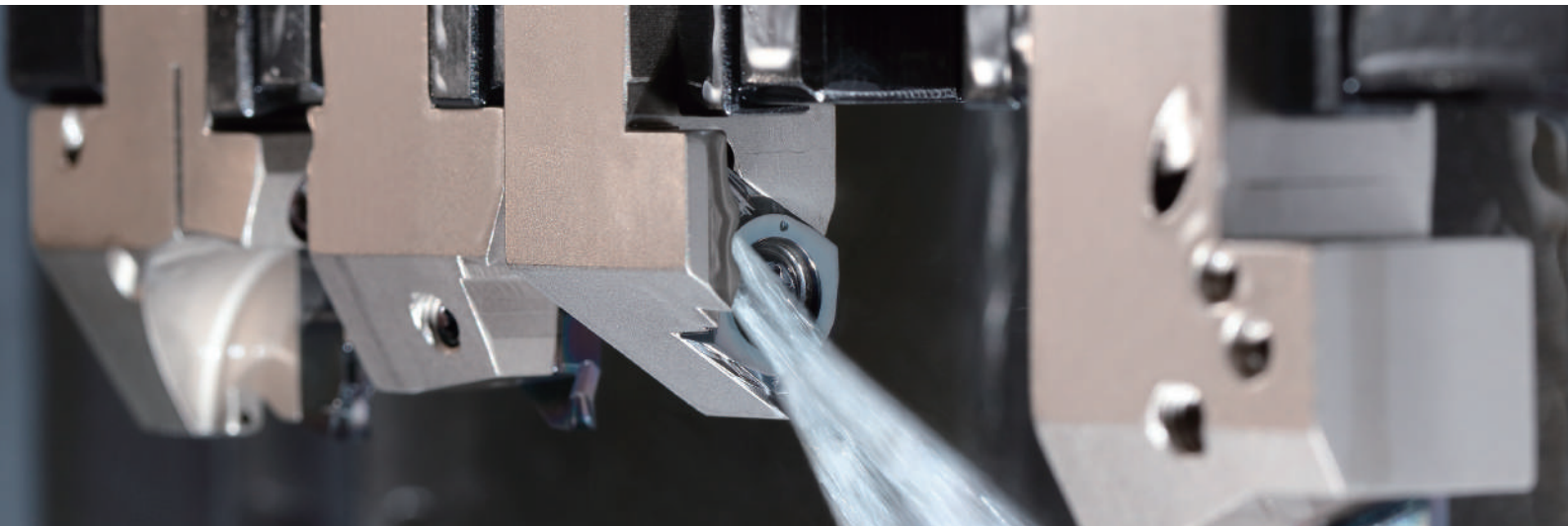


JCTM Series Direct Coolant Holder for Small Parts Machining

# JCTM Series



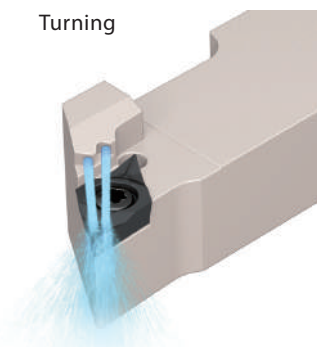
Supports Less Piping with Direct Coolant Supply. Superior Chip Control and Long Tool Life

Applicable to Different Supply Styles. Supports Internal Coolant with/without Piping System

Large Lineup for Various Tooling Operations

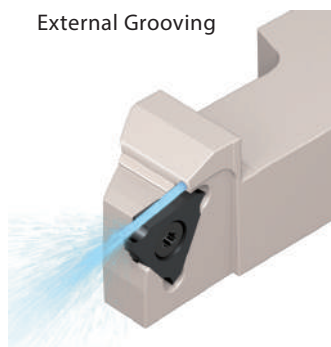
Long Tool Life with Kyocera's High-performance Insert Grade

Turning



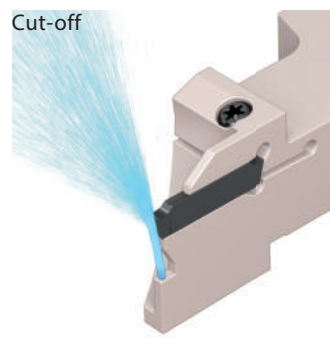
Screw Clamp - JCTM

External Grooving



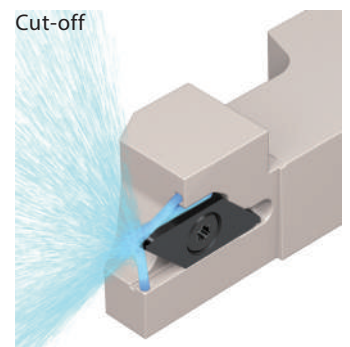
KGBF-JCTM

Cut-off



KGD-JCTM

Cut-off

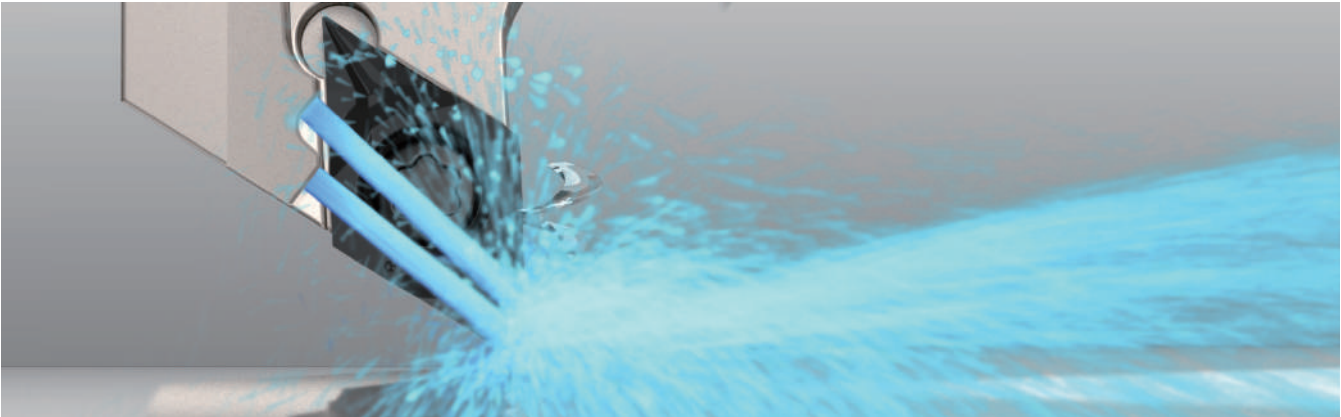


KTKF-JCTM

# JCTM Series

Applicable to Different Supply Styles. Supports Internal Coolant with/without Piping System  
Lineup of Turning, Grooving (KGBF), and Cut-off (KGD/KTKF) Holders

## 1 Using Internal Coolant to Enhance Tool Performance



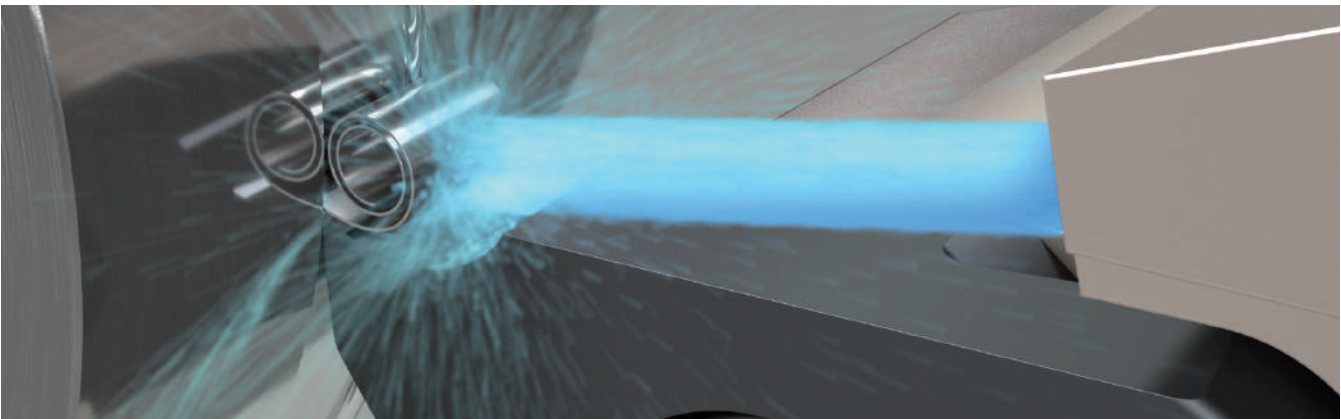
CG Image

### Challenges

- Difficulty in automatic operation due to sudden chip entanglement
- Insert change is not enough to extend tool life

### SOLUTION

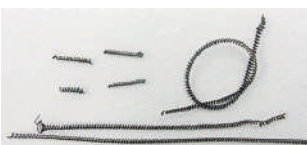
- The JCTM series is compatible with internal coolant in a wide range of machines and also works under normal pressure
- Reduces down time by improving chip control and reduces cost by extending tool life



CG Image

## Switching to internal coolant toolholder reduces chip entanglement

### Internal Coolant (2.5 MPa)



### External Coolant



### Pin SKS 93

$V_c = 180$  m/min,  $a_p = 1.4$  mm  
 $f = 0.13$  mm/rev, Wet

SDJC / DCMT11T304 type (User evaluation)

## 2 Applicable to Different Supply Styles. Supports Internal Coolant with/without Piping System

### Internal Coolant without Piping

**\*When the tool turret supports direct coolant**

**NEW**

Coolant is supplied directly from tool turret into the holder. No need for piping just by installing tools

Applicable to Wide Range of Machines

**The tool turret is optional. Please contact our company sales representative for details.**

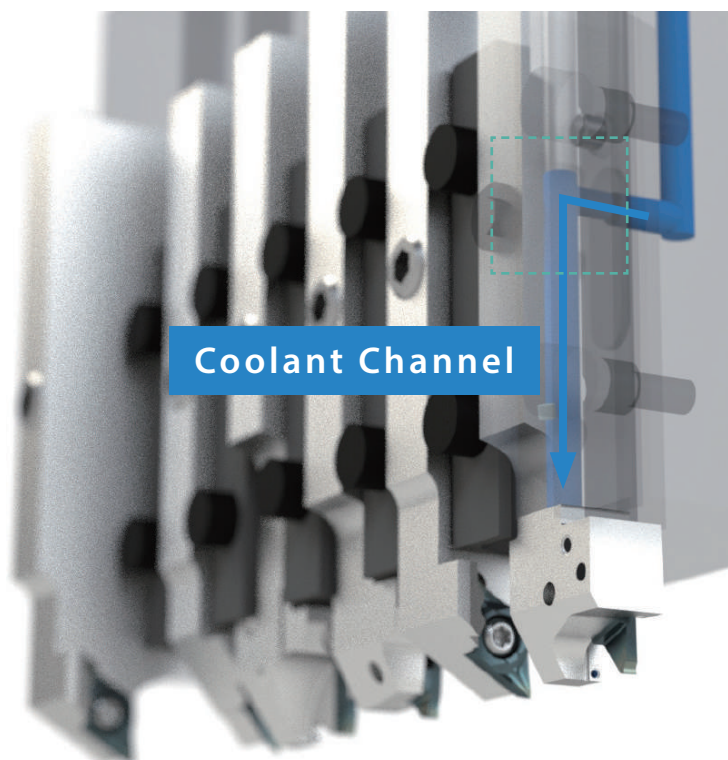
CITIZEN MACHINERY CO., LTD. (L20, D25, M32)

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

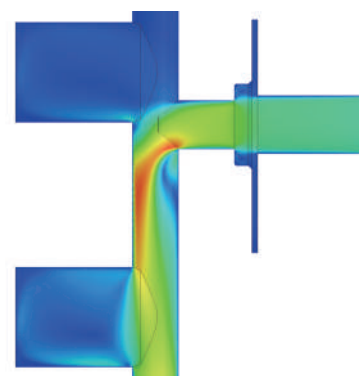


### Point

Appropriate hole design to reduce energy loss based on deep analysis

Analysis Image (Internal evaluation)

High  
Flow velocity  
Low

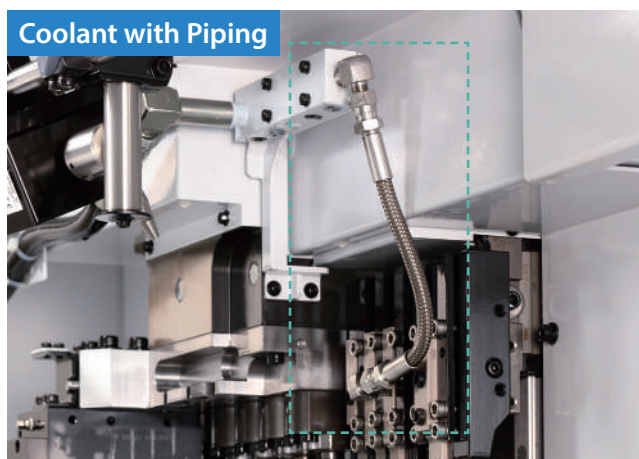


### Internal Coolant with Piping

\*Piping parts: See pages 13 and 14

Compatible with internal coolant on any machine with standard piping parts

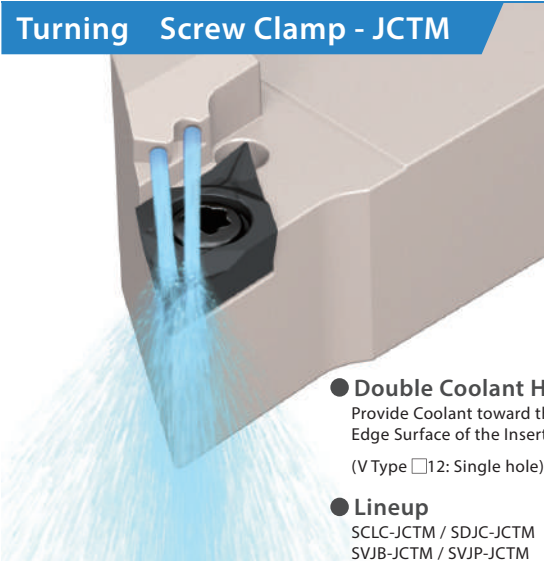
Commercial piping parts are available when using at normal pressure



### 3 Large Lineup for Various Tooling Operations

#### Turning Screw Clamp - JCTM

→ P5



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

#### Coolant Supply Structure Comparison (Internal evaluation)

(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

→ P7

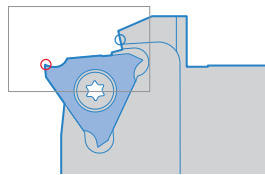


- Provides Coolant toward the Rake Surface of Insert
- **Specification**  
Edge Width: 0.25 -3 mm  
Ground Chipbreaker/3D GL Chipbreaker  
Maximum groove depth: 3 mm

#### Coolant Discharging Comparison (Internal evaluation)

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

- Cutting Edge
- Coolant Hole



KGBF-JCTM		Competitor B	
Coolant Spread: Narrow	Coolant Density: High	Coolant Spread: Wide	Coolant Density: Low

### 4 Kyocera's High-performance Insert Grade

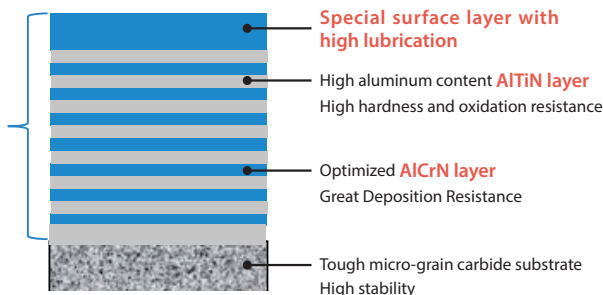
**PR1725** 1st Recommendation for Steel Machining. Excellent Surface Finish and Long Tool Life

#### MEGACOAT NANO® PLUS

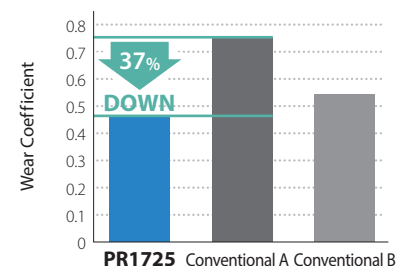
AlTiN/AlCrN Nano laminated film with superior wear resistance and adhesion resistance

<Reduces cracking>

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

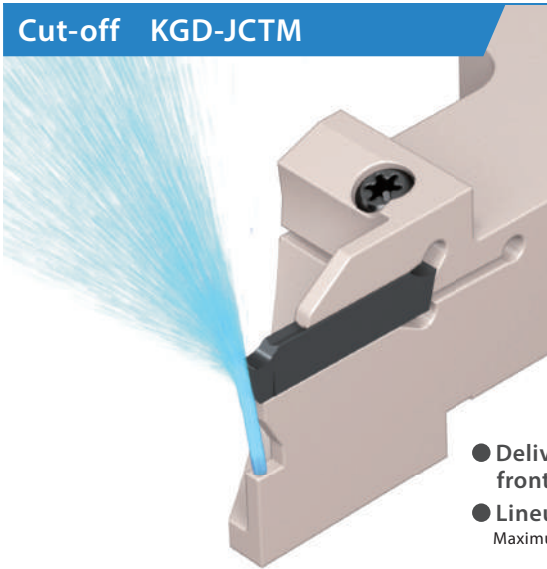


#### Wear Coefficient Comparison (Internal evaluation)



## Cut-off KGD-JCTM

→ P9

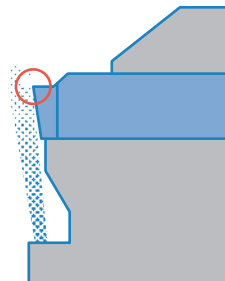


- Delivers coolant directly to front flank face
- Lineup  
Maximum Cutting Dia.: ~ 24 mm, ~ 32 mm

Coolant Discharge Comparison (Image)

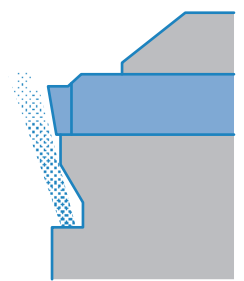
### KGD-JCTM

Cooling the cutting edge leads to longer tool life



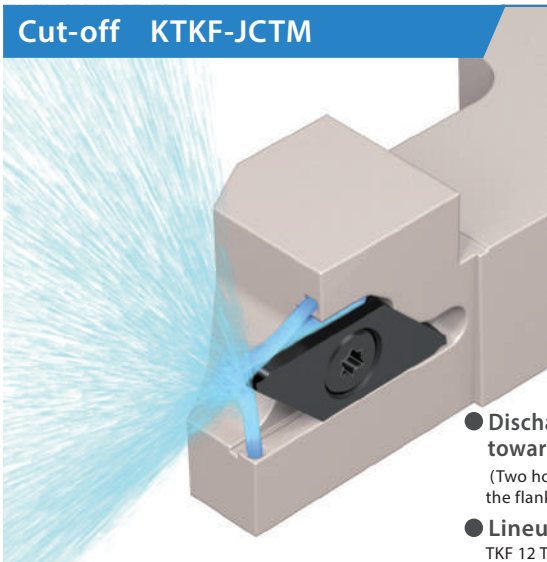
### Competitor C

Coolant does not flow directly toward the cutting edge



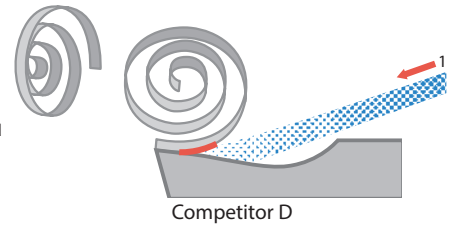
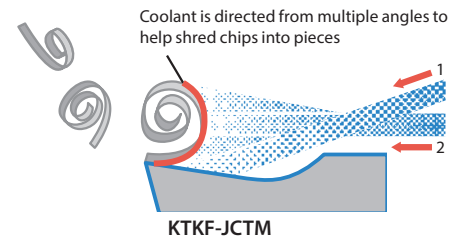
## Cut-off KTKF-JCTM

→ P11



- 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 Cutting Dia.  $\phi$ 5- $\phi$  12)  
TKF 16 Type (Maximum Cutting Dia.  $\phi$  16)

Coolant Discharge Structure Comparison (Image)



## 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®

- Point 1** An increase in cobalt content yields a substrate with greater toughness  
\*In comparison to our conventional material grade
- Point 2** Improved stability by optimization and homogenization of grains in the base material
- Point 3** MEGACOAT NANO coating technology for long tool life and stable machining

↑ 23%  
Fracture Toughness\*

Cracking Comparison by Diamond Indenter (Internal evaluation)

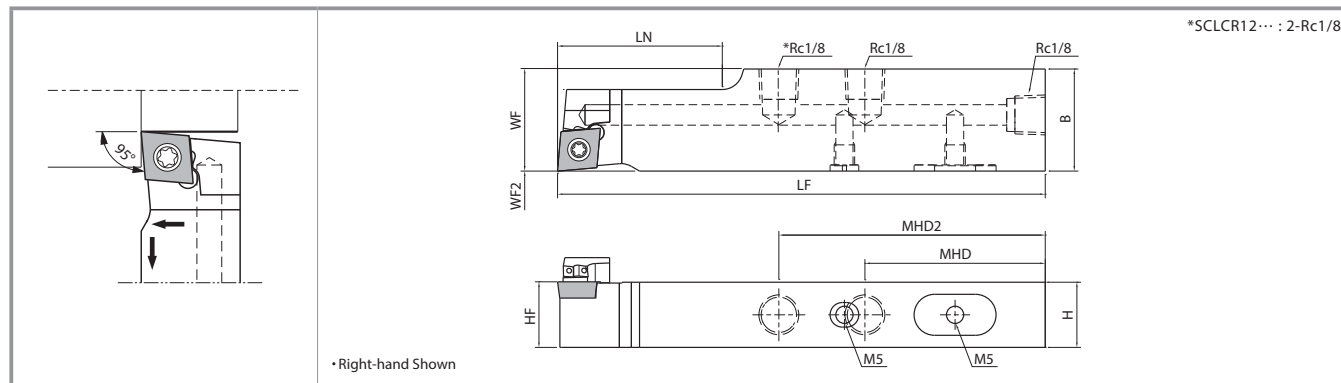


MEGACOAT Base Layer Structure

### Point

PR1535 shows superior performance in steel machining under unstable conditions

# SCLC-JCTM



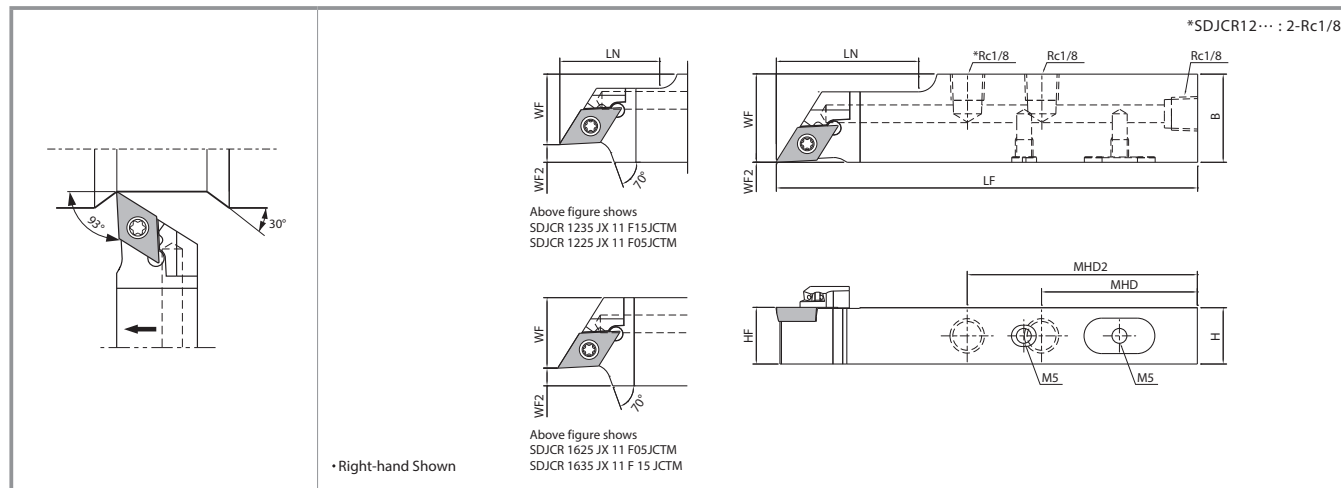
## Toolholder Dimensions

Description	Stock		Dimensions (mm)									Reference Corner-R (RE)	Parts				
	R	L	H	HF	B	LF	LN	WF	WF2	MHD	MHD2		Clamp Screw	Wrench	Plug 1	Plug 2	
SCLCR 1218JX-09FFJCTM	●		12	12	18	120	28	18	0	54	-	0.2	SB-4085TR	FT-15	GP-1	HSSX4LP	
1625JX-09FFJCTM	●		16	16	25		40	25		44	65					-	-
2025JX-09FFJCTM	●		20	20													

\*For coolant holder piping parts, see pages 13 and 14.

● : Standard Stock

# SDJC-JCTM



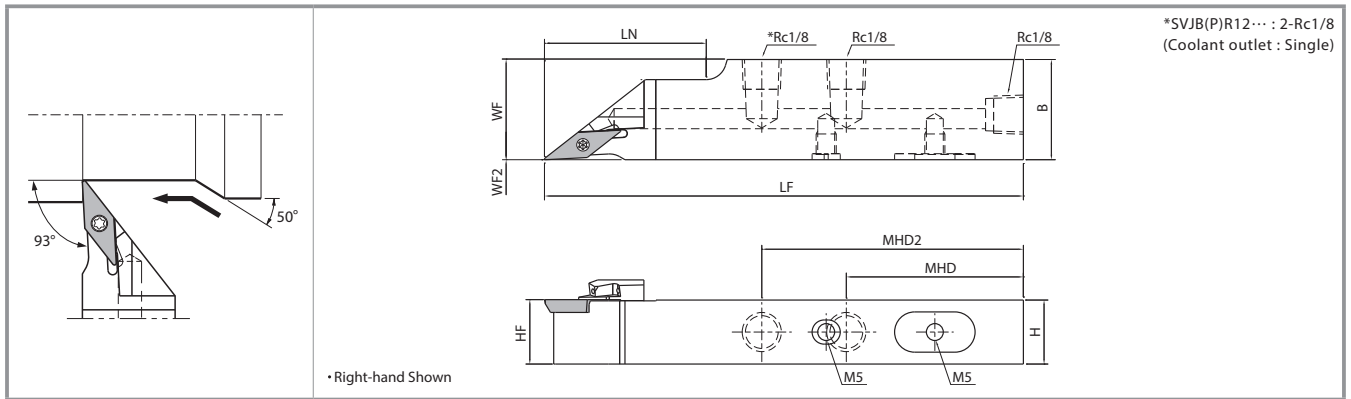
## Toolholder Dimensions

Description	Stock		Dimensions (mm)									Reference Corner-R (RE)	Parts				
	R	L	H	HF	B	LF	LN	WF	WF2	MHD	MHD2		Clamp Screw	Wrench	Plug 1	Plug 2	
SDJCR 1218JX-11FFJCTM	●		12	12	18	120	28	18	0	54	-	0.2	SB-4085TR	FT-15	GP-1	HSSX4LP	
1625JX-11FFJCTM	●		16	16	25		40	25		44	65					-	-
2025JX-11FFJCTM	●		20	20													
SDJCR 1225JX11F05JCTM	●		12	12	25	120	28	20	5	54	-	0.2				HSSX4LP	
1235JX11F15JCTM	●				35				15								
SDJCR 1625JX11F05JCTM	●		16	16	25	120	-	20	5	44	65	0.2					
1635JX11F15JCTM	●				35				15								

\*For coolant holder piping parts, see pages 13 and 14.

● : Standard Stock

# SVJB / SVJP-JCTM



## Toolholder Dimensions

Description	Stock		Dimensions (mm)										Reference Corner-R (RE)	Parts			
	R	L	H	HF	B	LF	LN	WF	WF2	MHD	MHD2	Clamp Screw		Wrench	Plug 1	Plug 2	
SVJBR 1218JX-11FFJCTM	●		12	12	18	120	28	18	0	54	-	0.4	SB-2570TR	FT-8	GP-1	HS5X4LP	
1625JX-11FFJCTM	●		16	16	25		40	25		44	65					-	-
2025JX-11FFJCTM	●		20	20	25		40	25		44	65					-	-
SVJPR 1218JX-11FFJCTM	●		12	12	18	120	28	18	0	54	-	0.2	SB-2570TR	FT-8	GP-1	HS5X4LP	
1625JX-11FFJCTM	●		16	16	25		40	25		44	65					-	-
2025JX-11FFJCTM	●		20	20	25		40	25		44	65					-	-

\*For coolant holder piping parts, see pages 13 and 14.

●: Standard Stock

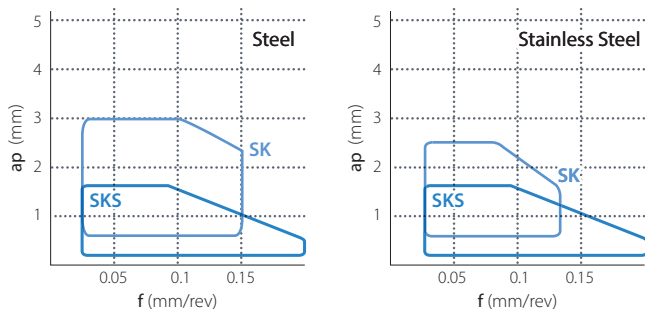
## Applicable Chipbreakers

### 3D Sharp Edge Chipbreaker Series

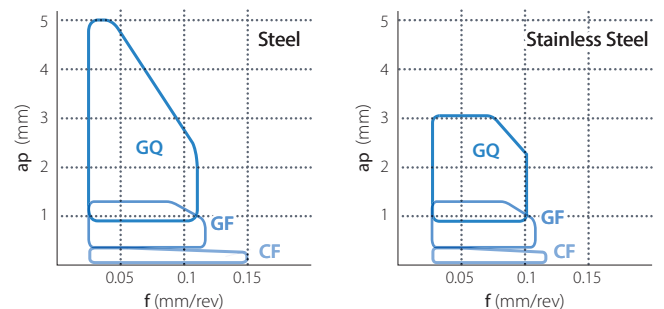
- 1 Excellent Chip Control in a Wide Range of Machining Applications
- 2 High Precision with Periphery Grinding and Sharp Edge Specification
- 3 Anti-welding Properties with Improved Mirror Surface Finish



1st Recommended Chipbreakers (Low cutting force)

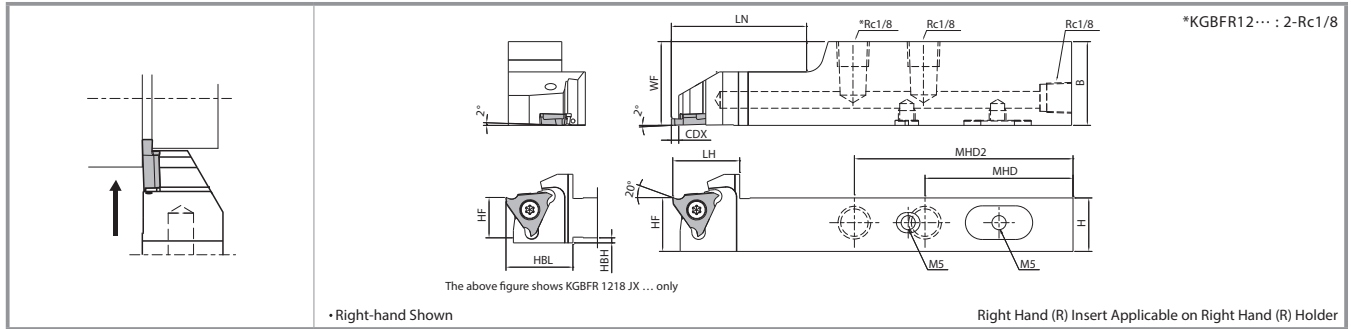


Additional Chipbreakers (Chip control oriented)



For details, refer to "Kyocera General Catalog" and/or "PR1725/PR1705 Catalog"

# KGBF-JCTM



## Toolholder Dimensions

Description	Stock		Dimensions (mm)											Parts			
	R	L	H=HF	HBH	B	LF	HBL	LH	LN	WF	CDX *1	MHD	MHD2	Clamp Screw	Wrench	Plug 1	Plug 2
KGBFR 1218JX-16FJCTM	●		12	1.5	18		20		28	12		54	-	SB-4070TRW	FT-8	GP-1	HS5X4LP
1625JX-16FJCTM	●		16	-	25	120	-	20	40	16	3	44	65				
2025JX-16FJCTM	●		20							20							

\*For coolant holder piping parts, see pages 13 and 14.

\*1. CDX indicates the distance from the holder face to the cutting edge. The actual machining depth is insert's CDX.

● : Standard Stock

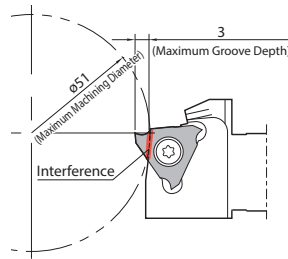
## Precautions

### GBF and GBA Compatibility

- GBF (Insert) can be attached to KGBA/KGBAS (holder).  
Caution: The maximum groove depth for KGBA/KGBAS holders is 2.5 mm
- GBA (Insert) can be attached to KGBF-JCTM (holder).  
Caution: Rake angle when the holder is installed becomes 11°.

### Maximum Cutting Dia. Limits

3 mm groove depth is available on workpiece diameters up to ø51mm  
 2.7 mm groove depth is available on workpiece diameters up to ø100mm,  
 2.5 mm groove depth is available on workpiece diameters up to ø200mm  
 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: m/min)			1. Feed during Grooving Machining (mm/rev) 2. Feed during Traversing (mm/rev) 3. D.O.C. during Traversing (mm)			
	MEGACOAT	MEGACOAT NANO	Carbide	GBF32R		GBF32R	
	PR1215	PR1535	GW15	025-053 (~000F)	065-095 (~000F)	100-145 (~000F)	150-300 (~200-000F)
Carbon Steel	★ 80 - 180	☆ 70 - 160	-	1. 0.01 - 0.05 (0.005 - 0.03) 2. Traversing is NOT Recommended 3. Traversing is NOT Recommended	1. 0.02 - 0.07 (0.01 - 0.04) 2. Traversing is NOT Recommended 3. Traversing is NOT Recommended	1. 0.03 - 0.08 (0.01 - 0.05) 2. 0.03 - 0.06 (0.01 - 0.04) 3. MAX. 0.2	1. 0.03 - 0.08 (0.01 - 0.05) 2. 0.03 - 0.06 (0.01 - 0.04) 3. MAX. 0.2
Alloy Steel	★ 80 - 180	☆ 70 - 160	-	1. 0.01 - 0.04 (0.005 - 0.025) 2. Traversing is NOT Recommended 3. Traversing is NOT Recommended	1. 0.02 - 0.06 (0.01 - 0.03) 2. Traversing is NOT Recommended 3. Traversing is NOT Recommended	1. 0.03 - 0.07 (0.01 - 0.04) 2. 0.02 - 0.05 (0.01 - 0.03) 3. MAX. 0.2	1. 0.03 - 0.07 (0.01 - 0.04) 2. 0.02 - 0.05 (0.01 - 0.03) 3. MAX. 0.2
Stainless Steel	☆ 60 - 130	★ 50 - 120	-	1. 0.01 - 0.04 (0.005 - 0.02) 2. Traversing is NOT Recommended 3. Traversing is NOT Recommended	1. 0.02 - 0.06 (0.01 - 0.025) 2. Traversing is NOT Recommended 3. Traversing is NOT Recommended	1. 0.03 - 0.07 (0.01 - 0.03) 2. 0.02 - 0.05 (0.01 - 0.025) 3. MAX. 0.2	1. 0.03 - 0.07 (0.01 - 0.03) 2. 0.02 - 0.05 (0.01 - 0.025) 3. MAX. 0.2
Cast Iron	-	-	★ 60 - 100	1. 0.01 - 0.05 (0.005 - 0.03) 2. Traversing is NOT Recommended 3. Traversing is NOT Recommended	1. 0.02 - 0.07 (0.01 - 0.04) 2. Traversing is NOT Recommended 3. Traversing is NOT Recommended	1. 0.03 - 0.08 (0.01 - 0.05) 2. 0.03 - 0.06 (0.01 - 0.04) 3. MAX. 0.2	1. 0.03 - 0.08 (0.01 - 0.05) 2. 0.03 - 0.06 (0.01 - 0.04) 3. MAX. 0.2
Aluminum Alloy	-	-	★ 150 - 400	1. 0.01 - 0.05 (0.005 - 0.03) 2. Traversing is NOT Recommended 3. Traversing is NOT Recommended	1. 0.02 - 0.07 (0.01 - 0.04) 2. Traversing is NOT Recommended 3. Traversing is NOT Recommended	1. 0.03 - 0.08 (0.01 - 0.05) 2. 0.03 - 0.06 (0.01 - 0.04) 3. MAX. 0.2	1. 0.03 - 0.08 (0.01 - 0.05) 2. 0.03 - 0.06 (0.01 - 0.04) 3. MAX. 0.2
Brass	-	-	★ 150 - 300	1. 0.01 - 0.04 (0.01 - 0.03) 2. Traversing is NOT Recommended 3. Traversing is NOT Recommended	1. 0.02 - 0.06 (0.01 - 0.04) 2. Traversing is NOT Recommended 3. Traversing is NOT Recommended	1. 0.03 - 0.07 (0.01 - 0.05) 2. 0.02 - 0.05 (0.01 - 0.04) 3. MAX. 0.2	1. 0.03 - 0.07 (0.01 - 0.05) 2. 0.02 - 0.05 (0.01 - 0.04) 3. MAX. 0.2

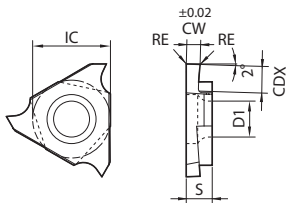
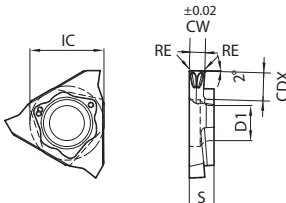
### GBF-GL

Workpiece	Recommended Insert Grade (Cutting speed Vc: m/min)		1. Feed during Grooving Machining (mm/rev) 2. Feed during Traversing (mm/rev) 3. D.O.C. during Traversing (mm)			
	MEGACOAT	MEGACOAT NANO	GBF32R		GBF32R	
	PR1215	PR1535	075-005GL	095-100-005GL	150-200-010GL	300-010GL
Carbon Steel	★ 80 - 180	☆ 70 - 160	1. 0.02 - 0.07 2. Traversing is NOT Recommended 3. Traversing is NOT Recommended	1. 0.03 - 0.08 2. 0.03 - 0.06 3. MAX.0.2	1. 0.03 - 0.08 2. 0.03 - 0.06 3. MAX.0.3	1. 0.04 - 0.1 2. 0.04 - 0.08 3. MAX.0.5
Alloy Steel	★ 80 - 180	☆ 70 - 160	1. 0.02 - 0.06 2. Traversing is NOT Recommended 3. Traversing is NOT Recommended	1. 0.03 - 0.07 2. 0.03 - 0.06 3. MAX.0.2	1. 0.03 - 0.07 2. 0.03 - 0.06 3. MAX.0.3	1. 0.04 - 0.09 2. 0.04 - 0.08 3. MAX.0.5
Stainless Steel	☆ 60 - 130	★ 50 - 120	1. 0.02 - 0.06 2. Traversing is NOT Recommended 3. Traversing is NOT Recommended	1. 0.03 - 0.07 2. 0.03 - 0.06 3. MAX.0.2	1. 0.03 - 0.07 2. 0.03 - 0.06 3. MAX.0.3	1. 0.04 - 0.09 2. 0.04 - 0.08 3. MAX.0.5



# List of KGBF-JCTM Applicable Inserts

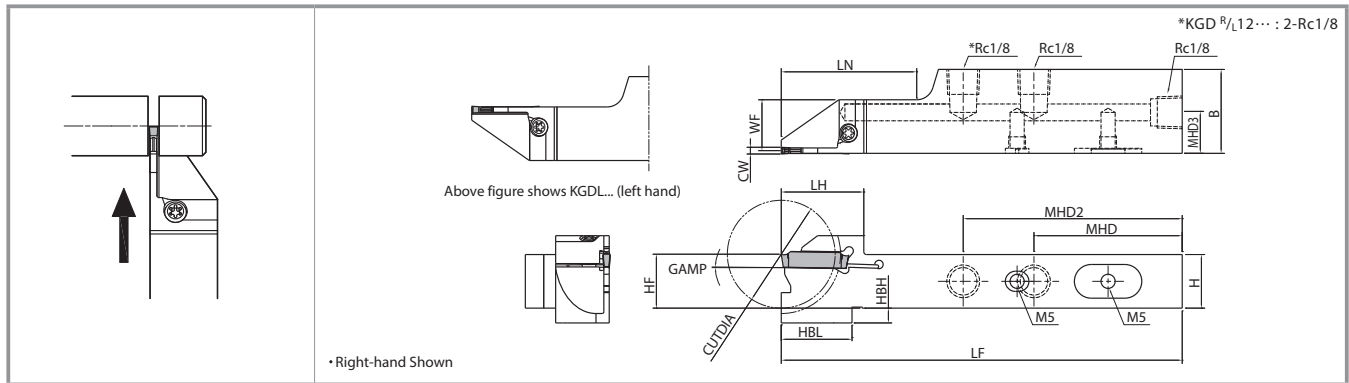
## Applicable Inserts

				Usage Classification		P	Carbon Steel /Alloy Steel	☐	☐	
				● : Continuous-Light Interruption /1st Choice		M	Stainless Steel	☐	☐	☐
				☐ : Continuous-Light Interruption /2nd Choice		K	Cast Iron			☐
				● : Continuous/1st Choice		N	Non-ferrous Metal			☐
				☐ : Continuous/2nd Choice		S	Titanium Alloy			☐
Description	IC	S	D1	Dimensions (mm)			MEGACOAT	MEGACOAT NANO	Carbide	
GBF32	9.525	3.18	4.4	CW	CDX	RE	PR1215	PR1535	GW15	
	GBF32R	025-000F	0.25	0.6	0.00	●	●	●		
		025-005			0.05	●	●	●		
		030-000F	0.30	0.8	0.00	●	●	●		
		030-005			0.05	●	●	●		
		033-000F *1	0.33	0.8	0.00	●	●	●		
		033-005 *1			0.05	●	●	●		
		043-000F *2	0.43	1.0	0.00	●	●	●		
		043-005 *2			0.05	●	●	●		
		050-000F	0.50	1.2	0.00	●	●	●		
		050-005			0.05	●	●	●		
		053-000F *3	0.53	1.2	0.00	●	●	●		
		053-005 *3			0.05	●	●	●		
		065-000F	0.65	1.2	0.00	●	●	●		
		065-005			0.05	●	●	●		
		075-000F	0.75	2.0	0.00	●	●	●		
		075-005			0.05	●	●	●		
		080-000F	0.80	2.0	0.00	●	●	●		
		080-005			0.05	●	●	●		
		095-000F	0.95	2.0	0.00	●	●	●		
		095-005			0.05	●	●	●		
		100-000F	1.00	2.0	0.00	●	●	●		
		100-005			0.05	●	●	●		
		110-000F	1.10	2.0	0.00	●	●	●		
		110-005			0.05	●	●	●		
		120-000F	1.20	2.0	0.00	●	●	●		
		120-005			0.05	●	●	●		
		125-000F	1.25	2.0	0.00	●	●	●		
		125-005			0.05	●	●	●		
		125-010			0.1	●	●	●		
		130-000F	1.30	2.0	0.00	●	●	●		
		130-005			0.05	●	●	●		
		130-010			0.1	●	●	●		
		140-000F	1.40	2.7	0.00	●	●	●		
		140-005			0.05	●	●	●		
		140-010			0.1	●	●	●		
		145-000F	1.45	2.7	0.00	●	●	●		
		145-005			0.05	●	●	●		
		145-010			0.1	●	●	●		
		150-000F	1.50	2.7	0.00	●	●	●		
		150-005			0.05	●	●	●		
150-010			0.1	●	●	●				
165-000F	1.65	2.7	0.00	●	●	●				
165-005			0.05	●	●	●				
165-010			0.1	●	●	●				
170-000F	1.70	3.0	0.00	●	●	●				
170-005			0.05	●	●	●				
170-010			0.1	●	●	●				
175-000F	1.75	3.0	0.00	●	●	●				
175-005			0.05	●	●	●				
175-010			0.1	●	●	●				
200-000F	2.00	3.0	0.00	●	●	●				
200-005			0.05	●	●	●				
200-010			0.1	●	●	●				
225-005	2.25	3.0	0.05	●	●	●				
225-010			0.1	●	●	●				
250-005	2.50	3.0	0.05	●	●	●				
250-010			0.1	●	●	●				
300-005	3.00	3.0	0.05	●	●	●				
300-010			0.1	●	●	●				
	GBF32R	075-005GL	0.75	2.0	0.05	●	●			
		095-005GL	0.95	2.0	0.05	●	●			
		100-005GL	1.00	2.0	0.05	●	●			
		150-010GL	1.50	2.7	0.10	●	●			
		200-010GL	2.00	3.0	0.10	●	●			
300-010GL	3.00	3.0	0.10	●	●					

Maximum cutting dia. in a groove depth of 3 mm is  $\phi 51$  mm (Please check the precautions on page 7)

\*1. GBF 32 R 033-000F/005 Edge width tolerance :  $0.33^{+0.015}_{-0.025}$  \*2. GBF 32 R043-000F/005 Edge width tolerance :  $0.43^{+0.015}_{-0.025}$  \*3. GBF 32 R053-000F/005 Edge width tolerance :  $0.53^{+0.015}_{-0.025}$  ● : Standard Stock

# KGD-JCTM



## Toolholder Dimensions

Description	Stock		Cutting Dia.	Dimensions (mm)											Angle	Edge Width CW (mm)			Parts				Applicable Inserts																			
	R	L		CUTDIA	H=HF	HBH	B	LF	LH	HBL	LN	WF	MHD	MHD2		MHD3	GAMP	MIN.	MAX.	Clamp Screw	Wrench	Plug 1		Plug 2																		
KGDR 1218JX-2JCTM	●		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	H5SX4LP	GDM Type GDG Type (GDMS Type) (GDGS Type)																				
KGDL 1218JX-2JCTM		●						19.5	21.5	44	11.2	54	-	7.7																												
KGDR 1625JX-2JCTM	●		32	16	4.5	25	120	24.5	21	40	15.2	44	65	12.2	1°	2.4	3.0						SB-40120TR	LTW-15S	GP-1	H5SX4LP	GDM Type GDG Type (GDMS Type) (GDGS Type)															
KGDL 1625JX-2JCTM		●						24.5	21	40	15	44	65	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											SB-40120TR	LTW-15S	GP-1	H5SX4LP	GDM Type GDG Type (GDMS Type) (GDGS Type)										
KGDL 1218JX-2.4JCTM		●						19.5	21.5	44	11	54	-	7.7																												
KGDR 1625JX-2.4JCTM	●		32	16	4.5	25	120	24.5	21	40	15	44	65	12.2	1°	3.0	4.0																SB-40120TR	LTW-15S	GP-1	H5SX4LP	GDM Type GDG Type (GDMS Type) (GDGS Type)					
KGDL 1625JX-2.4JCTM		●						24.5	21	40	14.8	44	65	7.7																												
KGDR 1218JX-3JCTM	●		24	12	8.5	18	120	19.5	21	44	10.8	54	-	8.6	1°	3.0	4.0																					SB-40120TR	LTW-15S	GP-1	H5SX4LP	GDM Type GDG Type (GDMS Type) (GDGS Type)
KGDL 1218JX-3JCTM		●						19.5	21.5	44	10.8	54	-	7.7																												
KGDR 1625JX-3JCTM	●		32	16	4.5	25	120	24.5	21	40	14.8	44	65	12.2	1°	3.0	4.0	SB-40120TR	LTW-15S	GP-1	H5SX4LP	GDM Type GDG Type (GDMS Type) (GDGS Type)																				
KGDL 1625JX-3JCTM		●						24.5	21	40	14.8	44	65	7.7																												

\*For coolant holder piping parts, see pages 13 and 14.

● : Standard Stock

## Recommended Cutting Conditions ★ 1st Recommendation ☆ 2nd Recommendation

Workpiece	Chipbreaker	Recommended Insert Grade (Cutting speed Vc: m/min)					f (mm/rev)				Remarks	
		MEGACOAT NANO	MEGACOAT		DLC Coating	Carbide	Edge Width CW (mm)					
		PR1535	PR1225	PR1215	PDL025	GW15	2.0	2.0 - 4.0	2.5 / 3.0	3.0 - 4.0		
Carbon Steel (SxxC, etc.)	PF(RE=0.03)						0.02 - 0.06		0.02 - 0.08			
	PF(RE=0.15)	☆	★	☆			0.03 - 0.08		0.04 - 0.10			
	PQ	70 - 150	70 - 150	70 - 180			0.03 - 0.1		0.04 - 0.12			
	PG						0.01 - 0.04		0.01 - 0.05			
	PM	☆	★	☆				0.08 - 0.18				
Alloy Steel (SCM, etc.)	PF(RE=0.03)						0.02 - 0.06		0.02 - 0.08			
	PF(RE=0.15)	☆	★	☆			0.03 - 0.08		0.04 - 0.10			
	PQ	70 - 150	70 - 150	70 - 180			0.03 - 0.1		0.04 - 0.12			
	PG						0.01 - 0.04		0.01 - 0.05			
	PH	☆	★	☆				0.08 - 0.18				
Stainless Steel (SUS 304, etc.)	PF(RE=0.03)						0.01 - 0.04		0.01 - 0.05			
	PF(RE=0.15)	★	☆	☆			0.03 - 0.07		0.04 - 0.08			
	PQ	60 - 120	60 - 120	60 - 150			0.02 - 0.07		0.02 - 0.08			
	PG						0.01 - 0.03		0.01 - 0.04			
	PH	★	☆	☆				0.06 - 0.12				
Cast Iron (FC, FCD, etc.)	PF(RE=0.03)			★			0.02 - 0.07		0.03 - 0.08			
	PF(RE=0.15)			80 - 200			0.03 - 0.09		0.04 - 0.10			
	PQ						0.04 - 0.1		0.04 - 0.12			
	PG						0.01 - 0.04		0.01 - 0.05			
	PH			★				0.08 - 0.18				
Aluminium Alloy	PQ				★		0.1 - 0.25					
	PG				200 - 500				0.01 - 0.06			
Brass	PQ											
	PG								0.01 - 0.08			

# List of KGD-JCTM Applicable Inserts

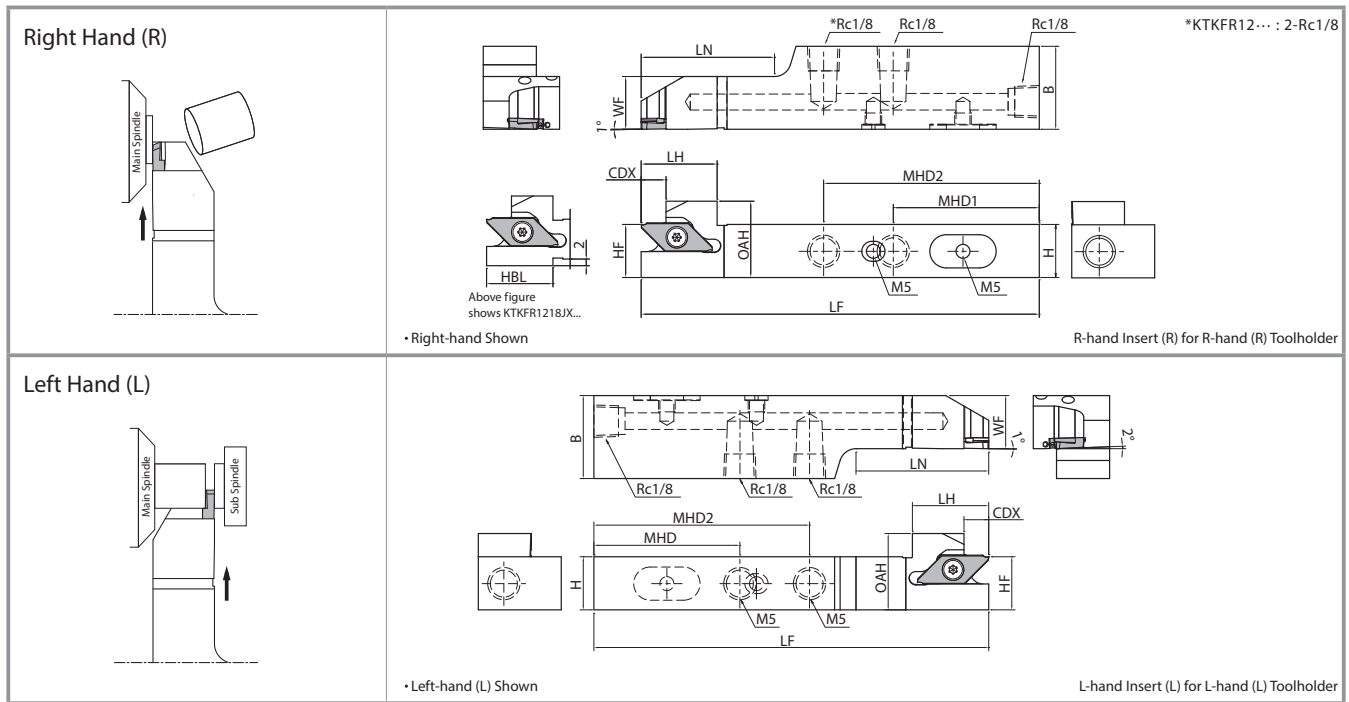
## Applicable Inserts

Shape		Description	Dimensions (mm)				Angle	MEGACOAT NANO	MEGACOAT			DLC Coating	Carbide
			CW	RE	INSL	S			PSIR R/L	PR1535	PR1225		
Handed Insert shows Right-hand			Tolerance										
Cut-off (Low feed)		GDM 2020N-003PF	2.0	±0.04	20	4.3	—	●	●	●			
		2020N-015PF	0.03					●	●	●			
		2520N-003PF	2.5					0.03	●	●	●		
		2520N-015PF	0.15					●	●	●			
		3020N-003PF	3.0					0.03	●	●	●		
		3020N-015PF	0.15					●	●	●			
Cut-off (Low feed)		GDM 2020 R/L-003PF-15D	2.0	±0.04	20	4.3	15°	●	●	●			
		2020R-015PF-15D	0.03					R	R	R			
		2520 R/L-003PF-15D	2.5					0.03	●	●	●		
		2520R-015PF-15D	0.15					R	R	R			
		3020 R/L-003PF-15D	3.0					0.03	●	●	●		
		3020R-015PF-15D	0.15					R	R	R			
Cut-off (Medium feed)		GDM 2020N-010PQ	2.0	±0.03	20	4.3	—	●	●	●			
		2520N-010PQ	2.5					0.1	●	●	●		
		3020N-010PQ	3.0					0.1	●	●	●		
Cut-off (Medium feed)		GDM 2020R-010PQ-15D	2.0	±0.03	20	4.3	15°	R	R	R			
		2520R-010PQ-15D	2.5					0.1	R	R	R		
		3020R-010PQ-15D	3.0					0.1	R	R	R		
Cut-off (Low cutting force)		GDG 2020N-005PG	2.0	±0.02	20	4.3	—	●	●		●	●	
		2520N-005PG	2.5					0.05	●	●		●	●
		3020N-005PG	3.0					0.05	●	●		●	●
Cut-off (Low cutting force)		GDG 2020R-005PG-15D	2.0	±0.02	20	4.3	15°	R	R		R	R	
		2520R-005PG-15D	2.5					0.05	R	R		R	R
		3020R-005PG-15D	3.0					0.05	R	R		R	R
Cut-off (General use)		GDM 2020N-020PM	2.0	±0.03	20	4.3	—	●	●	●			
		2520N-020PM	2.5					0.2	●	●	●		
		3020N-025PM	3.0					0.25	●	●	●		
		4020N-030PM	4.0					0.3	●	●	●		
		GDM 2020R-020PM-6D	2.0	±0.03	20	4.3	6°	●	●	●			
		2520R-020PM-6D	2.5					0.2	●	●	●		
		3020R-025PM-6D	3.0					0.25	●	●	●		
		GDMS 2020N-020PM	2.0	±0.03	20	4.3	—	●	●	●			
		3020N-025PM	3.0					0.25	●	●	●		
		4020N-030PM	4.0					0.3	●	●	●		
		GDMS 2020R-020PM-6D	2.0	±0.03	20	4.3	6°	R	R	R			
		3020R-025PM-6D	3.0					0.25	R	R	R		
4020R-030PM-6D		4.0	0.3					R	R	R			
Grooving/Cut-off (High feed)		GDM 2020N-020PH	2.0	±0.03	20	4.3	—	●	●	●			
		3020N-030PH	3.0					0.3	●	●	●		
		4020N-030PH	4.0					0.3	●	●	●		
		GDMS 2020N-020PH	2.0	±0.03	20	4.3	—	●	●	●			
		3020N-030PH	3.0					0.3	●	●	●		
		4020N-030PH	4.0					0.3	●	●	●		

● : Standard Stock

R: Right Hand (R) Only in Stock

# KTKF-JCTM



## Toolholder Dimensions

Description	Stock		Dimensions (mm)													Parts				Applicable Inserts
	R	L	H	HF	OAH	B	LF	HBL	LH	LN	WF	CDX	MHD	MHD2	Clamp Screw	Wrench	Plug 1	Plug 2		
KTKFR 1218JX-12JCTM	●		12	12	19	18		20	20	28	12		54	-	SB-4590TRWN	FT-10	GP-1	HS5X4LP	TKF12R... TKFT12R...	
KTKF R/L 1625JX-12JCTM	●	●	16	16	23	25	120	-	23	40	16	7.5	44	21(65)						
KTKF R/L 2025JX-12JCTM	●	●	20	20	27						20									
KTKF R/L 1625JX-16JCTM	●	●	16	16	23	25	120	-	23	40	16	9.6	44	21(65)	SB-4590TRWN	FT-10	GP-1	HS5X4LP	TKF16R/L... TKFT16R/L...	
KTKF R/L 2025JX-16JCTM	●	●	20	20	27					41	20									

\*For coolant holder piping parts, see pages 13 and 14.

● : Standard Stock

## Recommended Cutting Conditions ★ 1st Recommendation ☆ 2nd Recommendation

Workpiece	Recommended Insert Grade (Cutting speed Vc: m/min)					TKF12						TKF16		Remarks
	MEGACOAT NANO PLUS	MEGACOAT NANO	MEGACOAT	DLC Coating	Carbide	Edge Width CW (mm)						Edge Width CW (mm)		
						0.5	0.7	1.0	1.25	1.5	2.0	1.5	2.0	
						f (mm/rev)						f (mm/rev)		
Carbon Steel (SxxC, etc.)	★ 70-170 (50-140)	☆ 70-150 (50-120)	☆ 70-150 (50-120)	-	-	0.01-0.02	0.01-0.03	0.01-0.04 (0.01-0.05)	0.01-0.04	0.01-0.04 (0.02-0.1)	0.01-0.04 (0.02-0.1)	0.02-0.07 (0.02-0.1)	0.02-0.07 (0.02-0.1)	Wet
Alloy Steel (SCM, etc.)	★ 70-170 (50-140)	☆ 70-150 (50-120)	☆ 70-150 (50-120)	-	-	0.01-0.02	0.01-0.03	0.01-0.04 (0.01-0.05)	0.01-0.04	0.01-0.04 (0.02-0.1)	0.01-0.04 (0.02-0.1)	0.02-0.07 (0.02-0.1)	0.02-0.07 (0.02-0.1)	
Stainless Steel (SUS 304, etc.)	☆ 60-140 (40-120)	★ 60-120 (40-100)	☆ 60-120 (40-100)	-	-	0.005-0.015	0.01-0.02	0.01-0.02 (0.01-0.03)	0.01-0.02	0.01-0.02 (0.01-0.05)	0.01-0.02 (0.01-0.05)	0.01-0.04 (0.01-0.05)	0.01-0.04 (0.01-0.05)	
Cast Iron (FC, FCD, etc.)	-	-	-	-	★ 50-100	0.01-0.03	0.01-0.04	0.01-0.05	0.01-0.05	0.01-0.05	0.01-0.05	0.02-0.08	0.02-0.08	
Aluminium	-	-	-	★ 200-500	☆ 200-450	0.01-0.03	0.01-0.04	0.01-0.05	0.01-0.05	0.01-0.05	0.01-0.05	0.02-0.08	0.02-0.08	
Brass	-	-	-	-	★ 100-200	0.01-0.03	0.01-0.04	0.01-0.06	0.01-0.06	0.01-0.06	0.01-0.06	0.02-0.1	0.02-0.1	

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

# List of KTKF-JCTM Applicable Inserts

## Applicable Inserts (TKF 12/TKF 16)

Shape Handed Insert shows Right-hand		Description	Dimensions (mm)						Angle PSIR R/L	MEGACOAT NANO PLUS		MEGACOAT NANO		MEGACOAT		DLC Coating		Carbide									
			CW	CUTDIA	RE	W1	S	D1		PR1725	PR1535	PR1225	PDL025	KW10	R	L	R	L	R	L	R	L					
With Right Lead Angle		TKF12 R/L 050-S-16DR	0.5	5	0.03	3	8.7	5	16°	●	●	●	●	●	●	●	●	●	●	●	●						
		070-S-16DR	0.7	8						●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
		100-S-16DR	1.0	12						●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
		125-S-16DR	1.25							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
		150-S-16DR	1.5							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		200-S-16DR	2.0							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
With Right Lead Angle/Tough Edge		TKF12 R/L 050-S	0.5	5	0.03	3	8.7	5	0°	●	●	●	●	●	●	●	●	●	●	●	●						
		070-S	0.7	8						●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
		100-S	1.0	12						●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
		125-S	1.25							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
		150-S	1.5							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		200-S	2.0							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
With Right Lead Angle/Tough Edge		TKF12 R/L 100-T-16DR	1.0	12	0.08	3	8.7	5	16°	●	●	●	●	●	●	●	●	●	●	●							
		150-T-16DR	1.5							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
		200-T-16DR	2.0							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Tough Edge		TKF12 R/L 100-T	1.0	12	0.08	3	8.7	5	0°	●	●	●	●	●	●	●	●	●	●	●							
		150-T	1.5							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
		200-T	2.0							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
With Right Lead Angle/Without Chipbreaker		TKF12 R/L 050-NB-20DR	0.5	5	0	3	8.7	5	20°	●	●	●	●	●	●	●	●	●	●	●							
		070-NB-20DR	0.7	8						●	●	●	●	●	●	●	●	●	●	●	●	●	●	●			
		100-NB-20DR	1.0	12						●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
		150-NB-20DR	1.5							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
		200-NB-20DR	2.0							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Without Chipbreaker		TKF12 R/L 050-NB	0.5	5	0	3	8.7	5	0°	●	●	●	●	●	●	●	●	●	●	●							
		070-NB	0.7	8						●	●	●	●	●	●	●	●	●	●	●	●	●	●	●			
		100-NB	1.0	12						●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
		150-NB	1.5							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
		200-NB	2.0							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
With Right Lead Angle		TKF16 R/L 150-S-16DR	1.5	16	0.05	4	9.5	5	16°	●	●	●	●	●	●	●	●	●	●	●							
		200-S-16DR	2.0							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
With Right Lead Angle		TKF16 R/L 150-S	1.5	16	0.05	4	9.5	5	0°	●	●	●	●	●	●	●	●	●	●	●							
		200-S	2.0							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
With Right Lead Angle/Tough Edge		TKF16 R/L 150-T-16DR	1.5	16	0.08	4	9.5	5	16°	●	●	●	●	●	●	●	●	●	●	●							
		200-T-16DR	2.0							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Tough Edge		TKF16 R/L 150-T	1.5	16	0.08	4	9.5	5	0°	●	●	●	●	●	●	●	●	●	●	●							
		200-T	2.0							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
With Right Lead Angle/Without Chipbreaker		TKF16 R/L 150-NB-20DR	1.5	16	0	4	9.5	5	20°	●	●	●	●	●	●	●	●	●	●	●							
		200-NB-20DR	2.0							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Without Chipbreaker		TKF16 R/L 150-NB	1.5	16	0	4	9.5	5	0°	●	●	●	●	●	●	●	●	●	●	●							
		200-NB	2.0							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	

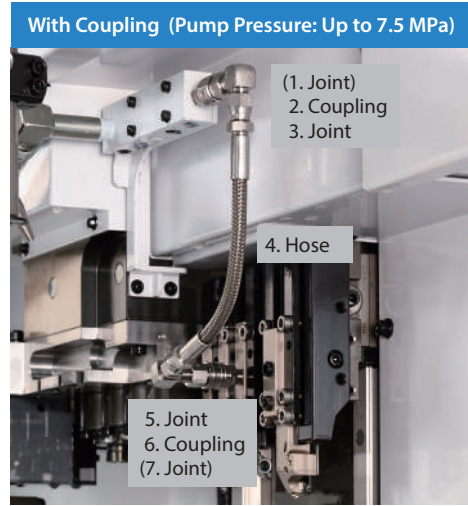
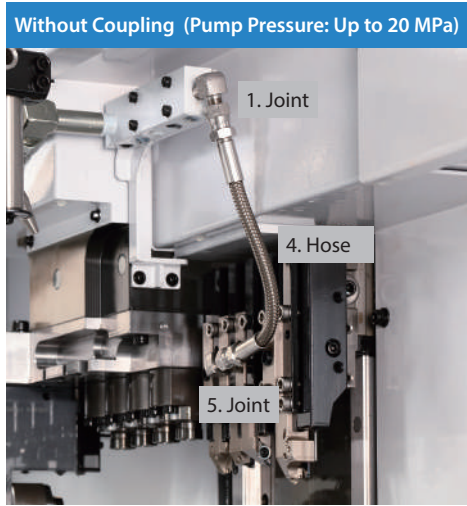
Lead angle (front cutting edge angle: PSIR R / L) shows the angle when installed in the toolholder.  
 Insert's cutting dia. (CUTDIA) indicates the cutting dia. when the tool tip has proceeded to the center of workpiece.

● : Standard Stock

# Piping Parts

**Pipe parts will be required separately if internal coolant is used.**

Pump Pressure : Up to 20 MPa. Pump Pressure: Up to 7.5 MPa if coupling is used.



## Combination Part Description (Example)

Parts	Description
1. Joint	J-AN-R1/8-G1/8
4. Hose	HS-G1/8-G1/8-200
5. Joint	J-AN-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.

## Combination Part Description (Example)

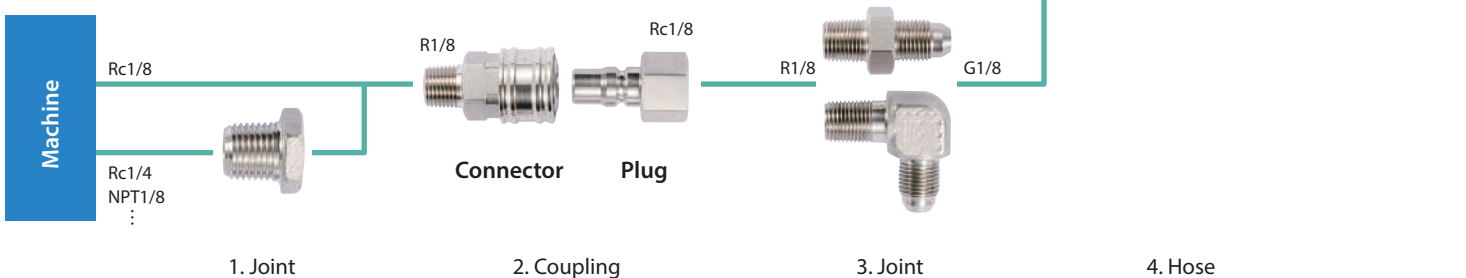
Parts	Description
(1. Joint)	-
2. Coupling	CP-ST-R1/8, P-ST-RC1/8
3. Joint	J-AN-R1/8-G1/8
4. Hose	HS-G1/8-G1/8-200
5. Joint	J-AN-R1/8-G1/8
6. Coupling	P-ST-RC1/8, CP-ST-R1/8
(7. Joint)	-

Convert the thread standards on the machine's side (Rc1/4, Rc1/8, NPT1/8, etc.) to thread standards of the coupling (Rc1/8, etc.) or hose (G1/8) for use.  
Use sealing agents such as seal tapes when installing piping parts.

## Without Coupling (Pump Pressure: Up to 20 MPa)



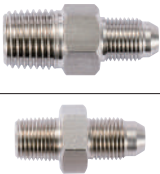



## With Coupling (Pump Pressure: Up to 7.5 MPa)



# Piping Part Dimensions

Joint (1, 3, 5, 7) Pressure: Up to 20.0 MPa



(Unit: mm)

Shape	Description	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

●: Standard Stock

Coupling (2,6) Pressure: Up to 7.5 MPa


(Unit: mm)

Shape	Description	Stock
	CP-ST-R1/8	●
	P-ST-RC1/8	●

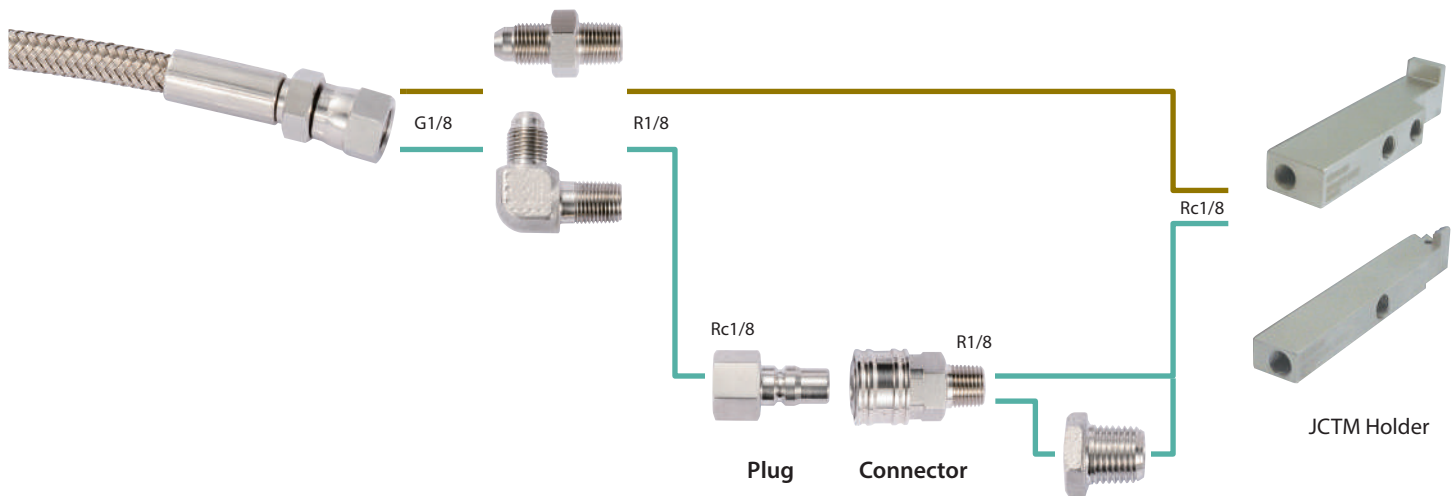
●: Standard Stock

Hose (4) Pressure: Up to 20 MPa

(Unit: mm)

Shape	Description	Stock	L
	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

●: Standard Stock

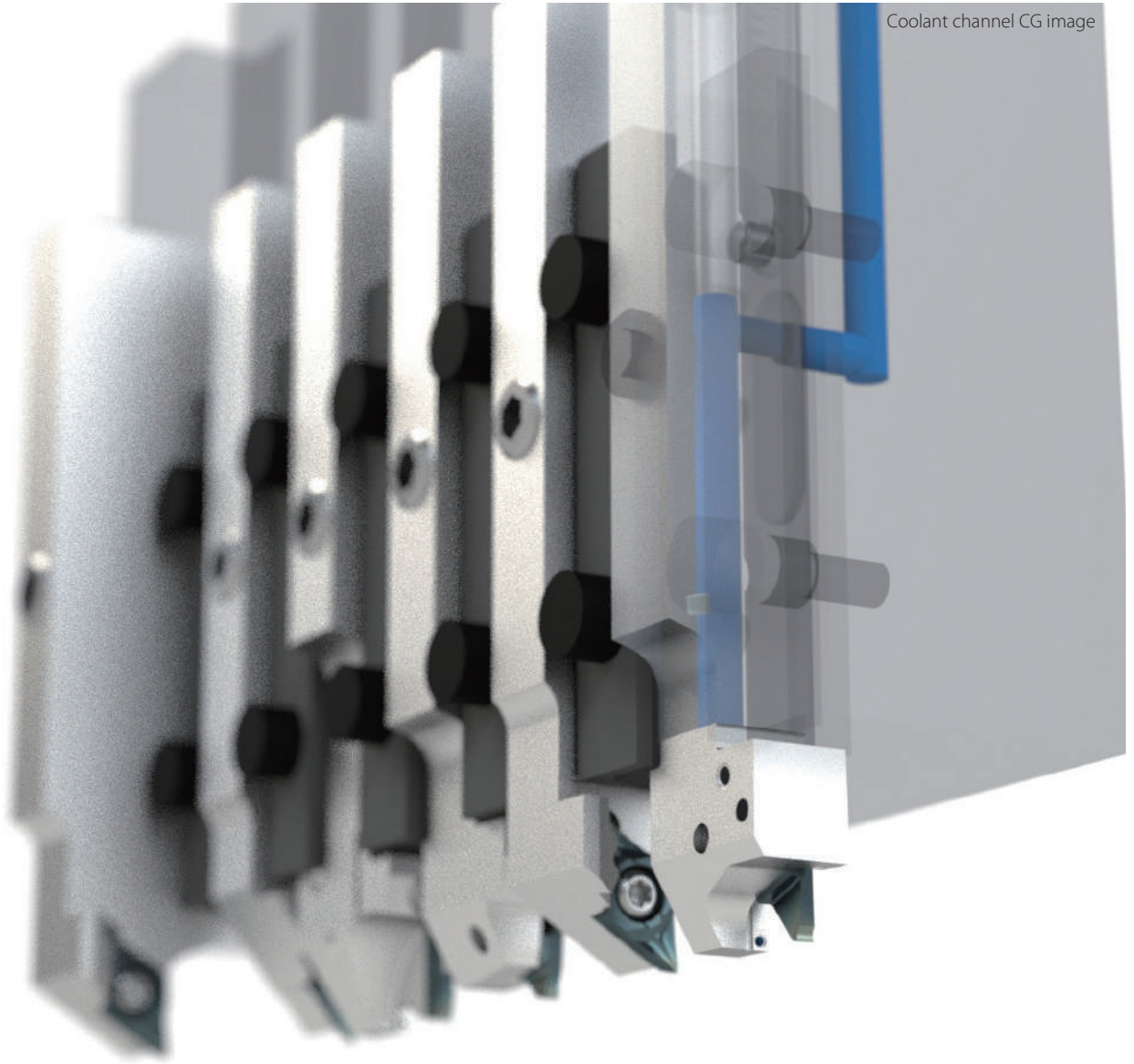


4. Hose

5. Joint

6. Coupling

7. Joint (Extension Joint)



Drastically improve machining performance  
by using **internal coolant**