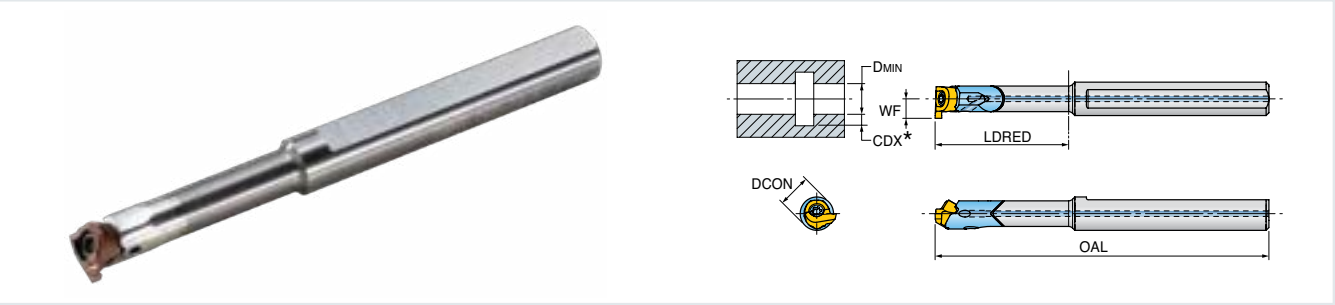
Hardware

Part Number	Screw	Torx Driver
TMIHR/L ...-6	TS 18049/HG-P	DS-TP06F
TMIHR/L ...-8	TS 20055I	DS-T06F

ID Groove | ID Groove/ Turn | Coolant

Series TMIHR/L...C

INTERNAL CARBIDE BORING BARS FOR SHALLOW GROOVING IN SMALL DIAMETERS



Part Number	DCON Shank Diameter	OAL Overall Length	LDRED Reduced Body Dia. Length	WF Functional Width	DMIN Minimum Bore Diameter	Insert
INCH						
TMIHR/L 12.7C-24-8	.500	3.6	.94	.185	.315	TMIR/L 8...
TMIHR/L 12.7C-32-8	.500	4.0	1.26	.185	.315	TMIR/L 8...
METRIC						
TMIHR/L 06C-18-6	6 mm	54 mm	18 mm	3.5 mm	6.0 mm	TMIR/L 6...
TMIHR/L 06C-24-6	6 mm	60 mm	24 mm	3.5 mm	6.0 mm	TMIR/L 6...
TMIHR/L 12C-24-8	12 mm	92 mm	24 mm	4.7 mm	8.0 mm	TMIR/L 8...
TMIHR/L 12C-32-8	12 mm	100 mm	32 mm	4.7 mm	8.0 mm	TMIR/L 8...

* CDX: Refer to insert dimension

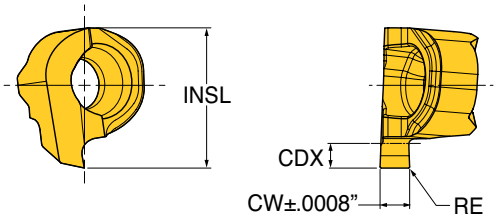
Part Number	Screw	Torx Driver
TMIHR/L ...-6	TS 18049/HG-P	DS-TP06F
TMIHR/L ...-8	TS 20055I	DS-T06F

WINGROOVE™

ID Groove | ID Groove/ Turn

Series TMIR/L

PRECISE INSERTS FOR INTERNAL SHALLOW GROOVING IN SMALL DIAMETERS



Part Number	Feed (ipr)	CW Cutting Width	RE Corner Radius	CDX Cutting Depth Max.	INSL Insert Length	Grade	
						TT4430	TT8020
INCH							
TMIR/L 6-0.50-0.00	.0004-.0012	.020	0	.020	.224	•	•
TMIR/L 6-1.00-0.00	.0004-.0012	.039	0	.039	.224	•	•
TMIR/L 6-1.20-0.05	.0004-.0012	.047	.002	.039	.224	•	•
TMIR/L 8-0.50-0.00	.0004-.0012	.020	0	.028	.291	•	•
TMIR/L 8-1.00-0.00	.0004-.0012	.039	0	.059	.291	•	•
TMIR/L 8-1.50-0.05	.0004-.0012	.059	.002	.059	.291	•	•
TMIR/L 8-2.00-0.10	.0004-.0012	.079	.004	.059	.291	•	•

Right hand insert fits right hand tool

• = Standard Items

GOLDFLEX™

PARTING & GROOVING

Insert Widths

10 mm
15 mm
20 mm

Grooving Depths

Maximum .252"
(dependent on
workpiece diameter)

Grade

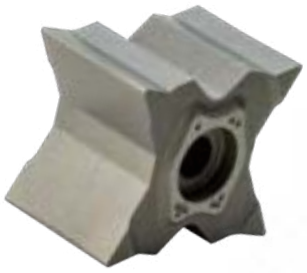
UF10 –
Universal substrate, uncoated

Holders

Inch: .750" and 1.000"
Metric: 20 mm and 25 mm
All holders feature
CoolBurst thru-coolant

Extra Wide Insert Blanks for Special Profile Grooving Applications

- » 4-edge insert blank available in 3 different widths: 10, 15, and 20 mm.
- » Clever clamping design provides stable insert mounting.
- » Huge cycle time reduction possibilities!
- » Customers can grind special profiles themselves, or Ingersoll can supply tailor-made products complete.



View the full line »

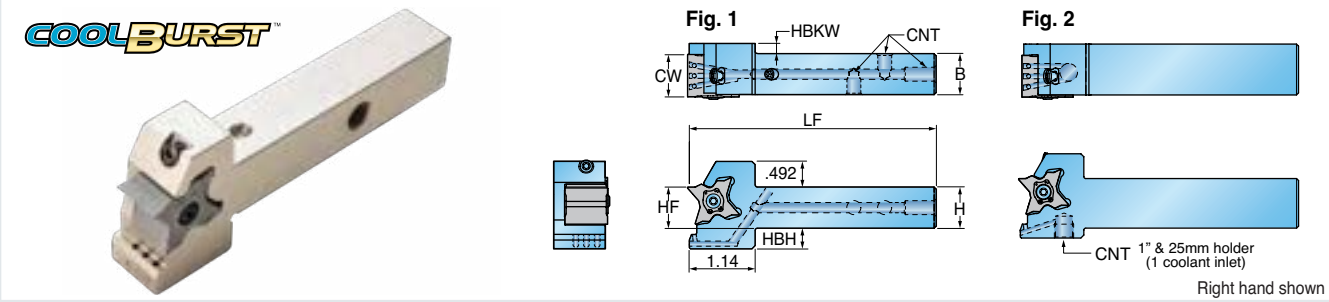
WINSFEED™ ADVANCED MACHINING

GOLDFLEX™

Coolant

Series TQHR/L…EW-TB (Inch)

HOLDERS FOR WIDE SPECIAL FORM GROOVING WITH HIGH PRESSURE COOLANT



Part Number	H Shank Height	HF Functional Height	B Shank Width	LF Functional Length	CW Cutting Width	HBH Head Bottom Offset Height	HBKW Head Back Offset Width	Fig.	CNT Coolant Entry Thread Size	Insert
INCH										
TQHR/L 19-27-10EW-TB	.750	.750	.750	5.0	.413	.512	-	1	1/8-27 NPTF	TQBS 27-10EW
TQHR/L 19-27-15EW-TB	.750	.750	.750	5.0	.610	.512	-	1	1/8-27 NPTF	TQBS 27-15EW
TQHR/L 19-27-20EW-TB	.750	.750	.750	5.0	.807	.512	.197	1	1/8-27 NPTF	TQBS 27-20EW
TQHR/L 25.4-27-10EW-TB	1.000	1.000	1.000	5.5	.413	.315	-	2	1/8-27 NPTF	TQBS 27-10EW
TQHR/L 25.4-27-15EW-TB	1.000	1.000	1.000	5.5	.610	.315	-	2	1/8-27 NPTF	TQBS 27-15EW
TQHR/L 25.4-27-20EW-TB	1.000	1.000	1.000	5.5	.807	.315	-	2	1/8-27 NPTF	TQBS 27-20EW

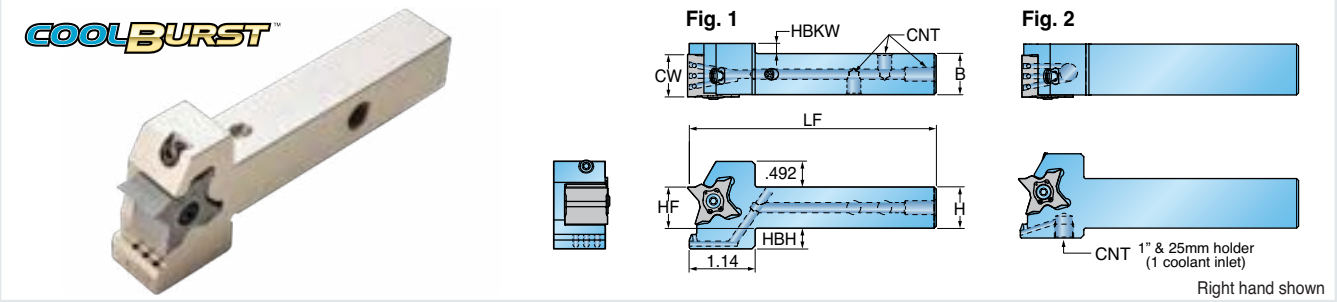
Hardware

Part Number	Clamping Pin	Pin Screw	Side Screw	Plug	Torx Driver	Hex Driver	Hex Driver
TQHR/L 19...10EW-TB	PIN-TQ-W-T	TS 40F120A	BH M4X0.7X16-D7	NPTF 1/8-TQ19	T 15	L-W 2.5	L-W 3/16
TQHR/L 19...15EW-TB	PIN-TQ-W-T	TS 40F120A	BH M4X0.7X20-D7	NPTF 1/8-TQ19	T 15	L-W 2.5	L-W 3/16
TQHR/L 19...20EW-TB	PIN-TQ-W-T	TS 40F120A	BH M4X0.7X23-D7	NPTF 1/8-TQ19	T 15	L-W 2.5	L-W 3/16
TQHR/L 25.4...10EW-TB	PIN-TQ-W-T	TS 40F120A	BH M4X0.7X16-D7	-	T 15	L-W 2.5	-
TQHR/L 25.4...15EW-TB	PIN-TQ-W-T	TS 40F120A	BH M4X0.7X20-D7	-	T 15	L-W 2.5	-
TQHR/L 25.4...20EW-TB	PIN-TQ-W-T	TS 40F120A	BH M4X0.7X23-D7	-	T 15	L-W 2.5	-

Coolant

Series TQHR/L…EW-TB (Metric)

HOLDERS FOR WIDE SPECIAL FORM GROOVING WITH HIGH PRESSURE COOLANT



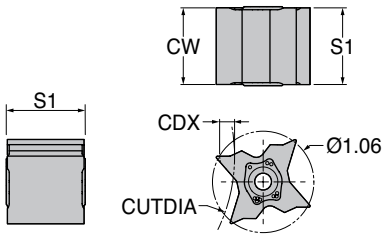
Part Number	H Shank Height	HF Funct. Height	B Shank Width	LF Funct. Length	CW Cutting Width	HBH Head Bottom Offset Height	HBKW Head Back Offset Width	Fig.	CNT Coolant Entry Thread Size	Insert
METRIC										
TQHR/L 20-27-10EW-TB	20 mm	20 mm	20 mm	120 mm	10.5 mm	13 mm	-	1	G 1/8	TQBS 27-10EW
TQHR/L 20-27-15EW-TB	20 mm	20 mm	20 mm	120 mm	15.5 mm	13 mm	-	1	G 1/8	TQBS 27-15EW
TQHR/L 20-27-20EW-TB	20 mm	20 mm	20 mm	120 mm	20.5 mm	13 mm	5 mm	1	G 1/8	TQBS 27-20EW
TQHR/L 25-27-10EW-TB	25 mm	25 mm	25 mm	135 mm	10.5 mm	8 mm	-	2	G 1/8	TQBS 27-10EW
TQHR/L 25-27-15EW-TB	25 mm	25 mm	25 mm	135 mm	15.5 mm	8 mm	-	2	G 1/8	TQBS 27-15EW
TQHR/L 25-27-20EW-TB	25 mm	25 mm	25 mm	135 mm	20.5 mm	8 mm	-	2	G 1/8	TQBS 27-20EW

Hardware

Part Number	Clamping Pin	Pin Screw	Side Screw	Plug	Torx Driver	Hex Driver	Hex Driver
TQHR/L 20...10EW-TB	PIN-TQ-W-T	TS 40F120A	BH M4X0.7X16-D7	PLG G1/8-L6.5	T 15	L-W 2.5	L-W 5
TQHR/L 20...15EW-TB	PIN-TQ-W-T	TS 40F120A	BH M4X0.7X20-D7	PLG G1/8-L6.5	T 15	L-W 2.5	L-W 5
TQHR/L 20...20EW-TB	PIN-TQ-W-T	TS 40F120A	BH M4X0.7X23-D7	PLG G1/8-L6.5	T 15	L-W 2.5	L-W 5
TQHR/L 25...10EW-TB	PIN-TQ-W-T	TS 40F120A	BH M4X0.7X16-D7	-	T 15	L-W 2.5	-
TQHR/L 25...15EW-TB	PIN-TQ-W-T	TS 40F120A	BH M4X0.7X20-D7	-	T 15	L-W 2.5	-
TQHR/L 25...20EW-TB	PIN-TQ-W-T	TS 40F120A	BH M4X0.7X23-D7	-	T 15	L-W 2.5	-

Series TQBS 27-EW

4-EDGE, SEMI-FINISHED INSERT BLANKS FOR WIDE SPECIAL FORM GROOVING



Part Number	Dimension (inch)			CUTDIA Cutting Diameter										Grade
	CW Cutting Width	S1 Thickness (Overall)	CDX Cutting Dia. Max.	CDX≤.118	CDX≤.138	CDX≤.157	CDX≤.177	CDX≤.197	CDX≤.217	CDX≤.224	CDX≤.236	CDX≤.244	CDX≤.252	K10
INCH														
TQBS 27-10EW	.413 (10.5mm)	.437	.252	N.L.	23.62	11.02	7.09	5.31	4.13	3.74	3.35	3.07	2.17	•
TQBS 27-15EW	.610 (15.5mm)	.634	.252	N.L.	23.62	11.02	7.09	5.31	4.13	3.74	3.35	3.07	2.17	•
TQBS 27-20EW	.807 (20.5mm)	.831	.252	N.L.	23.62	11.02	7.09	5.31	4.13	3.74	3.35	3.07	2.17	•

N.L: No Limit

• = Standard Items

FACEFLEX™

PARTING & GROOVING

Number of Cutting Edges

2

Insert Widths

.079" (2 mm) NEW
.118" (3 mm)
.157" (4 mm)
60° Partial Profile Threading

Cutting Depths

Grooving: Up to .236" (6 mm)

Turning: .016~.095" (0.4~2.4 mm)

Feed Rates

Grooving: .001~.010" ipr (0.03~0.25 mm/rev)

Turning: .005~.010" ipr (0.12~0.24 mm/rev)

Grades

TT9080 – General Purpose

Holders

Styles:
Parallel and Perpendicular

Shanks: 1.00", 20 mm, 25 mm

With or without CoolBurst internal coolant

Shallow Face and External Grooving Insert Line Expanded to 2 mm Width

- » Very rigid and robust clamping with anti-rotation pockets on insert bottom.
- » Thick insert design increases stiffness to protect against breakage.
- » Wide variety of applications including face grooving and turning, external turning and grooving, and threading.

View the full line »

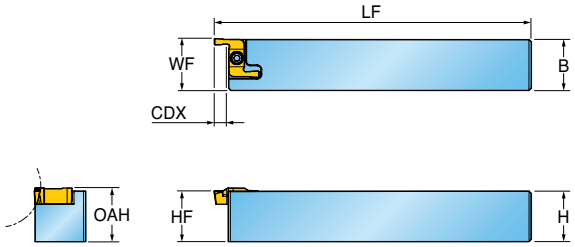
SPEEDUP™ HIGH SPEED & FEED EXPANSION

FACEFLEX™

Face Groove | Face Groove/ Turn | OD Groove | OD Groove/ Turn | OD Groove/ Thread

Series TXFR/L

HOLDERS FOR SHALLOW FACE GROOVING, TURNING & EXTERNAL THREADING



Right hand shown

Part Number	H Shank Height	HF Functional Height	B Shank Width	LF Functional Length	OAH Overall Height	WF Functional Width	CDX Cutting Depth Max.	Insert
INCH								
TXFR 25.4	1.000	1.000	1.000	6.28	1.04	1.020	.236	TD_X ...R
TXFL 25.4	1.000	1.000	1.000	6.28	1.04	1.020	.236	TD_X ...L

Hardware

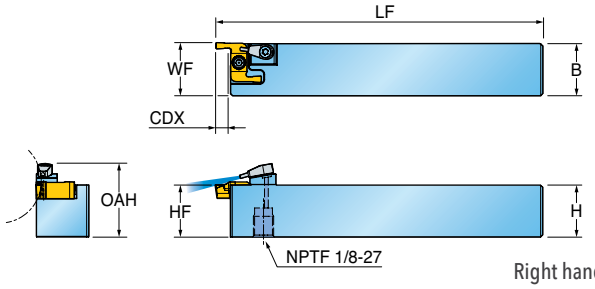
Part Number	Screw	Torx Driver
TXFR 25.4	SM35-110-00	T 15
TXFL 25.4	TS 35110IL	T 15

Face Groove | Face Groove/ Turn | OD Groove | OD Groove/ Turn | OD Groove/ Thread | Coolant

Series TXFR/L-TB

HOLDERS FOR SHALLOW FACE GROOVING, TURNING & EXTERNAL THREADING WITH HIGH PRESSURE COOLANT

COOLBURST™



Right hand shown

Part Number	H Shank Height	HF Functional Height	B Shank Width	LF Functional Length	OAH Overall Height	WF Functional Width	CDX Cutting Depth Max.	Insert
INCH								
TXFR 25.4-TB	1.000	1.000	1.000	6.28	1.04	1.020	.236	TD_X ...R TD_X ...L
TXFL 25.4-TB	1.000	1.000	1.000	6.28	1.04	1.020	.236	

Part Number	1000 psi flow rate (gpm)	1500 psi flow rate (gpm)	2000 psi flow rate (gpm)
TXFR 25.4-TB	19-26	26-34	30-38
TXFL 25.4-TB	19-26	26-34	30-38

Hardware

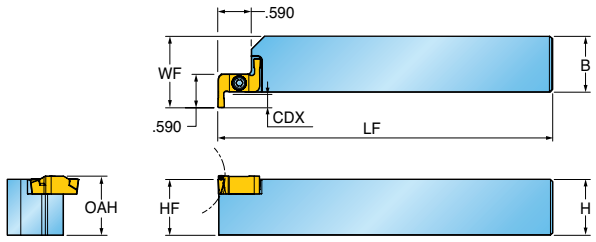
Part Number	Screw	Torx Driver	Cooling Unit
TXFR 25.4-TB	SM35-110-00	T 15	S-CU-TB
TXFL 25.4-TB	TS 35110IL	T 15	S-CU-TB

FACEFLEX™

Face Groove | Face Groove/ Turn

Series TXFPR/L

PERPENDICULAR HOLDERS FOR SHALLOW FACE GROOVING & TURNING



Right hand shown

Part Number	H Shank Height	HF Functional Height	B Shank Width	LF Functional Length	OAH Overall Height	WF Functional Width	CDX Cutting Depth Max.	Insert
INCH								
TXFR 25.4	1.000	1.000	1.000	6.0	1.04	1.275	.236	TDFX ...R TDFX ...L
TXFL 25.4	1.000	1.000	1.000	6.0	1.04	1.275	.236	

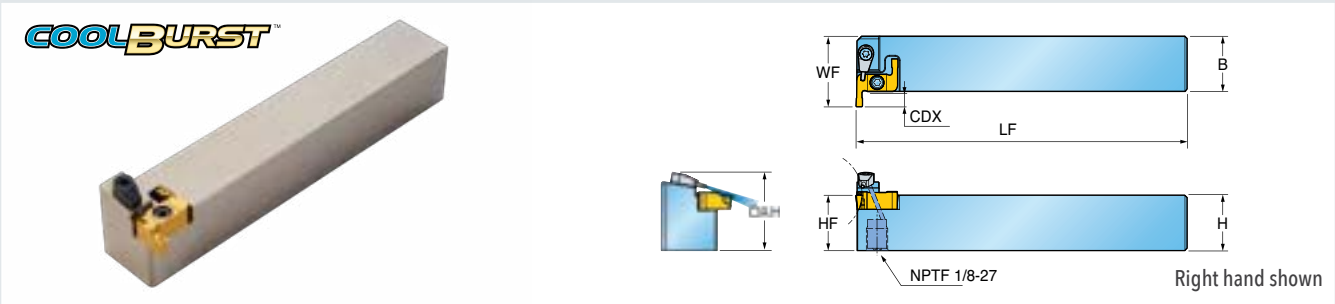
Hardware

Part Number	Screw	Torx Driver
TXFR 25.4	SM35-110-00	T 15
TXFL 25.4	TS 35110IL	T 15

Face Groove | Face Groove/ Turn | Coolant

Series TXFPR/L-TB

HOLDERS FOR SHALLOW FACE GROOVING, TURNING & EXTERNAL THREADING WITH HIGH PRESSURE COOLANT



Part Number	H Shank Height	HF Functional Height	B Shank Width	LF Functional Length	OAH Overall Height	WF Functional Width	CDX Cutting Depth Max.	Insert
INCH								
TXFPR 25.4-TB	1.000	1.000	1.000	6.0	1.40	1.275	.236	TDFX ...R TDFX ...L
TXFPL 25.4-TB	1.000	1.000	1.000	6.0	1.40	1.275	.236	

Hardware

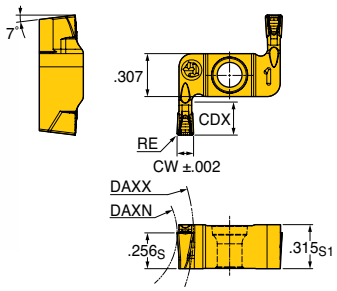
Part Number	Screw	Torx Driver	Cooling Unit
TXFPR 25.4-TB	SM35-110-00	T 15	S-CU-TB
TXFPL 25.4-TB	TS 35110IL	T 15	S-CU-TB

FACEFLEX™

Face Groove | Face Groove/ Turn | OD Groove | OD Groove/ Turn

Series TDFX

DOUBLE-ENDED INSERTS FOR EXTERNAL AND FACE GROOVING AND TURNING



Right hand shown

Size	Dimensions (inch)				
	CW Cutting Width	RE Corner Radius	CDX Cutting Dep. Max.	DAXN Axial Groove Outside Dia. Min.	DAXN Axial Groove Outside Dia. Max.
2	.079" (2 mm)	.012	.236	.984	No Limit
3	.118" (3 mm)	.012	.236	.945	No Limit
4	.157" (4 mm)	.016	.236	1.260	No Limit

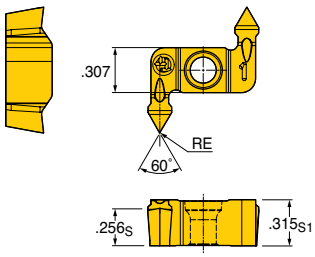
Part Number	Turning		Grooving	Coated
	ap (inch)	Feed (ipr)	Feed (ipr)	TT9080
INCH				
TDFX 2E-0.3-D25R/L NEW	.016-.047	.005-.007	.001-.008	•
TDFX 3E-0.3-D24R/L	.016-.071	.006-.008	.003-.008	•
TDFX 4E-0.4-D32R/L	.020-.095	.006-.010	.004-.010	•

• = Standard Items

OD Groove/ Thread

Series TDGX

DOUBLE-ENDED THREADING INSERTS WITH 60° PARTIAL PROFILE



Right hand shown

Size	Dimensions				
	RE Corner Radius	TPN Thread Pitch Min. (mm)	TPX Thread Pitch Max. (mm)	TPIN Threads Per Inch Min.	TPIX Threads Per Inch Max.
4	.05 mm (.002")	.45	3.5	8	56

Part Number	Coated
	TT9080
INCH	
TDGX 4MT-0.05-R/L	•

• = Standard Items

TCLAMPVT™

PARTING & GROOVING

Series

TDMV

Features

Double-Ended
Compatible with all T-Clamp Ultra+ Holders

Applications

Backward & Forward Turning
Profiling
Undercutting
Parting

Insert Width

2.8 mm (.110")

Corner Radii

.2 mm (.008"), .4 mm (.016")

Grade

TT9080 – General Purpose

Recommended Holders

TGFR/L
TGEUR/L
TGFPR/L

Multifunctional V-Type Insert (TDMV)

- One insert for backward/forward turning, profiling, undercutting, and parting.
- Optimized chip breaker provides superior chip control.
- Compatible with standard T-ClampUltra+ holders.

View the full line »

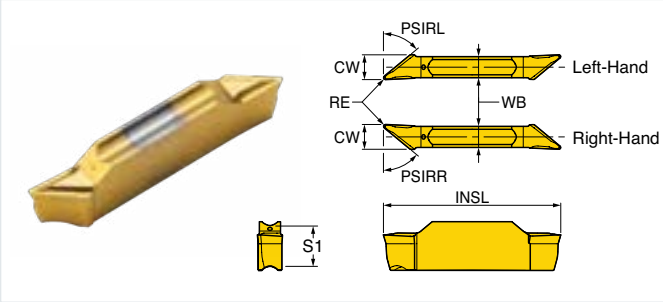
WINSFEED™ ADVANCED MACHINING

TCLAMPVT™

Backward/ Forward Turning | Profiling | Undercutting | Parting

Series TDMV

DOUBLE-ENDED INSERTS FOR TURNING AND GROOVING WITH V-TYPE SHAPE



Size	Dimensions (inch)					
	CW Cutting Width	RE Corner Radius	PSIRR/L Cutting Edge Angle Major	WB Body Width	INSL Insert Length	S1 Thick. (Overall)
2.8E-0.2	.110	.008	50°	.094	.790	.185
2.8E-0.4	.110	.016	50°	.094	.790	.185

Part Number	SSC Insert Seat Size	BWT(1)				FWT(2)				Grade
		ap (inch)		fn (ipr)		ap (inch)		fn (ipr)		TT9080
		Min.	Max.	Feed Min.	Feed Max.	Min.	Max.	Feed Min.	Feed Max.	
INCH										
TDMV 2.8E-0.2-R/L	3	0.008	0.100	0.002	0.007	0.012	0.060	0.001	0.006	•
TDMV 2.8E-0.4-R/L	3	0.016	0.100	0.003	0.010	0.016	0.060	0.002	0.007	•

• = Standard Items

(1) BWT = backward turning
(2) FWT = forward turning

Recommended Holders

TGFR/L

TGEUR/L

TGFPR/L

- If using with standard TTER/L type holders, the bottom support blade must be modified to account for lead angle on insert.
- For complete list of recommended holders, please visit the eCatalog at www.ingersoll-imc.com.

TCLAMP™

PARTING & GROOVING

Series

TDXC

Features

Double-Ended

Compatible with all T-Clamp Ultra+ Holders

Applications

External Turning, Grooving & Parting

Internal Turning & Grooving

Face Turning & Grooving

Insert Widths

2,3,4,5, and 6 mm

Grades

TT6080 – PVD coated for maximum wear resistance.

TT9080 – PVD coated for general purpose in variety of materials

TT8020 – PVD coated with very tough substrate for difficult applications

K10 – uncoated for aluminum alloys and non-ferrous materials

Materials

- Steel
- Stainless Steel
- Cast Iron
- Non-Ferrous
- Super Alloys

Multi-purpose TDXC Insert for Grooving and Turning Applications

» Multi-purpose chip breaker for parting, grooving and turning applications, internal and external.

» Reinforced edge allows 2x higher feeds when grooving (compared to TDXU).

» Consistent machining performance, even in interrupted cuts.

View the full line »

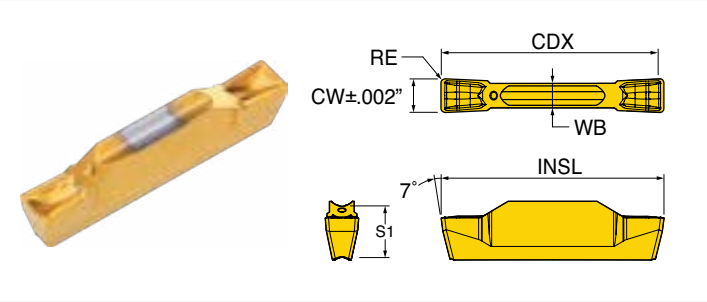
WINSFEED™ ADVANCED MACHINING

TCLAMP™

OD Groove | OD Groove/ Turn | Parting | ID Groove/ Turn | Face Groove/ Turn

Series TDXC

DOUBLE-ENDED INSERTS FOR GROOVING, TURNING, FACE GROOVING & PARTING



Size	Dimensions (inch)					
	CW Cutting Width	RE Corner Radius	WB Body Width	INSL Insert Length	CDX Cutting Dep. Max.	S1 Thick. (Overall)
2	.079" (2 mm)	.012	.067	.79	.748	.185
3	.118" (3 mm)	.012	.087	.79	.748	.185
4	.157" (4 mm)	.016	.118	.79	.748	.185
5	.197" (5 mm)	.016	.157	.98	.945	.205
6	.236" (6 mm)	.016	.197	.98	.945	.205

Part Number	SSC Insert Seat Size	Turning				Grooving		Grade			
		ap (inch)		fn (ipr)		fn (ipr)		TT6080	TT9080	TT8020	K10
		Min.	Max.	Feed Min.	Feed Max.	Feed Min.	Feed Max.				
INCH											
TDXC 2E-0.3	2	.016	.047	.005	.007	.002	.007	•	•	•	•
TDXC 3E-0.3	3	.016	.070	.006	.007	.003	.010	•	•	•	•
TDXC 4E-0.4	4	.020	.094	.007	.009	.003	.012	•	•		•
TDXC 5E-0.4	5	.020	.118	.008	.012	.004	.014	•	•		•
TDXC 6E-0.4	6	.020	.142	.009	.014	.005	.016	•	•		•

For complete list of recommended holders, please visit the eCatalog at www.ingersoll-imc.com.

• = Standard Items

WINSFEED™

ADVANCED MACHINING

Member IMC Group

Ingersoll Cutting Tools

Ingersoll Cutting Tools for the Americas

Ingersoll Cutting Tools Canada
845 South Lyford Road
Rockford, IL 61108-2749 U.S.A.
Tel: 800/892-6859

Marketing & Technology Center
845 South Lyford Road
Rockford, IL 61108-2749 U.S.A.
Tel: 815/387-6600
E-mail: info@ingersoll-imc.com
Internet: www.ingersoll-imc.com

Ingersoll Cutting Tools de México S.A. de C.V.
Jose Musa de Leon, No. 2411, Locales 6 y 7
Fracc. Residencial los Pinos
Saltillo, Coahuila C.P. 25198, México
Tel: 52-844-4-85-32-20

CAT-031-1 2934321

Printed in U.S.A.