



JCTM Series

Direct Coolant-Through Holders for Small Parts Machining



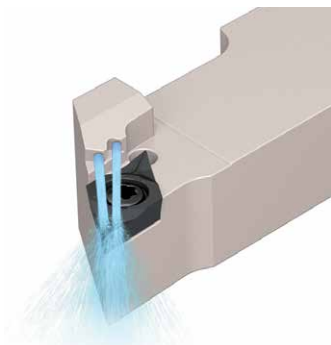
Supports Fewer Piping Attachments with Direct Coolant Supply

Can Take Advantage of Different Supply Styles and can Support Internal Coolant with/without Piping System

Large Lineup for Various Tooling Operations

Long Tool Life with Kyocera's High-performance Insert Grade

Turning



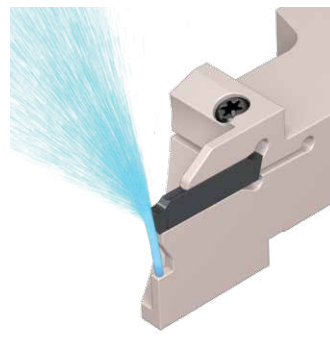
Screw Clamp - JCTM

External Grooving



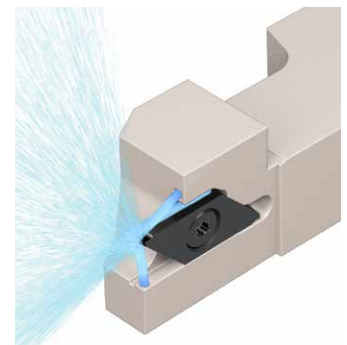
KGBF - JCTM

Cut-Off



KGD - JCTM

Cut-Off



KTKF - JCTM

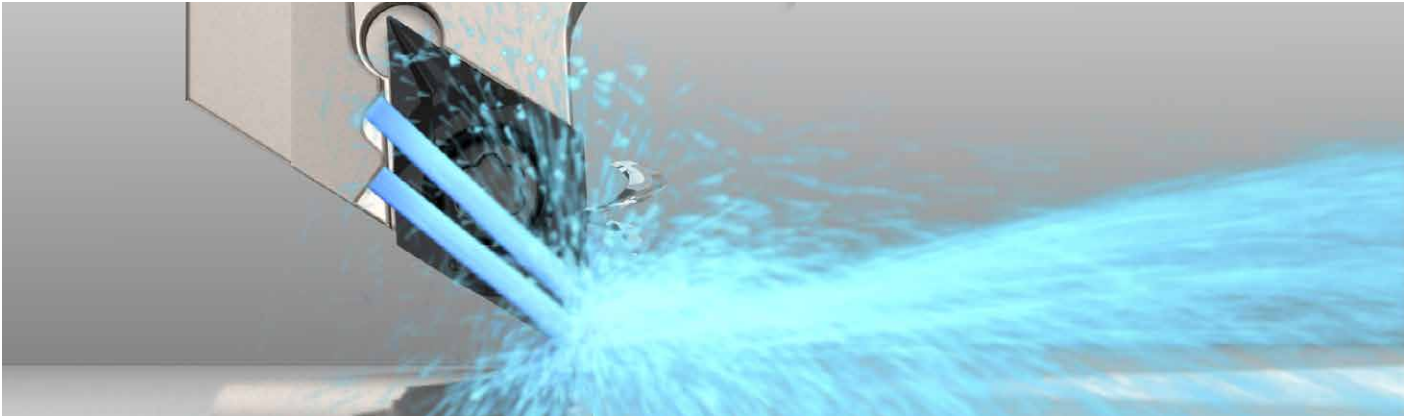
JCTM Series

Direct Coolant Holders for Small Parts Machining

Supports Internal Coolant with or without Piping Systems

Lineup of Turning, Grooving (KGBF), and Cut-off (KGD/KTKF) Holders

1 Using Internal Coolant to Enhance Tool Performance



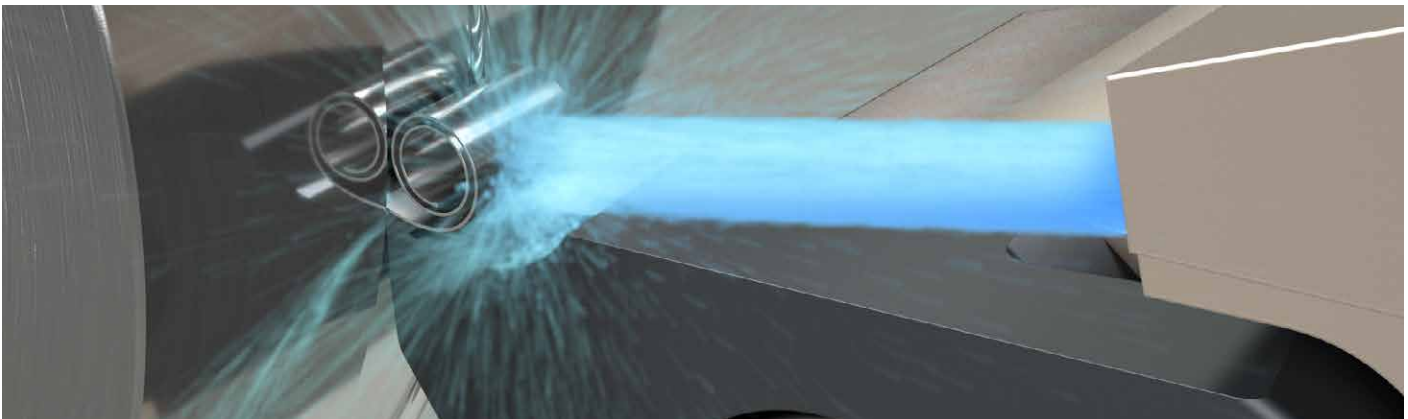
CG Image

Challenges

- Difficulty with automated operations due to sudden chip entanglement issues
- Insert change is not enough to extend tool life

SOLUTIONS

- The JCTM series is compatible with internal coolant in a wide range of machines and also works under normal pressure
- Reduces down time by improving chip control and reduces cost by extending tool life



CG Image

Switching to internal coolant toolholder reduces chip entanglement issues

Internal Coolant (2.5 MPa)



External Coolant



Pin Alloy Tool Steel

Vc = 590 sfm, D.O.C. = 0.055"

f = 0.005 ipr, Wet

SDJC Holder / DCMT3251 Insert

(User Evaluation)

2 Supports Internal Coolant with or without Piping Systems



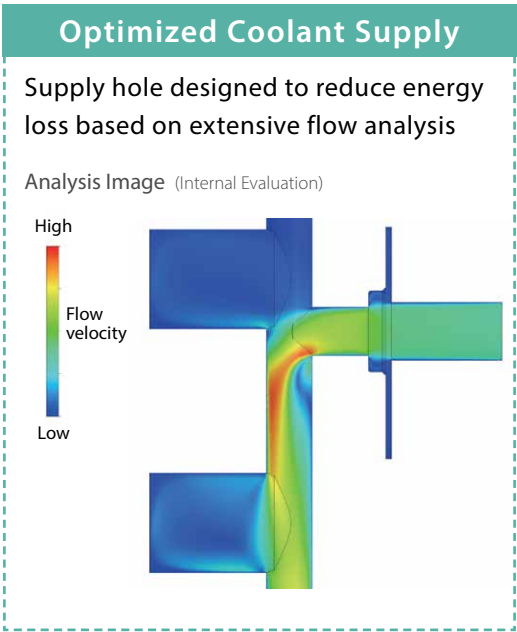
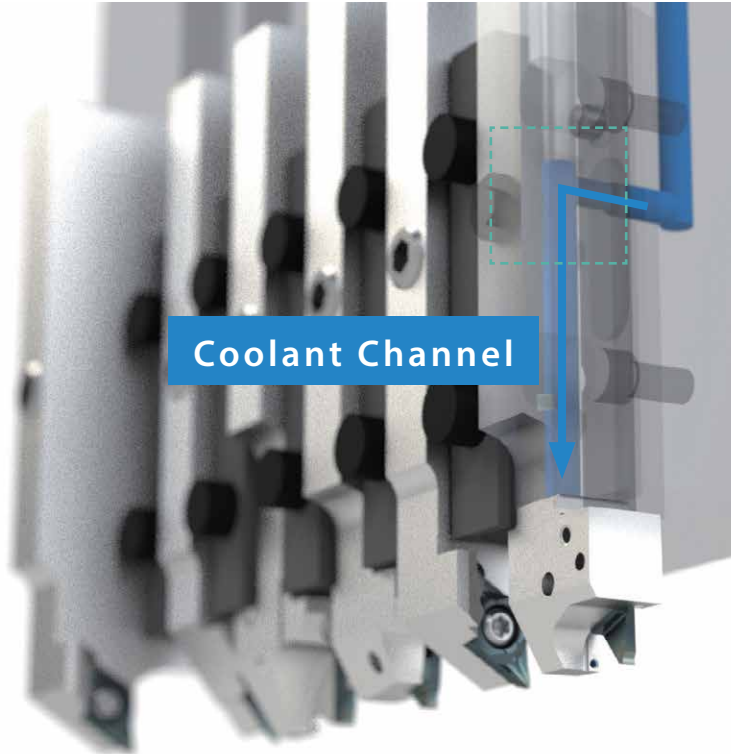
Internal Coolant without Piping ***When the tool turret supports direct coolant**

Coolant is supplied directly from the tool turret into the holder without the need to install piping

Applicable to Wide Range of Machines **The tool turret is optional. Please contact our company sales representative for details.**

CITIZEN MACHINERY CO., LTD. (L20, D25, M32)
STAR MICRONICS CO., LTD. (SB-R series, SR series, SV series)
TSUGAMI CORPORATION (S205/206-II □16 type, S205A/206A-II □16 type)
Compatible with various machine including the above. Toolholders can be customized as well.

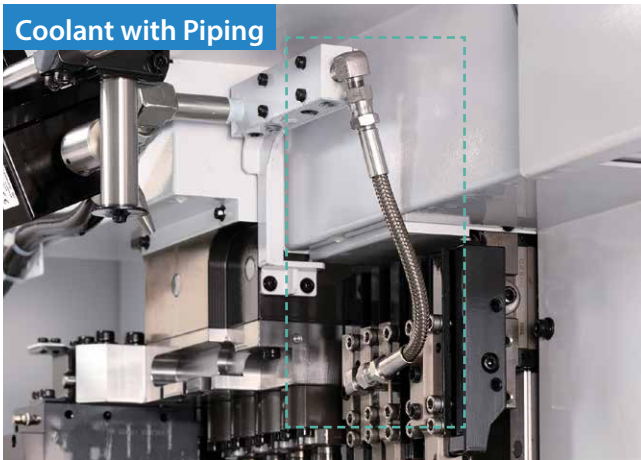
(Random order)
Based on Kyocera Survey in January 2021



Internal Coolant with Piping ***Piping parts: See pages 14 and 15**

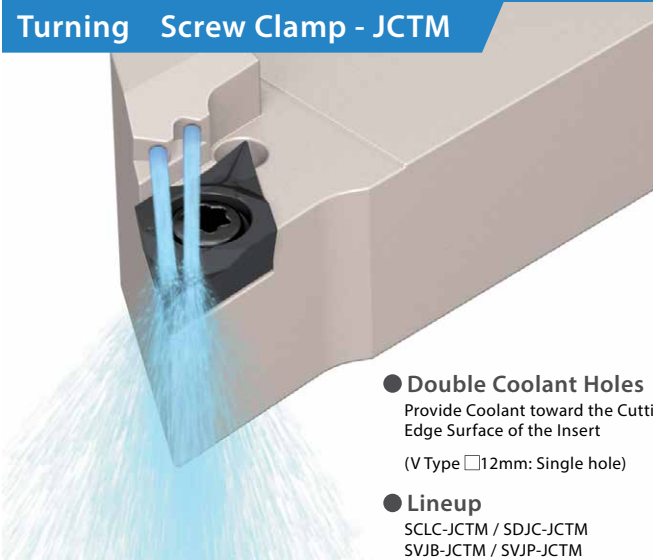
Compatible with internal coolant on any machine with standard piping parts

Commercial piping parts are available when using at normal pressure



3 Large Lineup for Various Tooling Operations

Turning Screw Clamp - JCTM



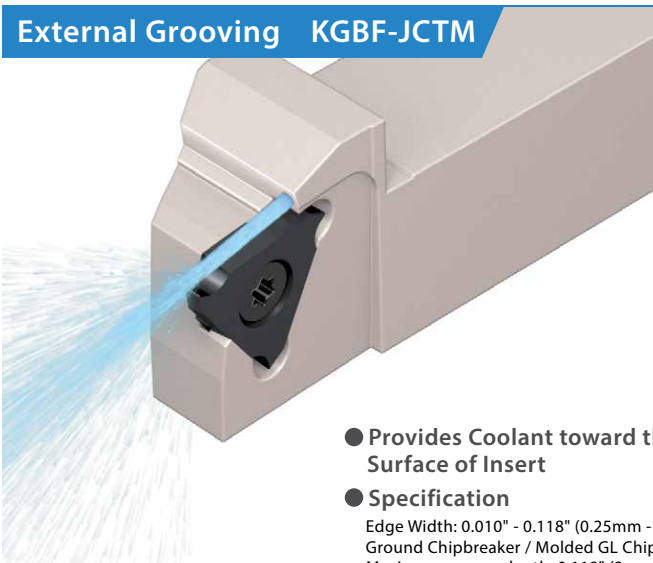
- **Double Coolant Holes**
Provide Coolant toward the Cutting Edge Surface of the Insert
(V Type □12mm: Single hole)
- **Lineup**
SCLC-JCTM / SDJC-JCTM
SVJB-JCTM / SVJP-JCTM

Coolant Supply Structure Comparison (Internal Evaluation)

→ P6
(Image)

Screw Clamp- JCTM	Competitor A
Discharges coolant toward the rake surface of insert	Discharges coolant down onto the chip forcing the chip into the part
Chip control performance ✓ Provides stable chip curls	Chip control performance Chip becomes unstable
Cooling effect ✓ The cutting edge stays cool	Cooling effect Chip can cause interference with the workpiece

External Grooving KGBF-JCTM

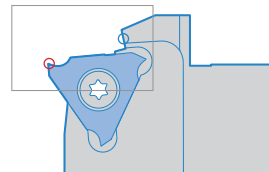


- Provides Coolant toward the Rake Surface of Insert
- **Specification**
Edge Width: 0.010" - 0.118" (0.25mm - 3mm)
Ground Chipbreaker / Molded GL Chipbreaker
Maximum groove depth: 0.118" (3mm)

Coolant Discharge Comparison (Internal Evaluation)

Small chips and better cooling of the insert leads to longer tool life.

- Cutting Edge
- Coolant Hole



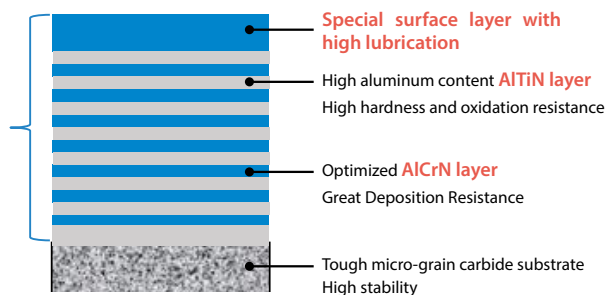
4 Kyocera's High-performance Insert Grade

PR1725 1st Recommendation for Steel Machining
Excellent Surface Finish and Long Tool Life

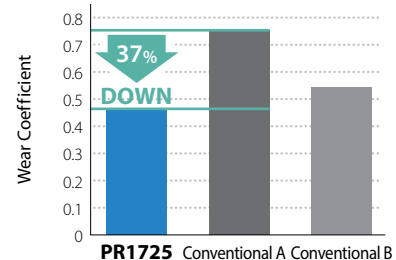
MEGACOAT NANO PLUS

AlTiN/AlCrN Nano laminated film with superior wear resistance and adhesion resistance

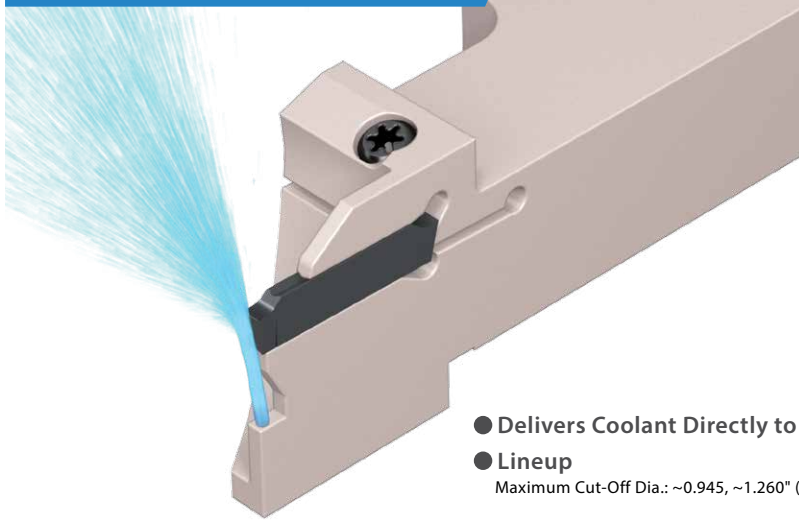
Reduces Cracking
Reduces abnormal damages such as chipping because of increased lamination layer with a thinner gap than conventional coatings.



Wear Coefficient Comparison (Internal Evaluation)



Cut-Off KGD-JCTM



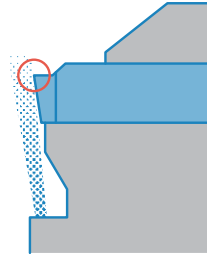
- Delivers Coolant Directly to front Flank Face
- Lineup
Maximum Cut-Off Dia.: ~0.945, ~1.260" (~24mm, ~32mm)

Coolant Discharge Comparison (Image)

➔ P10

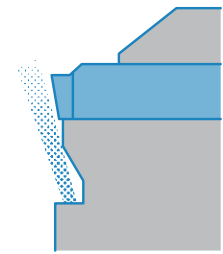
KGD-JCTM

Cooling the cutting edge leads to longer tool life

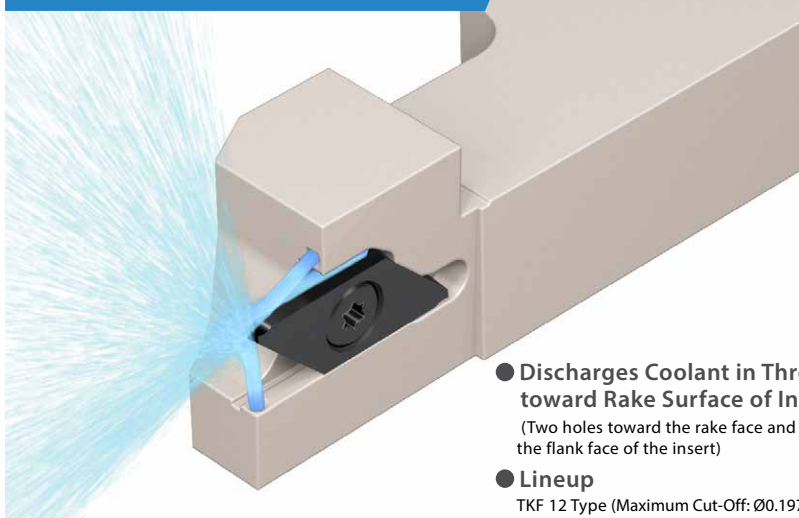


Competitor C

Coolant does not flow directly toward the cutting edge



Cut-Off KTKF-JCTM

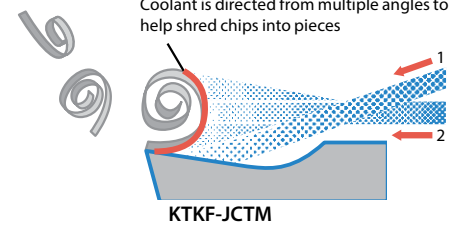


- Discharges Coolant in Three Directions toward Rake Surface of Insert
(Two holes toward the rake face and one hole toward the flank face of the insert)
- Lineup
TKF 12 Type (Maximum Cut-Off: $\varnothing 0.197$ " - $\varnothing 0.472$ " / $\varnothing 5$ mm - $\varnothing 12$ mm)
TKF 16 Type (Maximum Cut-Off: $\varnothing 0.630$ " / $\varnothing 16$ mm)

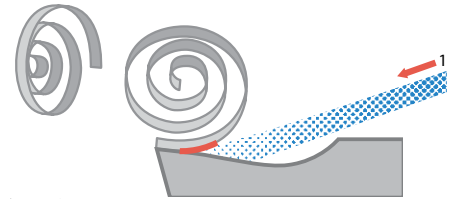
Coolant Discharge Structure Comparison (Image)

➔ P12

Coolant is directed from multiple angles to help shred chips into pieces



KTKF-JCTM



Competitor D

PR1535 The combination of a high-toughness base material and a special nano layer coating maintains long tool life and stable machining of stainless steel

MEGACOAT NANO

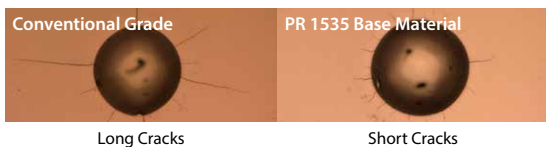
An increase in cobalt content yields a substrate with greater toughness
*In comparison to our conventional material grade

23%
Fracture
Toughness*

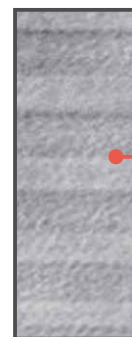
Improved stability by optimization and homogenization of grains in the base material

MEGACOAT NANO coating technology for long tool life and stable machining

Cracking Comparison by Diamond Indenter (Internal evaluation)



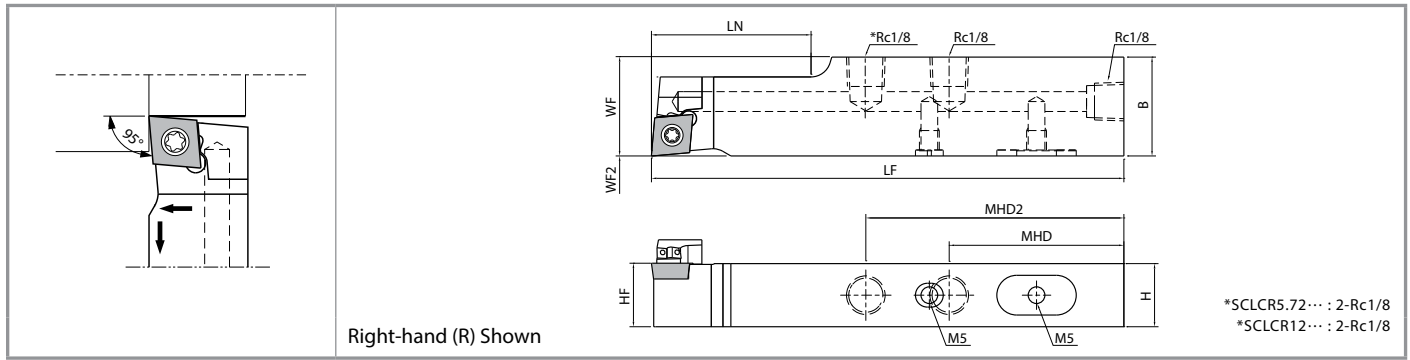
Impact
Resistance



MEGACOAT Base Layer Structure

PR1535 shows superior performance in steel machining under unstable conditions

SCLC-JCTM



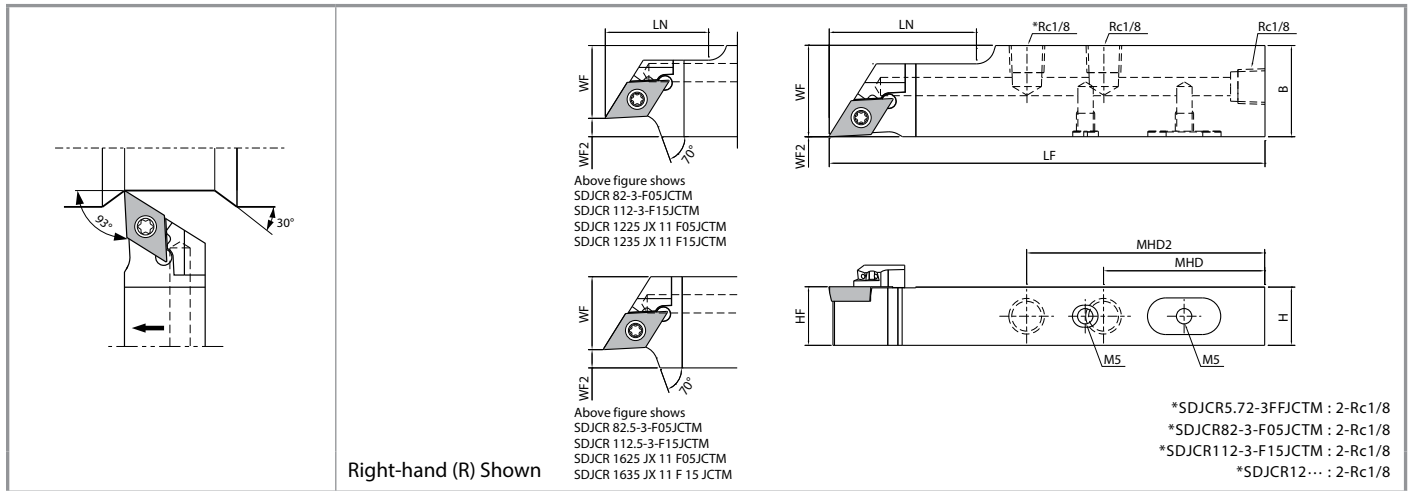
Toolholder Dimensions

Part Number	Stock		Unit	Dimensions								Standard Corner-R (RE)	Spare Parts				Applicable Inserts	
	R	L		H	HF	B	LF	LN	WF	WF ₂	MHD		MHD2	Insert Screw	Wrench	Plug 1		Plug 2
SCLCR 5.72-3FFJCTM	●		in	0.500	0.500	0.708	4.750	1.110	0.708	0	2.150	-	0.008	SB-4085TR	FT-15	GP-1	HS5X4LP	CC..325 Sizes
82.5-3FFJCTM	●			0.625	0.625	1.000		1.585	1.000		1.730	2.560						
SCLCR 1218JX-09FFJCTM	●		mm	12	12	18	120	28	18	0	54	-	0.2	SB-4085TR	FT-15	GP-1	HS5X4LP	
1625JX-09FFJCTM	●			16	16	25		40	25		44	65						
2025JX-09FFJCTM	●			20	20													
	●																	

Available Piping Parts see Pages 14-15

● : Standard Item

SDJC-JCTM

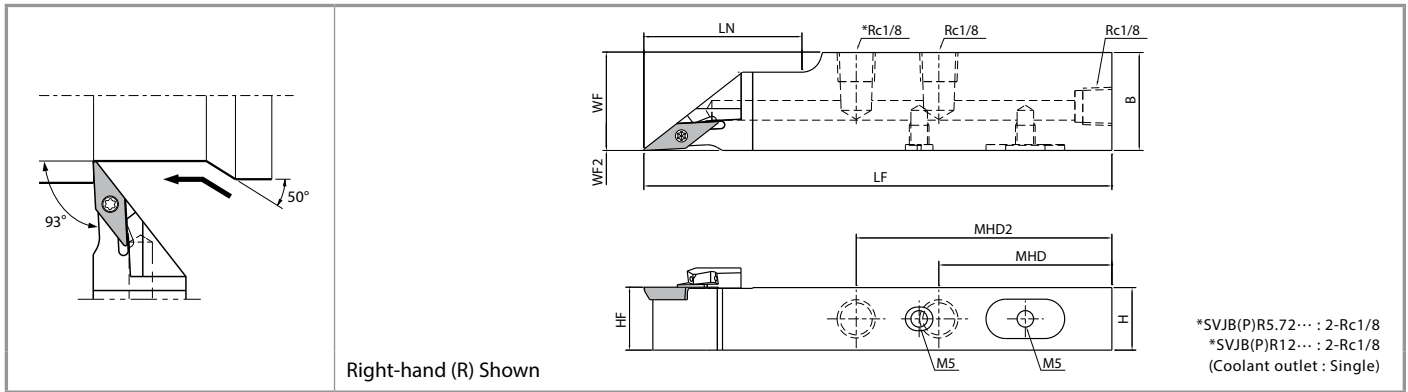


Toolholder Dimensions

Part Number	Stock		Unit	Dimensions								Standard Corner-R (RE)	Spare Parts				Applicable Inserts		
	R	L		H	HF	B	LF	LN	WF	WF ₂	MHD		MHD2	Insert Screw	Wrench	Plug 1		Plug 2	
SDJCR 5.72-3FFJCTM	●		in	0.500	0.500	0.708	4.750	1.110	0.708	0	2.150	-	0.008	SB-4085TR	FT-15	GP-1	HS5X4LP	DC..325 Sizes	
82.5-3FFJCTM	●			0.625	0.625	1.000		1.585	1.000		0.197	1.730							2.560
SDJCR 82-3-F05JCTM	●		in	0.500	0.500	1.000	4.750	1.585	1.000	0.197	1.730	2.560	0.008	SB-4085TR	FT-15	GP-1	HS5X4LP		
112-3-F15JCTM	●			1.375	1.110	1.375		0.591	2.150		-								
82.5-3-F05JCTM	●			0.625	0.625	1.000		1.585	1.000		0.197	1.730							2.560
112.5-3-F15JCTM	●			1.375	1.110	1.375		0.591	2.150		-								
SDJCR 1218JX-11FFJCTM	●		mm	12	12	18	120	28	18	0	54	-	0.2	SB-4085TR	FT-15	GP-1	HS5X4LP		
1625JX-11FFJCTM	●			16	16	25		40	25		44	65							
2025JX-11FFJCTM	●			20	20														
	●																		
SDJCR 1225JX11F05JCTM	●		mm	12	12	25	120	28	20	5	54	-	0.2	SB-4085TR	FT-15	GP-1	HS5X4LP		
1235JX11F15JCTM	●			35		15													
SDJCR 1625JX11F05JCTM	●		mm	16	16	25	120	-	20	5	44	65	0.2	SB-4085TR	FT-15	GP-1	HS5X4LP		
1635JX11F15JCTM	●			35		15													

Available Piping Parts see Pages 14-15

● : Standard Item



Toolholder Dimensions

Part Number	Stock		Unit	Dimensions										Standard Corner-R (RE)	Spare Parts				Applicable Inserts
	R	L		H	HF	B	LF	LN	WF	WF ₂	MHD	MHD2	Insert Screw		Wrench	Plug 1	Plug 2		
SVJBR 5.72-2FFJCTM	●		in	0.500	0.500	0.708	4.750	1.110	0.708	0	2.150	-	0.016	SB-2570TR	FT-8	GP-1	HSSX4LP	VB..22 Sizes	
82.5-2FFJCTM	●			0.625	0.625	1.000		1.585	1.000		1.730	2.560							
SVJPR 5.72-2FFJCTM	●		in	0.500	0.500	0.708	4.750	1.110	0.708	0	2.150	-	0.008	SB-2570TR	FT-8	GP-1	HSSX4LP	VP..22 Sizes	
82.5-2FFJCTM	●			0.625	0.625	1.000		1.585	1.000		1.730	2.560							
SVJBR 1218JX-11FFJCTM	●		mm	12	12	18	120	28	18	0	54	-	0.4	SB-2570TR	FT-8	GP-1	HSSX4LP	VB..22 Sizes	
1625JX-11FFJCTM	●			16	16	25		40	25		44	65					-		
2025JX-11FFJCTM	●			20	20	25	40	25	44	65	0.2	SB-2570TR	FT-8	GP-1	-	VP..22 Sizes			
SVJPR 1218JX-11FFJCTM	●			12	12	18	120	28	18	0	54	-	0.2	SB-2570TR	FT-8		GP-1	HSSX4LP	
1625JX-11FFJCTM	●		16	16	25	40		25	44		65	-							
2025JX-11FFJCTM	●		20	20	25	40	25	44	65	-									

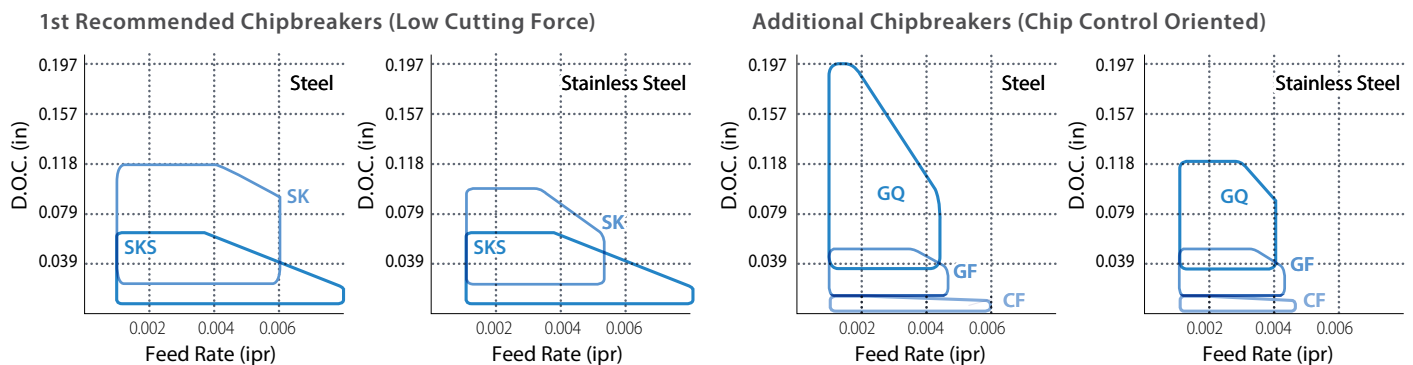
Available Piping Parts see Pages 14-15

● : Standard Item

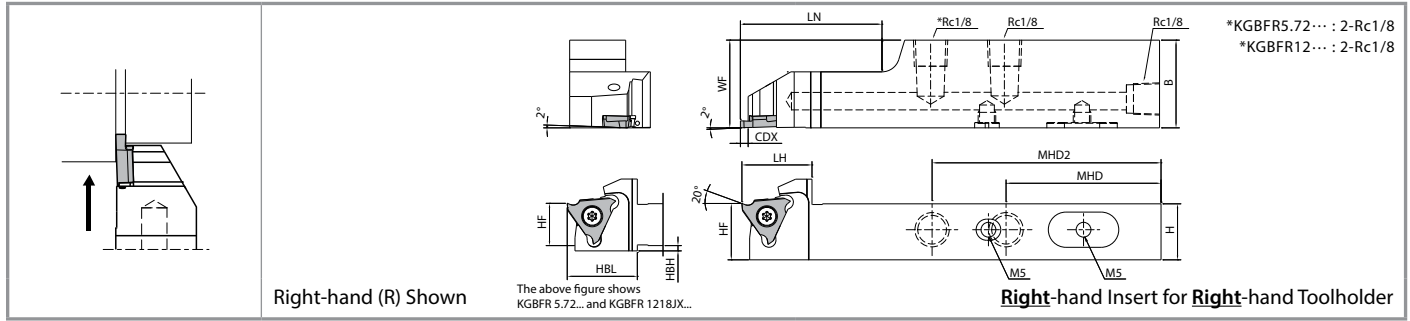
Applicable Chipbreakers

Molded Sharp Edge Chipbreaker Series

- 1 Excellent Chip Control in a Wide Range of Machining Applications
- 2 High Precision with Periphery Grinding and Sharp Edge Specification
- 3 Anti-welding Properties with Improved Mirror Surface Finish



More chipbreakers are available. For more details, see the KYOCERA general product catalog.



Toolholder Dimensions

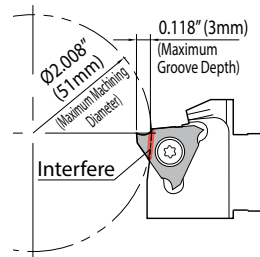
Part Number	Stock		Dimensions												Spare Parts				
	R	L	Unit	H	HF	HBH	B	LF	HBL	LH	LN	WF	CDX*	MHD	MHD2	Insert Screw	Wrench	Plug 1	Plug 2
KGBFR 5.72-16FJCTM	●		in	0.500	0.500	0.059	0.709	4.750	0.785	0.785	1.110	0.500	0.118	2.125	-	SB-4070TRW	FT-8	GP-1	HS5X4LP
82.5-16FJCTM	●		in	0.625	0.625	-	1.000	4.750	-	0.785		0.625	0.118	1.730	2.560	SB-4070TRW	FT-8	GP-1	-
KGBFR 1218JX-16FJCTM	●		mm	12	12	1.5	18		20		28	12		54	-				HS5X4LP
1625JX-16FJCTM	●		mm	16	16	-	25	120	-	20	40	16	3	44	65	SB-4070TRW	FT-8	GP-1	
2025JX-16FJCTM	●		mm	20	20	-	25				20	20							-

* Dimension CDX shows the distance from the toolholder to the cutting edge. Dimension CDX of Insert shows available grooving depth. ● : Standard Item
 Available Piping Parts see Pages 14-15

Caution

GBF and GBA Compatibility

- GBF will fit KGBA/KGBAS holders
 Caution: The maximum groove depth for KGBA/KGBAS holders is 0.098" (2.5mm)
- GBA inserts will also fit KGBF-JCT holders
 Caution: The rake angle after installation in the toolholder is 11°



KGBF-JCT Holder with GBF Insert Maximum Machining Diameter

0.118" (3mm) groove depth is available on workpiece diameters up to Ø2.008" (51mm)
 0.106" (2.7mm) groove depth is available on workpiece diameters up to Ø3.937" (100mm)
 0.098" (2.5mm) groove depth is available on workpiece diameters up to Ø7.874" (200mm)
 The workpiece will interfere with the holder at maximum cutting diameters or larger

Recommended Cutting Conditions ★ 1st Recommendation ☆ 2nd Recommendation

Workpiece	Recommended Insert Grade (Cutting Speed Vc: sfm)			[1] Grooving Feed Rate (ipr) [2] Traversing Feed Rate (ipr) [3] Max D.O.C. for Traversing (in)			
	MEGACOAT	MEGACOAT NANO	Carbide	GBF32R 025 - 053	GBF32R 065 - 095	GBF32R 100 - 145	GBF32R 150 - 300
	PR1215	PR1535	GW15				
Carbon Steel	★ 260 - 590	☆ 230 - 530	-	[1] 0.0004 - 0.0020 [2] Not Recommended [3] Not Recommended	[1] 0.0008 - 0.0028 [2] Not Recommended [3] Not Recommended	[1] 0.0012 - 0.0031 [2] 0.0012 - 0.0024 [3] MAX. 0.0079	[1] 0.0012 - 0.0031 [2] 0.0012 - 0.0024 [3] MAX. 0.0079
Alloy Steel	★ 260 - 590	☆ 230 - 530	-	[1] 0.0004 - 0.0016 [2] Not Recommended [3] Not Recommended	[1] 0.0008 - 0.0024 [2] Not Recommended [3] Not Recommended	[1] 0.0012 - 0.0028 [2] 0.0008 - 0.0020 [3] MAX. 0.0079	[1] 0.0012 - 0.0028 [2] 0.0008 - 0.0020 [3] MAX. 0.0079
Stainless Steel	☆ 200 - 430	★ 160 - 390	-	[1] 0.0004 - 0.0016 [2] Not Recommended [3] Not Recommended	[1] 0.0008 - 0.0024 [2] Not Recommended [3] Not Recommended	[1] 0.0012 - 0.0028 [2] 0.0008 - 0.0020 [3] MAX. 0.0079	[1] 0.0012 - 0.0028 [2] 0.0008 - 0.0020 [3] MAX. 0.0079
Cast Iron	-	-	★ 200 - 330	[1] 0.0004 - 0.0020 [2] Not Recommended [3] Not Recommended	[1] 0.0008 - 0.0028 [2] Not Recommended [3] Not Recommended	[1] 0.0012 - 0.0031 [2] 0.0012 - 0.0024 [3] MAX. 0.0079	[1] 0.0012 - 0.0031 [2] 0.0012 - 0.0024 [3] MAX. 0.0079
Aluminum Alloy	-	-	★ 490 - 1,310	[1] 0.0004 - 0.0020 [2] Not Recommended [3] Not Recommended	[1] 0.0008 - 0.0028 [2] Not Recommended [3] Not Recommended	[1] 0.0012 - 0.0031 [2] 0.0012 - 0.0024 [3] MAX. 0.0079	[1] 0.0012 - 0.0031 [2] 0.0012 - 0.0024 [3] MAX. 0.0079
Brass	-	-	★ 490 - 980	[1] 0.0004 - 0.0016 [2] Not Recommended [3] Not Recommended	[1] 0.0008 - 0.0028 [2] Not Recommended [3] Not Recommended	[1] 0.0012 - 0.0028 [2] 0.0008 - 0.0020 [3] MAX. 0.0079	[1] 0.0012 - 0.0028 [2] 0.0008 - 0.0020 [3] MAX. 0.0079

GBF-GL

Workpiece	Recommended Insert Grade (Cutting Speed Vc: sfm)		[1] Grooving Feed Rate (ipr) [2] Traversing Feed Rate (ipr) [3] Max D.O.C. for Traversing (in)			
	MEGACOAT	MEGACOAT NANO	GBF32R 075 (GL)	GBF32R 095 - 100 (GL)	GBF32R 150 - 200 (GL)	GBF32R 300 (GL)
	PR1215	PR1535				
Carbon Steel	★ 260 - 590	☆ 230 - 530	[1] 0.0008 - 0.0028 [2] Not Recommended [3] Not Recommended	[1] 0.0012 - 0.0031 [2] 0.0012 - 0.0024 [3] MAX. 0.0079	[1] 0.0012 - 0.0031 [2] 0.0012 - 0.0024 [3] MAX. 0.0079	[1] 0.0016 - 0.0039 [2] 0.0016 - 0.0031 [3] MAX. 0.0197
Alloy Steel	★ 260 - 590	☆ 230 - 530	[1] 0.0008 - 0.0024 [2] Not Recommended [3] Not Recommended	[1] 0.0012 - 0.0028 [2] 0.0012 - 0.0024 [3] MAX. 0.0079	[1] 0.0012 - 0.0028 [2] 0.0012 - 0.0024 [3] MAX. 0.0079	[1] 0.0016 - 0.0035 [2] 0.0016 - 0.0031 [3] MAX. 0.0197
Stainless Steel	☆ 200 - 430	★ 160 - 390	[1] 0.0008 - 0.0024 [2] Not Recommended [3] Not Recommended	[1] 0.0012 - 0.0028 [2] 0.0012 - 0.0024 [3] MAX. 0.0079	[1] 0.0012 - 0.0028 [2] 0.0012 - 0.0024 [3] MAX. 0.0079	[1] 0.0016 - 0.0035 [2] 0.0016 - 0.0031 [3] MAX. 0.0197

KGBF-JCTM Applicable Inserts

Part Number	IC	S	D1	Material		Light Interruption / 1st Choice		Light Interruption / 2nd Choice		Carbide		
				P	Carbon Steel / Alloy Steel	☉	☺	M	Stainless Steel		☺	☉
GBF32	3/8	1/8	0.173	N	Non-ferrous Material							
Shape	Part Number	Dimensions (in)				MEGACOAT		MEGACOAT NANO		Carbide		
		CW (in)	CW (mm)	CDX	RE	PR1215		PR1535		GW15		
						R	L	R	L	R	L	
	GBF32^R 025-000F 025-005 030-000F 030-005 033-000F*1 033-005*1 043-000F*2 043-005*2 050-000F 050-005 053-000F*3 053-005*3 065-000F 065-005 075-000F 075-005 080-000F 080-005 095-000F 095-005 100-000F 100-005 110-000F 110-005 120-000F 120-005 125-000F 125-005 125-010 130-000F 130-005 130-010 140-000F 140-005 140-010 145-000F 145-005 145-010 150-000F 150-005 150-010 165-000F 165-005 165-010 170-000F 170-005 170-010 175-000F 175-005 175-010 200-000F 200-005 200-010 225-005 225-010 250-005 250-010 300-005 300-010	0.010	0.25	0.024	0.000	●	●	●	●	●	●	
		0.012	0.30	0.031	0.002	●	●	●	●	●	●	
		0.013	0.33	0.031	0.000	●	●	●	●	●	●	
		0.017	0.43	0.039	0.000	●	●	●	●	●	●	
		0.020	0.50	0.047	0.000	●	●	●	●	●	●	
		0.021	0.53	0.047	0.002	●	●	●	●	●	●	
		0.026	0.65	0.047	0.000	●	●	●	●	●	●	
		0.030	0.75	0.079	0.000	●	●	●	●	●	●	
		0.031	0.80	0.079	0.002	●	●	●	●	●	●	
		0.037	0.95	0.079	0.000	●	●	●	●	●	●	
		0.039	1.00	0.079	0.002	●	●	●	●	●	●	
		0.043	1.10	0.079	0.000	●	●	●	●	●	●	
		0.047	1.20	0.079	0.002	●	●	●	●	●	●	
		0.049	1.25	0.106	0.000	●	●	●	●	●	●	
		0.049	1.25	0.106	0.002	●	●	●	●	●	●	
		0.051	1.30	0.106	0.000	●	●	●	●	●	●	
		0.051	1.30	0.106	0.002	●	●	●	●	●	●	
		0.055	1.40	0.106	0.000	●	●	●	●	●	●	
		0.055	1.40	0.106	0.002	●	●	●	●	●	●	
		0.057	1.45	0.106	0.000	●	●	●	●	●	●	
		0.057	1.45	0.106	0.002	●	●	●	●	●	●	
		0.059	1.50	0.106	0.004	●	●	●	●	●	●	
		0.059	1.50	0.106	0.000	●	●	●	●	●	●	
		0.065	1.65	0.118	0.000	●	●	●	●	●	●	
		0.065	1.65	0.118	0.002	●	●	●	●	●	●	
		0.067	1.70	0.118	0.000	●	●	●	●	●	●	
		0.067	1.70	0.118	0.002	●	●	●	●	●	●	
		0.069	1.75	0.118	0.000	●	●	●	●	●	●	
		0.069	1.75	0.118	0.002	●	●	●	●	●	●	
		0.079	2.00	0.118	0.004	●	●	●	●	●	●	
		0.079	2.00	0.118	0.000	●	●	●	●	●	●	
		0.089	2.25	0.118	0.002	●	●	●	●	●	●	
		0.089	2.25	0.118	0.004	●	●	●	●	●	●	
		0.098	2.50	0.118	0.000	●	●	●	●	●	●	
		0.098	2.50	0.118	0.002	●	●	●	●	●	●	
		0.118	3.00	0.118	0.004	●	●	●	●	●	●	
		0.118	3.00	0.118	0.000	●	●	●	●	●	●	
			GBF32R 075-005GL 095-005GL 100-005GL 150-010GL 200-010GL 300-010GL	0.030	0.75	0.079	0.002	●	●	●	●	●
				0.037	0.95	0.079	0.002	●	●	●	●	●
				0.039	1.00	0.079	0.002	●	●	●	●	●
0.059	1.50			0.106	0.004	●	●	●	●	●		
0.079	2.00			0.118	0.004	●	●	●	●	●		
0.118	3.00			0.118	0.004	●	●	●	●	●		

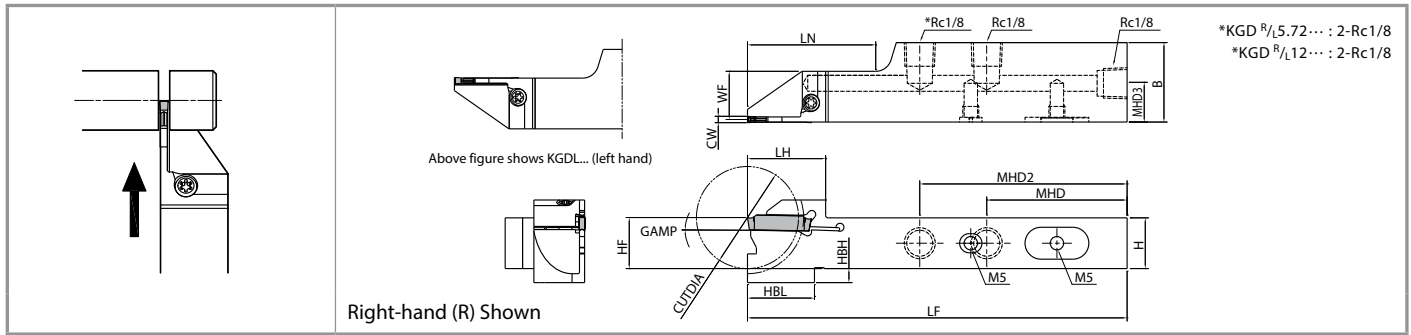
The maximum machining diameter is $\varnothing 2.008''$ (51mm) (Please check caution on [Page 8](#))

● : Standard Item

※1 : The edge width (CW) tolerance of GBF32R 033-005 : $0.013''^{+0.0006''}_{-0.0010''}$ (0.33mm $^{+0.015mm}_{-0.025mm}$)

※2 : The edge width (CW) tolerance of GBF32R 043-005 : $0.017''^{+0.0006''}_{-0.0010''}$ (0.43mm $^{+0.015mm}_{-0.025mm}$)

※3 : The edge width (CW) tolerance of GBF32R 053-005 : $0.021''^{+0.0006''}_{-0.0010''}$ (0.53mm $^{+0.015mm}_{-0.025mm}$)



Toolholder Dimensions

Part Number	Stock		Cut-Off Dia.	Dimensions											Angle	Edge Width CW		Spare Parts				Applicable Inserts Page 11	
	R	L		Unit	CUTDIA	H=HF	HBH	B	LF	LH	HBL	LN	WF	MHD		MHD2	MHD3	GAMP	MIN	MAX	Clamp Screw		Wrench
KGDR 5.72-2JCTM	●		in	0.945	0.500	0.330	0.709	4.750	0.770	0.825	1.725	0.500	2.125	-	0.331	1°	0.079	0.118	SB-40120TR	LTW-15S	GP-1	H55X4LP	GDM GDG (GDMS) (GDGS)
KGDL 5.72-2JCTM		●							0.480														
KGDR 82.5-2JCTM	●		1.260	0.625	0.175	1.000	0.965	0.825	1.585	0.625	1.730	2.560	0.480										
KGDL 82.5-2JCTM		●	0.303																				
KGDR 5.72-2.4JCTM	●		0.945	0.500	0.330	0.709	4.750	0.770	0.825	1.725	0.500	2.125	-	0.331	1°	0.094	0.118						
KGDL 5.72-2.4JCTM		●	0.303																				
KGDR 82.5-2.4JCTM	●		1.260	0.625	0.175	1.000	0.965	0.825	1.585	0.625	1.730	2.560	0.480										
KGDL 82.5-2.4JCTM		●	0.303																				
KGDR 5.72-3JCTM	●		0.945	0.500	0.330	0.709	4.750	0.770	0.825	1.725	0.500	2.125	-	0.331	1°	0.118	0.118						
KGDL 5.72-3JCTM		●	0.303																				
KGDR 82.5-3JCTM	●		1.260	0.625	0.175	1.000	0.965	0.825	1.585	0.625	1.730	2.560	0.480										
KGDL 82.5-3JCTM		●	0.303																				
KGDR 1218JX-2JCTM	●		mm	24	12	8.5	18	120	19.5	21	44	11.2	54	-	8.4	1°	2.0	3.0	SB-40120TR	LTW-15S	GP-1	H55X4LP	GDM GDG (GDMS) (GDGS)
KGDL 1218JX-2JCTM		●							7.7														
KGDR 1625JX-2JCTM	●		32	16	4.5	25	24.5	21	40	15.2	44	65	12.2										
KGDL 1625JX-2JCTM		●	7.7																				
KGDR 1218JX-2.4JCTM	●		24	12	8.5	18	120	19.5	21	44	11	54	-	8.4	1°	2.4	3.0						
KGDL 1218JX-2.4JCTM		●	7.7																				
KGDR 1625JX-2.4JCTM	●		32	16	4.5	25	24.5	21	40	15	44	65	12.2										
KGDL 1625JX-2.4JCTM		●	7.7																				
KGDR 1218JX-3JCTM	●		24	12	8.5	18	120	19.5	21	44	10.8	54	-	8.6	1°	3.0	3.0						
KGDL 1218JX-3JCTM		●	7.7																				
KGDR 1625JX-3JCTM	●		32	16	4.5	25	24.5	21	40	14.8	44	65	12.2										
KGDL 1625JX-3JCTM		●	7.7																				

Choose an insert with a width that falls within the MIN and MAX parameters shown in table above.













Available Piping Parts see Pages 14-15

● : Standard Item

Recommended Cutting Conditions ★ 1st Recommendation ☆ 2nd Recommendation

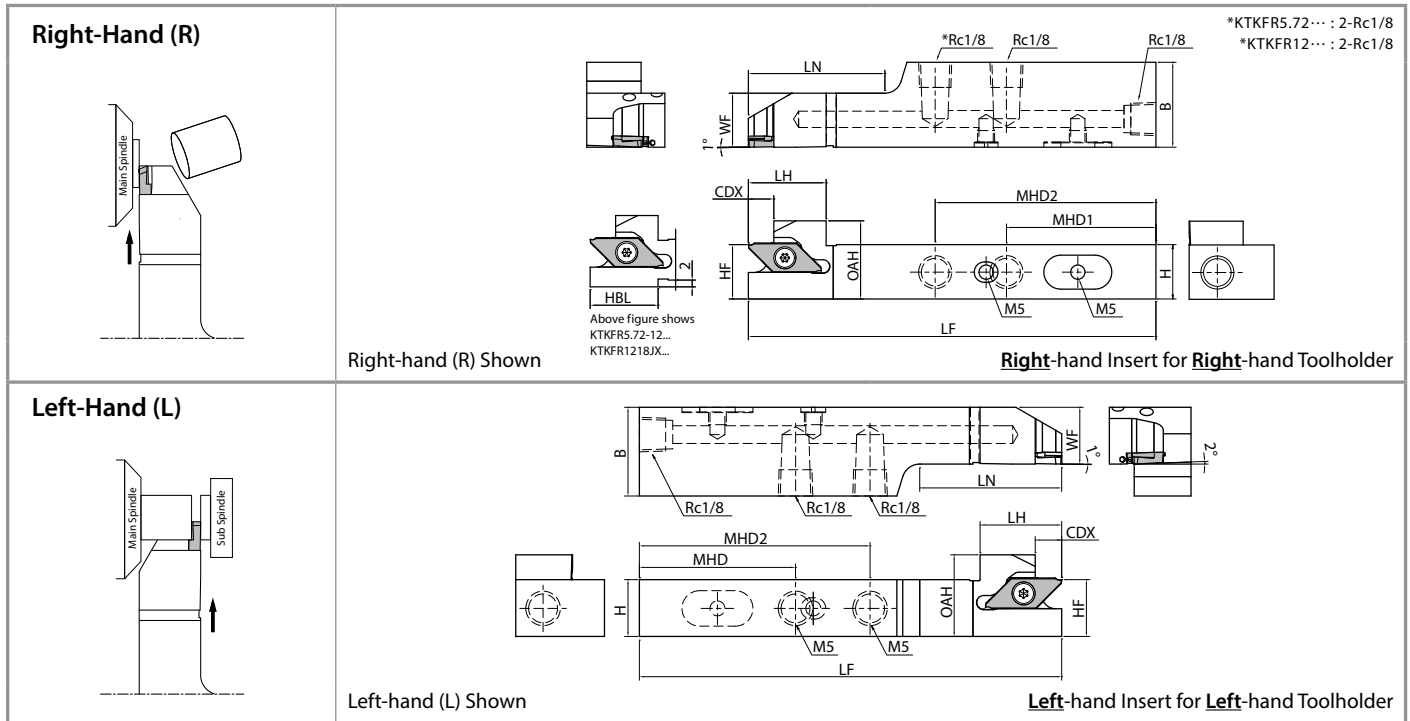
Workpiece	Chipbreaker	Recommended Insert Grade (Cutting Speed Vc: sfm)					f (ipr)				Notes		
		MEGACOAT NANO		MEGACOAT		DLC Coating	Carbide		Edge Width CW (in)				
		PR1535	PR1225	PR1215	PDL025	GW15	0.079 (2.0mm)	0.079 - 0.157 (2.0 - 4.0mm)	0.098 / 0.118 (2.5mm / 3.0mm)	0.118 - 0.157 (3.0mm - 4.0mm)			
Carbon Steel	PF (RE = 0.0012)						0.0008 - 0.0024						
	PF (RE = 0.0059)	☆	★	☆			0.0012 - 0.0031						
	PQ	230 - 490	230 - 490	230 - 590			0.0012 - 0.0039						
	PG						0.0004 - 0.0016						
	PM	☆	★	☆				0.0031 - 0.0071					
	PH	260 - 660	260 - 660	330 - 660			0.0039 - 0.0098						0.0059 - 0.0110
Alloy Steel	PF (RE = 0.0012)						0.0008 - 0.0024						
	PF (RE = 0.0059)	☆	★	☆			0.0012 - 0.0031						
	PQ	230 - 490	230 - 490	230 - 590			0.0012 - 0.0039						
	PG						0.0004 - 0.0016						
	PM	☆	★	☆				0.0031 - 0.0071					
	PH	230 - 590	230 - 590	260 - 590			0.0039 - 0.0098						0.0059 - 0.0110
Stainless Steel	PF (RE = 0.0012)						0.0004 - 0.0016						
	PF (RE = 0.0059)	★	☆	☆			0.0012 - 0.0028						
	PQ	200 - 390	200 - 390	200 - 490			0.0008 - 0.0028						
	PG						0.0004 - 0.0012						
	PM	★	☆	☆				0.0024 - 0.0047					
	PH	200 - 490	200 - 490	200 - 490			0.0020 - 0.0047						0.0031 - 0.0059
Cast Iron	PF (RE = 0.0012)						0.0008 - 0.0028						
	PF (RE = 0.0059)			★			0.0012 - 0.0035						
	PQ			260 - 660			0.0016 - 0.0039						
	PG						0.0004 - 0.0016						
	PM			★				0.0031 - 0.0071					
	PH			330 - 660			0.0039 - 0.0098						0.0059 - 0.0110
Aluminum Alloy	PQ					★		☆					
	PG					660 - 1,640		660 - 1,480					
Brass	PQ							★					
	PG							330 - 660					

KGD-JCTM Applicable Inserts

Shape Handed Insert Shows Right-Hand		Part Number	Dimensions (in)							MEGA COAT NANO	MEGACOAT	DLC Coating	Carbide	
			Edge Width CW			RE	INSL	S	PSIR %					
			inch	mm	Tolerance									
 CW ± 0.0016 2.5° 2.5° INSL RE RE PSIR		GDM 2020N-003PF	0.079	2.0	±0.0016	0.0012	0.787	0.169	—	●	●	●		
		2020N-015PF	0.079	2.0		0.0059				●	●	●		
		2520N-003PF	0.098	2.5		0.0012				●	●	●		
		2520N-015PF	0.098	2.5		0.0059				●	●	●		
		3020N-003PF	0.118	3.0		0.0012				●	●	●		
		3020N-015PF	0.118	3.0		0.0059				●	●	●		
 CW ± 0.0016 2.5° 2.5° INSL RE RE PSIRR		GDM 2020 [°] L-003PF-15D	0.079	2.0	±0.0016	0.0012	0.787	0.169	15°	●	●	●		
		2020R-015PF-15D	0.079	2.0		0.0059				●	●	●		
		2520 [°] L-003PF-15D	0.098	2.5		0.0012				●	●	●		
		2520R-015PF-15D	0.098	2.5		0.0059				●	●	●		
		3020 [°] L-003PF-15D	0.118	3.0		0.0012				●	●	●		
		3020R-015PF-15D	0.118	3.0		0.0059				●	●	●		
 CW ± 0.0012 3° 3° INSL RE RE PSIR		GDM 2020N-010PQ	0.079	2.0	±0.0012	0.0039	0.787	0.169	—	●	●	●		
		2520N-010PQ	0.098	2.5		●				●	●			
		3020N-010PQ	0.118	3.0		●				●	●			
 CW ± 0.0012 3° 3° INSL RE RE PSIRR		GDM 2020R-010PQ-15D	0.079	2.0	±0.0012	0.0039	0.787	0.169	15°	●	●	●		
		2520R-010PQ-15D	0.098	2.5		●				●	●			
		3020R-010PQ-15D	0.118	3.0		●				●	●			
 CW ± 0.0008 3° 3° INSL RE RE PSIR		GDG 2020N-005PG	0.079	2.0	±0.0008	0.0020	0.787	0.169	—	●	●	●	●	●
		2520N-005PG	0.098	2.5		●				●	●	●	●	
		3020N-005PG	0.118	3.0		●				●	●	●	●	
 CW ± 0.0008 3° 3° INSL RE RE PSIRR		GDG 2020R-005PG-15D	0.079	2.0	±0.0008	0.0020	0.787	0.169	15°	●	●	●	●	●
		2520R-005PG-15D	0.098	2.5		●				●	●	●	●	
		3020R-005PG-15D	0.118	3.0		●				●	●	●	●	
 CW ± 0.0012 3° 3° INSL RE RE PSIR		GDM 2020N-020PM	0.079	2.0	±0.0012	0.0079	0.787	0.169	—	●	●	●		
		2520N-020PM	0.098	2.5		0.0098				●	●	●		
		3020N-025PM	0.118	3.0		0.0118				●	●	●		
		4020N-030PM	0.157	4.0		●				●	●			
 CW ± 0.0012 3° 3° INSL RE RE PSIRR		GDM 2020R-020PM-6D	0.079	2.0	±0.0012	0.0079	0.787	0.169	6°	●	●	●		
		2520R-020PM-6D	0.098	2.5		0.0098				●	●	●		
		3020R-025PM-6D	0.118	3.0		0.0098				●	●	●		
 CW ± 0.0012 3° 3° INSL RE RE PSIR		GDMS 2020N-020PM	0.079	2.0	±0.0012	0.0079	0.787	0.169	—	●	●	●		
		3020N-025PM	0.118	3.0		0.0098				●	●	●		
		4020N-030PM	0.157	4.0		0.0118				●	●	●		
 PSIRR CW ± 0.0012 3° 3° INSL RE RE PSIR		GDMS 2020R-020PM-6D	0.079	2.0	±0.0012	0.0079	0.787	0.169	6°	●	●	●		
		3020R-025PM-6D	0.118	3.0		0.0098				●	●	●		
		4020R-030PM-6D	0.157	4.0		0.0118				●	●	●		
 CW ± 0.0012 1.5° 1.5° INSL RE RE PSIR		GDM 2020N-020PH	0.079	2.0	±0.0012	0.0079	0.787	0.169	—	●	●	●		
		3020N-030PH	0.118	3.0		0.0118				●	●	●		
		4020N-030PH	0.157	4.0		0.0118				●	●	●		
 CW ± 0.0012 1.5° 1.5° INSL RE RE PSIR		GDMS 2020N-020PH	0.079	2.0	±0.0012	0.0079	0.787	0.169	—	●	●	●		
		3020N-030PH	0.118	3.0		0.0118				●	●	●		
		4020N-030PH	0.157	4.0		0.0118				●	●	●		

Inserts sold in 10 piece boxes

● : Standard Item



Toolholder Dimensions

Part Number	Stock		Unit	Dimensions												Spare Parts				Applicable Inserts Page 13	
	R	L		H	HF	OAH	B	LF	HBL	LH	LN	WF	CDX	MHD	MHD2	Insert Screw	Wrench	Plug 1	Plug 2		
													SB-4590TRWN	FT-10	GP-1	HSSX4LP					
KTKFR 5.72-12JCTM	●		inch	0.500	0.500	0.775	0.709	4.750	0.790	0.790	1.110	0.500	0.295	2.125	-	SB-4590TRWN	FT-10	GP-1	HSSX4LP	TKF12R... TKFT12R...	
KTKF ^{R/L} 82.5-12JCTM 82.5-16JCTM	●	●	inch	0.625	0.625	0.900	1.000	4.750	-	0.905	1.585	0.625	0.295 0.377	1.730	2.560	SB-4590TRWN	FT-10	GP-1	HSSX4LP	TKF12 ^{R/L} ... TKFT12 ^{R/L} ...	
KTKFR 1218JX-12JCTM	●		mm	12	12	19	18	120	20	20	28	12	7.5	54	-	SB-4590TRWN	FT-10	GP-1	HSSX4LP	TKF12R... TKFT12R...	
KTKF ^{R/L} 1625JX-12JCTM 2025JX-12JCTM	●	●		16	16	23	25		-	23	40	16		20	44					65	44
KTKF ^{R/L} 1625JX-16JCTM 2025JX-16JCTM	●	●		16	16	23	25	120	-	23	40	16	20	9.6	44	65	SB-4590TRWN	FT-10	GP-1	HSSX4LP	TKF16 ^{R/L} ... TKFT16 ^{R/L} ...
	●	●		20	20	27	25			41	20										

Available Piping Parts see Pages 14-15










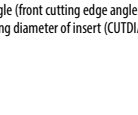

● : Standard Item

Recommended Cutting Conditions ★ 1st Recommendation ☆ 2nd Recommendation

Workpiece	Recommended Insert Grade (Vc: sfm)					TKF12						TKF16		Notes
	MEGACOAT NANO PLUS	MEGACOAT NANO	MEGACOAT	DLC Coated Carbide	Uncoated Carbide	Edge Width CW (in)						Edge Width CW (in)		
	PR1725	PR1535	PR1225	PDL025	KW10	0.020 (0.5mm)	0.028 (0.7mm)	0.039 (1.0mm)	0.049 (1.25mm)	0.059 (1.5mm)	0.079 (2.0mm)	0.059 (1.5mm)	0.079 (2.0mm)	
						f (ipr)						f (ipr)		
Carbon Steel	★ 230 - 560 (160 - 460)	☆ 230 - 490 (160 - 390)	☆ 230 - 490 (160 - 390)	-	-	0.0004-0.0008	0.0004-0.0012	0.0004-0.0016 (0.0004-0.0020)	0.0004-0.0016	0.0004-0.0016 (0.0008-0.0039)	0.0004-0.0016 (0.0008-0.0039)	0.0008-0.0028 (0.0008-0.0039)	0.0008-0.0028 (0.0008-0.0039)	Wet
Alloy Steel	★ 230 - 560 (160 - 460)	☆ 230 - 490 (160 - 390)	☆ 230 - 490 (160 - 390)	-	-	0.0004-0.0008	0.0004-0.0012	0.0004-0.0016 (0.0004-0.0020)	0.0004-0.0016	0.0004-0.0016 (0.0008-0.0039)	0.0004-0.0016 (0.0008-0.0039)	0.0008-0.0028 (0.0008-0.0039)	0.0008-0.0028 (0.0008-0.0039)	Wet
Stainless Steel	☆ 200 - 460 (130 - 390)	★ 200 - 390 (130 - 330)	☆ 200 - 390 (130 - 330)	-	-	0.0002-0.0006	0.0004-0.0008	0.0004-0.0008 (0.0004-0.0012)	0.0004-0.0008	0.0004-0.0008 (0.0004-0.0020)	0.0004-0.0008 (0.0004-0.0020)	0.0004-0.0016 (0.0004-0.0020)	0.0004-0.0016 (0.0004-0.0020)	Wet
Cast Iron	-	-	-	-	★ 160 - 330	0.0004-0.0012	0.0004-0.0016	0.0004-0.0020	0.0004-0.0020	0.0004-0.0020	0.0004-0.0020	0.0008-0.0031	0.0008-0.0031	Wet
Aluminum	-	-	-	★ 660 - 1,640	☆ 660 - 1,470	0.0004-0.0012	0.0004-0.0016	0.0004-0.0020	0.0004-0.0020	0.0004-0.0020	0.0004-0.0020	0.0008-0.0031	0.0008-0.0031	Wet
Brass	-	-	-	-	★ 330 - 660	0.0004-0.0012	0.0004-0.0016	0.0004-0.0024	0.0004-0.0024	0.0004-0.0024	0.0004-0.0024	0.0008-0.0039	0.0008-0.0039	Wet

Recommendations in Parentheses () : Tough Edge Type (TKF..T.)

KTKF-JCTM Applicable Inserts

Shape		Part Number	Dimensions (in)						Angle	Usage Classification														
			CW		CUTDIA	RE	W1	S		D1	PSIRR	MEGACOAT NANO PLUS		MEGACOAT NANO		MEGACOAT		DLC Coated Carbide		Uncoated Carbide				
			inch	mm								PR1725	PR1535	PR1225	PDL025	KW10	PR1725	PR1535	PR1225	PDL025	KW10	PR1725	PR1535	PR1225
 Right Lead Angle		TKF12% 050-S-16DR	0.020	0.5	0.197	0.0012	0.118	0.343	0.197	16°	●	●	●	●	●				●	●				
 Right Lead Angle		070-S-16DR	0.028	0.7	0.315						●	●	●	●	●	●						●	●	
 Right Lead Angle / Tough Edge		100-S-16DR	0.039	1.0	0.472						●	●	●	●	●	●	●	●	●	●	●	●	●	
 Tough Edge		125-S-16DR	0.049	1.25							●	●	●	●	●	●	●	●	●	●	●	●	●	●
 Right Lead Angle / Without Chipbreaker		150-S-16DR	0.059	1.5							●	●	●	●	●	●	●	●	●	●	●	●	●	●
 Without Chipbreaker		200-S-16DR	0.079	2.0							●	●	●	●	●	●	●	●	●	●	●	●	●	●
 Right Lead Angle		TKF12% 100-T-16DR	0.039	1.0	0.472	0.0031	0.118	0.343	0.197	16°	●	●	●	●	●									
 Right Lead Angle / Tough Edge		150-T-16DR	0.059	1.5							●	●	●	●	●	●	●	●	●	●	●	●	●	●
 Tough Edge		200-T-16DR	0.079	2.0							●	●	●	●	●	●	●	●	●	●	●	●	●	●
 Right Lead Angle / Without Chipbreaker		TKF12% 100-T	0.039	1.0	0.472	0.0031	0.118	0.343	0.197	0°	●	●	●	●	●									
 Without Chipbreaker		150-T	0.059	1.5							●	●	●	●	●	●	●	●	●	●	●	●	●	●
 Without Chipbreaker		200-T	0.079	2.0							●	●	●	●	●	●	●	●	●	●	●	●	●	●
 Right Lead Angle		TKF12% 050-NB-20DR	0.020	0.5	0.197	0	0.118	0.343	0.197	20°	●	●	●	●					●	●				
 Right Lead Angle		070-NB-20DR	0.028	0.7	0.315						●	●	●	●	●	●						●	●	
 Right Lead Angle / Without Chipbreaker		100-NB-20DR	0.039	1.0	0.472						●	●	●	●	●	●	●	●	●	●	●	●	●	
 Without Chipbreaker		150-NB-20DR	0.059	1.5							●	●	●	●	●	●	●	●	●	●	●	●	●	●
 Without Chipbreaker		200-NB-20DR	0.079	2.0							●	●	●	●	●	●	●	●	●	●	●	●	●	●
 Without Chipbreaker		TKF12% 050-NB	0.020	0.5	0.197	0	0.118	0.343	0.197	0°	●	●	●	●					●	●				
 Without Chipbreaker		070-NB	0.028	0.7	0.315						●	●	●	●	●	●						●	●	
 Without Chipbreaker		100-NB	0.039	1.0	0.472						●	●	●	●	●	●	●	●	●	●	●	●	●	
 Without Chipbreaker		150-NB	0.059	1.5							●	●	●	●	●	●	●	●	●	●	●	●	●	●
 Without Chipbreaker		200-NB	0.079	2.0							●	●	●	●	●	●	●	●	●	●	●	●	●	●
 Right Lead Angle		TKF16% 150-S-16DR	0.059	1.5	0.630	0.0020	0.157	0.374	0.197	16°	●	●	●	●	●	●	●	●	●					
 Right Lead Angle		200-S-16DR	0.079	2.0							●	●	●	●	●	●	●	●	●	●	●	●	●	●
 Right Lead Angle		TKF16% 150-S	0.059	1.5	0.630	0.0020	0.157	0.374	0.197	0°	●	●	●	●	●	●	●	●	●					
 Right Lead Angle		200-S	0.079	2.0							●	●	●	●	●	●	●	●	●	●	●	●	●	●
 Right Lead Angle / Tough Edge		TKF16% 150-T-16DR	0.059	1.5	0.630	0.0031	0.157	0.374	0.197	16°	●	●	●	●	●	●								
 Right Lead Angle / Tough Edge		200-T-16DR	0.079	2.0							●	●	●	●	●	●	●	●	●	●	●	●	●	●
 Right Lead Angle / Tough Edge		TKF16% 150-T	0.059	1.5	0.630	0.0031	0.157	0.374	0.197	0°	●	●	●	●	●	●								
 Right Lead Angle / Tough Edge		200-T	0.079	2.0							●	●	●	●	●	●	●	●	●	●	●	●	●	●
 Right Lead Angle / Without Chipbreaker		TKF16% 150-NB-20DR	0.059	1.5	0.630	0	0.157	0.374	0.197	20°	●	●	●	●					●	●				
 Right Lead Angle / Without Chipbreaker		200-NB-20DR	0.079	2.0							●	●	●	●	●	●	●	●	●	●	●	●	●	●
 Without Chipbreaker		TKF16% 150-NB	0.059	1.5	0.630	0	0.157	0.374	0.197	0°	●	●	●	●					●	●				
 Without Chipbreaker		200-NB	0.079	2.0							●	●	●	●	●	●	●	●	●	●	●	●	●	●

Lead angle (front cutting edge angle: PSIRR) shows the angle when installed in the toolholder.
 Machining diameter of insert (CUTDIA) indicates the machining diameter when the tool tip has proceeded to the center of workpiece

● : Standard Item

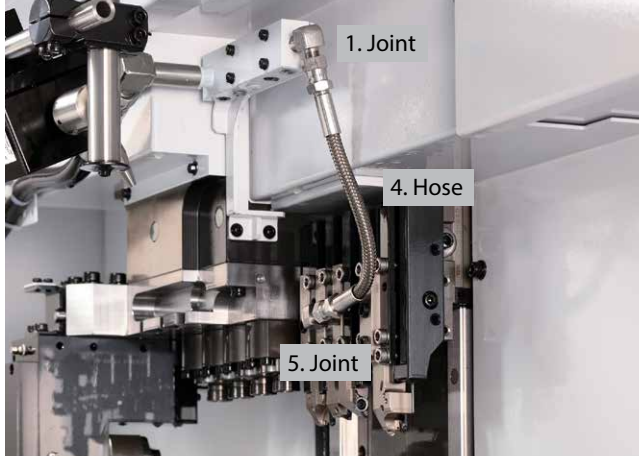
Coolant Piping Parts

Pipe parts will be required separately if internal coolant is used

Pump Pressure: up to 2,900 psi

Pump Pressure: up to 1,090 psi if couplers are used

Without Coupler (Pump Pressure: up to 2,900 psi)



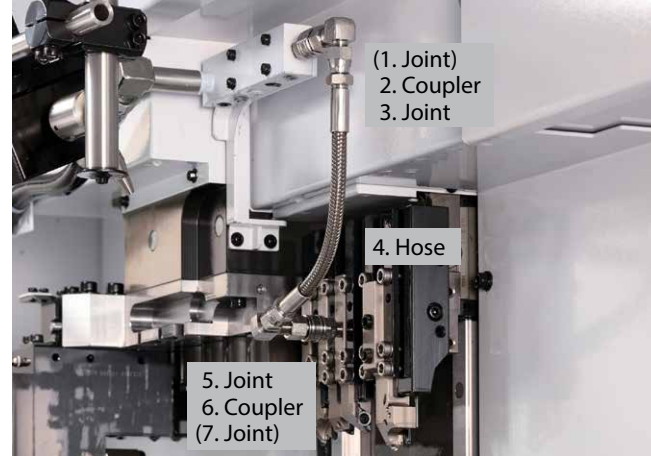
Combination Part Number (Example)

Part	Part Number
1. Joint	J-ST-R1/8-G1/8
4. Hose	HS-G1/8-G1/8-500
5. Joint	J-ST-R1/8-G1/8

Convert the thread standards on the machine's side (Rc1/4, Rc1/8, NPT1/8, etc.) to the thread standard on the hose side (G1/8) for use.

Use sealing agents such as seal tapes when installing piping parts.

With Coupler (Pump Pressure: Up to 1,090 psi)



Combination Part Number (Example)

Part	Part Number
(1. Joint)	-
2. Coupler	CP-ST-R1/8, P-ST-RC1/8
3. Joint	J-AN-R1/8-G1/8
4. Hose	HS-G1/8-G1/8-200
5. Joint	J-AN-R1/8-G1/8
6. Coupler	P-ST-RC1/8, CP-ST-R1/8
(7. Joint)	-

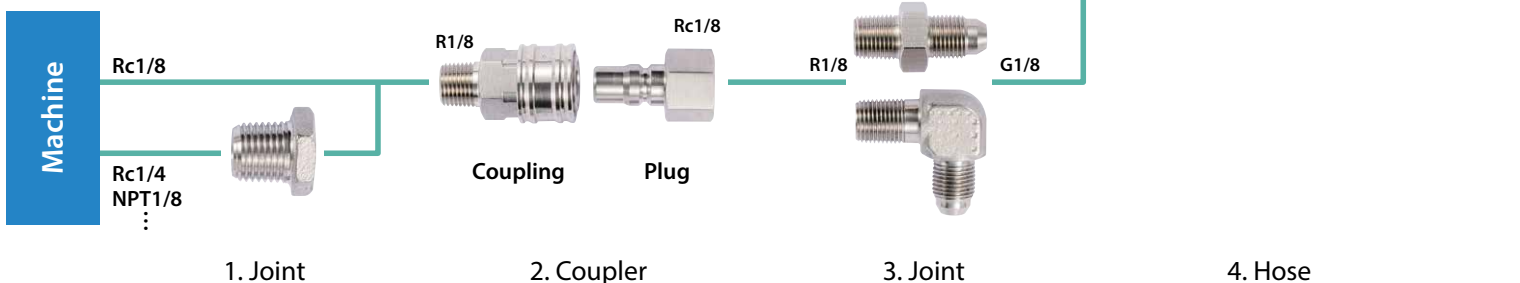
Convert the thread standards on the machine's side (Rc1/4, Rc1/8, NPT1/8, etc.) to thread standards of the coupler (Rc1/8, etc.) or hose (G1/8) for use.

Use sealing agents such as seal tapes when installing piping parts.

Without Coupler (Pump Pressure: up to 2,900 psi)







With Coupler (Pump Pressure: up to 1,090 psi)



Piping Installation Parts Description

Joint (1, 3, 5, 7) Pressure Resistance: up to 2,900 psi




(Unit: mm)

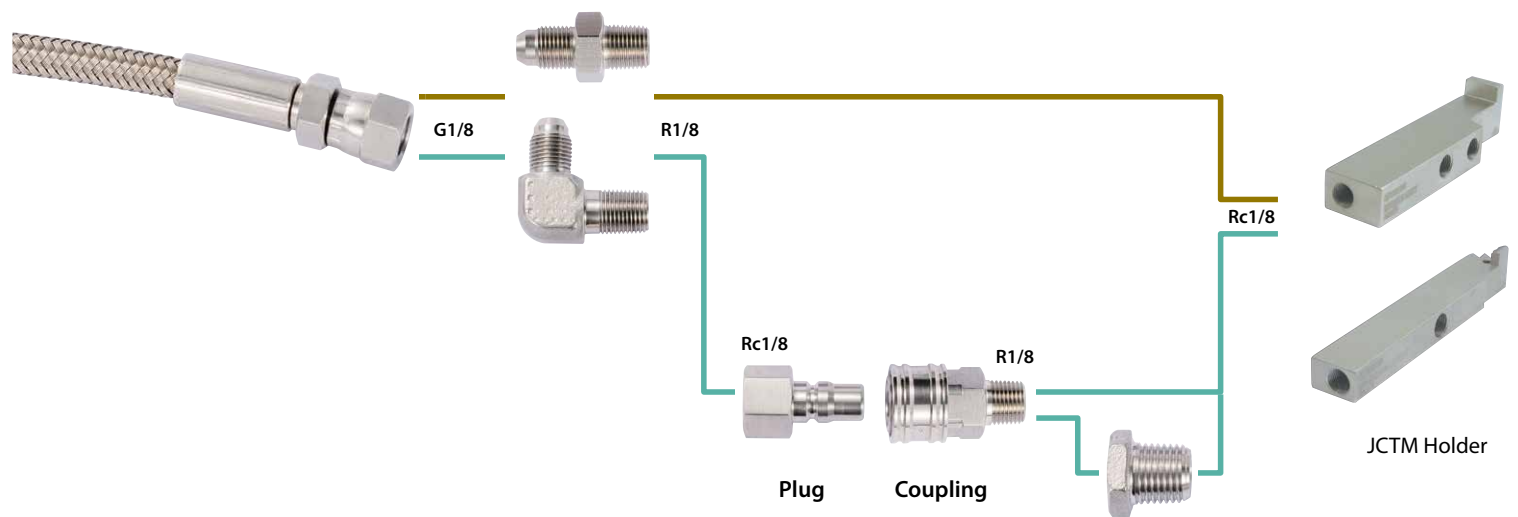
Shape	Part Number	Stock	Ød1	Ød2	L	L1	L2	T1	T2
	J-ST-R1/4-G1/8	●	5.5	4.0	34	13	13	R1/4	G1/8
	J-ST-NPT1/8-G1/8	●	3.5	3.5	29	10	13	NPT1/8	G1/8
	J-ST-R1/8-G1/8	●	4.0	4.0	29	10	13	R1/8	G1/8
	J-AN-R1/8-G1/8	●	4.0	4.0	27	14	13	R1/8	G1/8
	J-ST-R1/4-RC1/8	●	-	-	17	12	-	R1/4	Rc1/8
	J-ST-NPT1/8-RC1/8	●	3.5	-	30	10	-	NPT1/8	Rc1/8
	J-ST-R1/8-RC1/8	●	3.5	-	33	13	-	R1/8	Rc1/8

Coupler (2, 6) Pressure Resistance: up to 1,090 psi (Unit: mm)

Hose (4) Pressure Resistance: up to 2,900 psi

(Unit: mm)

Shape	Part Number	Stock	Shape	Part Number	Stock	L
	CP-ST-R1/8	●		HS-G1/8-G1/8-200	●	200
				HS-G1/8-G1/8-300	●	300
HS-G1/8-G1/8-400	●	400				
HS-G1/8-G1/8-500	●	500				
HS-G1/8-G1/8-600	●	600				
HS-G1/8-G1/8-800	●	800				
	P-ST-RC1/8	●				



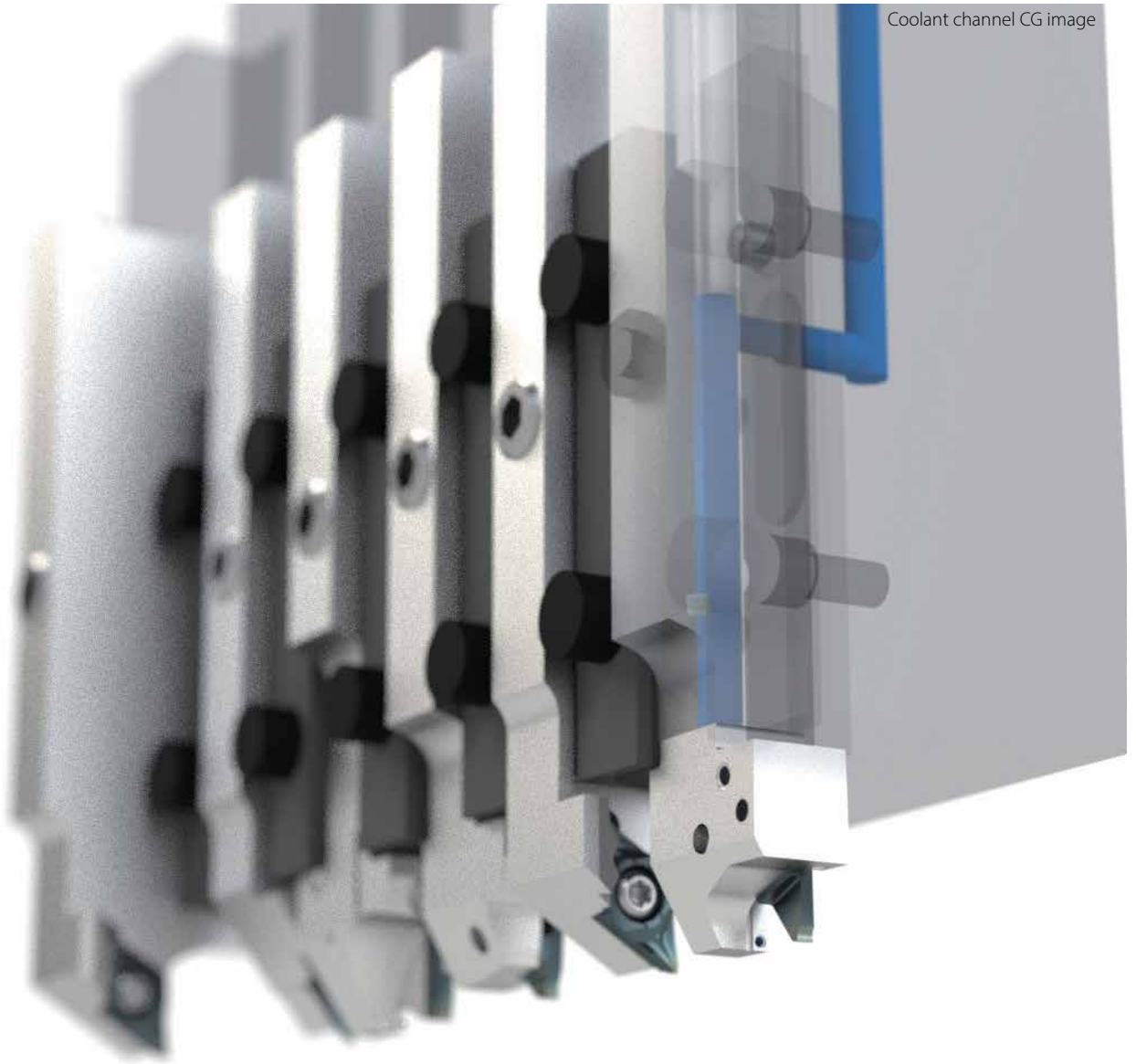
4. Hose

5. Joint

6. Coupler

7. Joint (Extension Joint)

Coolant channel CG image



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Distributor Website | mykpti.kyocera.com
Email | cuttingtools@kyocerapti.com

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