

KPK series



Unique design for superior performance in cut-off operations

Easy insert replacement

Strong clamping mechanism for added safety and security

Long tool life and stable machining with unique chipbreaker designs

Jet coolant-through styles available (JCT)

NEW

Toolholder (blade type, shank type) added to the lineup



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High-performance cut-off solutions

KPK series

Easy insert replacement reduces downtime. High performance, long tool life and stable machining with strong clamping mechanism.

CUT-OFF SOLUTION

During cut-off operations, insert cutting widths of only a few millimeters are used to cut to the center of the workpiece.

Cut-off process is typically a bottleneck process or final process, requiring a trouble-free machining environment.

Challenges

The shape of the workpiece can be difficult to secure, thus creating rigidity and chattering issues. Big load due to low/zero cutting speed at the workpiece rotation center. Tool tend to be broken easily by chip troubles.

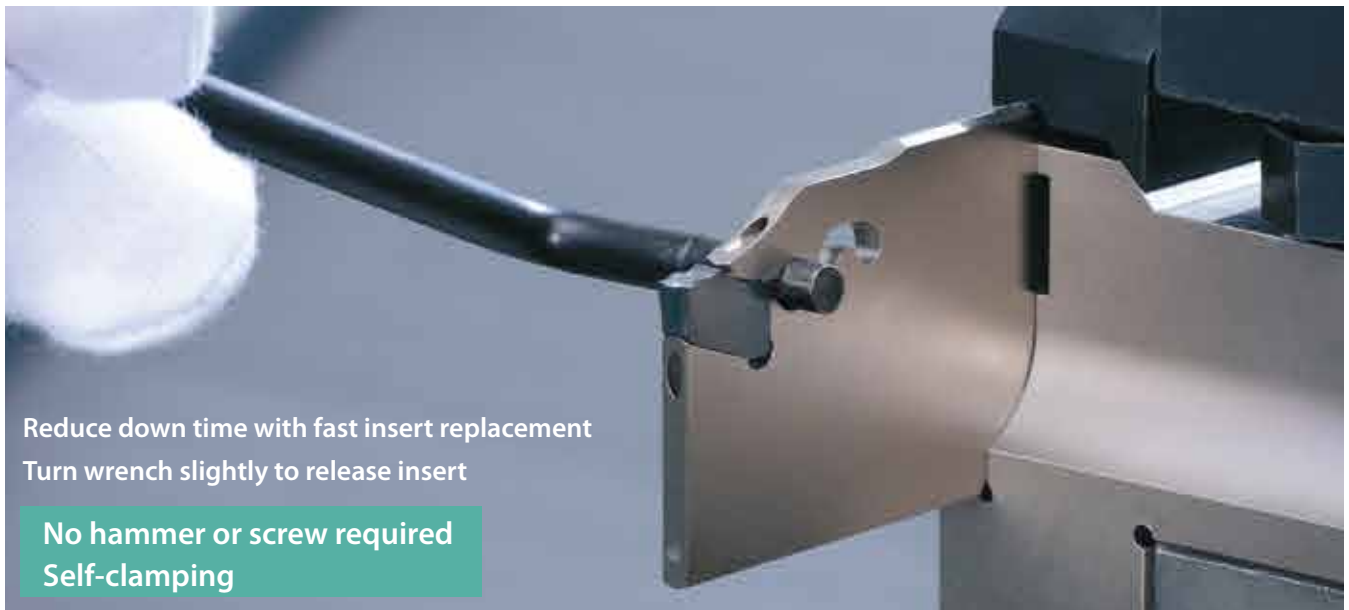
SOLUTION

The KPK Series features new insert, blade, and tool block designs for rigid, safe, and secure cut-off operations.



1

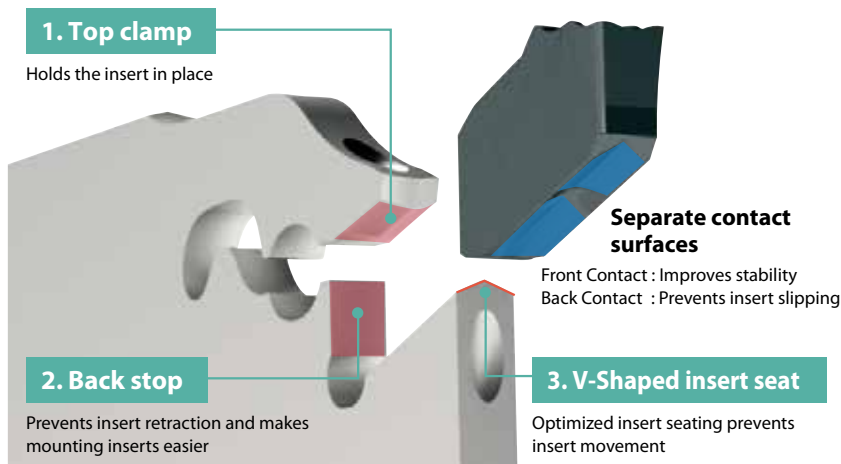
Easy insert replacement



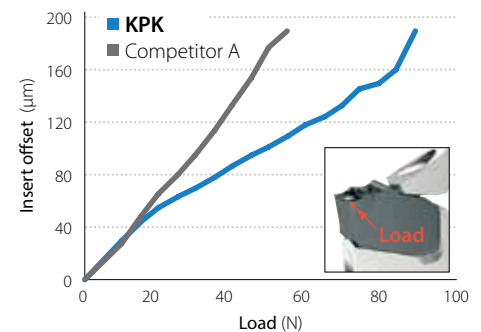
2

Firm insert clamp ensures added safety and security

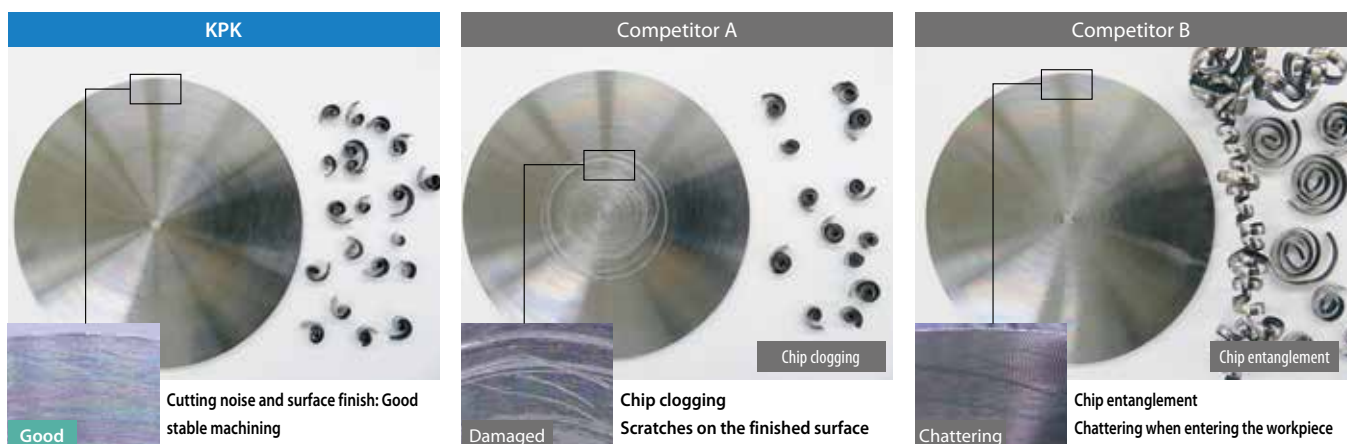
The firmly secured insert uses three contact surfaces to eliminate sliding or chattering



Insert deviation comparison (internal evaluation)



Cutting performance comparison (Internal evaluation)



Cutting conditions : $n = 320 \text{ min}^{-1}$ (constant) , $V_c \sim 100 \text{ m/min}$, $f = 0.12 \text{ mm/rev}$, Wet (External coolant) Workpiece: 34CrMo4 ($\varnothing 100$) Cutting width: 3 mm (PM chipbreaker)

3

Advanced chipbreaker technology inherited from KGD lineup provides excellent chip control



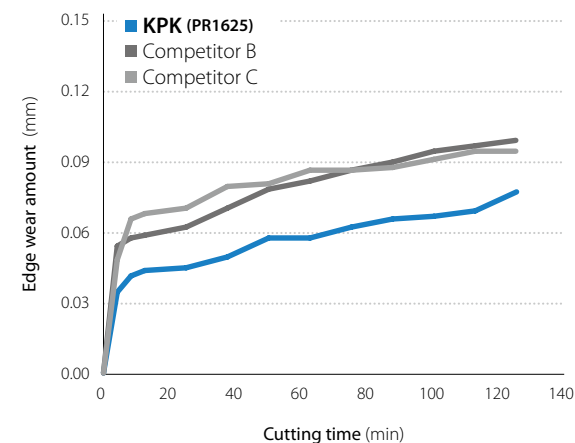
For steel: PR1625
For stainless steel: PR1535
For cast iron and aluminum: GW15



For steel: PR1625

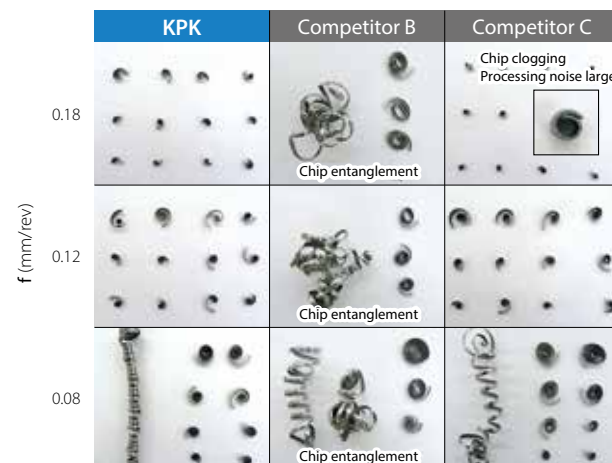
For stainless steel: PR1535

Wear resistance comparison (internal evaluation)



Cutting conditions : $n = 955 \text{ min}^{-1}$ (constant), $V_c = \sim 150 \text{ m/min}$
 $f = 0.12 \text{ mm/rev}$ ($\sim \phi 10$: $f = 0.05 \text{ mm/rev}$) Wet (External coolant)
 Workpiece : 15CrMo4 ($\phi 50$) cutting width: 3 mm (PM chipbreaker)

Chip control comparison (internal evaluation)

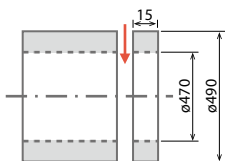


Cutting conditions : $n = 780 \text{ min}^{-1}$ (constant), $V_c \sim 120 \text{ m/min}$, wet (External coolant)
Workpiece : 15CrMo4 ($\varnothing 50$) cutting width: 3 mm (PM chipbreaker)

SOLUTION 1 Tool life x1.3
Stable chip curl

Tool life x1.3
Stable chip curl

External coolant



34 pcs/corner



25 pcs/corner



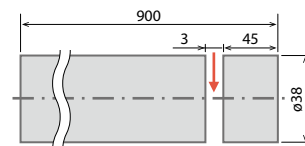
Cutting Conditions : $n = 90 \text{ min}^{-1}$ (Constant), $V_c = \sim 140 \text{ m/min}$, $f = 0.06 \text{ mm/rev}$,
Wet (External Coolant) KPKB32-3 PKM30N-025PM PR1625

(User evaluation)

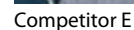
SOLUTION 2 Machining efficiency double in stainless steel
Achievement of stable machining

Machining efficiency double in stainless steel Achievement of stable machining

External coolant



KPK



Competitor E

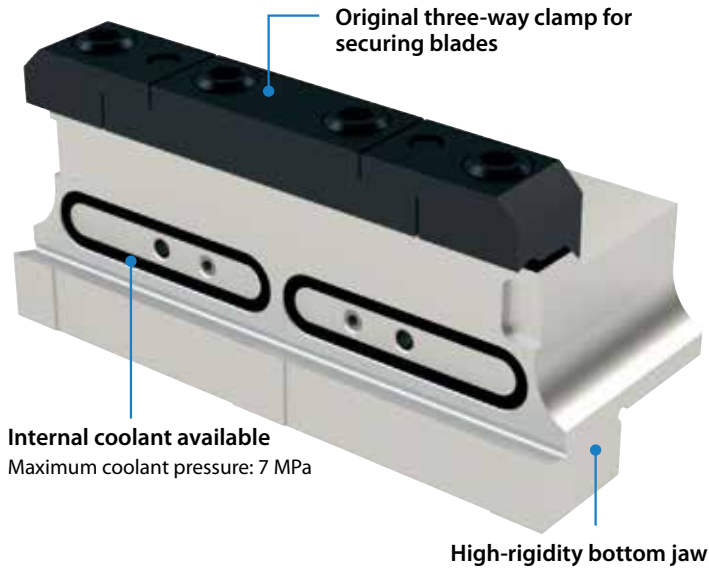
Cutting Conditions : $n = 1,450 \text{ min}^{-1}$ (Constant), $V_c = \sim 173 \text{ m/min}$, $f = 0.05 \text{ mm/rev}$
(Pecking: 1 mm pitch), Wet (External coolant) KPKB32-3 PKM30N-025PM PR1535

(User evaluation)

4

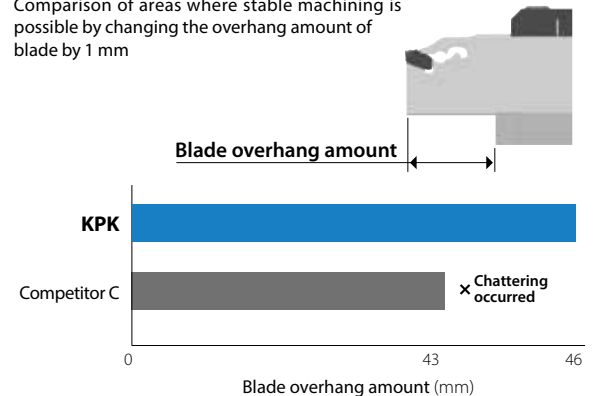
Rigid tool holder block prevents chattering and provides internal coolant

KPKTB-JCT



Chatter resistance comparison (internal evaluation)

Comparison of areas where stable machining is possible by changing the overhang amount of blade by 1 mm



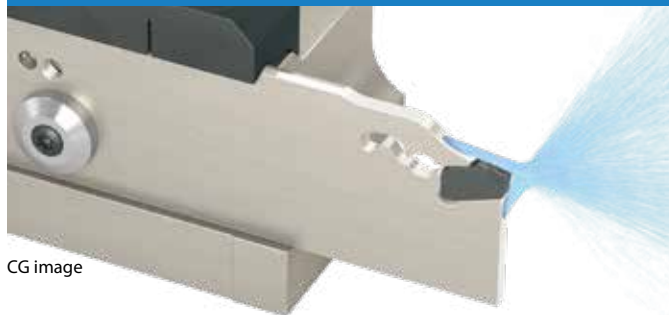
Cutting Conditions : $n = 650 \text{ min}^{-1}$ (Constant), $V_c = \sim 100 \text{ m/min}$, $f = 0.12 \text{ mm/rev}$
Wet (Internal Coolant : Normal pressure) Workpiece : SCM 435 ($\phi 50$),
cutting width: 3 mm (PM chipbreaker)

Note

KTKTB type is compatible with internal coolant with an optional internal connector. ($\sim 1 \text{ MPa}$)

*Refer to page 11 for the supply method (Type C).

JCT series supports internal coolant. Improved tool life even under normal pressure

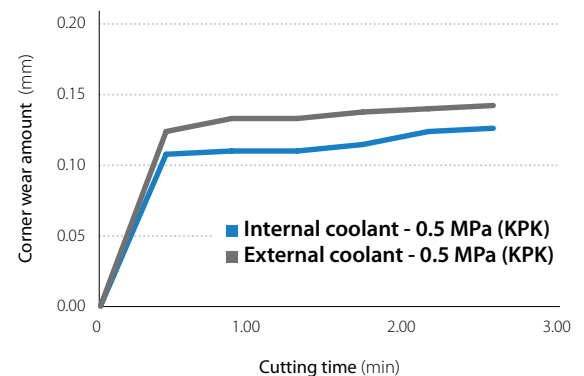


CG image

KPKB-JCT maximum overhang length while using internal coolant is as follows:
Size 26: 40 mm Size 32: 59 mm

Coolant is supplied directly to the rake and the flank face of the cutting edge for increased tool life and improved chip control

Wear resistance comparison (internal evaluation)



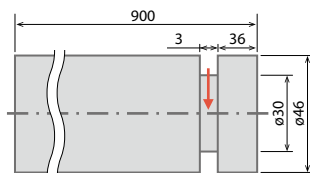
Cutting Conditions : $V_c = 30 \text{ m/min}$ (Constant), $f = 0.1 \text{ mm/rev}$,
Machining depth : 10 mm, wet, workpiece : Inconel 718 ($\phi 100$) Cutting width: 3 mm
(PM chipbreaker)

SOLUTION 3

Double tool life
Reduce fracturing

Machine part
X5CrNi1810

Internal coolant



KPK

60 pcs/corner (Stable)

Competitor F

30 pcs/corner (Unstable)

Cutting conditions : $V_c = 65 \text{ m/min}$ (Constant), $f = 0.06 \text{ mm/rev}$,
Wet (Internal coolant 3.5MPa) KPKB32-3JCT PKM30N-025PM PR1535

(User evaluation)

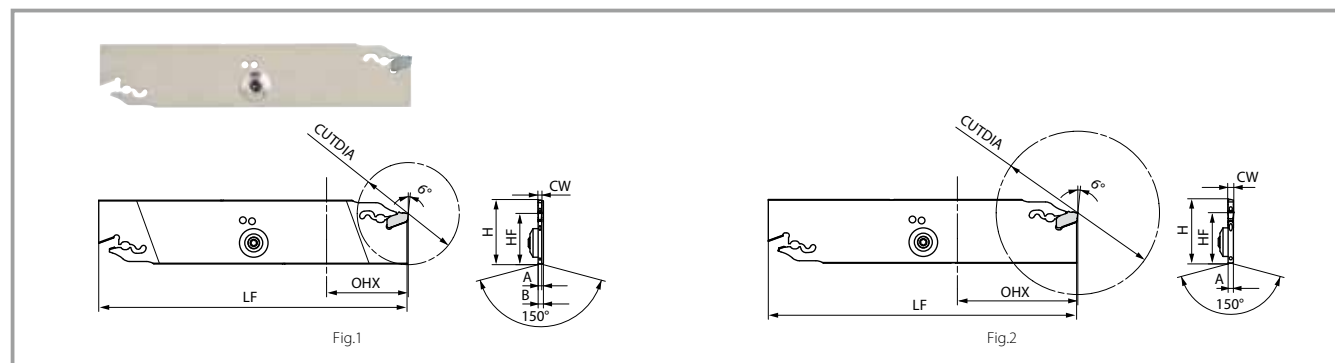
Chip control comparison (Internal evaluation)



Cutting conditions : $n = 780 \text{ min}^{-1}$ (Constant), $V_c = 120 \text{ m/min}$, $f = 0.08 \text{ mm/rev}$,
Wet, workpiece: 15CrMo4 ($\phi 50$) cutting width: 3 mm (PM chipbreaker)





Blades

KPKB - JCT with coolant holes



Blade dimensions

Max. coolant pressure: ~7 MPa

Description	Availability	Cutting dia.	Dimensions (mm)					Edge width (mm)	Drawing	Parts				Applicable inserts	Applicable toolholder block				
			CUTDIA	*H	HF	B	LF			A	CW	Insert wrench	Coolant plug			Screw	Wrench		
																			
KPKB 26-1JCT	●	35	26	21.4	2.6	110	1.4	1.6	Fig. 1	LPW-5	CCP-4	SB-4065TR	FT-15	PKM16...	KPKTB○○-26JCT KTKTB○○-26				
26-2JCT	●	50					1.8	2.0 2.4						PKM20... PKM24...					
26-3JCT	●	75			-		2.6	3.0	Fig. 2					PKM30...					
26-4JCT	●	80					3.4	4.0						PKM40...					
26-5JCT	●	80					4.2	4.8 5.0						PKM48... PKM50...					
KPKB 32-1JCT	●	35	32	25.0	2.6	150	1.4	1.6	Fig. 1					Coolant plug screw tightening torque 3.0 N·m				PKM16...	KPKTB○○-32JCT KTKTB○○-32 KTKTBF○○-32
32-2JCT	●	50					1.8	2.0 2.4										PKM20... PKM24...	
32-3JCT	●	100			-		2.6	3.0	Fig. 2					PKM30...					
32-4JCT	●	100					3.4	4.0						PKM40...					
32-5JCT	●	120					4.2	4.8 5.0						PKM48... PKM50...					
32-6JCT	●	120					5.4	6.0		PKM60...									

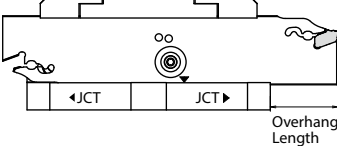
See page 14 for how to attach insert.

When using internal coolant with KTKTB, KTKTBFO type tool holder blocks, coolant supply piping (CCN -5) sold separately.

*H : Length between virtual vertices

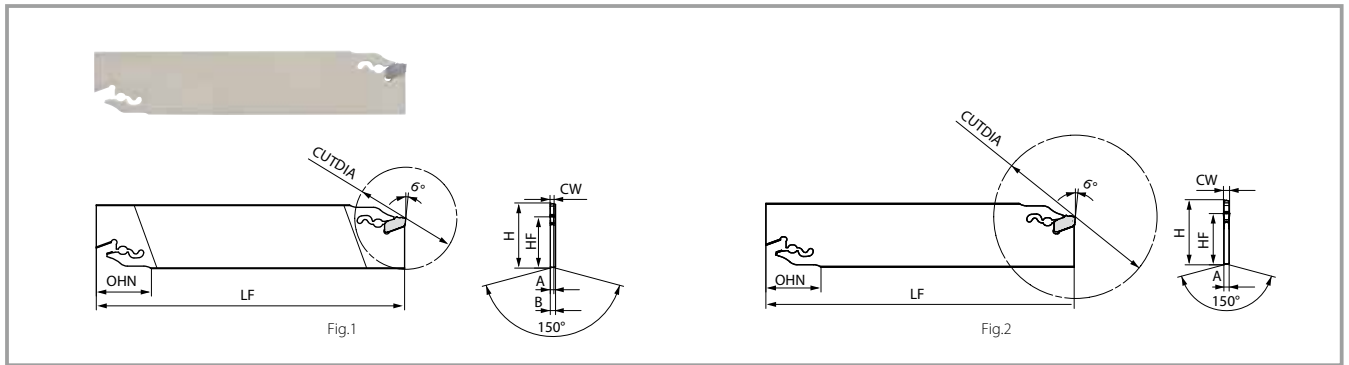
● : Available

Minimum /maximum overhang length while using internal coolant


	Description		Overhang length	
	Blade	Toolholder block	Min.	Max.
	KPKB26-1JCT	KPKTB20-26JCT	15	34.5
	KPKB26-2/3/4JCT		20	40
	KPKB26-5JCT		23	43
	KPKB32-1JCT	KPKTB20-32JCT	18	49
		KPKTB25-32JCT	13	
		KPKTB32-32JCT		
	KPKB32-2/3/4JCT	KPKTB20-32JCT	27.5	59
		KPKTB25-32JCT	22.5	
		KPKTB32-32JCT		
	KPKB32-5/6JCT	KPKTB20-32JCT	31.5	63
KPKTB25-32JCT		26.5		
KPKTB32-32JCT				

Blades

KPKB without coolant holes



Blade dimensions

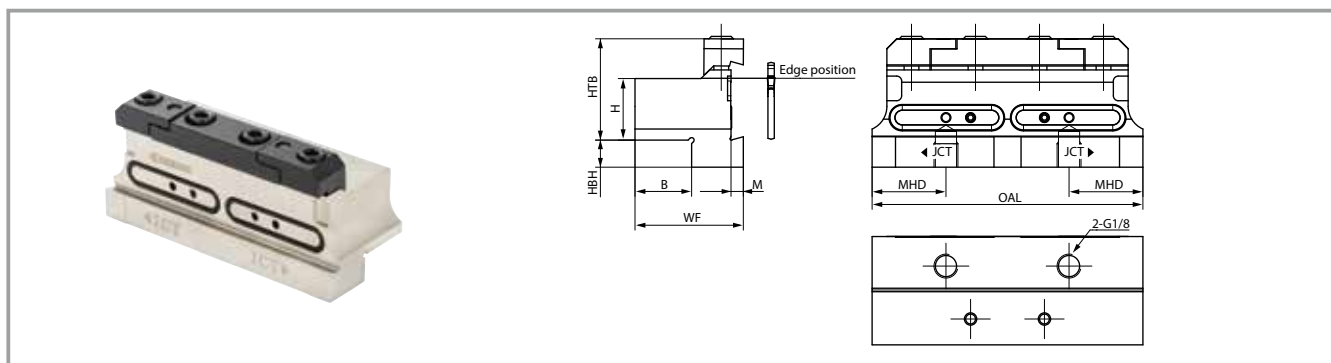
Description		Availability	Cutting dia.	Dimensions (mm)					Edge width (mm)	Drawing	Parts	Applicable inserts	Applicable toolholder block
											Insert wrench		
			CUTDIA	*H	HF	B	LF	A	CW				
KPKB	19-1	●	32	19	15.7	2.6	86	1.4	1.6	Fig.1	LPW-5	PKM16...	KTKTB○○-19
	19-2	●	40			-		1.8	2.0 2.4	Fig.2		PKM20... PKM24...	
KPKB	26-1	●	35	26	21.4	2.6	110	1.4	1.6	Fig.1		PKM16...	KPKTB○○-26JCT KTKTB○○-26
	26-2	●	50			-		1.8	2.0 2.4	Fig.2		PKM20... PKM24...	
	26-3	●	75					2.6	3.0			PKM30...	
	26-4	●	80					3.4	4.0			PKM40...	
	26-5	●	80					4.2	4.8 5.0			PKM48... PKM50...	
KPKB	32-1	●	35	32	25.0	2.6	150	1.4	1.6	Fig.1		PKM16...	KPKTB○○-32JCT KTKTB○○-32 KTKTBFO○○-32
	32-2	●	50					1.8	2.0 2.4	Fig.2		PKM20... PKM24...	
	32-3	●	100			-		2.6	3.0	Fig.2		PKM30...	
	32-4	●	100					3.4	4.0			PKM40...	
	32-5	●	120					4.2	4.8 5.0			PKM48... PKM50...	
	32-6	●	120					5.4	6.0			PKM60...	

See page 14 for how to attach insert.
*H : Length between virtual vertices

● : Availability







Tool holder block

KPKTB-JCT with coolant holes



Tool holder block dimensions

Pressure: ~7 MPa

Description		Availability	Dimensions (mm)								Parts						Applicable blade
											Clamp set	Screw	Wrench	O-ring	Plug 1	Plug 2	
			H	HTB	HBH	B	WF	M	MHD	OAL							
KPKTB 20-26JCT	●	20	33	12.4	19	39	4	23.5	86	BCS-2	HH6x16	LW-5	GR-020	HS3x4	HSG1/8X8.0	KPKB26-○JCT KTKB26-○	
	●	20		16		40		25	100	BCS-3			GR-026	HS4x4			
	●	25	41	11	23	44	5	30	110	BCS-4			GR-029				
	●	32		5	29	50											

Includes only one HSG1/8X8.0 plug.

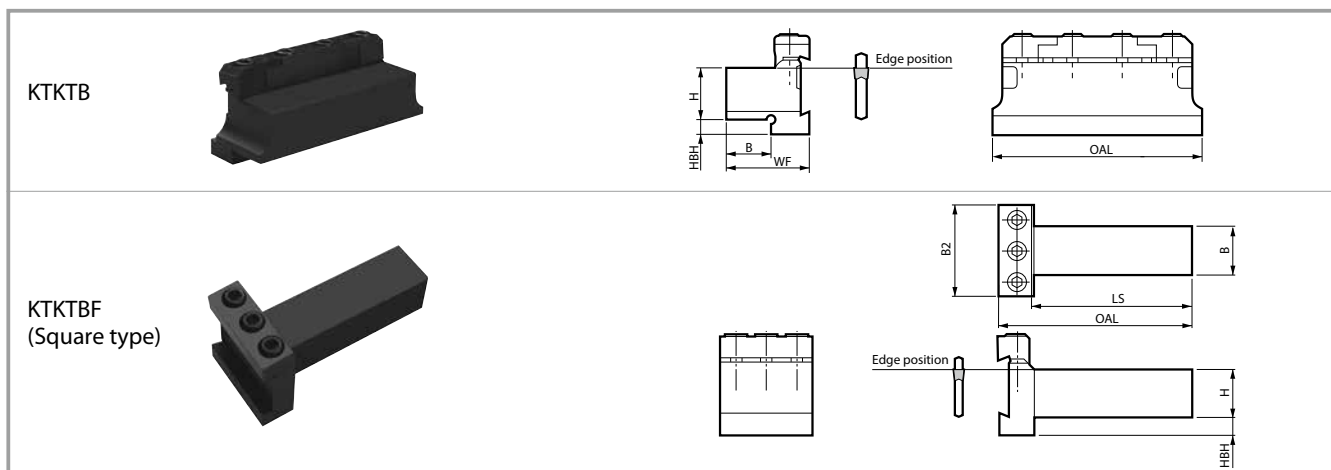
KPKTB-JCT type block is also compatible with conventional KTKB type blades.

See page 13 for coolant piping parts.





When using internal coolant, the coolant may appear to leak slightly, but this should not affect machining performance. (If the O-ring is damaged, order separately.)

● : Available

KTKTB / KTKTB F Without coolant holes



Tool holder block dimensions

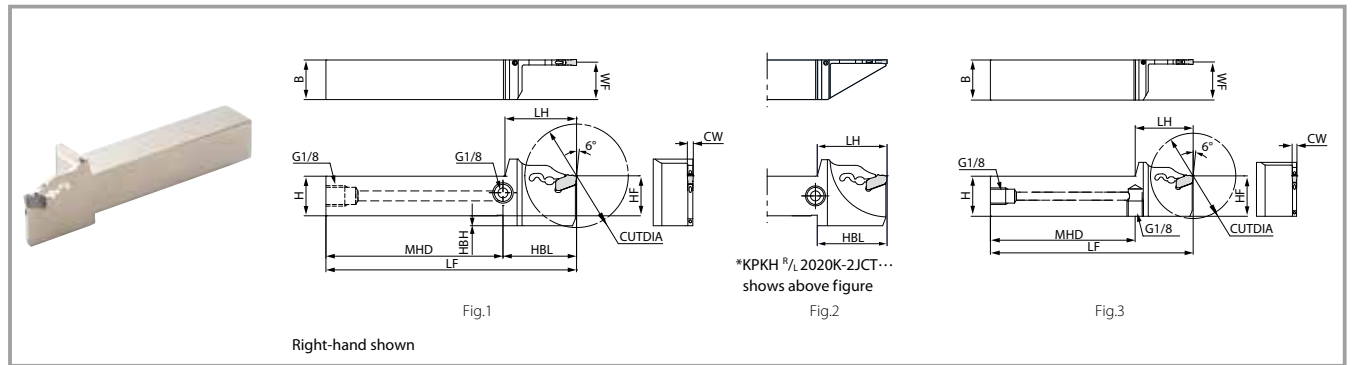
Description		Availability	Dimensions (mm)						Parts				Applicable blade	
									Clamp set		Screw	Wrench		
			H	HBH	B	WF B2	OAL	LS	Switchblade type 	Integral type 				
KTKTB	16-19	●	16	4	15.5	29.5	76	—	—	BCS-1	HH5X25	LW-4	KPKB19-○	
	20-19	●	20		19	34								
	16-26	●	16	13	15.5	31.5	86	—	BCS-2	—	HH6x30	LW-5		KPKB26-○ KPKB26-○JCT
	20-26	●	20	9	19	36								
	20-32	●	20	13	19	38	100	—	BCS-3	—	HH6x30	LW-5		KPKB32-○ KPKB32-○JCT
	25-32	●	25	8	23	42	110							
	32-32	●	32	5	29	48								
KTKTBF	25-32	●	25	9.5	25	48	102	84.5	—	BCS-5	HH6x30	LW-5	KPKB32-○ KPKB32-○JCT	
	32-32	●	32	2.5	32		117	99.5						

Can be used with internal coolant by utilizing compatible coolant piping (CCN-5).

● : Available

Toolholder

KPKH - JCT with coolant holes



Toolholder dimensions

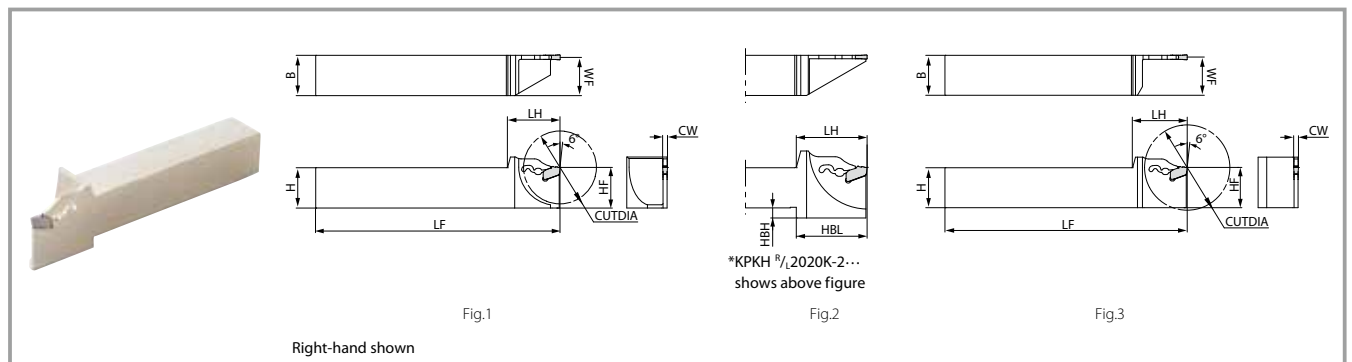
Pressure Resistance : ~15 MPa

Description	Availability		Cutting dia.	Dimensions (mm)										Edge width (mm)	Drawing	Parts		Applicable inserts
	R	L		H	HF	HBH	B	LF	LH	WF	HBL	MHD	CW			Insert wrench	Plug	
KPKH ^{R/L} 2020K-2JCT 2020K-3JCT 2525K-3JCT 2020K-4JCT 2525K-4JCT	●	●	38	20	20	5	20	125	35.1	19.15	35.1	89	2.0	Fig.2	LPW-5	HSG1/8X8.0		PKM20...
	●	●	52						36	18.75	37	88	3.0	Fig.1				PKM30...
	●	●	53	25	25	-	25		36	23.75	-	89		Fig.3				PKM40...
	●	●	62	20	20	5	20		42.5	18.35	42	83	4.0	Fig.1				PKM40...
	●	●	68	25	25	-	25			23.35	-	82		Fig.3				PKM40...

See page 14 for insert mounting and removal instructions.
See page 13 for coolant piping parts.

● : Available

KPKH without coolant holes




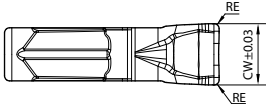

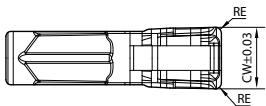

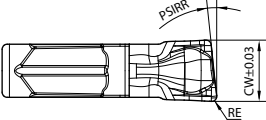
Toolholder dimensions

Description		Availability		Cutting dia.	Dimensions (mm)								Edge width (mm)	Drawing	Parts	Applicable Inserts
															Insert wrench	
		R	L		CUTDIA	H	HF	HBH	B	LF	LH	WF			HBL	
KPKH ^{R/L}	2020K-2	●	●	38	20	20	5	20	125	33.1	19.15	33.1	2.0	Fig.2	LPW-5	PKM20...
	2020K-3	●	●	52						34	18.75	-	3.0	Fig.3		PKM30...
	2525M-3	●	●	53	25	25	25	150	40.5	18.35	4.0					PKM40...
	2020K-4	●	●	62	20	20	25	150	45.9	22.95		4.8 5.0	PKM48... PKM50...			
	2525M-4	●	●	68	25	25					25		150			45.9
	<div>NEW</div> 2525M-5	●	●	79			25	25	25	150		45.9		22.95		
KPKH ^{R/L}	2020K-3D35	●	●	35	20	20	-	20	125	32.5	18.75	-	3.0	Fig.1	PKM30...	
	2525M-3D45	●	●	45	25	25		25	150	32.5	23.75					-
	2020K-4D45	●	●	45	20	20		20	125	35	18.35	-	4.0		PKM40...	
	2525M-4D45	●	●	45	25	25		25	150	35	23.35				-	4.0

See back cover for insert mounting and removal instructions.

● : Available

Applicable inserts

Shape Right-hand shown			Description	Dimensions (mm)		Angle	MEGACOAT NANO		Carbide				
				CW	RE	PSIR ^R / _L	PR1625	PR1535	GW15				
Without lead angle			PKM	16N-015PM	1.6	0.15	—	●	●	●			
				20N-020PM	2.0	0.20		●	●	●			
				24N-020PM	2.4	0.20		●	●	●			
				30N-025PM	3.0	0.25		●	●	●			
				40N-030PM	4.0	0.30		●	●	●			
				48N-030PM	4.8	0.30		●	●	●			
				50N-030PM	5.0	0.30		●	●	●			
				60N-035PM	6.0	0.35		●	●	●			
			PKM	20N-020PH	2.0	0.20	—	●	●				
				30N-030PH	3.0	0.30		●	●				
				40N-030PH	4.0	0.30		●	●				
				50N-030PH	5.0	0.30		●	●				
				60N-040PH	6.0	0.40		●	●				
With lead angle			PKM	16 ^R / _L -015PM-6D	1.6	0.15	6°	●	●	●	●	●	●
				20 ^R / _L -020PM-6D	2.0	0.20		●	●	●	●	●	●
				24 ^R / _L -020PM-6D	2.4	0.20		●	●	●	●	●	●
				30 ^R / _L -025PM-6D	3.0	0.25		●	●	●	●	●	●
				40 ^R / _L -030PM-6D	4.0	0.30		●	●	●	●	●	●
				50 ^R / _L -030PM-6D	5.0	0.30		●	●	●	●	●	●
											R	L	R

● : Available

Recommended cutting conditions ★1st recommendation ☆2nd recommendation

PM Chipbreaker

Workpiece	Cutting speed Vc (m/min)			Feed f (mm/rev)			Remarks
	MEGACOAT NANO		Carbide	Edge width CW (mm)			
	PR1625	PR1535	GW15	1.6	2 ~ 4	4.8 ~ 6	
Carbon steel	★ 80 – 220	☆ 80 – 220	—	0.03 – 0.12	0.08 – 0.18	0.10 – 0.22	Wet
Alloy steel	★ 70 – 200	☆ 70 – 200	—				
Stainless steel	☆ 60 – 150	★ 60 – 150	—	0.03 – 0.08	0.06 – 0.12	0.08 – 0.15	
Cast iron	—	—	★ 50 – 100	0.03 – 0.08	0.08 – 0.18	0.10 – 0.22	
Aluminum alloy	—	—	★ 200 – 450	0.03 – 0.08	0.08 – 0.18	0.10 – 0.22	
Brass	—	—	★ 100 – 200				

Reduce feed to 1/2 ~ 1/3 at the center of the workpiece.

PH Chipbreaker

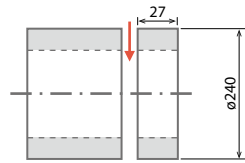
Workpiece	Cutting speed Vc (m/min)			Feed f (mm/rev)			Remarks
	MEGACOAT NANO		Carbide	Edge width CW (mm)			
	PR1625	PR1535	GW15	2	3 ~ 4	5 ~ 6	
Carbon steel	★ 80 – 220	☆ 80 – 220	—	0.10 – 0.22	0.15 – 0.28	0.15 – 0.35	Wet
Alloy steel	★ 70 – 200	☆ 70 – 200	—				
Stainless steel	☆ 60 – 150	★ 60 – 150	—	0.05 – 0.12	0.08 – 0.15	0.08 – 0.18	
Cast iron	—	—	—	—	—	—	
Aluminum alloy	—	—	—	—	—	—	
Brass	—	—	—				

Reduce feed to 1/2 ~ 1/3 at the center of the workpiece.

Case studies

Rings Forging

Vc = 90 m/min
f = 0.18 mm/rev
Wet (External coolant)
Overhang length : 70 mm
KPKB32-3 PKM30N-025PM PR1535



Machining efficiency

KPK

f = 0.18 mm/rev



Chip control
Surface finish

Good
Machining
efficiency

Comp. G

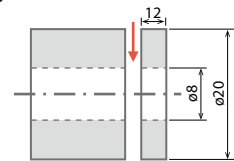
f = 0.09 mm/rev

x 2.0

KPK showed good chip control and finished surface with increased feed rates.
The machining efficiency ratio was doubled. KPK improves insert mounting speeds.
(User evaluation)

Machine part Structural alloy steel

n = 1,530 min⁻¹ (Constant)
Vc = ~ 100 m/min
f = 0.09 mm/rev
Wet (External coolant)
Overhang length : 22 mm
KPKB26 -3 PKM30N-025PM PR1625



Tool life

KPK

1,500 pcs/corner (Stable)

Tool life

x 1.8

Comp. H

800 pcs/corner (Unstable)

Competitor H was unstable with a sudden fracture. KPK increased tool life by 1.8 times that of competitor. Stable machining with good cutting edge.
(User evaluation)

Stable cut-off for your work



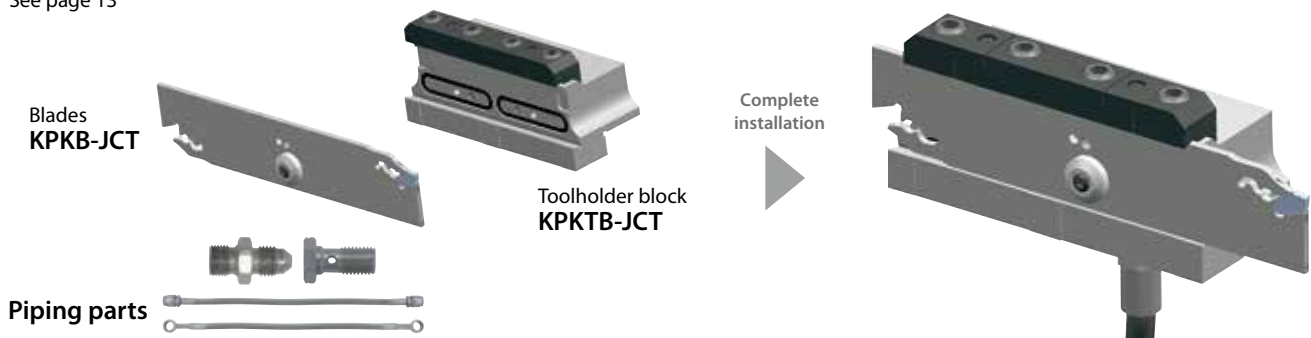
Internal coolant supply method (Blade type)

Supplies according to machine specifications and requirements

A : Coolant hose assembly

Maximum coolant pressure : 7 MPa

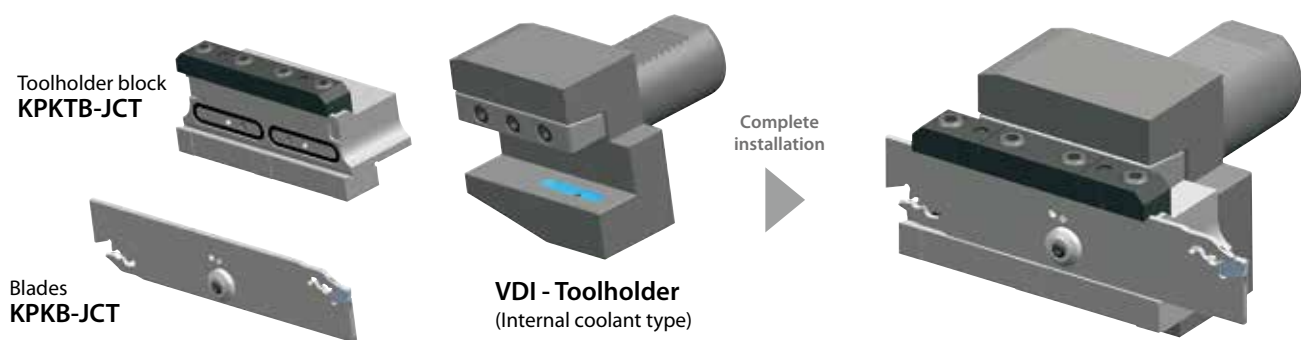
See page 13



B : VDI holder assembly

(Internal coolant type)

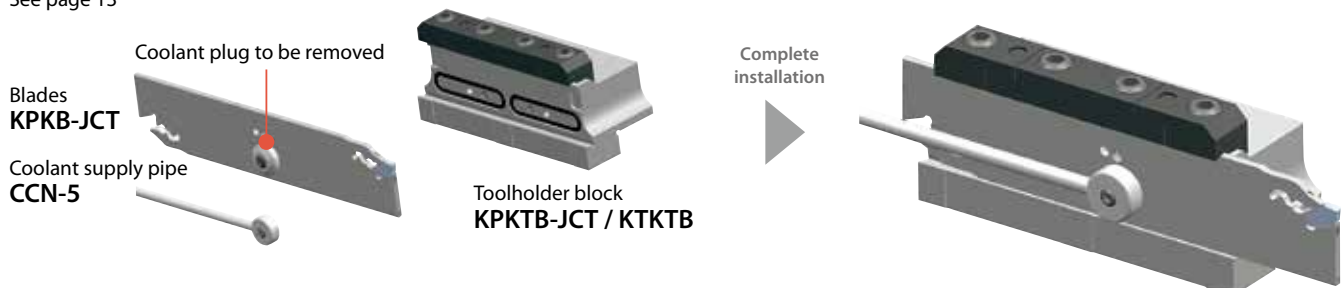
Maximum coolant pressure : 7 MPa



C : Coolant pipe assembly

Maximum coolant pressure : 1 MPa

See page 13



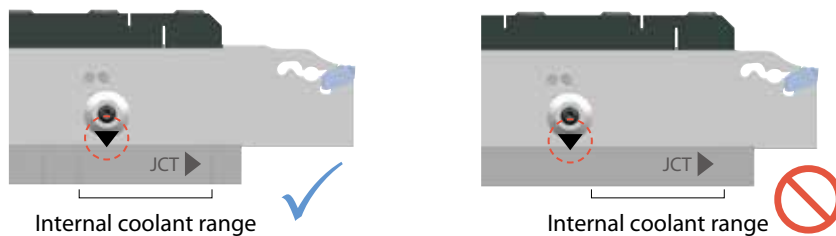
Coolant supply pipe mounting method

Attach to the blade with the supplied screw
Form pipe to the required shape and connect it to the piping of the machine.

Precautions

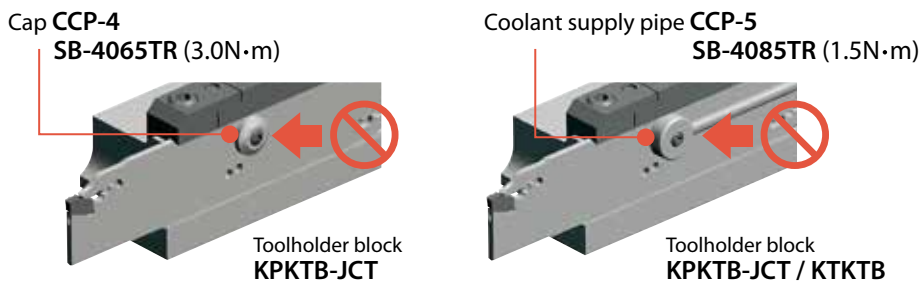
When mounting KPKB-JCT blade

When using internal coolant, keep the arrow (▼) on the blade within the range marked on the tool holder block.



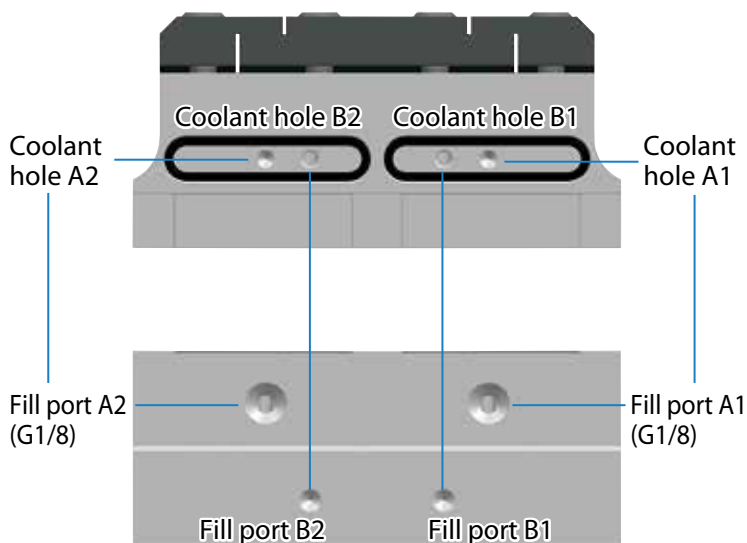
When the cap and coolant supply pipe are mounted

Coolant cannot be supplied correctly if it is mounted in the wrong position.



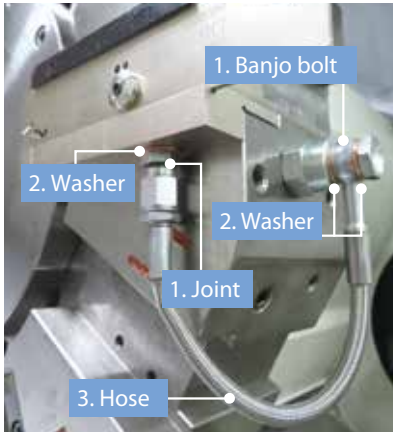
When using a tool holder block

When using the discharge port B1 (B2), use a sealant for the filler cap (HSG 1/8 X 8.0) provided as an accessory and attach it to the coolant supply port A1 (A2).



A : Coolant hose assembly

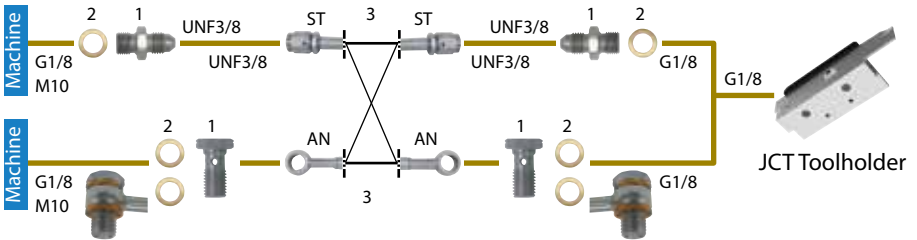
Connection method and piping parts



Easy to use with high-pressure hose and joint

Can be used for internal coolant at normal pressure without a high pressure pump unit
Banjo bolts (for angled hoses) are also available.

<Piping installation guide>



Depending on machine specifications and piping methods, **1.Joint/Banjo bolt x2 2.Washer x2-4 3.Hose x1**

1. Joint/banjo bolt (Sold separately)

Pressure resistance: ~ 30 MPa

Shape	Description	Availability	Thread standard Toolholder machine connection side
	J-G1/8-UNF3/8	●	G1/8
	J-M10X1.5-UNF3/8	●	M10X1.5
	BB-G1/8	●	G1/8
	BB-M10X1.5	●	M10X1.5

● : Available

2. Washer (Sold separately)

Pressure resistance: ~ 30 MPa

Shape	Description	Availability
	WS-10	●

*If you are using a banjo bolt, two washers are needed.

● : Available

3. Hose (Sold separately)

Pressure resistance: ~ 30 MPa

Shape	Description	Availability	Thread standard	Dimensions (mm) L
	HS-ST-ST-200	●	UNF3/8	200
	HS-ST-ST-250	●	UNF3/8	250
	HS-ST-AN-200	●	UNF3/8	200
	HS-ST-AN-250	●	(Banjo bolt)	250
	HS-AN-AN-200	●	(Banjo bolt)	200
	HS-AN-AN-250	●	(Banjo bolt)	250

● : Available

Precautions

1. Make sure machine door is completely closed before use of these parts.
2. Use appropriate seal for the male thread of the piping parts and make sure the connection is secure. Use plugs to seal off unused coolant holes.
3. Connect and fasten the coolant hose firmly.
4. The use of copper washers may cause leakage but will have no effect on the performance.
5. Commercial piping parts can be used if the thread standards are same. Check the pressure resistance before use.
6. Regularly changing the coolant filter is recommended.

C: Coolant pipe assembly

Piping parts

Coolant supply pipe (Sold separately)

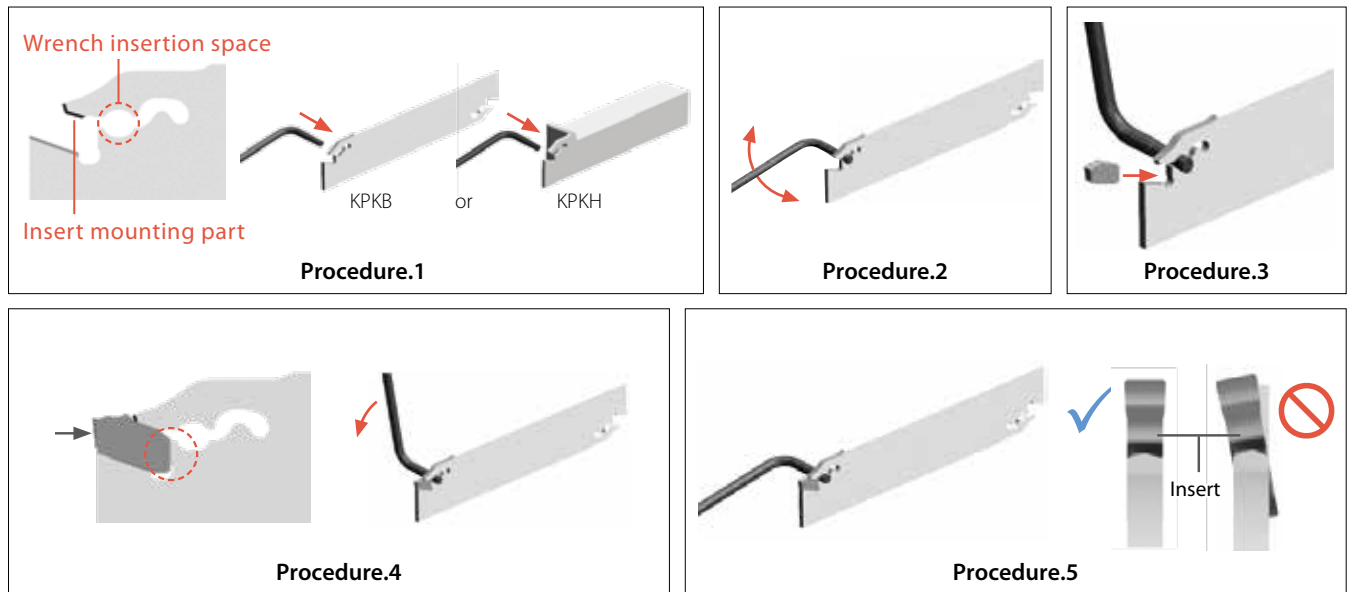
Pressure resistance: 1 MPa

Shape	Description	Stock	Dimension A B C D	Parts (Screw)
	CCN-5	●	190 16 5 6	SB-408STR

Use wrench (FT -15) supplied with the blade when connecting.

● : Available

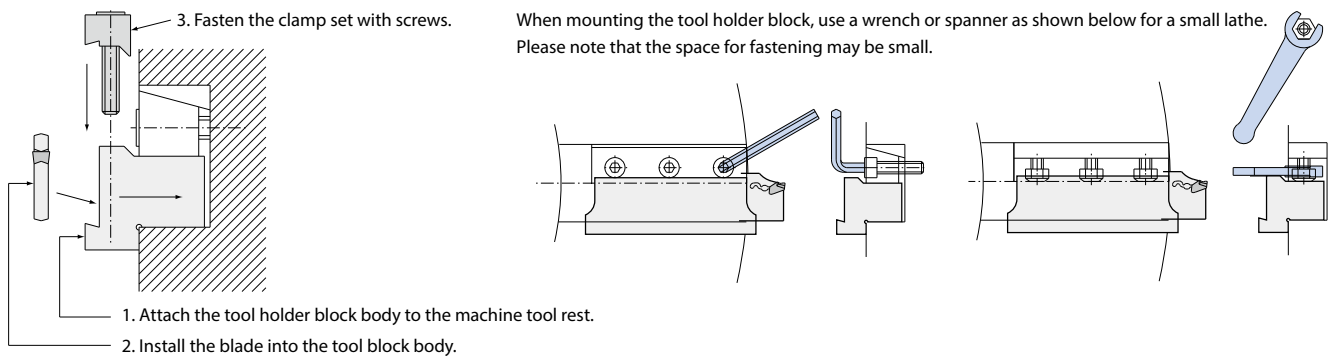
How to attach insert



Procedure

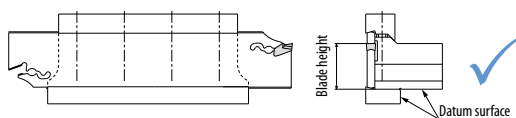
1. Use compressed air or other measures to remove chips from the insert mounting part and wrench insertion space and put in the wrench.
2. Turn the wrench.
3. Put in the insert into insert mounting part. (When removing the insert, follow the same procedure and remove it at step 3.)
4. Please clamp it while gently pressing until it makes contact with the back end of the blade's surface.
5. Make sure that the insert is set straight.

Installation guide

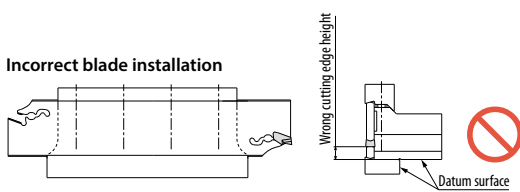


How to install the tool holder block and blade

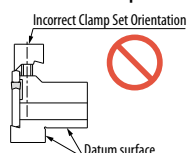
Correct blade installation



Incorrect blade installation



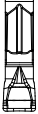
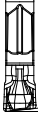
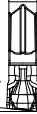
Incorrect Clamp Set Orientation

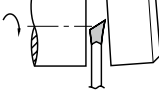
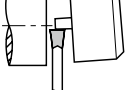
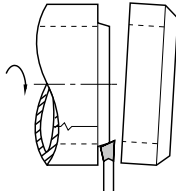
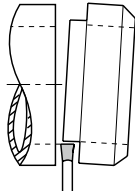


If the clamp set is mounted in the reverse direction, a large gap is created between the tool holder block main body and the clamp set as shown in the left figure. If you continue to use the product, the blade may break off. Reinstall in the correct orientation.

Lead angle direction and usage

1. If there is no restriction on the finished shape, use an insert without lead angle.
2. Insert with lead angle is recommended to prevent remaining boss.
3. If you want to make the remaining boss smaller when machining small or thin parts, use insert with lead angle.

Handed insert with lead angle	N (Neutral)	R (Right hand)	L (Left hand)
			
<ul style="list-style-type: none"> · Inserts with lead angle (PSIR^{R/L}) reduce burrs at cut-off machining. · The larger the lead angle (PSIR^{R/L}), the smaller the cutting force. The feed also needs to be smaller. 			

	Right hand (R) Lead Neutral	Neutral
		
Hollow Workpiece (Pipe)		

Machining precautions

1. Set cutting edge height 0.1 mm above core height.
 2. Machining with ample supply of coolant is recommended
 3. Machine at constant speeds to gain stable tool life
 4. Make the cut-off as close as possible to the chuck
 5. To prevent impacts, reduce feed rate by 1/2 ~ 1/3 when nearing the center of the workpiece
- Excessive use of the insert may cause chipping or damage to the holder

