

# Miniature Machining

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# Miniature Machining - Content structure

- Products are listed by application.
- In the same application, products are listed by cutting edge shape.
- The same cutting edge shape are sorted by insert.
- Items are listed by product series.
- Toolholders in the catalog are our standard stock items.

## How to use the page

**Method ①** Select the application and the cutting edge shape described at the left end of each page, jump to the page on the left index, and choose a designation you need (⑤) in the dimension table (④). Applicable inserts are shown in (⑦) and (⑨).

**Method ②** Select the cutting edge on G003 and check the details on the product page.

**Method ③** Select the series name on G003 and check the details on each page.

**Method ④** Select an item from Quick Guide on G004 - G013.

**①** Application

**②** Cutting edge shape

**③** Tool series name

**④** Dimension table

**⑤** Toolholder designation

**⑥** Dimension drawing (conforming to ISO13399)

**⑦** Applicable insert

**⑧** Spare parts

**⑨** Insert selection

**⑩** Reference page

Reference pages: JSDJ2XR-CHP: Inserts → B125 -, Standard cutting conditions → G054  
G024 www.tungaloy.com

Reference pages: JSDJXR-F, JS-SDJXL: Inserts → B125 -, Standard cutting conditions → G054  
Tungaloy G025

- ① : Application
- ② : Cutting edge shape
- ③ : Tool series name
- ④ : Dimension table
- ⑤ : Toolholder designation  
e.g. right-hand, 25x25 square shank
- ⑥ : Dimension drawing (conforming to ISO13399)
- ⑦ : Applicable insert
- ⑧ : Spare parts
- ⑨ : Insert selection
- ⑩ : Reference page

→ JSDJ2XR **R1212** X07-CHP

## When ordering

- Please specify the designation and quantity.

e.g. JSWL2XR1212X04-CHP ... 1 (one toolholder per package)

\* Inserts are not included. Please order those separately.


# Main products

L		G017
J		G023
N		G036
P		G038
A		G039
G		G041
D		G042
F		G043
Special		G043





	<h2>MINI FORCE TURN</h2> <p>Economical double-sided inserts with excellent sharpness</p> 	<p>G016 - G019 G023 - G025 G030 - G032, G054</p>
	<h2>J-SERIES</h2> <p>Toolholders for small-part machining</p> 	<p>G004 - G006, G009 - G010 G011, G019 - G022, G026 - G029 G033 - G043, G045, G047 - G054 G082 - G084, G090 - G092, F084 - F091</p>
	<h2>TETRAMCUT</h2> <p>Unique insert pocket geometry for grooving with high quality and precision</p> 	<p>CW = 0.33 - 3.0 mm</p> <p>G009, G011, G064 - G073 F006 - F007, F035 - F045</p>
	<h2>TETRA FORCE CUT</h2> <p>4-cornered insert with good clamping rigidity for highly precise grooving and parting</p> 	<p>CW = 0.5 - 3.18 mm</p> <p>G009, G074 - G079 F006 - F007, F046 - F053</p>
	<h2>DUOJUST</h2> <p>Innovative clamping system for high rigidity in parting</p> 	<p>CW = 1.0 - 2.0 mm</p> <p>G010, G011, G093 - G100</p>
	<h2>TUNG CUT</h2> <p>Multi-functional tool series for various grooving operations</p> 	<p>CW = 1.4 - 4.0 mm</p> <p>G010, G101 - G110, F006 - F034 F096 - F113, F137 - F157</p>
	<h2>TINY MINI TURN</h2> <p>Solid boring bar for turning small diameters with high precision</p> 	<p>G013, G055 - G063</p>
	<h2>TUNG HEAVY GROOVE</h2> <p>Highly rigid clamping for wide grooving and profiling in one pass</p> 	<p>CW = 10 - 25 mm</p> <p>G009, G084 - G086 F006 - F007, F072 - F075</p>

# Miniature External Turning - Quick Guide





## Facing

Application	Designation	Insert		Shank size (mm)				Clamping style	Page
		Positive type	Negative type	0	10	20	30		
	<b>JSDFCR/L</b> Cutting edge angle 91° Insert: DC□□	✓			12	16		Screw-on clamping with offset	<b>G043</b>

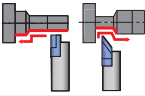
## External Turning

Application	Designation	Insert		Shank size (mm)				Clamping style	Page
		Positive type	Negative type	0	10	20	30		
	<b>JTTACR/L</b> Cutting edge angle 91° Insert: TC□□	✓			8	16		Back side clamping without offset	<b>G039</b>
	<b>JSTACR/L</b> Cutting edge angle 91° Insert: TC□□	✓			8	16		Screw-on clamping without offset	<b>G039</b>
	<b>JSCGCR/L</b> Cutting edge angle 91° Insert: CC□□	✓			12	16		Screw-on clamping with offset	<b>G041</b>
	<b>JTTANR/L</b> Cutting edge angle 91° Insert: TN□□		✓		12	16		Back side clamping without offset	<b>G047</b>

## Back Turning

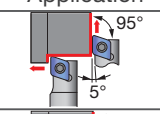
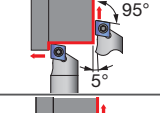
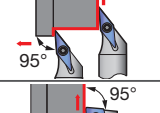
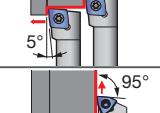
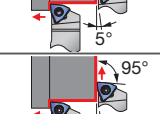
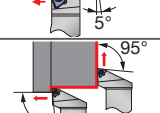
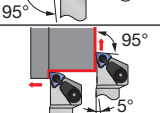
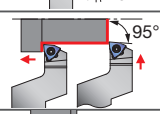
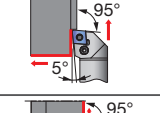
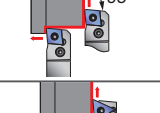
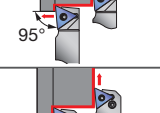
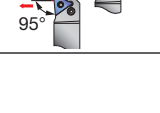

Application	Designation	Insert		Shank size (mm)				Clamping style	Page
		Positive type	Negative type	0	10	20	30		
	<b>JSTBR/L</b> Insert: JTBR/L3□□	✓			10	16		Screw-on clamping	<b>G048</b>
	<b>JS-TBL3</b> Insert: JTBR3□□	✓			ø19.05	ø25.4		Screw-on clamping	<b>G048</b>
	<b>JSEGR/L</b> Insert: J10ER/L□□	✓			10	16		Screw-on clamping	<b>G050</b>
	<b>JXBR/L</b> Insert: JXBR/L8□□	✓			10	25		Screw-on clamping	<b>G052</b>

## Front & Reverse Turning

Application	Designation	Insert		Shank size (mm)				Clamping style	Page
		Positive type	Negative type	0	10	20	30		
	<b>JXGR/L</b> Insert: JXFR/L8 JXRR/L8	✓			10	25		Screw-on clamping	<b>G043</b>

# Miniature External Turning - Quick Guide

## External Turning & Facing

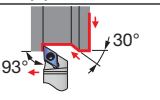
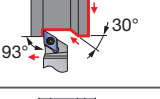
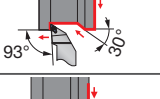
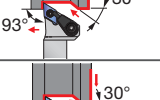
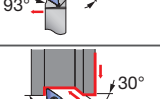
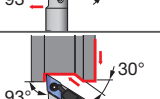
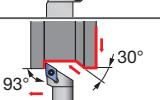
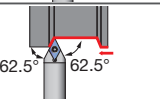
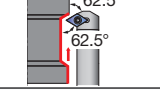
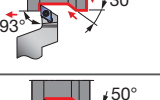
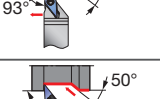
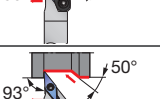
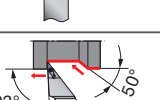
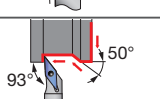
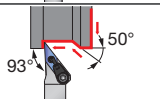


Application	Designation	Insert		Shank size (mm)				Clamping style	Page
		Positive type	Negative type	0	10	20	30		
	<b>JTCL2CR/L</b> Cutting edge angle 95° Insert: CC□□	✓		8	16			Back side clamping without offset	<b>G020</b>
	<b>JSCL2CR/L</b> Cutting edge angle 95° Insert: CC□□	✓		10	16			Screw-on clamping without offset	<b>G019</b>
	<b>JSVL2PR/L</b> Cutting edge angle 95° Insert: VP□□	✓		10	16			Screw-on clamping without offset	<b>G022</b>
	<b>JSCLCR/L</b> Cutting edge angle 95° Insert: CC□□	✓		8	16			Screw-on clamping with offset	<b>G021</b>
	<b>JPWL2XR/L</b> Cutting edge angle 95° Insert: WXGU	✓		10	16			Side clamping without offset	<b>G017</b>
	<b>JSWL2XR/L</b> Cutting edge angle 95° Insert: WXGU	✓		10	20			Screw-on clamping without offset	<b>G017</b>
	<b>JSWLXR/L</b> Cutting edge angle 95° Insert: WXGU	✓			20	25		Screw-on clamping with offset	<b>C031</b>
	<b>JSWL2XR/L-CHP</b> Cutting edge angle 95° Insert: WXGU	✓		12	16			Screw-on clamping without offset	<b>G018</b>
	<b>JSWLXR-F</b> Cutting edge angle 95° Insert: WXGU	✓		10	16			Screw-on clamping with offset	<b>G018</b>
	<b>PCLNR</b> Cutting edge angle 95° Insert: CN□□		✓		20			Lever-lock clamping with offset	<b>G044</b>
	<b>PCL2NR</b> Cutting edge angle 95° Insert: CN□□		✓		20			Lever-lock clamping without offset	<b>G044</b>
	<b>JTTLNR/L</b> Cutting edge angle 95° Insert: TN□□		✓	12	16			Back side clamping without offset	<b>G045</b>
	<b>PTL2NR/L</b> Cutting edge angle 95° Insert: TN□□		✓		20			Lever-lock clamping without offset	<b>G045</b>

Grade  
Insert  
Ext. Toolholder  
Int. Toolholder  
Threading  
Grooving  
Miniature tool  
Milling cutter  
Endmill  
Drilling tool  
Tooling System  
User's Guide  
Index



# Miniature External Turning - Quick Guide

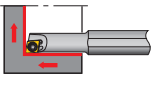
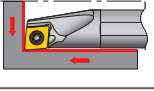
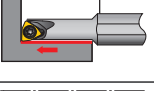
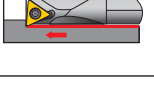
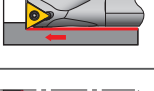
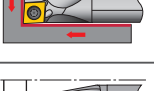
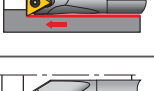




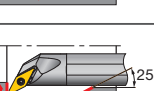
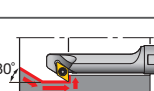
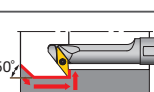

## External Turning & Profiling

Application	Designation	Insert		Shank size (mm)				Clamping style	Page
		Positive type	Negative type	0	10	20	30		
	<b>JPDJ2XR/L</b> Cutting edge angle 93° Insert: DXGU	✓		10	16			Side clamping without offset	<a href="#">G023</a>
	<b>JSDJ2XR/L</b> Cutting edge angle 93° Insert: DXGU	✓		10	20			Screw-on clamping without offset	<a href="#">G023</a>
	<b>JSDJXR/L</b> Cutting edge angle 93° Insert: DXGU	✓			20	25		Screw-on clamping with offset	<a href="#">C037</a>
	<b>JSDJ2XR/L-CHP</b> Cutting edge angle 93° Insert: DXGU	✓		12	16			Screw-on clamping without offset	<a href="#">G024</a>
	<b>JTDJ2CR/L</b> Cutting edge angle 93° Insert: DC□□	✓		10	16			Back side clamping without offset	<a href="#">G026</a>
	<b>JSDJ2CR/L</b> Cutting edge angle 93° Insert: DC□□	✓		8	16			Screw-on clamping without offset	<a href="#">G026</a>
	<b>JSDJ2CR/L-CHP</b> Cutting edge angle 93° Insert: DC□□	✓		12	16			Screw-on clamping without offset	<a href="#">G027</a>
	<b>JSDJCR/L</b> Cutting edge angle 93° Insert: DC□□	✓		8	16			Screw-on clamping with offset	<a href="#">G028</a>
	<b>JSDNCN</b> Cutting edge angle 62.5° Insert: DC□□	✓		10	16			Screw-on clamping with offset	<a href="#">G036</a>
	<b>JSDN3CR/L</b> Cutting edge angle 62.5° Insert: DC□□	✓		12	16			Screw-on clamping with offset	<a href="#">G036</a>
	<b>JSDJXR-F</b> Cutting edge angle 93° Insert: DXGU	✓		10	16			Screw-on clamping with offset	<a href="#">G025</a>
	<b>JPVJ2XR/L</b> Cutting edge angle 93° Insert: VXGU	✓		10	16			Side clamping without offset	<a href="#">G030</a>
	<b>JSVJ2XR/L-CHP</b> Cutting edge angle 93° Insert: VXGU	✓		12	16			Screw-on clamping without offset	<a href="#">G031</a>
	<b>JSVJ2XR/L</b> Cutting edge angle 93° Insert: VXGU	✓		10	20			Screw-on clamping without offset	<a href="#">G030</a>
	<b>JSVJXR/L</b> Cutting edge angle 93° Insert: VXGU	✓			20	25		Screw-on clamping with offset	<a href="#">C056</a>
	<b>JSVJ2BR/L</b> Cutting edge angle 93° Insert: VB□□	✓		10	16			Screw-on clamping without offset	<a href="#">G033</a>
	<b>JSVJ2BR/L-CHP</b> Cutting edge angle 93° Insert: VB□□	✓		12				Screw-on clamping without offset	<a href="#">G034</a>

# Miniature Internal Turning - Quick Guide

Positive type

## StreamJet-Bar

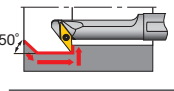
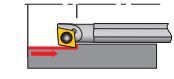
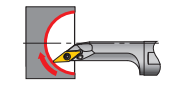
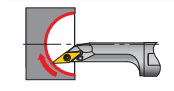
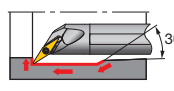
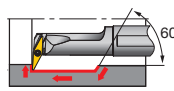
Application	Description & Application	ISO insert	Y-Pro	Shank Material	Shank Size	Min. bore diameter DMIN (mm)						Page
						0	10	20	30	40	50	
	<b>SEXP/L</b> Boring & Internal facing Insert: EP□□	✓		Steel	ø4 - ø8	ø4.5	ø7					D033 D034
	<b>SCLCR/L</b> Boring & Internal facing Insert: CC□□	✓		Steel	ø4 - ø25	ø5			ø27			D016 D018
	<b>SWUBR/L</b> Boring Insert: WB□□	✓		Steel	ø5 - ø8	ø6	ø8					D075
	<b>STUPR/L</b> Boring Insert: TP□□	✓		Steel	ø7 - ø32	ø8			ø34			D058 D060
	<b>STFPR/L</b> Blind hole boring Insert: TP□□	✓		Steel	ø8 - ø25	ø10			ø27			D043
	<b>SCLPR/L</b> Boring & Internal facing Insert: CP□□	✓		Steel	ø8 - ø25	ø10			ø27			D019 D020
	<b>STFCR/L</b> Blind hole boring Insert: TC□□	✓		Steel	ø10 - ø16	ø12	ø18					D042
	<b>SDUCR/L</b> Boring & Internal profiling Insert: DC□□	✓		Steel	ø10 - ø25	ø13			ø32			D050
	<b>SVUCR/L</b> Boring & Internal profiling Insert: VC□□	✓		Steel	ø12 - ø25	ø16			ø32			D068 D069
	<b>SVUBR/L</b> Boring & Internal profiling Insert: VB□□	✓		Steel	ø16 - ø25	ø20			ø32			D064 D065
	<b>SDQCR/L</b> Boring & Internal profiling Insert: DC□□	✓		Steel	ø10 - ø25	ø13			ø30			D077 D078
	<b>SVQCR/L</b> Boring & Internal profiling Insert: VC□□	✓		Steel	ø10 - ø16	ø13.5	ø21.5					D082 D083
	<b>SVQBR/L</b> Boring & Internal profiling Insert: VB□□	✓		Steel	ø12 - ø25	ø17			ø30.5			D080 D081
	<b>SDZCR/L</b> Internal retracting Insert: DC□□	✓		Steel	ø12 - ø25	ø14			ø25			D086
	<b>SVZCR/L</b> Internal retracting Insert: VC□□	✓		Steel	ø12	ø16						D090

Grade  
Insert  
Ext. Toolholder  
Int. Toolholder  
Threading  
Grooving  
Miniature tool  
Milling cutter  
Endmill  
Drilling tool  
Tooling System  
User's Guide  
Index



# Miniature Internal Turning - Quick Guide

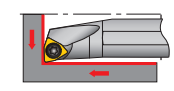
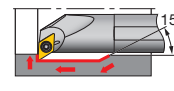
## StreamJet-Bar

Application	Description & Application	ISO insert	Y-Pro	Shank Material	Shank Size	Min. bore diameter DMIN (mm)						Page
						0	10	20	30	40	50	
	<b>SVZBR/L</b> Internal retracting Insert: VB□□	✓		Steel	ø16 - ø32			ø20			ø40	<b>D089</b>
	<b>SEZPR/L</b> Internal retracting Insert: EP□□	✓		Steel	ø4 - ø5	ø5.5		ø6.5				<b>D088</b>
	<b>SVJCR/L</b> Internal sphere cutting Insert: VC□□	✓		Steel	ø12 - ø16			ø16			ø20	<b>D037</b>
	<b>SVJBR/L</b> Internal sphere cutting Insert: VB□□	✓		Steel	ø20 - ø25			ø25			ø30	<b>D036</b>
	<b>SYQBR/L</b> Internal undercut & profiling Insert: YW□□	✓		Steel	ø12 - ø16			ø17			ø21.5	<b>D084</b>
	<b>SYUBR/L</b> Boring & Internal profiling Insert: YW□□	✓		Steel	ø16			ø20				<b>D076</b>
				Uncoated	ø12 - ø16			ø17			ø21.5	
				Uncoated	ø12 - ø16			ø20			ø24.5	

# Miniature Internal Turning - Quick Guide

Double-sided insert with positive cutting edges

## MiniForce-Turn




Application	Description & Application	MiniForce-Turn	Shank Material	Shank Size	Min. bore diameter DMIN (mm)						Page	
					0	10	20	30	40	50		
	<b>SWLXR/L</b> Boring & Internal facing Insert: WXGU	✓		Steel	ø10 - ø20			ø12			ø22	<b>D028</b>
	<b>SDXXR/L</b> Boring & Internal profiling Insert: DXGU	✓		Steel	ø10 - ø20			ø13			ø24	<b>D035</b>
	<b>SDZXR/L</b> Internal retracting Insert: DXGU	✓		Steel	ø12 - ø20			ø14			ø20	<b>D085</b>
				Uncoated	ø12 - ø16			ø18			ø22	




# Miniature Grooving - Quick Guide

## External Grooving





### TetraMini-Cut

Application	Designation	Insert	Shank size (mm)				Groove width (mm)	Max. groove depth (mm)	Page
			0	10	20	30			
	<b>STCR/L-18-CHP</b>	TC*18R/L...	12	16			0.33 - 3.0	0.8 - 3.5	<b>G065</b>
	<b>STCR/L-18</b>	TC*18R/L...	10	25			0.33 - 3.0	0.8 - 3.5	<b>G064</b>
	<b>JS-STCL18</b>	TC*18R...	∅14	∅25.4			0.33 - 3.0	0.8 - 3.5	<b>G065</b>


### TetraForce-Cut

Application	Designation	Insert	Shank size (mm)				Groove width (mm)	Max. groove depth (mm)	Page
			0	10	20	30			
	<b>STCR/L-27</b>	TC*27...	10	25			0.5 - 3.18	1.0 - 6.4	<b>G074</b>



### J-series

Application	Designation	Insert	Shank size (mm)				Groove width (mm)	Max. groove depth (mm)	Page
			0	10	20	30			
	<b>JSTGR/L</b>	JTGR/L3...	10	16			0.33 - 3.0	0.7 - 2.6	<b>G079</b>
	<b>JS-TGL3</b>	JTGR3...	∅19.05	∅25.4			0.33 - 3.0	0.7 - 2.6	<b>G079</b>
	<b>JSVGR/L</b>	JVGR/L...	10	16			0.33 - 2.0	0.7 - 5.5	<b>G083</b>
	<b>JSXGR/L</b>	JXGR/L8...	10	25			0.7 - 2.0	4.5 - 6.0	<b>G082</b>

### GTGN

Application	Designation	Insert	Shank size (mm)				Groove width (mm)	Max. groove depth (mm)	Page
			0	10	20	30			
	<b>CER/L</b>	GTGN-16E...	12	20			1.0 - 2.25	1.0 - 6.4	<b>F070</b>

### TungHeavyGroove

Application	Designation	Insert	Shank size (mm)				Groove width (mm)	Max. groove depth (mm)	Page
			0	10	20	30			
	<b>FPGN</b>	PSGB...	12	25			10 - 25	Wide grooving and profiling	<b>G084</b>
	<b>SPGN</b>	PSGB...	12	25			10 - 25	Wide grooving and profiling	<b>G085</b>

Grade

Insert

Ext. Toolholder

Int. Toolholder

Threading

Grooving

Miniature tool

Milling cutter

Endmill

Drilling tool

Drilling System

Tooling System

User's Guide





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


# Miniature Parting - Quick Guide

## Parting


### DuoJustCut

Application	Designation	Insert	Shank size (mm)				Groove width (mm)	Max. parting diameter (mm)	Page
			0	10	20	30			
	<b>JSXXR/L-X-CHP</b>	JXPG...	12	16			1.0 - 2.0	ø20	<a href="#">G094</a>
	<b>JSXXR/L-X-S-CHP</b> <b>JSXXR/L-F-S-CHP</b>	JXPG...	12	16			1.0 - 2.0	ø20	<a href="#">G094</a>
	<b>JSXXR/L</b>	JXPG...	10	20			1.0 - 2.0	ø20	<a href="#">G093</a>
	<b>JSXXR/L-S</b>	JXPG...	10	16			1.0 - 2.0	ø20	<a href="#">G093</a>



### TungCut

Application	Designation	Insert	Shank size (mm)				Groove width (mm)	Max. parting diameter (mm)	Page
			0	10	20	30			
	<b>JCTER/L-CHP</b>	DG.../SG...	12	20			1.4 - 3.0	ø32	<a href="#">G102</a>
	<b>JCTER/L</b>	DG.../SG...	10	20			1.4 - 3.0	ø32	<a href="#">G101</a>
	<b>CGER/L</b>	DG.../SG...	10	20			1.4 - 3.0	ø55	<a href="#">G101</a>

### My-T

Application	Designation	Insert	Shank size (mm)				Groove width (mm)	Max. parting diameter (mm)	Page
			0	10	20	30			
	<b>JCGSSR/L</b>	GE20...	10	25			2.0	ø32	<a href="#">F058</a>

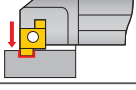
### J-series

Application	Designation	Insert	Shank size (mm)				Groove width (mm)	Max. parting diameter (mm)	Page
			0	10	20	30			
	<b>JCCWSR/L</b>	JCC*200F...	10	25			2.0	ø20	<a href="#">F086</a>
	<b>JCGWSR/L</b>	JCGN200F...	10	16			2.0	ø20	<a href="#">F087</a>

# Miniature Grooving - Quick Guide

## Internal Grooving




### SNG

Application	Designation	Insert	Shank size (mm)				Groove width (mm)	Max. groove depth (mm)	Min. bore diameter (mm)	Page
			0	10	20	30				
	<b>SNGR/L</b>	*GR/L...	ø8.0	ø20.0			1.0 - 3.5	1.5 - 3.0	8.0 - 24.0	<a href="#">F127</a>






# Miniature Threading - Quick Guide

## External Threading




### TetraMini-Cut

Application	Designation	Insert	Shank size (mm)				Corner R (mm)	Pitch (mm)	Page
			0	10	20	30			
	<b>STCR/L-18-CHP</b>	TCT18R/L...	12	16			0.05 - 0.2	0.4 - 3.0	<b>G065</b>
	<b>STCR/L-18</b>	TCT18R/L...	10		25		0.05 - 0.2	0.4 - 3.0	<b>G064</b>
	<b>JS-STCL18</b>	TCT18R...		ø14		ø25.4	0.05 - 0.2	0.4 - 3.0	<b>G065</b>





### DuoJust-Cut

Application	Designation	Insert	Shank size (mm)				Corner R (mm)	Pitch (mm)	Page
			0	10	20	30			
	<b>JSXXR/L-CHP</b>	JXTG12...	12	16			0.05Max. - 0.1	0.2 - 1.5	<b>G094</b>
	<b>JSXXR/L-X-S-CHP</b> <b>JSXXR/L-F-S-CHP</b>	JXTG12...	12	16			0.05Max. - 0.1	0.2 - 1.5	<b>G093</b>
	<b>JSXXR/L</b>	JXTG12...	10		20		0.05Max. - 0.1	0.2 - 1.5	<b>G094</b> <b>G095</b>
	<b>JSXXR/L-S</b>	JXTG12...	10	16			0.05Max. - 0.1	0.2 - 1.5	<b>G093</b>
	<b>JS-SXXL09</b>	JXTG12R...		ø19.05		ø25.4	0.05Max. - 0.1	0.2 - 1.5	<b>G097</b>

### J-series

Application	Designation	Insert	Shank size (mm)				Corner R (mm)	Pitch (mm)	Page
			0	10	20	30			
	<b>JSTTR/L</b>	JTTR/L3...	10	16			0.05 - 0.1	0.5 - 1.0	<b>G091</b>
	<b>JS-TTL3</b>	JTTR3...		ø19.05		ø25.4	0.05 - 0.1	0.5 - 1.0	<b>G091</b>
	<b>JSXBR/L</b>	JXT*R6000F	10		25		0.03	0.5 - 1.0	<b>G090</b>

### TungThread

Application	Designation	Insert	Shank size (mm)				Corner R (mm)	Pitch (mm)	Page
			0	10	20	30			
	<b>JSE2R16-CHP</b>	16ER/L...	12	16			0.05 - 0.22	0.5 - 3.0	<b>G087</b>
	<b>CER/L</b>	16ER/L...	12		25		0.05 - 0.22	0.5 - 3.0	<b>F070</b>
	<b>B-S/CER/L</b>	16ER/L...			-		0.05 - 0.22	0.5 - 3.0	<b>G088</b>
	<b>BC-SER/L</b>	16ER/L...			-		0.05 - 0.22	0.5 - 3.0	<b>G089</b>

Grade

Insert

Ext. Toolholder

Int. Toolholder

Threading

Grooving

Miniature tool

Milling cutter

Endmill

Drilling tool

Tooling System

User's Guide


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# Miniature Threading - Quick Guide

## Internal Threading

### TungThread

Application	Designation	Insert	Shank size (mm)				Groove width (mm)	Max. groove depth (mm)	Min. bore diameter (mm)	Page
			0	10	20	30				
	<b>SNR/L</b>	6IR/L...	8				-	0.5 - 2.0	8.0 - 10.0	<b>E036</b>

# Miniature Internal Turning - Quick Guide

TinyMini-Turn - Solid carbide tools for small diameters turning

## Boring, profiling & chamfering

### TinyMini-Turn

Application	Description & Application	Shank Size	Min. bore diameter DMIN (mm)						Page
			0	2	4	6	8	10	
	<b>JBT</b> Boring, profiling & chamfering	ø4 & ø7	ø0.6	ø7				<b>G055</b>	
	<b>JBP</b> Face grooving	ø4 & ø7	ø2.8	ø5				<b>G056</b>	
	<b>JBU</b> Back boring & chamfering	ø7	ø5				<b>G056</b>		
	<b>JBC</b> Boring & 45° chamfering	ø7	ø5				ø6.8	<b>G056</b>	
	<b>JBB</b> Back boring	ø4 & ø7	ø3	ø7				<b>G057</b>	

## Threading

### TinyMini-Turn

Application	Description & Application	Shank Size	Min. bore diameter DMIN (mm)						Page
			0	2	4	6	8	10	
	<b>JBI</b> Threading (Metric thread)	ø4 & ø7	ø4				ø7	<b>G057</b>	

## Internal Grooving

### TinyMini-Turn

Application	Description & Application	Shank Size	Groove width	Min. bore diameter DMIN (mm)											Page
				0	2	4	6	8	10	12	14	15			
	<b>JBG</b> Internal Grooving	ø4 & ø7	0.5 - 2	ø2				ø6.8				<b>G058</b>			
	<b>JBF</b> Face grooving	ø7	1 - 3	ø6				ø15				<b>G059</b>			
	<b>JBS</b> Face grooving (for shaft)	ø7	2	ø6								<b>G059</b>			
	<b>JBR</b> Boring & profiling (full radius type)	ø7	1	ø5				ø6.8				<b>G059</b>			

Grade  
Insert  
Ext. Toolholder  
Int. Toolholder  
Threading  
Grooving  
Miniature tool  
Milling cutter  
Endmill  
Drilling tool  
Tooling System  
User's Guide  
Index





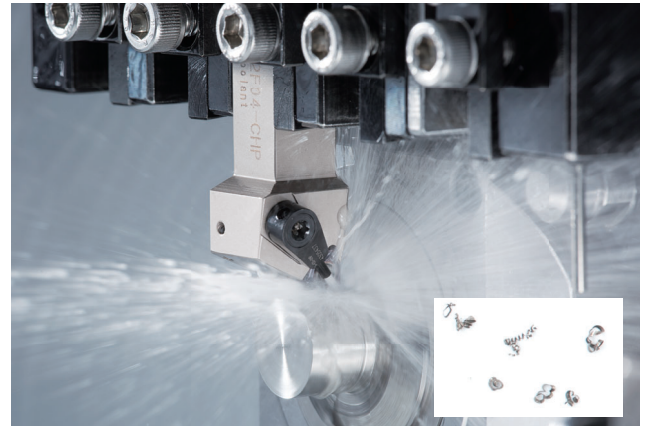
## Thru-coolant holder system

- High pressure coolant is supplied through the holder to facilitate smooth chip evacuation, improved chip breaking and reduced machine down-time

External coolant supply at normal pressure



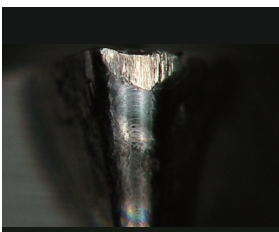
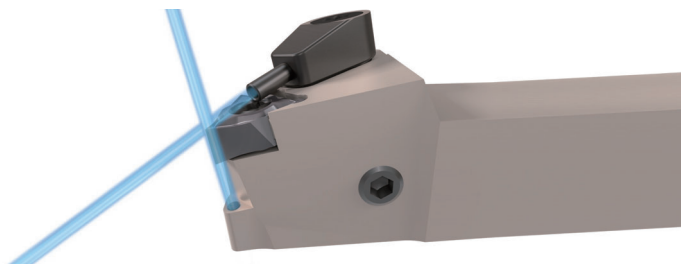
High pressure coolant (7 MPa)



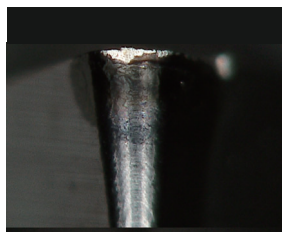
- Coolant jets from two outlets ensure high cutting efficiency and extended tool life

### Directly to the cutting edge

- Reliable chip control
- Reduces crater and notch wears



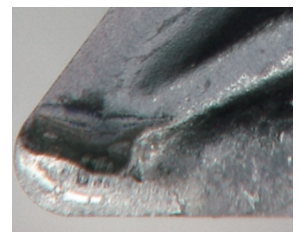
Excessive wear with external coolant supply (at normal pressure)



High pressure coolant (7 MPa)



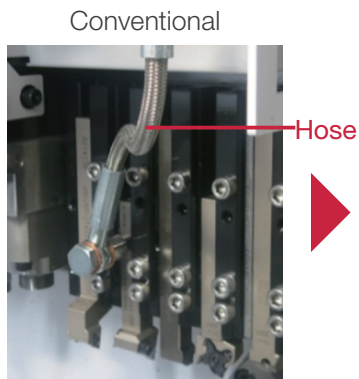
Excessive crater wear with external coolant supply (at normal pressure)



High pressure coolant (7 MPa)

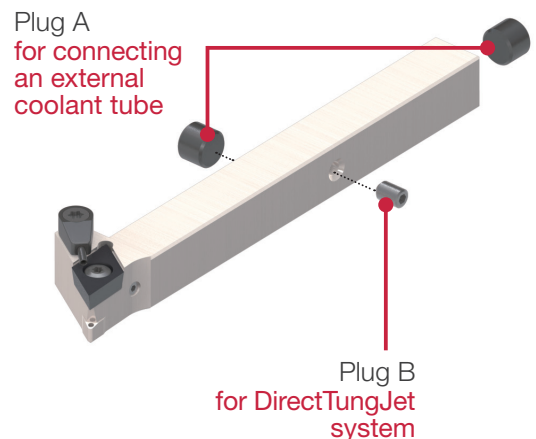
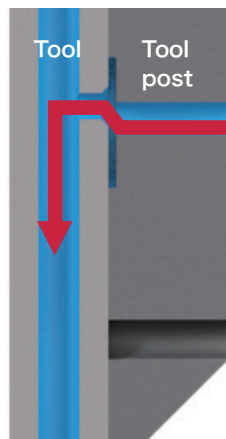
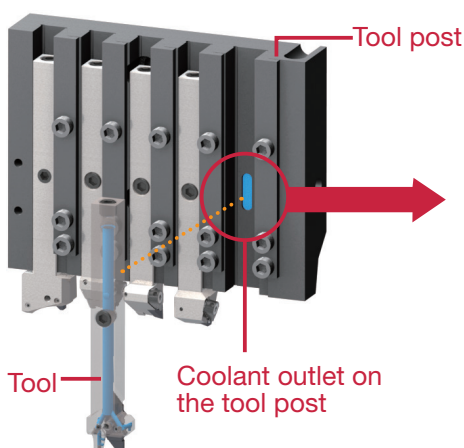
Reference pages: [G018](#), [G020](#), [G024](#), [G027](#), [G031](#), [G034](#), [G065](#), [G087](#), [G095](#), [G102](#)

Tube-free design streamlines tool setup.  
Through-coolant supply enables high productivity



No need for coolant tube setup. Eliminates chip entanglement on tubes and streamlines tool replacement.

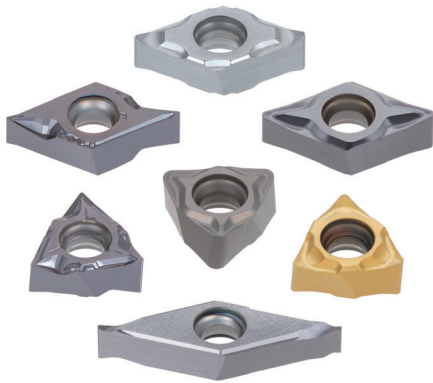
Coolant is supplied from the tool post directly to the tools.



Use a non-coolant-through tool when a coolant supply is not needed through the tool.

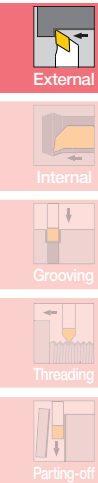


Nozzle tube delivers coolant directly to the cutting edge



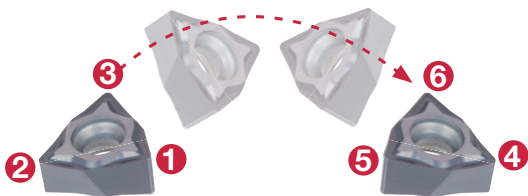
## Economical double-sided positive insert

Innovative geometry and seat interface ensures stability and high performance.

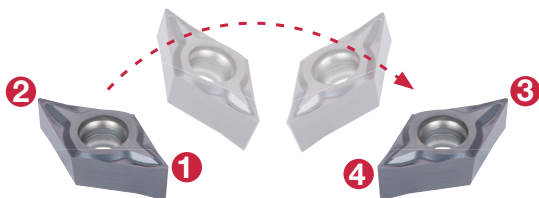


### Insert

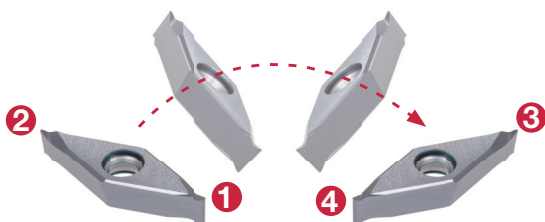
**WXGU0403**.. 6 positive cutting edges



**DXGU0703**.. 4 positive cutting edges

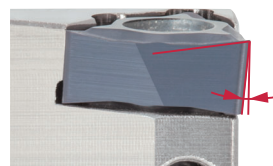


**VXGU09T2**.. 4 positive cutting edges

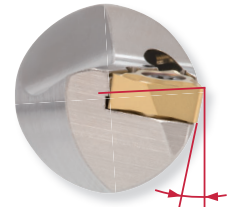


### High rake angle

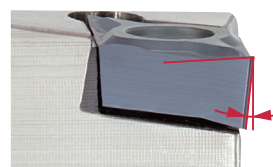
External turning



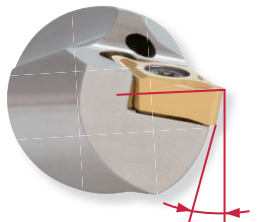
Internal turning



External turning



Internal turning



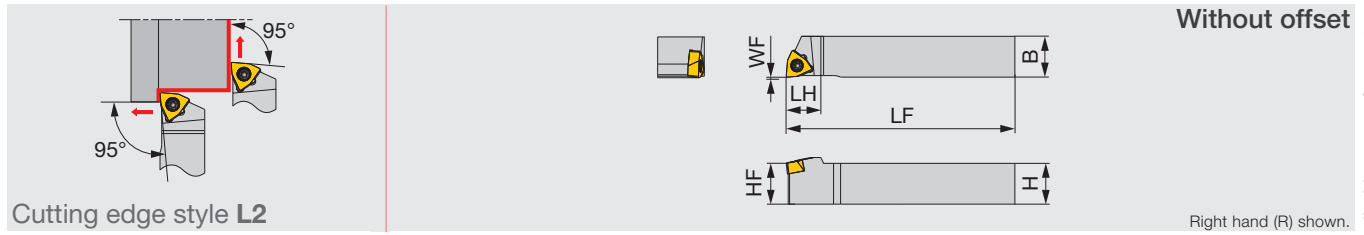
External turning



Reference pages : **G017 - G019, G023, G025, G030, G032, G054**



Screw-on toolholder with 95° approach angle, for WXGU inserts



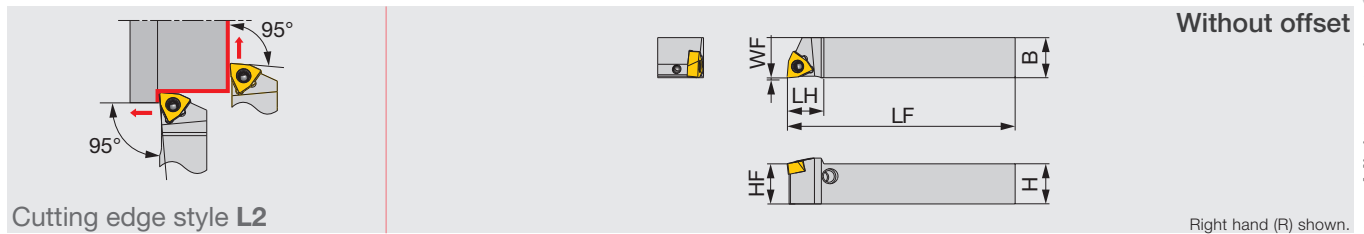
Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JSWL2XR/L1010X04	10	10	120	11	10	0	0.2	WXGU0403**L/R...	0.9
JSWL2XR/L1212F04	12	12	85	11	12	0	0.2	WXGU0403**L/R...	0.9
JSWL2XR/L1212X04	12	12	120	11	12	0	0.2	WXGU0403**L/R...	0.9
JSWL2XR/L1616X04	16	16	120	13	16	0	0.2	WXGU0403**L/R...	0.9
JSWL2XR/L2020H04	20	20	100	13	20	0	0.2	WXGU0403**L/R...	0.9

\*Torque: Recommended torque (N-m) for clamping \*\*RE: Standard corner radius  
 Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

### SPARE PARTS

Designation	Clamping screw	Wrench
JSWL2XR/L...	SR34-514	T-7F

Lever-lock toolholder with 95° approach angle, for WXGU inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JPWL2XR/L1010X04	10	10	120	11	10	0	0.2	WXGU0403**L/R...	0.9
JPWL2XR/L1212F04	12	12	85	11	12	0	0.2	WXGU0403**L/R...	0.9
JPWL2XR/L1212X04	12	12	120	11	12	0	0.2	WXGU0403**L/R...	0.9
JPWL2XR/L1616X04	16	16	120	13	16	0	0.2	WXGU0403**L/R...	0.9

\*Torque: Recommended torque (N-m) for clamping \*\*RE: Standard corner radius  
 Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

### SPARE PARTS

Designation	Lever	Pin	Clamping screw	Wrench
JPWL2XR/L...	SLLV-2	SL-PI-2	SR10400611	HW2.0/5RED

## INSERT SELECTION

For Swiss lathes

P	Application areas	Finish cutting	Medium to finish cutting	M	Application areas	Finish cutting	Medium to finish cutting
	Grade	SH725	SH725		SH725	SH725	SH725
Breaker Shape	JSS	JS	JSS	JS	JSS	JS	JSS
Cutting conditions	G053			G053			

For Small CNC lathes

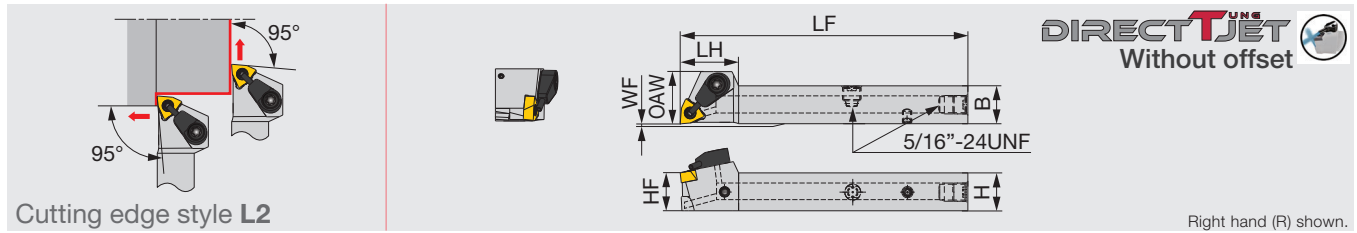
P	Application areas	Finish cutting	Medium cutting	M	Application areas	Finish cutting	Medium cutting
	Grade	AH725	AH725		AH8015	AH8015	AH8015
Breaker Shape	SS	TS	SS	TS	SS	TS	
Cutting conditions	G053			G053			

Reference pages : JSWL2XR/L, JPWL2XR/L: Inserts → B158 -, Standard cutting conditions → G054

Grade  
Insert  
Toolholder  
Ext. Toolholder  
Int. Toolholder  
Threading  
Grooving  
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Screw-on toolholder with 95° approach angle, for WXGU inserts, with high pressure coolant capability



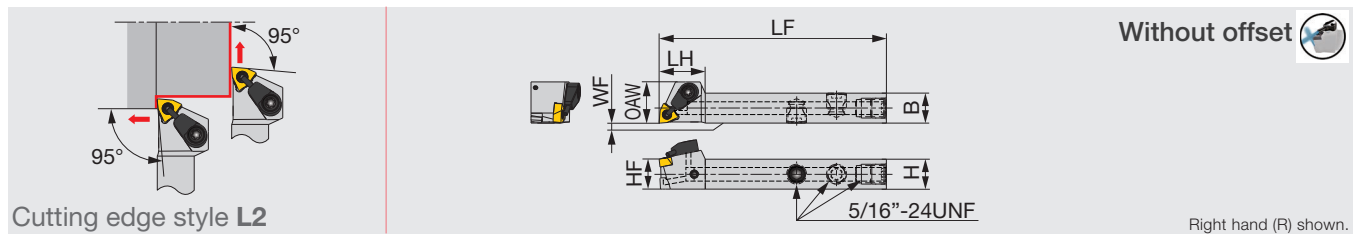
Designation	H	B	LF	LH	HF	WF	OAW	RE**	Insert	Torque*
JSWL2XR1212X04-CHP	12	12	120	18.5	12	0	16.5	0.2	WXGU0403**L...	0.9
JSWL2XR1616X04-CHP	16	16	120	18.5	16	0	16.5	0.2	WXGU0403**L...	0.9

\*Torque: Recommended torque (N-m) for clamping \*\*RE: Standard corner radius  
 Note: Use right-hand toolholders (R) with left-hand inserts (L).

### SPARE PARTS

Designation	Clamping screw	Coolant unit	Wrench 1	Coolant plug	Wrench 2	DirectJet plug	Wrench
JSWL2XR**04-CHP	SR34-514	S-CU-CHP	T-7F	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2

Please see Tungaloy report (TR432) for tool overhang length and coolant plug.



Designation	H	B	LF	LH	HF	WF	OAW	RE**	Insert	Torque*
JSWL2XR/L1212F04-CHP	12	12	85	18	12	0	16.5	0.2	WXGU0403**L/R...	0.9

\*Torque: Recommended torque (N-m) for clamping  
 \*\*RE: Standard corner radius  
 Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

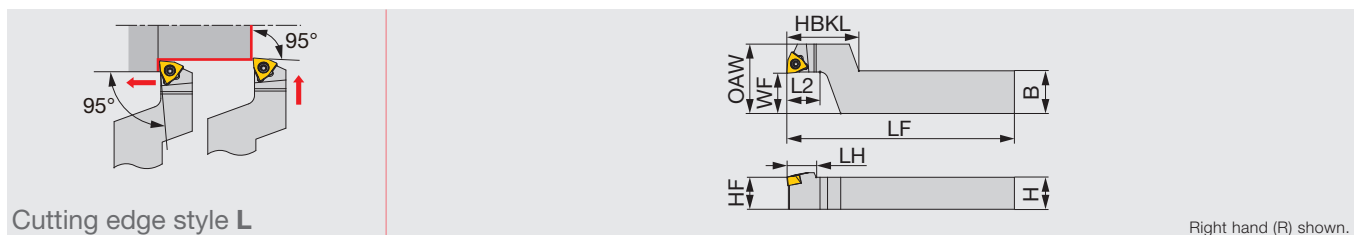
### SPARE PARTS

Designation	Clamping screw	Coolant unit	Wrench 1	Coolant plug	Wrench 2
JSWL2XR/L1212F04-CHP	SR34-514	S-CU-CHP	T-7F	SR5/16UNFTL360	P-4

# MINIF<sup>ORCE</sup>TURN

## JSWLXR-F

Screw-on stepped-head toolholder with 95° approach angle, for WXGU inserts



Designation	H	B	LF	L2	HBKL	LH	HF	WF	OAW	RE**	Insert	Torque*
JSWLXR1016X04-F15	10	16	120	12	27	11	10	15	26	0.2	WXGU0403**L...	0.9
JSWLXR1216F04-F15	12	16	85	12	27	11	12	15	26	0.2	WXGU0403**L...	0.9
JSWLXR1216X04-F15	12	16	120	12	27	11	12	15	26	0.2	WXGU0403**L...	0.9
JSWLXR1620X04-F15	16	20	120	12	27	11	16	15	26	0.2	WXGU0403**L...	0.9

\*Torque: Recommended torque (N-m) for clamping \*\*RE: Standard corner radius  
 Note: Use right-hand toolholders (R) with left-hand inserts (L).



### SPARE PARTS



Designation	Clamping screw	Wrench
JSWLXR**-F15	SR34-514	T-7F

Reference pages : JSWL2XR/L-CHP, JSWLXR-F: Inserts → **B158** -, Standard cutting conditions → **G054**



## INSERT SELECTION



For Swiss lathes

<b>P</b>	Application areas	Finish cutting	Medium to finish cutting
	Grade	SH725	SH725
	Breaker Shape	JSS 	JS 
Cutting conditions G053			

<b>M</b>	Application areas	Finish cutting	Medium to finish cutting
	Grade	SH725	SH725
	Breaker Shape	JSS 	JS 
Cutting conditions G053			

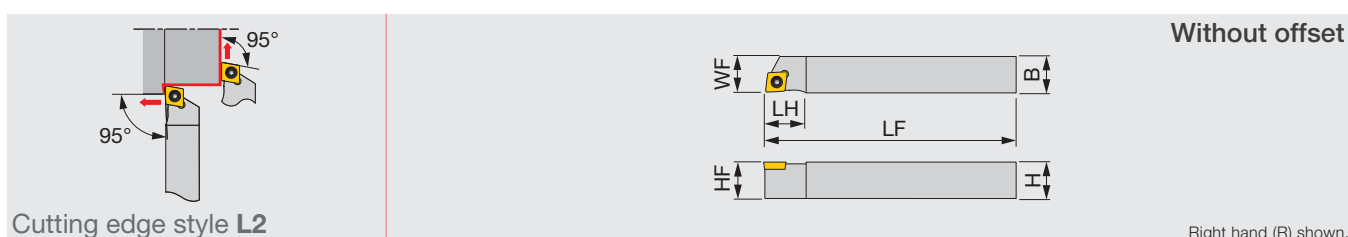
For Small CNC lathes

<b>P</b>	Application areas	Finish cutting	Medium cutting
	Grade	AH725	AH725
	Breaker Shape	SS 	TS 
Cutting conditions G053			

<b>M</b>	Application areas	Finish cutting	Medium cutting
	Grade	AH8015	AH8015
	Breaker Shape	SS 	TS 
Cutting conditions G053			

## J-SERIES JSCL2CR/L

Screw-on toolholder with 95° approach angle, for positive 80° rhombic inserts



Cutting edge style L2

Without offset  
Right hand (R) shown.

Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JSCL2CR/L1010X06	10	10	120	12	10	10	0.2	CC**0602...	1.2
JSCL2CR/L1212F06	12	12	85	12	12	12	0.2	CC**0602...	1.2
JSCL2CR/L1212X06	12	12	120	12	12	12	0.2	CC**0602...	1.2
JSCL2CR/L1212F09	12	12	85	16	12	12	0.2	CC**09T3...	1.2
JSCL2CR/L1212X09	12	12	120	16	12	12	0.2	CC**09T3...	1.2
JSCL2CR/L1616X09	16	16	120	16	16	16	0.2	CC**09T3...	1.2





\*Torque: Recommended torque (N·m) for clamping





\*\*RE: Standard corner radius


### SPARE PARTS




Designation	Clamping screw	Wrench
JSCL2CR/L**06	CSTB-2.5	T-8F
JSCL2CR/L**09	CSTB-4SD	T-8F



## INSERT SELECTION



<b>P</b>	Application areas	Precision finishing	Finish cutting	Medium to finish cutting	Medium to finish cutting
	Grade	SH725	SH725	AH725	SH725
	Breaker Shape	01 	JS 	JS 	J10 
Cutting conditions G053					

<b>M</b>	Application areas	Precision finishing	Finish cutting	Medium to finish cutting	Medium to finish cutting
	Grade	SH725	SH725	AH725	SH725
	Breaker Shape	01 	JS 	JS 	J10 
Cutting conditions G053					

<b>K</b>	Application areas	medium to finish cutting
	Grade	T515
	Breaker Shape	CM 
Cutting conditions B022		

<b>N</b>	Application areas	Precision finishing	Finish cutting	Medium cutting
	Grade	DX120	TH10	KS05F
	Breaker Shape	T-DIA 	with rake W20 	AL 
Cutting conditions B024				

<b>S</b>	Application areas	Finish cutting	Medium to finish cutting
	Grade	SH725	AH725
	Breaker Shape	JS 	JS 
Cutting conditions G053			

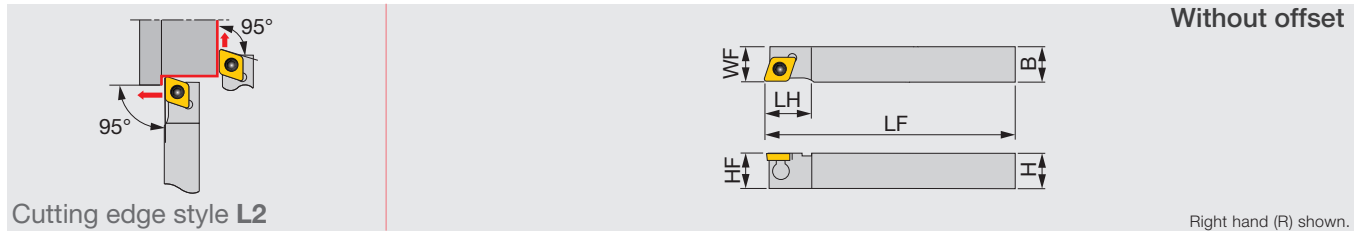
<b>H</b>	Application areas	Precision finishing	Finish cutting
	Grade	BXM10	BXM20
	Breaker Shape	T-CBN 	T-CBN 
Cutting conditions B028			

Reference pages : JSCL2CR/L: Inserts → B109 -, CBN → B180, PCD → B194 -

# J-SERIES

## JTCL2CR/L

Back-clamp toolholder with 95° approach angle, for positive 80° rhombic inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JTCL2CR/L1010X06	10	10	120	12	10	10	0.2	CC**0602...	0.9
JTCL2CR/L1212F09	12	12	85	16	12	12	0.2	CC**09T3...	1.2
JTCL2CR/L1212X09	12	12	120	16	12	12	0.2	CC**09T3...	1.2
JTCL2CR/L1616X09	16	16	120	16	16	16	0.2	CC**09T3...	1.2

\*Torque: Recommended torque (N-m) for clamping  
 \*\*RE: Standard corner radius

### SPARE PARTS

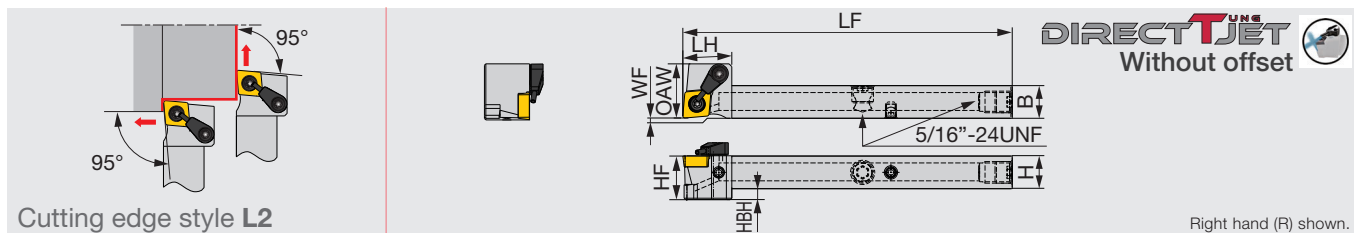
Designation	Clamp	Clamping screw	Wrench
JTCL2CR/L**06	JCP-2	JDS-3525	P-2F
JTCL2CR/L**09	JCP-3	JDS-5040	P-2.5F

# TUNG T<sup>URN</sup>JET

## JSCL2CR-CHP

# J-SERIES

Screw-on toolholder with 95° approach angle, for positive 80° rhombic inserts, with high pressure coolant capability



Designation	H	B	LF	LH	HF	HBH	WF	OAW	RE**	Insert	Torque*
JSCL2CR1212X09-CHP***	12	12	120	18	12	4	0	20	0.2	CC**09T3	1.2
JSCL2CR1212X09B-CHP	12	12	120	18	12	1.5	0	20	0.2	CC**09T3	1.2
JSCL2CR1616X09-CHP	16	16	120	18	16	0	0	20	0.2	CC**09T3	1.2

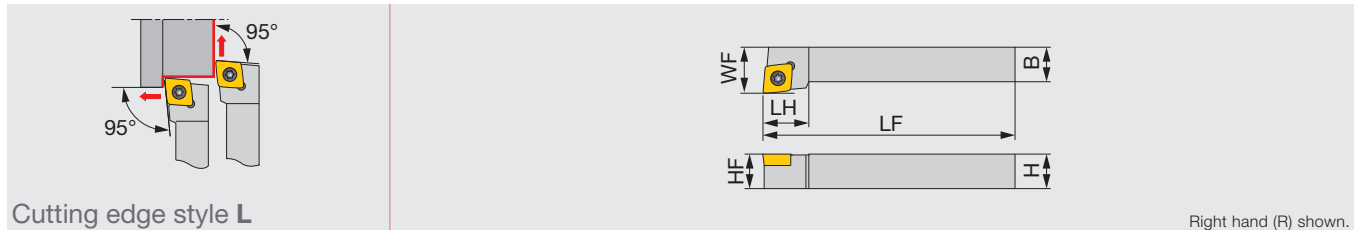
\*Torque: Recommended torque (N-m) for clamping \*\*RE : Standard corner radius  
 \*\*\* : This item will be replaced with a new product in the future.

### SPARE PARTS

Designation	Clamping screw	Coolant unit	Wrench
JSCL2CR**-CHP	CSTB-4SD	S-CU-CHP	T-8F

Reference pages : JTCL2CR/L, JSCL2CR-CHP: Inserts → **B109 -**, CBN → **B180**, PCD → **B194 -**

Screw-on toolholder with 95° approach angle, for positive 80° rhombic inserts



Cutting edge style L

Right hand (R) shown.

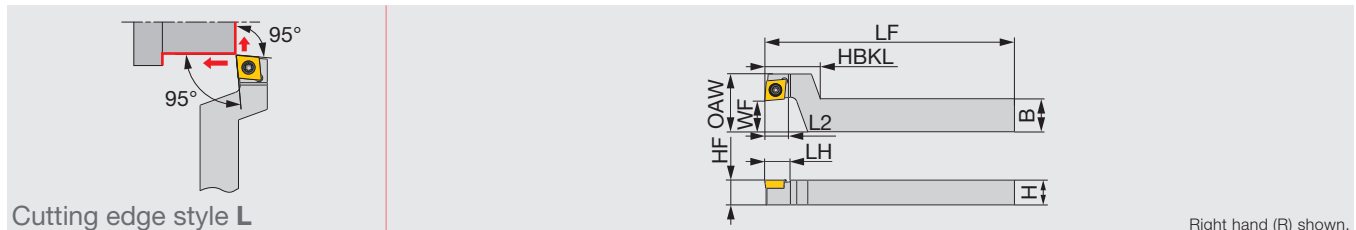
Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JSCLCR/L0808H06	8	8	100	12	8	10	0.4	CC**0602...	1.2
JSCLCR/L1010H06	10	10	100	12	10	12	0.4	CC**0602...	1.2
JSCLCR/L1212H09	12	12	100	16	12	16	0.8	CC**09T3...	1.2
JSCLCR/L1616H09	16	16	100	16	16	20	0.8	CC**09T3...	1.2

\*\*RE: Standard corner radius

### SPARE PARTS

Designation	Clamping screw	Wrench
JSCLCR/L**H06	CSTB-2.5	T-8F
JSCLCR/L**H09	CSTB-4SD	T-8F

Screw-on stepped-head toolholder with 95° approach angle, for positive 80° rhombic inserts



Cutting edge style L

Right hand (R) shown.

Designation	H	B	LF	L2	HBKL	LH	HF	WF	OAW	RE**	Insert	Torque*
JSCLCR1216F09-F15	12	16	85	12	27	12.5	12	15	28	0.2	CC**09T3...	1.2
JSCLCR1216X09-F15	12	16	120	12	27	12.5	12	15	28	0.2	CC**09T3...	1.2
JSCLCR1620X09-F15	16	20	120	12	27	12.5	16	15	28	0.2	CC**09T3...	1.2

\*Torque: Recommended torque (N-m) for clamping

\*\*RE: Standard corner radius

### SPARE PARTS

Designation	Clamping screw	Wrench
JSCLCR**F15	CSTB-4SD	T-8F

## INSERT SELECTION

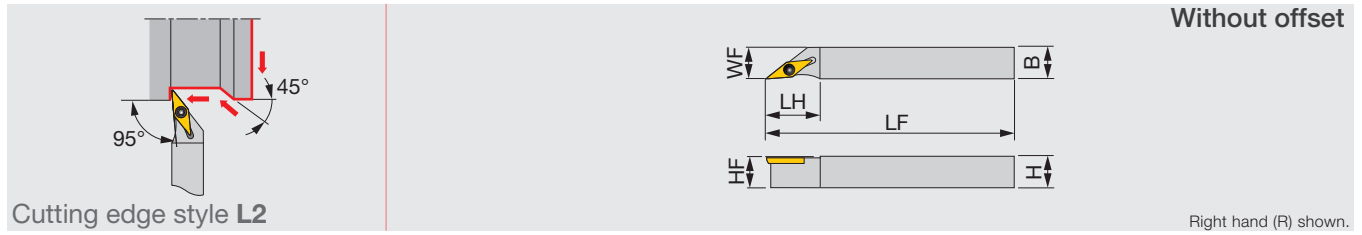
<b>P</b>	Application areas	Precision finishing	Finish cutting	Medium to finish cutting	Medium to finish cutting	<b>M</b>	Application areas	Precision finishing	Finish cutting	Medium to finish cutting	Medium to finish cutting
	Grade	SH725	SH725	AH725	SH725		Grade	SH725	SH725	AH725	SH725
<b>K</b>	Breaker Shape	01	JS	JS	J10	<b>N</b>	Breaker Shape	01	JS	JS	J10
	Cutting conditions	G053					Cutting conditions	G053			
<b>S</b>	Application areas	Medium to finish cutting				<b>H</b>	Application areas	Precision finishing	Finish cutting		
	Grade	T515					Grade	DX120	TH10	KS05F	
<b>S</b>	Breaker Shape	CM				<b>H</b>	Breaker Shape	T-DIA with rake	W20	AL	
	Cutting conditions	B022					Cutting conditions	B024			
<b>S</b>	Application areas	Finish cutting	Medium to finish cutting			<b>H</b>	Breaker Shape	T-CBN	T-CBN		
	Grade	SH725	AH725				Grade	BXM10	BXM20		
<b>S</b>	Breaker Shape	JS	JS			<b>H</b>	Breaker Shape	T-CBN	T-CBN		
	Cutting conditions	G053					Cutting conditions	B028			

Reference pages : JSCLCR/L, JSCLCR-F: Inserts → B109 -, CBN → B180, PCD → B194 -

Grade  
Insert  
Toolholder  
Ext. Toolholder  
Int. Toolholder  
Threading  
Grooving  
Miniature tool  
Milling cutter  
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Screw-on toolholder with 95° approach angle, for positive 35° rhombic inserts



Without offset

Right hand (R) shown.

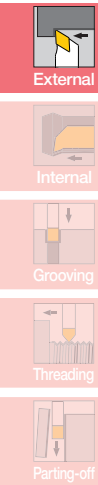
Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JSVL2PR/L1010X08	10	10	120	16	10	10	0.2	VP**0802...	0.6
JSVL2PR/L1010K08	10	10	125	16	10	10	0.2	VP**0802...	0.6
JSVL2PR/L1212F08	12	12	85	16	12	12	0.2	VP**0802...	0.6
JSVL2PR/L1212F11	12	12	85	21	12	12	0.2	VP**1103...	1.2
JSVL2PR/L1212X08	12	12	120	16	12	12	0.2	VP**0802...	0.6
JSVL2PR/L1212X11	12	12	120	21	12	12	0.2	VP**1103...	1.2
JSVL2PR/L1212K08	12	12	125	16	12	12	0.2	VP**0802...	0.6
JSVL2PR/L1616X08	16	16	120	16	16	16	0.2	VP**0802...	0.6
JSVL2PL1616K08	16	16	125	16	16	16	0.2	VP**0802...	0.6
JSVL2PR/L1616X11	16	16	120	21	16	16	0.2	VP**1103...	1.2

\*Torque: Recommended torque (N-m) for clamping

\*\*RE: Standard corner radius

### SPARE PARTS

Designation	Clamping screw	Wrench
JSVL2PR/L**08	CSTB-2L	T-6F
JSVL2PR/L**11	CSTB-2.5	T-8F



### INSERT SELECTION

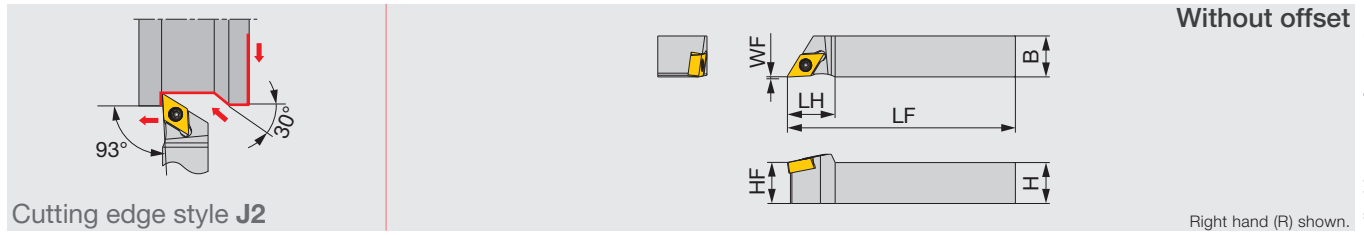
P	Application areas	Finish cutting	Finish cutting
	Grade	SH725	SH725
Breaker Shape	JRP	JSP	JSP
Cutting conditions G053			

M	Application areas	Finish cutting	Finish cutting
	Grade	SH725	SH725
Breaker Shape	JRP	JSP	JSP
Cutting conditions G053			

S	Application areas	Finish cutting	Finish cutting
	Grade	SH725	SH725
Breaker Shape	JRP	JSP	JSP
Cutting conditions G053			

Reference pages : JSVL2PR/L: Inserts → **B155 -**

Screw-on toolholder with 93° approach angle, for DXGU inserts



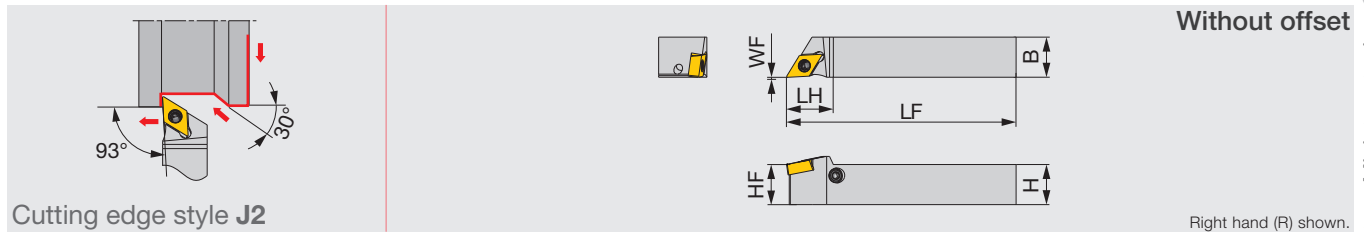
Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JSDJ2XR/L1010X07	10	10	120	14	10	0	0.2	DXGU0703**L/R...	0.9
JSDJ2XR/L1212F07	12	12	85	14	12	0	0.2	DXGU0703**L/R...	0.9
JSDJ2XR/L1212X07	12	12	120	14	12	0	0.2	DXGU0703**L/R...	0.9
JSDJ2XR/L1616X07	16	16	120	18	16	0	0.2	DXGU0703**L/R...	0.9
JSDJ2XR/L2020H07	20	20	100	18	20	0	0.2	DXGU0703**L/R...	0.9

\*Torque: Recommended torque (N-m) for clamping \*\*RE: Standard corner radius  
 Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

### SPARE PARTS

Designation	Clamping screw	Wrench
JSDJ2XR/L...	SR34-514	T-7F

Lever-lock toolholder with 93° approach angle, for DXGU inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JPDJ2XR/L1010X07	10	10	120	14	10	0	0.2	DXGU0703**L/R...	0.9
JPDJ2XR/L1212F07	12	12	85	14	12	0	0.2	DXGU0703**L/R...	0.9
JPDJ2XR/L1212X07	12	12	120	14	12	0	0.2	DXGU0703**L/R...	0.9
JPDJ2XR/L1616X07	16	16	120	18	16	0	0.2	DXGU0703**L/R...	0.9

\*Torque: Recommended torque (N-m) for clamping \*\*RE: Standard corner radius  
 Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

### SPARE PARTS

Designation	Lever	Pin	Clamping screw	Wrench
JPDJ2XR/L...	SLLV-2	SL-PI-2	SR10400611	HW2.0/5RED

## INSERT SELECTION

for Swiss lathes

Application areas	Finish cutting		Application areas	Medium to finish cutting	
	Grade	Breaker Shape		Grade	Breaker Shape
<b>P</b>	SH725	JS	<b>M</b>	SH725	JS
Grade	SH725	JS	Grade	SH725	JS
Breaker Shape			Breaker Shape		
Cutting conditions	G053		Cutting conditions	G053	

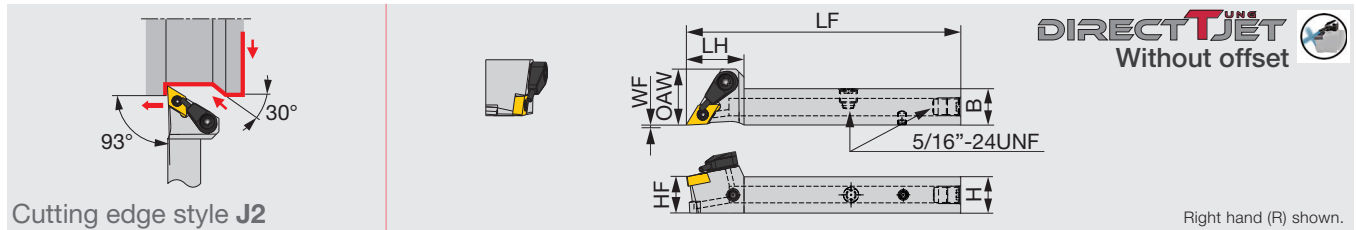
for Small CNC lathes

Application areas	Finish cutting		Application areas	Medium cutting	
	Grade	Breaker Shape		Grade	Breaker Shape
<b>P</b>	AH725	TS	<b>M</b>	AH8015	TS
Grade	AH725	TS	Grade	AH8015	TS
Breaker Shape			Breaker Shape		
Cutting conditions	G053		Cutting conditions	G053	

Reference pages : JSDJ2XR/L, JPDJ2XR/L: Inserts → B125 -, Standard cutting conditions → G054



Screw-on toolholder with 93° approach angle, for DXGU inserts, with high pressure coolant capability



Cutting edge style J2

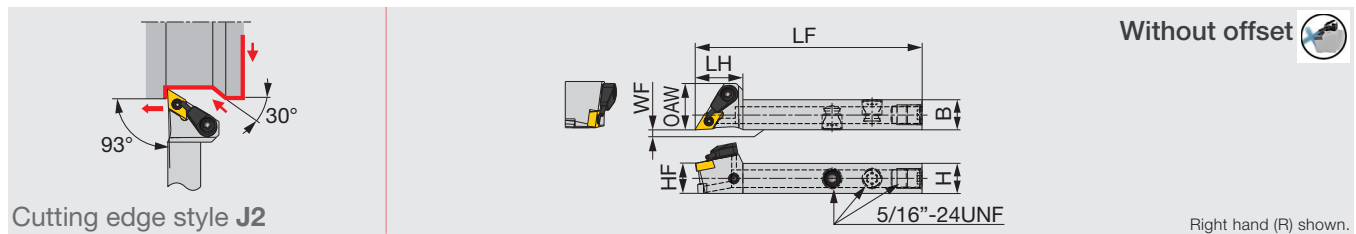
Designation	H	B	LF	LH	HF	WF	OAW	RE**	Insert	Torque*
JSDJ2XR1212X07-CHP	12	12	120	19	12	0	18.5	0.2	DXGU0703**L...	0.9
JSDJ2XR1616X07-CHP	16	16	120	19	16	0	18.5	0.2	DXGU0703**L...	0.9

\*Torque: Recommended torque (N-m) for clamping \*\*RE: Standard corner radius  
 Note: Use right-hand toolholders (R) with left-hand inserts (L).

### SPARE PARTS

Designation	Clamping screw	Coolant unit	Wrench 1	Coolant plug	Wrench 2	DirectJet plug	Wrench 3
JSDJ2XR**07-CHP	SR34-514	S-CU-CHP	T-7F	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2

Please see Tungaloy report (TR432) for tool overhang length and coolant plug.



Cutting edge style J2

Designation	H	B	LF	LH	HF	WF	OAW	RE**	Insert	Torque*
JSDJ2XR/L1212F07-CHP	12	12	85	19	12	0	18.5	0.2	DXGU0703**L/R...	0.9

\*Torque: Recommended torque (N-m) for clamping  
 \*\*RE: Standard corner radius  
 Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

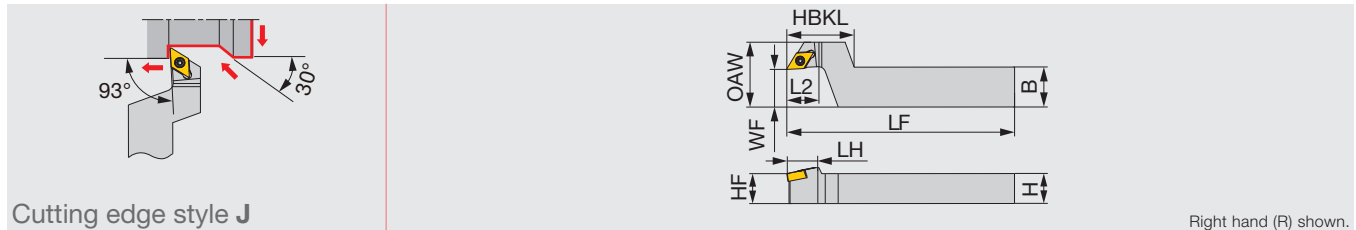
### SPARE PARTS

Designation	Clamping screw	Coolant unit	Wrench 1	Coolant plug	Wrench 2
JSDJ2XR/L1212F07-CHP	SR34-514	S-CU-CHP	T-7F	SR5/16UNFTL360	P-4

Reference pages : JSDJ2XR-CHP: Inserts → **B125** -, Standard cutting conditions → **G054**



Screw-on stepped-head toolholder with 93° approach angle, for DXGU inserts



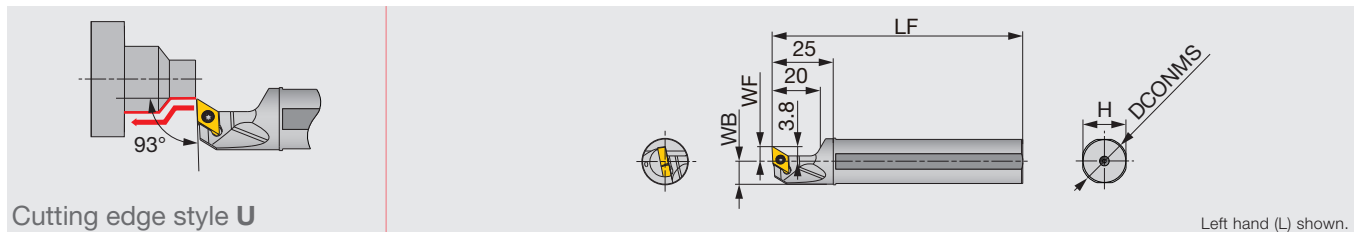
Designation	H	B	LF	L2	HBKL	LH	HF	WF	OAW	RE**	Insert	Torque*
JSDJXR1016X07-F15	10	16	120	12	27	14	10	15	26	0.2	DXGU0703**L...	0.9
JSDJXR1216F07-F15	12	16	85	12	27	14	12	15	26	0.2	DXGU0703**L...	0.9
JSDJXR1216X07-F15	12	16	120	12	27	14	12	15	26	0.2	DXGU0703**L...	0.9
JSDJXR1620X07-F15	16	20	120	12	27	14	16	15	26	0.2	DXGU0703**L...	0.9

\*Torque: Recommended torque (N-m) for clamping \*\*RE: Standard corner radius  
Note: Use right-hand toolholders (R) with left-hand inserts (L).

### SPARE PARTS

Designation	Clamping screw	Wrench
JSDJXR**-F15	SR34-514	T-7F

Screw-on round-shank toolholder with 93° approach angle, for DXGU inserts



Designation	DCONMS	WF	LF	H	WB	RE**	Insert	Torque*
JS14H-SDUXL07	14	6	100	13	6.75	0.2	DXGU0703**L...	0.9
JS159F-SDUXL07	15.875	6	85	15	7.687	0.2	DXGU0703**L...	0.9
JS16F-SDUXL07	16	6	85	15	7.75	0.2	DXGU0703**L...	0.9
JS19G-SDUXL07	19.05	6	90	18	9.275	0.2	DXGU0703**L...	0.9
JS19X-SDUXL07	19.05	6	120	18	9.275	0.2	DXGU0703**L...	0.9
JS20G-SDUXL07	20	6	90	19	9.75	0.2	DXGU0703**L...	0.9
JS20X-SDUXL07	20	6	120	19	9.75	0.2	DXGU0703**L...	0.9
JS22X-SDUXL07	22	10	120	21	10.75	0.2	DXGU0703**L...	0.9
JS25H-SDUXL07	25	10	100	24	12.25	0.2	DXGU0703**L...	0.9
JS254X-SDUXL07	25.4	10	120	24	12.45	0.2	DXGU0703**L...	0.9

### SPARE PARTS

Designation	Clamping screw	Wrench
JS**-SDUXL07	SR34-514	T-7F

\*Torque: Recommended torque (N-m) for clamping \*\*RE: Standard corner radius  
Note: Use left-hand toolholders (L) with left-hand inserts (L).

## INSERT SELECTION

for Swiss lathes

P	Application areas	Finish cutting	Medium to finish cutting	M	Application areas	Finish cutting	Medium to finish cutting
	Grade	SH725	SH725		SH725	Grade	SH725
Breaker Shape	JSS	JS	JS	Breaker Shape	JSS	JS	JS
Cutting conditions	G053			Cutting conditions	G053		

for Small CNC lathes

P	Application areas	Finish cutting	Medium cutting	M	Application areas	Finish cutting	Medium cutting
	Grade	AH725	AH725		AH8015	Grade	AH8015
Breaker Shape	SS	TS	TS	Breaker Shape	SS	TS	TS
Cutting conditions	G053			Cutting conditions	G053		

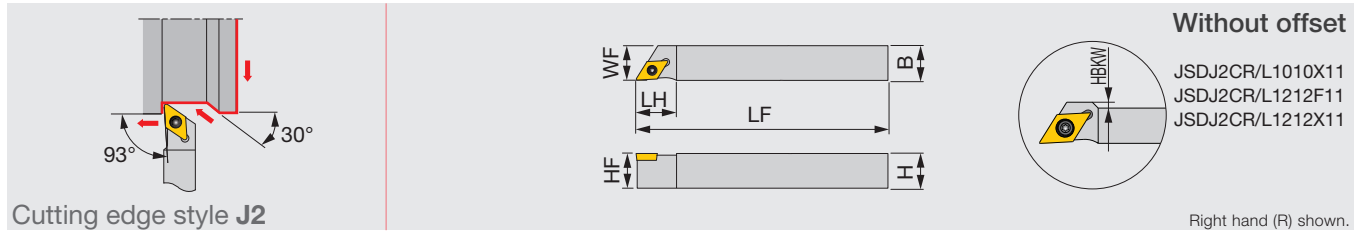
Reference pages : JSDJXR-F, JS-SDUXL: Inserts → **B125** -, Standard cutting conditions → **G054**



# J-SERIES

## JSDJ2CR/L

Screw-on toolholder with 93° approach angle, for positive 55° rhombic inserts



Cutting edge style J2

Right hand (R) shown.

Designation	H	B	LF	LH	HF	WF	HBKW	RE**	Insert	Torque*
JSDJ2CR/L0808F07	8	8	85	14	8	8	-	0.2	DC**0702...	1.2
JSDJ2CR/L1010X07	10	10	120	14	10	10	-	0.2	DC**0702...	1.2
JSDJ2CR/L1010X11	10	10	120	20	10	10	4	0.2	DC**11T3...	1.2
JSDJ2CR/L1212F07	12	12	85	14	12	12	-	0.2	DC**0702...	1.2
JSDJ2CR/L1212F11	12	12	85	20	12	12	2	0.2	DC**11T3...	1.2
JSDJ2CR/L1212X07	12	12	120	14	12	12	-	0.2	DC**0702...	1.2
JSDJ2CR/L1212X11	12	12	120	20	12	12	2	0.2	DC**11T3...	1.2
JSDJ2CR/L1616X11	16	16	120	20	16	16	-	0.2	DC**11T3...	1.2

\*Torque: Recommended torque (N-m) for clamping

\*\*RE: Standard corner radius

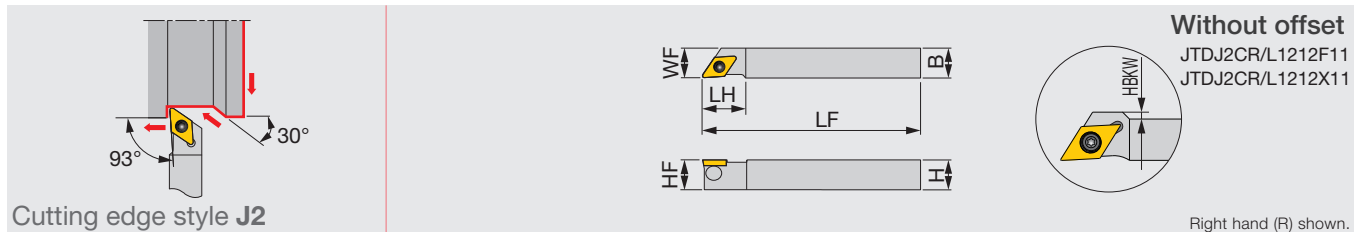
### SPARE PARTS

Designation	Clamping screw	Wrench
JSDJ2CR/L**07	CSTB-2.5	T-8F
JSDJ2CR/L**11	CSTB-4SD	T-8F

# J-SERIES

## JTDJ2CR/L

Back-clamp toolholder with 93° approach angle, for positive 55° rhombic inserts



Cutting edge style J2

Right hand (R) shown.

Designation	H	B	LF	LH	HF	WF	HBKW	RE**	Insert	Torque*
JTDJ2CR/L1010X07	10	10	120	14	10	10	-	0.2	DC**0702...	0.9
JTDJ2CR/L1212F07	12	12	85	14	12	12	-	0.2	DC**0702...	0.9
JTDJ2CR/L1212X07	12	12	120	14	12	12	-	0.2	DC**0702...	0.9
JTDJ2CR/L1212F11	12	12	85	20	12	12	2	0.2	DC**11T3...	1.2
JTDJ2CR/L1212X11	12	12	120	20	12	12	2	0.2	DC**11T3...	1.2
JTDJ2CR/L1616X11	16	16	120	20	16	16	-	0.2	DC**11T3...	1.2

\*Torque: Recommended torque (N-m) for clamping

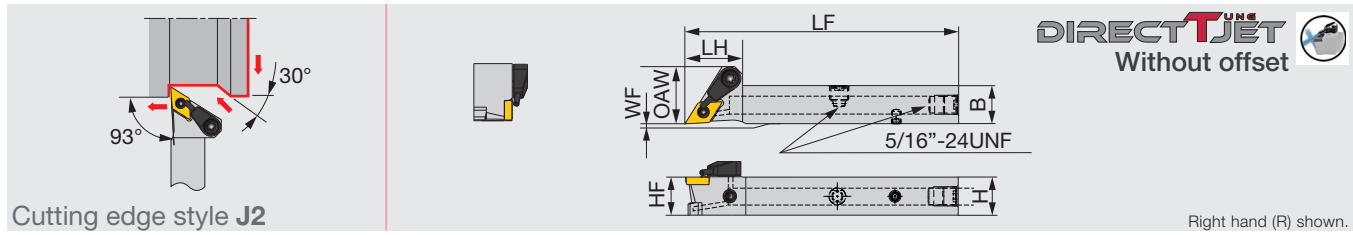
\*\*RE: Standard corner radius

### SPARE PARTS

Designation	Clamp	Clamping screw	Wrench
JTDJ2CR/L**07	JCP-2	JDS-3525	P-2F
JTDJ2CR/L**11	JCP-3	JDS-5040	P-2.5F

Reference pages : JSDJ2CR/L, JTDJ2CR/L: Inserts → B119 -, CBN → B182-, PCD → B194 -

Screw-on toolholder with 93° approach angle, for positive 55° rhombic inserts, with high pressure coolant capability

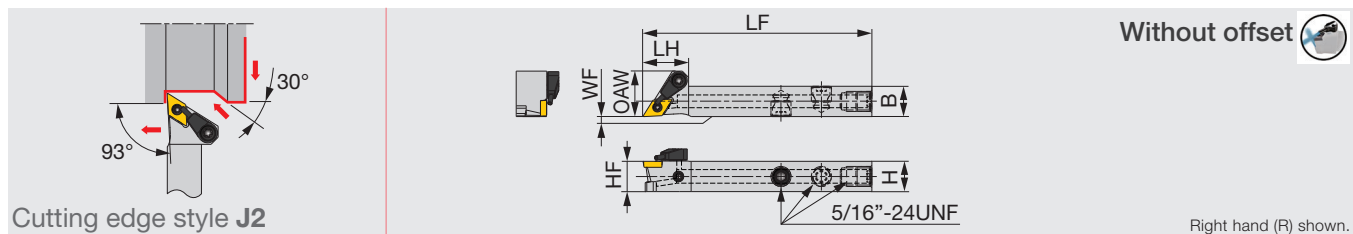


Designation	H	B	LF	LH	HF	WF	OAW	RE	Insert	Torque*
JSDJ2CR1212X11-CHP	12	12	120	19	12	0	20.5	0.2	DC**11T3...	1.2
JSDJ2CR1616X11-CHP	16	16	120	19	16	0	20.5	0.2	DC**11T3...	1.2

\*Torque: Recommended torque (N-m) for clamping \*\*RE: Standard corner radius

Designation	Clamping screw	Coolant unit	Wrench 1	Coolant plug	Wrench 2	DirectJet plug	Wrench 3
JSDJ2CR**11-CHP	CSTB-4SD	S-CU-CHP	T-8F	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2

Please see Tungaloy report (TR432) for tool overhang length and coolant plug.



Designation	H	B	LF	LH	HF	WF	OAW	RE**	Insert	Torque*
JSDJ2CR/L1212F07-CHP	12	12	85	18	12	0	18	0.2	DC**0702...	0.9
JSDJ2CR/L1212F11-CHP	12	12	85	19	12	0	20.5	0.2	DC**11T3...	0.9

\*Torque: Recommended torque (N-m) for clamping \*\*RE: Standard corner radius

Designation	Clamping screw	Coolant unit	Wrench 1	Coolant plug	Wrench 2
JSDJ2CR**11-CHP	CSTB-4SD	S-CU-CHP	T-8F	SR5/16UNFTL360	P-4

## INSERT SELECTION

<b>P</b>	Application areas	Precision finishing	Finish cutting	Medium to finish cutting	Medium to finish cutting	<b>M</b>	Application areas	Precision finishing	Finish cutting	Medium to finish cutting	Medium to finish cutting
	Grade	SH725	SH725	AH725	SH725		Grade	SH725	SH725	AH725	SH725
	Breaker Shape	01	JS	JS	J10		Breaker Shape	01	JS	JS	J10
	Cutting conditions	G053					Cutting conditions	G053			
<b>K</b>	Application areas	Medium to finish cutting				<b>N</b>	Application areas	Precision finishing	Medium cutting		
	Grade	T515					Grade	DX120	KS05F		
	Breaker Shape	CM					Breaker Shape	T-DIA with rake	AL		
	Cutting conditions	B022					Cutting conditions	B024			
<b>S</b>	Application areas	Finish cutting	Medium to finish cutting			<b>H</b>	Application areas	Precision finishing	Finish cutting		
	Grade	SH725	AH725				Grade	BXM10	BXM20		
	Breaker Shape	JS	JS				Breaker Shape	T-CBN	T-CBN		
	Cutting conditions	G053					Cutting conditions	B028			

Reference pages : JSDJ2CR/L-CHP: Inserts → **B119** -, CBN → **B182** -, PCD → **B194** -

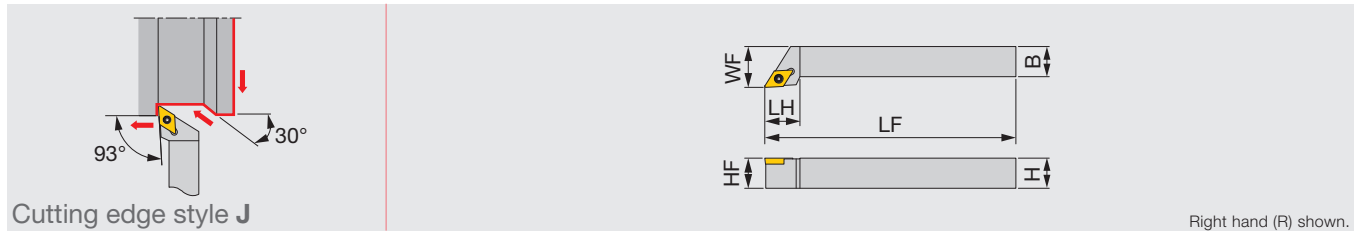
Grade  
Insert  
Ext. Toolholder  
Int. Toolholder  
Threading  
Grooving  
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Milling cutter  
Endmill  
Drilling tool  
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# J-SERIES

## JSDJCR/L

Screw-on toolholder with 93° approach angle, for positive 55° rhombic inserts



Right hand (R) shown.

Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JSDJCR/L0808H07	8	8	100	14	8	10	0.4	DC**0702...	1.2
JSDJCR/L1010H11	10	10	100	18	10	12	0.8	DC**11T3...	1.2
JSDJCR/L1212H07	12	12	100	14	12	16	0.4	DC**0702...	1.2
JSDJCR/L1212H11	12	12	100	18	12	16	0.8	DC**11T3...	1.2
JSDJCR/L1616H11	16	16	100	18	16	20	0.8	DC**11T3...	1.2

### SPARE PARTS

Designation	Clamping screw	Wrench
JSDJC**H07	CSTB-2.5	T-8F
JSDJC**H11	CSTB-4SD	T-8F

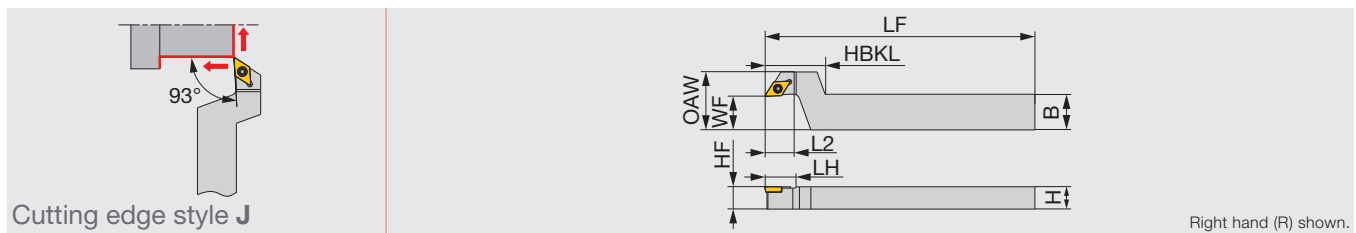
\*Torque: Recommended torque (N·m) for clamping

\*\*RE: Standard corner radius

# J-SERIES

## JSDJCR-F

Screw-on stepped-head toolholder with 93° approach angle, for positive 55° rhombic inserts



Right hand (R) shown.

Designation	H	B	LF	L2	HBKL	LH	HF	WF	OAW	RE**	Insert	Torque*
JSDJCR1016X07-F15	10	16	120	12.5	27	14	10	15	26	0.2	DC**0702...	1.2
JSDJCR1216F07-F15	12	16	85	12.5	27	14	12	15	26	0.2	DC**0702...	1.2
JSDJCR1216X07-F15	12	16	120	12.5	27	14	12	15	26	0.2	DC**0702...	1.2
JSDJCR1216F11-F15	12	16	85	12.5	27	20	12	15	28	0.2	DC**11T3...	1.2
JSDJCR1216X11-F15	12	16	120	12.5	27	20	12	15	28	0.2	DC**11T3...	1.2
JSDJCR1620X11-F15	16	20	120	12.5	27	20	16	15	28	0.2	DC**11T3...	1.2

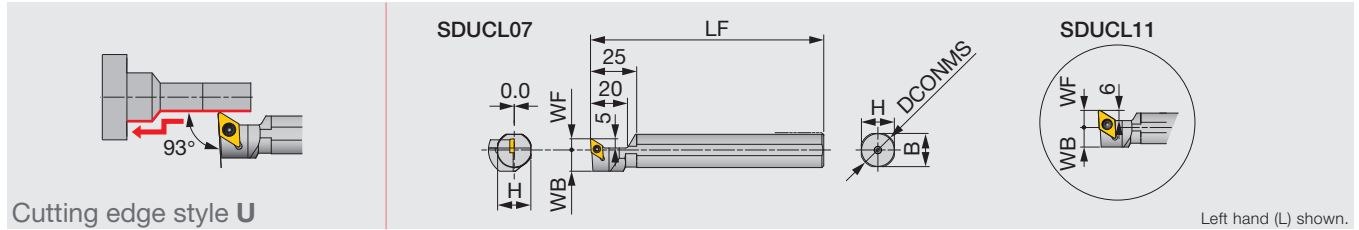
### SPARE PARTS

Designation	Clamping screw	Wrench
JSDJCR**07-F15	CSTB-2.5	T-8F
JSDJCR**11-F15	CSTB-4SD	T-8F

\*Torque: Recommended torque (N·m) for clamping

\*\*RE: Standard corner radius

Reference pages : JSDJCR/L, JSDJCR-F: Inserts → **B119 -**, CBN → **B182 -**, PCD → **B194 -**



Designation	DCONMS	WF	LF	H	B	WB	RE**	Insert	Torque*
JS19K-SDUCL07	19.05	6	125	18	18	11.5	0.4	DC**0702...	1.2
JS20K-SDUCL07	20	6	125	19	19	11.5	0.4	DC**0702...	1.2
JS22K-SDUCL07	22	6	125	21	21	11.5	0.4	DC**0702...	1.2
JS19K-SDUCL11	19.05	10	125	18	18	11.5	0.8	DC**11T3...	1.2
JS20K-SDUCL11	20	10	125	19	19	11.5	0.8	DC**11T3...	1.2
JS22K-SDUCL11	22	11	125	21	21	11.5	0.8	DC**11T3...	1.2
JS25K-SDUCL11	25.4	12	125	24	24	12.7	0.8	DC**11T3...	1.2

\*Torque: Recommended torque (N-m) for clamping  
 \*\*RE: Standard corner radius

Designation	Clamping screw	Wrench
JS**K-SDUCL07	CSTB-2.5	T-8F
JS**K-SDUCL11	CSTB-4SD	T-8F

### INSERT SELECTION

<b>P</b>	Application areas	Precision finishing	Finish cutting	Medium to finish cutting	Medium to finish cutting
	Grade	SH725	SH725	AH725	SH725
	Breaker Shape	01	JS	JS	J10
	Cutting conditions	G053			
<b>K</b>	Application areas	Medium to finish cutting			
	Grade	T515			
	Breaker Shape	CM			
	Cutting conditions	B022			
<b>S</b>	Application areas	Finish cutting	Medium to finish cutting		
	Grade	SH725	AH725		
	Breaker Shape	JS	JS		
	Cutting conditions	G053			
<b>M</b>	Application areas	Precision Finishing	Finish cutting	Medium to finish cutting	Medium to finish cutting
	Grade	SH725	SH725	AH725	SH725
	Breaker Shape	01	JS	JS	J10
	Cutting conditions	G053			
<b>N</b>	Application areas	Precision finishing	Finish cutting	Medium cutting	
	Grade	DX120	DX140	KS05F	
	Breaker Shape	T-DIA	with rake T-DIA	AL	
	Cutting conditions	B024			
<b>H</b>	Application areas	Precision finishing	Finish cutting		
	Grade	BXM10	BXM10		
	Breaker Shape	T-CBN	T-CBN		
	Cutting conditions	B028			

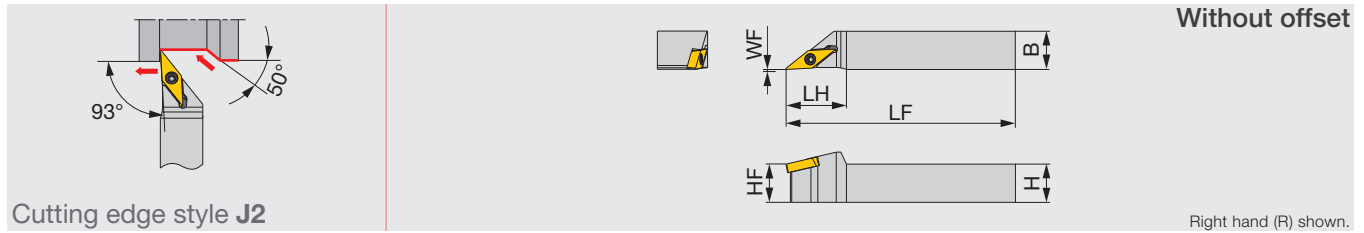
Reference pages : JS-SDUCL: Inserts → **B119 -**, CBN → **B182 -**, PCD → **B194 -**



# MINIFORCE

## JSVJ2XR/L

Screw-on toolholder with 93° approach angle, for VXGU inserts



Cutting edge style J2

Right hand (R) shown.

Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JSVJ2XR/L1010X09	10	10	120	17	10	0	0.2	VXGU09T2**L/R...	0.9
JSVJ2XR/L1212F09	12	12	85	19	12	0	0.2	VXGU09T2**L/R...	0.9
JSVJ2XR/L1212X09	12	12	120	19	12	0	0.2	VXGU09T2**L/R...	0.9
JSVJ2XR/L1616X09	16	16	120	19	16	0	0.2	VXGU09T2**L/R...	0.9
JSVJ2XR/L2020H09	20	20	100	19	20	0	0.2	VXGU09T2**L/R...	0.9

### SPARE PARTS

Designation	Clamping screw	Wrench
JSVJ2XR/L...	SR34-508	T-7F

\*Torque: Recommended torque (N-m) for clamping \*\*RE: Standard corner radius  
 Note: Use right-hand toolholders (R) with left-hand inserts (L).  
 Use left-hand toolholders (L) with right-hand inserts (R).



External



Internal



Grooving



Threading



Parting-off



L



J



N



P



A



G



D



F

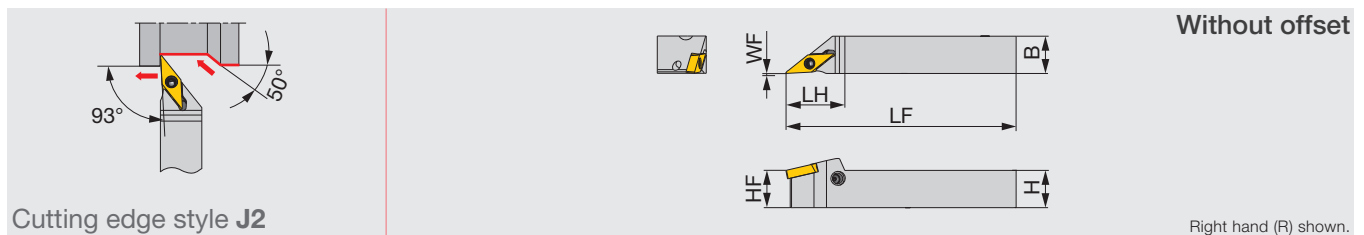


Special

# MINIFORCE

## JPVJ2XR/L

Lever-lock toolholder with 93° approach angle, for VXGU inserts



Cutting edge style J2

Right hand (R) shown.

Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JPVJ2XR/L1010X09	10	10	120	19	10	0	0.2	VXGU09T2**L/R...	0.9
JPVJ2XR/L1212F09	12	12	85	19	12	0	0.2	VXGU09T2**L/R...	0.9
JPVJ2XR/L1212X09	12	12	120	19	12	0	0.2	VXGU09T2**L/R...	0.9
JPVJ2XR/L1616X09	16	16	120	19	16	0	0.2	VXGU09T2**L/R...	0.9

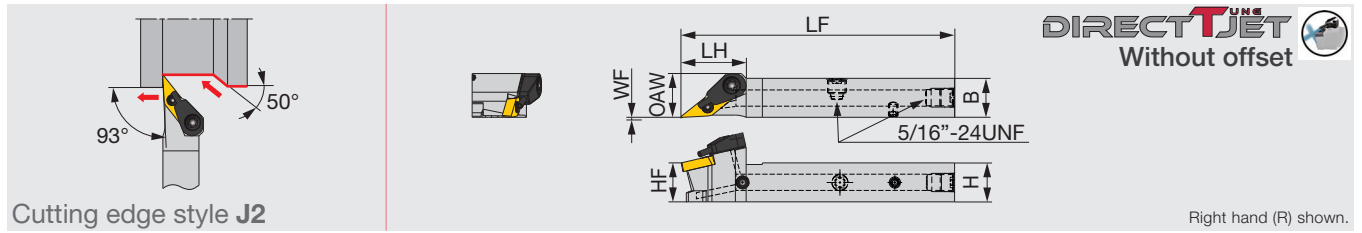
### SPARE PARTS

Designation	Lever	Pin	Clamping screw	Wrench
JPVJ2XR/L...	SLLV-1	SL-PI-2	SR10400611	HW2.0/5RED

\*Torque: Recommended torque (N-m) for clamping \*\*RE: Standard corner radius  
 Note: Use right-hand toolholders (R) with left-hand inserts (L).  
 Use left-hand toolholders (L) with right-hand inserts (R).

Reference pages : JSVJ2XR/L, JPVJ2XR/L: Inserts → **B156**, Standard cutting conditions → **G054**

Screw-on toolholder with 93° approach angle, for VXGU inserts, with high pressure coolant capability



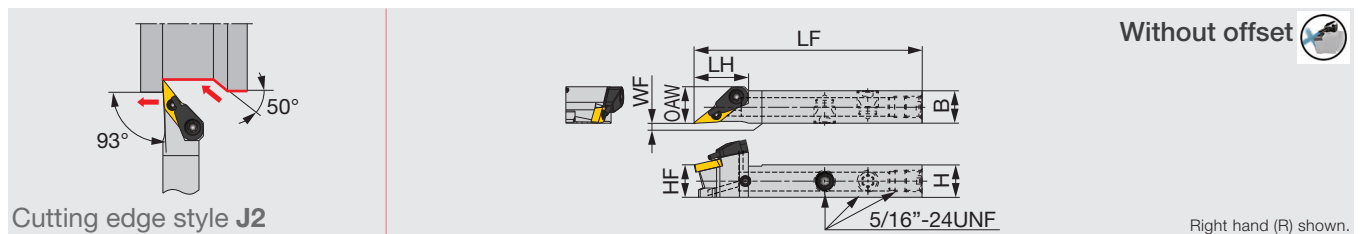
Designation	H	B	LF	LH	HF	WF	OAW	RE**	Insert	Torque*
JSVJ2XR1212X09-CHP	12	12	120	19.5	12	0	13.4	0.2	VXGU09T2**L...	0.9
JSVJ2XR1616X09-CHP	16	16	120	19.5	16	0	16	0.2	VXGU09T2**L...	0.9

\*Torque: Recommended torque (N-m) for clamping \*\*RE: Standard corner radius  
Note: Use right-hand toolholders (R) with left-hand inserts (L).

**SPARE PARTS**

Designation	Clamping screw	Coolant unit	Wrench 1	Coolant plug	Wrench 2	DirectJet plug	Wrench 3
JSVJ2XR**F09-CHP	SR34-508	S-CU-CHP	T-7F	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2

Please see Tungaloy report (TR432) for tool overhang length and coolant plug.



Designation	H	B	LF	LH	HF	WF	OAW	RE**	Insert	Torque*
JSVJ2XR/L1212F09-CHP	12	12	85	20	12	0	13.5	0.2	VXGU09T2**L/R...	0.9

\*Torque: Recommended torque (N-m) for clamping  
\*\*RE: Standard corner radius  
Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

**SPARE PARTS**

Designation	Clamping screw	Coolant unit	Wrench 1	Coolant plug	Wrench 2
JSVJ2XR**F09-CHP	SR34-508	S-CU-CHP	T-7F	SR5/16UNFTL360	P-4

**INSERT SELECTION**

Application areas	Finish cutting	Medium to finish cutting
	Grade	SH725
Breaker Shape	JRP	JS
Cutting conditions	G053	

Application areas	Finish cutting	Medium to finish cutting
	Grade	SH725
Breaker Shape	JRP	JS
Cutting conditions	G053	

Reference pages : JSVJ2XR/L-CHP: Inserts → **B156**, Standard cutting conditions → **G054**

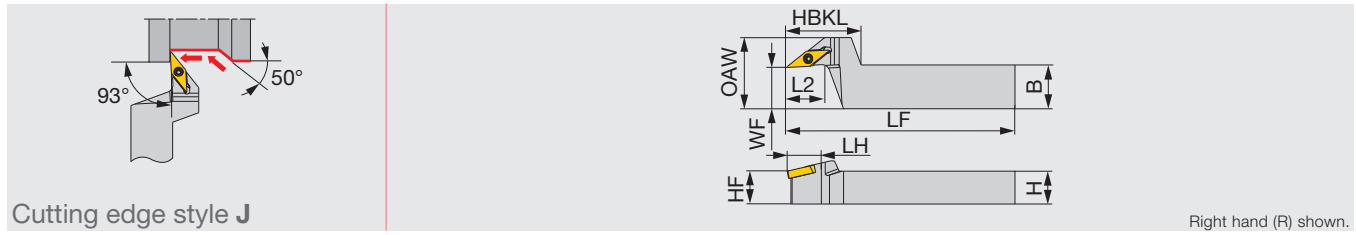
Grade  
Insert  
Ext. Toolholder  
Int. Toolholder  
Threading  
Grooving  
Miniature tool  
Milling cutter  
Endmill  
Drilling tool  
Tooling System  
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M

# MINIFORCE

## JSVJXR-F

Screw-on stepped-head toolholder with 93° approach angle, for VXGU inserts



Designation	H	B	LF	L2	HBKL	LH	HF	WF	OAW	RE**	Insert	Torque*
JSVJXR1016X09-F15	10	16	120	12	27	19	10	15	26	0.2	VXGU09T2**L...	0.9
JSVJXR1216F09-F15	12	16	85	12	27	19	12	15	26	0.2	VXGU09T2**L...	0.9
JSVJXR1216X09-F15	12	16	120	12	27	19	12	15	26	0.2	VXGU09T2**L...	0.9
JSVJXR1620X09-F15	16	20	120	12	27	19	16	15	26	0.2	VXGU09T2**L...	0.9

\*Torque: Recommended torque (N-m) for clamping \*\*RE: Standard corner radius  
 Note: Use right-hand toolholders (R) with left-hand inserts (L).

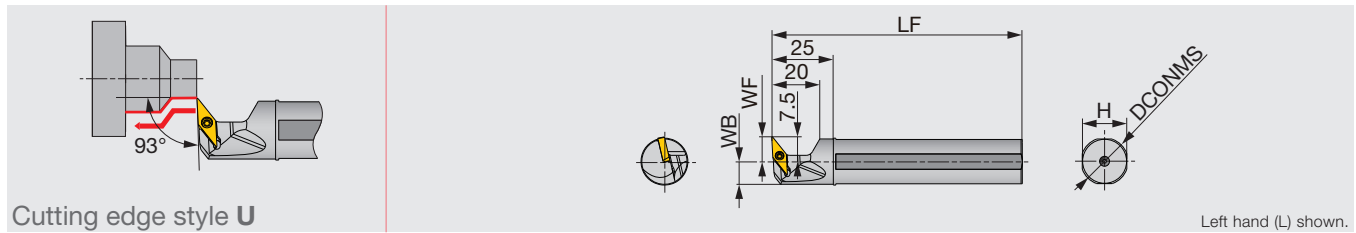
### SPARE PARTS

Designation	Clamping screw	Wrench
JSVJXR**-F15	SR34-508	T-7F

# MINIFORCE

## JS-SVUXL

Screw-on round-shank toolholder with 93° approach angle, for VXGU inserts



Designation	DCONMS	WF	LF	H	WB	RE**	Insert	Torque*
JS159F-SVUXL09	15.875	10	85	15	7.7	0.2	VXGU09T2**L...	0.9
JS16F-SVUXL09	16	10	85	15	7.7	0.2	VXGU09T2**L...	0.9
JS19G-SVUXL09	19.05	10	90	18	9.2	0.2	VXGU09T2**L...	0.9
JS19X-SVUXL09	19.05	10	120	18	9.2	0.2	VXGU09T2**L...	0.9
JS20G-SVUXL09	20	10	90	19	9.7	0.2	VXGU09T2**L...	0.9
JS20X-SVUXL09	20	10	120	19	9.7	0.2	VXGU09T2**L...	0.9
JS22X-SVUXL09	22	10	120	21	10.7	0.2	VXGU09T2**L...	0.9
JS25H-SVUXL09	25	10	100	24	12.2	0.2	VXGU09T2**L...	0.9
JS254X-SVUXL09	25.4	10	120	24	12.4	0.2	VXGU09T2**L...	0.9

### SPARE PARTS

Designation	Clamping screw	Wrench
JS**-SVUXL09	SR34-508	T-7F

\*Torque: Recommended torque (N-m) for clamping \*\*RE: Standard corner radius  
 Note: Use left-hand toolholders (L) with left-hand inserts (L).

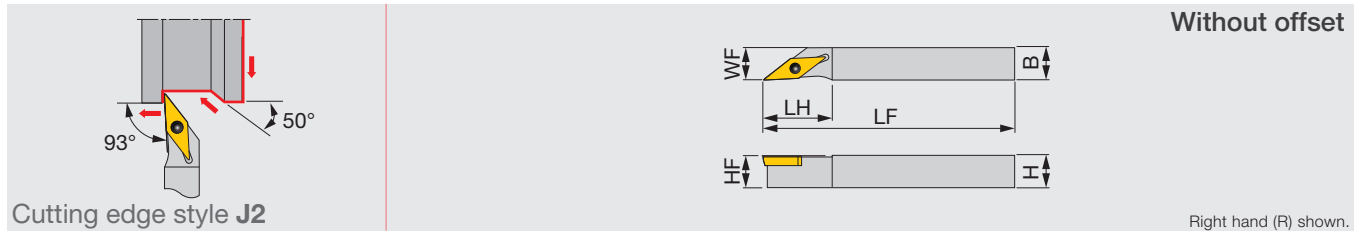
### INSERT SELECTION

Application areas	Finish cutting		Medium to finish cutting	
	Grade	SH725	Grade	SH725
Breaker Shape	JRP	JS	JRP	JS
Cutting conditions	G053			

Reference pages : JSVJXR-F, JS-SVUXL: Inserts → **B156**, Standard cutting conditions → **G054**



Screw-on toolholder with 93° approach angle, for positive 35° rhombic inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JSVJ2BR/L1010X11	10	10	120	21	10	10	0.2	VB**1103...	1.2
JSVJ2BR/L1212F11	12	12	85	21	12	12	0.2	VB**1103...	1.2
JSVJ2BR/L1212X11	12	12	120	21	12	12	0.2	VB**1103...	1.2
JSVJ2BR/L1616X11	16	16	120	21	16	16	0.2	VB**1103...	1.2

\*Torque: Recommended torque (N-m) for clamping

\*\*RE: Standard corner radius

### SPARE PARTS

Designation	Clamping screw	Wrench
JSVJ2BR/L...	CSTB-2.5	T-8F

## INSERT SELECTION

**P** Application areas: Finish cutting, Medium to finish cutting, Medium to finish cutting  
 Grade: SH725, AH725, SH725  
 Breaker Shape: JS, JS, J10  
 Cutting conditions: G053

**M** Application areas: Finish cutting, Medium to finish cutting, Medium to finish cutting  
 Grade: SH725, AH725, SH725  
 Breaker Shape: JS, JS, J10  
 Cutting conditions: G053

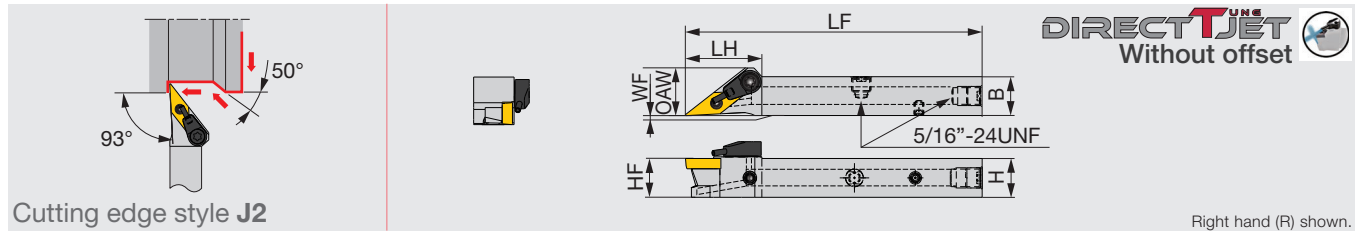
**K** Application areas: Medium to finish cutting  
 Grade: T515  
 Breaker Shape: CM  
 Cutting conditions: B022

**S** Application areas: Finish cutting, Medium to finish cutting  
 Grade: SH725, AH725  
 Breaker Shape: JS, JS  
 Cutting conditions: G053

**H** Application areas: Precision finishing, Finish cutting  
 Grade: BXM10, BXM10  
 Breaker Shape: T-CBN, T-CBN  
 Cutting conditions: B028

Reference pages : JSVJ2BR/L-CHP: Inserts → B150 -, CBN → B189 -

Screw-on toolholder with 93° approach angle, for positive 35° rhombic inserts, with high pressure coolant capability



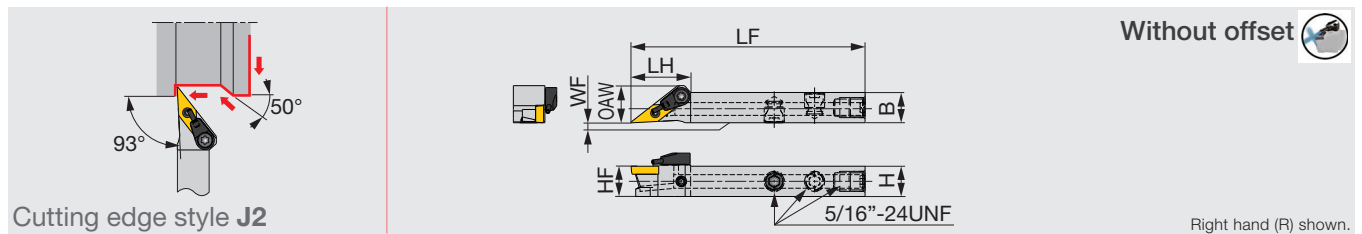
Designation	H	B	LF	LH	HF	WF	OAW	RE	Insert	Torque*
JSVJ2BR1212X11-CHP	12	12	120	23.6	12	0	14.7	0.2	VB**1103	1.2
JSVJ2BR1616X11-CHP	16	16	120	23.6	16	0	16	0.2	VB**1103	1.2

\*Torque: Recommended torque (N-m) for clamping \*\*RE: Standard corner radius

### SPARE PARTS

Designation	Clamping screw	Coolant unit	Wrench 1	Coolant plug	Wrench 2	DirectJet plug	Wrench 3
JSVJ2B**11-CHP	CSTB-2.5	S-CU-CHP	T-8F	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2

Please see Tungaloy report (TR432) for tool overhang length and coolant plug.



Designation	H	B	LF	LH	HF	WF	OAW	RE**	Insert	Torque*
JSVJ2BR/L1212F11-CHP	12	12	85	23.6	12	0	14.7	0.2	VB**1103...	1.2

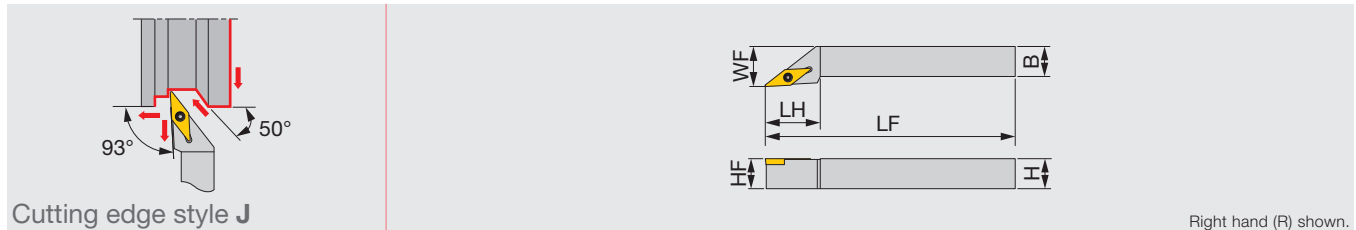
\*Torque: Recommended torque (N-m) for clamping \*\*RE: Standard corner radius

### SPARE PARTS

Designation	Clamping screw	Coolant unit	Wrench 1	Coolant plug	Wrench 2
JSVJ2B**11-CHP	CSTB-2.5	S-CU-CHP	T-8F	SR5/16UNFTL360	P-4

Reference pages : JSVJ2BR/L-CHP: Inserts → **B150 -**, CBN → **B189 -**

Screw-on toolholder with 93° approach angle, for positive 35° rhombic inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JSVJBR/L1010H11	10	10	100	20	10	12	0.4	VB**1103...	1.2
JSVJBR/L1212H11	12	12	100	22	12	16	0.4	VB**1103...	1.2
JSVJBR/L1616H11	16	16	100	22	16	20	0.4	VB**1103...	1.2

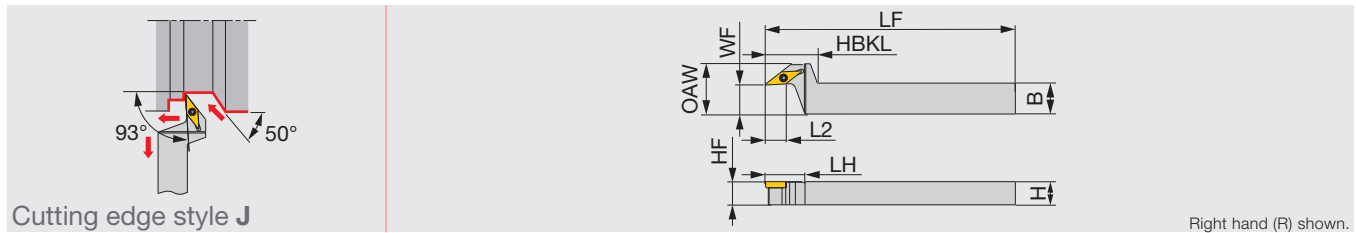
\*Torque: Recommended torque (N-m) for clamping

\*\*RE: Standard corner radius

### SPARE PARTS

Designation	Clamping screw	Wrench
JSVJBR/L...	CSTB-2.5	T-8F

Screw-on stepped-head toolholder with 93° approach angle, for positive 35° rhombic inserts



Designation	H	B	LF	L2	HBKL	LH	HF	WF	OAW	RE**	Insert	Torque*
JSVJBR1216F11-F15	12	16	85	12.6	27	21	12	15	26	0.2	VB**1103...	1.2
JSVJBR1216X11-F15	12	16	120	12.6	27	21	12	15	26	0.2	VB**1103...	1.2
JSVJBR1620X11-F15	16	20	120	12.6	27	21	16	15	26	0.2	VB**1103...	1.2

\*Torque: Recommended torque (N-m) for clamping

\*\*RE: Standard corner radius

### SPARE PARTS

Designation	Clamping screw	Wrench
JSVJBR**F15	CSTB-2.5	T-8F

## INSERT SELECTION

**P** Application areas: Finish cutting, Medium to Finish cutting, Medium to finish cutting  
 Grade: JS SH725, JS AH725, J10 SH725  
 Breaker Shape: [Images of breakers]  
 Cutting conditions: G053

**M** Application areas: Finish cutting, Medium to finish cutting, Medium to finish cutting  
 Grade: JS SH725, JS AH725, J10 SH725  
 Breaker Shape: [Images of breakers]  
 Cutting conditions: G053

**K** Application areas: Medium to finish cutting  
 Grade: CM T515  
 Breaker Shape: [Image of breaker]  
 Cutting conditions: B022

**S** Application areas: Finish cutting, Medium to finish cutting  
 Grade: JS SH725, JS AH725  
 Breaker Shape: [Images of breakers]  
 Cutting conditions: G053

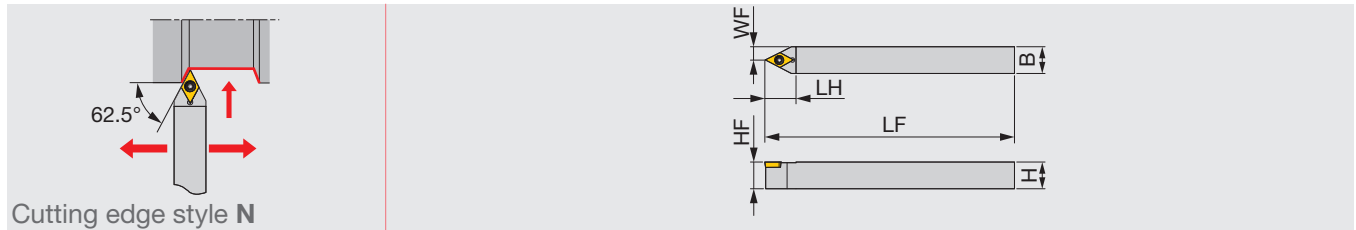
**H** Application areas: Precision finishing, Finish cutting  
 Grade: T-CBN BXM10, T-CBN BXM10  
 Breaker Shape: [Images of breakers]  
 Cutting conditions: B028

Reference pages : JSVJBR/L, JSVJBR-F: Inserts → B150 -, CBN → B189 -

Grade  
Insert  
Toolholder  
Ext. Toolholder  
Int. Toolholder  
Threading  
Grooving  
Miniature tool  
Milling cutter  
Endmill  
Drilling tool  
Tooling System  
User's Guide  
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Screw-on toolholder with 62.5° approach angle, for positive 55° rhombic inserts



Cutting edge style N

Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JSDNCN1010X07	10	10	120	15	10	5	0.2	DC**0702...	1.2
JSDNCN1010X11	10	10	120	21	10	5	0.2	DC**11T3...	1.2
JSDNCN1212F07	12	12	85	15	12	6	0.2	DC**0702...	1.2
JSDNCN1212X07	12	12	120	15	12	6	0.2	DC**0702...	1.2
JSDNCN1212F11	12	12	85	21	12	6	0.2	DC**11T3...	1.2
JSDNCN1212X11	12	12	120	21	12	6	0.2	DC**11T3...	1.2
JSDNCN1616X11	16	16	120	21	16	8	0.2	DC**11T3...	1.2

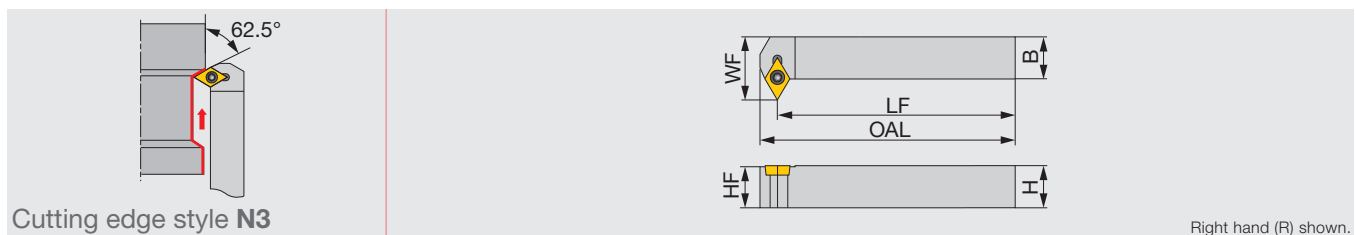
### SPARE PARTS

Designation	Clamping screw	Wrench
JSDNCN**07	CSTB-2.5	T-8F
JSDNCN**11	CSTB-4SD	T-8F

\*Torque: Recommended torque (N·m) for clamping

\*\*RE: Standard corner radius

Screw-on toolholder with 62.5° approach angle (N3-style), for positive 55° rhombic inserts



Cutting edge style N3

Designation	H	B	OAL	LF	HF	WF	RE**	Insert	Torque*
JSDN3CR1212H07	12	12	105	100	12	18	0.4	DC**0702...	1.2
JSDN3CR1616H11	16	16	107	100	16	25	0.8	DC**11T3...	1.2

### SPARE PARTS

Designation	Clamping screw	Wrench
JSDN3CR1212H07	CSTB-2.5	T-8F
JSDN3CR1616H11	CSTB-4SD	T-8F

\*Torque: Recommended torque (N·m) for clamping

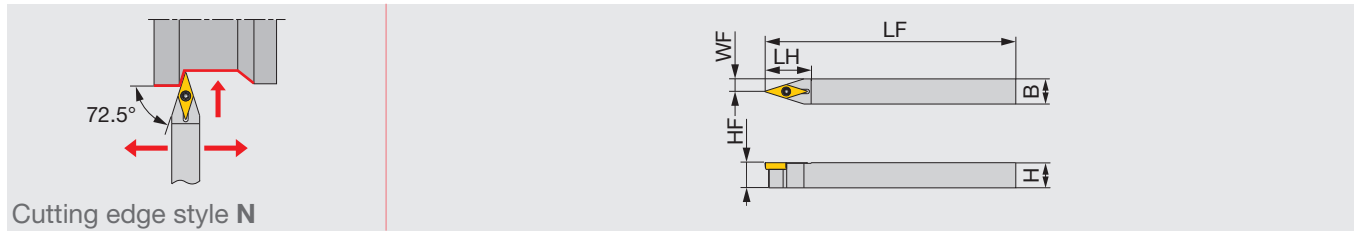
\*\*RE: Standard corner radius

## INSERT SELECTION

<b>P</b>	Application areas	Precision finishing	Finish cutting	Medium to finish cutting	Medium to finish cutting
	Grade	SH725	SH725	AH725	SH725
	Breaker Shape	01	JS	JS	J10
	Breaker Shape				
Cutting conditions: G053					
<b>K</b>	Application areas	Medium to finish cutting			
	Grade	T515			
	Breaker Shape	CM			
	Breaker Shape				
Cutting conditions: B022					
<b>S</b>	Application areas	Finish cutting	Medium to finish cutting		
	Grade	SH725	AH725		
	Breaker Shape	JS	JS		
	Breaker Shape				
Cutting conditions: G053					
<b>M</b>	Application areas	Precision finishing	Finish cutting	Medium to finish cutting	Medium to finish cutting
	Grade	SH725	SH725	AH725	SH725
	Breaker Shape	01	JS	JS	J10
	Breaker Shape				
Cutting conditions: G053					
<b>N</b>	Application areas	Precision finishing	Finish cutting	Medium cutting	
	Grade	DX120	DX140	KS05F	
	Breaker Shape	T-DIA	with rake T-DIA	AL	
	Breaker Shape				
Cutting conditions: B024					
<b>H</b>	Application areas	Precision finishing	Finish cutting		
	Grade	BXM10	BXM10		
	Breaker Shape	T-CBN	T-CBN		
	Breaker Shape				
Cutting conditions: B028					

Reference pages : JSDNCN, JSDN3CR/L: Inserts → **B119 -**, CBN → **B182 -**, PCD → **B194 -**

Screw-on toolholder with 72.5° approach angle, for positive 35° rhombic inserts



Cutting edge style N

Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JSVNBN1010X11	10	10	120	22	10	5	0.2	VB**1103...	1.2
JSVNBN1212F11	12	12	85	22	12	6	0.2	VB**1103...	1.2
JSVNBN1212X11	12	12	120	22	12	6	0.2	VB**1103...	1.2
JSVNBN1616X11	16	16	120	22	16	8	0.2	VB**1103...	1.2

\*Torque: Recommended torque (N-m) for clamping

\*\*RE: Standard corner radius

### SPARE PARTS

Designation	Clamping screw	Wrench
JSVNBN...	CSTB-2.5	T-8F

## INSERT SELECTION

**P** Application areas: Finish cutting, Medium to finish cutting, Medium to finish cutting  
 Grade: SH725, AH725, SH725  
 Breaker Shape: JS, JS, J10  
 Cutting conditions: G053

**M** Application areas: Finish cutting, Medium to finish cutting, Medium to finish cutting  
 Grade: SH725, AH725, SH725  
 Breaker Shape: JS, JS, J10  
 Cutting conditions: G053

**K** Application areas: Medium to finish cutting  
 Grade: T515  
 Breaker Shape: CM  
 Cutting conditions: B022

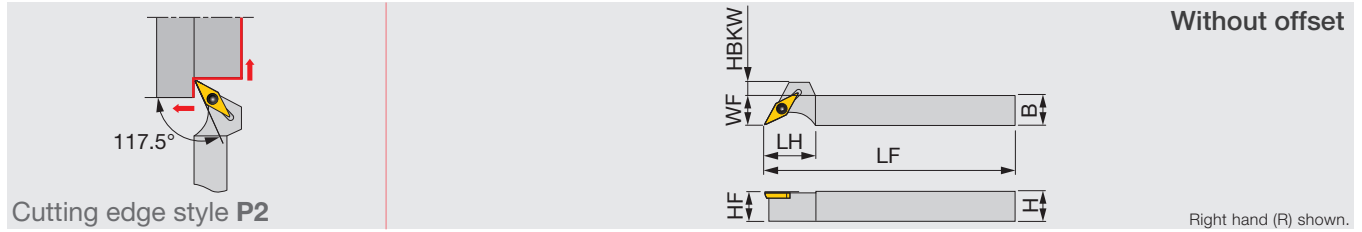
**S** Application areas: Finish cutting, Medium to finish cutting  
 Grade: SH725, AH725  
 Breaker Shape: JS, JS  
 Cutting conditions: G053

**H** Application areas: Precision finishing, Finish cutting  
 Grade: BXM10, BXM10  
 Breaker Shape: T-CBN, T-CBN  
 Cutting conditions: B028

Reference pages : JSVNB: Inserts → B150 -, CBN → B189 -



Screw-on toolholder with 117.5° approach angle, for positive 35° rhombic inserts



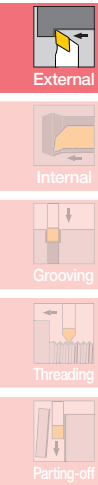
Cutting edge style P2

Designation	H	B	LF	LH	HF	WF	HBKW	RE**	Insert	Torque*
JSVP2PR/L1010K08	10	10	125	16	10	10	4	0.2	VP**0802...	0.6
JSVP2PR/L1010K11	10	10	125	20	10	10	8	0.2	VP**1103...	1.2
JSVP2PR/L1212K08	12	12	125	16	12	12	2	0.2	VP**0802...	0.6
JSVP2PR/L1212K11	12	12	125	20	12	12	6	0.2	VP**1103...	1.2
JSVP2PR/L1616K08	16	16	125	16	16	16	2	0.2	VP**0802...	0.6
JSVP2PR/L1616K11	16	16	125	20	16	16	6	0.2	VP**1103...	1.2

### SPARE PARTS

Designation	Clamping screw	Wrench
JSVP2PR/L**08	CSTB-2L	T-6F
JSVP2PR/L**11	CSTB-2.5	T-8F

\*Torque: Recommended torque (N-m) for clamping  
 \*\*RE: Standard corner radius



### INSERT SELECTION

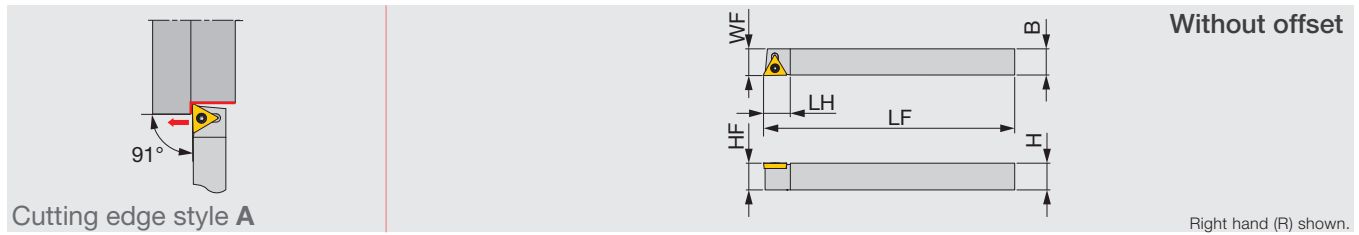
Application areas	Finish cutting	Finish cutting
	Grade	Grade
	SH725	SH725
Breaker Shape	JRP	JSP
Cutting conditions G053		

Application areas	Finish cutting	Finish cutting
	Grade	Grade
	SH725	SH725
Breaker Shape	JRP	JSP
Cutting conditions G053		

Application areas	Finish cutting	Finish cutting
	Grade	Grade
	SH725	SH725
Breaker Shape	JRP	JSP
Cutting conditions G053		

Reference pages : JSVP2PR/L: Inserts → **B155** -

Screw-on toolholder with 91° approach angle, for positive 60° triangular inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JSTACR/L0808K08	8	8	125	10	8	8	0.2	TC**0802...	0.6
JSTACR/L1010K08	10	10	125	10	10	10	0.2	TC**0802...	0.6
JSTACR/L1212K11	12	12	125	12	12	12	0.4	TC**1102...	1.2
JSTACR/L1616H11	16	16	100	12	16	16	0.4	TC**1102...	1.2

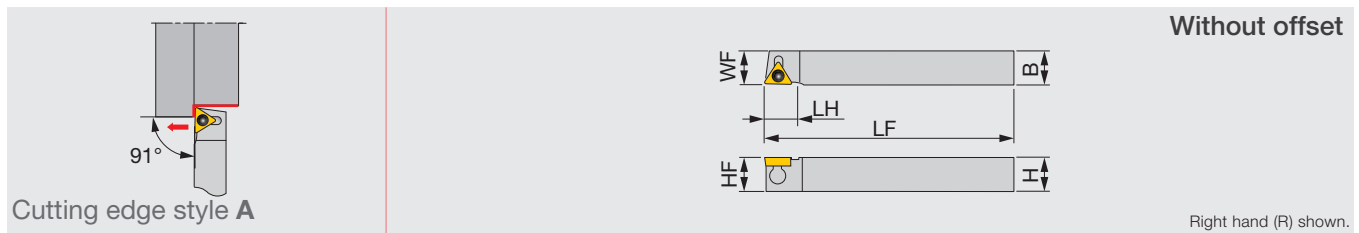
\*Torque: Recommended torque (N-m) for clamping

\*\*RE: Standard corner radius

### SPARE PARTS

Designation	Clamping screw	Wrench
JSTACR/L**K08	CSTB-2L	T-6F
JSTACR/L**11	CSTB-2.5	T-8F

Back-clamp toolholder with 91° approach angle, for positive 60° triangular inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JTTACL0810K08	8	10	125	10	8	10	0.2	TC**0802...	0.9
JTTACR/L1212M11	12	12	150	12	12	12	0.4	TC**1102...	0.9
JTTACR/L1616M11	16	16	150	12	16	16	0.4	TC**1102...	0.9

\*Torque: Recommended torque (N-m) for clamping

\*\*RE: Standard corner radius

### SPARE PARTS

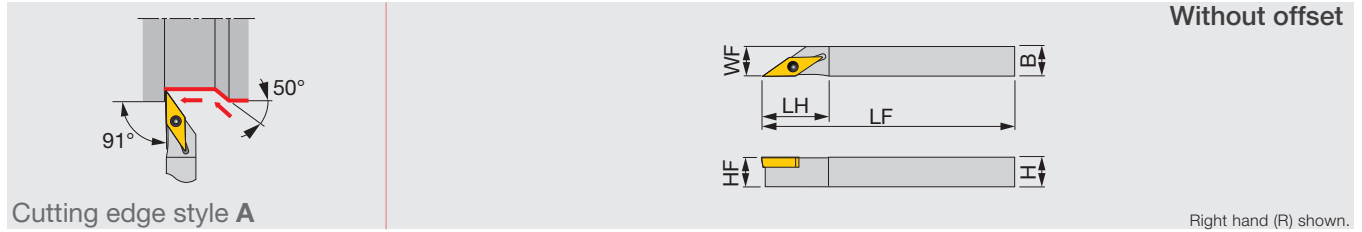
Designation	Clamp	Clamping screw	Wrench
JTTACL0810K08	JCP-1	JDS-3525	P-2F
JTTACR/L**M11	JCP-2	JDS-3525	P-2F

## INSERT SELECTION

<b>P</b>	Application areas	Precision finishing	Finish cutting	Medium to finish cutting	Medium to finish cutting	<b>M</b>	Application areas	Precision finishing	Finish cutting	Medium to finish cutting	Medium to finish cutting				
	Grade	SH725	SH725	AH725	SH725		Grade	SH725	SH725	AH725	SH725				
	Breaker Shape	01	JS	JS	J10		Breaker Shape	01	JS	JS	J10				
	Cutting conditions	G053						Cutting conditions	G053						
<b>K</b>	Application areas	Medium to finish cutting										<b>N</b>	Application areas	Precision finishing	Medium cutting
	Grade	T515											Grade	DX120	with rake AL
	Breaker Shape	CM											Breaker Shape		
	Cutting conditions	B022											Cutting conditions	B024	

Reference pages : JSTACR/L, JTTACR/L: Inserts → **B137 -**, PCD → **B194**

Screw-on toolholder with 91° approach angle, for positive 35° rhombic inserts



Right hand (R) shown.

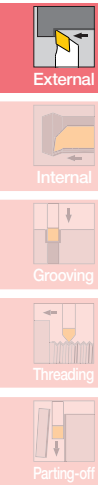
Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JSVABR/L1010K11	10	10	125	21	10	10	0.2	VB**1103...	1.2
JSVABL1212K11	12	12	125	21	12	12	0.2	VB**1103...	1.2

\*Torque: Recommended torque (N·m) for clamping

\*\*RE: Standard corner radius

### SPARE PARTS

Designation	Clamping screw	Wrench
JSVABR/L...	CSTB-2.5	T-8F



### INSERT SELECTION

Application areas	Finish cutting	Medium to finish cutting	Medium to finish cutting
	Grade	SH725	AH725
Breaker Shape	JS	JS	J10
Cutting conditions			
G053			

Application areas	Finish cutting	Medium to finish cutting	Medium to finish cutting
	Grade	SH725	AH725
Breaker Shape	JS	JS	J10
Cutting conditions			
G053			

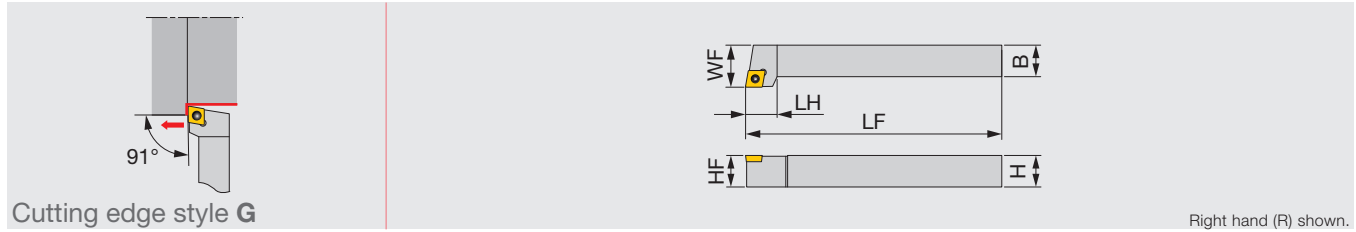
Application areas	Medium to finish cutting
	Grade
Breaker Shape	CM
Cutting conditions	
B022	

Application areas	Finish cutting	Medium to finish cutting
	Grade	SH725
Breaker Shape	JS	JS
Cutting conditions		
G053		

Application areas	Precision finishing	Finish cutting
	Grade	BXM10
Breaker Shape	T-CBN	T-CBN
Cutting conditions		
B028		

Reference pages : JSVABR/L: Inserts → B150 -, CBN → B189 -





Right hand (R) shown.

Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JSCGCR/L1212H06	12	12	100	12	12	16	0.4	CC**0602...	1.2
JSCGCR/L1616H09	16	16	100	16	16	20	0.8	CC**09T3...	1.2

\*Torque: Recommended torque (N·m) for clamping

\*\*RE: Standard corner radius

### SPARE PARTS

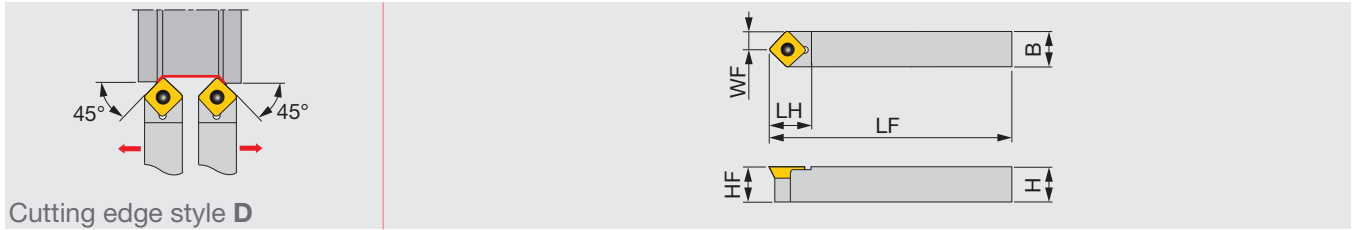
Designation	Clamping screw	Wrench
JSCGCR/L1212H06	CSTB-2.5	T-8F
JSCGCR/L1616H09	CSTB-4SD	T-8F

## INSERT SELECTION

<b>P</b>	Application areas	Precision finishing	Finish cutting	Medium to finish cutting	Medium to finish cutting
	Grade	SH725	SH725	AH725	SH725
	Breaker Shape	01	JS	JS	J10
Cutting conditions: G053					
<b>M</b>	Application areas	Precision finishing	Finish cutting	Medium to finish cutting	Medium to finish cutting
	Grade	SH725	SH725	AH725	SH725
	Breaker Shape	01	JS	JS	J10
Cutting conditions: G053					
<b>K</b>	Application areas	Medium to finish cutting			
	Grade	T515			
	Breaker Shape	CM			
Cutting conditions: B022					
<b>N</b>	Application areas	Precision finishing	Finish cutting	Medium cutting	
	Grade	DX120	TH10	KS05F	
	Breaker Shape	T-DIA with rake W20	AL		
Cutting conditions: B024					
<b>S</b>	Application areas	Finish cutting	Medium to finish cutting		
	Grade	SH725	AH725		
	Breaker Shape	JS	JS		
Cutting conditions: G053					
<b>H</b>	Application areas	Precision finishing	Finish cutting		
	Grade	BXM10	BXM20		
	Breaker Shape	T-CBN	T-CBN		
Cutting conditions: B028					



Screw-on toolholder with 45° approach angle, for positive square inserts



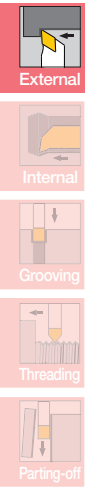
Cutting edge style **D**

Designation	H	B	LF	LH	HF	WF	RE**	Insert
SSDCN1010K07	10	10	125	12	10	5	0.4	SC**0702...
SSDPN1010H	10	10	100	12	10	5	0.4	SP*P042...
SSDCN1212K09	12	12	125	15	12	6	0.8	SC**09T3...
SSDPN1212H	12	12	100	12	12	6	0.4	SP*P042...
SSDCN1616H09	16	16	100	15	16	8	0.8	SC**09T3...
SSDPN1616H	16	16	100	14	16	8	0.8	SP*M322...

\*\*RE: Standard corner radius

### SPARE PARTS

Designation	Clamping screw	Shim screw	Shim	Wrench 1	Wrench 2
SSDCN1010K07	CSTB-3	-	-	-	T-9F
SSDPN1010H	CSTA-NO3	-	-	-	T-9F
SSDCN1212K09	CSTB-4	-	-	-	T-15F
SSDPN1212H	CSTA-NO3	-	-	-	T-9F
SSDCN1616H09	CSTB-3.5L	DTS5-3.5	SSS32	P-3.5	T-15F
SSDPN1616H	CSTA-NO5	-	-	-	T-9F

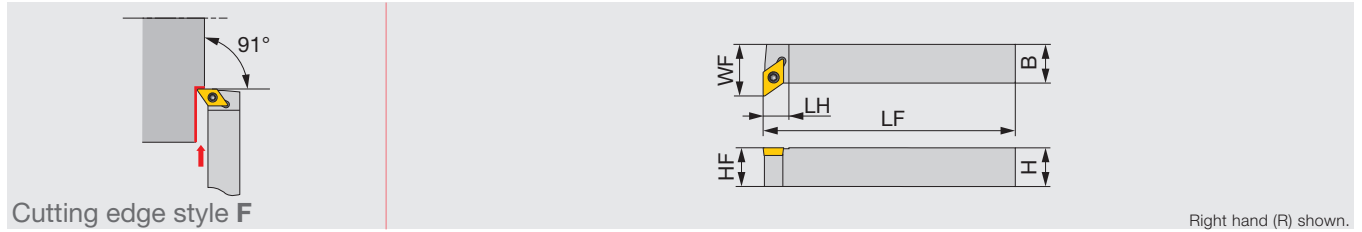


### INSERT SELECTION

<b>P</b>	Application areas	Medium to finish cutting	Medium cutting	<b>M</b>	Application areas	Medium cutting	
	Grade	AH725	AH725		Grade	AH725	
	Breaker Shape	PS	PM		Breaker Shape	PM	
Cutting conditions				B018	Cutting conditions		B020
<b>K</b>	Application areas	Medium to finish cutting					
	Grade	T515					
	Breaker Shape	CM					
Cutting conditions				B022			

Reference pages : SSDC/PN: Inserts → **B133** -

Screw-on toolholder for facing with 91° approach angle, for positive 55° rhombic inserts



Cutting edge style F

Right hand (R) shown.

Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JSDFCR/L1212H07	12	12	100	8	12	16	0.4	DC**0702...	1.2
JSDFCR/L1616H11	16	16	100	10.5	16	22	0.8	DC**11T3...	1.2

### SPARE PARTS

Designation	Clamping screw	Wrench
JSDFCR/L1212H07	CSTB-2.5	T-8F
JSDFCR/L1616H11	CSTB-4SD	T-8F

\*Torque: Recommended torque (N·m) for clamping  
\*\*RE: Standard corner radius

### INSERT SELECTION

Grade	Application areas	Precision finishing	Finish cutting	Medium to finish cutting	Medium to finish cutting
01	01	SH725	SH725	AH725	SH725
JS	JS	JS	JS	JS	J10
Cutting conditions: G053					

Grade	Application areas	Precision finishing	Finish cutting	Medium to finish cutting	Medium to finish cutting
01	01	SH725	SH725	AH725	SH725
JS	JS	JS	JS	JS	J10
Cutting conditions: G053					

Grade	Application areas	Medium to finish cutting
CM	CM	T515
Cutting conditions: B022		

Grade	Application areas	Precision finishing	Finish cutting	Medium cutting
T-DIA	T-DIA	DX120	DX140	KS05F
AL	AL	AL	AL	AL
Cutting conditions: B024				

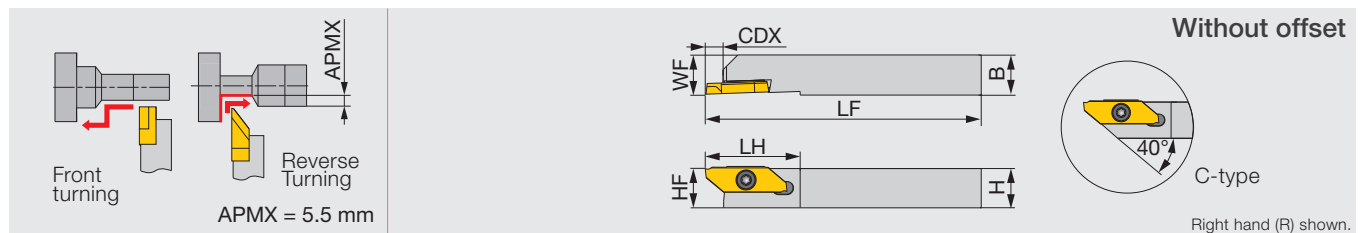
  

Grade	Application areas	Finish cutting	Medium to finish cutting
JS	JS	SH725	AH725
Cutting conditions: G053			

Grade	Application areas	Precision finishing	Finish cutting
T-CBN	T-CBN	BXM10	BXM10
Cutting conditions: B028			

Screw-on toolholder for front/reverse turning and external grooving



Right hand (R) shown.

Designation	H	B	LF	LH	CDX	HF	WF	Insert
JSXGR/L1010K8-C	10	10	125	29	6.7	10	10	JXFR/L8..., JXRR/L8...
JSXGR/L1212K8-C	12	12	125	29	6.7	12	12	JXFR/L8..., JXRR/L8...
JSXGR/L1616K8	16	16	125	29	6.5	16	16	JXFR/L8..., JXRR/L8...
JSXGR/L2020K8	20	20	125	29	6.5	20	20	JXFR/L8..., JXRR/L8...
JSXGR/L2525K8	25	25	125	29	6.5	25	25	JXFR/L8..., JXRR/L8...

### SPARE PARTS

Designation	Clamping screw	Wrench 1	Wrench 2 *Optional
JSXGR/L...	CSTB-4SD	T-8F	(T-8L)

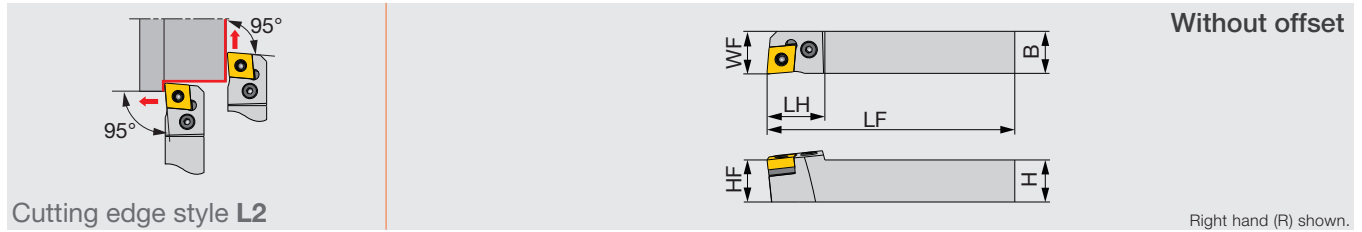
Can be used with JXG insert for parting and grooving.  
Can be wrenched also from the back with a double-head screw.

Reference pages : JSDFCR/L: Inserts → B119 -, CBN → B182 -, PCD → B194 -, JSXGR/L: Inserts → B160



# PCL2NR

Lever-lock toolholder with 95° approach angle, for negative 80° rhombic inserts



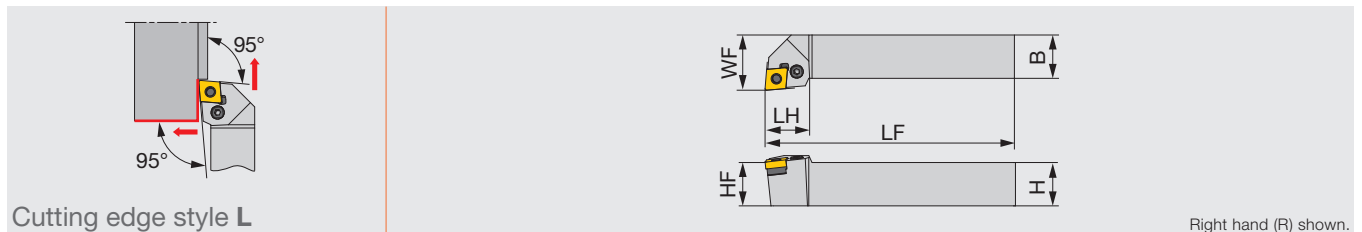
Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
PCL2NR2020H12	20	20	100	26	20	20	0.8	CN/GN**1204...	3

\*Torque: Recommended torque (N·m) for clamping  
 \*\*RE: Standard corner radius

SPARE PARTS					
Designation	Shim	Clamping screw	Lever	Spring pin	Wrench
PCL2NR2020H12	LSC42	LCS4	LCL4	LSP4	P-3

# PCLNR

Lever-lock toolholder with 95° approach angle, for negative 80° rhombic inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
PCLNR2020H12	20	20	100	26	20	25	0.8	CN/GN**1204...	3

\*Torque: Recommended torque (N·m) for clamping  
 \*\*RE: Standard corner radius

SPARE PARTS					
Designation	Shim	Clamping screw	Lever	Spring pin	Wrench
PCLNR2020H12	LSC42	LCS4	LCL4	LSP4	P-3

## INSERT SELECTION

Application areas	Precision finishing	Finish cutting	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215
Breaker Shape				
Cutting conditions	B006			

Application areas	Finish cutting	Medium cutting	Medium to heavy cutting
	Grade	T6120	T6130
Breaker Shape			
Cutting conditions	B008		

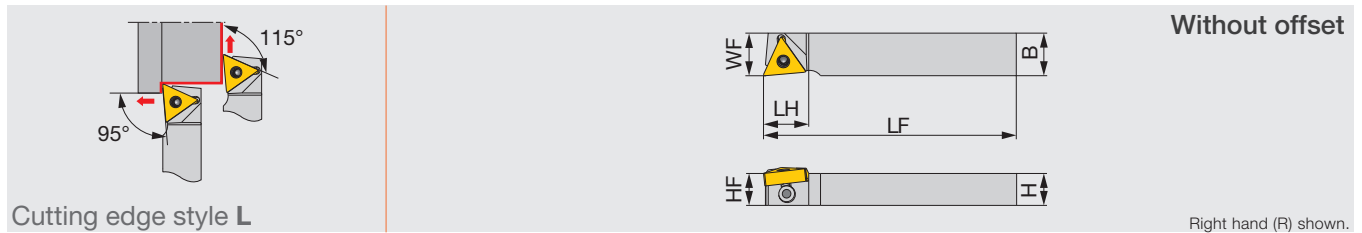
Application areas	Finish cutting	Medium cutting	Medium to heavy cutting
	Grade	T515	T515
Breaker Shape			
Cutting conditions	B010		

Application areas	Finish cutting	Medium cutting
	Grade	DX140
Breaker Shape		
Cutting conditions	B012	

Application areas	Precision finishing	Finish cutting	Medium cutting
	Grade	BX950	AH8005
Breaker Shape			
Cutting conditions	B014		

Reference pages : PCL2NR, PCLNR: Inserts → B054 -, CBN → B170 -, PCD → B192 -

Back-clamp toolholder with 95° approach angle, for negative 60° triangular inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JTTLNR/L1216F16	12	16	85	17	12	16	0.4	TN**1604...	1
JTTLNR/L1216X16	12	16	120	17	12	16	0.4	TN**1604...	1
JTTLNR/L1616X16	16	16	120	17	16	16	0.4	TN**1604...	1

\*Torque: Recommended torque (N·m) for clamping

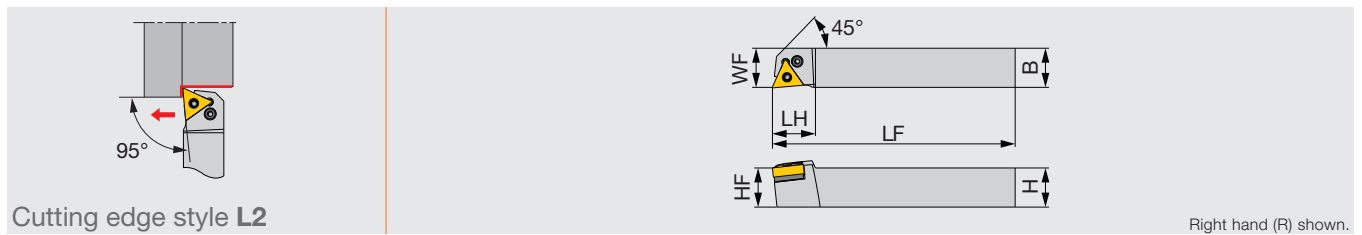
\*\*RE: Standard corner radius

### SPARE PARTS

Designation	Clamp	Clamping screw	Wrench
JTTLNR/L...	JCP-3N	JDS-5040	P-2.5F

## PTL2NR/L

Lever-lock toolholder with 95° approach angle, for negative 60° triangular inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
PTL2NR/L2020H16	20	20	100	22	20	20	0.4	TN**1604...	2

\*Torque: Recommended torque (N·m) for clamping

\*\*RE: Standard corner radius

### SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PTL2NR/L...	LST317 D30	LCS3	P-2.5	LSP3	LCL3

## INSERT SELECTION

<b>P</b>	Application areas	Precision finishing	Finish cutting		Medium cutting	Medium to heavy cutting
	Grade	SH725	SH725	GT9530	T9215	T9215
	Breaker Shape	01	JRP	TSF	TM	TH
Cutting conditions		G053			B006	
<b>K</b>	Application areas	Finish cutting	Medium cutting	Medium to heavy cutting		
	Grade	T515	T515	T515		
	Breaker Shape	All-round	All-round	All-round		
Cutting conditions		B010				
<b>S</b>	Application areas	Precision finishing	Finish cutting	Medium cutting		
	Grade	BX950	AH8005	AH8005		
	Breaker Shape	T-CBN	HRF	HRM		
Cutting conditions		B014				
<b>M</b>	Application areas	Precision finishing	Finish cutting	Medium cutting		
	Grade	SH725	SH725	T6130		
	Breaker Shape	01	JRP	SM		
Cutting conditions		G053			B008	
<b>N</b>	Application areas	Precision finishing	Finish cutting	Medium cutting		
	Grade	DX120	DX140	TH10		
	Breaker Shape	T-DIA	with rake T-DIA	P		
Cutting conditions		B012				
<b>H</b>	Application areas	Precision finishing	Finish cutting			
	Grade	BXM10	BXM10			
	Breaker Shape	T-CBN	T-CBN			
Cutting conditions		B016				

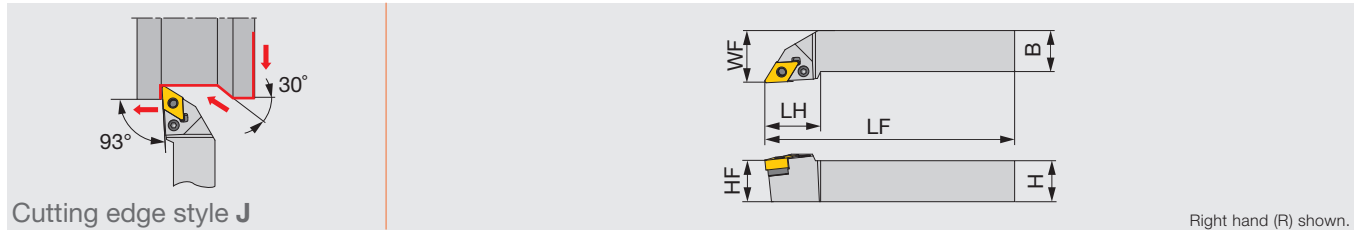
Reference pages : JTTLNR/L, PTL2NR/L: Inserts → B084 -, CBN → B176 -, PCD → B192 -

Grade  
Insert  
Ext. Toolholder  
Int. Toolholder  
Threading  
Grooving  
Miniature tool  
Milling cutter  
Endmill  
Drilling tool  
Tooling System  
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# PDJNR

Lever-lock toolholder with 93° approach angle, for negative 55° rhombic inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
PDJNR2020H15	20	20	100	32	20	25	0.8	DN**1504...	3

\*Torque: Recommended torque (N-m) for clamping  
 \*\*RE: Standard corner radius

## SPARE PARTS

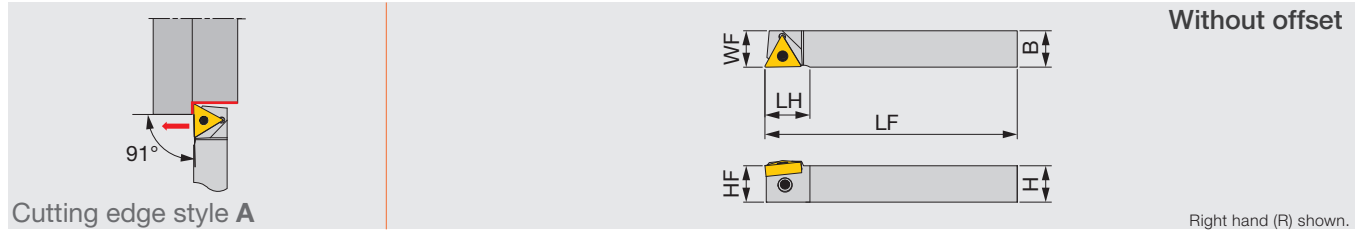
Designation	Shim	Clamping screw	Lever	Spring pin	Wrench
PDJNR2020H15	LSD42	LCS4	LCL4	LSP4	P-3

- External
- Internal
- Grooving
- Threading
- Parting-off
- L
- J
- N
- P
- A
- G
- D
- F
- Special

## INSERT SELECTION

<b>P</b>	Application areas	Precision finishing	Finish cutting	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Breaker Shape				
	Cutting conditions	B006			
<b>M</b>	Application areas	Finish cutting	Medium cutting	Medium to heavy cutting	
	Grade	T6120	T6130	T6130	
	Breaker Shape				
	Cutting conditions	B008			
<b>K</b>	Application areas	Finish cutting	Medium cutting	Medium to heavy cutting	
	Grade	T515	T515	T515	
	Breaker Shape				
	Cutting conditions	B010			
<b>N</b>	Application areas	Precision finishing	Finish cutting	Medium cutting	
	Grade	DX120	DX140	TH10	
	Breaker Shape				
	Cutting conditions	B012			
<b>S</b>	Application areas	Precision finishing	Finish cutting	Medium cutting	
	Grade	BX950	AH8005	AH8005	
	Breaker Shape				
	Cutting conditions	B014			
<b>H</b>	Application areas	Precision finishing	Finish cutting		
	Grade	BXM10	BXM10		
	Breaker Shape				
	Cutting conditions	B016			

Reference pages : PDJNR: Inserts → B065 -, CBN → B172 -, PCD → B192 -



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JTTANR/L1216K16	12	16	125	19.8	12	16	0.4	TN**1604...	1.2
JTTANR/L1616K16	16	16	125	19.8	16	16	0.4	TN**1604...	1.2

\*Torque: Recommended torque (N·m) for clamping  
 \*\*RE: Standard corner radius

SPARE PARTS			
Designation	Clamp	Clamping screw	Wrench
JTTANR/L...	JCP-3N	JDS-5040	P-2.5F

### INSERT SELECTION

<b>P</b>	Application areas	Precision finishing	Finish cutting		Medium cutting	Medium to heavy cutting
	Grade	SH725	SH725	GT9530	T9215	T9215
	Breaker Shape	01	JRP	TSF	TM	TH
	Cutting conditions	G053			B006	
<b>K</b>	Application areas	Finish cutting	Medium cutting	Medium to heavy cutting		
	Grade	T515	T515	T515		
	Breaker Shape	All-round	All-round	All-round		
	Cutting conditions	B010				
<b>S</b>	Application areas	Precision finishing	Finish cutting	Medium cutting		
	Grade	BX950	AH8005	AH8005		
	Breaker Shape	T-CBN	HRF	HRM		
	Cutting conditions	B014				
<b>M</b>	Application areas	Precision finishing	Finish cutting	Medium cutting		
	Grade	SH725	SH725	T6130		
	Breaker Shape	01	JRP	SM		
	Cutting conditions	G053			B008	
<b>N</b>	Application areas	Precision finishing	Finish cutting	Medium cutting		
	Grade	DX120	DX140	TH10		
	Breaker Shape	T-DIA	with rake T-DIA	P		
	Cutting conditions	B012				
<b>H</b>	Application areas	Precision finishing	Finish cutting			
	Grade	BXM10	BXM10			
	Breaker Shape	T-CBN	T-CBN			
	Cutting conditions	B016				

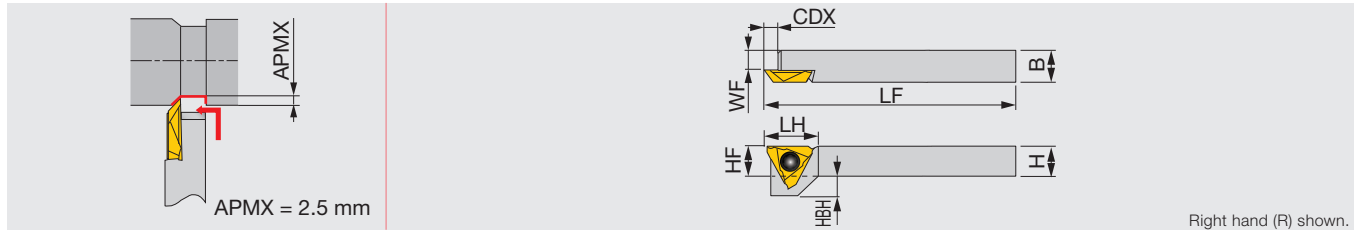
Reference pages : JTTLNR/L: Inserts → B084 -, CBN → B176 -, PCD → B192 -



# J-SERIES

## JSTBR/L

Screw-on toolholder for back turning



Designation	H	B	LF	LH	CDX	HF	WF	HBH	Insert	Torque*
JSTBR/L1010X3	10	10	120	15	5	10	6	5	JTBR/L3...	1.2
JSTBL1010K3	10	10	125	15	5	10	6	5	JTBR/L3...	1.2
JSTBR/L1212F3	12	12	85	15	5	12	8	3	JTBR/L3...	1.2
JSTBR/L1212X3	12	12	120	15	5	12	8	3	JTBR/L3...	1.2
JSTBR/L1616X3	16	16	120	15	5	16	12	-	JTBR/L3...	1.2

\*Torque: Recommended torque (N-m) for clamping

### SPARE PARTS

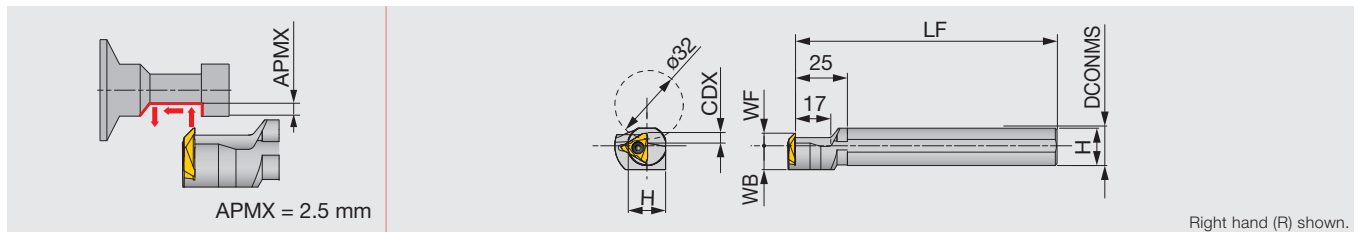
Designation	Clamping screw	Wrench
JSTBR/L...	CSTB-4SD	T-8F

- External
- Internal
- Grooving
- Threading
- Parting-off
- L
- J
- N
- P
- A
- G
- D
- F
- Special

# J-SERIES

## JS-TBL3

Screw-on toolholder for back turning



Designation	DCONMS	H	LF	CDX	WF	WB	Insert	Torque*
JS19K-TBL3	19.05	18	125	4.5	6	11.5	JTBR3...	3
JS20K-TBL3	20	19	125	4.5	6	11.5	JTBR3...	3
JS22K-TBL3	22	21	125	4.5	6	11.5	JTBR3...	3
JS25K-TBL3	25.4	24	125	4.5	10	12.7	JTBR3...	3

\*Torque: Recommended torque (N-m) for clamping

### SPARE PARTS

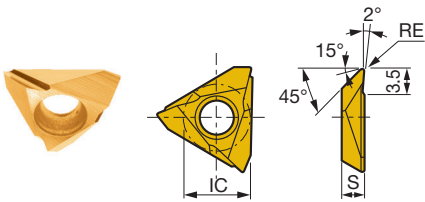
Designation	Clamping screw	Wrench
JS**-TBL3	CSTB-4S	T-15F

Reference pages : JSTBR/L, JS-TBL3: Inserts, Standard cutting conditions → G049



# INSERT

## JTB (Sharp edge)



Right hand (R) shown.

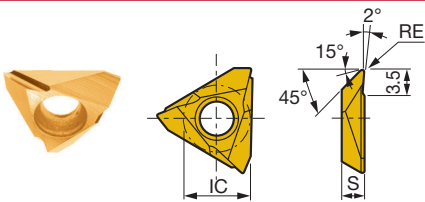
<b>P</b> Steel	★	☆		★					
<b>M</b> Stainless	★	☆							
<b>K</b> Cast iron	★			☆			☆		
<b>N</b> Non-ferrous							★		
<b>S</b> Superalloys	☆	☆					★		
<b>H</b> Hard materials							★		

★ : First choice  
☆ : Second choice

Designation	HAND	RE	Coated		Cermet	Uncoated		IC	S	Max. depth of cut
			SH725	J740	NS9530	TH10				
JTBR3000F	R	0.03	●	●		●		9.438	3.18	2.5
JTBL3000F	L	0.03	●	●		●		9.438	3.18	2.5
JTBR3005F	R	0.05	●	●		●		9.438	3.18	2.5
JTBL3005F	L	0.05	●	●		●		9.438	3.18	2.5
JTBR3010F	R	0.1	●	●	●	●		9.438	3.18	2.5
JTBL3010F	L	0.1	●	●	●	●		9.438	3.18	2.5
JTBR3015F	R	0.15	●	●				9.438	3.18	2.5
JTBL3015F	L	0.15	●					9.438	3.18	2.5

● : Line up

## JTBR/L (Honed edge)



Right hand (R) shown.

<b>P</b> Steel	★			★					
<b>M</b> Stainless	★								
<b>K</b> Cast iron	★			☆					
<b>N</b> Non-ferrous									
<b>S</b> Superalloys	☆								
<b>H</b> Hard materials									

★ : First choice  
☆ : Second choice

Designation	HAND	RE	Coated		Coated cermet	IC	S	Max. depth of cut
			J740	J9530	J9530			
JTBR3000F	R	0.05	●		●	9.438	3.18	2.5
JTBL3000F	L	0.05	●			9.438	3.18	2.5
JTBR3005F	R	0.1	●		●	9.438	3.18	2.5
JTBL3005F	L	0.1	●			9.438	3.18	2.5

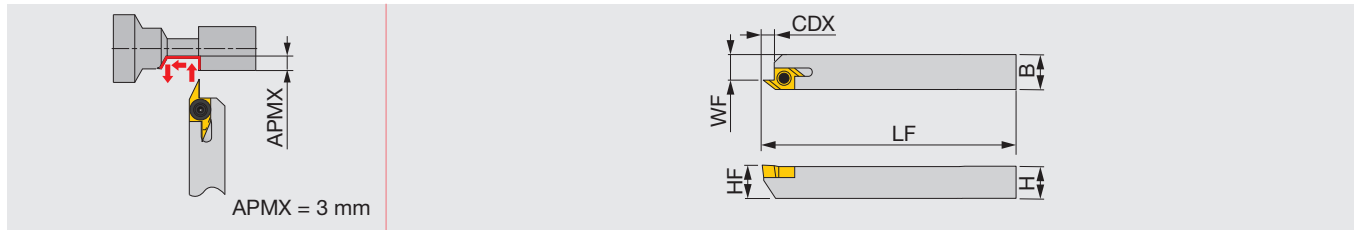
● : Line up

## STANDARD CUTTING CONDITIONS (JTB type insert)

ISO	Workpiece material	Grade	Cutting speed Vc (m/min)	Feed f (mm/rev)
<b>P</b>	Steel (S45C, etc. C45, etc.)	SH725	50 - 200	0.01 - 0.1
		J740	10 - 100	0.01 - 0.1
		NS9530	50 - 150	0.01 - 0.1
<b>M</b>	Free-cutting steel (SUM22, etc. 11SMn28, etc.)	J9530	50 - 150	0.01 - 0.1
		SH725	50 - 200	0.01 - 0.1
		J740	10 - 100	0.01 - 0.1
<b>N</b>	Stainless steel (SUS304, etc. X5CrNi18-9, etc.)	SH725	50 - 200	0.01 - 0.1
		J740	10 - 100	0.01 - 0.1
		NS9530	50 - 150	0.01 - 0.1
<b>S</b>	Difficult-to-machine material, Titanium alloys (Ti-6Al-4V, etc.)	J9530	50 - 150	0.01 - 0.1
		TH10	10 - 200	0.01 - 0.1
<b>S</b>	Aluminium alloys, Brass (Si < 12%, C3604B, etc. CW614N, etc.)	TH10	10 - 200	0.01 - 0.1
<b>S</b>	Difficult-to-machine material, Titanium alloys (Ti-6Al-4V, etc.)	TH10	10 - 30	0.01 - 0.1



### Screw-on toolholder for back turning



Designation	H	B	LF	CDX	HF	WF	Insert	Torque*
JSEGR/L1010K10	10	10	125	3.3	10	7.5	J10ER/L...	1.2
JSEGR/L1212K10	12	12	125	3.3	12	9.5	J10ER/L...	1.2
JSEGR/L1616K10	16	16	125	3.3	16	13.5	J10ER/L...	1.2

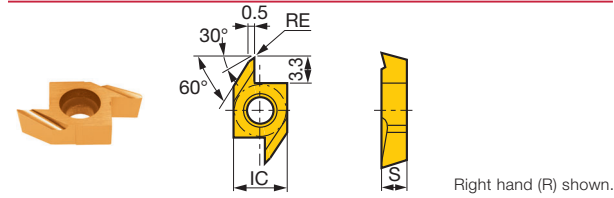
**SPARE PARTS**

Designation	Clamping screw	Wrench
JSEGR/L...	CSTB-2.5	T-8F

\*Torque: Recommended torque (N-m) for clamping

### INSERT

#### J10E (Sharp edge)

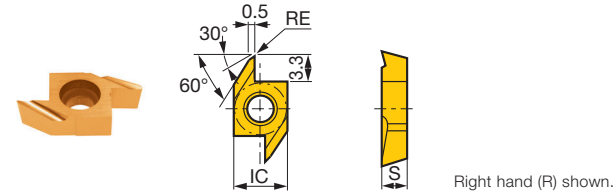


	P	M	K	N	S	H
Steel	★	☆				
Stainless	★	☆				
Cast iron	★		☆		☆	
Non-ferrous				★		
Superalloys		☆			★	
Hard materials						★

★ : First choice  
☆ : Second choice

Designation	HAND	RE	Coated		Cermet	Uncoated		IC	S	Max. depth of cut
			SH725	J740	NS9530	TH10				
J10ER/L005BF	R	0.05	●	●		●		6.35	3.18	3
J10ER/L005BF	L	0.05	●	●		●		6.35	3.18	3
J10ER/L010BF	R	0.1	●	●		●		6.35	3.18	3
J10ER/L010BF	L	0.1	●	●		●		6.35	3.18	3
J10ER/L015BF	R	0.15	●		●			6.35	3.18	3
J10ER/L015BF	L	0.15	●		●			6.35	3.18	3

#### J10E (Honed edge)



	P	M	K	N	S	H
Steel	★					
Stainless	★					
Cast iron	★		☆			
Non-ferrous				★		
Superalloys		☆			★	
Hard materials						★

★ : First choice  
☆ : Second choice

Designation	HAND	RE	Coated		Coated cermet	IC	S	Max. depth of cut
			J740	J9530	J9530			
J10ER005B	R	0.05	●		●	6.35	3.18	3
J10EL005B	L	0.05	●		●	6.35	3.18	3
J10ER010B	R	0.1	●		●	6.35	3.18	3
J10EL010B	L	0.1	●		●	6.35	3.18	3

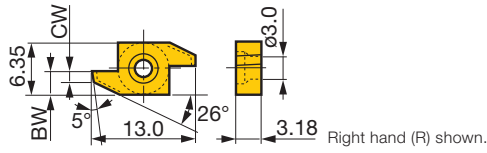
● : Line up

## STANDARD CUTTING CONDITIONS (J10E type insert)

ISO	Workpiece material	Grade	Cutting speed Vc (m/min)	Feed f (mm/rev)
<b>P</b>	Steel S45C, etc. C45, etc.	SH725	50 - 200	0.01 - 0.1
		J740	10 - 100	0.01 - 0.1
		NS9530	50 - 150	0.01 - 0.1
	Free-cutting steel SUM22, etc. 11SMn28, etc.	SH725	50 - 200	0.01 - 0.1
		J740	10 - 100	0.01 - 0.1
		NS9530	50 - 150	0.01 - 0.1
<b>M</b>	Stainless steel SUS303, SUS304 etc. X10CrNiS18-9, etc.	SH725	50 - 200	0.01 - 0.1
		J740	10 - 100	0.01 - 0.1
		NS9530	50 - 150	0.01 - 0.1
		J9530	50 - 150	0.01 - 0.1
<b>N</b>	Aluminium alloys, Brass Si < 12% C3604B, etc. CW614N, etc.	TH10	10 - 200	0.01 - 0.1
<b>S</b>	Difficult-to-machine material, Titanium alloys Ti-6Al-4V, etc.	TH10	10 - 30	0.01 - 0.1

## INSERT

### 10E (Insert blank)

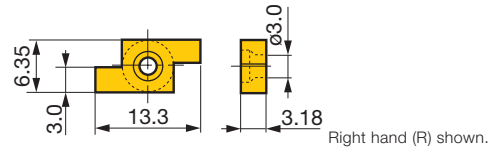


Designation	HAND	Uncoated	
		TH10	
10ER100B	R	●	
10EL100B	L	●	
10ER150B	R	●	
10EL150B	L	●	

● : Line up

Note: Right hand holder (JSEGR...) use right hand insert (10ER...) and left hand holder (JSEGL...) use left hand insert (10EL...)

### 10E (Insert blank)



Designation	HAND	Uncoated	
		TH10	
10ER300	R	●	
10EL300	L	●	

● : Line up

Note: Right hand holder (JSEGR...) use right hand insert (10ER...) and left hand holder (JSEGL...) use left hand insert (10EL...)

## Formed examples of insert blanks

Front turning

Back turning

Threading

Grooving

Parting-off

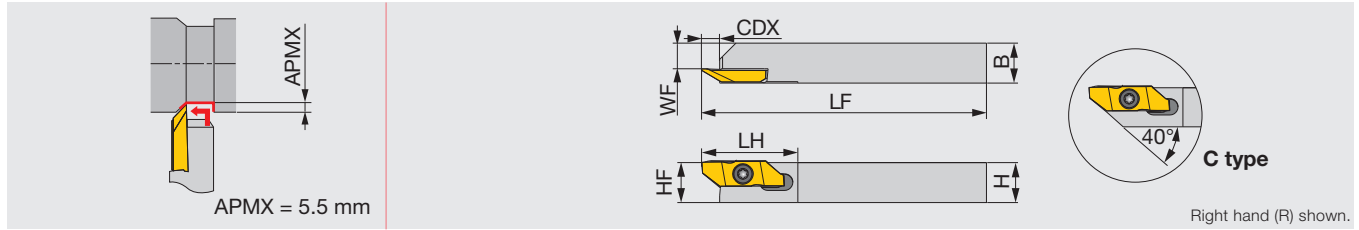
Notes:

- Front relief angle, side relief angle, edge width can be ground depending on the application.
- Insert blanks can be formed to a profiling tool which has a width up to 3 mm

## Standard cutting conditions

Operations		Workpiece material			
		Carbon steels	Stainless steels	Brass	
Lateral feed (external turning)	Cutting speed (m/min)	~ 100	~ 50	~ 200	
	Feed (mm/rev)	Roughing	~ 0.06	~ 0.03	~ 0.1
		Medium	~ 0.03	~ 0.025	~ 0.06
	Finishing	~ 0.02	~ 0.015	~ 0.04	
Parting-off Grooving Forming	Cutting speed (m/min)	~ 80	~ 30	~ 150	
	Feed (mm/rev)	Roughing	~ 0.02	~ 0.015	~ 0.05
		Medium	~ 0.015	~ 0.01	~ 0.03
	Finishing	~ 0.01	~ 0.008	~ 0.015	

### Screw-on toolholder for back turning and threading



Designation	H	B	LF	LH	CDX	HF	WF	Insert
JSXBR/L1010K8-C	10	10	125	29	6.7	10	5.7	JXBR/L8..., JXT*R...
JSXBR/L1212K8-C	12	12	125	29	6.7	12	7.7	JXBR/L8..., JXT*R...
JSXBR/L1616K8	16	16	125	29	6.4	16	11.7	JXBR/L8..., JXT*R...
JSXBR/L2020K8	20	20	125	29	6.4	20	15.7	JXBR/L8..., JXT*R...
JSXBR/L2525K8	25	25	125	29	6.4	25	20.7	JXBR/L8..., JXT*R...

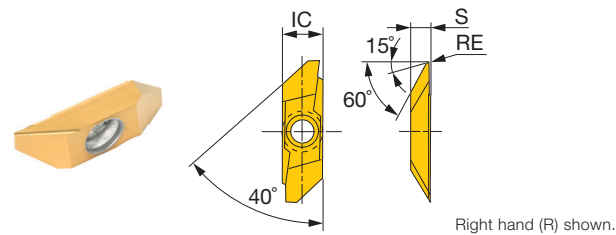
Can be used with JXT insert for threading.  
Can be wrenched also from the back with a double-head screw.

#### SPARE PARTS

Designation	Clamping screw	Wrench
JSXBR/L...	CSTB-4SD	T-8F

#### INSERT

##### JXB (Sharp edge)



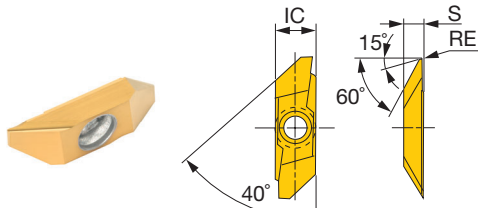
	P	M	K	N	S	H
Steel	★					
Stainless	★					
Cast iron	★		☆			
Non-ferrous			★			
Superalloys			★			
Hard materials			★			

★ : First choice  
☆ : Second choice

Designation	HAND	RE	Coated		Uncoated		IC	S	Max. depth of cut
			J740	TH10					
JXBR8000F	R	0.03	●	●			8	3.97	5.5
JXBL8000F	L	0.03	●	●			8	3.97	5.5
JXBR8005F	R	0.05	●	●			8	3.97	5.5
JXBL8005F	L	0.05	●	●			8	3.97	5.5
JXBR8010F	R	0.1	●	●			8	3.97	5.5
JXBL8010F	L	0.1	●	●			8	3.97	5.5
JXBR8015F	R	0.15	●	●			8	3.97	5.5
JXBL8015F	L	0.15	●	●			8	3.97	5.5

● : Line up

## JXB (Honed edge)



Right hand (R) shown.

<b>P</b>	Steel	★									
<b>M</b>	Stainless	★									
<b>K</b>	Cast iron	★									
<b>N</b>	Non-ferrous										
<b>S</b>	Superalloys	☆									
<b>H</b>	Hard materials										

★ : First choice  
☆ : Second choice

Designation	HAND	RE	Coated									IC	S	Max. depth of cut
			J740											
JXBR/L8005	R	0.05	●									8	3.97	5.5
JXBR/L8005	L	0.05	●									8	3.97	5.5
JXBR/L8010	R	0.1	●									8	3.97	5.5
JXBR/L8010	L	0.1	●									8	3.97	5.5
JXBR/L8015	R	0.15	●									8	3.97	5.5
JXBR/L8015	L	0.15	●									8	3.97	5.5

● : Line up

## STANDARD CUTTING CONDITIONS (JXB type insert)

ISO	Workpiece material	Grade	Cutting speed Vc (m/min)	Feed: f (mm/rev)	
				Grooving	Turning
<b>P</b>	General steel S45C, etc. C45, etc.	J740	10 - 100	0.01 - 0.03	0.02 - 0.1
	Free-cutting steel SUM22, etc. 11SMn28, etc.	J740	10 - 100	0.01 - 0.03	0.02 - 0.1
<b>M</b>	Stainless steel SUS303, etc. X10CrNiS18-9, etc.	J740	10 - 100	0.01 - 0.02	0.02 - 0.08
<b>N</b>	Aluminium alloys, Brass Si < 12% C3604B, etc. CW614N, etc	TH10	50 - 200	0.01 - 0.05	0.02 - 0.1
<b>S</b>	Difficult-to-machine material, Titanium alloys Ti-6Al-4V, etc.	TH10	10 - 30	0.01 - 0.02	0.02 - 0.05

Grade  
Insert  
Ext. Toolholder  
Int. Toolholder  
Threading  
Grooving  
Miniature tool  
Milling cutter  
Endmill  
Drilling tool  
Tooling System  
User's Guide  
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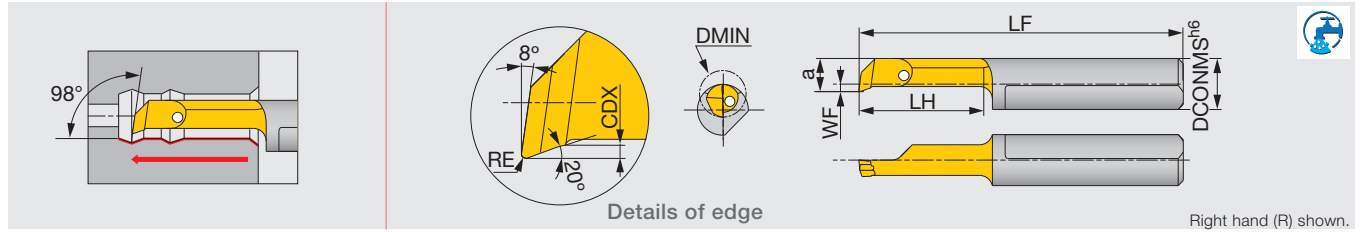
# Technical Guide

## MINIFORCE TURN STANDARD CUTTING CONDITIONS FOR EXTERNAL TURNING

Applications	ISO	Workpiece material	Priority	Chip breaker	Grade	Cutting speed Vc (m/min)	Depth of cut ap (mm)	Feed f (mm/rev)
For swiss type automatic lathes	P	Low carbon steel SS400, etc. E275A, etc. Carbon steel S45C, etc. C45, etc. Low alloy steel SCM415, etc. 18CrMo4, etc. Alloy steel SCM440, etc. 42CrMo4, etc.	First choice	JS	SH725	50 - 180	0.1 - 3	0.03 - 0.1
			With high sharpness	JSS	SH725	50 - 180	0.1 - 1.5	0.03 - 0.1
	M	Stainless steel (Austenitic) SUS304, etc. X5CrNi18-9, etc. Stainless steel (Martensitic and ferritic) SUS430, etc. X6Cr17, etc. Stainless steel (Precipitation hardened) SUS630, etc. X5CrNiCuNb16-4, etc.	First choice	JS	SH725	50 - 180	0.1 - 1.25	0.03 - 0.1
			With high sharpness	JSS	SH725	50 - 180	0.1 - 1.5	0.03 - 0.1
For small size CNC lathes	P	Low carbon steel SS400, etc. E275A, etc. Carbon steel S45C, etc. C45, etc. Low alloy steel SCM415, etc. 18CrMo4, etc. Alloy steel SCM440, etc. 42CrMo4, etc.	First choice	SS	AH725	50 - 180	0.15 - 1.5	0.05 - 0.2
				TS	AH725	50 - 180	0.3 - 2	0.08 - 0.3
			For improved surface finish	SS	NS9530	50 - 200	0.15 - 1.5	0.05 - 0.2
				TS	NS9530	50 - 200	0.3 - 2	0.08 - 0.3
		For wear resistance	SS	GT9530	50 - 250	0.15 - 1.5	0.05 - 0.2	
		TS	GT9530	50 - 250	0.3 - 2	0.08 - 0.3		
M	Stainless steel (Austenitic) SUS304, etc. X5CrNi18-9, etc. Stainless steel (Martensitic and ferritic) SUS430, etc. X6Cr17, etc. Stainless steel (Precipitation hardened) SUS630, etc. X5CrNiCuNb16-4, etc.	First choice	SS	AH8015	50 - 150	0.15 - 1.5	0.05 - 0.2	
		For impact resistance	TS	AH8015	50 - 150	0.3 - 2	0.08 - 0.3	

## J-SERIES STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Chip breaker	Grade	Cutting speed Vc (m/min)	Feed f (mm/rev)
P	Low carbon steel SS400, etc. E275A, etc. Carbon steel S45C, etc. C45, etc. Low alloy steel SCM415, etc. 18CrMo4, etc. Alloy steel SCM440, etc. 42CrMo4, etc.	First choice	SH725	50 - 200	0.01 - 0.2
		For impact resistance	AH725	50 - 200	0.01 - 0.2
M	Stainless steel (Austenitic) SUS304, etc. X5CrNi18-9, etc. Stainless steel (Martensitic and ferritic) SUS430, etc. X6Cr17, etc. Stainless steel (Precipitation hardened) SUS630, etc. X5CrNiCuNb16-4, etc.	First choice	SH725	50 - 200	0.01 - 0.2
		For impact resistance	AH725	50 - 200	0.01 - 0.2
K	Titanium alloys Ti-6Al-4V, etc. Superalloys Inconel718, etc.	First choice	SH725	20 - 80	0.01 - 0.2
		For impact resistance	AH725	20 - 80	0.01 - 0.2



Right hand (R) shown.

Designation	SH730	DMIN	DCONMS	WF	a	LF	LH	CDX	RE <sup>+0.05</sup> <sub>0</sub>
JBTR04020004-D006	●	0.6	4	-	0.5	18.5	2	0.08	0.04
JBTR04030004-D006	●	0.6	4	-	0.5	19.5	3	0.08	0.04
JBTR04045005-D010	●	1	4	-	0.9	21	4.5	0.1	0.05
JBTR04065005-D010	●	1	4	-	0.9	23	6.5	0.1	0.05
JBTR04040005-D020	●	2	4	-	1.7	20.5	4	0.1	0.05
JBTR04090005-D020	●	2	4	-	1.7	25.5	9	0.1	0.05
JBTR04140005-D020	●	2	4	-	1.7	30.5	14	0.1	0.05
JBTR/L04090010-D028	●	2.8	4	0.6	2.6	25.5	9	0.2	0.1
JBTR/L04150010-D028	●	2.8	4	0.6	2.6	31.5	15	0.2	0.1
JBTR/L04190010-D028	●	2.8	4	0.6	2.6	35.5	19	0.2	0.1
JBTR/L04090010-D040	●	4	4	1.5	3.5	25.5	9	0.3	0.1
JBTR/L04150010-D040	●	4	4	1.5	3.5	31.5	15	0.3	0.1
JBTR/L04190010-D040	●	4	4	1.5	3.5	35.5	19	0.3	0.1
JBTR04230010-D040	●	4	4	1.5	3.5	39.5	23	0.3	0.1
JBTR04270010-D040	●	4	4	1.5	3.5	43.5	27	0.3	0.1
JBTR/L07090015-D050	●	5	7	0.9	4.4	25	9	0.5	0.15
JBTR/L07140015-D050	●	5	7	0.9	4.4	30	14	0.5	0.15
JBTR/L07190015-D050	●	5	7	0.9	4.4	35	19	0.5	0.15
JBTR/L07240015-D050	●	5	7	0.9	4.4	40	24	0.5	0.15
JBTR/L07290015-D050	●	5	7	0.9	4.4	45	29	0.5	0.15
JBTR07340015-D050	●	5	7	0.9	4.4	50	34	0.5	0.15
JBTR/L07140015-D060	●	6	7	1.8	5.3	30	14	0.5	0.15
JBTR/L07210015-D060	●	6	7	1.8	5.3	37	21	0.5	0.15
JBTR/L07240015-D060	●	6	7	1.8	5.3	40	24	0.5	0.15
JBTR/L07290015-D060	●	6	7	1.8	5.3	45	29	0.5	0.15
JBTR07340015-D060	●	6	7	1.8	5.3	50	34	0.5	0.15
JBTR07410015-D060	●	6	7	1.8	5.3	57	41	0.5	0.15
JBTR/L07190015-D068	●	6.8	7	2.8	6.3	35	19	0.6	0.15
JBTR07240015-D068	●	6.8	7	2.8	6.3	40	24	0.6	0.15
JBTR/L07290015-D068	●	6.8	7	2.8	6.3	45	29	0.6	0.15
JBTR/L07340015-D070	●	7	7	2.8	6.3	50	34	0.6	0.15
JBTR07390015-D070	●	7	7	2.8	6.3	55	39	0.6	0.15
JBTR07440015-D070	●	7	7	2.8	6.3	60	44	0.6	0.15
JBTR07490015-D070	●	7	7	2.8	6.3	65	49	0.6	0.15

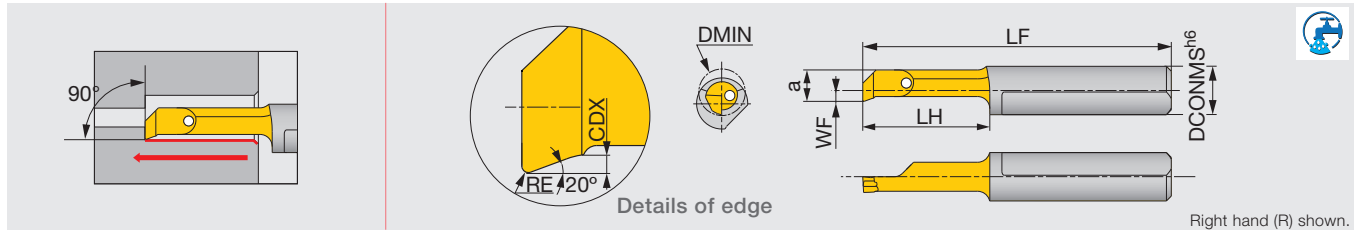
● : Line up



# TINY<sup>INI</sup>TURN

## JBP R

Solid boring bar for boring and chamfering



Right hand (R) shown.

Designation	SH730	DMIN	DCONMS	WF	a	LF	LH	CDX	RE <sup>+0.05</sup> <sub>0</sub>
JBPR04090010-D028	●	2.8	4	0.9	2.6	25.5	9	0.2	0.1
JBPR04150010-D028	●	2.8	4	0.9	2.6	31.5	15	0.2	0.1
JBPR04090010-D040	●	4	4	1.5	3.5	25.5	9	0.3	0.1
JBPR04150010-D040	●	4	4	1.5	3.5	31.5	15	0.3	0.1
JBPR07140015-D050	●	5	7	0.9	4.4	30	14	0.5	0.15
JBPR07190015-D050	●	5	7	0.9	4.4	35	19	0.5	0.15

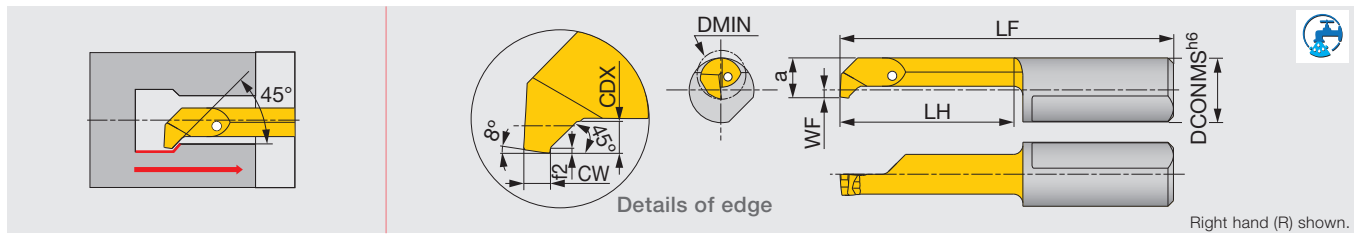
● : Line up



# TINY<sup>INI</sup>TURN

## JBU R

Solid boring bar for back boring and chamfering



Right hand (R) shown.

Designation	SH730	DMIN	DCONMS	WF	a	LF	LH	f2	CDX	CW <sup>+0.05</sup> <sub>0</sub>
JBUR07140010-D050	●	5	7	0.9	4.4	30	14	0.2	1	1
JBUR07190010-D050	●	5	7	0.9	4.4	35	19	0.2	1	1

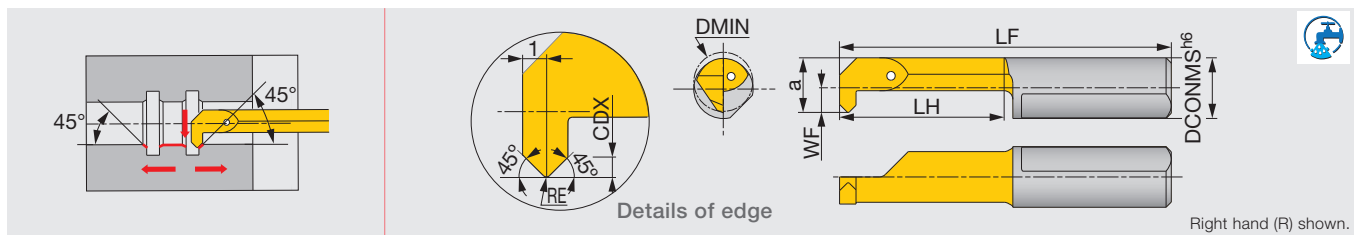
● : Line up



# TINY<sup>INI</sup>TURN

## JBC R

Solid boring bar for boring and 45° chamfering



Right hand (R) shown.

Designation	SH730	DMIN	DCONMS	WF	a	LF	LH	CDX	RE <sup>+0.05</sup> <sub>0</sub>
JBCR07140020-D050	●	5	7	0.9	4.4	30	14	0.7	0.2
JBCR07190020-D050	●	5	7	0.9	4.4	35	19	0.7	0.2
JBCR07190020-D068	●	6.8	7	2.8	6.3	35	19	0.7	0.2

● : Line up

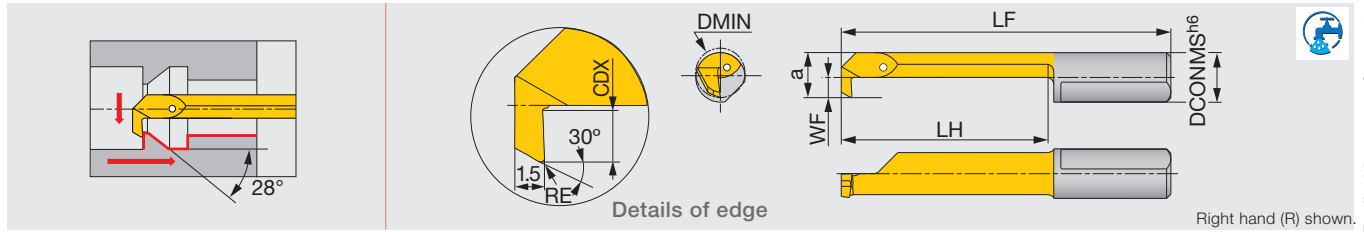
Reference pages : JBP R, JBU R, JBC R: Standard cutting conditions → **G062**



# TINY<sup>INI</sup>TURN

## JBB R

Solid boring bar for back boring



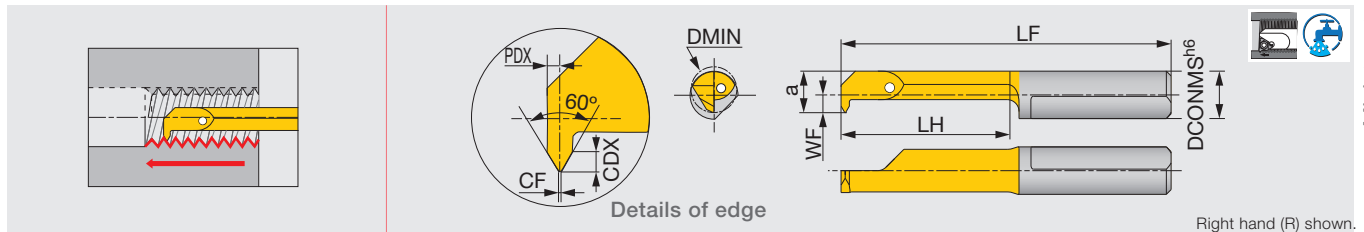
Designation	SH730	DMIN	DCONMS	WF	a	LF	LH	CDX	RE+0.05
JBBR04140020-D030	●	3	4	0.6	2.6	30	14	0.5	0.2
JBBR04190020-D030	●	3	4	0.6	2.6	35	19	0.5	0.2
JBBR04140015-D040	●	4	4	1.5	3.5	30	14	0.8	0.15
JBBR04240015-D040	●	4	4	1.5	3.5	40	24	0.8	0.15
JBBR07190020-D050	●	5	7	0.9	4.4	35	19	1	0.2
JBBR07290020-D050	●	5	7	0.9	4.4	45	29	1	0.2
JBBR07190020-D060	●	6	7	1.8	5.3	35	19	1.8	0.2
JBBR07290020-D060	●	6	7	1.8	5.3	45	29	1.8	0.2
JBBR07190020-D070	●	7	7	2.8	6.3	35	19	2.5	0.2
JBBR07290020-D070	●	7	7	2.8	6.3	45	29	2.5	0.2

● : Line up

# TINY<sup>INI</sup>TURN

## JBI R

Solid boring bar for threading (metric)



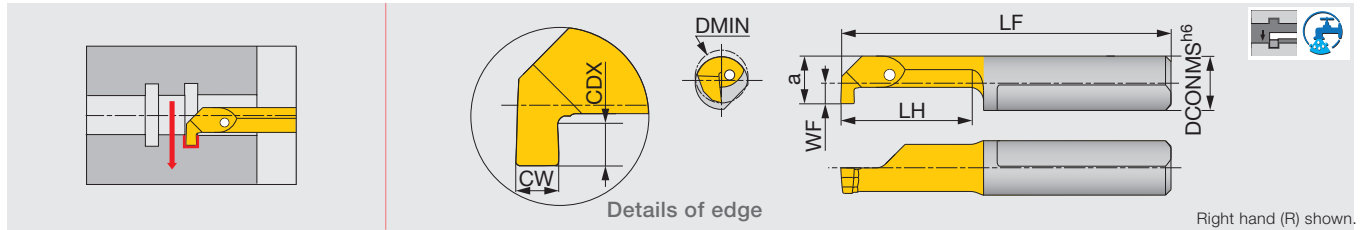
Designation	SH730	Pitch	DMIN	CF <sub>-0.02</sub> <sup>0</sup>	DCONMS	WF	a	LF	LH	CDX	PDX
JBIR04140050-D040	●	0.5	4	0.06	4	1.5	3.5	30	14	0.3	0.35
JBIR07140050-D050	●	0.5	5	0.06	7	0.9	4.4	30	14	0.3	0.35
JBIR07140075-D050	●	0.75	5	0.09	7	0.9	4.4	30	14	0.4	0.45
JBIR07140100-D048	●	1	4.8	0.12	7	0.9	4.4	30	14	0.6	0.55
JBIR07140100-D060	●	1	6	0.12	7	1.8	5.3	30	14	0.6	0.55
JBIR07140125-D060	●	1.25	6	0.15	7	1.8	5.3	30	14	0.7	0.65
JBIR07140150-D060	●	1.5	6	0.18	7	1.8	5.3	30	14	0.8	0.75
JBIR07140150-D070	●	1.5	7	0.18	7	2.8	6.3	30	14	0.8	0.75

● : Line up

Reference pages : JBB R, JBI R: Standard cutting conditions → **G062 - G063**

Grade  
Insert  
Ext. Toolholder  
Int. Toolholder  
Threading  
Grooving  
Miniature tool  
Milling cutter  
Endmill  
Drilling tool  
Tooling System  
User's Guide  
Index

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M



Right hand (R) shown.

Designation	SH730	CW <sup>+0.05</sup> <sub>0</sub>	DMIN	DCONMS	WF	a	LF	LH	CDX
JBGR04050050-D020	●	0.5	2	4	0.2	1.8	21	5	0.4
JBGR04100050-D020	●	0.5	2	4	0.2	1.8	26	10	0.4
JBGR04050070-D030	●	0.7	3	4	0.7	2.7	21	5	0.6
JBGR04100070-D030	●	0.7	3	4	0.7	2.7	26	10	0.6
JBGR04090100-D040	●	1	4	4	1.5	3.5	25.5	9	0.8
JBGR04150100-D040	●	1	4	4	1.5	3.5	31.5	15	0.8
JBGR07090100-D050	●	1	5	7	0.9	4.4	25	9	1
JBGR07140100-D050	●	1	5	7	0.9	4.4	30	14	1
JBGR07090150-D050	●	1.5	5	7	0.9	4.4	25	9	1
JBGR07140150-D050	●	1.5	5	7	0.9	4.4	30	14	1
JBGR07090200-D050	●	2	5	7	0.9	4.4	25	9	1
JBGR07190200-D050	●	2	5	7	0.9	4.4	35	19	1
JBGR/L07090100-D060	●	1	6	7	1.8	5.3	25	9	1.8
JBGR07140100-D060	●	1	6	7	1.8	5.3	30	14	1.8
JBGR07210100-D060	●	1	6	7	1.8	5.3	37	21	1.8
JBGR07290100-D060	●	1	6	7	1.8	5.3	45	29	1.8
JBGR/L07090150-D060	●	1.5	6	7	1.8	5.3	25	9	1.8
JBGR07140150-D060	●	1.5	6	7	1.8	5.3	30	14	1.8
JBGR07210150-D060	●	1.5	6	7	1.8	5.3	37	21	1.8
JBGR07240150-D060	●	1.5	6	7	1.8	5.3	40	24	1.8
JBGR07290150-D060	●	1.5	6	7	1.8	5.3	45	29	1.8
JBGR07090200-D060	●	2	6	7	1.8	5.3	25	9	1.8
JBGR07140200-D060	●	2	6	7	1.8	5.3	30	14	1.8
JBGR07210200-D060	●	2	6	7	1.8	5.3	37	21	1.8
JBGR07240200-D060	●	2	6	7	1.8	5.3	40	24	1.8
JBGR07290200-D060	●	2	6	7	1.8	5.3	45	29	1.8
JBGR07090100-D068	●	1	6.8	7	2.7	6.2	25	9	2.5
JBGR07140100-D068	●	1	6.8	7	2.7	6.2	30	14	2.5
JBGR07210100-D068	●	1	6.8	7	2.7	6.2	37	21	2.5
JBGR07090150-D068	●	1.5	6.8	7	2.7	6.2	25	9	2.5
JBGR07140150-D068	●	1.5	6.8	7	2.7	6.2	30	14	2.5
JBGR07210150-D068	●	1.5	6.8	7	2.7	6.2	37	21	2.5
JBGR07290150-D068	●	1.5	6.8	7	2.7	6.2	45	29	2.5
JBGR07090200-D068	●	2	6.8	7	2.7	6.2	25	9	2.5
JBGR/L07140200-D068	●	2	6.8	7	2.7	6.2	30	14	2.5
JBGR07210200-D068	●	2	6.8	7	2.7	6.2	37	21	2.5
JBGR07250200-D068	●	2	6.8	7	2.7	6.2	40	25	2.5
JBGR07290200-D068	●	2	6.8	7	2.7	6.2	45	29	2.5

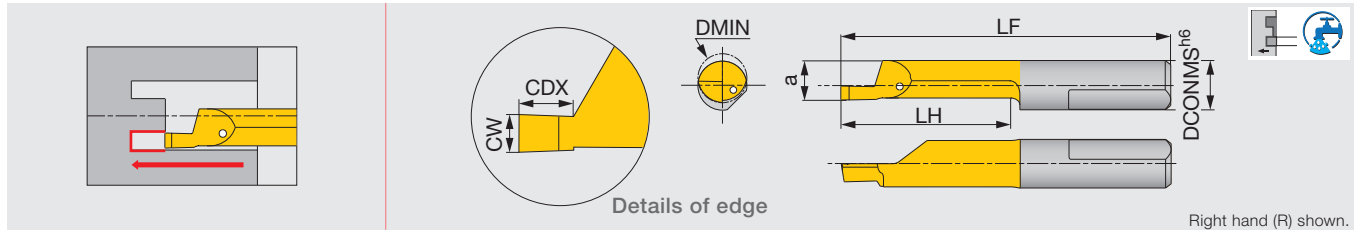
\* Corner radius: less than 0.1 mm

● : Line up

# TINYM<sup>INI</sup>TURN

## JBF R/L

Solid boring bar for face grooving



Designation	SH730	CW <sup>+0.05</sup> <sub>0</sub>	DMIN	DCONMS	a	LF	LH	CDX
JBFR07110100-D060	●	1	6	7	5.2	26	10	1.5
JBFR07110150-D060	●	1.5	6	7	5.2	26	10	2
JBFR07110200-D060	●	2	6	7	5.2	26	10	3
JBFR07110100-D080	●	1	8	7	5.9	27	11	1.5
JBFR07110150-D080	●	1.5	8	7	5.9	27	11	2.5
JBFR07110200-D080	●	2	8	7	5.9	27	11	3
JBFR07110250-D080	●	2.5	8	7	5.9	27	11	3.5
JBFR07110300-D080	●	3	8	7	5.9	27	11	3.5
JBFR/L07210150-D080	●	1.5	8	7	5.9	36	21	2.5
JBFR07210200-D080	●	2	8	7	5.9	36	21	3
JBFR07210250-D080	●	2.5	8	7	5.9	36	21	3.5
JBFR07210300-D080	●	3	8	7	5.9	36	21	3.5
JBFR/L07300200-D080	●	2	8	7	5.9	46	30	3
JBFR07300300-D080	●	3	8	7	5.9	46	30	3.5
JBFR07200200-D080	●	2	8	7	5.9	36	20	3
JBFR07200250-D150	●	2.5	15	7	5.9	36	20	20
JBFR07200300-D150	●	3	15	7	5.9	36	20	20
JBFR07300300-D150	●	3	15	7	5.9	46	30	30

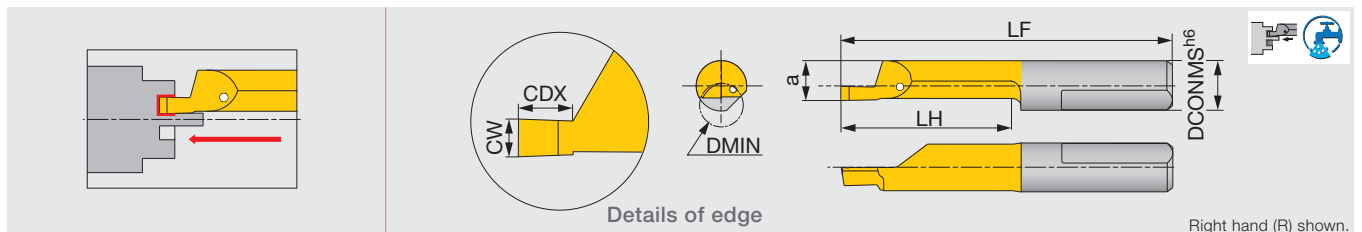
\* Corner radius: less than 0.1 mm

● : Line up

# TINYM<sup>INI</sup>TURN

## JBS R

Solid boring bar for face grooving (for shaft)



Designation	SH730	CW <sup>+0.05</sup> <sub>0</sub>	DMIN	DCONMS	a	LF	LH	CDX
JBRS07200200-D060	●	2	6	7	5.2	36	20	4

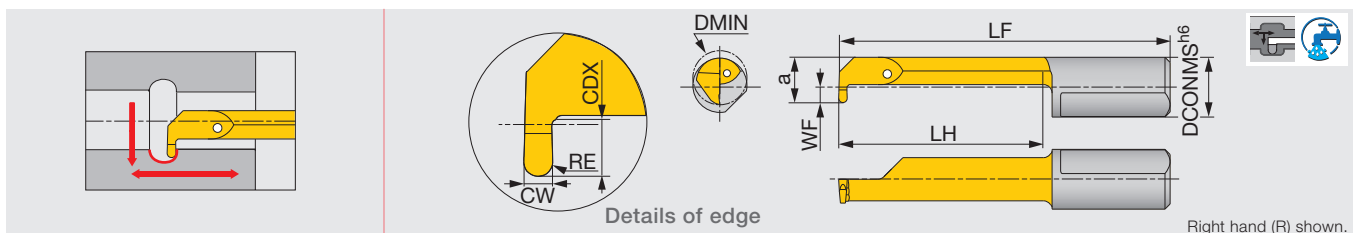
\* Corner radius: less than 0.1 mm

● : Line up

# TINYM<sup>INI</sup>TURN

## JBR R

Solid boring bar for boring and profiling



Designation	SH730	CW <sup>+0.05</sup> <sub>0</sub>	DMIN	DCONMS	WF	a	LF	LH	CDX	RE
JBRR07190050-D050	●	1	5	7	0.9	4.4	35	19	1	0.5
JBRR07240050-D060	●	1	6	7	1.8	5.3	40	24	1.8	0.5
JBRR07290050-D068	●	1	6.8	7	2.8	6.3	45	29	2.5	0.5

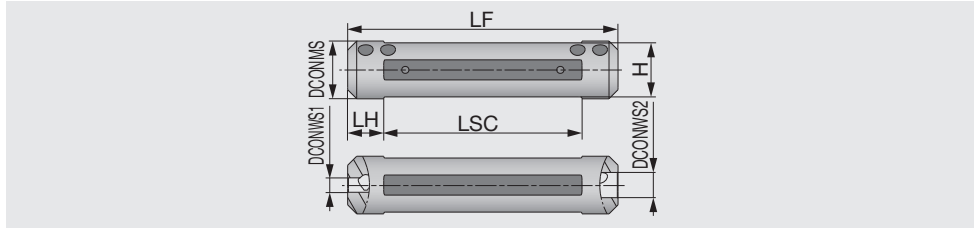
● : Line up

Reference pages : JBF R/L, JBS R: Standard cutting condition → G063, JBR R: Standard cutting conditions → G062

# TINY<sup>INI</sup>TURN

## JBBS

Sleeve for external coolant supply



Designation	DCONMS	DCONWS1	DCONWS2	LF	LH	LSC	H
JBBS12-4-4	12	4	4	75	10	55	10.3
JBBS127-4-4	12.7	4	4	76.2	10	56.2	11.6
JBBS14-4-4	14	4	4	75	10	55	12
JBBS159-4-7	15.875	4	7	76.2	10	56.2	14
JBBS16-4-7	16	4	7	75	10	55	15
JBBS19-4-7	19.05	4	7	89	10	69	17.2
JBBS20-4-7	20	4	7	90	10	70	18
JBBS22-4-7	22	4	7	90	10	70	20
JBBS25-4-7	25	4	7	100	10	80	23
JBBS254-4-7	25.4	4	7	90	10	70	23.4



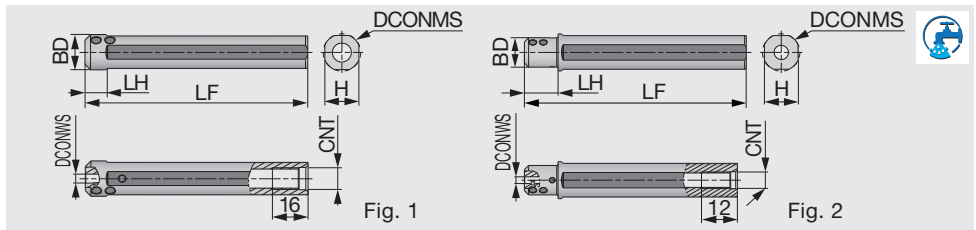
### SPARE PARTS

Designation	Clamping screw	Wrench
JBBS12-4-4	SSHM5-4PF-S	P-2.5
JBBS127-4-4	SSHM5-6PF-S	P-2.5
JBBS14-4-4	SSHM5-4PF-S	P-2.5
JBBS*-4-7	SSHM5-6PF-S	P-2.5

# TINY<sup>INI</sup>TURN

## JBBS-C

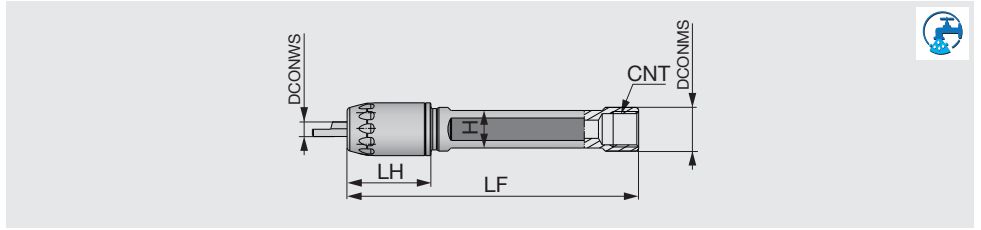
Sleeve for internal coolant supply



Designation	DCONMS	BD	DCONWS	LF	LH	H	CNT	Fig.
JBBS159-4-L100C	15.875	15.875	4	100	10	14.58	R1/8	1
JBBS159-7-L100C	15.875	15.875	7	100	10	14.58	R1/8	1
JBBS16-4-L100C	16	16	4	100	10	15	R1/8	1
JBBS16-7-L100C	16	16	7	100	10	15	R1/8	1
JBBS19-4-L100C	19.05	17.5	4	100	20	17.2	R1/8	2
JBBS19-7-L100C	19.05	17.5	7	100	20	17.2	R1/8	2
JBBS20-4-L100C	20	17.5	4	100	20	18	R1/8	2
JBBS20-7-L100C	20	17.5	7	100	20	18	R1/8	2
JBBS22-4-L100C	22	17.5	4	100	20	20	R1/8	2
JBBS22-7-L100C	22	17.5	7	100	20	20	R1/8	2
JBBS25-4-L100C	25	18	4	100	23	23	R1/8	2
JBBS25-7-L100C	25	18	7	100	23	23	R1/8	2
JBBS254-4-L100C	25.4	18	4	100	23	23.4	R1/8	2
JBBS254-7-L100C	25.4	18	7	100	23	23.4	R1/8	2

### SPARE PARTS

Designation	Clamping screw	Wrench
JBBS*-4-L100C	SSHM5-6PF-S	P-2.5
JBBS*-7-L100C	SSHM5-4PF-S	P-2.5



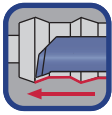
Designation	DCONMS	DCONWS	LF	LH	H	CNT
JBBSA16-4-L100C	16	4	100	23	14	Rc1/8
JBBSA16-7-L100C	16	7	100	23	14	Rc1/8
JBBSA20-4-L120C	20	4	120	23	18	Rc1/8
JBBSA20-7-L120C	20	7	120	23	18	Rc1/8

### SPARE PARTS



Designation	Cap	Wrench
JBBSA**-4-L100C	CAP-A-4	WRENCH-A-4
JBBSA**-7-L100C	CAP-A-7	WRENCH-A-7

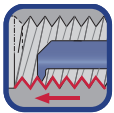
## STANDARD CUTTING CONDITIONS



Boring, profiling, chamfering, back boring

ISO	Workpiece material	Grade	Cutting speed Vc (m/min)	Feed f (mm/rev)
<b>P</b>	Low carbon steels S15C, S25C, etc. C15, C20, etc.	SH730	40 - 140	0.01 - 0.08 *
	Carbon steels, Alloy steels S55C, SCM440, etc. C55, 42CrMoS4 etc.	SH730	40 - 140	0.01 - 0.08 *
	Prehardened steels NAK80, PX5, etc.	SH730	40 - 140	0.01 - 0.08 *
<b>M</b>	Stainless steels SUS304, SUS316, etc. X5CrNi18-9, X5CrNiMo17-12-2, etc.	SH730	40 - 140	0.01 - 0.08 *
<b>K</b>	Grey cast irons FC250, FCD300, etc. 250, 300, etc.	SH730	30 - 100	0.01 - 0.08 *
	Ductile cast irons FC450, FCD600, etc. 400-15, 600-3, etc.	SH730	30 - 100	0.01 - 0.08 *
<b>N</b>	Aluminium alloys, Copper alloys Si < 12%	SH730	90 - 200	0.01 - 0.08 *
<b>S</b>	Titanium alloys Ti-6Al-4V, etc.	SH730	30 - 100	0.01 - 0.08 *
	Superalloys Inconel718, etc.	SH730	30 - 100	0.01 - 0.08 *

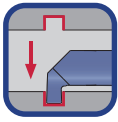
\* JBTR/L04020004-D006,  
JBTR/L04030004-D006  
Max. f = 0.01 mm/rev



Threading (metric thread)

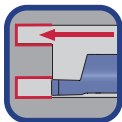
ISO	Workpiece material	Grade	Cutting speed Vc (m/min)	Number of passes Pitch (mm)				
				0.5	0.75	1	1.25	1.5
<b>P</b>	Low carbon steels S15C, S25C, etc. C15, C20, etc.	SH730	40 - 140	6 - 8	8 - 10	10 - 12	12 - 15	15 - 18
	Carbon steels, Alloy steels S55C, SCM440, etc. C55, 42CrMoS4, etc.	SH730	40 - 140	6 - 8	8 - 10	10 - 12	12 - 15	15 - 18
	Prehardened steels NAK80, PX5, etc.	SH730	40 - 140	6 - 8	8 - 10	10 - 12	12 - 15	15 - 18
<b>M</b>	Stainless steels SUS304, SUS316, etc. X5CrNi18-9, X5CrNiMo17-12-2, etc.	SH730	40 - 140	8	10	12	15	18
<b>K</b>	Grey cast irons FC250, FCD300, etc. 250, 300, etc.	SH730	30 - 100	7	9	12	14	17
	Ductile cast irons FC450, FCD600, etc. 400-15, 600-3, etc.	SH730	30 - 100	7	9	12	14	17
<b>N</b>	Aluminium alloys, Copper alloys Si < 12%	SH730	90 - 200	6	8	10	12	15

## STANDARD CUTTING CONDITIONS



Internal grooving

ISO	Workpiece material	Grade	Cutting speed Vc (m/min)	Feed f (mm/rev)
P	Low carbon steels S15C, S25C, etc. C15, C20, etc.	SH730	40 - 140	0.01 - 0.03
	Carbon steels, Alloy steels S55C, SCM440, etc. C55, 42CrMoS4 etc.	SH730	40 - 140	0.01 - 0.03
	Prehardened steels NAK80, PX5, etc.	SH730	40 - 140	0.01 - 0.03
M	Stainless steels SUS304, SUS316, etc. X5CrNi18-9, X5CrNiMo17-12-2, etc.	SH730	40 - 140	0.01 - 0.03
K	Grey cast irons FC250, FCD300, etc. 250, 300, etc.	SH730	30 - 100	0.01 - 0.03
	Ductile cast irons FC450, FCD600, etc. 400-15, 600-3, etc.	SH730	30 - 100	0.01 - 0.03
N	Aluminium alloys, Copper alloys Si < 12%	SH730	90 - 200	0.01 - 0.03
S	Titanium alloys Ti-6Al-4V, etc.	SH730	30 - 100	0.01 - 0.03
	Superalloys Inconel718, etc.	SH730	30 - 100	0.01 - 0.03

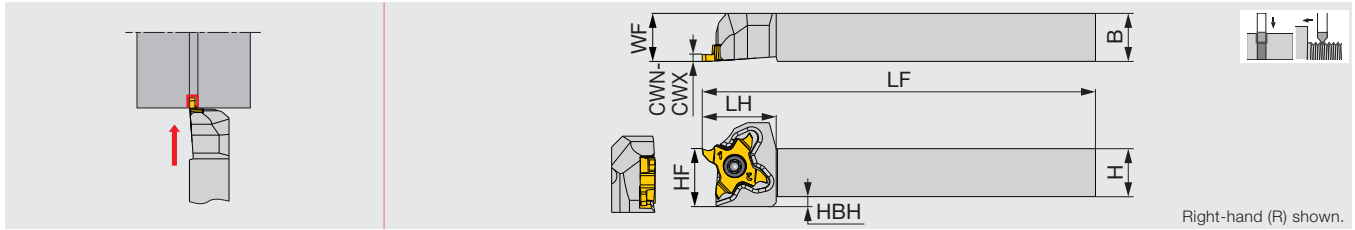


Face grooving

ISO	Workpiece material	Grade	Cutting speed Vc (m/min)	Feed f (mm/rev)
P	Low carbon steels S15C, S25C, etc. C15, C20, etc.	SH730	40 - 140	0.01 - 0.05
	Carbon steels, Alloy steels S55C, SCM440, etc. C55, 42CrMoS4 etc.	SH730	40 - 140	0.01 - 0.05
	Prehardened steels NAK80, PX5, etc.	SH730	40 - 140	0.01 - 0.05
M	Stainless steels SUS304, SUS316, etc. X5CrNi18-9, X5CrNiMo17-12-2, etc.	SH730	40 - 140	0.01 - 0.05
K	Grey cast irons FC250, FCD300, etc. 250, 300, etc.	SH730	30 - 100	0.01 - 0.05
	Ductile cast irons FC450, FCD600, etc. 400-15, 600-3, etc.	SH730	30 - 100	0.01 - 0.05
N	Aluminium alloys, Copper alloys Si < 12%	SH730	90 - 200	0.01 - 0.05
S	Titanium alloys Ti-6Al-4V, etc.	SH730	30 - 100	0.01 - 0.05
	Superalloys Inconel718, etc.	SH730	30 - 100	0.01 - 0.05

Grade  
Insert  
Ext. Toolholder  
Int. Toolholder  
Threading  
Grooving  
Miniature tool  
Milling cutter  
Endmill  
Drilling tool  
Tooling System  
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Designation	CWN	CWX	H	B	LF	LH	HF	WF	HBH	Insert	Torque*
STCR/L1010X18	0.33	3	10	10	120	18.5	10	10	4.5	TC*18...	1.2
STCR/L1212F18	0.33	3	12	12	85	18.5	12	12	2.5	TC*18...	1.2
STCR/L1212X18	0.33	3	12	12	120	18.5	12	12	2.5	TC*18...	1.2
STCR/L1616X18	0.33	3	16	16	120	18.5	16	16	-	TC*18...	1.2
STCR/L2020H18	0.33	3	20	20	100	18.5	20	20	-	TC*18...	1.2
STCR/L2020X18	0.33	3	20	20	120	23.0	20	25	-	TC*18...	1.2
STCR/L2525Z18	0.33	3	25	25	135	23.0	25	30	-	TC*18...	1.2

- The right hand insert (TC\*18R...) is used for the right hand toolholders (STCR...), and the left hand insert is used for the left hand toolholders  
 \*Torque: Recommended torque (N·m) for clamping



Left-Hand Insert



TCP18L...

Right-Hand Insert



TCP18R...

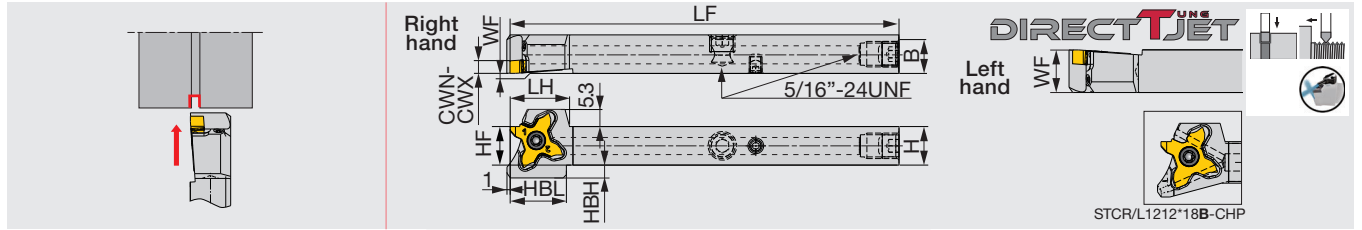
### SPARE PARTS



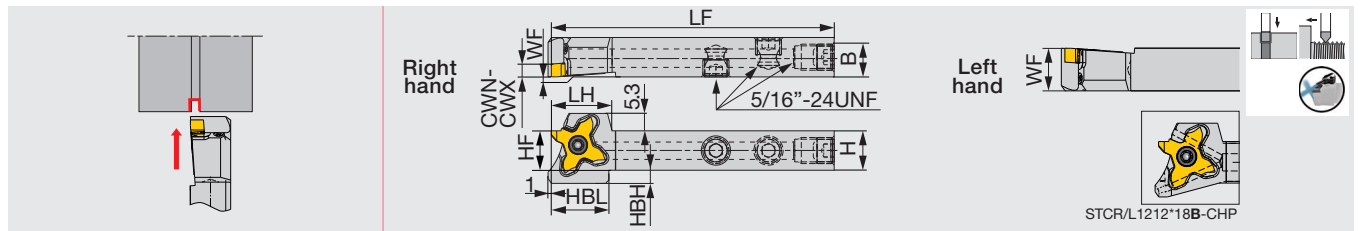
Designation	Clamping screw	Wrench
STCR...18	CSTC-4L100DL	T-1008/5
STCL...18	CSTC-4L100DR	T-1008/5



External grooving and threading toolholder, with high pressure coolant capability



Designation	CWN	CWX	H	B	LF	LH	HF	WF	HBL	HBH	Insert	Torque*
STCR/L1212X18-CHP*** <sup>(1)</sup>	0.33	3	12	12	120	18.5	12	0/12	17.5	4	TC*18...	1.2
STCR/L1212X18B-CHP <sup>(1)</sup>	0.33	3	12	12	120	18.5	12	0/12	17.5	4	TC*18...	1.2
STCR/L1616X18-CHP <sup>(1)</sup>	0.33	3	16	16	120	18.5	16	0/16	-	-	TC*18...	1.2



Designation	CWN	CWX	H	B	LF	LH	HF	WF	HBL	HBH	Insert	Torque*
STCR/L1212F18-CHP***	0.33	3	12	12	85	18.5	12	0/12	17.5	4	TC*18...	1.2
STCR/L1212F18B-CHP	0.33	3	12	12	85	18.5	12	0/12	17.5	4	TC*18...	1.2

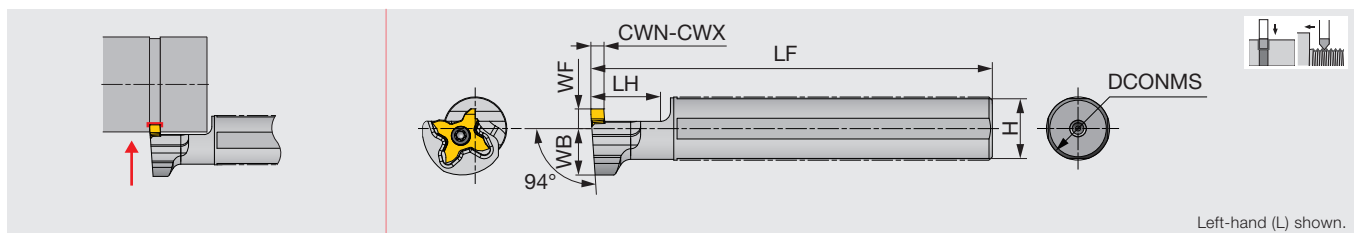
**SPARE PARTS**

Designation	Clamping screw	Wrench
STCL**18-CHP	CSTC-4L100DR	T-1008/5
STCR**18-CHP	CSTC-4L100DL	T-1008/5

<sup>(1)</sup> Compatible to DirectTungJet system  
 - Use the right hand insert (TC\*18R...) with the right hand toolholders (STCR...). Use the left hand insert (TC\*18L...) with the left hand holder (STCL...).  
 \*\*\*: To be replaced with the new design

**TETRAMCUT**  
**JS-STCL18**

External grooving and threading toolholder with round shank, for Swiss lathes



Designation	CWN	CWX	DCONMS	H	LF	LH	WB	WF	Insert	Torque*
JS14H-STCL18	0.33	3	14	13	100	20	14	6	TC*18R...	1.2
JS159F-STCL18	0.33	3	15.875	15	85	20	14	6	TC*18R...	1.2
JS16F-STCL18	0.33	3	16	15	85	20	14	6	TC*18R...	1.2
JS19G-STCL18	0.33	3	19.05	18	90	20	14	6	TC*18R...	1.2
JS19X-STCL18	0.33	3	19.05	18	120	20	14	6	TC*18R...	1.2
JS20G-STCL18	0.33	3	20	19	90	20	14	6	TC*18R...	1.2
JS20X-STCL18	0.33	3	20	19	120	20	14	6	TC*18R...	1.2
JS22X-STCL18	0.33	3	22	21	120	20	12.25	10	TC*18R...	1.2
JS25H-STCL18	0.33	3	25	24	100	20	12.25	10	TC*18R...	1.2
JS254X-STCL18	0.33	3	25.4	24	120	20	12.25	10	TC*18R...	1.2

**SPARE PARTS**

Designation	Clamping screw	Wrench
JS...STCL18	CSTC-4L100DL	T-1008/5

- The left hand toolholder (STCL...) is used with the right hand inserts (TC\*18R...)  
 \*Torque: Recommended torque (N-m) for clamping

Reference pages : STCR/L-18-CHP: Inserts → G067 - G072, Standard cutting conditions → G072 - G073

Grade  
Insert  
Ext. Toolholder  
Int. Toolholder  
Threading  
Grooving  
Miniature tool  
Milling cutter  
Endmill  
Drilling tool  
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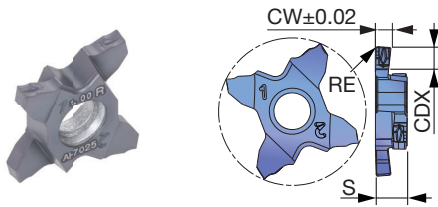
## Selection guide for TetraMini-Cut inserts

Groove width CW (mm)	Corner rad. RE (mm)	TCS18R (G067)	TCG18R/L (G068)	TCP18R/L (G070)	TCP18R/L-F (G071)
		AH7025	AH7025	AH725	SH725
		Honed edge	Honed edge	Lightly honed edge	Sharp edge
0.33	0.05			●	●
0.43	0.05			●	●
0.50	0.05			●	●
0.75	0.05			●	●
0.95	0.05			●	●
1.00	0.05				●
	0.1	●	●	●	●
1.20	0.05				●
	0.1	●	●	●	●
1.25	0.05				●
	0.1	●	●	●	●
	0.2	●	●		
1.30	0.2	●	●		
1.40	0.1	●	●	●	●
	0.2	●	●		
1.45	0.05				●
	0.1	●	●	●	●
	0.2		●		
1.50	0.05				●
	0.1	●	●	●	●
	0.2	●	●		
1.60	0.2	●	●		
1.70	0.2	●	●		
1.75	0.05				●
	0.1	●	●	●	●
	0.2	●	●		
1.85	0.2	●	●		
1.95	0.2	●	●		
2.00	0.05				●
	0.1	●	●	●	●
	0.2	●	●		
2.25	0.2	●	●		
2.30	0.2	●	●		
2.50	0.1	●	●	●	●
	0.2	●	●		
	0.3	●	●		
2.65	0.3	●	●		
2.80	0.3	●	●		
3.00	0.1	●	●	●	●
	0.2	●	●		
	0.3	●	●		

● : Line up

# INSERT

## TCS18R (honed edge) (3D chipbreaker, honed edge)



<b>P</b>	Steel	★
<b>M</b>	Stainless	★
<b>K</b>	Cast iron	★
<b>N</b>	Non-ferrous	
<b>S</b>	Superalloys	★
<b>H</b>	Hard materials	

★ : First choice  
☆ : Second choice

Designation	HAND	CW±0.02	RE	Coated					CDX	S	
				AH7025							
TCS18R100-010	R	1	0.1	●						2	4
TCS18R120-010	R	1.2	0.1	●						2	4
TCS18R125-010	R	1.25	0.1	●						2	4
TCS18R125-020	R	1.25	0.2	●						2	4
TCS18R130-020	R	1.3	0.2	●						3.5	4
TCS18R140-010	R	1.4	0.1	●						3.5	4
TCS18R140-020	R	1.4	0.2	●						3.5	4
TCS18R145-010	R	1.45	0.1	●						3.5	4
TCS18R150-010	R	1.5	0.1	●						3.5	4
TCS18R150-020	R	1.5	0.2	●						3.5	4
TCS18R160-020	R	1.6	0.2	●						3.5	4
TCS18R170-020	R	1.7	0.2	●						3.5	4
TCS18R175-010	R	1.75	0.1	●						3.5	4
TCS18R175-020	R	1.75	0.2	●						3.5	4
TCS18R185-020	R	1.85	0.2	●						3.5	4
TCS18R195-020	R	1.95	0.2	●						3.5	4
TCS18R200-010	R	2	0.1	●						3.5	4
TCS18R200-020	R	2	0.2	●						3.5	4
TCS18R225-020	R	2.25	0.2	●						3.5	4
TCS18R230-020	R	2.3	0.2	●						3.5	4
TCS18R250-010	R	2.5	0.2	●						3.5	4
TCS18R250-020	R	2.5	0.2	●						3.5	4
TCS18R250-030	R	2.5	0.3	●						3.5	4
TCS18R265-030	R	2.65	0.3	●						3.5	4
TCS18R280-030	R	2.8	0.3	●						3.5	4
TCS18R300-010	R	3	0.1	●						3.5	4
TCS18R300-020	R	3	0.2	●						3.5	4
TCS18R300-030	R	3	0.3	●						3.5	4

Please see the page G073 for precautions of processing.

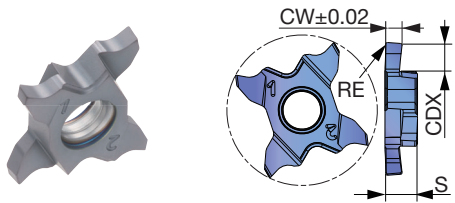
5 pieces per package

● : Line up



# INSERT

## TCG18R/L (with edge preparation)



P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	★
H	Hard materials	

★ : First choice  
☆ : Second choice

Designation	HAND	CW±0.02	RE	Coated								CDX	S	
				AH7025										
TCG18R100-010	R	1	0.1	●									2	4
TCG18L100-010	L	1	0.1	●									2	4
TCG18R120-010	R	1.2	0.1	●									2	4
TCG18L120-010	L	1.2	0.1	●									2	4
TCG18R125-010	R	1.25	0.1	●									2	4
TCG18L125-010	L	1.25	0.1	●									2	4
TCG18R125-020	R	1.25	0.2	●									2	4
TCG18L125-020	L	1.25	0.2	●									2	4
TCG18R130-020	R	1.3	0.2	●									2	4
TCG18L130-020	L	1.3	0.2	●									2	4
TCG18R140-010	R	1.4	0.1	●									3.5	4
TCG18L140-010	L	1.4	0.1	●									3.5	4
TCG18R140-020	R	1.4	0.2	●									3.5	4
TCG18L140-020	L	1.4	0.2	●									3.5	4
TCG18R145-010	R	1.45	0.1	●									3.5	4
TCG18L145-010	L	1.45	0.1	●									3.5	4
TCG18R145-020	R	1.45	0.2	●									3.5	4
TCG18L145-020	L	1.45	0.2	●									3.5	4
TCG18R150-010	R	1.5	0.1	●									3.5	4
TCG18L150-010	L	1.5	0.1	●									3.5	4
TCG18R150-020	R	1.5	0.2	●									3.5	4
TCG18L150-020	L	1.5	0.2	●									3.5	4
TCG18R160-020	R	1.6	0.2	●									3.5	4
TCG18L160-020	L	1.6	0.2	●									3.5	4
TCG18R170-020	R	1.7	0.2	●									3.5	4
TCG18L170-020	L	1.7	0.2	●									3.5	4
TCG18R175-010	R	1.75	0.1	●									3.5	4
TCG18L175-010	L	1.75	0.1	●									3.5	4
TCG18R175-020	R	1.75	0.2	●									3.5	4
TCG18L175-020	L	1.75	0.2	●									3.5	4
TCG18R185-020	R	1.85	0.2	●									3.5	4
TCG18L185-020	L	1.85	0.2	●									3.5	4
TCG18R195-020	R	1.95	0.2	●									3.5	4
TCG18L195-020	L	1.95	0.2	●									3.5	4

Please see the page G073 for precautions of processing.

5 pieces per package

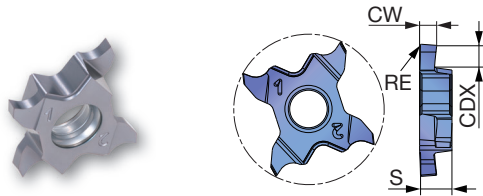
● : Line up

Reference pages : Toolholders → G064 - G065, Standard cutting conditions → G072



# INSERT

## TCP18R/L (lightly honed edge)



<b>P</b>	Steel	★
<b>M</b>	Stainless	★
<b>K</b>	Cast iron	★
<b>N</b>	Non-ferrous	
<b>S</b>	Superalloys	★
<b>H</b>	Hard materials	

★ : First choice  
☆ : Second choice

Designation	HAND	CW±0.02	RE	Coated		CDX	S
				AH725			
TCP18R033-005	R	0.33	0.05	●		0.8	4
TCP18L033-005	L	0.33	0.05	●		0.8	4
TCP18R043-005	R	0.43	0.05	●		1.2	4
TCP18L043-005	L	0.43	0.05	●		1.2	4
TCP18R050-005	R	0.50	0.05	●		1.2	4
TCP18L050-005	L	0.50	0.05	●		1.2	4
TCP18R075-005	R	0.75	0.05	●		2	4
TCP18L075-005	L	0.75	0.05	●		2	4
TCP18R095-005	R	0.95	0.05	●		2	4
TCP18L095-005	L	0.95	0.05	●		2	4
TCP18R100-010	R	1	0.1	●		2	4
TCP18L100-010	L	1	0.1	●		2	4
TCP18R120-010	R	1.2	0.1	●		2	4
TCP18L120-010	L	1.2	0.1	●		2	4
TCP18R125-010	R	1.25	0.1	●		2	4
TCP18L125-010	L	1.25	0.1	●		2	4
TCP18R140-010-35	R	1.4	0.1	●		3.5	4
TCP18L140-010-35	L	1.4	0.1	●		3.5	4
TCP18R145-010	R	1.45	0.1	●		2	4
TCP18L145-010	L	1.45	0.1	●		2	4
TCP18R145-010-35	R	1.45	0.1	●		3.5	4
TCP18L145-010-35	L	1.45	0.1	●		3.5	4
TCP18R150-010	R	1.5	0.1	●		2	4
TCP18L150-010	L	1.5	0.1	●		2	4
TCP18R150-010-35	R	1.5	0.1	●		3.5	4
TCP18L150-010-35	L	1.5	0.1	●		3.5	4
TCP18R175-010	R	1.75	0.1	●		2	4
TCP18L175-010	L	1.75	0.1	●		2	4
TCP18R175-010-35	R	1.75	0.1	●		3.5	4
TCP18L175-010-35	L	1.75	0.1	●		3.5	4
TCP18R200-010	R	2	0.1	●		2.5	4
TCP18L200-010	L	2	0.1	●		2.5	4
TCP18R200-010-35	R	2	0.1	●		3.5	4
TCP18L200-010-35	L	2	0.1	●		3.5	4
TCP18R250-010	R	2.5	0.1	●		2.5	4
TCP18L250-010	L	2.5	0.1	●		2.5	4
TCP18R250-010-35	R	2.5	0.1	●		3.5	4
TCP18L250-010-35	L	2.5	0.1	●		3.5	4
TCP18R300-010	R	3	0.1	●		2.5	4
TCP18L300-010	L	3	0.1	●		2.5	4
TCP18R300-010-35	R	3	0.1	●		3.5	4
TCP18L300-010-35	L	3	0.1	●		3.5	4

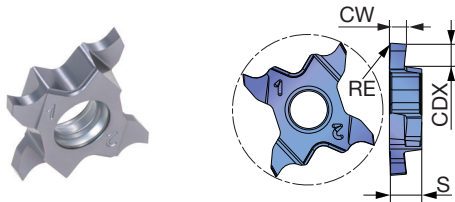
Please see the page G073 for precautions of processing.

5 pieces per package

● : Line up

Reference pages: Toolholders → G064 - G065, Standard cutting conditions → G073

# TCP18R/L-F (sharp edge)



<b>P</b>	Steel	★
<b>M</b>	Stainless	★
<b>K</b>	Cast iron	★
<b>N</b>	Non-ferrous	
<b>S</b>	Superalloys	★
<b>H</b>	Hard materials	

★ : First choice  
☆ : Second choice

Designation	HAND	CW±0.02	RE	Coated					CDX	S	
				SH725							
TCP18R033F-005	R	0.33	0.05	●						0.8	4
TCP18L033F-005	L	0.33	0.05	●						0.8	4
TCP18R043F-005	R	0.43	0.05	●						1.2	4
TCP18L043F-005	L	0.43	0.05	●						1.2	4
TCP18R050F-005	R	0.5	0.05	●						1.2	4
TCP18L050F-005	L	0.5	0.05	●						1.2	4
TCP18R075F-005	R	0.75	0.05	●						2	4
TCP18L075F-005	L	0.75	0.05	●						2	4
TCP18R095F-005	R	0.95	0.05	●						2	4
TCP18L095F-005	L	0.95	0.05	●						2	4
TCP18R100F-005	R	1	0.05	●						2	4
TCP18R100F-010	R	1	0.1	●						2	4
TCP18L100F-010	L	1	0.1	●						2	4
TCP18R120F-005	R	1.2	0.05	●						2	4
TCP18R120F-010	R	1.2	0.1	●						2	4
TCP18L120F-010	L	1.2	0.1	●						2	4
TCP18R125F-005	R	1.25	0.05	●						2	4
TCP18R125F-010	R	1.25	0.1	●						2	4
TCP18L125F-010	L	1.25	0.1	●						2	4
TCP18R140F-010-35	R	1.4	0.1	●						3.5	4
TCP18R145F-005-35	R	1.45	0.05	●						3.5	4
TCP18R145F-010	R	1.45	0.1	●						2	4
TCP18L145F-010	L	1.45	0.1	●						2	4
TCP18R145F-010-35	R	1.45	0.1	●						3.5	4
TCP18L145F-010-35	L	1.45	0.1	●						3.5	4
TCP18R150F-005-35	R	1.5	0.05	●						3.5	4
TCP18R150F-010	R	1.5	0.1	●						2	4
TCP18L150F-010	L	1.5	0.1	●						2	4
TCP18R150F-010-35	R	1.5	0.1	●						3.5	4
TCP18L150F-010-35	L	1.5	0.1	●						3.5	4
TCP18R175F-005-35	R	1.75	0.05	●						3.5	4
TCP18R175F-010	R	1.75	0.1	●						2	4
TCP18L175F-010	L	1.75	0.1	●						2	4
TCP18R175F-010-35	R	1.75	0.1	●						3.5	4
TCP18L175F-010-35	L	1.75	0.1	●						3.5	4
TCP18R200F-005-35	R	2	0.05	●						3.5	4
TCP18R200F-010	R	2	0.1	●						2.5	4
TCP18L200F-010	L	2	0.1	●						2.5	4
TCP18R200F-010-35	R	2	0.1	●						3.5	4
TCP18L200F-010-35	L	2	0.1	●						3.5	4
TCP18R250F-010	R	2.5	0.1	●						2.5	4
TCP18L250F-010	L	2.5	0.1	●						2.5	4
TCP18R250F-010-35	R	2.5	0.1	●						3.5	4
TCP18L250F-010-35	L	2.5	0.1	●						3.5	4
TCP18R300F-010	R	3	0.1	●						2.5	4
TCP18L300F-010	L	3	0.1	●						2.5	4
TCP18R300F-010-35	R	3	0.1	●						3.5	4
TCP18L300F-010-35	L	3	0.1	●						3.5	4

Please see the page G073 for precautions of processing.

Reference pages: Toolholders → G064 - G065, Standard cutting conditions → G073

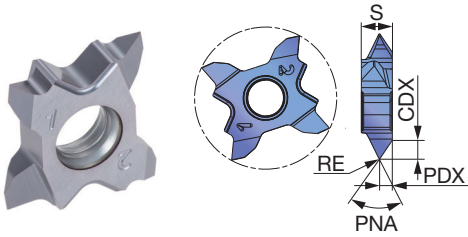
5 pieces per package  
● : Line up

Grade  
Insert  
Ext. Toolholder  
Int. Toolholder  
Threading  
Grooving  
Miniature tool  
Milling cutter  
Endmill  
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## INSERT

### TCT18R/L (for threading)



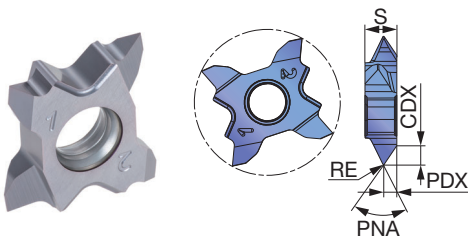
<b>P</b>	Steel	★									
<b>M</b>	Stainless	★									
<b>K</b>	Cast iron	★									
<b>N</b>	Non-ferrous										
<b>S</b>	Superalloys	★									
<b>H</b>	Hard materials										

★ : First choice  
☆ : Second choice

Designation	HAND	RE	Coated									Pitch min	Pitch max	PDX	CDX	PNA	S	
			AH725															
TCT18R-60N-010	R	0.1	●										0.8	3	1.6	2.67	60°	4
TCT18L-60N-010	L	0.1	●										0.8	3	1.6	2.67	60°	4
TCT18R-60N-020	R	0.2	●										0.8	3	1.6	2.57	60°	4
TCT18L-60N-020	L	0.2	●										0.8	3	1.6	2.57	60°	4

### TCT18FR (sharp edge for threading)

● : Line up



Right-hand (R) shown.

<b>P</b>	Steel	★									
<b>M</b>	Stainless	★									
<b>K</b>	Cast iron	★									
<b>N</b>	Non-ferrous										
<b>S</b>	Superalloys	★									
<b>H</b>	Hard materials										

★ : First choice  
☆ : Second choice

Designation	HAND	RE	Coated									Pitch min	Pitch max	PDX	CDX	PNA	S	
			SH725															
TCT18FR-60A-005	R	0.1	●										0.4	1	0.6	0.99	60°	4
TCT18FR-60A-010	L	0.1	●										1	2	1	1.63	60°	4

● : Line up

## STANDARD CUTTING CONDITIONS

### TCS18R (3D chipbreaker) , TCG18R/L (honed edge)

ISO	Workpiece materials	Grades	Cutting speed Vc (m/min)	Feed: f (mm/rev)	
				TCG	TCS
<b>P</b>	Low carbon steel S15C, S20C, etc. C15, C20, etc.	AH7025	80 - 180	0.03 - 0.12	0.03 - 0.15
	Carbon steels, Alloy steel S55C, SCM440, etc. C55, 42CrMoS4, etc.	AH7025	80 - 180	0.03 - 0.12	0.03 - 0.15
	Prehardened steel NAK80, PX5, etc.	AH7025	80 - 180	0.03 - 0.12	0.03 - 0.15
<b>M</b>	Stainless steel SUS304, SUS316, etc. X5CrNi18-9, X5CrNiMo17-12-3, etc.	AH7025	50 - 120	0.03 - 0.12	0.03 - 0.15
<b>K</b>	Grey cast iron FC250, FC300, etc. 250, 300, etc.	AH7025	50 - 180	0.03 - 0.12	0.03 - 0.15
	Ductile cast iron FCD400, FCD600, etc. 400-15, 600-3, etc.	AH7025	50 - 180	0.03 - 0.12	0.03 - 0.15
<b>S</b>	Titanium alloys Ti-6Al-4V, etc.	AH7025	30 - 80	0.03 - 0.12	0.03 - 0.15
	Superalloys Inconel718, etc.	AH7025	20 - 60	0.03 - 0.12	0.03 - 0.15



## STANDARD CUTTING CONDITIONS

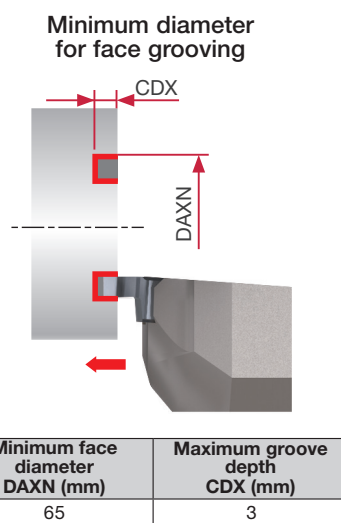
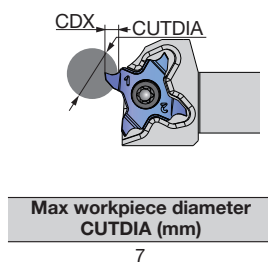
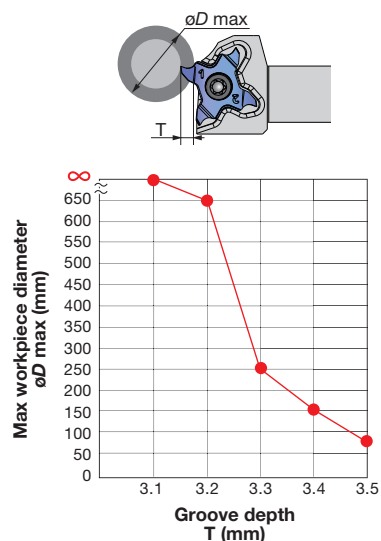
### TCP18R/L (lightly honed edge) / TCP18R/L-F (sharp edge)

ISO	Workpiece materials	Priority	Grades	Cutting speed Vc (m/min)	Feed f (mm/rev)
P	Low carbon steel S15C, S20C, etc. C15, C20, etc.	First choice	SH725	80 - 180	0.03 - 0.1
		Toughness	AH725	80 - 180	0.03 - 0.1
	Carbon steels, Alloy steel S55C, SCM440, etc. C55, 42CrMoS4, etc.	First choice	SH725	80 - 180	0.03 - 0.1
		Toughness	AH725	80 - 180	0.03 - 0.1
M	Prehardened steel NAK80, PX5, etc.	First choice	SH725	80 - 180	0.03 - 0.1
		Toughness	AH725	80 - 180	0.03 - 0.1
K	Stainless steel SUS304, SUS316, etc. X5CrNi18-9, X5CrNiMo17-12-3, etc.	First choice	SH725	50 - 120	0.03 - 0.1
		Toughness	AH725	50 - 120	0.03 - 0.1
	Grey cast iron FC250, FC300, etc. 250, 300, etc.	First choice	AH725	50 - 180	0.03 - 0.1
		Sharpness	SH725	50 - 180	0.03 - 0.1
S	Ductile cast iron FCD400, FCD600, etc. 400-15, 600-3, etc.	First choice	AH725	50 - 180	0.03 - 0.1
		Sharpness	SH725	50 - 180	0.03 - 0.1
S	Titanium alloys Ti-6Al-4V, etc.	First choice	SH725	30 - 80	0.03 - 0.1
		Toughness	AH725	30 - 80	0.03 - 0.1
	Superalloys Inconel718, etc.	First choice	SH725	20 - 60	0.03 - 0.1
		Toughness	AH725	20 - 60	0.03 - 0.1

### TCT18R/L (for threading / lightly honed edge) / TCT18FR (for threading / sharp edge)

ISO	Workpiece material	Priority	Grades	Cutting speed Vc (m/min)	Pitch (mm)	TPI
P	Low carbon steel S15C, S20C, etc. C15, C20, etc.	First choice	SH725	60 - 150	0.4 - 2.0	64 - 12
		Toughness	AH725	60 - 150	0.8 - 3.0	32 - 8
	Carbon steels, Alloy steel S55C, SCM440, etc. C55, 42CrMoS4, etc.	First choice	SH725	60 - 150	0.4 - 2.0	64 - 12
		Toughness	AH725	60 - 150	0.8 - 3.0	32 - 8
M	Prehardened steel NAK80, PX5, etc.	First choice	SH725	60 - 150	0.4 - 2.0	64 - 12
		Toughness	AH725	60 - 150	0.8 - 3.0	32 - 8
K	Stainless steel SUS304, SUS316, etc. X5CrNi18-9, X5CrNiMo17-12-3, etc.	First choice	SH725	50 - 80	0.4 - 2.0	64 - 12
		Toughness	AH725	50 - 80	0.8 - 3.0	32 - 8
	Grey cast iron FC250, FC300, etc. 250, 300, etc.	First choice	AH725	50 - 100	0.8 - 3.0	32 - 8
		Sharpness	SH725	50 - 100	0.4 - 2.0	64 - 12
S	Ductile cast iron FCD400, FCD600, etc. 400-15, 600-3, etc.	First choice	AH725	50 - 100	0.8 - 3.0	32 - 8
		Sharpness	SH725	50 - 100	0.4 - 2.0	64 - 12
S	Titanium alloys Ti-6Al-4V, etc.	First choice	SH725	30 - 100	0.4 - 2.0	64 - 12
		Toughness	AH725	30 - 100	0.8 - 3.0	32 - 8
	Superalloys Inconel718, etc.	First choice	SH725	30 - 100	0.4 - 2.0	64 - 12
		Toughness	AH725	30 - 100	0.8 - 3.0	32 - 8

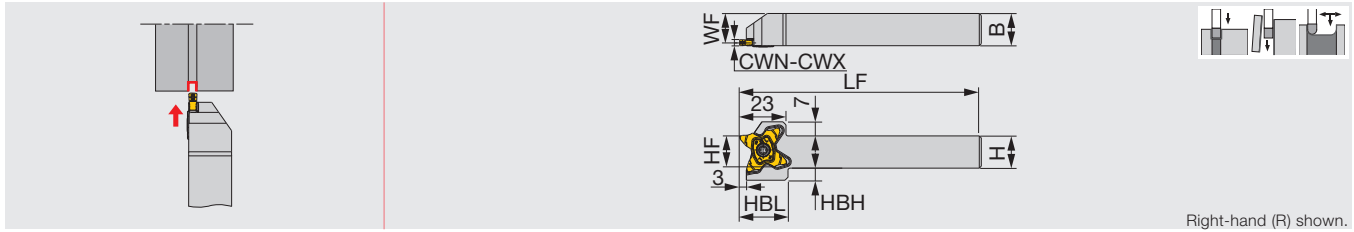
## PRECAUTIONS OF PROCESSING



\*Groove depth and

max workpiece diameter (øDmax)

Maximum workpiece diameter is limited relative to depth of cut in order to avoid collision between insert and workpiece.



Right-hand (R) shown.

Designation	CWN	CWX	H	B	LF	HF	WF	HBH	HBL	Insert	Torque*
STCR/L1010-27	0.5	3.18	10	10	120	10	8.5	9.5	24	TC*27...	2.5
STCR/L1212-27	0.5	3.18	12	12	120	12	10.5	8	24	TC*27...	2.5
STCR/L1616-27	0.5	3.18	16	16	120	16	14.5	6	24	TC*27...	2.5
STCR/L2020-27	0.5	3.18	20	20	120	20	18.5	2	24	TC*27...	2.5
STCR/L2525-27	0.5	3.18	25	25	135	25	23.5	-	-	TC*27...	2.5

\*Torque: Recommended torque (N·m) for clamping



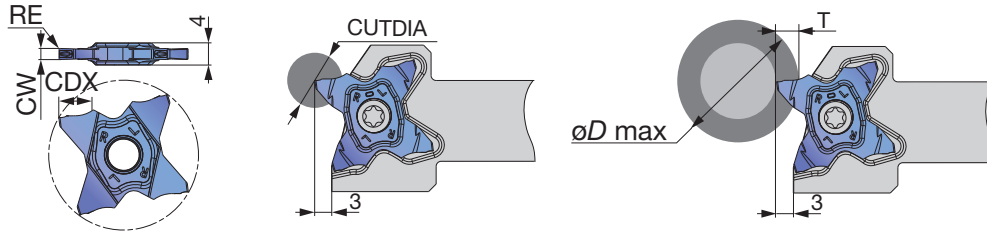
### SPARE PARTS



Designation	Screw	Wrench
STCR****-27	SR16-212-01397L	T-2010/5
STCL****-27	SR16-212-01397	T-2010/5

**INSERT (for grooving and parting)**

**TCS27**



P	Steel	★	
M	Stainless	★	
K	Cast iron	★	
N	Non-ferrous		
S	Superalloys	★	
H	Hard materials		

★ : First choice  
☆ : Second choice

Designation	HAND	CW±0.02	RE	Coated		CDX	CUTDIA	S1	Relation of groove depth (T) and Max. diameter (øD max)													
				AH725					T≤1	T≤2	T≤3	T≤3.5	T≤4	T≤4.5	T≤5	T≤5.5	T≤5.7	T≤6	T≤6.2	T≤6.4		
TCS27-050-000	0.5	0.02	0	●		1	2	4	∞	-	-	-	-	-	-	-	-	-	-	-	-	-
TCS27-050-004	0.5	0.02	0.04	●		2.5	5	4	∞	∞	-	-	-	-	-	-	-	-	-	-	-	-
TCS27-075-010	0.75	0.02	0.1	●		2.5	5	4	∞	∞	-	-	-	-	-	-	-	-	-	-	-	-
TCS27-080-000	0.8	0.02	0	●		1.6	3.2	4	∞	-	-	-	-	-	-	-	-	-	-	-	-	-
TCS27-100-006	1	0.02	0.06	●		3.5	7	4	∞	∞	∞	600	-	-	-	-	-	-	-	-	-	-
TCS27-100-010	1	0.02	0.1	●		3.5	7	4	∞	∞	∞	600	-	-	-	-	-	-	-	-	-	-
TCS27-104-000	1.04	0.02	0	●		2	4	4	∞	∞	-	-	-	-	-	-	-	-	-	-	-	-
TCS27-120-000	1.2	0.02	0	●		2	4	4	∞	∞	-	-	-	-	-	-	-	-	-	-	-	-
TCS27-125-010	1.25	0.02	0.1	●		3.5	7	4	∞	∞	∞	600	-	-	-	-	-	-	-	-	-	-
TCS27-125-020	1.25	0.02	0.2	●		3.5	7	4	∞	∞	∞	600	-	-	-	-	-	-	-	-	-	-
TCS27-140-000	1.4	0.02	0	●		2	4	4	∞	∞	-	-	-	-	-	-	-	-	-	-	-	-
TCS27-147-000	1.47	0.02	0	●		2.5	5	4	∞	∞	-	-	-	-	-	-	-	-	-	-	-	-
TCS27-150-010	1.5	0.02	0.1	●		5.7	11.4	4	∞	∞	∞	600	280	180	130	50	35	-	-	-	-	-
TCS27-150-020	1.5	0.02	0.2	●		5.7	11.4	4	∞	∞	∞	600	280	180	130	50	35	-	-	-	-	-
TCS27-157-015	1.57	0.02	0.15	●		3	6	4	∞	∞	∞	-	-	-	-	-	-	-	-	-	-	-
TCS27-170-010	1.7	0.02	0.1	●		3	6	4	∞	∞	∞	-	-	-	-	-	-	-	-	-	-	-
TCS27-175-010	1.75	0.02	0.1	●		3	6	4	∞	∞	∞	-	-	-	-	-	-	-	-	-	-	-
TCS27-175-020	1.75	0.02	0.2	●		3	6	4	∞	∞	∞	-	-	-	-	-	-	-	-	-	-	-
TCS27-178-018	1.78	0.02	0.18	●		3	6	4	∞	∞	∞	-	-	-	-	-	-	-	-	-	-	-
TCS27-185-020	1.85	0.02	0.2	●		3	6	4	∞	∞	∞	-	-	-	-	-	-	-	-	-	-	-
TCS27-196-015	1.96	0.02	0.15	●		3	6	4	∞	∞	∞	-	-	-	-	-	-	-	-	-	-	-
TCS27-200-010	2	0.02	0.1	●		6.4	12.8	4	∞	∞	∞	600	280	180	130	105	85	60	50	30	-	-
TCS27-200-020	2	0.02	0.2	●		6.4	12.8	4	∞	∞	∞	600	280	180	130	105	85	60	50	30	-	-
TCS27-222-015	2.22	0.02	0.15	●		3.5	7	4	∞	∞	∞	600	-	-	-	-	-	-	-	-	-	-
TCS27-230-020	2.3	0.02	0.2	●		3.5	7	4	∞	∞	∞	600	-	-	-	-	-	-	-	-	-	-
TCS27-239-015	2.39	0.02	0.15	●		5.7	11.4	4	∞	∞	∞	600	280	180	130	50	35	-	-	-	-	-
TCS27-247-020	2.47	0.02	0.2	●		5.7	11.4	4	∞	∞	∞	600	280	180	130	50	35	-	-	-	-	-
TCS27-250-010	2.5	0.02	0.1	●		5.7	11.4	4	∞	∞	∞	600	280	180	130	50	35	-	-	-	-	-
TCS27-250-030	2.5	0.02	0.3	●		5.7	11.4	4	∞	∞	∞	600	280	180	130	50	35	-	-	-	-	-
TCS27-270-010	2.7	0.02	0.1	●		6.2	12.4	4	∞	∞	∞	600	280	180	135	105	95	85	78	-	-	-
TCS27-287-020	2.87	0.02	0.2	●		6.2	12.4	4	∞	∞	∞	600	280	180	135	105	95	85	78	-	-	-
TCS27-300-000	3	0.02	0	●		6.4	12.8	4	∞	∞	∞	600	280	180	135	105	95	85	78	55	-	-
TCS27-300-020	3	0.02	0.2	●		6.4	12.8	4	∞	∞	∞	600	280	180	135	105	95	85	78	55	-	-
TCS27-300-030	3	0.02	0.3	●		6.4	12.8	4	∞	∞	∞	600	280	180	135	105	95	85	78	55	-	-
TCS27-300-040	3	0.02	0.4	●		6.4	12.8	4	∞	∞	∞	600	280	180	135	105	95	85	78	55	-	-
TCS27-315-015	3.15	0.02	0.15	●		6.4	12.8	4	∞	∞	∞	600	280	180	135	105	95	85	78	68	-	-
TCS27-318-020	3.18	0.02	0.2	●		6.4	12.8	4	∞	∞	∞	600	280	180	135	105	95	85	78	68	-	-

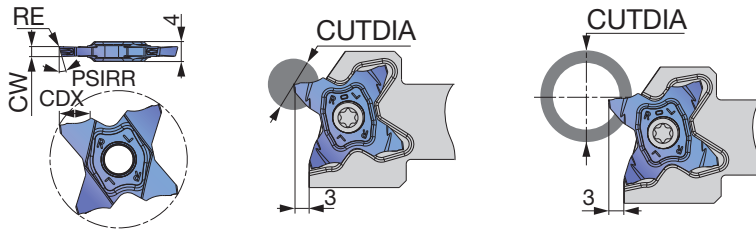
5 pieces per package  
● : Line up

Grade  
Insert  
Ext. Toolholder  
Int. Toolholder  
Threading  
Grooving  
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# INSERT- FOR PARTING OFF

## TCS27-R/L



P	Steel	★		
M	Stainless	★		
K	Cast iron	★		
N	Non-ferrous			
S	Superalloys	★		
H	Hard materials			

★ : First choice  
☆ : Second choice

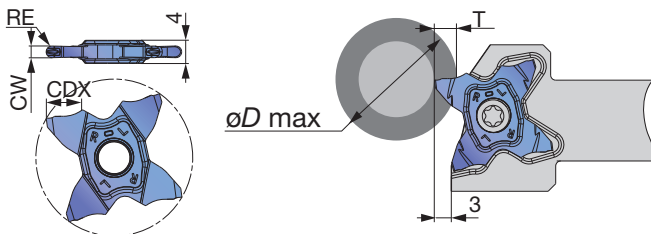
Designation	HAND	CW±0.02	RE	Coated		CDX	PSIRL	PSIRR	Max. parting off dia. CUTDIA	
				AH725					Solid bar	Tube
TCS27-100-15R	R	1	0.06	●		3.5	0°	15°	7	600
TCS27-100-15L	L	1	0.06	●		3.5	15°	0°	7	600
TCS27-150-6R	R	1.5	0.06	●		5.7	0°	6°	11.4	35
TCS27-150-6L	L	1.5	0.06	●		5.7	6°	0°	11.4	35
TCS27-150-15R	R	1.5	0.06	●		5.7	0°	15°	11.4	35
TCS27-150-15L	L	1.5	0.06	●		5.7	15°	0°	11.4	35
TCS27-200-6R	R	2	0.1	●		6.4	0°	6°	12.8	30
TCS27-200-6L	L	2	0.1	●		6.4	6°	0°	12.8	30
TCS27-200-15R	R	2	0.1	●		6.4	0°	15°	12.8	30
TCS27-200-15L	L	2	0.1	●		6.4	15°	0°	12.8	30

5 pieces per package

● : Line up

# INSERT- FOR GROOVING AND PROFILING

## TCS27 (Full R)



P	Steel	★		
M	Stainless	★		
K	Cast iron	★		
N	Non-ferrous			
S	Superalloys	★		
H	Hard materials			

★ : First choice  
☆ : Second choice

Designation	CW±0.02	RE	Coated		CDX	Relation of groove depth (T) and Max. diameter (øD max)										
			AH725			T≤1 T≤2 T≤3	T≤3.5	T≤4	T≤4.5	T≤5	T≤5.5	T≤5.7	T≤6	T≤6.2	T≤6.4	
TCS27-157-079	1.57	0.79	●		3	∞	-	-	-	-	-	-	-	-	-	-
TCS27-200-100	2	1	●		3	∞	-	-	-	-	-	-	-	-	-	-
TCS27-239-120	2.39	1.2	●		5.7	∞	600	280	180	130	50	35	-	-	-	-
TCS27-300-150	3	1.5	●		6.4	∞	600	280	180	135	105	95	85	78	55	-

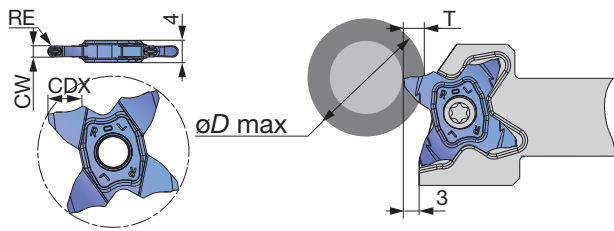
5 pieces per package

● : Line up

Reference pages : Toolholders → G074, Standard cutting conditions → G079

# INSERT - FOR GROOVING AND PROFILING

## TCM27 (Full R)



P	Steel	★		
M	Stainless	★		
K	Cast iron	★		
N	Non-ferrous			
S	Superalloys	★		
H	Hard materials			

★ : First choice  
☆ : Second choice

Designation	CW±0.02	RE	Coated		CDX	CUTDIA	S1	Relation of groove depth (T) and Max. diameter (øD max)											
			AH725					T ≤ 1	T ≤ 2	T ≤ 3	T ≤ 3.5	T ≤ 4	T ≤ 4.5	T ≤ 5	T ≤ 5.5	T ≤ 5.7	T ≤ 6	T ≤ 6.2	T ≤ 6.4
TCM27-157-079	1.57	0.79	●		3	6	4	∞	-	-	-	-	-	-	-	-	-	-	
TCM27-200-100	2	1	●		3	6	4	∞	600	-	-	-	-	-	-	-	-	-	
TCM27-239-120	2.39	1.2	●		5.7	11.4	4	∞	600	280	180	130	50	35	-	-	-	-	
TCM27-300-150	3	0.02	●		6.4	12.8	4	∞	600	280	180	135	105	95	85	78	55		

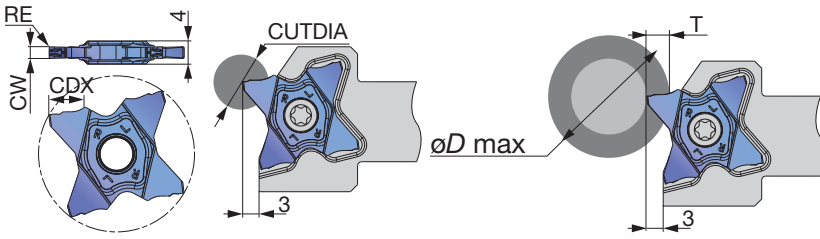
5 pieces per package

● : Line up



# INSERT- FOR GROOVING AND PARTING OFF

## TCM27



P	Steel	★		
M	Stainless	★		
K	Cast iron	★		
N	Non-ferrous			
S	Superalloys	★		
H	Hard materials			

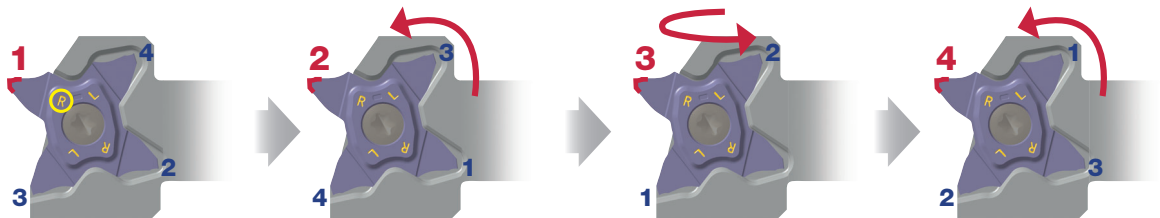
★ : First choice  
☆ : Second choice

Designation	CW±0.02	RE	Coated		CDX	CUTDIA	S1	Relation of groove depth (T) and Max. diameter (øD max)											
			AH725					T ≤ 1	T ≤ 2	T ≤ 3	T ≤ 3.5	T ≤ 4	T ≤ 4.5	T ≤ 5	T ≤ 5.5	T ≤ 5.7	T ≤ 6	T ≤ 6.2	T ≤ 6.4
TCM27-150-010	1.5	0.1	●		5.7	11.4	4	∞	600	280	180	130	50	35	-	-	-		
TCM27-150-020	1.5	0.2	●		5.7	11.4	4	∞	600	280	180	130	50	35	-	-	-		
TCM27-157-015	1.57	0.15	●		3	6	4	∞	-	-	-	-	-	-	-	-	-		
TCM27-170-010	1.7	0.1	●		3	6	4	∞	-	-	-	-	-	-	-	-	-		
TCM27-175-010	1.75	0.1	●		3	6	4	∞	-	-	-	-	-	-	-	-	-		
TCM27-175-020	1.75	0.2	●		3	6	4	∞	-	-	-	-	-	-	-	-	-		
TCM27-178-018	1.78	0.18	●		3	6	4	∞	-	-	-	-	-	-	-	-	-		
TCM27-185-020	1.85	0.2	●		3	6	4	∞	-	-	-	-	-	-	-	-	-		
TCM27-196-015	1.96	0.15	●		3	6	4	∞	-	-	-	-	-	-	-	-	-		
TCM27-200-010	2	0.1	●		6.4	12.8	4	∞	600	280	180	130	105	85	60	50	30		
TCM27-200-020	2	0.2	●		6.4	12.8	4	∞	600	280	180	130	105	85	60	50	30		
TCM27-222-015	2.22	0.15	●		3.5	7	4	∞	600	-	-	-	-	-	-	-	-		
TCM27-230-020	2.3	0.2	●		3.5	7	4	∞	600	-	-	-	-	-	-	-	-		
TCM27-239-015	2.39	0.15	●		5.7	11.4	4	∞	600	280	180	130	50	35	-	-	-		
TCM27-247-020	2.47	0.2	●		5.7	11.4	4	∞	600	280	180	130	50	35	-	-	-		
TCM27-250-010	2.5	0.1	●		5.7	11.4	4	∞	600	280	180	130	50	35	-	-	-		
TCM27-250-030	2.5	0.3	●		5.7	11.4	4	∞	600	280	180	130	50	35	-	-	-		
TCM27-270-010	2.7	0.1	●		6.2	12.4	4	∞	600	280	180	135	105	95	85	78	-		
TCM27-287-020	2.87	0.2	●		6.2	12.4	4	∞	600	280	180	135	105	95	85	78	-		
TCM27-300-000	3	0	●		6.4	12.8	4	∞	600	280	180	135	105	95	85	78	55		
TCM27-300-020	3	0.2	●		6.4	12.8	4	∞	600	280	180	135	105	95	85	78	55		
TCM27-300-030	3	0.3	●		6.4	12.8	4	∞	600	280	180	135	105	95	85	78	55		
TCM27-300-040	3	0.4	●		6.4	12.8	4	∞	600	280	180	135	105	95	85	78	55		
TCM27-315-015	3.15	0.15	●		6.4	12.8	4	∞	600	280	180	135	105	95	85	78	68		
TCM27-318-020	3.18	0.02	●		6.4	12.8	4	∞	600	280	180	135	105	95	85	78	68		

5 pieces per package

● : Line up

## HOW TO INDEX INSERTS



1. Right-hand edge (R) is used for the right-hand toolholders.

2. Rotate the insert

3. Flip over the insert

4. Rotate the insert

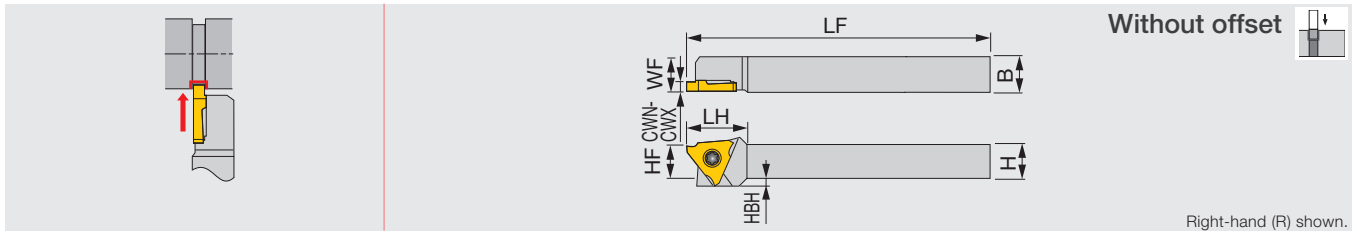
Reference pages : Toolholders → [G074](#), Standard cutting conditions → [G079](#)

## STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Grades	Cutting speed Vc (m/min)	Feed: f (mm/rev)					Depth of cut for profiling (with full radius insert)
				Grooving, parting-off		Parting-off (with hand)	Profiling (with full radius insert)		
				TCS	TCM	TCS	TCS	TCM	
<b>P</b>	Carbon steel S45C, etc. C45, etc.	AH725	100 - 200	0.05 - 0.15	0.05 - 0.25	0.04 - 0.12	0.05 - 0.10	0.05 - 0.15	0.5
	Alloy steel SCM435, etc. 34CrMo4, etc.	AH725	50 - 180	0.05 - 0.15	0.05 - 0.25	0.04 - 0.12	0.05 - 0.10	0.05 - 0.15	0.5
<b>M</b>	Stainless steel SUS304, etc. X5CrNi18-9, etc.	AH725	100 - 150	0.05 - 0.15	0.05 - 0.20	0.04 - 0.12	0.05 - 0.10	0.05 - 0.15	0.5
<b>K</b>	Grey cast iron FC250, etc. 250, etc.	AH725	50 - 180	0.05 - 0.15	0.05 - 0.25	0.04 - 0.12	0.05 - 0.10	0.05 - 0.15	0.5
	Ductile cast iron FCD400, etc. 400-15, etc.	AH725	50 - 120	0.05 - 0.15	0.05 - 0.20	0.04 - 0.12	0.05 - 0.10	0.05 - 0.15	0.5
<b>S</b>	Titanium alloys Ti-6Al-4V, etc.	AH725	30 - 60	0.05 - 0.15	0.05 - 0.15	0.04 - 0.12	0.05 - 0.10	0.05 - 0.10	0.5
	Superalloys Inconel718, etc.	AH725	20 - 50	0.05 - 0.15	0.05 - 0.15	0.04 - 0.12	0.05 - 0.10	0.05 - 0.10	0.5

## J-SERIES JSTGR/L

Screw-on external grooving toolholder, for Swiss lathes



Designation	CWN	CWX	H	B	LF	LH	HF	WF	HBH	Insert	Torque*
JSTGR/L1010X3	0.33	3	10	10	120	18.5	10	10	2	JTGR/L3...	1.2
JSTGR/L1212F3	0.33	3	12	12	85	18.5	12	12	-	JTGR/L3...	1.2
JSTGR/L1212X3	0.33	3	12	12	120	18.5	12	12	-	JTGR/L3...	1.2
JSTGR/L1616X3	0.33	3	16	16	120	18.5	16	16	-	JTGR/L3...	1.2
JSTGL1616K3	0.33	3	16	16	125	18.5	16	16	-	JTGR/L3...	1.2

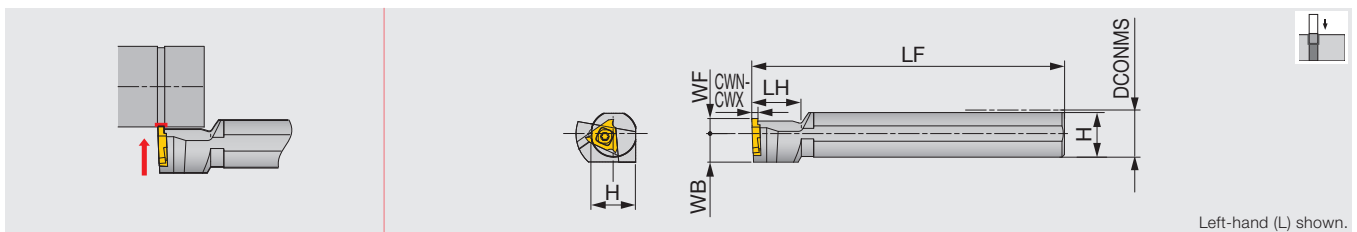
\*Torque: Recommended torque (N-m) for clamping

### SPARE PARTS

Designation	Clamping screw	Wrench 1	Wrench 2 (optional)
JSTGR/L...	CSTB-4SD	T-8F	(T-8L)

## J-SERIES JS-TGL3

Screw-on external grooving toolholder, for Swiss lathes



Designation	CWN	CWX	DCONMS	WF	LF	LH	H	WB	Insert	Torque*
JS19K-TGL3	0.33	3	19.05	6	125	20	18	11.5	JTGR3...	3.0
JS20K-TGL3	0.33	3	20	6	125	20	19	11.5	JTGR3...	3.0
JS22K-TGL3	0.33	3	22	6	125	20	21	11.5	JTGR3...	3.0
JS25K-TGL3	0.33	3	25.4	10	125	20	24	12.7	JTGR3...	3.0

Note: Use left-hand toolholders (L) with right-hand inserts (R). \*Torque: Recommended torque (N-m) for clamping

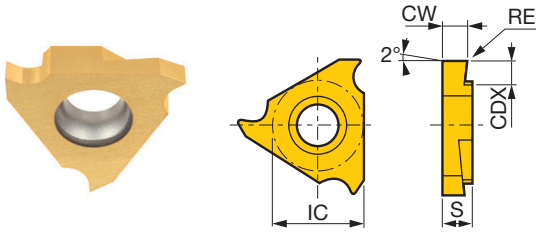
### SPARE PARTS

Designation	Clamping screw	Wrench
JS**-TGL3	CSTB-4S	T-15F

Reference pages :JSTGR/L, JS-TGL3: Inserts → **G080 - G081**,  
Standard cutting conditions → **G081**

# INSERT

## JTG (Sharp edge)



P	Steel	★	★		★		☆				
M	Stainless	★	★								
K	Cast iron					☆	★				
N	Non-ferrous						★				
S	Superalloys						★				
H	Hard materials										

★ : First choice  
☆ : Second choice

Designation	HAND	CW <sup>+0.05</sup>	RE	Coated		Cermet	Uncoated	CDX	IC	S	Max. groove depth
				SH725	J740	NS9530	TH10				
JTGR3033F	R	0.33	0.03	●	●		●	0.7	9.53	3.18	0.7
JTGL3033F	L	0.33	0.03	●	●		●	0.7	9.53	3.18	0.7
JTGR3033F-005	R	0.33	0.05	●				0.7	9.53	3.18	0.7
JTGR3043F	R	0.43	0.03	●	●			1.1	9.53	3.18	0.7
JTGR3050F	R	0.5	0.03	●	●	●	●	1.1	9.53	3.18	1.1
JTGL3050F	L	0.5	0.03	●	●		●	1.1	9.53	3.18	1.1
JTGR3050F-005	R	0.5	0.05	●				1.1	9.53	3.18	1.1
JTGL3050F-005	L	0.5	0.05	●				1.1	9.53	3.18	1.1
JTGR3065F	R	0.65	0.03	●	●			1.9	9.53	3.18	1.1
JTGR3065F-010	R	0.65	0.1	●				1.9	9.53	3.18	1.1
JTGR3075F	R	0.75	0.03	●	●	●	●	1.9	9.53	3.18	1.9
JTGL3075F	L	0.75	0.03	●	●	●	●	1.9	9.53	3.18	1.9
JTGR3075F-010	R	0.75	0.1	●				1.9	9.53	3.18	1.9
JTGL3075F-010	L	0.75	0.1	●				1.9	9.53	3.18	1.9
JTGR3080F	R	0.8	0.03	●	●			1.9	9.53	3.18	1.9
JTGR3080F-010	R	0.8	0.1	●				1.9	9.53	3.18	1.9
JTGR3085F	R	0.85	0.03	●	●			1.9	9.53	3.18	1.9
JTGR3095F	R	0.95	0.03	●	●	●	●	1.9	9.53	3.18	1.9
JTGL3095F	L	0.95	0.03	●	●		●	1.9	9.53	3.18	1.9
JTGR3095F-010	R	0.95	0.1	●				1.9	9.53	3.18	1.9
JTGL3095F-010	L	0.95	0.1	●				1.9	9.53	3.18	1.9
JTGR3100F	R	1	0.05	●	●	●	●	2.1	9.53	3.18	1.9
JTGL3100F	L	1	0.05	●	●		●	2.1	9.53	3.18	1.9
JTGR3100F-010	R	1	0.1	●				2.1	9.53	3.18	1.9
JTGL3100F-010	L	1	0.1	●				2.1	9.53	3.18	1.9
JTGR3110F	R	1.1	0.05	●	●			2.1	9.53	3.18	1.9
JTGR3120F	R	1.2	0.05	●	●			2.1	9.53	3.18	1.9
JTGR3120F-010	R	1.2	0.1	●				2.1	9.53	3.18	1.9
JTGR3125F	R	1.25	0.05	●	●	●	●	2.1	9.53	3.18	2.1
JTGL3125F	L	1.25	0.05	●	●		●	2.1	9.53	3.18	2.1
JTGR3125F-010	R	1.25	0.1	●				2.1	9.53	3.18	2.1
JTGL3125F-010	L	1.25	0.1	●				2.1	9.53	3.18	2.1
JTGR3130F	R	1.3	0.05	●	●			2.1	9.53	3.18	2.1
JTGR3140F	R	1.4	0.05	●	●			2.1	9.53	3.18	2.1
JTGR3140F-010	R	1.4	0.1	●				2.1	9.53	3.18	2.1
JTGR3145F	R	1.45	0.05	●	●	●	●	2.1	9.53	3.18	2.1
JTGL3145F	L	1.45	0.05	●	●		●	2.1	9.53	3.18	2.1
JTGR3145F-010	R	1.45	0.1	●				2.1	9.53	3.18	2.1
JTGR3150F	R	1.5	0.05	●	●	●	●	2.1	9.53	3.18	2.1
JTGL3150F	L	1.5	0.05	●	●		●	2.1	9.53	3.18	2.1
JTGR3150F-010	R	1.5	0.1	●				2.1	9.53	3.18	2.1
JTGL3150F-010	L	1.5	0.1	●				2.1	9.53	3.18	2.1
JTGR3175F	R	1.75	0.05	●	●	●	●	2.1	9.53	3.18	2.1
JTGL3175F	L	1.75	0.05	●	●	●	●	2.1	9.53	3.18	2.1
JTGR3175F-010	R	1.75	0.1	●				2.1	9.53	3.18	2.1

● : Line up



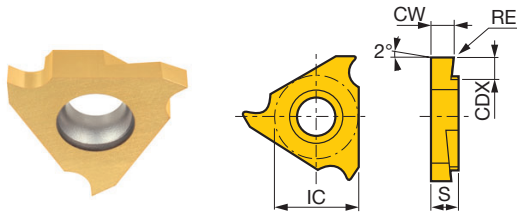
P	Steel	★	★		★		☆					
M	Stainless	★	★									
K	Cast iron					☆		★				
N	Non-ferrous							★				
S	Superalloys							★				
H	Hard materials											

★ : First choice  
☆ : Second choice

Designation	HAND	CW <sub>0</sub> <sup>+0.05</sup>	RE	Coated			Cermet	Uncoated	CDX	IC	S	Max. groove depth
				SH725	J740		NS9530					
JTGR3180F	R	1.8	0.05	●	●				2.1	9.53	3.18	2.1
JTGR3200F	R	2	0.05	●	●		●	●	2.6	9.53	3.18	2.6
JTGL3200F	L	2	0.05	●	●			●	2.6	9.53	3.18	2.6
JTGR3200F-010	R	2	0.1	●					2.6	9.53	3.18	2.6
JTGL3200F-010	L	2	0.1	●					2.6	9.53	3.18	2.6
JTGR3225F	R	2.25	0.05	●	●				2.6	9.53	3.18	2.6
JTGR3250F	R	2.5	0.05	●	●		●	●	2.6	9.53	3.18	2.6
JTGL3250F	L	2.5	0.05	●	●			●	2.6	9.53	3.18	2.6
JTGR3250F-010	R	2.5	0.1	●					2.6	9.53	3.18	2.6
JTGL3250F-010	L	2.5	0.1	●					2.6	9.53	3.18	2.6
JTGR3275F	R	2.75	0.05		●				2.6	9.53	3.18	2.6
JTGR3300F	R	3	0.05	●	●				2.6	9.53	3.18	2.6
JTGR3300F-010	R	3	0.1	●					2.6	9.53	3.18	2.6

● : Line up

### JTG (honed edge)



Right hand (R) shown.

P	Steel	★										
M	Stainless											
K	Cast iron	☆										
N	Non-ferrous											
S	Superalloys	☆										
H	Hard materials											

★ : First choice  
☆ : Second choice

Designation	HAND	CW <sub>0</sub> <sup>+0.05</sup>	RE	Coated			CDX	IC	S	Max. groove depth
				J9530						
JTGR3100	R	1	0.05	●			2.2	9.525	3.18	2.1
JTGL3100	L	1	0.05	●			2.2	9.525	3.18	2.1
JTGR3125	R	1.25	0.05	●			2.2	9.525	3.18	2.1
JTGL3125	L	1.25	0.05	●			2.2	9.525	3.18	2.1
JTGR3150	R	1.5	0.05	●			2.2	9.525	3.18	2.1
JTGL3150	L	1.5	0.05	●			2.2	9.525	3.18	2.1
JTGR3200	R	2	0.05	●			2.7	9.525	3.18	2.6
JTGL3200	L	2	0.05	●			2.7	9.525	3.18	2.6

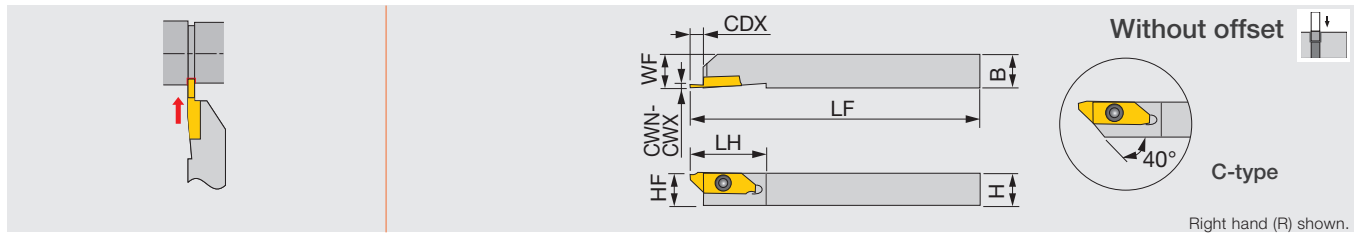
● : Line up

### STANDARD CUTTING CONDITIONS (J-Series grooving tool)

ISO	Workpiece material	Grade	Cutting Speed V <sub>c</sub> (m/min)	Feed f (mm/rev)
P	General steels S45C, etc. C45, etc.	SH725	50 - 200	0.01 - 0.1
		J740	10 - 100	0.01 - 0.1
		NS9530	50 - 150	0.01 - 0.1
	Free-cutting steels SUM22, etc.	J9530	50 - 150	0.01 - 0.1
		SH725	50 - 200	0.01 - 0.1
M	Stainless steels SUS303, SUS304, etc.	J740	10 - 100	0.01 - 0.1
		NS9530	50 - 150	0.01 - 0.1
		J9530	50 - 150	0.01 - 0.1
N	Aluminium alloys, copper alloys Si < 12%, C3604B, etc.	TH10	10 - 200	0.01 - 0.1
S	Difficult-to-cut materials, titanium alloys Ti-6Al-4V, etc.	TH10	10 - 30	0.01 - 0.1



Screw-on toolholder without offset for front / reverse turning & external grooving



Designation	CWN	CWX	CDX	H	B	LF	LH	HF	WF	Insert
JSXGR/L1010K8-C	0.7	2	6.7	10	10	125	29	10	10	JX*R/L8...
JSXGR/L1212K8-C	0.7	2	6.7	12	12	125	29	12	12	JX*R/L8...
JSXGR/L1616K8	0.7	2	6.5	16	16	125	29	16	16	JX*R/L8...
JSXGR/L2020K8	0.7	2	6.5	20	20	125	29	20	20	JX*R/L8...
JSXGR/L2525K8	0.7	2	6.5	25	25	125	29	25	25	JX*R/L8...

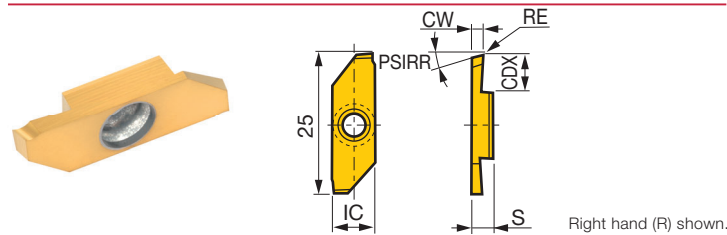
• Can be wrenched also from the back with a double-head screw. • This toolholders can be used for JXG insert (grooving), JFX insert (front-turning), JXK insert (reverse-turning)

### SPARE PARTS

Designation	Clamping screw	Wrench	Wrench 1 (Optional)
JSXGR/L	CSTB-4SD	T-8F	(T-8L)

### INSERT

#### JXG (handed insert with sharp edge)



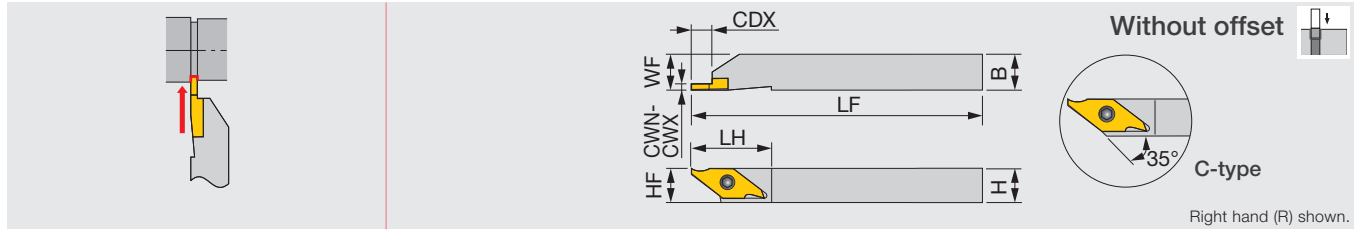
<b>P</b> Steel	★		☆				
<b>M</b> Stainless	★						
<b>K</b> Cast iron			★				
<b>N</b> Non-ferrous			★				
<b>S</b> Superalloys	☆		★				
<b>H</b> Hard materials							

★ : First choice  
☆ : Second choice

Designation	HAND	CW±0.025	RE	Coated		Uncoated		CDX	IC	PSIRR	S
				J740	TH10						
JXGR8070FA	R	0.7	0	●				4.5	8	15	3.97
JXGL8070FA	L	0.7	0	●				4.5	8	15	3.97
JXGR8070FA-005	R	0.7	0.05	●				4.5	8	15	3.97
JXGR8100FA	R	1	0	●				6	8	15	3.97
JXGL8100FA	L	1	0	●				6	8	15	3.97
JXGR8100FA-005	R	1	0.05	●				6	8	15	3.97
JXGR8100FA45	R	1	0	●				4.5	8	15	3.97
JXGR8100FA45-005	R	1	0.05	●				4.5	8	15	3.97
JXGR8150FA	R	1.5	0	●				6	8	15	3.97
JXGL8150FA	L	1.5	0	●				6	8	15	3.97
JXGR8150FA-005	R	1.5	0.05	●				6	8	15	3.97
JXGR8150FA50	R	1.5	0	●				5	8	15	3.97
JXGR8150FA50-005	R	1.5	0.05	●				5	8	15	3.97
JXGR8180FA	R	1.8	0	●				6	8	15	3.97
JXGR8180FA-005	R	1.8	0.05	●				6	8	15	3.97
JXGR8200FA	R	2	0	●				6	8	15	3.97
JXGL8200FA	L	2	0	●				6	8	15	3.97
JXGR8200FA-005	R	2	0.05	●				6	8	0	3.97
JXGR8200FN	R	2	0	●				6	8	0	3.97
JXGL8200FN	L	2	0	●				6	8	0	3.97
JXGR8200FN-005	R	2	0.05	●				6	8	0	3.97

● : Line up

Referent pages : JSXGR/L: Standard cutting conditions → G084



Designation	CWN	CWX	CDX	H	B	LF	LH	HF	WF	Insert	Torque*
JSVGR/L1010K-C	0.33	2	6.2	10	10	125	23	10	10	JVGR/L...	2.3
JSVGR/L1212K-C	0.33	2	6.2	12	12	125	23	12	12	JVGR/L...	2.3
JSVGR/L1616K	0.33	2	6.2	16	16	125	23	16	16	JVGR/L...	2.3

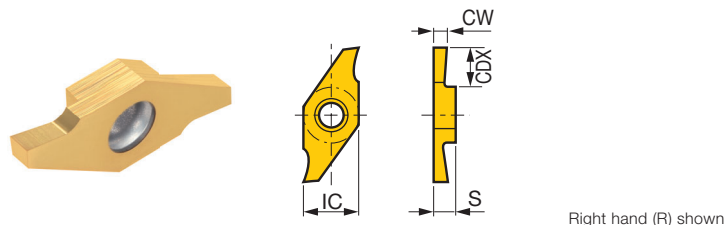
\* Torque: Recommended torque (N-m) for clamping

### SPARE PARTS

Designation	Clamping screw	Wrench 1	Wrench 2 (Optional)
JSVGR/L	CSTB-3S	T-9F	(T-9L)

### INSERT

#### JVG (with hand, sharp edge)



	P	M	K	N	S	H
Steel	★	★				
Stainless	★	★				
Cast iron					☆	
Non-ferrous					★	
Superalloys					★	
Hard materials						

★ : First choice  
☆ : Second choice

Designation	HAND	CW <sup>+0.05</sup>	RE	Coated		Cermet	Uncoated	CDX	IC	S
				SH725	J740	NS9530	TH10			
JVGR033F	R	0.33	0	●	●			0.7	7.94	3.18
JVGL033F	L	0.33	0	●	●		●	0.7	7.94	3.18
JVGR050F	R	0.5	0	●	●			1.1	7.94	3.18
JVGL050F	L	0.5	0	●	●		●	1.1	7.94	3.18
JVGR075F	R	0.75	0	●	●			1.9	7.94	3.18
JVGL075F	L	0.75	0	●	●		●	1.9	7.94	3.18
JVGR095F	R	0.95	0	●	●			1.9	7.94	3.18
JVGL095F	L	0.95	0	●	●		●	1.9	7.94	3.18
JVGR100F	R	1	0	●	●	●		5.5	7.94	3.18
JVGL100F	L	1	0	●	●	●	●	5.5	7.94	3.18
JVGR125F	R	1.25	0	●	●		●	5	7.94	3.18
JVGL125F	L	1.25	0	●	●		●	5	7.94	3.18
JVGR150F	R	1.5	0	●	●	●		5.5	7.94	3.18
JVGL150F	L	1.5	0	●	●	●	●	5.5	7.94	3.18
JVGR200F	R	2	0	●	●	●	●	5.5	7.94	3.18
JVGL200F	L	2	0	●	●	●	●	5.5	7.94	3.18

● : Line up

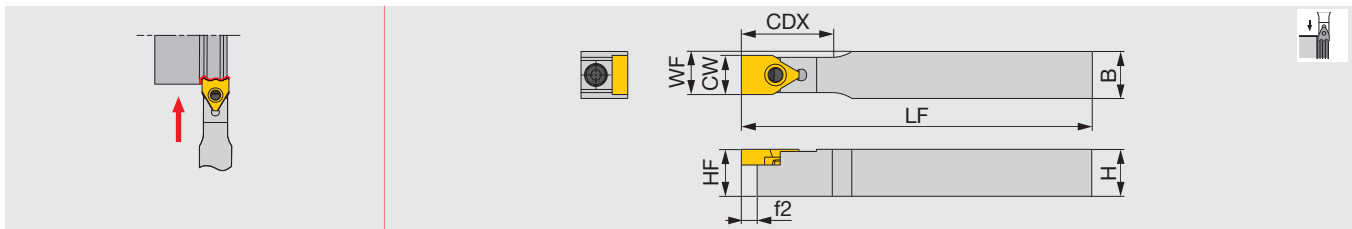
## STANDARD CUTTING CONDITIONS (JXG and JVG inserts)

ISO	Workpiece material	Grade	Cutting speed Vc (m/min)	Feed f (mm/rev)
<b>P</b>	Steel S45C, etc. C45, etc.	SH725	50 - 200	0.01 - 0.1
		J740	10 - 100	0.01 - 0.1
		NS9530	50 - 150	0.01 - 0.1
	Free-cutting steel SUM22, etc. 11SMn28, etc.	SH725	50 - 200	0.01 - 0.1
		J740	10 - 100	0.01 - 0.1
		NS9530	50 - 150	0.01 - 0.1
<b>M</b>	Stainless steel SUS303, etc. X5CrNi18-9, etc.	SH725	50 - 200	0.01 - 0.1
		J740	10 - 100	0.01 - 0.1
		NS9530	50 - 150	0.01 - 0.1
<b>N</b>	Aluminium alloys, Brass Si < 12%, C3604B, etc. CW614N, etc.	TH10	10 - 200	0.01 - 0.1
		TH10	10 - 200	0.01 - 0.1
<b>S</b>	Difficult-to-machine material, Titanium alloys Ti-6Al-4V, etc.	TH10	10 - 30	0.01 - 0.1



## TUNG H <sup>HEAVY</sup>GROOVE FPGN

Lever-lock toolholder for external wide grooving and profiling



Designation	CW	CDX	H	B	LF	HF	WF	f2	Insert
FPGN1212X-10T20	10	25	12	12	125	12	11	5.5	PSGB10...
FPGN1616X-10T20	10	25	16	16	125	16	13	5.5	PSGB10...
FPGN2020K-10T20	10	25	20	20	130	20	15	5.5	PSGB10...
FPGN1616X-15T25	15	30	16	16	125	16	15.5	5.5	PSGB15...
FPGN2020K-15T25	15	30	20	20	130	20	17.5	5.5	PSGB15...
FPGN2020K-20T32	20	37	20	20	130	20	20	5.5	PSGB20...
FPGN2525M-20T32	20	37	25	25	155	25	22.5	5.5	PSGB20...
FPGN2525M-25T36	25	41	25	25	155	25	25	5.5	PSGB25...

\*PSGB insert blank is available for tailored inserts.

### SPARE PARTS

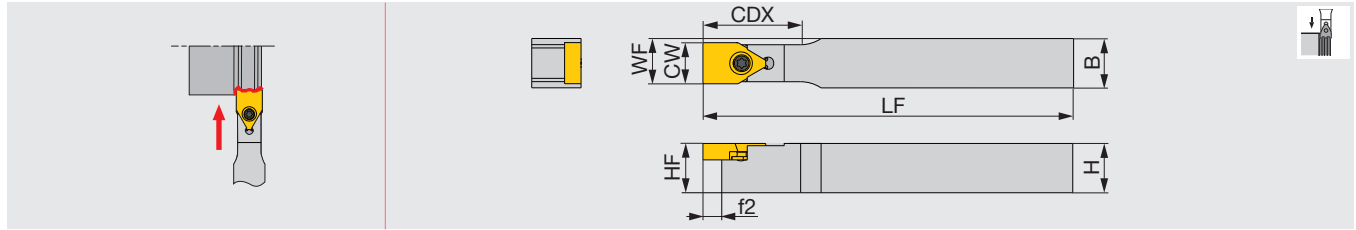


Designation	Lever	Clamping screw	Spring	Wrench
FPGN*****-10T..., 15T...	FCL4	FCS3	BP-5	P-2.5
FPGN*****-20T..., 25T...	FCL8	FCS6	BP-9	P-5

Referent pages : FPGN: Inserts → **G085**, Standard cutting conditions → **G086**

# SPGN

Screw-on toolholder for external wide grooving and profiling



Designation	CW	CDX	H	B	LF	HF	WF	f2	Insert
SPGN1212X-10T20	10	25	12	12	125	12	11	5.5	PSGB10
SPGN1616X-10T20	10	25	16	16	125	16	13	5.5	PSGB10
SPGN2020K-10T20	10	25	20	20	130	20	15	5.5	PSGB10
SPGN1616X-15T25	15	30	16	16	125	16	15.5	5.5	PSGB15
SPGN2020K-15T25	15	30	20	20	130	20	17.5	5.5	PSGB15
SPGN2020K-20T32	20	37	20	20	130	20	20	5.5	PSGB20
SPGN2525M-20T32	20	37	25	25	155	25	22.5	5.5	PSGB20
SPGN2525M-25T36	25	41	25	25	155	25	25	5.5	PSGB25

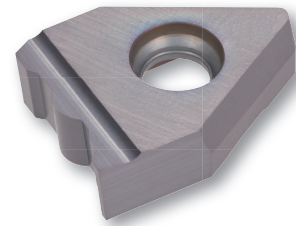
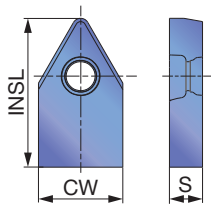
\*PSGB insert blank is available for tailored inserts. Can be used with profile grooving inserts, only

## SPARE PARTS

Designation	Clamping screw	Wrench
SPGN*****-10T20	CSTB-3L081	T-8F
SPGN*****-15T25	CSTB-4	T-15F
SPGN*****-20T..., 25T...	CSTB-5	T-20F

## INSERT

PSGB (Blank for wide profile grooving inserts\*)



Specially tailored profile insert

	P	M	K	N	S	H
Steel	☆	★				
Stainless		★				
Cast iron		★				
Non-ferrous		★				
Superalloys		☆				
Hard materials						

★ : First choice  
☆ : Second choice

Designation	CW±0.025	Uncoated								INSL	S
		TH10	UX30								
PSGB10	10.2	●								18	4
PSGB15	15.2	●	●							20	5
PSGB20	20.2	●	●							27	6.5
PSGB25	25.2	●	●							27	6.5

Package quantity = 5pcs.

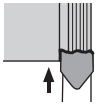
● : Line up

\*These are blanks (semi-finished products) for wide profile grooving inserts that can be tailored.

Referent pages : SPGN: Standard cutting conditions → G086



## STANDARD CUTTING CONDITIONS

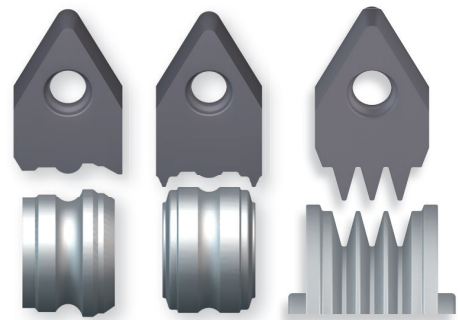


### Wide profile grooving

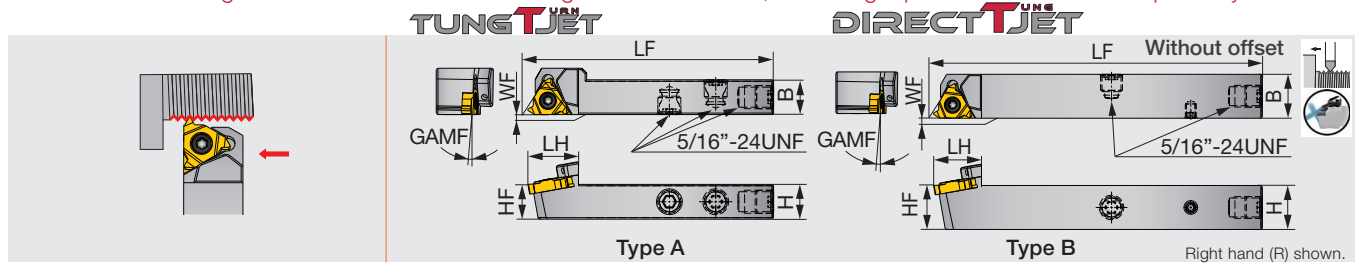
ISO	Workpiece material	Hardness (HB)	Grade	Cutting speed Vc (m/min)
<b>P</b>	Steel S45C, etc. C45, etc.	< 200	UX30	50 - 150
	Alloy steel SCM440, etc. 42CrMo4, etc.	< 300	UX30	50 - 120
<b>M</b>	Stainless steel SUS303, etc. X5CrNi18-9, etc.	< 200	UX30	50 - 120
<b>K</b>	Grey cast iron FC250, etc. 250, etc.	-	TH10	50 - 150
	Ductile cast iron FCD450, etc. 450-10S, etc.	-	TH10	50 - 120
<b>N</b>	Aluminium alloy Si < 12%, etc.	-	TH10	100 - 500

- Custom shaped inserts can be supplied on customer's request, according to the designated final shape on part drawing.

- Semi-finished blanks PSGB types are offered for purchase.



Referent pages : Toolholders → **G084 - G085**



Designation	H	B	LF	LH	HF	WF	GAMF	Type	Insert
JSE2R1212F16-CHP	12	12	85	19	12	0	1°	A	16ER...
JSE2R1212X16-CHP ※	12	12	120	19	12	0	1°	B	16ER...
JSE2R1616X16-CHP ※	16	16	120	19	16	0	1°	B	16ER...

※ DirectTungJet specification

### SPARE PARTS

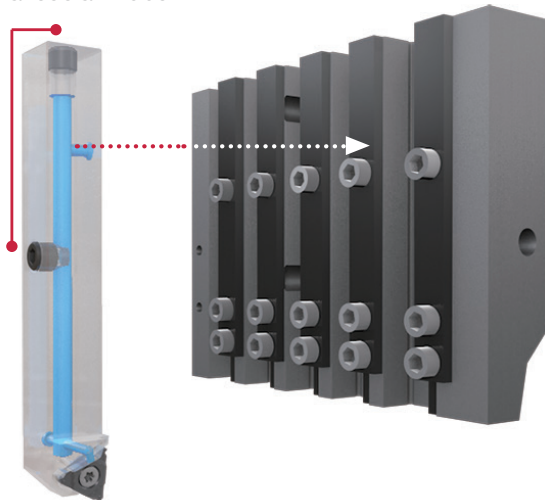
Designation	Clamping screw	Wrench
JSE2R**16-CHP	CSTB-3.5	T-15F

## DIRECT TUNG system

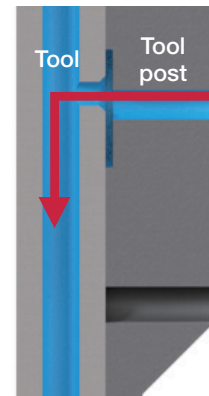
No need for coolant tube setup.  
Eliminates chip entanglement on tubes and streamlines tool replacement.

Coolant is supplied from the tool post directly to the tools

Optional connection with external coolant tube



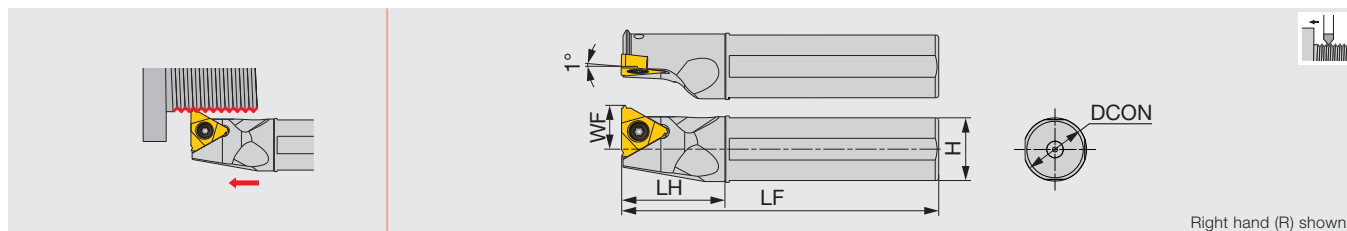
Detailed view of the coolant flow after connection



# TUNGTHREAD

## JS-SEL16

External threading toolholder, for Swiss lathes



Designation	DCON	H	LF	LH	WF	Insert
JS16F-SEL16	16	15	85	25	11	16ER...
JS19G-SEL16	19.05	18	90	30	12.5	16ER...
JS19X-SEL16	19.05	18	120	30	12.5	16ER...
JS20G-SEL16	20	19	90	30	13	16ER...
JS20X-SEL16	20	19	120	30	13	16ER...
JS25HSEL16	25	24	100	30	15.5	16ER...
JS254X-SEL16	25.4	24	120	30	15.7	16ER...

Note: Use left-hand toolholders (L) with right-hand inserts (R).

### SPARE PARTS

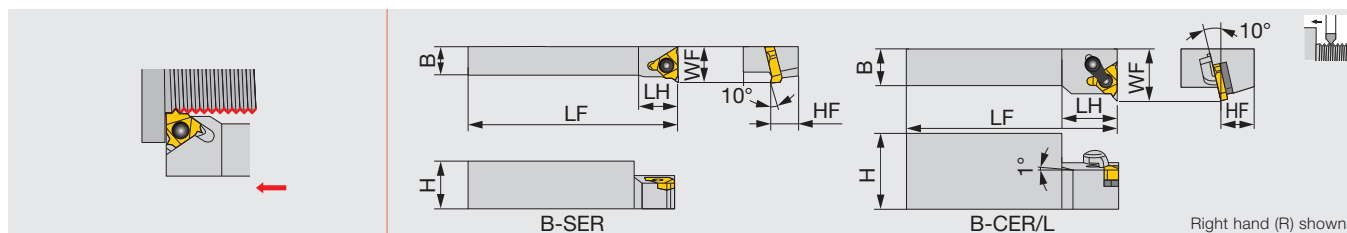
Designation	Clamping screw	Wrench
JS***-SEL16	CSTB-3.5	T-15F



# TUNGTHREAD

## B-S/CER/L

External threading toolholder, for Swiss lathes



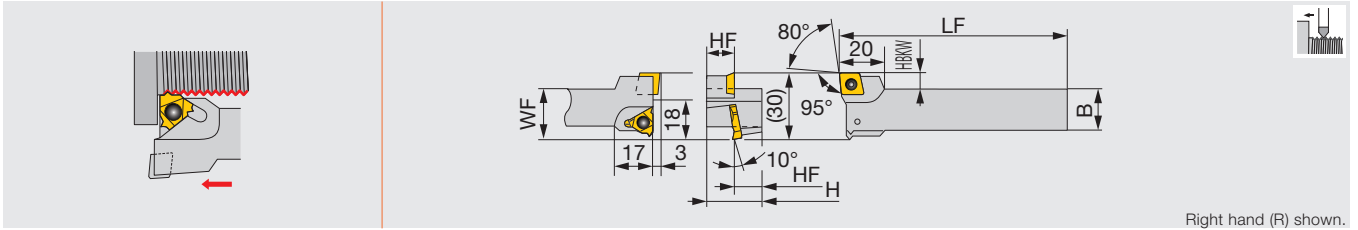
Designation	H	B	LF	LH	HF	WF	Insert
B-SER10H16	20	10	100	15	10	16	16ER...
B-SER12K16	24	12	125	18	12	18	16ER...
B-CER/L16M16	32	16	150	24	16	22	16ER/L...

### SPARE PARTS

Designation	Clamp set	Shim set	Clamping screw	Wrench
B-SER**16	-	-	CSTB-3.5	T-15F
B-CER/L16M16	CSP16	A16-1	-	T-15F

Referent pages : JS-SEL16, B-S/CER/L: Inserts → **E010** -, Standard cutting conditions → **E050**





Right hand (R) shown.

Designation	H	B	LF	HF	WF	HBKW	Insert
BC-SER12K16	24	16	125	12	23	7	16ER..., CC*T09T3...

### SPARE PARTS

Designation	Clamping screw	Wrench
BC-SER12K16	CSTB-3.5	T-15F

Grade

Insert

Ext. Toolholder

Int. Toolholder

Threading

Grooving

Miniature tool

Milling cutter

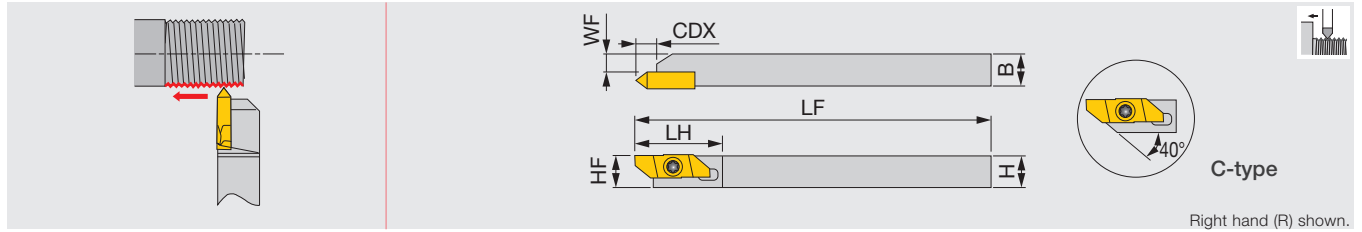
Endmill

Drilling tool

Tooling System

User's Guide

Index



Designation	H	B	LF	LH	CDX	HF	WF	Insert
JSXBR1010K8-C	10	10	125	29	6.4	10	5.7	JXT*R...
JSXBR1212K8-C	12	12	125	29	6.4	12	7.7	JXT*R...
JSXBR1616K8	16	16	125	29	6.4	16	11.7	JXT*R...
JSXBR2020K8	20	20	125	29	6.4	20	15.7	JXT*R...
JSXBR2525K8	25	25	125	29	6.4	25	20.7	JXT*R...

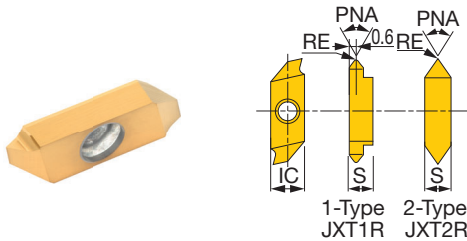
- Can be wrenched from back side with both end torx screw.
- This toolholder is compatible with JXB-type inserts and JXT-type inserts.

### SPARE PARTS

Designation	Clamping screw	Wrench 1	Wrench 2 (optional)
JSXBR...	CSTB-4SD	T-8F	(T-8L)

### INSERT

#### JXT (sharp edge)

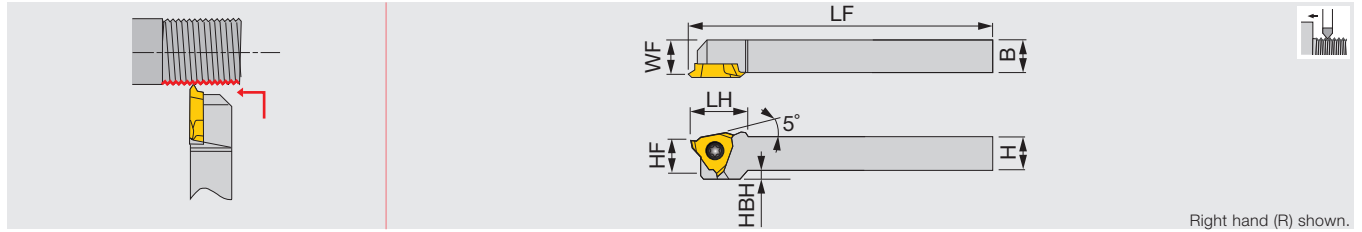


	P	M	K	N	S	H												
Steel	★																	
Stainless	★																	
Cast iron																		
Non-ferrous					☆													
Superalloys					☆													
Hard materials					☆													

★ : First choice  
☆ : Second choice

Designation	RE	Coated		Uncoated						PNA	IC	S	
		J740	TH10										
JXT1R6000F	0.03	●		●							60°	8	3.97
JXT2R6000F	0.03	●		●							60°	8	3.97

● : Line up



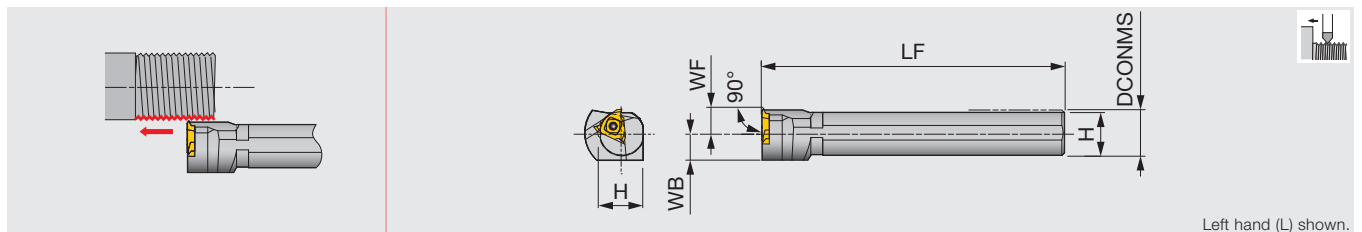
Right hand (R) shown.

Designation	H	B	LF	LH	HF	WF	HBH	Insert
JSTTR/L1010X3	10	10	120	18.5	10	9.5	2	JTTR/L3...
JSTTR/L1212F3	12	12	85	18.5	12	11.5	-	JTTR/L3...
JSTTR/L1212X3	12	12	120	18.5	12	11.5	-	JTTR/L3...
JSTTR/L1616X3	16	16	120	18.5	16	15.5	-	JTTR/L3...

\*Recommended clamping torque: 1.2 N·m

### SPARE PARTS

Designation	Clamping screw	Wrench 1	Wrench 2 (optional)
JSTTR/L...	CSTB-4SD	T-8F	(T-8L)



Left hand (L) shown.

Designation	DCONMS	WF	LF	H	WB	Insert
JS19K-TTL3	19.05	10	125	18	11.5	JTTR30...
JS20K-TTL3	20	10	125	19	11.5	JTTR30...
JS22K-TTL3	22	10	125	21	11.5	JTTR30...
JS25K-TTL3	25.4	10	125	24	12.7	JTTR30...

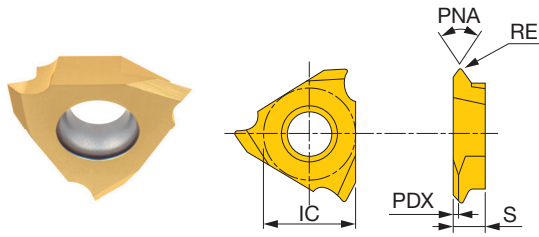
\*Recommended clamping torque: 3.5 N·m

### SPARE PARTS

Designation	Clamping screw	Wrench
JS**-TTL3	CSTB-4S	T-15F

# INSERT

## JTT (sharp edge)



Right hand (R) shown.

<b>P</b>	Steel	★	☆		★													
<b>M</b>	Stainless	★	☆															
<b>K</b>	Cast iron	★			☆		★											
<b>N</b>	Non-ferrous						★											
<b>S</b>	Superalloys	☆					★											
<b>H</b>	Hard materials	☆					★											

★ : First choice  
☆ : Second choice

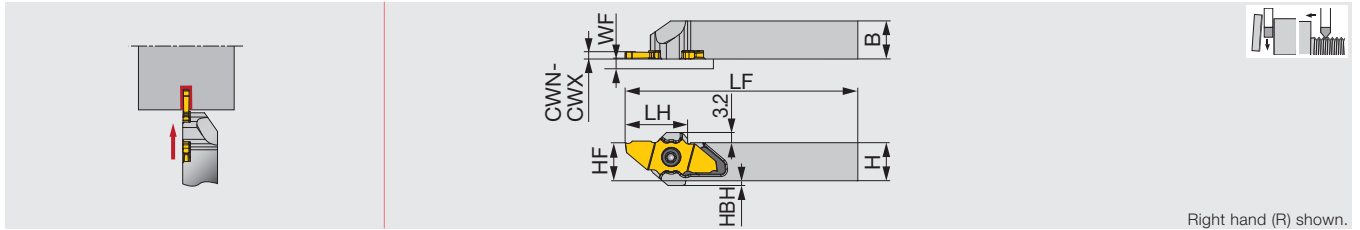
Designation	RE	Coated		Cermet	Uncoated			PNA	IC	S	PDX
		SH725	J740	NS9530	TH10						
JTTR3005F-55	0.05	●	●					55°	9.525	3.18	0.6
JTTL3005F-55	0.05							55°	9.525	3.18	0.6
JTTR3005F	0.05	●	●	●	●			60°	9.525	3.18	0.9
JTTL3005F	0.05	●						60°	9.525	3.18	0.9
JTTR3010F	0.1	●	●	●	●			60°	9.525	3.18	0.9
JTTL3010F	0.1	●						60°	9.525	3.18	0.9

Machinable pitch range: 0.5 to 1 mm

● : Line up

## STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Grade	Cutting speed Vc (m/min)	Pitch (mm)	TPI
<b>P</b>	Low carbon steel S15C, S25C, etc. C15, C25, etc.	SH725	60 - 150	0.5 - 1	50 - 25
	Carbon steel, Alloy steel S55C, SCM440 etc. C55, 42CrMoS4, etc.	SH725	60 - 150	0.5 - 1	50 - 25
	Pre-hardened steel NAK80, PX5 etc.	SH725	60 - 150	0.5 - 1	50 - 25
<b>M</b>	Stainless steel SUS304, SUS316 etc. X5CrNi18-9, X5CrNiMo17-12-2, etc.	SH725	50 - 80	0.5 - 1	50 - 25
<b>K</b>	Grey cast iron FC250, FC300, etc. 250, 300, etc.	TH10	50 - 100	0.5 - 1	50 - 25
	Ductile cast iron FCD400, etc. 400-15S, etc.	TH10	50 - 100	0.5 - 1	50 - 25
<b>S</b>	Titanium alloy Ti-6Al-4V, etc.	SH725	30 - 100	0.5 - 1	50 - 25
	Heat resistant alloy Inconel 718, etc.	SH725	30 - 100	0.5 - 1	50 - 25



Designation	CWN	CWX	H	B	LF**	LH**	HF	WF	HBL**	HBH	Insert	Torque*
JSXXR/L1010X09	1	2	10	10	120	19.65	10	0.2	19	3	JX*G06...,12...,16...,20...	1.2
JSXXR/L1212F09	1	2	12	12	85	19.65	12	0.2	19	1.5	JX*G06...,12...,16...,20...	1.2
JSXXR/L1212X09	1	2	12	12	120	19.65	12	0.2	19	1.5	JX*G06...,12...,16...,20...	1.2
JSXXR/L1616X09	1	2	16	16	120	19.65	16	0.2	-	-	JX*G06...,12...,16...,20...	1.2
JSXXR/L2020H09	1	2	20	20	100	22.5	20	0.2	-	-	JX*G06...,12...,16...,20...	1.2

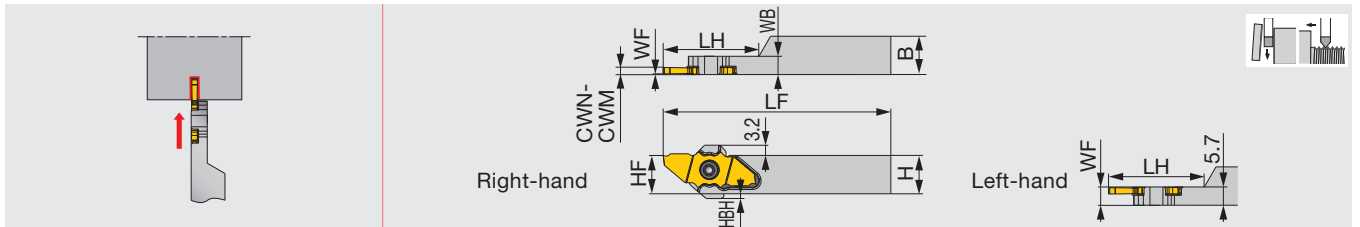
\*Torque: Recommended torque (N-m) for clamping

\*\*LF (Functional Length) LH (Head Length), and HBL (Head-bottom Offset Length) values shown above are true with JXPG16... insert. LF, LH, and HBL will all be 2 mm shorter than the above values with JX\*G12... and JXPG20... inserts, and 4 mm shorter for JXPG06... insert.

Note: Use the right-hand insert (JX\*G\*\*R...) for a right-hand holder (JSXXR...); the left-hand insert (JX\*G\*\*L...) for a left-hand holder (JSXXL...).

### SPARE PARTS

Designation	Clamping screw	Wrench
JSXXR...	CSTC-4L100DL	T-1008/5
JSXXL...	CSTC-4L100DR	T-1008/5



Designation	CWN	CWM	H	B	LF**	LH**	HF	WF	HBH	Insert	Torque*
JSXXR/L1010X09-S	1	2	10	10	120	26	10	0.2/5.5	3	JX*G06...,12...,16...	1.2
JSXXR/L1212F09-S	1	2	12	12	85	26	12	0.2/5.5	1.5	JX*G06...,12...,16...	1.2
JSXXR/L1212X09-S	1	2	12	12	120	30	12	0.2/5.5	1.5	JX*G06...,12...,16...	1.2
JSXXR/L1616X09-S	1	2	16	16	120	30	16	0.2/5.5	-	JX*G06...,12...,16...,20...	1.2

\*Torque: Recommended torque (N-m) for clamping

\*\*LF (Functional Length) and LH (Head Length) values shown above are true with JXPG16... insert. LF and LH will be 2 mm shorter than the above values with JX\*G12... insert, and 4 mm shorter for JXPG06... insert. LF, LH, and HBL will all be 2 mm shorter with JXPG20... insert.

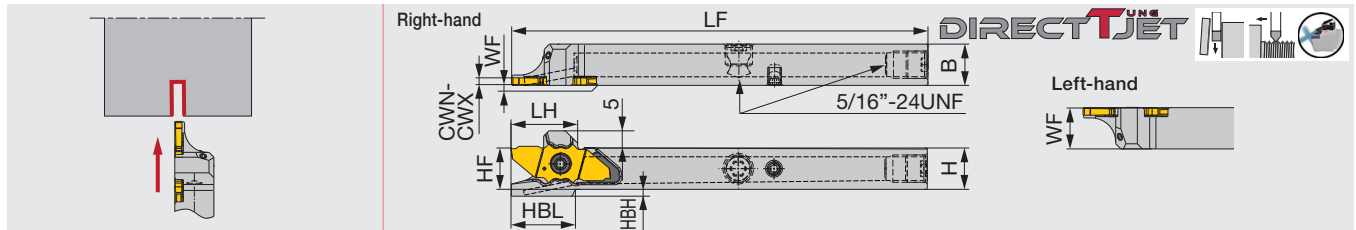
\*\*\*JXPG20... insert will not fit.

Note: Use the right-hand insert (JX\*G\*\*R...) for a right-hand holder (JSXXR...); the left-hand insert (JX\*G\*\*L...) for a left-hand holder (JSXXL...).

### SPARE PARTS

Designation	Clamping screw	Wrench
JSXXR****09-S	CSTC-4L055DL	T-1008/5
JSXXL****09-S	CSTC-4L055DR	T-1008/5

Parting-off tool for swiss lathes for DirectTungJet system



Designation	CWN	CWX	H	B	LF**	LH**	HF	WF	HBL**	HBH	Insert	Torque*
JSXXR/L1212X09-CHP	1	2	12	12	0.2/11.8	120	12	2	19.4	18.8	JX*G06...,12...,16..., 20...	1.2
JSXXR/L1616X09-CHP***	1	2	16	16	0.2/15.8	120	16	2.5	19.4	18.7	JX*G06...,12...,16..., 20...	1.2
JSXXR/L1616X09B-CHP	1	2	16	16	0.2/15.8	120	16	-	19.4	18.7	JX*G06...,12...,16..., 20...	1.2

\*Torque: Recommended torque (N-m) for clamping

\*\*LF (Functional Length) LH (Head Length), and HBL (Head-bottom Offset Length) values shown above are true with JXPG16... insert. LF, LH, and HBL will all be 2 mm shorter than the above values with JX\*G12... and JXPG20... inserts, and 4 mm shorter for JXPG06... insert.

\*\*\*To be replaced with the new design

Note: Use the right-hand insert (JX\*G\*\*R...) for a right-hand holder (JSXXR...); the left-hand insert (JX\*G\*\*L...) for a left-hand holder (JSXXL...).

### SPARE PARTS

Designation	Clamping screw	Wrench 1	Coolant plug	Wrench 2	DirectTungJet plug	Wrench 3
JSXXR...	CSTC-4L100DL	T-1008/5	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2
JSXXL...	CSTC-4L100DR	T-1008/5	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2

Parting-off widths : 1.0 mm and 1.5 mm (for a max parting diameter of ø6 mm)

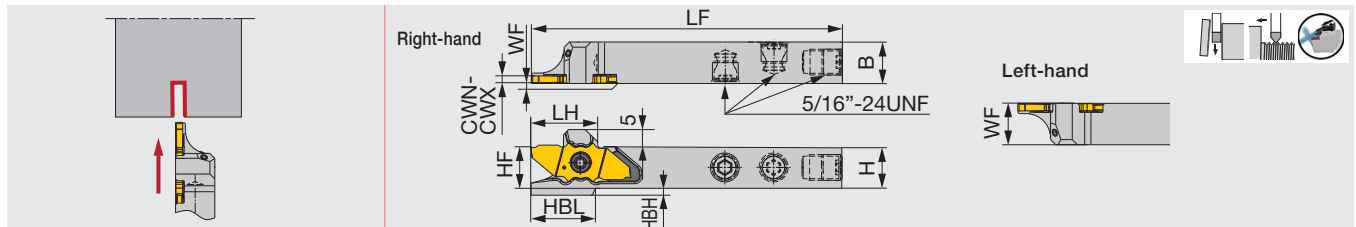
: 1.5 mm and 2.0 mm (for max parting diameters of ø12 mm, ø16 mm and ø20 mm)

Threading pitch range : 0.2 - 1.5 mm

# DUOJUST

## JSXXR/L-F-CHP

Parting-off tool for swiss lathes



Designation	CWN	CWX	H	B	LF**	LH**	HF	WF	HBL**	HBH	Insert	Torque*
JSXXR/L1212F09-CHP	1	2	12	12	85	≤ 19.4	12	0.2/11.8	-	2	JX*G06...,12...,16..., 20...	1.2

\*Torque: Recommended torque (N-m) for clamping

\*\*LF (Functional Length) LH (Head Length), and HBL (Head-bottom Offset Length) values shown above are true with JXPG16... insert. LF, LH, and HBL will all be 2 mm shorter than the above values with JX\*G12... and JXPG20... inserts, and 4 mm shorter for JXPG06... insert.

Note: Use the right-hand insert (JX\*G\*\*R...) for a right-hand holder (JSXXR...); the left-hand insert (JX\*G\*\*L...) for a left-hand holder (JSXXL...).

### SPARE PARTS

Designation	Clamping screw	Wrench 1	Coolant plug	Wrench 2
JSXXR...	CSTC-4L100DL	T-1008/5	SR5/16UNFTL360	P-4
JSXXL...	CSTC-4L100DR	T-1008/5	SR5/16UNFTL360	P-4

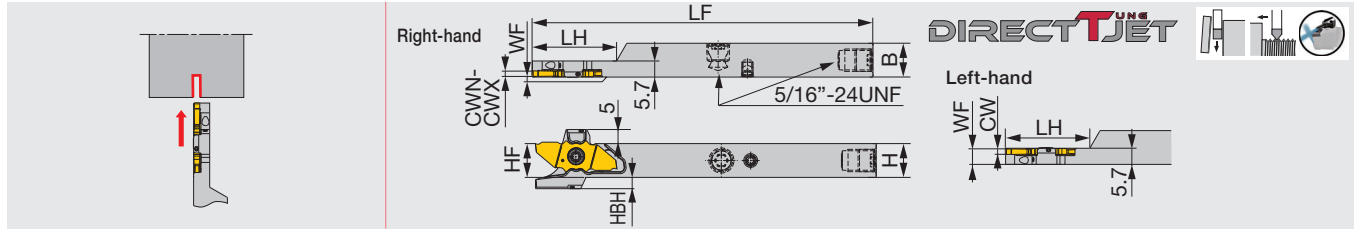
Parting-off widths : 1.0 mm and 1.5 mm (for a max parting diameter of ø6 mm)

: 1.5 mm and 2.0 mm (for max parting diameters of ø12 mm, ø16 mm and ø20 mm)

Threading pitch range : 0.2 - 1.5 mm

Referent pages : JSXXR/L-CHP, JSXXR/L-F-CHP: Inserts → G098 - G099, Standard cutting conditions → G100

Parting toolholder with DirectTungJet connection, for Swiss lathes (for sub spindle)



Designation	CWN	CWX	H	B	LF**	LH**	HF	WF	HBH	Insert	Torque*
JSXXR/L1212X09-S-CHP***	1	2	12	12	120	30	12	0.2/5.5	4	JX*G06...,12...,16..., 20...	1.2
JSXXR/L1212X09B-S-CHP	1	2	12	12	120	30	12	0.2/5.5	2	JX*G06...,12...,16..., 20...	1.2
JSXXR/L1616X09-S-CHP***	1	2	16	16	120	30	16	0.2/5.5	1.5	JX*G06...,12...,16..., 20...	1.2
JSXXR/L1616X09B-S-CHP	1	2	16	16	120	30	16	0.2/5.5	-	JX*G06...,12...,16..., 20...	1.2

\*Torque: Recommended torque (N-m) for clamping

\*\*LF (Overall Tool Length) and LH (Head Length) values shown above are true with JXPG16... insert. Both LF and LH will be 2 mm shorter than the above value with JX\*G12... and JXPG20... inserts; 4 mm shorter with JXPG06... insert.

\*\*\*To be replaced with the new design

Note: Use the right-hand insert (JX\*G\*\*R...) for a right-hand holder (JSXXR...); the left-hand insert (JX\*G\*\*L...) for a left-hand holder (JSXXL...).

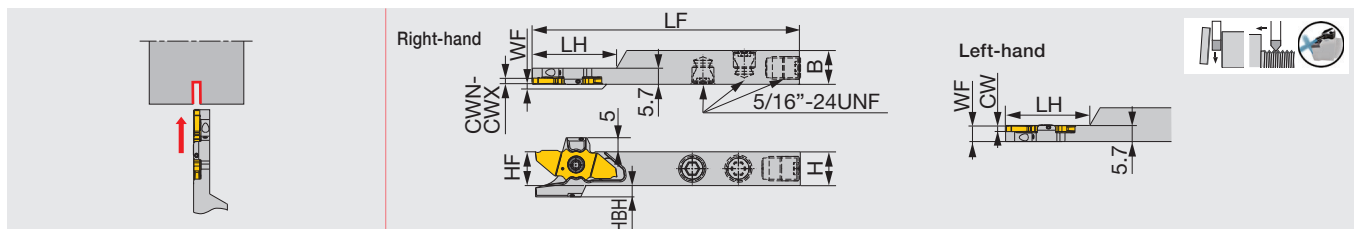
### SPARE PARTS

Designation	Clamping screw	Wrench 1	Coolant plug	Wrench 2	DirectTungJet plug	Wrench 3
JSXXR***-S-CHP	CSTC-4L055DL	T-1008/5	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2
JSXXL***-S-CHP	CSTC-4L055DR	T-1008/5	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2

Parting-off widths : 1.0 mm and 1.5 mm (for a max parting diameter of ø6 mm)

: 1.5 mm and 2.0 mm (for max parting diameters of ø12 mm, ø16 mm and ø20 mm)

Parting toolholder, with high pressure coolant capability, for Swiss lathes (for sub spindle)



Designation	CWN	CWX	H	B	LF**	LH**	HF	WF	HBH	Insert	Torque*
JSXXR/L1212F09-S-CHP***	1	2	12	12	85	26	12	0.2/5.5	4	JX*G06...,12...,16..., 20...	1.2
JSXXR/L1212F09B-S-CHP	1	2	12	12	85	30	12	0.2/5.5	2	JX*G06...,12...,16..., 20...	1.2

\*Torque: Recommended torque (N-m) for clamping

\*\*LF (Overall Tool Length) and LH (Head Length) values shown above are true with JXPG16... insert. Both LF and LH will be 2 mm shorter than the above value with JX\*G12... and JXPG20... inserts; 4 mm shorter with JXPG06... insert.

\*\*\*To be replaced with the new design

Note: Use the right-hand insert (JX\*G\*\*R...) for a right-hand holder (JSXXR...); the left-hand insert (JX\*G\*\*L...) for a left-hand holder (JSXXL...).

### SPARE PARTS

Designation	Clamping screw	Wrench 1	Coolant plug	Wrench 2
JSXXR***-S-CHP	CSTC-4L055DL	T-1008/5	SR5/16UNFTL360	P-4
JSXXL***-S-CHP	CSTC-4L055DR	T-1008/5	SR5/16UNFTL360	P-4

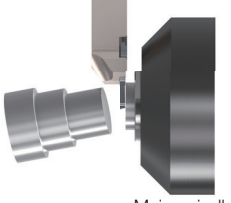
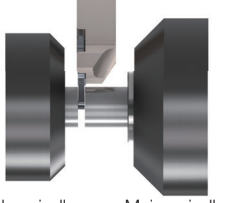
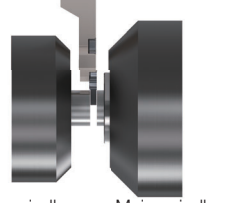
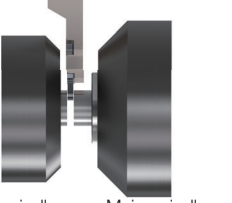
Parting-off widths : 1.0 mm and 1.5 mm (for a max parting diameter of ø6 mm)

: 1.5 mm and 2.0 mm (for max parting diameters of ø12 mm, ø16 mm and ø20 mm)

Grade  
Insert  
Ext. Toolholder  
Int. Toolholder  
Threading  
Grooving  
Miniature tool  
Milling cutter  
Endmill  
Drilling tool  
Tooling System  
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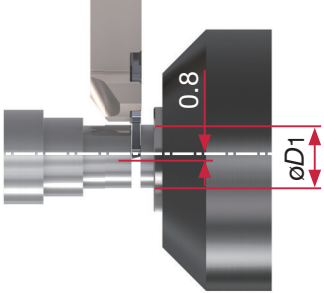
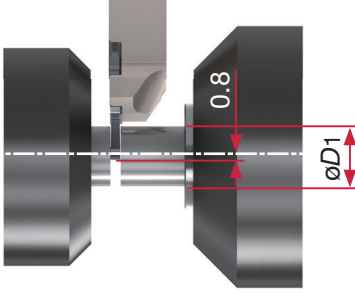
## HOW TO SELECT TOOLS

Application	Large-diameter machining of workpiece with rigidity		Small-diameter machining of workpiece with short overhang	
	Main-spindle tooling	Sub-spindle tooling	Sub-spindle tooling	
			Workpiece with long overhang at the side of sub-spindle for the process after parting-off	Short workpiece with low rigidity
 <p>Main spindle</p> <p>Position of parting-off is at the side of the main spindle</p>	 <p>Sub-spindle Main spindle</p> <p>Position of parting-off is at the side of the sub-spindle</p>	 <p>Sub-spindle Main spindle</p> <p>Position of parting-off is at the side of the main spindle</p>	 <p>Sub-spindle Main spindle</p> <p>Position of parting-off is at the side of the sub-spindle</p>	
Toolholder	R-hand (JSXXR type)	L-hand (JSXXL type)	R-hand (JSXXR-S type)	L-hand (JSXXL-S type)
Insert	Right-hand insert with lead angle to remove center core (JXPG**R***-15 type)	Left-hand insert (JXPG**L*** type)	Right-hand insert (JXPG**R*** type)	Left-hand insert (JXPG**L*** type)

## HOW TO SELECT TOOLHOLDERS FOR SUB-SPINDLE

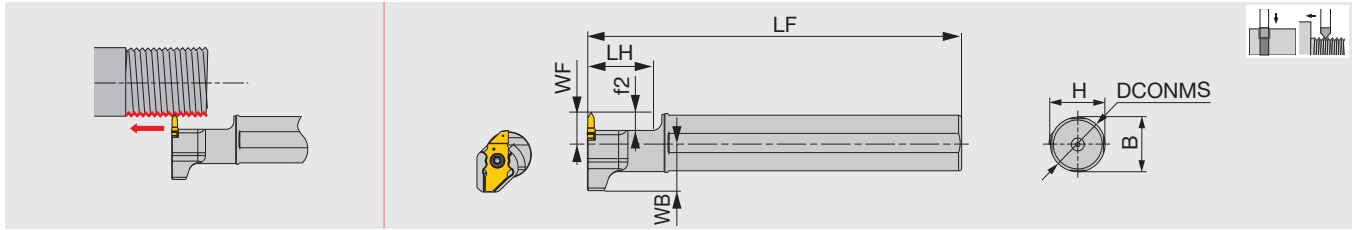
Sub-spindle dia.	Parting-off dia.	B	LF	Insert	Toolholder
ø40	~ ø6	10	116	JXPG06*	JSXXR/L1010X09-S
ø40	~ ø6	12	81	JXPG06*	JSXXR/L1212F09-S
ø40	~ ø12	10	118	JXPG12*	JSXXR/L1010X09-S
ø40	~ ø12	12	83	JXPG12*	JSXXR/L1212F09-S
ø40	~ ø16	10	120	JXPG16*	JSXXR/L1010X09-S
ø40	~ ø16	12	85	JXPG16*	JSXXR/L1212F09-S
ø40	~ ø20	12	87	JXPG20*	JSXXR/L1212F09B-S-CHP
ø50	~ ø6	12	116	JXPG06*	JSXXR/L1212X09-S
ø50	~ ø6	16	116	JXPG06*	JSXXR/L1616X09-S
ø50	~ ø12	12	118	JXPG12*	JSXXR/L1212X09-S
ø50	~ ø12	16	118	JXPG12*	JSXXR/L1616X09-S
ø50	~ ø16	12	85	JXPG16*	JSXXR/L1212F09-S
ø50	~ ø16	12	120	JXPG16*	JSXXR/L1212X09-S
ø50	~ ø16	16	120	JXPG16*	JSXXR/L1616X09-S
ø50	~ ø20	12	87	JXPG20*	JSXXR/L1212F09B-S-CHP
ø50	~ ø20	12	122	JXPG20*	JSXXR/L1212X09B-S-CHP
ø50	~ ø20	16	122	JXPG20*	JSXXR/L1616X09-S

## MAX. PARTING-OFF DIA. & DEPTH

Main-spindle tooling	Sub-spindle tooling
 <p>Main spindle</p>	 <p>Sub-spindle Main spindle</p>

There will be no tool-workpiece interference when parting off the workpiece with the cutting edge position apart from the workpiece center by 0.8 mm or more.





Designation	DCONMS	H	B	LF	LH	WB	WF	f2	Insert	Torque*
JS19G-SXXL09	19.05	18	18	90	21	15.43	10	6	JX*G06,12*R	1.2
JS19X-SXXL09	19.05	18	18	120	21	15.43	10	6	JX*G06,12*R	1.2
JS20G-SXXL09	20	19	19	90	21	15.4	10	6	JX*G06,12*R	1.2
JS20X-SXXL09	20	19	19	120	21	15.4	10	6	JX*G06,12*R	1.2
JS22X-SXXL09	22	21	21	120	21	15.4	10	6	JX*G06,12*R	1.2
JS25H-SXXL09	25	24	24	100	21	15.4	10	6	JX*G06,12*R	1.2
JS254X-SXXL09	25.4	24	24	120	21	15.4	10	6	JX*G06,12*R	1.2

\* Torque: Recommended torque (N-m) for clamping  
Threading insert (JXTG12FR) and parting-off inserts (JXPG06R , 12R) fit this holder.

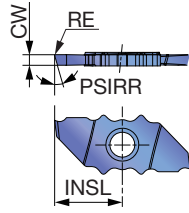
**SPARE PARTS**



Designation	Clamping screw	Wrench
JS***-SXXL09	CSTC-4L100DL	T-1008/5

**INSERT**

**JXPG\*\*R/L-F (sharp edge)**



Right hand (R) shown.

<b>P</b>	Steel	★							
<b>M</b>	Stainless	★							
<b>K</b>	Cast iron	★							
<b>N</b>	Non-ferrous	★							
<b>S</b>	Superalloys	★							
<b>H</b>	Hard materials	★							

★ : First choice  
☆ : Second choice

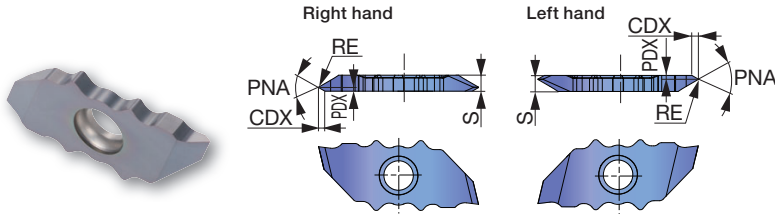


Designation	HAND	CW±0.025	RE	Coated						CUTDIA	INSL	PSIRR/L	
				SH725									
JXPG06R10F	R	1	0.05	●							6	10.5	0°
JXPG06L10F	L	1	0.05	●							6	10.5	0°
JXPG06R15F	R	1.5	0.05	●							6	10.5	0°
JXPG06L15F	L	1.5	0.05	●							6	10.5	0°
JXPG06R10F-15	R	1	0.05	●							6	10.5	15°
JXPG06L10F-15	L	1	0.05	●							6	10.5	15°
JXPG06R15F-15	R	1.5	0.05	●							6	10.5	15°
JXPG06L15F-15	L	1.5	0.05	●							6	10.5	15°
JXPG12R15F	R	1.5	0.05	●							12	12.5	0°
JXPG12L15F	L	1.5	0.05	●							12	12.5	0°
JXPG12R20F	R	2	0.05	●							12	12.5	0°
JXPG12L20F	L	2	0.05	●							12	12.5	0°
JXPG12R15F-15	R	1.5	0.05	●							12	12.5	15°
JXPG12L15F-15	L	1.5	0.05	●							12	12.5	15°
JXPG12R20F-15	R	2	0.05	●							12	12.5	15°
JXPG12L20F-15	L	2	0.05	●							12	12.5	15°
JXPG16R15F	R	1.5	0.05	●							16	14.5	0°
JXPG16L15F	L	1.5	0.05	●							16	14.5	0°
JXPG16R20F	R	2	0.05	●							16	14.5	0°
JXPG16L20F	L	2	0.05	●							16	14.5	0°
JXPG16R15F-15	R	1.5	0.05	●							16	14.5	15°
JXPG16L15F-15	L	1.5	0.05	●							16	14.5	15°
JXPG16R20F-15	R	2	0.05	●							16	14.5	15°
JXPG16L20F-15	L	2	0.05	●							16	14.5	15°
JXPG20R15F	R	1.5	0.05	●							20	16.5	0°
JXPG20L15F	L	1.5	0.05	●							20	16.5	0°
JXPG20R20F	R	2	0.05	●							20	16.5	0°
JXPG20L20F	L	2	0.05	●							20	16.5	0°
JXPG20R15F-15	R	1.5	0.05	●							20	16.5	15°
JXPG20L15F-15	L	1.5	0.05	●							20	16.5	15°
JXPG20R20F-15	R	2	0.05	●							20	16.5	15°
JXPG20L20F-15	L	2	0.05	●							20	16.5	15°

● : Line-up  
CUTDIA: Max. parting-off dia.  
Packing quantity = 5 pcs.

Referent pages : Toolholders → **G093 - G097**, Standard cutting conditions → **G100**

# JXTG12FR/L-60 (For Threading / Sharp edge)



<b>P</b> Steel	★								
<b>M</b> Stainless	★								
<b>K</b> Cast iron	★								
<b>N</b> Non-ferrous	★								
<b>S</b> Superalloys	★								
<b>H</b> Hard materials	★								

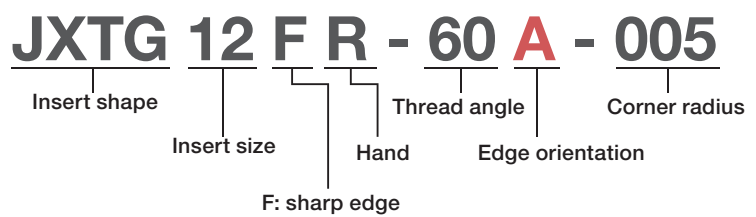
★ : First choice  
☆ : Second choice

Designation	HAND	RE	Coated																
			SH725							Pitches	PDX	CDX	S	PNA					
JXTG12FR-60A-000	R	Flat (0.05 max)	●												0.2 - 0.4	0.25	0.4	2.5	60°
JXTG12FL-60A-000	L	Flat (0.05 max)	●												0.2 - 0.4	0.25	0.4	2.5	60°
JXTG12FR-60B-000	R	Flat (0.05 max)	●												0.2 - 0.4	2.25	0.4	2.5	60°
JXTG12FL-60B-000	L	Flat (0.05 max)	●												0.2 - 0.4	2.25	0.4	2.5	60°
JXTG12FR-60A-005	R	0.05	●												0.4 - 1	0.6	0.99	2.5	60°
JXTG12FL-60A-005	L	0.05	●												0.4 - 1	0.6	0.99	2.5	60°
JXTG12FR-60B-005	R	0.05	●												0.4 - 1	1.9	0.99	2.5	60°
JXTG12FL-60B-005	L	0.05	●												0.4 - 1	1.9	0.99	2.5	60°
JXTG12FR-60N-010	R	0.1	●												1 - 1.5	1.25	2.07	2.5	60°
JXTG12FL-60N-010	L	0.1	●												1 - 1.5	1.25	2.07	2.5	60°

● : Line-up  
Packing quantity = 5 pcs.

## EDGE ORIENTATION AND DESCRIPTION OF THREADING INSERTS

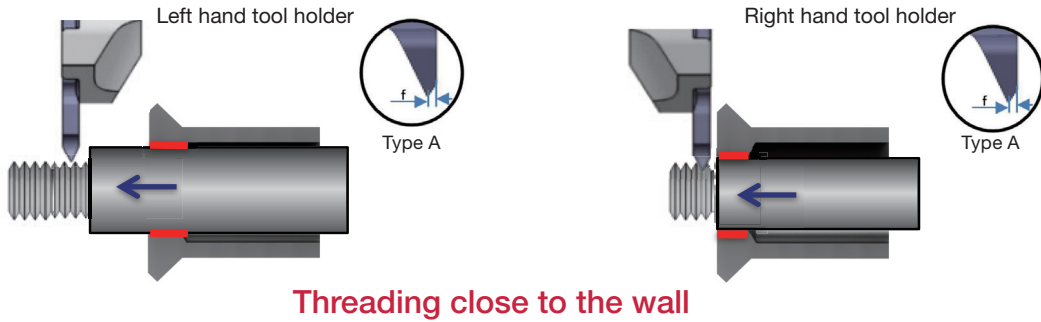
	Type A	Type B	Type N
Right hand			
Left hand			



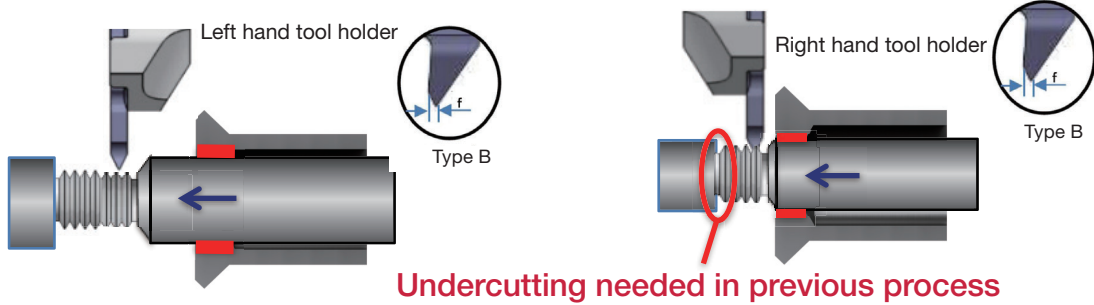
Referent pages : Toolholders → **G093 - G097**, Standard cutting conditions → **G100**

Grade  
Insert  
Ext. Toolholder  
Int. Toolholder  
Threading  
Grooving  
Miniature tool  
Milling cutter  
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Drilling tool  
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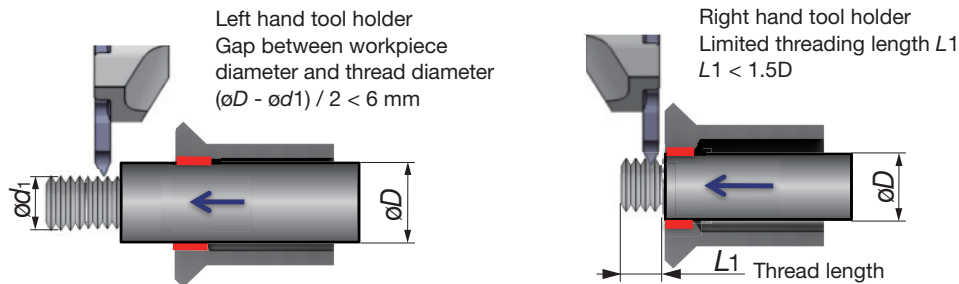




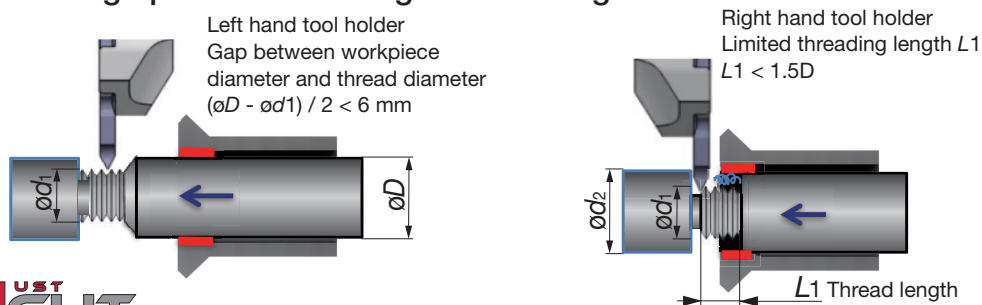
### Threading operation following back-turning



## THREADING WORKPIECE IN MAIN SPINDLE

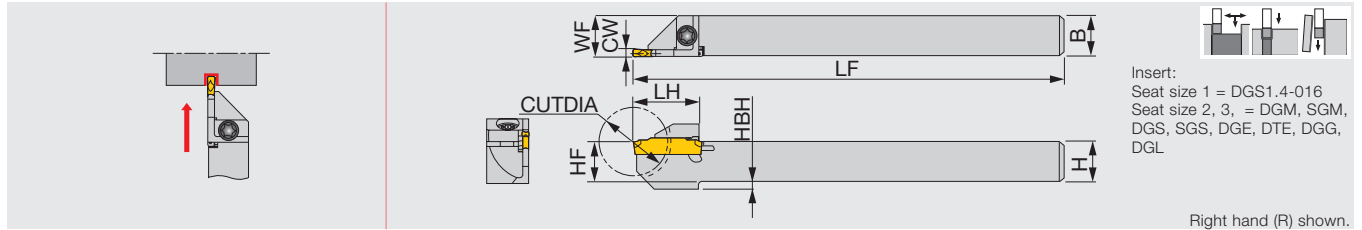


### Threading operation following back-turning



## STANDARD CUTTING CONDITIONS (Parting-off)

ISO	Workpiece materials	Grades	Cutting speed $V_c$ (m/min)	Feed $f$ (mm/rev)
P	Low carbon steels S15C, SS400, etc. C15, C20, etc.	SH725	50 - 200	0.01 - 0.05
	Carbon steels, Alloy steels S55C, SCM440, etc. C55, 42CrMo4, etc.	SH725	50 - 200	0.01 - 0.05
	Free cutting steels SUH22, SUH23, etc.	SH725	50 - 200	0.01 - 0.05
M	Stainless steels SUS304, SUS316, etc. X5CrNi18-9, X5CrNiMo17-12-3, etc.	SH725	50 - 200	0.01 - 0.05
N	Aluminium alloys A5056, A6061, etc.	SH725	150 - 200	0.01 - 0.05
	Copper alloy C2600, C280C, etc.	SH725	100 - 200	0.01 - 0.05
S	Titanium alloys Ti-6Al-4V, etc.	SH725	30 - 80	0.01 - 0.05
	Superalloys Inconel718, etc.	SH725	30 - 80	0.01 - 0.05

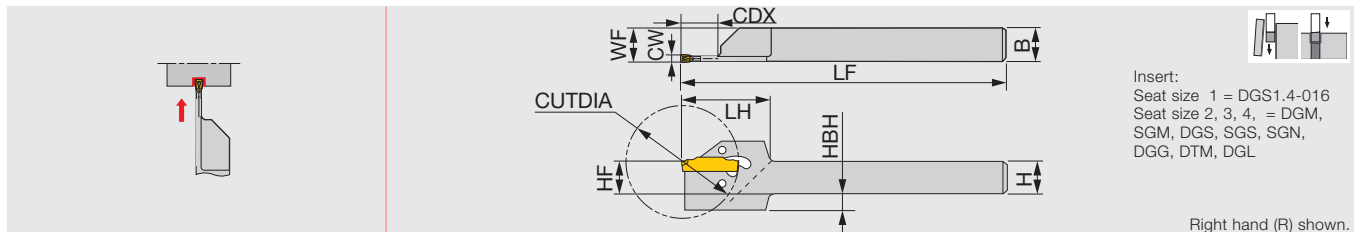


Designation	CW	Seat size	CUTDIA	H	B	LF	LH	HF	WF <sup>(1)</sup>	HBH	Torque*
JCTER/L1010X1.4T10	1.4	1	20	10	10	120	18	10	10.2	-	3
JCTER/L1212F1.4T12	1.4	1	24	12	12	85	19.5	12	12.2	-	3
JCTER/L1212X1.4T12	1.4	1	24	12	12	120	19.5	12	12.2	-	3
JCTER/L1414-1.4T12	1.4	1	24	14	14	125	19.5	14	14.2	-	3
JCTER/L1616X1.4T16	1.4	1	32	16	16	120	24	16	16.2	-	3
JCTER/L1010X2T10	2	2	20	10	10	120	19	10	10.1	2	3
JCTER/L1212F2T12	2	2	24	12	12	85	19	12	12.1	2	3
JCTER/L1212X2T12	2	2	24	12	12	120	19	12	12.1	2	3
JCTER/L1414-2T12	2	2	24	14	14	125	19	14	14.1	-	3
JCTER/L1616X2T16	2	2	32	16	16	120	24	16	16.1	-	3
JCTER/L1212F3T12	3	3	24	12	12	85	19	12	12.3	2	3
JCTER/L1212X3T12	3	3	24	12	12	120	19	12	12.3	2	3
JCTER/L1616X3T16	3	3	32	16	16	120	24	16	16.3	-	3
JCTER/L2020H3T16	3	3	32	20	20	100	24	20	20.3	-	3

(1) The value for "WF" is true when the insert with the width, indicated in "CW" in the table is mounted. • CUTDIA: Maximum parting-off diameter  
\*Torque: Recommended torque (N-m) for clamping

### SPARE PARTS

Designation	Clamping screw	Wrench
JCTER/L...	CSHB-4-A	T-15F



Designation	CW	Seat size	CUTDIA <sup>(1)</sup>	CDX	H	B	LF	LH	HF	WF <sup>(2)</sup>	HBH
CGER/L2020-1.4T14	1.4	1	29/29	9.7	20	20	125	31	20	20.2	-
CGER/L1212-2T17	2	2	35/35	11.8	12	12	150	31	12	12.1	6
CGER/L1616-2T17	2	2	35/35	11.8	16	16	150	31	16	16.1	2
CGER/L2020-2T17	2	2	35/35	9.8	20	20	125	31	20	20.1	-
CGER/L1212-3T19	3	3	38/40	12	12	12	150	31	12	12.3	6
CGER/L1616-3T19	3	3	38/45	14.9	16	16	150	31	16	16.3	2
CGER/L2020-3T19	3	3	38/45	13.2	20	20	125	31	20	20.3	-
CGER/L2020-4T19	4	4	38/55	20.3	20	20	125	33	20	20.4	-

• Wrench, CRW\*\*, should be ordered separately. Insert is clamped by the elastic deformation of upper jaw.

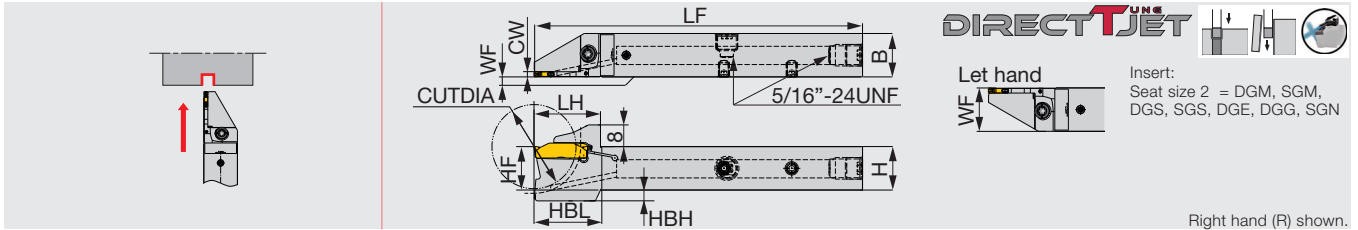
(1) DG\*/SG\* Maximum diameter of parting off Dmax, can be increased by using SG\* insert for some toolholders. (2) "WF" value is calculated with groove width "CW" shown in the table.

### SPARE PARTS

Designation	Wrench (Option)
CGER/L2020-1.4T14	CRW23
CGER/L****-2T17 - 4T19	CRW33



External grooving and parting toolholder with DirectTungJet connection



Designation	CW	Seat size	CUTDIA	H	B	LF	LH	HF	WF <sup>(1)</sup>	HBH	HBL	Torque*
JCTER/L1212X2T12-CHP	2	2	25	12	12	120	24.7	12	0/12	5	24.7	3
JCTER/L1616X2T12-CHP	2	2	25	16	16	120	24.7	16	0/16	1	24.5	3
JCTER/L1616X2T16-CHP	2	2	32	16	16	120	24.7	16	0/16	4	24.7	3
JCTER/L2020X2T16-CHP	2	2	32	20	20	120	24.7	20	0/20	-	-	3

(1) "WF" value is calculated with groove width "CW" shown in the table. • CUTDIA: Max. parting off dia.

\*Torque: Recommended torque (N·m) for clamping

• Please see the page G015 for DirectTungJet system.

### SPARE PARTS

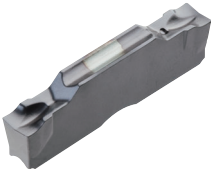
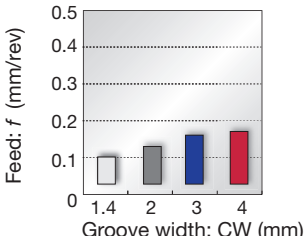

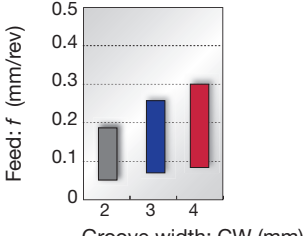

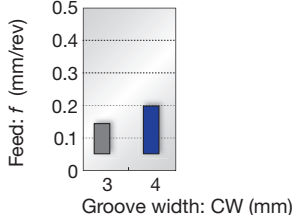
Designation	Clamping screw	Wrench 1	Coolant plug	Wrench 2	DirectJet plug	Wrench 3
JCTER/L...	CSHB-4-A	T-15F	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2

Parting-off width : 2.0 mm

Referent pages : JCTER/L-CHP: Inserts → G104 - G109, Standard cutting conditions → G110


## TUNGCUT FEATURES OF INSERTS

### EXTERNAL GROOVING AND PARTING

<p><b>DGS type (2 corners)</b> <b>SGS type (1 corner)</b></p>  <p>Page G104, G107</p>	<p><b>For Swiss lathes</b></p> <p>Unique-designed edge and chipbreaker</p> <p>Handed insert available</p> <p>CW = 1.4 - 3 mm</p>	<p>Standard feed</p> 
<p><b>DGM type (2 corners)</b> <b>SGM type (1 corner)</b></p>  <p>Page G105, G106</p>	<p><b>High fracture resistance</b></p> <p>Smooth chip evacuation</p> <p>Well-designed edge with high strength</p> <p>Handed insert available</p> <p>CW = 2 - 3 mm</p>	<p>Standard feed</p> 
<p><b>DGL type (2 corners)</b></p>  <p>Page G109</p>	<p><b>1st choice for mild steel</b></p> <p>Chipbreaker with excellent chip control at low feed</p> <p>Suitable for mild steel that often has difficulties in chip control</p>	<p>Standard feed</p> 

## EXTERNAL GROOVING

**DGE type (2 corners)**

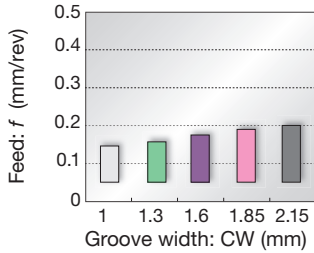



Page G108


**For shallow grooves with high accuracy**

Excellent chip control  
CW = 1 - 2.15 mm

Standard feed

**DGG type (2 corners)**

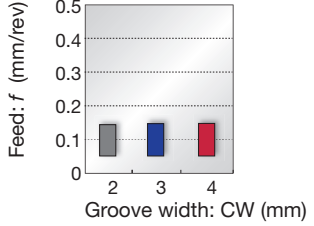
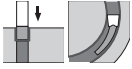


Page G108

**For non-ferrous materials and titanium alloys**

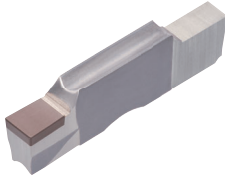
Chipbreaker with low cutting force  
Sharp cutting edge that prevents vibration and delivers fine surface finish  
CW = 2 - 3 mm

Standard feed

## EXTERNAL GROOVING OF HARDENED STEELS

**SGN-CBN type (1 corner)**

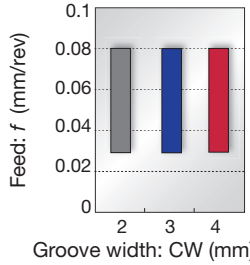



Page G109

**For hardened steel cutting**

Optimum cutting edge shape for grooving of hardened steels  
Close tolerance width for finishing (W = ±0.025 mm)  
CW = 2 - 3 mm

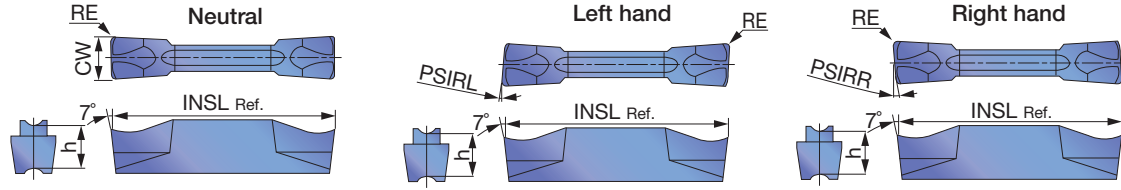
Standard feed

# INSERT

## DGS

External grooving and parting off, 2 cornered



<b>P</b> Steel	★	★	★	☆	☆		★						
<b>M</b> Stainless	★		★	☆	★								
<b>K</b> Cast iron	☆		★		☆		☆						
<b>N</b> Non-ferrous													
<b>S</b> Superalloys			★	☆									
<b>H</b> Hard materials													

★ : First choice  
☆ : Second choice

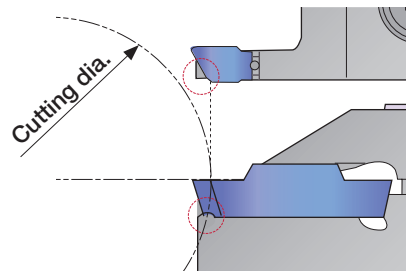
Designation	HAND	CW±0.05	RE	Coated					Cermet		INSL	h	PSIRL	PSIRR
				T9225	T9125	AH7025	AH725	GH130	NS9530					
DGS1.4-016	N	1.4	0.16			●	●	●			16	4.3	0°	0°
DGS2-020	N	2	0.2	●	●	●	●	●	●		20	5	0°	0°
DGS2-020-6R	R	2	0.2			●	●	●			20	5	0°	6°
DGS2-020-6L	L	2	0.2			●	●	●			20	5	6°	0°
DGS2-002-6R	R	2	0.02				●	●			19.5	5	0°	6°
DGS2-002-6L	L	2	0.02				●	●			19.5	5	6°	0°
DGS2-020-15R	R	2	0.2			●	●	●			20	5	0°	15°
DGS2-020-15L	L	2	0.2			●	●	●			20	5	15°	0°
DGS2-002-15R	R	2	0.02				●	●			19.5	5	0°	15°
DGS2-002-15L	L	2	0.02				●	●			19.5	5	15°	0°
DGS3-020	N	3	0.2	●	●	●	●	●	●		20	5	0°	0°
DGS3-020-6R	R	3	0.2			●	●	●			20	5	0°	6°
DGS3-020-6L	L	3	0.2			●	●	●			20	5	6°	0°
DGS3-002-6R	R	3	0.02				●	●			19.45	5	0°	6°
DGS3-002-6L	L	3	0.02				●	●			19.45	5	6°	0°
DGS3-020-15R	R	3	0.2			●	●	●			20	5	0°	15°
DGS3-020-15L	L	3	0.2			●	●	●			20	5	15°	0°
DGS3-002-15R	R	3	0.02				●	●			19.45	5	0°	15°
DGS3-002-15L	L	3	0.02				●	●			19.45	5	15°	0°
DGS4-030	N	4	0.3	●	●	●	●	●	●		20	5	0°	0°
DGS4-030-4R	R	4	0.3			●	●	●			20	5	0°	4°
DGS4-030-4L	L	4	0.3			●	●	●			20	5	4°	0°
DGS5-030	N	5	0.3	●	●	●	●	●	●		25	5.5	0°	0°
DGS6-030	N	6	0.3	●	●	●	●	●			25	5.5	0°	0°

● : Line up

### Caution

The tool will interfere with the workpiece when grooving larger diameter than  $\phi D_{max}$ .

Designation	Cutting dia.	Designation	Cutting dia.
DGM2-002-15R/L	28	DGS2-002-15R/L	28
DGM3-002-15R/L	29	DGS3-002-15R/L	29
DGM4-030-15R/L	30	SGS3-020-15R/L	103
SGM3-020-15R/L	103	SGS3-002-15R/L	34

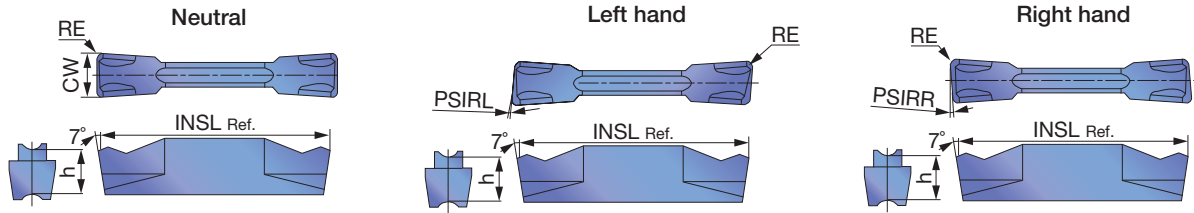


Referent pages : Toolholders → **G101 - G102**, Standard cutting conditions → **G110**



# DGM

External grooving and parting off, 2 cornered



<b>P</b> Steel	★	★	★	☆	☆			★				
<b>M</b> Stainless	★		★	☆	★							
<b>K</b> Cast iron	☆		★		☆	☆		☆				
<b>N</b> Non-ferrous												
<b>S</b> Superalloys			★	☆	★							
<b>H</b> Hard materials												

★ : First choice  
☆ : Second choice

Designation	HAND	CW±0.05	RE	Coated						Cermets			INSL	h	PSIRL	PSIRR
				T9225	T9125	AH7025	AH725	AH905	GH130	NS9530						
DGM2-020	N	2	0.2	●	●	●	●	●	●	●	●	20	5	0°	0°	
DGM2-020-6R	R	2	0.2			●	●	●	●			20	5	0°	6°	
DGM2-020-6L	L	2	0.2			●	●	●	●			20	5	6°	0°	
DGM2-020-8R	R	2	0.2			●	●	●	●			20	5	0°	8°	
DGM2-020-8L	L	2	0.2			●	●	●	●			20	5	8°	0°	
DGM2-020-15R	R	2	0.2			●	●	●	●			20	5	0°	15°	
DGM2-020-15L	L	2	0.2			●	●	●	●			20	5	15°	0°	
DGM2-002-15R	R	2	0.02				●	●	●			19.35	5	0°	15°	
DGM2-002-15L	L	2	0.02				●	●	●			19.35	5	15°	0°	
DGM3-020	N	3	0.2	●	●	●	●	●	●	●	●	20	5	0°	0°	
DGM3-020-6R	R	3	0.2			●	●	●	●			20	5	0°	6°	
DGM3-020-6L	L	3	0.2			●	●	●	●			20	5	6°	0°	
DGM3-002-6R	R	3	0.02				●	●	●			19.45	5	0°	6°	
DGM3-002-6L	L	3	0.02				●	●	●			19.45	5	6°	0°	
DGM3-020-15R	R	3	0.2			●	●	●	●			20	5	0°	15°	
DGM3-020-15L	L	3	0.2			●	●	●	●			20	5	15°	0°	
DGM4-030	N	4	0.3	●	●	●	●	●	●	●	●	20	5	0°	0°	
DGM4-030-4R	R	4	0.3			●	●	●	●			20	5	0°	4°	
DGM4-030-4L	L	4	0.3			●	●	●	●			20	5	4°	0°	
DGM4-030-15R	R	4	0.3			●	●	●	●			20	5	0°	15°	
DGM4-030-15L	L	4	0.3			●	●	●	●			20	5	15°	0°	
DGM5-030	N	5	0.3	●	●	●	●	●	●	●	●	25	5.5	0°	0°	
DGM5-030-4R	R	5	0.3			●	●	●	●			25	5.5	0°	4°	
DGM6-030	N	6	0.3	●	●	●	●	●	●	●	●	25	5.5	0°	0°	
DGM8-040	N	8	0.4	●	●	●	●	●	●	●	●	30	6.7	0°	0°	

● : Line up

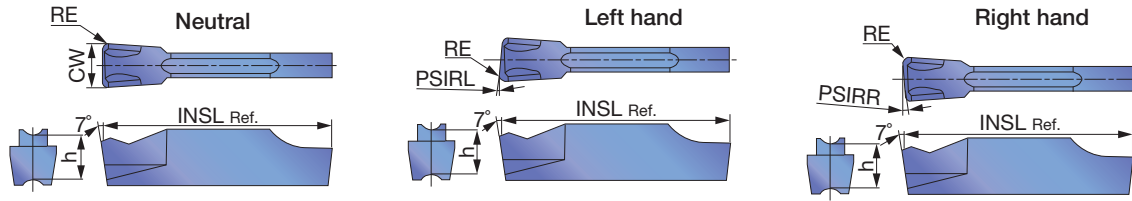
Referent pages : Toolholders → **G101 - G102**, Standard cutting conditions → **G110**

Grade  
 Insert  
 Ext. Toolholder  
 Int. Toolholder  
 Threading  
 Grooving  
 Miniature tool  
 Milling cutter  
 Endmill  
 Drilling tool  
 Tooling System  
 User's Guide  
 Index

# INSERT

## SGM

External deep grooving and parting off, single-cornered



<b>P</b>	Steel	★	☆	☆						
<b>M</b>	Stainless	★	☆	★						
<b>K</b>	Cast iron	★		☆						
<b>N</b>	Non-ferrous									
<b>S</b>	Superalloys	★	☆							
<b>H</b>	Hard materials									

★ : First choice  
☆ : Second choice

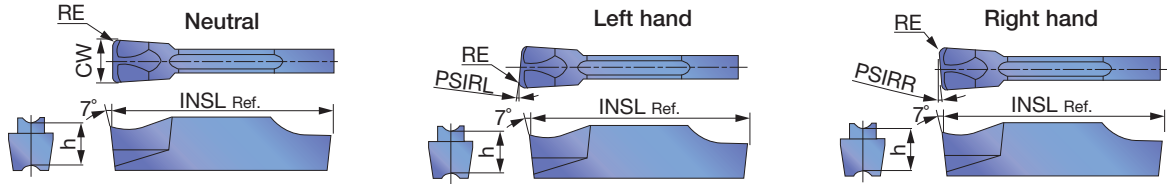
Designation	HAND	CW±0.05	RE	Coated			INSL	h	PSIRL	PSIRR
				AH7025	AH725	GH130				
SGM2-020	N	2	0.2	●	●		20	5	0°	0°
SGM2-020-6R	R	2	0.2	●	●	●	20	5	0°	6°
SGM2-020-6L	L	2	0.2	●	●	●	20	5	6°	0°
SGM3-020	N	3	0.2	●	●	●	20	5	0°	0°
SGM3-020-6R	R	3	0.2	●	●	●	20	5	0°	6°
SGM3-020-6L	L	3	0.2	●	●	●	20	5	6°	0°
SGM3-020-15R	R	3	0.2	●	●	●	20	5	0°	15°
SGM3-020-15L	L	3	0.2	●	●	●	20	5	15°	0°
SGM4-030	N	4	0.3	●	●	●	20	5	0°	0°
SGM4-030-4R	R	4	0.3	●	●	●	20	5	0°	4°
SGM4-030-4L	L	4	0.3	●	●	●	20	5	4°	0°
SGM5-030	N	5	0.3	●	●	●	25	5.5	0°	0°
SGM6-030	N	6	0.3	●	●	●	25	5.5	0°	0°

● : Line up

Referent pages : Toolholders → **G101 - G102**, Standard cutting conditions → **G110**

# SGS

External deep grooving and parting off, single-cornered



<b>P</b>	Steel	★	☆	☆																
<b>M</b>	Stainless	★	☆	★																
<b>K</b>	Cast iron	★		☆																
<b>N</b>	Non-ferrous																			
<b>S</b>	Superalloys	★	☆																	
<b>H</b>	Hard materials																			

★ : First choice  
☆ : Second choice

Designation	HAND	CW±0.05	RE	Coated										INSL	h	PSIRL	PSIRR					
				AH7025	AH725	GH130																
SGS2-020	N	2	0.2	●	●	●																
SGS2-020-6R	R	2	0.2	●	●	●																
SGS2-020-6L	L	2	0.2	●	●	●																
SGS2-020-15R	R	2	0.2	●	●	●																
SGS2-020-15L	L	2	0.2	●	●	●																
SGS3-020	N	3	0.2	●	●	●																
SGS3-020-6R	R	3	0.2	●	●	●																
SGS3-020-6L	L	3	0.2	●	●	●																
SGS3-002-6R	R	3	0.02		●	●																
SGS3-002-6L	L	3	0.02		●	●																
SGS3-020-15R	R	3	0.2	●	●	●																
SGS3-020-15L	L	3	0.2	●	●	●																
SGS3-002-15R	R	3	0.02		●	●																
SGS3-002-15L	L	3	0.02		●	●																
SGS4-030	N	4	0.3	●	●	●																
SGS5-030	N	5	0.3	●	●	●																
SGS6-030	N	6	0.3	●	●	●																

● : Line up

Referent pages : Toolholders → **G101 - G102**, Standard cutting conditions → **G110**

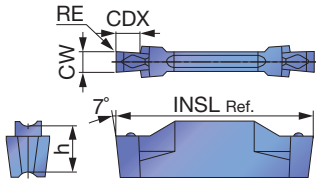
Grade  
Insert  
Ext. Toolholder  
Int. Toolholder  
Threading  
Grooving  
Miniature tool  
Milling cutter  
Endmill  
Drilling tool  
Tooling System  
User's Guide  
Index



# INSERT

## DGE

External grooving (for high-precision machining)



<b>P</b>	Steel	★	☆	☆				★												
<b>M</b>	Stainless	★	☆	★																
<b>K</b>	Cast iron	★		☆				☆												
<b>N</b>	Non-ferrous																			
<b>S</b>	Superalloys	★	☆																	
<b>H</b>	Hard materials																			

★ : First choice  
☆ : Second choice

Designation	CW±0.05	RE	Coated			Cermet			CDX	INSL	h
			AH7025	AH725	GH130	NS9530					
DGE100-000	1	0		●	●		●				
DGE130-000	1.3	0		●	●		●				
DGE160-010	1.6	0.1	●	●	●		●				
DGE185-010	1.85	0.1	●	●	●		●				
DGE215-015	2.15	0.15	●	●	●		●				

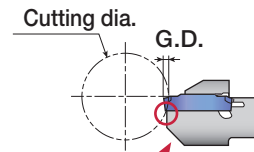
● : Line up

## DGE Caution

CDX is limited as shown in the picture to the right according to the groove depth, G.D. Please refer to the following table.

G.D = Groove depth

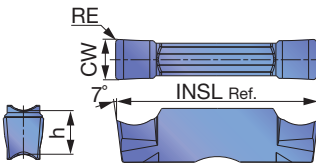
Designation	Max. groove depth (mm)	Cutting dia.				
		G.D. = 1	G.D. = 1.5	G.D. = 2	G.D. = 2.5	G.D. = 3
DGE100-000	2	∞	18.6	11.5	-	-
DGE130-000						
DGE160-010						
DGE185-010	3				8.8	7
DGE215-015						



Relevant area (Interference)

## DGG

External and face grooving (for high-precision machining)



<b>P</b>	Steel	★		★																
<b>M</b>	Stainless	★																		
<b>K</b>	Cast iron	★		☆		☆														
<b>N</b>	Non-ferrous						★													
<b>S</b>	Superalloys	★					☆													
<b>H</b>	Hard materials																			

★ : First choice  
☆ : Second choice

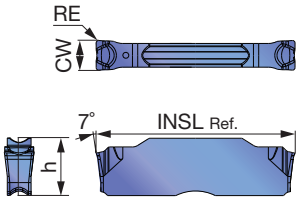
Designation	CW±0.02	RE	Coated		Cermet		Uncoated		INSL	h
			AH7025		NS9530		KS05F			
DGG200-020	2	0.2	●		●		●		20	5
DGG300-020	3	0.2	●		●		●		20	5
DGG400-040	4	0.4	●		●		●		20	5

● : Line up

Referent pages : Toolholders → **G101 - G102**, Standard cutting conditions → **G110**

## DGL

External, Parting-off



<b>P</b>	Steel	★								
<b>M</b>	Stainless	★								
<b>K</b>	Cast iron	★								
<b>N</b>	Non-ferrous									
<b>S</b>	Superalloys	★								
<b>H</b>	Hard materials									

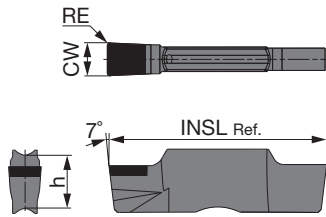
★ : First choice  
☆ : Second choice

Designation	CW±0.05	RE	Coated								INSL	h
			AH7025									
DGL3-025	3	0.25	●								20	5
DGL4-030	4	0.3	●								20	5

● : Line up

## SGN

External grooving of hardened steels



<b>P</b>	Steel									
<b>M</b>	Stainless									
<b>K</b>	Cast iron									
<b>N</b>	Non-ferrous									
<b>S</b>	Superalloys									
<b>H</b>	Hard materials	★								

★ : First choice  
☆ : Second choice

Designation	CW±0.025	RE	CBN								INSL	h
			BX360									
SGN200-020	2	0.2	●								20	5
SGN300-020	3	0.2	●								20	5
SGN400-020	4	0.2	●								20	5

● : Line up

Referent pages : Toolholders → **G101 - G102**, Standard cutting conditions → **G110**

## STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Hardness	Chipbreaker	Priority	Recommended grade	Cutting speed Vc (m/min)
<b>P</b>	Steels S45C, SCM435, etc. C45, 34CrMo4, etc.	< 300 HB	DGS	First choice	AH7025, AH725	50 - 180
		< 300 HB	DGM	Priority for wear resistance	T9125	80 - 200
		< 300 HB	DGS	Priority for fracture resistance	GH130	50 - 120
		< 300 HB	DGS	Priority for surface finish	NS9530	80 - 220
		< 300 HB	DGL	For mild steel Chip control	AH7025	50 - 180
<b>M</b>	Stainless steels SUS303, etc. X10CrNiS18-9, etc.	< 200 HB	DGS	First choice	GH130	50 - 120
		< 200 HB	DGM	Priority for impact resistance	AH7025, AH725	50 - 120
<b>K</b>	Grey cast irons FC250, etc. 250, etc.	-	DGM	First choice	GH130	50 - 180
	Ductile cast irons FC250, etc. 450-10S, etc.	-	DGM	First choice	GH130	50 - 120
<b>N</b>	Aluminium alloys Si < 12%	-	DGG	First choice	TH10	100 - 500
<b>S</b>	Titanium alloys Ti-6Al-4V, etc.	< HRC 40	DGM	First choice	AH905	20 - 80
		< HRC 40	DGS	Priority for fracture resistance	AH7025, AH725	20 - 80
<b>H</b>	Hardened steels SCM435, etc. 34CrMo4, etc.	> HRC 50	DGN	First choice	BX360	80 - 150



External



Internal



Grooving



Threading



Parting-off

Referent pages : Toolholders → **G101 - G102**