

GENERAL CATALOG - VOL. 1

TURNING GROOVING

we improve, we evolve, we **ADD**

2023/2024





Tungaloy's Insights – Smart Manufacturing

Tungaloy, as one of the leaders in the metal removal industry, offers the latest innovations in grades and geometries for superb performance and tool life.

*Tungaloy's latest
innovations in cutting
tools contribute to
carbon neutrality*



VOL. 1

TURNING GROOVING

A	Grade	A001 -
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About Tungaloy Cutting Tool Catalog

Note in using this catalog:

- ★ This catalog provides the information of Tungaloy's cutting tools as of September 2022.
- ★ The specifications are subject to change without prior notice for product improvements. Also, the products may be discontinued in the future due to the development of new products.
- ★ The dimensions of all products are shown in millimeters (mm).
- ★ For indexable tools, such as toolholders, cutters, drill bodies, applicable inserts or heads need to be ordered separately.

How to use this catalog:

1 Select the tool category at the product group index.

2 Select the tool type at the application index on the left pages.

3 The index is in the alphanumerical order. Use it for your product search.

How to read the list for the standard items:

- ★ Designations for indexable tools – toolholders, adapters, etc.
 - Orders are to be received for the tools with the designations in the catalog.
 - For the tool with right- and left-hand options, the designation includes **R/L** as shown below.

Ex. 1: Designation: A16Q-STFPR/L13-D180

You can order both right- and left-hand tools. A16Q-STFPR13-D180 (a right-hand tool) and A16Q-STFPL13-D180 (a left-hand tool) will be available.

Ex. 2: Designation: A20R-STFPR13-D220

You can order only right-hand tools. Please contact us when you need left-hand tools.

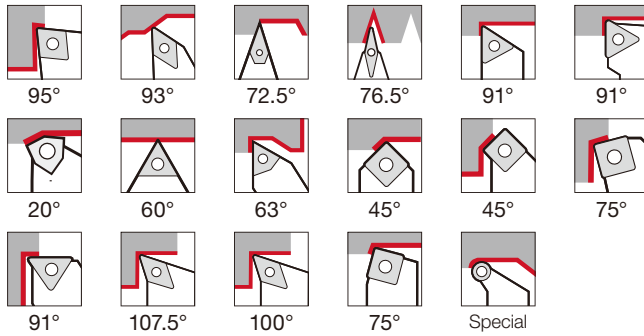
- ★ Lineup for inserts and solid tools

Blank : Please contact us regarding the product.

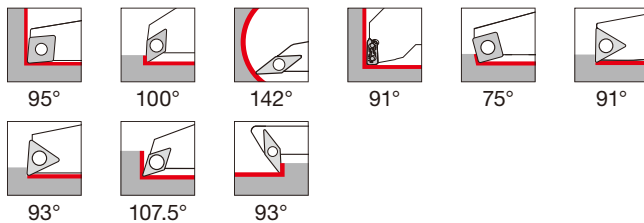
About Tungaloy Cutting Tool Catalog

■ Icons at the left side of each page

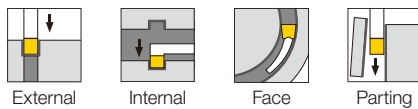
External toolholder (cutting edge shape / angle)



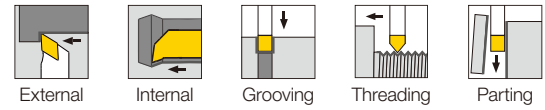
Internal toolholder (cutting edge shape / angle)



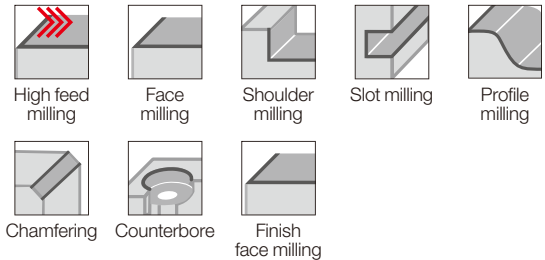
Parting, Grooving



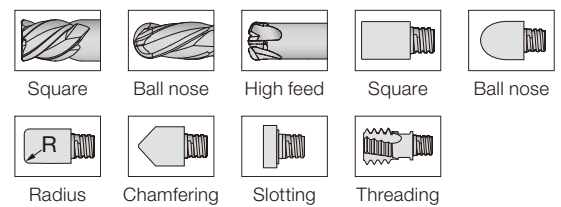
Miniature machining



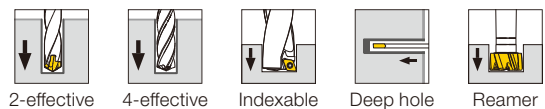
Mill



Endmill

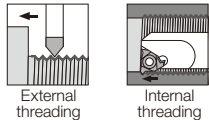


Drill

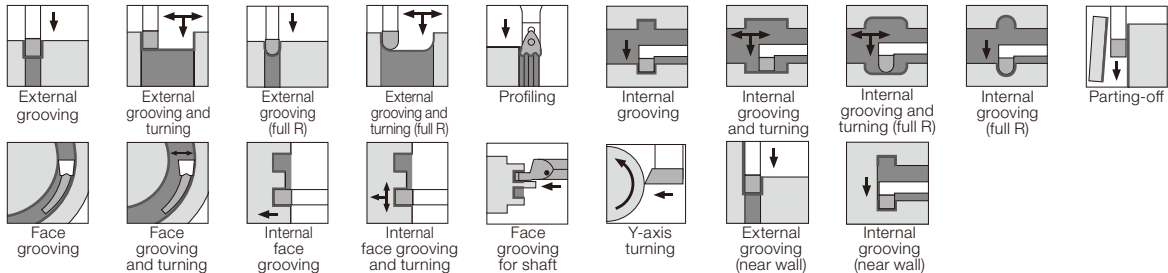


■ Icons for applications of each product

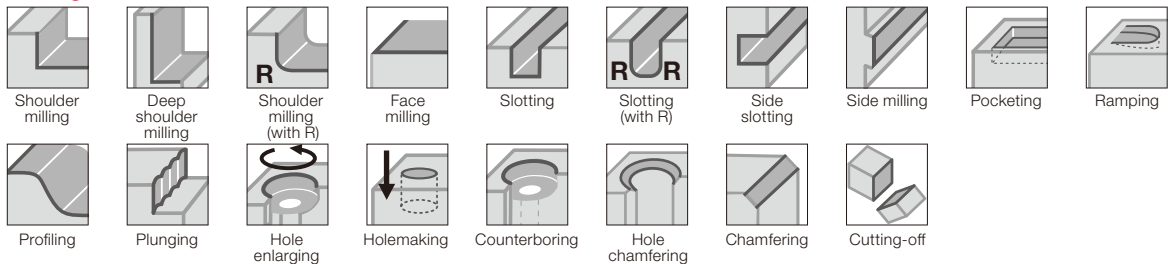
Threading



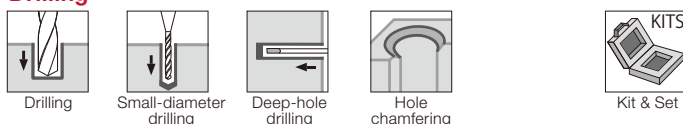
Grooving



Milling



Drilling



About the dimension symbols conforming to ISO13399

■ What is ISO13399?

ISO13399 is an international standard for the purpose of standardizing the electronic data of tools in the world.

■ Switching to the dimension symbols conforming to ISO13399

In this catalog, we use the dimension symbols (properties) conforming to ISO13399 international standard.

Below are the examples of the change.

■ Examples of the change:

	Before	After
Insert		
Turning		
Milling		
Drilling		

ISO13399 standardizes not only the format of 2D and 3D CAD data but also the tool dimension symbols (properties) and reference position information. This allows the tool information to be read and combined into NC programs and CAM software, regardless of any tool maker's data. In addition to General Catalog (paper catalog), we are also updating the symbols in e-catalog (electronic catalog on our website) to the properties conforming to ISO13399. The e-catalog also provides 2D and 3D CAD data in accordance with ISO13399 standard.

■ Insert

New symbol	Old symbol	Description
AN	-	Main cutting edge relief angle
APMX	Max. ap	Maximum depth of cut
AS	A	Side cutting edge relief angle
BW	B	Body width
BS	bs	Side cutting edge (wiper) length
CDX	T max	Maximum groove depth
CW	W	Grooving edge width
D1	ød1	Mounting hole diameter
DCONMS	øDs	Mounting part diameter on the machine
DMIN	øDm	Minimum machining diameter
EPSR	-	Nose angle
GAN	-	Rake angle (insert)
IC	ød	Inscribed circle diameter
INSD	A	Insert diameter (round type)
INSL	B	Insert length
KAPR	κ	Approach angle
LBB	-	Chipbreaker width
LE	A	Effective cutting edge length
LF	L1	Standard length
M	m	Distance from inscribed circle to cutting edge (m dimension)
PDX	t	Thread position (X direction)
PDY	ℓ3	Thread position (Y direction)
PNA	θ	Cutting edge angle
PSIRL	θ	Left-hand front cutting edge angle
PSIRR	θ	Right-hand front cutting edge angle
RE	r	Corner radius
S	T	Thickness
W1	-	Insert width

■ Turning, Grooving

New symbol	Old symbol	Description
B	b	Shank width
BD	øD1, øD2, øD3	Body external diameter
CDX	ar	Maximum groove depth
CND	-	Oil hole diameter
CNT	-	Oil hole plug size
CUTDIA	øDmax	Maximum parting diameter
CW	W	Grooving edge width
CWN	-	Minimum grooving edge width
CWX	-	Maximum grooving edge width
DAXN	øDm	Minimum diameter in face grooving
DAXX	øDmax	Maximum diameter in face grooving
DCONMS	øDs	Mounting part diameter on the machine
DCONWS	øD, ød2	Mounting part diameter on the workpiece
DMIN	øDm	Minimum machining diameter
GAMF	α	Radial rake angle
GAMP	θ	Axial rake angle
H	h	Shank length
HBH	h2	Height of offset on the bottom of head
HBKL	f2	Length of uneven level on the back of head
HBKW	L2	Width of uneven level on the back of head
HBL	L2	Length of offset on the bottom of head
HF	h1	Standard height
KAPR	κ	Approach angle
LB	L	Body length
LF	L1	Standard length
LH	L2	Head length
OAH	h4	Overall height
OAL	L1	Overall length
OAW	L3	Overall width
PSIR	β	Lead angle
WB	-	Body width
WF	f	Standard width
WFS	f2	Standard width (the second corner)

About the dimension symbols conforming to ISO13399

■ Tooling system

New symbol	Old symbol	Description
APMX	Max. ap	Maximum depth of cut
BD	$\varnothing D1, \varnothing D2, \varnothing D3$	Body external diameter
BHTA	α	Neck taper angle (half of nose angle)
BTED	$\varnothing d1$	Taper tip diameter
CRKS	S	Mounting screw size
DBC	$\varnothing d3$	Bolt hole pitch diameter
DCONMS	$\varnothing Ds$	Mounting part diameter on the machine
DCONWS	$\varnothing D, \varnothing d2$	Mounting part diameter on the workpiece
DMIN	$\varnothing Dm$	Minimum machining diameter
GAMF	$\alpha, R.R.$	Radial rake angle
GAMP	$\theta, A.R.$	Axial rake angle
KAPR	κ	Cutting edge angle
LB	$L2, L3$	Body length
LF	L	Standard length
LPR	L1	Parting length
LS	ℓs	Shank length
LSC	Lmin	Clamp length
LSCX	Lmax	Maximum clamp length
OAH	H4	Overall height
OAL	L	Overall length
OAW	W	Overall width
THID	-	Mounting screw size
WB	W	Body width
WF	f	Standard width

■ Drilling

New symbol	Old symbol	Description
BD	$\varnothing D1, \varnothing D2, \varnothing D3$	Body external diameter
CND	-	Oil hole diameter
CNT	-	Oil hole plug size
CRKS	S	Mounting screw size
DC	$\varnothing Dc$	Machining diameter
DCONMS	$\varnothing Ds$	Mounting part diameter on the machine
DCONWS	$\varnothing D, \varnothing d2$	Mounting part diameter on the workpiece
DCSFMS	$\varnothing D$	Connecting part diameter
KAPR	κ	Cutting edge angle
LCF	ℓ	Flute length
LF	Lf	Standard length (from the drill shoulder)
LPR	-	Parting length (from flange to tip)
LS	ℓs	Shank length
LU	ℓ	Machinable depth
NOF	z	Number of flutes
OAL	L	Overall length (from tip)
PL	PL	Distance from drill tip to shoulder
ZEFP	Z eff	Number of effective cutting edges on periphery

■ Milling

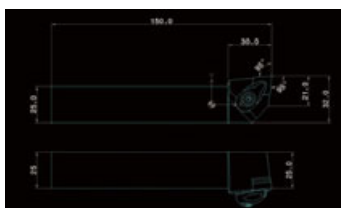
New symbol	Old symbol	Description
APMX	Max. ap	Maximum depth of cut
BD	$\varnothing D1, \varnothing D2, \varnothing D3$	Body external diameter
BHTA	α	Neck taper angle (half of nose angle)
CBDP	ℓ	Mounting hole depth
CDX	Max. ae	Maximum slot width
CHW	k	Chamfer width on the corner
CICT	z	Number of inserts
CRKS	S	Mounting screw size
CW	W	Slotting edge width
CWN	-	Minimum slotting edge width
CWX	-	Maximum slotting edge width
DBC	$\varnothing d3$	Bolt hole pitch diameter
DC	$\varnothing Dc$	Machining diameter
DCONMS	$\varnothing d$	Mounting part diameter on the machine
DCONWS	$\varnothing D, \varnothing d2$	Mounting part diameter on the workpiece
DCSFMS	$\varnothing Db$	Mounting surface diameter on the machine
DCX	$\varnothing Dc1$	Maximum machining diameter
GAMF	R.R.	Radial rake angle
GAMP	A.R.	Axial rake angle
H	T	Width across flat
KAPR	κ	Cutting edge angle
KWW	a	Drive key width
LF	Lf	Standard length
LH	Lf	Neck length
LS	ℓs	Shank length
NOF	z	Number of flutes
OAL	L, L6	Overall length
PDX	t	Thread position (X direction)
PNA	θ	Cutting edge angle
PSIR	β	Lead angle
RMPX	θ	Maximum ramping angle
THUB	T	Hub height (slot mill)
WT	Kg	Weight
ZEFP	Z eff	Number of effective cutting edges on the periphery

Note:

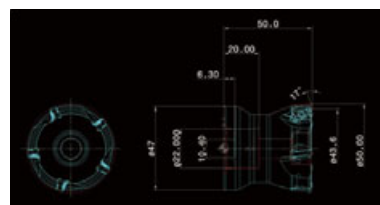
- Symbols unspecified in ISO13399 standard and Tungaloy's original symbols are not included.
- The symbols still under discussion are included. Please note any change or addition may occur.

■ CAD data provided in e-catalog

● 2D data (DXF format file)



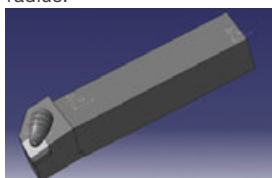
Turning:
Shows the insert with standard corner radius.



Milling:
Includes actual cutting edge curve (CUT layer) and body cross section (NOCUT layer).

● 3D data Light type (STP format file): Can be used to check tool path and interference.

Turning: Equipped with an insert with a standard corner radius.

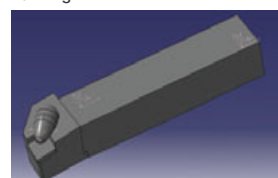


Milling: A rotating body model of an actual cutting edge curve and a body cross section.



● 3D data Detail type (STP format file): Can be used to create a new tool layout chart. (Can be combined with any insert model on a CAD software.)

Turning



Milling



Insert



Insert - Content structure

- Inserts are grouped in Positive type, Negative type, and CBN/PCD.
- The list is in alphabetical order.
- The order of the list: C (80°) → D (55°) → R (360°) → S (90°) → T (60°) → V (35°) → W (80°) → Y (25°) → Other shapes
- The order of inserts:
 - Negative type (each shape with hole → without hole)
 - Positive type (each shape with hole → without hole)
- The order of chipbreakers:
 - From precision finishing to heavy cutting, in the order of the values of cutting depth and feed rate.
- Insert without chipbreaker is on the last page of each shape.
- Introduces the proposed inserts according to the workpiece materials and the shape of workpiece materials.
- The standard cutting conditions for typical chipbreakers are at the bottom of the pages.
- ● in the catalog describes our standard items, and ▲ means the item to be discontinued in the future.

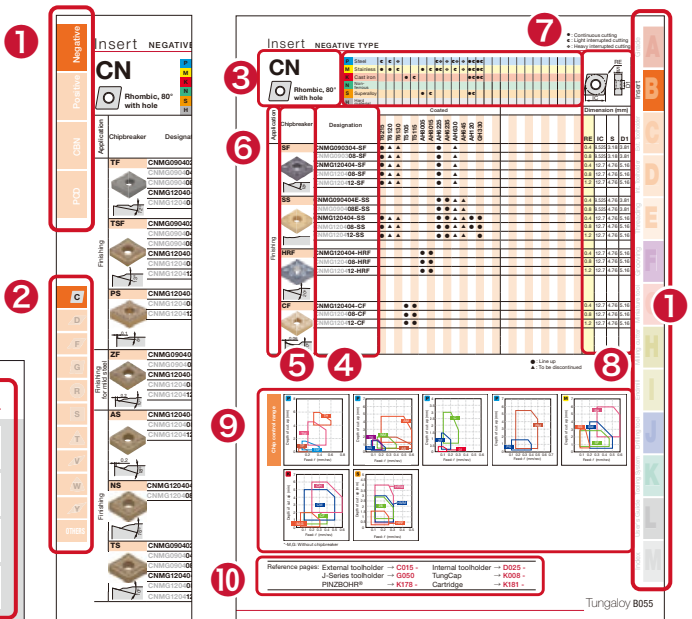
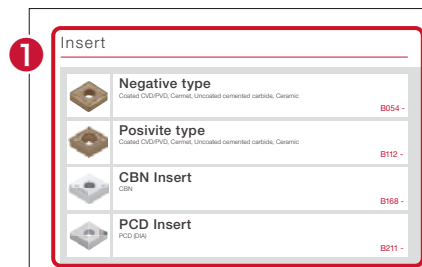
How to use the page

Method ①

Select an insert at the right end, and choose the information page by the insert type (①) and the outer shape of the insert (②) at the left end.

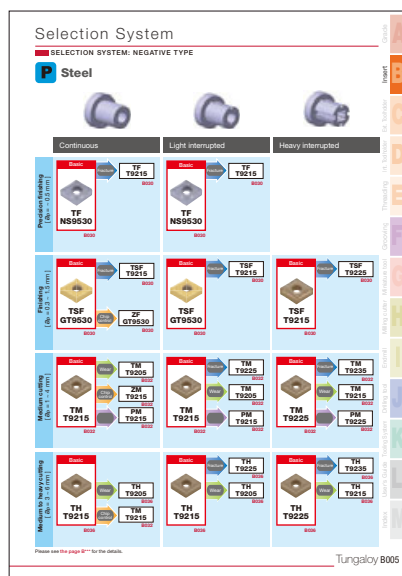
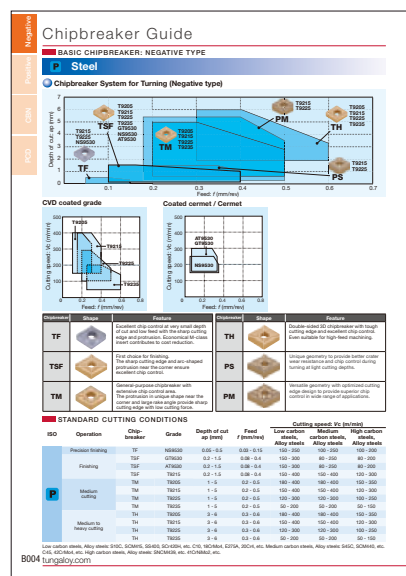
Method ②

Check the page of each insert type from the index on B003 (①), and choose the page of the setting information according to the outer shape of the insert (②).



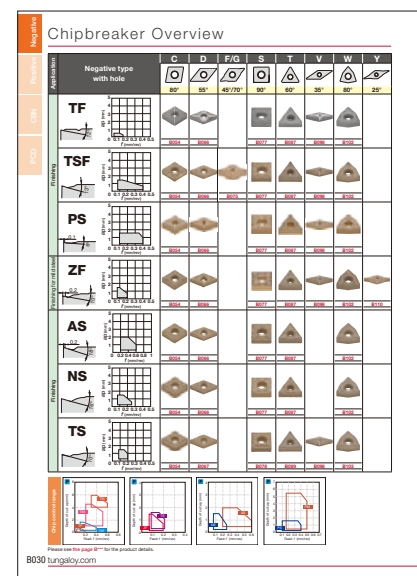
Method ③

Select an insert at the chipbreaker introduction and the selection guide on B004 - B029 and check the details on the product page.



Method ④

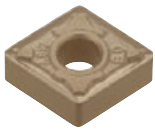
Select an insert from the list of chipbreaker shapes on B030-B053 and check the details on each page.



When ordering

- Please specify the designation, grade, and quantity.
e.g. **CNMG120408-TM T9215 ... 10 pieces** (10 inserts per package)
- *You will find a note if the number per package is not 10.

Insert



Negative type

Coated CVD/PVD, Cermet, Uncoated cemented carbide, Ceramic

B054 -



Positive type

Coated CVD/PVD, Cermet, Uncoated cemented carbide, Ceramic

B112 -



CBN Insert

CBN

B168 -



PCD Insert

PCD (DIA)

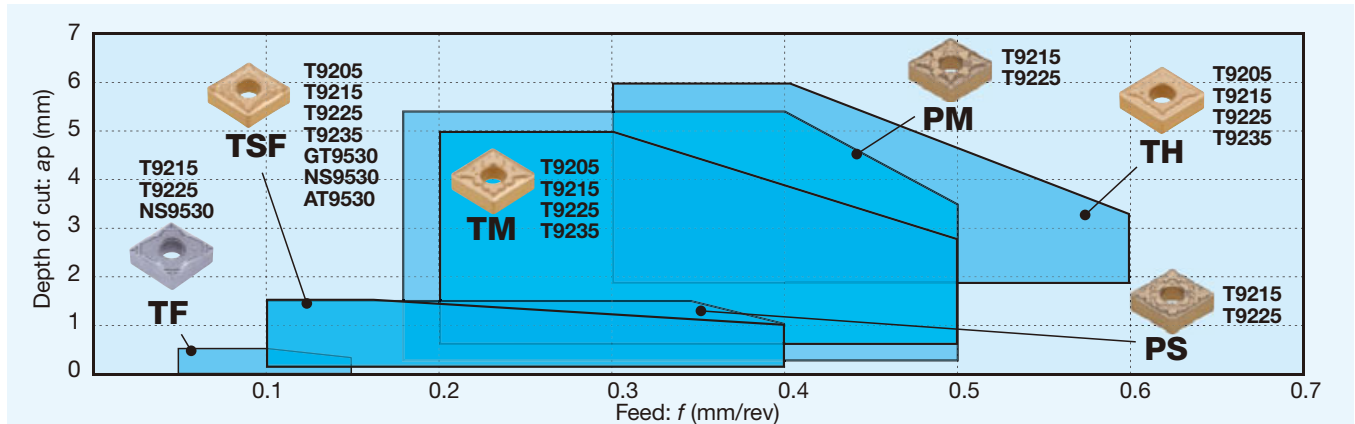
B211 -

Chipbreaker Guide

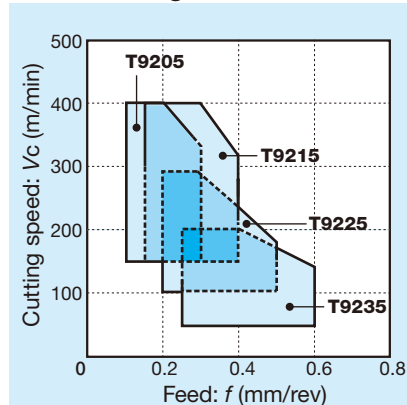
BASIC CHIPBREAKER: NEGATIVE TYPE

P Steel

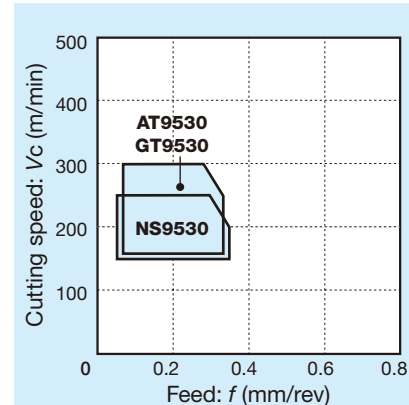
Chipbreaker System for Turning (Negative type)



CVD coated grade



Coated cermet / Cermet



Chipbreaker	Shape	Feature	Chipbreaker	Shape	Feature
TF		Excellent chip control at very small depth of cut and low feed with the sharp cutting edge and protrusion. Economical M-class insert contributes to cost reduction.	TH		Double-sided 3D chipbreaker with tough cutting edge and excellent chip control. Even suitable for high-feed machining.
TSF		First choice for finishing. The sharp cutting edge and arc-shaped protrusion near the corner ensure excellent chip control.	PS		Unique geometry to provide better crater wear resistance and chip control during turning at light cutting depths.
TM		General-purpose chipbreaker with extensive chip control area. The protrusion in unique shape near the corner and large rake angle provide sharp cutting edge with low cutting force.	PM		Versatile geometry with optimized cutting edge design to provide superior chip control in wide range of applications.

STANDARD CUTTING CONDITIONS

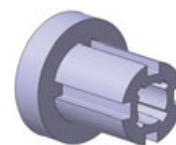
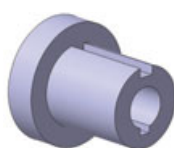
ISO	Operation	Chip-breaker	Grade	Depth of cut a_p (mm)	Feed f (mm/rev)	Cutting speed: V_c (m/min)		
						Low carbon steels, Alloy steels	Medium carbon steels, Alloy steels	High carbon steels, Alloy steels
P	Precision finishing	TF	NS9530	0.05 - 0.5	0.03 - 0.15	150 - 250	100 - 250	100 - 200
	Finishing	TSF	GT9530	0.2 - 1.5	0.08 - 0.4	150 - 300	80 - 250	80 - 200
		TSF	AT9530	0.2 - 1.5	0.08 - 0.4	150 - 300	80 - 250	80 - 200
		TSF	T9215	0.2 - 1.5	0.08 - 0.4	150 - 400	150 - 400	120 - 300
		TM	T9205	1 - 5	0.2 - 0.5	180 - 400	180 - 400	150 - 350
	Medium cutting	TM	T9215	1 - 5	0.2 - 0.5	150 - 400	150 - 400	120 - 300
		TM	T9225	1 - 5	0.2 - 0.5	120 - 300	120 - 300	100 - 250
		TM	T9235	1 - 5	0.2 - 0.5	50 - 200	50 - 200	50 - 150
		TH	T9205	3 - 6	0.3 - 0.6	180 - 400	180 - 400	150 - 350
	Medium to heavy cutting	TH	T9215	3 - 6	0.3 - 0.6	150 - 400	150 - 400	120 - 300
		TH	T9225	3 - 6	0.3 - 0.6	120 - 300	120 - 300	100 - 250
		TH	T9235	3 - 6	0.3 - 0.6	50 - 200	50 - 200	50 - 150

Low carbon steels, Alloy steels: S10C, SCM415, SS400, SCr420H, etc. C10, 18CrMo4, E275A, 20Cr4, etc. Medium carbon steels, Alloy steels: S45C, SCM440, etc. C45, 42CrMo4, etc. High carbon steels, Alloy steels: SNCM439, etc. 41CrNiMo2, etc.

Selection System

SELECTION SYSTEM: NEGATIVE TYPE

P Steel



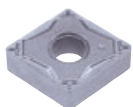
Continuous

Light interrupted

Heavy interrupted

Precision finishing
[$a_p \approx 0.5 \text{ mm}$]

Basic



**TF
NS9530**

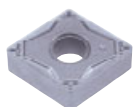
B030

Fracture

**TF
T9215**

B030

Basic



**TF
NS9530**

B030

Fracture

**TF
T9215**

B030

Finishing
[$a_p = 0.3 \sim 1.5 \text{ mm}$]

Basic



**TSF
GT9530**

B030

Fracture

**TSF
T9215**

B030

Chip control

**ZF
GT9530**

B030

Basic



**TSF
GT9530**

B030

Fracture

**TSF
T9215**

B030

Basic



**TSF
T9215**

B030

Fracture

**TSF
T9225**

B030

Medium cutting
[$a_p = 1 \sim 4 \text{ mm}$]

Basic



**TM
T9215**

B032

Wear

**TM
T9205**

B032

Chip control

**ZM
T9215**

B032

Crater wear

**PM
T9215**

B032

Basic



**TM
T9215**

B032

Fracture

**TM
T9225**

B032

Wear

**TM
T9205**

B032

Crater wear

**PM
T9215**

B032

Basic



**TM
T9225**

B032

Fracture

**TM
T9235**

B032

Wear

**TM
T9215**

B032

Crater wear

**PM
T9225**

B032

Medium to heavy cutting
[$a_p = 3 \sim 6 \text{ mm}$]

Basic



**TH
T9215**

B036

Wear

**TH
T9205**

B036

Chip control

**TM
T9215**

B032

Basic



**TH
T9215**

B036

Fracture

**TH
T9225**

B036

Wear

**TH
T9205**

B036

Basic



**TH
T9225**

B036

Fracture

**TH
T9235**

B036

Wear

**TH
T9215**

B036

Please see the page B*** for the details.

Tungaloy B005

Grade

Insert

Ext. Toolholder

Int. Toolholder

Threading

Grooving

Miniature tool

Milling cutter

Endmill

Drilling tool

Tooling System

User's Guide

Index

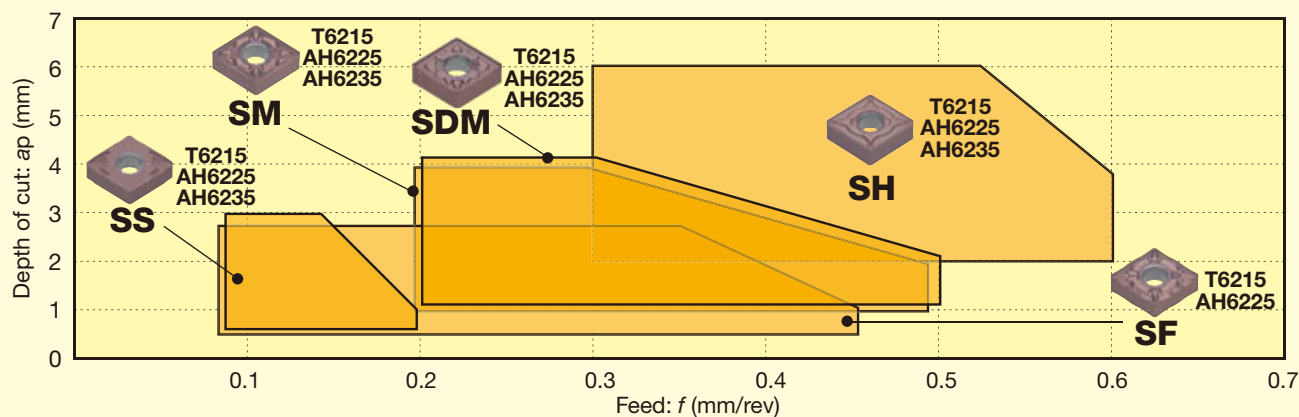


Chipbreaker Guide

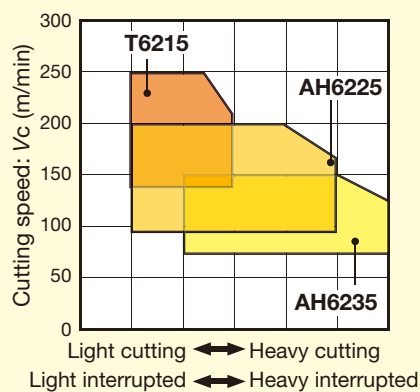
BASIC CHIPBREAKER: NEGATIVE TYPE

M Stainless Steel

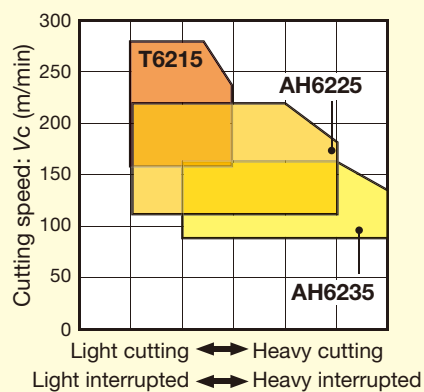
Chipbreaker System for Turning (Negative type)



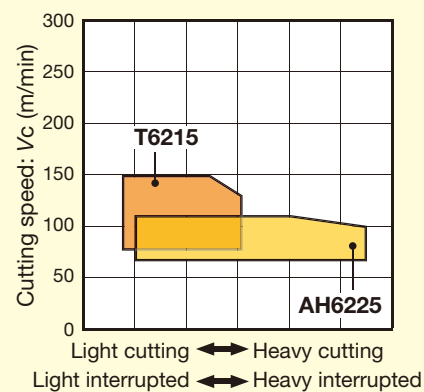
Austenitic stainless steel



Ferritic / martensite stainless steel



Precipitation hardened stainless steel



Chipbreaker	Shape	Feature
SF		Excellent chip control with small depth of cut at high feed. Suitable for finishing stainless steel.
SH		Suitable for medium to heavy cutting. High fracture resistance with specially reinforced cutting edge. Ideal for machining that requires cutting edge strength, such as roughing and interrupted cutting.

Chipbreaker	Shape	Feature
SM		General-purpose chipbreaker with sharpness and good chip control. First choice for stainless steel.
SDM		Light cutting geometry for notch wear and crater wear resistance.

STANDARD CUTTING CONDITIONS

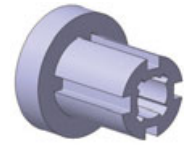
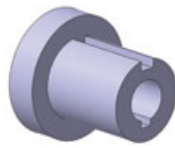
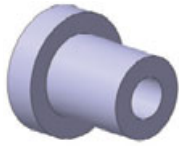
ISO	Operation	Chipbreaker	Grade	Depth of cut a_p (mm)	Feed f (mm/rev)	Cutting speed: V_c (m/min)		
						Austenitic stainless steel	Ferritic / martensite stainless steel	Precipitation hardened stainless steel
M	Finishing	SF	T6215	0.5 - 2.5	0.08 - 0.45	140 - 240	160 - 280	80 - 150
			AH6225	0.5 - 2.5	0.08 - 0.45	90 - 200	110 - 240	60 - 110
			AH6235	0.5 - 2.5	0.08 - 0.45	50 - 150	70 - 170	-
	Medium cutting	SM	T6215	1 - 4	0.2 - 0.5	140 - 240	160 - 280	80 - 150
			AH6225	1 - 4	0.2 - 0.5	90 - 200	110 - 240	60 - 110
			AH6235	1 - 4	0.2 - 0.5	50 - 150	70 - 170	-
		SDM	T6215	1 - 4	0.2 - 0.5	140 - 240	160 - 280	80 - 150
			AH6225	1 - 4	0.2 - 0.5	90 - 200	110 - 240	60 - 110
			AH6235	1 - 4	0.2 - 0.5	50 - 150	70 - 170	-
	Heavy cutting	SH	T6215	2 - 6	0.3 - 0.6	140 - 240	160 - 280	80 - 150
			AH6225	2 - 6	0.3 - 0.6	90 - 200	110 - 240	60 - 110
			AH6235	2 - 6	0.3 - 0.6	50 - 150	70 - 170	-

Stainless steels: SUS304, SUS316, etc. X5CrNi18-9, X5CrNiMo17-12-3, etc.

Selection System

SELECTION SYSTEM: NEGATIVE TYPE

M Stainless Steel



Continuous

Light interrupted

Heavy interrupted

Finishing [$a_p = 0.5 \sim 1.5 \text{ mm}$]	Continuous	Light interrupted	Heavy interrupted
	Basic SF T6215 Fracture → SF AH6225 B031 Chip control → SS AH6215 B031 Crater wear → SDM T6215 B033 B031	Basic SF AH6225 Fracture → SF AH6235 B031 Wear → SF T6215 B031 Chip control → SS AH6225 B031 Crater wear → SDM AH6225 B033 B031	Basic SF AH6225 Fracture → SM AH6225 B031 Wear → SF T6215 B031 B031
	Basic SM AH6225 Wear → SM T6215 B033 Chip control → SS AH6225 B031 Crater wear → SDM AH6225 B033 B033	Basic SM AH6225 Fracture → SM AH6235 B033 Wear → SM T6215 B033 Chip control → SS AH6225 B031 Crater wear → SDM AH6225 B033 B033	Basic SM AH6235 Fracture → SH AH6235 B036 Wear → SM AH6225 B033 B033
Medium to heavy cutting [$a_p = 2 \sim 6 \text{ mm}$]	Basic SH AH6225 Fracture → SH AH6235 B036 Wear → SH T6215 B036 Chip control → SM AH6225 B033 B036	Basic SH AH6225 Fracture → SH AH6235 B036 Wear → SH T6215 B036 B036	Basic SH AH6235 Wear → SH AH6225 B036 B036

Please see the page B*** for the details.

Grade

Insert

Ext. Toolholder

Int. Toolholder

Threading

Grooving

Miniature tool

Milling cutter

Endmill

Drilling tool

Tooling System

User's Guide

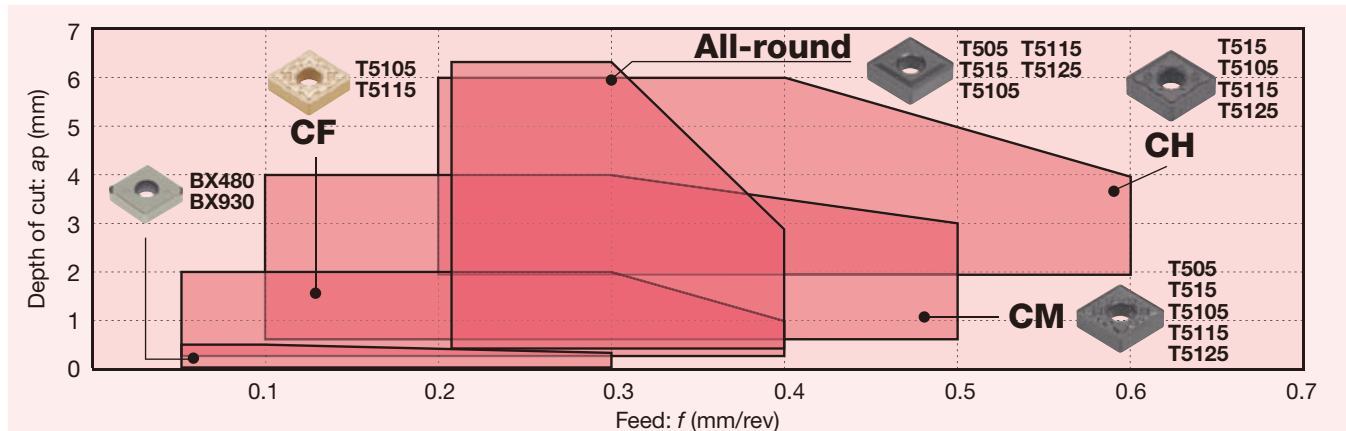
Index

Chipbreaker Guide

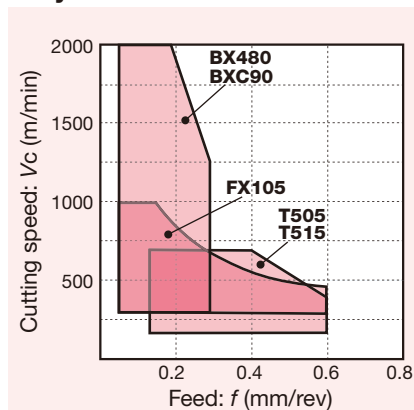
BASIC CHIPBREAKER: NEGATIVE TYPE

K Cast Iron

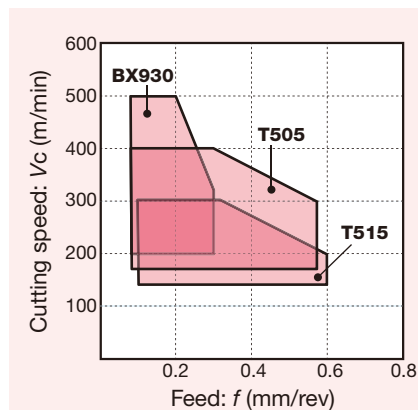
Chipbreaker System for Turning (Negative type)



Grey cast iron



Ductile cast iron



Chipbreaker	Shape	Feature
-		Excellent performance in high-speed finishing of cast iron with CBN sintered body on the cutting edge.
CF		Low cutting force chipbreaker for cast iron. Combined with an arc-shaped high rake angle (substantially 20°) drastically reduces cutting force and prevents the deformation and burr of thin-walled components.
All-round		Excellent performance in interrupted cutting. Highly reliable chipbreaker with great stability.

Chip-breaker	Shape	Feature
CM		First choice for cast iron. Versatile chipbreaker for a wide range of applications from continuous to interrupted cutting thanks to the positive land and wide chip pocket.
CH		Chipbreaker with reinforced cutting edge. The negative land and the land support provide stable insert seating and increase cutting edge strength, resulting in no fracture even in heavy cutting.

STANDARD CUTTING CONDITIONS

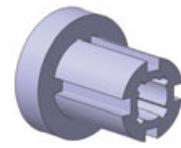
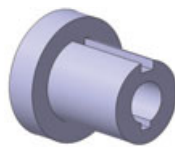
ISO	Operation	Chip-breaker	Grade	Depth of cut ap (mm)	Feed f (mm/rev)	Cutting speed: Vc (m/min)	
						Grey cast iron	Ductile cast iron
K	High speed cutting	-	BX930	0.05 - 0.5	0.05 - 0.2	300 - 1200	200 - 500
		-	BX480	0.05 - 0.5	0.05 - 0.3	300 - 2000	200 - 300
		-	BXC90	0.08 - 3	0.05 - 0.4	300 - 2000	200 - 300
	Finishing	All-round	T505	1 - 5	0.1 - 0.5	180 - 700	180 - 400
		All-round	T515	1 - 5	0.1 - 0.5	150 - 700	150 - 300
	Medium cutting	All-round	T505	1 - 5	0.1 - 0.5	180 - 700	180 - 400
		All-round	T515	1 - 5	0.1 - 0.5	150 - 700	150 - 300
	Medium to heavy cutting	CH	T515	3 - 6	0.2 - 0.6	150 - 700	150 - 300
		All-round	T515	1 - 5	0.1 - 0.5	150 - 700	150 - 300
		CH	T515	3 - 6	0.2 - 0.6	150 - 700	150 - 300

Grey cast iron: FC250, etc. 250, etc. Ductile cast iron: FCD450, etc. 450-10S, etc.

Selection System

SELECTION SYSTEM: NEGATIVE TYPE

K Cast Iron



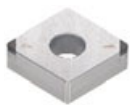
Continuous

Light interrupted

Heavy interrupted

Precision finishing
[$a_p \approx 0.5 \text{ mm}$]

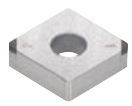
Basic



BX480

B168 - B188

Basic



BX480

B168 - B188

Fracture

All-round T515

B033

Basic

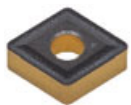


BXC90

B168 - B188

Finishing
[$a_p = 0.5 \sim 2 \text{ mm}$]

Basic



All-round T505

B033

Fracture

All-round T515

B033

Burr occurrence

CF T5105

B031

Basic



All-round T515

B033

Wear

All-round T505

B033

Fracture

CH T515

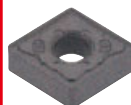
B036

Burr occurrence

CF T5115

B031

Basic



CH T515

B036

Wear

All-round T505

B033

Burr occurrence

All-round T515

B033

Medium cutting
[$a_p = 1 \sim 5 \text{ mm}$]

Basic



All-round T505

B033

Fracture

All-round T515

B033

Burr occurrence

CF T5105

B031

Basic



All-round T515

B033

Wear

All-round T505

B033

Fracture

CH T515

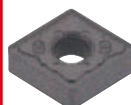
B036

Burr occurrence

CF T5115

B031

Basic



CH T515

B036

Wear

All-round T505

B033

Fracture

CH T5125

B036

Burr occurrence

All-round T515

B033

Medium to heavy cutting
[$a_p = 3 \sim 6 \text{ mm}$]

Basic



All-round T515

B033

Wear

All-round T505

B033

Burr occurrence

CF T5105

B031

Basic



All-round T515

B033

Wear

All-round T505

B033

Fracture

CH T515

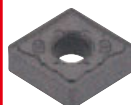
B036

Burr occurrence

CF T5115

B031

Basic



CH T515

B036

Wear

All-round T505

B033

Fracture

CH T5125

B036

Burr occurrence

All-round T515

B033

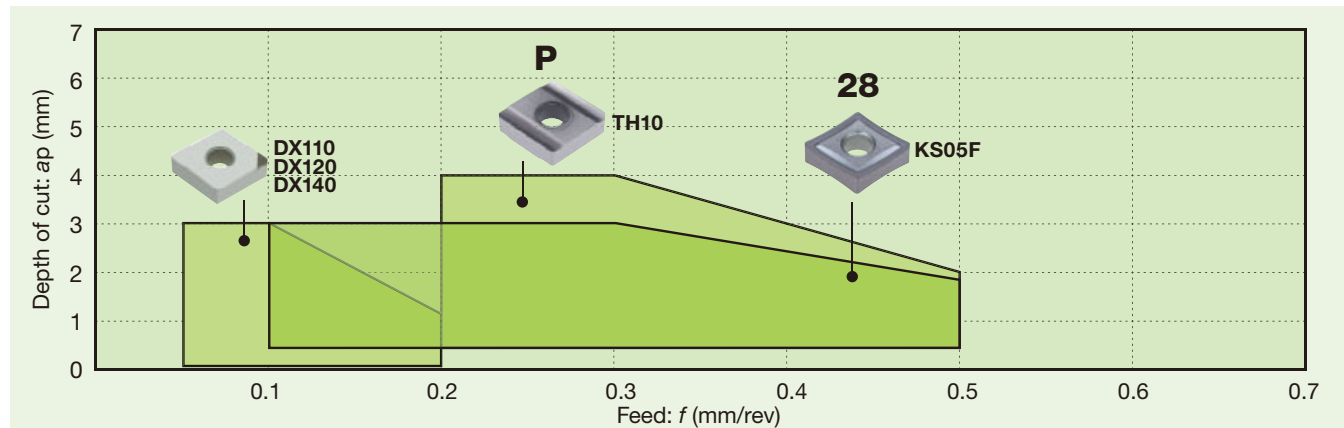
Please see the page B*** for the details.

Chipbreaker Guide

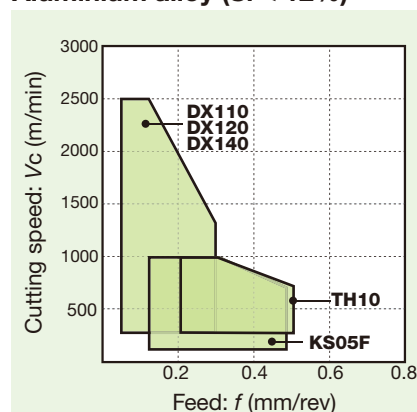
BASIC CHIPBREAKER: NEGATIVE TYPE

N Non-ferrous Metal

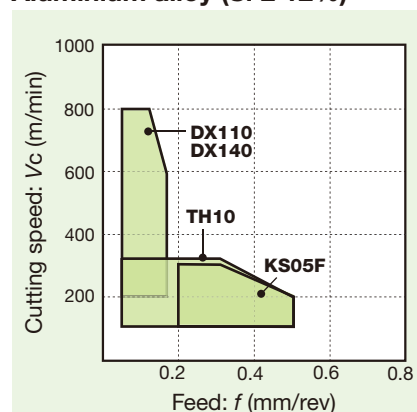
Chipbreaker System for Turning (Negative type)



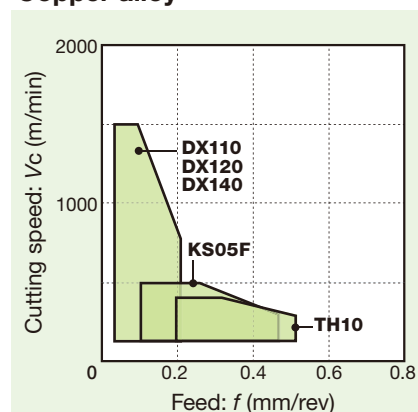
Aluminium alloy (Si < 12%)



Aluminium alloy (Si ≥ 12%)



Copper alloy



Chipbreaker	Shape	Feature
-		Excellent performance in high-speed finishing of non-ferrous metal, such as aluminium and copper alloy, with diamond sintered body on the cutting edge.
P		Excellent sharpness for non-ferrous metal, such as aluminium and copper alloy.

Chipbreaker	Shape	Feature
With chip-breaker		Wide chipbreaker for excellent chip control.
28		Low cutting geometry with large inclination for finishing to medium cutting range.

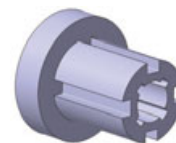
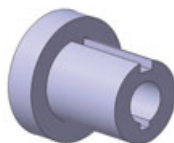
STANDARD CUTTING CONDITIONS

ISO	Operation	Chip-breaker	Grade	Depth of cut a_p (mm)	Feed f (mm/rev)	Cutting speed: V_c (m/min)		
						Aluminium alloy (Si < 12%)	Aluminium alloy (Si ≥ 12%)	Copper alloy
N	Precision finishing	With	DX110	0.05 - 0.5	0.05 - 0.15	500 - 2500	400 - 800	500 - 1500
		-	DX140	0.05 - 0.5	0.05 - 0.20	300 - 2500	400 - 800	500 - 1500
	Finishing	With	DX110	0.05 - 2	0.05 - 0.15	500 - 2500	400 - 800	500 - 1500
		-	DX140	0.05 - 2	0.05 - 0.15	300 - 1800	400 - 600	400 - 1200
		P	TH10	0.5 - 4	0.2 - 0.5	100 - 1000	100 - 300	100 - 300
	Medium cutting	P	KS05F	0.5 - 3	0.1 - 0.5	100 - 1200	100 - 300	100 - 300
		P	TH10	0.5 - 4	0.2 - 0.5	100 - 1000	100 - 300	100 - 300

Selection System

SELECTION SYSTEM: NEGATIVE TYPE

N Non-ferrous Metal



Continuous

Light interrupted

Heavy interrupted

Precision finishing
[$a_p \approx 0.5 \text{ mm}$]

Basic



With chipbreaker
DX110

B211 - B212

Wear

DX140

B211 - B212

Basic



DX140

B211 - B212

Surface quality

With chipbreaker
DX110

B211 - B212

Wear

DX160

B211 - B212

Finishing
[$a_p = 0.5 \sim 2 \text{ mm}$]

Basic



DX140

B211 - B212

Surface quality

With chipbreaker
DX110

B211 - B212

Wear

DX160

B211 - B212

Basic



DX140

B211 - B212

Fracture

P TH10

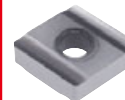
B035

Wear

DX160

B211 - B212

Basic

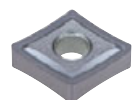


P TH10

B035

Medium cutting
[$a_p = 1 \sim 4 \text{ mm}$]

Basic



28 KS05F

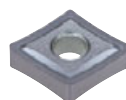
B035

Wear

DX140

B211 - B212

Basic



28 KS05F

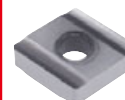
B035

Wear

DX140

B211 - B212

Basic



P TH10

B035

Please see the page B*** for the details.

Grade

Insert

Ext. Toolholder

Int. Toolholder

Threading

Grooving

Miniature tool

Milling cutter

Endmill

Drilling tool

Tooling System

User's Guide

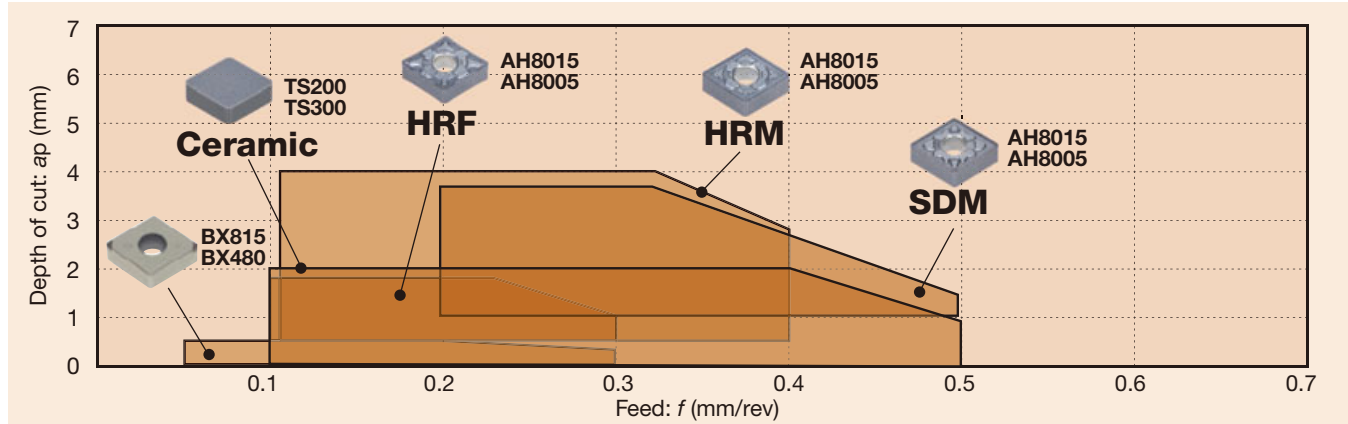
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Chipbreaker Guide

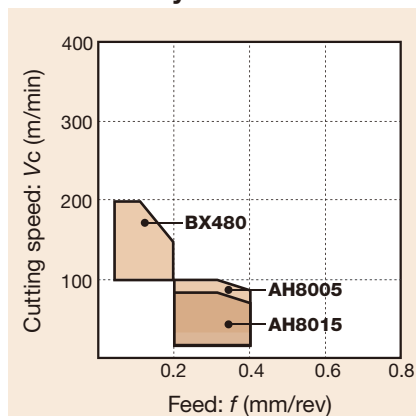
BASIC CHIPBREAKER: NEGATIVE TYPE

S Heat resistant superalloys

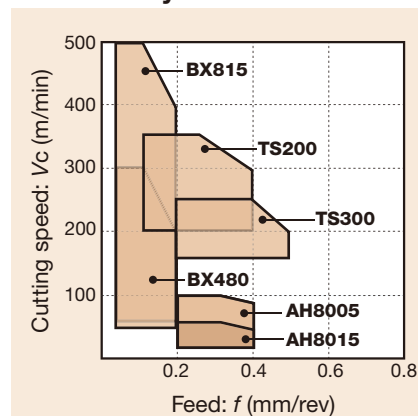
Chipbreaker System for Turning (Negative type)



Titanium alloy



Ni-base alloy



Chipbreaker	Shape	Feature
HRF		Suitable for finishing superalloy. Unique protrusion improves chip control in cutting low depth.
HRM		First choice for heat-resistant alloy. The geometry optimized for a wide range of depths of cut.
SDM		Light cutting geometry for notch wear and crater wear resistance.

Chipbreaker	Shape	Feature
-		Excellent performance in finishing of heat-resistant alloy and titanium alloy with CBN sintered body on the cutting edge.
Ceramic		Suitable for roughing operation of heat-resistant alloy, due to the SiAlON ceramic with high-temperature strength.

STANDARD CUTTING CONDITIONS

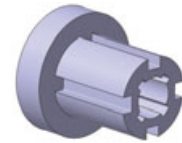
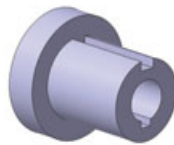
ISO	Operation	Chip-breaker	Grade	Depth of cut a_p (mm)	Feed f (mm/rev)	Cutting speed: V_c (m/min)	
						Titanium alloy	Ni-base alloy
S	Precision finishing	-	BX480	0.1 - 0.5	0.05 - 0.2	100 - 200	70 - 300
		-	BX815	0.1 - 0.5	0.05 - 0.2	-	70 - 500
	Finishing to medium cutting	-	TS200	0.1 - 2	0.1 - 0.4	-	200 - 350
		-	TS300	0.1 - 2	0.2 - 0.5	-	150 - 250
		HRF	AH8005	0.5 - 1.5	0.05 - 0.25	20 - 100	20 - 100
		HRF	AH8015	0.5 - 1.5	0.05 - 0.25	20 - 80	20 - 50
		HRF	AH8015	0.5 - 1.5	0.05 - 0.25	10 - 60	10 - 40
	Medium cutting	HRM	AH8005	0.5 - 4	0.1 - 0.4	20 - 100	20 - 100
		HRM	AH8015	0.5 - 4	0.1 - 0.4	20 - 80	20 - 50
		HRM	AH8015	0.5 - 4	0.1 - 0.4	10 - 60	10 - 40

Ni-base alloy: INCONEL718, etc. Titanium alloy: Ti-6Al-4V, etc.

Selection System

SELECTION SYSTEM: NEGATIVE TYPE

S Heat resistant superalloys



Continuous

Light interrupted

Heavy interrupted

Precision finishing [$a_p \sim 0.5 \text{ mm}$]	Continuous	Light interrupted	Heavy interrupted
	Basic Fracture → HRF AH8005 B038 BX815 B168 - B188	Basic Fracture → HRF AH8005 B038 BX480 B168 - B188	
Finishing [$a_p = 0.5 \sim 1.5 \text{ mm}$]	Continuous	Light interrupted	Heavy interrupted
	Basic Fracture → HRF AH8015 B031 Chip control → 28 AH8005 B035 High-speed wear → TS300 B038, B039 Crater wear → SDM AH8005 B033 HRF AH8005 B031	Basic Fracture → HRM AH8015 B035 Wear → HRF AH8005 B031 Chip control → 28 AH8015 B035 Crater wear → SDM AH8015 B033 HRF AH8015 B031	Basic Fracture → HRM AH8015 B034 Wear → HRF AH8005 B031 Crater wear → SDM AH8015 B033 HRF AH8015 B031
Medium cutting [$a_p = 0.5 \sim 4 \text{ mm}$]	Continuous	Light interrupted	Heavy interrupted
	Basic Fracture → HRM AH8015 B034 Burr occurrence → HRF AH8015 B031 Chip control → 28 AH8005 B035 Crater wear → SDM AH8005 B033 HRM AH8005 B034	Basic Fracture → SM AH630 B033 Wear → HRM AH8005 B034 Chip control → 28 AH8015 B035 Crater wear → SDM AH8015 B033 HRM AH8015 B035	Basic Wear → HRF AH8005 B031 Crater wear → SDM AH8015 B033 HRM AH8015 B034

Please see the page B*** for the details.

Grade

Insert

Ext. Toolholder

Int. Toolholder

Threading

Grooving

Miniature tool

Milling cutter

Endmill

Drilling tool

Tooling System

User's Guide

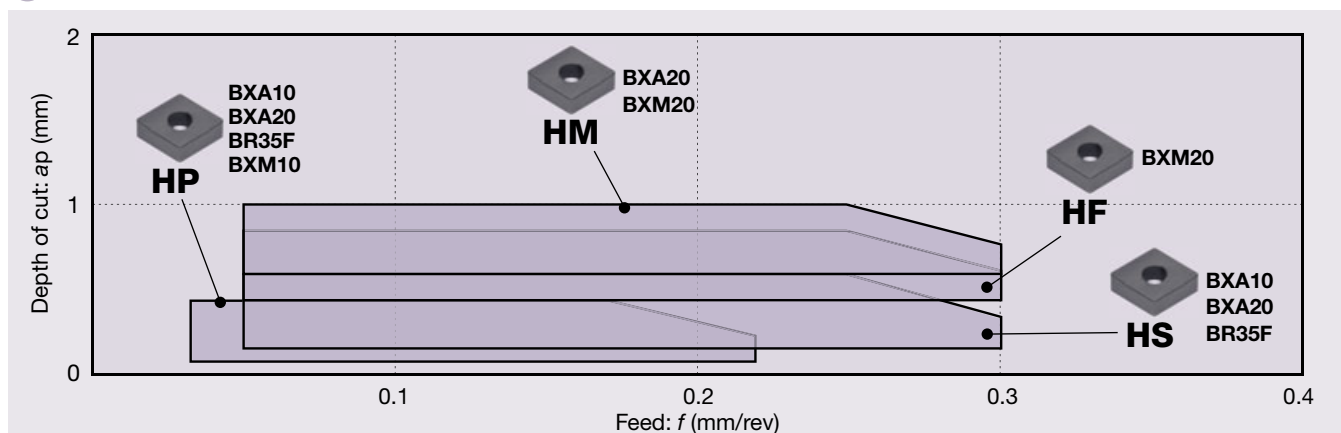
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Chipbreaker Guide

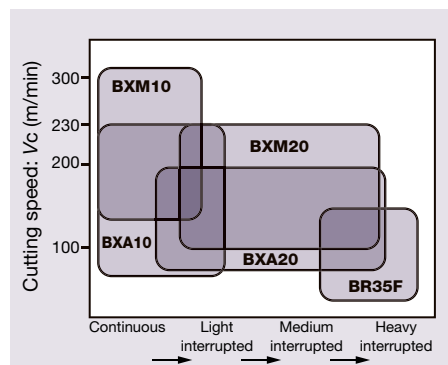
BASIC CHIPBREAKER: NEGATIVE TYPE

H Hard Materials

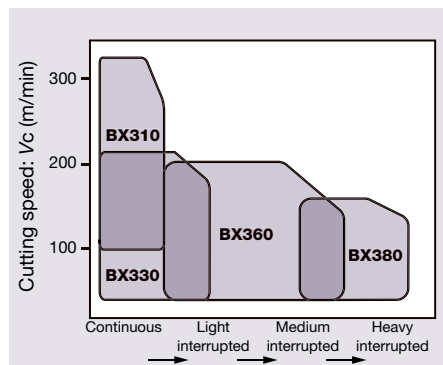
Chipbreaker System for Turning (Negative type)



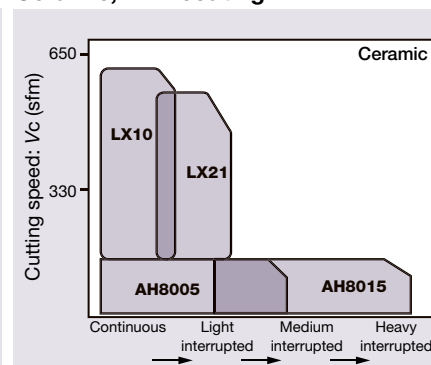
Coated CBN



T-CBN



Ceramic, PVD coating



Chipbreaker	Shape	Feature
-		Excellent performance in finishing of hard material with CBN sintered body on the cutting edge.
- (Ceramic)		Realizes economical hardened steel medium speed finishing.
HRF		Excellent chip control in Hardent steel medium finishing.

Chipbreaker	Shape	Feature
HF		Excellent chip control in removing carburized layer at small depth of cut.
HM		Excellent chip control in removing carburized layer at large depth of cut.
HP		Excellent chip control in precision finishing.
HS		Provides the excellent chip-control at a high-feed condition in the precise finishing operation.

STANDARD CUTTING CONDITIONS

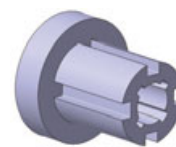
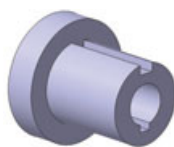
ISO	Operation	Chipbreaker	Grade	Depth of cut a_p (mm)	Feed f (mm/rev)	Cutting speed V_c (m/min)
H	Precision finishing	HP	BXA10 BXA20 BR35F	0.03 - 0.25	0.03 - 0.22	70 - 350
		HS	BXA10 BXA20 BR35F	0.1 - 0.35	0.05 - 0.3	70 - 350
	Finishing	-	BXM10 BXM20 BXA20	0.05 - 0.5	0.05 - 0.25	70 - 350
		-	LX10 LX21	0.05 - 0.5	0.05 - 0.25	60 - 180
	Removing of carburized layer	HF	BXM20	0.3 - 0.75	0.05 - 0.3	70 - 200
		HM	BXA20 BXM20	0.5 - 1	0.05 - 0.3	70 - 200
	Medium cutting	HRF	AH8005 AH8015	0.05 - 2	0.05 - 0.25	10 - 50

Hardened steels, Pre-hardened steels: SKD11, SKD61, etc. X153CrMoV12, X40CrMoV5-1, etc.

Selection System

SELECTION SYSTEM: NEGATIVE TYPE

H Hard Materials



Continuous

Light interrupted

Heavy interrupted

Precision finishing
[$a_p \sim 0.35 \text{ mm}$]

Basic



**HP
BXA10**

B168 - B188



**HS
BXA10**

B168 - B188

Basic



BXA20

B168 - B188



**-H
BXA20**

B168 - B188

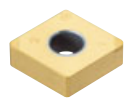


BXA10

B168 - B188

Finishing
[$a_p \sim 0.5 \text{ mm}$]

Basic



BXA10

B168 - B188



LX10

B038, B039

Basic



BXA20

B168 - B188



**-H
BXA20**

B168 - B188



LX21

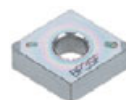
B038, B039



BXA10

B168 - B188

Basic



BR35F

B168 - B188

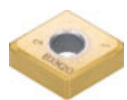


**-HC
BR35F**

B168 - B188

Removing of carburized layer
[$a_p \sim 1 \text{ mm}$]

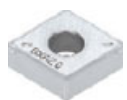
Basic



**HF
BXM20**

B168 - B188

Basic



**HM
BXA20**

B168 - B188

Medium cutting
[$a_p \sim 2 \text{ mm}$]

Basic



**HRF
AH8005**

B031



**HRF
AH8015**

B034

Basic



**HRF
AH8015**

B031



**HRM
AH8015**

B034

Basic



**HRF
AH8015**

B031



**HRM
AH8015**

B034

Please see the page B*** for the details.

Tungaloy B015

Grade

Insert

Ext. Toolholder

Int. Toolholder

Threading

Grooving

Miniature tool

Milling cutter

Endmill

Drilling tool

Tooling System

User's Guide

Index

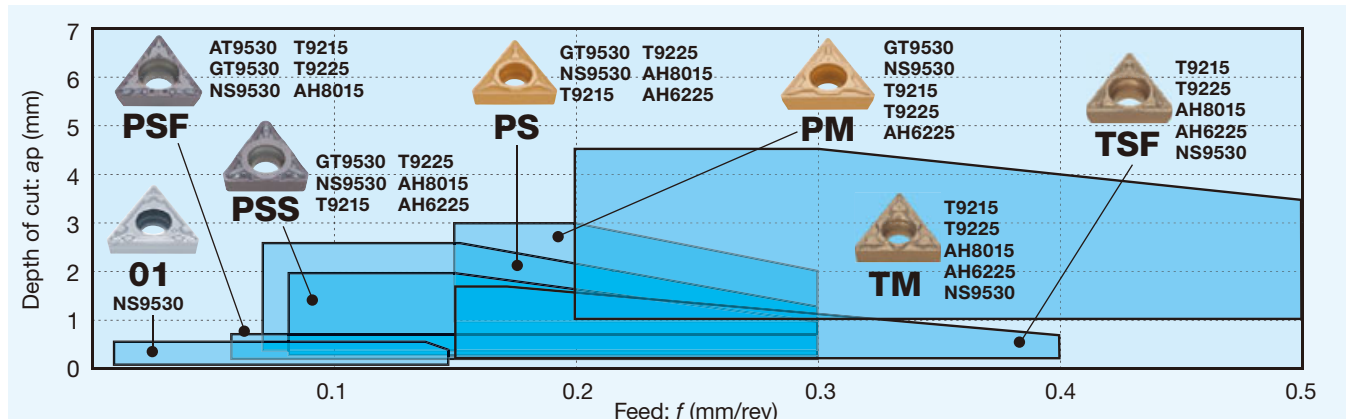


Chipbreaker Guide

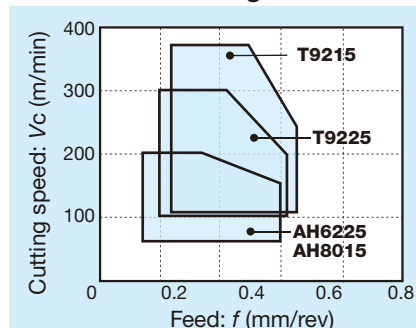
BASIC CHIPBREAKER: POSITIVE TYPE

P Steel

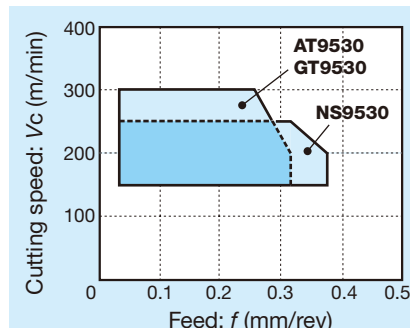
Chipbreaker System for Turning (Positive Type)



CVD / PVD coated grade



Coated cermet / Cermet



Chipbreaker	Shape	Feature
01		Excellent chip control in machining very small depth of cut thanks to the sharp cutting edge and protrusion.
PSF		Low cutting force and high wear resistance. First choice for finishing. Excellent chip control in finishing prevents chip entanglement in internal machining.
PSS		3D chipbreaker for finishing to medium cutting with excellent chip control and low cutting force.
PS		3D chipbreaker for finishing to medium cutting with excellent chip control and sharpness. M-class insert delivers cost reduction and highly efficient boring in a wide range of applications.

Chipbreaker	Shape	Feature
PM		First choice for medium cutting with excellent sharpness and good chip control. Delivers stable machining of stainless steel.
TSF		Optimal chipbreaker width and geometry enable smooth chip control in high-feed machining.
TM		Optimal cutting edge design and chipbreaker shape achieve excellent chip control in large depth of cut machining.

STANDARD CUTTING CONDITIONS

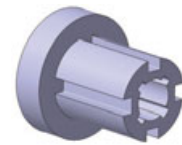
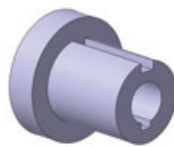
ISO	Operation	Chip-breaker	Grade	Depth of cut a_p (mm)	Feed f (mm/rev)	Cutting speed: V_c (m/min)		
						Low carbon steels, Alloy steels	Medium carbon steels, Alloy steels	High carbon steels, Alloy steels
P	Precision finishing	01	NS9530	0.05 - 0.5	0.03 - 0.15	150 - 250	80 - 220	80 - 180
		01	NS9530	0.05 - 0.5	0.03 - 0.15	150 - 250	80 - 220	80 - 180
	Finishing	PSS	NS9530	0.1 - 0.5	0.05 - 0.3	150 - 250	80 - 220	80 - 180
		PSS	NS9530	0.1 - 0.5	0.05 - 0.3	150 - 250	80 - 220	80 - 180
		PSS	NS9530	0.1 - 0.5	0.05 - 0.3	150 - 250	80 - 220	80 - 180
	Finishing to light cutting	PS	T9215	0.3 - 2	0.08 - 0.3	120 - 350	100 - 350	80 - 250
		PS	T9215	0.3 - 2	0.08 - 0.3	120 - 350	100 - 350	80 - 250
		PS	T9215	0.3 - 2	0.08 - 0.3	120 - 350	100 - 350	80 - 250
	Finishing to Medium cutting	PS	T9215	0.5 - 2.5	0.08 - 0.3	120 - 350	100 - 350	80 - 250
		PS	T9225	0.5 - 2.5	0.08 - 0.3	100 - 300	80 - 300	80 - 250
	Medium cutting	PM	T9215	1 - 3	0.15 - 0.3	150	100 - 200	80 - 180
		PM	T9225	1 - 3	0.15 - 0.3	120	80 - 180	80 - 120

Low carbon steels, Alloy steels: S10C, SCM415, SS400, SCr420H, etc. C10, 18CrMo4, E275A, 20Cr4, etc. Medium carbon steels, Alloy steels: S45C, SCM440, etc. C45, 42CrMo4, etc. Hi carbon steels, Alloy steels: SNCM439, etc. 41CrNiMo2, etc.

Selection System

SELECTION SYSTEM: POSITIVE TYPE

P Steel



Continuous

Light interrupted

Heavy interrupted

Precision finishing [$a_p = \sim 0.5 \text{ mm}$]	Basic 01 NS9530 B040, B045	Basic 01 NS9530 B040, B045 Fracture PSF NS9530 B040, B045, B049	
Finishing [$a_p = 0.1 \sim 0.5 \text{ mm}$]	Basic PSS NS9530 B042, B046, B049 Fracture PSS T9215 B042, B045, B049 Wear PSS GT9530 B042, B045, B049 Chip control PSF NS9530 B040, B045, B049	Basic PSS NS9530 B042, B046, B049 Fracture PSS T9215 B042, B046, B049 Wear PSS GT9530 B042, B046, B049 Chip control PSF NS9530 B040, B045, B049	Basic PSS NS9530 B042, B046, B049 Fracture PSS T9215 B042, B046, B049 Wear PSS GT9530 B042, B046, B049 Chip control PSF NS9530 B040, B045, B049
	Basic PS T9215 B042, B046, B049 Fracture PS T9225 B042, B046, B049 Wear PS NS9530 B042, B046, B049 Chip control TSF, TM T9215 B040, B042, B045, D046, B049	Basic PS T9215 B042, B046, B049 Fracture PS T9225 B042, B046, B049 Wear PS NS9530 B042, B046, B049 Chip control TSF, TM T9215 B040, B042, B045, D046, B049	Basic PS T9215 B042, B046, B049 Fracture PS T9225 B042, B046 Chip control TSF, TM T9215 B040, B042, B045, D046, B049
	Basic PM T9215 B044, B048 Fracture PM T9225 B044, B048 Wear PM NS9530 B044, B048 Chip control TSF, TM T9215 B040, B042, B045, D046, B049	Basic PM T9215 B044, B048 Fracture PM T9225 B044, B048 Chip control TSF, TM T9215 B040, B042, B045, D046, B049	Basic PM T9215 B044, B048 Fracture PM T9225 B044, B048 Chip control TSF, TM T9215 B040, B042, B045, D046, B049

Please find the details on the pages: B***/7° relief angle, B***/11° relief angle, B***/5° relief angle.

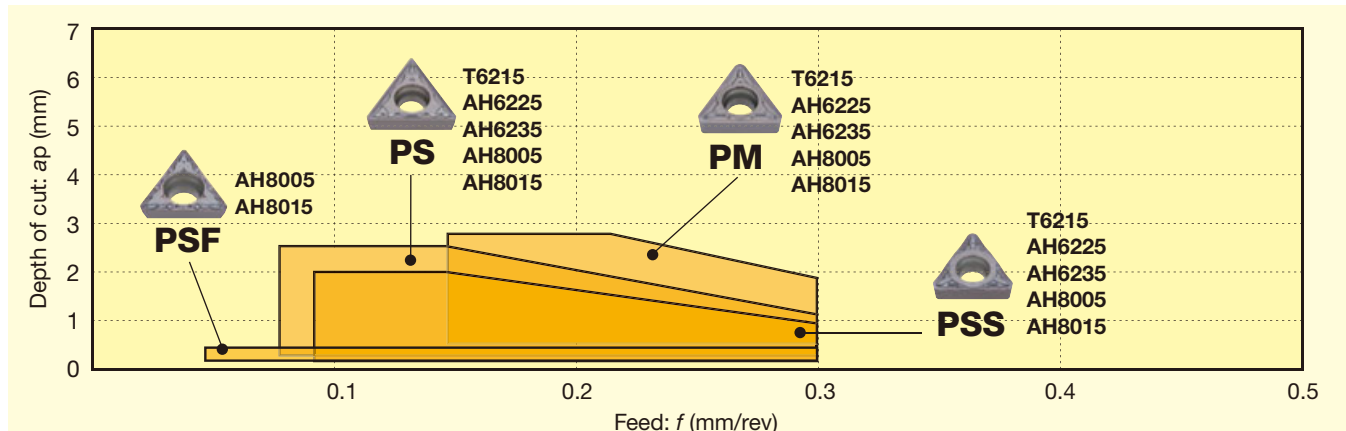


Chipbreaker Guide

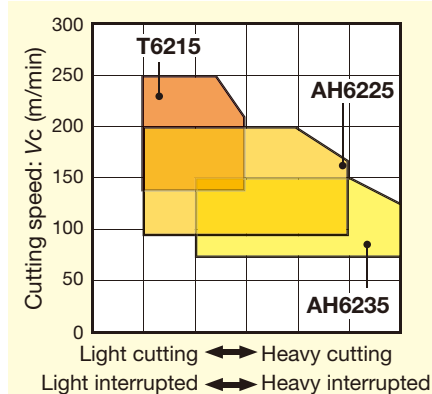
BASIC CHIPBREAKER: POSITIVE TYPE

M Stainless Steel

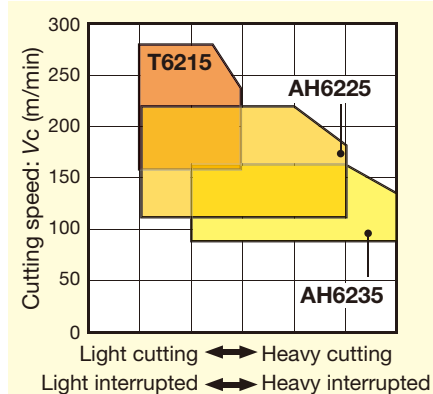
Chipbreaker System for Turning (Positive Type)



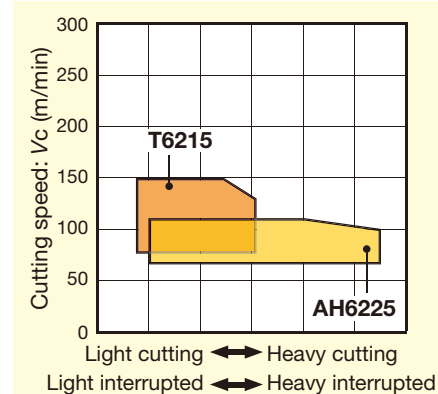
Austenitic stainless steel



Ferritic / martensite stainless steel



Precipitation hardened stainless steel



Chipbreaker	Shape	Feature
PSF		Low cutting force and high wear resistance. First choice for finishing. Excellent chip control in finishing prevents chip entanglement in internal machining.
PSS		3D chipbreaker for finishing to medium cutting with excellent chip control and low cutting force.

Chipbreaker	Shape	Feature
PS		3D chipbreaker for finishing to medium cutting with excellent chip control and sharpness. M-class insert delivers cost reduction and highly efficient boring in a wide range of applications.
PM		First choice for medium cutting with excellent sharpness and good chip control. Delivers stable machining of stainless steel.

STANDARD CUTTING CONDITIONS

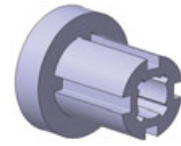
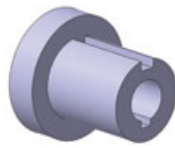
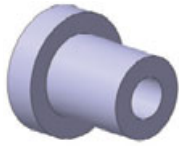
ISO	Operation	Chipbreaker	Grade	Depth of cut a_p (mm)	Feed f (mm/rev)	Cutting speed: V_c (m/min)		
						Austenitic stainless steel	Ferritic / martensite stainless steel	Precipitation hardened stainless steel
M	Finishing	PSS	T6215	0.3 - 2	0.08 - 0.3	140 - 240	160 - 280	80 - 150
			AH6225	0.3 - 2	0.08 - 0.3	90 - 200	110 - 240	60 - 110
			AH6235	0.3 - 2	0.08 - 0.3	50 - 150	70 - 170	-
	Finishing to medium cutting	PS	T6215	0.5 - 2.5	0.08 - 0.3	140 - 240	160 - 280	80 - 150
			AH6225	0.5 - 2.5	0.08 - 0.3	90 - 200	110 - 240	60 - 110
			AH6235	0.5 - 2.5	0.08 - 0.3	50 - 150	70 - 170	-
	Medium cutting	PM	T6215	1 - 3	0.15 - 0.3	140 - 240	160 - 280	80 - 150
			AH6225	1 - 3	0.15 - 0.3	90 - 200	110 - 240	60 - 110
			AH6235	1 - 3	0.15 - 0.3	50 - 150	70 - 170	-

* For CCMT0602 and DCMT0702 type inserts, $a_p = 0.5 - 2.5$
Stainless steels: SUS304, SUS316, etc. X5CrNi18-9, X5CrNiMo17-12-3, etc.

Selection System

SELECTION SYSTEM: POSITIVE TYPE

M Stainless Steel



Continuous

Light interrupted

Heavy interrupted

Finishing [$a_p = 0.3 \sim 1.5 \text{ mm}$]	Continuous	Light interrupted	Heavy interrupted
	Basic  PSS AH6225 B042, B046, B049 Wear → PSS T6215 B042, B046, B049	Basic  PSS AH6225 B042, B046, B049 Fracture → PSS AH6235 B042, B046, B049 Wear → PSS T6215 B042, B046, B049	Basic  PSS AH6225 B042, B046, B049 Fracture → PSS AH6235 B042, B046, B049 Wear → PSS T6215 B042, B046, B049
	Basic  PS AH6225 B042, B046, B049 Wear → PS T6215 B042, B046, B049	Basic  PS AH6225 B042, B046, B049 Fracture → PM AH6235 B044, B048 Wear → PS T6215 B042, B046, B049	Basic  PS AH6225 B042, B046, B049 Fracture → PM AH6235 B044, B048 Wear → PS T6215 B042, B046, B049
Medium cutting [$a_p = 1 \sim 3 \text{ mm}$]	Basic  PM AH6225 B044, B048 Wear → PM T6215 B044, B048	Basic  PM AH6225 B044, B048 Fracture → PM AH6235 B044, B048 Wear → PM T6215 B044, B048	Basic  PM AH6225 B044, B048 Fracture → PM AH6235 B044, B048

Please find the details on the pages: B***/7° relief angle, B***/11° relief angle, B***/5° relief angle.

Grade

Insert

Ext. Toolholder

Int. Toolholder

Threading

Grooving

Milling cutter

Miniature tool

Endmill

Drilling tool

Tooling System

User's Guide

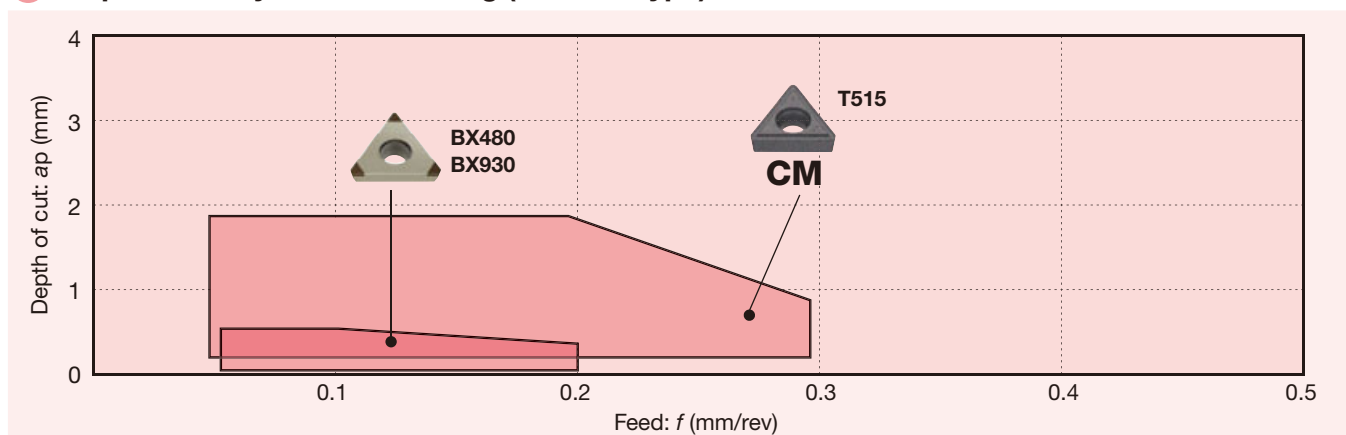
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Chipbreaker Guide

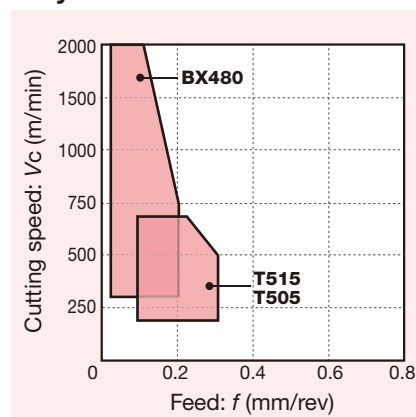
BASIC CHIPBREAKER: POSITIVE TYPE

K Cast Iron

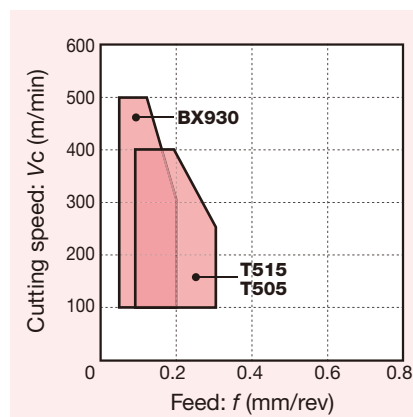
Chipbreaker System for Turning (Positive Type)



Grey cast iron



Ductile cast iron



Chipbreaker	Shape	Feature
-		Excellent performance in high-speed finishing of cast iron with CBN sintered body on the cutting edge.

Chipbreaker	Shape	Feature
CM		Highly versatile all-round chipbreaker with low cutting force. Suitable for finishing to medium cutting.

STANDARD CUTTING CONDITIONS

ISO	Operation	Chip-breaker	Grade	Depth of cut a_p (mm)	Feed f (mm/rev)	Cutting speed: V_c (m/min)	
						Grey cast iron	Ductile cast iron
K	Precision finishing	-	BX930	0.05 - 0.5	0.05 - 0.2	300 - 1200	100 - 500
		-	BX480	0.05 - 0.5	0.05 - 0.2	300 - 2000	-
	Finishing	CM	T515	0.05 - 2	0.05 - 0.3	150 - 700	150 - 300
		CM	T515	0.05 - 2	0.05 - 0.3	100 - 200	100 - 200
	Medium cutting	CM	T515	0.05 - 2	0.05 - 0.3	100 - 300	100 - 250

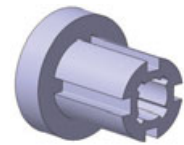
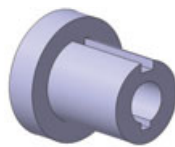
Grey cast iron: FC250, etc. 250, etc.

Ductile cast iron: FCD450, etc. 450-10S, etc.

Selection System

SELECTION SYSTEM: POSITIVE TYPE

K Cast Iron



Continuous

Light interrupted

Heavy interrupted

Precision finishing
[$a_p = \sim 0.5 \text{ mm}$]

Basic



-
BX480

B189 - B209

Basic



-
BX480

B189 - B209

Finishing to Medium cutting
[$a_p = 0.5 \sim 3 \text{ mm}$]

Basic



CM T515

B042, B046, B049



CM T505

B042, B046, B049

Basic



CM T515

B042, B046, B049



CM T505

B042, B046, B049

Basic



CM T515

B042, B046, B049



CM T505

B042, B046, B049

Please find the details on the pages: B***/7° relief angle, B***/11° relief angle, B***/5° relief angle.

Grade

Insert

Ext. Toolholder

Int. Toolholder

Threading

Grooving

Miniature tool

Milling cutter

Endmill

Drilling tool

Tooling System

User's Guide

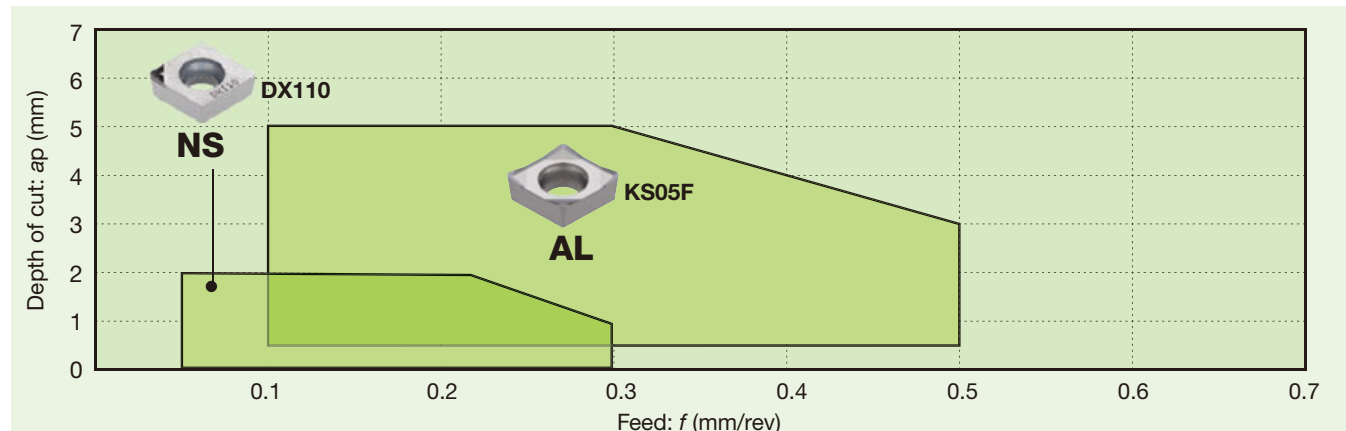
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Chipbreaker Guide

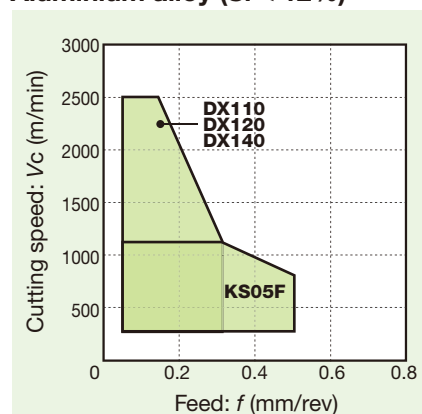
BASIC CHIPBREAKER: POSITIVE TYPE

N Non-ferrous Metal

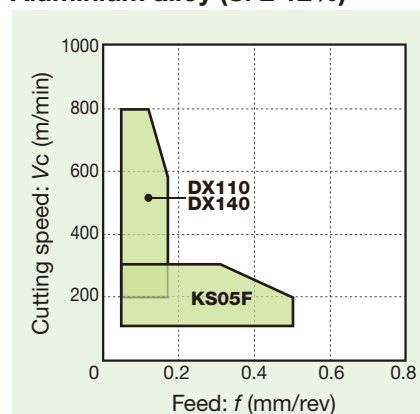
Chipbreaker System for Turning (Positive Type)



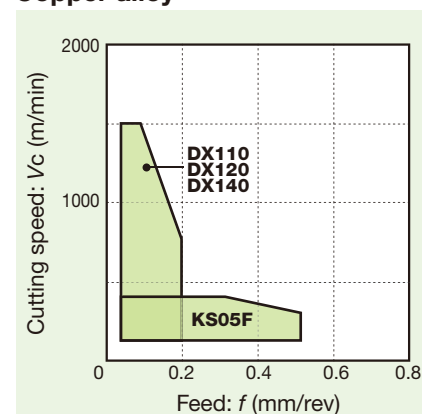
Aluminium alloy (Si < 12%)



Aluminium alloy (Si ≥ 12%)



Copper alloy



Chipbreaker	Shape	Feature
-		Excellent performance in high-speed finishing of non-ferrous metal with diamond sintered body on the cutting edge.
AL		Large rake angle and sharp cutting edge reduce cutting force. Lapped rake face prevents adhesion. Large inclination on the cutting edge (wavy cutting edge) for more stable chip control.

Chipbreaker	Shape	Feature
NS		A unique three-dimensional chipbreaker. Covers a wide range of condition from roughing to finishing.

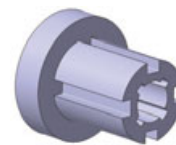
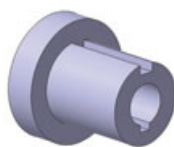
STANDARD CUTTING CONDITIONS

ISO	Operation	Work condition	Chip-breaker	Grade	Depth of cut a_p (mm)	Feed f (mm/rev)	Cutting speed: V_c (m/min)		
							Aluminium alloy (Si < 12%)	Aluminium alloy (Si ≥ 12%)	Copper alloy
N	Precision finishing	Continuous	NS	DX110	0.05 - 2	0.05 - 0.15	500 - 2500	400 - 800	500 - 1500
		Light interrupted	-	DX140	0.05 - 1	0.05 - 0.2	300 - 2500	-	500 - 1500
	Finishing	Continuous	NS	DX110	0.05 - 2	0.05 - 0.3	500 - 2500	400 - 800	500 - 1500
		Light interrupted	-	DX140	0.05 - 1	0.05 - 0.15	300 - 1800	400 - 600	400 - 1200
		Heavy interrupted	AL	KS05F	0.5 - 5	0.1 - 0.5	100 - 600	100 - 200	-
	Medium cutting	Continuous	AL	KS05F	0.5 - 5	0.1 - 0.5	100 - 1200	100 - 300	100 - 300
		Light interrupted	AL	KS05F	0.5 - 5	0.1 - 0.5	100 - 900	100 - 200	100 - 200
		Heavy interrupted	AL	KS05F	0.5 - 5	0.1 - 0.5	100 - 600	100 - 200	-

Selection System

SELECTION SYSTEM: POSITIVE TYPE

N Non-ferrous Metal



Continuous

Light interrupted

Heavy interrupted

Precision finishing
[$a_p \approx 0.5 \text{ mm}$]

Basic



**NS
DX110**

B213 -

Wear

DX140

B213 -

Basic



**With
chipbreaker
DX110**

B213 -

Wear

DX140

B213 -

Finishing
[$a_p \approx 0.5 \sim 2 \text{ mm}$]

Basic



**NS
DX110**

B213 -

Wear

DX160

B213 -

Basic



DX140

B213 -

Fracture

**AL
KS05F**

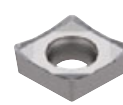
B042

Wear

DX160

B213 -

Basic



**AL
KS05F**

B043

Medium cutting
[$a_p \approx 1 \sim 5 \text{ mm}$]

Basic



**AL
KS05F**

B043

Wear

**With chipbreaker
DX120**

B213 -

Basic



**AL
KS05F**

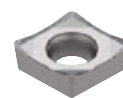
B043

Wear

DX140

B213 -

Basic



**AL
KS05F**

B043

Grade

Insert

Ext. Toolholder

Int. Toolholder

Threading

Grooving

Miniature tool

Milling cutter

Endmill

Drilling tool

Tooling System

User's Guide

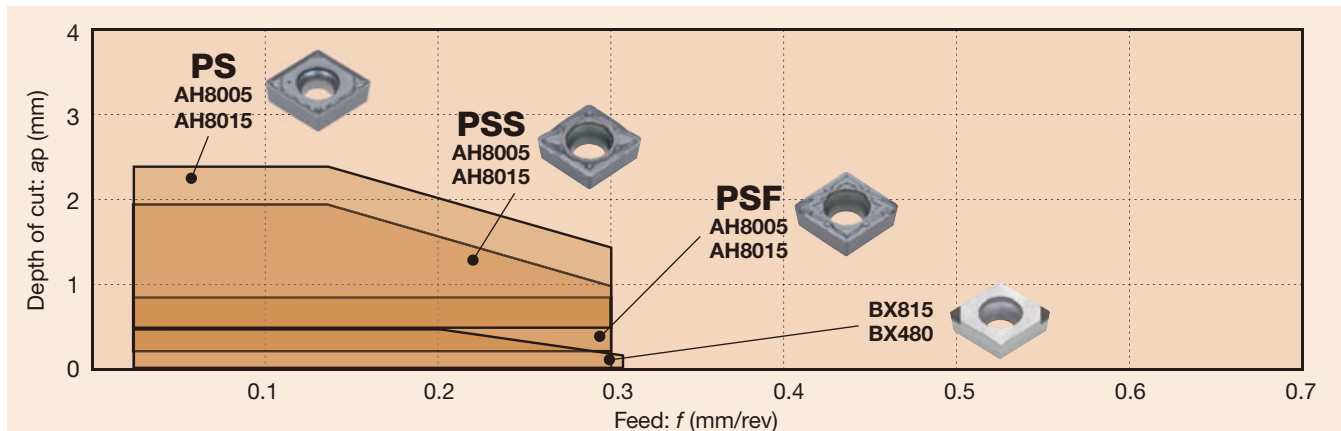
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Chipbreaker Guide

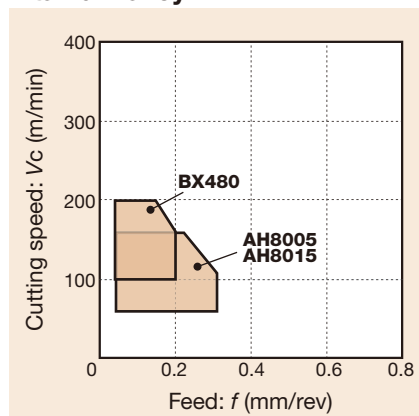
BASIC CHIPBREAKER: POSITIVE TYPE

S Heat resistant superalloys

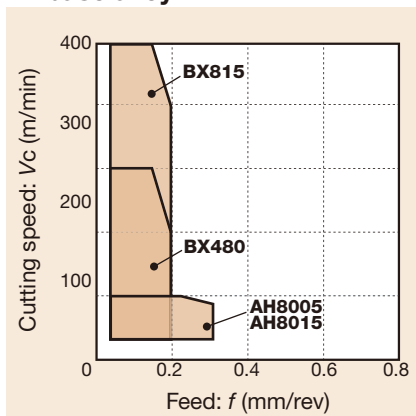
Chipbreaker System for Turning (Positive Type)



Titanium alloy



Ni-base alloy



Chipbreaker	Shape	Feature
PS		3D chipbreaker for finishing to medium cutting with excellent chip control and sharpness. M-class insert delivers cost reduction and highly efficient boring in a wide range of applications.
-		Excellent performance in finishing of heat-resistant alloy and titanium alloy with CBN sintered body on the cutting edge.

Chipbreaker	Shape	Feature
PSF		Low cutting force and high wear resistance. First choice for finishing. Excellent chip control in finishing prevents chip entanglement in internal machining.
PSS		3D chipbreaker for finishing to medium cutting with excellent chip control and low cutting force.

STANDARD CUTTING CONDITIONS

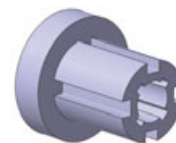
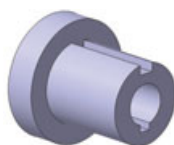
ISO	Operation	Chip-breaker	Grade	Depth of cut a_p (mm)	Feed f (mm/rev)	Cutting speed: V_c (m/min)	
						Titanium alloy	Ni-base alloy
S	Precision finishing	-	BX480	0.1 - 0.5	0.05 - 0.2	100 - 200	70 - 300
		-	BX815	0.1 - 0.5	0.05 - 0.2	-	70 - 500
	Finishing	PSS	AH8015	0.3 - 2	0.02 - 0.3	20 - 150	20 - 100
		PSS	AH8015	0.3 - 2	0.02 - 0.3	20 - 150	20 - 100
	Finishing to medium cutting	PS	AH8015	0.5 - 2.5	0.02 - 0.3	20 - 150	20 - 100
		PS	AH8015	0.5 - 2.5	0.02 - 0.3	20 - 150	20 - 100

Ni-base alloy: INCONEL718, etc. Titanium alloy: Ti-6Al-4V, etc.

Selection System

SELECTION SYSTEM: POSITIVE TYPE

S Heat resistant superalloys



Continuous

Light interrupted

Heavy interrupted

Precision finishing
[$a_p \approx 0.5 \text{ mm}$]

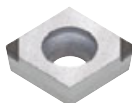
Basic



BX815

B189 - B209

Basic

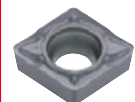


BX480

B189 - B209

Finishing
[$a_p \approx 0.3 \sim 2 \text{ mm}$]

Basic



PSS AH8015

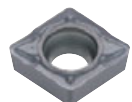
B042, B046, B049

Wear

PSS AH8005

B042, B046, B049

Basic



PSS AH8015

B042, B046, B049

Wear

PSS AH8005

B042, B046, B049

Fracture

PS AH8015

B042, B046, B049

Finishing to medium cutting
[$a_p \approx 0.5 \sim 2.5 \text{ mm}$]

Basic



PS AH8015

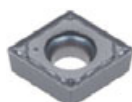
B042, B046, B049

Wear

PSS AH8005

B042, B046, B049

Basic



PS AH8015

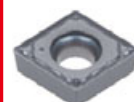
B042, B046, B049

Fracture

All-round AH8015

B043, B047

Basic



PS AH8015

B042, B046, B049

Fracture

All-round AH8015

B043, B047

Please find the details on the pages: B***/7° relief angle, B***/11° relief angle, B***/5° relief angle.

Grade

Insert

Ext. Toolholder

Int. Toolholder

Threading

Grooving

Miniature tool

Milling cutter

Endmill

Drilling tool

Tooling System

User's Guide

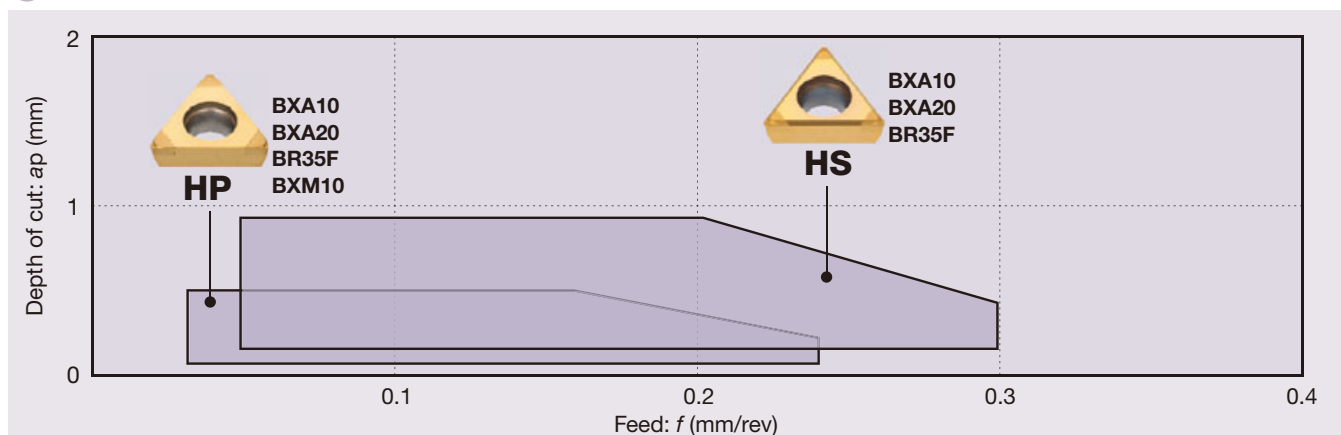
Index

Chipbreaker Guide

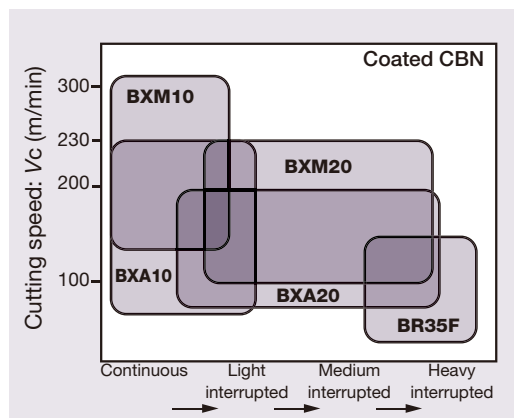
BASIC CHIPBREAKER: POSITIVE TYPE

H Hard Materials

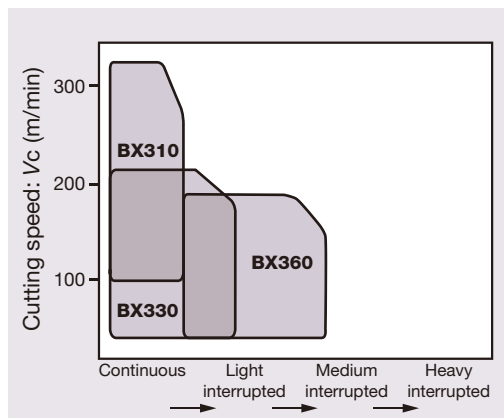
Chipbreaker System for Turning (Positive Type)



Coated CBN



CBN



Chipbreaker	Shape	Feature	Chipbreaker	Shape	Feature
-		Excellent performance in high-speed finishing of hard material with CBN sintered body on the cutting edge.	HP		Excellent chip control in precision finishing.
			HS		Provides the excellent chip-control at a high-feed condition in the precise finishing operation.

STANDARD CUTTING CONDITIONS

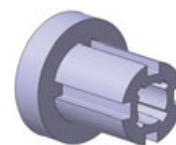
ISO	Operation	Chipbreaker	Grade	Depth of cut a_p (mm)	Feed f (mm/rev)	Cutting speed V_c (m/min)
H	Precision finishing	HP	BXM10 BXA20 BR35F	0.03 - 0.25	0.03 - 0.22	70 - 350
		HS	BXM10 BXA20 BR35F	0.1 - 0.35	0.05 - 0.3	70 - 350
	Finishing	-	BXM10 BXA20 BR35F	0.05 - 0.5	0.05 - 0.25	70 - 350

Hardened steels, Pre-hardened steels: SKD11, SKD61, etc. X153CrMoV12, X40CrMoV5-1, etc.

Selection System

SELECTION SYSTEM: POSITIVE TYPE

H Hard Materials



Continuous

Light interrupted

Heavy interrupted

Precision finishing
[$a_p \approx 0.35 \text{ mm}$]

Basic



**HP
BXA10**

B189 -



**HS
BXA10**

B189 -

Basic



BXA20

B189 -



**-H
BXA20**

B189 -

Finishing
[$a_p \approx 0.5 \text{ mm}$]

Basic



BXA10

B189 -

Basic



BXA20

B189 -



**-H
BXA20**

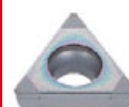
B189 -



BXA10

B189 -

Basic



**SR
BR35F**

B189 -



**HC
BR35F**

B189 -

Grade

Insert

Ext. Toolholder

Int. Toolholder

Threading

Grooving

Miniature tool

Milling cutter

Endmill

Drilling tool

Tooling System

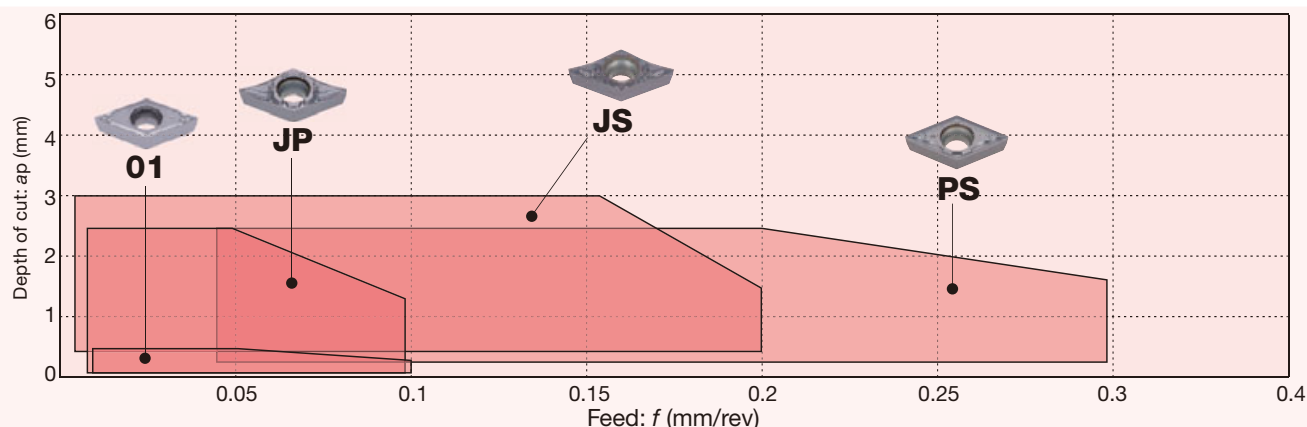
User's Guide

Index

Chipbreaker Guide

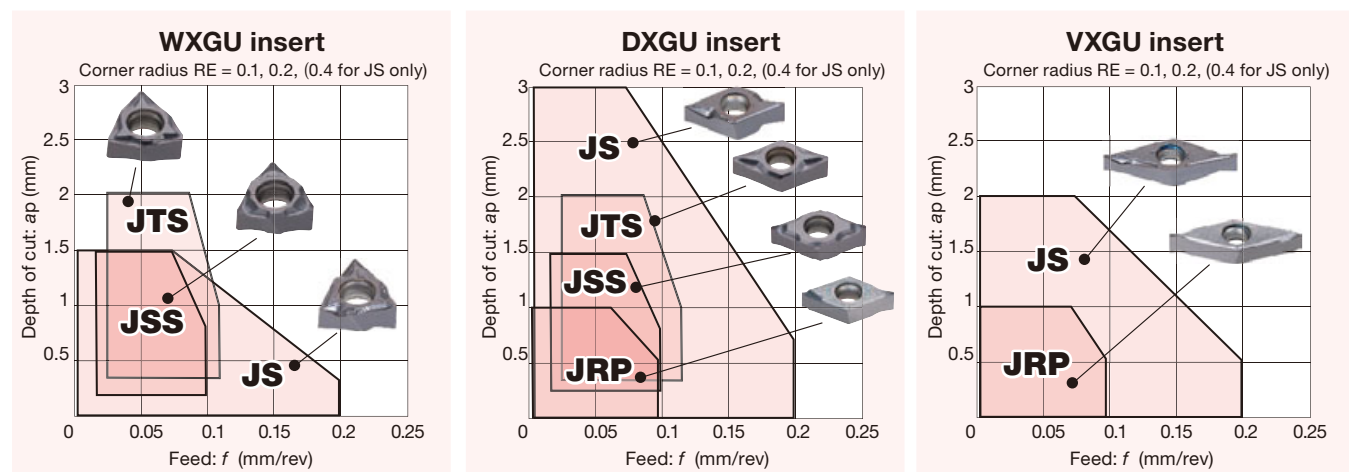
For Miniature machining

BASIC CHIPBREAKER: POSITIVE TYPE



Chipbreaker	Shape	Feature	Chipbreaker	Shape	Feature
JP		Excellent performance in finishing of hard material with CBN sintered body on the cutting edge.	JS		Excellent chip control in removing carburized layer at small depth of cut.

BASIC CHIPBREAKER: DOUBLE-SIDED POSITIVE TYPE



STANDARD CUTTING CONDITIONS POSITIVE TYPE

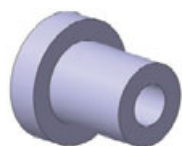
Operation	Chip-breaker	Grade	Depth of cut a_p (mm)	Feed f (mm/rev)	Cutting speed V_c (m/min)
Precision finishing	JP	SH725	0.05 - 2.5	0.02 - 0.1	10 - 200
Finishing	JP	SH725	0.05 - 2.5	0.02 - 0.1	50 - 250
	JS	SH725	0.2 - 3	0.02 - 0.2	10 - 200
Finishing to light cutting	JP	SH725	0.05 - 2.5	0.02 - 0.1	50 - 250
	JS	SH725	0.5 - 2	0.02 - 0.2	10 - 200
	JS	SH725	0.5 - 3	0.03 - 0.15	10 - 200
Medium cutting	PS	AH8015	0.5 - 2.5	0.02 - 0.2	20 - 200
	PS	AH6225	0.5 - 2.5	0.02 - 0.2	60 - 240

STANDARD CUTTING CONDITIONS DOUBLE-SIDED POSITIVE TYPE

Operation	Chip-breaker	Grade	Depth of cut a_p (mm)	Feed f (mm/rev)	Cutting speed V_c (m/min)
Precision finishing	JRP	SH725	0.05 - 0.5	0.03 - 0.08	50 - 250
Finishing	JSS	SH725	0.2 - 1.5	0.03 - 0.1	50 - 250
	JS	SH725	0.2 - 3	0.03 - 0.2	50 - 250
	JS	SH725	0.5 - 3	0.03 - 0.2	50 - 250
Finishing to light cutting	JTS	SH725	0.5 - 2	0.03 - 0.1	50 - 250
Medium cutting	JS	SH725	0.5 - 3	0.03 - 0.2	50 - 250

Selection System

SELECTION SYSTEM: POSITIVE TYPE/DOUBLE-SIDED POSITIVE TYPE



Continuous

Light interrupted

Heavy interrupted

Precision finishing
[$a_p \approx 0.5 \text{ mm}$]

Basic
Positive



**JP
SH725**

Double-sided
positive



**JRP
SH725**

B040, B052

Basic
Positive



**JP
SH725**

Double-sided
positive



**JRP
SH725**

B040, B052

Finishing
[$a_p = 0.1 \sim 0.5 \text{ mm}$]

Basic
Positive



**JS
SH725**

Double-sided
positive



**JSS
SH725**

B040, B045, B049, B052

Chip control
**JP
SH725**
B040

Fracture
**JSS
AH725**
B052

Basic
Positive



**JS
SH725**

Double-sided
positive



**JSS
AH725**

B040, B045, B049, B052

Chip control
**JP
SH725**
B040

Fracture
**JSS
AH725**
B052

Basic
Positive



**JS
SH725**

Double-sided
positive



**JSS
AH725**

B040, B045, B049, B052

Finishing to medium cutting
[$a_p = 0.5 \sim 3 \text{ mm}$]

Basic
Positive



**JS
SH725**

Double-sided
positive



**JTS
SH725**

B040, B045, B049, B052

Chip control
**JP
SH725**
B040

Fracture
**JSS
AH725**
B052

Basic
Positive



**JS
SH725**

Double-sided
positive



**JTS
SH725**

B040, B045, B049, B052

Chip control
**JP
SH725**
B040

Fracture
**JSS
AH725**
B052

Basic
Positive



**JS
AH725**

Double-sided
positive



**JTS
AH725**

B040, B045, B049, B052

Fracture
**TS
AH8015**
B052

Medium cutting
[$a_p = 1 \sim 4 (3) \text{ mm}$]

Basic
Positive



**JS
SH725**

Double-sided
positive



**JSS
AH725**

B040, B045, B049, B052

Fracture
**PS
AH8015
AH6225**
B042, B046, B049

Basic
Positive



**PS
AH8015
AH6225**

Double-sided
positive



**JTS
AH725**

B042, B046, B049, B052

Basic
Positive



**PS
AH8015
AH6225**

Double-sided
positive

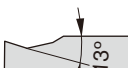
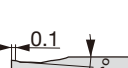
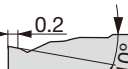
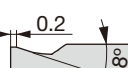


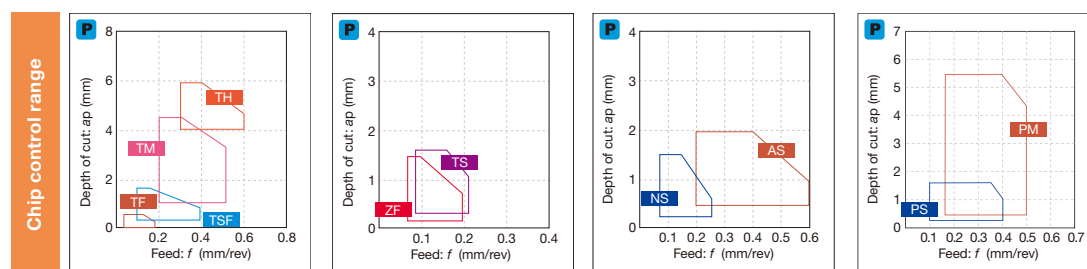
**JTS
AH725**

B042, B046, B049, B052

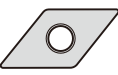
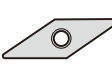
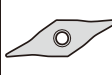
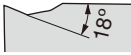
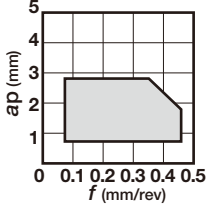
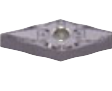
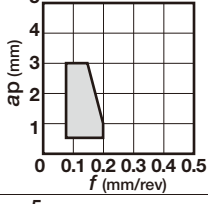
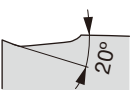
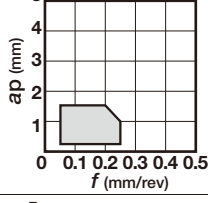
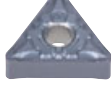
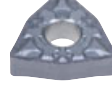
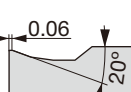
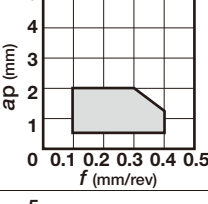
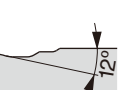
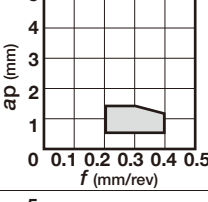
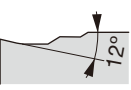
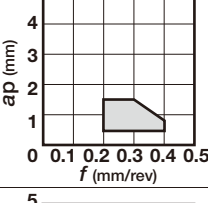
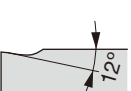
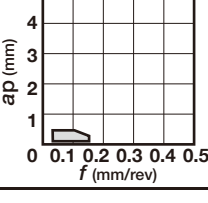
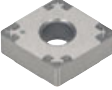
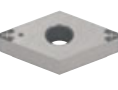
Please find the details on the pages: B***/7° relief angle, B***/11° relief angle, B***/5° relief angle, B***/Double-sided.

Chipbreaker Overview

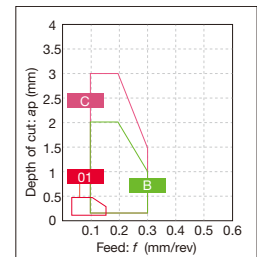
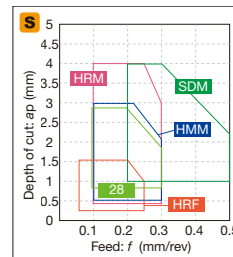
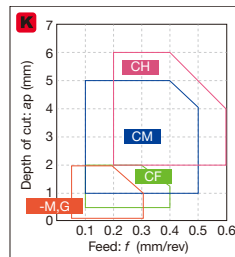
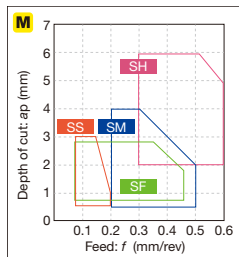
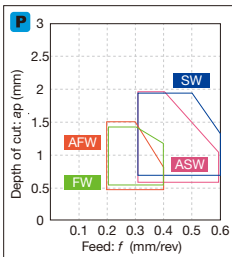
Application	Negative type with hole	C	D	F	G	S	T	V	W	Y
										
		80°	55°	45°	70°	90°	60°	35°	80°	25°
Finishing	TF  ap (mm) f (mm/rev)	 B054	 B066			 B077	 B087	 B098	 B102	
	TSF  ap (mm) f (mm/rev)	 B054	 B066	 B075	 B075	 B077	 B087	 B098	 B102	
	PS  ap (mm) f (mm/rev)	 B054	 B066			 B077	 B087	 B098	 B102	
Finishing for mild steel	ZF  ap (mm) f (mm/rev)	 B054	 B066			 B077	 B087	 B098	 B102	 B110
Finishing	AS  ap (mm) f (mm/rev)	 B054	 B066			 B077	 B087		 B102	
	NS  ap (mm) f (mm/rev)	 B054	 B066			 B077	 B087		 B102	
	TS  ap (mm) f (mm/rev)	 B054	 B067			 B078	 B089	 B098	 B103	



Please see the page B*** for the product details.

Application	Negative type with hole	C	D	S	T	V	W	Y
		 80°	 55°	 90°	 60°	 35°	 80°	 25°
Finishing	SF  	 B055	 B067	 B078	 B088	 B098	 B103	
	SS  	 B055	 B067	 B078	 B088	 B098	 B103	
	HRF  	 B055	 B067	 B078	 B088	 B098	 B103	
	CF  	 B055	 B067	 B078	 B088	 B099	 B104	
Finishing (wiper)	FW  	 B056	 B067		 B088		 B104	
	AFW  	 B056					 B104	
Finishing	01  	 B056	 B067	 B078	 B089	 B099	 B104	

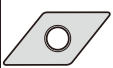
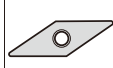
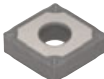
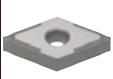
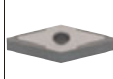
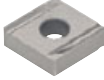
Chip control range



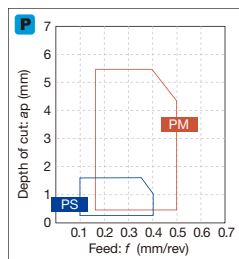
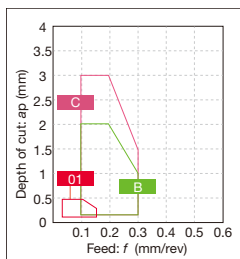
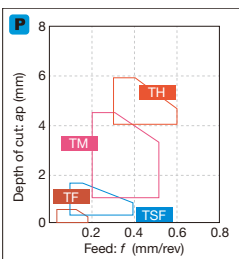
Please see the page B*** for the product details.

*-M,G: Without chipbreaker

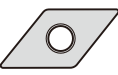
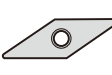
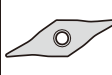
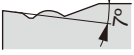
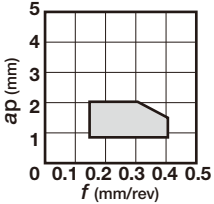
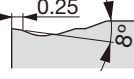
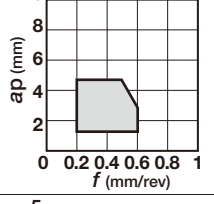
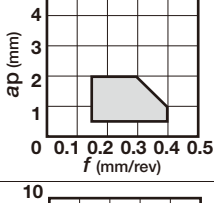
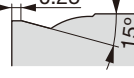
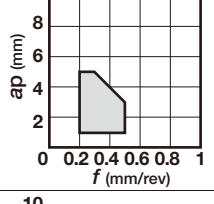
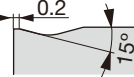
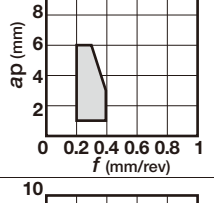
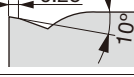
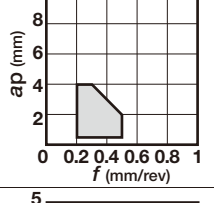
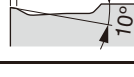
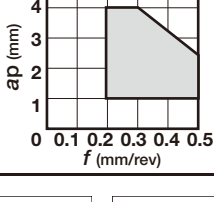
Chipbreaker Overview

Application	Negative type with hole	C	D	F	G	S	T	V	W
									
Finishing	11	80°	55°	45°	70°	90°	60°	35°	80°
									
Finishing for mild steel	17	80°	55°						
									
Boring (double side)	CB	80°	55°						
									
Finishing	A~D	80°							
									
Finishing	W								
									
Medium cutting	TM	80°	55°	45°	70°	90°	60°	35°	80°
									
Medium cutting	PM	80°	55°						
									

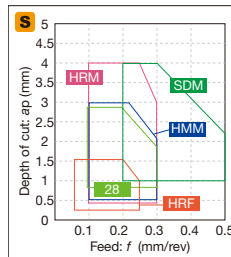
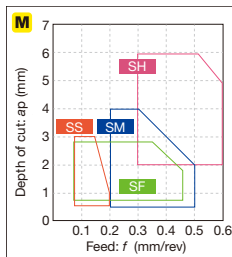
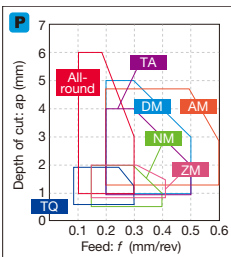
Chip control range



Please see the page B*** for the product details.

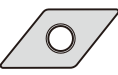
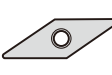
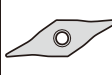
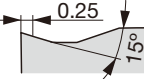
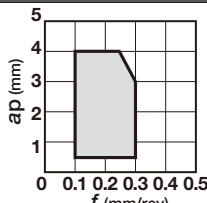
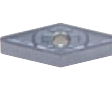
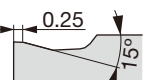
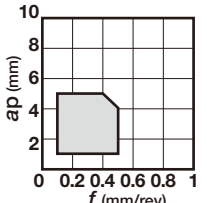
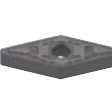
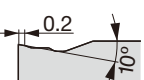
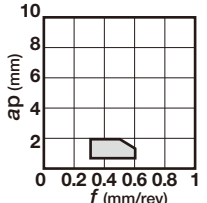
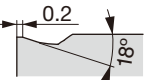
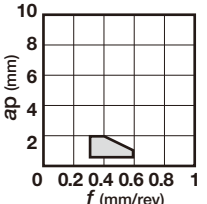
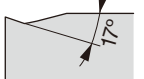
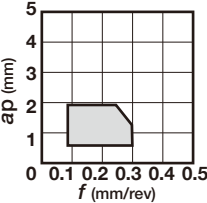
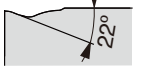
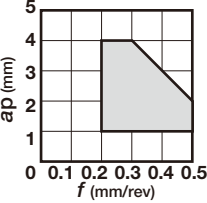
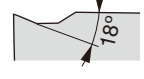
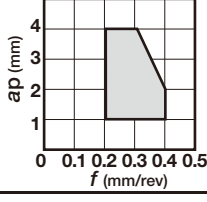
Application	Negative type with hole	C	D	S	T	V	W	Y
		 80°	 55°	 90°	 60°	 35°	 80°	 25°
Medium cutting for mild steel	ZM  	 B057	 B069	 B080	 B091	 B099	 B105	 B110
	AM  	 B058	 B069		 B091		 B106	
	NM  	 B058	 B070		 B091		 B106	
	DM  	 B058	 B070	 B080	 B092	 B100	 B106	
	All-round  	 B058	 B070	 B080	 B092	 B100	 B106	
	SM  	 B059	 B070	 B080	 B092	 B100	 B106	
	SDM  	 B059	 B070	 B080	 B092	 B100	 B106	

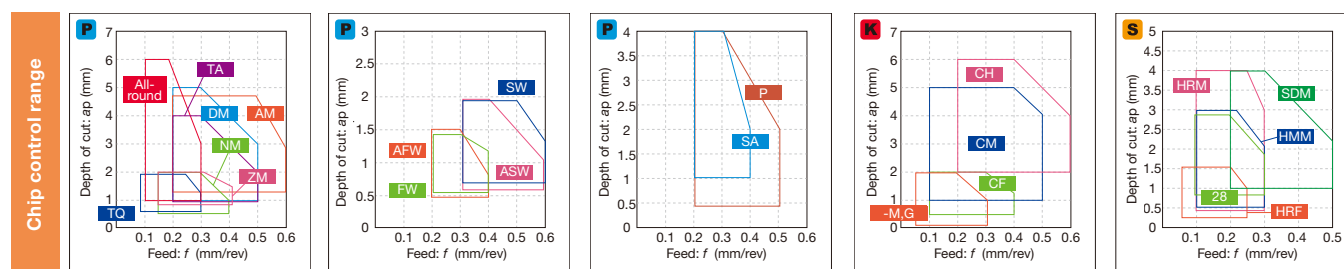
Chip control range

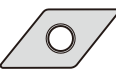
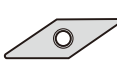
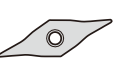
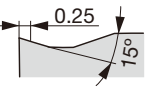
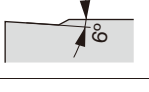
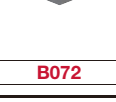


Please see the page B*** for the product details.

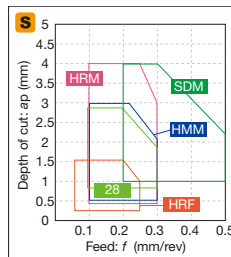
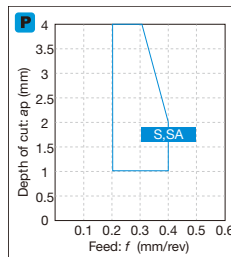
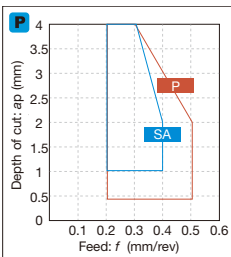
Chipbreaker Overview

Application	Negative type with hole	C	D	S	T	V	W	Y
		 80°	 55°	 90°	 60°	 35°	 80°	 25°
Medium cutting	HRM  	 B059	 B070	 B081	 B092	 B100	 B106	
	CM  	 B059	 B071	 B080	 B092	 B100	 B107	
Medium cutting (wiper)	SW  	 B059	 B071		 B093		 B107	
	ASW  	 B060					 B107	
Medium cutting	TQ  	 B060	 B071		 B093	 B100	 B107	
	TA  	 B060		 B081	 B093		 B107	
	SA  	 B060	 B071	 B081	 B093		 B108	



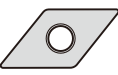
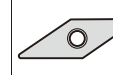
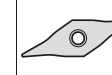
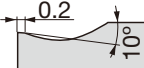
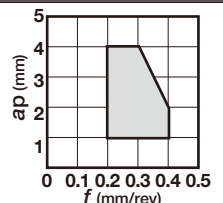
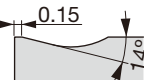
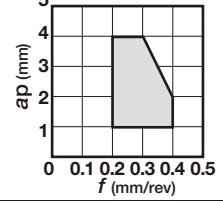
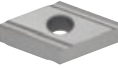
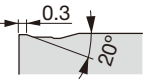
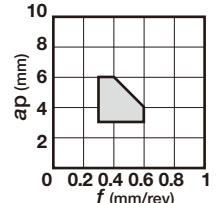
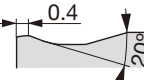
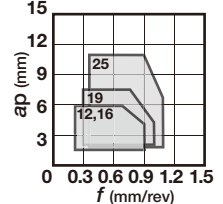
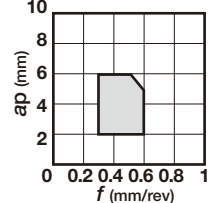
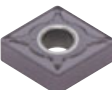
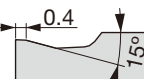
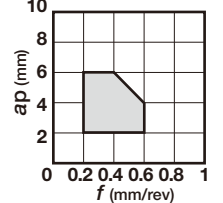
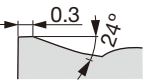
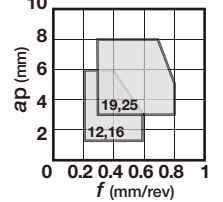
Application	Negative type with hole	C	D	S	T	V	W	Y
		 80°	 55°	 90°	 60°	 35°	 80°	 25°
Medium cutting	HMM  ap (mm) f (mm/rev)	 B060	 B071	 B081	 B093	 B100	 B108	
	P  ap (mm) f (mm/rev)	 B060	 B072	 B081	 B094			
	S  ap (mm) f (mm/rev)	 B060	 B072	 B082	 B094			
	27  ap (mm) f (mm/rev)	 B061	 B072	 B082	 B094		 B108	
	28  ap (mm) f (mm/rev)	 B061	 B072		 B094	 B101		
	33  ap (mm) f (mm/rev)	 B061	 B072	 B082	 B094	 B101	 B108	
	37  ap (mm) f (mm/rev)	 B061	 B072	 B082	 B094		 B108	

Chip control range

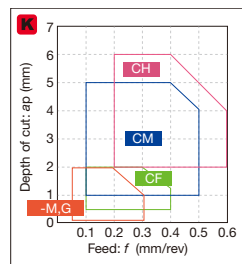
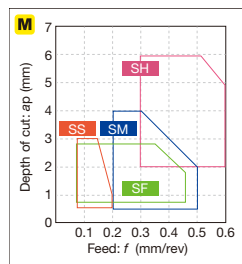
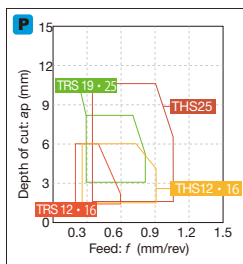
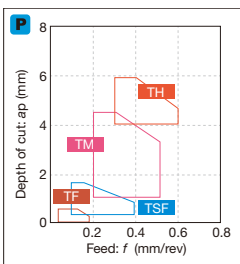


Please see the page B*** for the product details.

Chipbreaker Overview

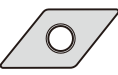
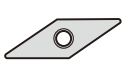
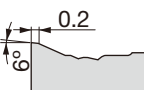
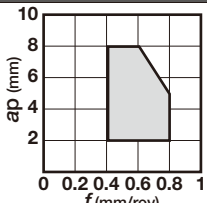
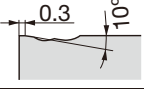
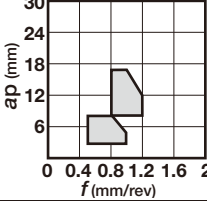
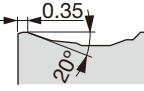
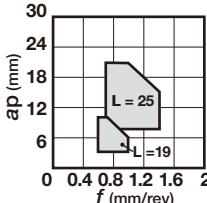
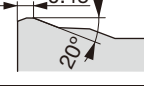
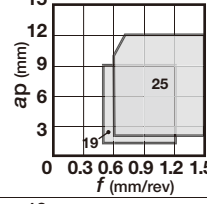
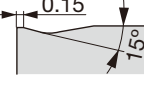
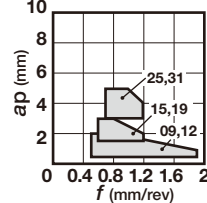
Application	Negative type with hole	C	D	S	T	V	W	Y
		 80°	 55°	 90°	 60°	 35°	 80°	 25°
Medium cutting	38  	 B061	 B072		 B095			
	Parallel  		 B072					
Medium to heavy cutting	TH  	 B061	 B073	 B082	 B095		 B108	
	THS  	 B062	 B073	 B082	 B095		 B108	
	SH  	 B062	 B073	 B083			 B109	
	CH  	 B062	 B073	 B083	 B095		 B109	
	TRS  	 B062		 B083				

Chip control range

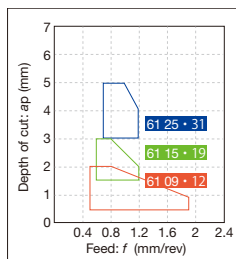
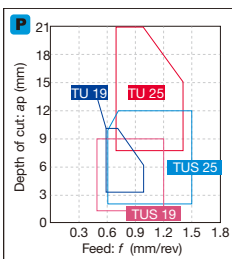


Please see the page B*** for the product details.

*-M,G: Without chipbreaker

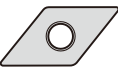
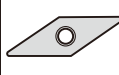
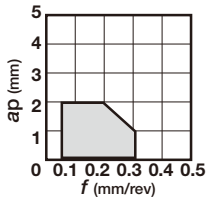
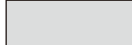
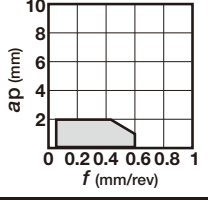
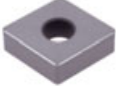
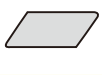
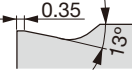
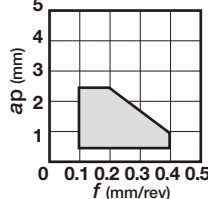
Application	Negative type with hole	C	D	R	S	T	V	W
		 80°	 55°		 90°	 60°	 35°	 80°
Medium to heavy cutting (single side)	57  	 B062	 B073		 B083	 B095		
	65  	 B062			 B083			
Heavy cutting (single side)	TU  	 B063			 B084			
	TUS  	 B063			 B084			
Heavy cutting	61  			 B076				

Chip control range

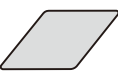
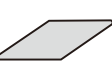
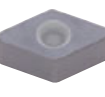
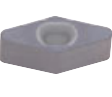
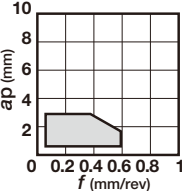
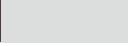
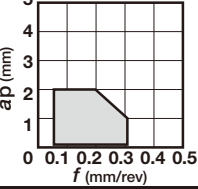


Please see the page B*** for the product details.

Chipbreaker Overview

Application	Negative type with hole	C	D	R	S	T	V	W
		 80°	 55°		 90°	 60°	 35°	 80°
Finishing to medium cutting	M, G-class  	 B063	 B073, B074	 B076	 B084	 B096	 B101	 B109
	Wiper M-class  	 B064						
Application	Negative type without hole	C	D	KNMX	LNGN	R	S	T
		 80°	 55°	 55°	 90°		 90°	 60°
Finishing	S1  			 B110				

Please see the page B*** for the product details.

Application		C	D	H	R	S	T	V
Negative type without hole								
		80°	55°	120°		90°	60°	35°
Finishing to medium cutting	 G-class 							
		B065	B074	B111		B085		B101
Finishing to medium cutting	 M,G-class 							
		B065	B074		B076	B085	B097	

Grade

Insert

Ext. Toolholder

Int. Toolholder

Threading

Grooving

Miniature tool

Milling cutter

Endmill

Drilling tool

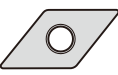
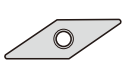
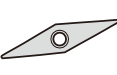
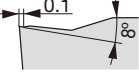
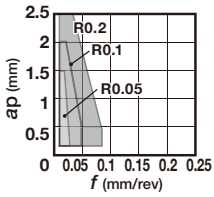
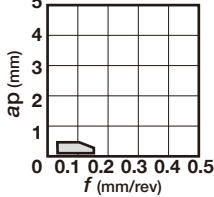
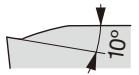
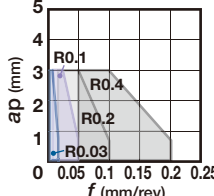
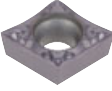
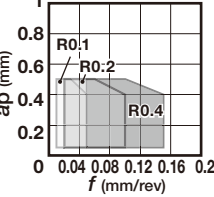
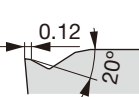
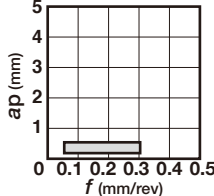
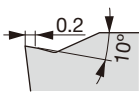
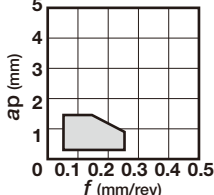
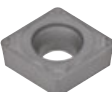
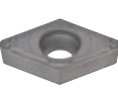
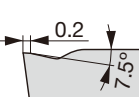
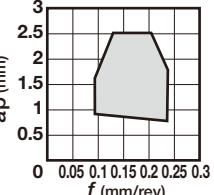
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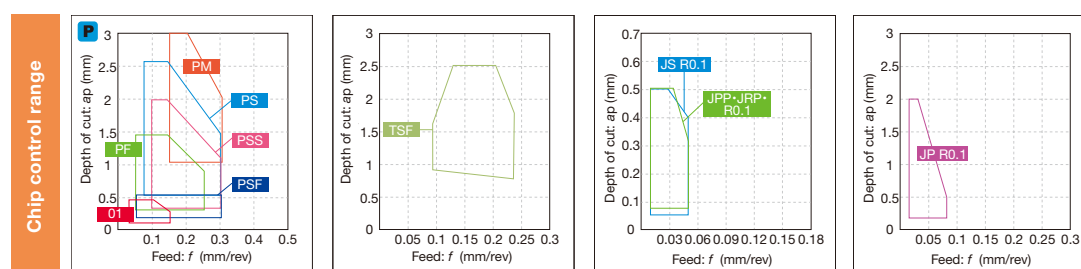
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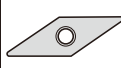
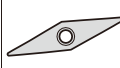
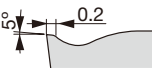
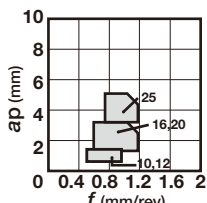
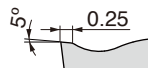
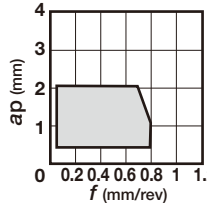
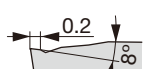
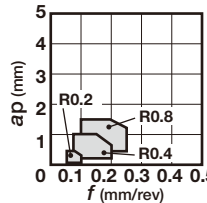
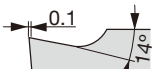
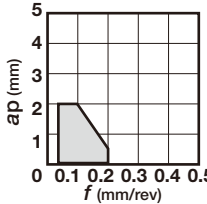
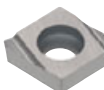
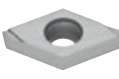
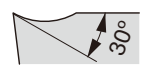
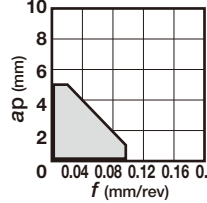
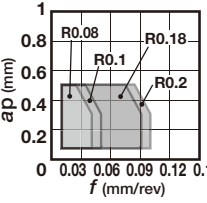
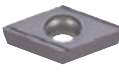
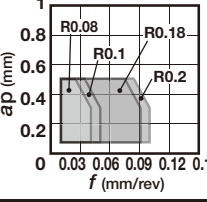
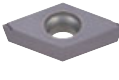


Chipbreaker Overview

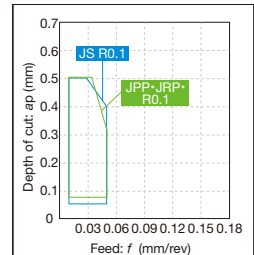
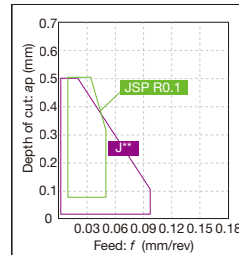
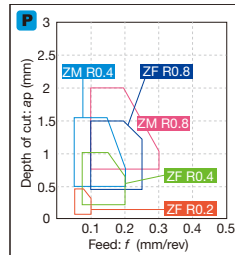
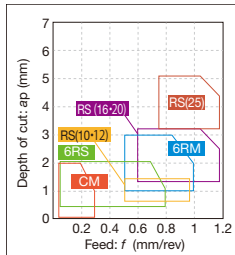
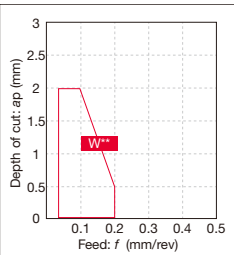
Application	Positive 7° with hole	C	D	R	S	T	V	Y
		 80°	 55°		 90°	 60°	 35°	 25°
Precision finishing (sharp edge)	JP  	 B112	 B121			 B138		
	01  	 B112	 B121			 B138		
Finishing (sharp edge)	JS  	 B112	 B121			 B138		
	JS  	 B112	 B121			 B138		
Finishing	PSF  	 B113	 B121			 B138	 B152	
	PF  	 B113	 B122				 B152	
	TSF  	 B113	 B122			 B138	 B152	



Please see the page B*** for the product details.

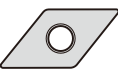
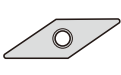
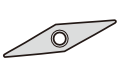
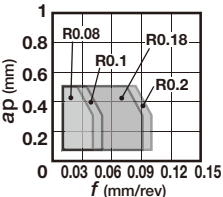
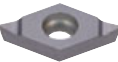
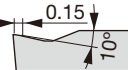
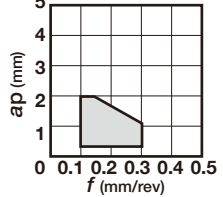
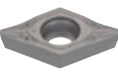
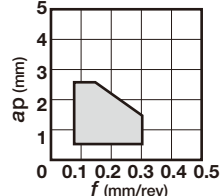
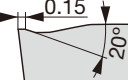
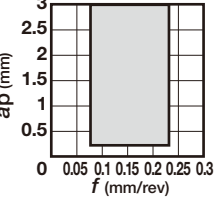
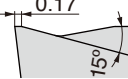
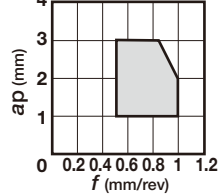
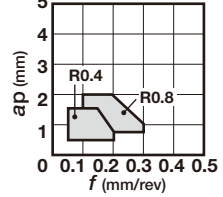
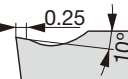
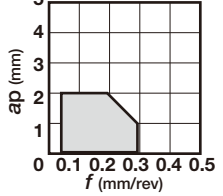
Application	Positive 7° with hole	C	D	R	S	T	V	Y
								
		80°	55°		90°	60°	35°	25°
Finishing	RS  			 B130				
	6RS  			 B130				
	ZF  							 B159
	W**  	 B114, B115	 B122			 B139		
	J**  	 B113	 B122			 B139		
Finishing (sharp edge)	JPP  		 B123					
	JRP  		 B123					

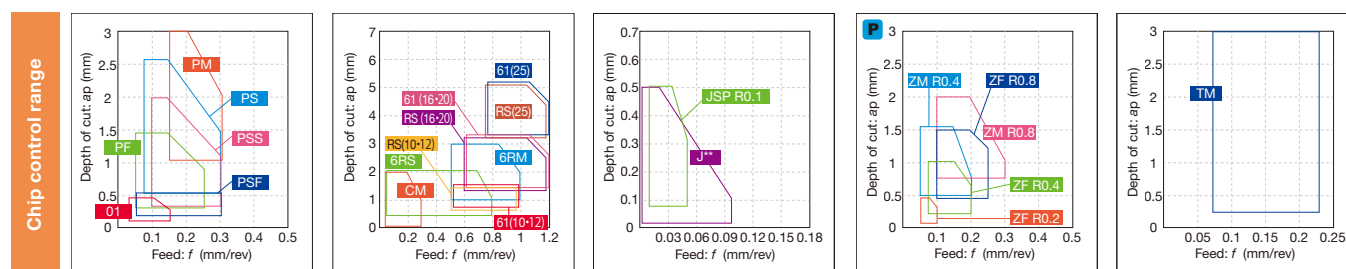
Chip control range



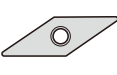
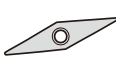
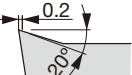
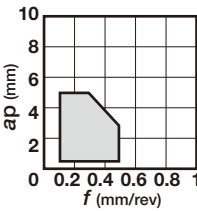
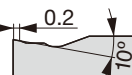
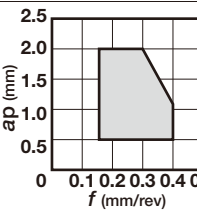
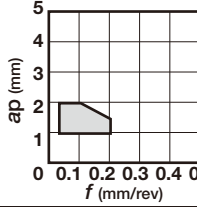
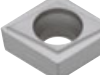
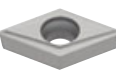
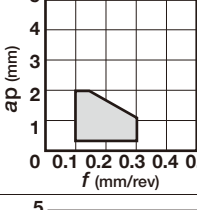
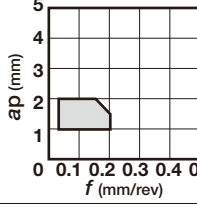
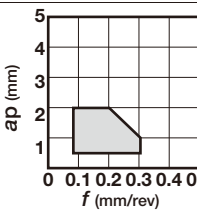
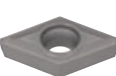
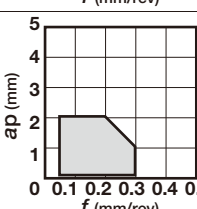
Please see the page B*** for the product details.

Chipbreaker Overview

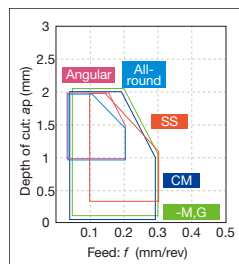
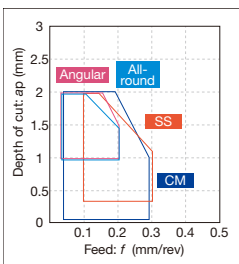
Application	Positive 7° with hole	C	D	R	S	T	V	Y
		 80°	 55°		 90°	 60°	 35°	 25°
Finishing to medium cutting	JSP  		 B123					
	PSS  	 B115	 B124			 B140	 B152	
	PS  	 B115	 B124		 B134	 B140	 B152	
	TM  	 B115	 B124			 B140	 B152	
	6RM  			 B130				
	ZM  							 B159
	CM  	 B115	 B124	 B130	 B134	 B140	 B152	



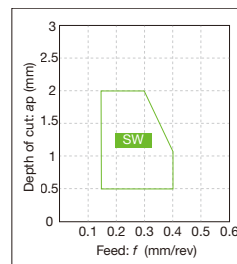
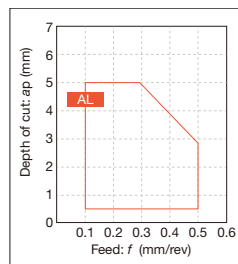
Please see the page B*** for the product details.

Application	Positive 7° with hole	C	D	R	S	T	V	Y
		 80°	 55°		 90°	 60°	 35°	 25°
Finishing to medium cutting (for non-ferrous alloys)	AL  	 B116	 B124	 B130		 B140	 B153	
Finishing to medium cutting (wiper)	SW  	 B116						
Finishing to medium cutting	All-round  	 B116	 B124				 B153	
	SS  					 B140		
	Angular  	 B116	 B124					
	23  	 B116	 B125		 B134	 B140		
	M,G-class  	 B116, B117	 B125					

Chip control range

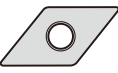
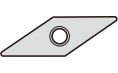
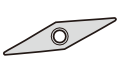
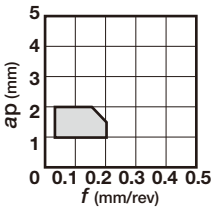
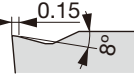
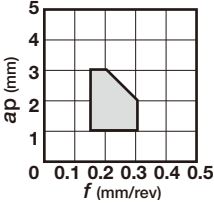
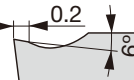
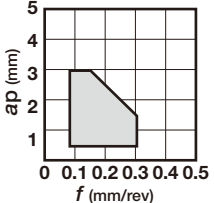
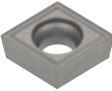
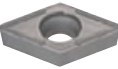
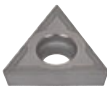
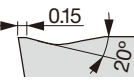
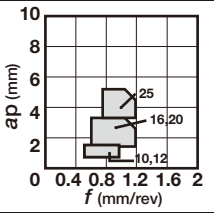


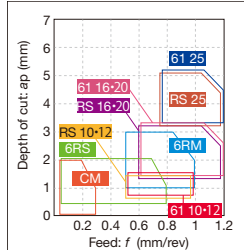
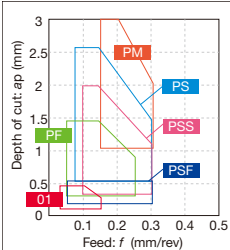
*M,G: Without chipbreaker



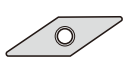
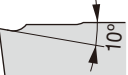
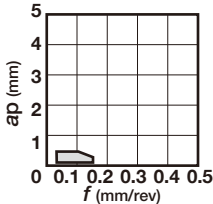
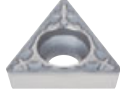
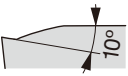
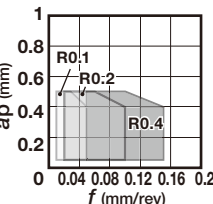
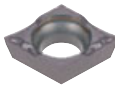
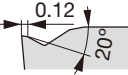
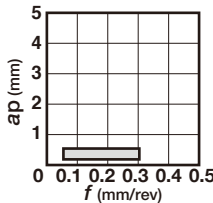
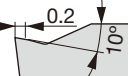
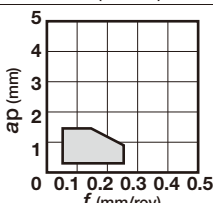
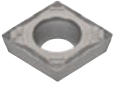
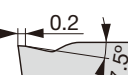
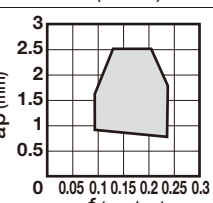
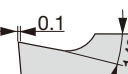
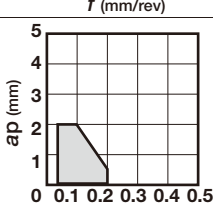
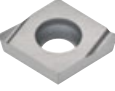
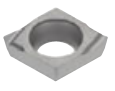
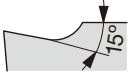
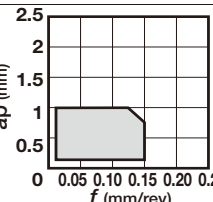
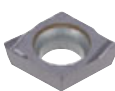
Please see the page B*** for the product details.

Chipbreaker Overview

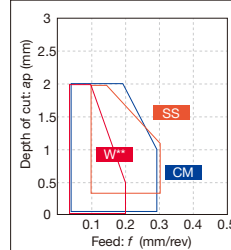
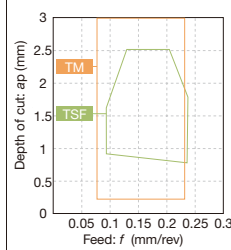
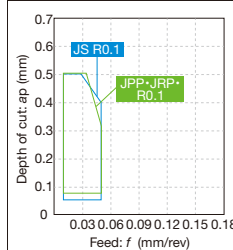
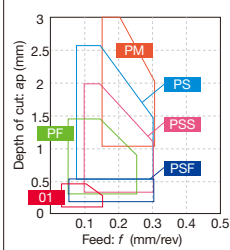
Application	Positive 7° with hole	C	D	R	S	T	V	Y
		 80°	 55°		 90°	 60°	 35°	 25°
Finishing to medium cutting	 					 B141		
	PM  	 B117	 B125		 B134	 B141		
	24  	 B117	 B125		 B134	 B141	 B153	
Heavy cutting	61  			 B131				



Please see the page B*** for the product details.

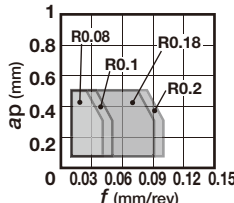
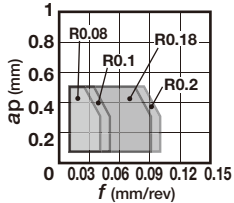
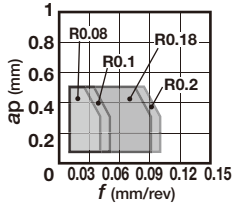
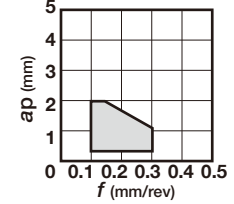
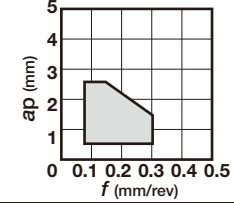
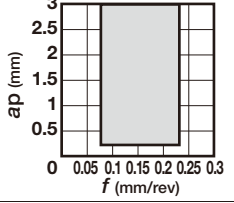
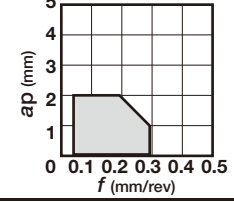
Application	Positive 11° with hole	C	E	S	T	V
		 80°	 75°	 90°	 60°	 35°
Precision finishing	01  				 B142	
	JS  		 B128		 B142	
Finishing	PSF  	 B118			 B142	
	PF  	 B118			 B142	
	TSF  	 B118			 B143	
	W**  	 B118	 B129	 B135	 B143, B144	
	J08  		 B128			

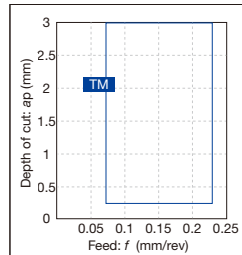
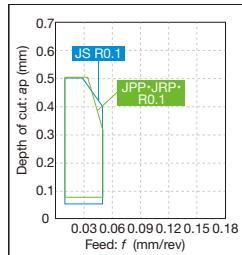
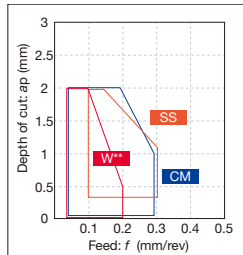
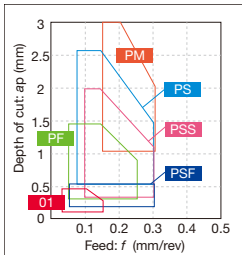
Chip control range



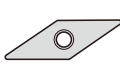
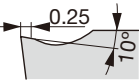
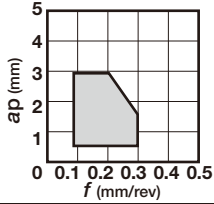
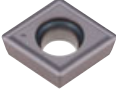
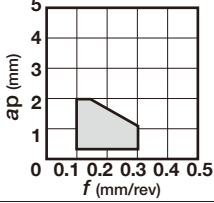
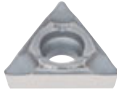
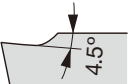
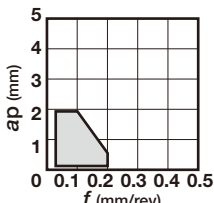
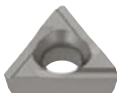
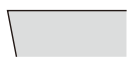
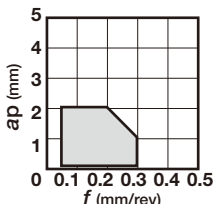
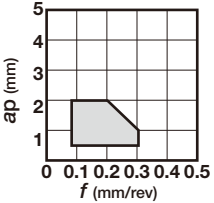
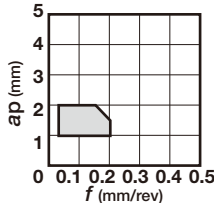
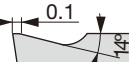
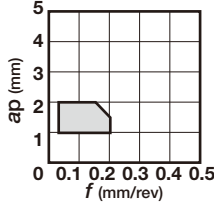
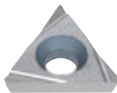
Please see the page B*** for the product details.

Chipbreaker Overview

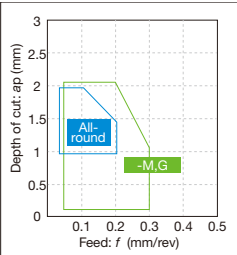
Application	Positive 11° with hole	C	D	S	T	V
		80°	55°	90°	60°	35°
Finishing (sharp edge)	JPP  					 B154
	JRP  					 B154
	JSP  					 B154
Finishing to medium cutting	PSS  	 B118			 B145	
	PS  	 B119	 B126	 B135	 B145	
	TM  	 B119			 B145	
	CM  	 B119		 B135	 B146	



Please see the page B*** for the product details.

Application	Positive 11° with hole	C	S	T	V
		 80°	 90°	 60°	 35°
Finishing to medium cutting	All-round  	 B119			
	SS  			 B144	
	H**  			 B146	
	M,G-class  	 B120	 B138	 B147	
	23  		 B135	 B146	
	 		 (Tungaloy standard hole specification) ISO non-compliant B136		
	 			 (Tungaloy standard hole specification) ISO non-compliant B146	

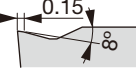
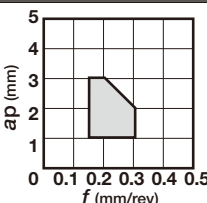
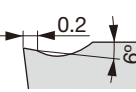
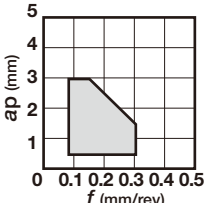
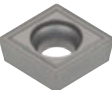
Chip control range

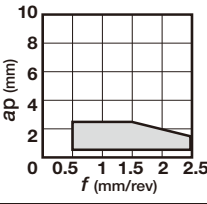


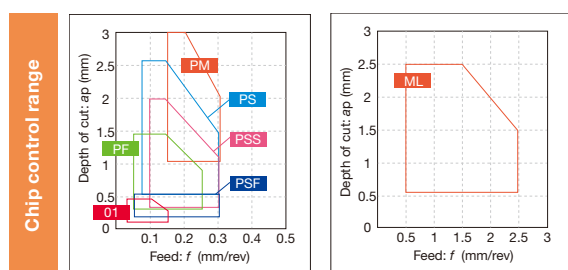
*M,G: Without chipbreaker

Please see the page B*** for the product details.

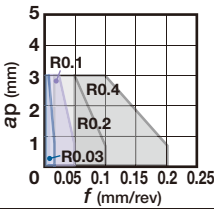
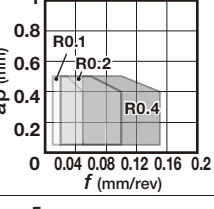
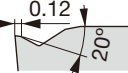
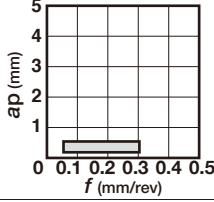
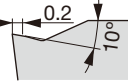
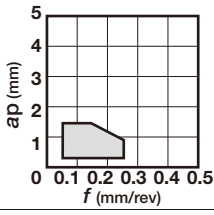
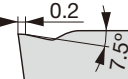
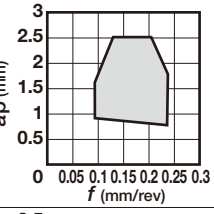
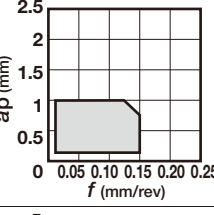
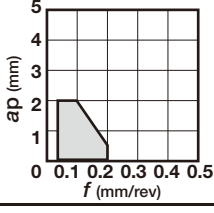
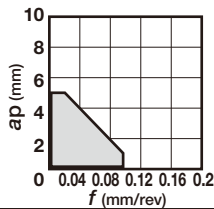
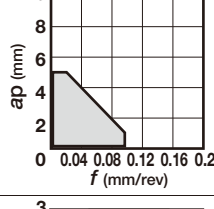
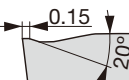
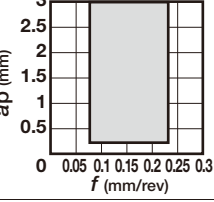
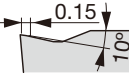
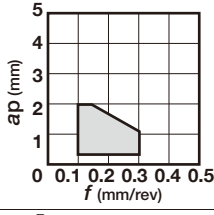
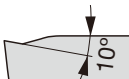
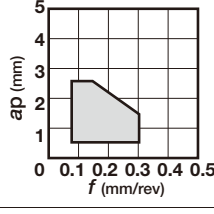
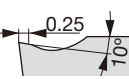
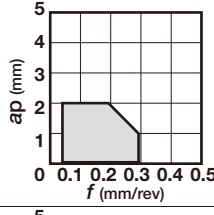
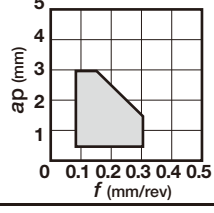
Chipbreaker Overview

Application	Positive 11° with hole	C	T
		80°	60°
Medium cutting	PM  	 B120	 B147
	24  	 B120	 B147

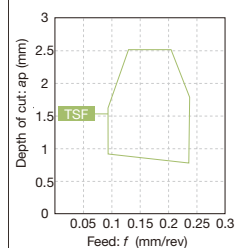
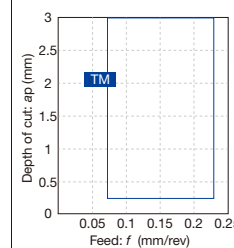
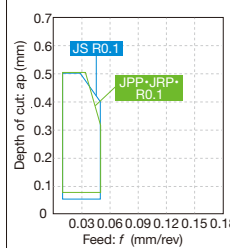
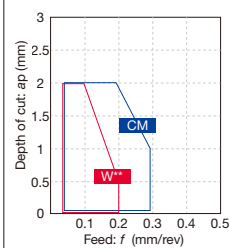
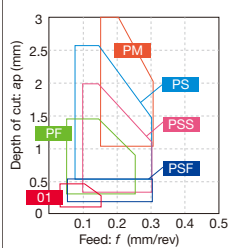
Application	Positive 11° with hole	W
		80°
Heavy cutting	ML  	 B155



Please see the **page B***** for the product details.

Application		V	W
Positive 5° with hole		35°	80°
Finishing (sharp edge)	JS  	 B150	
	JS  		 B156
Finishing	PSF  	 B150	
	PF  	 B150	
	TSF  	 B150	
	W08  		 B156
	W11  		 B156
Application		V	W
Positive 5° with hole		35°	80°
Finishing (sharp edge)	J10  	 B150	
Finishing	J10  	 B150	
Finishing to medium cutting	TM  	 B151	
	PSS  	 B151	
	PS  	 B151	
	CM  	 B151	
	24  	 B151	

Chip control range



Please see the page B*** for the product details.

Chipbreaker Overview

Application	Positive type with hole	JXF
Front turning	Graph: ap (mm) vs f (mm/rev). The graph shows a constant ap of 6 mm for f from 0 to 0.08 mm/rev, then a linear decrease to 0 at $f = 0.2$ mm/rev.	B159

Application	Positive type with hole	J10E
Back turning	Graph: ap (mm) vs f (mm/rev). The graph shows a constant ap of 4 mm for f from 0 to 0.08 mm/rev, then a linear decrease to 0 at $f = 0.2$ mm/rev.	B161

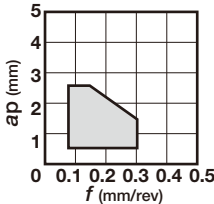
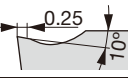
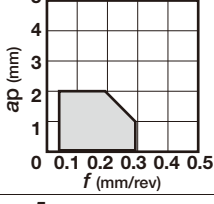
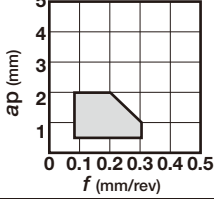
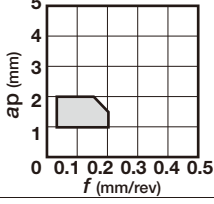
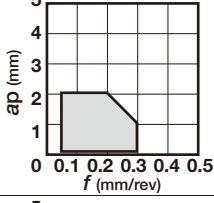
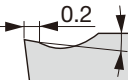
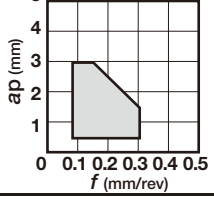
Application	Positive type with hole	JXB
Back turning	Graph: ap (mm) vs f (mm/rev). The graph shows a constant ap of 6 mm for f from 0 to 0.08 mm/rev, then a linear decrease to 0 at $f = 0.2$ mm/rev.	B160

Application	Positive type with hole	JXR
Reverse turning	Graph: ap (mm) vs f (mm/rev). The graph shows a constant ap of 6 mm for f from 0 to 0.08 mm/rev, then a linear decrease to 0 at $f = 0.2$ mm/rev.	B160

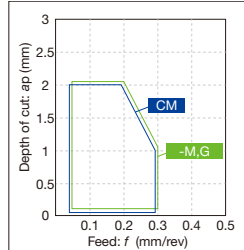
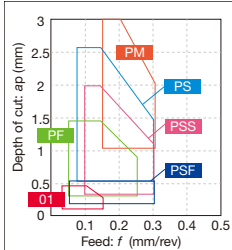
Application	Positive type with hole	JTB
Back turning	Graph: ap (mm) vs f (mm/rev). The graph shows a constant ap of 2.5 mm for f from 0 to 0.08 mm/rev, then a linear decrease to 0 at $f = 0.2$ mm/rev.	B161

Application	Round	RT
Medium cutting	Graph: ap (mm) vs f (mm/rev). The graph shows a constant ap of 2 mm for f from 0 to 0.2 mm/rev, then a linear decrease to 0 at $f = 1$ mm/rev.	B131

Special round insert

Application	Positive 11° without hole	R	S	T
			 90°	 60°
Finishing to medium cutting	PS  			 B148
	CM  		 B137	 B148
	23  		 B137	 B148
	 (with hand)  		 B137	 B148
	 M,G-class 		 B137	 B148, B149
Medium cutting	24  			 B149

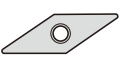
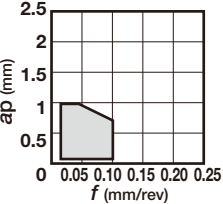
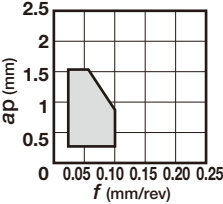
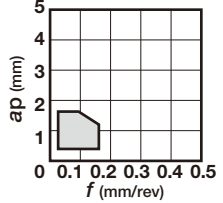
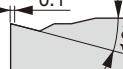
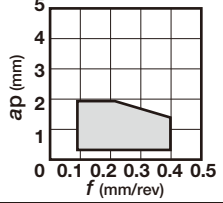
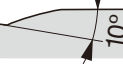
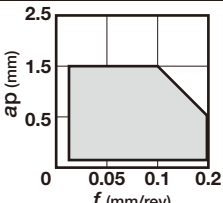
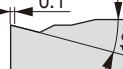
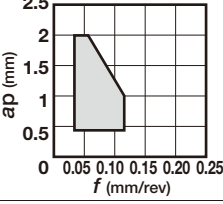
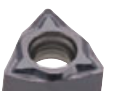
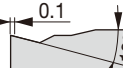
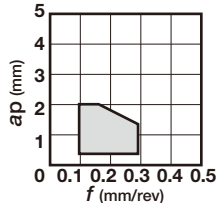
Chip control range

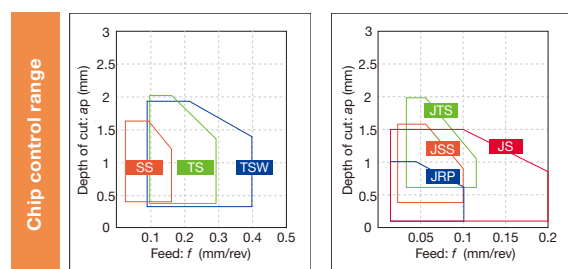


*M,G: Without chipbreaker

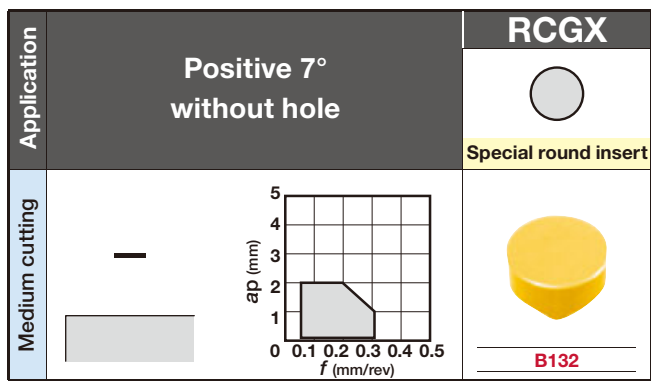
Please see the page B*** for the product details.

Chipbreaker Overview

Application	Double-sided positive type with hole	D	V	W
		 55°	 35°	 80°
Finishing (sharp edge)	JRP  	 B126	 B155	
	JSS  	 B126		 B157
Finishing to medium cutting	SS  	 B126		 B157
Finishing	TSW  			 B157
Finishing to medium cutting (sharp edge)	JS  	 B127	 B155	 B157
	JTS  	 B127		 B158
Finishing to medium cutting	TS  	 B127		 B158



Please see the page B*** for the product details.



Grade

A

Insert

B

Ext. Toolholder

C

Int. Toolholder

D

Threading

E

Grooving

F

Miniature tool

G

Milling cutter

H

Endmill

I

Drilling tool

J

Tooling System

K

User's Guide

L

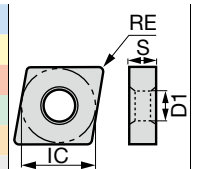
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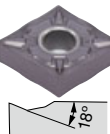
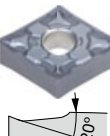
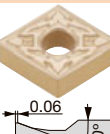
M

- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊗ : Heavy interrupted cutting

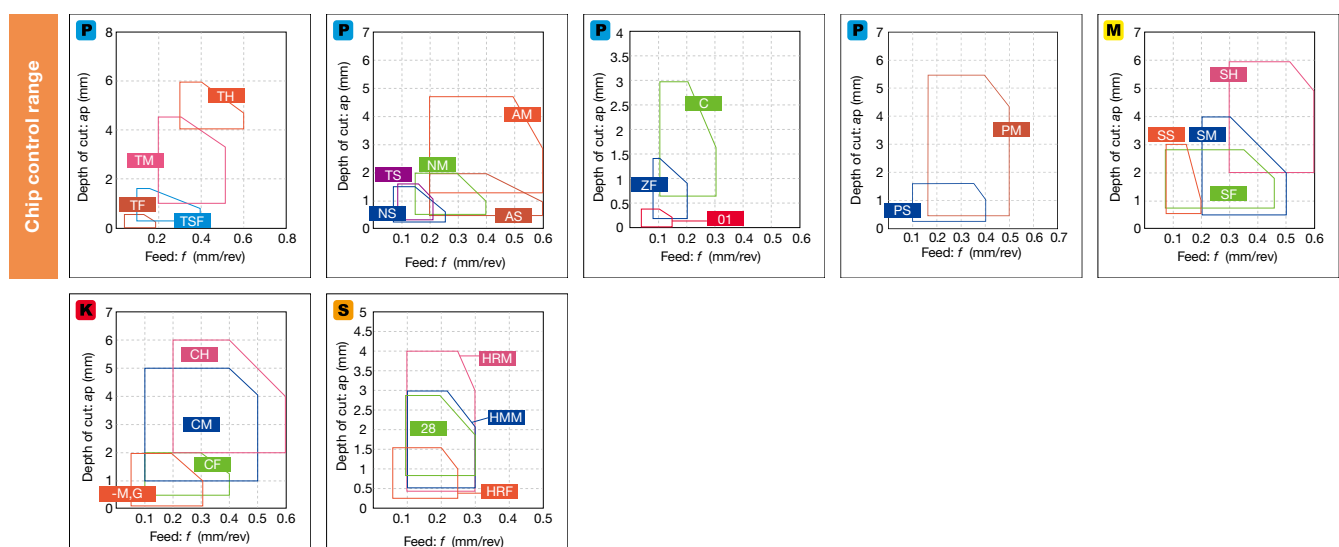


**Rhombic, 80°
with hole**

[illegible]

Application	Chipbreaker	Designation	Coated								Dimension (mm)					
			T6215	T5105	T5115	AH8005	AH8015	AH6225	AH6235	AH120	GH330	RE	IC	S	D1	
Finishing		SF CNMG090304-SF	●					●					0.4	9.525	3.18	3.81
		CNMG090308-SF	●					●					0.8	9.525	3.18	3.81
		CNMG120404-SF	●					●					0.4	12.7	4.76	5.16
		CNMG120408-SF	●					●					0.8	12.7	4.76	5.16
		CNMG120412-SF	●					●					1.2	12.7	4.76	5.16
		SS CNMG090404E-SS						●	●				0.4	9.525	4.76	3.81
		CNMG090408E-SS						●	●				0.8	9.525	4.76	3.81
		CNMG120404-SS	●					●	●	●	●		0.4	12.7	4.76	5.16
		CNMG120408-SS	●					●	●	●	●		0.8	12.7	4.76	5.16
		CNMG120412-SS	●					●	●		●		1.2	12.7	4.76	5.16
		HRF CNMG120404-HRF					●	●					0.4	12.7	4.76	5.16
		CNMG120408-HRF					●	●					0.8	12.7	4.76	5.16
		CNMG120412-HRF					●	●					1.2	12.7	4.76	5.16
		CF CNMG120404-CF		●	●								0.4	12.7	4.76	5.16
		CNMG120408-CF		●	●								0.8	12.7	4.76	5.16
CNMG120412-CF			●	●								1.2	12.7	4.76	5.16	

● : Line up

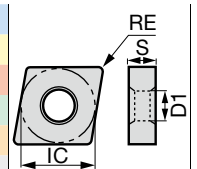


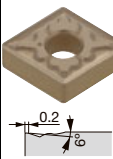
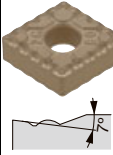
*-M.G: Without chipbreaker

Reference pages: External toolholder → **C015 -** Internal toolholder → **D025 -**
 J-Series toolholder → **G050** TungCap → **K008 -**
 PINZBOHR® → **K178 -** Cartridge → **K181 -**

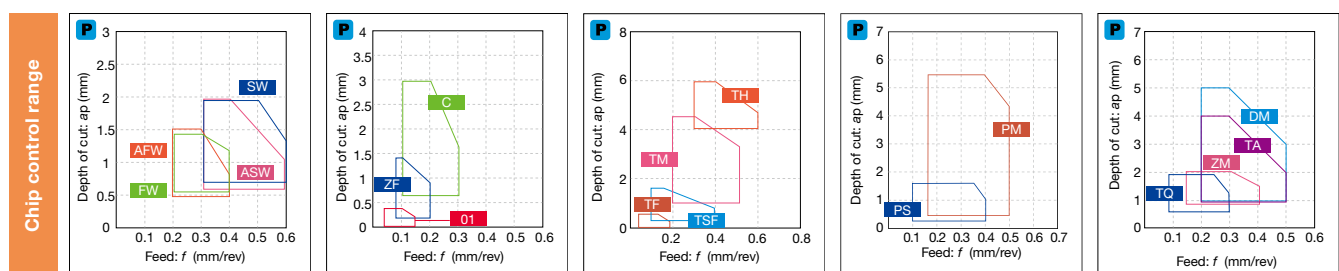
- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊗ : Heavy interrupted cutting

**Rhombic, 80°
with hole**

[illegible]

Application	Chipbreaker	Designation	Coated												Coated cermet	Cermet		Dimension (mm)						
			T9205	T9215	T9225	T9235	T6215	T515	AH8015	AH6225	AH6235	AH725	AH110	AH120	GT9530	NS9530					RE	IC	S	D1
Medium cutting		TM	CNMG090304-TM		●	●														0.4	9.525	3.18	3.81	
			CNMG090308-TM		●	●	●														0.8	9.525	3.18	3.81
			CNMG090404E-TM		●	●		●	●	●	●			●							0.4	9.525	4.76	3.81
			CNMG090408E-TM		●	●		●	●	●	●			●							0.8	9.525	4.76	3.81
			CNMG090412E-TM		●	●		●	●	●	●			●							1.2	9.525	4.76	3.81
			CNMG120404-TM	●	●	●	●	●	●	●	●			●							0.4	12.7	4.76	5.16
			CNMG120408-TM	●	●	●	●	●	●	●	●	●		●							0.8	12.7	4.76	5.16
			CNMG120412-TM	●	●	●	●	●	●	●	●		●	●							1.2	12.7	4.76	5.16
			CNMG120416-TM		●	●	●	●	●	●	●			●							1.6	12.7	4.76	5.16
			CNMG160608-TM		●																0.8	15.875	6.35	6.35
			CNMG160612-TM	●	●	●	●							●							1.2	15.875	6.35	6.35
			CNMG190608-TM	●	●	●	●							●							0.8	19.05	6.35	7.93
		CNMG190612-TM	●	●	●	●							●							1.2	19.05	6.35	7.93	
Medium cutting for mild steel		PM	CNMG090404E-PM		●	●		●		●	●									0.4	9.525	4.76	3.81	
			CNMG090408E-PM		●	●		●		●	●										0.8	9.525	4.76	3.81
			CNMG090412E-PM		●	●		●		●	●										1.2	9.525	4.76	3.81
			CNMG120404-PM		●	●		●		●	●										0.4	12.7	4.76	5.16
			CNMG120408-PM		●	●		●		●	●										0.8	12.7	4.76	5.16
			CNMG120412-PM		●	●		●		●	●										1.2	12.7	4.76	5.16
			CNMG120416-PM		●	●		●		●	●										1.6	12.7	4.76	5.16

● : Line up

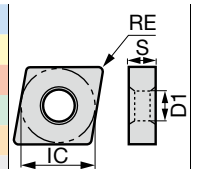


Reference pages: External toolholder → **C015 -** Internal toolholder → **D025 -**
 J-Series toolholder → **G050** TungCap → **K008 -**
 PINZBOHR® → **K178 -** Cartridge → **K181 -**

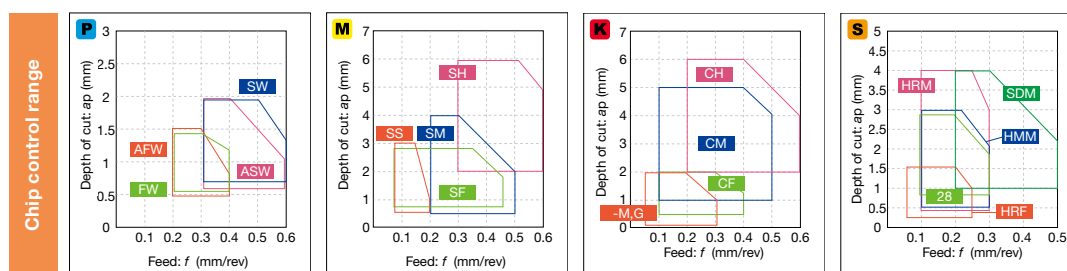
- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊗ : Heavy interrupted cutting



**Rhombic, 80°
with hole**

[illegible]

* Please see **L011 - L015** about the adjustment of the machining program for rounding or taper machining by using SW/FW. ● : Line up
Please contact our sales representatives if you have any question.

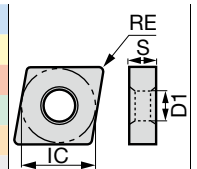


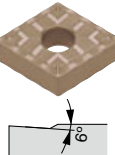
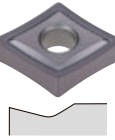
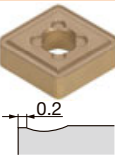
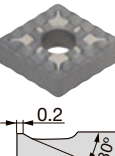
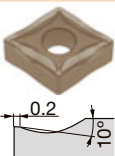
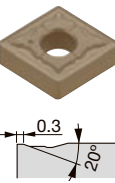
Reference pages: External toolholder → **C015 -** Internal toolholder → **D025 -**
 J-Series toolholder → **G050** TungCap → **K008 -**
 PINZBOHR® → **K178 -** Cartridge → **K181 -**

Index	User's Guide	Tooling System	Drilling tool	Endmill	Milling cutter	Miniature tool	Grooving	Threading	Int. toolholder	Ext. toolholder	Insert	Grade
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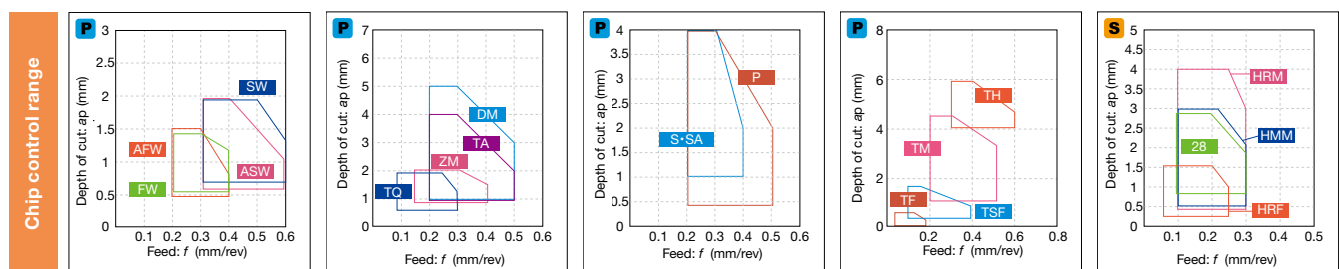
- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊗ : Heavy interrupted cutting

**Rhombic, 80°
with hole**

[illegible]

Application	Chipbreaker	Designation	Coated										Coated cermet		Cermet	Uncoated	Dimension (mm)							
			T9205	T9215	T9225	T9235	T515	AH8005	AH8015	AH6225	AH725	AH110	AH120	GH330	GT720		NS9530		KS05F TH10	RE	IC	S	D1	
Medium cutting		27 CNMG120404-27		●	●												●			0.4	12.7	4.76	5.16	
		CNMG120408-27		●	●	●												●			0.8	12.7	4.76	5.16
		CNMG120412-27			●																1.2	12.7	4.76	5.16
		28 CNMG120404-28			●			●	●		●	●							●	0.4	12.7	4.76	5.16	
		CNMG120408-28						●	●		●	●							●	0.8	12.7	4.76	5.16	
		CNMG120412-28						●	●											1.2	12.7	4.76	5.16	
		CNGG120402-28																	●	0.2	12.7	4.76	5.16	
		CNGG120404-28																	●	0.4	12.7	4.76	5.16	
		CNGG120408-28																	●	0.8	12.7	4.76	5.16	
		33 CNMG120408-33									●				●					0.8	12.7	4.76	5.16	
		CNMG120416-33		●																1.6	12.7	4.76	5.16	
CNMG160612-33			●																1.2	15.875	6.35	6.35		
CNMG190612-33			●																1.2	19.05	6.35	7.93		
	37 CNMG120404-37		●													●			0.4	12.7	4.76	5.16		
	CNMG120408-37		●	●								●				●		●	0.8	12.7	4.76	5.16		
	CNMG120412-37		●																1.2	12.7	4.76	5.16		
	38 CNMG120404-38											●							0.4	12.7	4.76	5.16		
	CNMG120408-38		●						●		●								0.8	12.7	4.76	5.16		
Medium to heavy cutting		TH CNMG120408-TH	●	●	●	●	●		●	●		●							0.8	12.7	4.76	5.16		
		CNMG120412-TH	●	●	●	●	●		●	●		●								1.2	12.7	4.76	5.16	
		CNMG120416-TH	●	●	●	●	●		●			●								1.6	12.7	4.76	5.16	
		CNMG160612-TH	●	●	●	●					●									1.2	15.875	6.35	6.35	
		CNMG160616-TH	●	●	●	●					●									1.6	15.875	6.35	6.35	
		CNMG190612-TH	●	●	●	●					●									1.2	19.05	6.35	7.93	
		CNMG190616-TH	●	●	●	●					●									1.6	19.05	6.35	7.93	

● : Line up

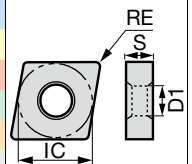


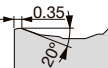
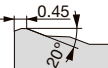
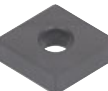
Reference pages: External toolholder → **C015 -** Internal toolholder → **D025 -**
 J-Series toolholder → **G050** TungCap → **K008 -**
 PINZBOHR® → **K178 -** Cartridge → **K181 -**

- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊗ : Heavy interrupted cutting

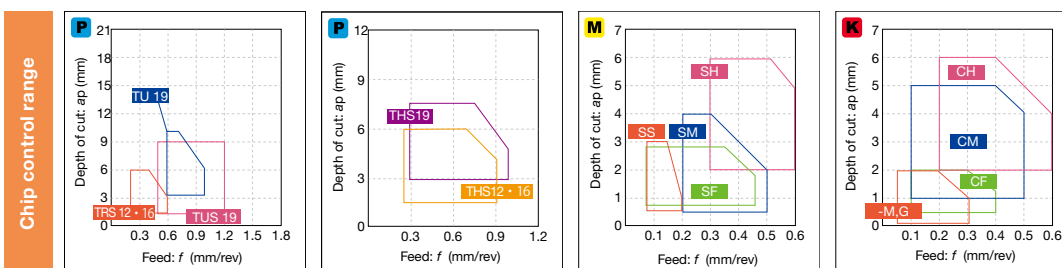


**Rhombic, 80°
with hole**

[illegible]

Application	Chipbreaker	Designation	Coated					Cermet	Uncoated	Ceramic	Dimension (mm)									
			T9205	T9215	T9225	T9235	T505	T515	T5105	T5115	T5125	NS520	TH10	FX105	RE	IC	S	D1		
Medium to heavy cutting (single side)		TU CNMM190612-TU			●	●									1.2	19.05	6.35	7.93		
		CNMM190616-TU			●	●										1.6	19.05	6.35	7.93	
		CNMM190624-TU		●	●	●											2.4	19.05	6.35	7.93
		CNMM250924-TU			●	●											2.4	25.4	9.52	9.12
		TUS CNMM190608-TUS		●	●											0.8	19.05	6.35	7.93	
		CNMM190612-TUS		●	●	●											1.2	19.05	6.35	7.93
		CNMM190616-TUS		●	●	●											1.6	19.05	6.35	7.93
		CNMM190624-TUS		●	●	●											2.4	19.05	6.35	7.93
		CNMM190632-TUS		●	●												3.2	19.05	6.35	7.93
		CNMM250916-TUS		●	●	●											1.6	25.4	9.52	9.12
		CNMM250924-TUS		●	●	●											2.4	25.4	9.52	9.12
		CNMM250932-TUS		●	●												3.2	25.4	9.52	9.12
	Finishing to medium cutting		- CNMA090404E					●									0.4	9.525	4.76	3.81
			CNMA090408E					●										0.8	9.525	4.76
CNMA090412E							●										1.2	9.525	4.76	3.81
CNMA090416E							●										1.6	9.525	4.76	3.81
CNMA120404								●	●	●			●				0.4	12.7	4.76	5.16
CNMA120408			●			●	●	●	●	●	●	●		●			0.8	12.7	4.76	5.16
CNMA120412			●			●	●	●	●	●	●		●	●			1.2	12.7	4.76	5.16
CNMA120416			●					●	●	●	●		●	●			1.6	12.7	4.76	5.16
CNMA160608								●		●							0.8	15.875	6.35	6.35
CNMA160612							●	●	●	●							1.2	15.875	6.35	6.35
CNMA160616							●										1.6	15.875	6.35	6.35
CNMA190612						●		●	●								1.2	19.05	6.35	7.93
CNMA190616						●			●								1.6	19.05	6.35	7.93

● : Line up



*-M,G: Without chipbreaker

Reference pages: External toolholder → **C015 -**
J-Series toolholder → **G050**
PINZBOHR® → **K178 -**

Internal toolholder → **D025 -**
TungCap → **K008 -**
Cartridge → **K181 -**

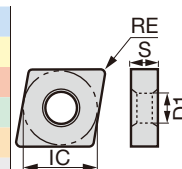
Insert **NEGATIVE TYPE**

● : Continuous cutting
 ● : Light interrupted cutting
 ✱ : Heavy interrupted cutting

CN

**Rhombic, 80°
with hole**

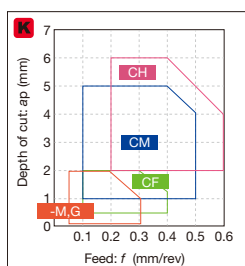
P	Steel
M	Stainless
K	Cast iron
N	Non-ferrous
S	Superalloy
H	Hard material



Application	Chipbreaker	Designation	Cermet		Ceramic						Dimension (mm)			
			NS520		TZ120	FX105	CX710	LX10	LX11	LX21	RE	IC	S	D1
Finishing to medium cutting	Wiper	CNMA120408W				●					0.8	12.7	4.76	5.16
		CNMA120412W				●					1.2	12.7	4.76	5.16
		CNMA120416W				●					1.6	12.7	4.76	5.16
	-	CNGA120404						●	●	●	0.4	12.7	4.76	5.16
		CNGA120408	●		●	●	●	●	●	●	0.8	12.7	4.76	5.16
		CNGA120412				●		●	●	●	1.2	12.7	4.76	5.16
		CNGA120416				●		●	●		1.6	12.7	4.76	5.16
		CNGA120420						●	●		2	12.7	4.76	5.16

● : Line up

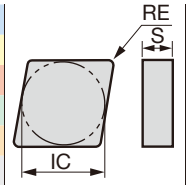
Chip control range



*-M,G: Without chipbreaker

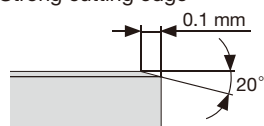
Reference pages: External toolholder → **C015 -** Internal toolholder → **D025 -**
 J-Series toolholder → **G050** TungCap → **K008 -**
 PINZBOHR® → **K178 -** Cartridge → **K181 -**

- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊗ : Heavy interrupted cutting

 Rhombic, 80°
without hole[illegible]

● : Line up

R0.03 mm



Reference pages: CNGD...: External toolholder → C020

index

DN



Rhombic, 55° with hole

P

Steel

M

Stainless

K

Cast iron

N

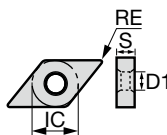
Non-ferrous

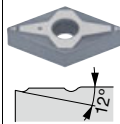
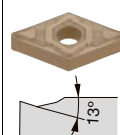
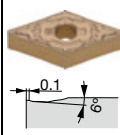
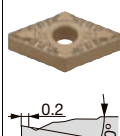
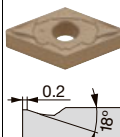
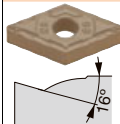
S

Superalloy

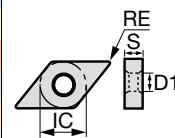
H

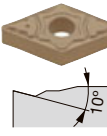
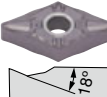
Hard material



Application	Chipbreaker	Designation	Coated							Coated cermet		Cermet	Uncoated	Dimension (mm)					
			T9205	T9215	T9225	T9235	T6215	T515	AH8015	AH6225	AH120	GT9530	AT9530	NS9530	TH10	RE	IC	S	D1
Finishing	TF 	DNMG110402E-TF	●	●		●		●	●	●				●		0.2	9.525	4.76	3.81
		DNMG110404E-TF	●	●		●		●	●	●				●		0.4	9.525	4.76	3.81
		DNMG110408E-TF	●	●		●		●	●	●				●		0.8	9.525	4.76	3.81
		DNMG150402-TF	●	●		●		●	●	●				●		0.2	12.7	4.76	5.16
		DNMG150404-TF	●	●		●		●	●	●				●	●	0.4	12.7	4.76	5.16
		DNMG150408-TF	●	●		●		●	●	●				●		0.8	12.7	4.76	5.16
	TSF 	DNMG110402E-TSF	●	●		●		●	●	●		●	●	●		0.2	9.525	4.76	3.81
		DNMG110404E-TSF	●	●	●	●		●	●	●		●	●	●		0.4	9.525	4.76	3.81
		DNMG110408E-TSF	●	●	●	●		●	●	●		●	●	●		0.8	9.525	4.76	3.81
		DNMG110412E-TSF	●	●				●		●		●	●	●		1.2	9.525	4.76	3.81
		DNMG150402-TSF	●	●		●		●	●	●				●		0.2	12.7	4.76	5.16
		DNMG150404-TSF	●	●	●	●	●	●	●	●		●	●	●		0.4	12.7	4.76	5.16
		DNMG150408-TSF	●	●	●	●	●	●	●	●		●	●	●		0.8	12.7	4.76	5.16
		DNMG150412-TSF	●	●	●	●	●	●	●	●				●		1.2	12.7	4.76	5.16
		DNMG150602-TSF		●	●			●	●	●				●		0.2	12.7	6.35	5.16
		DNMG150604-TSF		●	●			●	●	●		●	●	●		0.4	12.7	6.35	5.16
		DNMG150608-TSF	●	●	●	●		●	●	●		●	●	●		0.8	12.7	6.35	5.16
		DNMG150612-TSF	●	●	●	●		●	●	●				●		1.2	12.7	6.35	5.16
	PS 	DNMG110402E-PS	●	●		●		●	●	●				●		0.2	9.525	4.76	3.81
		DNMG110404E-PS	●	●		●		●	●	●				●		0.4	9.525	4.76	3.81
		DNMG110408E-PS	●	●		●		●	●	●				●		0.8	9.525	4.76	3.81
		DNMG150402-PS	●	●		●		●	●	●				●		0.2	12.7	4.76	5.16
		DNMG150404-PS	●	●		●		●	●	●				●		0.4	12.7	4.76	5.16
		DNMG150408-PS	●	●		●		●	●	●				●		0.8	12.7	4.76	5.16
		DNMG150412-PS	●	●		●		●	●	●				●		1.2	12.7	4.76	5.16
		DNMG150602-PS	●	●		●		●	●	●				●		0.2	12.7	6.35	5.16
		DNMG150604-PS	●	●		●		●	●	●				●		0.4	12.7	6.35	5.16
		DNMG150608-PS	●	●		●		●	●	●				●		0.8	12.7	6.35	5.16
		DNMG150612-PS	●	●		●		●	●	●				●		1.2	12.7	6.35	5.16
Finishing for mild steel	ZF 	DNMG110402E-ZF	●	●		●		●	●	●				●		0.2	9.525	4.76	3.81
		DNMG110404E-ZF	●	●		●		●	●	●				●		0.4	9.525	4.76	3.81
		DNMG110408E-ZF	●	●		●		●	●	●				●		0.8	9.525	4.76	3.81
		DNMG150402-ZF	●	●		●		●	●	●				●		0.2	12.7	4.76	5.16
		DNMG150404-ZF	●	●	●	●		●	●	●		●	●	●		0.4	12.7	4.76	5.16
		DNMG150408-ZF	●	●	●	●		●	●	●		●	●	●		0.8	12.7	4.76	5.16
		DNMG150412-ZF	●	●	●	●		●	●	●				●		1.2	12.7	4.76	5.16
		DNMG150602-ZF	●	●		●		●	●	●				●		0.2	12.7	6.35	5.16
		DNMG150604-ZF	●	●		●		●	●	●				●		0.4	12.7	6.35	5.16
		DNMG150608-ZF	●	●	●	●		●	●	●				●		0.8	12.7	6.35	5.16
		DNMG150612-ZF	●	●		●		●	●	●				●		1.2	12.7	6.35	5.16
	AS 	DNMG150404-AS	●		●									●		0.4	12.7	4.76	5.16
		DNMG150408-AS	●	●	●									●		0.8	12.7	4.76	5.16
		DNMG150412-AS	●	●	●											1.2	12.7	4.76	5.16
		DNMG150604-AS	●													0.4	12.7	6.35	5.16
		DNMG150608-AS	●	●												0.8	12.7	6.35	5.16
		DNMG150612-AS	●													1.2	12.7	6.35	5.16
Finishing	NS 	DNMG150404-NS			●								●		0.4	12.7	4.76	5.16	
		DNMG150408-NS	●	●	●									●		0.8	12.7	4.76	5.16

- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊕ : Heavy interrupted cutting

 Rhombic, 55°
with hole[illegible]

Application	Chipbreaker	Designation	Coated										Coated cermet		Cermet		Uncoated		Dimension (mm)					
			T9205	T9215	T9225	T9235	T6215	AH8005	AH8015	AH6225	AH6235	AH120	GH330	GT9530	AT9530	NS9530	NS520	KS20			RE	IC	S	D1
Finishing		TS	DNMG110402E-TS		●	●		●		●	●				●		●				0.2	9.525	4.76	3.81
			DNMG110404E-TS		●	●		●		●	●				●		●				0.4	9.525	4.76	3.81
			DNMG110408E-TS		●	●		●		●	●				●		●				0.8	9.525	4.76	3.81
			DNMG150402-TS		●	●		●		●	●					●					0.2	12.7	4.76	5.16
			DNMG150404-TS		●	●	●	●		●	●			●	●	●	●				0.4	12.7	4.76	5.16
			DNMG150408-TS	●	●	●	●	●		●	●			●	●	●	●				0.8	12.7	4.76	5.16
			DNMG150412-TS	●	●	●	●	●		●	●					●					1.2	12.7	4.76	5.16
			DNMG150602-TS		●	●				●	●					●					0.2	12.7	6.35	5.16
			DNMG150604-TS		●	●		●		●	●			●	●	●	●				0.4	12.7	6.35	5.16
			DNMG150608-TS		●	●		●		●	●			●	●	●	●				0.8	12.7	6.35	5.16
			DNMG150612-TS		●	●		●		●	●					●					1.2	12.7	6.35	5.16
		SF	DNMG150404-SF					●			●										0.4	12.7	4.76	5.16
			DNMG150408-SF					●			●										0.8	12.7	4.76	5.16
			DNMG150604-SF					●			●										0.4	12.7	6.35	5.16
			DNMG150608-SF					●			●										0.8	12.7	6.35	5.16
		SS	DNMG110404E-SS								●	●									0.4	9.525	4.76	3.81
			DNMG110408E-SS								●	●									0.8	9.525	4.76	3.81
			DNMG150404-SS					●			●	●	●								0.4	12.7	4.76	5.16
			DNMG150408-SS					●			●	●	●	●				●			0.8	12.7	4.76	5.16
			DNMG150412-SS					●			●	●	●	●							1.2	12.7	4.76	5.16
			DNMG150604-SS					●			●	●	●	●	●						0.4	12.7	6.35	5.16
			DNMG150608-SS					●			●	●	●	●	●						0.8	12.7	6.35	5.16
			DNMG150612-SS					●			●	●									1.2	12.7	6.35	5.16
		HRF	DNMG150404-HRF						●	●											0.4	12.7	4.76	5.16
			DNMG150408-HRF						●	●											0.8	12.7	4.76	5.16
		DNMG150604-HRF						●	●											0.4	12.7	6.35	5.16	
		DNMG150608-HRF						●	●											0.8	12.7	6.35	5.16	

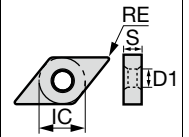
Chip control range

Figure 1 displays six subplots (P, P, P, M, S) showing the chip control range (Depth of cut: a_p (mm) vs. Feed: f (mm/rev)) for various tool materials and grades. The y-axis represents the Depth of cut: a_p (mm) and the x-axis represents the Feed: f (mm/rev).

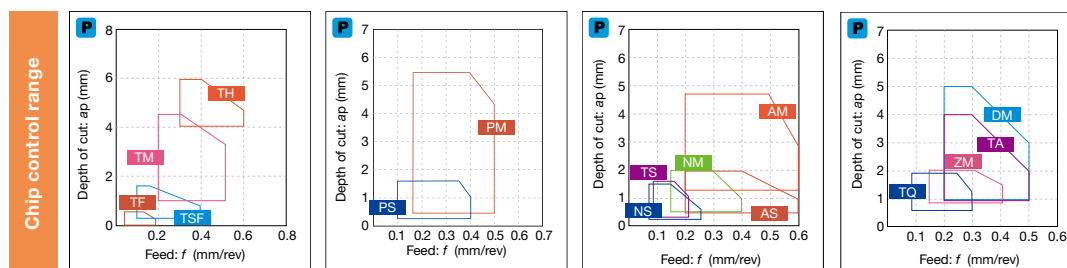
- Subplot P (Top Left):** Shows the chip control range for tool materials TM (blue), TH (red), TF (green), and TSF (orange). The y-axis ranges from 0 to 8 mm, and the x-axis ranges from 0 to 0.8 mm/rev.
- Subplot P (Top Middle):** Shows the chip control range for tool materials PS (blue) and PM (red). The y-axis ranges from 0 to 7 mm, and the x-axis ranges from 0 to 0.7 mm/rev.
- Subplot P (Top Right):** Shows the chip control range for tool materials TS (blue), NS (green), ZF (red), and AS (orange). The y-axis ranges from 0 to 4 mm, and the x-axis ranges from 0 to 0.6 mm/rev.
- Subplot M (Bottom Left):** Shows the chip control range for tool materials SS (blue), SM (green), SH (red), and SF (orange). The y-axis ranges from 0 to 7 mm, and the x-axis ranges from 0 to 0.6 mm/rev.
- Subplot S (Bottom Right):** Shows the chip control range for tool materials 28 (blue), HRM (red), HMM (green), and HRF (orange). The y-axis ranges from 0 to 5 mm, and the x-axis ranges from 0 to 0.5 mm/rev.

Reference pages: External toolholder → **C034 -** Internal toolholder → **D069 -**
J-Series toolholder → **G068** TungCap → **C034 -, K012 -**

- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊗ : Heavy interrupted cutting

 Rhombic, 55°
with hole[illegible]

Application	Chipbreaker	Designation	Coated										Coated cermet		Cermet		Dimension (mm)					
			T9205	T9215	T9225	T9235	T6215	T515	AH8005	AH8015	AH6225	AH6235	AH110	AH120	GT9530		NS9530			RE	IC	S
Medium cutting		TM	DNMG110404E-TM	●	●	●	●			●	●		●						0.4	9.525	4.76	3.81
			DNMG110408E-TM	●	●	●	●			●	●		●						0.8	9.525	4.76	3.81
			DNMG110412E-TM	●	●		●			●	●		●						1.2	9.525	4.76	3.81
			DNMG110404-TM	●	●	●	●												0.4	9.525	4.76	3.81
			DNMG110408-TM	●	●	●	●												0.8	9.525	4.76	3.81
			DNMG150404-TM	●	●	●	●	●		●	●	●		●					0.4	12.7	4.76	5.16
			DNMG150408-TM	●	●	●	●	●		●	●	●		●					0.8	12.7	4.76	5.16
			DNMG150412-TM	●	●	●	●	●		●	●	●	●	●					1.2	12.7	4.76	5.16
			DNMG150416-TM	●	●	●	●	●		●	●	●		●					1.6	12.7	4.76	5.16
			DNMG150604-TM	●	●	●	●	●		●	●			●					0.4	12.7	6.35	5.16
			DNMG150608-TM	●	●	●	●	●		●	●			●					0.8	12.7	6.35	5.16
			DNMG150612-TM	●	●	●	●	●		●	●			●					1.2	12.7	6.35	5.16
		DNMG150616-TM	●	●	●	●	●		●	●								1.6	12.7	6.35	5.16	
		PM	DNMG110404E-PM	●	●		●				●	●							0.4	9.525	4.76	3.81
			DNMG110408E-PM	●	●		●												0.8	9.525	4.76	3.81
			DNMG110412E-PM	●	●		●				●	●							1.2	9.525	4.76	3.81
			DNMG150404-PM	●	●		●				●	●							0.4	12.7	4.76	5.16
			DNMG150408-PM	●	●		●				●	●							0.8	12.7	4.76	5.16
			DNMG150412-PM	●	●		●				●	●							1.2	12.7	4.76	5.16
			DNMG150416-PM	●	●		●				●	●							1.6	12.7	4.76	5.16
		DNMG150604-PM	●	●		●				●	●							0.4	12.7	6.35	5.16	
Medium cutting for mild steel		ZM	DNMG110404E-ZM	●	●		●				●	●						0.4	9.525	4.76	3.81	
			DNMG110408E-ZM	●	●		●					●	●						0.8	9.525	4.76	3.81
			DNMG110412E-ZM	●	●		●					●	●						1.2	9.525	4.76	3.81
			DNMG150404-ZM	●	●		●					●	●						0.4	12.7	4.76	5.16
			DNMG150408-ZM	●	●	●	●				●	●			●				0.8	12.7	4.76	5.16
			DNMG150412-ZM	●	●	●	●				●	●							1.2	12.7	4.76	5.16
			DNMG150416-ZM	●	●		●				●	●							1.6	12.7	4.76	5.16
			DNMG150604-ZM	●	●		●				●	●							0.4	12.7	6.35	5.16
			DNMG150608-ZM	●	●	●	●				●	●							0.8	12.7	6.35	5.16
			DNMG150612-ZM	●	●		●				●	●							1.2	12.7	6.35	5.16
			DNMG150616-ZM	●	●		●				●	●							1.6	12.7	6.35	5.16
		Medium cutting		AM	DNMG150408-AM	●	●													0.8	12.7	4.76
	DNMG150412-AM			●	●														1.2	12.7	4.76	5.16
	DNMG150416-AM			●	●														1.6	12.7	4.76	5.16
	DNMG150608-AM			●	●														0.8	12.7	6.35	5.16
	DNMG150612-AM			●	●														1.2	12.7	6.35	5.16
	DNMG150616-AM			●	●														1.6	12.7	6.35	5.16

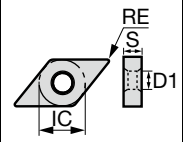


Reference pages: External toolholder → **C034 -** Internal toolholder → **D069 -**
J-Series toolholder → **G068** TungCap → **C034 -, K012 -**

Tungaloy B069

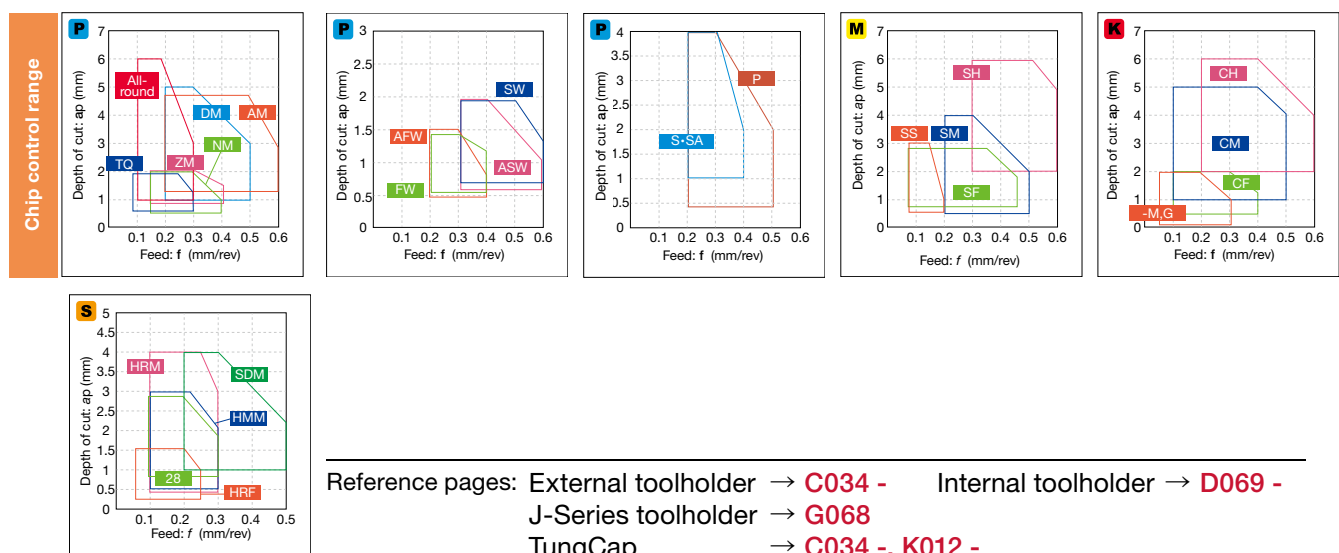
[illegible]

- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊗ : Heavy interrupted cutting

 Rhombic, 55°
with hole[illegible]

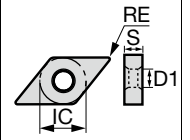
* Please see **L011 - L015** about the adjustment of the machining program for rounding or taper machining by using SW/FW.
Please contact our sales representatives if you have any question.

● : Line up



Reference pages: External toolholder → **C034 -** Internal toolholder → **D069 -**
 J-Series toolholder → **G068**
 TungCap → **C034 -, K012 -**

- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊗ : Heavy interrupted cutting

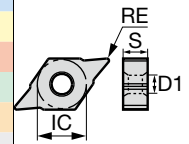
 Rhombic, 55°
with hole[illegible]

*-M,G: Without chipbreaker

Internal toolholder → D069 -
TungCap → C034 -, K012 -

- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊗ : Heavy interrupted cutting

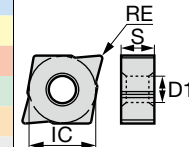
**Rhombic, 45°
with hole**

[illegible]

Make sure to offset the cutting edge position after insert change.
Please note that the insert shim may interfere with the workpiece when FNMG insert is used with Q-style toolholder to undercut a work diameter of 50 mm or smaller.

● : Line up

**Rhombic, 70°
with hole**

[illegible]

Make sure to offset the cutting edge position after insert change.
Do not use ISO-EcoTurn cartridge set for CNMG09 (AD-CL-4/3-SET or -SET-S) with GNMG09 insert.
The insert may move during machining.

● : Line up

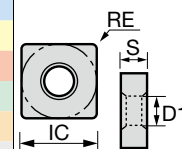


Tungaloy B075

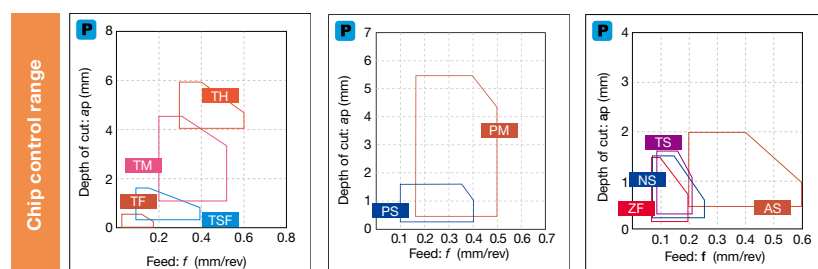
- : Continuous cutting
- ◐ : Light interrupted cutting
- ✱ : Heavy interrupted cutting



**Square
with hole**

[illegible][illegible]

● : Line up

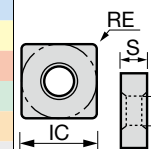


Reference pages: External toolholder → **C101** - Internal toolholder → **D043** -
Cartridge → **K181** -

- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊕ : Heavy interrupted cutting

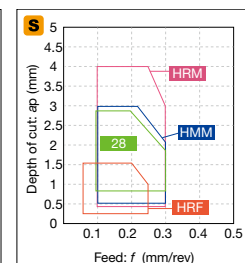
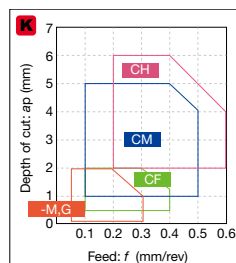
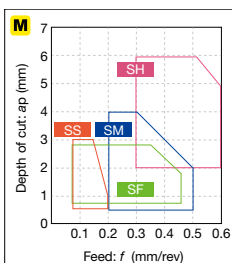
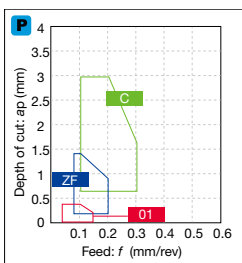


Square with hole

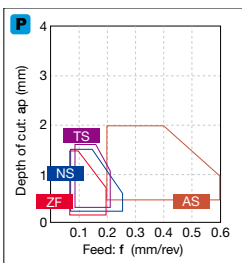
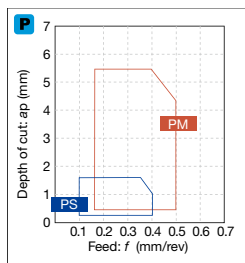
[illegible][illegible]

● : Line up

Figure 10 is a line graph showing the Depth of cut (mm) on the y-axis (ranging from 0 to 8) versus Feed: f (mm/rev) on the x-axis (ranging from 0 to 0.8). The graph is divided into three regions by colored lines: TH (orange), TM (pink), and TSF (blue). The TH region is the largest, covering feed from 0.2 to 0.6 mm/rev and depth from 4 to 6 mm. The TM region is a narrow strip at low feed and depth. The TSF region is a narrow strip at low feed and depth.



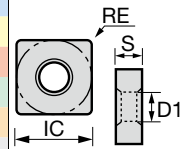
*-M,G: Without chipbreaker

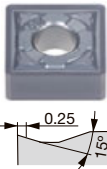
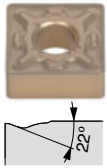
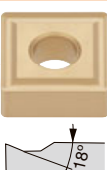


Reference pages: External toolholder → **C101** -
Internal toolholder → **D043** -
Cartridge → **K181** -

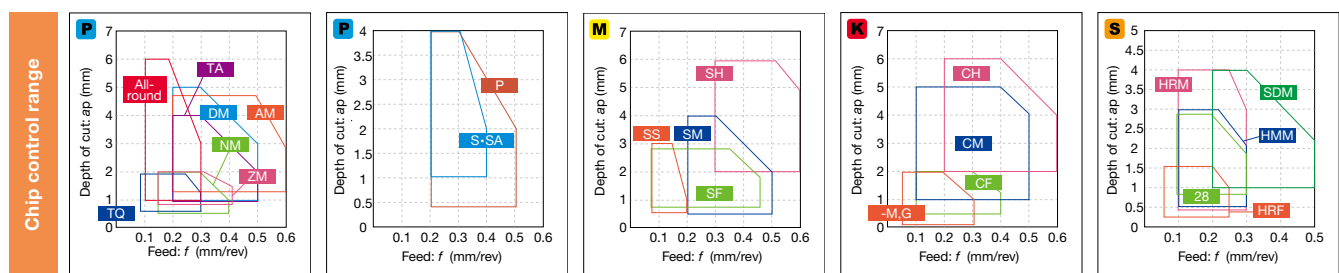
- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊗ : Heavy interrupted cutting

**Square
with hole**

[illegible]

Application	Chipbreaker	Designation	Material											Coated		Uncoated		Dimension (mm)									
			T9215	T9225	T6215	AH8005	AH8015	AH6225	AH6235	AH905	AH120	GH110	GH330		TH10	KS20					RE	IC	S	D1			
Medium cutting		HRM	SNMG120408-HRM																				0.8	12.7	4.76	5.16	
			SNMG120412-HRM																				1.2	12.7	4.76	5.16	
			SNMG150608-HRM																				0.8	15.875	6.35	6.35	
			SNMG150612-HRM																				1.2	15.875	6.35	6.35	
			SNMG190612-HRM																				1.2	19.05	6.35	7.93	
			SNMG190616-HRM																				1.6	19.05	6.35	7.93	
		TA	SNMG120408-TA											●	●								0.8	12.7	4.76	5.16	
			SNMG120412-TA											●	●								1.2	12.7	4.76	5.16	
		SA	SNMG120404-SA													●		●	●	●			0.4	12.7	4.76	5.16	
			SNMG120408-SA													●		●	●	●		●		0.8	12.7	4.76	5.16
			SNMG120412-SA													●		●	●	●			1.2	12.7	4.76	5.16	
			SNMG190612-SA																●		●		1.2	19.05	6.35	7.93	
		HMM	SNMG120408-HMM															●					0.8	12.7	4.76	5.16	
			SNMG120412-HMM															●						1.2	12.7	4.76	5.16
		P	SNGG090304R-P														●			●		0.4	9.525	3.18	3.81		
			SNGG090304L-P														●			●		0.4	9.525	3.18	3.81		
			SNGG090308R-P														●	●		●		0.8	9.525	3.18	3.81		
			SNGG090308L-P														●			●		0.8	9.525	3.18	3.81		
			SNGG120404R-P														●			●		0.4	12.7	4.76	5.16		
			SNGG120404L-P														●			●		0.4	12.7	4.76	5.16		
		SNGG120408R-P														●			●		0.8	12.7	4.76	5.16			
		SNGG120408L-P														●			●		0.8	12.7	4.76	5.16			

● : Line up



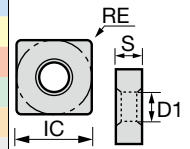
*-M,G: Without chipbreaker

Reference pages: External toolholder → **C101 -** Internal toolholder → **D043 -**
Cartridge → **K181 -**

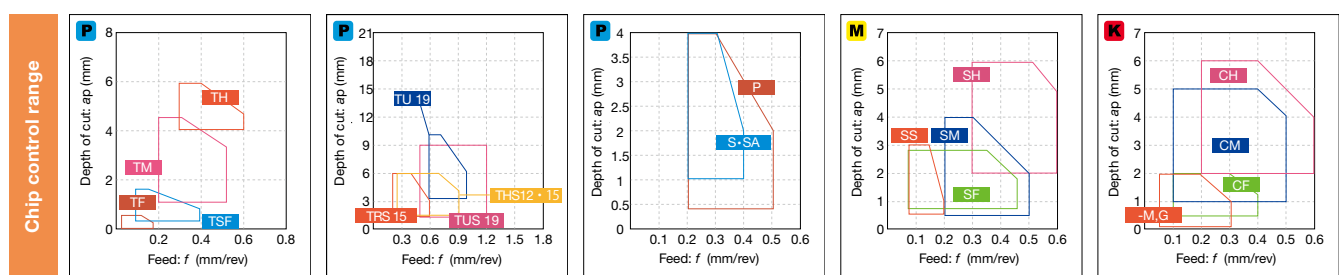
- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊗ : Heavy interrupted cutting



**Square
with hole**

[illegible][illegible]

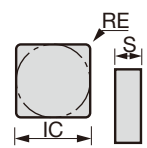
● : Line up



*-M,G: Without chipbreaker

Reference pages: External toolholder → **C101 -** Internal toolholder → **D043 -**
Cartridge → **K181 -**

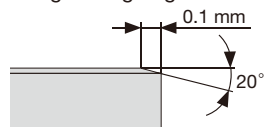
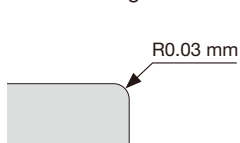
**Square
without hole**

[illegible][illegible]

Edge prep

E: Low cutting force

T1: Strong cutting edge



Negative

C

D

F

G

R

S



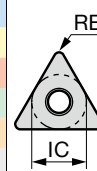
V

W

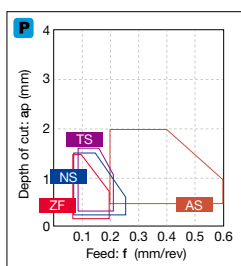
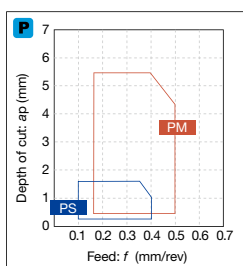
Y

MEMO

- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊕ : Heavy interrupted cutting

[illegible]

● : Line up

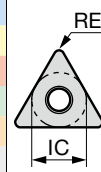


Tungaloy B087

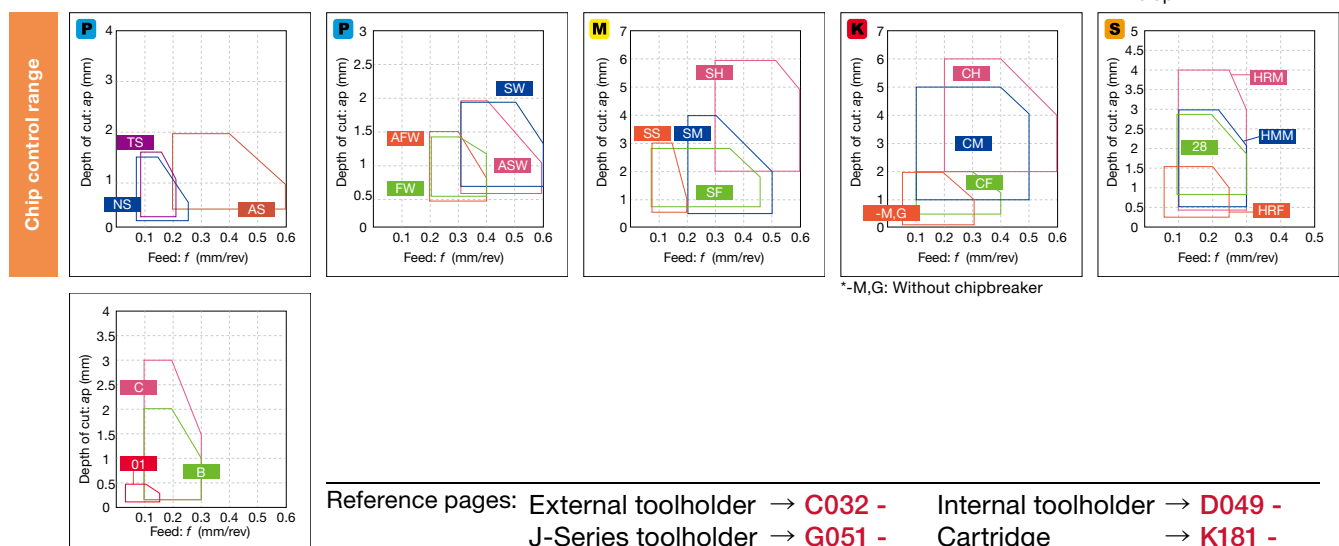
	Index	User's Guide	Tooling System	Drilling tool	Endmill	Milling cutter	Miniature tool	Grooving	Threading	Int. Toolholder	Ext. Toolholder	Insert Grade
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- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊗ : Heavy interrupted cutting

Triangular with hole

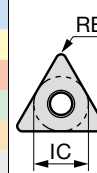
[illegible]

● : Line up

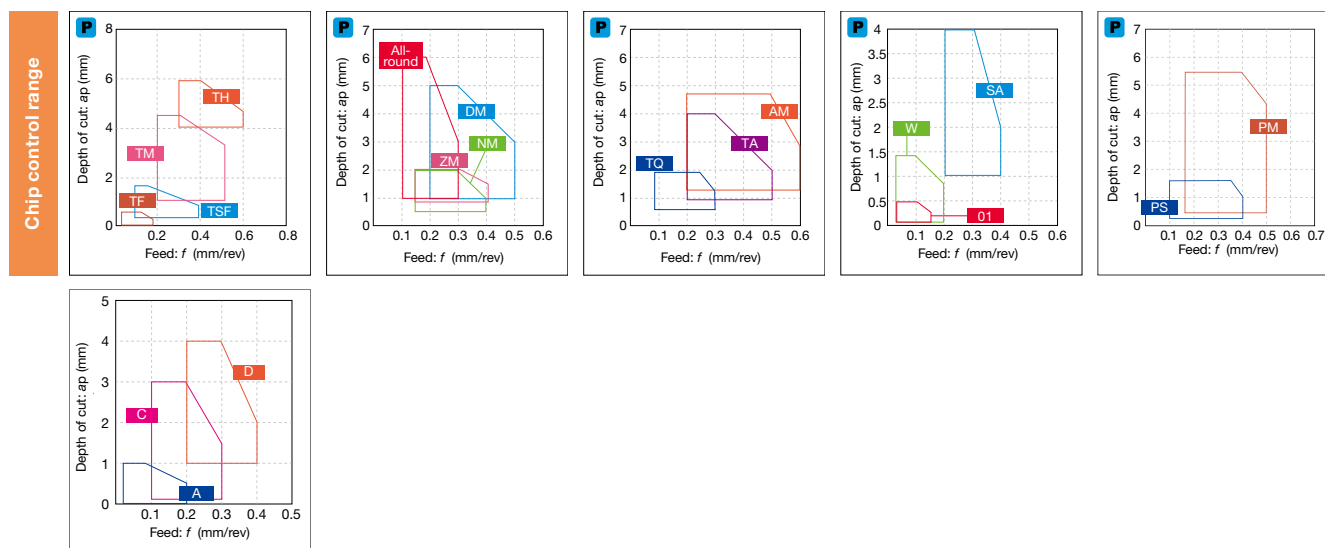


Reference pages: External toolholder → **C032** - Internal toolholder → **D049** -
J-Series toolholder → **G051** - Cartridge → **K181** -

- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊗ : Heavy interrupted cutting

[illegible][illegible]

● : Line up



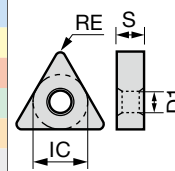
Reference pages: External toolholder → **C032** - Internal toolholder → **D049** -
J-Series toolholder → **G051** - Cartridge → **K181** -

- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊕ : Heavy interrupted cutting

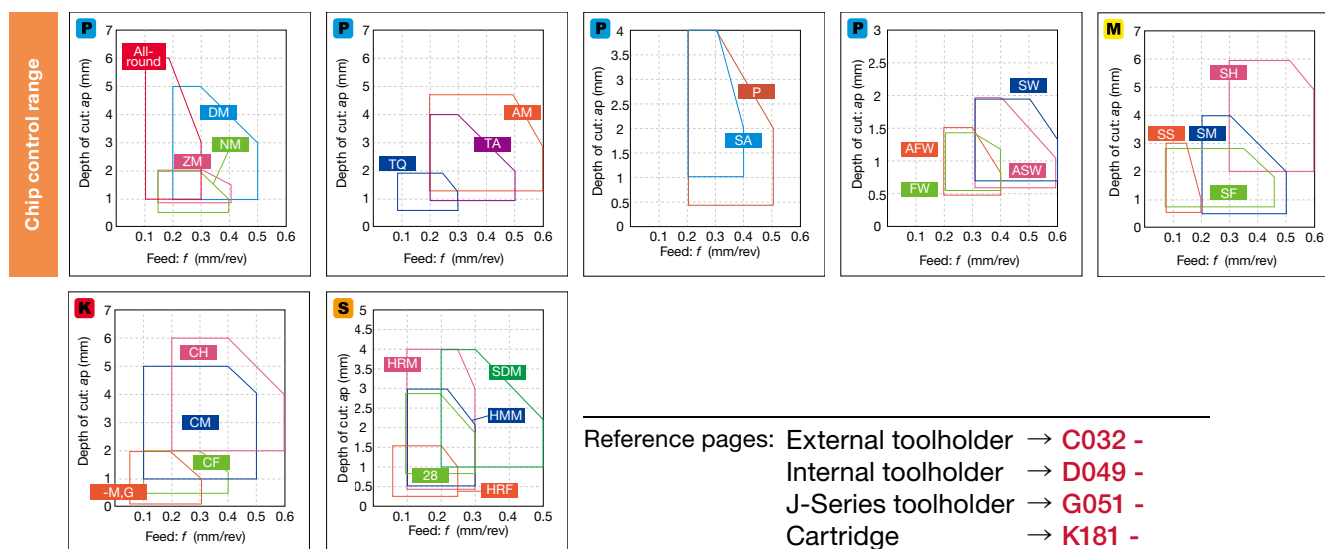


**Triangular
with hole**

P	Steel	●●
---	-------	--



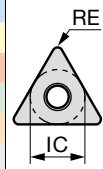
* Please see **L011 - L015** about the adjustment of the machining program for rounding or taper machining by using SW/FW. ● : Line up
Please contact our sales representatives if you have any question.



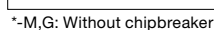
*-M.G: Without chipbreaker

Reference pages: External toolholder → **C032 -**
Internal toolholder → **D049 -**
J-Series toolholder → **G051 -**
Cartridge → **K181 -**

- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊗ : Heavy interrupted cutting

[illegible]

● : Line up

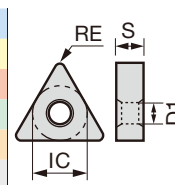


Tungaloy B095

- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊗ : Heavy interrupted cutting

**Triangular
with hole**

P	Steel					●		●●		●●		●	●							
M	Stainless					●						●	●							
K	Cast iron	●	●●	●	●	✱	●	●●		●●		●	●		●●					
N	Non-ferrous											●	●							
S	Superalloy					●														
H	Hard material															●●	●●	●●		



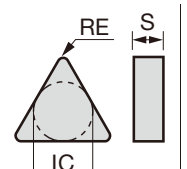
Application	Chipbreaker	Designation	Coated						Coated cermet	Cermet	Uncoated		Ceramic				Dimension (mm)			
			T505	T515	T5105	T5115	T5125	GH110	GT720	NS520	TH03	TH10	FX105	LX10	LX11	LX21	RE	IC	S	D1
Finishing to medium cutting		-	TNMA110404E		●											0.4	6.35	4.76	2.26	
		TNMA110408E		●												0.8	6.35	4.76	2.26	
		TNMA110412E		●												1.2	6.35	4.76	2.26	
		TNMA160404	●	●	●	●	●				●	●				0.4	9.525	4.76	3.81	
		TNMA160408	●	●	●	●	●		●	●		●				0.8	9.525	4.76	3.81	
		TNMA160412	●	●	●	●							●			1.2	9.525	4.76	3.81	
		TNMA160416			●	●	●									1.6	9.525	4.76	3.81	
		TNMA160420			●	●	●									2	9.525	4.76	3.81	
		TNMA220404				●	●									0.4	12.7	4.76	5.16	
		TNMA220408			●	●	●									0.8	12.7	4.76	5.16	
		TNMA220412			●	●	●									1.2	12.7	4.76	5.16	
		TNMA220416			●	●										1.6	12.7	4.76	5.16	
		-	TNGA110304									●	●			0.4	6.35	3.18	2.26	
		TNGA110308											●			0.8	6.35	3.18	2.26	
		TNGA160304											●			0.4	9.525	3.18	3.81	
		TNGA160308											●			0.8	9.525	3.18	3.81	
		TNGA160402												●	●	0.2	9.525	4.76	3.81	
		TNGA160404						●		●		●	●		●	0.4	9.525	4.76	3.81	
		TNGA160408						●		●		●	●	●	●	0.8	9.525	4.76	3.81	
		TNGA160412								●			●	●	●	1.2	9.525	4.76	3.81	
TNGA160416											●	●	●	1.6	9.525	4.76	3.81			
TNGA220408											●			0.8	12.7	4.76	5.16			

● : Line up

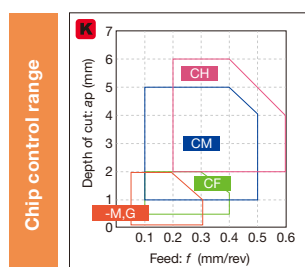
Reference pages: External toolholder → **C032** - Internal toolholder → **D049** -
TungCap → **K013** -

- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊗ : Heavy interrupted cutting

Triangular without hole

[illegible][illegible]

● : Line up



*-M,G: Without chipbreaker

Reference pages: Cartridge → **K193** -

index

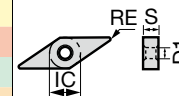
Insert **NEGATIVE TYPE**

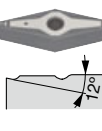
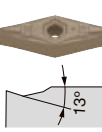
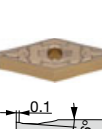
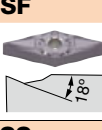
- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊗ : Heavy interrupted cutting

VN



**Rhombic, 35°
with hole**

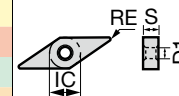
[illegible]

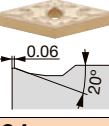
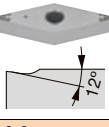
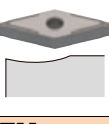
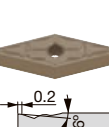
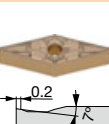
Application	material		Coated											Coated cermet			Cermet		Dimension (mm)								
	Chipbreaker	Designation	T9205	T9215	T9225	T9235	T6215	AH8005	AH8015	AH6225	AH6235	AH120	GH330	GT9530	GT720	AT9530	NS9530	NS520				RE	IC	S	D1		
Finishing	TF	VNMG120402E-TF	●	●		●		●	●								●					0.2	7.15	4.76	3.81		
		VNMG120404E-TF	●	●		●		●	●									●					0.4	7.15	4.76	3.81	
		VNMG120408E-TF	●	●		●		●	●									●					0.8	7.15	4.76	3.81	
		VNMG160402-TF	●	●		●		●	●									●					0.2	9.525	4.76	3.81	
		VNMG160404-TF	●	●		●		●	●									●					0.4	9.525	4.76	3.81	
		VNMG160408-TF	●	●		●		●	●						●			●					0.8	9.525	4.76	3.81	
		TSF	VNMG120402E-TSF	●	●		●		●	●					●	●		●						0.2	7.15	4.76	3.81
		VNMG120404E-TSF	●	●		●		●	●					●	●		●						0.4	7.15	4.76	3.81	
		VNMG120408E-TSF	●	●		●		●	●					●	●		●						0.8	7.15	4.76	3.81	
		VNMG160402-TSF	●	●		●		●	●		●			●	●		●						0.2	9.525	4.76	3.81	
		VNMG160404-TSF	●	●	●	●		●	●		●			●	●		●						0.4	9.525	4.76	3.81	
		VNMG160408-TSF	●	●	●	●	●	●	●		●			●	●		●						0.8	9.525	4.76	3.81	
		VNMG160412-TSF	●	●	●	●	●	●	●														1.2	9.525	4.76	3.81	
	PS	VNMG120402E-PS	●	●		●		●	●									●					0.2	7.15	4.76	3.81	
			VNMG120404E-PS	●	●		●		●	●									●					0.4	7.15	4.76	3.81
			VNMG120408E-PS	●	●		●		●	●									●					0.8	7.15	4.76	3.81
			VNMG160402-PS	●	●		●		●	●									●					0.2	9.525	4.76	3.81
			VNMG160404-PS	●	●		●		●	●									●					0.4	9.525	4.76	3.81
VNMG160408-PS			●	●		●		●	●									●					0.8	9.525	4.76	3.81	
VNMG160412-PS			●	●		●		●	●									●					1.2	9.525	4.76	3.81	
ZF	VNMG120402E-ZF	●	●		●		●	●									●					0.2	7.15	4.76	3.81		
		VNMG120404E-ZF	●	●		●		●	●									●					0.4	7.15	4.76	3.81	
		VNMG120408E-ZF	●	●		●		●	●									●					0.8	7.15	4.76	3.81	
		VNMG160402-ZF	●	●		●		●	●									●					0.25	9.525	4.76	3.81	
		VNMG160404-ZF	●	●	●	●		●	●					●	●		●						0.4	9.525	4.76	3.81	
		VNMG160408-ZF	●	●	●	●		●	●					●	●		●						0.8	9.525	4.76	3.81	
		VNMG160412-ZF	●	●	●	●		●	●									●					1.2	9.525	4.76	3.81	
TS	VNMG120402E-TS	●	●		●		●	●									●					0.2	7.15	4.76	3.81		
		VNMG120404E-TS	●	●		●		●	●									●					0.4	7.15	4.76	3.81	
		VNMG120408E-TS	●	●		●		●	●									●					0.8	7.15	4.76	3.81	
		VNMG160402-TS	●	●		●		●	●									●					0.2	9.525	4.76	3.81	
		VNMG160404-TS	●	●	●	●		●	●					●	●		●	●					0.4	9.525	4.76	3.81	
		VNMG160408-TS	●	●	●	●		●	●					●	●		●	●					0.8	9.525	4.76	3.81	
		VNMG160412-TS	●	●	●	●		●	●									●					1.2	9.525	4.76	3.81	
		SF	VNMG160404-SF					●		●													0.4	9.525	4.76	3.81	
	VNMG160408-SF					●		●													0.8	9.525	4.76	3.81			
	SS	VNMG120404E-SS					●		●	●													0.4	7.15	4.76	3.81	
		VNMG120408E-SS					●		●	●													0.8	7.15	4.76	3.81	
		VNMG160404-SS					●		●	●	●	●	●										0.4	9.525	4.76	3.81	
		VNMG160408-SS					●		●	●	●	●	●										0.8	9.525	4.76	3.81	
		VNMG160412-SS					●		●	●	●	●	●										1.2	9.525	4.76	3.81	
HRF	VNMG160404-HRF						●	●														0.4	9.525	4.76	3.81		
		VNMG160408-HRF						●	●													0.8	9.525	4.76	3.81		

Reference pages: External toolholder → **C041** - Internal toolholder → **D074** -
TungCap → **C042** -, **K014** -

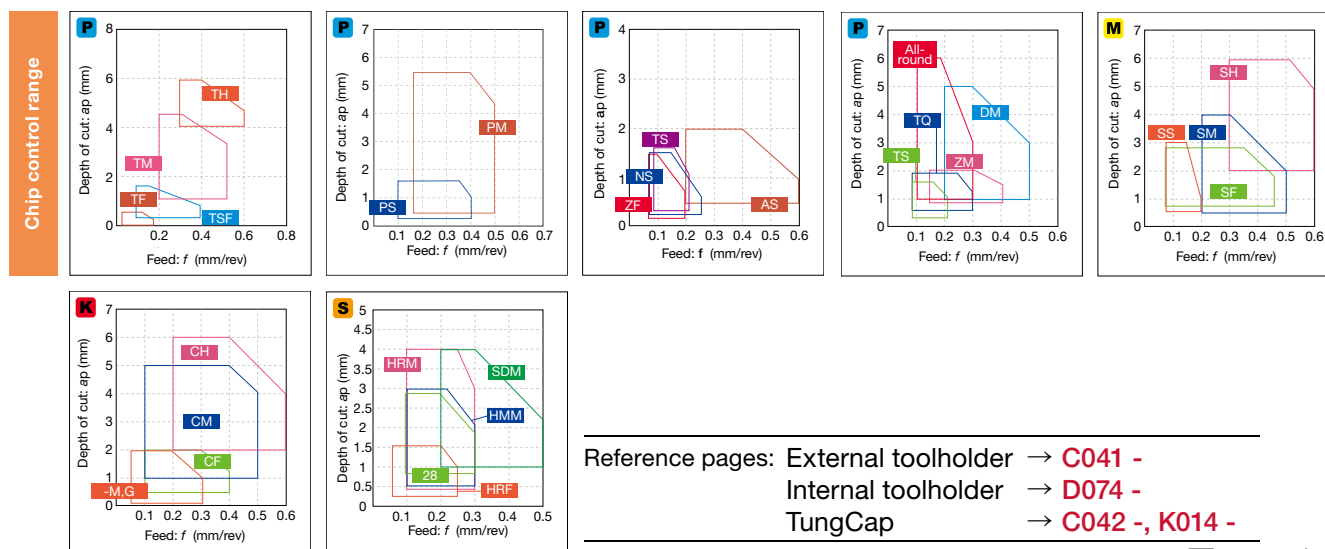
● : Line up

- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊕ : Heavy interrupted cutting

[illegible]

Application	Chipbreaker	Designation	Coated												Coated cermet		Cermet		Uncoated		Dimension (mm)					
			T9205	T9215	T9225	T9235	T6215	T5105	T5115	AH8015	AH6225	AH110	AH120	GH110	GH330	GT9530		NS9530	NS520		TH10		RE	IC	S	D1
Finishing	CF	VNMG160404-CF						●	●													0.4	9.525	4.76	3.81	
		VNMG160408-CF						●	●													0.8	9.525	4.76	3.81	
	01	VNGG160402-01											●				●	●		●		0.2	9.525	4.76	3.81	
		VNGG160404-01																●	●		●		0.4	9.525	4.76	3.81
		VNGG160408-01																●	●				0.8	9.525	4.76	3.81
	11	VNMG160404-11												●				●		●		0.4	9.525	4.76	3.81	
		VNMG160408-11																●				0.8	9.525	4.76	3.81	
		VNMG160412-11													●			●				1.2	9.525	4.76	3.81	
	Medium cutting	TM	VNMG120404E-TM		●	●		●			●	●											0.4	7.15	4.76	3.81
		VNMG120408E-TM		●	●		●			●	●											0.8	7.15	4.76	3.81	
		VNMG120412E-TM		●	●		●			●	●											1.2	7.15	4.76	3.81	
		VNMG160404-TM	●	●	●	●	●			●	●		●									0.4	9.525	4.76	3.81	
		VNMG160408-TM	●	●	●	●	●			●	●	●	●									0.8	9.525	4.76	3.81	
		VNMG160412-TM	●	●	●	●	●			●	●	●										1.2	9.525	4.76	3.81	
PM		VNMG120404E-PM		●	●		●			●	●											0.4	7.15	4.76	3.81	
		VNMG120408E-PM		●	●		●			●	●											0.8	7.15	4.76	3.81	
		VNMG120412E-PM		●	●		●			●	●											1.2	7.15	4.76	3.81	
		VNMG160404-PM		●	●		●			●	●											0.4	9.525	4.76	3.81	
		VNMG160408-PM		●	●		●			●	●											0.8	9.525	4.76	3.81	
	VNMG160412-PM		●	●		●			●	●											1.2	9.525	4.76	3.81		
Medium cutting for mild steel	ZM	VNMG120404E-ZM		●	●		●			●	●											0.4	7.15	4.76	3.81	
		VNMG120408E-ZM		●	●		●			●	●											0.8	7.15	4.76	3.81	
		VNMG120412E-ZM		●	●		●			●	●											1.2	7.15	4.76	3.81	
		VNMG160404-ZM		●	●		●			●	●											0.4	9.525	4.76	3.81	
		VNMG160408-ZM		●	●	●	●			●	●											0.8	9.525	4.76	3.81	
		VNMG160412-ZM		●	●	●	●			●	●											1.2	9.525	4.76	3.81	

● : Line up



*-M,G: Without chipbreaker

Reference pages: External toolholder → C041 -
Internal toolholder → D074 -
TungCap → C042 -, K014 -

Tungaloy B099

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

- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊗ : Heavy interrupted cutting

**Rhombic, 35°
with hole**

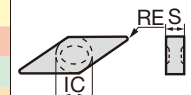
		P	S	K	N	H
Steel		● ● ● ✱				● ● ●
Stainless		● ●		● ●		● ● ●
Cast iron		● ●	● ● ● ● ✱		● ● ●	● ● ●
Non-ferrous						● ●
Superalloy				● ● ● ●		● ● ●
Hard material						● ● ● ●

[illegible]

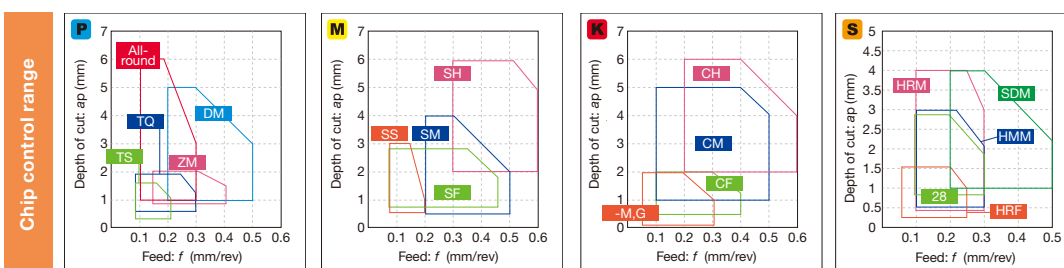
● : Line up

**Rhombic, 35°
without hole**

	P	M	K	N	S	H
Steel						
Stainless						
Cast iron	●c					
Non-ferrous						
Superalloy						
Hard material						

[illegible]

● : Line up



*-M,G: Without chipbreaker

VNGD...: External toolholder → **C051**

Insert **NEGATIVE TYPE**

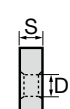
- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊗ : Heavy interrupted cutting

WN



**Trigon, 80°
with hole**

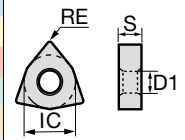
P	Steel																																								
M	Stainless																																								
K	Cast iron																																								
N	Non-ferrous																																								
S	Superalloy																																								
H	Hard material																																								

[illegible]

● : Line up

Reference pages: External toolholder → **C024 -** Internal toolholder → **D031 -**
TungCap → **C024 -, K010**

- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊗ : Heavy interrupted cutting

[illegible]

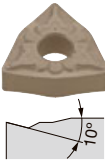
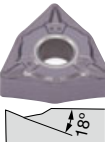
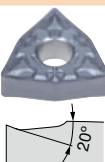
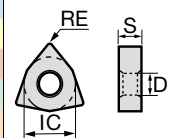
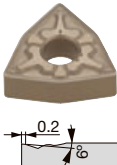
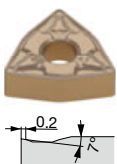
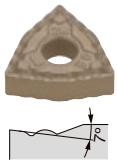
Application	Chipbreaker	Designation	Coated								Coated cermet		Cermet		Dimension (mm)						
			T9215	T9225	T9235	T6215	AH8005	AH8015	AH6225	AH6235	AH120	GH330	GT9530	AT9530	NS9530	NS520	RE	IC	S	D1	
Finishing		TS	WNUMG060402E-TS	●	●		●		●	●				●							
		WNUMG060404E-TS	●	●		●		●	●					●				0.2	9.525	4.76	3.81
		WNUMG060408E-TS	●	●		●		●	●					●				0.4	9.525	4.76	3.81
		WNUMG080402-TS	●	●		●		●	●					●				0.8	9.525	4.76	3.81
		WNUMG080404-TS	●	●	●	●		●	●				●	●	●	●		0.2	12.7	4.76	5.16
		WNUMG080408-TS	●	●	●	●		●	●				●	●	●	●		0.4	12.7	4.76	5.16
		WNUMG080412-TS	●	●	●	●		●	●						●			0.8	12.7	4.76	5.16
																		1.2	12.7	4.76	5.16
		SF	WNUMG060404-SF				●		●									0.4	9.525	4.76	3.81
		WNUMG060408-SF				●		●										0.8	9.525	4.76	3.81
		WNUMG080404-SF				●		●										0.4	12.7	4.76	5.16
		WNUMG080408-SF				●		●										0.8	12.7	4.76	5.16
		SS	WNUMG060404E-SS							●	●							0.4	9.525	4.76	3.81
		WNUMG060408E-SS								●	●							0.8	9.525	4.76	3.81
		WNUMG060412E-SS								●	●							1.2	9.525	4.76	3.81
		WNUMG080404-SS				●		●	●	●	●							0.4	12.7	4.76	5.16
		WNUMG080408-SS				●		●	●	●	●							0.8	12.7	4.76	5.16
		WNUMG080412-SS				●		●	●									1.2	12.7	4.76	5.16
		HRF	WNUMG080404-HRF					●	●									0.4	12.7	4.76	5.16
		WNUMG080408-HRF					●	●										0.8	12.7	4.76	5.16

Figure 10 displays seven plots (P, P, P, P, M, S, M) showing the chip control range (Depth of cut: a_p (mm) vs. Feed: f (mm/rev)) for various tool materials and conditions. The plots show the operational ranges for different tool materials (TH, TM, TF, TSF, PS, PM, TS, ZF, TO, NM, AS, NS, SS, SM, SF, HRM, HMM, HRF) and their corresponding chip control ranges. The y-axis represents Depth of cut: a_p (mm) and the x-axis represents Feed: f (mm/rev).

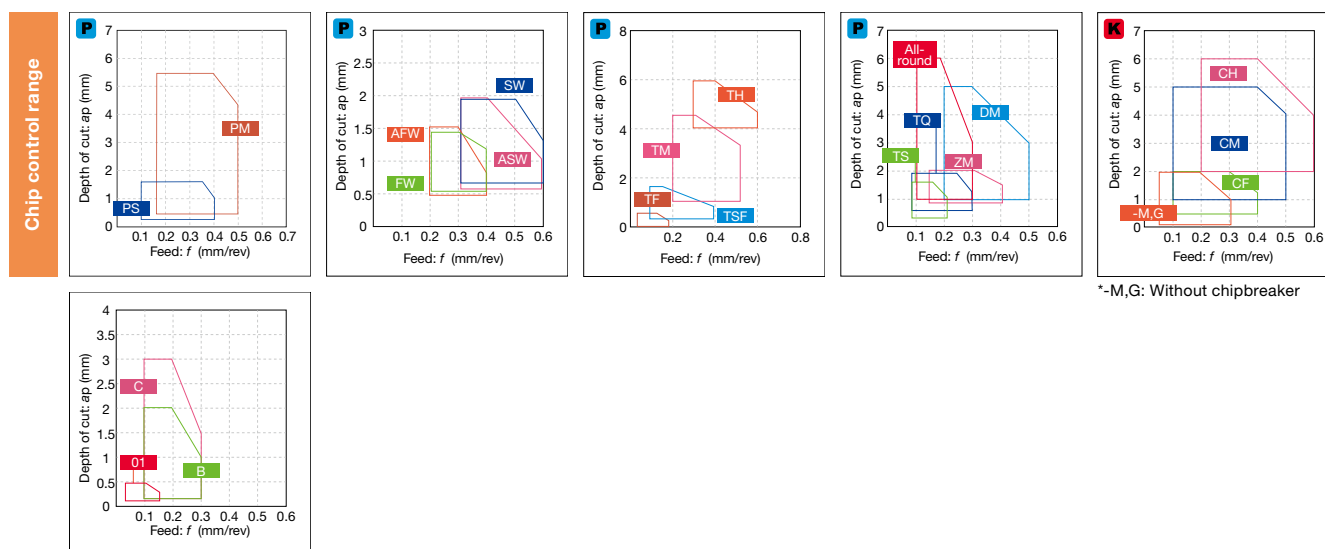
Tungaloy B103

- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊗ : Heavy interrupted cutting

[illegible]

Application	Chipbreaker	Designation	material										Coated			Coated cermet		Cermet		Dimension (mm)			
			T9205	T9215	T9225	T9235	T6215	T515	AH8015	AH6225	AH6235	AH725	AH120	GT9530			NS9530			RE	IC	S	D1
Medium cutting		TM	WNMG060404E-TM		●	●		●		●	●		●							0.4	9.525	4.76	3.81
		WNMG060408E-TM		●	●		●		●	●		●								0.8	9.525	4.76	3.81
		WNMG060412E-TM		●	●		●		●	●		●								1.2	9.525	4.76	3.81
		WNMG060404-TM		●	●	●						●								0.4	9.525	4.76	3.81
		WNMG060408-TM	●	●	●	●						●								0.8	9.525	4.76	3.81
		WNMG080404-TM	●	●	●	●		●	●	●	●	●	●							0.4	12.7	4.76	5.16
		WNMG080408-TM	●	●	●	●		●	●	●	●	●	●							0.8	12.7	4.76	5.16
		WNMG080412-TM	●	●	●		●	●	●	●	●	●	●							1.2	12.7	4.76	5.16
		WNMG080416-TM	●	●	●		●	●	●	●	●	●	●							1.6	12.7	4.76	5.16
	PM	WNMG060404E-PM		●	●		●		●	●									0.4	9.525	4.76	3.81	
	WNMG060408E-PM		●	●		●		●	●										0.8	9.525	4.76	3.81	
	WNMG060412E-PM		●	●		●		●	●										1.2	9.525	4.76	3.81	
	WNMG080404-PM		●	●		●		●	●										0.4	12.7	4.76	5.16	
	WNMG080408-PM		●	●		●		●	●										0.8	12.7	4.76	5.16	
	WNMG080412-PM		●	●		●		●	●										1.2	12.7	4.76	5.16	
	WNMG080416-PM		●	●		●		●	●										1.6	12.7	4.76	5.16	
Medium cutting for mild steel		ZM	WNMG060404E-ZM		●	●		●		●	●								0.4	9.525	4.76	3.81	
		WNMG060408E-ZM		●	●		●		●	●									0.8	9.525	4.76	3.81	
		WNMG060412E-ZM		●	●		●		●	●									1.2	9.525	4.76	3.81	
		WNMG060408-ZM		●	●	●													0.8	9.525	4.76	3.81	
		WNMG060412-ZM		●	●	●													1.2	9.525	4.76	3.81	
		WNMG080404-ZM		●	●		●		●	●									0.4	12.7	4.76	5.16	
		WNMG080408-ZM		●	●	●		●	●					●		●			0.8	12.7	4.76	5.16	
		WNMG080412-ZM	●	●	●	●	●		●	●									1.2	12.7	4.76	5.16	
		WNMG080416-ZM		●	●		●		●	●									1.6	12.7	4.76	5.16	

● : Line up



Reference pages: External toolholder → **C024** - Internal toolholder → **D031** -
TungCap → **C024** -, **K010**

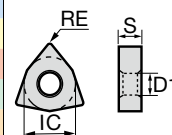
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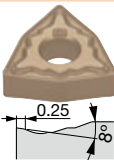
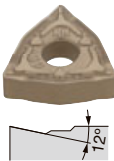
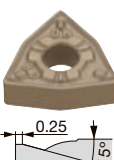
● : Continuous cutting
 ● : Light interrupted cutting
 * : Heavy interrupted cutting

WN

**Trigon, 80°
with hole**

P	Steel
M	Stainless
K	Cast iron
N	Non-ferrous
S	Superalloy
H	Hard material

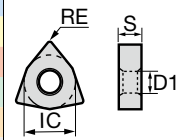


Application	Chipbreaker	Designation	Coated																Cermet		Uncoated		Dimension (mm)						
			T9205	T9215	T9225	T9235	T6215	T505	T515	T5105	T5115	T5125	AH8005	AH8015	AH6225	AH6235	AH725	AH110	AH120		NS9530	NS520	TH10			RE	IC	S	D1
Medium cutting	AM	WNMG080408-AM	●	●																					0.8	12.7	4.76	5.16	
		WNMG080412-AM	●	●																					1.2	12.7	4.76	5.16	
		WNMG080416-AM	●	●																						1.6	12.7	4.76	5.16
	NM	WNMG060412E-NM			●																				1.2	9.525	4.76	3.81	
		WNMG080408-NM	●	●	●																				0.8	12.7	4.76	5.16	
		WNMG080412-NM	●	●	●	●																			1.2	12.7	4.76	5.16	
	DM	WNMG080404-DM		●	●		●							●	●											0.4	12.7	4.76	5.16
		WNMG080408-DM	●	●	●	●	●							●	●											0.8	12.7	4.76	5.16
		WNMG080412-DM	●	●	●	●	●							●	●											1.2	12.7	4.76	5.16
		WNMG080416-DM		●	●		●							●	●											1.6	12.7	4.76	5.16
	All-round	WNMG060404		●	●						●	●	●													0.4	9.525	4.76	3.81
		WNMG060408		●	●						●	●	●													0.8	9.525	4.76	3.81
		WNMG080404	●	●	●	●		●	●	●	●	●					●	●		●	●				0.4	12.7	4.76	5.16	
		WNMG080408	●	●	●	●		●	●	●	●	●					●	●		●	●				0.8	12.7	4.76	5.16	
		WNMG080412	●	●	●	●		●	●	●	●	●					●	●			●				1.2	12.7	4.76	5.16	
		WNMG080416	●	●	●	●		●	●	●	●										●				1.6	12.7	4.76	5.16	
	SM	WNMG060404E-SM					●							●												0.4	9.525	4.76	3.81
		WNMG060408E-SM					●							●												0.8	9.525	4.76	3.81
		WNMG060412E-SM					●							●												1.2	9.525	4.76	3.81
		WNMG060408-SM														●										0.8	9.525	4.76	3.81
	WNMG080404-SM					●							●	●											0.4	12.7	4.76	5.16	
	WNMG080408-SM					●							●	●	●										0.8	12.7	4.76	5.16	
	WNMG080412-SM					●							●	●	●										1.2	12.7	4.76	5.16	
SDM	WNMG080404-SDM					●							●	●											0.4	12.7	4.76	5.16	
	WNMG080408-SDM					●							●	●											0.8	12.7	4.76	5.16	
	WNMG080412-SDM					●							●	●											1.2	12.7	4.76	5.16	
HRM	WNMG080404-HRM											●	●												0.4	12.7	4.76	5.16	
	WNMG080408-HRM											●	●												0.8	12.7	4.76	5.16	
	WNMG080412-HRM											●	●												1.2	12.7	4.76	5.16	

● : Line up

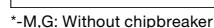
Reference pages: External toolholder → **C024 -** Internal toolholder → **D031 -**
 TungCap → **C024 -, K010**

- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊗ : Heavy interrupted cutting

[illegible]

Index	M
User's Guide	L
Tooling System	K
Drilling tool	J
Endmill	I
Milling cutter	H
Miniature tool	G
Grooving	F
Bore reamer	E
Int. toolholder	D
Ext. toolholder	C
Insert	B
Grade	A

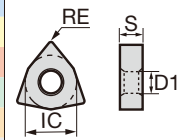
● : Line up

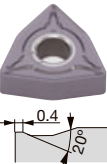
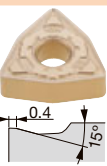


Tungaloy B107

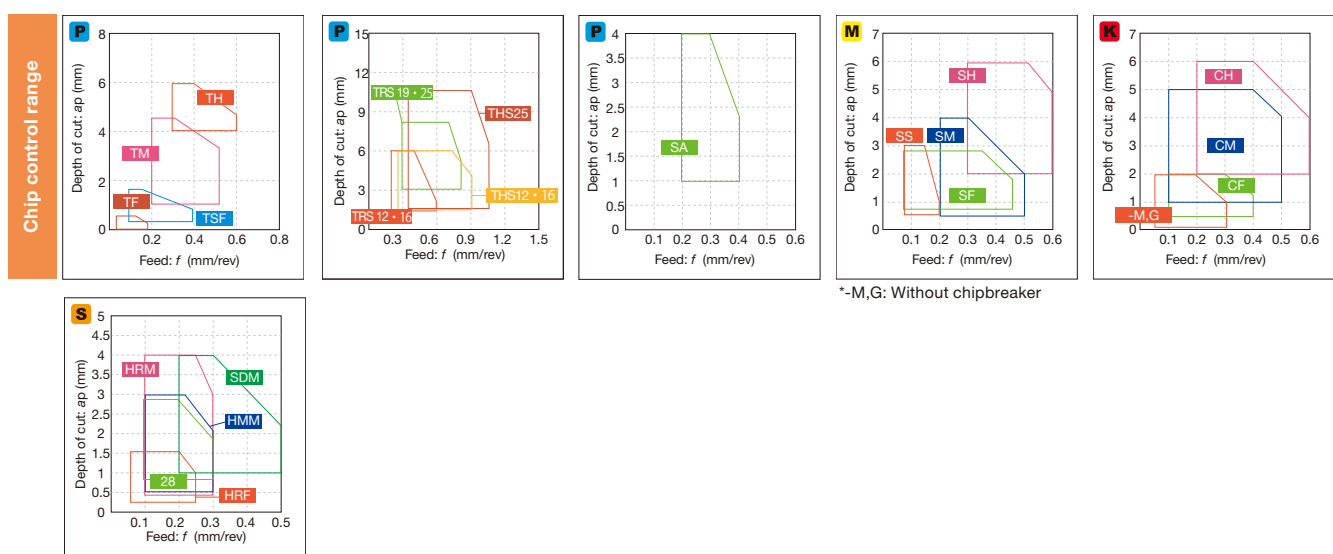
- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊗ : Heavy interrupted cutting

**Trigon, 80°
with hole**

[illegible]

Application	Chipbreaker	Designation	Coated							Cermet	Uncoated	Ceramic	Dimension (mm)			
			T505	T515	T5105	T5115	T5125	AH6225	AH6235	NS520	TH10	LX10	LX11	RE	IC	S
Medium to heavy cutting	SH	WNMG080408-SH						● ●					0.8	12.7	4.76	5.16
		WNMG080412-SH						● ●					1.2	12.7	4.76	5.16
	CH	WNMG080408-CH			● ● ●								0.8	12.7	4.76	5.16
		WNMG080412-CH			● ● ●								1.2	12.7	4.76	5.16
Finishing to medium cutting	-	WNMA060404E		●									0.4	9.525	4.76	3.81
		WNMA060408E		●									0.8	9.525	4.76	3.81
		WNMA060412E		●									1.2	9.525	4.76	3.81
		WNMA060416E		●									1.6	9.525	4.76	3.81
		WNMA080404			● ● ●					●			0.4	12.7	4.76	5.16
		WNMA080408	● ● ● ● ●						●	●			0.8	12.7	4.76	5.16
		WNMA080412	● ● ● ● ●										1.2	12.7	4.76	5.16
		WNMA080416	● ● ● ● ●										1.6	12.7	4.76	5.16
		WNGA080404									● ●		0.4	12.7	4.76	5.16
		WNGA080408									● ●		0.8	12.7	4.76	5.16
	WNGA080412									● ●		1.2	12.7	4.76	5.16	

● : Line up



Reference pages: External toolholder → **C024** - Internal toolholder → **D031** -
TungCap → **C024** -, **K010**

● : Continuous cutting
● : Light interrupted cutting
✱ : Heavy interrupted cutting

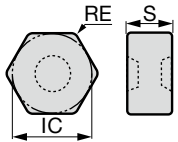
Insert NEGATIVE TYPE

HN



Hexagonal,
120°
without hole

P	Steel
M	Stainless
K	Cast iron
N	Non-ferrous
S	Superalloy
H	Hard material



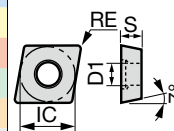
Application	Chipbreaker	Designation	Ceramic										Dimension (mm)			
			FX105										RE	IC	S	D1
Finishing to medium cutting	-	HNGD050712	●										1.2	12.7	7.94	-
		HNGD050716	●										1.6	12.7	7.94	-

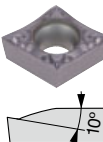
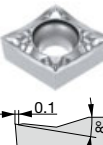
● : Line up

- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊗ : Heavy interrupted cutting

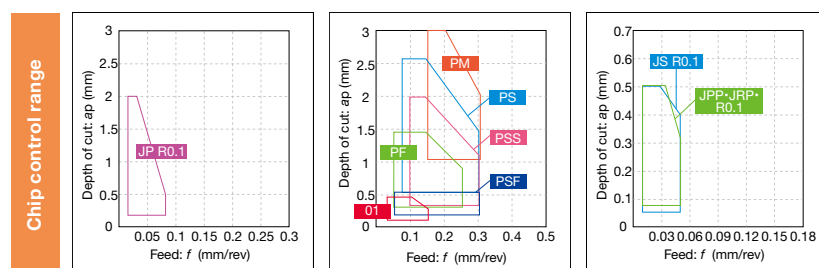


P	Steel																																																																																																																											
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Application	Chipbreaker	Designation	Coated				Coated cermet	Uncoated	Dimension (mm)					
			AH8015	AH6225	AH725		AT9530	KS05F				RE	IC	S
Finishing	JS	CCGT060201N-JS		●							0.1	6.35	2.38	2.8
		CCGT060202N-JS		●						0.2	6.35	2.38	2.8	
		CCGT060204N-JS		●						0.4	6.35	2.38	2.8	
		CCGT09T301N-JS		●		●			0.1	9.525	3.97	4.4		
		CCGT09T302N-JS		●		●			0.2	9.525	3.97	4.4		
		CCGT09T304N-JS		●		●			0.4	9.525	3.97	4.4		
Finishing (sharp edge)	JS	CCGT09T300MF-JS					●		<0.05	9.525	3.97	4.4		
		CCGT09T301MF-JS					●		<0.1	9.525	3.97	4.4		
		CCGT09T302MF-JS					●		<0.2	9.525	3.97	4.4		
		CCGT09T304MF-JS					●		<0.4	9.525	3.97	4.4		
Finishing	JS	CCGT060201M-JS	● ●						<0.1	6.35	2.38	2.8		
		CCGT060202M-JS	● ●						<0.2	6.35	2.38	2.8		
		CCGT060204M-JS	● ●						<0.4	6.35	2.38	2.8		
		CCGT09T301M-JS	● ●						<0.1	9.525	3.97	4.4		
		CCGT09T302M-JS	● ●						<0.2	9.525	3.97	4.4		
		CCGT09T304M-JS	● ●						<0.4	9.525	3.97	4.4		

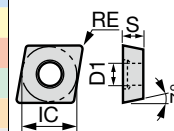
● : Line up



Reference pages: External toolholder → **C030 -** Internal toolholder → **D014 -**
J-Series toolholder → **G040 -** PINZBOHR® → **K178**

	Index	User's Guide	Tooling System	Drilling tool	Endmill	Milling cutter	Miniature tool	Grooving	Threading	Int. Toolholder	Ext. Toolholder	Insert Grade
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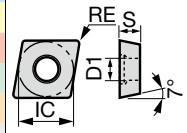
- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊕ : Heavy interrupted cutting

[illegible][illegible]

● : Line up

Reference pages: External toolholder → **C030 -** Internal toolholder → **D014 -**
J-Series toolholder → **G040 -** PINZBOHR® → **K178**

- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊗ : Heavy interrupted cutting

[illegible]

* Please see **L011 - L015** about the adjustment of the machining program for rounding or taper machining by using SW/FW.
Please contact our sales representatives if you have any question.

● : Line up

Reference pages: External toolholder → **C030** - Internal toolholder → **D014** -
J-Series toolholder → **G040** - PINZBOHR® → **K178** -

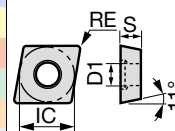
Index	User's Guide	Tooling System	Drilling tool	Endmill	Milling cutter	Miniature tool	Grooving	I threading	Int. toolholder	Ext. toolholder	Insert	Grade
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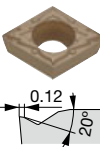
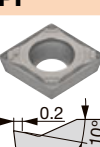
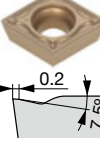
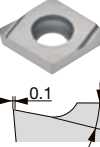
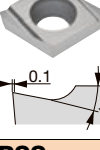
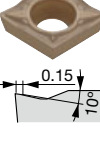
- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊗ : Heavy interrupted cutting

CP



**Rhombic, 80°
with hole
Positive 11°**

[illegible]

Application	Chipbreaker	Designation	Coated							Coated cermet	Cermet	Uncoated	Dimension (mm)						
			T9215	T9225	T6215	AH8015	AH6225	AH6235	AH725	GT9530	NS9530	TH10	RE	IC	S	D1			
Finishing		PSF	CPMT060202-PSF						●						0.2	6.35	2.38	2.8	
			CPMT060204-PSF	●	●				●						0.4	6.35	2.38	2.8	
			CPMT080202-PSF						●						0.2	7.94	2.38	3.4	
			CPMT080204-PSF	●	●				●						0.4	7.94	2.38	3.4	
			CPMT090302-PSF						●	●					0.2	9.525	3.18	4.4	
			CPMT090304-PSF	●	●				●	●					0.4	9.525	3.18	4.4	
			CPMT09T302-PSF						●						0.2	9.525	3.97	4.4	
			CPMT09T304-PSF	●	●				●						0.4	9.525	3.97	4.4	
		PF	CPMT090302-PF							●	●				0.2	9.525	3.18	4.4	
			CPMT090304-PF							●	●				0.4	9.525	3.18	4.4	
			TSF	CPMT060202-TSF	●	●	●	●	●			●				0.2	6.35	2.38	2.8
				CPMT060204-TSF	●	●	●	●	●			●				0.4	6.35	2.38	2.8
				CPMT060208-TSF	●	●	●	●	●			●				0.8	6.35	2.38	2.8
				CPMT09T302-TSF	●	●	●	●	●			●				0.2	9.525	3.97	4.4
				CPMT09T304-TSF	●	●	●	●	●			●				0.4	9.525	3.97	4.4
			CPMT09T308-TSF	●	●	●	●	●			●				0.8	9.525	3.97	4.4	
		W15	CPGT050202L-W15								●				0.2	5.56	2.35	2.5	
			CPGT050204L-W15								●				0.4	5.56	2.35	2.5	
			CPGT080202R-W15										●		0.2	7.94	2.38	3.4	
			CPGT080202L-W15								●	●			0.2	7.94	2.38	3.4	
			CPGT080204R-W15									●			0.4	7.94	2.38	3.4	
			CPGT080204L-W15								●	●			0.4	7.94	2.38	3.4	
		W20	CPGT090302R-W20								●	●			0.2	9.525	3.18	4.4	
		CPGT090302L-W20								●	●			0.2	9.525	3.18	4.4		
		CPGT090304R-W20								●	●			0.4	9.525	3.18	4.4		
		CPGT090304L-W20								●	●			0.4	9.525	3.18	4.4		
Finishing to medium cutting		PSS	CPMT060204-PSS	●	●				●	●				0.4	6.35	2.38	2.8		
			CPMT080204-PSS	●	●	●		●	●	●				0.4	7.94	2.38	3.4		
			CPMT080208-PSS	●	●	●		●	●	●				0.8	7.94	2.38	3.4		
			CPMT090304-PSS	●	●	●		●	●	●				0.4	9.525	3.18	4.4		
			CPMT090308-PSS	●	●	●		●	●	●				0.8	9.525	3.18	4.4		
			CPMT09T304-PSS	●	●				●					0.4	9.525	3.97	4.4		
			CPMT09T308-PSS	●	●				●					0.8	9.525	3.97	4.4		

● : Line up

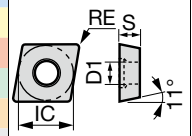
Reference pages: Internal toolholder → **D018 -** Cartridge → **K181 -**
Boring bar tool → **K199**

- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊕ : Heavy interrupted cutting

CP



**Rhombic, 80°
with hole
Positive 11°**

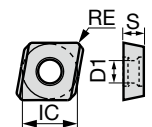
[illegible][illegible]

● : Line up

CX

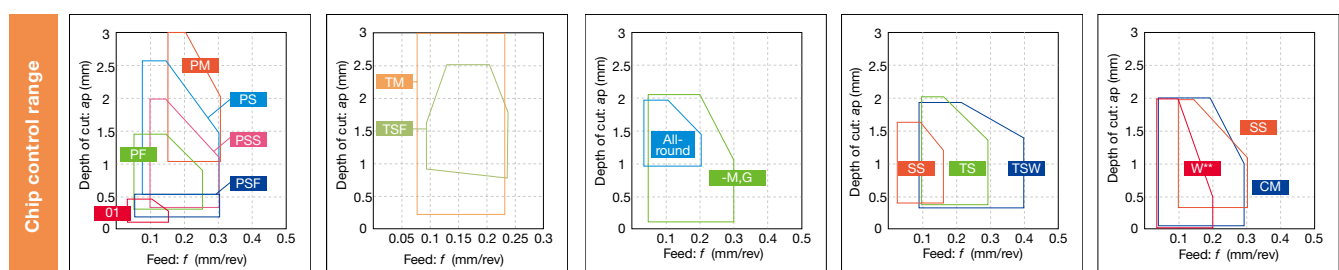


**Rhombic, 80°
with hole**

[illegible]

Application	Chipbreaker Designation		Coated												Dimension (mm)						
			T9215	T9225	AH8015	AH725											RE	IC	S	D1	
Finishing to medium cutting		TS	CXMU060302R-TS	●	●	●	●											0.2	6.35	3.18	2.7
			CXMU060302L-TS	●	●	●	●											0.2	6.35	3.18	2.7
			CXMU060304R-TS	●	●	●	●											0.4	6.35	3.18	2.7
			CXMU060304L-TS	●	●	●	●											0.4	6.35	3.18	2.7
			CXMU060308R-TS	●	●	●	●											0.8	6.35	3.18	2.7
			CXMU060308L-TS	●	●	●	●											0.8	6.35	3.18	2.7

● : Line up

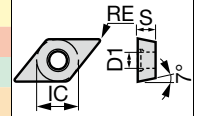


*-M.G: Without chipbreaker

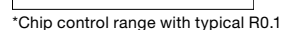
Reference pages: CPM*... : Internal toolholder → **D018 -**, Cartridge → **K181 -**, Boring bar tool → **K199**
 CXMU...: Internal toolholder → **D021 -**

- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊗ : Heavy interrupted cutting

**Rhombic, 55°
with hole
Positive 7°**

[illegible]

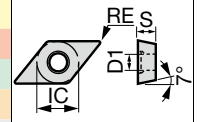
● : Line up



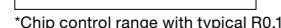
Tungaloy B123

- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊗ : Heavy interrupted cutting

**Rhombic, 55°
with hole
Positive 7°**

[illegible]

● : Line up



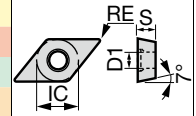
Tungaloy B125

Insert POSITIVE TYPE

● : Continuous cutting
● : Light interrupted cutting
✱ : Heavy interrupted cutting

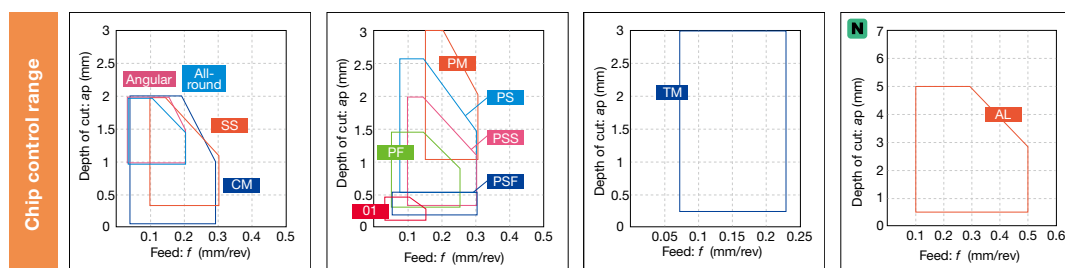
DC

Rhombic, 55°
with hole
Positive 7°



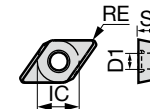
Application	Chipbreaker	Designation	Coated										Coated cermet	Cermet	Uncoated	Dimension (mm)			
			T9215	T9225	T6215	T5115	AH6225	AH6235	AH725	AH120	GH730	GH110	GT9530	NS9530	TH10	RE	IC	S	D1
Finishing to medium cutting		23 DCMT070204-23												●		0.4	6.35	2.38	2.8
		DCMT11T304-23												●		0.4	9.525	3.97	4.4
		DCMT11T308-23												●		0.8	9.525	3.97	4.4
		- DCMW070204				●										0.4	6.35	2.38	2.8
		DCMW070208				●										0.8	6.35	2.38	2.8
		DCMW11T304				●										0.4	9.525	3.97	4.4
		DCMW11T308				●										0.8	9.525	3.97	4.4
		- DCGW070202													●	0.2	6.35	2.38	2.8
		DCGW070204									●				●	0.4	6.35	2.38	2.8
		DCGW11T304													●	0.4	9.525	3.97	4.4
		DCGW11T308													●	0.8	9.525	3.97	4.4
Medium cutting		PM DCMT070204-PM	●	●	●		●	●	●	●			●	●		0.4	6.35	2.38	2.8
		DCMT070208-PM	●	●	●		●	●	●	●			●	●		0.8	6.35	2.38	2.8
		DCMT11T304-PM	●	●	●		●	●	●	●			●	●		0.4	9.525	3.97	4.4
		DCMT11T308-PM	●	●	●		●	●	●	●			●	●		0.8	9.525	3.97	4.4
		DCMT11T312-PM		●	●		●	●	●							1.2	9.525	3.97	4.4
		24 DCMT070202-24												●		0.2	6.35	2.38	2.8
		DCMT070204-24	●	●										●		0.4	6.35	2.38	2.8
		DCMT070208-24		●										●		0.8	6.35	2.38	2.8
		DCMT11T302-24		●										●		0.2	9.525	3.97	4.4
		DCMT11T304-24	●	●										●		0.4	9.525	3.97	4.4
		DCMT11T308-24	●	●			●							●		0.8	9.525	3.97	4.4

● : Line up



Reference pages: External toolholder → **C046** - Internal toolholder → **D056** -
J-Series toolholder → **G052** -

- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊗ : Heavy interrupted cutting

[illegible]

Index	User's Guide	Tooling System	Drilling tool	Endmill	Milling cutter	Miniature tool	Grooving	Threading	Int. Toolholder	Ext. Toolholder	Insert	Grade
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Figure 10 consists of three graphs showing the chip control range, plotting Depth of cut: ap (mm) on the y-axis (0 to 3) against Feed: f (mm/rev) on the x-axis (0 to 0.5). The graphs illustrate the operational ranges for different chip control modes.

- Left Graph:** Shows ranges for PM (red), PS (blue), PSS (pink), PSF (dark blue), PF (green), and 01 (red). The 01 range is the lowest, starting at f=0 and ap=0. The PM range is the highest, starting at f=0.1 and ap=2.5.
- Middle Graph:** Shows ranges for SS (red), TS (green), and TSW (blue). The SS range is the lowest, starting at f=0.1 and ap=0.5. The TSW range is the highest, starting at f=0.1 and ap=2.0.
- Right Graph:** Shows ranges for JTS (green), JSS (red), JS (red), and JRP (blue). The JRP range is the lowest, starting at f=0.05 and ap=0. The JTS range is the highest, starting at f=0.05 and ap=2.0.

Reference pages: External toolholder → C045 -
Internal toolholder → D036 -

- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊗ : Heavy interrupted cutting

**Rhombic, 75°
with hole
Positive 11°**

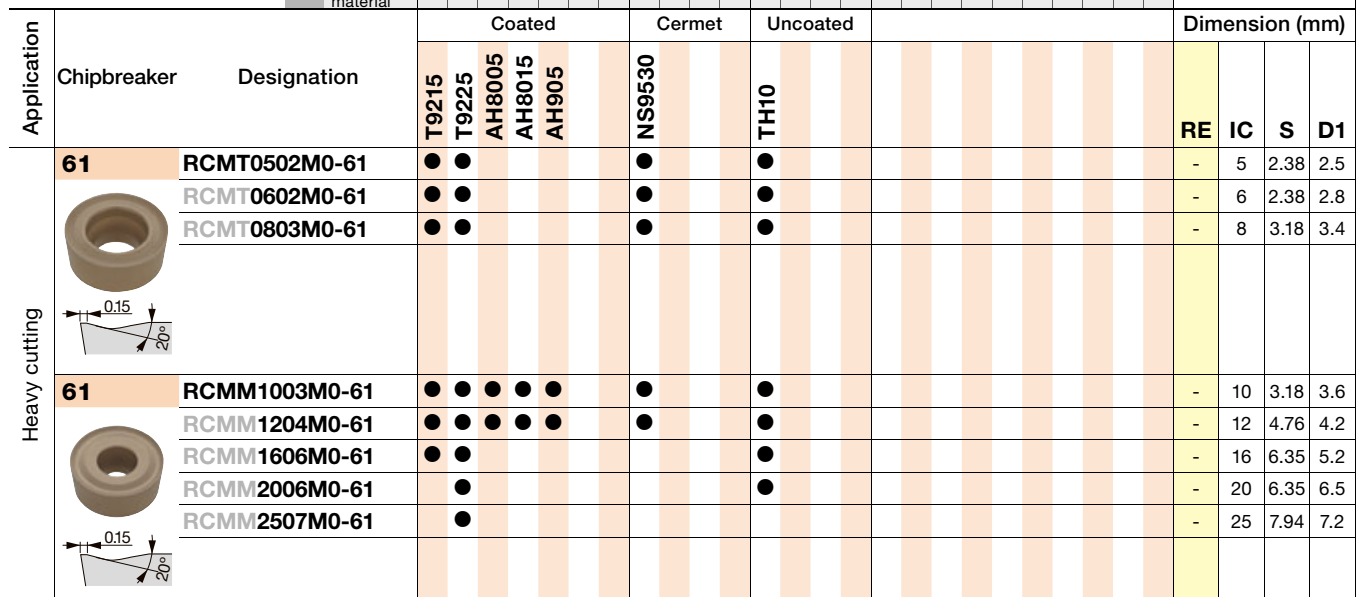
● : Line up



Tungaloy B131

- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊗ : Heavy interrupted cutting

Round,
with hole
Positive 7°

[illegible]

D1 (mm)	Designation	0502M0	0602M0	0803M0	1003M0	1204M0	1606M0	2006M0	2507M0
	RC*T	2.5	2.8	3.4	4.4	4.4	5.5	6.5	7.6
	RCMM	-	-	-	3.6	4.2	5.2	6.5	7.2

Special round insert

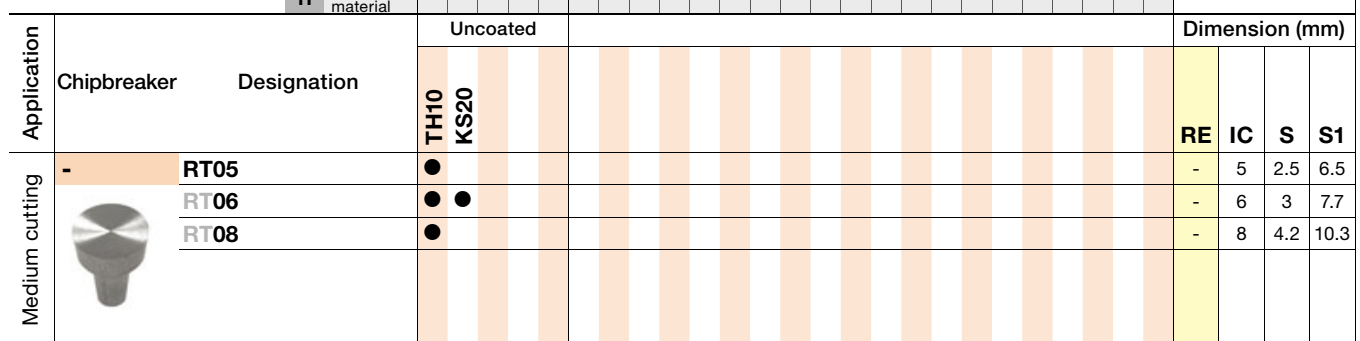
[illegible]

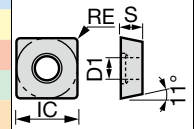
Figure 10 consists of two graphs showing the chip control range. The left graph plots Depth of cut: a_p (mm) on the y-axis (0 to 7) against Feed: f (mm/rev) on the x-axis (0.2 to 1.2). The right graph plots the same y-axis against Feed: f (mm/rev) on the x-axis (0.1 to 0.6). Both graphs include a red line indicating the chip control range. Various cutting conditions are labeled in colored boxes: 6I 16-20 (pink), RS 16-20 (purple), RS 25 (orange), 6I 25 (blue), RS 10-12 (green), 6RS (light green), 6RM (light blue), CM (red), 6I 10-12 (red), and AL (orange).

Reference pages: RC...: External toolholder → C056 -

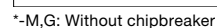


- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊗ : Heavy interrupted cutting

**Square
with hole
Positive 11°**

[illegible]

● : Line up



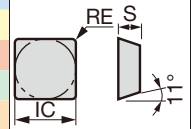
Tungaloy B137

[illegible]

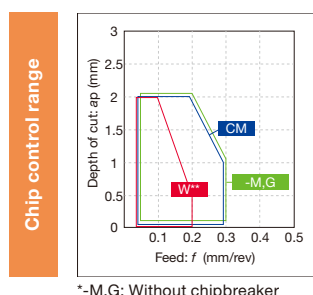
- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊗ : Heavy interrupted cutting



**Square
without hole
Positive 11°**

[illegible][illegible]

● : Line up

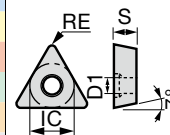


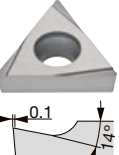
*-M,G: Without chipbreaker

Reference pages: Internal toolholder → **D042 -** Cartridge → **K181 -**

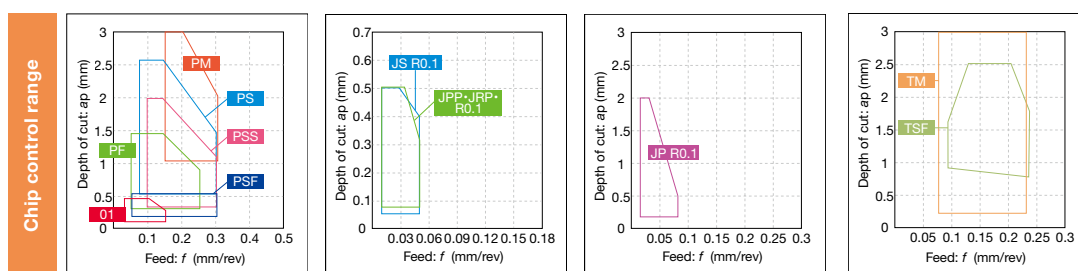
- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊕ : Heavy interrupted cutting

**Triangular
with hole
Positive 7°**

[illegible]

Application	Chipbreaker	Designation	material			Coated		Coated cermet		Cermet		Uncoated		Dimension (mm)					
			SH7025	SH725	J740	J9530	NS9530	TH10	RE	IC	S	D1							
Finishing (sharp edge)		J08	TCGT080200FR-J08	●	●	●					●					0.03	4.76	2.38	2.3
			TCGT080200FL-J08		●	●					●					0.03	4.76	2.38	2.3
			TCGT080201FR-J08	●	●	●					●					0.1	4.76	2.38	2.3
			TCGT080201FL-J08		●	●					●					0.1	4.76	2.38	2.3
			TCGT080202FR-J08	●	●	●					●					0.2	4.76	2.38	2.3
			TCGT080202FL-J08	●	●	●					●					0.2	4.76	2.38	2.3
			TCGT080204FR-J08	●	●											0.4	4.76	2.38	2.3
		J10	TCGT110200FR-J10	●	●	●					●					0.03	6.35	2.38	2.8
			TCGT110200FL-J10		●	●					●					0.03	6.35	2.38	2.8
			TCGT110201FR-J10	●	●	●					●					0.1	6.35	2.38	2.8
			TCGT110201FL-J10		●	●					●					0.1	6.35	2.38	2.8
			TCGT110202FR-J10	●	●	●			●		●					0.2	6.35	2.38	2.8
			TCGT110202FL-J10	●	●	●			●		●					0.2	6.35	2.38	2.8
			TCGT110204FR-J10	●	●											0.4	6.35	2.38	2.8
			TCGT110300FR-J10	●	●	●					●					0.03	6.35	3.18	2.8
			TCGT110300FL-J10		●	●					●					0.03	6.35	3.18	2.8
			TCGT110301FR-J10	●	●	●					●					0.1	6.35	3.18	2.8
			TCGT110301FL-J10		●	●					●					0.1	6.35	3.18	2.8
			TCGT110302FR-J10	●	●	●			●		●					0.2	6.35	3.18	2.8
			TCGT110302FL-J10	●	●	●			●		●					0.2	6.35	3.18	2.8
	J10	TCGT110302R-J10					●								0.2	6.35	3.18	2.8	
		TCGT110302L-J10					●								0.2	6.35	3.18	2.8	
		W15	TCGT16T302L-W15								●					0.2	9.525	3.97	4.4
			TCGT16T304L-W15							●	●					0.4	9.525	3.97	4.4
			TCGT16T308L-W15								●					0.8	9.525	3.97	4.4

● : Line up

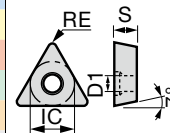


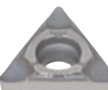
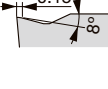
Internal toolholder → **D045**
PINZBOHR® → **K178 -**

- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊕ : Heavy interrupted cutting

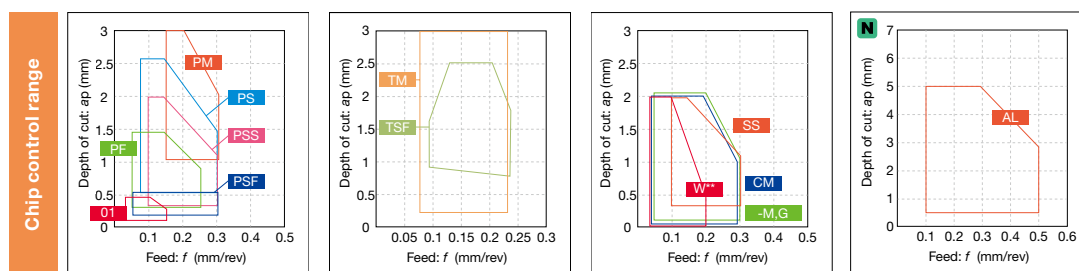


**Triangular
with hole
Positive 7°**

[illegible]

Application	Chipbreaker Designation		Coated						Cermet		Uncoated		Dimension (mm)					
			T9215	T9225	T6215	AH6225	AH6235	AH725	NS9530		TH10			RE	IC	S	D1	
Finishing 	SS	TCGT110202-SS								●					0.2	6.35	2.38	2.8
		TCGT110204-SS								●					0.4	6.35	2.38	2.8
		TCGT110208-SS								●					0.8	6.35	2.38	2.8
		TCGT16T304-SS								●					0.4	9.525	3.97	4.4
Finishing to medium cutting  	23	TCMT090204-23		●						●					0.4	5.56	2.38	2.5
		TCMT110204-23								●					0.4	6.35	2.38	2.8
		TCMT16T304-23								●					0.4	9.525	3.97	4.4
		TCMT16T308-23		●											0.8	9.525	3.97	4.4
	-	TCGT080102R								●		●			0.2	4.76	1.59	2.7
Medium cutting  	PM	TCMT110202-PM			● ● ● ●									0.2	6.35	2.38	2.8	
		TCMT110204-PM	● ●	● ● ● ●					●					0.4	6.35	2.38	2.8	
		TCMT110208-PM	● ●	● ● ● ●					●					0.8	6.35	2.38	2.8	
		TCMT110302-PM			● ● ● ●									0.2	6.35	3.18	2.8	
		TCMT110304-PM			● ● ● ●									0.4	6.35	3.18	2.8	
		TCMT110308-PM			● ● ● ●									0.8	6.35	3.18	2.8	
		TCMT16T304-PM	● ●	● ● ● ●	● ●				●					0.4	9.525	3.97	4.4	
		TCMT16T308-PM	● ●	● ● ● ●	● ●				●					0.8	9.525	3.97	4.4	
		TCMT16T312-PM	● ●	● ● ● ●	● ●									1.2	9.525	3.97	4.4	
	24	TCMT090202-24								●				0.2	5.56	2.38	2.5	
		TCMT090204-24	● ●							●				0.4	5.56	2.38	2.5	
		TCMT110202-24								●				0.2	6.35	2.38	2.8	
		TCMT110204-24	● ●							●				0.4	6.35	2.38	2.8	
		TCMT110208-24		●										0.8	6.35	2.38	2.8	
		TCMT16T304-24	● ●							●				0.4	9.525	3.97	4.4	
		TCMT16T308-24	● ●				●							0.8	9.525	3.97	4.4	

● : Line up

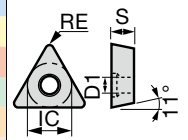


*-M.G: Without chipbreaker

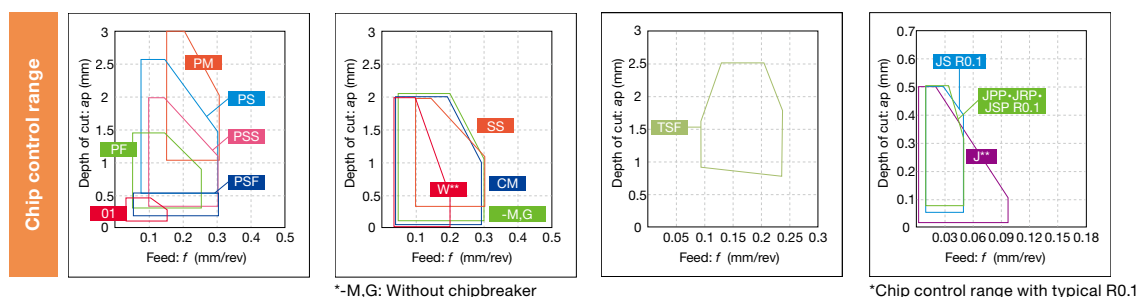
Internal toolholder → **D045**
PINZBOHR® → **K178 -**

- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊗ : Heavy interrupted cutting

**Triangular
with hole
Positive 11°**

[illegible][illegible]

● : Line up



Reference pages: Mounting hole specification → **B146**
Internal toolholder → **D046** - Cartridge → **K181** -
Boring bar tool → **K199** - Top-borer tool → **K203** -

TP

Triangular with hole

Positive 11°

P

M

K

N

S

H

Steel

Stainless

Cast iron

Non-ferrous

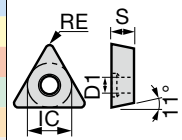
Superalloy

Hard material

Application	Chipbreaker	Designation	Coated		Coated cermet		Cermet		Uncoated		Dimension (mm)			
			GH110	GH330	GT9530	NS9530	TH10	UX30			RE	IC	S	D1
Finishing	W13	TPGH110204L-W13			●	●					0.4	6.35	2.38	3.4
		TPGH110302L-W13			●	●					0.2	6.35	3.18	3.4
		TPGH110304L-W13			●	●					0.4	6.35	3.18	3.4
	W15	TPGT090202R-W15				●					0.2	5.56	2.38	2.5
		TPGT090202L-W15			●	●		●			0.2	5.56	2.38	2.5
		TPGT090204R-W15				●					0.4	5.56	2.38	2.5
		TPGT090204L-W15	●	●	●	●		●	●		0.4	5.56	2.38	2.5
		TPGT110202R-W15				●					0.2	6.35	2.38	2.8
		TPGT110202L-W15			●	●		●			0.2	6.35	2.38	2.8
		TPGT110204L-W15	●	●	●	●		●	●		0.4	6.35	2.38	2.8
		TPGT110208R-W15				●					0.8	6.35	2.38	2.8
		TPGT110208L-W15						●			0.8	6.35	2.38	2.8
		TPGT110302L-W15				●					0.2	6.35	3.18	3.4
		TPGT110304R-W15				●					0.4	6.35	3.18	3.4
		TPGT110304L-W15				●					0.4	6.35	3.18	3.4
		TPGT110308L-W15				●					0.8	6.35	3.18	3.4
		TPGT130302R-W15				●					0.2	7.94	3.18	3.4
		TPGT130302L-W15			●	●		●			0.2	7.94	3.18	3.4
		TPGT130304R-W15	●			●					0.4	7.94	3.18	3.4
		TPGT130304L-W15	●	●	●	●		●	●		0.4	7.94	3.18	3.4
		TPGT130308L-W15				●		●			0.8	7.94	3.18	3.4
		TPGT16T302R-W15				●					0.2	9.525	3.97	4.4
		TPGT16T302L-W15			●	●		●			0.2	9.525	3.97	4.4
		TPGT16T304R-W15				●		●			0.4	9.525	3.97	4.4
		TPGT16T304L-W15	●	●	●	●		●	●		0.4	9.525	3.97	4.4
		TPGT16T308L-W15				●		●	●		0.8	9.525	3.97	4.4
Finishing to medium cutting	SS	TPGT110202-SS				●					0.2	6.35	2.38	2.8
		TPGT110204-SS		●		●					0.4	6.35	2.38	2.8
		TPGT130302-SS				●					0.2	7.94	3.18	3.4
		TPGT130304-SS		●		●					0.4	7.94	3.18	3.4
		TPGT16T304-SS		●		●					0.4	9.525	3.97	4.4

● : Line up

- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊕ : Heavy interrupted cutting

[illegible]

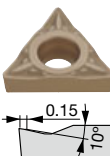
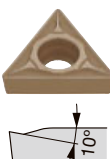
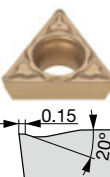
Application	Chipbreaker	Designation	Coated								Coated cermet		Cermet		Dimension (mm)						
			T9215	T9225	T6215	AH8005	AH8015	AH6225	AH6235	AH725	AH120	GH730	GT9530	AT9530	NS9530	RE	IC	S	D1		
Finishing to medium cutting		PSS TPMT090204-PSS	●	●	●			●	●	●				●			0.4	5.56	2.38	2.5	
		TPMT090208-PSS	●	●	●			●	●	●				●			0.8	5.56	2.38	2.5	
		TPMT110204-PSS	●	●	●			●	●	●				●			0.4	6.35	2.38	2.8	
		TPMT110208-PSS	●	●	●			●	●	●				●			0.8	6.35	2.38	2.8	
		TPMT110304-PSS	●	●	●			●	●	●							0.4	6.35	3.18	3.4	
		TPMT110308-PSS	●	●	●			●	●	●							0.8	6.35	3.18	3.4	
		TPMT130304-PSS	●	●	●			●	●	●							0.4	7.94	3.18	3.4	
		TPMT130308-PSS	●	●	●			●	●	●			●		●		0.8	7.94	3.18	3.4	
		TPMT16T304-PSS	●	●	●			●	●	●			●		●		0.4	9.525	3.97	4.4	
	TPMT16T308-PSS	●	●	●			●	●	●			●		●		0.8	9.525	3.97	4.4		
		PS TPMT090202-PS	●	●	●			●	●	●	●			●			0.2	5.56	2.38	2.5	
		TPMT090204-PS	●	●	●			●	●	●		●	●		●			0.4	5.56	2.38	2.5
		TPMT090208-PS	●	●	●			●	●	●		●	●		●			0.8	5.56	2.38	2.5
		TPMT110202-PS	●	●	●			●	●	●		●	●		●			0.2	6.35	2.38	2.8
		TPMT110204-PS	●	●	●			●	●	●		●	●		●			0.4	6.35	2.38	2.8
		TPMT110208-PS	●	●	●			●	●	●	●	●	●		●			0.8	6.35	2.38	2.8
		TPMT110302-PS	●	●	●		●	●							●			0.2	6.35	3.18	3.4
		TPMT110304-PS	●	●	●		●	●	●	●		●	●		●			0.4	6.35	3.18	3.4
		TPMT110308-PS	●	●	●	●	●	●	●	●		●	●		●			0.8	6.35	3.18	3.4
		TPMT130302-PS	●	●					●			●	●		●			0.2	7.94	3.18	3.4
		TPMT130304-PS	●	●	●			●	●	●		●	●		●			0.4	7.94	3.18	3.4
TPMT130308-PS		●	●	●			●	●	●		●	●		●			0.8	7.94	3.18	3.4	
TPMT16T304-PS		●	●	●			●	●	●		●	●		●			0.4	9.525	3.97	4.4	
TPMT16T308-PS		●	●	●			●	●	●		●	●		●			0.8	9.525	3.97	4.4	
		TM TPMT110204-TM	●	●													0.4	6.35	2.38	2.8	
	TPMT110208-TM	●	●														0.8	6.35	2.38	2.8	
	TPMT110302-TM	●	●	●		●	●						●				0.2	6.35	3.18	3.4	
	TPMT110304-TM	●	●	●		●	●						●				0.4	6.35	3.18	3.4	
	TPMT110308-TM	●	●	●		●	●						●				0.8	6.35	3.18	3.4	
	TPMT16T304-TM	●	●														0.4	9.525	3.97	4.4	
	TPMT16T308-TM	●	●														0.8	9.525	3.97	4.4	

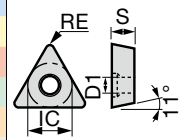
Figure 10 consists of three graphs showing the chip control range, plotting Depth of cut: a_p (mm) on the y-axis (0 to 3) against Feed: f (mm/rev) on the x-axis.

- Graph 1:** Shows the chip control range for different tool materials. The regions are labeled: SS (Stainless Steel), CM (Carbide), and -M,G (High-Speed Steel).
- Graph 2:** Shows the chip control range for different tool materials and cutting conditions. The regions are labeled: PM (Pilot Mill), PS (Pilot Drill), PSS (Pilot Drill), PSF (Pilot Drill), PF (Pilot Drill), and OT (Orthogonal Turning).
- Graph 3:** Shows the chip control range for different tool materials and cutting conditions. The region is labeled: TM (Turning).

Reference pages: Mounting hole specification → **B146**
Internal toolholder → **D046** - Cartridge → **K181** -
Boring bar tool → **K199** - Top-borer tool → **K203**

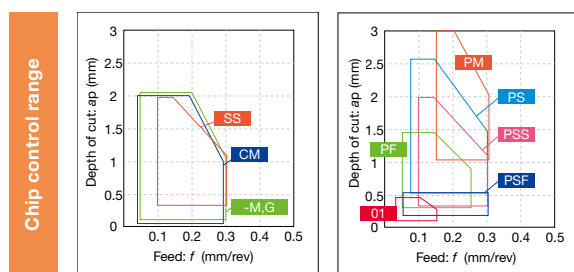
	Index	User's Guide	Tooling System	Drilling tool	Endmill	Milling cutter	Miniature tool	Grooving	I threading	Int. toolholder	Ext. toolholder	Insert	Grade
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- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊗ : Heavy interrupted cutting

[illegible]

Application	Chipbreaker	Designation	Coated										Coated cermet		Cermet	Uncoated		Dimension (mm)						
			T9215	T9225	T6215	T5115	AH6225	AH6235	AH725	AH120	GH730	GH110		GT9530		NS9530		TH10	UX30		RE	IC	S	D1
Finishing to medium cutting	-	TPMW110204				●														0.4	6.35	2.38	2.8	
		TPMW110208				●														0.8	6.35	2.38	2.8	
		TPMW130304				●														0.4	7.94	3.18	3.4	
		TPMW130308				●														0.8	7.94	3.18	3.4	
		TPMW16T304				●														0.4	9.525	3.97	4.4	
		TPMW16T308				●														0.8	9.525	3.97	4.4	
	-	TPGA090204																●		0.4	5.56	2.38	3.2	
	(Tungaloy standard hole specification) ISO non-compliant	TPGA110202															●		●	0.2	6.35	2.38	3	
		TPGA110204																	●	0.4	6.35	2.38	3	
		TPGA110302																	●	0.2	6.35	3.18	3	
		TPGA110304																	●	0.4	6.35	3.18	3	
		TPGA160304															●		●	0.4	9.525	3.18	4	
		TPGA160308																●	0.8	9.525	3.18	4		
	-	TPGW090202															●		●	0.2	5.56	2.38	2.5	
		TPGW090204																	●	0.4	5.56	2.38	2.5	
		TPGW110202																	●	0.2	6.35	2.38	2.8	
		TPGW110204									●								●	0.4	6.35	2.38	2.8	
		TPGW110304																	●	0.4	6.35	3.18	3.4	
		TPGW130304																	●	0.4	7.94	3.18	3.4	
		TPGW16T304									●								●	0.4	9.525	3.97	4.4	
		TPGW16T308																	●	0.8	9.525	3.97	4.4	
Medium cutting	PM	TPMT090204-PM			●		●	●	●											0.4	5.56	2.38	2.5	
		TPMT090208-PM			●		●	●	●											0.8	5.56	2.38	2.5	
		TPMT110204-PM	●	●	●		●	●	●		●		●							0.4	6.35	2.38	2.8	
		TPMT110208-PM	●	●	●		●	●	●	●	●									0.8	6.35	2.38	2.8	
		TPMT110304-PM	●	●	●		●	●	●		●		●							0.4	6.35	3.18	3.4	
		TPMT110308-PM	●	●	●		●	●	●		●									0.8	6.35	3.18	3.4	
		TPMT130304-PM		●	●		●	●	●								●			0.4	7.94	3.18	3.4	
		TPMT130308-PM		●	●		●	●	●					●			●			0.8	7.94	3.18	3.4	
		TPMT16T304-PM		●	●		●	●	●								●			0.4	9.525	3.97	4.4	
		TPMT16T308-PM		●	●		●	●	●											0.8	9.525	3.97	4.4	
	TPMT16T312-PM		●	●		●	●	●											1.2	9.525	3.97	4.4		
	24	TPMT090204-24		●													●			0.4	5.56	2.38	2.5	
		TPMT110204-24		●													●			0.4	6.35	2.38	2.8	
TPMT110208-24																●			0.8	6.35	2.38	2.8		
TPMT130304-24			●													●			0.4	7.94	3.18	3.4		
TPMT130308-24			●													●			0.8	7.94	3.18	3.4		
TPMT16T304-24			●													●			0.4	9.525	3.97	4.4		
	TPMT16T308-24		●													●			0.8	9.525	3.97	4.4		

● : Line up



*-M,G: Without chipbreaker

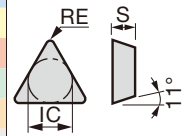
Reference pages: Internal toolholder → **D046** -
Cartridge → **K181** -
Boring bar tool → **K199** -

Tungaloy B149

01

- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊗ : Heavy interrupted cutting

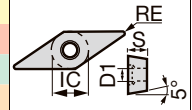
**Triangular
without hole
Positive 11°**

[illegible][illegible]

● : Line up

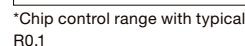
- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊗ : Heavy interrupted cutting

**Rhombic, 35°
with hole
Positive 5°**

[illegible]

*Corner radius (RE) with a sign of inequality (<) means minus tolerance.

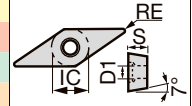
● : Line up

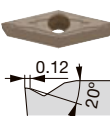
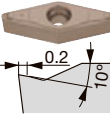
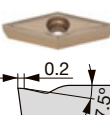
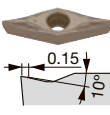
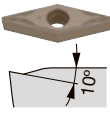
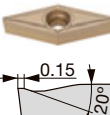
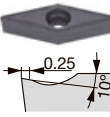


Tungaloy B153

- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊗ : Heavy interrupted cutting

**Rhombic, 35°
with hole
Positive 7°**

[illegible]

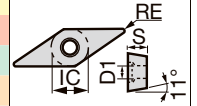
Application	Chipbreaker	Designation	Material												Coated		Coated cermet		Cermet		Dimension (mm)			
			T9215	T9225	T6215	T505	T515	T5115	AH8005	AH8015	AH6225	AH6235	AH905	AH725	AH120	GT9530	AT9530	NS9530			RE	IC	S	D1
Finishing	PSF	VCMT080202-PSF																		0.2	4.76	2.38	2.3	
		VCMT080204-PSF	●	●									●			●		●		0.4	4.76	2.38	2.3	
		VCMT110302-PSF											●							0.2	6.35	3.18	2.8	
		VCMT110304-PSF	●	●									●							0.4	6.35	3.18	2.8	
		VCMT160404-PSF	●	●				●	●			●	●			●		●		0.4	9.525	4.76	4.4	
		VCMT160408-PSF	●	●				●	●			●	●			●		●		0.8	9.525	4.76	4.4	
	PF	VCMT080202-PF														●		●		0.2	4.76	2.38	2.3	
		VCMT080204-PF														●		●		0.4	4.76	2.38	2.3	
		VCMT160404-PF														●		●		0.4	9.525	4.76	4.4	
		VCMT160408-PF														●		●		0.8	9.525	4.76	4.4	
TSF	VCMT110302-TSF	●	●	●				●	●								●		0.2	6.35	3.18	2.8		
		VCMT110304-TSF	●	●	●				●	●							●		0.4	6.35	3.18	2.8		
		VCMT110308-TSF	●	●	●				●	●							●		0.8	6.35	3.18	2.8		
		VCMT160402-TSF	●	●	●				●	●						●		●		0.2	9.525	4.76	4.4	
		VCMT160404-TSF	●	●	●				●	●						●		●		0.4	9.525	4.76	4.4	
		VCMT160408-TSF	●	●	●				●	●						●		●		0.8	9.525	4.76	4.4	
Finishing to medium cutting	PSS	VCMT110304-PSS	●	●	●				●	●		●			●		●		0.4	6.35	3.18	2.8		
		VCMT110308-PSS	●	●	●					●	●		●			●		●		0.8	6.35	3.18	2.8	
		VCMT160404-PSS	●	●	●			●	●	●	●	●	●			●		●		0.4	9.525	4.76	4.4	
		VCMT160408-PSS	●	●	●			●	●	●	●	●	●			●		●		0.8	9.525	4.76	4.4	
	PS	VCMT110302-PS	●	●	●			●	●	●	●		●		●	●	●		0.2	6.35	3.18	2.8		
		VCMT110304-PS	●	●	●			●	●	●	●		●		●	●	●		0.4	6.35	3.18	2.8		
		VCMT110308-PS	●	●	●			●	●	●	●		●		●	●	●		0.8	6.35	3.18	2.8		
		VCMT160402-PS	●	●	●				●	●						●		●		0.2	9.525	4.76	4.4	
		VCMT160404-PS	●	●	●			●	●	●	●	●	●	●		●	●	●		0.4	9.525	4.76	4.4	
		VCMT160408-PS	●	●	●			●	●	●	●	●	●	●		●	●	●		0.8	9.525	4.76	4.4	
TM	VCMT110302-TM	●	●	●				●	●							●		0.2	6.35	3.18	2.8			
	VCMT110304-TM	●	●	●				●	●							●		0.4	6.35	3.18	2.8			
	VCMT110308-TM	●	●	●				●	●							●		0.8	6.35	3.18	2.8			
	VCMT160402-TM	●	●	●				●	●						●		●		0.2	9.525	4.76	4.4		
	VCMT160404-TM	●	●	●				●	●						●		●		0.4	9.525	4.76	4.4		
	VCMT160408-TM	●	●	●				●	●						●		●		0.8	9.525	4.76	4.4		
CM	VCMT080204-CM						●											0.4	4.76	2.38	2.3			
	VCMT160404-CM				●	●	●											0.4	9.525	4.76	4.4			
	VCMT160408-CM				●	●	●											0.8	9.525	4.76	4.4			
	VCMT160412-CM					●												1.2	9.525	4.76	4.4			

● : Line up

Reference pages: External toolholder → **C048** - Internal toolholder → **D039** - TungCap → **K015** -

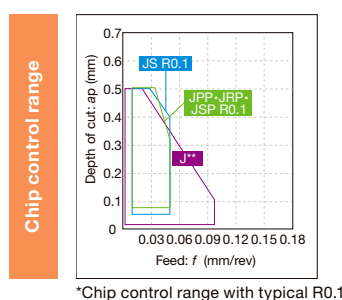
- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊗ : Heavy interrupted cutting

**Rhombic, 35°
with hole
Positive 11°**

[illegible]

Finishing (sharp edge)

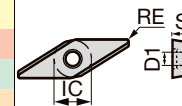
● : Line up



Tungaloy B157

[illegible]

- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊗ : Heavy interrupted cutting

 Rhombic, 35°
with hole[illegible]

Application	Chipbreaker	Designation	Coated											Dimension (mm)				
			SH725												RE	IC	S	D1
Finishing (sharp edge)		JRP VXGU09T201MFRE-JRP**	●												<0.1*	5.56	2.47	2.5
		VXGU09T201MFLE-JRP**	●												<0.1*	5.56	2.47	2.5
		VXGU09T202MFRE-JRP**	●												<0.2*	5.56	2.47	2.5
		VXGU09T202MFLE-JRP**	●												<0.2*	5.56	2.47	2.5
Finishing to medium cutting (sharp edge)		JS VXGU09T201MFR-JS ⁽¹⁾	●											<0.1*	5.56	2.47	2.5	
		VXGU09T201MFL-JS ⁽¹⁾	●											<0.1*	5.56	2.47	2.5	
		VXGU09T202MFR-JS ⁽¹⁾	●											<0.2*	5.56	2.47	2.5	
		VXGU09T202MFL-JS ⁽¹⁾	●											<0.2*	5.56	2.47	2.5	
		VXGU09T204MFR-JS ⁽¹⁾	●											<0.4*	5.56	2.47	2.5	
		VXGU09T204MFL-JS ⁽¹⁾	●											<0.4*	5.56	2.47	2.5	

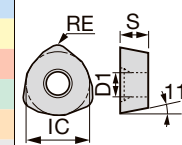
● : Line up

(1) Due to chipbreaker profile, max ap for face or ID turning is 1 mm

- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊗ : Heavy interrupted cutting



Trigon, 80°
with hole
Positive 11°

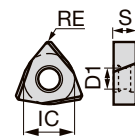
[illegible]

Application	Chipbreaker	Designation	Coated													Dimension (mm)				
			T9215	T9225	AH120												RE	IC	S	D1
Heavy cutting	ML	WPMT090725ZPR-ML	●	●	●												2.5	15	7	5.5
		WPMT090725ZPL-ML	●	●	●												2.5	15	7	5.5

● : Line up

- : Continuous cutting
- ◐ : Light interrupted cutting
- ⌘ : Heavy interrupted cutting

**Trigon, 80°
with hole**

[illegible]

*Corner radius (RE) with a sign of inequality (<) means minus tolerance.
(1) Due to chipbreaker profile, max ap for face or ID turning is 1 mm.

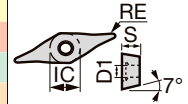
Reference pages: External toolholder → **C029 -**, Internal toolholder → **D023**
J-Series toolholder → **G045 -**

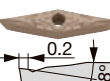
- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊗ : Heavy interrupted cutting

YW



**Rhombic, 25°
with hole
Positive 7°**

[illegible]

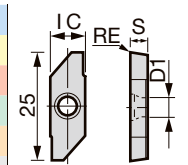
Application	Chipbreaker	Designation	Coated					Coated cermet	Cermet											Dimension (mm)			
			T9215	T9225	T6215	AH8015	AH6225	GT9530	NS9530											RE	IC	S	D1
Finishing to medium cutting	ZF	YWMT11T202-ZF	●	●	●	●	●	●	●											0.2	4.679	2.78	2.3
		YWMT11T204-ZF	●	●	●	●	●	●	●											0.4	4.679	2.78	2.3
		YWMT16T302-ZF	●	●	●	●	●	●	●	●										0.2	7.018	3.97	2.86
		YWMT16T304-ZF	●	●	●	●	●	●	●	●										0.4	7.018	3.97	2.86
		YWMT16T308-ZF	●	●	●	●	●	●	●	●										0.8	7.018	3.97	2.86
	ZM	YWMT11T202-ZM	●	●	●	●	●	●	●	●										0.2	4.679	2.78	2.3
		YWMT11T204-ZM	●	●	●	●	●	●	●	●										0.4	4.679	2.78	2.3
		YWMT16T302-ZM	●	●	●	●	●	●	●	●										0.2	7.018	3.97	2.86
		YWMT16T304-ZM	●	●	●	●	●	●	●	●										0.4	7.018	3.97	2.86
		YWMT16T308-ZM	●	●	●	●	●	●	●	●										0.8	7.018	3.97	2.86

● : Line up

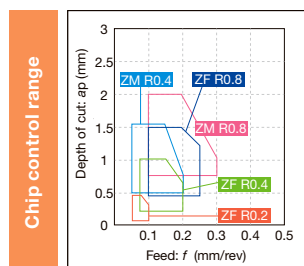
JXF



Front turning

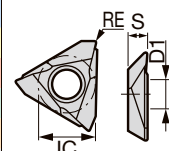
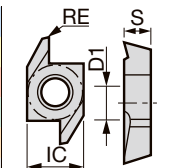
[illegible][illegible]

● : Line up



Reference pages: YWMT...: External toolholder → **C049** - Internal toolholder → **D064** -
JXF...: J-Series toolholder → **G088** -

- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊗ : Heavy interrupted cutting

[illegible][illegible][illegible][illegible]

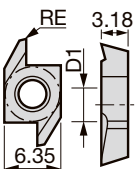
● : Line up

10E*



Back turning

P	Steel	●
M	Stainless	●
K	Cast iron	●
N	Non-ferrous	●
S	Superalloy	
H	Hard material	



Application			Uncoated																Dimension (mm)			
	Chipbreaker	Designation	TH10																RE	IC	S	D1
Back turning	-	10ER100B	●																0.03	6.35	3.18	3.0
		10EL100B	●																0.03	6.35	3.18	3.0
		10ER150B	●																0.03	6.35	3.18	3.0
		10EL150B	●																0.03	6.35	3.18	3.0
		10ER300	●																-	6.35	3.18	3.0
		10EL300	●																-	6.35	3.18	3.0

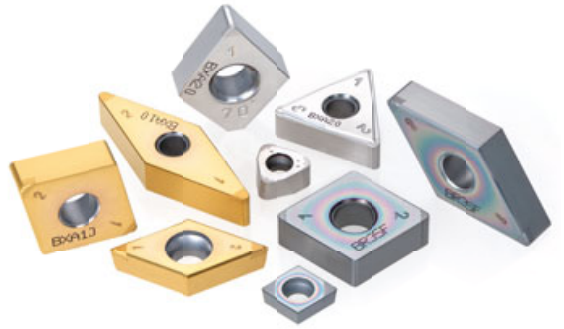
● : Line up



J

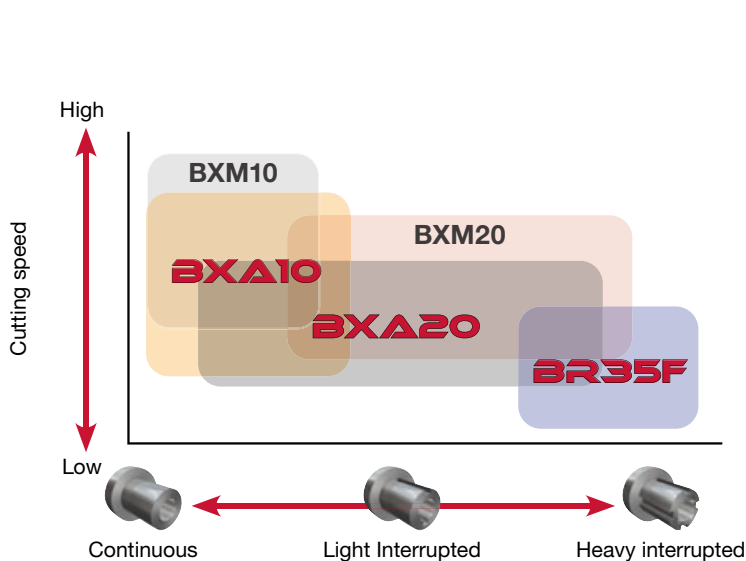
BXA10/BXA20/BR35F

Coated CBN series for a wide range of hard part turning



■ Application areas

The most suitable grade can be selected for your application requirements



BXA10

- First choice for continuous to light interrupted cuts
- For $V_c = 230$ m/min or less

BXA20

- Versatile grade from continuous to heavy interrupted cuts
- For $V_c = 180$ m/min or less

BR35F

- First choice for heavy interrupted cuts
- For $V_c = 150$ m/min or less

BXM10

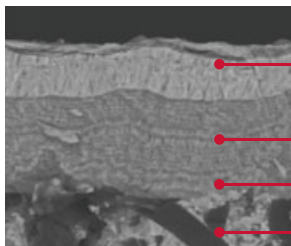
- Complementary grade for continuous to light interrupted cuts
- For extremely high cutting speeds of $V_c = 300$ m/min

BXM20

- Complementary versatile grade for continuous to heavy interrupted cuts
- For high cutting speeds of $V_c = 200$ m/min

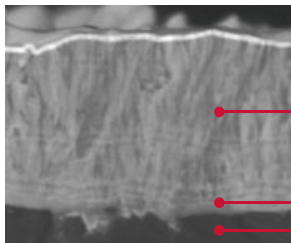
■ Grade properties

BXA10



- TiCN coating with high thermal stability and wear resistance
- Multilayer TiAlN coating with good adhesion and resistance to delamination and chipping
- Strong coating-substrate adhesion prevents delamination
- Dedicated CBN substrate with excellent flank wear and crater wear resistance

BXA20



- Thick multilayer TiAlN coating with superior wear and chipping resistance
- Strong coating-substrate adhesion prevents delamination
- Dedicated CBN substrate with excellent crater wear and fracture resistance

BR35F



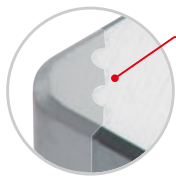
- Multilayer AlCrN coating with excellent fracture resistance
- Strong coating-substrate adhesion prevents delamination
- Dedicated CBN substrate with excellent chipping and fracture resistance

New brazing technology for increased machining efficiency

A maximum depth of cut up to 0.8 mm.
Reduces the number of passes to increase productivity.

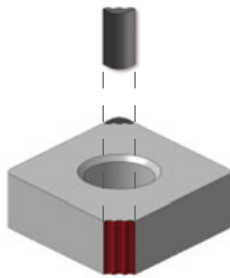
Innovative WavyJoint brazing technology

Prevents the CBN tips from debrazing, eliminating abrupt insert fractures during demanding dry machining, while securing stable and predictable hard turning operations.



The "wavy" contact surface enhances the brazing strength

WavyJoint

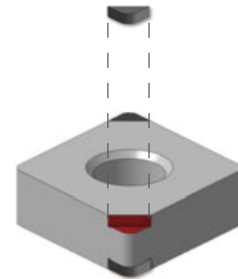


Vs.

CBN Tip Size: 200% larger for improved wear resistance of the cutting edge

Brazing Area: 160% larger for enhanced brazing strength

Standard



Double sided inserts

MINIFORCE

Double-sided **positive** insert with CBN tips

MiniForce-Turn now offers WavyJoint CBN inserts that provide additional strength and security in aggressive cutting conditions.

■ WXGQ0403... insert

Double-sided positive inserts

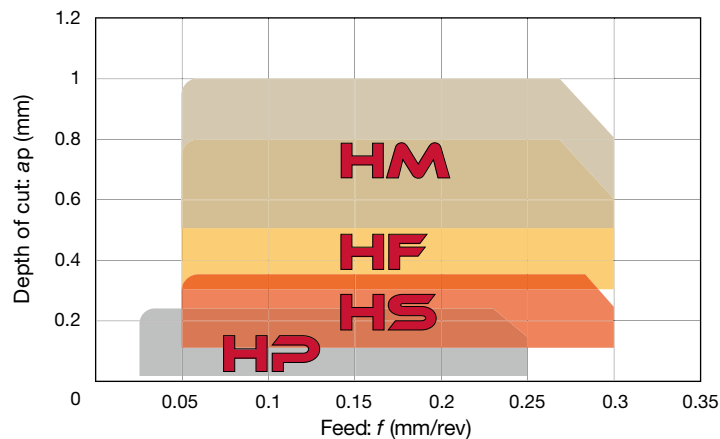


6-edged insert with dovetail design



HARDBREAKER SERIES

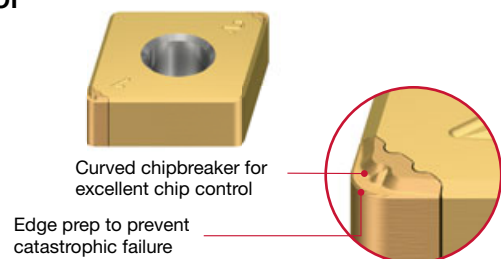
CBN inserts with chipbreaker ideal for carburized layer removal and finishing hardened steel



HS chipbreaker

Optimized chipbreaker design for excellent chip control during hard turning at aggressive conditions

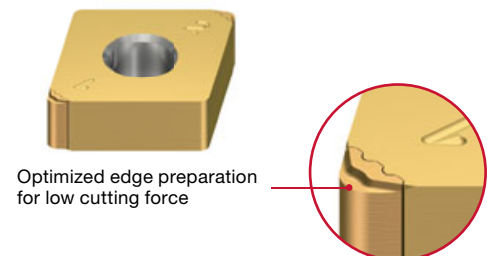
- Designed for high feed machining.
- Provides excellent chip control for a wide range of D.O.C. and feed rates.
- Edge preparation is designed to prevent catastrophic failure.



HP chipbreaker

Designed for finish machining of hardened parts with close tolerances

- Optimized chipbreaker geometry significantly reduces cutting force imposed on the cutting edge, ensuring long tool life.
- The edge preparation is designed to generate low cutting force, providing chatter-free machining and close tolerances.
- The built-in wiper yields excellent surface quality and good chip control.



HF and HM chipbreaker

- Suited for hard turning applications requiring great D.O.C. such as carburized layer removal.
- Effective chip breaking is possible for a wide range of hard materials.
- **BXA20** and **BXM20** CBN grade inserts are available for aggressive cutting depths.

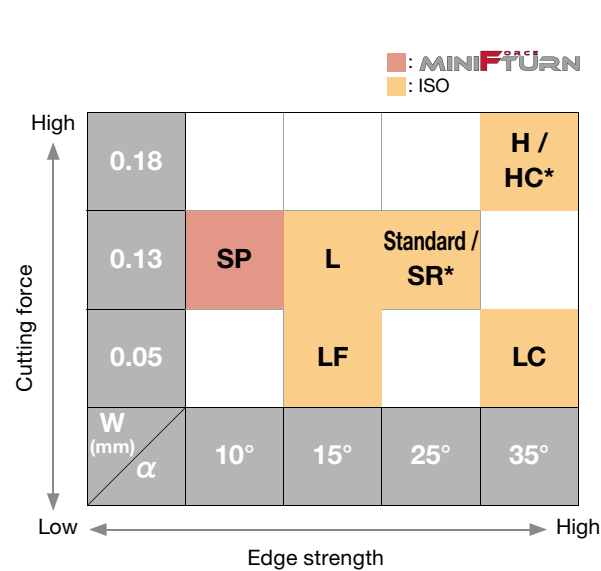
■ Edge preparations

Various styles of edge preparations are available according to the application needs

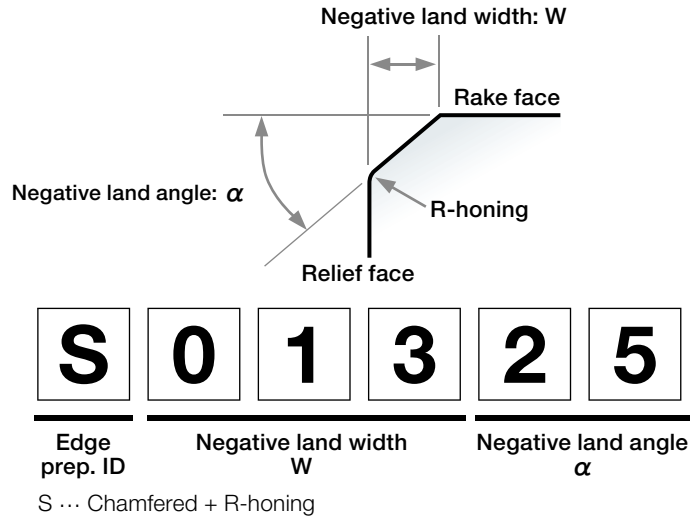
BXA10 and BXA20 grade ISO inserts are available in five different styles of edge preps: L, LF, LC, standard and -H; BR35F grade ISO inserts are offered in two styles of edge preps: SR and HC.

*For the new BR35F grade ISO inserts, "SR" is assigned for the edge prep symbol for S01325, instead of "Standard" as previously assigned. Likewise, "HC" for S01835, instead of conventional "H".

MiniForce-Turn inserts are available in the SP style edge prep (S01310).



*Edge prep symbol for BR35F grade inserts only



Non-Ferrous Application Series

Complete turning solutions for non-ferrous materials



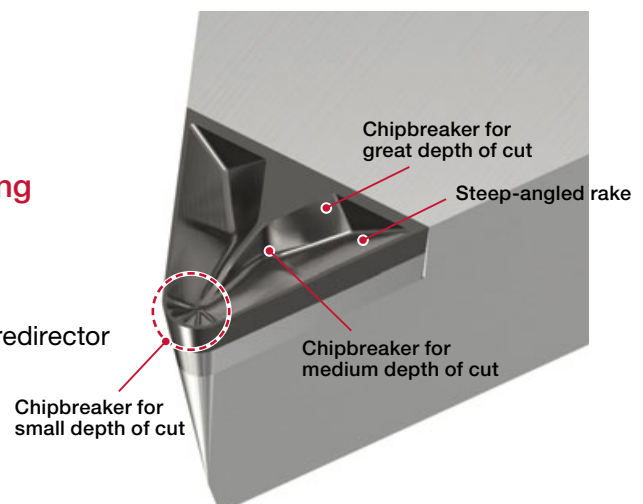
■ PCD inserts with 3D chipbreaker

NS chipbreaker

No more chip nesting in aluminum alloy machining

Unique 3D chipbreaker

- Versatile geometry allows excellent chip control
- One insert handles from rough to finish operations
- Optimal rake angle design effectively directs chips to the redirector

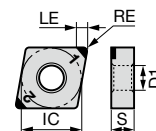


CBN Insert NEGATIVE TYPE

CN

80°Rhombic
with hole

- : Continuous cutting
- ◐ : Light interrupted cutting
- ✱ : Heavy interrupted cutting



IC : 12.7 mm
D1 : 5.16 mm
S : 4.76 mm

 80°Rhombic with hole		K Cast iron																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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T at the beginning of the designation means 10 pieces per package.

● : Line up

Reference pages: External toolholder → **C015** - Internal toolholder → **D025** -
 J-Series toolholder → **G050** TungCap → **K008** -
 PINZBOHR® → **K178** - Cartridge → **K181** -

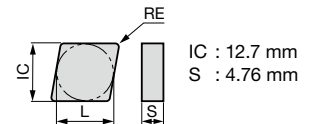
IC : 12.7 mm
D1 : 5.16 mm
S : 4.76 mm

● : Line up

Tungaloy B173

CN Solid insert

80° Rhombic without hole

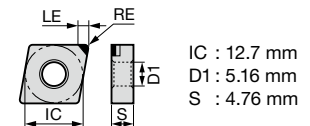


 80° Rhombic without hole		K	Cast iron	✖																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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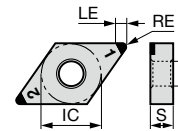
CN

80° Rhombic with hole



		80°Rhombic with hole		K Cast iron																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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● : Line up

[illegible]

IC : 12.7 mm
D1 : 5.16 mm
S : 4.76 mm

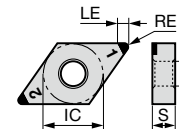
Application	Designation	Dimension (mm)		No. of corners	Wiper	Standard	Problem					BXA10	BXA20	BR35F	BXM10	BXM20	BXC50	BXA30	BXA40	BX310	BX330	BX360	BX380	BX470	BX480	BX930	
		RE	LE				Burr	Flank wear	Crater wear	Chipping																	
Finishing	2QP-DNGA150408	0.8	2.1	2		○					●	●								●	●	●	●	●	●	●	
	2QP-DNGA150408SR		2.1	2		○								●													
	4QS-DNGA150408		1.6	4		○						●	●														
	4QS-DNGA150408SR		1.6	4		○							●														
	4QP-DNGA150408		2.1	4		○										●	●	●									
	2QP-DNGA150408-LC		2.1	2						○		●	●														
	4QS-DNGA150408-LC		1.6	4						○		●	●														
	2QP-DNGA150412	1.2	2	2		○					●	●		●	●					●	●	●	●		●	●	
	2QP-DNGA150412SR		2	2		○							●														
	4QS-DNGA150412		1.6	4		○						●	●														
	4QS-DNGA150412SR		1.6	4		○								●													
	4QP-DNGA150412		2	4		○										●	●	●									
	2QP-DNGA150412-LC		2	2						○		●	●														
	4QS-DNGA150412-LC		1.6	4						○		●	●														
	2QP-DNGA150416	1.6	3.4	2		○						●	●														
	2QP-DNGA150416SR		3.4	2		○								●													
	2QP-DNGA150420	2	3	2		○						●	●														
	2QP-DNGA150420SR		3	2		○								●													
2QP-DNGA150424	2.4	2.6	2		○						●	●															
2QP-DNGA150424SR		2.6	2		○								●														
Medium cutting	2QP-DNGA150404-H	0.4	2.5	2						○	●	●			●							●	●				
	2QP-DNGA150404HC		2.5	2						○			●														
	4QS-DNGA150404-H		2	4						○	●	●															
	4QS-DNGA150404HC		2	4						○			●														
	4QP-DNGA150404-H		2.5	4						○								●									
	2QP-DNGA150408-H	0.8	2.1	2						○	●	●			●						●	●					
	2QP-DNGA150408HC		2.1	2						○			●														
	4QS-DNGA150408-H		1.6	4						○	●	●															
	4QS-DNGA150408HC		1.6	4						○			●														
	4QP-DNGA150408-H		2.1	4						○								●									
	2QP-DNGA150412-H	1.2	2	2						○	●	●			●							●	●				
	2QP-DNGA150412HC		2	2						○			●														
	4QS-DNGA150412-H		1.6	4						○	●	●										●	●				
	4QS-DNGA150412HC		1.6	4						○			●														
	4QP-DNGA150412-H		2	4						○									●								
	2QP-DNGA150416HC	1.6	3.4	2						○			●														
	2QP-DNGA150420HC	2	3	2						○			●														
	2QP-DNGA150424HC	2.4	2.6	2						○			●														

● : Line up

DN



55° Rhombic with hole



IC : 12.7 mm
D1 : 5.16 mm
S : 6.35 mm

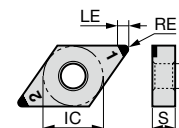
[illegible]

● : Line up

DN with chipbreaker



55° Rhombic with hole

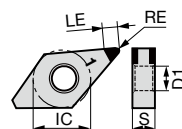


IC : 12.7 mm
D1 : 5.16 mm
S : 6.35 mm

[illegible]

● : Line up

**45° Rhombic
with hole**

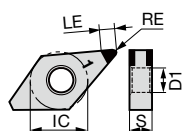


IC : 12.7 mm
D1: 5.16 mm
S : 6.35 mm

[illegible]

● : Line up

**45° Rhombic
with hole**



IC : 12.7 mm
D1 : 5.16 mm
S : 6.35 mm

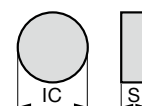
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● : Line up

RN Solid insert



Round, without hole



IC : 9.525 mm
S : 3.18 mm

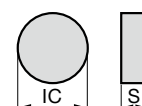
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● : Line up

RN Solid insert



Round, without hole



IC : 12.7 mm
S : 4.76 mm

[illegible]

● : Line up

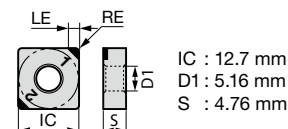
CBN Insert NEGATIVE TYPE

● : Continuous cutting
 ● : Light interrupted cutting
 * : Heavy interrupted cutting

SN



**Square
with hole**



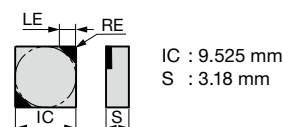
		Square with hole		K	Cast iron																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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● : Line up

SN



**Square
without hole**



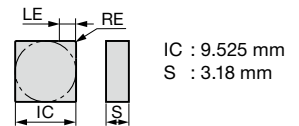
Square without hole		Dimension (mm)		No. of corners	Wiper	Standard	Problem																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
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● : Line up

Reference pages: External toolholder → **C101** - Internal toolholder → **D043** -
 Cartridge → **K181** -

SN Solid insert

 **Square without hole**

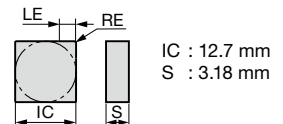


Application	Designation	Dimension (mm)		No. of corners	Wiper	Standard	Problem				BXC90										
		RE	LE				Burr	Flank wear	Crater wear	Chipping											
Medium cutting	S-SNGN090308	0.8		8		○					●										
	S-SNGN090312	1.2		8		○					●										

● : Line up

SN Solid insert

 **Square without hole**

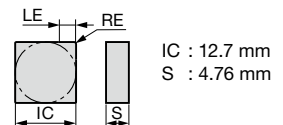


Application	Designation	Dimension (mm)		No. of corners	Wiper	Standard	Problem				BXC90										
		RE	LE				Burr	Flank wear	Crater wear	Chipping											
Medium cutting	S-SNGN120308	0.8		8		○					●										
	S-SNGN120312	1.2		8		○					●										

● : Line up

SN Solid insert

 **Square without hole**



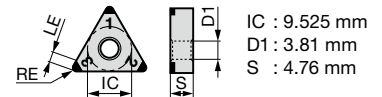
Application	Designation	Dimension (mm)		No. of corners	Wiper	Standard	Problem				BXC90										
		RE	LE				Burr	Flank wear	Crater wear	Chipping											
Medium cutting	S-SNGN120408	0.8		8		○					●										
	S-SNGN120412	1.2		8		○					●										

● : Line up

Reference pages: External toolholder → **C101** - Internal toolholder → **D043** -
Cartridge → **K181** -



**Triangular
with hole**

[illegible]

● : Line up

IC : 9.525 mm
S : 4.76 mm

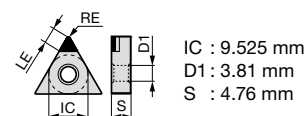


K	Cast iron	
S	Superalloy	
H	Hard material	
	Sintered metal	

[illegible]

● : Line up

Triangular with hole

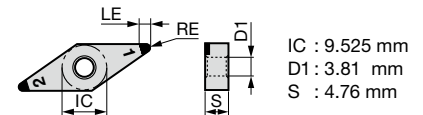
[illegible][illegible]

● : Line up

VN with chipbreaker



35° Rhombic with hole



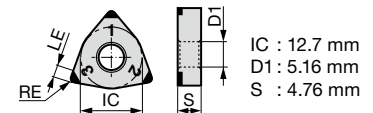
35° Rhombic with hole							K	Cast iron																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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● : Line up

WN



80° Trigon with hole



Application		Designation	Dimension (mm)		No. of corners	Wiper	Standard	Problem															
			RE	LE				Burr	Flank wear	Crater wear	Chipping	BXA10	BXA20	BXM10	BXM20	BXC50	BXA30	BXA40	BX310	BX330	BX360	BX380	BX480
Precision finishing	3QP-WNGA080408-LF	0.8	2.2	3			○					●	●										
	6QS-WNGA080408-LF		1.5	6			○					●	●										
	3QP-WNGA080408-L		2.2	3				○				●	●										
	3QP-WNGA080408FW		2.2	3	○	○					●	●	●	●									
	6QS-WNGA080408FW		1.8	6	○	○						●	●										
Finishing	3QP-WNGA080404	0.4	2.3	3		○						●	●										
	6QS-WNGA080404		1.6	6		○						●	●										
	6QP-WNGA080404		2.3	6		○								●									
	3QP-WNGA080408	0.8	2.2	3		○						●	●	●	●			●	●	●	●	●	
	6QS-WNGA080408		1.5	6		○						●	●										
	6QP-WNGA080408		2.2	6		○								●	●	●							
	3QP-WNGA080412		2.4	3		○						●	●							●			
	6QS-WNGA080412	1.7	6		○							●	●										
Medium cutting	3QP-WNGA080408-H	0.8	2.2	3						○		●	●										
	6QS-WNGA080408-H		1.5	6						○		●	●										

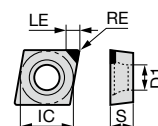
● : Line up

Reference pages: VN: External toolholder → C041 -, Internal toolholder → D074 -, TungCap → C042 -, K014 -
WN: External toolholder → C024 -, Internal toolholder → D031 -, TungCap → C024 -, K010 -

CC



80° Rhombic with hole, Positive 7°



IC : 3.57 mm
D1 : 1.9 mm
S : 1.39 mm

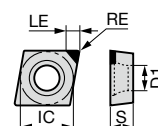
[illegible]

● : Line up

CC



80° Rhombic with hole, Positive 7°



IC : 4.37 mm
D1 : 2.3 mm
S : 1.79 mm

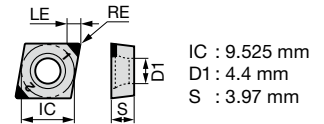
[illegible]

● : Line up

CC



**80°Rhombic
with hole, Positive 7°**



		80°Rhombic with hole, Positive 7°		K		Cast iron															●●	●							
				S		Superalloy																●●							
				H		Hard material	●	●●	✱	●	●●	●	●●	●	●	●●						●●	●●						
						Sintered metal																●●	✱						
Application	Designation	Dimension (mm)		No. of corners	Wiper	Standard	Problem				BXA10	BXA20	BR35F	BXM10	BXM20	BXA30	BXA40	BX310	BX330	BX360	BX470	BX480	BX930						
RE	LE	Burr	Flank wear				Crater wear	Chipping																					
Precision finishing	2QP-CCGW09T302-LF	0.2	2.3	2			○				●	●																	
	2QP-CCGW09T302-L		2.3	2				○			●	●																	
	2QP-CCGW09T304-LF	0.4	2.3	2			○				●	●																	
	2QP-CCGW09T304-L		2.3	2				○			●	●																	
	2QP-CCGW09T304FW	2.3	2	○	○						●	●																	
	2QP-CCGW09T308-LF	0.8	2.2	2			○				●	●																	
	2QP-CCGW09T308-L		2.2	2				○			●	●																	
2QP-CCGW09T308FW	2.2		2	○	○						●	●																	
Finishing	2QP-CCGW09T302	0.2	2.3	2		○					●	●																	
	2QP-CCGW09T302-LC		2.3	2					○		●	●																	
	2QP-CCGW09T304	0.4	2.3	2		○					●	●		●	●	●	●					●	●						
	2QP-CCGW09T304SR		2.3	2		○							●																
	2QP-CCMW09T304		2.3	2		○										●	●	●					●						
	Q-CCMW09T304		2.5	1		○											●												
	2QP-CCGW09T304-LC	2.3	2					○			●	●																	
	2QP-CCGW09T308	0.8	2.2	2		○					●	●		●	●	●	●					●							
	2QP-CCGW09T308SR		2.2	2		○							●																
	2QP-CCMW09T308		2.2	2		○													●	●	●								
2QP-CCGW09T308-LC	2.2		2					○			●	●																	
Medium cutting	2QP-CCGW09T302-H	0.2	2.3	2								●																	
	2QP-CCGW09T304-H	0.4	2.3	2								●																	
	2QP-CCGW09T304HC		2.3	2									●																
	2QP-CCGW09T308-H	0.8	2.2	2								●																	
	2QP-CCGW09T308HC		2.2	2									●																

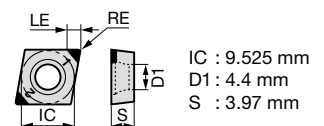
● : Line up

CC

with chipbreaker



**80°Rhombic
with hole, Positive 7°**



 80°Rhombic with hole, Positive 7°		K	Cast iron																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			</
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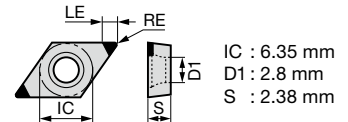
● : Line up

Reference pages: External toolholder → **C030** - Internal toolholder → **D014** -
J-Series toolholder → **G040** - PINZBOHR® → **K178** -

DC



**55° Rhombic
with hole, Positive 7°**



 55° Rhombic with hole, Positive 7°					K Cast iron																cc		•							
					S Superalloy																cc									
					H Hard material		●		cc		✱		●		cc		●		cc		●		●		cc					
					Sintered metal																		cc		cc					
Application	Designation	Dimension (mm)		No. of corners	Wiper	Standard	Problem					BXA10	BXA20	BR35F	BXM10	BXM20	BXA30	BXA40	BX310	BX330	BX360	BX470	BX480	BX930						
		RE	LE				Burr	Flank wear	Crater wear	Chipping																				
Finishing	2QP-DCGW070202-LF	0.2	2.7	2			○				●	●																		
	2QP-DCGW070202-L		2.7	2			○				●	●																		
	2QP-DCGW070204-LF	0.4	2.5	2			○				●	●																		
	2QP-DCGW070204-L		2.5	2			○				●	●																		
	2QP-DCGW070208-LF	0.8	2.1	2			○				●	●																		
	2QP-DCGW070208-L		2.1	2			○				●	●																		
Medium cutting	2QP-DCGW070202	0.2	2.7	2		○					●	●		●	●	●	●													
	2QP-DCGW070202SR		2.7	2		○							●																	
	2QP-DCMW070202		2.7	2		○											●	●	●											
	2QP-DCGW070202-LC		2.7	2					○		●	●																		
	2QP-DCGW070204	0.4	2.5	2		○					●	●		●	●	●	●						●	●						
	2QP-DCGW070204SR		2.5	2		○							●																	
	2QP-DCMW070204		2.5	2		○											●	●	●						●					
	Q-DCMW070204		2.1	1		○												●												
	2QP-DCGW070204-LC		2.5	2					○		●	●									●									
	2QP-DCGW070208	0.8	2.1	2		○					●	●											●							
	2QP-DCGW070208SR		2.1	2		○							●																	
	2QP-DCGW070208-LC		2.1	2					○		●	●																		

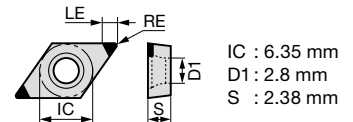
● : Line up

DC

with chipbreaker



**55° Rhombic
with hole, Positive 7°**



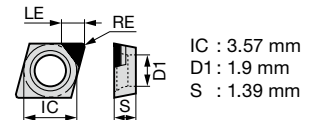
 55° Rhombic with hole, Positive 7°		Dimension (mm)		No. of corners	Wiper	Standard	Problem																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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● : Line up

EP



**75° Rhombic,
Positive 11°
with hole**



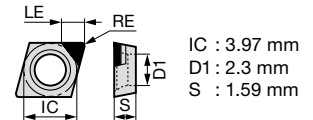
Application	Designation	Dimension (mm)		No. of corners	Wiper	Standard	Problem													
		RE	LE				Burr	Flank wear	Crater wear	Chipping										
											BX310	BX470								
Finishing	1QP-EPGW03X102	0.2	1.4	1		○					●	●								
	1QP-EPGW03X104	0.4	1.3	1		○					●	●								

● : Line up

EP



**75° Rhombic,
Positive 11°
with hole**



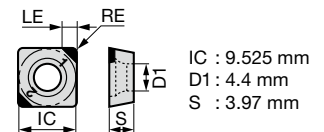
Application	Designation	Dimension (mm)		No. of corners	Wiper	Standard	Problem													
		RE	LE				Burr	Flank wear	Crater wear	Chipping										
											BX310	BX470								
Finishing	1QP-EPGW040102	0.2	1.7	1		○					●	●								
	1QP-EPGW040104	0.4	1.6	1		○					●	●								

● : Line up

SP



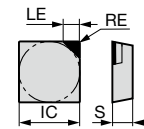
**Square Positive 11°
with hole**



Application	Designation	Dimension (mm)		No. of corners	Wiper	Standard	Problem													
		RE	LE				Burr	Flank wear	Crater wear	Chipping										
											BX910									
Finishing	2QP-SPGW09T308	0.8	2.4	2		○					●									
	2QP-SPGW09T312	1.2	2.4	2		○					●									

● : Line up

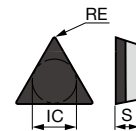
Reference pages: EP: Internal toolholder → **D034** -, Boring bar tool → **K201** -, Top-borer tool → **K202**
SP: Internal toolholder → **D041** -, Cartridge → **K181** -

[illegible]

IC : 12.7 mm
S : 3.18 mm

[illegible]

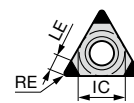
● : Line up

[illegible]

IC : 3.97 mm
S : 1.59 mm

[illegible]

● : Line up

[illegible]

IC : 5.56 mm
D1 : 2.5 mm
S : 2.38 mm

[illegible]

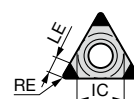
● : Line up

Reference pages: SP: Internal toolholder → **D042**, Cartridge → **K181** -
 TC: External toolholder → **C054**, Internal toolholder → **D045**
 J-Series toolholder → **G074** -, PINZBOHR® → **K178** -

TP



Triangular Positive 11° with hole



IC : 5.56 mm
D1 : 2.5 mm
S : 2.38 mm

[illegible]

● : Line up

TP



Triangular Positive 11° with hole



IC : 6.35 mm
D1 : 2.8 mm
S : 2.38 mm

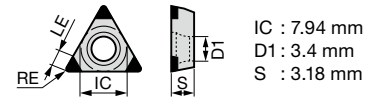
[illegible]

● : Line up

TP



Triangular Positive 11° with hole



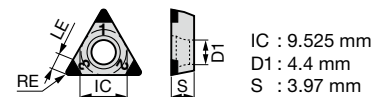
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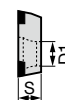
CBN Insert POSITIVE TYPE

● : Continuous cutting
 ● : Light interrupted cutting
 ✱ : Heavy interrupted cutting

TP



Triangular Positive 11° with hole



IC : 9.525 mm
 D1 : 4.4 mm
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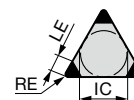
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● : Line up

TP



Triangular Positive 11° without hole



IC : 6.35 mm
 S : 3.18 mm



Triangular Positive 11°

without hole

K

Cast iron

S

Superalloy

H

Hard material

Sintered metal

Application	Designation	Dimension (mm)		No. of corners	Wiper	Standard	Problem				BX330	BX360	BX480	BX910	BX930																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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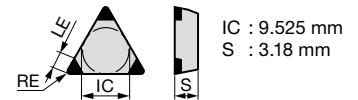
● : Line up

Reference pages: Internal toolholder → **D046** - Cartridge → **K181** -
 Boring bar tool → **K199** - Top-borer tool → **K203**

TP



Triangular Positive 11° without hole

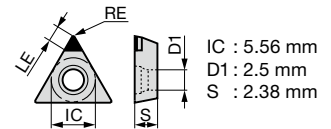
[illegible]

● : Line up

TP



Triangular Positive 11° with hole

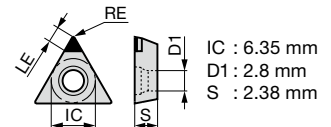
[illegible]

● : Line up

TP



Triangular Positive 11° with hole

[illegible]

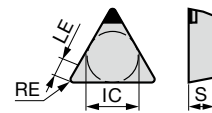
● : Line up

Reference pages: Internal toolholder → **D046** - Cartridge → **K181** -
Boring bar tool → **K199** - Top-borer tool → **K203**

TP



Triangular Positive 11° without hole



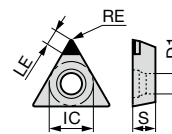
IC : 9.525 mm
S : 3.18 mm

		Triangular Positive 11° without hole		K Cast iron		S Superalloy		H Hard material		●●											

TP



Triangular Positive 11° with hole



● : Line up

IC : 5.56 mm
D1 : 3.2 mm
S : 2.38 mm

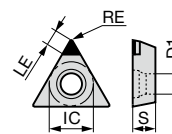
[illegible]

Tungaloy's standard hole specification (ISO non-compliant)

TP



Triangular Positive 11° with hole



IC : 6.35 mm
D1 : 3 mm
S : 2.38 mm

[illegible]

Tungaloy's standard hole specification (ISO non-compliant)

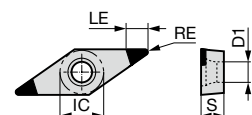
● : Line up

Reference pages: Mounting hole specification → **B146**
 Internal toolholder → **D046** - Cartridge → **K181** -
 Boring bar tool → **K199** - Top-borer tool → **K203**

VB



35° Rhombic Positive 5° with hole



IC : 6.35 mm
D1 : 2.8 mm
S : 2.38 mm

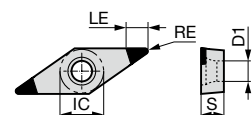
[illegible]

● : Line up

VB



35° Rhombic Positive 5° with hole

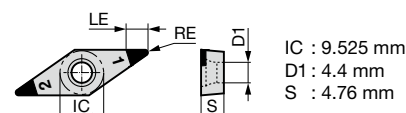


IC : 6.35 mm
D1 : 2.8 mm
S : 3.18 mm

[illegible]

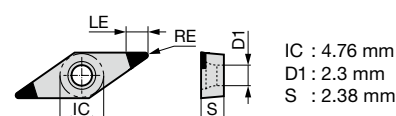
● : Line up

**35° Rhombic
Positive 5°
with hole**

[illegible]

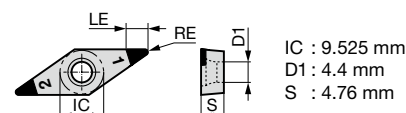
● : Line up

 **35° Rhombic
Positive 7°
with hole**

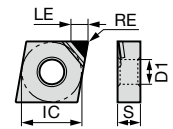
[illegible]

● : Line up

 **35° Rhombic
Positive 7°
with hole**

[illegible]

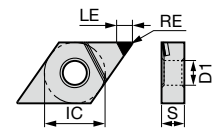
● : Line up

CN**80° Rhombic with hole**

IC : 12.7 mm
 D1 : 5.16 mm
 S : 4.76 mm

Application	Designation	Dimension (mm)		No. of corners	Chipbreaker																
		RE	LE			DX110	DX120	DX140													
Finishing	1QP-CNMM120402	0.2	2.8	1	○	●															
	CNMM120402-DIA		3.5	1	○		●														
	1QP-CNMM120404	0.4	2.8	1	○	●															
	CNMM120404-DIA		3.5	1	○		●														
	CNGA120404-DIA		3.5	1				●													
	CNGA120408-DIA	0.8	2.8	1				●													

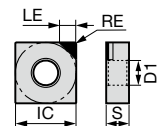
● : Line up

DN**55° Rhombic with hole**

IC : 12.7 mm
 D1 : 5.16 mm
 S : 4.76 mm

Application	Designation	Dimension (mm)		No. of corners	Chipbreaker																
		RE	LE			DX120	DX140	DX160													
Finishing	DNMM150402-DIA	0.2	3.3	1	○	●															
	DNMM150404-DIA	0.4	3.1	1	○	●															
	DNGA150404-DIA		3.1	1			●	●													
	DNGA150408-DIA	0.8	2.8	1			●														

● : Line up

SN**Square with hole**

IC : 12.7 mm
 D1 : 5.16 mm
 S : 4.76 mm

Application	Designation	Dimension (mm)		No. of corners	Chipbreaker																
		RE	LE			DX140															
Finishing	SNGA120404-DIA	0.4	3.6	1		●															
	SNGA120408-DIA	0.8	3.6	1		●															

● : Line up

Reference pages: CN: External toolholder → **C015 -**, Internal toolholder → **D025 -**
 J-Series toolholder → **G050**, TungCap → **K008 -**
 PINZBOHR® → **K178 -**, Cartridge → **K181 -**
 DN: External toolholder → **C034 -**, Internal toolholder → **D069 -**
 J-Series toolholder → **G068**, TungCap → **C034 -**, **K012 -**
 SN: External toolholder → **C101 -**, Internal toolholder → **D043 -**
 Cartridge → **K181 -**

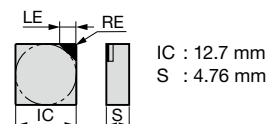
PCD Insert NEGATIVE TYPE

● : Continuous cutting
 ● : Light interrupted cutting
 ✱ : Heavy interrupted cutting

SN



Square without hole



N Non-ferrous

●●

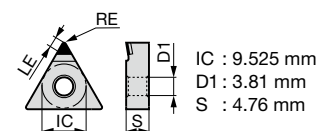
Application	Designation	Dimension (mm)		No. of corners	Chipbreaker																
		RE	LE			DX140															
Finishing	SNGN120408-DIA	0.8	3.6	1		●															

● : Line up

TN



Triangular with hole



N Non-ferrous

●●

●●

●●

●●

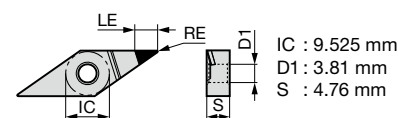
Application	Designation	Dimension (mm)		No. of corners	Chipbreaker																
		RE	LE			DX110	DX120	DX140	DX160												
Finishing	1QP-TNMM160402	0.2	2.7	1	○	●															
	TNMM160402-DIA		3.3	1	○		●														
	1QP-TNMM160404	0.4	2.6	1	○	●															
	TNMM160404-DIA		3.2	1	○		●														
	TNGA160404-DIA		3.2	1				●	●												
	TNGA160408-DIA		2.9	1				●	●												

● : Line up

VN



35° Rhombic with hole



N Non-ferrous

●●

Application	Designation	Dimension (mm)		No. of corners	Chipbreaker																
		RE	LE			DX120															
Finishing	VNMM160402-DIA	0.2	4.8	1	○	●															
	VNMM160404-DIA	0.4	4.4	1	○	●															
	VNMM160408-DIA	0.8	3.6	1	○	●															

● : Line up

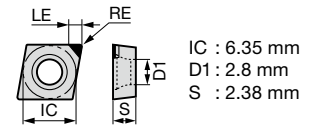
Reference pages: SN: External toolholder → C101 -, Internal toolholder → D043 -, Cartridge → K181 -

TN: External toolholder → C032 -, Internal toolholder → D049 -, Cartridge → K181 -

VN: External toolholder → C041 -, Internal toolholder → D074 -, TungCap → C042 -, K014 -

CC

**80° Rhombic
Positive 7°
with hole**

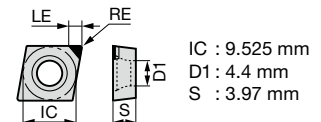


 80°Rhombic Positive 7° with hole		N Non-ferrous		●●	●●	●●																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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● : Line up

CC

**80° Rhombic
Positive 7°
with hole**

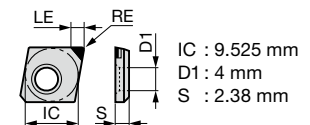


Application	Designation	Dimension (mm)		No. of corners	Chipbreaker																
		RE	LE			DX110	DX120	DX140	DX160												
Finishing	CCMT09T302-DIA	0.2	2.4	1	○		●														
	CCGW09T302-DIA		3.5	1				●													
	1QP-CCGT09T304-NS		3.1	1	○	●															
	1QP-CCMT09T304	0.4	2.4	1	○	●															
	CCMT09T304-DIA		2.4	1	○		●														
	CCGW09T304-DIA		3.5	1				●	●												
	1QP-CCGT09T308-NS	0.8	3	1	○	●															
	CCGW09T308-DIA		3.4	1				●													

● : Line up

CP

**80° Rhombic
Positive 11°
with hole**



Application	Designation	Dimension (mm)		No. of corners	Chipbreaker																
		RE	LE			DX140															
Finishing	CPGA090202-DIA	0.2	2.4	1		●															
	CPGA090204-DIA	0.4	2.4	1		●															

Tungaloy's standard hole specification (ISO non-compliant)

● : Line up

Reference pages: CC: External toolholder → **C030** -, Internal toolholder → **D014** -
 J-Series toolholder → **G040** -, PINZBOHR® → **K178** -

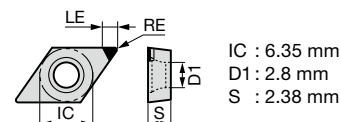
PCD Insert POSITIVE TYPE

- : Continuous cutting
- : Light interrupted cutting
- : Heavy interrupted cutting

DC



**55° Rhombic
Positive 7°
with hole**



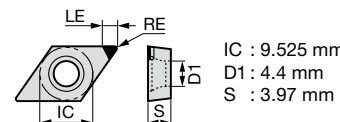
Application	Designation	Dimension (mm)		No. of corners	Chipbreaker																
		RE	LE			DX110	DX120	DX140													
Finishing	DCGW070200-DIA	0.05	2.4	1		●●	●●	●●													
	DCMT070202-DIA	0.2	2.3	1	○		●														
	DCGW070202-DIA		2.3	1			●	●													
	1QP-DCGT070204-NS	0.4	3	1	○	●															
	DCMT070204-DIA		2.1	1	○		●														
	DCGW070204-DIA		2.1	1				●													

● : Line up

DC



**55° Rhombic
Positive 7°
with hole**



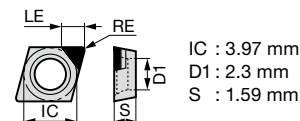
Application	Designation	Dimension (mm)		No. of corners	Chipbreaker																
		RE	LE			DX110	DX120	DX140													
Finishing	DCMT11T302-DIA	0.2	3.2	1	○		●														
	DCGW11T302-DIA		3.2	1				●													
	1QP-DCGT11T304-NS	0.4	3	1	○	●															
	DCMT11T304-DIA		3	1	○		●														
	DCGW11T304-DIA		3	1				●													
	1QP-DCGT11T308-NS	0.8	3	1	○	●															
	DCGW11T308-DIA		2.7	1				●													

● : Line up

EP



**75° Rhombic
Positive 11°
with hole**



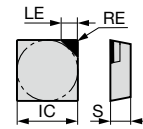
Application	Designation	Dimension (mm)		No. of corners	Chipbreaker																
		RE	LE			DX140															
Finishing	EPGW040102-DIA	0.2	2	1		●															
	EPGW040104-DIA	0.4	1.9	1		●															

● : Line up

Reference pages: DC: External toolholder → **C046 -**, Internal toolholder → **D056 -**, J-Series toolholder → **G052 -**
 EP: Internal toolholder → **D034 -**, Boring bar tool → **K201 -**, Top-borer tool → **K202**

SP

**Square
Positive 11°
without hole**



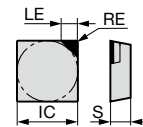
IC : 9.525 mm
S : 3.18 mm

Application	Designation	Dimension (mm)		No. of corners	Chipbreaker																
		RE	LE																		
Finishing	SPGN090308-DIA	0.8	3.6	1	DX140	●															

● : Line up

SP

**Square
Positive 11°
without hole**



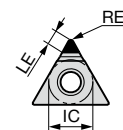
IC : 12.7 mm
S : 3.18 mm

Application	Designation	Dimension (mm)		No. of corners	Chipbreaker																
		RE	LE																		
Finishing	SPGN120302-DIA	0.2	3.6	1	DX140	●															
	SPGN120304-DIA	0.4	3.6	1	DX160	●															
	SPGN120308-DIA	0.8	3.6	1		●	●														

● : Line up

TC

**Triangular
Positive 7°
with hole**



IC : 4.76 mm
D1 : 2.7 mm
S : 2.38 mm

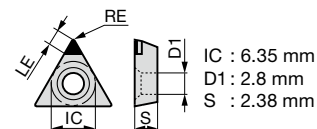
Application	Designation	Dimension (mm)		No. of corners	Chipbreaker																
		RE	LE																		
Finishing	TCMT080202-DIA	0.2	2.2	1	DX120	●															
	TCMT080204-DIA	0.4	2	1		●															

● : Line up

Reference pages: SP: Internal toolholder → **D041** -, Cartridge → **K181** -
 TC: External toolholder → **C054**, Internal toolholder → **D045**
 J-Series toolholder → **G074** -, PINZBOHR® → **K178** -

TP

**Triangular
Positive 11°
with hole**



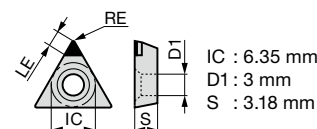
Application	Designation	Dimension (mm)		No. of corners	Chipbreaker	DX140										
		RE	LE													
Finishing	TPGA110202-DIA	0.2	2.4	1		●										
	TPGA110204-DIA	0.4	2.2	1		●										

Tungaloy's standard hole specification (ISO non-compliant)

● : Line up

TP

**Triangular
Positive 11°
with hole**



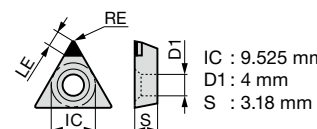
Application	Designation	Dimension (mm)		No. of corners	Chipbreaker	DX140										
		RE	LE													
Finishing	TPGA110302-DIA	0.2	2.4	1		●										
	TPGA110304-DIA	0.4	2.2	1		●										
	TPGA110308-DIA	0.8	2.9	1		●										

Tungaloy's standard hole specification (ISO non-compliant)

● : Line up

TP

**Triangular
Positive 11°
with hole**



Application	Designation	Dimension (mm)		No. of corners	Chipbreaker	DX140										
		RE	LE													
Finishing	TPGA160302-DIA	0.2	3.3	1		●										
	TPGA160304-DIA	0.4	3.2	1		●										
	TPGA160308-DIA	0.8	2.9	1		●										

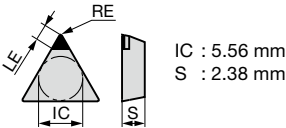
Tungaloy's standard hole specification (ISO non-compliant)

● : Line up

Reference pages: Mounting hole specification → **B146**Internal toolholder → **D046 -**Boring bar tool → **K199 -**Cartridge → **K181 -**Top-borer tool → **K203**

PCD Insert POSITIVE TYPE

● : Continuous cutting
 ● : Light interrupted cutting
 * : Heavy interrupted cutting



TP



Triangular
 Positive 11°
 without hole

Application	Designation	Dimension (mm)		No. of corners	Chipbreaker																
		RE	LE																		
Finishing	TPGN090204-DIA	0.4	2.2	1		●															

● : Line up

TP



Triangular
 Positive 11°
 without hole

Application	Designation	Dimension (mm)		No. of corners	Chipbreaker																
		RE	LE																		
Finishing	TPGN110304-DIA	0.4	3.2	1		●	●														
	TPGN110308-DIA	0.8	2.9	1		●															

● : Line up

TP



Triangular
 Positive 11°
 without hole

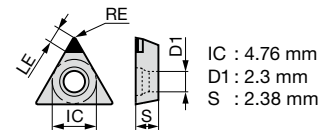
Application	Designation	Dimension (mm)		No. of corners	Chipbreaker																
		RE	LE																		
Finishing	TPGN160302-DIA	0.2	3.3	1		●	●														
	TPGN160304-DIA	0.4	3.2	1		●	●														
Finishing	TPGN160308-DIA	0.8	2.9	1		●															

● : Line up

Reference pages: Internal toolholder → **D047** - Cartridge → **K181** -
 Boring bar tool → **K199** - Top-borer tool → **K203**

TP

**Triangular
Positive 11°
with hole**

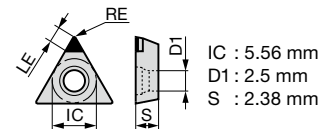


Application	Designation	Dimension (mm)		No. of corners	Chipbreaker																
		RE	LE																		
Finishing	TPGW080202-DIA	0.2	2.4	1		●	●														
	TPGW080204-DIA	0.4	2.3	1		●	●														

● : Line up

TP

**Triangular
Positive 11°
with hole**

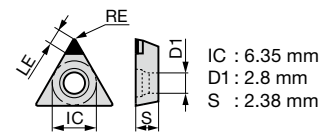


Application	Designation	Dimension (mm)		No. of corners	Chipbreaker																
		RE	LE																		
Finishing	TPGW090202-DIA	0.2	2.4	1		●	●														
	TPGW090204-DIA	0.4	2.2	1		●	●														

● : Line up

TP

**Triangular
Positive 11°
with hole**



Application	Designation	Dimension (mm)		No. of corners	Chipbreaker																
		RE	LE																		
Finishing	TPGW110202-DIA	0.2	2.4	1		●	●														
	TPGW110204-DIA	0.4	2.2	1		●	●														

● : Line up

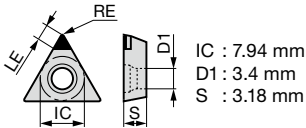
PCD Insert POSITIVE TYPE

● : Continuous cutting
 ●● : Light interrupted cutting
 ●●● : Heavy interrupted cutting

TP



Triangular
 Positive 11°
 with hole



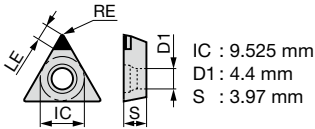
		Triangular Positive 11° with hole		N Non-ferrous		●● ●●																	
Application	Designation	Dimension (mm)		No. of corners	Chipbreaker	DX120	DX140																
		RE	LE																				
Finishing	TPGW130302-DIA	0.2	3.3	1		●	●																
	TPGW130304-DIA	0.4	3.2	1			●																

● : Line up

TP



Triangular
 Positive 11°
 with hole



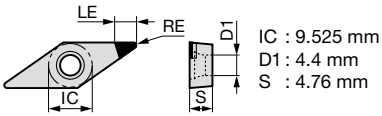
Triangular Positive 11° with hole		N Non-ferrous		●●																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														</
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● : Line up

VC



35° Rhombic
 Positive 7°
 with hole

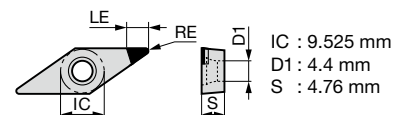


Application	Designation	Dimension (mm)		No. of corners	Chipbreaker																
		RE	LE			DX110	DX120	DX140													
Finishing	VCMT160402-DIA	0.2	4.8	1	○		●														
	VCGW160402-DIA		4.8	1				●													
	1QP-VCMT160404-NS	0.4	3	1	○	●															
	VCMT160404-DIA		4.4	1	○		●														
	VCGW160404-DIA		4.4	1				●													
	1QP-VCMT160408-NS	0.8	3	1	○	●															

● : Line up

Reference pages: TP: Internal toolholder → **D046 -**, Cartridge → **K181 -**
 Boring bar tool → **K199 -**, Top-borer tool → **K203**
 VC: External toolholder → **C048 -**, Internal toolholder → **D039 -**, TungCap → **K015 -**

**35° Rhombic
Positive 5°
with hole**

[illegible]

● : Line up

Technical Guide - Grade Comparison Chart

●CVD Coated Grades for Turning

ISO		Tungaloy	Mitsubishi Carbide	Sumitomo Electric	Sandvik	Kyocera	Moldino	NTK	Kennametal	Seco Tools	Walter	Iscar	TaeguTec	Ceratizit
Classification	Symbol													
P	P01	T9205	UE6105		GC4305	CA510	HG8010		KCP05B KCP05 KCPK05	TP0501	WPP05S	IC8150 IC9150	TT8105 TT8105B	CTCK110
	P10	T9205 T9215	UE6105 UE6110 MC6015 MC6115	AC8015P AC8020P	GC4305 GC4315 GC4415	CA515	HG8010 GM8020	CP7	KCP10B KCP10	TP0501 TP1501	WPP10S WPP10G WPPV10	IC8150 IC9150	TT8115 TT8115B	CTC3110 CTCK120 CTCP115-P
	P20	T9215 T9225	MC6015 MC6025 MC6115 MC6125	AC8015P AC8020P AC8025P	GC4315 GC4325 GC4415 GC4425	CA515 CA525 CA025P	HG8025 GM8020 GM25	CP7	KCP25B KCP25	TP1501 TP2501	WPP20S WPP20G WPPV20	IC8150 IC9150 IC8250 IC9250	TT8125 TT8125B TT5100	CTCP115 CTCP115-P CTCP125 CTCP125-P
	P30	T9225 T9235	MC6025 MC6035 MC6125	AC8025P AC8035P AC6030M	GC4325 GC4335 GC4425	CA530 CA025P	HG8025 GM8035 GM25		KCP30B KCP30	TP2501 TP3501	WPP30S WPP30G	IC8350 IC9350	TT8125 TT8125B TT5100 TT8135 TT8135B	CTCP125 CTCP125-P CTCP135-P
	P40	T9235 T6215	MC6035	AC8035P AC6030M	GC4335	CA530	GM8035 GX30		KCP40B KCP40	TP3501		IC8350 IC9350	TT8135 TT8135B TT7100	
M	M10	T6215	MC7015	AC6020M	GC2015	CA6515			KCM15B KCM15	TM1501		IC9250	TT9215	CTCM120
	M20	T6215	MC7015 MC7025	AC6020M	GC2015 GC2025 GC2220	CA6525	HG8025 GM25		KCM25B KCM25	TM1501 TM2501		IC9350	TT9215 TT9225	CTCM120 CTCM130
	M30	T6215	MC7025 US735	AC6030M	GC2025 GC2035	CA6525	GM8035 GM25 GX30		KCM35B KCM35	TM2501 TM3501		IC9350	TT9225 TT9235	CTCM130
	M40		US735		GC2035		GX30			TM4000			TT9235	
K	K01	T505 T5105	MC5005 MC5105 UC5105	AC405K	GC3005 GC3205	CA4505 CA310	HX3505	CP1	KCK05B KCK05	TK0501		IC5005	TT7005	
	K10	T505 T515 T5105 T5115	MC5015 MC5115 MH515 UC5115	AC4010K AC415K	GC3210 GC3215	CA4515 CA315	HX3515 HG8010	CP1	KCK15B KCK15	TK0501	WKK10S WKV10 WAK10	IC9150 IC5005 IC5010	TT7005 TT7015	CTC3110 CTCK110
	K20	T515 T5115 T5125	MC5015 MC5125 UC5115	AC4015K AC420K	GC3225	CA320	HX3515 GM8020	CP1	KCK20B KCK20	TK1501	WKK20S WKV20 WAK20	IC9150 IC5010	TT7015 TT7025 TT7310	CTCK120 CTCP115
	K30	T5125		AC8025P			HG8025				WAK30	IC4050 IC8150	TT7025	CTCP125

Note: The above table is selected from a publication. We have not obtained approval from each company.

●PVD Coated Grade for Turning

ISO Classification	Symbol	Tungaloy	Mitsubishi Carbide	Sumitomo Electric	Sandvik	Kyocera	Moldino	NTK	Kennametal	Seco Tools	Walter	Iscar	TaeguTec	Ceratizit
P	P01					PR1705								
	P10	AH8005	VP10RT MS6015	AC1030U AC530U ACZ150	GC1105	PR1705 PR930 PR1725	IP2000	VM1 DT4 DM4	KC5010 KCU10	TS2000 CP200		IC807 IC907 IC808 IC908 IC1007	TT4410 TT7010	CTPX710 CTPX715
	P20	AH120 AH725 SH725 AH730 J740 AH8015 AH6225	VP15TF VP20MF VP10RT VP20RT UP20M MS6015	AC1030U AC530U	GC1125	PR1725 PR930 PR1225 PR1025	IP2000	VM1 DT4 DM4 TM4 QM3	KC5025 KCU25 KCS10 KCU10 KC5010	TS2500 CP200		IC807 IC907 IC808 IC908 IC830 IC1010	TT9030 TT4410	CTPX710 CTPX715 CTPM125
	P30	AH120 AH725 AH7025 SH725 SH730 J740 AH8015 AH6225	VP15TF VP20MF VP20RT UP20M MS7025	AC1030U	GC1125	PR1725 PR1225 PR1535 PR1025	IP3000	QM3 TM4	KC5025 KCU25 KCU25	CP500 CP600		IC928 IC528 IC228 IC830 IC1010 IC1030	TT9030 TT8020 TT8010 TT9080 TT7220	CTPM125
	P40	AH120 AH725 AH6225	MS7025			PR1535	IP3000	QM3		CP500 CP600		IC228 IC528 IC1030	TT8020 TT8010 TT4430 TT9020	CTPM125
M	M01										WSM01	IC806 IC1007		
	M10	AH8005 AH6225	VP10RT	AC5005S ACZ150	GC1105 GC1115	PR930 PR1725	IP100S IP050S	VM1 DT4 DM4 ZM3	KC5010 KCU10 KCS10B KCS10	TS2000 TS2500 CP200	WSM10 WSM10S WSM01	IC807 IC907 IC808 IC908 IC1010	*TT4410 TT5080*	CTPM125 CTPX710 CTPX715
	M20	AH8015 AH120 AH7025 AH725 SH725 SH730 AH6225	VP10RT VP15TF VP20MF VP20RT UP20M MS7025 MS9025	AC5015S	GC1115 GC1125	PR930 PR1225 PR1725 PR1025	IP100S IP050S	VM1 DT4 DM4 ST4 TM4 ZM3 QM3	KC5025 KCU25 KCS10 KCU10 KC5010	TS2500 CP200 CP500 CP600	WSM20S	IC808 IC908 IC830 IC1030	TT9030 TT8010 TT4410 TT5080 TT9080	CTPM125 CWN15
	M30	AH120 AH725 SH725 SH730 J740 AH6235	VP15TF VP20MF VP20RT UP20M MP7035 MS7025 MS9025	AC6040M AC1030U AC5025S AC530U	"GC1125 GC2035"	PR1225 PR1535 PR1725 PR1025	IP100S	DT4 DM4 QM3 ST4 TM4 ZM3	KC5025 KCU25	CP500 CP600	WSM30S	IC528 IC228 IC830 IC1030	TT8020 TT4430 TT8010 TT8080 TT7220	CTPM125
	M40	AH6235	MP7035	AC6040M	GC2035	PR1535		ST4 QM3 TM4		CP600		IC228 IC528	TT8010 TT8020	
K	K01	AH110												
	K10	GH110 AH110	VP10RT	ACZ150					KC5010 KCU10 KCS10B KCS10	TS2000 CP200		IC807 IC907	TT9030 TT7010 TT6080	CTPX715
	K20	AH120 AH7025 AH8015 AH6225	VP10RT VP20RT VP15TF	AC1030U					KC5025 KCU25	TS2500 CP200 TS2000		IC807 IC907 IC808 IC908 IC1007 IC1010	*TT9030 TT7010 TT6080 TT9080	CTPX715
	K30	AH120 GH130	VP15TF VP20RT							CP500		IC807 IC907 IC808 IC908	TT9030	CTPX715
S	S01	AH8005	VP05RT MP9005	AC5005S AC5015S ACZ150		PR005S	JP9105		KCS10B		WSM10S	IC804 IC806	TT3010	
	S10	AH8005 AH8015 AH6225	VP10RT MP9015	AC5005S AC5015S	GC1105	PR015S PR005S	JP9105 JP9115	QM3 ZM3	KC5025 KCU25 KCS10B KCS10 KC5010 KCU10	TS2000 TS2500 CP200 CP500	WSM10S WSM01 WNN10	IC806 IC1007 IC1010	TT3010 TT3020 TT5080	CTPX710 CTPX715
	S20	AH8015 AH7025 AH6225	MP9015 VP20RT MP9025 MS9025	AC5015S AC5025S	GC1115 GC1125	PR015S PR1535	JP9115		KC5025 KCU25 KCS10B	TS2000 TS2500 CP200 CP500 CP600	WSM20S	IC807 IC907 IC808 IC908 IC806 IC1010	TT3020 TT4430 TT9030 TT9080	CTPX710 CTPX715
	S30	AH7025 AH6235	VP20RT MP9025 MS9025	AC5025S	GC1125	PR1535				CP600	WSM30S	IC830 IC928	TT4430 TT8020 TT9030	

Note: The above table is selected from a publication. We have not obtained approval from each company.

Technical Guide - Grade Comparison Chart

●Cermet for Turning

ISO		Tungaloy	Mitsubishi Carbide	Sumitomo Electric	Sandvik	Kyocera	Moldino	NTK	Kennametal	Seco Tools	Walter	Iscar	TaeguTec	Ceratizit
Classification	Symbol													
P	P01	NS520	AP25N VP25N	T1000A		TN610 PV710						IC20N IC520N	PV3010	CTEP10 TCM407
	P10	AT9530 GT9530 J9530	AP25N VP25N NX2525	T1500Z T1500A	CT5015 GC1525	TN610 TN620 PV710 PV720 CCX			KT315 KTP10	TP1020	WCE10	IC20N IC30N IC520N IC530N	PV3010 CT3000	CTEP10 TCM10 TCM407
	P20	AT9530 GT9530 NS9530 J9530	AP25N VP25N VP45N NX2525 NX3035 MP3025	T1500A T1500Z T2500A T2500Z	GC1525	TN620 PV720	CZ25			TP1020 TP1030	WCE10	IC20N IC30N IC520N IC530N	PV3010 CT3000	TCM10
	P30	NS9530	VP45N NX3035 MP3025	T2500Z T3000Z		PV730	CZ25					IC530N		
M	M10	NS520	AP25N VP25N NX2525	T1000A	GC1525	TN620 TN610 PV720 PV710			KT315 KTP10	TP1030		IC20N IC30N IC520N IC530N	PV3010 CT3000	CTEP10 TCM10 TCM407
	M20	AT9530 GT9530 NS9530 J9530	AP25N VP25N NX2525	T1500A		TN620 PV720 PV730	CZ25					IC30N IC530N	PV3010 CT3000	
	M30	NS9530		T3000Z			CZ25							
K	K01	NS520	AP25N VP25N	T1000A		PV7005							PV3010	CTEP10 TCM10 TCM407
	K10	AT9530 GT9530 NS9530 J9530	AP25N VP25N NX2525		CT5015	TN60 CCX	CZ25		KT315 KTP10				PV3010 CT3000	TCM10
	K20	NS9530	AP25N VP25N NX2525				CZ25						PV3010 CT3000	

Note: The above table is selected from a publication. We have not obtained approval from each company.

●Cemented Carbide for Turning

ISO		Tungaloy	Mitsubishi Carbide	Sumitomo Electric	Sandvik	Kyocera	Moldino	NTK	Kennametal	Seco Tools	Walter	Iscar	TaeguTec	Ceratizit
Classification	Symbol													
P	P01													
	P10	TH10		ST10P										S26T
	P20	KS20		ST20E								IC50M	P20	S26T S40T
	P30	KS15F UX30	UTi20T	A30								IC28 IC50M	P30	S40T
	P40		UTi20T									IC28		
M	M10	TH10		EH510					K313 KU10 K68	890		IC20		
	M20	KS20	UTi20T	EH520					K313 KU10 K68	HX 883		IC20		CTW7120 H210T U17T
	M30	UX30	UTi20T	A30								IC28		
	M40											IC28		S40T
K	K01	TH03	HTi05											CTWK601
	K10	TH10	HTi10	G10E	H13A	KW10	WH10		K313 KU10 K68	890		IC20	K10	H210T H10T U17T
	K20	KS15F KS20	UTi20T	G10E	H13A	KW10				890 HX 883		IC20	K20	CTW7120 H210T H10T U17T
	K30		UTi20T		H13A					883				TSM30
	K40													
N	N01	KS05F			H10	GW05						IC04		
	N10	TH10	HTi10	H1	H10	GW05 KW10	WH10	KM1	K313 KU10 K68	890 HX KX	WK1	IC20 IC28	K10	H210T H10T U17T
	N20	KS15F		H1	H13A			KM1		890 HX KX 883	WK1	IC20 IC28	K20	CTW7120 H210T H10T U17T
	N30									883				
S	S01		MT9005 RT9005		H10A	SW05						IC20		
	S10	KS05F TH10	MT9015 RT9010	EH510	H10F	SW10 KW10	WH10	KM1	K313 KU10 K68	890 883	WK1 WS10	IC20	K10	H210T H10T
	S20	KS15F KS20	MT9015 RT9010	EH520	H13A H10F	SW25		KM1		890 883	WK1 WS10	IC20 IC28	K20	CTW7120 H210T H10T
	S30									883				
H	H01											IC20		
	H10	TH10			H13A		WH10					IC20	K10	
	H20									890 HX 883				

Note: The above table is selected from a publication. We have not obtained approval from each company.

Technical Guide - Grade Comparison Chart

●CBN and PCD for Turning

ISO		Tungaloy	Mitsubishi Carbide	Sumitomo Electric	Sandvik	Kyocera	Moldino	Dijet	NTK	Seco Tools	Kennametal	Iscar	Ingersoll	TaeguTec	Widia	Walter	Ceratizit
Classification	Symbol																
K	K01	BX930 BX910 BX870	MB710 MB730 MB5015	NCB100 BN500 BNC500	CB50	KBN475 KBN60M			B52		KB1630 KB1345	IB10K		TB7015	WBH10C	WCB80	CTB S10U
	K10	BX470 BX480	MB730 MB5015 MB4020	BN7000 BN500	CB7525 CB50	KBN65M KBN65B		JBN795	B23 B30 B52	CBN200 CBN300 CBN400C	KB1640 KB1345	IB05S IB10S	TB730	TB730	WBK40U	WCB80 WCB50	CTB S10U
	K20	BXC90 BX90S	MB4020 MB4120 MBS140	BNC8115 BNS8125	CB7925	KBN900 KBN70M			B23 B30 B52	CBN300 CBN500	KB5630	IB90A IB90 IB25KD		TB7020	WBK45U	WCB80	CTB S20C
	K30	BXC90 BX90S	MBS140 BC5030	BNS8125		KBN900			B16	CBN500	KB9640	IB90A IB25KD	KB90A	KB90A			
S	S01	BX815	MB730	NCB100 BN7000				JBN795	JP2	CBN170		IB05S IB10S		KB90			CTB S10U
	S10	BX480	MB4020 MB4120	BN7500 BN7115	CB7050	KBN65B KBN65M			B23 B30	CBN200	KB1630	IB05S IB10S		KB90A	WBK45U	WCB80	CTB S20C
H	H01	BXM10 BX310	BC8105 BC8110 MBC010 MB8110	BNC2010 BNC2115 BN1000 BN2000 BNX10 BN1000	CB7105	KBN510 KBN05M KBN10M			B52 B5K	CBN010 CBN100 CBN160C CBN050C	KB1610 KB5610*	IB05H IB10HC	TB610	TB610	WBH10C	WCB30	CTB H15C CTB H15U
	H10	BXA10 BXM10 BX330 BX530	BC8210 MB020 MB8025 MB8110 MB825	BNC2020 BNC2115 BN2000	CB7015 CB7115 CB7025	KBN525 KBN05M KBN10M		JBN245	B36 B52 B6K	CBN150 CBN200 CBN300 CBN060K CBN160C CBN400C	KB9610 KB1610 KB5610	IB50 IB55 IB10H IB10HC IB20H IB25HA		TB2015	WBH10C WBH10P WBH10U	WCB30 WCB50	CTB H15C CTB H15U
	H20	BXM20 BXA20 BX360	BC8220 MBC020 MB8025 MB8120	BNC200 BNC2020 BNC2125 BNX20	CB7015 CB7125 CB50	KBN525 KBN05M KBN10M KBN25M KBN020		JBN300	B22 B36 B40 B6K	CBN200 CBN300 CBN160C CBN400C CH2540	KB5625 KB1625	IB20H IB20HC IB25HA IB25HC	TB650 TB2030	TB650	WBH25P	WCB50 WCB80	CTB H20C CTB H21U
	H30	BR35F BXC50 BX380	BC8130 MB8130 MB835	BNC300 BN350 BNX25		KBN30M KBN35M KBN900		JBN300	B22 B40	CH3515	KB1630 KB9640	IB25HC IB90	TB670	TB670	WBH40C		CTB H40C CTB H40U
N	N01	DX160 DX180	MD205	DA90	CD05	KPD230		JDA30 JDA735	PD1		KD1405	ID5					CTD PU20
	N10	DX140	MD205 MD220	DA150	CD10	KPD010 KPD230		JDA715	PD1	PCD05 PCD10	KD100 KD1400 KD1425	ID5	IN90D	TD810	WDN25U	WCD10	CTD PU20
	N20	DX120	MD220 MD230	DA2200 DA1000	CD10	KPD010		JDA715	PD2	PCD05 PCD20	KD1425		IN90D	KP300	WDN25U	WCD10	CTD PD20
	N30	DX110	MD2030 MD230	DA2200 DA1000		PKD001		JDA10		OVD20 PCD30 PCD30M				TD830		WCD10	

Note: The above table is selected from a publication. We have not obtained approval from each company.

●Ceramic for Turning

ISO		Tungaloy	Mitsubishi Carbide	Sumitomo Electric	Sandvik	Kyocera	Moldino	Dijet	NTK	Seco Tools	Kennametal	Iscar	Ingersoll	TaeguTec	Widia	Walter	Ceratizit
Classification	Symbol																
K	K01	TZ120 LX21		NB90S	CC620	KA30 A65 KT66 PT600M			HC1 HW2		KY1310 KY1615	IN110		AW120 AB30	CW2015		CTN3105 CTS3105
	K10	CX710 FX105			CC6190 CC650	A65 KT66 A66N PT600M			HC2 HC5 HC6		KY1310 KY1615	IN23 IS6	IN70N	AB30 AS10	CW2015 CW5025	WSN10	CTN3105 CTM3110 CTI3105 CTN3110 CTS3105
	K20	FX105 CX710			CC6190	KS6000 KS6050			SP2 SP9 SX8 SX9		KY1320 KY3400 KY3500 KY4300	IS8	IN70N	SC10	CW5025	WSN10	CTM3110 CTN3110
S	S01	TS200							JX1	CS100	KY1525 KY2100	IS25		TC3020			
	S10	TW43 TS300 FX510		WX120	CC670 CC6060 CC6065	KS6030 KS6040			WA1 WA5 SX9	CW100 CS300	KY1540 KYS30 KY2100 KY4300	IW7 IS35		TC430 TC3030	CW3020	WWS20	
H	H01	LX10 LX11		NB100C	CC6050 CC650	PT600M			HC2 HC5 HC6		KY4300	IN420 IN22		AB2010	CW2015		CTS3105
	H10				CC6050 CC670 CC6190	A66N PT600M			HC7 WA1		KY4400	IN23		AB2010 AB20 AB30	CW2015		CTS3105

Note: The above table is selected from a publication. We have not obtained approval from each company.

Grade

Insert

Ext. Toolholder

Int. Toolholder

Threading

Grooving

Miniature tool

Milling cutter

Endmill

Drilling tool

Tooling System

User's Guide

Index

Technical Guide - Chipbreaker Comparison Chart

●Negative insert type

ISO Classification	Cutting Mode	Tungaloy	Mitsubishi Carbide	Sumitomo Electric	Kyocera	Sandvik	Moldino	Kennametal	Seco Tools	Iscar	TaeguTec	Walter	Ceratizit
P	Precision finishing	01 TF	PK FH	FA	GP	PF	FE	FS, LF	FF1	SF, PP, TF	FA		
	Finishing and light cutting	TS, TSF PS, ZF NS AS TQ	FP FY LP SH SA SY	SU FL SE, SX	XP, PP XQ, HQ, CJ, XS	PF LC MF R/L-K XF	BE, BH AB, CT CE	FF, FN	MF2	F3P NF, SF	FG VF, EA FC MC ML, MP	NF3 NS6	CF, TF
	Finishing and light cutting (With Wiper)	AFW, FW ASW, SW	SW MW	LUW SEW GUW	WP WQ WF	WL, WF WMX WM, WR		FW MW RW	W-FF2 W-MF1 W-M3 W-M6	WF WG	WS WT	NF NM	TFQ TMQ
	Medium cutting	TM, AM PM, DM ZM, NM All-round, TA	MA MH, MP	GU GE, UX	HS, PT, GT CS, PS	PM, QM XM, XRM	AH AE, AY, B	MN	MF5 M3	M3P, M3M PP, TF, GN	PC, MT MC, MG	NMT, NM4	TMF, TMM M50
	Medium to heavy cutting	TH THS	RP, GH	MU, ME HG	PH All-round	HM, PR MR	RE	RN, RP MR	M5 MR7	NR MR	RT	MM5, NM6 NM9	TM TRM
	Heavy cutting	TU TRS TUS	HM, HX HL, HR HZ, HV	HG, HP HU, HW HF	PX	PR, MR HR, QR	TE, UE HX, HE H	RM RH	R RR	R3P NM	HT, HD RX, RH HY, HZ	NR6 NRF NRR	TRR, TR R28, R58 R88
M	Finishing and light cutting	SF SS	GM, LM	EX, EG SU, EF	GU MQ	MF, XF	MP BH, AB	FP, FF	FF1 MF1 MF3	TF, VL	EA, SF, SU FG	NF4 NMS	CF, F30, M34 F32, TF
	Medium cutting	SM, SA S, TA SDM	MM, MA MS	GU HM	MU	MM, QM XM	PV, SE DE	MP, P	MF4 M3	M3M, PP	EM, ET	NM4	TMF, M42 M30, M52
	Heavy cutting	SH, TH TU	GH, RM HL	EM, MU	MS TK	MR HM, PR	AH, AE	UP, RP	M5 MR3	MR, MH		NR4 NRT, NRS	TM, M60 TRM, TMR, TRR R80
K	Finishing	CF	LK, MA	UZ	C	KF, XF	Y, AH	FN, MT		GN	FG		CF
	Medium cutting	CM All-round	MK GK	GZ	ZS All-round	KM, QM XM, XMR	RE VA	RP, UN	M4 M5		MT MG	NM5	M50
	Heavy cutting	CH Flat-top	RK Flat-top	Flat-top	GC Flat-top	KR Flat-top	RE,V	MA Flat-top	MR9 Flat-top		RT	Flat-top	TMR, TR R28 R58, R88
N	Cutting of non-ferrous metals	P 28		AX	AH, A3	MF		MS GR		PP			F32
S	Finishing	HRF	FJ, LS MJ	EF EX	SQ, SX	SF	VI	FS MS	MF1			NFT NF4	
	Medium cutting	HRM HMM SA, 28 SDM	MS RS, GJ	EG MU EM	SQ, SX	SMR	VI	UP RP	MF4 M1	PP	SM	NMS NM4, NRS, NR4	M34, M52

Note: Above charts are based on published data and not authorized by each manufacturer.

●Positive insert type

ISO Classification	Cutting Mode	Tungaloy	Mitsubishi Carbide	Sumitomo Electric	Kyocera	Sandvik	Moldino	NTK	Kennametal	Seco Tools	Iscar	TaeguTec	Walter	Ceratizit
P	Precision finishing	01	FV	FC	CF, CK		JQ		GM	FF1 F1	SF		PF2	F32
	Finishing and light cutting	PSF, PF, SS PS, PSS TS, TSF TSW, SW W08-20	FP, FV, SV LP SVX SW, MW	FP, LU FK, SC SU LUW, SDW	GQ GP XP PP, VF WP	R/L-K PF UF WF, WK, WM	JQ JE		11, LF VF, FP FW, MW	MF2	PF SM, 14, 17 19, XL R/L RF, LF	FA FG GF	PF5 PF4 PS5 PF, PM	SF SMF SMW, 25Q
	Medium cutting	PM TM All-round RS	MP MV No sign	SU, MU SC	All-round HQ, XQ GK	PM UM, PR UR	JE		MP MF	M3 M5	DT, HQ	MT MT	PM5	SM
	High-feed, small depth of cut cutting	61									No sign 14	No sign		
M	Finishing	PSF, SS	FM, SV	FC		R/L-K UF, MF			11, VF	FF1 MF2		FG		
	Finishing to Medium cutting	PSS PS	LM SV	SI, GU LB, SU	MQ	MM UM			LF, FP	M3			PF4	SF, SMF
	Medium cutting	PM	MM	MU	HQ	MR UR			MF, MP	M5			PM5	F23, F43 SM
K	Cutting of cast irons	CM Flat-top	MK Flat-top	FC, MU Flat-top	KF KM UM, KR	Flat-top			11, VF, FP MP, MF Flat-top	M5 Flat-top	19	MT Flat-top	PS5, PM5 Flat-top	SF 25P 27, 29
N	Cutting of non-ferrous metals	AL P Ground	AZ R/L-F R/L	AG AY AW LD, GD	AH	AL			HP, LF	AL	AS	FL	PF2 PM2	23P 25P 27, 29
S	Finishing	PSF	FJ	FC	MQ	MF, UF, R/L-K			HP	F1				SF
	Finishing to Medium cutting	PSS PS	LS, MS	SU, GU		MM SM			LF, FP	MF2				F23
	Medium cutting	All-round		SI		UM, MR, UR						FG	PF2, PF4	SM, 25P, 29
P	Turning on small lathes	JP, 01	R/L-SR R/L-SN R/L-SS FS-P, F	W, SD	CF, SKS R/L-F, R/L-FSF ER/L-U FR/L-U R/L-U FR/L-U, R/L-USF MF, R/F-FSF SK, GF CK, GQ	F, M UM	No sign	AMX	LF		SM F2M	GF, GW	PM5	
M		W08, W15, W20 J08		FX, FY				AZ7 YL, AM3				SL SA SM SH		
N		JS, JSS	LS-P	LU, FP, FK, SU FC, SI, SC				U						
S		JRP, JSR, JPP J10, TS, JTS TSW SS	SW, MW SRF SMG	LUW, SDW				CL						

Note: Above charts are based on published data and not authorized by each manufacturer.

External Toolholder



External Toolholder - Content structure

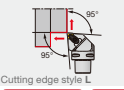
- Indexable toolholders are listed by cutting edge shape.
- Toolholders in the catalog are our standard items.

How to use the page

- Method①** Select 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 (④) in the dimension table (③). Applicable inserts are shown in (⑥) and (⑧).
- Method②** Select the cutting edge on **C003** and check the details on the product page.
- Method③** Select the series name of a toolholder on **C003** and check the details on each page.
- Method④** Select an item from Quick Guide on **C004 - C010**.

② TURNING A C-ACLNR/L

Double-clamp toolholder, with 95° approach angle, for negative 80°/70° rhombic inserts (Turning A)



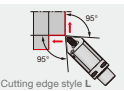
Cutting edge style L

Designation	DCONMS	LF	L2	WF	DMIN	DMIN2	RE	Insert	Torque*
CSACLNR/L22040-09040	32	40	20	22	110	121	0.8	CN**GMA0204L	3
CSACLNR/L22040-12N	32	40	20	22	121	116	0.8	CN**GMA0204L	3
CSACLNR/L27050-09040	40	50	25	27	140	110	0.8	CN**GMA0204L	3
CSACLNR/L27050-12N	40	50	25	27	140	110	0.8	CN**GMA0204L	3
CSACLNR/L33060-12N	50	60	32	35	165	110	0.8	CN**GMA0204L	3
CSACLNR/L40065-09040	63	65	35	45	190	110	0.8	CN**GMA0204L	3
CSACLNR/L40065-12N	63	65	41	45	190	125	0.8	CN**GMA0204L	3
CSACLNR/L40135-12N	63	135	41	45	190	110	0.8	CN**GMA0204L	3
CSACLNR/L40065-16N	63	65	41	45	190	125	1.2	CN**GMA0204L	6.4

Applicable for 7 MPa coolant
*Torque: Recommended clamping torque (N·m)
†Applicable for 3 MPa coolant; ‡Applicable for 7 MPa coolant

④ C-A

Double-clamp toolholder, with 50° approach angle, for negative 80°/70° rhombic inserts



Cutting edge style L

Designation	DCONMS	LF	L2	WF	DMIN	RE	Insert	Torque*
CSACLNR/L0095-12N	30	90	32	0	-	0.8	CN**GMA0204L	3
CSACLNR/L0095-12N	50	90	32	0	165	0.8	CN**GMA0204L	3
CSACLNR/L0125-12N	50	125	32	0	165	0.8	CN**GMA0204L	3
CSACLNR/L0125-12N	50	125	32	0	165	0.8	CN**GMA0204L	3
CSACLNR/L0125-12N	63	100	37.5	0	190	0.8	CN**GMA0204L	3
CSACLNR/L0140-12N	63	140	37.5	0	190	0.8	CN**GMA0204L	3

The item without DMIN cannot be used for boring.
*Torque: Recommended clamping torque (N·m)
†Applicable for 3 MPa coolant; ‡Applicable for 7 MPa coolant

⑦ SPARE PARTS

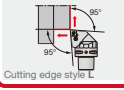
Description	Clamp	Clamping screw	Control parts	Shims	End screw	Spring	Spring pin	Wrench	Wrench 2
C-ACLNR/L0095-12N	ACPS-B	ACIS-SW	SATZ-M001-M3	ASC-022	CSTB-3.5	BP-7	SP-2.5	-	T-15F
C-ACLNR/L0125-12N	ACPS-B	ACIS-SW	SATZ-M001-M3	ASC-022	CSTB-3.5	BP-7	SP-2.5	-	T-15F
C-ACLNR/L0125-12N	ACPS-B	ACIS-SW	SATZ-M001-M3	ASC-022	CSTB-3.5	BP-7	SP-2.5	-	T-15F
C-ACLNR/L0125-12N	ACPS-B	ACIS-SW	SATZ-M001-M3	ASC-022	CSTB-3.5	BP-7	SP-2.5	-	T-15F
C-ACLNR/L0140-12N	ACPS-B	ACIS-SW	SATZ-M001-M3	ASC-022	CSTB-3.5	BP-7	SP-2.5	-	T-15F

Reference pages: C-ACLNR/L; C-ACLNR: Inserts → B054 -, B075, CBN → B168 -, B178, PCD → B211 -
Parts for coolant hose → C115

C016 tungaloy.com

TUNECAP C-PCLNR/L

Lever-lock toolholder, with 95° approach angle, for negative 80°/70° rhombic inserts



Cutting edge style L

Designation	DCONMS	LF	L2	WF	DMIN	DMIN2	RE	Insert
CSPCLNR/L30060-12	50	60	32	35	165	110	0.8	CN**GMA0204L
CSPCLNR/L30060-12N	50	60	32	35	165	110	0.8	CN**GMA0204L
CSPCLNR/L40065-12N	63	65	41	45	190	125	0.8	CN**GMA0204L

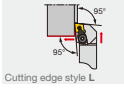
Applicable for 7 MPa coolant
The item without DMIN and DMIN2 cannot be used for boring

⑦ SPARE PARTS

Description	Control parts	Lever	Clamping screw	Shims	Spring pin	Wrench
C-PCLNR/L30060-12	E254	LCL4	LCS4	LSC42	LSF4	P-3
C-PCLNR/L40065-12N	SATZ-M001-M5	LCL4	LCS4	LSC42	LSF4	P-3

DCLNR/L

"One-Double" toolholder with 95° approach angle, for negative 80°/70° rhombic inserts



Cutting edge style L

Designation	H	B	LF	LN	HF	WF	RE**	Insert
DCLNR/L2030K12	20	20	125	30	25	32	0.8	CN**GMA0204L
DCLNR/L2535M12	25	25	150	30	25	32	0.8	CN**GMA0204L
DCLNR/L3239P12	32	25	170	30	32	32	0.8	CN**GMA0204L

Note: Except for T16, T18, T19, S7, and 65-type chipbreaker inserts. **PE: Standard corner radius

⑦ SPARE PARTS

Description	Clamp	Clamping screw	Control parts	Shims	End screw	Spring	Spring pin	Wrench	Wrench 2
DCLNR/L	ACPS-B	ACIS-SW	SATZ-M001-M3	ASC-022	CSTB-3.5	BP-7	SP-2.5	-	T-15F

⑧ INSERT SELECTION

Application	Grade	Insert	Application	Grade	Insert
Chipslicer shape	TF	T15F	Chipslicer shape	TF	T15F
Gilling condition	TF	T15F	Gilling condition	TF	T15F
Application	Finishing	Medium cutting	Application	Finishing	Medium cutting
Grade	T15B	T15B	Grade	T15B	T15B
Chipslicer shape	TF	T15F	Chipslicer shape	TF	T15F
Gilling condition	TF	T15F	Gilling condition	TF	T15F
Application	Finishing	Medium cutting	Application	Finishing	Medium cutting
Grade	T15B	T15B	Grade	T15B	T15B
Chipslicer shape	TF	T15F	Chipslicer shape	TF	T15F
Gilling condition	TF	T15F	Gilling condition	TF	T15F

Reference pages: C-PCLNR/L: Inserts → B054 -, B075, CBN → B168 -, B178, PCD → B211 -
DCLNR/L: Inserts → B054 -, B075, CBN → B168 -, B178, PCD → B211 -
Parts for coolant hose → C115

Tungaloy C017

- Cutting edge shape
- Series name of indexable external toolholders
- Dimension table
- Toolholder designation
e.g. right-hand, 25x25 square shank
- Dimension drawing (conforming to ISO13399)
- Applicable insert
- Spare parts
- Basic selection
- Reference pages

→ **ACLNR2525 M0904-A**

When ordering

- Please specify the designation and quantity.
e.g. **ACLNR2525M12-A ... 1** (one external toolholder per package)
- * Inserts are not included. Please order those separately.

Main products

L	95°	C015
J	93°	C032
V	72.5°	C050
I	76.5°	C053
A	91°	C054
G	91°	C057
X	20°	C065
E	60°	C069
N	63°	C070
D	45°	C074
S	45°	C080
K	75°	C084
F	91°	C087
Q	107.5°	C091
H	100°	C098
B	75°	C100
R	75°	C104
Special		C105



ADDMULTI

Ultimate solution for multi-directional turning

C011



TURNTEEN

Innovative tool realizing both high productivity and economy

C013, C067



ISOETURN

Small-sized "Eco" insert series for maximized profits

C014



MINIFORCE

Economical double-sided inserts with excellent sharpness

C029, C045
C047, C113 -, C118



TURNINGA

Highly rigid clamping system with excellent repeatability

C004 -



TUNGTURN

Toolholders for high pressure coolant supply

C019 -, C026, C031
C037 -, C043 -, C059, C095



DIMPLEFX

Ceramic insert with dimple for highly efficient cast iron machining

C008



TURNTEC

Inserts and toolholders for roughing large depths of cut with high productivity

C054, C090, C103



Y-PRO SERIES

Inserts with 25° corner angle for profiling

C049, C053, C098 -



TURNFEED

Tool series for super high-feed cutting

C068

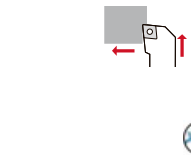
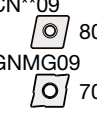
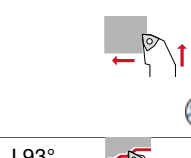
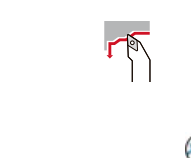
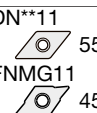
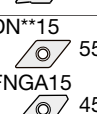
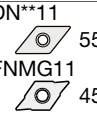


FIXRTURN

Highly productive round insert with 6 indexes

C064, C078

External Toolholder - Quick Guide (Square shanks)

Brand name / Clamp system	Approach angle (Cutting edge style)	Designation	Inserts	Sizes of square shanks (mm)					Coolant supply		Page
				20x20	25x25	32x25	32x32	40x40	External supply	TUNGALOY (Through-coolant)	
ADDMULTURN 	Front turning: 95° Back turning: 21.5° 	ATXOR/L	6C-TOMG** 	☐	☐		☐		☒		C065
	Front turning: 117.5° Back turning: 27.5° 	ATXOR/L	6V-TOMG** 	☐	☐		☐		☒		C065
	Front turning: 105° Back turning: 15° 	STXCR/L-CHP-MC	3C-TCMT** 		☐					☒	C066
TURN T FEED 	48.5° 	PPXOR/L**-HD	POMG** 		☐		☐		☒		C067
	22.5° 	PPXOR/L**-HF			☐		☐		☒		C067
Double clamp A TURNING A 	L 95° 	ACLNR/L**12	CN**12 80° 	☐	☐	☐			☒		C015
		ACLNR/L**12-CHP-MC	GNGA12 70° 	☐	☐					☒	C019
		ACLNR/L**0904	CN**09 80° GNMG09 70° 	☐	☐				☒		C015
	L 95° 	AWLNR/L**08	WN**08 80° 	☐	☐	☐			☒		C024
		AWLNR/L**08-CHP-MC		☐	☐					☒	C027
		AWLNR/L**06	WN**06 80° 	☐	☐				☒		C024
	J 93° 	ATJNR/L**16	TN**16 	☐	☐				☒		C032
	G 91° 	ATGNR/L**16	 60°	☐	☐				☒		C057
	F 91° 	ATFNR/L**16		☐	☐				☒		C088
	Q 105° 	ATQNR/L**16		☐	☐				☒		C091
	J 93° 	ADJNR/L**15	DN**15 55° FNGA15 45° 	☐	☐	☐			☒		C034
		ADJNR/L**15-CHP-MC		☐	☐					☒	C038
		ADJNR/L**1104	DN**11 55° FNMG11 45° 	☐	☐				☒		C034
	P 62.5° * 	ADPNN**15	DN**15 55° FNGA15 45° 	☐	☐				☒		C108
	Q 107.5° 	ADQNR/L**15		☐	☐				☒		C092
		ADQNR/L**11	DN**11 55° FNMG11 45° 	☐	☐				☒		C092

*: Tungaloy's symbol

Brand name / Clamp system	Approach angle (Cutting edge style)	Designation	Inserts	Sizes of square shanks (mm)					Coolant supply		Page
				20x20	25x25	32x25	32x32	40x40	External supply	TUNGALOY (Through-coolant)	
Double clamp A 	J 93°	AVJNR/L**16	VN**16 	○	○				✓		C041
	V 72.5°	AVVNN**16	YN**16 	○	○				✓		C050
	Q 117.5°	AVQNR/L**16		○	○				✓		C094
	J 93°	AVJNR/L**1204	VN**1204 	○	○				✓		C041
	V 72.5°	AVVNN**1204		○	○				✓		C050
	Q 122.5°	AVQNR/L**1204		○	○				✓		C094
	B 75°	ASBNR/L12	SN**12 	○	○				✓		C101
	D 45°	ASDNN12		○	○				✓		C074
	S 45°	ASSNR/L12		○	○				✓		C080
	K 75°	ASKNR/L12		○	○				✓		C084
		ARGNR/L	RN** 		○				✓		C060
One Double D 	L 95°	DCLNR/L12	CN**12  GNGA12 	○	○	○			✓		C017
	L 95°	DWLNR/L08	WN**08 	○	○	○			✓		C025
	J 93°	DDJNR/L15	DN**15 	○	○	○			✓		C035
	Q 105°	DDQNR/L15	FNGA15 	○	○	○			✓		C093
	G 91°	DTGNR/L16	TN**16 	○	○				✓		C058
	F 91°	DTFNR/L16		○	○				✓		C088
	B 75°	DSBNR/L12	SN**12 	○	○				✓		C102
	D 45°	DSDNN12		○	○				✓		C074
	S 45°	DSSNR/L12		○	○				✓		C080
	K 75°	DSKNR/L12		○	○				✓		C084
		DRGNR/L12	RN** 		○				✓		C060

Grade

Insert

Toolholder

Ext. Toolholder

Int. Toolholder

Threading

Grooving

Miniature tool

Milling cutter

Endmill

Drilling tool

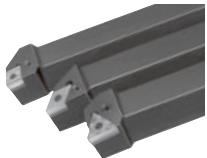
System

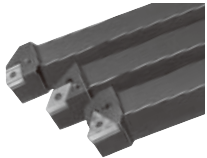
Tooling

User's Guide

Index

External Toolholder - Quick Guide (Square shanks)

Brand name / Clamp system	Approach angle (Cutting edge style)	Designation	Inserts	Sizes of square shanks (mm)					Coolant supply		Page
				16x16	20x20	25x25	32x25	32x32	External supply	TUNGALOY (Through-coolant)	
Lever lock P 	L 95° 	PCLNR/L**12 PCL2NR**12	CN**12 80° 	○	○	○	○		✓		C018
		PCLNR/L**12-CHP PCLNR/L**12-CHP-MC	GNGA12 70° 		○	○				✓	C019, C020
		PCLNR/L**0904	CN**09 80° 		○	○			✓		C018
		PCLNR/L**09-CHP-MC	GNMG09 70° 		○					✓	C020
		PCLNR/L**09-CHP-N			○	○				✓	C020
	B 75° 	PCBNR/L**12	CN**12 80° 			○			✓		C100
	F 91° 	PCFNR/L**12	CN**12 80° 						✓		C087
			GNGA12 70° 		○	○					
	L 95° 	PWLNR/L**08-CHP PWLNR/L**08-CHP-MC	WN**08 80° 		○	○				✓	C026, C027
		PWLNR/L**0604	WN**06 80° 		○	○			✓		C026
		PWLNR/L**0604-CHP			○	○				✓	C026
	L 95° 	PTL2NR/L**16	TN**16 60° 		○				✓		C030
	J 93° 	PTJNR/L**1104	TN**11 60° 			○			✓		C032
	G 91° 	PTGNR/L**16	TN**16 60° 	○	○	○			✓		C058
		PTGNR/L**16-CHP			○	○				✓	C059
		PTGNR/L**1104	TN**11 60° 		○	○			✓		C058
		PTGNR/L**1104-CHP			○	○				✓	C059
	F 91° 	PTFNR/L**16	TN**16 60° 	○	○	○			✓		C089
		PTFNR/L**1104	TN**11 60° 		○	○			✓		C089

Brand name / Clamp system	Approach angle (Cutting edge style)	Designation	Inserts	Sizes of square shanks (mm)					Coolant supply		Page
				16x16	20x20	25x25	32x25	32x32	External supply	TUNGALOY (Through-coolant)	
Lever lock P 	J 93° 	PDJNR/L**15	DN**15 55° 		○	○	○		✓		C036
		PDJNR/L**15-CHP	FNGA15 45° 		○	○				✓	C037
		PDJNR/L**1104	DN**11 55° 	○	○	○			✓		C036
		PDJNR/L**1104-CHP	FNMG11 45° 		○	○				✓	C037
	P 62.5° * 	PDPNN**15	DN**15 55° 			○			✓		C108
	Q 107.5° 	PDQNR/L15	FNGA15 45° 			○			✓		C093
	J 93° 	PVJNR/L**16-CHP	VN**16 35° YN**16 25°  		○	○				✓	C043
		PVJNR/L**1204	VN**12 35° 	○	○	○			✓		C042
		PVJNR/L**1204-CHP			○	○				✓	C043
	Q 107.5° 	PVQNR/L**1204	VN**12 35° 		○	○			✓		C094
		PVQNR/L**16-CHP	VN**16 35° YN**16 25°  		○	○				✓	C095
	V 72.5° 	PVVNN**1204	VN**12 35° 		○	○			✓		C050
	B 75° 	PSBNR/L12	SN**12		○	○			✓		C102
	D 45° 	PSDNN12			○	○			✓		C075
	S 45° 	PSSNR/L12	90° 		○	○	○		✓		C075
	K 75° 	PSKNR/L12			○	○			✓		C085
		PRGNR/L	RN** 		○	○			✓		C060
		PRGCR/L	RCM**12 			○	○	○	✓		C062
		PRDCN12				○	○		✓		C076

*: Tungaloy's symbol

External Toolholder - Quick Guide (Square shanks)

Brand name / Clamp system	Approach angle (Cutting edge style)	Designation	Inserts	Sizes of square shanks (mm)							Coolant supply		Page
				10x10	16x16	20x20	25x25	32x25	32x32	40x40	External supply	TUNGALOY (Through-coolant)	
Screw-on S 	L 95°	 SCLCR/L	CC**12 80°			○					✓		C030
	L 95°	 JSWLXR/L JSWL2XR/L	WX** 80°	○	○	○	○				✓		C029
	A 91°	 STACR/L	TC**16 60°		○						✓		C054
	J 93°	 SDJCR/L11	DC**11 55°		○	○	○				✓		C046
		 JSDJXR/L JSDJ2XR/L	DX**07 55°	○	○	○	○				✓		C045
	N 62.5°	 SDNCN11	DC**11 55°		○	○	○				✓		C073
	Q 107.5°	 SDQCR/L11				○	○				✓		C096
	J 93°	 SVJCR/L	VC**16 35°		○	○	○				✓		C048
		 JSVJXR/L JSVJ2XR/L	VX**09 35°	○	○	○	○				✓		C047
	V 72.5°	 SVVCN	VC**16 35°			○	○				✓		C052
	Q 117.5°	 SVQCR/L				○	○				✓		C097
	J 93°	 SYJBR/L16	YWMT16			○	○				✓		C049
	Q 122.5°	 SYQBR/L16	25°			○	○				✓		C098
	H 100°	 SYHBR/L16				○	○				✓		C099
	I 76.5°	 SYIBN16				○	○				✓		C053
Double clamp for dimple ceramic insert C DIMPLEFX 	L 45°	 CCLNR/L-RD	CN** 80°				○	○			✓		C022
	J 93°	 CDJNR/L-RD	DN** 55°				○	○			✓		C040
	N 63°	 CDNNN-RD					○				✓		C072
	V72.5°	 CVVNN-RD	VN** 35°				○				✓		C051
	S 45°	 CSSNR/L-RD	SNGD 90°				○				✓		C082
	S 45°	 CHSNR/L-RD	HNGD 90°				○				✓		C083
TURNTEC 	A 93°	 TLANR/L16	LNMX16			○	○		○	○	✓		C054
	F 93°	 TLFNR/L16	LNMX16				○		○		✓		C090

Brand name / Clamp system	Approach angle (Cutting edge style)	Designation	Inserts	Size						Coolant supply		Page
				C3	C4	C5	C6			Through-coolant	TUNGJET (Through-coolant)	
	E	 C6STECN-Y-CHP	3C-TCMT** 				○			✓		C069
	N	 C6SDNCN-Y-CHP	2D-DCMT** 				○			✓		C070
Double clamp A	L 95°	 C*ACLNR/L12	CN**12 80° 	○	○	○	○			✓		C016
	L 95°	 C*ACLNN12	GNGA12 70° 			○	○			✓		C016
	M	 C6ACMNN0904	CN**09 80° 				○			✓		C105
	L 95°	 C*ACLNR/L**0904	GNGM09 70° 	○	○		○			✓		C016
Lever lock P	L 95°	 C*PCLNR/L12	CN**12 80° 			○	○			✓		C017
		 C*PCLNR/L**12-CHP	GNGA12 70° 		○	○	○				✓	C019
	M	 C6PCMNN**12-CHP					○				✓	C106
	L 95°	 C*PCLNR/L**0904-CHP	CN**09 80° GNGM09 70° 		○		○			✓		C021
Double clamp A	L 95°	 C*AWLNR/L08	WN**08 80° 		○		○			✓		C024
		 C*AWLNR/L06	WN**06 80° 		○					✓		C024
Lever lock P	L 95°	 C*PWLNR/L**08-CHP	WN**08 80° 		○		○				✓	C028
		 C*PWLNR/L**06-CHP	WN**06 80° 		○						✓	C028

Brand name / Clamp system	Approach angle (Cutting edge style)	Designation	Inserts	Size						Coolant supply		Page
				C3	C4	C5	C6			Through-coolant	TUNGJET (Through-coolant)	
Double clamp A	J 93°	 C*ADJNR/L15	DN**15  55°		○	○	○			✓		C034
	N 62.5°	 C*ADNNN15				○	○			✓		C071
	Q 107.5°	 C*ADQNR/L15	FNGA15  45°	○	○					✓		C092
	U 93°	 C*ADUNR/L			○					✓		C109
	J 93°	 C*ADJNR/L1104	DN**11  55° FNMG11  45°	○	○		○			✓		C034
Lever lock P	J 93°	 C*PDJNR/L15	DN**15  55°			○	○			✓		C038
		 C*PDJNR/L**15-CHP	FNGA15  45°		○	○	○				✓	C039
		 C*PDJNR/L**1104-CHP	DN**11  55°		○		○				✓	C039
	M	 C6PDMNL1104-CHP	FNMG11  45°				○				✓	C107
Screw-on S	J 93°	 C*SDJCR/L-CHP	DC**11  55°	○							✓	C046
Double clamp A	J 93°	 C4ATJNR/L	TN**16  60°		○					✓		C032
Lever lock P	J 93°	 C4PTJNR/L			○					✓		C033
Double clamp A	J 93°	 C*AVJNR/L12	VN**12  35°		○		○			✓		C042
	Q 117.5°	 C*AVQNR/L16	VN**16  35° YN**16  25°		○					✓		C094
Lever lock P	J 93°	 C*PVJNR/L**-CHP	VN**16  35° YN**16  25°		○		○				✓	C044
		 C*PVJNR/L**1204-CHP	VN**12  35°		○		○				✓	C044
Screw-on S	J 93°	 C*SVJCR/L	VC**16  35°			○	○			✓		C048
	V 72.5°	 C*SVVCN				○	○			✓		C052



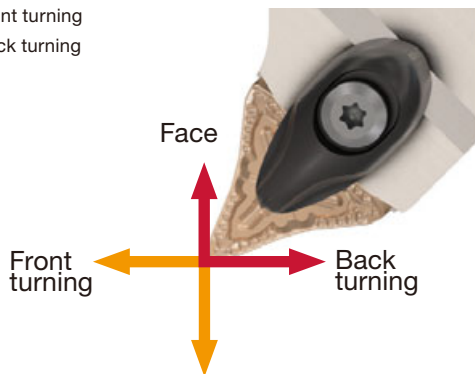
Ultra high productivity of
Front Turning, Back Turning, Profiling,
and Face Turning with **ONE SINGLE TOOL**

Double-sided 6-corner insert with 80° or 35° corner angle for versatile applications

- **Back (pull) turning:** High feed designed cutting edge improves productivity about 200% higher than existing ISO tools with no need for special programming.
- **Front (push) turning:** Same machining process is available using the same cutting edge angle as standard ISO tools.

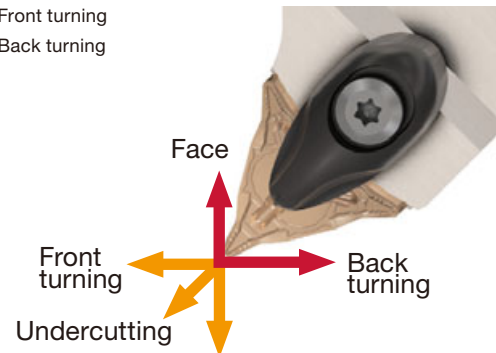
6C-TOMG

Front turning
Back turning



6V-TOMG

Front turning
Back turning

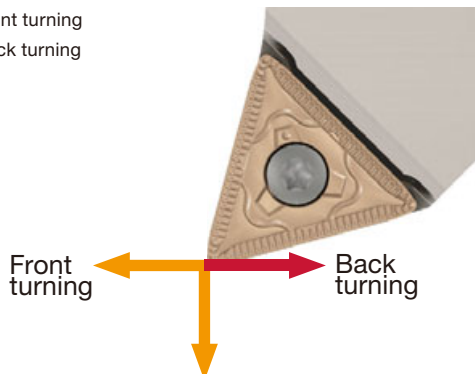


Single-sided 3-corner insert for super high productivity

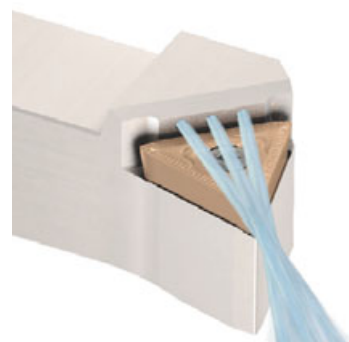
- **Back (pull) turning:** High feed designed cutting edge improves productivity 300 - 400% higher than standard ISO tools.
- **Front (push) turning:** Applicable to great D.O.C.

3C-TCMT

Front turning
Back turning



Internal coolant toolholder prevents chip jamming and maximizes performance during back turning operations



Reference pages: **C065, C066, C116**

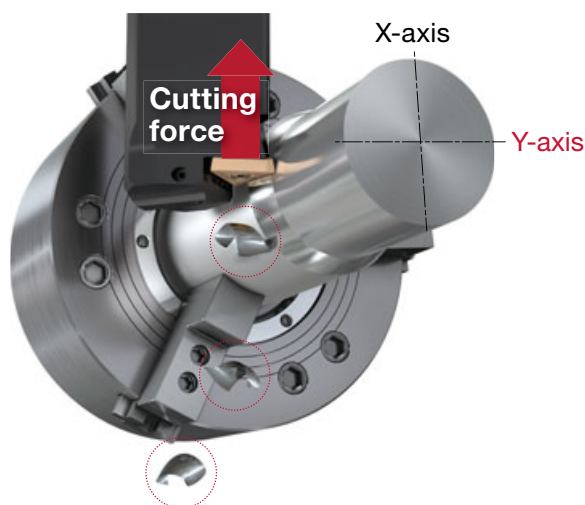
LEADING IN THE NEW DIRECTION

Y-axis turning tool with PSC connection for multitasking machines



■ Y-axis machining benefits

- The cutting force vector is directed in the longitudinal axis of the tool, resulting in higher stability and minimized vibration
- No chip entanglements, chips are directed down and away from the workpiece and toolholder



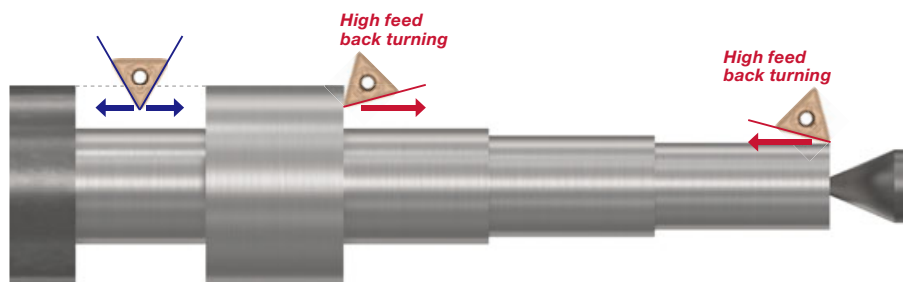
■ Tooling image of Y-axis orientation and applying high feed back turning

Medium cutting



3C-TCMT

Insert: 3C-TCMT29X608-TM
(Single-sided, 3 corners)



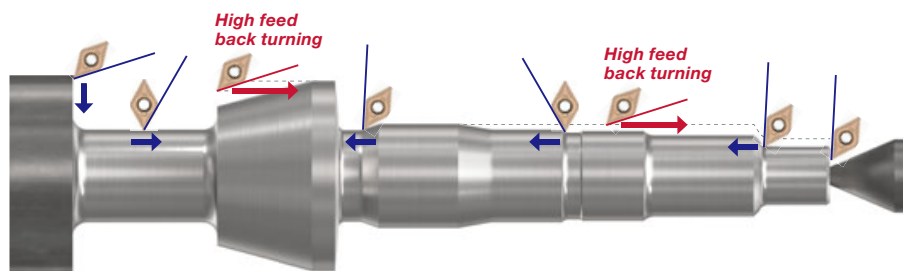
- Thanks to its high-feed geometry, **AddY-axisTurn** insert provides high productivity
- Y-axis tool orientation allows both sides of the cutting edge to be used, providing stable and long tool life

Finishing - Profiling



2D-DCMT

Insert: 2D-DCMT13T404-ZF
(Single-sided, 2 corners)



- **AddY-axisTurn** allows a precision workpiece completion with a single tool setup
- No interference with the tailstock
- Eliminates chip entanglement, promoting fully automated manufacturing

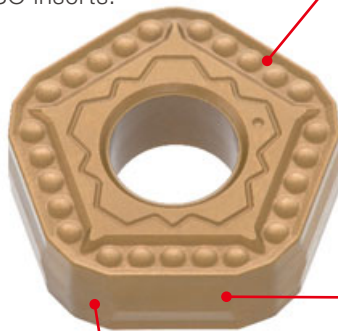


Economical, 10-cornered insert ensures high machining efficiency

- Available in 2 types of holders: HD type for large depths of cut and HF type for high feed turnin
- Maximum 7 mm depth of cut, or maximum 2.0 mm feed per rev is attainable!

Economical 10-cornered, double-sided, M-class insert

Achieves outstanding cost efficiency over standard ISO inserts.



Flat Wiper

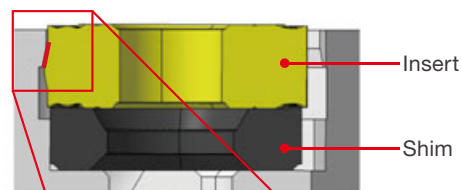
Built in the cutting edge to achieve superior machining surface at higher feed rates!

New – MNW style chipbreaker

Features protrusions on the rake face to facilitate smooth chip control, while achieving high crater wear resistance.

Dovetail clamping

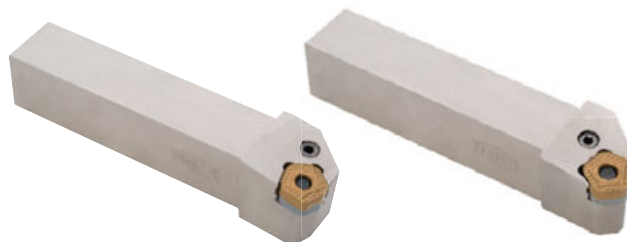
Ensures secure insert retention while promoting smooth chip flow thanks to the integration of lever lock and dovetail clamping methods.



Holder selections

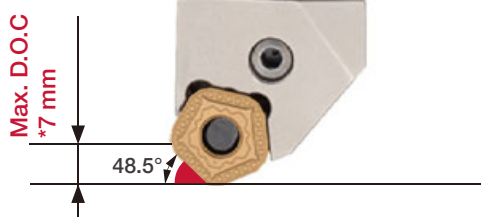
Available in 2 types:

- HD holder for large depths of cut
 - HF holder for high feed turning
- Inserts are interchangeable between these two holders.



Features of Holders

HD holder
For **H**igh **D**epth of Cut



HF holder
For **H**igh **F**eed



*Insert: POMG130612-MNW

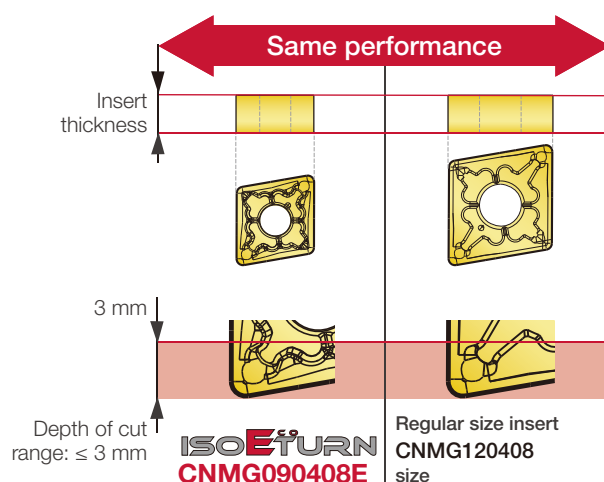
Reference pages: **C067**, **C117**



ISO-EcoTurn Small size inserts, for an economical advantage

■ Uncompromising insert performance

Comparison of ISO-EcoTurn and regular size inserts



ISO-EcoTurn inserts feature the identical thickness and chipbreaker geometry as Tungaloy's regular size inserts.

These properties provide cutting performance equal to that of the regular size inserts, including chip control at a depth of cut up to 3 mm.

■ Chip control

ISO-EcoTurn inserts incorporate an identical chipbreaker geometry as regular size inserts providing the same chip removal at a depth of cut up to 3 mm.

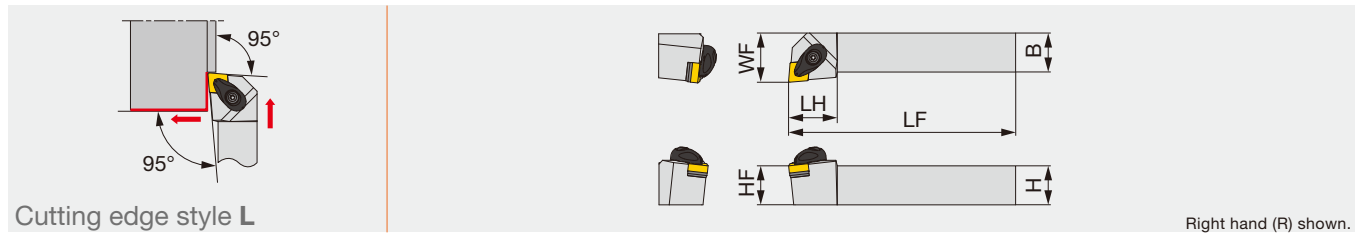
ISO^{Eco}TURN
CNMG090408E-TM

Regular size
CNMG120408-TM

Depth of cut (mm)	Feed (mm/rev)				
	0.10	0.15	0.20	0.30	0.40
3.0					
2.0					
1.5					
1.0					
0.5					

Depth of cut (mm)	Feed (mm/rev)				
	0.10	0.15	0.20	0.30	0.40
3.0					
2.0					
1.5					
1.0					
0.5					

Workpiece : S45C
Cutting speed : $V_c = 200$ m/min
Coolant : Wet



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
ACLNR/L2020K0904-A	20	20	125	25	20	25	0.8	CN**/GNMG0904...	3
ACLNR/L2020H12-A	20	20	100	26	20	25	0.8	CN**/GNGA1204...	3
ACLNR/L2020K12-A	20	20	125	26	20	25	0.8	CN**/GNGA1204...	3
ACLNR/L2525M0904-A	25	25	150	25	25	32	0.8	CN**/GNMG0904...	3
ACLNR/L2525K12-A	25	25	125	30	25	32	0.8	CN**/GNGA1204...	3
ACLNR/L2525M12-A	25	25	150	30	25	32	0.8	CN**/GNGA1204...	3
ACLNR/L2525M16-A	25	25	150	31	25	32	1.2	CN**1606...	6.4
ACLNR/L3225P12-A	32	25	170	30	32	32	0.8	CN**/GNGA1204...	3
ACLNR/L3225P16-A	32	25	170	31	32	32	1.2	CN**1606...	6.4
ACLNR/L3232P16-A	32	32	170	31	32	40	1.2	CN**1606...	6.4
ACLNR/L3232P19-A	32	32	170	40	32	40	1.2	CN**1906...	6.4
ACLNR/L4040S19-A	40	40	250	40	40	50	1.2	CN**1906...	6.4

*Torque: Recommended clamping torque (N·m)

**RE: Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench1	Wrench2
ACLNR/L**0904-A	ACP3S-E	ACS-5W	BP-7	SP-2.5	ASC322	CSTB-3.5	T-15F	-
ACLNR/L**12-A	ACP4S	ACS-5W	BP-7	SP-2.5	ASC422	CSTB-3.5	T-15F	-
ACLNR/L**16-A	ACP5S	ACS-6W	BP-8.8	SP-2.5	ASC533	CSTB-5	-	KEYV-T20
ACLNR/L**19-A	ACP6S	ACS-6W	BP-8.8	SP-2.5	ASC634	CSTB-5	-	KEYV-T20

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Chipbreaker shape	TF	TSF	TM	TH
	Cutting conditions	B004			

M	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T6215	AH6225	AH6225
	Chipbreaker shape	SF	SM	SH
	Cutting conditions	B006		

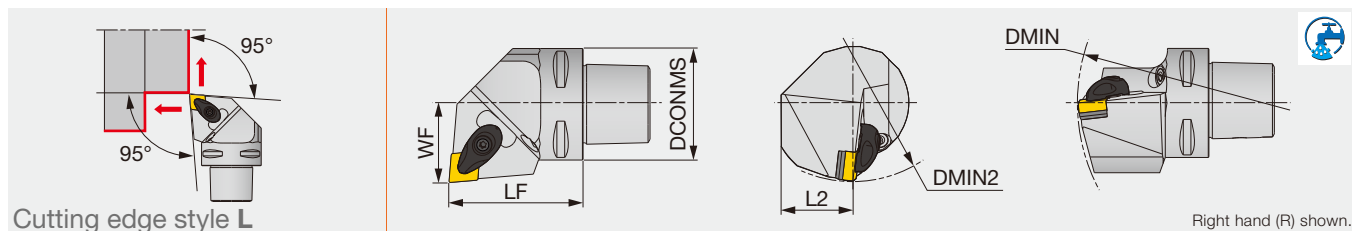
K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Chipbreaker shape	All-round	All-round	All-round
	Cutting conditions	B008		

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	TH10
	Chipbreaker shape	DIA	with rake DIA	P
	Cutting conditions	B010		

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	CBN	HRF	HRM
	Chipbreaker shape	BX470	AH8005	AH8005
	Cutting conditions	B012		

H	Application	Precision finishing	Finishing
	Grade	CBN	CBN
	Chipbreaker shape	BXA10	BXA20
	Cutting conditions	B014	

Double-clamp toolholder, with 95° approach angle, for negative 80°/70° rhombic inserts (TurningA)

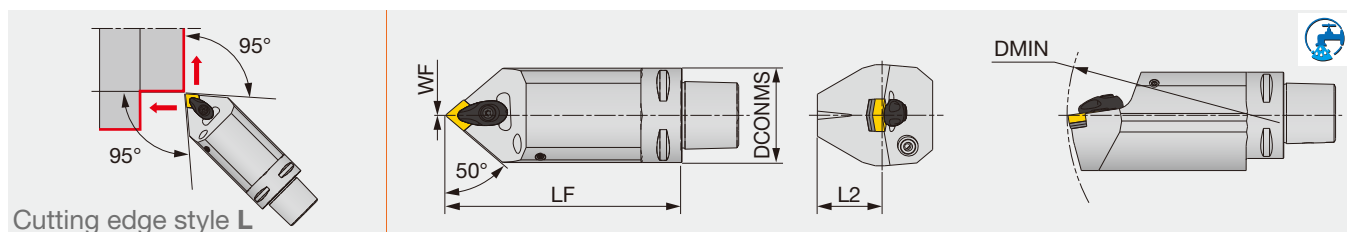


Designation	DCONMS	LF	L2	WF	DMIN	DMIN2	RE	Insert	Torque*
C3ACLNR/L22040-0904N	32	40	20	22	110	121	0.8	CN**/GNMG0904...	3
C3ACLNR/L22040-12N	32	40	20	22	121	116	0.8	CN**/GNGA1204...	3
C4ACLNR/L27050-0904N	40	50	25	27	140	110	0.8	CN**/GNMG0904...	3
C4ACLNR/L27050-12N	40	50	25	27	140	110	0.8	CN**/GNGA1204...	3
C5ACLNR/L35060-12N	50	60	32	35	165	110	0.8	CN**/GNGA1204...	3
C6ACLNR/L45065-0904N	63	65	35	45	190	110	0.8	CN**/GNMG0904...	3
C6ACLNR/L45065-12N	63	65	41	45	190	125	0.8	CN**/GNGA1204...	3
C6ACLNR/L45135-12N	63	135	41	45	190	110	0.8	CN**/GNGA1204...	3
C6ACLNR/L45065-16N	63	65	41	45	190	125	1.2	CN**1606...	6.4

Applicable for 7 MPa coolant
*Torque: Recommended clamping torque (N·m)

C-ACLNN

Double-clamp toolholder, with 50° approach angle, for negative 80°/70° rhombic inserts



Designation	DCONMS	LF	L2	WF	DMIN	RE	Insert	Torque*
C5ACLNN00090-12 ⁽¹⁾	50	90	32	0	-	0.8	CN**/GNGA1204...	3
C5ACLNN00090-12N ⁽²⁾	50	90	32	0	165	0.8	CN**/GNGA1204...	3
C5ACLNN00125-12 ⁽¹⁾	50	125	32	0	-	0.8	CN**/GNGA1204...	3
C5ACLNN00125-12N ⁽²⁾	50	125	32	0	165	0.8	CN**/GNGA1204...	3
C6ACLNN00100-12N ⁽²⁾	63	100	37.5	0	190	0.8	CN**/GNGA1204...	3
C6ACLNN00140-12N ⁽²⁾	63	140	37.5	0	190	0.8	CN**/GNGA1204...	3

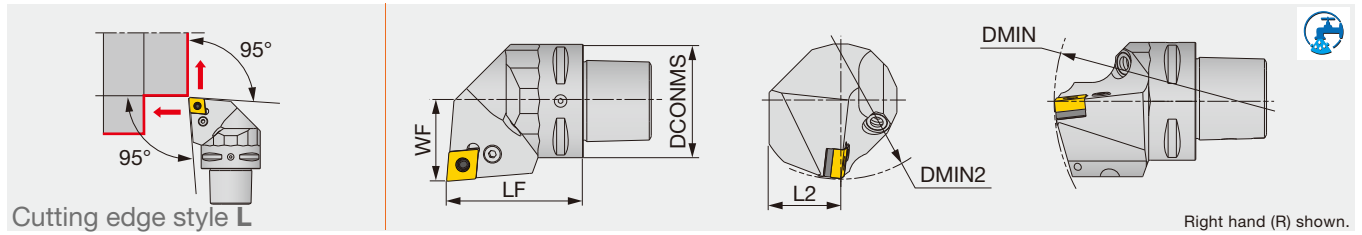
The items without DMIN cannot be used for boring.
*Torque: Recommended clamping torque (N·m)
(1) Applicable for 3 MPa coolant (2) Applicable for 7 MPa coolant

SPARE PARTS

Designation	Clamp	Clamping screw	Coolant parts	Shim	Shim screw	Spring	Spring pin	Wrench 1	Wrench 2
C*ACLNN*-0904N	ACP3S-E	ACS-5W	SATZ-M10X1-5	ASC322	CSTB-3.5	BP-7	SP-2.5	-	T-15F
C*ACLNN*-12N	ACP4S	ACS-5W	SATZ-M8X1-M3	ASC422	CSTB-3.5	BP-7	SP-2.5	-	T-15F
C6ACLNN45065-16N	ACP5S	ACS-6W	SATZ-M8X1-M3	ASC533	CSTB-5	BP-8.8	SP-2.5	KEYV-T20	-
C5ACLNN00090-12	ACP4S	ACS-5W	EZ83	ASC422	CSTB-3.5	BP-7	SP-2.5	-	T-15F
C5ACLNN00125-12	ACP4S	ACS-5W	EZ83	ASC422	CSTB-3.5	BP-7	SP-2.5	-	T-15F

Reference pages: C-ACLNR/L, C-ACLNN: Inserts → **B054 - , B075**, CBN → **B168 - , B178**, PCD → **B211 -**
Parts for coolant hose → **C115**

Lever-lock toolholder, with 95° approach angle, for negative 80°/70° rhombic inserts



Designation	DCONMS	LF	L2	WF	DMIN	DMIN2	RE	Insert
C5PCLNR/L35060-12	50	60	32	35	-	-	0.8	CN**/GNGA1204...
C5PCLNR/L35060-12N	50	60	32	35	165	110	0.8	CN**/GNGA1204...
C6PCLNR/L45065-12N	63	65	41	45	190	125	0.8	CN**/GNGA1204...

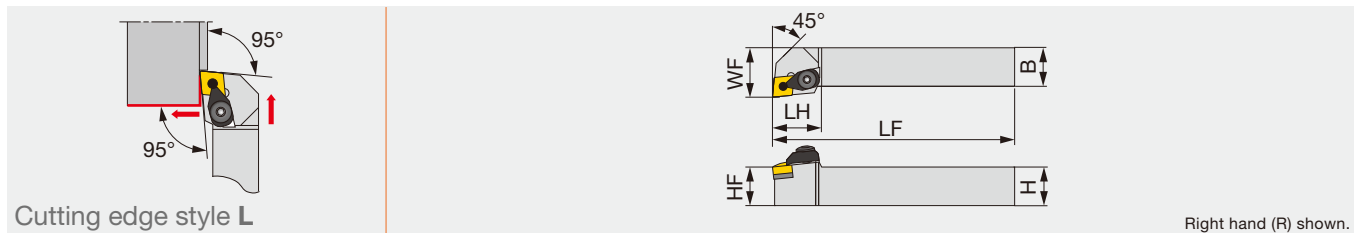
Applicable for 7 MPa coolant
The item without DMIN and DMIN2 cannot be used for boring.

SPARE PARTS

Designation	Coolant parts	Lever	Clamping screw	Shim	Spring pin	Wrench
C5PCLNR/L35060-12	EZ104	LCL4	LCS4	LSC42	LSP4	P-3
C*PCLN***-12N	SATZ-M10X1-M5	LCL4	LCS4	LSC42	LSP4	P-3

DCLNR/L

"One-Double" toolholder with 95° approach angle, for negative 80°/70° rhombic inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert
DCLNR/L2020K12	20	20	125	30	20	25	0.8	CN**/GNGA1204...
DCLNR/L2525M12	25	25	150	30	25	32	0.8	CN**/GNGA1204...
DCLNR/L3225P12	32	25	170	30	32	32	0.8	CN**/GNGA1204...

Note: Except for TRS, TU, TUS, 57, and 65-type chipbreaker inserts **RE: Standard corner radius

SPARE PARTS

Designation	Clamp	Lever	Piston	Clamp screw	Shim	Spring	Spring pin	Wrench1	Wrench2
DCLNR/L...	DCPM-43	DLCL43	DPIS43	DLCS43	LSC42	BP-10	LSP4	P-3	P-4

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Chipbreaker shape	TF 	TSF 	TM 	TH 
	Cutting conditions	B004			

K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Chipbreaker shape	All-round 	All-round 	All-round 
	Cutting conditions	B008		

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX470	AH8005	AH8005
	Chipbreaker shape	CBN 	HRF 	HRM 
	Cutting conditions	B012		

M	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T6215	AH6225	AH6225
	Chipbreaker shape	SF 	SM 	SH 
	Cutting conditions	B006		

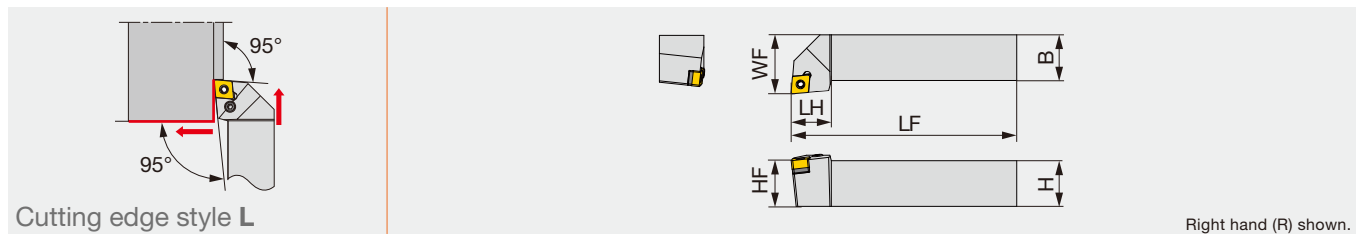
N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	TH10
	Chipbreaker shape	DIA 	with rake DIA 	P 
	Cutting conditions	B010		

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Chipbreaker shape	CBN 	CBN 
	Cutting conditions	B014	

Reference pages: C-PCLNR/L: Inserts → **B054 - , B075**, CBN → **B168 - , B178**, PCD → **B211 -**
DCLNR/L: Inserts → **B054 - , B075**, CBN → **B168 - , B178**, PCD → **B211 -**,
Parts for coolant hose → **C115**

PCLNR/L

Lever-lock toolholder with 95° approach angle, for negative 80°/70° rhombic inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
PCLNR/L1616H09	16	16	100	20	16	20	0.8	CN**0903...	2
PCLNR/L1616	16	16	100	26	16	20	0.8	CN**/GNGA1204...	3
PCLNR/L1616H12E	16	16	100	26	16	20	0.8	CN**/GNGA1204...	3
PCLNR/L2020K09	20	20	125	20	20	25	0.8	CN**0903...	2
PCLNR/L2020K0904	20	20	125	20	20	25	0.8	CN**/GNMG0904...	2
PCLNR/L2020	20	20	125	28	20	25	0.8	CN**/GNGA1204...	3
PCLNR/L2020K12E	20	20	125	28	20	25	0.8	CN**/GNGA1204...	3
PCLNR/L2525M09	25	25	150	20	25	32	0.8	CN**0903...	2
PCLNR/L2525M0904	25	25	150	25	25	32	0.8	CN**/GNMG0904...	2
PCLNR/L2525M4	25	25	150	28	25	32	0.8	CN**/GNGA1204...	3
PCLNR/L2525M12E	25	25	150	28	25	32	0.8	CN**/GNGA1204...	3
PCLNR/L2525M16E	25	25	150	31	25	25	1.2	CN**1606...	3
PCLNR/L3225P4	32	25	170	28	32	32	0.8	CN**/GNGA1204...	3
PCLNR/L3232	32	32	170	40	32	40	1.2	CN**1906...	5
PCLNR/L3225P12E	32	25	170	28	32	32	0.8	CN**/GNGA1204...	3
PCLNR/L3225P16E	32	25	150	31	32	32	1.2	CN**1606...	3
PCLNR/L3232P16E	32	32	170	31	32	40	1.2	CN**1606...	3
PCLNR/L3232P19E	32	32	170	40	32	40	1.2	CN**1906...	5

*Torque: Recommended clamping torque (N·m)

**RE: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PCLNR/L**09	ELSC32	LCS3	P-2.5	LSP3L	LCL33
PCLNR/L1616	LSC42	LCS4CA	P-3	LSP4	LCL4
PCLNR/L1616H12E	ELSC42	LCS4CA	P-3	LSP4S	LCL43S
PCLNR/L**0904	LSC317	LCS3	P-2.5	LSP3	LCL33
PCLNR/L2020	LSC42	LCS4	P-3	LSP4	LCL4
PCLNR/L2020K12E, **2525M12E, **3225P12E	ELSC42	LCS4	P-3	LSP4S	LCL43M
PCLNR/L2525M4, **3225P4	LSC42	LCS4	P-3	LSP4	LCL4
PCLNR/L**16E	ELSC53	LCS5	P-3	LSP6C	LCL54
PCLNR/L3232	LSC63	LCS6	P-4	LSP6	LCL6
PCLNR/L3232P19E	ELSC63	LCS6	P-4	LSP6	LCL6

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Chipbreaker shape	TF	TSF	TM	TH
	Cutting conditions	B004			

M	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T6215	AH6225	AH6225
	Chipbreaker shape	SF	SM	SH
	Cutting conditions	B006		

K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Chipbreaker shape	All-round	All-round	All-round
	Cutting conditions	B008		

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	TH10
	Chipbreaker shape	DIA	with rake DIA	P
	Cutting conditions	B010		

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	CBN	HRF	HRM
	Chipbreaker shape	BXA470	AH8005	AH8005
	Cutting conditions	B012		

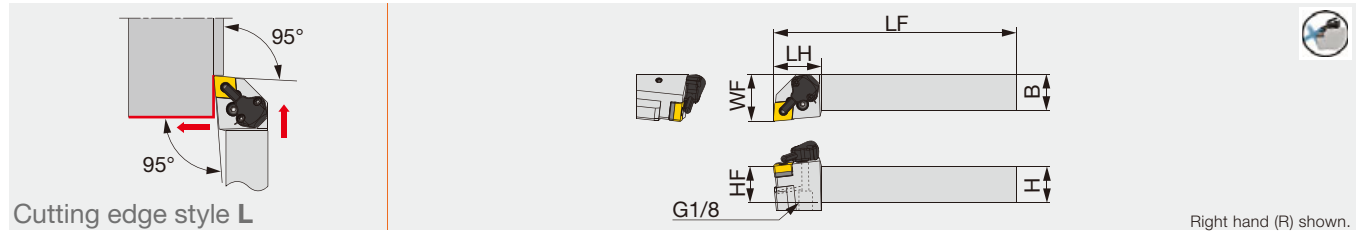
H	Application	Precision finishing	Finishing
	Grade	CBN	CBN
	Chipbreaker shape	BXA10	BXA20
	Cutting conditions	B014	

Reference pages: PCLNR/L: Inserts → **B054 -**, **B075**, CBN → **B168 -**, **B178**, PCD → **B211 -**

PCLNR/L-CHP

Tube connection

Lever lock toolholders – 95° approach angle.
For negative 80°/70° rhombic insert. High-pressure coolant capability.



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
PCLNR/L2020K0904-CHP	20	20	125	33	20	32	0.8	CN**/GNMG0904...	2
PCLNR/L2020K12-CHP	20	20	125	33	20	32	0.8	CN**/GNGA1204...	3
PCLNR/L2525M0904-CHP	25	25	150	33	25	32	0.8	CN**/GNMG0904...	2
PCLNR/L2525M12-CHP	25	25	150	33	25	32	0.8	CN**/GNGA1204...	3

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

**RE: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench 1	Spring pin	Lever
PCLNR/L**0904-CHP	LSC317	LCS3	P-2.5	LSP3	LCL33
PCLNR/L**12-CHP	LSC42	LCS4	P-3	LSP4	LCL4

SPARE PARTS

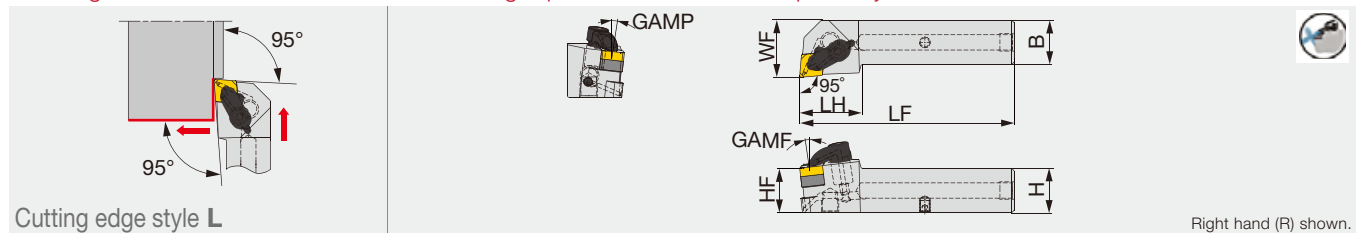
Designation	Coolant unit	Mounting screw	Wrench 2	O-ring	Coolant screw	Wrench 3
PCLNR/L**0904-CHP	CU-CW-CHP	SRM3	T-8F	OR6.4X0.9N	SRM4X4TL360	P-2
PCLNR/L**12-CHP	CU-CW-CHP	SRM3	T-8F	OR6.4X0.9N	SRM4X4TL360	P-2

ACLNR/L-CHP-MC

Direct connection

Tube connection

Double clamping tool holders-95° approach angle
For negative 80°/70° rhombic insert. High-pressure coolant capability with tube and direct connections



Designation	H	B	LF	LH	HF	WF	GAMP	GAMF	Insert	Torque*
ACLNR/L2020X-12-CHP-MC	20	20	105	35	20	25	6°	6°	CN**/GNGA1204...	4
ACLNR/L2525X-12-CHP-MC	25	25	120	35	25	32	6°	6°	CN**/GNGA1204...	4

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

Applicable for 14 MPa pressure coolant

SPARE PARTS

Designation	Clamp set	Shim	Shim screw	screw for tube connection	Coolant plug	O-ring	Wrench 1
ACLNL**X-12-CHP-MC	LCGL-4JCSET	RCT443	SR14-506	PLUGG1/8-6.5TL360	SRM5X5 DIN913TL360	OR4X3NBR70	KEYV-T20
ACLNR**X-12-CHP-MC	LCGR-4JCSET	RCT443	SR14-506	PLUGG1/8-6.5TL360	SRM5X5 DIN913TL360	OR4X3NBR70	KEYV-T20

Reference pages: PCLNR/L-CHP, ACLNR/L-CHP-MC:

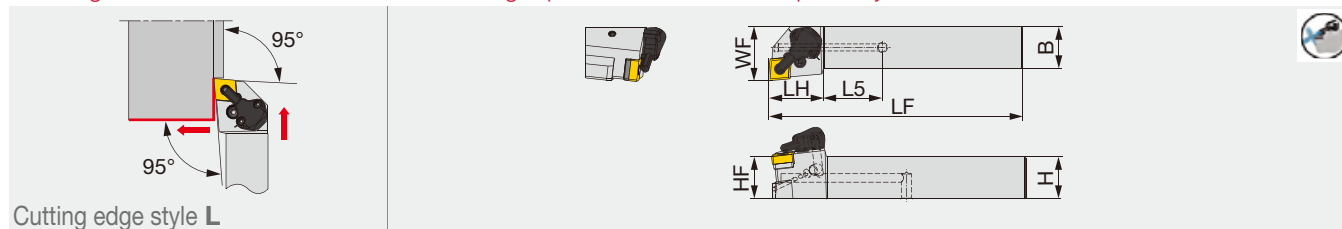
Inserts → **B054 -**, **B075**, CBN → **B168 -**, **B178**, PCD → **B211 -**, Parts for coolant hose → **C115**

PCLNR/L2020X-CHP-MC

Direct connection

Lever lock toolholders – 95° approach angle.

For negative 80°/70° rhombic insert. High-pressure coolant capability with bottom direct connection



Cutting edge style L

Designation	H	B	LF	LH	HF	L5	WF	Insert	Torque*
PCLNR/L2020X09-CHP-MC	20	20	97	27	20	29	25	CN**/GNMG0904...	2
PCLNR/L2020X12-CHP-MC	20	20	97	27	25	29	25	CN**/GNGA1204...	3

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

SPARE PARTS

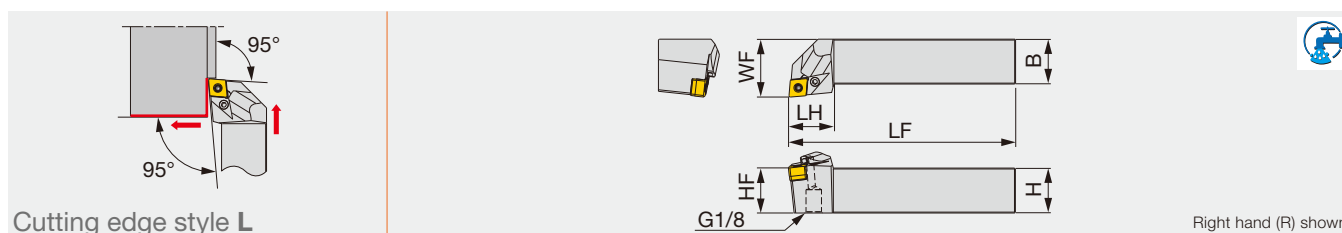
Designation	Shim	Spring	Lever	Spring	Spring pin	Wrench	Coolant unit	Wrench	Coolant plug	Wrench
PCLNR/L2020X09-CHP-MC	TCN323	SP3	LR3	SR117-2014	PN3-4	HW2.5	CU-CW-CHP	T-8/5	SRM5X5 DIN913TL360	-
PCLNR/L2020X12-CHP-MC	TCN443	SP4	LR4DH	SR117-2010	PN3-4L	HW2.5	CU-CW-CHP	T-8/5	SRM5X5 DIN913TL360	HW3.0

ISO TURN

PCLNR/L-CHP-N

Tube connection

Lever-lock toolholder with 95° approach angle, for negative 80°/70° rhombic inserts



Cutting edge style L

Right hand (R) shown.

Designation	H	B	LF	LH	HF	WF	RE**	Air hole	Insert	Torque*
PCLNR/L2020H0904-CHP-N	20	20	100	25	20	25	0.8	With	CN**/GNMG0904...	2
PCLNR/L2525K0904-CHP-N	25	25	125	25	25	32	0.8	With	CN**/GNMG0904...	2

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

**RE: The holder measurements are true with this insert radius

Applicable for 14 MPa pressure coolant

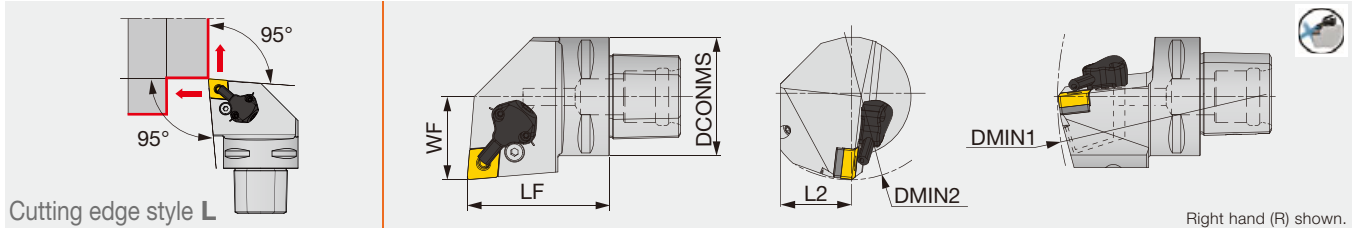
SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PCLNR/L**0904-CHP-N	LSC317	LCS3	P-2.5	LSP3	LCL33

Reference pages: PCLNR/L2020X-CHP-MC, PCLNR/L-CHP-N:

Inserts → **B054 -**, **B075**, CBN → **B168 -**, **B178**, PCD → **B211 -**, Parts for coolant hose → **C115**

Lever lock toolholders with TungCap connection – 95° approach angle.
For negative 80°/70° rhombic insert. High-pressure coolant capability.



Designation	DCONMS	LF	L2	WF	DMIN1	DMIN2	RE**	Insert	Torque*
C4PCLNR/L27050-0904-CHP	40	50	25	27	140	110	0.8	CN**/GNMG0904...	2
C4PCLNR/L27050-12-CHP	40	50	25	27	140	110	0.8	CN**/GNGA1204...	3
C5PCLNR/L35060-12-CHP	50	60	32	35	165	110	0.8	CN**/GNGA1204...	3
C6PCLNR/L45065-0904-CHP	63	65	41	45	195	125	0.8	CN**/GNMG0904...	2
C6PCLNR/L45065-12-CHP	63	65	41	45	195	125	0.8	CN**/GNGA1204...	3

*Torque: Recommended torque (N-m) for clamping
Applicable for 14 MPa pressure coolant
**RE: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench 1	Spring pin	Lever
C*PCLNR/L**0904-CHP	LSC317	LCS3	P-2.5	LSP3	LCL33
C*PCLNR/L**12-CHP	LSC42	LCS4	P-3	LSP4	LCL4

SPARE PARTS

Designation	Coolant unit	Mounting screw	Wrench 2	O-ring
C*PCLNR/L**0904-CHP	CU-CW-CHP	SRM3	T-8F	OR6.4X0.9N
C*PCLNR/L**12-CHP	CU-CW-CHP	SRM3	T-8F	OR6.4X0.9N

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Chipbreaker shape	TF	TSF	TM	TH
	Cutting conditions	B004			

K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Chipbreaker shape	All-round	All-round	All-round
	Cutting conditions	B008		

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX470	AH8005	AH8005
	Chipbreaker shape	CBN	HRF	HRM
	Cutting conditions	B012		

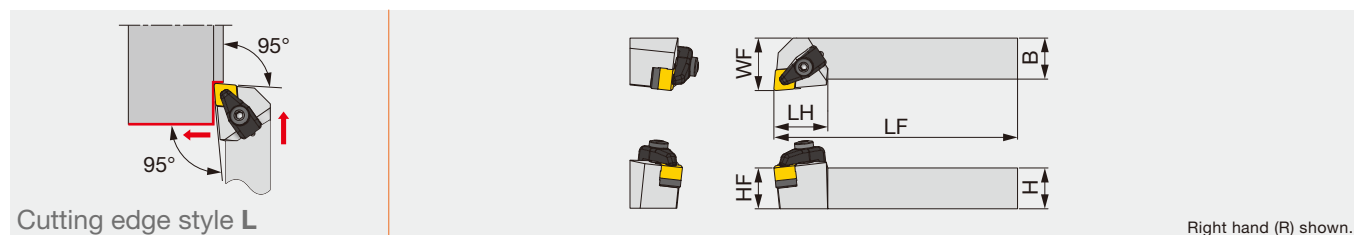
M	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T6215	AH6225	AH6225
	Chipbreaker shape	SF	SM	SH
	Cutting conditions	B006		

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	TH10
	Chipbreaker shape	DIA	DIA with rake	P
	Cutting conditions	B010		

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Chipbreaker shape	CBN	CBN
	Cutting conditions	B014	

Reference pages: C-PCLNR/L-CHP: Inserts → **B054 -**, **B075**, CBN → **B168 -**, **B178**, PCD → **B211 -**
Parts for coolant hose → **C115**

Double-clamp toolholder with 95° approach angle, for negative 80° rhombic ceramic inserts with dimple



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
CCLNR/L2525M1207-RD	25	25	150	33	25	32	1.2	CN*D1207...	4
CCLNR3225P1207-RD	32	25	170	33	32	32	1.2	CN*D1207...	4

*Torque: Recommended clamping torque (N·m)

**RE: Standard corner radius

SPARE PARTS

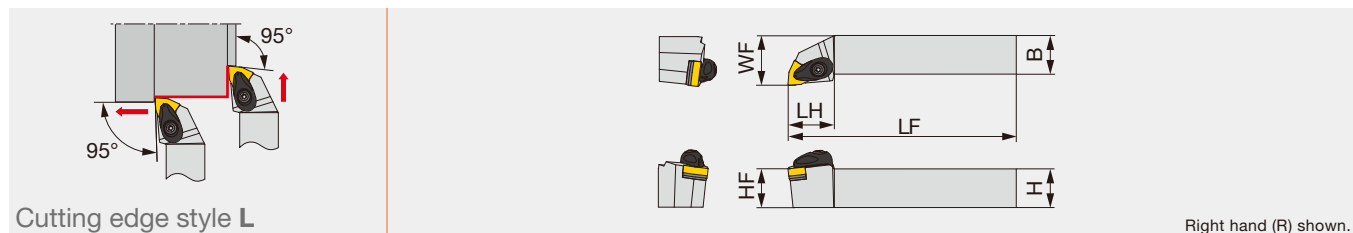
Designation	Clamp	Clamp screw	Shim	Shim screw	Spring	Wrench1	Wrench2
CCLNR/L*-RD	CCP4-A	CCS4-A	CC44-A	BH5-10-A	BP-5-A	P-3	P-4

INSERT SELECTION

K	Application	Finishing to medium cutting
	Grade	FX105
	Chipbreaker shape	
	Cutting conditions	C118

Reference pages: CCLNR/L-RD: Inserts → **B065**,
Standard cutting conditions → **C115**

Double-clamp toolholder with 95° approach angle, for negative 80° trigon inserts

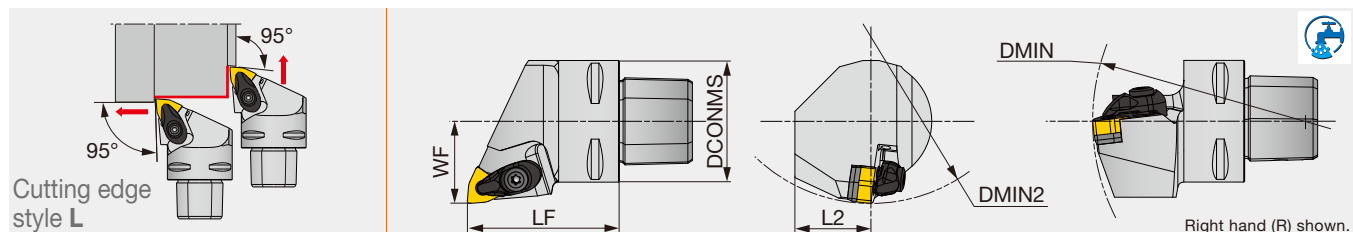


Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
AWLNR/L2020K0604-A	20	20	125	27	20	25	0.8	WN**0604...	3
AWLNR/L2020H08-A	20	20	100	30	20	25	0.8	WN**0804...	3
AWLNR/L2020K08-A	20	20	125	30	20	25	0.8	WN**0804...	3
AWLNR/L2525M0604-A	25	25	150	27	25	32	0.8	WN**0604...	3
AWLNR/L2525K08-A	25	25	125	30	25	32	0.8	WN**0804...	3
AWLNR/L2525M08-A	25	25	150	30	25	32	0.8	WN**0804...	3
AWLNR/L3225P08-A	32	25	170	30	32	32	0.8	WN**0804...	3

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

C-AWLNR/L

Double-clamp toolholder, with 95° approach angle, for negative 80° trigon inserts



Designation	DCONMS	LF	L2	WF	DMIN	DMIN2	RE	Insert
C4AWLNR/L27050-0604N	40	50	25	27	110	140	0.8	WN**0604...
C4AWLNR/L27050-08N	40	50	25	27	-	-	0.8	WN**0804...
C6AWLNR/L45065-08N	63	65	35	45	110	190	0.8	WN**0804...

Applicable for 7 MPa coolant

The items without DMIN and DMIN2 cannot be used for boring.

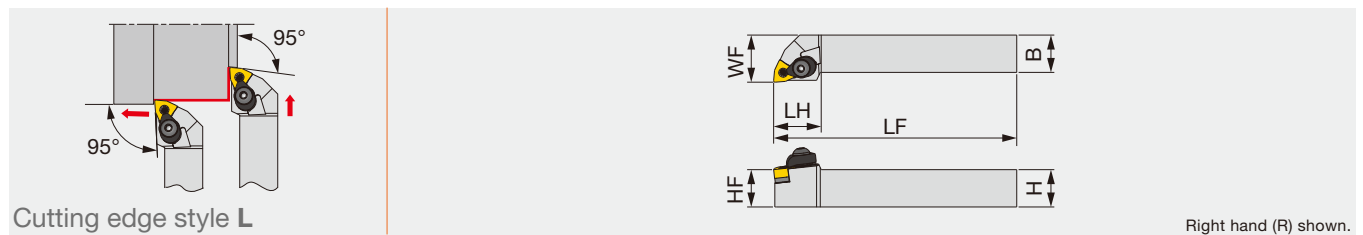
SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench	Coolant parts
AWLNR/L**0604-A C4AWLNR/L**0604N	ACP3S-E	ACS-5W	BP-7	SP-2.5	ASW322	CSTB-3.5	T-15F	-
AWLNR/L**08-A C4AWLNR/L**08N	ACP4S	ACS-5W	BP-7	SP-2.5	ASW422	CSTB-3.5	T-15F	-
C6AWLNR/L**08N	ACP4S	ACS-5W	BP-7	SP-2.5	ASW422	CSTB-3.5	T-15F	SATZ-M8X1-M3

Reference pages: AWLNR/L, C-AWLNR/L: Inserts → **B102 -**, CBN → **B187**
Parts for coolant hose → **C115**

DWLNLR/L

One-Double toolholder with 95° approach angle, for negative 80° trigon inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert
DWLNLR/L2020K06	20	20	125	25.5	20	25	0.8	WN**0604...
DWLNLR/L2020K08	20	20	125	31	20	25	0.8	WN**0804...
DWLNLR/L2525M06	25	25	150	26	25	32	0.8	WN**0604...
DWLNLR/L2525M08	25	25	150	31	25	32	0.8	WN**0804...
DWLNLR/L3225P08	32	25	170	30	32	32	0.8	WN**0804...

Note: Except for 57-type chipbreaker inserts

**RE: Standard corner radius

SPARE PARTS	Clamp	Lever	Piston	Clamp screw	Shim	Spring	Spring pin	Wrench1	Wrench2
Designation	DCPM-33	LCL33	DPIS33	DLCS33	LSW312	BP-9	LSP3	P-2.5	P-3
DWLNLR/L**06	DCPM-33	LCL33	DPIS33	DLCS33	LSW312	BP-9	LSP3	P-2.5	P-3
DWLNLR/L**08	DCPM-43	DLCL43	DPIS43	DLCS43	LSW42	BP-10	LSP4	P-3	P-4

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Breaker Shape	TF	TSF	TM	TH
	Cutting conditions	B004			

M	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T6215	AH6225	AH6225
	Breaker Shape	SF	SM	SH
	Cutting conditions	B006		

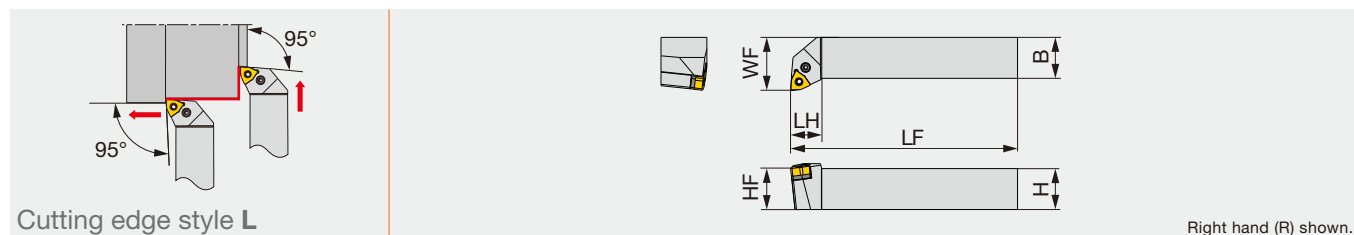
K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Breaker Shape	All-round	All-round	All-round
	Cutting conditions	B008		

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX480	AH8005	AH8005
	Breaker Shape	CBN	HRF	HRM
	Cutting conditions	B012		

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Breaker Shape	CBN	CBN
	Cutting conditions	B014	

Reference pages: DWLNLR/L: Inserts → **B102 -**, CBN → **B187**
Parts for coolant hose → **C115**

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



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
PWLNLR/L2020K0604	20	20	125	15	20	25	0.8	WN**0604...	2
PWLNLR/L2525M0604	25	25	150	19	25	32	0.8	WN**0604...	2

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

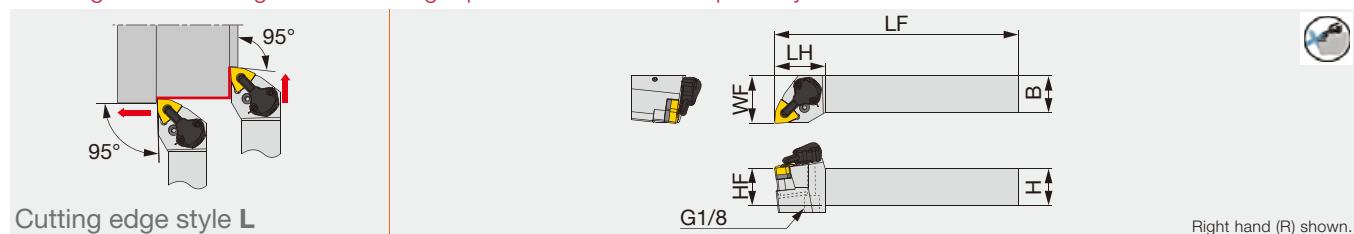
SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PWLNLR/L**0604	LSW312	LCS3	P-2.5	LSP3	LCL3

PWLNLR/L-CHP

Tube connection

Lever lock toolholders – 95° approach angle.
For negative 80° trigon insert. High-pressure coolant capability.



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
PWLNLR/L2020K0604-CHP	20	20	125	34	20	32	0.8	WN**0604...	2
PWLNLR/L2020K08-CHP	20	20	125	34	20	32	0.8	WN**0804...	3
PWLNLR/L2525M0604-CHP	25	25	150	34	25	32	0.8	WN**0604...	2
PWLNLR/L2525M08-CHP	25	25	150	34	25	32	0.8	WN**0804...	3

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

SPARE PARTS

Designation	Shim	Clamping screw	Wrench 1	Spring pin	Lever
PWLNLR/L**0604-CHP	LSW312	LCS3	P-2.5	LSP3	LCL3
PWLNLR/L**08-CHP	LSW42	LCS4	P-2.5	LSP4	LCL4

SPARE PARTS

Designation	Coolant unit	Mounting screw	Wrench 2	O-ring	Coolant screw	Wrench 3
PWLNLR/L**0604-CHP	CU-CW-CHP	SRM3	T-8F	OR6.4X0.9N	SRM4X4TL360	P-2
PWLNLR/L**08-CHP	CU-CW-CHP	SRM3	T-8F	OR6.4X0.9N	SRM4X4TL360	P-2

Reference pages: PWLNLR/L-Eco: Inserts → **B102 -**
PWLNLR/L-CHP: Inserts → **B102 -**, CBN → **B187**
Parts for coolant hose → **C115**

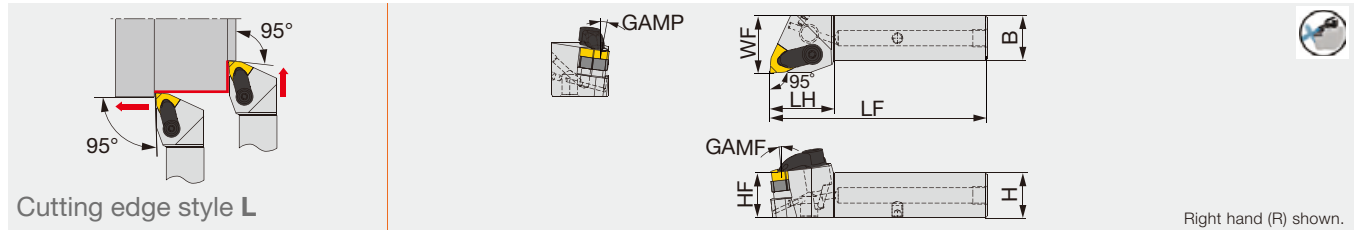
AWLNR/L-CHP-MC

Direct connection

Tube connection

Double clamping tool holders-95° approach angle

For negative 80° trigon insert. High-pressure coolant capability with tube and direct connections



Designation	H	B	LF	LH	HF	WF	GAMP	GAMF	Insert	Torque*
AWLNR/L2020X-08-CHP-MC	20	20	106	36	20	25	6°	6°	WN**0804...	4
AWLNR/L2525X-08-CHP-MC	25	25	121	36	25	32	6°	6°	WN**0804...	4

*Torque: Recommended torque (N-m) for clamping
Applicable for 14 MPa pressure coolant

SPARE PARTS

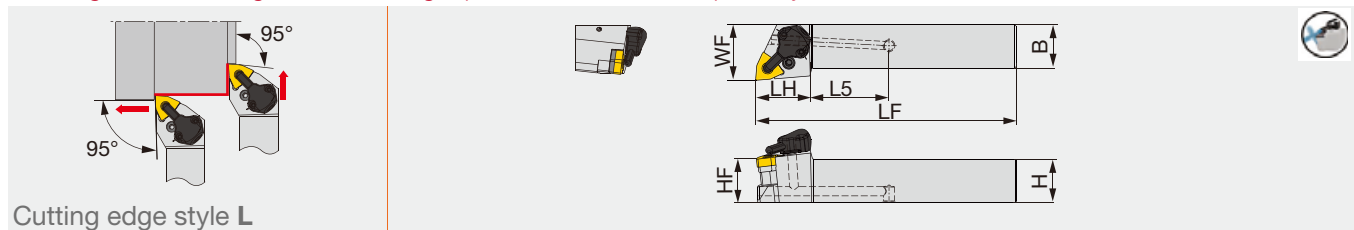
Designation	Clamp set	Shim	Shim screw	screw for tube connection	Coolant plug	O-ring	Wrench 1
AWLNR**X-08-CHP-MC	LCGL-4JCSET	RWT443	SR14-506	PLUGG1/8-6.5TL360	SRM5X5 DIN913TL360	OR4X3NBR70	KEYV-T20
AWLNR**X-08-CHP-MC	LCGR-4JCSET	RWT443	SR14-506	PLUGG1/8-6.5TL360	SRM5X5 DIN913TL360	OR4X3NBR70	KEYV-T20

PWLNR/L2020X-CHP-MC

Direct connection

Lever lock toolholders – 95° approach angle.

For negative 80° trigon insert. High-pressure coolant capability with bottom direct connection



Designation	H	B	LF	LH	HF	L5	WF	Insert	Torque*
PWLNR/L2020X06-CHP-MC	20	20	97	27	20	29	25	WN**0604...	2
PWLNR/L2020X08-CHP-MC	20	20	97	27	20	29	25	WN**0804...	3

*Torque: Recommended torque (N-m) for clamping
Applicable for 30 MPa pressure coolant

SPARE PARTS

Designation	Shim	Spring	Lever	Spring	Spring pin	Wrench	Coolant unit	Wrench	Coolant plug	Wrench
PWLNR/L2020X06-CHP-MC	TWN3	SP3	LR3	SR117-2014	PN3-4	HW2.5	CU-CW-CHP	T-8/5	SRM5X5 DIN913TL360	-
PWLNR/L2020X08-CHP-MC	TWN443	SP4	LR4DH	SR117-2010	PN3-4L	HW2.5	CU-CW-CHP	T-8/5	SRM5X5 DIN913TL360	HW3.0

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Breaker Shape	TF	TSF	TM	TH
	Cutting conditions	B004			

K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Breaker Shape	All-round	All-round	All-round
	Cutting conditions	B008		

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Breaker Shape	CBN	CBN
	Cutting conditions	B014	

M	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T6215	AH6225	AH6225
	Breaker Shape	SF	SM	SH
	Cutting conditions	B006		

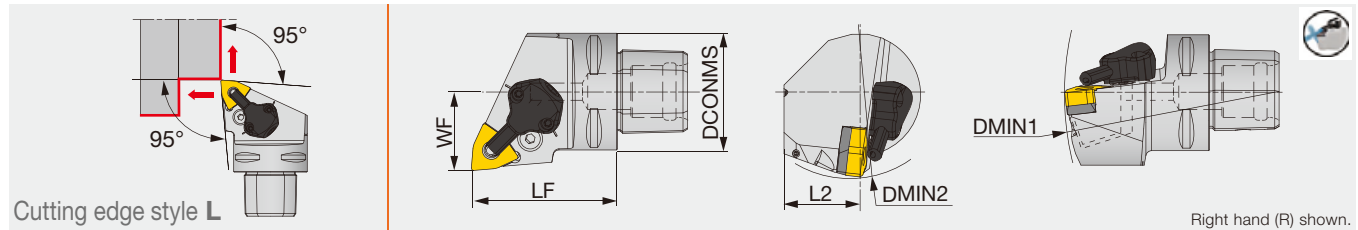
S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX480	AH8005	AH8005
	Breaker Shape	CBN	HRF	HRM
	Cutting conditions	B012		

Reference pages: AWLNR/L-CHP-MC, PWLNR/L2020X-CHP-MC:

Inserts → **B102 -**, CBN → **B187**

Parts for coolant hose → **C115**

Lever lock toolholders with TungCap connection – 95° approach angle.
For negative 80° trigon insert. High-pressure coolant capability.



Right hand (R) shown.

Designation	DCONMS	LF	L2	WF	DMIN1	DMIN2	RE**	Insert	Torque*
C4PWLNLR/L27050-0604-CHP	40	50	25	27	140	110	0.8	WN**0604...	2
C4PWLNLR/L27050-08-CHP	40	50	25	27	140	110	0.8	WN**0804...	3
C6PWLNLR/L45065-08-CHP	63	65	41	45	190	110	0.8	WN**0804...	3

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

Applicable for 14 MPa pressure coolant

**RE: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench 1	Spring pin	Lever
C*PWLNLR/L**0604-CHP	LSW312	LCS3	P-2.5	LSP3	LCL3
C*PWLNLR/L**-08-CHP	LSW42BL	LCS4	P-3	LSP4	LCL4

SPARE PARTS

Designation	Coolant unit	Mounting screw	Wrench 2	O-ring
C*PWLNLR/L**0604-CHP	CU-CW-CHP	SRM3	T-8F	OR6.4X0.9N
C*PWLNLR/L**-08-CHP	CU-CW-CHP	SRM3	T-8F	OR6.4X0.9N

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Breaker Shape	TF	TSF	TM	TH
	Cutting conditions	B004			

M	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	SF	SM	SH
	Breaker Shape			
	Cutting conditions	B006		

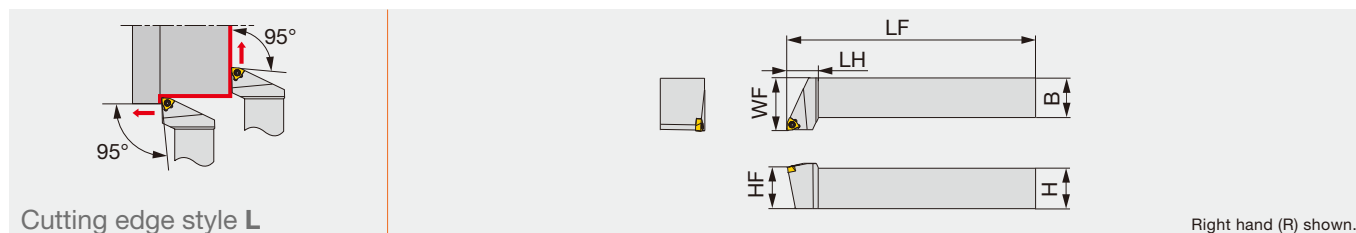
K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Breaker Shape	All-round	All-round	All-round
	Cutting conditions	B008		

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX480	AH8005	AH8005
	Breaker Shape	CBN	HRF	HRM
	Cutting conditions	B012		

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Breaker Shape	CBN	CBN
	Cutting conditions	B012	

Reference pages: C-PWLNLR/L-CHP: Inserts → **B102** -, CBN → **B187**
Parts for coolant hose → **C115**

Screw-on toolholder with 95° approach angle, for negative 80° trigon inserts



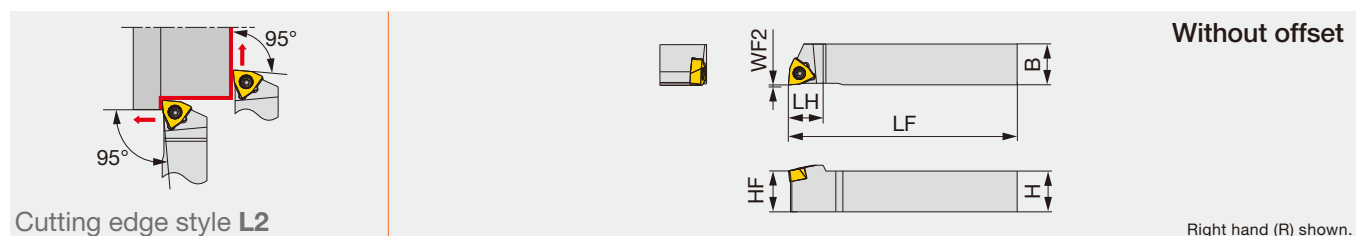
Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JSWLXR/L2020K04	20	20	125	15	20	25	0.4	WXGU0403**L/R...	0.9
JSWLXR/L2525M04	25	25	150	19	25	32	0.4	WXGU0403**L/R...	0.9

*Torque: Recommended clamping torque (N·m) **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).

JSWL2XR/L

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



Designation	H	B	LF	LH	HF	WF2	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 clamping torque (N·m) **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
JSWLXR/L...	SR34-514	T-7F
JSWL2XR/L...		

INSERT SELECTION

Swiss lathes

P	Application	Finishing	Medium cutting	M	Application	Finishing	Medium cutting
	Grade	SH725	AH725		Grade	SH725	AH725
	Chipbreaker shape	JSS	JTS		Chipbreaker shape	JSS	JTS
	Cutting conditions	C118			Cutting conditions	C118	

Small CNC lathes

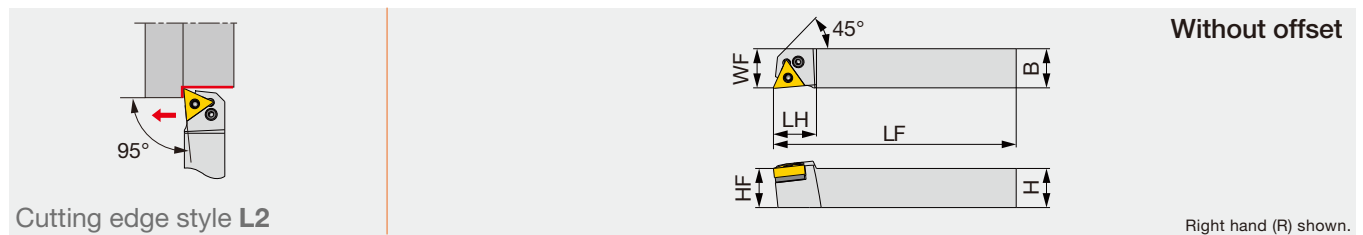
P	Application	Finishing	Medium cutting	M	Application	Finishing	Medium cutting
	Grade	AH725	TS		Grade	AH8015	AH8015
	Chipbreaker shape	SS	TS		Chipbreaker shape	SS	TS
	Cutting conditions	C118			Cutting conditions	C118	

Reference pages: JSWLXR/L, JSWL2XR/L: Inserts → **B157 -**

Standard cutting conditions → **C118**

PTL2NR/L

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



Cutting edge style L2

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 clamping torque (N·m)

**RE: Standard corner radius

SPARE PARTS

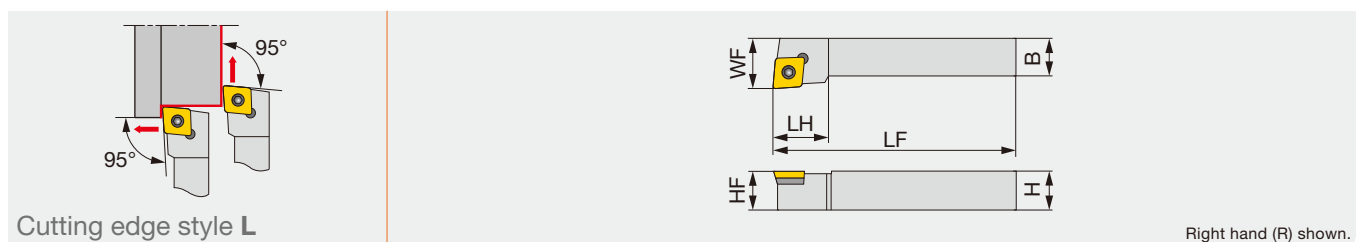
Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PTL2NR/L...	LST317 D30	LCS3	P-2.5	LSP3	LCL3

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Chipbreaker shape	TF	TSF	TM	TH
	Cutting conditions	B004			
M	Application	Finishing	Medium cutting		
	Grade	T6215	AH6225		
	Chipbreaker shape	SF	SM		
	Cutting conditions	B006			
K	Application	Finishing	Medium cutting	Medium to heavy cutting	
	Grade	T515	T515	T515	
	Chipbreaker shape	All-round	All-round	All-round	
	Cutting conditions	B008			
S	Application	Precision finishing	Finishing	Medium cutting	
	Grade	BX470	AH8005	AH8005	
	Chipbreaker shape	CBN	HRF	HRM	
	Cutting conditions	B012			
N	Application	Precision finishing	Finishing	Medium cutting	
	Grade	DX120	DX140	TH10	
	Chipbreaker shape	DIA	DIA	P	
	Cutting conditions	B010			
H	Application	Precision finishing	Finishing		
	Grade	BXA10	BXA20		
	Chipbreaker shape	CBN	CBN		
	Cutting conditions	B014			

SCLCR/L

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



Cutting edge style L

Designation	H	B	LF	LH	HF	WF	RE**	Insert
SCLCR/L1616H09	16	16	100	16	16	20	0.8	CC**09T3...
SCLCR/L2020K12	20	20	125	20	20	25	0.8	CC**1204...

**RE: Standard corner radius

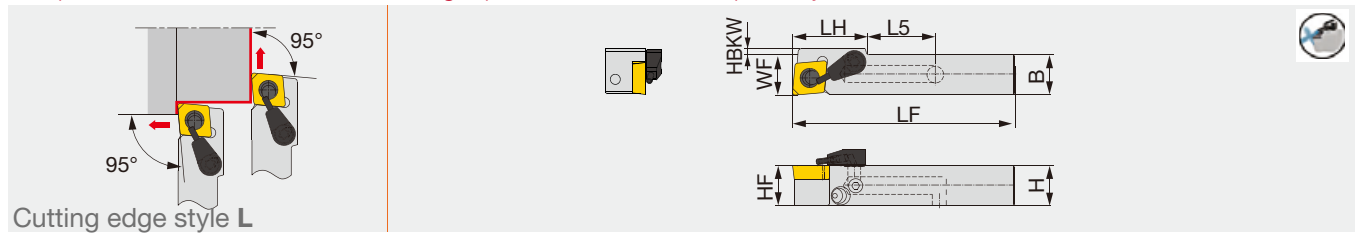
SPARE PARTS

Designation	Clamping screw	Shim screw	Shim	Wrench1	Wrench2
SCLCR/L1616H09	CSTB-3.5L	DTS5-3.5	SSC32	P-3.5	T-15F
SCLCR/L2020K12	CSTB-4F	DTS6-4	SSC4T3	P-4	T-15F

Reference pages: PTL2NR/L: Inserts → **B087 -**, CBN → **B182 -**, PCD → **B212**
SCLCR/L: Inserts → **B112 -**, CBN → **B189 -**, PCD → **B213**

Lever lock toolholders – 95° approach angle.

For positive 80° rhombic insert. High-pressure coolant capability with bottom direct connection



Designation	H	B	LF	LH	L5	HF	WF	HBKW	Insert
PCLCR/L1616X09S-CHP-MC	16	16	71	23	17	16	16.2	-	CC**09T3...

Applicable for 14 MPa pressure coolant

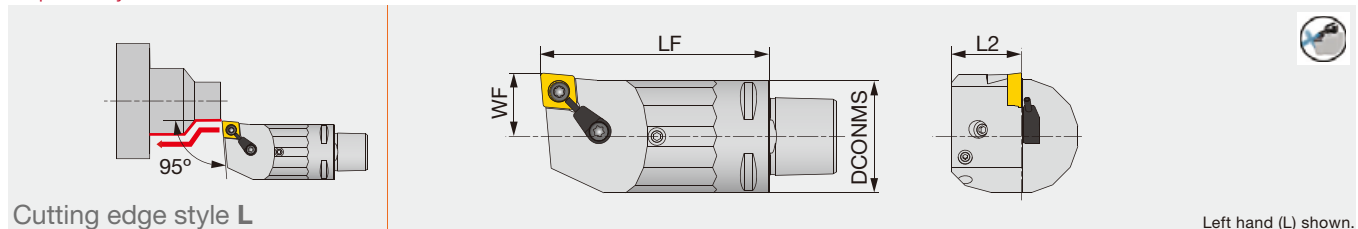
SPARE PARTS

Designation	Lever	Pin	Clamping screw	Wrench	Coolant plug	Coolant unit
PCLCR/L1616X09S-CHP-MC	SLLV-3	SLPI-3	SR10400150	HW2.5/5	SR5/16UNFTL360	S-CU-CHP

TUNGCAP

C-SCLCL-CHP

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



Designation	DCONMS	LF	L2	WF	RE	Insert
C3SCLCL18040-09-CHP	32	40	20	18	0.8	CC**09T3...
C3SCLCL18065-09-CHP	32	65	20	18	0.8	CC**09T3...

Applicable for 14 MPa coolant
Cannot be used for boring

SPARE PARTS

Designation	Clamping screw	Coolant unit	Wrench
C3SCLCL...	CSTB-4S	S-CU-CHP	T-15F

INSERT SELECTION

P	Application	Precision finishing	Finishing	Finishing to medium cutting	Medium cutting
	Grade	NS9530	NS9530	T9215	T9215
	Chipbreaker shape	01	PSS	PS	PM
	Cutting conditions	B016			

M	Application	Precision finishing	Finishing	Finishing to medium cutting	Medium cutting
	Grade	GH330	AH6225	AH6225	AH6225
	Chipbreaker shape	W**	PSS	PS	PM
	Cutting conditions	B018			

K	Application	Finishing to medium cutting
	Grade	T515
	Chipbreaker shape	CM
	Cutting conditions	B020

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	KS05F
	Chipbreaker shape	DIA	DIA	AL
	Cutting conditions	B022		

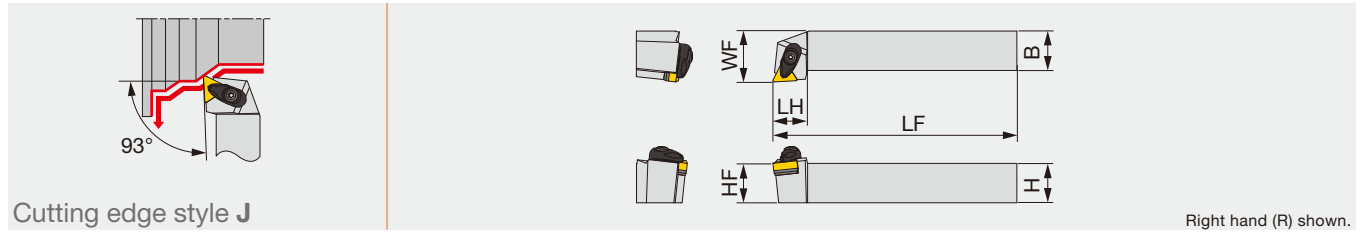
S	Application	Finishing	Finishing to medium cutting
	Grade	AH8015	AH8015
	Chipbreaker shape	PSS	PS
	Cutting conditions	B024	

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Chipbreaker shape	CBN	CBN
	Cutting conditions	B026	

Reference pages: PCLCR/L1616X09S-CHP-MC, C-SCLCL-CHP:

Inserts → **B112 -**, CBN → **B189 -**, PCD → **B213**Parts for coolant hose → **C115**

Double-clamp toolholder with 93° approach angle, for negative 60° triangular inserts

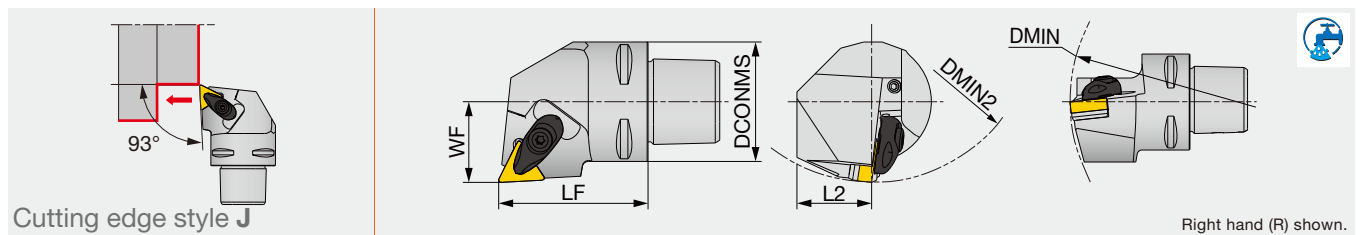


Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
ATJNR/L2020K16-A	20	20	125	22	20	25	0.8	TN**1604...	3
ATJNR/L2525M16-A	25	25	150	22	25	32	0.8	TN**1604...	3

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

C-ATJNR/L

Double-clamp toolholder, with 93° approach angle, for negative 60° triangular inserts



Designation	DCONMS	LF	L2	WF	DMIN	DMIN2	RE	Insert
C4ATJNR/L27050-16N	40	50	25	27	140	110	0.8	TN**1604...

Applicable for 7 MPa coolant

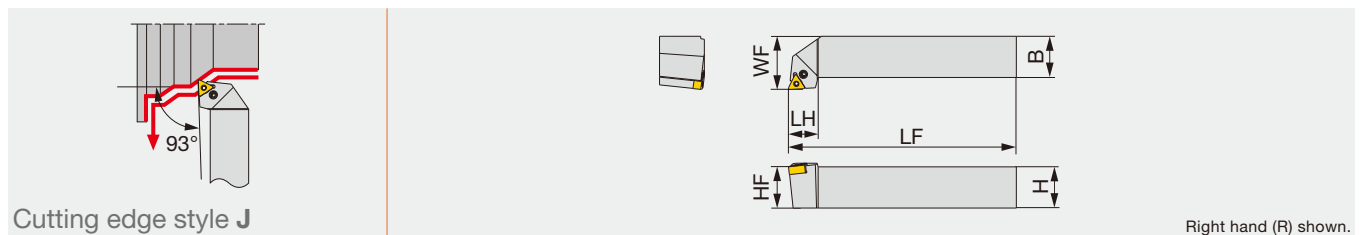
SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
ATJNR/L**16-A C4ATJNR/L**16N	ACP3S	ACS-5W	BP-7	SP-2.5	AST322	CSTB-3.5	T-15F

ISO ETURN

PTJNR/L-Eco

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



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
PTJNR/L2525M1104	25	25	150	18	25	32	0.8	TN**1104...	2

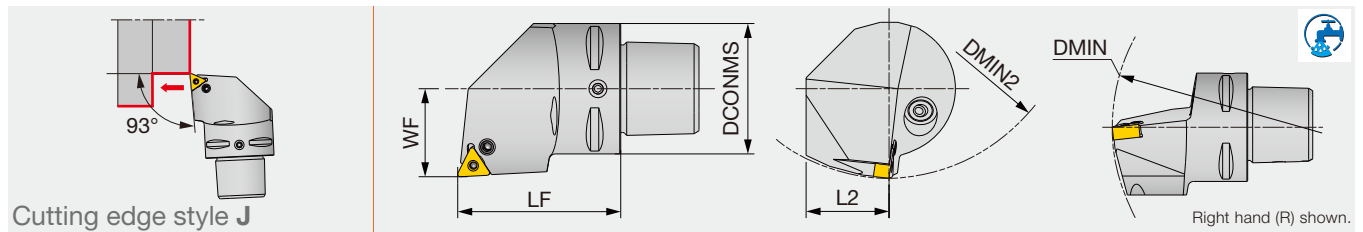
*Torque: Recommended clamping torque (N·m)

**RE: Standard corner radius

SPARE PARTS

Designation	Clamping screw	Wrench	Lever
PTJNR/L2525M1104	LCS23A	P-2.5	LCL23

Reference pages: ATJNR/L, C-ATJNR/L: Inserts → **B087 -**, CBN → **B182 -**, PCD → **B212**
PTJNR/L-Eco: Inserts → **B087 -**



Designation	DCONMS	LF	L2	WF	DMIN	DMIN2	RE**	Insert
C4PTJNR/L27050-1104N	40	50	25	27	140	110	0.8	TN**1104...

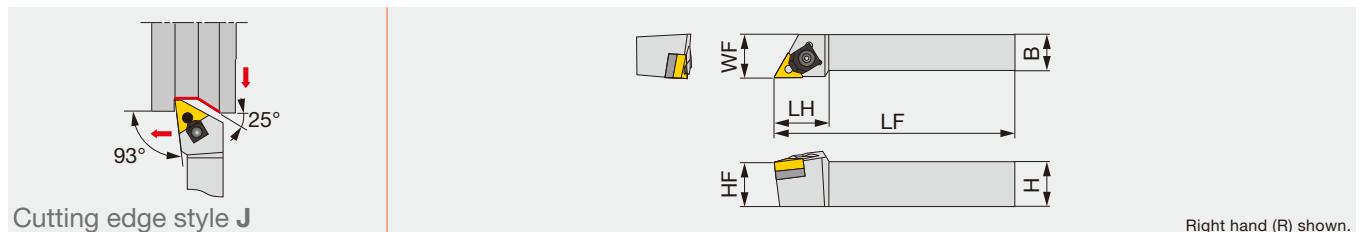
**RE: The holder measurements are true with this insert radius
Applicable for 7 MPa coolant

SPARE PARTS

Designation	Clamping screw	Wrench	Lever	Coolant parts
C4PTJNR/L27050-1104N	LCS23A	P-2.5	LCL23	SATZ-M8X1-M3

WTJNR/L

Wedge-on toolholder with 93° approach angle, for negative 60° triangular inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert
WTJNR2020	20	20	125	31	20	25	0.8	TN**1604...
WTJNR/L2525M3	25	25	150	31	25	32	0.8	TN**1604...

**RE: Standard corner radius

SPARE PARTS

Designation	Clamp	E-ring	Nut	Pin	Clamping screw	Shim	Wrench
WTJNR2020	WCW3	5103-25	WCN3S	WCP3S	WCS3	WST33	P-3
WTJNR/L2525M3	WCW3	5103-25	WCN3	WCP3S	WCS3	WST33	P-3

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Chipbreaker shape	TF	TSF	TM	TH
	Cutting conditions	B004			

M	Application	Finishing	Medium cutting
	Grade	T6215	AH6225
	Chipbreaker shape	SF	SM
	Cutting conditions	B006	

K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Chipbreaker shape	All-round	All-round	All-round
	Cutting conditions	B008		

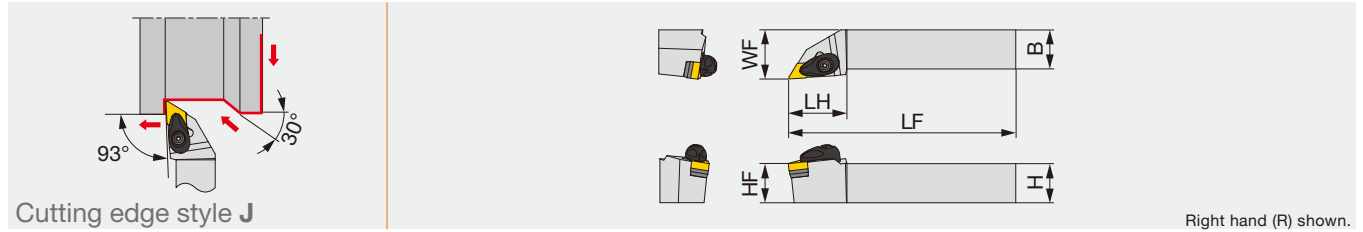
N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	TH10
	Chipbreaker shape	DIA	DIA with rake	P
	Cutting conditions	B010		

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX470	AH8005	AH8005
	Chipbreaker shape	CBN	HRF	HRM
	Cutting conditions	B012		

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Chipbreaker shape	CBN	CBN
	Cutting conditions	B014	

Reference pages: C-PTJNR/L: Inserts → **B087** -
WTJNR/L: Inserts → **B087** -, CBN → **B182** -, PCD → **B212**

Double-clamp toolholder with 93° approach angle, for negative 55°/45° rhombic inserts



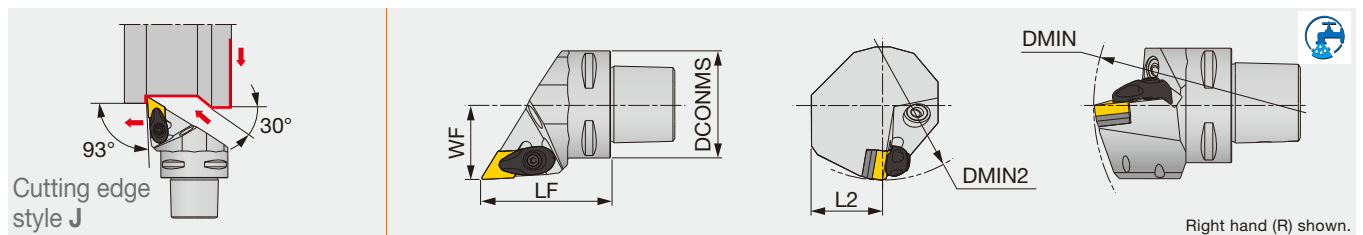
Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
ADJNR/L2020K1104-A	20	20	125	30	20	25	0.8	DN**/FNMG1104...	3
ADJNR/L2020K15-A	20	20	125	36	20	25	0.8	DN**/FNGA1504...	3
ADJNR/L2020K1506-A	20	20	125	36	20	25	0.8	DN**/FNGA1506...	3
ADJNR/L2525M1104-A	25	25	150	30	25	32	0.8	DN**/FNMG1104...	3
ADJNR/L2525M15-A	25	25	150	36	25	32	0.8	DN**/FNGA1504...	3
ADJNR/L2525M1506-A	25	25	150	36	25	32	0.8	DN**/FNGA1506...	3
ADJNR/L3225P15-A	32	25	170	36	32	32	0.8	DN**/FNGA1504...	3

*Torque: Recommended clamping torque (N·m)

**RE: Standard corner radius

C-ADJNR/L

Double-clamp toolholder, with 93° approach angle, for negative 55°/45° rhombic inserts



Designation	DCONMS	LF	L2	WF	DMIN	DMIN2	RE	Insert
C3ADJNR/L22050-1104N	32	50	20	22	121	85	0.8	DN**/FNMG1104...
C4ADJNR/L27050-1104N	40	50	25	27	145	110	0.8	DN**/FNMG1104...
C4ADJNR/L27050-15N	40	50	25	27	145	110	0.8	DN**/FNGA1504...
C5ADJNR/L35060-15N	50	60	32	35	165	110	0.8	DN**/FNGA1504...
C6ADJNR/L45065-1104N	63	65	35	45	190	110	0.8	DN**/FNMG1104...
C6ADJNR/L45065-15N	63	65	41	45	190	110	0.8	DN**/FNGA1504...
C6ADJNR/L45135-15N	63	135	41	45	190	110	0.8	DN**/FNGA1504...

Applicable for 7 MPa coolant

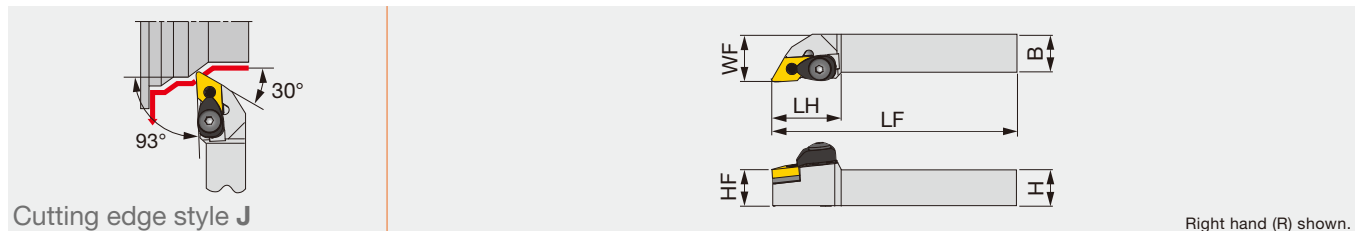
Option: ASD423 (Shim for DN**1506**)

SPARE PARTS	Clamp	Clamp screw	Coolant parts	Shim	Shim screw	Spring	Spring pin	Wrench
ADJNR/L**1104-A	ACP3S-E	ACS-5W	-	ASD322	CSTB-3.5	BP-7	SP-2.5	T-15F
ADJNR/L**15-A	ACP4S	ACS-5W	-	ASD432	CSTB-3.5	BP-7	SP-2.5	T-15F
ADJNR/L**1506-A	ACP4S	ACS-5W	-	ASD423	CSTB-3.5	BP-7	SP-2.5	T-15F
C4ADJN*27050-15N	ACP4S	ACS-5W	SATZ-M10X1-M5	ASD432	CSTB-3.5	BP-7	SP-2.5	T-15F
C5ADJN*35060-15N	ACP4S	ACS-5W	SATZ-M10X1-M5	ASD432	CSTB-3.5	BP-7	SP-2.5	T-15F
C6ADJN*45065-15N	ACP4S	ACS-5W	SATZ-M10X1-M5	ASD432	CSTB-3.5	BP-7	SP-2.5	T-15F
C6ADJN*45135-15N	ACP4S	ACS-5W	SATZ-M10X1-M5	ASD432	CSTB-3.5	BP-7	SP-2.5	T-15F

Reference pages: ADJNR/L, C-ADJNR/L: Inserts → **B066** -, **B075** -, CBN → **B172** -, **B176** -,PCD → **B211**

DDJNR/L

One-Double toolholder with 93° approach angle, for negative 55°/45° rhombic inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert
DDJNR/L2020K15	20	20	125	38	20	25	0.8	DN**/FNGA1504...
DDJNR/L2020K1506	20	20	125	38	20	25	0.8	DN**/FNGA1506...
DDJNR/L2525M15	25	25	150	38	25	32	0.8	DN**/FNGA1504...
DDJNR/L2525M1506	25	25	150	38	25	32	0.8	DN**/FNGA1506...
DDJNR/L3225P15	32	25	170	38	32	32	0.8	DN**/FNGA1504...
DDJNR/L3225P1506	32	25	170	38	32	32	0.8	DN**/FNGA1506...

Note: Except for 57-type chipbreaker inserts
**RE: Standard corner radius

SPARE PARTS	Clamp	Lever	Piston	Clamp screw	Shim	Spring	Spring pin	Wrench1	Wrench2
DDJNR/L**15	DCPM-43	DLCL43	DPIS43	DLCS43	LSD42	BP-10	LSP4	P-3	P-4
DDJNR/L**1506	DCPM-43	DLCL43	DPIS44	DLCS43	LSD42	BP-10	LSP4	P-3	P-4

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Chipbreaker shape	TF	TSF	TM	TH
	Cutting conditions	B004			

K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Chipbreaker shape	All-round	All-round	All-round
	Cutting conditions	B008		

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	CBN	HRF	HRM
	Chipbreaker shape			
	Cutting conditions	B012		

M	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	SF	SM	SH
	Chipbreaker shape			
	Cutting conditions	B006		

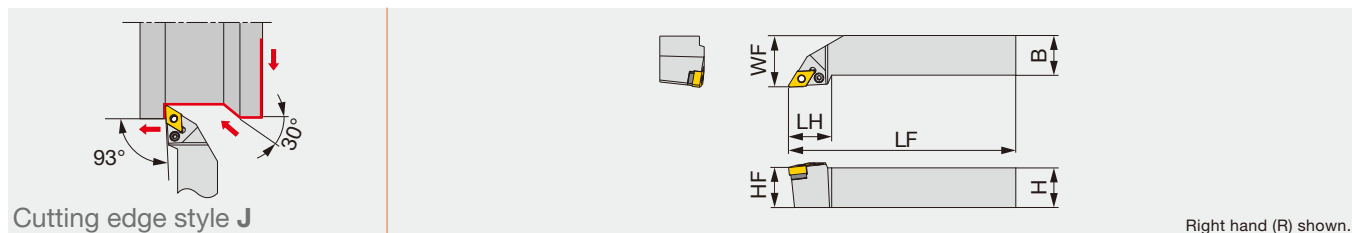
N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	TH10
	Chipbreaker shape	DIA	DIA with rake	P
	Cutting conditions	B010		

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Chipbreaker shape	CBN	CBN
	Cutting conditions	B014	

Reference pages: DDJNR/L: Inserts → B066 -, B075 -, CBN → B172 -, B176 -,PCD → B211

PDJNR/L

Lever-lock toolholder with 93° approach angle, for negative 55°/45° rhombic inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
PDJNR/L1616H1104	16	16	100	27	16	20	0.8	DN**/FNMG1104...	2
PDJNR/L1616H11	16	16	100	27	16	20	0.8	DN**/FNMG1104...	2
PDJNR/L2020K1104	20	20	125	27	20	25	0.8	DN**/FNMG1104...	2
PDJNR/L2020K11	20	20	125	27	20	25	0.8	DN**/FNMG1104...	2
PDJNR/L2020	20	20	125	34	20	25	0.8	DN**/FNGA1504...	3
PDJNR2020K15E	20	20	125	36	20	25	0.8	DN**/FNGA1504...	3
PDJNR/L2520	25	20	150	34	25	25	0.8	DN**/FNGA1504...	3
PDJNR/L2525M1104	25	25	150	27	25	32	0.8	DN**/FNMG1104...	2
PDJNR/L2525M11	25	25	150	27	25	32	0.8	DN**/FNMG1104...	2
PDJNR/L2525	25	25	150	34	25	32	0.8	DN**/FNGA1504...	3
PDJNR/L2525M15E	25	25	150	36	25	32	0.8	DN**/FNGA1506...	3
PDJNR/L3225	32	25	170	32	32	32	0.8	DN**/FNGA1504...	3
PDJNR3225P15E	32	25	170	36	32	34	0.8	DN**/FNGA1506...	3

*Torque: Recommended clamping torque (N·m)

**RE: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PDJNR/L****11/1104	ELSD32	LCS3	P-2.5	LSP3	LCL33L
PDJNR/L2020	LSD42	LCS4	P-3	LSP4	LCL4
PDJNR2020K15E	ELSD42	ELCS4	P-3	LSP4S	LCL44
PDJNR/L2520	LSD42	LCS4	P-3	LSP4	LCL4
PDJNR/L2525	LSD42	LCS4	P-3	LSP4	LCL4
PDJNR/L2525M15E	ELSD42	ELCS4	P-3	LSP4S	LCL44
PDJNR/L3225	LSD42	LCS4	P-3	LSP4	LCL4
PDJNR3225P15E	ELSD42	ELCS4	P-3	LSP4S	LCL44

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Chipbreaker shape	TF	TSF	TM	TH
					
	Cutting conditions B004				

K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Chipbreaker shape	All-round	All-round	All-round
				
	Cutting conditions B008			

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	CBN BX470	HRF AH8005	HRM AH8005
	Chipbreaker shape			
	Cutting conditions B012			

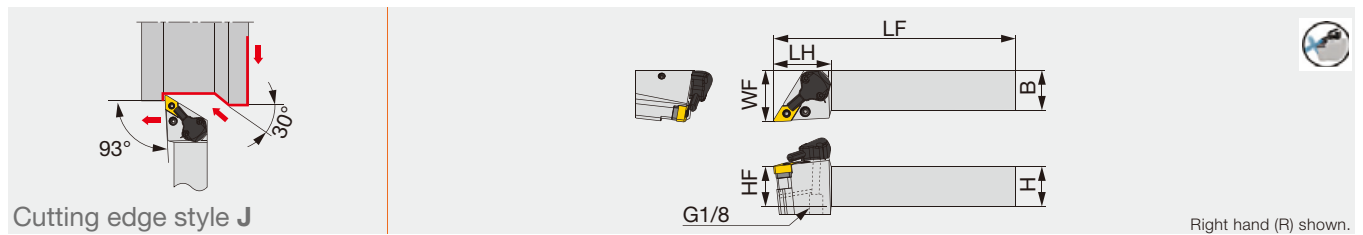
M	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T6215	AH6225	AH6225
	Chipbreaker shape	SF	SM	SH
				
	Cutting conditions B006			

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	TH10
	Chipbreaker shape	DIA with rake	DIA	P
				
	Cutting conditions B010			

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Chipbreaker shape	CBN	CBN
			
	Cutting conditions B014		

Reference pages: PDJNR/L: Inserts → B066 -, B075 -, CBN → B172 -, B176 -,PCD → B211

Lever lock toolholders – 93° approach angle.
For negative 55°/45° rhombic insert. High-pressure coolant capability.



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
PDJNR/L2020K1104-CHP	20	20	125	36	20	32	0.8	DN**/FNMG1104...	2
PDJNR/L2020K15-CHP	20	20	125	36	20	32	0.8	DN**/FNGA1504...	3
PDJNR/L2525M1104-CHP	25	25	150	36	25	32	0.8	DN**/FNMG1104...	2
PDJNR/L2525M15-CHP	25	25	150	36	25	32	0.8	DN**/FNGA1504...	3

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

**RE: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench 1	Spring pin	Lever
PDJNR/L**1104-CHP	ELSD32	LCS3	P-2.5	LSP3	LCL33L
PDJNR/L**15-CHP	LSD43A	LCS4	P-3	LSP4	LCL4

SPARE PARTS

Designation	Coolant unit	Mounting screw	Wrench 2	O-ring	Coolant screw	Wrench 3
PDJNR/L**1104-CHP	CU-D-CHP	SRM3	T-8F	OR6.4X0.9N	SRM4X4TL360	P-2
PDJNR/L**15-CHP	CU-D-CHP	SRM3	T-8F	OR6.4X0.9N	SRM4X4TL360	P-2

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Chipbreaker shape	TF	TSF	TM	TH
	Cutting conditions	B004			

K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Chipbreaker shape	All-round	All-round	All-round
	Cutting conditions	B008		

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX470	AH8005	AH8005
	Chipbreaker shape	CBN	HRF	HRM
	Cutting conditions	B012		

M	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T6215	AH6225	AH6225
	Chipbreaker shape	SF	SM	SH
	Cutting conditions	B006		

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	TH10
	Chipbreaker shape	DIA	DIA with rake	P
	Cutting conditions	B010		

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Chipbreaker shape	CBN	CBN
	Cutting conditions	B014	

Reference pages: PDJNR/L-CHP: Inserts → **B066 -**, **B075 -**, CBN → **B172 -**, **B176 -**,PCD → **B211**
Parts for coolant hose→ **C115**

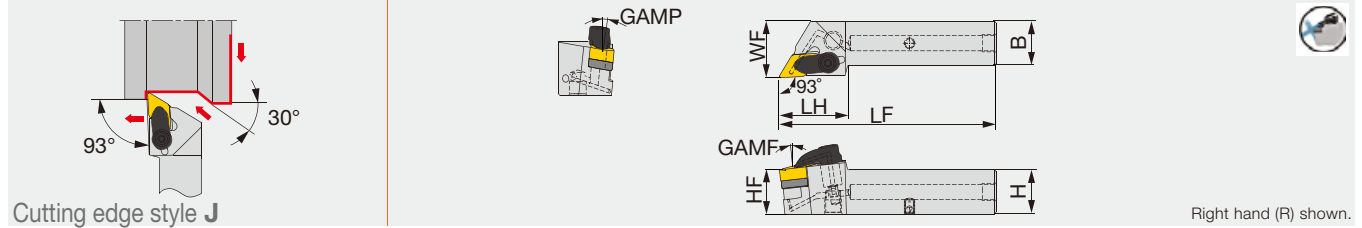
ADJNR/L-CHP-MC

Direct connection

Tube connection

Double clamping tool holders-93° approach angle

For negative 55°/45° rhombic insert. High-pressure coolant capability with tube and direct connections



Designation	H	B	LF	LH	HF	WF	GAMP	GAMF	Insert	Torque*
ADJNR/L2020X-15-CHP-MC	20	20	110	40	20	25	6°	6°	DN**/FNGA1506...	4
ADJNR/L2525X-15-CHP-MC	25	25	125	40	25	32	6°	6°	DN**/FNGA1506...	4

*Torque: Recommended torque (N-m) for clamping
 Used shim RDT443, in case using insert DN1504...
 Applicable for 14 MPa pressure coolant

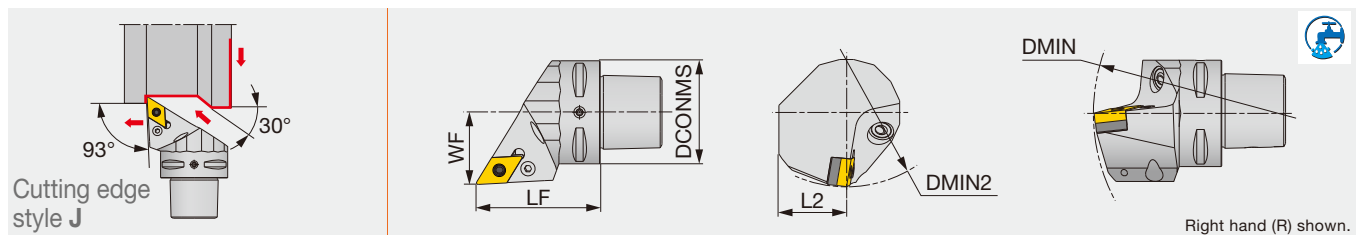
SPARE PARTS

Designation	Clamp set	Shim	Shim screw	screw for tube connection	Coolant plug	O-ring	Wrench 1
ADJNL***X-15-CHP-MC	LCGL-4JCSET	RDT433	SR14-506	PLUGG1/8-6.5TL360	SRM5X5 DIN913TL360	OR4X3NBR70	KEYV-T20
ADJNR***X-15-CHP-MC	LCGR-4JCSET	RDT433	SR14-506	PLUGG1/8-6.5TL360	SRM5X5 DIN913TL360	OR4X3NBR70	KEYV-T20

TUNGCAP

C-PDJNR/L

Lever-lock toolholder, with 93° approach angle, for negative 55°/45° rhombic inserts



Designation	DCONMS	LF	L2	WF	DMIN	DMIN2	RE	Insert
C5PDJNR/L35060-15N	50	60	32	35	165	110	0.8	DN**/FNGA1504(06)...
C6PDJNR/L45065-15N	63	65	41	45	195	95	0.8	DN**/FNGA1504(06)...

Applicable for 7 MPa coolant

SPARE PARTS

Designation	Coolant parts	Shim	Lever	Clamping screw	Spring pin	Wrench
C5PDJN*35060-15N	SATZ-M10X1-M5	LSD43A	LCL4	LCS4	LSP4	P-3
C6PDJN*45065-15N	SATZ-M10X1-M5	LSD43A	LCL4	LCS4	LSP4S	P-3

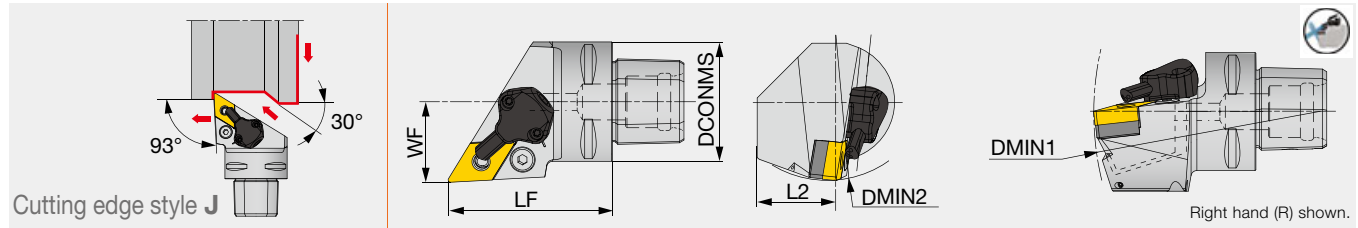
Option: LSD42A (Shim for DN**1506**), LSP4S (Spring pin for DN**1506**)

Reference pages: ADJNR/L-CHP-MC: Inserts → **B066 -**, **B075 -**, CBN → **B172 -**, **B176 -**, PCD → **B211**

C-PDJNR/L: Inserts → **B066 -**, **B075 -**, CBN → **B172 -**, **B176 -**, PCD → **B211**

Parts for coolant hose → **C115**

Lever lock toolholders with TungCap connection – 93° approach angle.
For negative 55°/45° rhombic insert. High-pressure coolant capability.



Designation	DCONMS	LF	L2	WF	DMIN1	DMIN2	RE**	Insert	Torque*
C4PDJNR/L27055-1104-CHP	40	55	27	27	145	110	0.8	DN**/FNMG1104...	2
C4PDJNR/L27055-15-CHP	40	55	27	27	145	110	0.8	DN**/FNGA1504(06)...	3
C5PDJNR/L35060-15-CHP	50	60	32	35	165	110	0.8	DN**/FNGA1504(06)...	3
C6PDJNR/L45065-1104-CHP	63	65	35	45	195	95	0.8	DN**/FNMG1104...	2
C6PDJNR/L45065-15-CHP	63	65	35	45	195	95	0.8	DN**/FNGA1504(06)...	3

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

Applicable for 14 MPa pressure coolant

**RE: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench 1	Spring pin	Lever
C*PDJNR/L**1104-CHP	ELSD32	LCS3	P-2.5	LSP3	LCL33L
C*PDJNR/L**-15-CHP	LSD43A	LCS4	P-3	LSP4	LCL4

Option: LSD42A (Shim for DN**1506...), LSP4S (Spring pin for DN**1506...)

SPARE PARTS

Designation	Coolant unit	Mounting screw	Wrench 2	O-ring
C*PDJNR/L**1104-CHP	CU-D-CHP	SRM3	T-8F	OR6.4X0.9N
C*PDJNR/L**-15-CHP	CU-D-CHP	SRM3	T-8F	OR6.4X0.9N

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Chipbreaker shape	TF	TSF	TM	TH
	Cutting conditions	B004			

K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Chipbreaker shape	All-round	All-round	All-round
	Cutting conditions	B008		

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX470	AH8005	AH8005
	Chipbreaker shape	CBN	HRF	HRM
	Cutting conditions	B012		

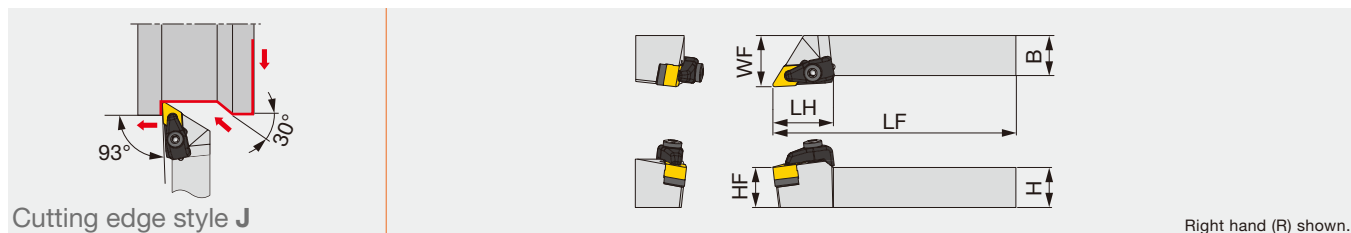
M	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T6215	AH6225	AH6225
	Chipbreaker shape	SF	SM	SH
	Cutting conditions	B006		

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	TH10
	Chipbreaker shape	DIA	with rake DIA	P
	Cutting conditions	B010		

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Chipbreaker shape	CBN	CBN
	Cutting conditions	B014	

Reference pages: C-PDJNR/L-CHP: Inserts → **B066 - , B075 -**, CBN → **B172 - , B176 -**, PCD → **B211**
Parts for coolant hose → **C115**

Double-clamp toolholder with 93° approach angle, for negative 55° rhombic ceramic inserts with dimple



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
CDJNR/L2525M1507-RD	25	25	150	38	25	32	1.2	DN*D1507...	4
CDJNR3225P1507-RD	32	25	170	38	32	32	1.2	DN*D1507...	4

*Torque: Recommended clamping torque (N·m)

**RE: Standard corner radius

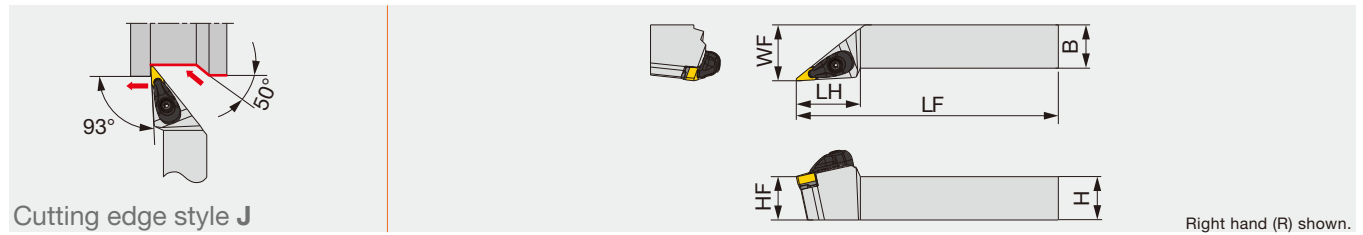
SPARE PARTS

Designation	Clamp	Clamp screw	Shim	Shim screw	Spring	Wrench1	Wrench2
CDJNR/L*-RD	CCP4-A	CCS4-A	CD44-A	BH5-10-A	BP-5-A	P-3	P-4

INSERT SELECTION

K	Application	Finishing to medium cutting
	Grade	FX105
	Chipbreaker shape	
	Cutting conditions	C118

Reference pages: CDJNR/L-RD: Inserts → **B074**
Standard cutting conditions → **C118**



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
AVJNR/L2020K1204-A	20	20	125	37	20	25	0.8	VN**1204...	3
AVJNR/L2020K16-A	20	20	125	43	20	25	0.8	VN**/YN**1604...	3
AVJNR/L2525M1204-A	25	25	150	37	25	32	0.8	VN**1204...	3
AVJNR/L2525M16-A	25	25	150	46	25	32	0.8	VN**/YN**1604...	3

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

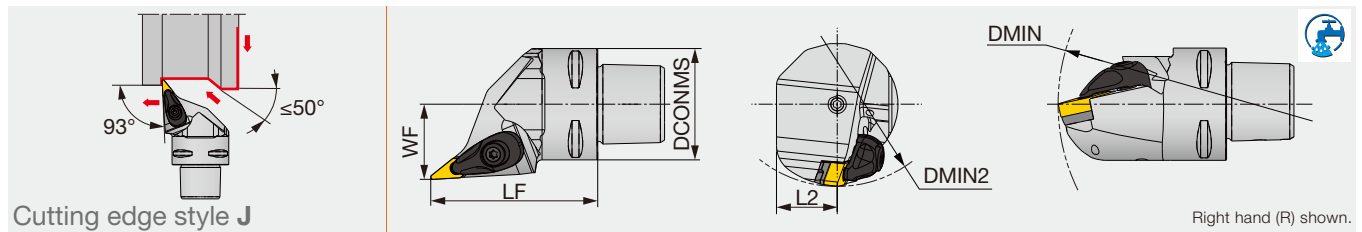
SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
AVJNR/L**1204-A	ACP3L-E	ACS-5W	BP-7	SP-2.5	ASV222	CSTB-3.0	T-15F
AVJNR/L**16-A	ACP3L	ACS-5W	BP-7	SP-2.5	ASV322	CSTB-3.5	T-15F

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting
	Grade	NS9530	GT9530	T9215
	Chipbreaker shape	TF	TSF	TM
	Cutting conditions	B004		
K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Chipbreaker shape	All-round	All-round	All-round
	Cutting conditions	B008		
S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX470	AH8005	AH8005
	Chipbreaker shape	CBN	HRF	HRM
	Cutting conditions	B012		
M	Application	Finishing	Medium cutting	
	Grade	T6215	AH6225	
	Chipbreaker shape	SF	SM	
	Cutting conditions	B006		
N	Application	Precision finishing		
	Grade	DX120		
	Chipbreaker shape	DIA with rake		
	Cutting conditions	B010		
H	Application	Precision finishing	Finishing	
	Grade	BXA10	BXA20	
	Chipbreaker shape	CBN	CBN	
	Cutting conditions	B014		

Reference pages: AVJNR/L: Inserts → **B098 -**, **B110**, CBN → **B186 -**, PCD → **B188**
Parts for coolant hose → **C115**



Designation	DCONMS	LF	L2	WF	DMIN	DMIN2	RE**	Insert
C4AVJNR/L27060-1204N	40	60	20	27	140	55	0.8	VN**1204...
C6AVJNR/L45065-1204N	63	65	31.5	45	190	81	0.8	VN**1204...

**RE: The holder measurements are true with this insert radius
Applicable for 7 MPa coolant

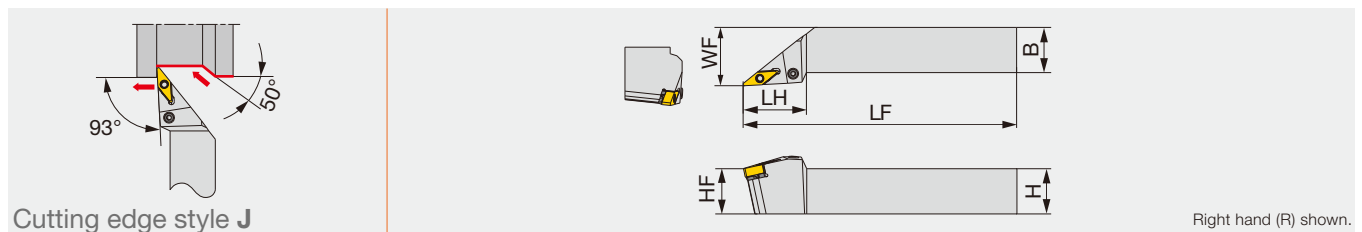
SPARE PARTS

Designation	Clamp	Clamp screw	Coolant parts	Shim	Shim screw	Spring	Spring pin	Wrench 1	Wrench 2
C4AVJNR/L...	ACP3L-E	ACS-5W	-	ASV222	CSTB-3	BP-7	SP-2.5	T-9F	T-15F
C6AVJNR/L...	ACP3L-E	ACS-5W	SATZ-M10X1-M5	ASV222	CSTB-3	BP-7	SP-2.5	T-9F	T-15F

ISO ETURN

PVJNR/L-Eco

Lever-lock toolholder with 93° approach angle, for negative 35° rhombic inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
PVJNR/L1616H1204	16	16	100	35	16	20	0.8	VN**1204...	2
PVJNR/L2020K1204	20	20	125	35	20	25	0.8	VN**1204...	2
PVJNR/L2525M1204	25	25	150	35	25	32	0.8	VN**1204...	2

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

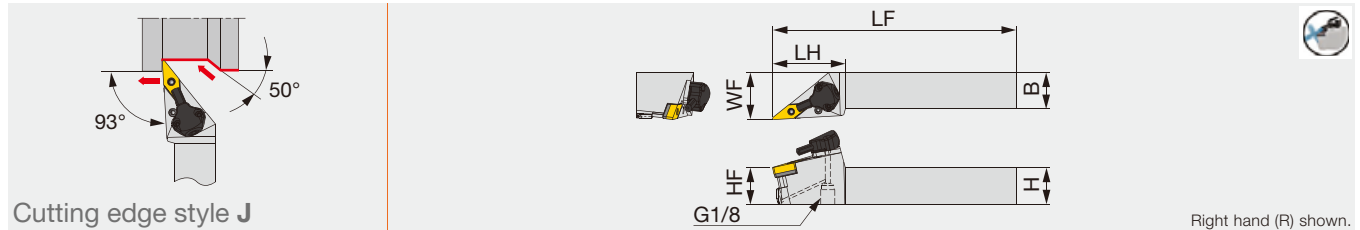
**RE: The holder measurements are true with this insert radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PVJNR/L**1204	LSV212	LCS3V	P-2.5	LSP3	LCL3V

Lever lock toolholders – 93° approach angle.

For negative 35°/25° rhombic insert. High-pressure coolant capability.



Designation	H	B	LF	LH	HF	WF	RE **	Insert	Torque*
PVJNR/L2020K1204-CHP	20	20	125	50	20	32	0.8	VN**1204...	2
PVJNR/L2020K16-CHP	20	20	125	50	20	32	0.8	VN**/YN**1604...	2
PVJNR/L2525M1204-CHP	25	25	150	50	25	32	0.8	VN**1204...	2
PVJNR/L2525M16-CHP	25	25	150	50	25	32	0.8	VN**/YN**1604...	2

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

**RE: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench 1	Spring pin	Lever
PVJNR/L**1204-CHP	LSV212	LCS3V	P-2.5	LSP3	LCL3V
PVJNR/L**16-CHP	LSV317	LCS3V	P-2.5	LSP3	LCL3V

SPARE PARTS

Designation	Coolant unit	Mounting screw	Wrench 2	O-ring	Coolant screw	Wrench 3
PVJNR/L**1204-CHP	CU-V-CHP	SRM3	T-8F	OR6.4X0.9N	SRM4X4TL360	P-2
PVJNR/L**16-CHP	CU-V-CHP	SRM3	T-8F	OR6.4X0.9N	SRM4X4TL360	P-2

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting
	Grade	NS9530	GT9530	T9215
	Chipbreaker shape	TF	TSF	TM
	Cutting conditions	B004		

M	Application	Finishing	Medium cutting
	Grade	T6215	AH6225
	Chipbreaker shape	SF	SM
	Cutting conditions	B006	

K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Chipbreaker shape	All-round	All-round	All-round
	Cutting conditions	B008		

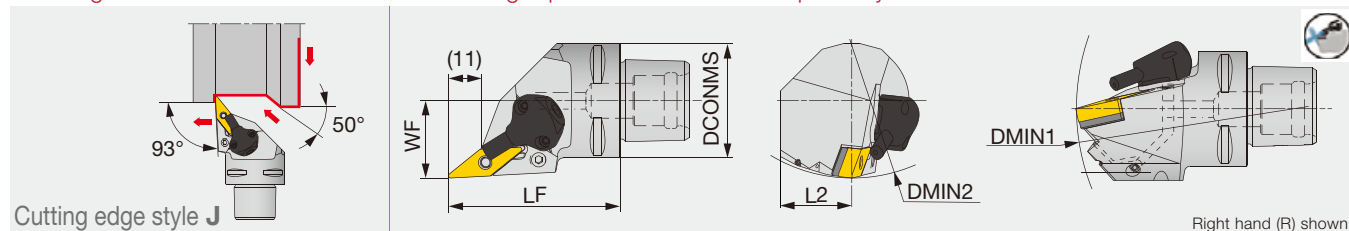
N	Application	Precision finishing
	Grade	DX120
	Chipbreaker shape	DIA with rake
	Cutting conditions	B010

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX470	AH8005	AH8005
	Chipbreaker shape	CBN	HRF	HRM
	Cutting conditions	B012		

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Chipbreaker shape	CBN	CBN
	Cutting conditions	B014	

Reference pages: PVJNR/L-CHP: Inserts → **B098 -**, **B110**, CBN → **B186 -**, PCD → **B188**
Parts for coolant hose → **C115**

Lever lock toolholders with TungCap connection – 93° approach angle.
For negative 35°/25° rhombic insert. High-pressure coolant capability.



Designation	DCONMS	LF	L2	WF	DMIN1	DMIN2	RE**	Insert	Torque*
C4PVJNR/L27060-1204-CHP	40	60	20	27	140	90	0.8	VN**1204...	2
C4PVJNR/L27060-16-CHP	40	60	20	27	140	110	0.8	VN**/YN**1604...	2
C6PVJNR/L45065-1204-CHP	63	65	31.5	45	190	81	0.8	VN**1204...	2
C6PVJNR/L45065-16-CHP	63	65	31.5	45	190	81	0.8	VN**/YN**1604...	2

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

Applicable for 14 MPa pressure coolant

**RE: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench 1	Spring pin	Lever
C*PVJNR/L*-1204-CHP	LSV212	LCS3V	P-2.5	LSP3	LCL3V
C*PVJNR/L...16-CHP	LSV317	LCS3V	P-2.5	LSP3	LCL3V

SPARE PARTS

Designation	Coolant unit	Mounting screw	Wrench 2	O-ring
C*PVJNR/L*-1204-CHP	CU-V-CHP	SRM3	T-8F	OR6.4X0.9N
C*PVJNR/L...16-CHP	CU-V-CHP	SRM3	T-8F	OR6.4X0.9N

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting
	Grade	NS9530	GT9530	T9215
	Chipbreaker shape	TF	TSF	TM
	Cutting conditions	B004		

M	Application	Finishing	Medium cutting
	Grade	T6215	AH6225
	Chipbreaker shape	SF	SM
	Cutting conditions	B006	

K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Chipbreaker shape	All-round	All-round	All-round
	Cutting conditions	B008		

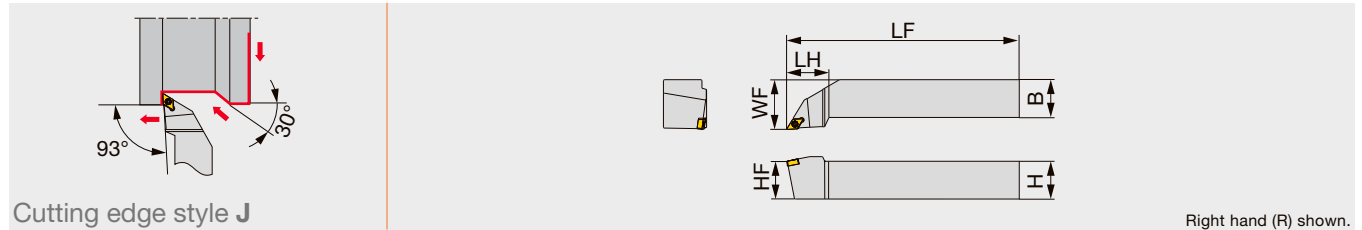
N	Application	Precision finishing
	Grade	DX120
	Chipbreaker shape	DIA with rake
	Cutting conditions	B010

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX470	AH8005	AH8005
	Chipbreaker shape	CBN	HRF	HRM
	Cutting conditions	B012		

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Chipbreaker shape	CBN	CBN
	Cutting conditions	B014	

Reference pages: C-PVJNR/L-CHP: Inserts → **B098 -**, **B110**, CBN → **B186 -**, PCD → **B188**
Parts for coolant hose → **C115**

Screw-on toolholder with 93° approach angle, for DX*U inserts

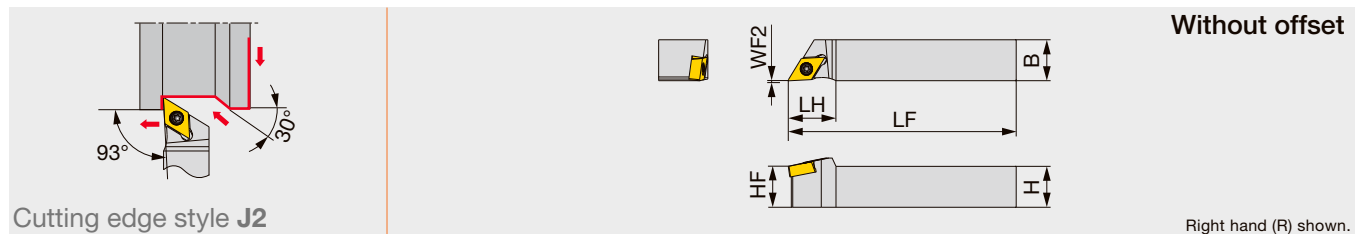


Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JSDJXR/L2020K07	20	20	125	27	20	25	0.4	DX*U0703**L/R...	0.9
JSDJXR/L2525M07	25	25	150	27	25	32	0.4	DX*U0703**L/R...	0.9

*Torque: Recommended clamping torque (N·m) **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).

JSDJ2XR/L

Screw-on toolholder with 93° approach angle, for DX*U inserts



Designation	H	B	LF	LH	HF	WF2	RE**	Insert	Torque*
JSDJ2XR/L1010X07	10	10	120	14	10	0	0.2	DX*U0703**L/R...	0.9
JSDJ2XR/L1212F07	12	12	85	14	12	0	0.2	DX*U0703**L/R...	0.9
JSDJ2XR/L1212X07	12	12	120	14	12	0	0.2	DX*U0703**L/R...	0.9
JSDJ2XR/L1616X07	16	16	120	18	16	0	0.2	DX*U0703**L/R...	0.9
JSDJ2XR/L2020H07	20	20	100	18	20	0	0.2	DX*U0703**L/R...	0.9

*Torque: Recommended clamping torque (N·m) **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	Clamping screw	Wrench
Designation	SR34-514	T-7F
JSDJXR/L...		
JSDJ2XR/L...		

INSERT SELECTION

Swiss lathes

P	Application	Finishing	Medium cutting	M	Application	Finishing	Medium cutting
	Grade	SH725	AH725		Grade	SH725	AH725
	Chipbreaker shape	JSS	JTS		Chipbreaker shape	JSS	JTS
	Cutting conditions	C118			Cutting conditions	C118	

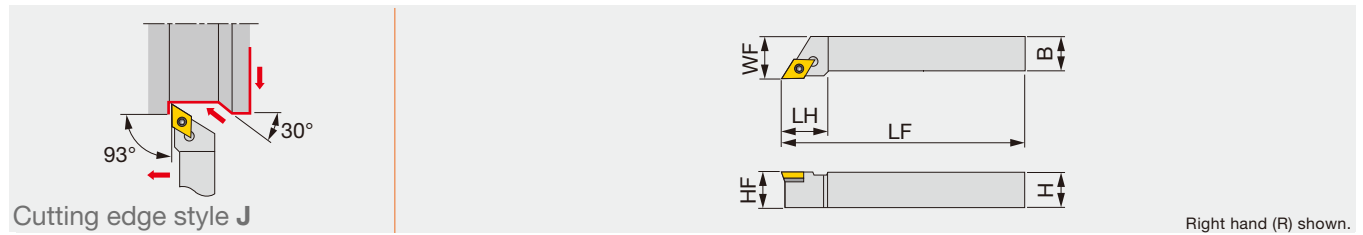
Small CNC lathes

P	Application	Finishing	Medium cutting	M	Application	Finishing	Medium cutting
	Grade	AH725	AH725		Grade	AH8015	AH8015
	Chipbreaker shape	SS	TS		Chipbreaker shape	SS	TS
	Cutting conditions	C118			Cutting conditions	C118	

Reference pages: JSDJXR/L, JSDJ2XR/L: Inserts → **B128** -
Standard cutting conditions → **C118**

SDJCR/L

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



Designation	H	B	LF	LH	HF	WF	RE**	Insert
SDJCR1616H11	16	16	100	20	16	20	0.8	DC**11T3...
SDJCR/L2020K11	20	20	125	20.5	20	25	0.8	DC**11T3...
SDJCR/L2525M11	25	25	150	21.5	25	32	0.8	DC**11T3...

**RE: Standard corner radius

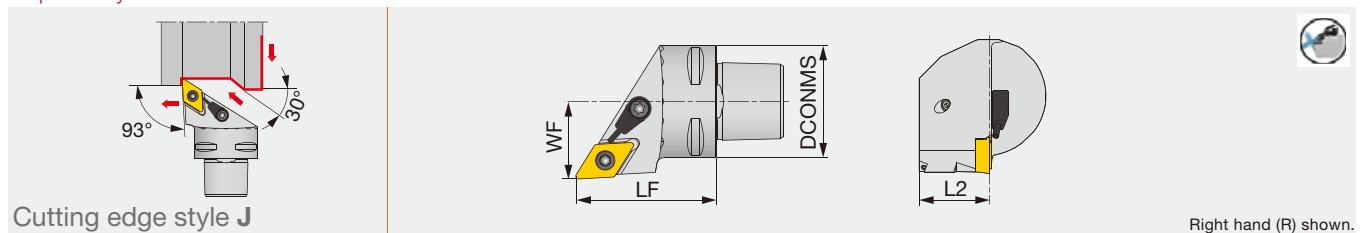
SPARE PARTS

Designation	Clamping screw	Shim screw	Shim	Wrench1	Wrench2
SDJCR/L...	CSTB-3.5L	DTS5-3.5	SSD32	P-3.5	T-15F

TUNGCAP

C-SDJCR/L-CHP

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



Designation	DCONMS	LF	L2	WF	RE	Insert
C3SDJCR/L22040-11-CHP	32	40	20	22	0.8	DC**11T3...

Applicable for 14 MPa coolant
Cannot be used for boring

SPARE PARTS

Designation	Clamping screw	Coolant unit	Wrench
C3SDJCR/L22040-11-CHP	CSTB-4S	S-CU-CHP	T-15F

INSERT SELECTION

P	Application	Finishing	Finishing to medium cutting	Medium cutting
	Grade	NS9530	T9215	T9215
	Chipbreaker shape	PSS	PS	PM
	Cutting conditions	B016		

K	Application	Finishing to medium cutting
	Grade	T515
	Chipbreaker shape	CM
	Cutting conditions	B020

S	Application	Finishing	Finishing to medium cutting
	Grade	AH8015	AH8015
	Chipbreaker shape	PSS	PS
	Cutting conditions	B024	

M	Application	Precision finishing	Finishing	Finishing to medium cutting	Medium cutting
	Grade	GH330	AH6225	AH6225	AH6225
	Chipbreaker shape	W**	PSS	PS	PM
	Cutting conditions	B018			

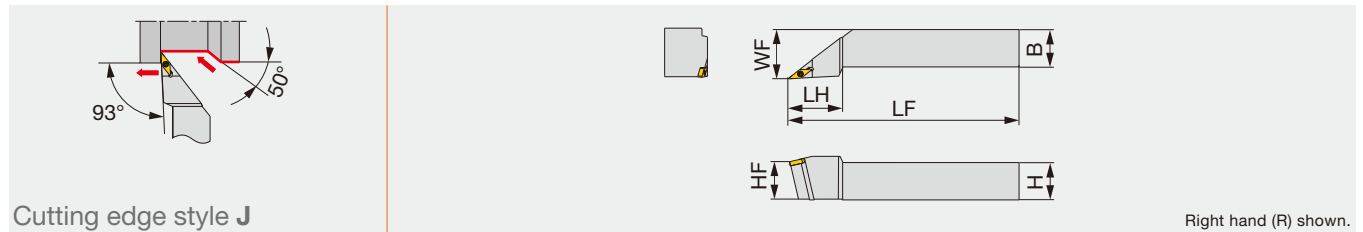
N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	KS05F
	Chipbreaker shape	DIA	DIA with rake	AL
	Cutting conditions	B022		

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Chipbreaker shape	CBN	CBN
	Cutting conditions	B026	

Reference pages: SDJCR/L: Inserts → B121 -, CBN → B194, PCD → B214

C-SDJCR/L-CHP: Inserts → B121 -, CBN → B194, PCD → B214, Parts for coolant hose → C115

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



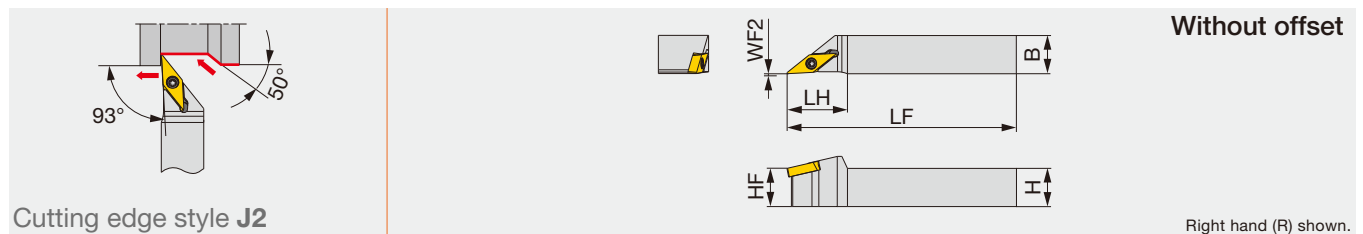
Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JSVJXR/L2020K09	20	20	125	35	20	25	0.4	VXGU09T2**/L/R...	0.9
JSVJXR/L2525M09	25	25	150	35	25	32	0.4	VXGU09T2**/L/R...	0.9

*Torque: Recommended clamping torque (N-m) **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).

JSVJ2XR/L

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



Designation	H	B	LF	LH	HF	WF2	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

*Torque: Recommended clamping torque (N-m) **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
JSVJXR/L...	SR34-508	T-7F
JSVJ2XR/L...		

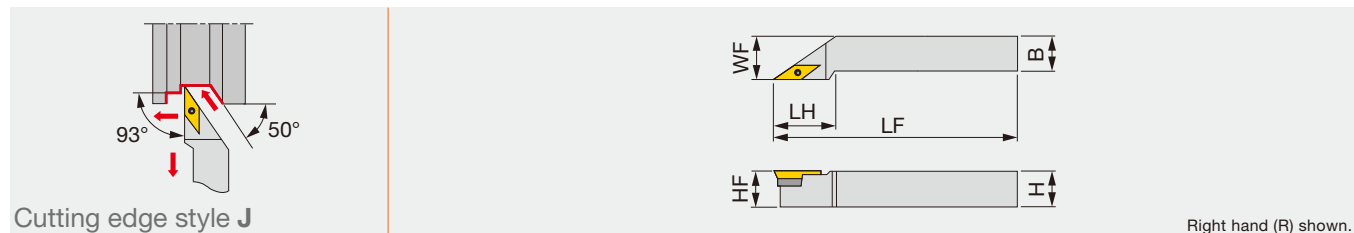
INSERT SELECTION

P	Application	Finishing	M	Application	Finishing
	Grade	SH725		Grade	SH725
	Chipbreaker shape	JRP		Chipbreaker shape	JRP
	Cutting conditions	C118		Cutting conditions	C118

Reference pages: JSVJXR/L, JSVJ2XR/L: Inserts → **B155**
Standard cutting conditions → **C118**

SVJCR/L

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



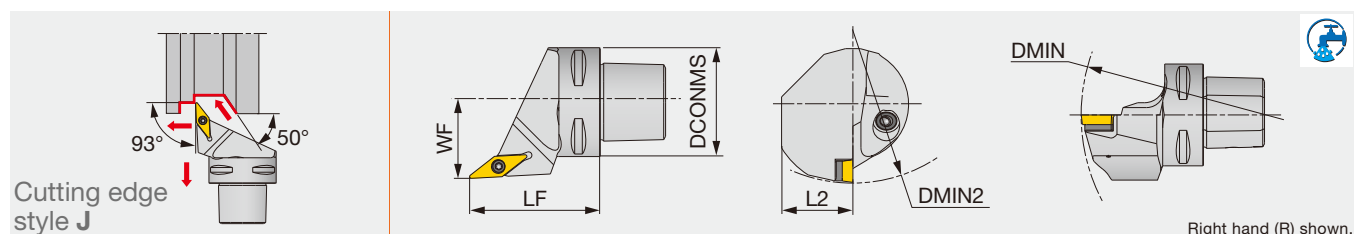
Designation	H	B	LF	LH	HF	WF	RE**	Insert
SVJCR/L1616H16	16	16	100	32	16	20	0.8	VC**1604...
SVJCR/L2020K16	20	20	125	32	20	25	0.8	VC**1604...
SVJCR/L2525M16	25	25	150	40	25	32	0.8	VC**1604...

**RE: Standard corner radius

TUNGCAP

C-SVJCR/L

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



Designation	DCONMS	LF	L2	WF	DMIN	DMIN2	RE	Insert
C3SVJCR/L22040-11N ⁽²⁾	32	40	20	22	-	-	0.4	VC**1103...
C5SVJCL35060-16 ⁽¹⁾	50	60	32	35	-	-	0.8	VC**1604...
C5SVJCR/L35060-16N ⁽²⁾	50	60	32	35	170	160	0.8	VC**1604...
C6SVJCR/L45065-16 ⁽¹⁾	63	65	41	45	-	-	0.8	VC**1604...
C6SVJCR/L45065-16N ⁽²⁾	63	65	41	45	170	190	0.8	VC**1604...

The items without DMIN and DMIN2 cannot be used for boring.
(1) Applicable for 3 MPa coolant (2) Applicable for 7 MPa coolant

SPARE PARTS

Designation	Clamping screw	Coolant parts	Shim	Shim screw	Wrench 1	Wrench 2
SVJCR/L...	CSTB-3.5L	-	SSV32	DTS5-3.5	P-3.5	T-15F
C3SVJC*22040-11N	CSTB-2.5	SATZ-M8X1-M3	-	-	-	T-8F
C5SVJC*35060-16	CSTB-3.5L	EZ104	SSV32	DTS5-3.5	P-3.5	T-15F
C5SVJC*35060-16N	CSTB-3.5L	SATZ-M10X1-M5	SSV32	DTS5-3.5	P-3.5	T-15F
C6SVJC*45065-16	CSTB-3.5L	EZ104	SSV32	DTS5-3.5	P-3.5	T-15F
C6SVJC*45065-16N	CSTB-3.5L	SATZ-M10X1-M5	SSV32	DTS5-3.5	P-3.5	T-15F

Reference pages: SVJCR/L, C-SVJCR/L: Inserts → **B152 -**, CBN → **B209**, PCD → **B220**

INSERT SELECTION

P	Application	Finishing	Finishing to medium cutting
	Grade	NS9530	T9215
	Chipbreaker shape	PSS	PS
	Cutting conditions	B016	

M	Application	Finishing	Finishing to medium cutting
	Grade	AH6225	AH6225
	Chipbreaker shape	PSS	PS
	Cutting conditions	B018	

K	Application	Finishing to medium cutting
	Grade	T515
	Chipbreaker shape	CM
	Cutting conditions	B020

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	KS05F
	Chipbreaker shape	DIA with rake	DIA	AL
	Cutting conditions	B022		

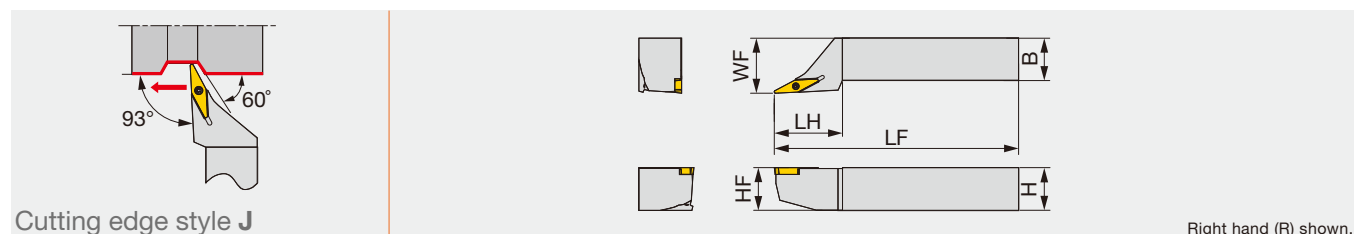
S	Application	Finishing	Finishing to medium cutting
	Grade	AH8015	AH8015
	Chipbreaker shape	PSS	PS
	Cutting conditions	B024	

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Chipbreaker shape	CBN	CBN
	Cutting conditions	B026	

Y-PRO SERIES

SYJBR/L

Screw-on toolholder with 93° approach angle, for positive 25° rhombic inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert
SYJBR/L2020K16	20	20	125	35	20	25	0.8	YWMT16T3...
SYJBR/L2525M16	25	25	150	40	25	32	0.8	YWMT16T3...

**RE: Standard corner radius

SPARE PARTS

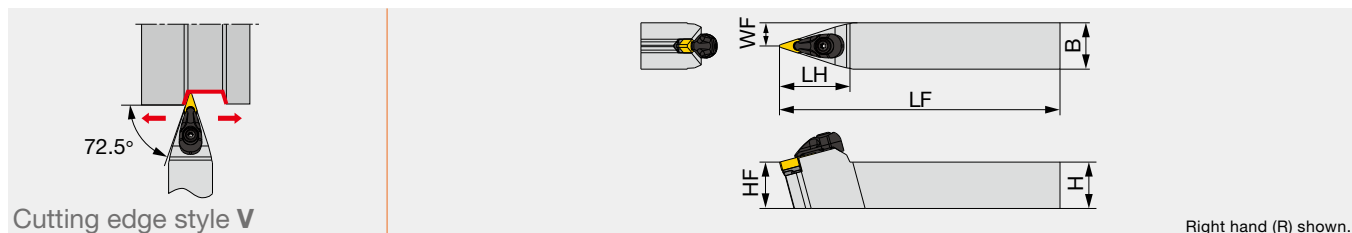
Designation	Clamping screw	Wrench
SYJBR/L...	CSTB-2.5L080	T-8F

INSERT SELECTION

P	Application	Finishing to medium cutting
	Grade	T9225
	Breaker Shape	ZM
	Cutting conditions	B016
M	Application	Finishing to medium cutting
	Grade	AH8015
	Breaker Shape	ZM
	Cutting conditions	B018
K	Application	Finishing to medium cutting
	Grade	GT9530
	Breaker Shape	ZM
	Cutting conditions	B020
S	Application	Finishing to medium cutting
	Grade	AH8015
	Breaker Shape	ZM
	Cutting conditions	B024

Reference pages: SYJBR/L: Inserts → **B159**

Double-clamp toolholder with 72.5° approach angle, for negative 35°/25° rhombic inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
AVVNN2020K1204-A	20	20	125	38	20	10	0.8	VN**1204...	3
AVVNN2020K16-A	20	20	125	46	20	10	0.8	VN**/YN**1604...	3
AVVNN2525M1204-A	25	25	150	38	25	12.5	0.8	VN**1204...	3
AVVNN2525M16-A	25	25	150	46	25	12.5	0.8	VN**/YN**1604...	3

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

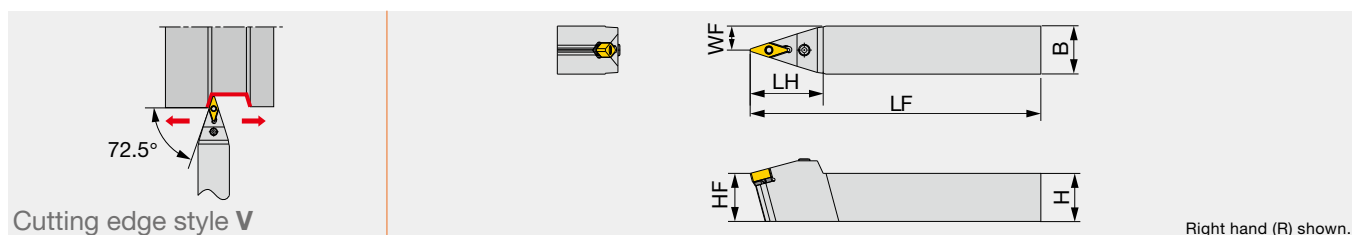
SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
AVVNN**1204-A	ACP3L-E	ACS-5W	BP-7	SP-2.5	ASV222	CSTB-3.0	T-15F
AVVNN**16-A	ACP3L	ACS-5W	BP-7	SP-2.5	ASV322	CSTB-3.5	T-15F

ISO ETURN

PVVNN-Eco

Lever-lock toolholder with 72.5° approach angle, for negative 35° rhombic inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
PVVNN2020K1204	20	20	125	38	20	10	0.8	VN**1204...	2
PVVNN2525M1204	25	25	150	38	25	12.5	0.8	VN**1204...	2

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

SPARE PARTS

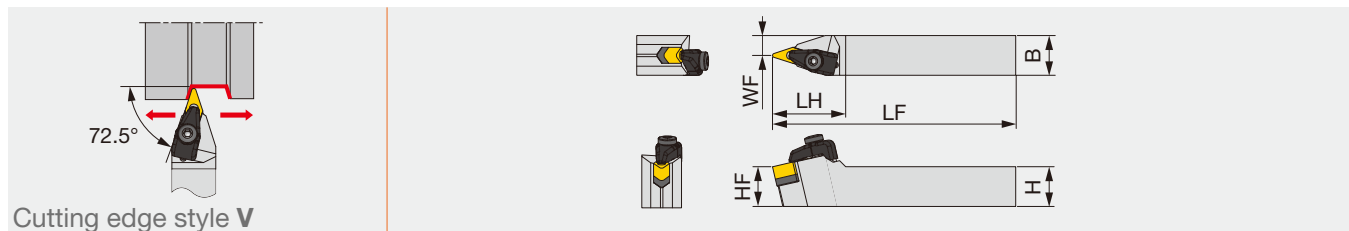
Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PVVNN**1204	LSV212	LCS3V	P-2.5	LSP3	LCL3V

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting
	Grade	NS9530	GT9530	T9215
	Chipbreaker shape	TF	TSF	TM
	Cutting conditions	B004		
M	Application	Finishing	Medium cutting	
	Grade	T6215	AH6225	
	Chipbreaker shape	SF	SM	
	Cutting conditions	B006		
K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Chipbreaker shape	All-round	All-round	All-round
	Cutting conditions	B008		
N	Application	Precision finishing		
	Grade	DX120		
	Chipbreaker shape	DIA with rake		
	Cutting conditions	B010		
S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX470	AH8005	AH8005
	Chipbreaker shape	CBN	HRF	HRM
	Cutting conditions	B012		
H	Application	Precision finishing	Finishing	
	Grade	BXA10	BXA20	
	Chipbreaker shape	CBN	CBN	
	Cutting conditions	B014		

Reference pages: AVVNN: Inserts → **B098 -**, B110, CBN → **B186 -**, PCD → **B188**
 PVVNN-Eco: Inserts → **B098 -**

Double-clamp toolholder with 72.5° approach angle, for negative 35° rhombic ceramic inserts with dimple



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
CVVNN2525M1607-RD	25	25	150	46	25	12.5	1.2	VN*D160712	4

*Torque: Recommended clamping torque (N·m)

**RE: Standard corner radius

SPARE PARTS

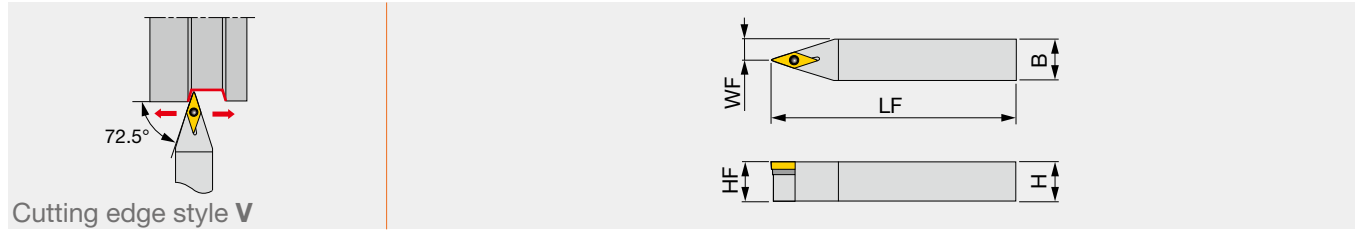
Designation	Clamp	Clamp screw	Shim	Shim screw	Spring	Wrench1	Wrench2
CVVNN2525M1607-RD	CCP4-A	CCS4-A	CV34-A	BH-4-10-A	BP-5-A	P-3	P-4

INSERT SELECTION

K	Application	Finishing to medium cutting
	Grade	FX105
	Chipbreaker shape	
	Cutting conditions	C118

SVVCN

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



Designation	H	B	LF	HF	WF	RE**	Insert
SVVCN2020K16	20	20	125	20	10	0.8	VC**1604...
SVVCN2525M16	25	25	150	25	12.5	0.8	VC**1604...

**RE: Standard corner radius

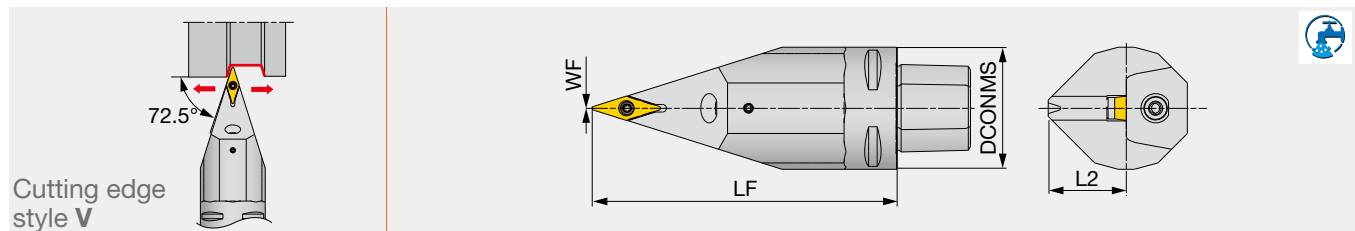
SPARE PARTS

Designation	Clamping screw	Shim	Shim screw	Wrench 1	Wrench 2
SVVCN...	CSTB-3.5L	SSV32	DTS5-3.5	P-3.5	T-15F

TUNGCAP

C-SVVCN

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



Designation	DCONMS	LF	L2	WF	RE	Insert
C5SVVCN00090-16 ⁽¹⁾	50	90	32	0	0.8	VC**1604...
C5SVVCN00090-16N ⁽²⁾	50	90	32	0	0.8	VC**1604...
C5SVVCN00125-16 ⁽¹⁾	50	125	32	0	0.8	VC**1604...
C5SVVCN00125-16N ⁽²⁾	50	125	32	0	0.8	VC**1604...
C6SVVCN00100-16N ⁽²⁾	63	100	37.5	0	0.8	VC**1604...
C6SVVCN00140-16N ⁽²⁾	63	140	37.5	0	0.8	VC**1604...

(1) Applicable for 3 MPa coolant (2) Applicable for 7 MPa coolant

SPARE PARTS

Designation	Clamping screw	Coolant parts	Shim	Shim screw	Wrench 1	Wrench 2
C5SVVCN00090-16	CSTB-3.5L	EZ104	SSV32	DTS5-3.5	P-3.5	T-15F
C5SVVCN00090-16N	CSTB-3.5L	SATZ-M10X1-M5	SSV32	DTS5-3.5	P-3.5	T-15F
C5SVVCN00125-16	CSTB-3.5L	EZ104	SSV32	DTS5-3.5	P-3.5	T-15F
C5SVVCN00125-16N	CSTB-3.5L	SATZ-M10X1-M5	SSV32	DTS5-3.5	P-3.5	T-15F
C6SVVCN00100-16N	CSTB-3.5L	SATZ-M10X1-M5	SSV32	DTS5-3.5	P-3.5	T-15F
C6SVVCN00140-16N	CSTB-3.5L	SATZ-M10X1-M5	SSV32	DTS5-3.5	P-3.5	T-15F

Reference pages: SVVCN, C-SVVCN: Inserts → **B152 -**, CBN → **B209**, PCD → **B220**

INSERT SELECTION

P	Application	Finishing	Finishing to medium cutting
	Grade	NS9530	T9215
	Chipbreaker shape	PSS	PS
	Cutting conditions	B016	

M	Application	Finishing	Finishing to medium cutting
	Grade	AH6225	AH6225
	Chipbreaker shape	PSS	PS
	Cutting conditions	B018	

K	Application	Finishing to medium cutting
	Grade	CM
	Chipbreaker shape	
	Cutting conditions	B020

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	KS05F
	Chipbreaker shape	DIA	DIA with rake	AL
	Cutting conditions	B022		

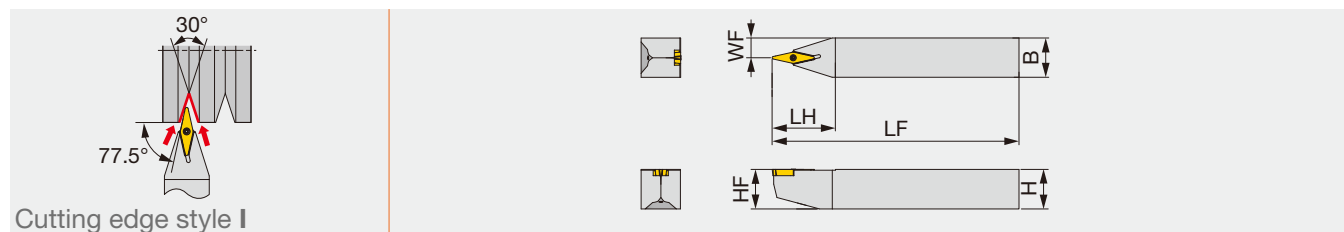
S	Application	Finishing	Finishing to medium cutting
	Grade	AH8015	AH8015
	Chipbreaker shape	PSS	PS
	Cutting conditions	B024	

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Chipbreaker shape	CBN	CBN
	Cutting conditions	B026	

Y-PRO SERIES

SYIBN

Screw-on toolholder with 77.5° approach angle, for positive 25° rhombic inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert
SYIBN2020K16	20	20	125	32	20	10	0.8	YWMT16T3...
SYIBN2525M16	25	25	150	40	25	12.5	0.8	YWMT16T3...

**RE : Standard corner radius

SPARE PARTS

Designation	Clamping screw	Wrench
SYIBN...	CSTB-2.5L080	T-8F

INSERT SELECTION

P	Application	Finishing to medium cutting
	Grade	T9225
	Breaker Shape	ZM
	Cutting conditions	B016

M	Application	Finishing to medium cutting
	Grade	AH8015
	Breaker Shape	ZM
	Cutting conditions	B018

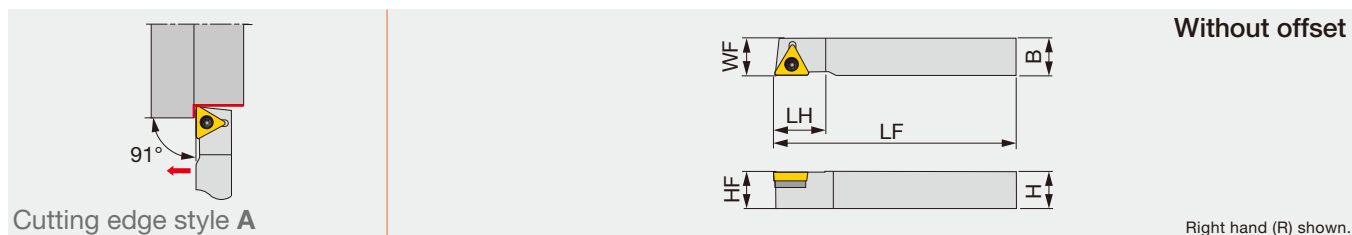
K	Application	Finishing to medium cutting
	Grade	GT9530
	Breaker Shape	ZM
	Cutting conditions	B020

S	Application	Finishing to medium cutting
	Grade	AH8015
	Breaker Shape	ZM
	Cutting conditions	B024

Reference pages: SYIBN: Inserts → **BB159**

STACR/L

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



Designation	H	B	LF	LH	HF	WF	RE**	Insert
STACR/L1616H16	16	16	100	22.5	16	16	0.8	TC**16T3...

**RE: Standard corner radius

SPARE PARTS					
Designation	Clamping screw	Shim screw	Shim	Wrench1	Wrench2
STACR/L...	CSTB-3.5L	DTS5-3.5	SST32	P-3.5	T-15F

INSERT SELECTION

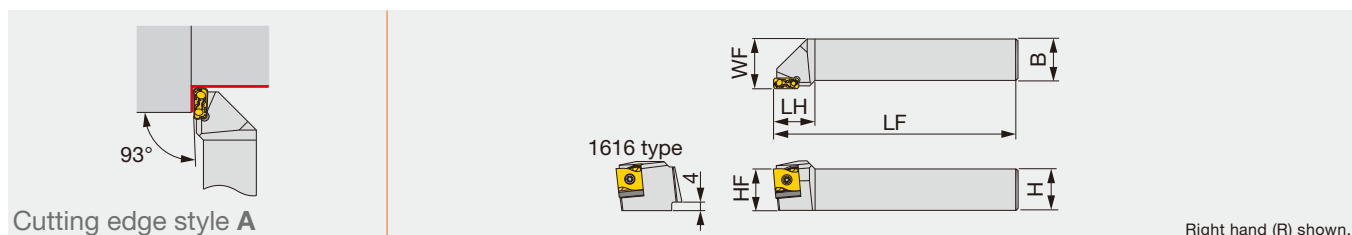
P	Application	Finishing	Finishing to medium cutting	Medium cutting	M	Application	Finishing	Finishing to medium cutting	Medium cutting
	Grade	T9215	T9215	T9215		Grade	AH725	AH6225	AH6225
	Breaker Shape	PSS	PS	PM		Breaker Shape	PSS	PS	PM
	Cutting conditions	B016				Cutting conditions	B018		

K	Application	Finishing to medium cutting	N	Application	Finishing to medium cutting	S	Application	Finishing	Finishing to medium cutting	Medium cutting
	Grade	T515		Grade	KS05F		Grade	AH725	AH6225	AH6225
	Breaker Shape	CM		Breaker Shape	AL with rake		Breaker Shape	PSS	PS	PM
	Cutting conditions	B020		Cutting conditions	B022		Cutting conditions	B024		

TURNTEC

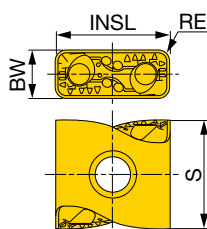
TLANR/L

Screw-on toolholder for roughing with 93° approach angle, for negative tangential inserts



Designation	H	B	LF	LH	HF	WF	Insert
TLANR/L1616H12	16	16	100	20	16	20	LNMX1204**R/L...
TLANR/L1616M12S	16	16	150	20	16	20	LNMX1204**R/L...
TLANR/L2020K12	20	20	125	20	20	25	LNMX1204**R/L...
TLANR/L2020K16	20	20	125	25	20	25	LNMX1606**R/L...
TLANR/L2525M12	25	25	150	20	25	30	LNMX1204**R/L...
TLANR/L2525M16	25	25	150	25	25	30	LNMX1606**R/L...
TLANR/L3232P16	32	32	170	35	32	37	LNMX1606**R/L...
TLANR/L3232P24	32	32	170	35	32	38	LNMX2410**R/L...
TLANR/L4040R16	40	40	200	35	40	47	LNMX1606**R/L...
TLANR/L4040R24	40	40	200	40	40	47	LNMX2410**R/L...
TLANR/L5050S24	50	50	250	40	50	57	LNMX2410**R/L...

Reference pages: TLANR/L: Standard cutting conditions → C119

Index

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

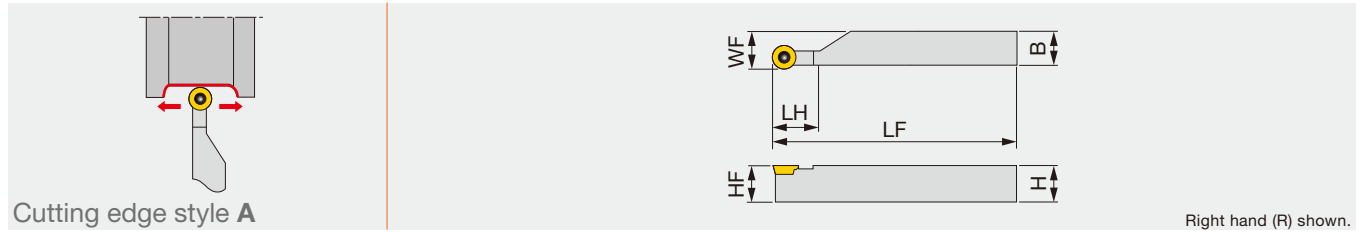
★ : First choice
☆ : Second choice

[illegible]

Tungaloy C055

SRACR/L

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



Designation	H	B	LF	LH	HF	WF	Insert
SRACR1010H05	10	10	100	10	10	10.3	RCMT0502...
SRACR/L1212H05	12	12	100	10	12	12.3	RCMT0502...
SRACR/L1212H06	12	12	100	12	12	12.4	RC*T0602...
SRACR1616H05	16	16	100	10	16	16.3	RCMT0502...
SRACR/L1616H06	16	16	100	12	16	16.4	RC*T0602...
SRACR/L1616H08	16	16	100	16	16	16.5	RC*T0803...
SRACR/L2020K05	20	20	125	10	20	20.3	RCMT0502...
SRACR/L2020K06	20	20	125	12	20	20.4	RC*T0602...
SRACR/L2020K08	20	20	125	16	20	20.5	RC*T0803...
SRACR/L2525M05	25	25	150	10	25	25.3	RCMT0502...
SRACR/L2525M06	25	25	150	12	25	25.4	RC*T0602...
SRACR/L2525M08	25	25	150	16	25	25.5	RC*T0803...

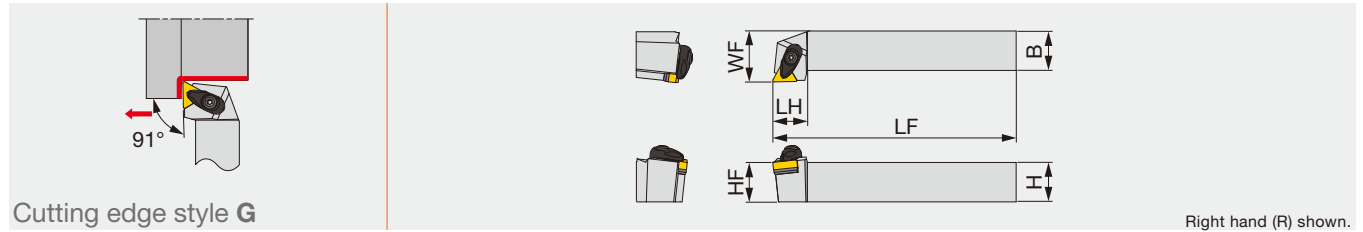
SPARE PARTS

Designation	Clamping screw	Wrench
SRACR/L111H05	CSTB-2.2R	T-7F
SRACR/L1212H06	CSTB-2.5	T-8F
SRACR1616H05	CSTB-2.2R	T-7F
SRACR/L1616H06	CSTB-2.5	T-8F
SRACR/L1616H08	CSTB-3	T-9F
SRACR/L2020K05	CSTB-2.2R	T-7F
SRACR/L2020K06	CSTB-2.5	T-8F
SRACR/L2020K08	CSTB-3	T-9F
SRACR/L2525M05	CSTB-2.2R	T-7F
SRACR/L2525M06	CSTB-2.5	T-8F
SRACR/L2525M08	CSTB-3	T-9F

INSERT SELECTION

P	Application	Finishing to medium cutting	heavy cutting
	Grade	T9215	T9215
	Chipbreaker shape	RS	61
	Cutting conditions	B016	
M	Application	heavy cutting	
	Grade	T9215	
	Chipbreaker shape	61	
	Cutting conditions	B018	
K	Application	heavy cutting	
	Grade	T9215	
	Chipbreaker shape	61	
	Cutting conditions	B020	
N	Application	Finishing to medium cutting	
	Grade	KS05F	
	Chipbreaker shape	AL	
	Cutting conditions	B022	
S	Application	Finishing to medium cutting	heavy cutting
	Grade	AH8015	AH8015
	Chipbreaker shape	RS	61
	Cutting conditions	B024	

Reference pages: SRACR/L: Inserts → **B130** -



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
ATG NR/L2020K16-A	20	20	125	22	20	25	0.8	TN**1604...	3
ATG NR/L2525M16-A	25	25	150	22	25	32	0.8	TN**1604...	3
ATG NR/L2525M22-A	25	25	150	26	25	32	0.8	TN**2204...	3

*Torque: Recommended clamping torque (N·m)

**RE: Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
ATG NR/L**16-A	ACP3S	ACS-5W	BP-7	SP-2.5	AST322	CSTB-3.5	T-15F
ATG NR/L**22-A	ACP4S	ACS-5W	BP-7	SP-2.5	AST422	CSTB-3.5	T-15F

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Chipbreaker shape	TF	TSF	TM	TH
	Cutting conditions	B004			

M	Application	Finishing	Medium cutting
	Grade	T6215	AH6225
	Chipbreaker shape	SF	SM
	Cutting conditions	B006	

K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Chipbreaker shape	All-round	All-round	All-round
	Cutting conditions	B008		

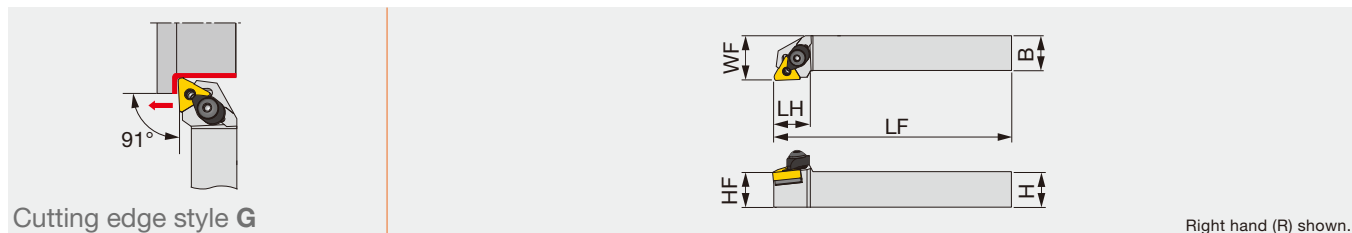
N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	TH10
	Chipbreaker shape	DIA	with rake DIA	P
	Cutting conditions	B010		

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX470	AH8005	AH8005
	Chipbreaker shape	CBN	HRF	HRM
	Cutting conditions	B012		

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Chipbreaker shape	CBN	CBN
	Cutting conditions	B014	

DTGNR/L

"One-Double" toolholder with 91° approach angle, for negative 60° triangular inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert
DTGNR/L2020K16	20	20	125	21	20	25	0.8	TN**1604...
DTGNR/L2525M16	25	25	150	21	25	32	0.8	TN**1604...
DTGNR/L2525M22	25	25	150	28	25	32	0.8	TN**2204...

Note: Except for 57-type chipbreaker inserts

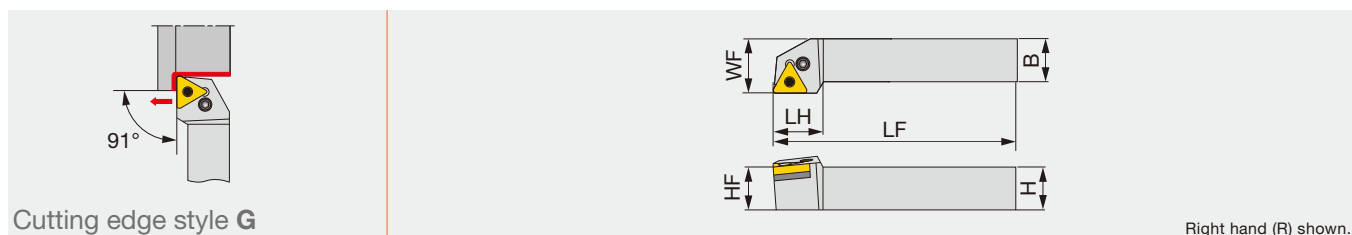
**RE: Standard corner radius

SPARE PARTS

Designation	Clamp	Lever	Piston	Clamp screw	Shim	Spring	Spring pin	Wrench 1	Wrench 2
DTGNR/L**16	DCPM-33	LCL33	DPIS33	DLCS33	LST317	BP-9	LSP3	P-2.5	P-3
DTGNR/L**22	DCPM-43	DLCL43	DPIS43	DLCS43	LST42	BP-10	LSP4	P-3	P-4

ISO TURN PTGNR/L

Lever-lock toolholder with 91° approach angle, for negative triangular inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
PTGNR/L1616	16	16	100	22	16	20	0.8	TN**1604...	2
PTGNR/L2020K1104	20	20	125	20	20	25	0.8	TN**1104...	2
PTGNR/L2020	20	20	125	22	20	25	0.8	TN**1604...	2
PTGNR/L2525M1104	25	25	150	20	25	32	0.8	TN**1104...	2
PTGNR/L2525M3	25	25	150	22	25	32	0.8	TN**1604...	2
PTGNR/L2525M4	25	25	150	28	25	32	0.8	TN**2204...	3
PTGNR3225P4	32	25	170	28	32	32	0.8	TN**2204...	3

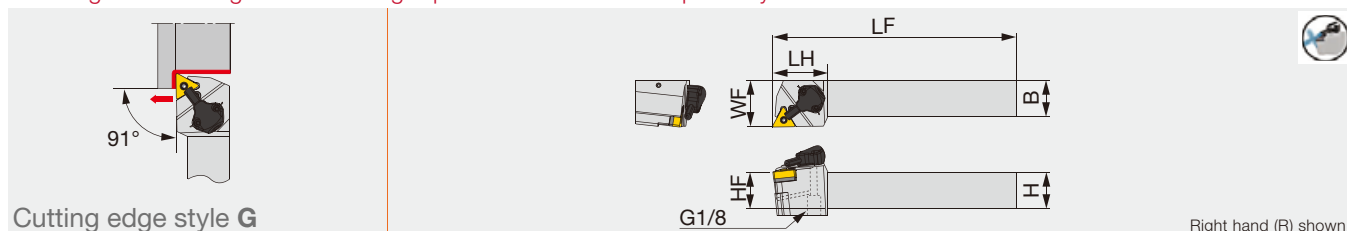
*Torque: Recommended clamping torque (N·m) **RE: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PTGNR/L1616, 2020	LST317	LCS3	P-2.5	LSP3	LCL3
PTGNR/L**1104	-	LCS23A	P-2.5	-	LCL23
PTGNR/L2525M3	LST317	LCS3	P-2.5	LSP3	LCL3
PTGNR/L2525M4	LST42	LCS4	P-3	LSP4	LCL4
PTGNR3225P4	LST42	LCS4	P-3	LSP4	LCL4

Reference pages: DTGNR/L, PTGNR/L: Inserts → **B087 -**, CBN → **B182 -**, PCD → **B212**

Lever lock toolholders – 91° approach angle.
For negative triangle insert. High-pressure coolant capability.



Designation	H	B	LF	LH	HF	WF	RE **	Insert	Torque*
PTG NR/L2020K1104-CHP	20	20	125	38	20	32	0.8	TN**1104...	2
PTG NR/L2020K16-CHP	20	20	125	38	20	32	0.8	TN**1604...	2
PTG NR/L2525M1104-CHP	25	25	150	38	25	32	0.8	TN**1104...	2
PTG NR/L2525M16-CHP	25	25	150	38	25	32	0.8	TN**1604...	2

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

**RE: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench 1	Spring pin	Lever
PTG NR/L**1104-CHP	-	LCS23A	P-2.5	LSP3	LCL23
PTG NR/L**16-CHP	LST317	LCS3	P-2.5	LSP3	LCL3

SPARE PARTS

Designation	Coolant unit	Mounting screw	Wrench 2	O-ring	Coolant screw	Wrench 3
PTG NR/L**1104-CHP	CU-CW-CHP	SRM3	T-8F	OR6.4X0.9N	SRM4X4TL360	P-2
PTG NR/L**16-CHP	CU-CW-CHP	SRM3	T-8F	OR6.4X0.9N	SRM4X4TL360	P-2

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Chipbreaker shape	TF	TSF	TM	TH
	Cutting conditions	B004			

M	Application	Finishing	Medium cutting
	Grade	T6215	AH6225
	Chipbreaker shape	SF	SM
	Cutting conditions	B006	

K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Chipbreaker shape	All-round	All-round	All-round
	Cutting conditions	B008		

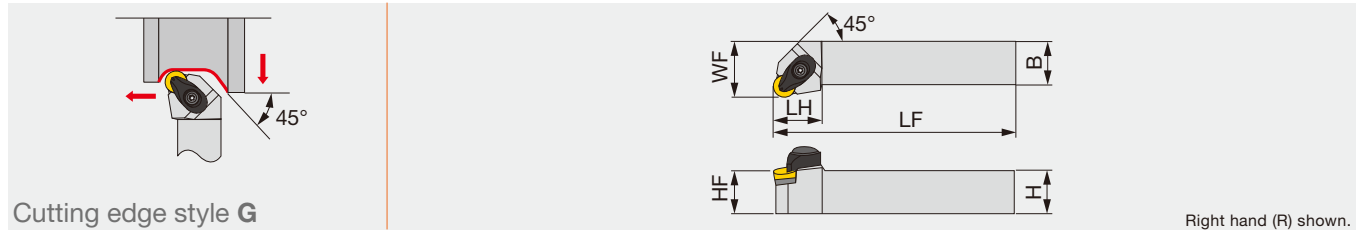
N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	TH10
	Chipbreaker shape	DIA	with rake DIA	P
	Cutting conditions	B010		

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX470	AH8005	AH8005
	Chipbreaker shape	CBN	HRF	HRM
	Cutting conditions	B012		

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Chipbreaker shape	CBN	CBN
	Cutting conditions	B014	

Reference pages: PTG NR/L-CHP: Inserts → **B087** -, CBN → **B182** -, PCD → **B212**
Parts for coolant hose → **C115**

Double-clamp toolholder with 91° approach angle, for negative round inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
ARGNR/L2525M12-A	25	25	150	28	25	32	6.35	RN**120400	3

*Torque: Recommended clamping torque (N·m)

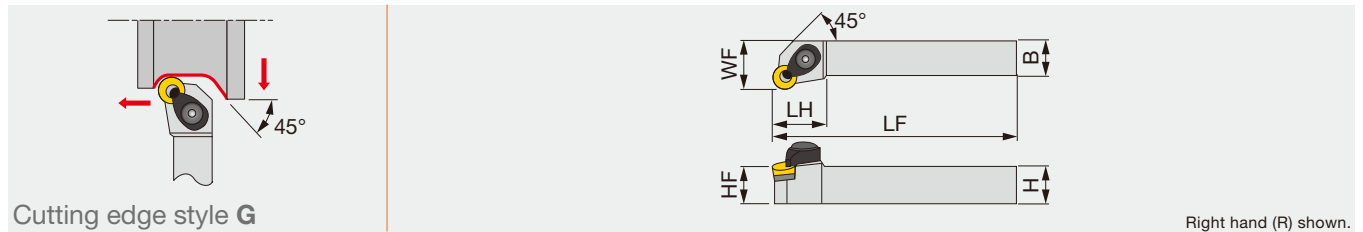
**RE: Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
ARGNR/L...	ACP4S	ACS-5W	BP-7	SP-2.5	ASR420	CSTB-3.5	T-15F

DRGNR/L

"One-Double" toolholder with 91° approach angle, for negative round inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert
DRGNR/L2525M12	25	25	150	28	25	32	6.35	RN**120400

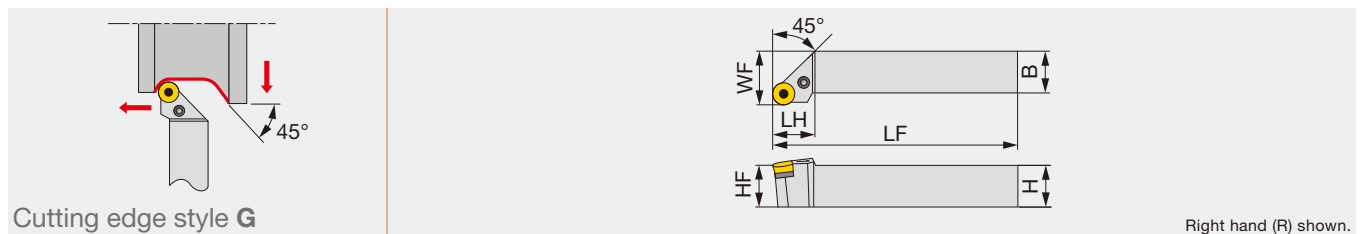
**RE: Standard corner radius

SPARE PARTS

Designation	Clamp	Lever	Piston	Clamp screw	Shim	Spring	Spring pin	Wrench 1	Wrench 2
DRGNR/L...	DCPM-43	DLCL43	DPIS43	DLCS43	LSR42	BP-10	LSP4	P-3	P-4

PRGNR/L

Lever-lock toolholder with 91° approach angle, for negative round inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert
PRGNR/L2020	20	20	125	19	20	25	4.76	RNMG090300-61
PRGNR/L2525M4	25	25	150	25	25	32	6.35	RN**120400

**RE: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PRGNR/L2020	LSR32	LCS3	P-2.5	LSP3	LCL3
PRGNR/L2525M4	LSR42	LCS4	P-3	LSP4	LCL4

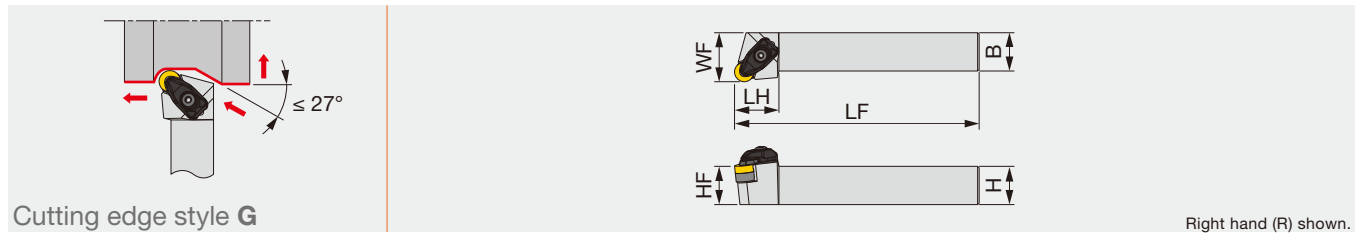
Reference pages: ARGNR/L, DRGNR/L, PRGNR/L: Inserts → **B076**

INSERT SELECTION

P	Applicadtion	Heavy cutting	M	Applicadtion	Heavy cutting	K	Applicadtion	Heavy cutting
	Grade	T9215		Grade	T9215		Grade	T9215
	Chipbreaker Shape	61		Chipbreaker Shape	61		Chipbreaker Shape	61
	Cutting conditions	B004		Cutting conditions	B006		Cutting conditions	B008
N	Applicadtion	Heavy cutting	S	Applicadtion	Heavy cutting	H	Applicadtion	Finishing to medium cutting
	Grade	TH10		Grade	TH10		Grade	LX11
	Chipbreaker Shape	61		Chipbreaker Shape	61		Chipbreaker Shape	
	Cutting conditions	B010		Cutting conditions	B012		Cutting conditions	B014

TRGNR/L-F

Toolholder with carbide clamping plate, with 90° approach angle, for negative round ceramic inserts without hole



Designation	H	B	LF	LH	HF	WF	RE**	Insert
TRGNR/L2525M1207-F	25	25	150	29	25	32	6.35	RNGN1207...

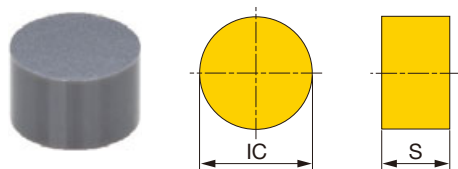
**RE: Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Shim	Shim screw	Spring	Wrench 1	Wrench 2
TRGNR/L2525M1207-F	DCLS-4F	DLS-4A	S-43	BH-M5X0.8X0.8	DSP-4A	T-15F	P-3

INSERT

RNGN-E/T1



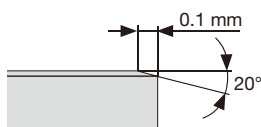
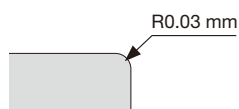
Designation	Edge prep.*	Ceramic								RE	IC	S
		TS200	TS300									
RNGN120700-E	E	●	●							-	12.7	7.94
RNGN120700-T1	T1	●	●							-	12.7	7.94

* Types of cutting edge preparations

● : Line up

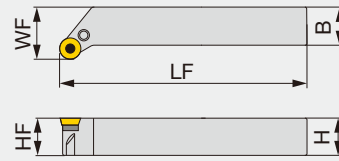
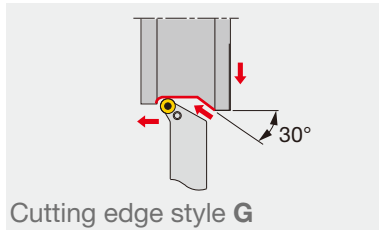
E: Low cutting force

T1: Strong cutting edge



PRGCR/L

Lever-lock toolholder with 91° approach angle, for positive round inserts



Right hand (R) shown.

Designation	H	B	LF	HF	WF	Insert
PRGCR/L2020K10	20	20	125	20	25	RCMM1003...
PRGCR/L2525M12	25	25	150	25	32	RCM*1204...
PRGCR/L3225P16	32	25	170	32	32	RCM*1606...
PRGCR/L3232P20	32	32	170	32	40	RCM*2006...

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PRGCR/L2020K10	LSR32C	LCS2	P-2	LSP3	LCL3C
PRGCR/L2525M12	LSR42C	LCS3	P-2.5	LSP3	LCL4C
PRGCR/L3225P16	LSR53C	LCS5	P-3	LSP4	LCL5C
PRGCR/L3232P20	LSR63C	LCS5	P-3	LSP6C	LCL6C

INSERT SELECTION

P	Application	Finishing to medium cutting	heavy cutting
	Grade	T9215	T9215
	Chipbreaker shape		
	Cutting conditions	B016	

M	Application	heavy cutting
	Grade	T9215
	Chipbreaker shape	
	Cutting conditions	B018

K	Application	heavy cutting
	Grade	T9215
	Chipbreaker shape	
	Cutting conditions	B020

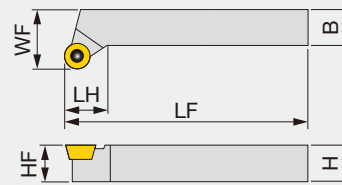
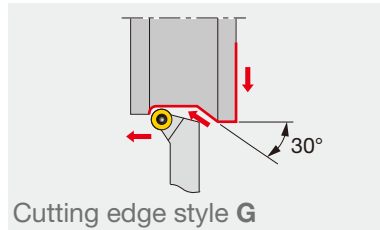
N	Application	Finishing to medium cutting
	Grade	KS05F
	Chipbreaker shape	
	Cutting conditions	B022

S	Application	Finishing to medium cutting	heavy cutting
	Grade	AH8015	AH8015
	Chipbreaker shape		
	Cutting conditions	B024	

Reference pages: PRGCR/L: Inserts → **B130** -

SRGCR/L

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



Right hand (R) shown.

Designation	H	B	LF	LH	HF	WF	Insert
SRGCR1212H05	12	12	100	9.5	12	16	RCMT0502...
SRGCR/L1212H06	12	12	100	10	12	16	RC*T0602...
SRGCR/L1616H05	16	16	100	9.5	16	20	RCMT0502...
SRGCR/L1616H06	16	16	100	10	16	20	RC*T0602...
SRGCR/L1616H08	16	16	100	11	16	20	RC*T0803...
SRGCR/L2020K05	20	20	125	11.2	20	25	RCMT0502...
SRGCR/L2020K06	20	20	125	12	20	25	RC*T0602...
SRGCR/L2020K08	20	20	125	12.7	20	25	RC*T0803...
SRGCR/L2020K10	20	20	125	14	25	25	RC*T1003...
SRGCR/L2525M05	25	25	150	14.7	25	32	RCMT0502...
SRGCR/L2525M06	25	25	150	15	25	32	RC*T0602...
SRGCR/L2525M08	25	25	150	16.2	25	32	RC*T0803...
SRGCR/L2525M10	25	25	150	17.5	25	32	RC*T1003...

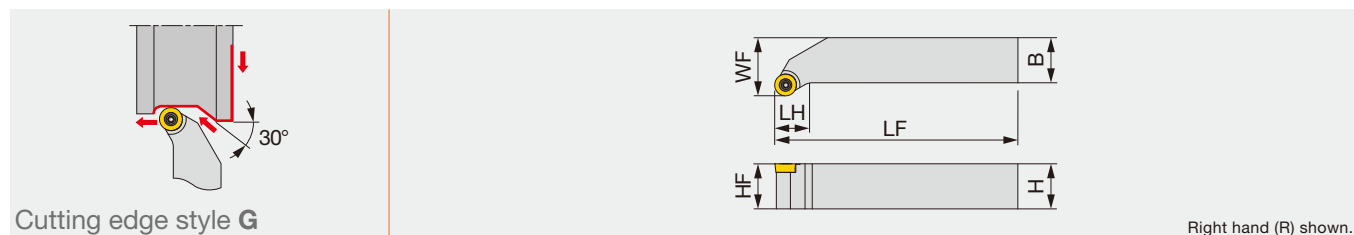
SPARE PARTS

Designation	Clamping screw	Shim screw	Shim	Wrench 1	Wrench 2
SRGCR1212H05	CSTB-2.2R	-	-	-	T-7F
SRGCR/L1212H06	CSTB-2.5	-	-	-	T-8F
SRGCR/L1616H05	CSTB-2.2R	-	-	-	T-7F
SRGCR/L1616H06	CSTB-2.5	-	-	-	T-8F
SRGCR/L1616H08	CSTB-3	-	-	-	T-9F
SRGCR/L2020K05	CSTB-2.2R	-	-	-	T-7F
SRGCR/L2020K06	CSTB-2.5	-	-	-	T-8F
SRGCR/L2020K08	CSTB-3	-	-	-	T-9F
SRGCR/L2020K10	CSTB-3.5L	DTS5-3.5	SSR32	P-3.5	T-15F
SRGCR/L2525M05	CSTB-2.2R	-	-	-	T-7F
SRGCR/L2525M06	CSTB-2.5	-	-	-	T-8F
SRGCR/L2525M08	CSTB-3	-	-	-	T-9F
SRGCR/L2525M10	CSTB-3.5L	DTS5-3.5	SSR32	P-3.5	T-15F

INSERT SELECTION

P	Application	Finishing to medium cutting	heavy cutting
	Grade	T9215	T9215
	Chipbreaker shape	RS	61
	Cutting conditions	B016	
M	Application	heavy cutting	
	Grade	61	T9215
	Chipbreaker shape	61	
	Cutting conditions	B018	
K	Application	heavy cutting	
	Grade	T9215	
	Chipbreaker shape	61	
	Cutting conditions	B020	
N	Application	Finishing to medium cutting	
	Grade	KS05F	
	Chipbreaker shape	AL	
	Cutting conditions	B022	
S	Application	Finishing to medium cutting	heavy cutting
	Grade	AH8015	AH8015
	Chipbreaker shape	RS	61
	Cutting conditions	B024	

Reference pages: SRGCR/L: Inserts → **B130** -



Designation	H	B	LF	LH	HF	WF	Insert	Torque*
SRGCR/L2525M12-6F	25	25	150	18.6	25	32	RCMT1204M0-6RS/-6RM	3

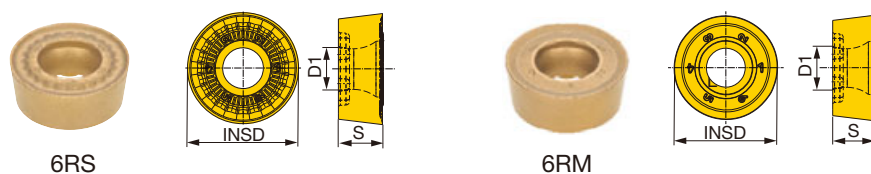
*Torque: Recommended clamping torque (N·m)

SPARE PARTS

Designation	Clamping screw	Lubricant	Wrench
SRGCR/L2525M12-6F	CSTB-4	M-1000	T-15F

INSERT

RCMT



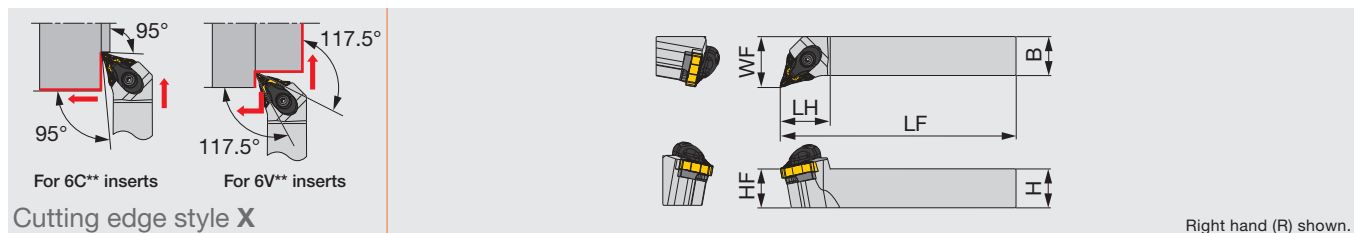
	P	M	K	N	S	H
Steel	★	★				★
Stainless	☆					
Cast iron	☆	☆				☆
Non-ferrous						
Superalloys						
Hard materials						

★ : First choice
☆ : Second choice

Designation	Coated		Cermet		INSD	S	D1
	T9215	T9225	NS9530				
RCMT1204M0-6RS	●	●	●		12	4.76	5.16
RCMT1204M0-6RM	●	●	●		12	4.76	5.16

● : Line up

Double-clamp toolholder with 95°/117.5° approach angle, for negative 80°/35° triangular inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
ATXOR/L2020K25-A	20	20	125	32	20	25	0.8	6C/6V-TOMG2506...	3
ATXOR/L2525M25-A	25	25	150	32	25	32	0.8	6C/6V-TOMG2506...	3
ATXOR/L3232P25-A	32	32	170	32	32	40	0.8	6C/6V-TOMG2506...	3

Torque*: Recommended clamping torque (N·m)

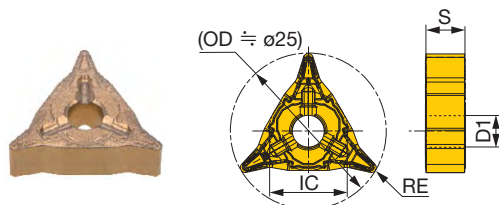
RE**: Standard corner radius

SPARE PARTS

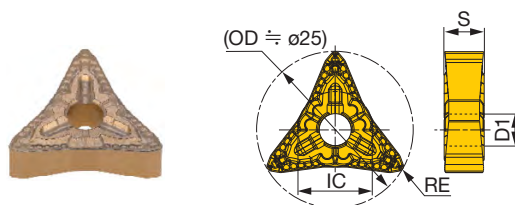
Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
ATXOR/L**25-A	ACP4S	ACS-5W	BP-7	SP-2.5	LST33 KS15F	CSTB-3.5	T-15F

INSERT

6V-TOMG**F-TSF



6C-TOMG**M-TM



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

★ : First choice
☆ : Second choice

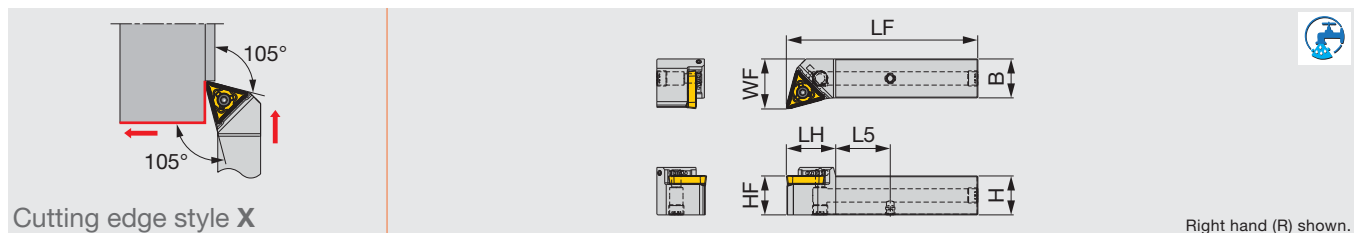
Designation	RE	Coated			IC	S	D1
		T9215	T9225	AH8015			
6V-TOMG250604F-TSF	0.4	●	●	●	12.7	6.35	5.16
6V-TOMG250608F-TSF	0.8	●	●	●	12.7	6.35	5.16
6C-TOMG250608M-TM	0.8	●	●	●	12.1	6.35	5.16
6C-TOMG250612M-TM	1.2	●	●	●	12.1	6.35	5.16

Please note, when machining with pull face-turning method, that 6V-TOMG2506... insert may interfere with the workpiece whose external diameter is 70 mm or smaller and that 6C-TOMG2506... insert 30 mm or smaller.

● : Line up

*Products are made by license; PrimeTurning is a proprietary technology of AB Sandvik Coromant.

Screw-on toolholder with 105° approach angle, for positive triangular inserts



Designation	H	B	LF	LH	HF	WF	L5	Insert	Torque*
STXCR/L2525X29-CHP-MC	25	25	122	32	25	32	35	3C-TCMT29X6...	5

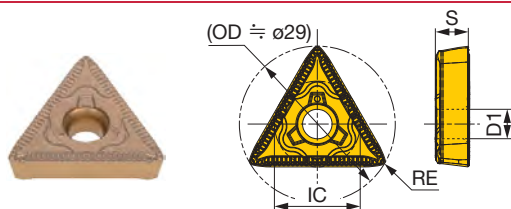
Torque*: Recommended clamping torque (N·m)

SPARE PARTS

Designation	Clamping screw	Grip	Torx bit	Coolant plug
STXCR/L2525X29-CHP-MC	CSTB-5	H-TB2W	BT20M	PLUGG1/8-6.5TL360

■ INSERT

3C-TCMT**-TM



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

★ : First choice
☆ : Second choice

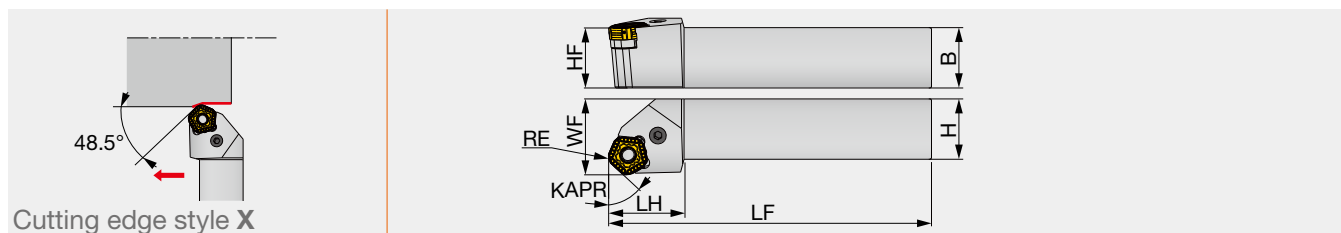
Designation	RE	Coated						IC	S	D1
		T9215								
3C-TCMT29X608-TM	0.8	●						16	6.15	5.5

Please note that 3G-TCMT... insert is not recommended for pull face-turning method (pulling the insert away from the part center).

● : Line up

*Products are made by license; PrimeTurning is a proprietary technology of AB Sandvik Coromant.

Lever-lock toolholder with 48.5° approach angle, for negative 108° pentagonal inserts

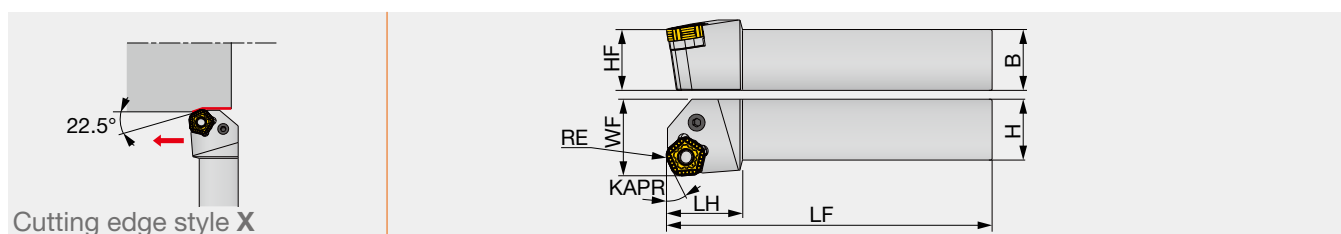


Designation	H	B	LF	LH	HF	WF	KAPR	RE	Insert
PPXOR/L2525M11-HD	25	25	150	35	25	32	48.5	1.2	POMG110612...
PPXOR/L3232P13-HD	32	32	170	40	32	40	48.5	1.2	POMG130612...

Note : Since the corner angle of TurnTenFeed insert is 108°, the workpiece corner may require additional post-process to remove stock to achieve a right angle.

PPXOR/L-HF

Lever-lock toolholder with 22.5° approach angle, for negative 108° pentagonal inserts



Designation	H	B	LF	LH	HF	WF	KAPR	RE	Insert
PPXOR/L2525M11-HF	25	25	150	35	25	32	22.5	1.2	POMG110612...
PPXOR/L3232P13-HF	32	32	170	40	32	40	22.5	1.2	POMG130612...

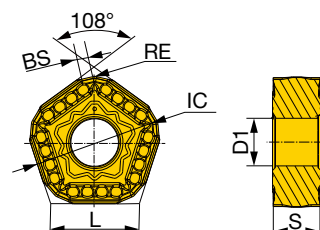
Note : Since the corner angle of TurnTenFeed insert is 108°, the workpiece corner may require additional post-process to remove stock to achieve a right angle.

SPARE PARTS

Designation	Shim	Spring pin	Lever	Clamping screw	Wrench
PPXOR/L2525M11-H*	LSPO53	LSP5	LCL5	LCS5	P-3
PPXOR/L3232P13-H*	LSPO63	LSP6	LCL6	LCS6	P-4

INSERT

POMG-MNW



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

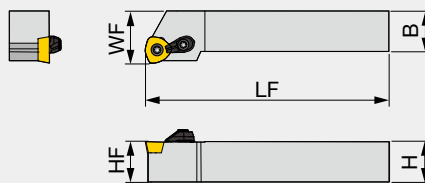
★ : First choice
☆ : Second choice

Designation	RE	Coated					IC	L	BS	S	D1
		T9215	T9225	AH8015							
POMG110612-MNW	1.2	●	●	●			15.875	11.53	1.5	6.35	6.35
POMG130612-MNW	1.2	●	●	●			19.05	13.84	2	6.35	7.93

● : Line up

Reference pages: Standard cutting conditions → C117

Cutting edge style X



Designation	H	B	LF	HF	WF	Insert
XWXPR/L2525M09	25	25	150	25	32	WPMT090725ZPR/L-ML
XWXPR/L3232P09	32	32	170	32	40	WPMT090725ZPR/L-ML
XWXPR/L4040S09	40	40	250	40	50	WPMT090725ZPR/L-ML



Designation	Clamp set	Clamping screw	Wrench
XWXPR/L...	CSY-20	CSPB-5	IP-20T

INSERT

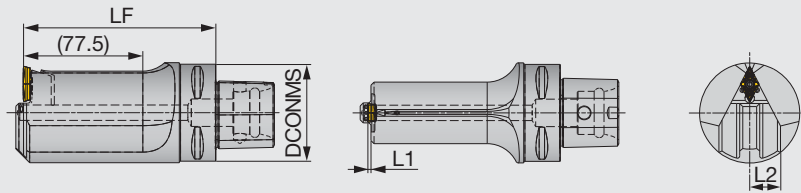
Material	1	2	3	4	5	6	7	8	9	10
P Steel	★	★	★							
M Stainless	☆		☆							
K Cast iron	☆	☆	☆							
N Non-ferrous										
S Superalloys										
H Hard materials										

★ : First choice
☆ : Second choice

Designation	RE	Coated							IC	S
		T9215	T9225	AH120						
WPMT090725ZPR-ML	2.5	●	●	●					15	7
WPMT090725ZPL-ML	2.5	●	●	●					15	7

C068 tungaloy.com

Screw-on Y-axis turning toolholder with TungCap connection, for positive 55° rhombic inserts



Cutting edge style N

Designation	SS	DCONMS	LF	L1	L2	RE	Insert	Torque*
C6SDNCN00125-13-Y-CHP	C6	63	125	2	20	0.4	2D-DCMT13T4...	3.5

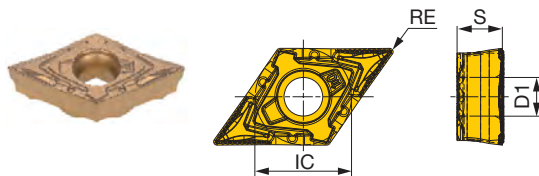
Torque*: Recommended clamping torque (N·m)

SPARE PARTS

Designation	Clamping screw	Grip	Torx bit
C6SDNCN00125-13-Y-CHP	CSTB-4M	H-TB2W	BT15M

INSERT

2D-DCMT**-ZF



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

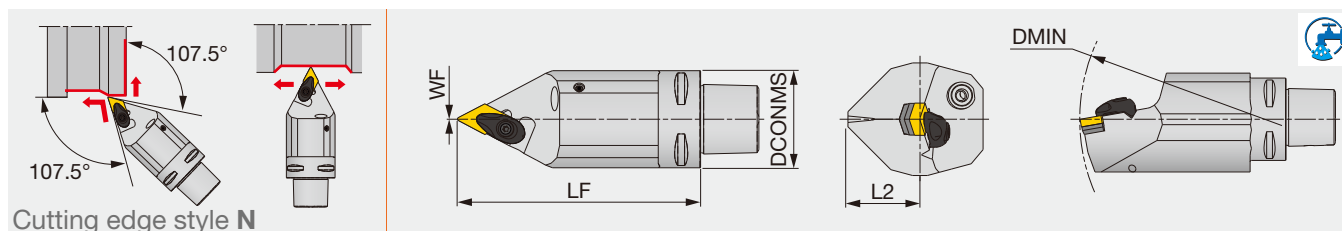
★ : First choice
☆ : Second choice

Designation	RE	Coated								IC	S	D1
		T9215										
2D-DCMT13T404-ZF	0.4	●								11	5.16	4.4

Please note that 2D-DCMT... insert is not recommended for pull face-turning method (pulling the insert away from the part center).

● : Line up

*Products are made by license; PrimeTurning is a proprietary technology of AB Sandvik Coromant.



Designation	DCONMS	LF	L2	WF	DMIN	RE	Insert
C5ADNNN00090-15 ⁽¹⁾	50	90	32	0	-	0.8	DN**/FNGA1504(06)...
C5ADNNN00090-15N ⁽²⁾	50	90	32	0	165	0.8	DN**/FNGA1504(06)...
C5ADNNN00125-15 ⁽¹⁾	50	125	32	0	-	0.8	DN**/FNGA1504(06)...
C5ADNNN00125-15N ⁽²⁾	50	125	32	0	165	0.8	DN**/FNGA1504(06)...
C6ADNNN00100-15N ⁽²⁾	63	100	37.5	0	190	0.8	DN**/FNGA1504(06)...
C6ADNNN00140-15N ⁽²⁾	63	140	37.5	0	190	0.8	DN**/FNGA1504(06)...

The items without DMIN cannot be used for boring
 (1) Applicable for 3 MPa coolant (2) Applicable for 7 MPa coolant

SPARE PARTS

Designation	Clamp	Clamp screw	Coolant parts	Shim	Shim screw	Spring	Spring pin	Wrench
C5ADNNN00090-15	ACP4S	ACS-5W	EZ104	ASD432	CSTB-3.5	BP-7	SP-2.5	T-15F
C5ADNNN00090-15N	ACP4S	ACS-5W	SATZ-M10X1-M5	ASD432	CSTB-3.5	BP-7	SP-2.5	T-15F
C5ADNNN00125-15	ACP4S	ACS-5W	EZ104	ASD432	CSTB-3.5	BP-7	SP-2.5	T-15F
C5ADNNN00125-15N	ACP4S	ACS-5W	SATZ-M10X1-M5	ASD432	CSTB-3.5	BP-7	SP-2.5	T-15F
C6ADNNN00100-15N	ACP4S	ACS-5W	SATZ-M10X1-M5	ASD432	CSTB-3.5	BP-7	SP-2.5	T-15F
C6ADNNN00140-15N	ACP4S	ACS-5W	SATZ-M10X1-M5	ASD432	CSTB-3.5	BP-7	SP-2.5	T-15F

Option: ASD423 (Shim for DN**1506**)

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Chipbreaker shape	TF	TSF	TM	TH
	Cutting conditions	B004			

K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Chipbreaker shape	All-round	All-round	All-round
	Cutting conditions	B008		

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX470	AH8005	AH8005
	Chipbreaker shape	CBN	HRF	HRM
	Cutting conditions	B012		

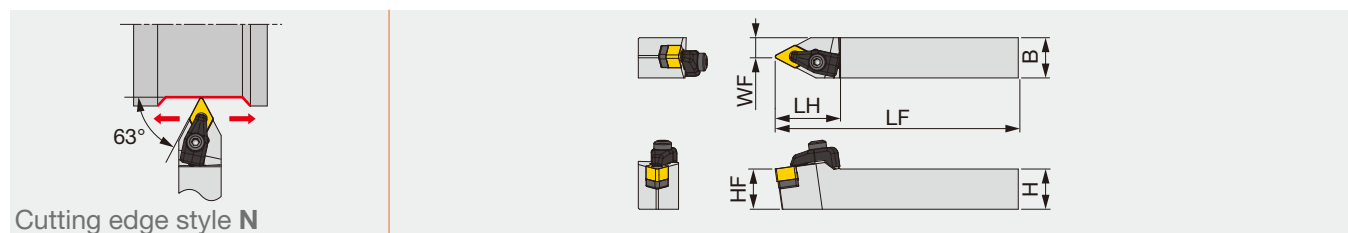
M	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T6215	AH6225	AH6225
	Chipbreaker shape	SF	SM	SH
	Cutting conditions	B006		

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	TH10
	Chipbreaker shape	DIA	DIA with rake	P
	Cutting conditions	B010		

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Chipbreaker shape	CBN	CBN
	Cutting conditions	B014	

Reference pages: C-ADNNN: Inserts → **B066 -**, CBN → **B172 -**, PCD → **B211**
 Parts for coolant hose → **C115**

Double-clamp toolholder with 63° approach angle, for negative 55° rhombic ceramic inserts with dimple



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
CDNNN2525M1507-RD	25	25	150	40	25	12.5	1.2	DN*D1507...	4

*Torque: Recommended clamping torque (N·m)

**RE: Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Shim	Shim screw	Spring	Wrench1	Wrench2
CDNNN2525M1507-RD	CCP4-A	CCS4-A	CD44-A	BH5-10-A	BP-5-A	P-3	P-4

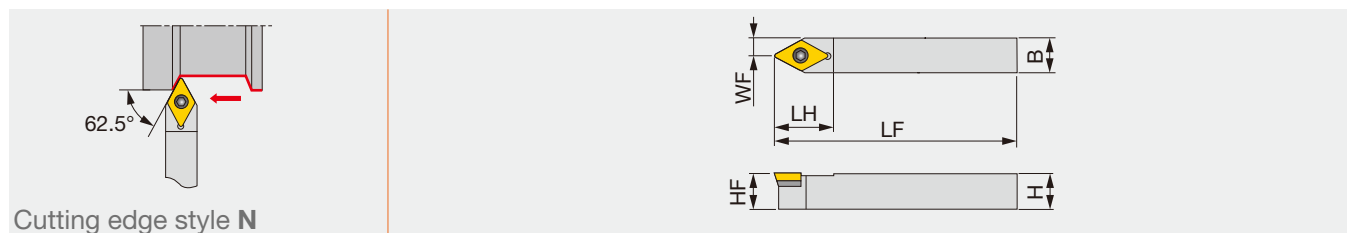
INSERT SELECTION

K	Application	Finishing to medium cutting
	Grade	FX105
	Chipbreaker shape	
	Cutting conditions	C118

Reference pages: CDNNN-RD: Inserts → **B074**
Standard cutting conditions → **C118**

SDNCN

Screw-on toolholder with 62.5° approach angle, for positive 55° rhombic inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert
SDNCN1616H11	16	16	100	21	16	8	0.8	DC**11T3...
SDNCN2020K11	20	20	125	21	20	10	0.8	DC**11T3...
SDNCN2525M11	25	25	150	21	25	12.5	0.8	DC**11T3...

**RE: Standard corner radius

SPARE PARTS

Designation	Clamping screw	Shim screw	Shim	Wrench1	Wrench2
SDNCN...	CSTB-3.5L	DTS5-3.5	SSD32	P-3.5	T-15F

INSERT SELECTION

P	Application	Finishing	Finishing to medium cutting	Medium cutting
	Grade	NS9530	T9215	T9215
	Chipbreaker shape	PSS	PS	PM
	Cutting conditions	B016		

K	Application	Finishing to medium cutting
	Grade	T515
	Chipbreaker shape	CM
	Cutting conditions	B020

S	Application	Finishing	Finishing to medium cutting
	Grade	AH8015	AH8015
	Chipbreaker shape	PSS	PS
	Cutting conditions	B024	

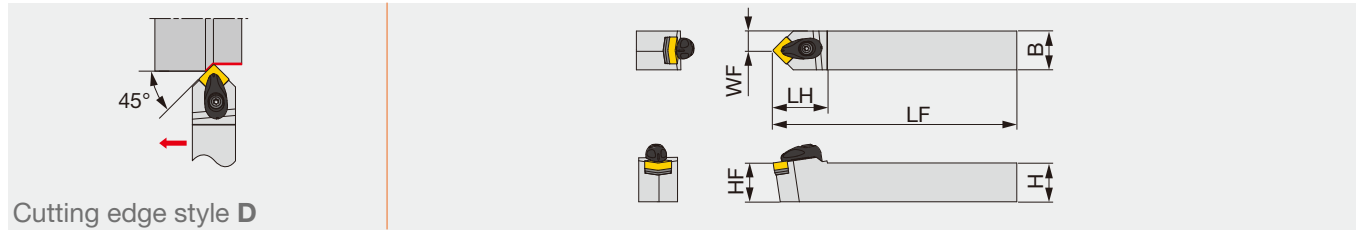
M	Application	Precision finishing	Finishing	Finishing to medium cutting	Medium cutting
	Grade	GH330	AH6225	AH6225	AH6225
	Chipbreaker shape	W**	PSS	PS	PM
	Cutting conditions	B018			

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	KS05F
	Chipbreaker shape	DIA	DIA with rake	AL
	Cutting conditions	B022		

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Chipbreaker shape	CBN	CBN
	Cutting conditions	B026	

Reference pages: SDNCN:Inserts → **B121** -, CBN → **B193** -, PCD → **B214**

Double-clamp toolholder with 45° approach angle, for negative square inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
ASDNN2020K12-A	20	20	125	35	20	10	0.8	SN**1204...	3
ASDNN2525M12-A	25	25	150	35	25	12.5	0.8	SN**1204...	3

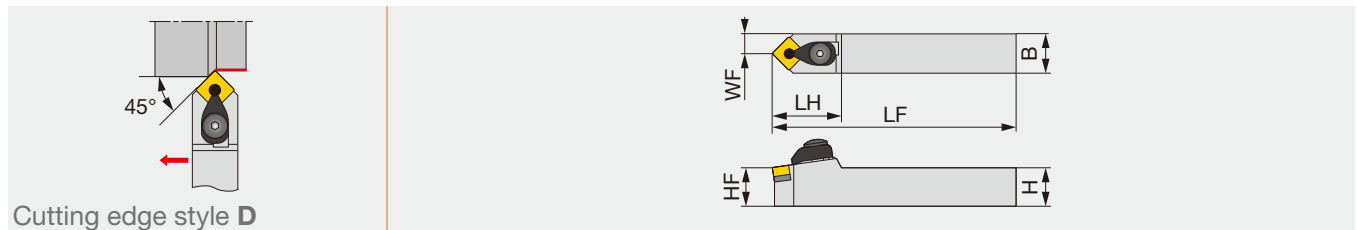
*Torque: Recommended clamping torque (N·m) **RE: Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
ASDNN**12-A	ACP4S	ACS-5W	BP-7	SP-2.5	ASS422	CSTB-3.5	T-15F

DSDNN

One-Double toolholder with 45° approach angle, for negative square inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert
DSDNN2020K12	20	20	125	36	20	10	0.8	SN**1204...
DSDNN2525M12	25	25	150	36	25	12.5	0.8	SN**1204...

Note: Except for TRS, TU, TUS, 57, and 65-type chipbreaker inserts

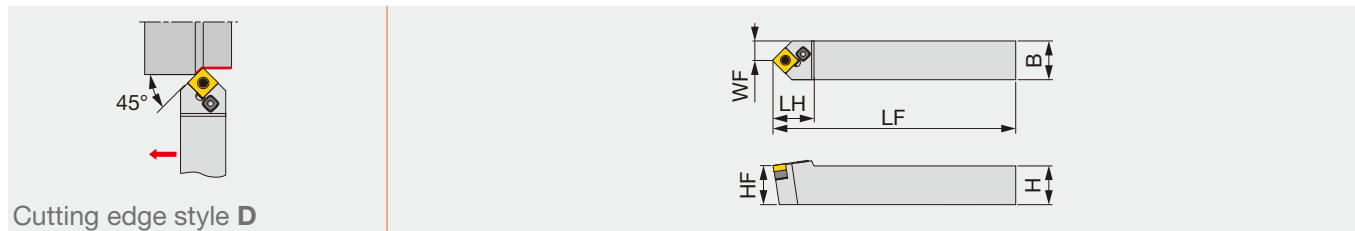
**RE: Standard corner radius

SPARE PARTS

Designation	Clamp	Lever	Piston	Clamp screw	Shim	Spring	Spring pin	Wrench 1	Wrench 2
DSDNN...	DCPM-43	DLCL43	DPIS43	DLCS43	LSS42	BP-10	LSP4	P-3	P-4

PSDNN

Lever-lock toolholder with 45° approach angle, for positive round inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert
PSDNN1616	16	16	100	22	16	8	0.8	SN**0903...
PSDNN2020	20	20	125	30	20	10.3	0.8	SN**1204...
PSDNN2525	25	25	150	30	25	12.8	0.8	SN**1204...

**RE: Standard corner radius

SPARE PARTS					
Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PSDNN1616	LSS33	LCS3	P-2.5	LSP3L	LCL3
PSDNN2020	LSS42	LCS4	P-3	LSP4	LCL4
PSDNN2525	LSS42	LCS4	P-3	LSP4	LCL4

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Chipbreaker Shape	TF	TSF	TM	TH
	Cutting conditions	B004			

M	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T6215	AH6225	AH6225
	Chipbreaker Shape	SF	SM	SH
	Cutting conditions	B006		

K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Chipbreaker Shape	All-round	All-round	All-round
	Cutting conditions	B008		

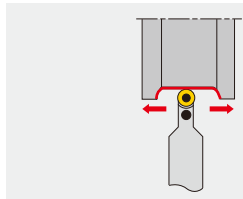
N	Application	Finishing	Medium cutting
	Grade	DX140	TH10
	Chipbreaker Shape	DIA	P
	Cutting conditions	B010	

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX480	AH8005	AH8005
	Chipbreaker Shape	CBN	HRF	HRM
	Cutting conditions	B012		

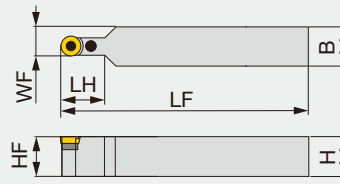
Reference pages: PSDNN: Inserts → **B077 -**, CBN → **B180**, PCD → **B211**

PRDCN

Lever-lock toolholder with 45° approach angle, for positive round inserts



Cutting edge style **D**



Designation	H	B	LF	LH	HF	WF	Insert
PRDCN2020K10	20	20	125	22.5	20	15	RCMM1003...
PRDCN2525M12	25	25	150	24	25	18.5	RCM*1204...
PRDCN3225P12	32	25	170	24	32	18.5	RCM*1204...
PRDCN3225P16	32	25	170	28	32	20.5	RCM*1606...
PRDCN3232P20	32	32	170	32	32	26	RCM*2006...
PRDCN4040R25	40	40	200	42	40	32.5	RCM*2507...

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PRDCN2020K10	LSR32C	LCS2	P-2	LSP3	LCL3C
PRDCN**25*12	LSR42C	LCS3	P-2.5	LSP3	LCL4C
PRDCN3225P16	LSR53C	LCS5	P-3	LSP4	LCL5C
PRDCN3232P20	LSR63C	LCS5	P-3	LSP6C	LCL6C
PRDCN4040R25	LSR84C	LCS8C	P-4	LSP6	LCL8C

INSERT SELECTION

P	Application	Finishing to medium cutting	Heavy cutting
	Grade	T9215	T9215
	Chipbreaker Shape		
	Cutting conditions	B016	

M	Application	Heavy cutting
	Grade	T9215
	Chipbreaker Shape	
	Cutting conditions	B018

K	Application	Heavy cutting
	Grade	T9215
	Chipbreaker Shape	
	Cutting conditions	B020

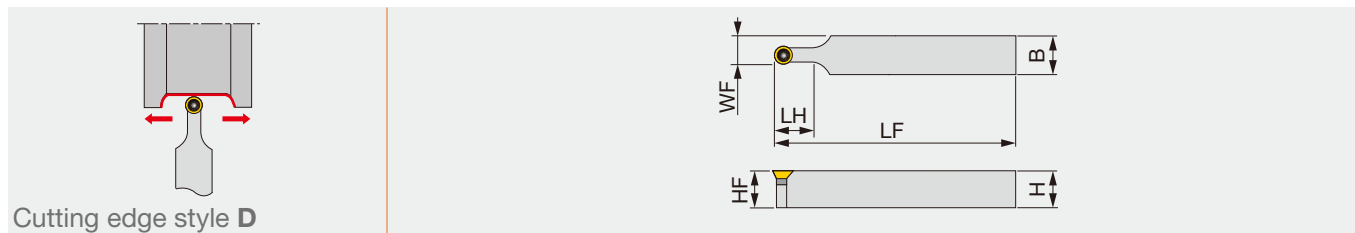
N	Application	Finishing to medium cutting
	Grade	KS05F
	Chipbreaker Shape	
	Cutting conditions	B022

S	Application	Finishing to medium cutting	Heavy cutting
	Grade	AH8015	AH8015
	Chipbreaker Shape		
	Cutting conditions	B024	

Reference pages: PRDCN: Inserts → **B131**

SRDCN

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



Designation	H	B	LF	LH	HF	WF	Insert
SRDCN2020K06	20	20	125	12	20	13	RC*T0602...
SRDCN2020K08	20	20	125	16	20	14	RC*T0803...
SRDCN2020K10	20	20	125	20.3	25	15	RC*T1003...
SRDCN2525M06	25	25	150	12	25	15.5	RC*T0602...
SRDCN2525M08	25	25	150	16	25	16.5	RC*T0803...
SRDCN2525M10	25	25	150	20.3	25	17.5	RC*T1003...

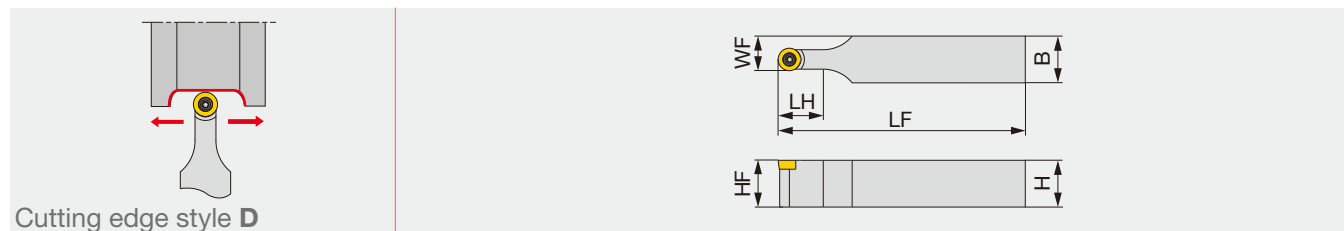
SPARE PARTS

Designation	Clamping screw	Shim screw	Shim	Wrench 1	Wrench 2
SRDCN2020K06	CSTB-2.5	-	-	-	T-8F
SRDCN2020K08	CSTB-3	-	-	-	T-9F
SRDCN2020K10	CSTB-3.5L	DTS5-3.5	SSR32	P-3.5	T-15F
SRDCN2525M06	CSTB-2.5	-	-	-	T-8F
SRDCN2525M08	CSTB-3	-	-	-	T-9F
SRDCN2525M10	CSTB-3.5L	DTS5-3.5	SSR32	P-3.5	T-15F

INSERT SELECTION

P	Application	Finishing to medium cutting	Heavy cutting
	Grade	T9215	T9215
	Chipbreaker	RS	61
	Shape		
Cutting conditions		B016	
M	Application	Heavy cutting	
	Grade	T9215	
	Chipbreaker	61	
	Shape		
Cutting conditions		B018	
K	Application	Heavy cutting	
	Grade	T9215	
	Chipbreaker	61	
	Shape		
Cutting conditions		B020	
N	Application	Finishing to medium cutting	
	Grade	KS05F	
	Chipbreaker	AL	
	Shape		
Cutting conditions		B022	
S	Application	Finishing to medium cutting	Heavy cutting
	Grade	AH8015	AH8015
	Chipbreaker	RS	61
	Shape		
Cutting conditions		B024	

Reference pages: SRDCN: Inserts → **B131**



Designation	H	B	LF	LH	HF	WF	Insert	Torque*
SRDCN2525M12-6F	25	25	150	24.1	25	18.5	RCMT1204M0-6RS/-6RM	3

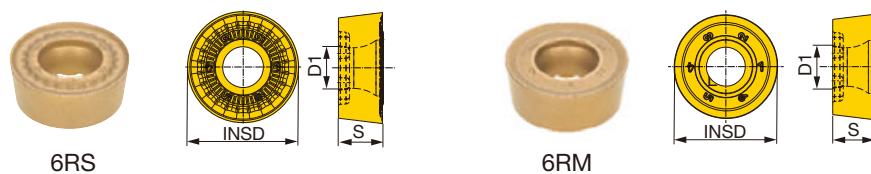
*Torque: Recommended clamping torque (N·m)

SPARE PARTS

Designation	Clamping screw	Lubricant	Wrench
SRDCN2525M12-6F	CSTB-4	M-1000	T-15F

INSERT

RCMT



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

★ : First choice
☆ : Second choice

Designation	Coated		Cermet		INSD	S	D1
	T9215	T9225	NS9530				
RCMT1204M0-6RS	●	●	●		12	4.76	5.16
RCMT1204M0-6RM	●	●	●		12	4.76	5.16

● : Line up

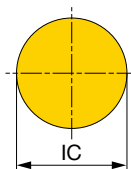
Toolholder with carbide clamping plate, with 45° approach angle, for positive round ceramic inserts with V-bottom shape



**RE: Standard corner radius

Designation	Clamp	Clamp screw	Shim	Shim screw	Wrench 1	Wrench 2
TRDCN3225P09-120	BCL6-20A	BH-M6X1X25	CBRS-09	BH-M2.5X0.45X10	P-4	P-1.5
TRDCN3225P12-120	BCL6	BH-M6X1X25	CBRS-12	BH-M2.5X0.45X10	P-4	P-1.5

RCGX-E/T1

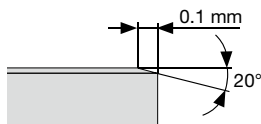


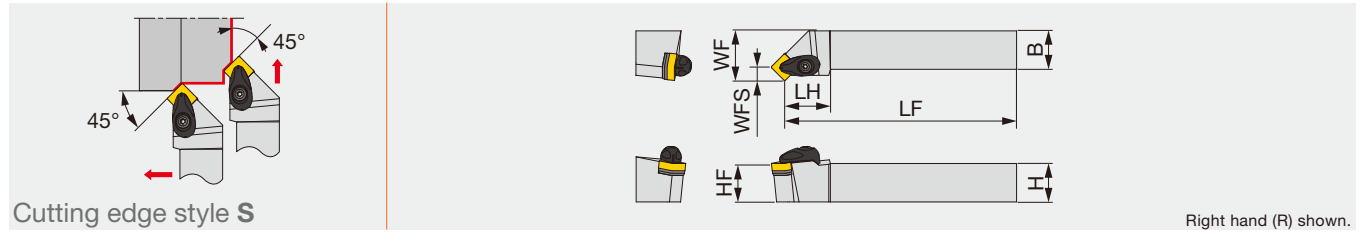
★ : First choice

* Types of cutting edge preparations

● : Line up

T1: Strong cutting edge





Designation	H	B	LF	LH	HF	WF	WFS	RE**	Insert	Torque*
ASSNR/L2020K12-A	20	20	125	30	20	25	8.3	0.8	SN**1204...	3
ASSNR/L2525M12-A	25	25	150	30	25	32	8.3	0.8	SN**1204...	3
ASSNR/L2525M15-A	25	25	150	25	25	32	10.3	1.2	SN**1506...	6.4
ASSNR/L3232P15-A	32	32	170	25	32	40	10.3	1.2	SN**1506...	6.4
ASSNR/L3232P19-A	32	32	170	27.5	32	40	12.5	1.2	SN**1906...	6.4
ASSNR/L4040S19-A	40	40	250	27.5	40	50	12.5	1.2	SN**1906...	6.4

*Torque: Recommended clamping torque (N·m)

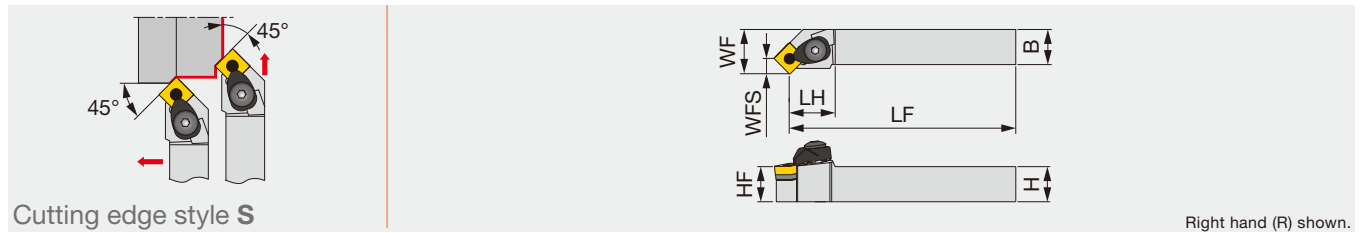
**RE: Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench 1	Wrench 2
ASSNR/L**12-A	ACP4S	ACS-5W	BP-7	SP-2.5	ASS422	CSTB-3.5	T-15F	-
ASSNR/L**15-A	ACP5S	ACS-6W	BP-8.8	SP-2.5	ASS533	CSTB-5	-	KEYV-T20
ASSNR/L**19-A	ACP6S	ACS-6W	BP-8.8	SP-2.5	ASS634	CSTB-5	-	KEYV-T20

DSSNR/L

"One-Double" toolholder with 45° approach angle, for negative square inserts



Designation	H	B	LF	LH	HF	WF	WFS	RE**	Insert
DSSNR/L2020K12	20	20	125	34.3	20	25	8.3	0.8	SN**1204...
DSSNR/L2525M12	25	25	150	34.3	25	32	8.3	0.8	SN**1204...

Note: Except for TRS, TU, TUS, 57, and 65-type chipbreaker inserts

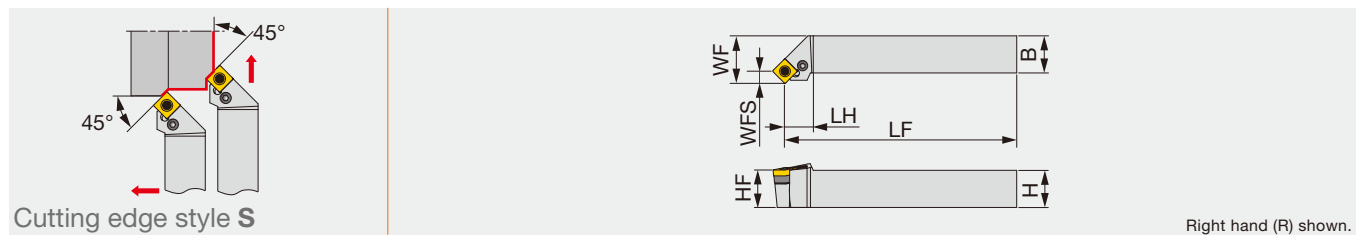
**RE : Standard corner radius

SPARE PARTS

Designation	Clamp	Lever	Piston	Clamp screw	Shim	Spring	Spring pin	Wrench 1	Wrench 2
DSSNR/L...	DCPM-43	DLCL43	DPIS43	DLCS43	LSS42	BP-10	LSP4	P-3	P-4

PSSNR/L

Lever-lock toolholder with 45° approach angle, for positive round inserts



Designation	H	B	LF	LH	HF	WF	WFS	RE**	Insert
PSSNR/L1616	16	16	94	16	16	20	6.1	0.8	SN**0903...
PSSNR/L2020	20	20	116	21	20	25	8.3	0.8	SN**1204...
PSSNR/L2525	25	25	141	21	25	32	8.3	0.8	SN**1204...
PSSNR/L3225	32	25	161	21	32	32	8.3	0.8	SN**1204...
PSSNR/L3232	32	32	157.5	27.5	32	40	12.5	1.2	SN**1906...

**RE: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PSSNR/L1616	LSS33	LCS3	P-2.5	LSP3L	LCL3
PSSNR/L2020	LSS42	LCS4	P-3	LSP4	LCL4
PSSNR/L**25	LSS42	LCS4	P-3	LSP4	LCL4
PSSNR/L3232	LSS63	LCS6	P-4	LSP6	LCL6

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Chipbreaker Shape	TF	TSF	TM	TH
	Cutting conditions	B004			

M	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T6215	AH6225	AH6225
	Chipbreaker Shape	SF	SM	SH
	Cutting conditions	B006		

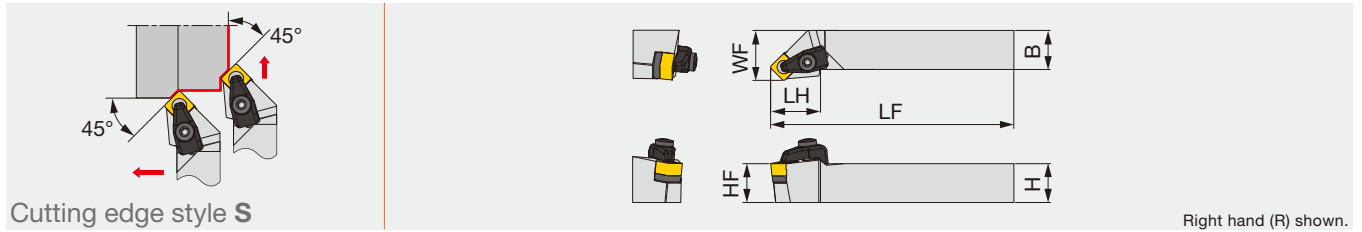
K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Chipbreaker Shape	All-round	All-round	All-round
	Cutting conditions	B008		

N	Application	Finishing	Medium cutting
	Grade	DX140	TH10
	Chipbreaker Shape	DIA	P
	Cutting conditions	B010	

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX480	AH8005	AH8005
	Chipbreaker Shape	CBN	HRF	HRM
	Cutting conditions	B012		

Reference pages: PSSNR/L: Inserts → **B077** -, CBN → **B180**, PCD → **B211**

Double-clamp toolholder with 45° approach angle, for negative square ceramic inserts with dimple



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
CSSNR/L2525M1207-RD	25	25	150	32	25	32	1.2	SN*D1207...	4

*Torque: Recommended clamping torque (N·m)

**RE : Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Shim	Shim screw	Spring	Wrench 1	Wrench 2
CSSNR/L2525M1207-RD	CCP4-A	CCS4-A	CS44-A	BH5-10-A	BP-5-A	P-3	P-4

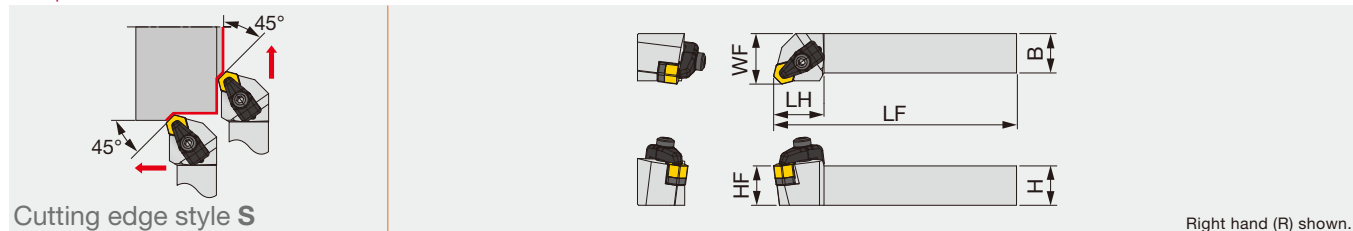
INSERT SELECTION

K	Application	Finishing to medium cutting
	Grade	FX105
	Chipbreaker Shape	
	Cutting conditions	C118

Reference pages: CSSNR/L-RD: Insert → **B085**

Standard cutting conditions → **C118**

Double-clamp toolholder with 45° approach angle, for negative 120° hexagonal ceramic inserts with dimple



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
CHSNR2525M0507-RD	25	25	150	32	25	32	1.2	HN*D0507...	4

*Torque: Recommended clamping torque (N·m)

**RE: Standard corner radius

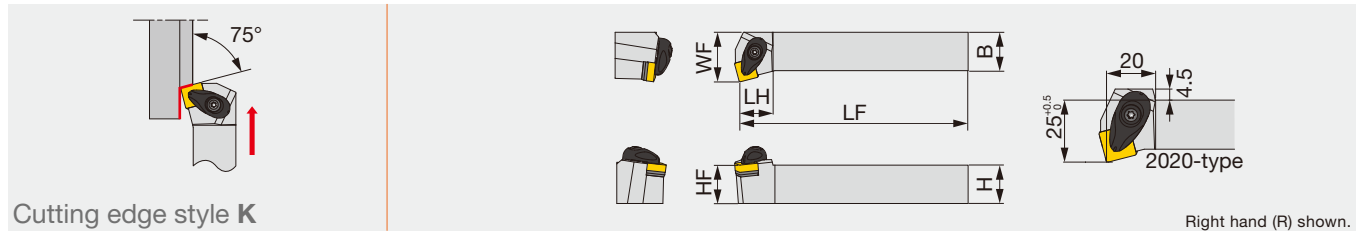
SPARE PARTS

Designation	Clamp	Clamp screw	Shim	Shim screw	Spring	Wrench 1	Wrench 2
CHSNR2525M0507-RD	CCP4-A	CCS4-A	CH44-A	BH-40050-A	BP-5-A	P-3	P-4

INSERT SELECTION

K	Application	Finishing to medium cutting
	Grade	FX105
	Chipbreaker Shape	
	Cutting conditions	C118

Double-clamp toolholder with 75° approach angle, for negative square inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
ASKNR/L2020K12-A	20	20	125	20	20	25	0.8	SN**1204...	3
ASKNR/L2525M12-A	25	25	150	22	25	32	0.8	SN**1204...	3

*Torque: Recommended clamping torque (N·m)

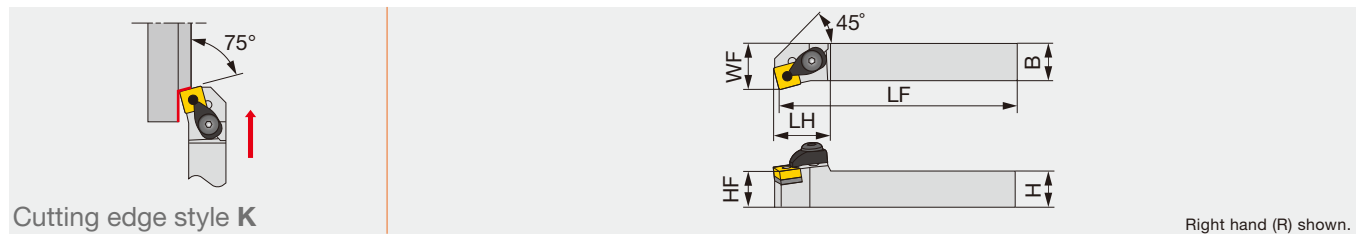
**RE : Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
ASKNR/L**12-A	ACP4S	ACS-5W	BP-7	SP-2.5	ASS422	CSTB-3.5	T-15F

DSKNR/L

"One-Double" toolholder with 75° approach angle, for negative square inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert
DSKNR/L2020K12	20	20	125	31	20	25	0.8	SN**1204...
DSKNR/L2525M12	25	25	150	31	25	32	0.8	SN**1204...

Note: Except for TRS, TU, TUS, 57, and 65-type chipbreaker inserts

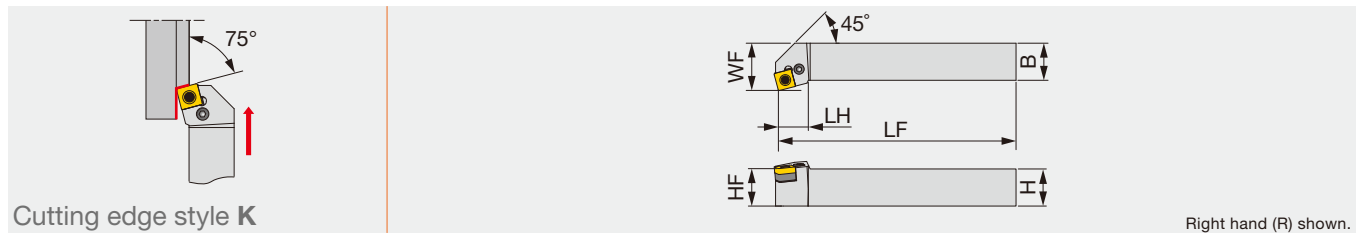
**RE : Standard corner radius

SPARE PARTS

Designation	Clamp	Lever	Piston	Clamp screw	Shim	Spring	Spring pin	Wrench 1	Wrench 2
DSKNR/L...	DCPM-43	DLCL43	DPIS43	DLCS43	LSS42	BP-10	LSP4	P-3	P-4

PSKNR/L

Lever-lock toolholder with 75° approach angle, for negative square inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert
PSKNR/L1616	16	16	100	17	16	25	0.8	SN**0903...
PSKNR/L2020	20	20	125	22	20	25	0.8	SN**1204...
PSKNR/L2525	25	25	150	22	25	32	0.8	SN**1204...
PSKNR3232	32	32	170	40	32	40	1.2	SN**1906...

**RE : Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PSKNR/L1616	LSS33	LCS3	P-2.5	LSP3L	LCL3
PSKNR/L2*2*	LSS42	LCS4	P-3	LSP4	LCL4
PSKNR3232	LSS63	LCS6	P-4	LSP6	LCL6

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Chipbreaker Shape	TF	TSF	TM	TH
	Cutting conditions	B004			

M	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T6215	AH6225	AH6225
	Chipbreaker Shape	SF	SM	SH
	Cutting conditions	B006		

K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Chipbreaker Shape	All-round	All-round	All-round
	Cutting conditions	B008		

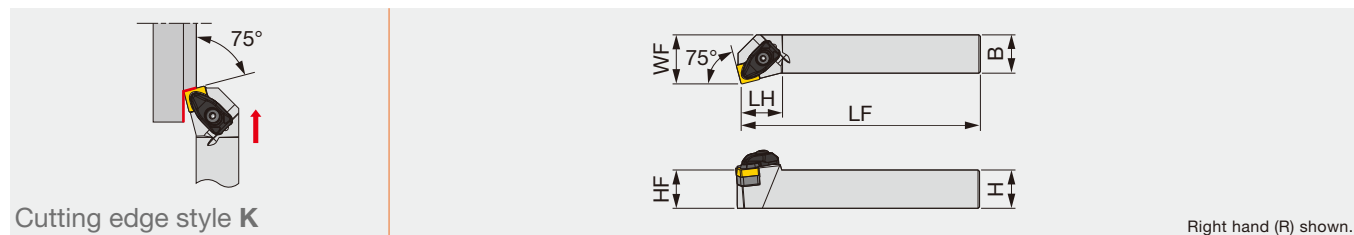
N	Application	Finishing	Medium cutting
	Grade	DX140	TH10
	Chipbreaker Shape	DIA	P
	Cutting conditions	B010	

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX480	AH8005	AH8005
	Chipbreaker Shape	CBN	HRF	HRM
	Cutting conditions	B012		

Reference pages: PSKNR/L: Inserts → **B077** -, CBN → **B180**, PCD → **B211**

TSKNR/L-F

Toolholder with carbide clamping plate, with 75° approach angle, for negative square ceramic inserts without hole



Designation	H	B	LF	LH	HF	WF	RE**	Insert
TSKNR/L2525M1207-F	25	25	150	27	25	32	0.8	SNGN1207...

**RE: Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Shim	Shim screw	Spring	Wrench 1	Wrench 2
TSKNR/L2525M1207-F	DCLS-4F	DLS-4A	TSS-42	BH-40050-A	DSP-4A	T-15F	P-3

INSERT

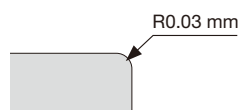
SNGN-T1

P	Steel										
M	Stainless										
K	Cast iron										
N	Non-ferrous										
S	Superalloys	★	★								
H	Hard materials										
★ : First choice											
Designation	Edge prep.*	Ceramic							RE	IC	S
		TS200	TS300								
SNGN120712-T1	T1	●							1.2	12.7	7.94

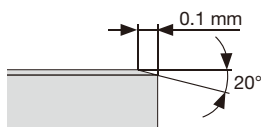
* Types of cutting edge preparations

● : Line up

E: Low cutting force

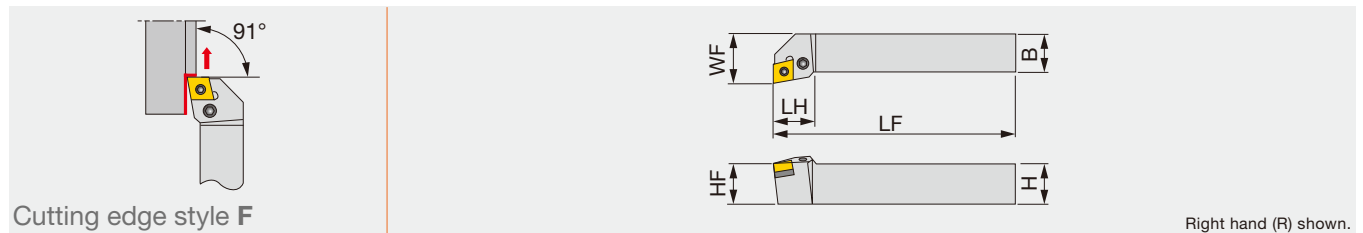


T1: Strong cutting edge



PCFNR/L

Lever-lock type toolholder for facing with 91° approach angle, for negative 80°/70° rhombic inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert
PCFNR/L2020	20	20	125	28	20	25	0.8	CN**/GNGA1204...
PCFNR/L2525	25	25	150	28	25	32	0.8	CN**/GNGA1204...

**RE : Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PCFNR/L...	LSC42 D30	LCS4	P-3	LSP4	LCL4

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Chipbreaker shape	TF	TSF	TM	TH
	Cutting conditions	B004			

K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Chipbreaker shape	All-round	All-round	All-round
	Cutting conditions	B008		

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX470	AH8005	AH8005
	Chipbreaker shape	CBN	HRF	HRM
	Cutting conditions	B012		

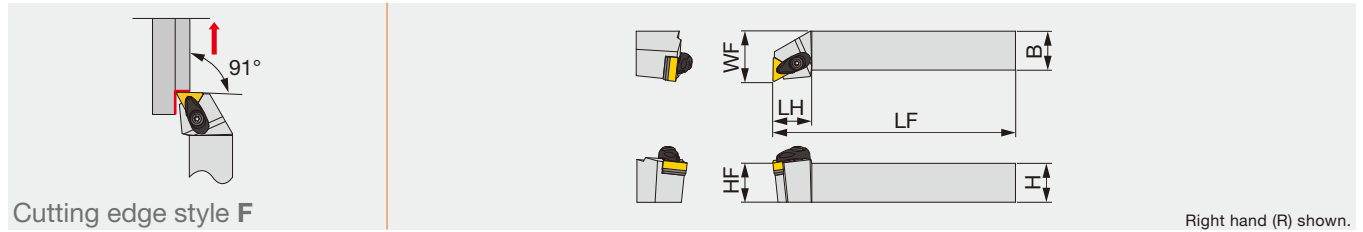
M	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T6215	AH6225	AH6225
	Chipbreaker shape	SF	SM	SH
	Cutting conditions	B006		

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	TH10
	Chipbreaker shape	DIA	DIA with rake	P
	Cutting conditions	B010		

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Chipbreaker shape	CBN	CBN
	Cutting conditions	B014	

Reference pages: PCFNR/L: Inserts → B054 -, CBN → B168 -, B178, PCD → B211

Double-clamp toolholder for facing with 91° approach angle, for negative 60° triangular inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
ATFNR/L2020K16-A	20	20	125	25	20	25	0.8	TN**1604...	3
ATFNR/L2525M16-A	25	25	150	25	25	32	0.8	TN**1604...	3
ATFNR/L2525M22-A	25	25	150	29	25	32	0.8	TN**2204...	3

*Torque: Recommended clamping torque (N·m)

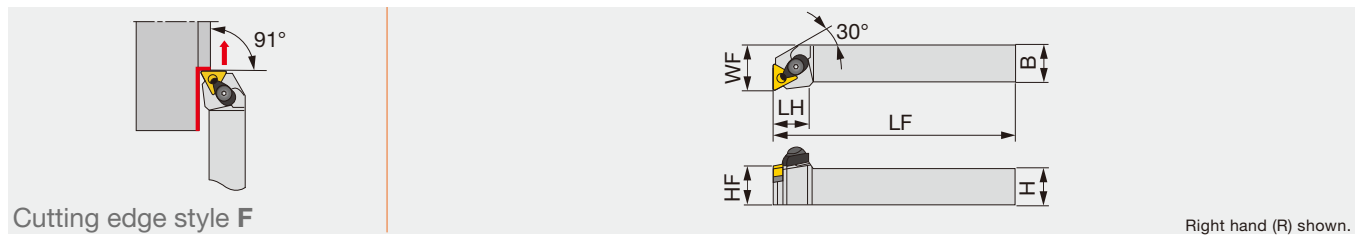
**RE : Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
ATFNR/L**16-A	ACP3S	ACS-5W	BP-7	SP-2.5	AST322	CSTB-3.5	T-15F
ATFNR/L**22-A	ACP4S	ACS-5W	BP-7	SP-2.5	AST422	CSTB-3.5	T-15F

DTFNR/L

"One-Double" toolholder with 91° approach angle, for negative 60° triangular inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert
DTFNR/L2020K16	20	20	125	23	20	25	0.8	TN**1604...
DTFNR/L2525M16	25	25	150	23	25	32	0.8	TN**1604...
DTFNR/L2525M22	25	25	150	31	25	32	0.8	TN**2204...

Note: Except for 57-type chipbreaker inserts

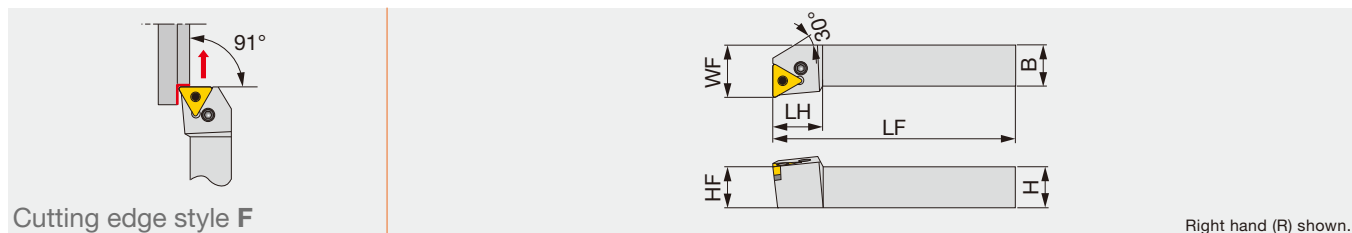
**RE : Standard corner radius

SPARE PARTS

Designation	Clamp	Lever	Piston	Clamp screw	Shim	Spring	Spring pin	Wrench 1	Wrench 2
DTFNR/L**16	DCPM-33	LCL33	DPIS33	DLCS33	LST317	BP-9	LSP3	P-2.5	P-3
DTFNR/L**22	DCPM-43	DLCL43	DPIS43	DLCS43	LST42	BP-10	LSP4	P-3	P-4

PTFNR/L

Lever-lock toolholder with 91° approach angle, for negative triangular inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
PTFNR/L1616	16	16	100	22	16	20	0.8	TN**1604...	2
PTFNR/L2020K1104	20	20	125	16	20	25	0.8	TN**1104...	2
PTFNR/L2020	20	20	125	22	20	25	0.8	TN**1604...	2
PTFNR/L2525M1104	25	25	150	22	25	32	0.8	TN**1104...	2
PTFNR/L2525M3	25	25	150	22	25	32	0.8	TN**1604...	2
PTFNR/L2525M4	25	25	150	28	25	32	0.8	TN**2204...	3
PTFNR/L3225P4	32	25	170	28	32	32	0.8	TN**2204...	3

*Torque: Recommended clamping torque (N·m)

**RE : Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw 1	Clamping screw 2	Wrench	Spring pin	Lever
PTFNR/L1616, 2020	LST317	-	LCS3	P-2.5	LSP3	LCL3
PTFNR/L**1104	-	LCS23A	-	P-2.5	-	LCL23
PTFNR/L2525M3	LST317	-	LCS3	P-2.5	LSP3	LCL3
PTFNR/L**25*4	LST42	-	LCS4	P-3	LSP4	LCL4

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Chipbreaker shape	TF	TSF	TM	TH
	Cutting conditions	B004			

M	Application	Finishing	Medium cutting
	Grade	T6215	AH6225
	Chipbreaker shape	SF	SM
	Cutting conditions	B006	

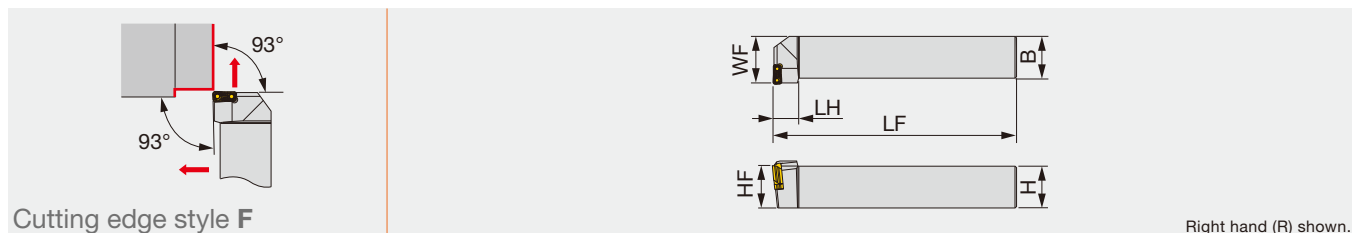
K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Chipbreaker shape	All-round	All-round	All-round
	Cutting conditions	B008		

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	TH10
	Chipbreaker shape	DIA	DIA with rake	P
	Cutting conditions	B010		

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX470	AH8005	AH8005
	Chipbreaker shape	CBN	HRF	HRM
	Cutting conditions	B012		

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Chipbreaker shape	CBN	CBN
	Cutting conditions	B014	

Reference pages: PTFNR/L: Inserts → **B087 -**, CBN → **B182 -**, PCD → **B212**



Designation	H	B	LF	LH	HF	WF	Insert
TLFNR/L2525M16	25	25	150	20	25	30	LNMX1606**L/R...
TLFNR/L3232P16	32	32	170	20	32	37	LNMX1606**L/R...

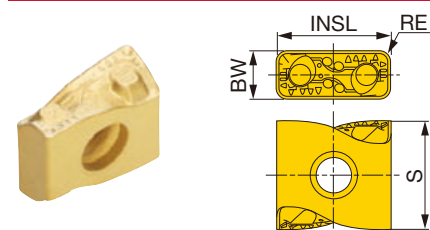
Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Shim	Spring pin	Wrench
TLFNR/L2525M16	CSTB-4L115-S	TSL16L	PSP-16	KEYV-T15
TLFNR/L2525M16	CSTB-4L115-S	TSL16R	PSP-16	KEYV-T15
TLFNR/L3232P16	CSTB-4L115-S	TSL16L	PSP-16	KEYV-T15
TLFNR/L3232P16	CSTB-4L115-S	TSL16R	PSP-16	KEYV-T15

INSERT

LNMX12/16/24



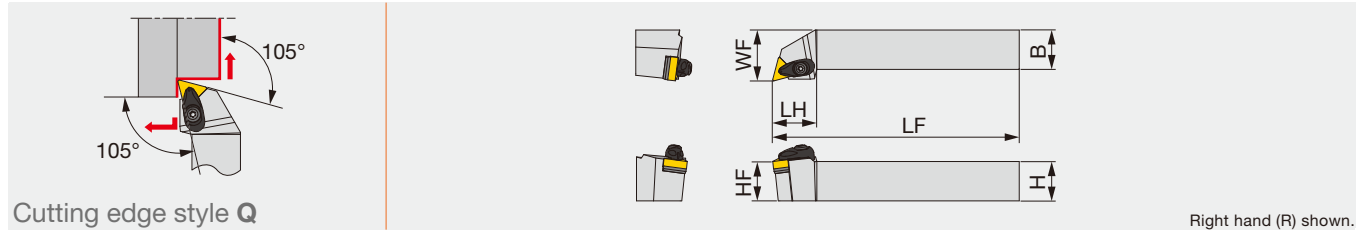
	P	M	K	N	S	H
Steel	★	★	★			
Stainless	☆	☆	☆			
Cast iron	☆	☆	☆			
Non-ferrous						
Superalloys						
Hard materials						

★ : First choice
☆ : Second choice

Designation	HAND	RE	Coated			BW	INSL	S
			T9115	T9125	AH725			
LNMX120408R-TDR	R	0.8	●	●		4.8	12	11.6
LNMX120408L-TDR	L	0.8	●	●		4.8	12	11.6
LNMX120412R-TDR	R	1.2	●	●		4.8	12	11.6
LNMX120412L-TDR	L	1.2	●	●		4.8	12	11.6
LNMX160608R-TDR	R	0.8	●	●		6.4	16.2	13.5
LNMX160608L-TDR	L	0.8	●	●		6.4	16.2	13.5
LNMX160612R-TDR	R	1.2	●	●		6.4	16.2	13.5
LNMX160612L-TDR	L	1.2	●	●		6.4	16.2	13.5
LNMX160616R-TDR	R	1.6	●	●		6.4	16.2	13.5
LNMX160616L-TDR	L	1.6	●	●		6.4	16.2	13.5
LNMX241016R-TDR	R	1.6	●	●		9.4	24	20.5
LNMX241016L-TDR	L	1.6	●	●		9.4	24	20.5
LNMX241024R-TDR	R	2.4	●	●		9.4	24	20.5
LNMX241024L-TDR	L	2.4	●	●		9.4	24	20.5
LNMX160608R-MDR	R	0.8	●		●	6.4	16.2	13.5
LNMX160608L-MDR	L	0.8	●		●	6.4	16.2	13.5
LNMX160612R-MDR	R	1.2	●		●	6.4	16.2	13.5
LNMX160612L-MDR	L	1.2	●		●	6.4	16.2	13.5
LNMX160608R-TWR	R	0.8	●			6.4	16.2	13.5
LNMX160608L-TWR	L	0.8	●			6.4	16.2	13.5
LNMX160612R-TWR	R	1.2	●			6.4	16.2	13.5
LNMX160612L-TWR	L	1.2	●			6.4	16.2	13.5

● : Line up

Reference pages: TLFNR/L: Standard cutting conditions → C119



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
ATQNR/L2020K16-A	20	20	125	28	20	25	0.8	TN**1604...	3
ATQNR/L2525M16-A	25	25	150	28	25	32	0.8	TN**1604...	3

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
ATQNR/L**16-A	ACP3S	ACS-5W	BP-7	SP-2.5	AST322	CSTB-3.5	T-15F

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Chipbreaker shape	TF	TSF	TM	TH
	Cutting conditions	B004			

M	Application	Finishing	Medium cutting
	Grade	T6215	AH6225
	Chipbreaker shape	SF	SM
	Cutting conditions	B006	

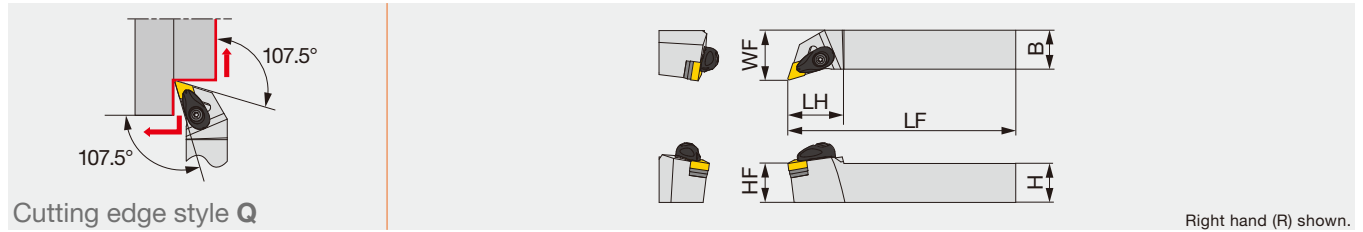
K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Chipbreaker shape	All-round	All-round	All-round
	Cutting conditions	B008		

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	TH10
	Chipbreaker shape	DIA	DIA with rake	P
	Cutting conditions	B010		

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX470	AH8005	AH8005
	Chipbreaker shape	CBN	HRF	HRM
	Cutting conditions	B012		

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Chipbreaker shape	CBN	CBN
	Cutting conditions	B014	

Double-clamp toolholder with 107.5° approach angle, for negative 55°/45° rhombic inserts

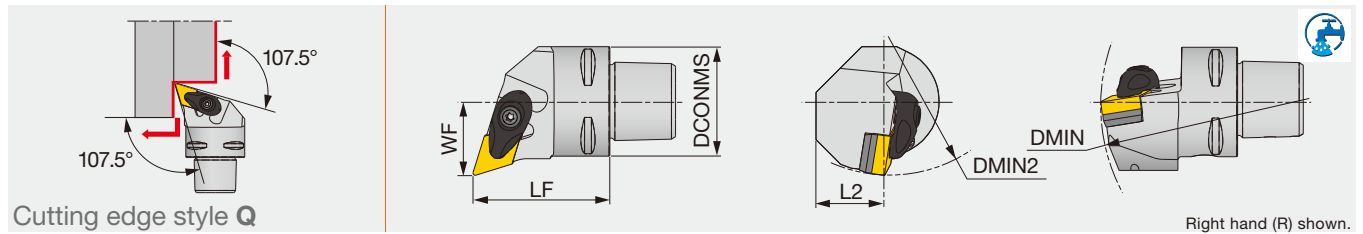


Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
ADQNR/L2020K1104-A	20	20	125	30	20	25	0.8	DN**/FNMG1104...	3
ADQNR/L2020K15-A	20	20	125	32	20	25	0.8	DN**/FNGA1504...	3
ADQNR/L2020K1506-A	20	20	125	32	20	25	0.8	DN**/FNGA1506...	3
ADQNR/L2525M1104-A	25	25	150	30	25	32	0.8	DN**/FNMG1104...	3
ADQNR/L2525M15-A	25	25	150	36	25	32	0.8	DN**/FNGA1504...	3
ADQNR/L2525M1506-A	25	25	150	36	25	32	0.8	DN**/FNGA1506...	3

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

C-ADQNR/L

Double-clamp toolholder, with 107.5° approach angle, for negative 55°/45° rhombic inserts



Designation	DCONMS	LF	L2	WF	DMIN	DMIN2	RE	Insert
C3ADQNR/L22040-15N	32	40	20	22	121	85	0.8	DN**/FNGA1504...
C4ADQNR/L27050-15N	40	50	25	27	145	110	0.8	DN**/FNGA1504...

Applicable for 7 MPa coolant

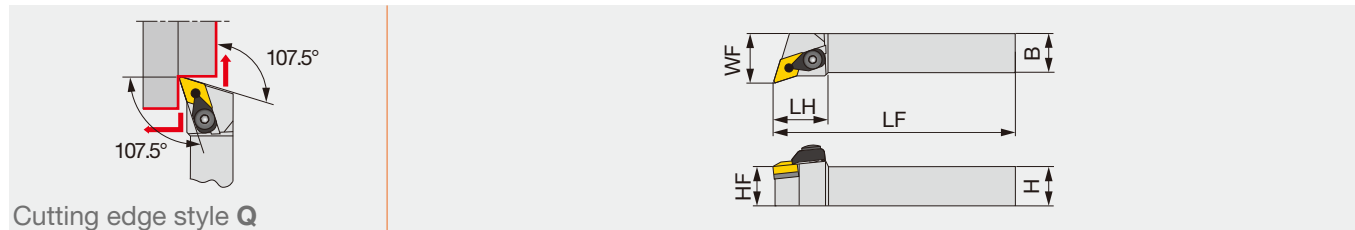
Option: ASD423 (Shim for DN**1506**)

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
ADQNR/L**1104-A	ACP3S-E	ACS-5W	BP-7	SP-2.5	ASD322	CSTB-3.5	T-15F
ADQNR/L**15-A	ACP4S	ACS-5W	BP-7	SP-2.5	ASD432	CSTB-3.5	T-15F
ADQNR/L**1506-A	ACP4S	ACS-5W	BP-7	SP-2.5	ASD423	CSTB-3.5	T-15F
C*ADQNR/L**15N	ACP4S	ACS-5W	BP-7	SP-2.5	ASD432	CSTB-3.5	T-15F

DDQNR/L

"One-Double" toolholder with 107.5° approach angle, for negative 55°/45° rhombic inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert
DDQNR/L2020K15	20	20	125	35	20	25	0.8	DN**/FNGA1504...
DDQNR/L2020K1506	20	20	125	35	20	25	0.8	DN**/FNGA1506...
DDQNR/L2525M15	25	25	150	35	25	32	0.8	DN**/FNGA1504...
DDQNR/L2525M1506	25	25	150	35	25	32	0.8	DN**/FNGA1506...
DDQNR/L3225P15	32	25	170	35	32	32	0.8	DN**/FNGA1504...
DDQNR/L3225P1506	32	25	170	35	32	32	0.8	DN**/FNGA1506...

Note: Except for 57-type chipbreaker inserts

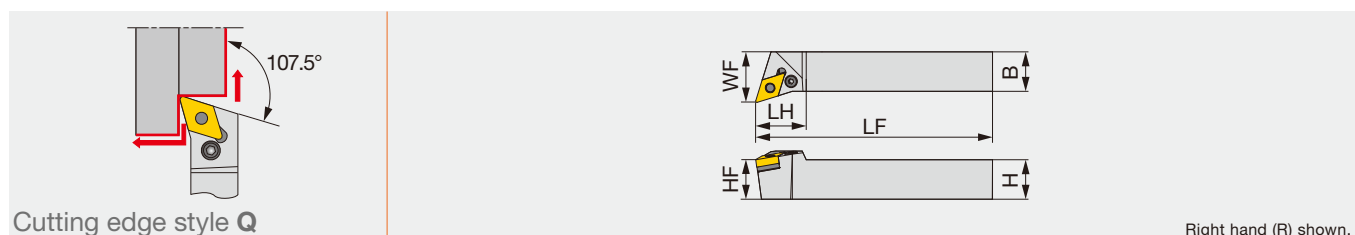
**RE : Standard corner radius

SPARE PARTS

Designation	Clamp	Lever	Piston	Clamp screw	Shim	Spring	Spring pin	Wrench 1	Wrench 2
DDQNR/L**15	DCPM-43	DLCL43	DPIS43	DLCS43	LSD42	BP-10	LSP4	P-3	P-4
DDQNR/L**1506	DCPM-43	DLCL43	DPIS44	DLCS43	LSD42	BP-10	LSP4	P-3	P-4

PDQNR/L

Lever-lock toolholder with 107.5° approach angle, for negative 55°/45° rhombic inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert
PDQNR/L2525	25	25	150	32	25	32	0.8	DN**/FNGA1504...

**RE : Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PDQNR/L...	LSD42 D30	LCS4	P-3	LSP4	LCL4

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Chipbreaker shape	TF	TSF	TM	TH
	Cutting conditions	B004			

K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Chipbreaker shape	All-round	All-round	All-round
	Cutting conditions	B008		

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	CBN	HRF	HRM
	Chipbreaker shape	BXA470	AH8005	AH8005
	Cutting conditions	B012		

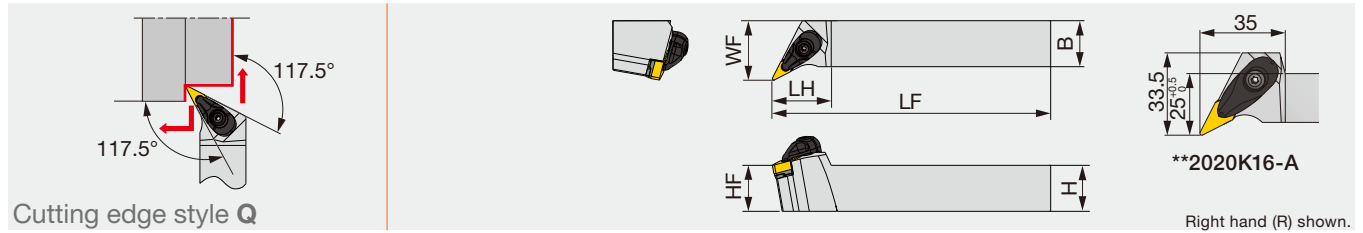
M	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T6215	AH6225	AH6225
	Chipbreaker shape	SF	SM	SH
	Cutting conditions	B006		

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	TH10
	Chipbreaker shape	DIA	DIA with rake	P
	Cutting conditions	B010		

H	Application	Precision finishing	Finishing
	Grade	CBN	CBN
	Chipbreaker shape	BXA10	BXA20
	Cutting conditions	B014	

Reference pages: DDQNR/L, PDQNR/L: Inserts → B066 -, B075, CBN → B172 -, B176 -, PCD → B211

Double-clamp toolholder with 117.5° approach angle, for negative 35°/25° rhombic inserts

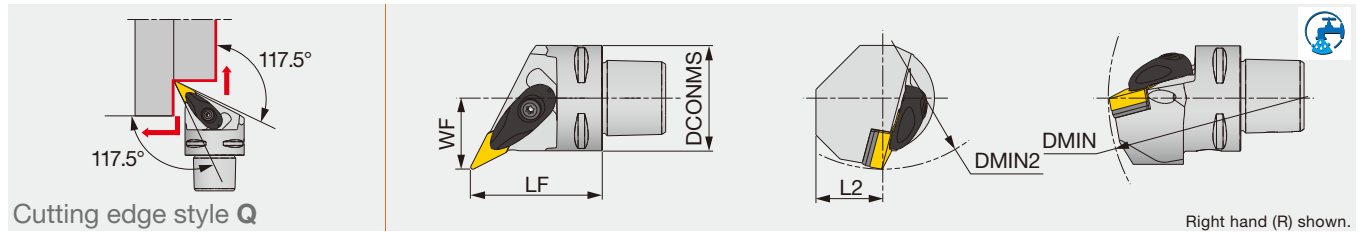


Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
AVQNR/L2020K1204-A	20	20	125	32	20	25	0.8	VN**1204...	3
AVQNR/L2020K16-A	20	20	125	35	20	25	0.8	VN**/YN**1604...	3
AVQNR/L2525M1204-A	25	25	150	32	25	32	0.8	VN**1204...	3
AVQNR/L2525M16-A	25	25	150	35	25	32	0.8	VN**/YN**1604...	3

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

C-AVQNR/L

Double-clamp toolholder, with 117.5° approach angle, for negative 35°/25° rhombic inserts



Designation	DCONMS	LF	L2	WF	DMIN	DMIN2	RE	Insert
C4AVQNR/L27050-16N	40	50	25	27	145	110	0.8	VN**/YN**1604...

Applicable for 7 MPa coolant

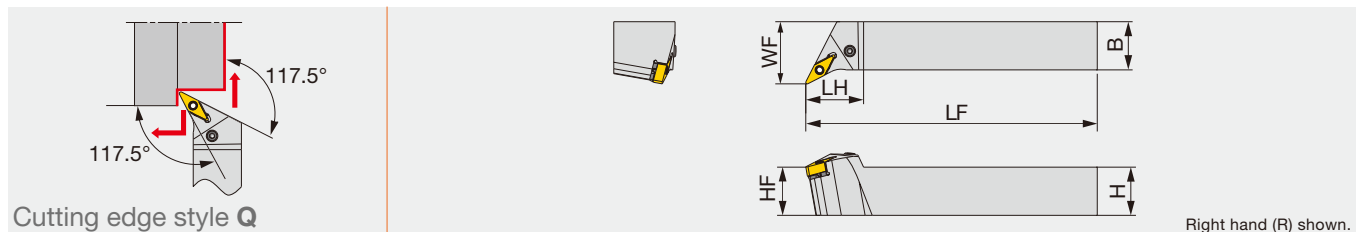
SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
AVQNR/L**1204-A	ACP3L-E	ACS-5W	BP-7	SP-2.5	ASV222	CSTB-3.0	T-15F
AVQNR/L**16-A	ACP3L	ACS-5W	BP-7	SP-2.5	ASV322	CSTB-3.5	T-15F
C4AVQNR/L**-16N	ACP3L	ACS-5W	BP-7	SP-2.5	ASV322	CSTB-3.5	T-15F

ISO ETURN

PVQNR/L-Eco

Lever-lock toolholder with 117.5° approach angle, for negative 35° rhombic inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
PVQNR/L2020K1204	20	20	125	30	20	25	0.8	VN**1204...	2
PVQNR/L2525M1204	25	25	150	30	25	32	0.8	VN**1204...	2

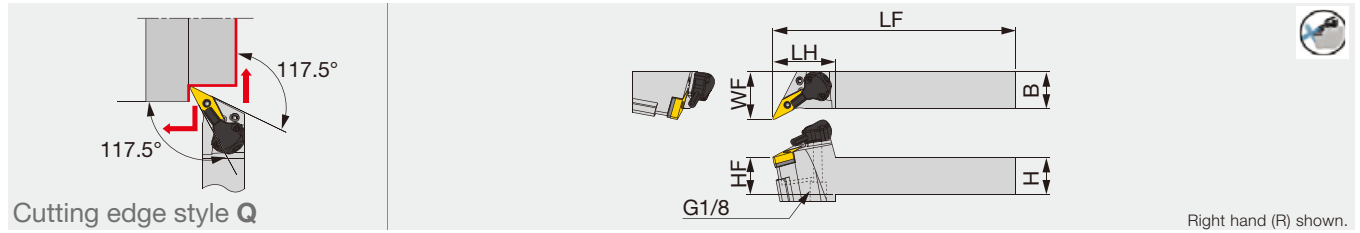
*Torque: Recommended clamping torque (N·m) **RE: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PVQNR/L**1204	LSV212	LCS3V	P-2.5	LSP3	LCL3V

Reference pages: AVQNR/L, C-AVQNR/L: Inserts → **B098 -**, B110, CBN → **B186 -**, PCD → **B188**
PVQNR/L-Eco: Inserts → **B098 -**

Lever lock toolholders – 117.5° approach angle.
For negative 35°/25° rhombic insert. High-pressure coolant capability.



Designation	H	B	LF	LH	HF	WF	RE **	Insert	Torque*
PVQNR/L2020K16-CHP	20	20	125	42.5	20	32	0.8	VN**/YN**1604...	2
PVQNR/L2525M16-CHP	25	25	150	42.5	25	32	0.8	VN**/YN**1604...	2

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

**RE: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench 1	Spring pin	Lever
PVQNR/L**16-CHP	LSV317	LCS3V	P-2.5	LSP3	LCL3V

SPARE PARTS

Designation	Coolant unit	Mounting screw	Wrench 2	O-ring	Coolant screw	Wrench 3
PVQNR/L**16-CHP	CU-V-CHP	SRM3	T-8F	OR6.4X0.9N	SRM4X4TL360	P-2

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting
	Grade	NS9530	GT9530	T9215
	Chipbreaker shape	TF	TSF	TM
	Cutting conditions	B004		

M	Application	Finishing	Medium cutting
	Grade	T6215	AH6225
	Chipbreaker shape	SF	SM
	Cutting conditions	B006	

K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Chipbreaker shape	All-round	All-round	All-round
	Cutting conditions	B008		

N	Application	Precision finishing
	Grade	DX120
	Chipbreaker shape	DIA with rake
	Cutting conditions	B010

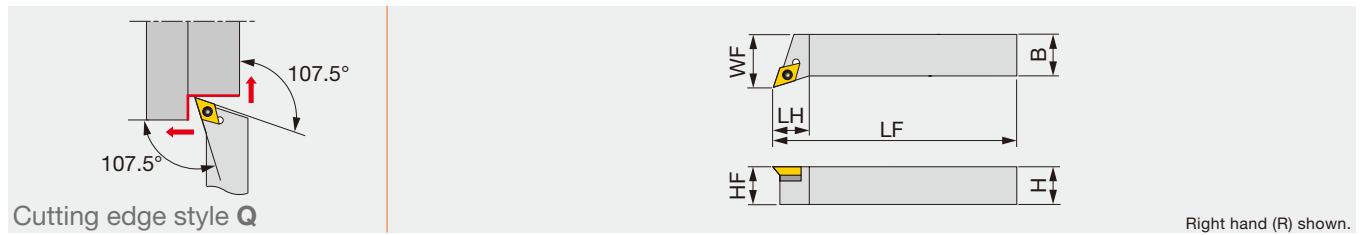
S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX470	AH8005	AH8005
	Chipbreaker shape	CBN	HRF	HRM
	Cutting conditions	B012		

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Chipbreaker shape	CBN	CBN
	Cutting conditions	B014	

Reference pages: PVQNR/L-CHP: Inserts → **B098** -, CBN → **B186** -, PCD → **B212**
Parts for coolant hose → **C115**

SDQCR/L

Screw-on toolholder with 107.5° approach angle, for positive 55° rhombic inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert
SDQCR/L2020K11	20	20	125	20.5	20	25	0.8	DC**11T3...
SDQCR2525M11	25	25	150	21.5	25	32	0.8	DC**11T3...

**RE : Standard corner radius

SPARE PARTS

Designation	Clamping screw	Shim screw	Shim	Wrench 1	Wrench 2
SDQCR/L...	CSTB-3.5L	DTS5-3.5	SSD32	P-3.5	T-15F

INSERT SELECTION

P	Application	Finishing	Finishing to medium cutting	Medium cutting
	Grade	NS9530	T9215	T9215
	Chipbreaker shape	PSS	PS	PM
	Cutting conditions	B016		

K	Application	Finishing to medium cutting
	Grade	T515
	Chipbreaker shape	CM
	Cutting conditions	B020

S	Application	Finishing	Finishing to medium cutting
	Grade	AH8015	AH8015
	Chipbreaker shape	PSS	PS
	Cutting conditions	B024	

M	Application	Precision finishing	Finishing	Finishing to medium cutting	Medium cutting
	Grade	GH330	AH6225	AH6225	AH6225
	Chipbreaker shape	W**	PSS	PS	PM
	Cutting conditions	B018			

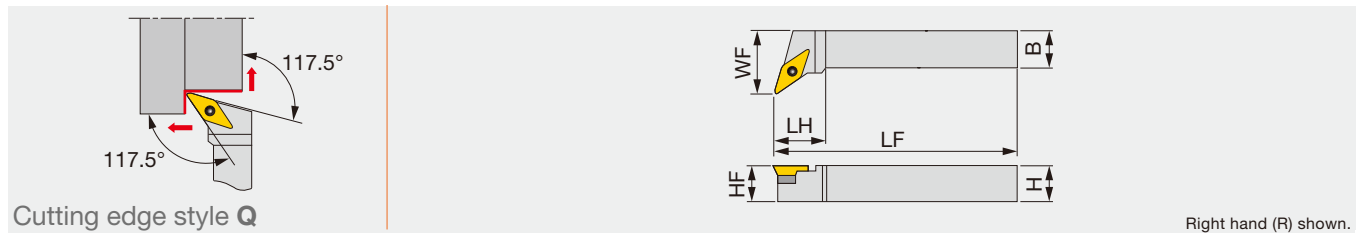
N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	KS05F
	Chipbreaker shape	DIA	DIA with rake	AL
	Cutting conditions	B022		

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Chipbreaker shape	CBN	CBN
	Cutting conditions	B026	

Reference pages: SDQCR/L: Inserts → **B121** -, CBN → **B194**, PCD → **B214**

SVQCR/L

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



Designation	H	B	LF	LH	HF	WF	RE**	Insert
SVQCR/L2020K16	20	20	125	35	20	27	0.8	VC**1604...
SVQCR/L2525M16	25	25	150	35	25	32	0.8	VC**1604...

**RE : Standard corner radius

SPARE PARTS

Designation	Clamping screw	Shim screw	Shim	Wrench 1	Wrench 2
SVQCR/L...	CSTB-3.5L	DTS5-3.5	SSV32	P-3.5	T-15F

INSERT SELECTION

P	Application	Finishing	Finishing to medium cutting
	Grade	NS9530	T9215
	Chipbreaker shape	PSS	PS
	Cutting conditions	B016	

M	Application	Finishing to medium cutting	
	Grade	AH6225	AH6225
	Chipbreaker shape	PSS	PS
	Cutting conditions	B018	

K	Application	Finishing to medium cutting
	Grade	T515
	Chipbreaker shape	CM
	Cutting conditions	B020

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	KS05F
	Chipbreaker shape	DIA	DIA with rake	AL
	Cutting conditions	B022		

S	Application	Finishing	Finishing to medium cutting
	Grade	AH8015	AH8015
	Chipbreaker shape	PSS	PS
	Cutting conditions	B024	

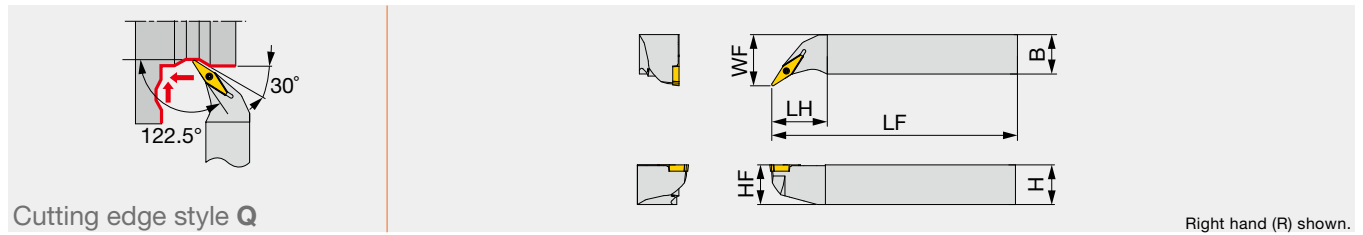
H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Chipbreaker shape	CBN	CBN
	Cutting conditions	B026	

Reference pages: SVQCR/L: Inserts → B152 -, CBN → B209, PCD → B220

Y-PRO SERIES

SYQBR/L

Screw-on toolholder with 122.5° approach angle, for positive 25° rhombic inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert
SYQBR/L2020K16	20	20	125	35	20	27	0.8	YWMT16T3...
SYQBR/L2525M16	25	25	150	35	25	32	0.8	YWMT16T3...

**RE : Standard corner radius

SPARE PARTS

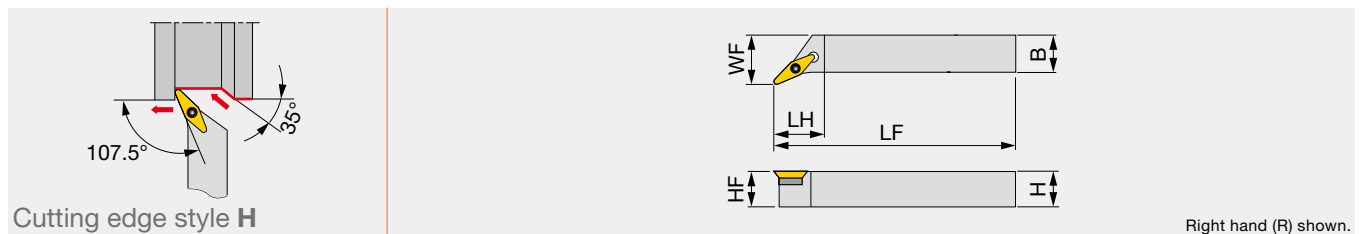
Designation	Clamping screw	Wrench
SYQBR/L...	CSTB-2.5L080	T-8F

INSERT SELECTION

P	Application Finishing to medium cutting Grade T9225 Breaker Shape Cutting conditions B016	M	Application Finishing to medium cutting Grade AH8015 Breaker Shape Cutting conditions B018	K	Application Finishing to medium cutting Grade GT9530 Breaker Shape Cutting conditions B020	S	Application Finishing to medium cutting Grade AH8015 Breaker Shape Cutting conditions B024
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SVHCR/L

Screw-on toolholder with 107.5° approach angle, for positive 35° rhombic inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert
SVHCR/L2525M22	25	25	150	33.8	25	32	0.8	VCG*2205...

**RE : Standard corner radius

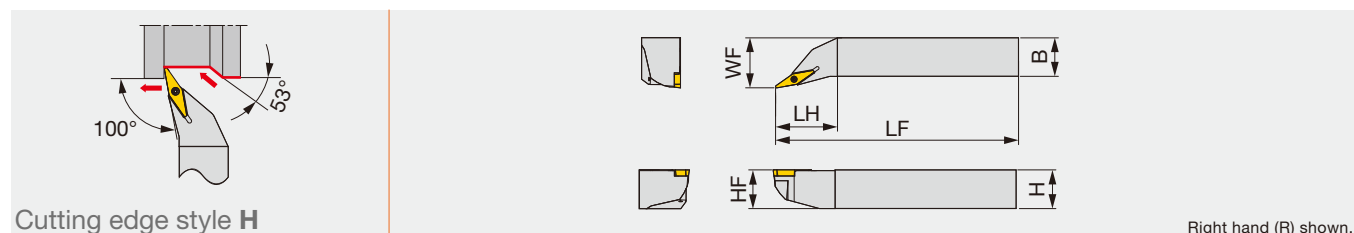
SPARE PARTS

Designation	Clamping screw	Shim screw	Shim	Wrench 1	Wrench 2
SVHCR/L2525M22	CSTB-4.5L110P	DTS6-4.5	SSV42	P-4.5	T-15F

INSERT SELECTION

K	Application Finishing to medium cutting Grade KS05F Chipbreaker Shape Cutting conditions B020	N	Application Finishing to medium cutting Grade KS05F Chipbreaker Shape Cutting conditions B022
S	Application Finishing to medium cutting Grade KS05F Chipbreaker Shape Cutting conditions B024		

Reference pages: SYQBR/L: Inserts → **B159**, SVHCR/L: Inserts → **B153**



Designation	H	B	LF	LH	HF	WF	RE**	Insert
SYHBR/L2020K16	20	20	125	35	20	27	0.8	YWMT16T3...
SYHBR/L2525M16	25	25	150	40	25	32	0.8	YWMT16T3...

**RE : Standard corner radius

SPARE PARTS

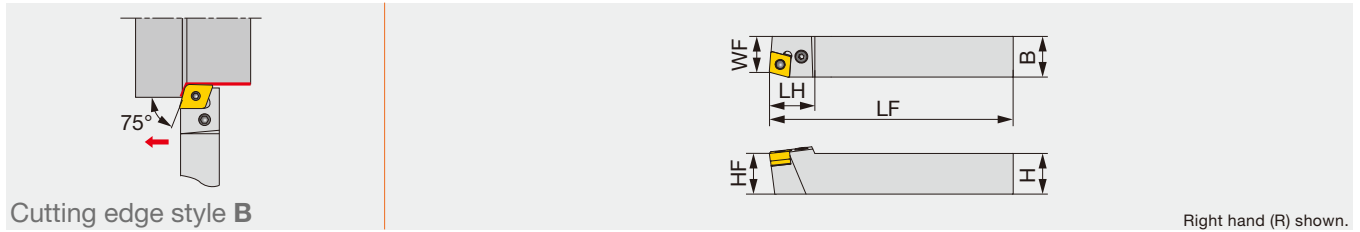
Designation	Clamping screw	Wrench
SYHBR/L...	CSTB-2.5L080	T-8F

INSERT SELECTION

P	Application Grade Breaker Shape Cutting conditions	Finishing to medium cutting T9225 ZM B016
M	Application Grade Breaker Shape Cutting conditions	Finishing to medium cutting AH8015 ZM B018
K	Application Grade Breaker Shape Cutting conditions	Finishing to medium cutting GT9530 ZM B020
S	Application Grade Breaker Shape Cutting conditions	Finishing to medium cutting AH8015 ZM B024

PCBNR/L

Lever-lock toolholder with 75° approach angle, for negative 80° rhombic inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert
PCBNR/L2525	25	25	150	28	25	22	0.8	CN**1204...

Note: 100° corner is used.
**RE: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PCBNR/L2525	LSC42	LCS4	P-3	LSP4	LCL4

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Chipbreaker Shape	TF	TSF	TM	TH
	Cutting conditions	B004			

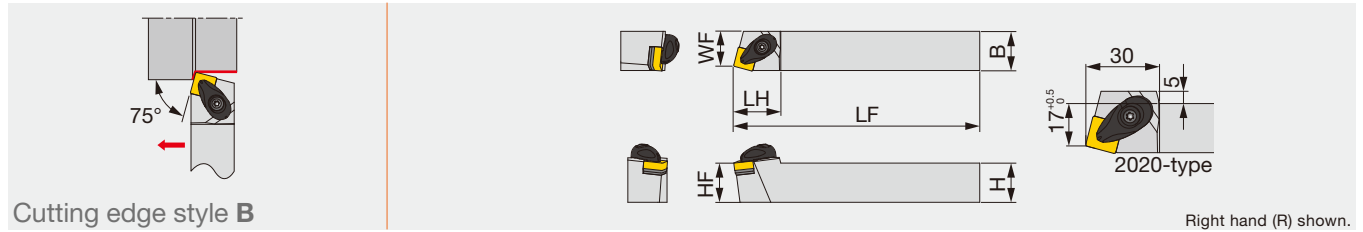
M	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T6215	AH6225	AH6225
	Chipbreaker shape	SF	SM	SH
	Cutting conditions	B006		

K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Chipbreaker Shape	All-round	All-round	All-round
	Cutting conditions	B008		

N	Application	Medium cutting
	Grade	TH10
	Chipbreaker Shape	P
	Cutting conditions	B010

S	Application	Finishing	Medium cutting
	Grade	AH8005	AH8005
	Chipbreaker Shape	HRF	HRM
	Cutting conditions	B012	

Reference pages: PCBNR/L: Inserts → **B054 -**, CBN → **B168 -**, PCD → **B211**



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
ASBNR/L2020K12-A	20	20	125	30	20	17	0.8	SN**1204...	3
ASBNR/L2525M12-A	25	25	150	30	25	22	0.8	SN**1204...	3
ASBNR/L2525M15-A	25	25	150	42.5	25	22	1.2	SN**1506...	6.4
ASBNR/L3232P15-A	32	32	170	42.5	32	27	1.2	SN**1506...	6.4
ASBNR/L3232P19-A	32	32	170	47.5	32	27	1.2	SN**1906...	6.4
ASBNR/L4040S19-A	40	40	250	47.5	40	35	1.2	SN**1906...	6.4

*Torque: Recommended clamping torque (N-m)

**RE: Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench 1	Wrench 2
ASBNR/L**12-A	ACP4S	ACS-5W	BP-7	SP-2.5	ASS422	CSTB-3.5	T-15F	-
ASBNR/L**15-A	ACP5S	ACS-6W	BP-8.8	SP-2.5	ASS533	CSTB-5	-	KEYV-T20
ASBNR/L**19-A	ACP6S	ACS-6W	BP-8.8	SP-2.5	ASS634	CSTB-5	-	KEYV-T20

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Chipbreaker Shape	TF 	TSF 	TM 	TH 
	Cutting conditions	B004			

M	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T6215	AH6225	AH6225
	Chipbreaker Shape	SF 	SM 	SH 
	Cutting conditions	B006		

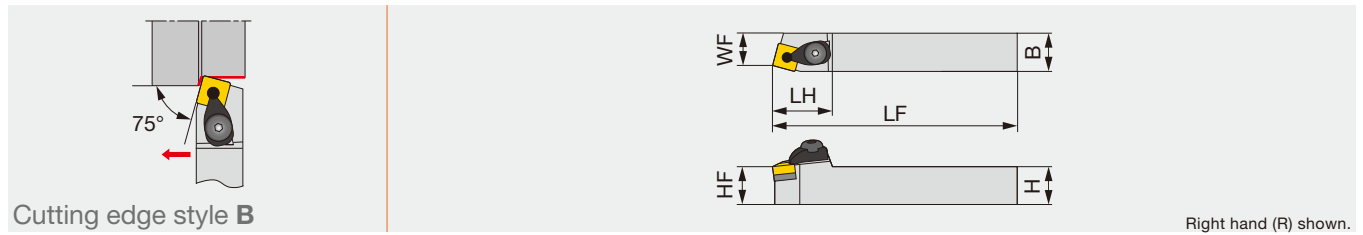
K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Chipbreaker Shape	All-round 	All-round 	All-round 
	Cutting conditions	B008		

N	Application	Finishing	Medium cutting
	Grade	DX140	TH10
	Chipbreaker Shape	DIA 	P 
	Cutting conditions	B010	

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX480	AH8005	AH8005
	Chipbreaker Shape	CBN 	HRF 	HRM 
	Cutting conditions	B012		

DSBNR/L

"One-Double" toolholder with 75° approach angle, for negative square inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert
DSBNR/L2020K12	20	20	125	35	20	17	0.8	SN**1204...
DSBNR/L2525M12	25	25	150	35	25	22	0.8	SN**1204...

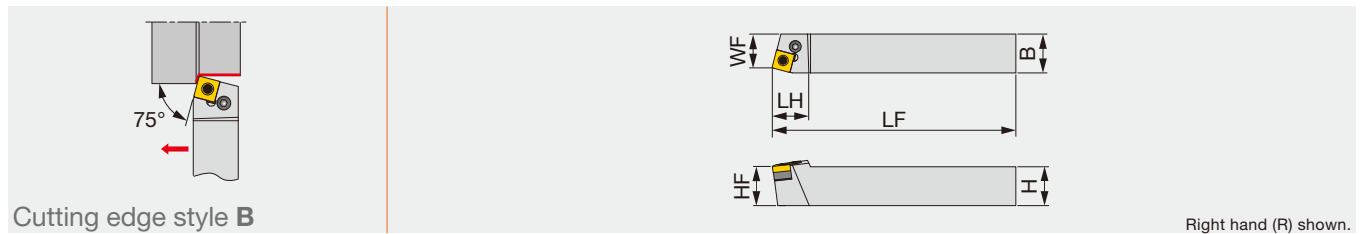
Note: Except for TRS, TU, TUS, 57, and 65-type chipbreaker inserts

**RE: Standard corner radius

SPARE PARTS									
Designation	Clamp	Lever	Piston	Clamp screw	Shim	Spring	Spring pin	Wrench 1	Wrench 2
DSBNR/L...	DCPM-43	DLCL43	DPIS43	DLCS43	LSS42	BP-10	LSP4	P-3	P-4

PSBNR/L

Lever-lock toolholder with 75° approach angle, for negative square inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert
PSBNR/L1616	16	16	100	22	16	13	0.8	SN**0903...
PSBNR/L2020	20	20	125	28	20	17	0.8	SN**1204...
PSBNR/L2525	25	25	150	24	25	22	0.8	SN**1204...
PSBNR/L3232	32	32	170	40	32	27	1.2	SN**1906...

**RE: Standard corner radius

SPARE PARTS					
Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PSBNR/L1616	LSS33	LCS3	P-2.5	LSP3L	LCL3
PSBNR/L2*2*	LSS42	LCS4	P-3	LSP4	LCL4
PSBNR/L3232	LSS63	LCS6	P-4	LSP6	LCL6

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Chipbreaker Shape	TF	TSF	TM	TH
	Cutting conditions	B004			

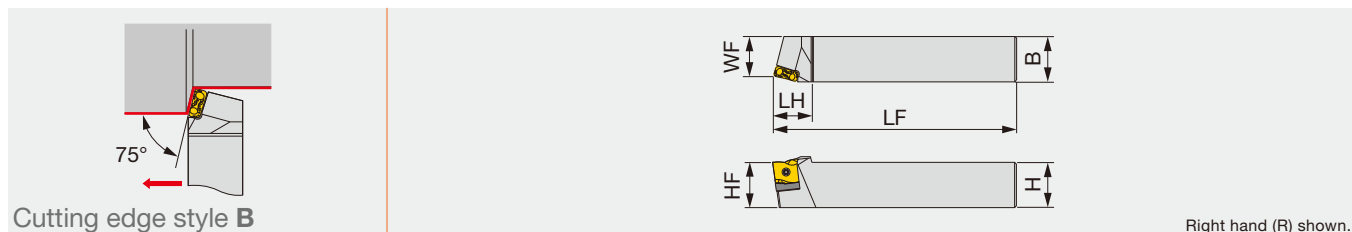
M	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T6215	AH6225	AH6225
	Chipbreaker Shape	SF	SM	SH
	Cutting conditions	B006		

K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Chipbreaker Shape	All-round	All-round	All-round
	Cutting conditions	B008		

N	Application	Finishing	Medium cutting
	Grade	DX140	TH10
	Chipbreaker Shape	DIA	P
	Cutting conditions	B010	

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX480	AH8005	AH8005
	Chipbreaker Shape	CBN	HRF	HRM
	Cutting conditions	B012		

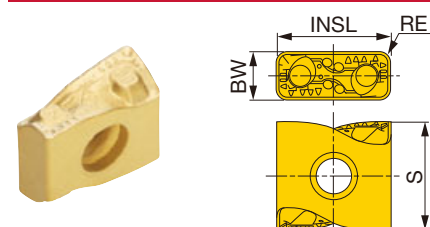
Reference pages: DSBNR/L, PSBNR/L: Inserts → **B077 -**, CBN → **B180 -**, **B182 -**, PCD → **B211**



Designation	H	B	LF	LH	HF	WF	Insert
TLBNR/L4040R24	40	40	200	35	40	35	LNMX2410**R/L...

SPARE PARTS

Designation	Clamping screw	Shim	Spring pin	Wrench
TLBNR4040R24	CSTB-5L163-S	TSL24R	PSP-16	KEYV-T20
TLBNL4040R24	CSTB-5L163-S	TSL24L	PSP-16	KEYV-T20

INSERT
LNMX12/16/24


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

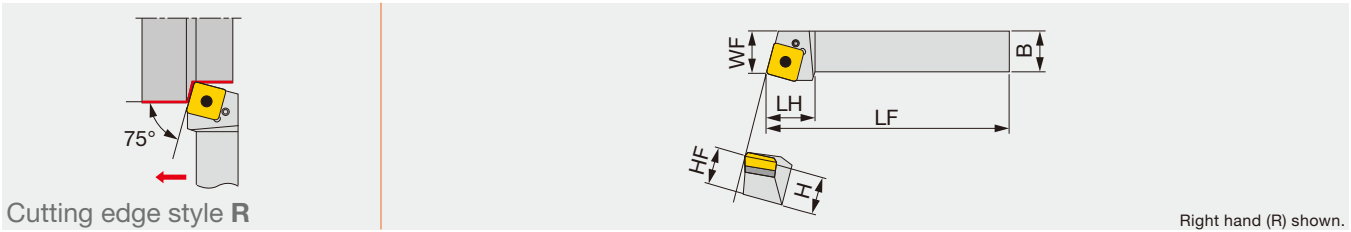
★ : First choice
☆ : Second choice

Designation	HAND	RE	Coated			BW	INSL	S
			T9115	T9125	AH725			
LNMX120408R-TDR	R	0.8	●	●		4.8	12	11.6
LNMX120408L-TDR	L	0.8	●	●		4.8	12	11.6
LNMX120412R-TDR	R	1.2	●	●		4.8	12	11.6
LNMX120412L-TDR	L	1.2	●	●		4.8	12	11.6
LNMX160608R-TDR	R	0.8	●	●		6.4	16.2	13.5
LNMX160608L-TDR	L	0.8	●	●		6.4	16.2	13.5
LNMX160612R-TDR	R	1.2	●	●		6.4	16.2	13.5
LNMX160612L-TDR	L	1.2	●	●		6.4	16.2	13.5
LNMX160616R-TDR	R	1.6	●	●		6.4	16.2	13.5
LNMX160616L-TDR	L	1.6	●	●		6.4	16.2	13.5
LNMX241016R-TDR	R	1.6	●	●		9.4	24	20.5
LNMX241016L-TDR	L	1.6	●	●		9.4	24	20.5
LNMX241024R-TDR	R	2.4	●	●		9.4	24	20.5
LNMX241024L-TDR	L	2.4	●	●		9.4	24	20.5
LNMX160608R-MDR	R	0.8	●	●		6.4	16.2	13.5
LNMX160608L-MDR	L	0.8	●	●		6.4	16.2	13.5
LNMX160612R-MDR	R	1.2	●	●		6.4	16.2	13.5
LNMX160612L-MDR	L	1.2	●	●		6.4	16.2	13.5
LNMX160608R-TWR	R	0.8	●	●		6.4	16.2	13.5
LNMX160608L-TWR	L	0.8	●	●		6.4	16.2	13.5
LNMX160612R-TWR	R	1.2	●	●		6.4	16.2	13.5
LNMX160612L-TWR	L	1.2	●	●		6.4	16.2	13.5

● : Line up

HSRNR/L

Retract-pin toolholder with 75° approach angle, for negative square inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert
HSRNR/L4040R	40	40	200	50	40	43	1.6	SNMM3109...
HSRNR/L5050S	50	50	250	60	50	53	1.6	SNMM3109...

**RE: Standard corner radius

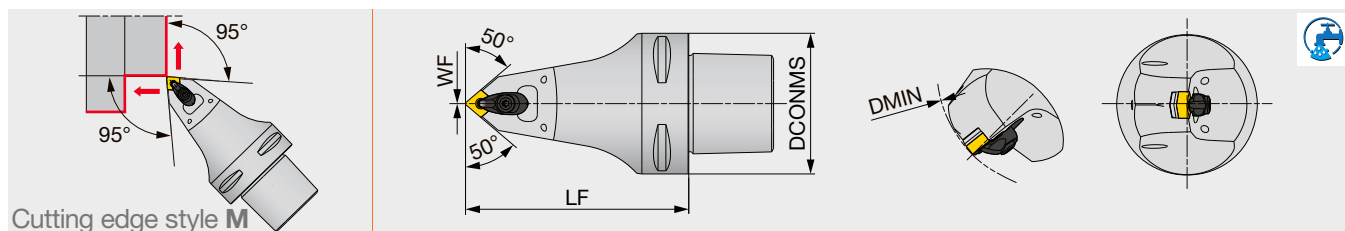
SPARE PARTS

Designation	Pin	Clamping screw	Shim	Wrench
HSRNR/L...	SW99	LS-8	NAS-04	P-4

INSERT SELECTION

P	Application	Heavy cutting
	Grade	T9225
	Chipbreaker Shape	65 
	Cutting conditions	B004

Reference pages: HSRNR/L: Inserts → B083



Designation	DCONMS	LF	WF	DMIN	RE**	Insert
C6ACMNN00100-0904N	63	100	0	110	0.8	CN**/GNMG0904...
C6ACMNN00140-0904N	63	140	0	110	0.8	CN**/GNMG0904...

**RE: The holder measurements are true with this insert radius
Applicable for 7 MPa coolant

SPARE PARTS

Designation	Clamp	Clamp screw	Shim	Shim screw	Spring	Spring pin	Wrench
C6ACMNN001*-0904N	ACP3S-E	ACS-5W	ASC322	CSTB-3.5	BP-7	SP-2.5	T-15F

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Chipbreaker shape	TF	TSF	TM	TH
	Cutting conditions	B004			

K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Chipbreaker shape	All-round	All-round	All-round
	Cutting conditions	B008		

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX470	AH8005	AH8005
	Chipbreaker shape	CBN	HRF	HRM
	Cutting conditions	B012		

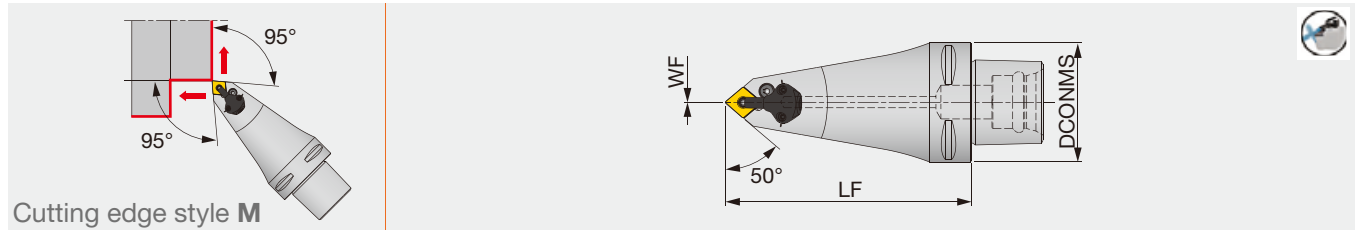
M	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T6215	AH6225	AH6225
	Chipbreaker shape	SF	SM	SH
	Cutting conditions	B006		

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	TH10
	Chipbreaker shape	DIA	with rake DIA	P
	Cutting conditions	B010		

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Chipbreaker shape	CBN	CBN
	Cutting conditions	B014	

Reference pages: C-ACMNN: Inserts → **B054**, **B075**, CBN → **B168**
Parts for coolant hose → **C115**

Lever lock toolholder with TungCap connection.
For negative 80°/70° rhombic insert. High-pressure coolant capability.



Designation	DCONMS	LF	WF	RE**	Insert	Torque*
C6PCMNN00130-12-CHP	63	130	0	0.8	CN**/GNGA1204...	3

*Torque: Recommended torque (N·m) for clamping
Applicable for 14 MPa pressure coolant
**RE: Standard corner radius

For external turning only.

Designation	Shim	Clamping screw	Wrench 1	Spring pin	Lever
C6PCMNN00130-12-CHP	LSC42	LCS4	P-3	LSP4	LCL4

Designation	Coolant unit	Mounting screw	Wrench 2	O-ring
C6PCMNN00130-12-CHP	CU-CW-CHP	SRM3	T-8F	OR6.4X0.9N

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Chipbreaker shape	TF	TSF	TM	TH
	Cutting conditions	B004			

M	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T6215	AH6225	AH6225
	Chipbreaker shape	SF	SM	SH
	Cutting conditions	B006		

K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Chipbreaker shape	All-round	All-round	All-round
	Cutting conditions	B008		

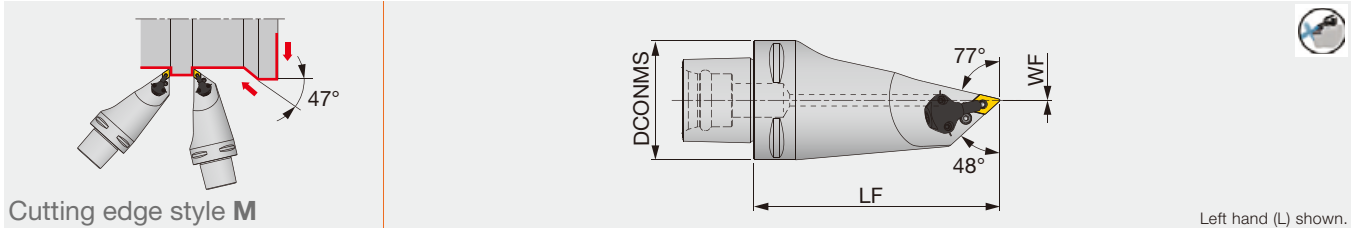
N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	TH10
	Chipbreaker shape	DIA	DIA with rake	P
	Cutting conditions	B010		

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX470	AH8005	AH8005
	Chipbreaker shape	CBN	HRF	HRM
	Cutting conditions	B012		

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Chipbreaker shape	CBN	CBN
	Cutting conditions	B014	

Reference pages: C-PCMNN-CHP: Inserts → **B054**, CBN → **B168 -**, PCD → **B211**
Parts for coolant hose → **C115**

Lever lock toolholder with TungCap connection.
For negative 55°/45° rhombic insert. High-pressure coolant capability.



Designation	DCONMS	LF	WF	RE **	Insert	Torque*
C6PDMNL00130-1104-CHP	63	130	0	0.8	DN**/FNMG1104...	2

*Torque: Recommended torque (N·m) for clamping
Applicable for 14 MPa pressure coolant
**RE: Standard corner radius

For external turning only.

SPARE PARTS

Designation	Shim	Clamping screw	Wrench 1	Spring pin	Lever
C6PDMNL00130-1104-CHP	ELSD32	LCS3	P-2.5	LSP3	LCL33L

SPARE PARTS

Designation	Coolant unit	Mounting screw	Wrench 2	O-ring
C6PDMNL00130-1104-CHP	CU-D-CHP	SRM3	T-8F	OR6.4X0.9N

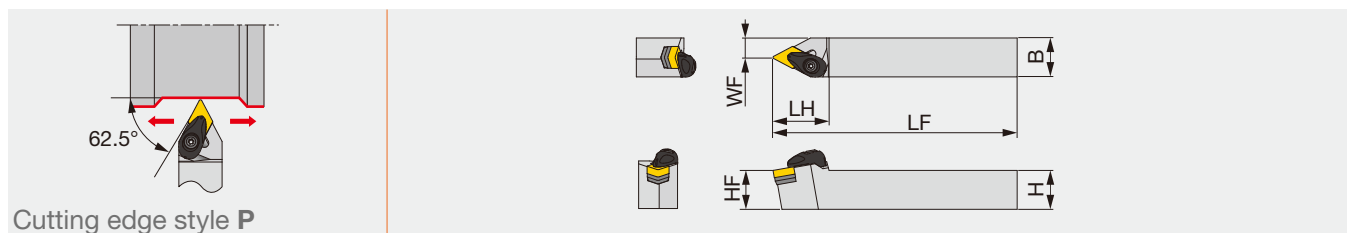
INSERT SELECTION

P	Application	Finishing	Medium cutting
	Grade	T9215	T9215
	Chipbreaker shape	TSF	TM
	Cutting conditions	B004	

M	Application	Finishing	Medium cutting
	Grade	AH6225	AH6225
	Chipbreaker shape	SS	SM
	Cutting conditions	B006	

K	Application	Medium cutting
	Grade	T515
	Chipbreaker shape	TM
	Cutting conditions	B008

Double-clamp toolholder with 62.5° approach angle, for negative 55°/45° rhombic inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
ADPNN2020K15-A	20	20	125	36	20	7.5	0.8	DN**/FNGA1504...	3
ADPNN2525M15-A	25	25	150	36	25	12.5	0.8	DN**/FNGA1504...	3

*Torque: Recommended clamping torque (N-m)

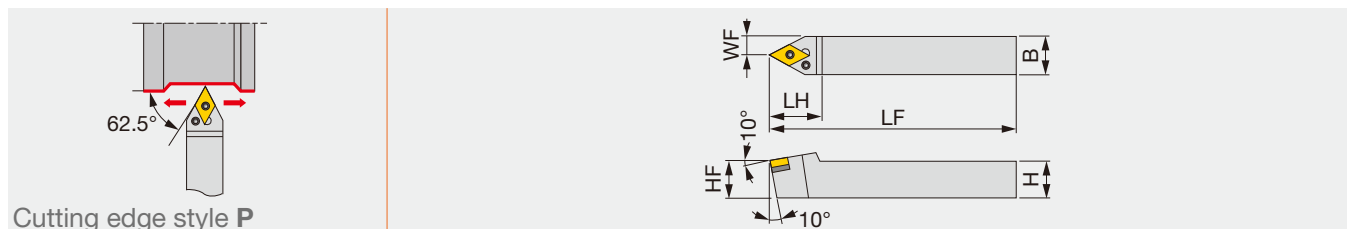
**RE: Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
ADPNN**15-A	ACP4S	ACS-5W	BP-7	SP-2.5	ASD432	CSTB-3.5	T-15F

PDPNN

Lever-lock toolholder with 62.5° approach angle, for negative 55°/45° rhombic inserts



Designation	H	B	LF	LH	HF	WF	RE**	Insert
PDPNN2525	25	25	150	36	25	12.5	0.8	DN**/FNGA1504...
PDPNN2525M15E	25	25	150	36	25	12.5	0.8	DN**/FNGA1506...

**RE: Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
PDPNN2525	LSD42	LCS4	P-3	LSP4	LCL4
PDPNN2525M15E	ELSD42	ELCS4	P-3	LSP4S	LCL44

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Chipbreaker shape	TF	TSF	TM	TH
	Cutting conditions	B004			

K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Chipbreaker shape	All-round	All-round	All-round
	Cutting conditions	B008		

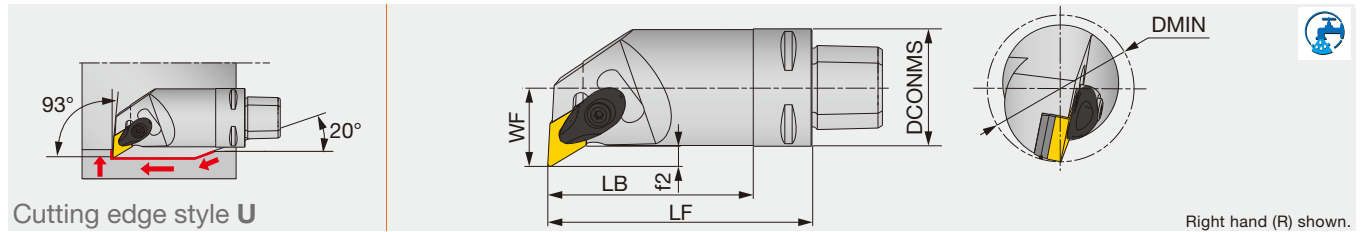
S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX470	AH8005	AH8005
	Chipbreaker shape	CBN	HRF	HRM
	Cutting conditions	B012		

M	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T6215	AH6225	AH6225
	Chipbreaker shape	SF	SM	SH
	Cutting conditions	B006		

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	TH10
	Chipbreaker shape	DIA with rake	DIA	P
	Cutting conditions	B010		

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Chipbreaker shape	CBN	CBN
	Cutting conditions	B014	

Reference pages: ADPNN, PDPNN: Inserts → **B066** -, CBN → **B172** -, **B176**, PCD → **B211**



Designation	DMIN	DCONMS	LF	LB	WF	f2	RE	Insert
C4ADUNR20070-15	38	40	70	50	20	5	0.8	DN**/FNGA1504...
C4ADUNR27090-15	50	40	90	-	27	7	0.8	DN**/FNGA1504...

Applicable for 7 MPa coolant

SPARE PARTS

Designation	Clamp	Clamp screw	Shim	Shim screw	Spring	Spring pin	Wrench
C*ADUNR/L...	ACP4S	ACS-5W	ASD432	CSTB-3.5	BP-7	SP-2.5	T-15F

Option: ASD423 (Shim for DN**1506**)

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Chipbreaker shape	TF	TSF	TM	TH
	Cutting conditions	B004			

K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Chipbreaker shape	All-round	All-round	All-round
	Cutting conditions	B008		

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX470	AH8005	AH8005
	Chipbreaker shape	CBN	HRF	HRM
	Cutting conditions	B012		

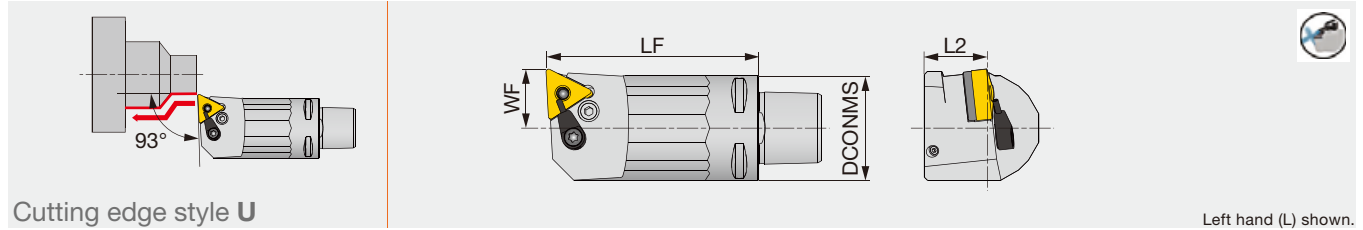
M	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T6215	AH6225	AH6225
	Chipbreaker shape	SF	SM	SH
	Cutting conditions	B006		

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	TH10
	Chipbreaker shape	DIA	DIA with rake	P
	Cutting conditions	B010		

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Chipbreaker shape	CBN	CBN
	Cutting conditions	B014	

Reference pages: C-ADUNR/L: Inserts → **B066** -, CBN → **B172** -, **B176**, PCD → **B211**
Parts for coolant hose → **C115**

Lever-lock toolholder, with 93° approach angle, for negative 60° triangular inserts, with high pressure coolant capability



Designation	DCONMS	LF	L2	WF	RE	Insert
C3PTUNL18040-16-CHP	32	40	19	18	0.8	TN**1604...
C3PTUNL18065-16-CHP	32	65	19	18	0.8	TN**1604...

Applicable for 14 MPa coolant
Cannot be used for boring

SPARE PARTS

Designation	Coolant unit	Shim	Lever	Clamping screw	Spring pin	Wrench
C3PTUNL...	S-CU-CHP	LST317	LCL3	LCS3	LSP3	P-2.5

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Chipbreaker shape	TF	TSF	TM	TH
	Cutting conditions	B004			

M	Application	Finishing	Medium cutting
	Grade	T6215	AH6225
	Chipbreaker shape	SF	SM
	Cutting conditions	B006	

K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Chipbreaker shape	All-round	All-round	All-round
	Cutting conditions	B008		

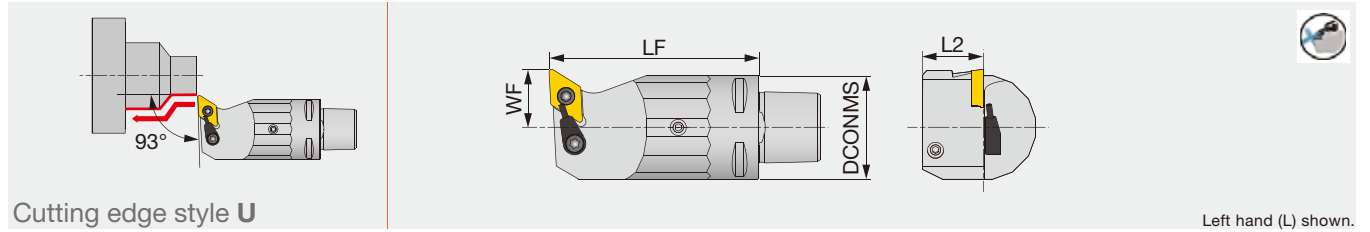
N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	TH10
	Chipbreaker shape	DIA	DIA with rake	P
	Cutting conditions	B010		

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX470	AH8005	AH8005
	Chipbreaker shape	CBN	HRF	HRM
	Cutting conditions	B012		

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Chipbreaker shape	CBN	CBN
	Cutting conditions	B014	

Reference pages: C-PTUNL-CHP: Inserts → **B087** -, CBN → **B182** -, PCD → **B212**
Parts for coolant hose → **C115**

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



Designation	DCONMS	LF	L2	WF	RE	Insert
C3SDUCL18040-11-CHP	32	40	19	18	0.8	DC**11T3...
C3SDUCL18065-11-CHP	32	65	19	18	0.8	DC**11T3...

Applicable for 14 MPa coolant
Cannot be used for boring

SPARE PARTS

Designation	Clamping screw	Coolant unit	Wrench
C3SDUCL...	CSTB-4S	S-CU-CHP	T-15F

INSERT SELECTION

P	Application	Finishing	Finishing to medium cutting	Medium cutting
	Grade	NS9530	T9215	T9215
	Chipbreaker shape	PSS	PS	PM
	Cutting conditions	B016		

M	Application	Precision finishing	Finishing	Finishing to medium cutting	Medium cutting
	Grade	GH330	AH6225	AH6225	AH6225
	Chipbreaker shape	W**	PSS	PS	PM
	Cutting conditions	B018			

K	Application	Finishing to medium cutting
	Grade	T515
	Chipbreaker shape	CM
	Cutting conditions	B020

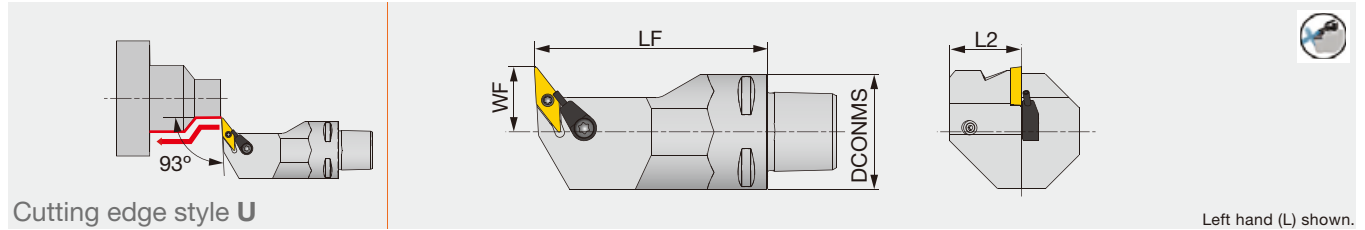
N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	KS05F
	Chipbreaker shape	DIA	with rake DIA	AL
	Cutting conditions	B022		

S	Application	Finishing	Finishing to medium cutting
	Grade	AH8015	AH8015
	Chipbreaker shape	PSS	PS
	Cutting conditions	B024	

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Chipbreaker shape	CBN	CBN
	Cutting conditions	B026	

Reference pages: C-SDUCL-CHP: Inserts → **B121** -, CBN → **B194**, PCD → **B214**
Parts for coolant hose → **C115**

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



Designation	DCONMS	LF	L2	WF	RE	Insert
C3SVUCL18065-11-CHP	32	65	20	18	0.4	VC**1103...

Applicable for 14 MPa coolant
Cannot be used for boring

SPARE PARTS

Designation	Clamping screw	Coolant unit	Wrench
C3SVUCL18065-11-CHP	CSTB-2.5	S-CU-CHP	T-8F

INSERT SELECTION

P	Application	Finishing	Finishing to medium cutting
	Grade	NS9530	T9215
	Chipbreaker shape	PSS	PS
	Cutting conditions	B016	

M	Application	Finishing	Finishing to medium cutting
	Grade	AH6225	AH6225
	Chipbreaker shape	PSS	PS
	Cutting conditions	B018	

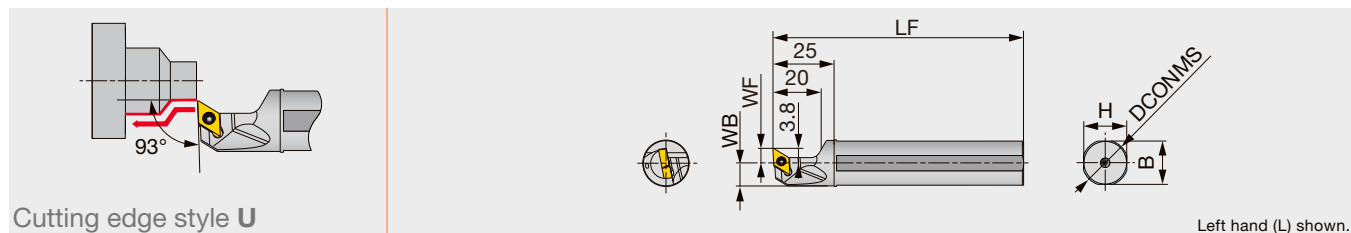
K	Application	Finishing to medium cutting
	Grade	T515
	Chipbreaker shape	CM
	Cutting conditions	B020

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	KS05F
	Chipbreaker shape	DIA	DIA with rake	AL
	Cutting conditions	B022		

S	Application	Finishing	Finishing to medium cutting
	Grade	AH8015	AH8015
	Chipbreaker shape	PSS	PS
	Cutting conditions	B024	

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Chipbreaker shape	CBN	CBN
	Cutting conditions	B026	

Reference pages: C-SVUCL-CHP: Inserts → **B152**
Parts for coolant hose → **C115**



Designation	DCONMS	WF	LF	H	B	WB	RE**	Insert	Torque*
JS14H-SDUXL07	14	6	100	13	13	6.75	0.2	DX*U0703**L...	0.9
JS159F-SDUXL07	15.875	6	85	15	15	7.687	0.2	DX*U0703**L...	0.9
JS16F-SDUXL07	16	6	85	15	15	7.75	0.2	DX*U0703**L...	0.9
JS19G-SDUXL07	19.05	6	90	18	18	9.275	0.2	DX*U0703**L...	0.9
JS19X-SDUXL07	19.05	6	120	18	18	9.275	0.2	DX*U0703**L...	0.9
JS20G-SDUXL07	20	6	90	19	19	9.75	0.2	DX*U0703**L...	0.9
JS20X-SDUXL07	20	6	120	19	19	9.75	0.2	DX*U0703**L...	0.9
JS22X-SDUXL07	22	10	120	21	21	10.75	0.2	DX*U0703**L...	0.9
JS25H-SDUXL07	25	10	100	24	24	12.25	0.2	DX*U0703**L...	0.9
JS254X-SDUXL07	25.4	10	120	24	24	12.45	0.2	DX*U0703**L...	0.9

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

SPARE PARTS

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

INSERT SELECTION

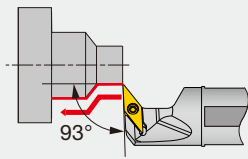
Swiss lathes

P	Application	Finishing	Medium cutting	M	Application	Finishing	Medium cutting
	Grade	SH725	AH725		Grade	SH725	AH725
	Chipbreaker shape	JSS	JTS		Chipbreaker shape	JSS	JTS
	Cutting conditions	C118			Cutting conditions	C118	

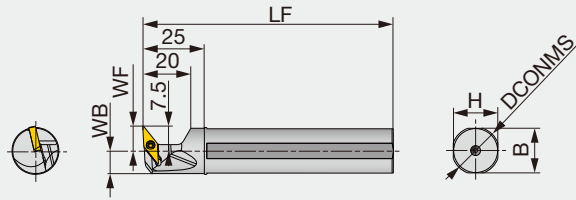
Small CNC lathes

P	Application	Finishing	Medium cutting	M	Application	Finishing	Medium cutting
	Grade	AH725	AH725		Grade	AH8015	AH8015
	Chipbreaker shape	SS	TS		Chipbreaker shape	SS	TS
	Cutting conditions	C118			Cutting conditions	C118	

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



Cutting edge style U



Left hand (L) shown.

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

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

SPARE PARTS

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

INSERT SELECTION

P	Application	Finishing	M	Application	Finishing
	Grade	SH725		Grade	SH725
	Chipbreaker shape	JRP 		Chipbreaker shape	JRP 
	Cutting conditions	C118		Cutting conditions	C118

PARTS FOR COOLANT HOSE

Connecting hose

Fig. 1

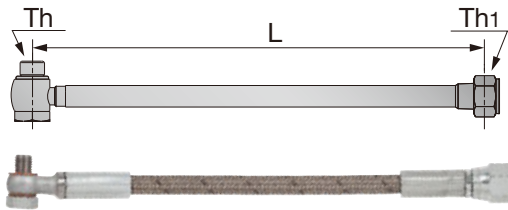
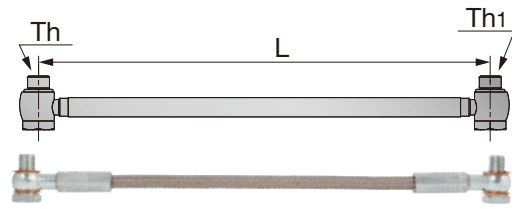
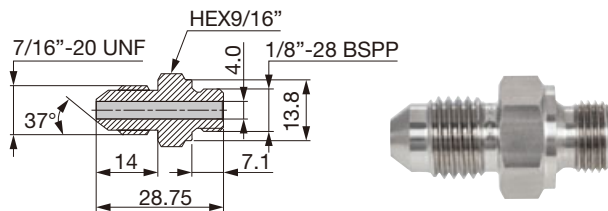


Fig. 2



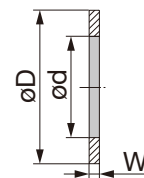
Designation	L	Th	Th1	Max. pressure (Mpa)	Fig.
CHP-HOSE-G1/8-7/16-200BS	200	G1/8"-28 BSPP	7/16"-20 UNF	26	1
CHP-HOSE-G1/8-7/16-250BS	250	G1/8"-28 BSPP	7/16"-20 UNF	26	1
CHP-HOSE-5/16-7/16-200BS	200	5/16"-24UNF	7/16"-20 UNF	20	1
CHP-HOSE-5/16-G1/8-200BS	200	5/16"-24UNF	G1/8"-28 BSPP	20	1
CHP-HOSE-G1/8-G1/8-200BB	200	G1/8"-28 BSPP	G1/8"-28 BSPP	26	2
CHP-HOSE-G1/8-G1/8-250BB	250	G1/8"-28 BSPP	G1/8"-28 BSPP	26	2

Connector



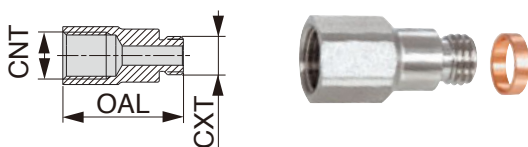
Designation
CHP-NIPPLE-G1/8-7/16UNF

Seal washer



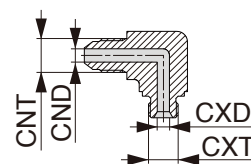
Designation	øD	ød	W
CHP-COPPER-SEAL1/8	15	10	1
CHP-COPPER-SEAL5/16	11.9	8.15	1.35
CHP-COPPER-SEAL5/16-2.5	9.4	8	2.5

Connector for small lathe with seal washer



Designation	CNT	CXT	OAL
CHP-CONNECTOR5/16-G1/8	G1/8"-28 BSPP	5/16"-24 UNF	25
CHP-CONNECTOR-G1/8-R1/8	G1/8"-28 BSPP	R1/8"-28 BSPT	25

Connector elbow



Designation	CNT	CND	CXT	CXD
CHP-ELBOW-90-G1/8-7/16UNF	7/16"-20 UNF	4.4	1/8"-28 BSPP	4
CHP-ELBOW-90-5/16-7/16UNF	7/16"-20 UNF	4.4	5/16"-24 UNF	4

Technical Guide

STANDARD CUTTING CONDITIONS

ADD^{ULTI}MTURN

Double-sided 6-corner insert

ISO	Operation	Chipbreaker	Grade	Depth of cut: a_p (mm)		Feed: f (mm/rev)		Cutting speed
				Front turning	Back turning	Front turning	Back turning	V_c (m/min)
P	Finishing	TSF	T9215	0.2 - 1.5	0.2 - 1.5	0.08 - 0.4	0.2 - 1.2	150 - 400
		TSF	T9225	0.2 - 1.5	0.2 - 1.5	0.08 - 0.4	0.2 - 1.2	80 - 300
	Medium to heavy cutting	TM	T9215	0.5 - 2.5	0.5 - 2.5	0.2 - 0.6	0.4 - 1.2	150 - 400
		TM	T9225	0.5 - 2.5	0.5 - 2.5	0.2 - 0.6	0.4 - 1.2	80 - 300
M	Finishing	TSF	T9215	0.2 - 1.5	0.2 - 1.5	0.08 - 0.4	0.2 - 1.2	100 - 250
		TSF	AH8015	0.2 - 1.5	0.2 - 1.5	0.08 - 0.4	0.2 - 1.2	90 - 190
	Medium to heavy cutting	TM	T9215	0.5 - 2.5	0.5 - 2.5	0.2 - 0.6	0.4 - 1.2	100 - 250
		TM	AH8015	0.5 - 2.5	0.5 - 2.5	0.2 - 0.6	0.4 - 1.2	90 - 190
K	Finishing	TSF	T9215	0.2 - 1.5	0.2 - 1.5	0.08 - 0.4	0.2 - 1.2	140 - 500
	Medium to heavy cutting	TM	T9215	0.5 - 2.5	0.5 - 2.5	0.2 - 0.6	0.4 - 1.2	140 - 500
S	Finishing	TSF	AH8015	0.2 - 1.5	0.2 - 1.5	0.08 - 0.4	0.2 - 1.2	20 - 80
	Medium to heavy cutting	TM	AH8015	0.5 - 2.5	0.5 - 2.5	0.2 - 0.6	0.4 - 1.2	20 - 80

Single-sided 3-corner insert

ISO	Operation	Chipbreaker	Grade	Depth of cut: a_p (mm)		Feed: f (mm/rev)		Cutting speed
				Front turning	Back turning	Front turning	Back turning	V_c (m/min)
P	Medium to heavy cutting	TM	T9215	0.5 - 4	0.5 - 2	0.2 - 0.6	0.4 - 2	150 - 400
M	Medium to heavy cutting	TM	T9215	0.5 - 4	0.5 - 2	0.2 - 0.6	0.4 - 2	100 - 250
K	Medium to heavy cutting	TM	T9215	0.5 - 4	0.5 - 2	0.2 - 0.6	0.4 - 2	140 - 500

ADD^{AXIS}TURN

ISO	Operation	Chipbreaker	Grade	Cutting speed
				V_c (m/min)
P	Finishing	ZF	T9215	150 - 400
	Medium to heavy cutting	TM	T9215	150 - 400
M	Finishing	ZF	T9215	100 - 250
	Medium to heavy cutting	TM	T9215	100 - 250
K	Finishing	ZF	T9215	140 - 500
	Medium to heavy cutting	TM	T9215	140 - 500

Reference pages: ATXOR/L → **C065**, STXCR/L-CHP-MC → **C066**,
C6STECN-Y-CHP → **C069**, C6SDNCN-Y-CHP → **C070**

STANDARD CUTTING CONDITIONS

TURN^{TEN}FEED

For HD holder
(High Depth of Cut)

ISO	Insert	Depth of cut ap (mm)	Feed f (mm/rev)	Cutting speed: Vc (m/min)	
				T9215	T9225
P	POMG110612-MNW	0.8 - 5.5	0.4 - 1.2	150 - 400	120 - 300
	POMG130612-MNW	1 - 7	0.4 - 1.3	150 - 400	120 - 300

ISO	Insert	Depth of cut ap (mm)	Feed f (mm/rev)	Cutting speed: Vc (m/min)	
				AH8015	
M	POMG110612-MNW	0.8 - 5.5	0.4 - 1.2	50 - 150	
	POMG130612-MNW	1 - 7	0.4 - 1.3	50 - 150	
S	POMG110612-MNW	0.8 - 5.5	0.4 - 1.2	20 - 80	
	POMG130612-MNW	1 - 7	0.4 - 1.3	20 - 80	

For HF holder
(High Feed)

ISO	Insert	Depth of cut ap (mm)	Feed f (mm/rev)	Cutting speed: Vc (m/min)	
				T9215	T9225
P	POMG110612-MNW	1 - 2.5	0.5 - 1.5	150 - 400	120 - 300
	POMG130612-MNW	1 - 3	0.5 - 2	150 - 400	120 - 300

ISO	Insert	Depth of cut ap (mm)	Feed f (mm/rev)	Cutting speed: Vc (m/min)	
				AH8015	
M	POMG110612-MNW	1 - 2.5	0.5 - 1.5	50 - 150	
	POMG130612-MNW	1 - 3	0.5 - 2	50 - 150	
S	POMG110612-MNW	1 - 2.5	0.5 - 1.5	20 - 80	
	POMG130612-MNW	1 - 3	0.5 - 2	20 - 80	

Technical Guide

STANDARD CUTTING CONDITIONS

MINIFORCE

Applications	ISO	Workpiece material	Priority	Chipbreaker	Grade	Cutting speed Vc (m/min)	Depth of cut ap (mm)	Feed f (mm/rev)
Swiss 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
			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
			Sharpness	JSS	SH725	50 - 180	0.1 - 1.5	0.03 - 0.1
Small 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
			Surface quality	SS	NS9530	50 - 200	0.15 - 1.5	0.05 - 0.2
				TS	NS9530	50 - 200	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.	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
			First choice	SS	AH725	50 - 150	0.15 - 1.5	0.05 - 0.2
			Fracture resistance	TS	AH725	50 - 150	0.3 - 2	0.08 - 0.3

DIMPLEFX

ISO	Workpiece material	Grade	Cutting speed Vc (m/min)	Depth of cut ap (mm)	Feed f (mm/rev)
K	Grey cast irons	FX105	700 (300 - 1000)	1 (0.05 - 3)	0.3 (0.05 - 0.6)
	Ductile cast irons	FX105	200 (100 - 300)	1 (0.05 - 3)	0.2 (0.05 - 0.4)

Reference pages: CCLNR/L-RD → **C022**, JSWLXR/L, JSWL2XR/L → **C029**,
 CDJNR/L-RD → **C040**, JSDJXR/L, JSDJ2XR/L → **C045**
 JSVJXR/L, JSVJ2XR/L → **C047**, CVVNN-RD → **C051**, CDNNN-RD → **C072**,
 CSSNR/L → **C082**, CHSNR/L → **C083**, JS-SDUXL, JS-SVUXL → **C114**

STANDARD CUTTING CONDITIONS

TURNTEC

LNMX1204

*Values in red are for facing.

ISO	Workpiece material	Chip breaker	Grade	Cutting speed Vc (m/min)	Depth of cut: ap (mm)		Feed: f (mm/rev)	
					RE : 0.8	RE : 1.2	RE : 0.8	RE : 1.2
P	Steel S45C, SCM415, etc. C45, 18CrMo4, etc.	TDR	T9115	120 - 250	0.5 - 5 0.5 - 2.2	0.8 - 5 0.8 - 2.2	0.15 - 0.6	0.25 - 0.8
		TDR	T9125	80 - 180	0.5 - 5 0.5 - 2.2	0.8 - 5 0.8 - 2.2	0.15 - 0.6	0.25 - 0.8
M	Stainless steel SUS304, SUS316, etc. X5CrNi18-9, X5CrNiMo17-12-2, etc.	TDR	T9115	100 - 180	0.5 - 5 0.5 - 2.2	0.8 - 5 0.8 - 2.2	0.15 - 0.6	0.25 - 0.8
		TDR	T9125	80 - 180	0.5 - 5 0.5 - 2.2	0.8 - 5 0.8 - 2.2	0.15 - 0.6	0.25 - 0.8

LNMX1606

ISO	Workpiece material	Chip breaker	Grade	Cutting speed Vc (m/min)	Depth of cut: ap (mm)			Feed: f (mm/rev)		
					RE : 0.8	RE : 1.2	RE : 1.6	RE : 0.8	RE : 1.2	RE : 1.6
P	Steel S45C, SCM415, etc. C45, 18CrMo4, etc.	TDR	T9115	120 - 250	0.5 - 5 0.5 - 3.2	0.8 - 6 0.8 - 3.2	1 - 8 1 - 3.2	0.15 - 0.6	0.25 - 0.8	0.3 - 1
		TDR	T9125	80 - 180	0.5 - 5 0.5 - 3.2	0.8 - 6 0.8 - 3.2	1 - 8 1 - 3.2	0.15 - 0.6	0.25 - 0.8	0.3 - 1
		TWR	T9115	120 - 250	1 - 8 1 - 3.2	0.8 - 6 0.8 - 3.2	-	0.15 - 0.6	0.25 - 0.8	-
		TWR	T9125	80 - 180	1 - 8 1 - 3.2	0.8 - 6 0.8 - 3.2	-	0.15 - 0.6	0.25 - 0.8	-
M	Stainless steel SUS304, SUS316, etc. X5CrNi18-9, X5CrNiMo17-12-2, etc.	TDR	T9115	100 - 180	0.5 - 5 0.5 - 3.2	0.8 - 6 0.8 - 3.2	1 - 8 1 - 3.2	0.15 - 0.6	0.25 - 0.8	0.3 - 1
		TDR	T9125	80 - 180	0.5 - 5 0.5 - 3.2	0.8 - 6 0.8 - 3.2	1 - 8 1 - 3.2	0.15 - 0.6	0.25 - 0.8	0.3 - 1
		MDR	T9115	100 - 150	1.5 - 6 0.5 - 3.2	1.5 - 7 0.8 - 3.2	-	0.1 - 0.5	0.15 - 0.7	-
		MDR	AH725	50 - 150	1.5 - 6 0.5 - 3.2	1.5 - 7 0.8 - 3.2	-	0.1 - 0.5	0.15 - 0.7	-
		TWR	T9115	100 - 180	0.5 - 5 0.5 - 3.2	0.8 - 6 0.8 - 3.2	-	0.15 - 0.6	0.25 - 0.8	-
		TWR	T9125	80 - 180	0.5 - 5 0.5 - 3.2	0.8 - 6 0.8 - 3.2	-	0.15 - 0.6	0.25 - 0.8	-

LNMX2410

ISO	Workpiece material	Chip breaker	Grade	Cutting speed Vc (m/min)	Depth of cut: ap (mm)		Feed: f (mm/rev)	
					RE : 1.6	RE : 2.4	RE : 1.6	RE : 2.4
P	Steel S45C, SCM415, etc. C45, 18CrMo4, etc.	TDR	T9115	120 - 250	4 - 15 1 - 4.5	5 - 15 1 - 4.5	0.3 - 1	0.3 - 1.1
		TDR	T9125	80 - 150	4 - 15 1 - 4.5	5 - 15 1 - 4.5	0.3 - 1	0.3 - 1.1
M	Stainless steel SUS304, SUS316, etc. X5CrNi18-9, X5CrNiMo17-12-2, etc.	TDR	T9115	100 - 180	4 - 15 1 - 4.5	5 - 15 1 - 4.5	0.3 - 1	0.3 - 1.1
		TDR	T9125	80 - 150	4 - 15 1 - 4.5	5 - 15 1 - 4.5	0.3 - 1	0.3 - 1.1

TURNFEED

ISO	Workpiece material	Grade	Chipbreaker	Cutting speed Vc (m/min)	Depth of cut ap (mm)	Feed f (mm/rev)
P	Mild and low carbon steels SS400, SM490, etc. E275A, C15E4, etc. < 180 HB	T9225	ML	100 - 300	0.5 - 2.5	0.5 - 2.5
	Carbon and alloy steels S55C, SCM440, etc. C55, 42CrMo4, etc. < 300HB	T9215	ML	120 - 350	0.5 - 2.5	0.5 - 2.5
M	Stainless steels SUS304, SUS316, etc. X5CrNi18-9, X5CrNiMo17-12-3, etc. < 250 HB	T9225	ML	100 - 300	0.5 - 2.5	0.5 - 2.5
K	Grey and ductile cast irons FC250, FCD400, etc. 250, 400-15S, etc.	AH120	ML	100 - 250	0.5 - 2.5	0.5 - 2.5

Note: When the side cutting edge is used for facing, the maximum feed is limited to within 1 mm/rev.

Reference pages: TLANR/L → C054, XWXPR/L → C068,
TLFNR/L → C090, TLBNR/L → C103

Technical Guide

STANDARD CUTTING CONDITIONS

Y-PRO SERIES

For negative insert

ISO	Operation	Chipbreaker	Grades	Depth of cut <i>ap</i> (mm)	Feed <i>f</i> (mm/rev)	Cutting speed: <i>Vc</i> (m/min)		
						Low carbon steels, alloy steels	Medium carbon steels, alloy steels	High carbon steels, alloy steels
P	Finishing	ZF	GT9530	0.2 - 1.5	0.03 -0.2	150 - 300	150 - 300	150 - 300
			NS9530	0.2 - 1.5	0.03 -0.2	150 - 300	150 - 300	150 - 300
			T9225	0.2 - 1.5	0.03 -0.2	120 - 300	120 - 300	100 - 250
			T9235	0.2 - 1.5	0.03 -0.2	50 - 200	50 - 200	50 - 150
	Finishing to medium	ZM	GT9530	0.7 - 2	0.15 -0.4	150 - 300	150 - 300	150 - 300
			NS9530	0.7 - 2	0.15 -0.4	150 - 300	150 - 300	150 - 300
			T9225	0.7 - 2	0.15 -0.4	120 - 300	120 - 300	100 - 250
			T9235	0.7 - 2	0.15 -0.4	50 - 200	50 - 200	50 - 150
Stainless steels								
M	Finishing	ZF	AH8015	0.2 - 1.5	0.03 -0.2	50 - 150	50 - 150	50 - 150
	Finishing to medium	ZM	AH8015	0.7 - 2	0.15 -0.4	50 - 150	50 - 150	50 - 150
Cast iron								
K	Finishing	ZF	T9225	0.2 - 1.5	0.03 -0.2	140 - 500	140 - 500	140 - 500
	Finishing to medium	ZM	T9225	0.7 - 2	0.15 -0.4	140 - 500	140 - 500	140 - 500
Heat-resistant alloys								
S	Finishing	ZF	AH8015	0.2 - 1.5	0.03 -0.2	20 - 80	20 - 80	20 - 80
	Finishing to medium	ZM	AH8015	0.7 - 2	0.15 -0.4	20 - 80	20 - 80	20 - 80

For positive insert

ISO	Operation	Chipbreaker	Grades	Depth of cut <i>a</i> _p (mm)	Feed <i>f</i> (mm/rev)	Cutting speed: <i>V</i> _c (m/min)		
						Low carbon steels, alloy steels	Medium carbon steels, alloy steels	High carbon steels, alloy steels
	Finishing to medium	ZF	GT9530	0.2 - 1.5	0.05 -0.25	150 - 300	150 - 300	150 - 300
			T9225	0.2 - 1.5	0.05 -0.25	100 - 300	80 - 300	80 - 250
		ZM	GT9530	0.5 - 2	0.05 -0.3	150 - 300	150 - 300	150 - 300
			T9225	0.5 - 2	0.05 -0.3	100 - 300	80 - 300	80 - 250
Stainless steels								
	Finishing to medium	ZF	AH8015	0.2 - 1.5	0.05 -0.25	50 - 150	50 - 150	50 - 150
		ZM	AH8015	0.5 - 2	0.05 -0.3	50 - 150	50 - 150	50 - 150
Cast iron								
	Finishing to medium	ZF	T9225	0.2 - 1.5	0.05 -0.25	140 - 500	140 - 500	140 - 500
		ZM	T9225	0.5 - 2	0.05 -0.3	140 - 500	140 - 500	140 - 500
Heat-resistant alloys								
	Finishing to medium	ZF	AH8015	0.2 - 1.5	0.05 -0.25	20 - 80	20 - 80	20 - 80
		ZM	AH8015	0.5 - 2	0.05 -0.3	20 - 80	20 - 80	20 - 80

FIXTURN

ISO	Workpiece material	Chipbreaker	Grade	Cutting Speed Vc (m/min)	Depth of cut ap (mm)	Feed f (mm/rev)
P	Steels S45C, SCM415, etc. C45, 18CrMo4, etc.	6RS	T9215	120 - 350	0.5 - 2	0.5 - 1
		6RS	T9225	100 - 300	0.5 - 2	0.5 - 1
		6RS	NS9530	150 - 250	0.5 - 2	0.5 - 1
		6RM	T9215	120 - 350	1 - 3	0.5 - 1
		6RM	T9225	100 - 300	1 - 3	0.5 - 1
		6RM	NS9530	150 - 250	1 - 3	0.5 - 1

Reference pages: SYJBR/L → **C049**, SYIBN → **C053**, SRGCR/L-6F → **C064**, SRDCR/L-6F → **C078**
SYQBR/L, SVHCR/L → **C098**

Internal Toolholder



- Indexable toolholders are listed by cutting edge shape.
- Toolholders in the catalog are our standard items.

How to use the page

Method ① Select 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 (④) in the dimension table (③). Applicable inserts are shown in (⑥) and (⑧).

Method ② Select the cutting edge on **D003** and check the details on the product page.

Method ③ Select the series name of a toolholder on **D003** and check the details on each page.

Method ④ Select an item from Quick Guide on D004 - D009.

[illegible]

- | | |
|--|--|
| ① : Cutting edge shape | ⑤ : Dimension drawing (conforming to ISO13399) |
| ② : Series name of indexable boring bars | ⑥ : Applicable insert |
| ③ : Dimension table | ⑦ : Spare parts |
| ④ : Toolholder designation | ⑧ : Insert selection |
| e.g. To select right-handed steel shank with | ⑨ : Reference pages |

→ A10K-SDXXR07-D130

When ordering

- Please specify the designation and quantity.
e.g. **A12M-SDZXR/L07-D140 ... 1** (one boring bar per package)
* Inserts are not included. Please order those separately.

Main products

L 95°		D014
X 100°		D034
J 142°		D038
A 91°		D040
K 75°		D041
F 91°		D045
U 93°		D052
Q 107.5°		D076
Z 93°		D084
OTHERS		D090



BOREMEISTER

Boring head suitable for L/D=10



Shank $\varnothing 16$ - 60 mm

D010



MINIFORCE

Economical double-sided inserts with excellent sharpness



Shank $\varnothing 10$ - 20 mm

D013



ISOETURN

Small-sized "Eco" insert series for maximized profits



Shank $\varnothing 16$ - 32 mm

D025 -, D031 -
D049 -, D067
D069 -, D074



STREAMJETBAR

Highly rigid toolholders providing good chip evacuation



Shank $\varnothing 4$ - 50 mm

D011



Y-PRO SERIES

Inserts with 25° corner angle for profiling



Shank $\varnothing 12$ - 16 mm

D064, D083



TURNINGA

Highly rigid clamping system with excellent repeatability



Shank $\varnothing 25$ - 50 mm

D030, D033, D044
D051, D072, D075



TUNG TJET

Toolholders for high pressure coolant supply



D026, D071



TUNG BORE MINI

Multifunctional tool for drilling, external turning and internal turning



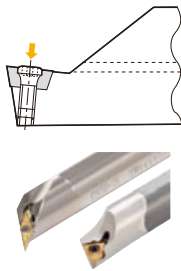
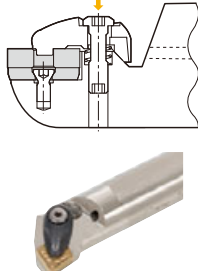
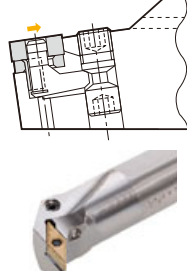
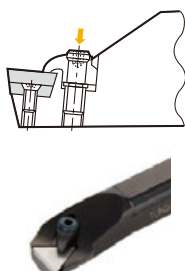
Shank $\varnothing 8$ - 12 mm

D012

Sleeve

D092 -

Internal Toolholder - Quick Guide

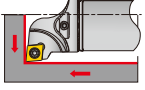
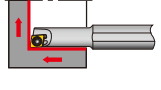
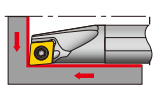
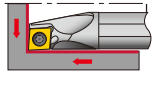
Screw-on	Double clamping	Lever-lock	Clamp-on
 STREAMJETBAR MINI[®]TURN - Simple clamping mechanism. - Smart shape without overhang area. - Minimum bore diameter: ø4.5 mm. - Good cutting action by using positive inserts. - Carbide shanks that have excellent resistance to chatter. "Tsuppari-Ichiban" shanks (reinforced with carbide plates) are also stocked.	 TURNINGA - Increased clamping rigidity contributes to superior cutting edge positioning accuracy & longer tool life. - Enlarged insert holding area of the clamp allows more accurate cutting edge positioning. It delivers high performance even when using VNMG type (35° corner angle) inserts, which tend to destabilize cutting edge positioning. - Simple structure keeps cost low. Easy clamping with only one wrench.	 ISO[®]E[®]TURN - Negative rake, lever-lock type, round shank boring bars. - The insert is positively held into a two wall pocket, excelling in indexing accuracy. - Minimum bore diameter: ø20 mm. "Tsuppari-Ichiban" shanks that are reinforced with carbide plates are also stocked.	 - Clamp-on type insert locking mechanism assures secure holding & accurate indexing. - For inserts without a hole, it provides stronger cutting edge strength than S-type tools & can withstand heavier cutting conditions. - Minimum bore diameter: ø16 mm

Tool selection according to the ratio of length to tool diameter (L/D) for different shank materials

Steel shank	Carbide reinforced	Carbide shank	BoreMeister
L/D ≤ 3	L/D ≤ 4	L/D ≤ 5	L/D ≤ 10

For custom tooling inquiries, contact Tungaloy

Positive type

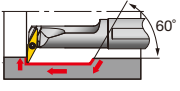
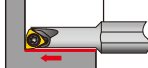
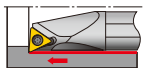
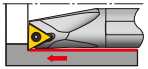
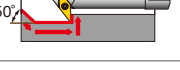
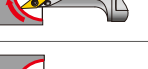
Application	Style	Designation	Insert	Material	Through coolant	ISO Insert	BOREMEISTER	STREAMJETBAR	Min. bore diameter DMIN (mm)						Page
									0	10	20	30	40	50	
Boring & internal facing		S-SCLCR/L-H	CC...	Steel Carbide	○	✓	✓		ø20					ø50	D017
		SEXPR/L	EP...	Steel Carbide	○	✓		✓	ø4.5	ø7					D034 D035
		SCLCR/L	CC...	Steel Carbide Reinforced	○	✓		✓	ø5					ø27	D014 - D016
		SCLPR/L	CP...	Steel Carbide Reinforced	○	✓		✓	ø10					ø27	D018 D019
									ø4.5	ø7					
									ø5					ø27	
									ø16					ø32	
									ø10					ø20	
									ø14					ø32	

Positive type

Applica- tion	Style	Designation	Insert	Material	Through coolant	ISO Insert	BOREMEISTER STREAMJETBAR	Min. bore diameter DMIN (mm)						Page
								0	10	20	30	40	50	
Boring & internal profiling		S-SDUCR/L-H	DC...	Steel Carbide	○	✓	✓			ø20		ø50		D057
		S-SVUCR/L-H	VC...	Steel Carbide	○	✓	✓			ø27		ø31		D063
		S-SVLCR/L-H	VC...	Steel Carbide	○	✓	✓				ø40	ø50		D020
		S-DDUNR/L-H	DN...	Steel Carbide	○	✓	✓				ø40	ø50		D073
		S-DVUNR/L-H	VN...	Steel Carbide	○	✓	✓					ø56		D075
		SDUCR/L	DC...	Steel Carbide	○	✓	✓		ø13		ø32			D056
		SDUPR/L	DP...	Steel Carbide	○		✓		ø15		ø22			D058
		SVUCR/L	VC...	Steel Carbide Reinforced	○	✓	✓		ø16		ø32			D061
		SVUBR/L	VB...	Steel Carbide Reinforced	○	✓	✓		ø20		ø32			D059
		SDQCR/L	DC...	Steel Carbide Reinforced	○	✓	✓		ø13		ø30			D076 D077
		SDQPR/L	DP...	Steel Carbide	○		✓		ø15		ø22			D078
		SVQCR/L	VC...	Steel Carbide Reinforced	○	✓	✓		ø13.5		ø21.5			D081
		SVQBR/L	VB...	Steel Carbide Reinforced	○	✓	✓		ø17		ø30.5			D079

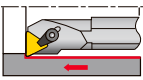
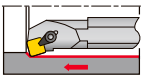
Internal Toolholder - Quick Guide

Positive type

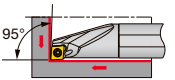
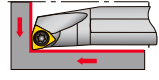
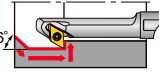
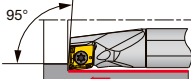
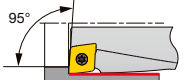
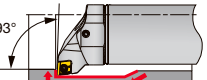
Application	Style	Designation	Insert	Material	Through coolant	ISO Insert	Min. bore diameter DMIN (mm)	Page
							0 10 20 30 40 50	
Boring & internal profiling		SYUBR/L	YW...	Steel	○	✓	ø20	D064
				Carbide	○	✓	ø20 ø24.5	
Boring		SWUBR/L	WB...	Steel	○	✓	ø6 ø8	D052
				Carbide	○	✓	ø6 ø8	
		STUPR/L	TP...	Steel	○	✓	ø8 ø34	D053 - D055
				Carbide Reinforced	○	✓	ø8 ø27 ø14 ø31	
Blind hole boring		STFPR/L	TP...	Steel	○	✓	ø10 ø27	D046
				Carbide	○	✓	ø10 ø22	
		STFCR/L	TC...	Steel	○	✓	ø12 ø18	D045
				Carbide	○	✓	ø12 ø18	
Through boring		SSKPR	SP...	Steel	○	✓	ø20 ø31	D041
Boring, un-dercutting & profiling		SYQBR/L	YW...	Steel	○	✓	ø17 ø21.5	D083
				Carbide	○	✓	ø17 ø21.5	
Back boring		SDZCR/L	DC...	Steel	○	✓	ø14 ø25	D085
				Carbide	○	✓	ø18 ø22	
		SVZCR/L	VC...	Steel	○	✓	ø16	D088
		SVZBR/L	VB...	Steel	○	✓	ø20 ø40	D087
		SEZPR/L	EP...	Steel	○	✓	ø5.5 ø6.5	D084
				Carbide	○	✓	ø5.5 ø6.5	
Internal sphere cutting		SVJCR/L	VC...	Steel	○	✓	ø16 ø20	D039
		SVJBR/L	VB...	Steel	○	✓	ø25 ø30	D038

Positive type

Clamp on

Applica- tion	Style	Designation	Insert	Material	Through coolant	ISO Insert	Min. bore diameter DMIN (mm)						Page
							0	10	20	30	40	50	
Blind hole boring		CTFPR/L	TP... Without hole	Steel Carbide		✓	ø16				ø40		D047
							ø16		ø20				
Through boring		CSKPR/L	SP... Without hole	Steel		✓	ø20				ø32		D042

Positive double side

Applica- tion	Style	Designation	Insert	Material	Through coolant	TUNGALLOY B-MINI	BOREMEISTER	MINIFURN	Min. bore diameter DMIN (mm)						Page
									0	10	20	30	40	50	
Boring & internal facing		SCLXR/L	CX...	Steel Carbide	○		✓		ø12			ø22			D021
									ø12			ø22			
		SWLXR/L	WX...	Steel Carbide	○		✓		ø12			ø22			D023
									ø12			ø22			
Boring & internal profiling		SDXXR/L	DX...	Steel Carbide	○		✓		ø13			ø24			D036
									ø13			ø24			
Back boring		SDZXR/L	DX...	Steel Carbide	○		✓		ø14			ø20			D086
									ø18			ø22			
Boring		A/E-SXUOR/L	XOMU	Steel Carbide	○	✓			ø10			ø14			D065
									ø10			ø14			
		TBM	XOMU	Steel	○	✓			ø10			ø16			D065
Boring & internal profiling		S-SXUOR05-H	XOMU	Steel Carbide	○	✓	✓					ø25		ø32	D066

Internal Toolholder - Quick Guide

Negative type

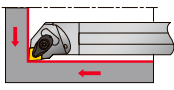
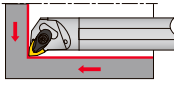
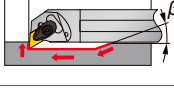
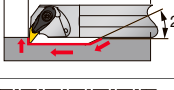
Lever lock

Application	Style	Designation	Insert	Material	Through coolant	ISO	ISO	ISO	ISO	Min. bore diameter DMIN (mm)						Page
										20	30	40	50	60	70	
Boring & internal facing		PCLNR/L	CN..., GN...	Steel Reinforced	○	✓	✓	✓	✓	ø20 ø20 ø63 ø63						D025 - D028
		PWLNR/L	WN...	Steel	○	✓	✓	✓		ø20 ø50						D031 D032
Boring & internal profiling		PDUNR/L	DN..., FN...	Steel Reinforced	○	✓	✓	✓	✓	ø25 ø63 ø40 ø63						D069 D070
		PVUNR/L	VN..., YN...	Steel	○	✓	✓	✓		ø37 ø50						D074
Boring		PTUNR/L	TN...	Steel Reinforced	○	✓	✓	✓		ø20 ø40 ø20 ø63						D067
		PTFNR/L	TN...	Steel	○	✓	✓	✓		ø32 ø63						D049 D050
Through boring		PSKNR/L	SN...	Steel	○	✓		✓		ø40 ø63						D043
Back boring		PDZNR/L	DN...	Steel	○	✓		✓		ø40 ø63						D088 D089

Negative type

Double clamp

Double clamp

Applica- cation	Style	Designation	Insert	Material	Through coolant	ISO Insert	ISO TURNING A	Min. bore diameter DMIN (mm)							Page	
								20	30	40	50	60	70			
Boring & internal facing		ACLNR/L	CN..., GN...	Steel	○	✓	✓	✓	ø32						ø63	D030
		AWLNR/L	WN...	Steel	○	✓	✓	✓	ø32						ø63	D033
Boring & internal profiling		ADUNR/L	DN..., FN...	Steel	○	✓	✓	✓	ø32						ø63	D072
		AVUNR/L	VN..., YN...	Steel	○	✓		✓		ø40			ø50		D075	
Boring		ATFNR/L	TN...	Steel	○	✓		✓	ø32		ø40				D051	
		ASKNR/L	SN...	Steel	○	✓		✓	ø32		ø40				D044	

Screw-on

Screw-on													
Applica- tion	Style	Designation	Insert	Material	Through coolant	TURNTEC	Min. bore diameter DMIN (mm)						Page
							40	50	60	70	80	90	
Boring & internal facing		S-TLANR/L	LNMX	Steel		✓	ø53				ø85	D040	

Grade

Insert

Ext. Toolholder

Int. Toolholder

Threading

Grooving

Miniature tool

Milling cutter

Endmill

Drilling tool

Tooling System

User's Guide

Index

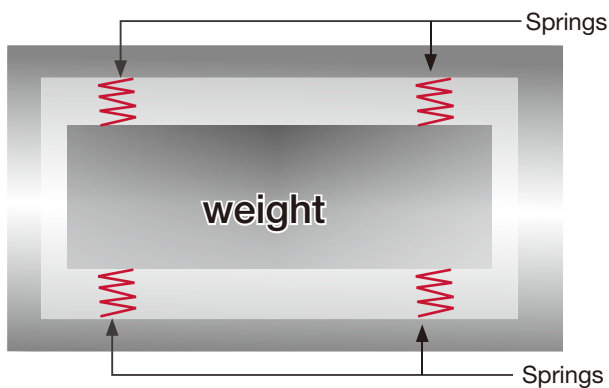


Unique anti-vibration mechanism in the tool body reduces vibration during deep hole boring with long overhangs of up to **L/D = 10**

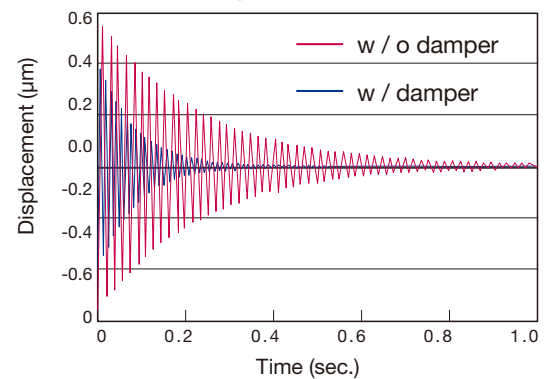
Vibration Dampening Mechanism

When cutting forces create vibration on boring bar set up with long overhangs, the bar's dampening mechanism counters the tool's motion and cancels the vibration. The dampening mechanism consists of a weight supported by spring elements. The vibrations die out quickly eliminating noise and chatter marks.

- Concept image of dampening



- Tool vibrations with and without vibration damper



Standard Lineup

BoreMeister is comprised of the anti-vibration bar and interchangeable boring head, featuring serrated interfaces for high precision indexing. They are connected by screws, allowing the fitting of a wide range of cutting heads for great flexibility.

- Minimum bore diameter : ø20 mm



Reference pages: **D017, D020, D029, D048, D050, D057, D063, D066, D073, D075, D090 - D092**



Engineered for tool strength and optimal chip evacuation

- Tool body of special alloy steel, designed to reduce chatter !



Competitor

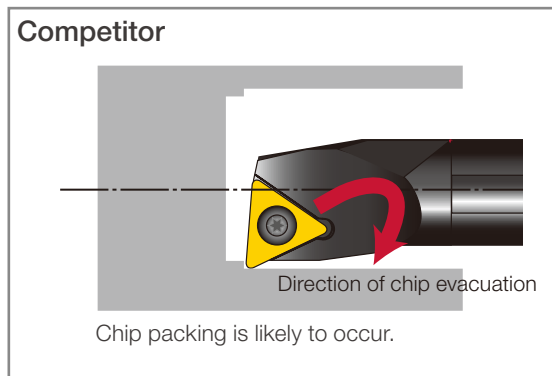
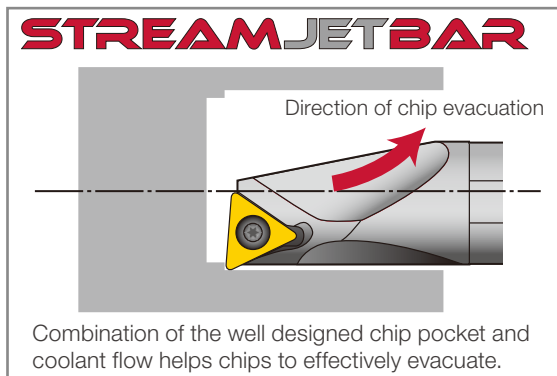


STREAMJETBAR

- Minimum bore diameter from $\varnothing 4.5$ mm
- Steel and carbide shank available
- New pocket design for excellent chip evacuation

Cutting performance

The excellent chip evacuation minimizes tool failure caused by recutting chips and poor chip control. Damage to the work surface from chips is also eliminated.



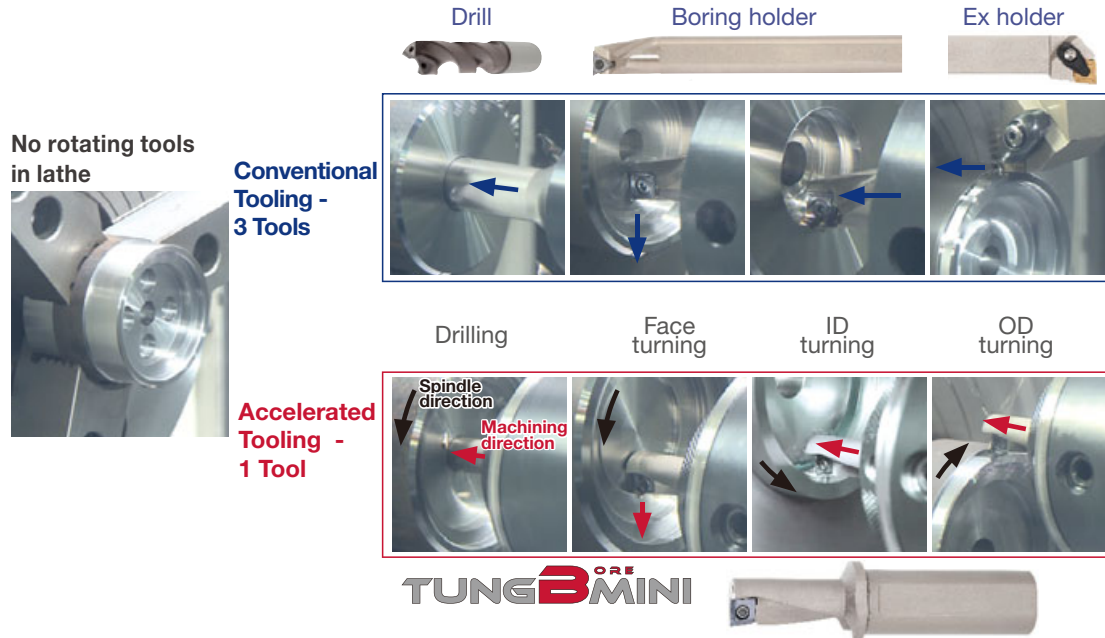
Reference pages: **D014, D018, D025, D031, D034, D036, D038, D041, D043, D045, D046, D049, D052, D053, D056, D058, D059, D061, D067, D069, D074, D076, D078, D079, D081, D084, D085, D087 - D089, D093 - D095**



Reduced machine downtime thanks to eliminating the need for tool changes. Multifunctional Tool for Drilling and Turning.

■ Minimum number of tools for maximum productivity

- A single TungBoreMini tool can handle multiple operations such as ID turning after drilling without exchanging the tools
- Allows drilling and hole enlargement on various materials, instead of using a drill and turning tool
- Can be used just like a standard ISO turning tool for ID, OD, and/or face turning applications



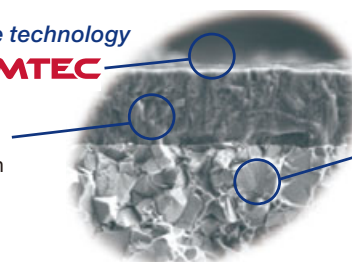
■ PVD grade: AH725

AH725 features a super tough substrate with a new PVD coating layer.

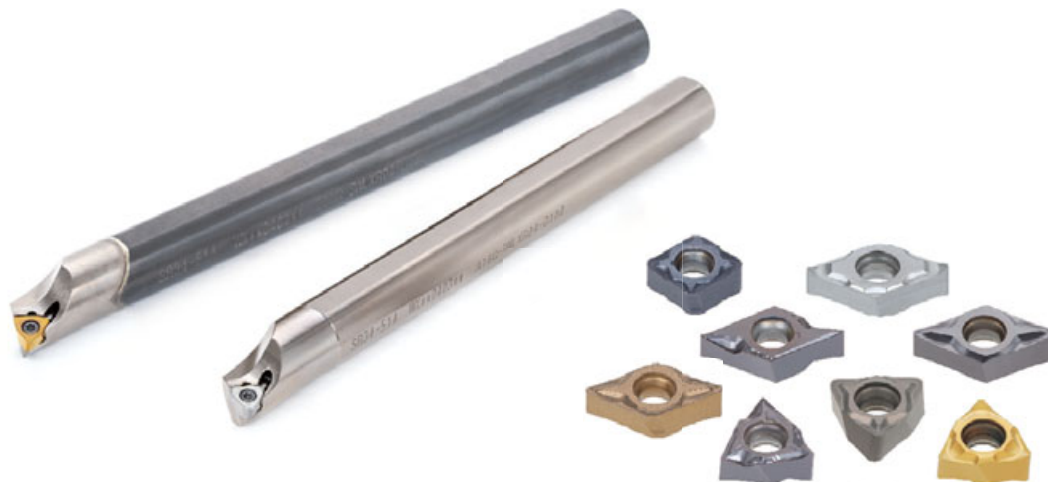
Special surface technology

PREMIUMTEC

Coating layer with excellent adhesion strength
PVD coating



Remarkable toughness
Fine grain carbide

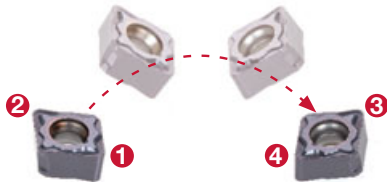


Economical double-sided positive insert

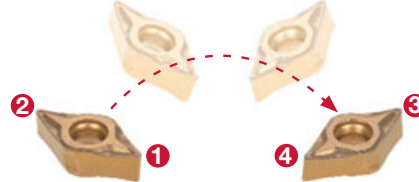
Innovative geometry and seat interface ensures stability and high performance.

■ Insert

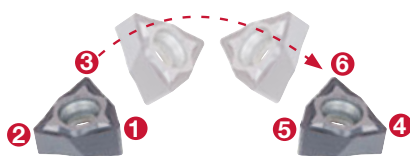
CXMU0603... 4 edges, rhombic 80°



DXM/GU0703... 4 edges, rhombic 55°



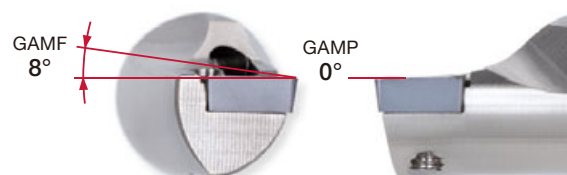
WXGU0403... 6 positive cutting edges



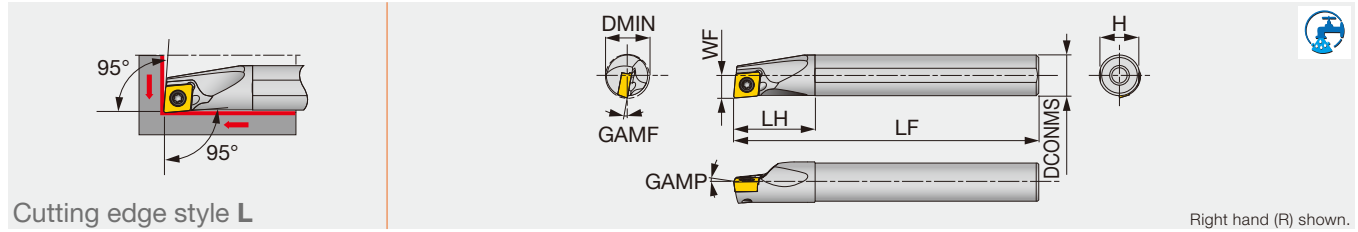
■ Low cutting force machining with high rake angle



MINIFORCE
A12M-SCLXR06-D140



Conventional
A12M-SCLCR06-D140



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	GAMP	GAMF	RE**	Insert	Torque*
A04F-SCLCR/L03-D050	Steel	5	4	2.5	80	8	3.8	0°	-15°	0.2	CC**03X1...	0.6
A05F-SCLCR/L03-D060	Steel	6	5	3	80	9	4.8	0°	-13°	0.2	CC**03X1...	0.6
A06G-SCLCR/L04-D070	Steel	7	6	3.5	90	11	5.75	0°	-13°	0.2	CC**04T1...	0.6
A07G-SCLCR/L04-D080	Steel	8	7	4	90	12	6.75	0°	-11°	0.2	CC**04T1...	0.6
A08H-SCLCR/L06-D100	Steel	10	8	5.5	100	16	7.5	0°	-13°	0.4	CC**0602...	1.2
A10F-SCLCR06-D120	Steel	12	10	6	80	20	9	0°	-10°	0.4	CC**0602...	1.2
A10K-SCLCR/L06-D120	Steel	12	10	6	125	20	9	0°	-10°	0.4	CC**0602...	1.2
A12H-SCLCR06-D140	Steel	14	12	7	100	24	11	0°	-8°	0.4	CC**0602...	1.2
A12M-SCLCR/L06-D140	Steel	14	12	7	150	24	11	0°	-8°	0.4	CC**0602...	1.2
A12H-SCLCR06-D160	Steel	16	12	9	100	24	11	0°	-7°	0.4	CC**0602...	1.2
A12M-SCLCR/L06-D160	Steel	16	12	9	150	24	11	0°	-7°	0.4	CC**0602...	1.2
A16K-SCLCR09-D180	Steel	18	16	9	125	32	15	0°	-9°	0.8	CC**09T3...	3
A16Q-SCLCR/L09-D180	Steel	18	16	9	180	32	15	0°	-10°	0.8	CC**09T3...	3
A16K-SCLCR09-D200	Steel	20	16	11	125	32	15	0°	-9°	0.8	CC**09T3...	3
A16Q-SCLCR/L09-D200	Steel	20	16	11	180	32	15	0°	-9°	0.8	CC**09T3...	3
A20R-SCLCR/L09-D220	Steel	22	20	11	200	32	18	0°	-8°	0.8	CC**09T3...	3
A25S-SCLCR/L09-D270	Steel	27	25	13.5	250	45	23	0°	-6°	0.8	CC**09T3...	3
E04G-SCLCR/L03-D050	Carbide	5	4	2.5	90	9	3.8	0°	-15°	0.2	CC**03X1...	0.6
E05G-SCLCR/L03-D060	Carbide	6	5	3	90	10	4.8	0°	-13°	0.2	CC**03X1...	0.6
E06H-SCLCR/L04-D070	Carbide	7	6	3.5	100	12	5.75	0°	-13°	0.2	CC**04T1...	0.6
E07H-SCLCR/L04-D080	Carbide	8	7	4	100	14	6.75	0°	-11°	0.2	CC**04T1...	0.6
E08G-SCLCR06-D100	Carbide	10	8	5.5	90	22	7.5	0°	-13°	0.4	CC**0602...	1.2
E08K-SCLCR/L06-D100	Carbide	10	8	5.5	125	22	7.5	0°	-13°	0.4	CC**0602...	1.2
E10F-SCLCR06-D120	Carbide	12	10	6	80	25	9	0°	-10°	0.4	CC**0602...	1.2
E10H-SCLCR06-D120	Carbide	12	10	6	100	25	9	0°	-10°	0.4	CC**0602...	1.2
E10M-SCLCR/L06-D120	Carbide	12	10	6	150	25	9	0°	-10°	0.4	CC**0602...	1.2
E12G-SCLCR06-D140	Carbide	14	12	7	90	27	11	0°	-8°	0.4	CC**0602...	1.2
E12J-SCLCR06-D140	Carbide	14	12	7	110	27	11	0°	-8°	0.4	CC**0602...	1.2
E12Q-SCLCR/L06-D140	Carbide	14	12	7	180	27	11	0°	-8°	0.4	CC**0602...	1.2
E12G-SCLCR06-D160	Carbide	16	12	9	90	27	11	0°	-7°	0.4	CC**0602...	1.2
E12J-SCLCR06-D160	Carbide	16	12	9	110	27	11	0°	-7°	0.4	CC**0602...	1.2
E12Q-SCLCR/L06-D160	Carbide	16	12	9	180	27	11	0°	-7°	0.4	CC**0602...	1.2
E16H-SCLCR09-D180	Carbide	18	16	9	100	32	15	0°	-10°	0.8	CC**09T3...	3
E16L-SCLCR09-D180	Carbide	18	16	9	130	32	15	0°	-10°	0.8	CC**09T3...	3
E16R-SCLCR/L09-D180	Carbide	18	16	9	200	32	15	0°	-10°	0.8	CC**09T3...	3
E16H-SCLCR09-D200	Carbide	20	16	11	100	32	15	0°	-9°	0.8	CC**09T3...	3
E16L-SCLCR09-D200	Carbide	20	16	11	130	32	15	0°	-9°	0.8	CC**09T3...	3
E16R-SCLCR/L09-D200	Carbide	20	16	11	200	32	15	0°	-9°	0.8	CC**09T3...	3
E20S-SCLCR09-D220	Carbide	22	20	11	250	36	18	0°	-8°	0.8	CC**09T3...	3
E25T-SCLCR09-D270	Carbide	27	25	13.5	300	45	23	0°	-6°	0.8	CC**09T3...	3

*Torque: Recommended clamping torque (N-m)

**RE: Standard corner radius

Note: Use right-hand toolholders (SCLCR**) with left-hand inserts (L); and left-hand toolholders (SCLCL**) with right-hand inserts (R).

SPARE PARTS



Designation	Clamping screw	Wrench
A**-SCLCR/L03-D...	CSTA-1.6	T-6F
A**-SCLCR/L04-D...	CSTB-2	T-6F
A**-SCLCR/L06-D...	CSTB-2.5S	T-8F
A**-SCLCR/L09-D...	CSTB-4S	T-15F
E**-SCLCR/L03-D...	CSTA-1.6	T-6F
E**-SCLCR/L04-D...	CSTB-2	T-6F
E**-SCLCR/L06-D...	CSTB-2.5S	T-8F
E16*-SCLCR/L09-D...	CSTB-4L060	T-15F
E2**-SCLCR/L09-D...	CSTB-4S	T-15F

INSERT SELECTION

P	Application	Precision finishing	Finishing	Finishing to medium cutting
	Grade	SH725	NS9530	SH725
	Breaker Shape	JP	PSS	JS
	Cutting conditions	B016		

P	Application	Medium cutting
	Grade	T9215
	Breaker Shape	PM
	Cutting conditions	B016

K	Application	Finishing to medium cutting
	Grade	T515
	Breaker Shape	CM
	Cutting conditions	B020

S	Application	Precision finishing	Finishing	Finishing to medium cutting
	Grade	BX470	AH8005	AH8015
	Breaker Shape	CBN	PS	PS
	Cutting conditions	B024		

M	Application	Precision finishing	Finishing	Finishing to medium cutting
	Grade	SH725	AH6225	SH725
	Chipbreaker shape	JP	PSS	JS
	Cutting conditions	B018		

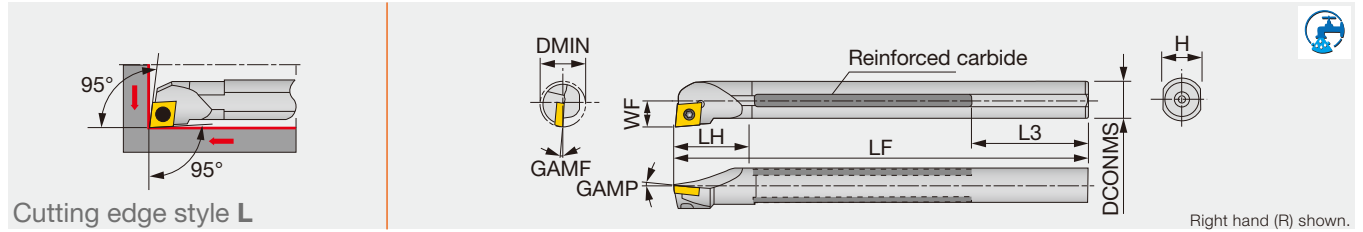
M	Application	Medium cutting
	Grade	AH6225
	Chipbreaker shape	PM
	Cutting conditions	B018

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	KS05F
	Breaker Shape	DIA	DIA with rake	AL
	Cutting conditions	B022		

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Breaker Shape	HP	HS
	Cutting conditions	B026	

T-SCLCR/L

Screw-on boring bar, for positive 80° rhombic inserts (Tsuppari-Ichiban)



Designation	Material	DMIN	CNT	DCONMS	WF	LF	LH	L3	H	GAMF	GAMP	RE**	Insert	Torque*
T12M-SCLCR/L06	Reinforced	16	—	12	9	150	22	59	11	-10°	0°	0.4	CC**0602...	1.2
T16Q-SCLCR/L09	Reinforced	20	—	16	11	180	27	59	15	-10°	0°	0.8	CC**09T3...	3
T20R-SCLCR/L09C	Reinforced	25	Rc1/4	20	13	200	35	49	18	-8°	0°	0.8	CC**09T3...	3
T25S-SCLCR/L09C	Reinforced	32	Rc1/4	25	17	250	40	64	23	-6°	0°	0.8	CC**09T3...	3

*Torque: Recommended clamping torque (N·m)

**RE: Standard corner radius

*The hole specification of applicable inserts conforms to ISO standard.

Note: Use right-hand toolholders (SCLCR**) with left-hand inserts (L); and left-hand toolholders (SCLCL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
T12M-SCLCR/L06	CSTB-2.5	T-8F
T16Q-SCLCR/L09	CSTB-4S	T-15F
T20R-SCLCR/L09C	CSTB-4S	T-15F
T25S-SCLCR/L09C	CSTB-4S	T-15F

INSERT SELECTION

P	Application	Precision finishing	Finishing	Finishing to medium cutting
	Grade	SH725	NS9530	SH725
	Breaker Shape	JP	PSS	JS
	Cutting conditions	B016		

P	Application	Medium cutting
	Grade	T9215
	Breaker Shape	PM
	Cutting conditions	B016

K	Application	Finishing to medium cutting
	Grade	T515
	Breaker Shape	CM
	Cutting conditions	B020

S	Application	Precision finishing	Finishing	Finishing to medium cutting
	Grade	BX470	AH8005	AH8015
	Breaker Shape	CBN	PS	PS
	Cutting conditions	B024		

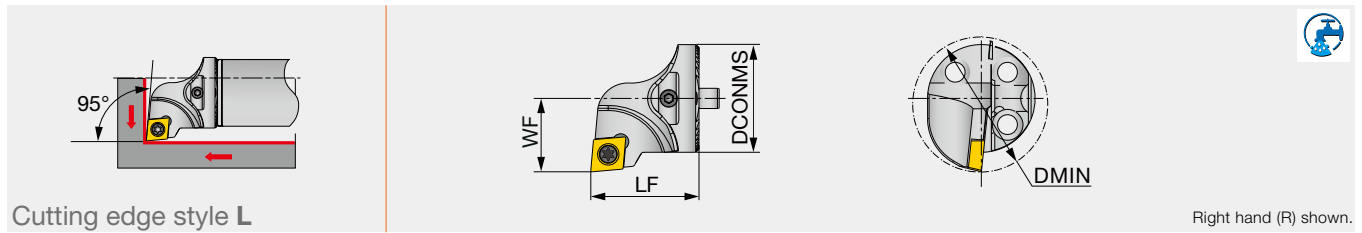
M	Application	Precision finishing	Finishing	Finishing to medium cutting
	Grade	SH725	AH6225	SH725
	Chipbreaker shape	JP	PSS	JS
	Cutting conditions	B018		

M	Application	Medium cutting
	Grade	AH6225
	Chipbreaker shape	PM
	Cutting conditions	B018

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	KS05F
	Breaker Shape	DIA	with rake DIA	AL
	Cutting conditions	B022		

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Breaker Shape	HP	HS
	Cutting conditions	B026	

Reference pages: T-SCLCR/L: Insert → **B112 -**, CBN → **B189 -**, PCD → **B213**



Designation	DMIN	DCONMS	WF	LF	Shank	Insert
S16-SCLCR/L06-H	20	16	11	20	D/G16	CC**0602...
S20-SCLCR/L09-H	25	20	13	20	D/G20	CC**09T3...
S25-SCLCR/L09-H	32	25	17	20	D25	CC**09T3...
S32-SCLCR/L09-H	40	32	22	32	D32	CC**09T3...
S40-SCLCR/L12T-H	50	40	27	38	D40, D50, D60	CC**1204...

Note: Use right-hand toolholders (SCLCR**) with left-hand inserts (L); and left-hand toolholders (SCLCL**) with right-hand inserts (R).

Designation	Clamping screw	Wrench	Shim	Shim screw
S16-SCLCR/L06-H	SR14-548	T-7/5	-	-
S20-SCLCR/L09-H	SR16-236	T-15/5	-	-
S25-SCLCR/L09-H	SR16-236	T-15/5	-	-
S32-SCLCR/L09-H	SR16-236	T-15/5	-	-
S40-SCLCR/L12T-H	SR16-212	T-20/5	TCC4-2	SRTC-4

INSERT SELECTION

P	Application	Precision finishing	Finishing		Finishing to medium cutting
	Grade	SH725	NS9530	SH725	T9215
	Breaker Shape	JP	PSS	JS	PS
	Cutting conditions B016				

P	Application	Medium cutting
	Grade	T9215
	Breaker Shape	PM
	Cutting conditions B016	

K	Application	Finishing to medium cutting
	Grade	T515
	Breaker Shape	CM
	Cutting conditions B020	

S	Application	Precision finishing	Finishing	Finishing to medium cutting
	Grade	BX470	AH8005	AH8015
	Breaker Shape	CBN	PS	PS
	Cutting conditions B024			

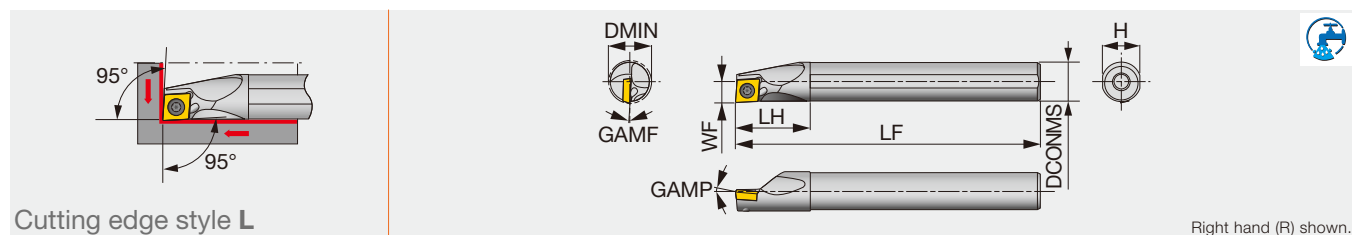
M	Application	Precision finishing	Finishing		Finishing to medium cutting
	Grade	SH725	AH6225	SH725	AH6225
	Chipbreaker shape	JP	PSS	JS	PS
	Cutting conditions B018				

M	Application	Medium cutting
	Grade	AH6225
	Chipbreaker shape	PM
	Cutting conditions B018	

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	KS05F
	Breaker Shape	DIA	DIA	AL
	Cutting conditions B022			

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Breaker Shape	HP	HS
	Cutting conditions B026		

Reference pages: S-SCLCR/L-H: Insert → **B112 -**, CBN → **B189 -**, PCD → **B213**
Shank → **D090 - D092**



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	GAMP	GAMF	RE**	Insert	Torque*
A08H-SCLPR/L06-D100	Steel	10	8	5.5	100	16	7.5	5°	-8°	0.4	CP**0602...	1.2
A10K-SCLPR/L06-D120	Steel	12	10	6	125	20	9	5°	-5°	0.4	CP**0602...	1.2
A10K-SCLPR/L08-D120	Steel	12	10	6	125	20	9	5°	-5°	0.4	CP**0802...	1.4
A12M-SCLPR/L06-D140	Steel	14	12	7	150	24	11	5°	-4°	0.4	CP**0602...	1.2
A12M-SCLPR/L08-D140	Steel	14	12	7	150	24	11	5°	-4°	0.4	CP**0802...	1.4
A12M-SCLPR/L08-D160	Steel	16	12	9	150	24	11	5°	-3°	0.4	CP**0802...	1.4
A16Q-SCLPR/L09-D180	Steel	18	16	9	180	32	15	5°	-3.5°	0.8	CP**0903...	3
A16Q-SCLPR/L09-D200	Steel	20	16	11	180	32	15	5°	-3°	0.8	CP**0903...	3
A20R-SCLPR/L09-D220	Steel	22	20	11	200	36	18	5°	-2°	0.8	CP**0903...	3
A25S-SCLPR/L09-D270	Steel	27	25	13.5	250	45	23	5°	-1°	0.8	CP**0903...	3
E08K-SCLPR/L06-D100	Carbide	10	8	5.5	125	22	7.5	5°	-8°	0.4	CP**0602...	1.2
E10M-SCLPR/L06-D120	Carbide	12	10	6	150	25	9	5°	-5°	0.4	CP**0602...	1.2
E10H-SCLPR/L08-D120	Carbide	12	10	6	100	25	9	5°	-5°	0.4	CP**0802...	1.4
E10M-SCLPR/L08-D120	Carbide	12	10	6	150	25	9	5°	-5°	0.4	CP**0802...	1.4
E12Q-SCLPR/L06-D140	Carbide	14	12	7	180	27	11	5°	-4°	0.4	CP**0602...	1.2
E12G-SCLPR/L08-D140	Carbide	14	12	7	90	27	11	5°	-4°	0.4	CP**0802...	1.4
E12J-SCLPR/L08-D140	Carbide	14	12	7	110	27	11	5°	-4°	0.4	CP**0802...	1.4
E12Q-SCLPR/L08-D140	Carbide	14	12	7	180	27	11	5°	-4°	0.4	CP**0802...	1.4
E12G-SCLPR/L08-D160	Carbide	16	12	9	90	27	11	5°	-3°	0.4	CP**0802...	1.4
E12J-SCLPR/L08-D160	Carbide	16	12	9	110	27	11	5°	-3°	0.4	CP**0802...	1.4
E12Q-SCLPR/L08-D160	Carbide	16	12	9	180	27	11	5°	-3°	0.4	CP**0802...	1.4
E16H-SCLPR/L09-D180	Carbide	18	16	9	100	32	15	5°	-3.5°	0.8	CP**0903...	3
E16L-SCLPR/L09-D180	Carbide	18	16	9	130	32	15	5°	-3.5°	0.8	CP**0903...	3
E16R-SCLPR/L09-D180	Carbide	18	16	9	200	32	15	5°	-3.5°	0.8	CP**0903...	3
E16H-SCLPR/L09-D200	Carbide	20	16	11	100	32	15	5°	-3°	0.8	CP**0903...	3
E16L-SCLPR/L09-D200	Carbide	20	16	11	130	32	15	5°	-3°	0.8	CP**0903...	3
E16R-SCLPR/L09-D200	Carbide	20	16	11	200	32	15	5°	-3°	0.8	CP**0903...	3

*Torque: Recommended clamping torque (N·m)

**RE: Standard corner radius

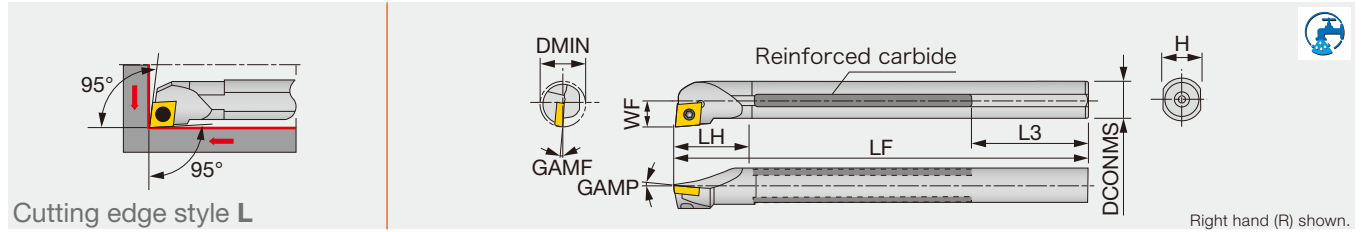
Note: Use right-hand toolholders (SCLPR**) with left-hand inserts (L); and left-hand toolholders (SCLPL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
A**-SCLPR/L06-D...	CSTB-2.5S	T-8F
A10K-SCLPR/L08-D120	CSTB-3L042	T-9F
A12M-SCLPR/L08-D...	CSTB-3L050	T-9F
A**-SCLPR/L09-D...	CSTB-4L060	T-15F
E**-SCLPR/L06-D...	CSTB-2.5S	T-8F
E10*-SCLPR/L08-D...	CSTB-3L042	T-9F
E12*-SCLPR/L08-D...	CSTB-3L050	T-9F
E16*-SCLPR/L09-D...	CSTB-4L060	T-15F

T-SCLPR/L

Screw-on boring bar, for positive 80° rhombic inserts (Tsuppari-Ichiban)



Designation	Material	DMIN	CNT	DCONMS	WF	LF	LH	L3	H	GAMF	GAMP	RE**	Insert	Torque*
T12M-SCLPR08-D14	Reinforced	14	-	12	7	150	22	59	11	-4°	5°	0.4	CP**0802...	1.4
T12M-SCLPR/L08	Reinforced	16	-	12	9	150	25	59	11	-3°	5°	0.4	CP**0802...	1.4
T16Q-SCLPR09-D18	Reinforced	18	-	16	9	180	27	59	15	-3.5°	5°	0.8	CP**0903...	3
T16Q-SCLPR/L09	Reinforced	20	-	16	11	180	30	59	15	-4°	5°	0.8	CP**0903...	3
T20R-SCLPR09C-D22	Reinforced	22	Rc1/4	20	11	200	35	49	18	-2°	5°	0.8	CP**0903...	3
T20R-SCLPR/L09	Reinforced	25	-	20	13	200	35	49	18	-2°	5°	0.8	CP**0903...	3
T25S-SCLPR09C-D27	Reinforced	27	Rc1/4	25	13.5	250	40	64	23	-1°	5°	0.8	CP**0903...	3
T25S-SCLPR/L09	Reinforced	32	-	25	17	250	40	64	23	0°	5°	0.8	CP**0903...	3

*Torque: Recommended clamping torque (N-m)

**RE: Standard corner radius

Note: Use right-hand toolholders (SCLPR**) with left-hand inserts (L); and left-hand toolholders (SCLPL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
T12M-SCLPR/L08...	CSTB-3L050	T-9F
T16Q-SCLPR09-D18	CSTB-4L060	T-15F
T16Q-SCLPR/L09	CSTB-4S	T-15F
T20R-SCLPR09C-D22	CSTB-4L060	T-15F
T20R-SCLPR/L09	CSTB-4S	T-15F
T25S-SCLPR09C-D27	CSTB-4L060	T-15F
T25S-SCLPR/L09	CSTB-4S	T-15F

INSERT SELECTION

Application	Finishing	Finishing to medium cutting	Medium cutting
Grade	NS9530	T9215	T9215
Breaker Shape	PSS	PS	PM
Cutting conditions	B016		

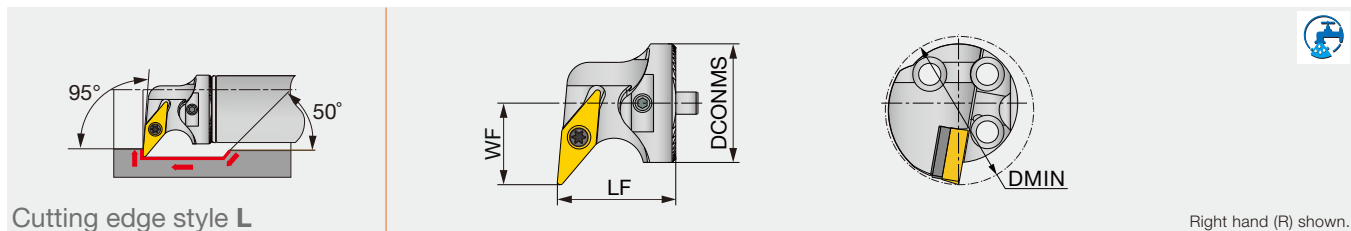
Application	Finishing to medium cutting
Grade	T515
Breaker Shape	CM
Cutting conditions	B020

Application	Finishing	Finishing to medium cutting
Grade	AH8005	AH8015
Breaker Shape	PSS	PS
Cutting conditions	B024	

Application	Finishing	Finishing to medium cutting	Medium cutting
Grade	AH6225	AH6225	AH6225
Chipbreaker shape	PSS	PS	PM
Cutting conditions	B018		

Application	Finishing
Grade	DX140
Breaker Shape	DIA
Cutting conditions	B022

Reference pages: T-SCLPR/L: Insert → **B118** -, CBN → **B192**



Cutting edge style L

Right hand (R) shown.

Designation	DMIN	DCONMS	WF	LF	Shank	Insert
S32-SVLCR/L16T-H	40	32	22	32	D32	VC**1604...
S40-SVLCR/L16T-H	50	40	27	32	D40, D50, D60	VC**1604...

Note: Use right-hand toolholders (SVLCR**) with left-hand inserts (L); and left-hand toolholders (SVLCL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench	Shim	Shim screw
S32-SVLCR/L16T-H	SR16-236P	T-15/5	TVC 3-1P	SRTC-3P
S40-SVLCR/L16T-H	SR16-236P	T-15/5	TVC 3-1P	SRTC-3P

INSERT SELECTION

P	Application	Finishing	Finishing to medium cutting
	Grade	NS9530	T9215
	Breaker Shape	PSS	PS
	Cutting conditions	B016	

M	Application	Finishing	Finishing to medium cutting
	Grade	AH6225	AH6225
	Chipbreaker shape	PSS	PS
	Cutting conditions	B018	

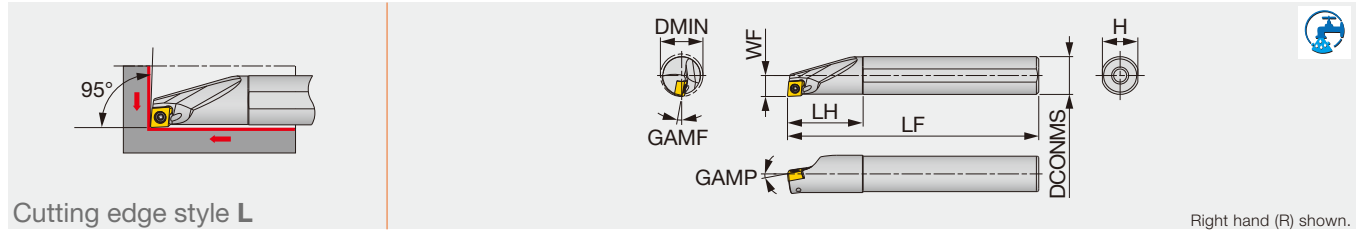
K	Application	Finishing to medium cutting
	Grade	T515
	Breaker Shape	CM
	Cutting conditions	B020

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	KS05F
	Breaker Shape	DIA	with rake DIA	AL
	Cutting conditions	B022		

S	Application	Finishing	Finishing to medium cutting
	Grade	AH8005	AH8015
	Breaker Shape	PS	PS
	Cutting conditions	B024	

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Breaker Shape	CBN	CBN
	Cutting conditions	B026	

Reference pages: S-SVLCR/L-H: Insert → **B152 -**, CBN → **B209**, PCD → **B220**
Shank → **D090 - D092**



Cutting edge style L

Right hand (R) shown.

Designation	Material	DMIN	DCONMS	WF	LF	LH	H	GAMP	GAMF	RE**	Insert	Torque*
A10K-SCLXR/L06-D120	Steel	12	10	6	125	20	9	-10°	-14.5°	0.4	CXMU0603**L/R...	0.9
A12M-SCLXR/L06-D140	Steel	14	12	7	150	24	11	-10°	-12.5°	0.4	CXMU0603**L/R...	0.9
A16Q-SCLXR/L06-D180	Steel	18	16	9	180	32	15	-10°	-9.5°	0.4	CXMU0603**L/R...	0.9
A20R-SCLXR/L06-D220	Steel	22	20	11	200	36	18	-10°	-8°	0.4	CXMU0603**L/R...	0.9
E10M-SCLXR/L06-D120	Carbide	12	10	6	150	25	9	-10°	-14.5°	0.4	CXMU0603**L/R...	0.9
E12Q-SCLXR/L06-D140	Carbide	14	12	7	180	27	11	-10°	-12.5°	0.4	CXMU0603**L/R...	0.9
E16R-SCLXR/L06-D180	Carbide	18	16	9	200	32	15	-10°	-9.5°	0.4	CXMU0603**L/R...	0.9
E20S-SCLXR/L06-D220	Carbide	22	20	11	250	36	18	-10°	-8°	0.4	CXMU0603**L/R...	0.9

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

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
A/E**SCLXR/L...	SR34-514	T-7F

- 1 Use the right hand toolholder (R) for the left hand insert (L)
- 2 Use the left hand toolholder (L) for the right hand insert (R)



1 Right hand toolholder with left hand insert shown



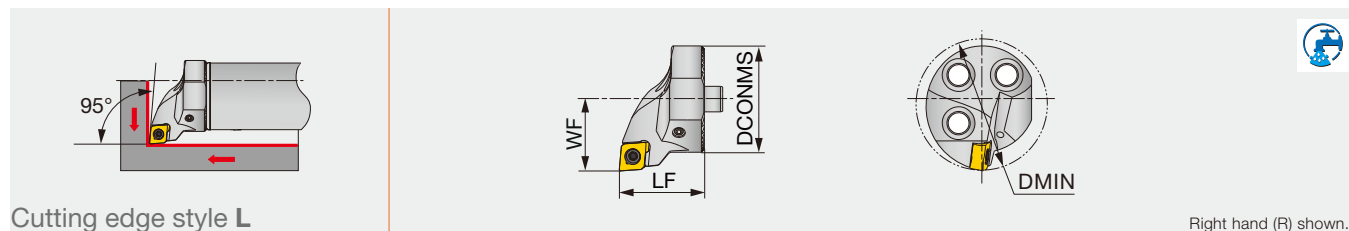
2 Left hand toolholder with right hand insert shown

INSERT SELECTION

P	Application	Finishing to medium cutting	Medium cutting	M	Application	Finishing to medium cutting	Medium cutting
	Grade	T9215	T9215		Grade	AH8015	AH8015
	Breaker Shape	TS	TS		Breaker Shape	TS	TS
	Cutting conditions	B096			Cutting conditions	B096	
K	Application	Finishing to medium cutting	Medium cutting	S	Application	Finishing to medium cutting	Medium cutting
	Grade	T9215	T9215		Grade	AH8015	AH8015
	Breaker Shape	TS	TS		Breaker Shape	TS	TS
	Cutting conditions	B096			Cutting conditions	B096	

Reference pages: A/E-SCLXR/L: Insert → **B120**

Standard cutting conditions → **D096**



Designation	DMIN	DCONMS	WF	LF	Shank	Insert
S25-SCLXR/L06-H	32	25	17	20	D25	CXMU0603**L/R...
S32-SCLXR/L06-H	40	32	22	32	D32	CXMU0603**L/R...
S40-SCLXR/L06-H	50	40	27	32	D40, D50, D60	CXMU0603**L/R...

Note: Use right-hand toolholders (SCLXR**) with left-hand inserts (L); and left-hand toolholders (SCLXL**) with right-hand inserts (R).

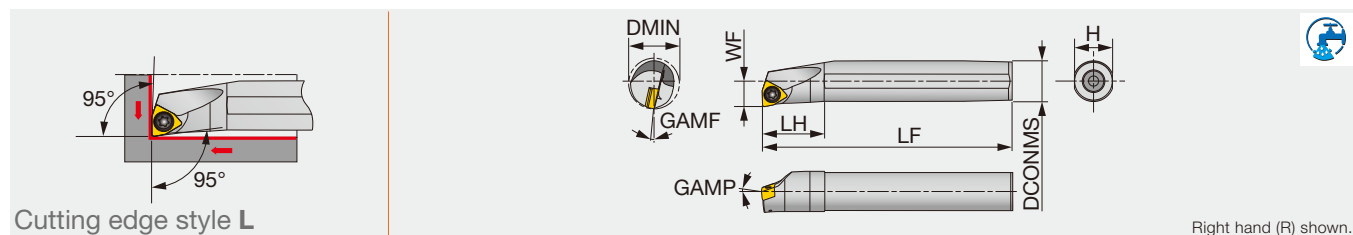
SPARE PARTS

Designation	Clamping screw	Wrench
S**-SCLXR/L06-H	SR34-514	T-7F

INSERT SELECTION

P	Application	Finishing to medium cutting	Medium cutting
	Grade	T9215	T9215
	Breaker Shape	TS	TS
	Cutting conditions	B096	
M	Application	Finishing to medium cutting	Medium cutting
	Grade	AH8015	AH8015
	Breaker Shape	TS	TS
	Cutting conditions	B096	
K	Application	Finishing to medium cutting	Medium cutting
	Grade	T9215	T9215
	Breaker Shape	TS	TS
	Cutting conditions	B096	
S	Application	Finishing to medium cutting	Medium cutting
	Grade	AH8015	AH8015
	Breaker Shape	TS	TS
	Cutting conditions	B096	

Reference pages: S-SCLXR/L-H: Insert → **B120**, Shank → **D090 - D092**
Standard cutting conditions → **D096**



Cutting edge style L

Right hand (R) shown.

Designation	Material	DMIN	DCONMS	WF	LF	LH	H	GAMP	GAMPF	RE**	Insert	Torque*
A10K-SWLXR/L04-D120	Steel	12	10	6	125	20	9	-10°	-16°	0.4	WXGU0403**L/R...	0.9
A12M-SWLXR/L04-D140	Steel	14	12	7	150	24	11	-10°	-14°	0.4	WXGU0403**L/R...	0.9
A16Q-SWLXR/L04-D180	Steel	18	16	9	180	32	15	-10°	-11°	0.4	WXGU0403**L/R...	0.9
A20R-SWLXR/L04-D220	Steel	22	20	11	200	36	18	-10°	-10°	0.4	WXGU0403**L/R...	0.9
E10M-SWLXR/L04-D120	Carbide	12	10	6	150	25	9	-10°	-16°	0.4	WXGU0403**L/R...	0.9
E12Q-SWLXR/L04-D140	Carbide	14	12	7	180	27	11	-10°	-14°	0.4	WXGU0403**L/R...	0.9
E16R-SWLXR/L04-D180	Carbide	18	16	9	200	32	15	-10°	-11°	0.4	WXGU0403**L/R...	0.9
E20S-SWLXR/L04-D220	Carbide	22	20	11	250	36	18	-10°	-10°	0.4	WXGU0403**L/R...	0.9

*Torque: Recommended clamping torque (N-m) **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
A/E**SWLXR/L...	SR34-514	T-7F

INSERT SELECTION

P	Application	Precision finishing	Finishing		Finishing to medium cutting
	Grade	SH725	SH725	NS9530	AH8015
	Breaker Shape	JS 	JTS 	SS 	TS 
	Cutting conditions	B096			

P	Application	Medium cutting
	Grade	AH8015
	Breaker Shape	TS 
	Cutting conditions	B096

K	Application	Precision finishing	Finishing		Finishing to medium cutting
	Grade	SH725	SH725	NS9530	AH8015
	Breaker Shape	JS 	JTS 	SS 	TS 
	Cutting conditions	B096			

K	Application	Medium cutting
	Grade	AH8015
	Breaker Shape	TS 
	Cutting conditions	B096

H	Application	Finishing	Finishing to medium cutting	Medium cutting
	Grade	BXA10	BXA20	BXA20
	Breaker Shape	HP 		
	Cutting conditions	B096		

M	Application	Precision finishing	Finishing		Finishing to medium cutting
	Grade	SH725	SH725	AH8015	AH8015
	Breaker Shape	JS 	JTS 	SS 	TS 
	Cutting conditions	B096			

M	Application	Medium cutting
	Grade	AH8015
	Breaker Shape	TS 
	Cutting conditions	B096

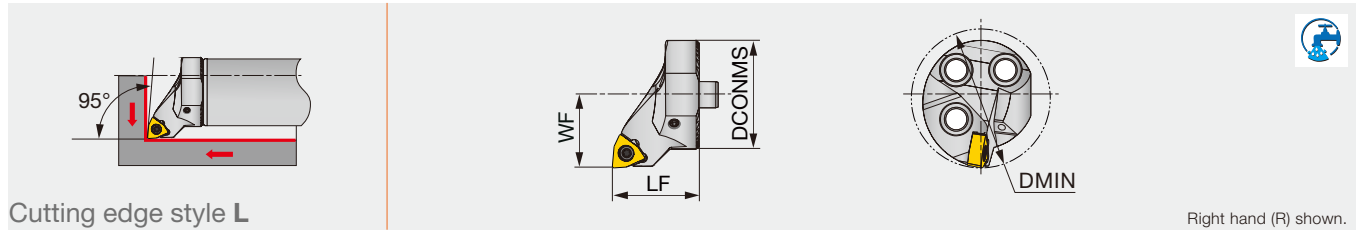
N	Application	Finishing	Finishing to medium cutting	Medium cutting
	Grade	KS05F	KS05F	KS05F
	Breaker Shape	SS 	TS 	TS 
	Cutting conditions	B096		

S	Application	Precision finishing	Finishing		Finishing to medium cutting
	Grade	SH725	SH725	AH8015	AH8015
	Breaker Shape	JS 	JTS 	SS 	TS 
	Cutting conditions	B096			

S	Application	Medium cutting
	Grade	AH8015
	Breaker Shape	TS 
	Cutting conditions	B096

Reference pages: A/E-SWLXR/L: Insert → **B157** -

Standard cutting conditions → **D096**



Designation	DMIN	DCONMS	WF	LF	Shank	Insert
S25-SWLXR/L04-H	32	25	17	20	D25	WXGU...
S32-SWLXR/L04-H	40	32	22	32	D32	WXGU...
S40-SWLXR/L04-H	50	40	27	32	D40, D50, D60	WXGU...

Note: Use right-hand toolholders (SWLXR**) with left-hand inserts (L); and left-hand toolholders (SWLXL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
S**-SWLXR/L04-H	SR34-514	T-7F

INSERT SELECTION

P	Application	Precision finishing		Finishing		Finishing to medium cutting			
	Grade	SH725		SH725	NS9530	AH8015			
	Breaker Shape	JS		JTS		SS		TS	
	Cutting conditions	B096							

P	Application	Medium cutting	
	Grade	AH8015	
	Breaker Shape	TS	
	Cutting conditions	B096	

K	Application	Precision finishing	Finishing		Finishing to medium cutting				
	Grade	SH725	SH725	NS9530	AH8015				
	Breaker Shape	JS		JTS		SS		TS	
	Cutting conditions	B096							

K	Application	Medium cutting	
	Grade	AH8015	
	Breaker Shape	TS	
	Cutting conditions	B096	

H	Application	Finishing	Finishing to medium cutting	Medium cutting	
	Grade	BXA10	BXA20	BXA20	
	Breaker Shape	HP		CBN	
	Cutting conditions	B096			

M	Application	Precision finishing	Finishing		Finishing to medium cutting				
	Grade	SH725	SH725	AH8015		AH8015			
	Chipbreaker shape	JS		JTS		SS		TS	
	Cutting conditions	B096							

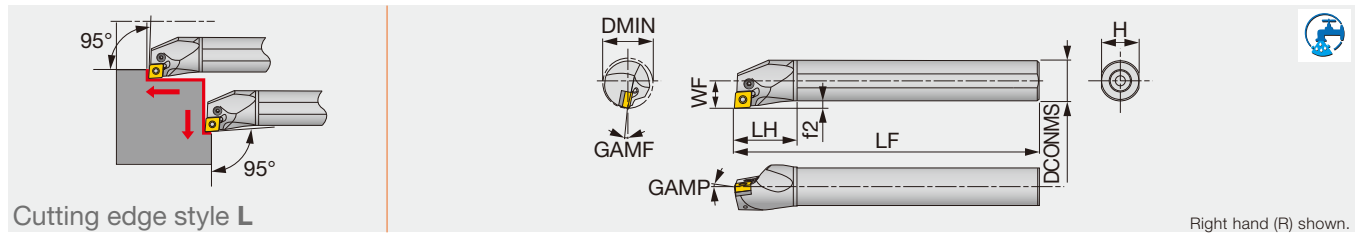
M	Application	Medium cutting	
	Grade	AH8015	
	Chipbreaker shape		
	Cutting conditions	B096	

N	Application	Finishing	Finishing to medium cutting	Medium cutting			
	Grade	KS05F	KS05F	KS05F			
	Breaker Shape	SS		TS		TS	
	Cutting conditions	B096					

S	Application	Precision finishing	Finishing		Finishing to medium cutting				
	Grade	SH725	SH725	AH8015		AH8015			
	Breaker Shape	JS		JTS		SS		TS	
	Cutting conditions	B096							

S	Application	Medium cutting	
	Grade	AH8015	
	Breaker Shape		
	Cutting conditions	B096	

Reference pages: S-SWLXR/L-H: Insert → **B157 -**, Shank → **D090 - D092**
Standard cutting conditions → **D096**



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A16M-PCLNR/L0904-D200	Steel	20	16	11	150	32	15	3	-6°	-16°	0.8	CN**/GNMG0904...	1.7
A20Q-PCLNR/L0904-D250	Steel	25	20	13	180	36	18	3	-6°	-12°	0.8	CN**/GNMG0904...	1.7
A16M-PCLNR/L09-D200	Steel	20	16	11	150	32	15	3	-6°	-14°	0.8	CN**0903...	1.7
A20Q-PCLNR/L09-D250	Steel	25	20	13	180	36	18	3	-6°	-12°	0.8	CN**0903...	1.7
A25R-PCLNR/L09-D320	Steel	32	25	17	200	45	23	4.5	-6°	-11°	0.8	CN**0903...	1.7
A25R-PCLNR/L12-D320	Steel	32	25	17	200	45	23	4.5	-6°	-13°	0.8	CN**/GNGA1204...	2.7
A32S-PCLNR/L12-D400	Steel	40	32	22	250	50	30	6	-6°	-11°	0.8	CN**/GNGA1204...	4.8
A40T-PCLNR/L12-D500	Steel	50	40	27	300	60	37	7	-6°	-10°	0.8	CN**/GNGA1204...	4.8
A50U-PCLNR/L12-D630	Steel	63	50	35	350	65	47	10	-6°	-8°	0.8	CN**/GNGA1204...	4.8

*Torque: Recommended clamping torque (N-m)

**RE: Standard corner radius

Note: Use right-hand toolholders (PCLNR**) with left-hand inserts (L); and left-hand toolholders (PCLNL**) with right-hand inserts (R).

SPARE PARTS

Designation	Shim	Clamping screw 1	Clamping screw 2	Wrench 1	Wrench 2	Spring pin	Lever	Oil supply attachment*	Screw for oil hole*
A16M-PCLNR/L0904-D200	-	-	LCS33	P-2F	-	-	LCL33N	-	SSHM3-4
A20Q-PCLNR/L0904-D250	-	-	LCS33	P-2F	-	-	LCL33N	EA-20	SSHM3-4
A**-PCLNR/L09-D**0	-	LCS22A	-	P-2F	-	-	LCL32N	EA-25	SSHM5-6
A25R-PCLNR/L12-D320	-	LCS43	-	-	P-2.5	-	LCL43N	EA-25	SSHM5-6
A32S-PCLNR12-D400	LSC42BR	-	LCS4	-	P-3	LSP4	LCL4	EA-32	SSHM5-6
A32S-PCLNR12-D400	LSC42BL	-	LCS4	-	P-3	LSP4	LCL4	-	SSHM6-6
A40T-PCLNR12-D500	LSC42BR	-	LCS4	-	P-3	LSP4	LCL4	-	SSHM6-6
A40T-PCLNR12-D500	LSC42BL	-	LCS4	-	P-3	LSP4	LCL4	-	SSHM6-6
A50U-PCLNR12-D630	LSC42BR	-	LCS4	-	P-3	LSP4	LCL4	-	SSHM6-6
A50U-PCLNR12-D630	LSC42BL	-	LCS4	-	P-3	LSP4	LCL4	-	SSHM6-6

*Optional

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Breaker Shape	TF	TSF	TM	TH
Cutting conditions B004					

K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Breaker Shape	All-round	All-round	All-round
Cutting conditions B008				

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	CBN	HRF	HRM
	Breaker Shape			
Cutting conditions B012				

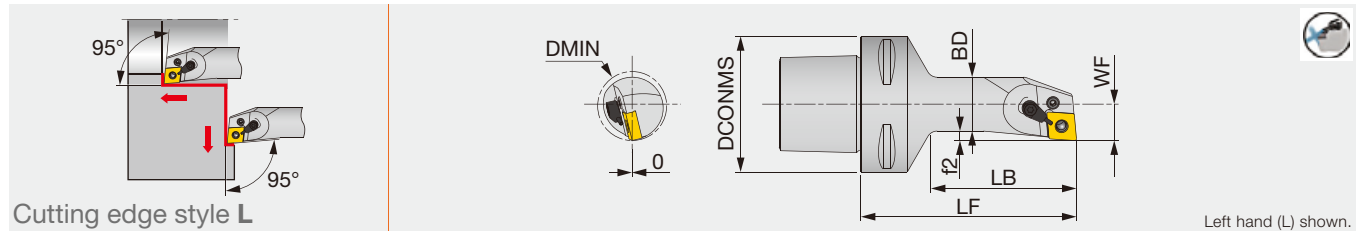
M	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T6215	AH6225	AH6225
	Chipbreaker shape	SF	SM	SH
Cutting conditions B006				

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	TH10
	Breaker Shape	DIA	with rake DIA	P
Cutting conditions B010				

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Breaker Shape	HP	HS
Cutting conditions B014			

Reference pages: A-PCLNR/L: Insert → **B054 - , B075**, CBN → **B168 -**, PCD → **B211**

Lever-lock boring bar with TungCap connection, with 95° approach angle, for negative 80°/70° rhombic inserts, with high pressure coolant capability



Designation	DMIN	DCONMS	BD	LF	LB	WF	f2	RE**	Insert
C6PCLNL17100-12-CHP	32	63	25	100	67.5	17	4.5	0.8	CN**/GNGA1204...

Applicable for 14 MPa coolant

**RE: Standard corner radius

SPARE PARTS

Designation	Clamping screw	Coolant unit	Wrench	Lever
C6PCLNL17100-12-CHP	LCS43	S-CU-CHP	P-2.5F	LCL43N

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Breaker Shape	TF	TSF	TM	TH
	Cutting conditions	B004			

K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Breaker Shape	All-round	All-round	All-round
	Cutting conditions	B008		

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX815	AH8005	AH8005
	Breaker Shape	CBN	HRF	HRM
	Cutting conditions	B012		

M	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T6215	AH6225	AH6225
	Chipbreaker shape	SF	SM	SH
	Cutting conditions	B006		

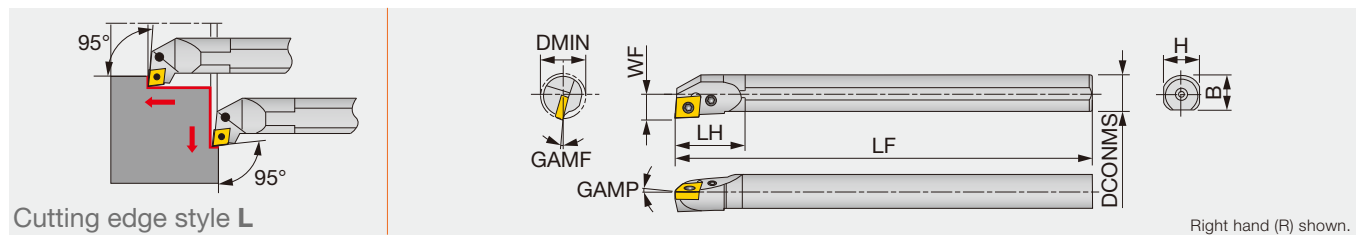
N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	TH10
	Breaker Shape	DIA	with rake DIA	P
	Cutting conditions	B010		

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Breaker Shape	HP	HS
	Cutting conditions	B014	

Reference pages: C-PCLNL-CHP: Insert → **B054** -, CBN → **B168** -, PCD → **B211**

S-PCLNR/L

Lever-lock boring bar, for negative 80°/70° rhombic inserts



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	B	GAMP	GAMF	RE**	Insert	Torque*
S16M-PCLNR/L09	Steel	20	16	11	150	30	15	15.5	-6°	-14°	0.8	CN**0903...	1.7
S20Q-PCLNR/L09	Steel	25	20	13	180	35	18	19	-6°	-12°	0.8	CN**0903...	1.7
S25R-PCLNR/L09	Steel	32	25	17	200	40	23	24	-6°	-11°	0.8	CN**0903...	1.7
S32S-PCLNR/L12	Steel	40	32	22	250	50	30	29.5	-6°	-11°	0.8	CN**/GNGA1204...	4.8
S40T-PCLNR/L12	Steel	50	40	27	300	55	37	37.5	-6°	-10°	0.8	CN**/GNGA1204...	4.8
S50U-PCLNR/L12	Steel	63	50	35	350	65	47	47.5	-6°	-8°	0.8	CN**/GNGA1204...	4.8

*Torque: Recommended clamping torque (N·m)

**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).

Designation	Shim	Clamping screw 1	Clamping screw 2	Wrench 1	Wrench 2	Spring pin	Lever
S**-PCLNR/L09	-	LCS22A	-	P-2F	-	-	LCL32N
S32S-PCLNR/L12	LSC42BR/L	-	LCS4	-	P-3	LSP4	LCL4
S40T-PCLNR/L12	LSC42BR/L	-	LCS4	-	P-3	LSP4	LCL4
S50U-PCLNR/L12	LSC42BR/L	-	LCS4	-	P-3	LSP4	LCL4

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Breaker Shape	TF	TSF	TM	TH
	Cutting conditions B004				

K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Breaker Shape	All-round	All-round	All-round
	Cutting conditions B008			

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX815	AH8005	AH8005
	Breaker Shape	CBN	HRF	HRM
	Cutting conditions B012			

M	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T6215	AH6225	AH6225
	Chipbreaker shape	SF	SM	SH
	Cutting conditions B006			

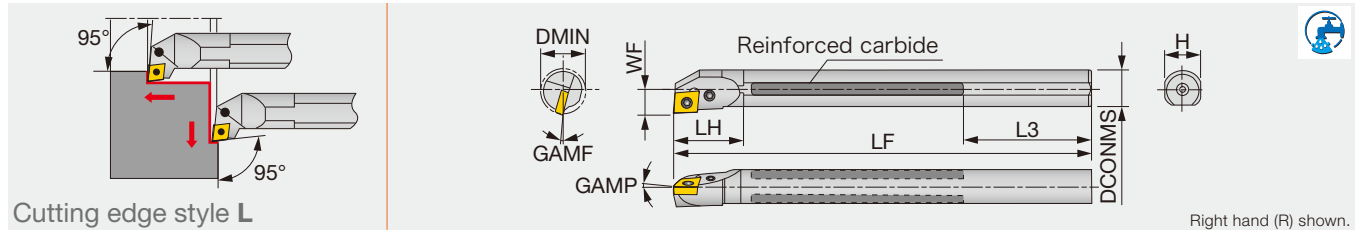
N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	TH10
	Breaker Shape	DIA	with rake DIA	P
	Cutting conditions B010			

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Breaker Shape	HP	HS
	Cutting conditions B014		

Reference pages: S-PCLNR/L: Insert → **B054** -, CBN → **B168** -, PCD → **B211**

T-PCLNR

Lever-lock boring bar, for negative 80°/70° rhombic inserts (Tsuppari-Ichiban)



Designation	Material	DMIN	CNT	DCONMS	WF	LF	LH	L3	H	GAMP	GAMF	RE**	Insert	Torque*
T16Q-PCLNR09	Reinforced	20	-	16	11	180	27	59	15	-6°	-14°	0.8	CN**0903...	1.7
T20R-PCLNR09C	Reinforced	25	Rc1/4	20	13	200	35	49	18	-6°	-12°	0.8	CN**0903...	1.7
T25S-PCLNR09C	Reinforced	32	Rc1/4	25	17	250	40	64	23	-6°	-11°	0.8	CN**0903...	1.7
T32U-PCLNR12C	Reinforced	40	Rc1/2	32	22	350	50	103	30	-6°	-11°	0.8	CN**/GNGA1204...	4.8
T40V-PCLNR12C	Reinforced	50	Rc1/2	40	27	400	55	88	37	-6°	-10°	0.8	CN**/GNGA1204...	4.8
T50W-PCLNR12C	Reinforced	63	Rc1/2	50	35	450	65	63	47	-6°	-8°	0.8	CN**/GNGA1204...	4.8

*Torque: Recommended clamping torque (N·m)

**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	Shim	Clamping screw 1	Clamping screw 2	Wrench 1	Wrench 2	Spring pin	Lever
T**-PCLNR09...	-	LCS22A	-	P-2F	-	-	LCL32N
T**-PCLNR12C	LSC42BR	-	LCS4	-	P-3	LSP4	LCL4

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Breaker Shape	TF	TSF	TM	TH
	Cutting conditions	B004			

K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Breaker Shape	All-round	All-round	All-round
	Cutting conditions	B008		

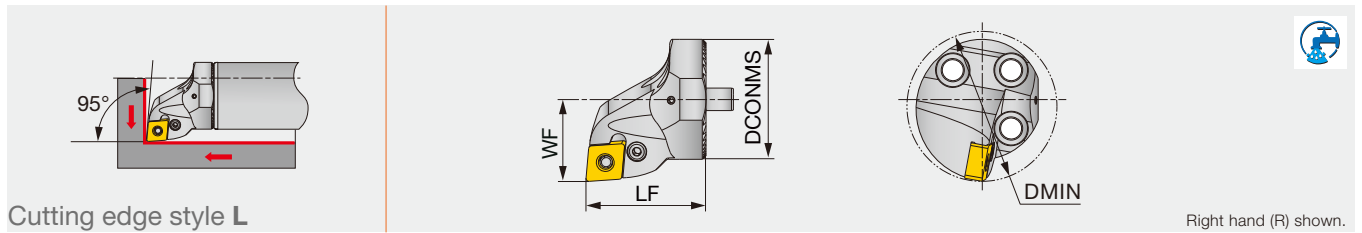
S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX815	AH8005	AH8005
	Breaker Shape	CBN	HRF	HRM
	Cutting conditions	B012		

M	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T6215	AH6225	AH6225
	Chipbreaker shape	SF	SM	SH
	Cutting conditions	B006		

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	TH10
	Breaker Shape	DIA	with rake DIA	P
	Cutting conditions	B010		

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Breaker Shape	HP	HS
	Cutting conditions	B014	

Reference pages: T-PCLNR: Insert → **B054** -, CBN → **B168** -, PCD → **B211**



Cutting edge style L

Right hand (R) shown.

Designation	DMIN	DCONMS	WF	LF	Shank	Insert
S32-PCLNR/L09-H	40	32	22	32	D32	CN**/GNMG0904...
S40-PCLNR/L09-H	50	40	27	32	D40, D50, D60	CN**/GNMG0904...

Note: Use right-hand toolholders (PCLNR**) with left-hand inserts (L); and left-hand toolholders (PCLNL**) with right-hand inserts (R).

SPARE PARTS

Designation	Lever	Clamping screw	Shim	Spring pin	Wrench
S32-PCLNR/L09-H	LCL33N	LCS33	-	-	P-2F
S40-PCLNR/L09-H	LCL33	LCS3	LSC317	LSP3	P-2.5

INSERT SELECTION

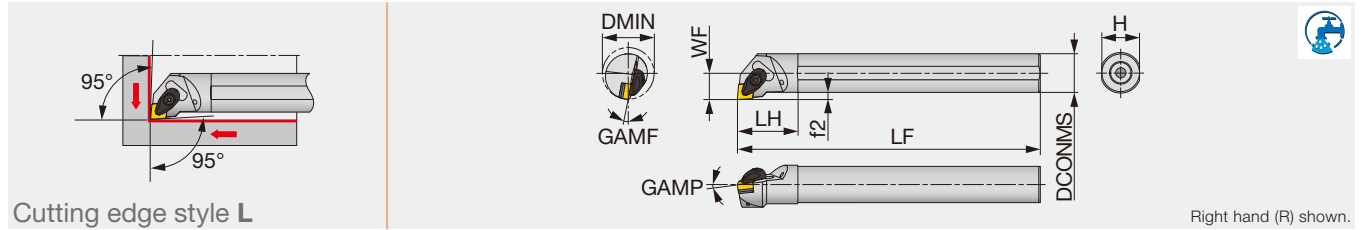
P	Application	Finishing	Medium cutting
	Grade	T9215	T9215
	Chipbreaker shape	TSF	TM
	Cutting conditions	B004	

M	Application	Finishing	Medium cutting
	Grade	AH6225	AH6225
	Chipbreaker shape	SS	SM
	Cutting conditions	B006	

K	Application	Medium cutting
	Grade	T515
	Chipbreaker shape	TM
	Cutting conditions	B008

S	Application	Medium cutting
	Grade	AH8015
	Chipbreaker shape	TM
	Cutting conditions	B012

Reference pages: S-PCLNR/L-H: Insert → **B054 - , B075**, CBN → **B168 -**, PCD → **B211**
Shank → **D090 - D092**



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A25R-ACLNR/L0904-D320	Steel	32	25	17	200	45	23	4.5	-6°	-13°	0.8	CN**/GNMG0904...	3
A32S-ACLNR/L0904-D400	Steel	40	32	22	250	50	30	6	-6°	-10°	0.8	CN**/GNMG0904...	3
A25R-ACLNR/L12-D320	Steel	32	25	17	200	45	23	4.5	-6°	-13°	0.8	CN**/GNGA1204...	3
A32S-ACLNR/L12-D400	Steel	40	32	22	250	50	30	6	-6°	-10°	0.8	CN**/GNGA1204...	3
A40T-ACLNR/L12-D500	Steel	50	40	27	300	55	37	7	-6°	-8°	0.8	CN**/GNGA1204...	3
A50U-ACLNR12-D630	Steel	63	50	35	350	65	47	10	-6°	-7°	0.8	CN**/GNGA1204...	3

*Torque: Recommended clamping torque (N·m)

**RE: Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
A**-ACLNR/L0904-D...	ACP3S-E	ACS-5W	BP-7	SP-2.5	ASC322	CSTB-3.5	T-15F
A**-ACLNR/L12-D...	ACP4S	ACS-5W	BP-7	SP-2.5	ASC422	CSTB-3.5	T-15F

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Breaker Shape	TF	TSF	TM	TH
	Cutting conditions	B004			

M	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T6215	AH6225	AH6225
	Chipbreaker shape	SF	SM	SH
	Cutting conditions	B006		

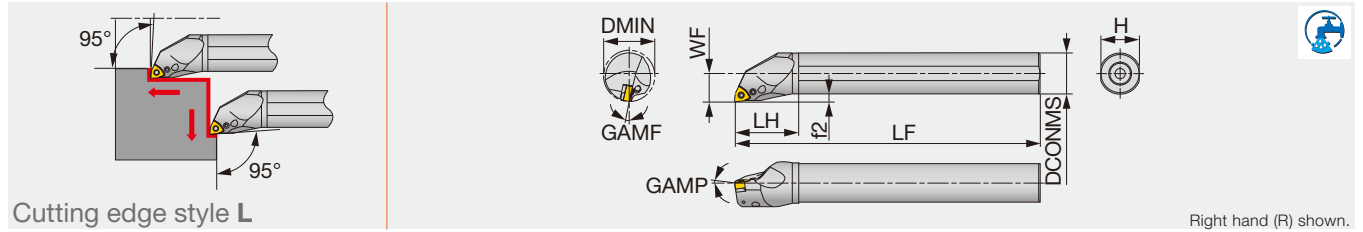
K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Breaker Shape	All-round	All-round	All-round
	Cutting conditions	B008		

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	TH10
	Breaker Shape	DIA	with rake DIA	P
	Cutting conditions	B010		

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX815	AH8005	AH8005
	Breaker Shape	CBN	HRF	HRM
	Cutting conditions	B012		

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Breaker Shape	HP	HS
	Cutting conditions	B014	

Reference pages: A-ACLNR/L: Insert → **B054 -**, **B075**, CBN → **B168 -**, PCD → **B211**



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A16M-PWLNLR/L0604-D200	Steel	20	16	11	150	32	15	3	-8°	-17°	0.8	WN**0604...	1.7
A20Q-PWLNLR/L0604-D250	Steel	25	20	13	180	36	18	3	-6°	-14°	0.8	WN**0604...	1.7
A16M-PWLNLR/L06-D200	Steel	20	16	11	150	32	15	3	-8°	-17°	0.8	WN**0604...	1.7
A20Q-PWLNLR/L06-D250	Steel	25	20	13	180	36	18	3	-6°	-14°	0.8	WN**0604...	1.7
A25R-PWLNLR/L06-D320	Steel	32	25	17	200	45	23	4.5	-6°	-12°	0.8	WN**0604...	2.7
A32S-PWLNLR/L06-D400	Steel	40	32	22	250	50	30	6	-6°	-11°	0.8	WN**0604...	2.7
A25R-PWLNLR/L08-D320	Steel	32	25	17	200	45	23	4.5	-6°	-13°	0.8	WN**0804...	2.7
A32S-PWLNLR/L08-D400	Steel	40	32	22	250	50	30	6	-6°	-11°	0.8	WN**0804...	4.8
A40T-PWLNLR/L08-D500	Steel	50	40	27	300	60	37	7	-6°	-10°	0.8	WN**0804...	4.8

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

Note: Use right-hand toolholders (PWLNLR**) with left-hand inserts (L); and left-hand toolholders (PWLNL**) with right-hand inserts (R).

SPARE PARTS

Designation	Shim	Clamping screw 1	Clamping screw 2	Wrench 1	Wrench 2	Spring pin	Lever	Oil supply attachment*	Screw for oil hole*
A16M-PWLNLR/L0604-D200	-	-	LCS33	P-2F	-	-	LCL33N	-	SSH3-4
A20Q-PWLNLR/L0604-D250	-	-	LCS33	P-2F	-	-	LCL33N	EA-20	SSH3-4
A16M-PWLNLR/L06-D200	-	LCS33	-	P-2F	-	-	LCL33N	-	SSH3-4
A20Q-PWLNLR/L06-D250	-	LCS33	-	P-2F	-	-	LCL33N	EA-20	SSH3-4
A25R-PWLNLR/L06-D320	LSW312BR/L	-	LCS3B	-	P-2.5	LSP3	LCL3	EA-25	SSH4-5
A32S-PWLNLR/L06-D400	LSW312BR/L	-	LCS3	-	P-2.5	LSP3	LCL3	EA-32	SSH4-5
A25R-PWLNLR/L08-D320	-	LCS43	-	-	P-2.5	-	LCL43N	EA-25	SSH4-5
A32S-PWLNLR/L08-D400	LSW42BR/L	-	LCS4	-	P-3	LSP4	LCL4	EA-32	SSH4-5
A40T-PWLNLR/L08-D500	LSW42BR/L	-	LCS4	-	P-3	LSP4	LCL4	-	SSH4-5

*Optional

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Breaker Shape	TF 	TSF 	TM 	TH 
Cutting conditions		B004			

K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Breaker Shape	All-round 	All-round 	All-round 
Cutting conditions		B008		

H	Application	Precision finishing	Finishing
	Grade	BXM10	BXM20
	Breaker Shape	CBN 	CBN 
Cutting conditions		B014	

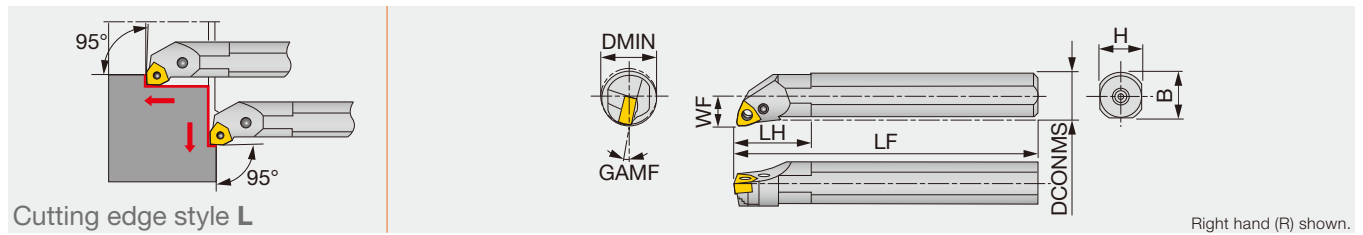
M	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T6215	AH6225	AH6225
	Breaker Shape	SF 	SM 	SH 
Cutting conditions		B006		

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX480	AH8005	AH8005
	Breaker Shape	CBN 	HRF 	HRM 
Cutting conditions		B012		

Reference pages: A-PWLNLR/L: Insert → B102 -, CBN → B187

S-PWLNLR/L

Lever-lock boring bar, for negative 80° trigon inserts



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	B	GAMF	RE**	Insert
S16M-PWLNLR/L06	Steel	20	16	11	150	30	15	15.5	-17°	0.8	WN**0604...
S20Q-PWLNLR/L06	Steel	25	20	13	180	35	18	19	-14°	0.8	WN**0604...
S25R-PWLNLR/L06	Steel	32	25	17	200	40	23	24	-12°	0.8	WN**0604...

**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	Shim	Clamping screw 1	Clamping screw 2	Wrench 1	Wrench	Spring pin	Lever
S**-PWLNLR/L06	-	LCS33	-	P-2F	-	-	LCL33N
S25R-PWLNLR06	LSW312BR	-	LCS3B	-	P-2.5	LSP3	LCL3
S25R-PWLNLR06	LSW312BL	-	LCS3B	-	P-2.5	LSP3	LCL3

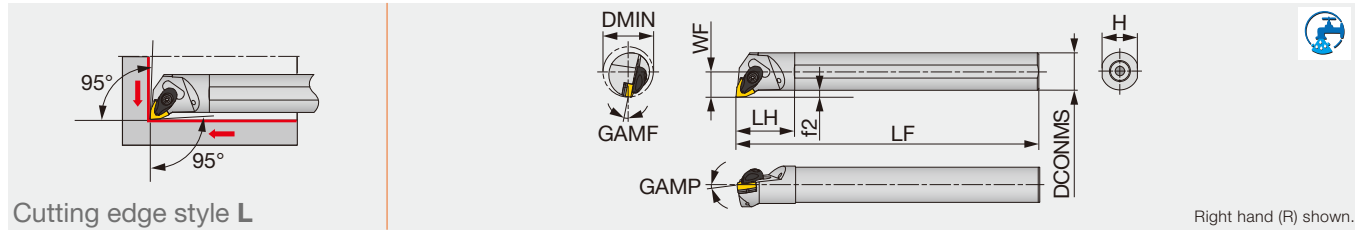
INSERT SELECTION

P	Application	Finishing	Medium cutting
	Grade	T9215	T9215
	Breaker Shape	TSF	TM
	Cutting conditions	B004	

M	Application	Finishing	Medium cutting
	Grade	AH6225	AH6225
	Chipbreaker shape	SS	SM
	Cutting conditions	B006	

K	Application	Medium cutting
	Grade	T515
	Breaker Shape	TM
	Cutting conditions	B008

Reference pages: A-PWLNLR/L: Insert → **B102** -, CBN → **B187**



Cutting edge style L

Right hand (R) shown.

Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A25R-AWLNR/L0604-D320	Steel	32	25	17	200	45	23	4.5	-6°	-13°	0.8	WN**0604...	3
A32S-AWLNR/L0604-D400	Steel	40	32	22	250	50	30	6	-6°	-10°	0.8	WN**0604...	3
A25R-AWLNR/L06-D320	Steel	32	25	17	200	45	23	4.5	-6°	-13°	0.8	WN**0604...	3
A32S-AWLNR/L06-D400	Steel	40	32	22	250	50	30	6	-6°	-10°	0.8	WN**0604...	3
A25R-AWLNR/L08-D320	Steel	32	25	17	200	45	23	4.5	-6°	-13°	0.8	WN**0804...	3
A32S-AWLNR/L08-D400	Steel	40	32	22	250	50	30	6	-6°	-10°	0.8	WN**0804...	3
A40T-AWLNR/L08-D500	Steel	50	40	27	300	55	37	7	-6°	-8°	0.8	WN**0804...	3
A50U-AWLNR/L08-D630	Steel	63	50	35	350	65	47	10	-6°	-7°	0.8	WN**0804...	3

*Torque: Recommended clamping torque (N-m)

**RE: Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
A**-AWLNR/L0604-D...	ACP3S-E	ACS-5W	BP-7	SP-2.5	ASW322	CSTB-3.5	T-15F
A**-AWLNR/L06-D...	ACP3S	ACS-5W	BP-7	SP-2.5	ASW322	CSTB-3.5	T-15F
A**-AWLNR/L08-D...	ACP4S	ACS-5W	BP-7	SP-2.5	ASW422	CSTB-3.5	T-15F

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Breaker Shape				
Cutting conditions B004					

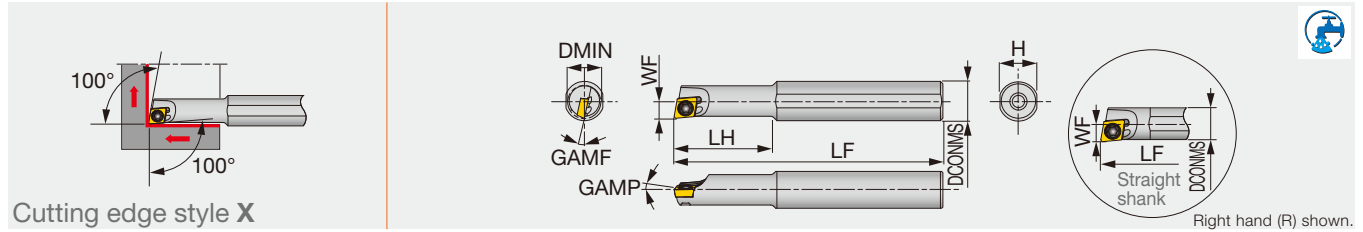
K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Breaker Shape	All-round 	All-round 	All-round 
Cutting conditions B008				

H	Application	Precision finishing	Finishing
	Grade	BXM10	BXM20
	Breaker Shape	CBN 	CBN 
Cutting conditions B014			

M	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T6215	AH6225	AH6225
	Breaker Shape	SF 	SM 	SH 
Cutting conditions B006				

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX480	AH8005	AH8005
	Breaker Shape	CBN 	HRF 	HRM 
Cutting conditions B012				

Reference pages: A-AWLNR/L: Insert → **B102** -, CBN → **B187**



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	GAMP	GAMF	RE**	Insert	Torque*
A04F-SEXPR/L03-D045	Steel	4.5	4	2.3	80	8	3.8	0°	-15°	0.2	EP**03X1...	0.6
A04F-SEXPR/L03-D050	Steel	5	4	2.5	80	8	3.8	0°	-13°	0.2	EP**03X1...	0.6
A05F-SEXPR/L04-D055	Steel	5.5	5	2.75	80	9	4.8	0°	-12°	0.4	EP**0401...	0.6
A06G-SEXPR/L04-D070	Steel	7	6	3.6	90	11	5.75	0°	-12°	0.4	EP**0401...	0.6
A08H-SEXPR/L04-D055	Steel	5.5	8	2.75	100	16	7.5	0°	-12°	0.4	EP**0401...	0.6
A08H-SEXPR/L04-D070	Steel	7	8	3.6	100	20	7.5	0°	-12°	0.4	EP**0401...	0.6
E04G-SEXPR/L03-D045	Carbide	4.5	4	2.3	90	9	3.8	0°	-15°	0.2	EP**03X1...	0.6
E04G-SEXPR/L03-D050	Carbide	5	4	2.5	90	9	3.8	0°	-13°	0.2	EP**03X1...	0.6
E05G-SEXPR/L04-D055	Carbide	5.5	5	2.75	90	10	4.8	0°	-12°	0.4	EP**0401...	0.6
E06H-SEXPR/L04-D070	Carbide	7	6	3.6	100	12	5.75	0°	-12°	0.4	EP**0401...	0.6
E08K-SEXPR/L04-D055	Carbide	5.5	8	2.75	125	28	7.5	0°	-12°	0.4	EP**0401...	0.6
E08K-SEXPR/L04-D070	Carbide	7	8	3.6	125	40	7.5	0°	-12°	0.4	EP**0401...	0.6

*Torque: Recommended clamping torque (N·m)

**RE : Standard corner radius

Note: Use right-hand toolholders (SEXPR**) with left-hand inserts (L); and left-hand toolholders (SEXPL**) with right-hand inserts (R).

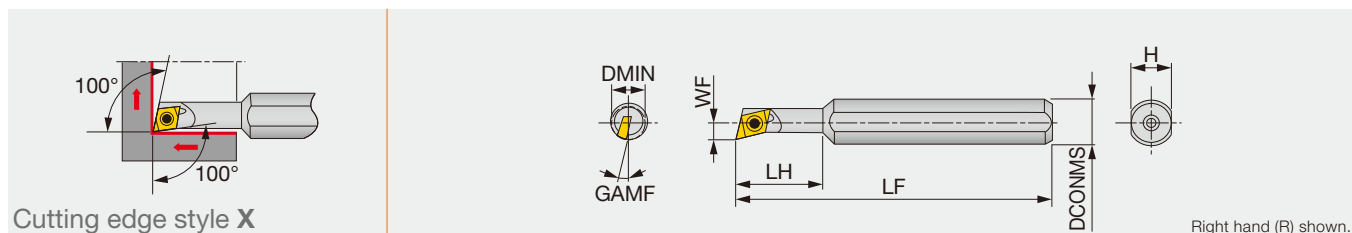
SPARE PARTS

Designation	Clamping screw	Wrench
A**-SEXPR/L03-D...	CSTA-1.6	T-6F
A**-SEXPR/L04-D...	CSTB-2	T-6F
E**-SEXPR/L03-D...	CSTA-1.6	T-6F
E**-SEXPR/L04-D...	CSTB-2	T-6F

INSERT SELECTION

P	Application	Finishing	M	Application	Finishing	K	Application	Finishing	S	Application	Finishing
	Grade	SH725		Grade	SH725		Grade	SH725		Grade	SH725
	Breaker Shape			Breaker Shape			Breaker Shape			Breaker Shape	
	Cutting conditions	B016		Cutting conditions	B018		Cutting conditions	B020		Cutting conditions	B024
N	Application	Precision finishing	H	Application	Precision finishing		Application	Precision finishing		Application	Precision finishing
	Grade	DX140		Grade	BX310		Grade	CBN		Grade	SH725
	Breaker Shape			Breaker Shape			Breaker Shape			Breaker Shape	
	Cutting conditions	B022		Cutting conditions	B026		Cutting conditions	B026		Cutting conditions	B026

Reference pages: A/E-SEXPR/L: Insert → **B128** -, CBN → **B195**, PCD → **B214**



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	GAMF	RE**	Insert	Torque*
JS08H-SEXPR045	Steel	5.5	8	2.7	100	16	7	12°	0.4	EP**0401...	0.6
JS08H-SEXPR047	Steel	7	8	3.6	100	20	7	12°	0.4	EP**0401...	0.6

SPARE PARTS

Designation	Clamping screw	Wrench
JS08H-SEXPR04...	CSTB-2	T-6F

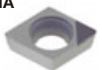
*Torque: Recommended clamping torque (N-m)

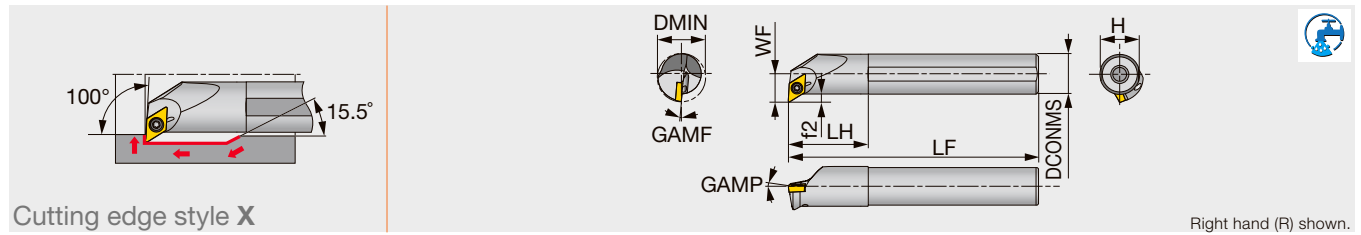
**RE : Standard corner radius

Note: Use right-hand toolholders (SEXPR**) with left-hand inserts (L); and left-hand toolholders (SEXPL**) with right-hand inserts (R).

INSERT SELECTION

P	Application	Finishing	M	Application	Finishing	K	Application	Finishing	S	Application	Finishing
	Grade	SH725		Grade	SH725		Grade	SH725		Grade	SH725
	Breaker Shape	JS 		Breaker Shape	JS 		Breaker Shape	JS 		Breaker Shape	JS 
	Cutting conditions	B016		Cutting conditions	B018		Cutting conditions	B020		Cutting conditions	B024

N	Application	Precision finishing	Finishing	H	Application	Precision finishing
	Grade	DX140	SH725		Grade	BX310
	Breaker Shape	DIA 	JS 		Breaker Shape	CBN 
	Cutting conditions	B022			Cutting conditions	B026



Cutting edge style X

Right hand (R) shown.

Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A10K-SDXXR/L07-D130	Steel	13	10	7.6	125	20	9	2.6	-14°	-16°	0.4	DXG/MU0703**L/R...	0.9
A12M-SDXXR/L07-D160	Steel	16	12	8.6	150	24	11	2.6	-14°	-14°	0.4	DXG/MU0703**L/R...	0.9
A16Q-SDXXR/L07-D200	Steel	20	16	10.6	180	32	15	2.6	-13°	-13°	0.4	DXG/MU0703**L/R...	0.9
A20R-SDXXR/L07-D240	Steel	24	20	12.6	200	36	18	2.6	-13°	-12°	0.4	DXG/MU0703**L/R...	0.9
E10M-SDXXR/L07-D130	Carbide	13	10	7.6	150	25	9	2.6	-14°	-16°	0.4	DXG/MU0703**L/R...	0.9
E12Q-SDXXR/L07-D160	Carbide	16	12	8.6	180	27	11	2.6	-14°	-14°	0.4	DXG/MU0703**L/R...	0.9
E16R-SDXXR/L07-D200	Carbide	20	16	10.6	200	32	15	2.6	-13°	-13°	0.4	DXG/MU0703**L/R...	0.9
E20S-SDXXR/L07-D240	Carbide	24	20	12.6	250	36	18	2.6	-13°	-12°	0.4	DXG/MU0703**L/R...	0.9

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

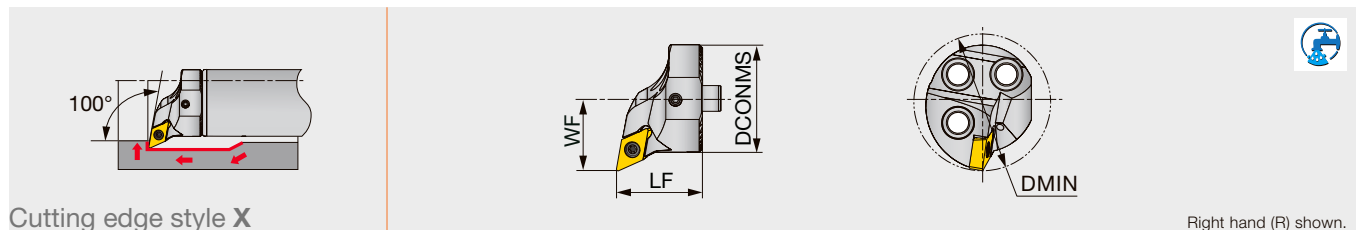
Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R)

SPARE PARTS

Designation	Clamping screw	Wrench
A/E**-SDXXR/L...	SR34-514	T-7F

S-SDXXR/L-H

Screw-on clamp exchangeable boring head, for DXG/MU inserts



Cutting edge style X

Right hand (R) shown.

Designation	DMIN	DCONMS	WF	LF	Shank	Insert
S25-SDXXR/L07-H	32	25	17	20	D25	DXG/MU0703**L/R...
S32-SDXXR/L07-H	40	32	22	32	D32	DXG/MU0703**L/R...
S40-SDXXR/L07-H	50	40	27	32	D40, D50, D60	DXG/MU0703**L/R...

Note: Use right-hand toolholders (SDXXR**) with left-hand inserts (L); and left-hand toolholders (SDXXL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
S**-SDXXR/L07-H	SR34-514	T-7F

INSERT SELECTION

P	Application	Precision finishing	Finishing		Finishing to medium cutting
	Grade	SH725	SH725	NS9530	T9215
	Breaker Shape	JS 	JTS 	SS 	TS 
	Cutting conditions	B096			

P	Application	Medium cutting
	Grade	T9215
	Breaker Shape	TS 
	Cutting conditions	B096

K	Application	Precision finishing	Finishing		Finishing to medium cutting
	Grade	SH725	SH725	NS9530	T9215
	Breaker Shape	JS 	JTS 	SS 	TS 
	Cutting conditions	B096			

K	Application	Medium cutting
	Grade	T9215
	Breaker Shape	TS 
	Cutting conditions	B096

S	Application	Precision finishing	Finishing		Finishing to medium cutting
	Grade	SH725	SH725	AH8015	AH8015
	Breaker Shape	JS 	JTS 	SS 	TS 
	Cutting conditions	B096			

S	Application	Medium cutting
	Grade	AH8015
	Breaker Shape	TS 
	Cutting conditions	B096

M	Application	Precision finishing	Finishing		Finishing to medium cutting
	Grade	SH725	SH725	AH8015	AH8015
	Chipbreaker shape	JS 	JTS 	SS 	TS 
	Cutting conditions	B096			

M	Application	Medium cutting
	Grade	AH8015
	Chipbreaker shape	TS 
	Cutting conditions	B096

N	Application	Finishing	Finishing to medium cutting	Medium cutting
	Grade	KS05F	KS05F	KS05F
	Breaker Shape	SS 	TS 	TS 
	Cutting conditions	B096		

Grade

Insert

Ext. Toolholder

Int. Toolholder

Threading

Grooving

Miniature tool

Milling cutter

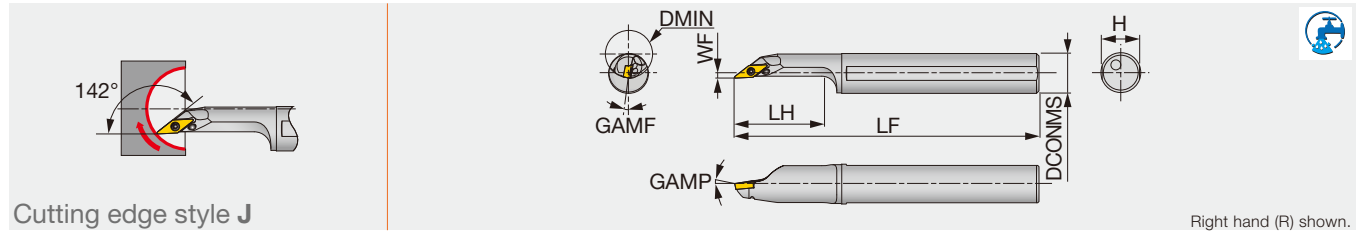
Endmill

Drilling tool

Tooling System

User's Guide

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Designation	Material	DMIN	DCONMS	WF	LF	LH	H	GAMP	GAMF	RE**	Insert	Torque*
A20R-SVJBR/L11-D250	Steel	25	20	2	200	40	18	-5°	-5°	0.4	VB**1103...	1.2
A25S-SVJBR/L11-D300	Steel	30	25	3.5	250	50	23	-5°	-5°	0.4	VB**1103...	1.2

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

Note: Use right-hand toolholders (SVJBR**) with left-hand inserts (L); and left-hand toolholders (SVJBL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
A**-SVJB*11-D...	CSTB-2.5	T-8F

INSERT SELECTION

P	Application	Precision finishing	Finishing		Finishing to medium cutting
	Grade	SH725	SH725	NS9530	T9215
	Breaker Shape	JP	JS	PSS	PS
	Cutting conditions	B014			

P	Application	Medium cutting
	Grade	T9215
	Breaker Shape	PS
	Cutting conditions	B014

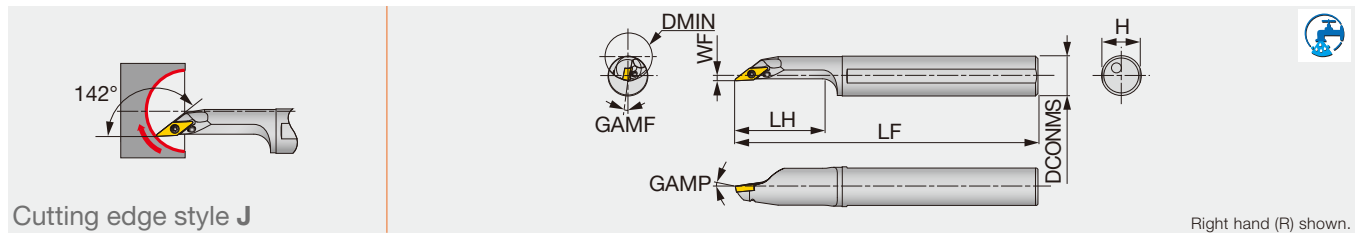
K	Application	Finishing to medium cutting	S	Application	Finishing	Finishing to medium cutting
	Grade	T515		Grade	AH8005	AH8015
	Breaker Shape	CM		Breaker Shape	PS	PS
	Cutting conditions	B020		Cutting conditions	B024	

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Breaker Shape	HP	HS
	Cutting conditions	B026	

M	Application	Precision finishing	Finishing		Finishing to medium cutting
	Grade	SH725	SH725	AH6225	AH6225
	Chipbreaker shape	JP	JS	PSS	PS
	Cutting conditions	B016			

M	Application	Medium cutting
	Grade	AH6225
	Chipbreaker shape	PS
	Cutting conditions	B016

Reference pages: A-SVJBR/L: Insert → **B150 -**, CBN → **B207 -**



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	GAMP	GAMF	RE**	Insert	Torque*
A12M-SVJCR/L08-D160	Steel	16	12	2	150	28	11	-5°	-5°	0.4	VC**0802...	0.6
A16Q-SVJCR/L08-D200	Steel	20	16	2	180	35	15	-5°	-5°	0.4	VC**0802...	0.6

*Torque: Recommended clamping torque (N·m)

**RE : Standard corner radius

Note: Use right-hand toolholders (SVJCR**) with left-hand inserts (L); and left-hand toolholders (SVJCL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
A**-SVJC*08-D...	CSTB-2L	T-6F

INSERT SELECTION

P	Application	Finishing	Finishing to medium cutting
	Grade	NS9530	T9215
	Breaker Shape	PSS	PS
			
	Cutting conditions	B014	

M	Application	Finishing	Finishing to medium cutting
	Grade	AH6225	AH6225
	Chipbreaker shape	PSS	PS
			
	Cutting conditions	B016	

K	Application	Finishing to medium cutting
	Grade	T515
	Breaker Shape	CM
		
	Cutting conditions	B020

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	KS05F
	Breaker Shape	DIA	with rake DIA	AL
				
	Cutting conditions	B022		

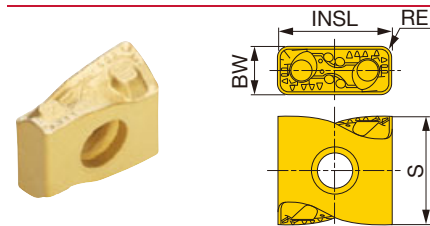
S	Application	Finishing	Finishing to medium cutting
	Grade	AH8005	AH8015
	Breaker Shape	PS	PS
			
	Cutting conditions	B024	

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Breaker Shape	CBN	CBN
			
	Cutting conditions	B026	

Note: Use right-hand toolholders (TLANR**) with left-hand inserts (L); and left-hand toolholders (TLANL**) with right-hand inserts (R).

Designation	Clamping screw	Shim screw	Shim	Spring pin	Wrench 1	Wrench 2
S**-TLANR/L12-D530	CSTB-3.5L115-S	CSTF-2L055-S	TSL12L/RI	-	KEYV-T10	T-6F-S
S50U-TLANR16-D850	CSTB-4L115-S	-	TSL16LI	PSP-16	KEYV-T15	-
S50U-TLANL16-D850	CSTB-4L115-S	-	TSL16RI	PSP-16	KEYV-T15	-

LNMX12/16/24

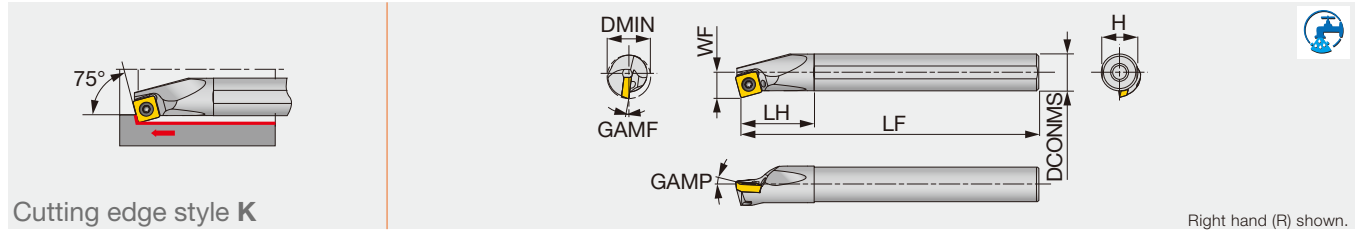


P	Steel	★	★	★			
M	Stainless	☆		☆			
K	Cast iron	☆	☆	☆			
N	Non-ferrous						
S	Superalloys						
H	Hard materials						

★ : First choice
☆ : Second choice

●: Line up

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Cutting edge style K

Right hand (R) shown.

Designation	Material	DMIN	DCONMS	WF	LF	LH	H	GAMP	GAMF	RE**	Insert	Torque*
A16Q-SSKPR09-D200	Steel	20	16	11	180	32	15	5°	-6°	0.8	SP**0903...	3
A20R-SSKPR09-D240	Steel	24	20	13	200	36	18	5°	-2°	0.8	SP**0903...	3
A25S-SSKPR12-D310	Steel	31	25	17	250	45	23	5°	-2°	0.8	SP**1204...	6

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

Note: Use right-hand toolholders (SSKPR**) with left-hand inserts (L); and left-hand toolholders (SSKPL**) with right-hand inserts (R).

SPARE PARTS

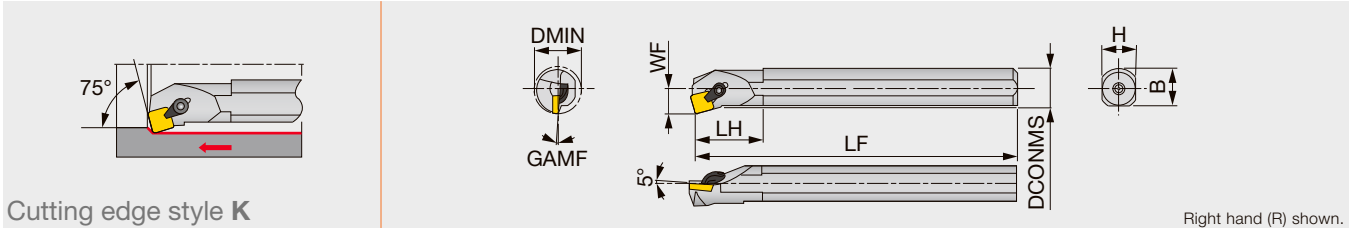
Designation	Clamping screw	Wrench
A**-SSKPR09-D2*0	CSTB-4L060	T-15F
A25S-SSKPR12-D310	CSTB-5S	T-20F

INSERT SELECTION

P	Application	Finishing to medium cutting
	Grade	T9215
	Breaker Shape	PS 
	Cutting conditions	B016
M	Application	Finishing to medium cutting
	Grade	AH6225
	Breaker Shape	PS 
	Cutting conditions	B018
K	Application	Finishing to medium cutting
	Grade	T515
	Breaker Shape	CM 
	Cutting conditions	B020

S/C-CSKPR/L

Clamp-on boring bar, for positive square inserts



Cutting edge style K

Right hand (R) shown.

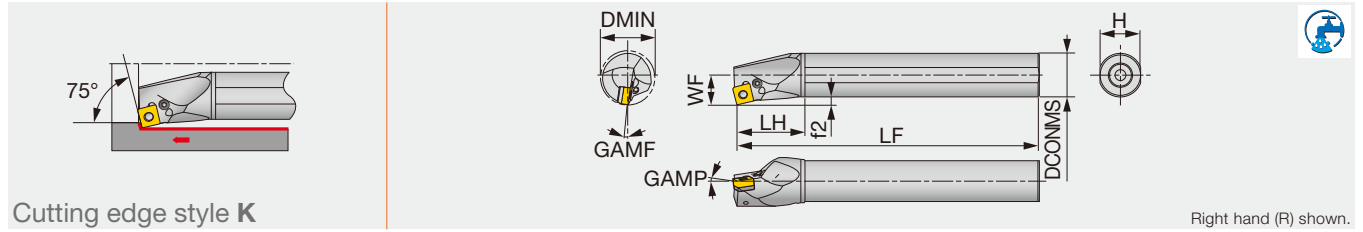
Designation	Material	DMIN	DCONMS	WF	LF	LH	H	B	GAMF	RE**	Insert
S16Q-CSKPR09	Steel	20	16	11	180	30	15	15	-4°	0.8	SP**0903...
S20R-CSKPR/L09	Steel	25	20	13	200	40	18	18.5	-2°	0.8	SP**0903...
S25S-CSKPR12	Steel	32	25	17	250	45	23	22.5	0°	0.8	SP**1203...

**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	Clamp set	Wrench
S16Q-CSKPR09	CSG-5S	P-2.5
S20R-CSKPR/L09	CSG-5	P-2.5
S25S-CSKPR12	CSG-6	P-3



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A32S-PSKNR/L12-D400	Steel	40	32	22	250	50	30	6	-6°	-10°	0.8	SN**1204...	4.8
A40T-PSKNR/L12-D500	Steel	50	40	27	300	60	37	7	-6°	-10°	0.8	SN**1204...	4.8
A50U-PSKNR/L12-D630	Steel	63	50	35	350	65	47	10	-6°	-8°	0.8	SN**1204...	4.8

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

Note: Use right-hand toolholders (PSKNR**) with left-hand inserts (L); and left-hand toolholders (PSKNL**) with right-hand inserts (R).

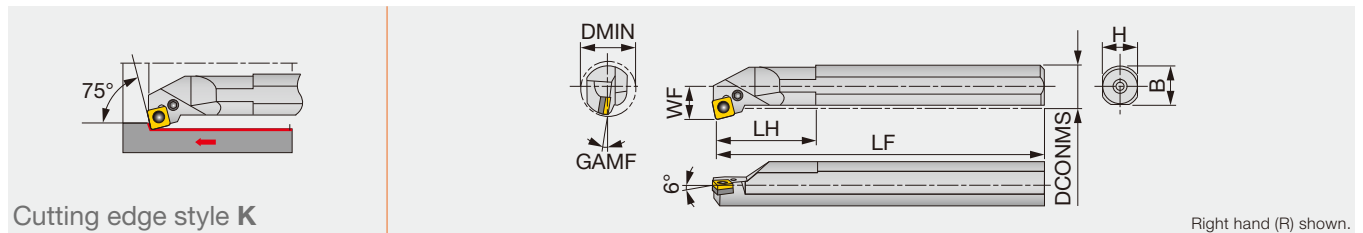
SPARE PARTS

Designation	Shim	Screw	Wrench	Spring pin	Lever	Oil supply attachment*	Screw for oil hole*
A32S-PSKNR/L12-D400	LSS42BR/L	LCS4	P-3	LSP4	LCL4	EA-32	SSHM4-5
A40T-PSKNR/L12-D500	LSS42BR/L	LCS4	P-3	LSP4	LCL4	-	SSHM6-6
A50U-PSKNR/L12-D630	LSS42BR/L	LCS4	P-3	LSP4	LCL4	-	SSHM6-6

*Optional

S-PSKNR

Lever-lock boring bar, for negative square inserts



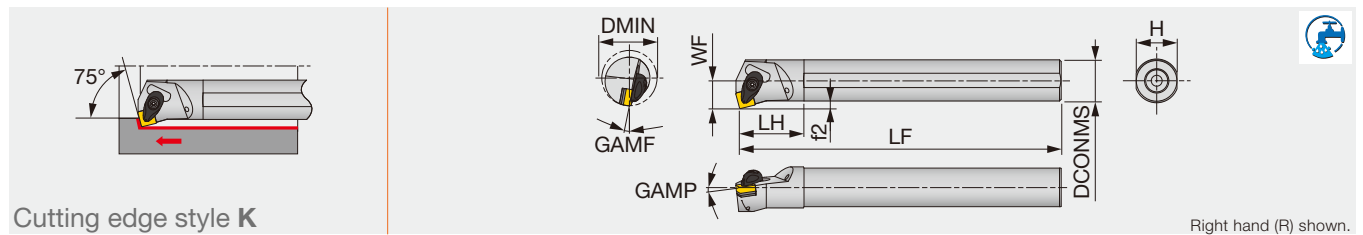
Designation	Material	DMIN	DCONMS	WF	LF	LH	H	B	GAMF	RE**	Insert
S32S-PSKNR12	Steel	40	32	22	250	50	30	29.5	-10°	0.8	SN**1204...
S40T-PSKNR12	Steel	50	40	27	300	55	37	37.5	-10°	0.8	SN**1204...
S50U-PSKNR12	Steel	63	50	35	350	65	47	47.5	-8°	0.8	SN**1204...

**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	Shim	Clamping screw	Wrench	Spring pin	Lever
S**-PSKNR12	LSS42BR	LCS4	P-3	LSP4	LCL4



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A25R-ASKNR/L12-D320	Steel	32	25	17	200	45	23	4.5	-6°	-13°	0.8	SN**1204...	3
A32S-ASKNR/L12-D400	Steel	40	32	22	250	50	30	6	-6°	-10°	0.8	SN**1204...	3

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
A**-ASKN*12-D...	ACP4S	ACS-5W	BP-7	SP-2.5	ASS422	CSTB-3.5	T-15F

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Breaker Shape	TF	TSF	TM	TH
	Cutting conditions	B004			

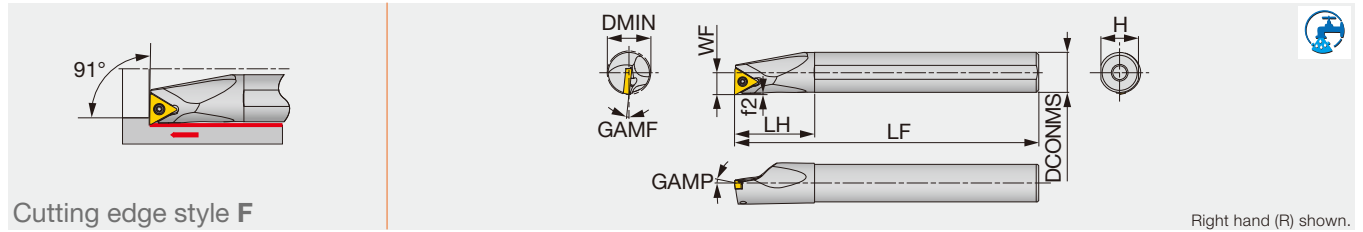
K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Breaker Shape	All-round	All-round	All-round
	Cutting conditions	B008		

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX480	AH8005	AH8005
	Breaker Shape	T-CBN	HRF	HRM
	Cutting conditions	B012		

M	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T6215	AH6225	AH6225
	Chipbreaker Shape	SF	SM	SH
	Cutting conditions	B006		

N	Application	Finishing	Medium cutting
	Grade	DX140	TH10
	Breaker Shape	T-DIA	P
	Cutting conditions	B010	

Reference pages: A-ASKNR/L: Insert → **B077** -, CBN → **B180**, PCD → **B211**



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A10K-STFCR/L1103-D120	Steel	12	10	6.5	125	20	9	0.6	0°	-13°	0.4	TC**1103...	1.2
A12M-STFCR/L1103-D140	Steel	14	12	7	150	24	11	0.5	0°	-10°	0.4	TC**1103...	1.2
A16Q-STFCR/L1103-D180	Steel	18	16	9	180	32	15	0.5	0°	-7°	0.4	TC**1103...	1.2
E10M-STFCR/L1103-D120	Carbide	12	10	6.5	150	25	9	0.7	0°	-13°	0.4	TC**1103...	1.2
E12Q-STFCR/L1103-D140	Carbide	14	12	7	180	27	11	0.5	0°	-10°	0.4	TC**1103...	1.2
E16R-STFCR/L1103-D180	Carbide	18	16	9	200	32	15	0.5	0°	-7°	0.4	TC**1103...	1.2

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

Note: Use right-hand toolholders (STFCR**) with left-hand inserts (L); and left-hand toolholders (STFCL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
A**-STFCR/L1103-D...	CSTB-2.5	T-8F
E**-STFCR/L1103-D...	CSTB-2.5	T-8F

INSERT SELECTION

P	Application	Precision finishing	Finishing	Finishing to medium cutting	Medium cutting
	Grade	SH725	SH725	T9215	T9215
	Breaker Shape	JP	JS	PS	PM
	Cutting conditions	B016			

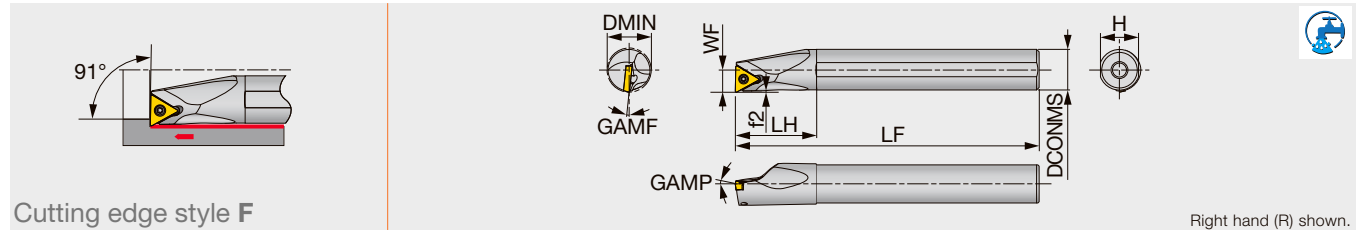
M	Application	Precision finishing	Finishing	Finishing to medium cutting	Medium cutting
	Grade	SH725	SH725	AH6225	AH6225
	Breaker Shape	JP	JS	PS	PM
	Cutting conditions	B018			

K	Application	Finishing to medium cutting
	Grade	T515
	Breaker Shape	CM
	Cutting conditions	B020

N	Application	Precision finishing	Finishing to medium cutting
	Grade	DX120	KS05F
	Breaker Shape	DIA	with rake AL
	Cutting conditions	B022	

S	Application	Precision finishing	Finishing	Finishing to medium cutting	Medium cutting
	Grade	SH725	SH725	AH6225	AH6225
	Breaker Shape	JP	JS	PS	PM
	Cutting conditions	B024			

Reference pages: A/E-STFCR/L: Insert → B138 -, PCD → B216



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A08H-STFPR/L09-D100	Steel	10	8	5.5	100	16	7.5	0.7	5°	-8°	0.4	TP**0902...	0.9
A10K-STFPR/L1102-D120	Steel	12	10	6.5	125	20	9	0.7	5°	-6°	0.4	TP**1102...	1.2
A12M-STFPR/L1102-D140	Steel	14	12	7.0	150	24	11	0.6	5°	-4°	0.4	TP**1102...	1.2
A16Q-STFPR/L13-D180	Steel	18	16	9	180	32	15	0.7	5°	-2°	0.4	TP**1303...	1.4
A20R-STFPR13-D220	Steel	22	20	11	200	36	18	0.8	5°	-2°	0.4	TP**1303...	1.4
A25S-STFPR16-D270	Steel	27	25	13.5	250	45	23	0.6	5°	-1°	0.4	TP**16T3...	3
E08K-STFPR/L09-D100	Carbide	10	8	5.5	125	22	7.5	0.7	5°	-8°	0.4	TP**0902...	0.9
E10M-STFPR/L1102-D120	Carbide	12	10	6.5	150	25	9	0.7	5°	-6°	0.4	TP**1102...	1.2
E12Q-STFPR/L1102-D140	Carbide	14	12	7	180	27	11	0.6	5°	-4°	0.4	TP**1102...	1.2
E16R-STFPR13-D180	Carbide	18	16	9	200	32	15	0.7	5°	-2°	0.4	TP**1303...	1.4
E20S-STFPR13-D220	Carbide	22	20	11	250	36	18	0.8	5°	-2°	0.4	TP**1303...	1.4

*Torque: Recommended clamping torque (N·m)

**RE : Standard corner radius

Note: Use right-hand toolholders (STFPR**) with left-hand inserts (L); and left-hand toolholders (STFPL**) with right-hand inserts (R).
TPGH, TPGM, and TPGA inserts cannot be used.

SPARE PARTS

Designation	Clamping screw	Wrench
A08H-STFPR/L09-D100	CSTB-2.2S	T-7F
A10K-STFPR/L1102-D120	CSTB-2.5B	T-8F
A12M-STFPR/L1102-D140	CSTB-2.5	T-8F
A16Q-STFPR/L13-D180	CSTB-3S	T-9F
A20R-STFPR13-D220	CSTB-3	T-9F
A25S-STFPR16-D270	CSTB-4M	T-15F
E08K-STFPR/L09-D100	CSTB-2.2S	T-7F
E10M-STFPR/L1102-D120	CSTB-2.5B	T-8F
E12Q-STFPR/L1102-D140	CSTB-2.5	T-8F
E16R-STFPR13-D180	CSTB-3S	T-9F
E20S-STFPR13-D220	CSTB-3	T-9F

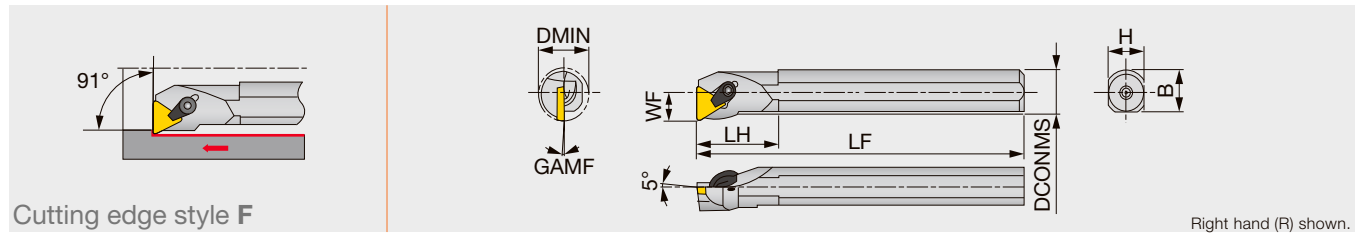
INSERT SELECTION

P	Application	Finishing	Finishing to medium cutting	Medium cutting
	Grade	NS9530	T9215	T9215
	Breaker Shape	PSS	PS	PM
	Cutting conditions	B016		
K	Application	Finishing to medium cutting		
	Grade	T515		
	Breaker Shape	CM		
	Cutting conditions	B020		
S	Application	Precision finishing		
	Grade	BX470		
	Breaker Shape	CBN		
	Cutting conditions	B024		
M	Application	Finishing	Finishing to medium cutting	Medium cutting
	Grade	AH6225	AH6225	AH6225
	Breaker Shape	PSS	PS	PM
	Cutting conditions	B018		
N	Application	Precision finishing		
	Grade	DX140		
	Breaker Shape	DIA		
	Cutting conditions	B022		
H	Application	Precision finishing	Finishing	
	Grade	HP	HS	
	Breaker Shape	BXA10	BXA20	
	Cutting conditions	B026		

Reference pages: A/E-STFPR/L: Insert → **B142** -, CBN → **B199** -, PCD → **B216** -

S/C-CTFPR/L

Clamp-on boring bar, for positive 60° triangular inserts



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	B	GAMF	RE**	Insert
S12M-CTFPR/L11	Steel	16	12	9	150	25	11	11.5	-6°	0.4	TP**1103...
S16Q-CTFPR/L11	Steel	20	16	11	180	30	15	15	-4°	0.4	TP**1103...
S20R-CTFPR/L16	Steel	25	20	13	200	40	18	18.5	-2°	0.8	TP**1603...
S25S-CTFPR/L16	Steel	32	25	17	250	45	23	22.5	0°	0.8	TP**1603...
S32T-CTFPR/L16	Steel	40	32	22	300	50	30	29.5	0°	0.8	TP**1603...
C12Q-CTFPR/L11	Carbide	16	12	9	180	-	11	-	-6°	0.4	TP**1103...
C16R-CTFPR/L11	Carbide	20	16	11	200	-	15	-	-4°	0.4	TP**1103...

**RE : Standard corner radius

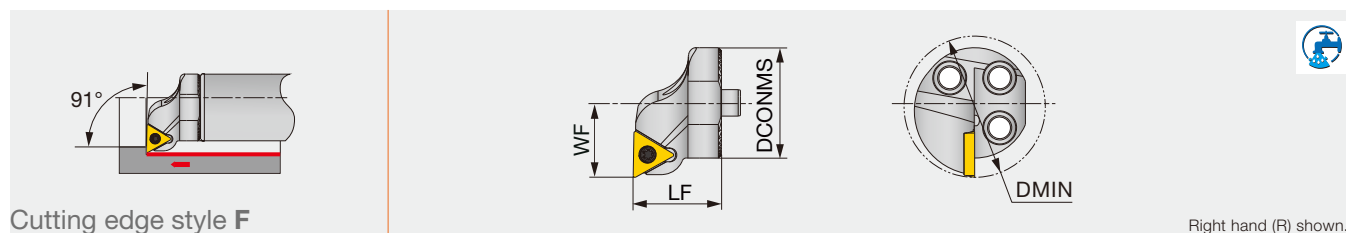
Note: Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

SPARE PARTS

Designation	Clamp set 1	Clamp set 2	Wrench	Shim	Shim screw
S12M-CTFPR/L11	CSW-00	-	P-2.5	-	-
S16Q-CTFPR/L11	-	CSG-5S	P-2.5	-	-
S20R-CTFPR/L16	-	CSG-6S	P-3	-	-
S25S-CTFPR/L16	-	CSG-6	P-3	-	-
S32T-CTFPR/L16	-	CSG-6	P-3	PAT-32	M3X0.5X6
C12Q-CTFPR/L11	CSW-00	-	P-2.5	-	-
C16R-CTFPR/L11	-	CSG-5S	P-2.5	-	-

Reference pages: S/C-CTFPR/L: Insert → **B142 -**, CBN → **B199 -**, PCD → **B217 -**

Screw-on clamp exchangeable boring head, for positive 60° triangular inserts



Cutting edge style F

Right hand (R) shown.

Designation	DMIN	DCONMS	WF	LF	Shank	Insert
S16-STFPR/L09-H	20	16	11	20	D16	TP**0902...
S16-STFPR/L11-H	20	16	11	20	D16	TP**1102...
S20-STFPR/L11-H	25	20	13	20	D20	TP**1102...
S25-STFPR/L11-H	32	25	17	20	D25	TP**1102...
S32-STFPR/L16-H	40	32	22	32	D32	TP**16T3...
S40-STFPR/L16-H	50	40	27	32	D40, D50, D60	TP**16T3...

Note: Use right-hand toolholders (STFPR**) with left-hand inserts (L); and left-hand toolholders (STFPL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
S16-STFPR/L09-H	CSTB-2.2S	T-7F
S16-STFPR/L11-H	CSTB-2.5	T-8F
S20-STFPR/L11-H	CSTB-2.5	T-8F
S25-STFPR/L11-H	CSTB-2.5	T-8F
S32-STFPR/L16-H	CSTB-4M	T-15F
S40-STFPR/L16-H	CSTB-4M	T-15F

INSERT SELECTION

P	Application	Finishing	Finishing to medium cutting	Medium cutting
	Grade	NS9530	T9215	T9215
	Breaker Shape	PSS	PS	PM
	Cutting conditions	B016		

M	Application	Finishing	Finishing to medium cutting	Medium cutting
	Grade	AH6225	AH6225	AH6225
	Breaker Shape	PSS	PS	PM
	Cutting conditions	B018		

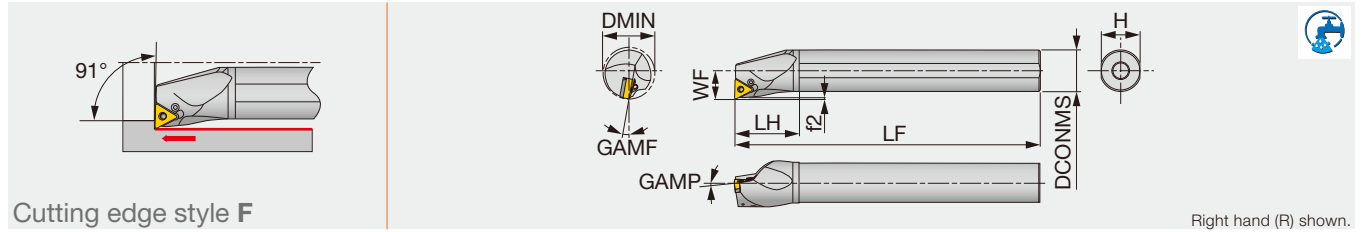
K	Application	Finishing to medium cutting
	Grade	T515
	Breaker Shape	CM
	Cutting conditions	B020

N	Application	Precision finishing
	Grade	DX140
	Breaker Shape	DIA with rake
	Cutting conditions	B022

S	Application	Precision finishing
	Grade	BX470
	Breaker Shape	CBN
	Cutting conditions	B024

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Breaker Shape	HP	HS
	Cutting conditions	B026	

Reference pages: S-STFPR/L-H: Insert → **B142 -**, CBN → **B199 -**, PCD → **B216 -**
Shank → **D090 - D092**



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A25R-PTFNR/L1104-D320	Steel	32	25	17	200	45	23	1.31	-6°	-12°	0.8	TN**1104...	2
A32S-PTFNR/L1104-D400	Steel	40	32	22	250	50	30	1.25	-6°	-10°	0.8	TN**1104...	2
A25R-PTFNR/L16-D320	Steel	32	25	17	200	45	23	1.2	-6°	-12°	0.8	TN**1604...	2.7
A32S-PTFNR/L16-D400	Steel	40	32	22	250	50	30	1.1	-6°	-10°	0.8	TN**1604...	2.7
A40T-PTFNR/L16-D500	Steel	50	40	27	300	60	37	1.1	-6°	-10°	0.8	TN**1604...	2.7
A50U-PTFNR/L16-D630	Steel	63	50	35	350	65	47	1.1	-6°	-8°	0.8	TN**1604...	2.7

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

Note: Use right-hand toolholders (PTFNR**) with left-hand inserts (L); and left-hand toolholders (PTFNL**) with right-hand inserts (R).

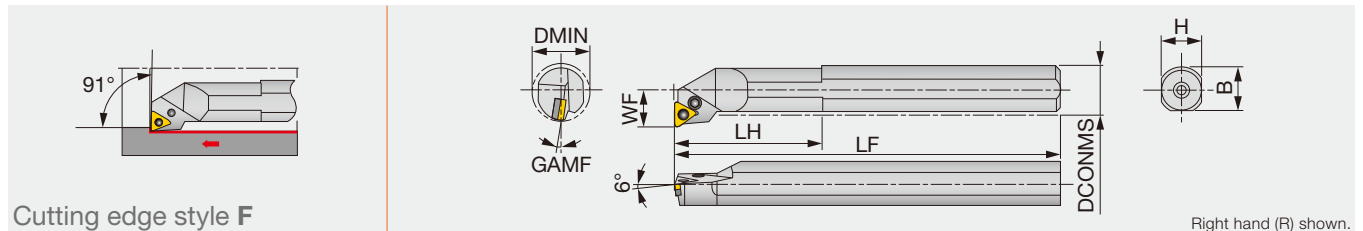
SPARE PARTS

Designation	Shim	Clamping screw 1	Clamping screw 2	Wrench	Spring pin	Lever	Oil supply attachment*	Screw for oil hole*
A25R-PTFNR/L1104-D320	-	LCS23A	-	P-2.5	-	LCL23	EA-25	SSHM4-5
A32S-PTFNR/L1104-D400	-	LCS23A	-	P-2.5	-	LCL23	EA-32	SSHM4-5
A25R-PTFNR/L16-D320	ELST317BR/L	-	LCS3	P-2.5	LSP3	LCL33	EA-25	SSHM4-5
A32S-PTFNR/L16-D400	LST317BR/L	-	LCS3	P-2.5	LSP3	LCL3	EA-32	SSHM4-5
A40T-PTFNR/L16-D500	LST317BR/L	-	LCS3	P-2.5	LSP3	LCL3	-	SSHM6-6
A50U-PTFNR/L16-D630	LST317BR/L	-	LCS3	P-2.5	LSP3	LCL3	-	SSHM6-6

*Optional

S-PTFNR/L

Lever-lock boring bar, for negative 60° triangular inserts



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	B	GAMF	RE**	Insert	Torque*
S32S-PTFNR/L16	Steel	40	32	22	250	50	30	29.5	-10°	0.8	TN**1604...	2.7
S40T-PTFNR/L16	Steel	50	40	27	300	55	37	37.5	-10°	0.8	TN**1604...	2.7
S50U-PTFNR16	Steel	63	50	35	350	65	47	47.5	-8°	0.8	TN**1604...	2.7

*Torque: Recommended clamping torque (N-m)

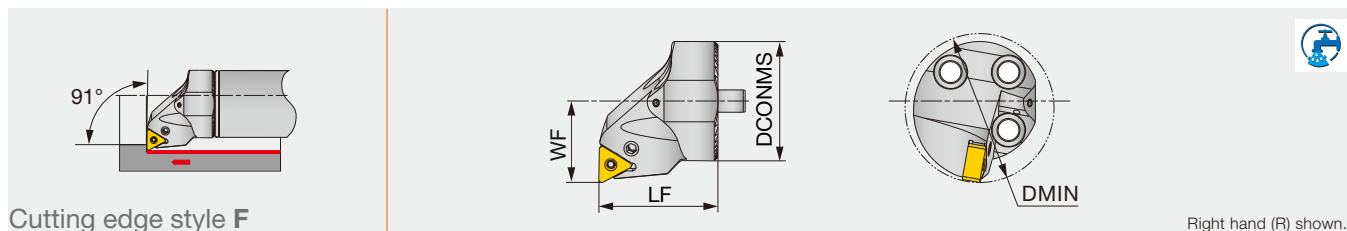
**RE : Standard corner radius

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

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
S32S-PTFNR16	LST317BR	LCS3	P-2.5	LSP3	LCL3
S32S-PTFNL16	LST317BL	LCS3	P-2.5	LSP3	LCL3
S40T-PTFNR16	LST317BR	LCS3	P-2.5	LSP3	LCL3
S40T-PTFNL16	LST317BL	LCS3	P-2.5	LSP3	LCL3
S50U-PTFNR16	LST317BR	LCS3	P-2.5	LSP3	LCL3

Lever-lock clamp exchangeable boring head, for negative 60° triangular inserts



Cutting edge style F

Right hand (R) shown.

Designation	DMIN	DCONMS	WF	LF	Shank	Insert
S32-PTFNR/L11-H	40	32	22	32	D32	TN**1104...
S40-PTFNR/L11-H	50	40	27	32	D40, D50, D60	TN**1104...

Note: Use right-hand toolholders (PTFNR**) with left-hand inserts (L); and left-hand toolholders (PTFNL**) with right-hand inserts (R).

SPARE PARTS

Designation	Lever	Clamping screw	Wrench
S**-PTFNR/L11-H	LCL23	LCS23A	P-2.5

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Breaker Shape	TF	TSF	TM	TH
	Cutting conditions	B004			

M	Application	Finishing	Medium cutting
	Grade	T6215	AH6225
	Breaker Shape	SF	SM
	Cutting conditions	B006	

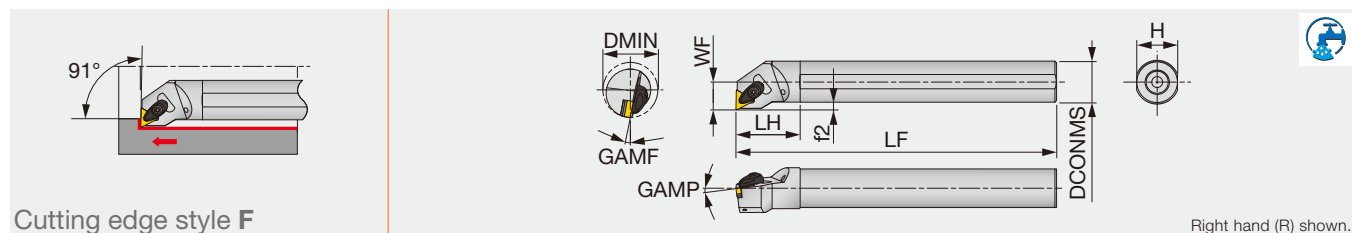
K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Breaker Shape	All-round	All-round	All-round
	Cutting conditions	B008		

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	TH10
	Breaker Shape	DIA	DIA with rake	P
	Cutting conditions	B010		

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX470	AH8005	AH8005
	Breaker Shape	T-CBN	HRF	HRM
	Cutting conditions	B012		

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Breaker Shape	HP	HS
	Cutting conditions	B014	

Reference pages: S-PTFNR/L-H: Insert → **B087 -**, CBN → **B184**
Shank → **D090 - D092**



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A25R-ATFNR/L16-D320	Steel	32	25	17	200	45	23	4.5	-6°	-13°	0.8	TN**1604...	3
A32S-ATFNR/L16-D400	Steel	40	32	22	250	50	30	6	-6°	-10°	0.8	TN**1604...	3

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
A**-ATFNR/L16-D...	ACP3S	ACS-5W	BP-7	SP-2.5	AST322	CSTB-3.5	T-15F

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Breaker Shape	TF	TSF	TM	TH
	Cutting conditions	B004			

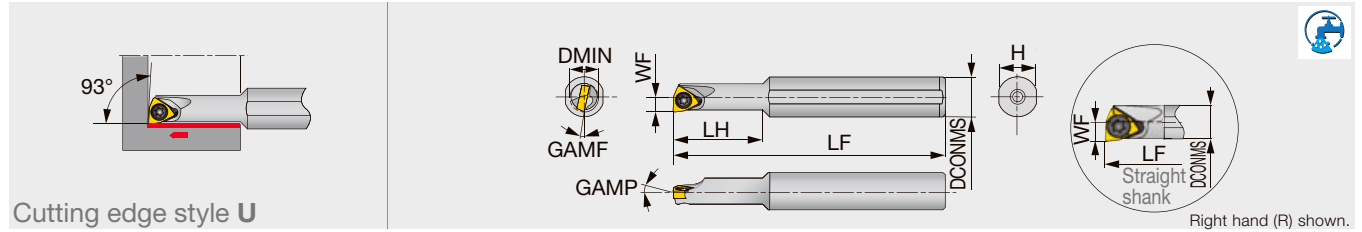
M	Application	Finishing	Medium cutting
	Grade	T6215	AH6225
	Breaker Shape	SF	SM
	Cutting conditions	B006	

K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Breaker Shape	All-round	All-round	All-round
	Cutting conditions	B008		

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	TH10
	Breaker Shape	DIA	DIA with rake	P
	Cutting conditions	B010		

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX470	AH8005	AH8005
	Breaker Shape	CBN	HRF	HRM
	Cutting conditions	B012		

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Breaker Shape	HP	HS
	Cutting conditions	B014	



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	GAMP	GAMF	RE**	Insert	Torque*
A05F-SWUBR/L03-D060	Steel	6	5	3	80	9	4.8	0°	-13°	0.4	WB**0301...	0.6
A06G-SWUBR/L03-D070	Steel	7	6	3.5	90	11	5.75	0°	-12°	0.4	WB**0301...	0.6
A07G-SWUBR/L03-D080	Steel	8	7	4	90	12	6.75	0°	-11°	0.4	WB**0301...	0.6
A08H-SWUBR03-D060	Steel	6	8	3.1	100	18	7.5	0°	-12°	0.4	WB**0301...	0.6
A08H-SWUBR03-D070	Steel	7	8	3.6	100	20	7.5	0°	-12°	0.4	WB**0301...	0.6
E05G-SWUBR/L03-D060	Carbide	6	5	3	90	10	4.8	0°	-13°	0.4	WB**0301...	0.6
E06H-SWUBR/L03-D070	Carbide	7	6	3.5	100	12	5.75	0°	-12°	0.4	WB**0301...	0.6
E07H-SWUBR/L03-D080	Carbide	8	7	4	100	14	6.75	0°	-11°	0.4	WB**0301...	0.6
E08K-SWUBR03-D060	Carbide	6	8	3.1	125	30	7.5	0°	-12°	0.4	WB**0301...	0.6
E08K-SWUBR03-D070	Carbide	7	8	3.6	125	40	7.5	0°	-12°	0.4	WB**0301...	0.6

*Torque: Recommended clamping torque (N·m)

**RE : Standard corner radius

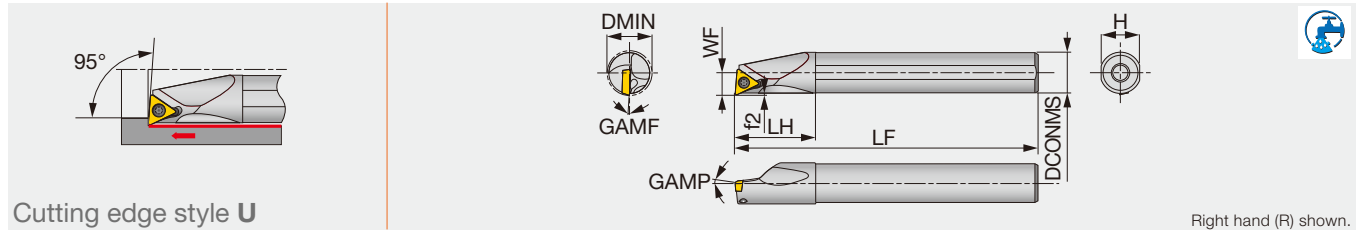
Note: Use right-hand toolholders (SWUBR**) with left-hand inserts (L); and left-hand toolholders (SWUBL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
A/E**-SWUBR/L...	CSTB-2	T-6F

INSERT SELECTION

P	Application	Finishing	M	Application	Finishing	K	Application	Finishing	N	Application	Finishing
	Grade	SH725		Grade	SH725		Grade	SH725		Grade	SH725
	Breaker Shape	JS		Breaker Shape	JS		Breaker Shape	JS		Breaker Shape	JS
	Cutting conditions	B016		Cutting conditions	B018		Cutting conditions	B020		Cutting conditions	B022



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A07G-STUPR/L07-D080	Steel	8	7	4	90	12	6.75	0.4	5°	-10°	0.4	TP**0701...	0.9
A08H-STUPR/L07-D080	Steel	8	8	4	100	19.5	7.5	0.5	5°	-10°	0.4	TP**0701...	0.9
A08H-STUPR/L09-D100	Steel	10	8	5.5	100	16	7.5	0.6	5°	-8°	0.4	TP**0902... ⁽¹⁾	0.9
A10F-STUPR1102-D120	Steel	12	10	6.5	80	20	9	1.4	5°	-6°	0.4	TP**1102... ⁽¹⁾	1.2
A10K-STUPR/L1102-D120	Steel	12	10	6.5	125	20	9	0.7	5°	-6°	0.4	TP**1102... ⁽¹⁾	1.2
A10K-STUPR/L1103-D120	Steel	12	10	6.5	125	20	9	0.6	5°	-10°	0.4	TP**1103... ⁽¹⁾	1.4
A12H-STUPR1102-D140	Steel	14	12	7	100	24	11	0.8	5°	-4°	0.4	TP**1102... ⁽¹⁾	1.2
A12M-STUPR/L1102-D140	Steel	14	12	7	150	24	11	0.8	5°	-4°	0.4	TP**1102... ⁽¹⁾	1.2
A12M-STUPR/L1103-D140	Steel	14	12	7	150	24	11	0.6	5°	-6°	0.4	TP**1103... ⁽¹⁾	1.4
A12H-STUPR1102-D160	Steel	16	12	9	100	24	11	0.6	5°	-3°	0.4	TP**1102... ⁽¹⁾	1.2
A12M-STUPR/L1102-D160	Steel	16	12	9	150	24	11	0.6	5°	-3°	0.4	TP**1102... ⁽¹⁾	1.2
A16K-STUPR13-D180	Steel	18	16	9	125	32	15	0.8	5°	-3°	0.4	TP**1303... ⁽¹⁾	1.4
A16Q-STUPR/L1103-D180	Steel	18	16	9	180	32	15	0.8	5°	-4°	0.4	TP**1103... ⁽¹⁾	1.4
A16Q-STUPR/L13-D180	Steel	18	16	9	180	32	15	0.8	5°	-3°	0.4	TP**1303... ⁽¹⁾	1.4
A16K-STUPR13-D200	Steel	20	16	11	125	32	15	0.6	5°	-3°	0.4	TP**1303... ⁽¹⁾	1.4
A16Q-STUPR/L13-D200	Steel	20	16	11	180	32	15	0.6	5°	-3°	0.4	TP**1303... ⁽¹⁾	1.4
A20R-STUPR/L1103-D220	Steel	22	20	11	200	36	18	0.7	5°	-2°	0.4	TP**1103... ⁽¹⁾	1.4
A20R-STUPR/L13-D220	Steel	22	20	11	200	36	18	0.7	5°	-2°	0.4	TP**1303... ⁽¹⁾	1.4
A25S-STUPR/L16-D270	Steel	27	25	13.5	250	45	23	0.5	5°	-1°	0.8	TP**16T3... ⁽¹⁾	3
A32T-STUPR/L16-D340	Steel	34	32	17	300	50	30	0.7	5°	0°	0.8	TP**16T3...	3
E07H-STUPR/L07-D080	Carbide	8	7	4	100	14	6.75	0.3	5°	-10°	0.4	TP**0701...	0.9
E08G-STUPR07-D080	Carbide	8	8	4	90	44.5	7.5	0.5	5°	-10°	0.4	TP**0701...	0.9
E08K-STUPR/L07-D080	Carbide	8	8	4	125	44.5	7.5	0.5	5°	-10°	0.4	TP**0701...	0.9
E08G-STUPR09-D100	Carbide	10	8	5.5	90	22	7	0.6	5°	-8°	0.4	TP**0902... ⁽¹⁾	0.9
E08K-STUPR/L09-D100	Carbide	10	8	5.5	125	22	7	0.6	5°	-8°	0.4	TP**0902... ⁽¹⁾	0.9
E10F-STUPR1102-D120	Carbide	12	10	6.5	80	25	9	0.5	5°	-6°	0.4	TP**1102... ⁽¹⁾	1.2
E10H-STUPR1102-D120	Carbide	12	10	6.5	100	25	9	0.6	5°	-6°	0.4	TP**1102... ⁽¹⁾	1.2
E10M-STUPR/L1102-D120	Carbide	12	10	6.5	150	25	9	0.6	5°	-6°	0.4	TP**1102... ⁽¹⁾	1.2
E10M-STUPR/L1103-D120	Carbide	12	10	6.5	150	25	9	0.7	5°	-10°	0.4	TP**1103... ⁽¹⁾	1.4
E12G-STUPR1102-D140	Carbide	14	12	7	90	27	11	0.8	5°	-4°	0.4	TP**1102... ⁽¹⁾	1.2
E12J-STUPR1102-D140	Carbide	14	12	7	110	27	11	0.8	5°	-4°	0.4	TP**1102... ⁽¹⁾	1.2
E12Q-STUPR/L1102-D140	Carbide	14	12	7	180	27	11	0.8	5°	-4°	0.4	TP**1102... ⁽¹⁾	1.2
E12Q-STUPR/L1103-D140	Carbide	14	12	7	180	27	11	0.7	5°	-6°	0.4	TP**1103... ⁽¹⁾	1.4
E12G-STUPR1102-D160	Carbide	16	12	9	90	27	11	0.6	5°	-3°	0.4	TP**1102... ⁽¹⁾	1.2
E12J-STUPR1102-D160	Carbide	16	12	9	110	27	11	0.6	5°	-3°	0.4	TP**1102... ⁽¹⁾	1.2
E12Q-STUPR/L1102-D160	Carbide	16	12	9	180	27	11	0.6	5°	-3°	0.4	TP**1102... ⁽¹⁾	1.2
E16H-STUPR13-D180	Carbide	18	16	9	100	32	15	0.9	5°	-3°	0.4	TP**1303... ⁽¹⁾	1.4
E16R-STUPR/L1103-D180	Carbide	18	16	9	200	32	15	0.8	5°	-3°	0.4	TP**1103... ⁽¹⁾	1.4
E16L-STUPR13-D180	Carbide	18	16	9	130	32	15	0.6	5°	-3°	0.4	TP**1303... ⁽¹⁾	1.4
E16R-STUPR/L13-D180	Carbide	18	16	9	200	32	15	0.6	5°	-3°	0.4	TP**1303... ⁽¹⁾	1.4
E16H-STUPR13-D200	Carbide	20	16	11	100	32	15	0.6	5°	-3°	0.4	TP**1303... ⁽¹⁾	1.4
E16L-STUPR13-D200	Carbide	20	16	11	130	32	15	0.6	5°	-3°	0.4	TP**1303... ⁽¹⁾	1.4
E16R-STUPR/L13-D200	Carbide	20	16	11	200	32	15	0.6	5°	-3°	0.4	TP**1303... ⁽¹⁾	1.4
E20S-STUPR1103-D220	Carbide	22	20	11	250	36	18	0.7	5°	-2°	0.4	TP**1103... ⁽¹⁾	1.4
E20S-STUPR13-D220	Carbide	22	20	11	250	36	18	0.6	5°	-2°	0.4	TP**1303... ⁽¹⁾	1.4
E25T-STUPR16-D270	Carbide	27	25	13.5	300	45	23	0.5	5°	-1°	0.8	TP**16T3...	3

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

Note: Use right-hand toolholders (STUPR**) with left-hand inserts (L); and left-hand toolholders (STUPL**) with right-hand inserts (R).

(1) TPGH, TPGM, and TPGA inserts cannot be used.

SPARE PARTS



Designation	Clamping screw	Wrench
A/E07*-STUPR/L07-...	CSTB-2.2L038	T-7F
A/E08*-STUPR/L07-...	CSTB-2.2L038	T-7F
A/E08*-STUPR/L09-...	CSTB-2.2L038	T-7F
A/E10*-STUPR/L1102-...	CSTB-2.5S	T-8F
A/E10*-STUPR/L1103-...	CSTB-3L050	T-9F
A/E12*-STUPR/L1102-...	CSTB-2.5B	T-8F
A/E12*-STUPR/L1103-...	CSTB-3L050	T-9F
A/E16*-STUPR/L1103-...	CSTB-3S	T-9F
A/E16*-STUPR/L13-...	CSTB-3S	T-9F
A/E20*-STUPR/L1103-...	CSTB-3S	T-9F
A/E20*-STUPR/L13-...	CSTB-3	T-9F
A/E25*-STUPR/L16-...	CSTB-4M	T-15F
A32*-STUPR/L16-...	CSTB-4M	T-15F



INSERT SELECTION

P	Application	Finishing	Finishing to medium cutting	Medium cutting
	Grade	NS9530	T9215	T9215
	Breaker Shape	PSS	PS	PM
	Cutting conditions	B016		

M	Application	Finishing	Finishing to medium cutting	Medium cutting
	Grade	AH6225	AH6225	AH6225
	Breaker Shape	PSS	PS	PM
	Cutting conditions	B018		

K	Application	Finishing to medium cutting
	Grade	T515
	Breaker Shape	CM
	Cutting conditions	B020

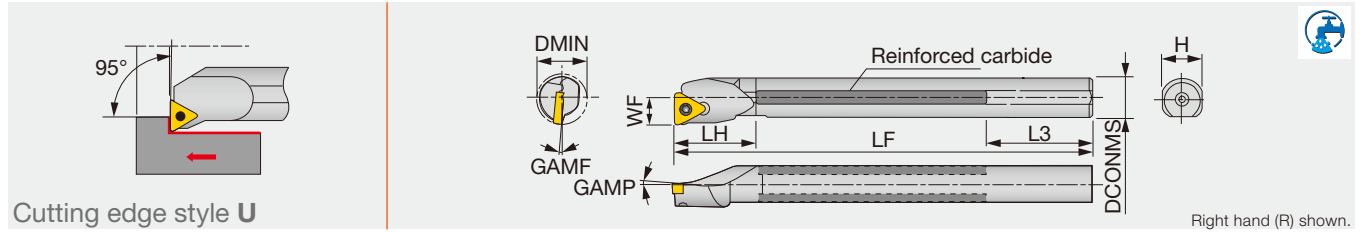
N	Application	Precision finishing
	Grade	DX140
	Breaker Shape	DIA with rake
	Cutting conditions	B022

S	Application	Precision finishing
	Grade	BX470
	Breaker Shape	CBN
	Cutting conditions	B024

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Breaker Shape	HP	HS
	Cutting conditions	B026	

T-STUPR/L

Screw-on boring bar, for positive 60° triangular inserts (Tsuppari-Ichiban)



Designation	Material	DMIN	CNT	DCONMS	WF	LF	LH	L3	H	GAMP	GAMF	RE**	Insert	Torque*
T12M-STUPR11-D14	Reinforced	14	-	12	7	150	24	59	11	5°	-4°	0.4	TP**1102...	1.2
T12M-STUPR/L11	Reinforced	16	-	12	9	150	24	58	11	5°	-4°	0.4	TP**1102...	1.2
T16Q-STUPR13-D18	Reinforced	18	-	16	9	180	30	59	15	5°	-3.5°	0.4	TP**1303...	1.4
T16Q-STUPR/L13	Reinforced	20	-	16	11	180	30	59	15	5°	-3°	0.4	TP**1303...	1.4
T20R-STUPR13C-D22	Reinforced	22	Rc1/4	20	11	200	35	49	18	5°	-2°	0.4	TP**1303...	1.4
T20R-STUPR/L13	Reinforced	24	-	20	13	200	40	49	18	5°	-2°	0.4	TP**1303...	1.4
T25S-STUPR16C-D27	Reinforced	27	Rc1/4	25	13.5	250	40	64	23	5°	-1°	0.8	TP**16T3...	3
T25S-STUPR/L16	Reinforced	31	-	25	17	250	45	64	23	5°	0°	0.8	TP**16T3...	3

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

Note: Use right-hand toolholders (STUPR**) with left-hand inserts (L); and left-hand toolholders (STUPL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
T12M-STUPR11-D14	CSTB-2.5B	T-8F
T12M-STUPR/L11	CSTB-2.5	T-8F
T16Q-STUPR13-D18	CSTB-3S	T-9F
T16Q-STUPR/L13	CSTB-3	T-9F
T20R-STUPR13C-D22	CSTB-3S	T-9F
T20R-STUPR/L13	CSTB-3	T-9F
T25S-STUPR/L16...	CSTB-4S	T-15F

INSERT SELECTION

P	Application	Finishing	Finishing to medium cutting	Medium cutting
	Grade	NS9530	T9215	T9215
	Breaker Shape	PSS	PS	PM
	Cutting conditions	B016		

M	Application	Finishing	Finishing to medium cutting	Medium cutting
	Grade	AH6225	AH6225	AH6225
	Breaker Shape	PSS	PS	PM
	Cutting conditions	B018		

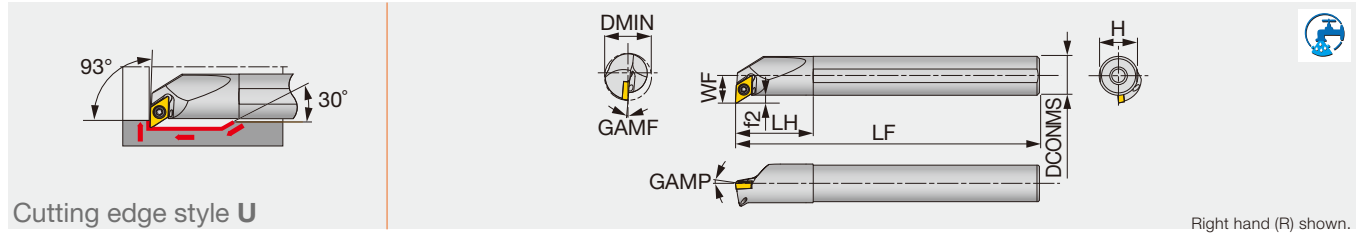
K	Application	Finishing to medium cutting
	Grade	T515
	Breaker Shape	CM
	Cutting conditions	B020

N	Application	Precision finishing
	Grade	DX140
	Breaker Shape	DIA with rake
	Cutting conditions	B022

S	Application	Precision finishing
	Grade	BX470
	Breaker Shape	CBN
	Cutting conditions	B024

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Breaker Shape	HP	HS
	Cutting conditions	B026	

Reference pages: T-STUPR/L: Insert → **B142 -**, CBN → **B199 -**, PCD → **B216 -**



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A10K-SDUCR/L07-D130	Steel	13	10	7	125	20	9	2	0°	-10°	0.4	DC**0702...	1.2
A12M-SDUCR/L07-D160	Steel	16	12	9.3	150	24	11	3.3	0°	-6°	0.4	DC**0702...	1.2
A16Q-SDUCR/L07-D200	Steel	20	16	11.3	180	32	15	3.3	0°	-5°	0.4	DC**0702...	1.2
A20R-SDUCR/L11-D270	Steel	27	20	16.1	200	36	18	6.1	0°	-5°	0.8	DC**11T3...	3
A25S-SDUCR/L11-D320	Steel	32	25	18.6	250	45	23	6.1	0°	-4°	0.8	DC**11T3...	3
E10H-SDUCR07-D130	Carbide	13	10	7	100	25	9	1.9	5°	-3.5°	0.4	DC**0702...	1.2
E10M-SDUCR/L07-D130	Carbide	13	10	7	150	25	9	2	0°	-10°	0.4	DC**0702...	1.2
E12J-SDUCR07-D160	Carbide	16	12	9.3	110	27	11	3.2	0°	-6°	0.4	DC**0702...	1.2
E12Q-SDUCR/L07-D160	Carbide	16	12	9.3	180	27	11	3.3	0°	-6°	0.4	DC**0702...	1.2
E16L-SDUCR07-D200	Carbide	20	16	11.3	130	32	15	3.2	0°	-5°	0.4	DC**0702...	1.2
E16R-SDUCR/L07-D200	Carbide	20	16	11.3	200	32	15	3.3	0°	-5°	0.4	DC**0702...	1.2
E20S-SDUCR11-D270	Carbide	27	20	16.1	250	36	18	6.1	0°	-5°	0.8	DC**11T3...	3

*Torque: Recommended clamping torque (N-m)

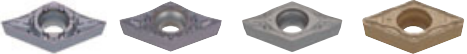
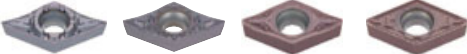
**RE : Standard corner radius

Note: Use right-hand toolholders (SDUCR**) with left-hand inserts (L); and left-hand toolholders (SDUCL**) with right-hand inserts (R).

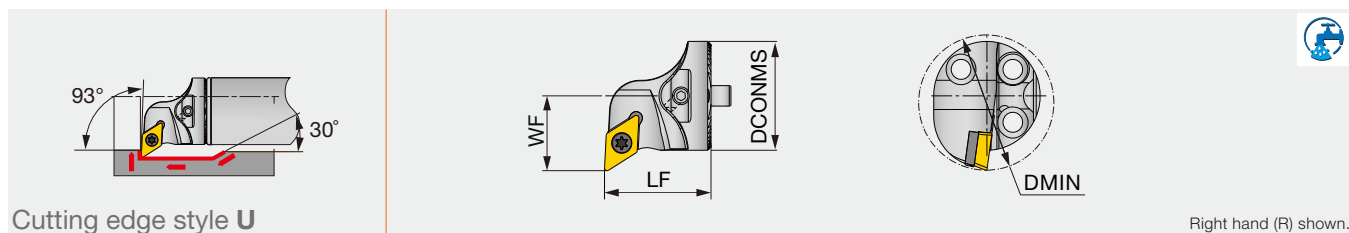
SPARE PARTS

Designation	Clamping screw	Wrench
A1**-SDUCR/L07-D1*0	CSTB-2.5S	T-8F
A16Q-SDUCR/L07-D200	CSTB-2.5	T-8F
A2**-SDUCR/L11-D**0	CSTB-4S	T-15F
E1**-SDUCR/L07-D1*0	CSTB-2.5S	T-8F
E16*-SDUCR/L07-D200	CSTB-2.5	T-8F
E20S-SDUCR11-D270	CSTB-4S	T-15F

INSERT SELECTION

P	Application	Precision finishing	Finishing		Finishing to medium cutting					
	Grade	SH725	SH725	NS9530	T9215					
	Breaker Shape	JP	JS	PSS	PS					
										
Cutting conditions						B016				
P	Application	Medium cutting								
	Grade	T9215								
	Breaker Shape	PM								
										
Cutting conditions						B016				
K	Application	Finishing to medium cutting								
	Grade	T515								
	Breaker Shape	CM								
										
Cutting conditions						B020				
S	Application	Precision finishing	Finishing	Finishing to medium cutting						
	Grade	BX470	AH8005	AH8015						
	Breaker Shape	CBN	PS	PS						
										
Cutting conditions						B024				
M	Application	Precision finishing	Finishing		Finishing to medium cutting					
	Grade	SH725	SH725	AH6225	AH6225					
	Breaker Shape	JP	JS	PSS	PS					
										
Cutting conditions						B018				
M	Application	Medium cutting								
	Grade	AH6225								
	Breaker Shape	PM								
										
Cutting conditions						B018				
N	Application	Precision finishing	Finishing	Finishing to medium cutting						
	Grade	DX120	DX140	KS05F						
	Breaker Shape	DIA	with rake	AL						
										
Cutting conditions						B022				
H	Application	Precision finishing	Finishing							
	Grade	BXA10	BXA20							
	Breaker Shape	HP	HS							
										
Cutting conditions						B026				

Reference pages: A/E-SDUCR/L: Insert → **B119 -**, CBN → **B182**, PCD → **B194 -**



Cutting edge style U

Right hand (R) shown.

Designation	DMIN	DCONMS	WF	LF	Shank	Insert
S16-SDUCR/L07-H	20	16	11	20	D/G16	DC**0702...
S20-SDUCR/L11-H	25	20	13	20	D/G20	DC**11T3...
S25-SDUCR/L11-H	32	25	17	20	D25	DC**11T3...
S32-SDUCR/L11T-H	40	32	22	32	D32	DC**11T3...
S40-SDUCR/L11T-H	50	40	27	32	D40, D50, D60	DC**11T3...

Note: Use right-hand toolholders (SDUCR**) with left-hand inserts (L); and left-hand toolholders (SDUCL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench	Shim	Shim screw
S16-SDUCR/L07-H	SR14-548	T-7/5	-	-
S20-SDUCR/L11-H	SR16-236P	T-15/5	-	-
S25-SDUCR/L11-H	SR16-236P	T-15/5	-	-
S32-SDUCR/L11T-H	SR16-236P	T-15/5	TDC3-1P	SRTC-3P
S40-SDUCR/L11T-H	SR16-236P	T-15/5	TDC3-1P	SRTC-3P

INSERT SELECTION

P	Application	Precision finishing	Finishing	Finishing to medium cutting
	Grade	SH725	SH725	NS9530
	Breaker Shape	JP	JS	PSS
	Cutting conditions	B016		

P	Application	Medium cutting
	Grade	T9215
	Breaker Shape	PM
	Cutting conditions	B016

K	Application	Finishing to medium cutting
	Grade	T515
	Breaker Shape	CM
	Cutting conditions	B020

S	Application	Precision finishing	Finishing	Finishing to medium cutting
	Grade	BX470	AH8005	AH8015
	Breaker Shape	CBN	PS	PS
	Cutting conditions	B024		

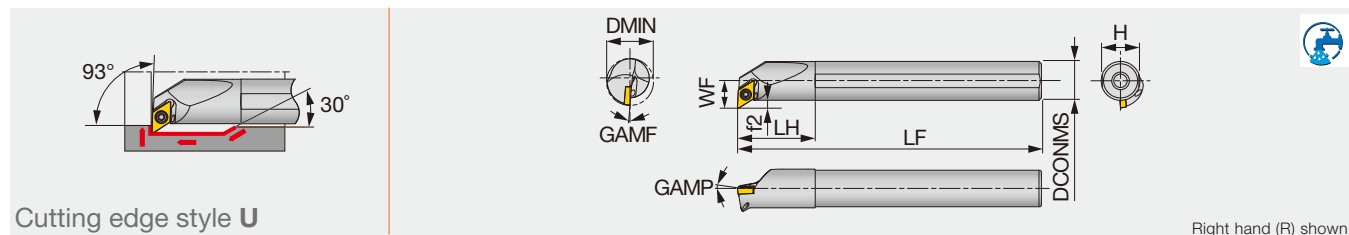
M	Application	Precision finishing	Finishing	Finishing to medium cutting
	Grade	SH725	SH725	AH6225
	Breaker Shape	JP	JS	PSS
	Cutting conditions	B018		

M	Application	Medium cutting
	Grade	AH6225
	Breaker Shape	PM
	Cutting conditions	B018

N	Application	Precision finishing	Finishing	Finishing to medium cutting
	Grade	DX120	DX140	KS05F
	Breaker Shape	DIA	with rake	AL
	Cutting conditions	B022		

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Breaker Shape	HP	HS
	Cutting conditions	B026	

Reference pages: S-SDUCR/L-H: Insert → **B121 -**, CBN → **B193 -**, PCD → **B214**
Shank → **D090 - D092**



Cutting edge style U

Right hand (R) shown.

Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A12M-SDUPR07-D150-P	Special alloy steel	15	12	8.3	150	24	11	2.3	5	0	0.4	DPMT0702...	1.2
A12M-SDUPL07-D150-P	Special alloy steel	15	12	8.3	150	24	11	2.3	5	0	0.4	DPMT0702...	1.2
A12M-SDUPR07-D180-P	Special alloy steel	18	12	10.3	150	24	11	4.3	5	0	0.4	DPMT0702...	1.2
A12M-SDUPL07-D180-P	Special alloy steel	18	12	10.3	150	24	11	4.3	5	0	0.4	DPMT0702...	1.2
A16Q-SDUPR07-D220-P	Special alloy steel	22	16	12.3	180	32	15	4.3	5	0	0.4	DPMT0702...	1.2
A16Q-SDUPL07-D220-P	Special alloy steel	22	16	12.3	180	32	15	4.3	5	0	0.4	DPMT0702...	1.2
E12Q-SDUPR07-D150	Carbide	15	12	8.3	180	27	11	2.3	5	0	0.4	DPMT0702...	1.2
E12Q-SDUPL07-D150	Carbide	15	12	8.3	180	27	11	2.3	5	0	0.4	DPMT0702...	1.2
E12Q-SDUPR07-D180	Carbide	18	12	10.3	180	27	11	4.3	5	0	0.4	DPMT0702...	1.2
E12Q-SDUPL07-D180	Carbide	18	12	10.3	180	27	11	4.3	5	0	0.4	DPMT0702...	1.2
E16R-SDUPR07-D220	Carbide	22	16	12.3	200	32	15	4.3	5	0	0.4	DPMT0702...	1.2
E16R-SDUPL07-D220	Carbide	22	16	12.3	200	32	15	4.3	5	0	0.4	DPMT0702...	1.2

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

Note: Use right-hand toolholders (SCLPR**) with left-hand inserts (L); and left-hand toolholders (SCLPL**) with right-hand inserts (R).

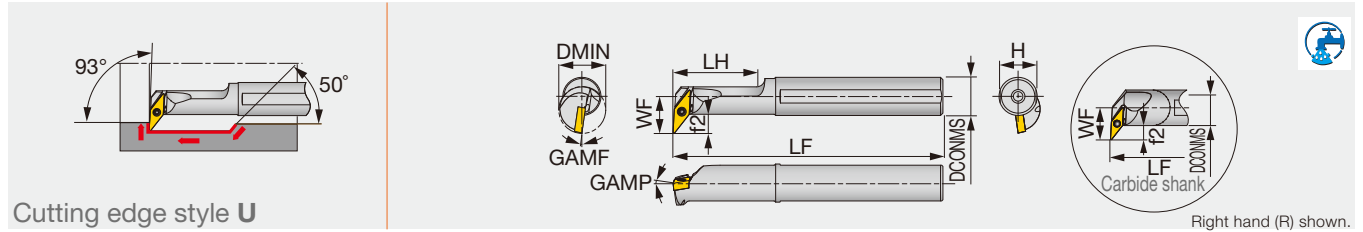
SPARE PARTS

Designation	Clamping screw	Wrench
A**-SDUPR/L07-D**0-P	CSTB-2.5S	T-8F
E**-SDUPR/L07-D**0	CSTB-2.5S	T-8F

INSERT SELECTION

P	Application	Finishing	Finishing to medium cutting
	Grade	NS9530	T9215
	Breaker Shape	PS	PS
	Cutting conditions	B016	
M	Application	Finishing	Finishing to medium cutting
	Grade	AH6225	AH6225
	Chipbreaker shape	PS	PS
	Cutting conditions	B018	
K	Application	Finishing	Finishing to medium cutting
	Grade	NS9530	T9215
	Breaker Shape	PS	PS
	Cutting conditions	B020	
S	Application	Finishing	Finishing to medium cutting
	Grade	AH8015	AH8015
	Breaker Shape	PS	PS
	Cutting conditions	B024	

Reference pages: A/E-SDUPR/L: Insert → **B126**



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A16Q-SVUBR/L11-D200	Steel	20	16	15.5	180	35	15	8	0°	-8°	0.4	VB**1103...	1.2
A20R-SVUBR/L11-D250	Steel	25	20	17.5	200	40	19	8	0°	-7°	0.4	VB**1103...	1.2
A25S-SVUBR/L16-D320	Steel	32	25	20.5	250	50	23	8.5	0°	-6°	0.8	VB**1604...	3
E16R-SVUBR/L11-D245	Carbide	24.5	16	16	200	-	15	8	0°	-8°	0.4	VB**1103...	1.2
E20S-SVUBR/L11-D285	Carbide	28.5	20	18	250	-	19	8	0°	-7°	0.4	VB**1103...	1.2
E25T-SVUBR/L16-D340	Carbide	34	25	21	300	-	23	8.5	0°	-6°	0.8	VB**1604...	3

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

Note: Use right-hand toolholders (SVUBR**) with left-hand inserts (L); and left-hand toolholders (SVUBL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
A**-SVUBR/L11-D2*0	CSTB-2.5	T-8F
A25S-SVUBR/L16-D320	CSTB-3.5	T-15F
E**-SVUBR/L11-D2*5	CSTB-2.5	T-8F
E25T-SVUBR/L16-D340	CSTB-3.5	T-15F

INSERT SELECTION

P	Application	Precision finishing	Finishing		Finishing to medium cutting
	Grade	SH725	SH725	NS9530	T9215
	Breaker Shape	JP	JS	PSS	PS
					
Cutting conditions B014					

P	Application	Medium cutting
	Grade	T9215
	Breaker Shape	PS
		
Cutting conditions B014		

K	Application	Finishing to medium cutting	S	Application	Finishing	Finishing to medium cutting
	Grade	T515		Grade	AH8005	AH8015
	Breaker Shape	CM		Breaker Shape	PS	PS
						
Cutting conditions B020			Cutting conditions B024			

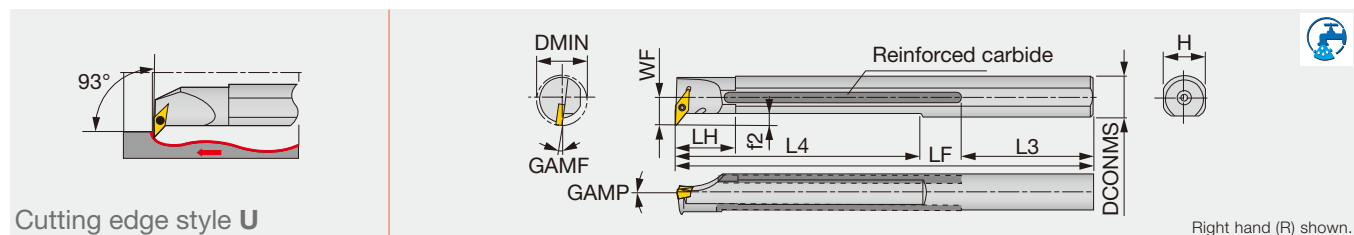
H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Breaker Shape	HP	HS
			
Cutting conditions B026			

M	Application	Precision finishing	Finishing		Finishing to medium cutting
	Grade	SH725	SH725	AH6225	AH6225
	Chipbreaker shape	JP	JS	PSS	PS
					
Cutting conditions B016					

M	Application	Medium cutting
	Grade	AH6225
	Chipbreaker shape	PS
		
Cutting conditions B016		

T-SVUBR

Screw-on boring bar, for positive 35° rhombic inserts (Tsuppari-Ichiban)



Designation	Material	DMIN	CNT	DCONMS	WF	LF	LH	L3	L4	H	f2	GAMP	GAMF	RE**	Insert	Torque*
T20R-SVUBR11C	Reinforced	25	Rc1/4	20	14	200	30	59	121	18	4	0°	-8°	0.4	VB**1103...	1.2

*Torque: Recommended clamping torque (N·m)

**RE : Standard corner radius

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

SPARE PARTS

Designation	Clamping screw	Wrench
T20R-SVUBR11C	CSTB-2.5	T-8F

INSERT SELECTION

P	Application	Precision finishing	Finishing		Finishing to medium cutting
	Grade	SH725	SH725	NS9530	T9215
	Breaker Shape	JP	JS	PSS	PS
	Cutting conditions	B014			

P	Application	Medium cutting
	Grade	T9215
	Breaker Shape	PS
	Cutting conditions	B014

K	Application	Finishing to medium cutting
	Grade	T515
	Breaker Shape	CM
	Cutting conditions	B020

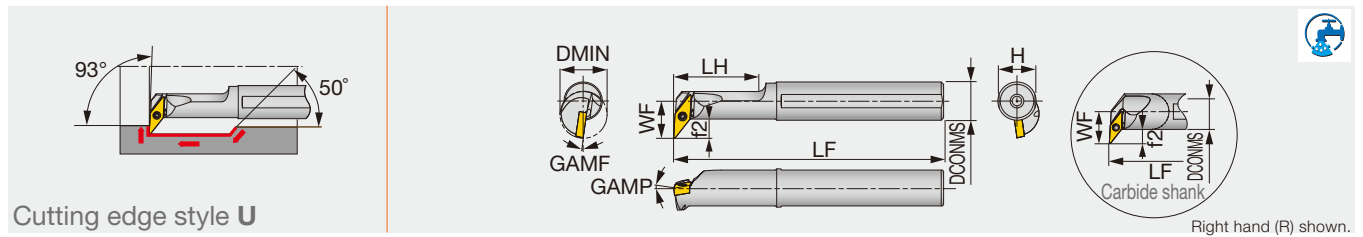
S	Application	Finishing	Finishing to medium cutting
	Grade	AH8005	AH8015
	Breaker Shape	PS	PS
	Cutting conditions	B024	

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Breaker Shape	HP	HS
	Cutting conditions	B026	

M	Application	Precision finishing	Finishing		Finishing to medium cutting
	Grade	SH725	SH725	AH6225	AH6225
	Chipbreaker shape	JP	JS	PSS	PS
	Cutting conditions	B016			

M	Application	Medium cutting
	Grade	AH6225
	Chipbreaker shape	PS
	Cutting conditions	B016

Reference pages: T-SVUBR: Insert → **B150 -**, CBN → **B207 -**



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A12M-SVUCR/L08-D160	Steel	16	12	11	150	30	11	5.5	0°	-8°	0.4	VC**0802...	0.6
A25S-SVUCR/L16-D320	Steel	32	25	19	250	45	23	6.5	0°	-5°	0.8	VC**1604...	3
E12Q-SVUCR/L08-D180	Carbide	18	12	11.5	180	-	11	5.5	0°	-8°	0.4	VC**0802...	0.6
E25T-SVUCR/L16-D320	Carbide	32	25	19	300	-	23	6.5	0°	-5°	0.8	VC**1604...	3

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

Note: Use right-hand toolholders (SVUCR**) with left-hand inserts (L); and left-hand toolholders (SVUCL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
A12M-SVUCR/L08-D160	CSTB-2L	T-6F
A25S-SVUCR/L16-D320	CSTB-3.5	T-15F
E12Q-SVUCR/L08-D180	CSTB-2L	T-6F
E25T-SVUCR/L16-D320	CSTB-3.5	T-15F

INSERT SELECTION

P	Application	Finishing	Finishing to medium cutting
	Grade	NS9530	T9215
	Breaker Shape	PSS	PS
	Cutting conditions	B016	

M	Application	Finishing	Finishing to medium cutting
	Grade	AH6225	AH6225
	Chipbreaker shape	PSS	PS
	Cutting conditions	B018	

K	Application	Finishing to medium cutting
	Grade	T515
	Breaker Shape	CM
	Cutting conditions	B020

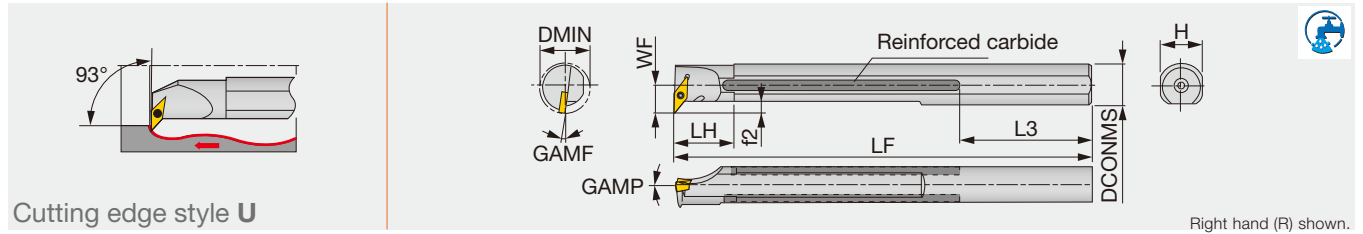
N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	KS05F
	Breaker Shape	DIA	with rake DIA	AL
	Cutting conditions	B022		

S	Application	Finishing	Finishing to medium cutting
	Grade	AH8005	AH8015
	Breaker Shape	PS	PS
	Cutting conditions	B024	

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Breaker Shape	CBN	CBN
	Cutting conditions	B026	

T-SVUCR

Screw-on boring bar, for positive 35° rhombic inserts (Tsuppari-Ichiban)



Designation	Material	DMIN	CNT	DCONMS	WF	LF	LH	L3	H	f2	GAMP	GAMF	RE**	Insert	Torque*
T25S-SVUCR16C	Reinforced	32	Rc1/4	25	19	250	40	64	23	6.5	0°	-5°	0.8	VC**1604...	3

*Torque: Recommended clamping torque (N·m)

**RE : Standard corner radius

*The hole specification of applicable inserts conforms to ISO standard.

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

SPARE PARTS

Designation	Clamping screw	Wrench
T25S-SVUCR16C	CSTB-3.5L	T-15F

INSERT SELECTION

P	Application	Finishing	Finishing to medium cutting
	Grade	NS9530	T9215
	Breaker Shape	PSS	PS
Cutting conditions		B016	

M	Application	Finishing	Finishing to medium cutting
	Grade	AH6225	AH6225
	Chipbreaker shape	PSS	PS
Cutting conditions		B018	

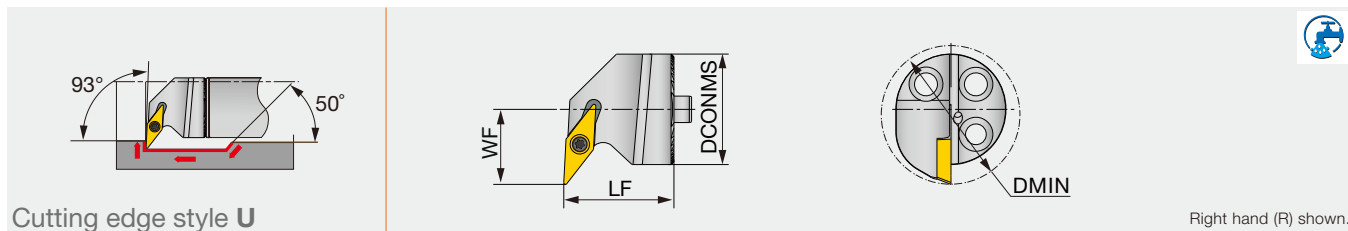
K	Application	Finishing to medium cutting
	Grade	T515
	Breaker Shape	CM
Cutting conditions		B020

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	KS05F
	Breaker Shape	DIA	with rake DIA	AL
Cutting conditions		B022		

S	Application	Finishing	Finishing to medium cutting
	Grade	AH8005	AH8015
	Breaker Shape	PS	PS
Cutting conditions		B024	

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Breaker Shape	CBN	CBN
Cutting conditions		B026	

Reference pages: T-SVUCR: Insert → **B152** -, CBN → **B209**, PCD → **B220**



Cutting edge style **U**

Right hand (R) shown.

Designation	DMIN	DCONMS	WF	LF	Shank	Insert
S20-SVUCR/L11-H	27	20	16	20	D/G20	VC**1103...
S25-SVUCR/L11-H	31	25	17	25	D25	VC**1103...

Note: Use right-hand toolholders (SVUCR**) with left-hand inserts (L); and left-hand toolholders (SVUCL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
S20-SVUCR/L11-H	SR14-560	T-8/5
S25-SVUCR/L11-H	SR14-560	T-8/5

INSERT SELECTION

P	Application	Finishing	Finishing to medium cutting
	Grade	NS9530	T9215
	Breaker Shape	PSS	PS
	Cutting conditions	B016	

M	Application	Finishing	Finishing to medium cutting
	Grade	AH6225	AH6225
	Chipbreaker shape	PSS	PS
	Cutting conditions	B018	

K	Application	Finishing to medium cutting
	Grade	T515
	Breaker Shape	CM
	Cutting conditions	B020

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	KS05F
	Breaker Shape	DIA	with rake DIA	AL
	Cutting conditions	B022		

S	Application	Finishing	Finishing to medium cutting
	Grade	AH8005	AH8015
	Breaker Shape	PS	PS
	Cutting conditions	B024	

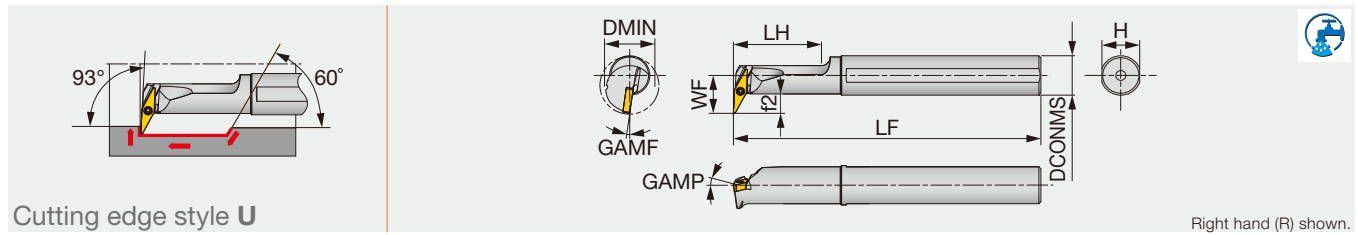
H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Breaker Shape	CBN	CBN
	Cutting conditions	B026	

Reference pages: S-SVUCR/L-H: Insert → **B152 -**, CBN → **B209**, PCD → **B220**
Shank → **D090 - D092**

Y-PRO SERIES

A/E-SYUBR/L

Screw-on boring bar, for positive 25° rhombic inserts



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A16Q-SYUBR/L11-D200	Steel	20	16	15.5	180	35	15	8	0°	-8°	0.4	YW**11T2...	0.6
E12Q-SYUBR/L11-D200	Carbide	20	12	13.5	180	27	11	7.5	0°	-8°	0.4	YW**11T2...	0.6
E16R-SYUBR/L11-D245	Carbide	24.5	16	16	200	32	15	8	0°	-8°	0.4	YW**11T2...	0.6

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

SPARE PARTS

Designation	Clamping screw	Wrench
A16Q-SYUBR/L11-D200	CSTB-2L	T-6F
E**SYUBR/L11-D...	CSTB-2L	T-6F

INSERT SELECTION

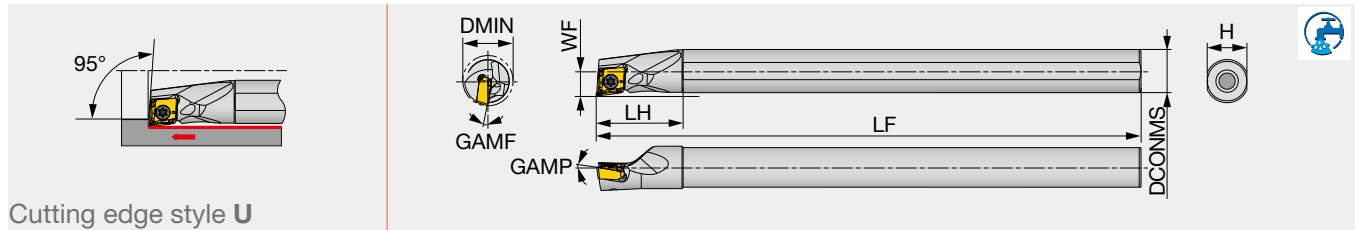
P	Application	Finishing	Finishing to medium cutting	Medium cutting
	Grade	GT9215	T9215	T9215
	Breaker Shape	ZF	ZF	ZM
	Cutting conditions	B016		

M	Application	Finishing	Finishing to medium cutting	Medium cutting
	Grade	AH8015	AH8015	AH8015
	Breaker Shape	ZF	ZF	ZM
	Cutting conditions	B018		

K	Application	Finishing	Finishing to medium cutting	Medium cutting
	Grade	GT9530	T9215	T9215
	Breaker Shape	ZF	ZF	ZM
	Cutting conditions	B020		

S	Application	Finishing	Finishing to medium cutting	Medium cutting
	Grade	AH8015	AH8015	AH8015
	Breaker Shape	ZF	ZF	ZM
	Cutting conditions	B024		

Reference pages: A/E-SYUBR/L: Insert → **B159**



Cutting edge style **U**

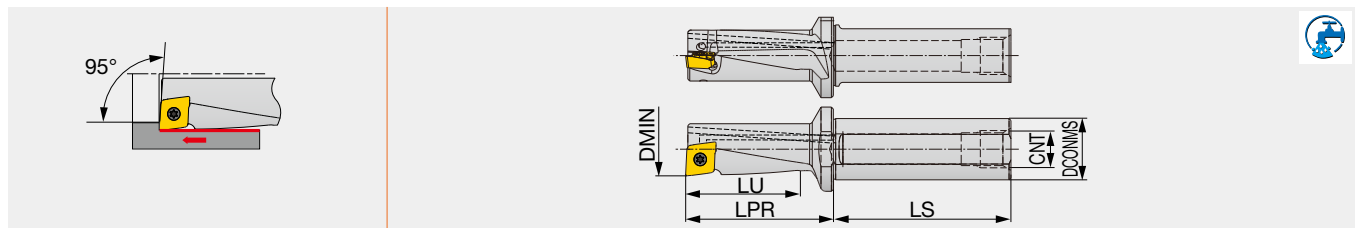
Designation	DMIN	DCONMS	WF	LF	LH	H	GAMP	GAMF	Insert
A08H-SXUOR/L05-D100	10	8	5	100	16	7.5	-7°	-0.8°	XOMU05X204-PS
A12M-SXUOR/L07-D140	14	12	7	150	24	11	-7.2°	3.2°	XOMU07H304-PS
E08K-SXUOR/L05-D100	10	8	5	125	22	7.5	-7°	-0.8°	XOMU05X204-PS
E12Q-SXUOR/L07-D140	14	12	7	180	27	11	-7.2°	3.2°	XOMU07H304-PS

SPARE PARTS

Designation	Clamping screw	Wrench
A08H-SXUOR/L05-D100	CSTB-2L040	T-6F
A12M-SXUOR/L07-D140	CSPB-2.5	IP-8D
E08K-SXUOR/L05-D100	CSTB-2L040	T-6F
E12Q-SXUOR/L07-D140	CSPB-2.5	IP-8D

TBM

Maximum hole depth for LH/DC = 2.25

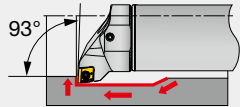


Designation	DMIN	DCONMS	LU	LS	LPR	CNT	Insert
TBM10R/LF12-2.25	10	12	22.5	41.5	28.45	UNF 5/16-24	XOMU05X204-PS
TBM12R/LF16-2.25	12	16	27	43.9	33.53	G1/8	XOMU06H204-PS
TBM14R/LF16-2.25	14	16	31.5	46.4	38.57	G1/8	XOMU07H304-PS
TBM16R/LF20-2.25	16	20	36	57.1	42.9	G1/8	XOMU08T304-PS

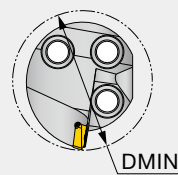
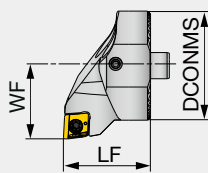
SPARE PARTS

Designation	Clamping screw	Wrench
TBM10R/LF12-2.25	CSTB-2L040	T-6D
TBM12R/LF16-2.25	CSPB-2.2	IP-7D
TBM14R/LF16-2.25	CSPB-2.5	IP-8D
TBM16R/LF20-2.25	CSTB-3	T-9D

Screw-on clamp exchangeable boring head, for XOMU inserts



Cutting edge style U



Right hand (R) shown.

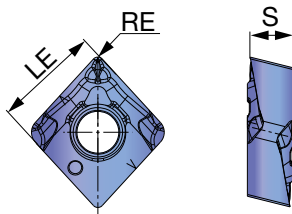
Designation	DMIN	DCONMS	WF	LF	Shank	Insert
S20-SXUOR05-H	25	20	13	20	D20	XOMU05X204-PS
S25-SXUOR05-H	32	25	17	20	D25	XOMU05X204-PS

SPARE PARTS

Designation	Clamping screw	Wrench
S**-SXUOR05-H	CSTB-2L040	T-6F

INSERT

XOMU-PS



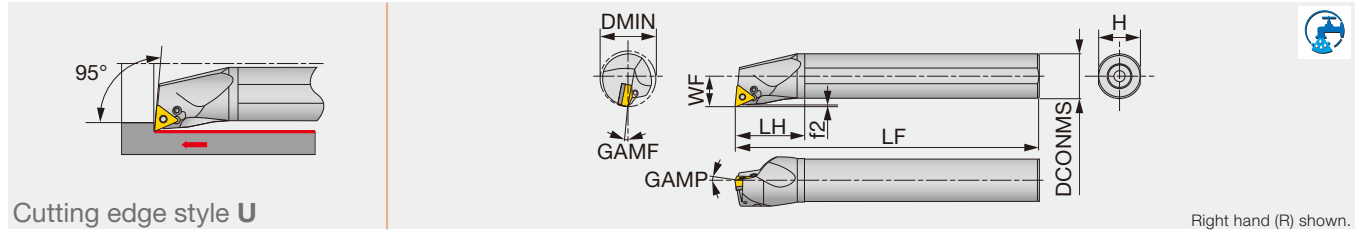
P	Steel	★				
M	Stainless	★				
K	Cast iron	★				
N	Non-ferrous	★				
S	Superalloys					
H	Hard materials					

★ : First choice
☆ : Second choice

Designation	RE									S	LE
		Coated									
		AH725									
XOMU05X204-PS	0.4	●								2.3	5.56
XOMU06H204-PS	0.4	●								2.7	6.3
XOMU07H304-PS	0.4	●								3.3	7.3
XOMU08T304-PS	0.4	●								4	8.3

●: Line up

Reference pages: Shank → **D090 - D092**
Standard cutting conditions → **D098**



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A25R-PTUNR/L1104-D320	Steel	32	25	17	200	45	23	1.22	-6°	-12°	0.8	TN**1104...	2
A32S-PTUNR/L1104-D400	Steel	40	32	22	250	50	30	1.16	-6°	-10°	0.8	TN**1104...	2
A16M-PTUNR/L11-D200	Steel	20	16	11	150	32	15	1	-6°	-14°	0.4	TN**1103...	1.7
A20Q-PTUNR/L11-D250	Steel	25	20	13	180	36	18	1	-6°	-12°	0.4	TN**1103...	1.7
A25R-PTUNR/L16-D320	Steel	32	25	17	200	45	23	1.4	-6°	-12°	0.8	TN**1604...	2.7
A32S-PTUNR/L16-D400	Steel	40	32	22	250	50	30	1.3	-6°	-10°	0.8	TN**1604...	2.7

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

*The hole specification of applicable inserts conforms to ISO standard.

Toolholder length may not conform to ISO standard.

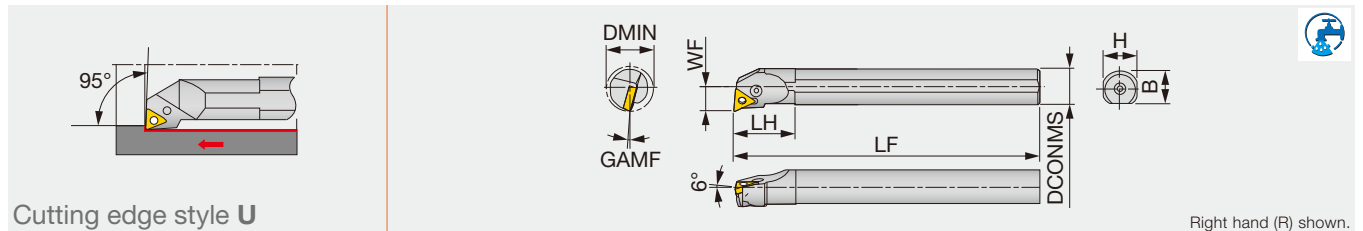
Note: Use right-hand toolholders (PTUNR**) with left-hand inserts (L); and left-hand toolholders (PTUNL**) with right-hand inserts (R).

Designation	Shim	Clamping screw 1	Clamping screw 2	Wrench 1	Wrench 2	Spring pin	Lever	Oil supply attachment*	Screw for oil hole*
A25R-PTUNR/L1104-D320	-	LCS23A	-	-	P-2.5	-	LCL23	EA-25	SSHM4-5
A32S-PTUNR/L1104-D400	-	LCS23A	-	-	P-2.5	-	LCL23	EA-32	SSHM4-5
A16M-PTUNR/L11-D200	-	LCS22A	-	P-2F	-	-	LCL22N	-	SSHM3-4
A20Q-PTUNR/L11-D250	-	LCS22A	-	P-2F	-	-	LCL22N	EA-20	SSHM3-4
A25R-PTUNR/L16-D320	ELST317BR/L	-	LCS3	-	P-2.5	LSP3	LCL33	EA-25	SSHM4-5
A32S-PTUNR/L16-D400	LST317BR/L	-	LCS3	-	P-2.5	LSP3	LCL3	EA-32	SSHM4-5

*Optional

A/S-PTUNR/L

Lever-lock boring bar, for negative 60° triangular inserts



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	B	GAMF	RE**	Insert	Torque*
S16M-PTUNR/L11	Steel	20	16	11	150	30	15	15.5	-14°	0.4	TN**1103...	1.7
S20Q-PTUNR/L11	Steel	25	20	13	180	35	18	19	-12°	0.4	TN**1103...	1.7
S25R-PTUNR/L16	Steel	32	25	17	200	40	23	24	-12°	0.8	TN**1604...	2.7
A32S-PTUNR/L16	Steel	40	32	22	250	50	30	29.5	-12°	0.8	TN**1604...	2.7

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

*The hole specification of applicable inserts conforms to ISO standard.

Toolholder length may not conform to ISO standard.

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

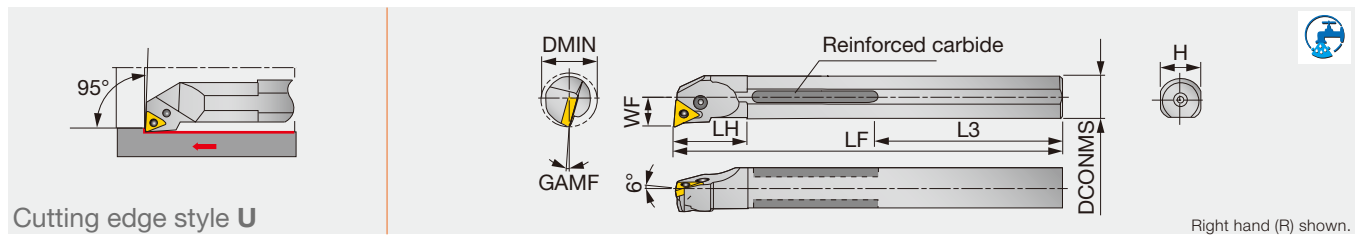
Designation	Shim	Clamping screw 1	Clamping screw 2	Wrench 1	Wrench 2	Spring pin	Lever	Oil supply attachment*
S**-PTUNR/L11	-	LCS22A	-	P-2F	-	-	LCL22N	-
S25R-PTUNR16	ELST317BR	-	LCS3	-	P-2.5	LSP3	LCL33	-
S25R-PTUNL16	ELST317BL	-	LCS3	-	P-2.5	LSP3	LCL33	-
A32S-PTUNR16	LST317BR	-	LCS3	-	P-2.5	LSP3	LCL3	EA-32
A32S-PTUNL16	LST317BL	-	LCS3	-	P-2.5	LSP3	LCL3	EA-32

*Optional

Reference pages: A-PTUNR/L, A/S-PTUNR/L: Insert → **B087 -**, CBN → **B182 -**, PCD → **B212**

T-PTUNR

Lever-lock boring bar, for negative 60° triangular inserts (Tsuppari-Ichiban)



Designation	Material	DMIN	CNT	DCONMS	WF	LF	LH	L3	H	GAMF	RE**	Insert	Torque*
T16Q-PTUNR11	Reinforced	20	-	16	11	180	27	59	15	-14°	0.4	TN**1103...	1.7
T20R-PTUNR11C	Reinforced	25	Rc1/4	20	13	200	35	49	18	-12°	0.4	TN**1103...	1.7
T25S-PTUNR16C	Reinforced	32	Rc1/4	25	17	250	40	64	23	-12°	0.8	TN**1604...	2.7
T32U-PTUNR16C	Reinforced	40	Rc1/2	32	22	350	50	103	30	-10°	0.8	TN**1604...	2.7
T40V-PTUNR16C	Reinforced	50	Rc1/2	40	27	400	55	88	37	-10°	0.8	TN**1604...	2.7
T50W-PTUNR16C	Reinforced	63	Rc1/2	50	35	450	65	63	47	-8°	0.8	TN**1604...	2.7

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

*The hole specification of applicable inserts conforms to ISO standard.

Toolholder length may not conform to ISO standard.

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

SPARE PARTS

Designation	Shim	Clamping screw 1	Clamping screw 2	Wrench 1	Wrench 2	Spring pin	Lever
T**-PTUNR11...	-	LCS22A	-	P-2F	-	-	LCL22N
T25S-PTUNR16C	ELST317BR	-	LCS3	-	P-2.5	LSP3	LCL33
T**-PTUNR16C	LST317BR	-	LCS3	-	P-2.5	LSP3	LCL3

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Breaker Shape	TF	TSF	TM	TH
	Cutting conditions	B004			

M	Application	Finishing	Medium cutting
	Grade	T6215	AH6225
	Breaker Shape	SF	SM
	Cutting conditions	B006	

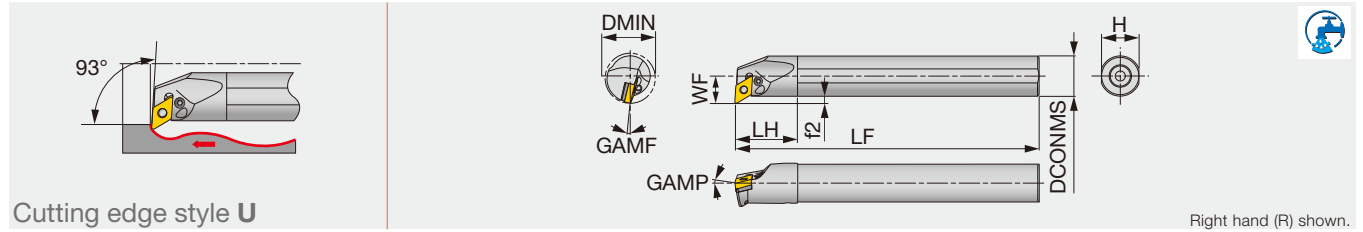
K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Breaker Shape	All-round	All-round	All-round
	Cutting conditions	B008		

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	TH10
	Breaker Shape	DIA	with rake T-DIA	P
	Cutting conditions	B010		

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX470	AH8005	AH8005
	Breaker Shape	CBN	HRF	HRM
	Cutting conditions	B012		

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Breaker Shape	HP	HS
	Cutting conditions	B014	

Reference pages: T-PTUNR: Insert → **B087** -, CBN → **B182** -, PCD → **B212**



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A20Q-PDUNR/L1104-D250	Steel	25	20	13	180	36	18	3	-6°	-14°	0.8	DN**/FNMG1104...	1.7
A20Q-PDUNR/L11-D250	Steel	25	20	13	180	36	18	3	-6°	-14°	0.8	DN**/FNMG1104...	1.7
A25R-PDUNR/L11-D320	Steel	32	25	17	200	45	23	4.5	-6°	-12°	0.8	DN**/FNMG1104...	2.7
A32S-PDUNR/L15-D400	Steel	40	32	22	250	50	30	6	-6°	-13°	0.8	DN**/FNGA1504...	4.8
A40T-PDUNR/L15-D500	Steel	50	40	27	300	60	37	7	-6°	-10°	0.8	DN**/FNGA1504...	4.8
A50U-PDUNR/L15-D630	Steel	63	50	35	350	65	47	10	-6°	-8°	0.8	DN**/FNGA1504...	4.8
A32S-PDUNR/L1506-D400	Steel	40	32	22	250	50	30	6	-6°	-13°	0.8	DN**/FNGA1506...	4.8
A40T-PDUNR/L1506-D500	Steel	50	40	27	300	60	37	7	-6°	-11°	0.8	DN**/FNGA1506...	4.8
A50U-PDUNR/L1506-D630	Steel	63	50	35	350	65	47	10	-6°	-10°	0.8	DN**/FNGA1506...	4.8

*Torque: Recommended clamping torque (N·m)

**RE : Standard corner radius

Note: Use right-hand toolholders (PDUNR**) with left-hand inserts (L); and left-hand toolholders (PDUNL**) with right-hand inserts (R).

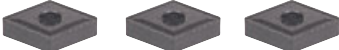
SPARE PARTS

Designation	Shim	Clamping screw 1	Clamping screw 2	Wrench 1	Wrench 2	Spring pin	Lever	Oil supply attachment*	Screw for oil hole*
A20Q-PDUNR/L1104-D250	-	LCS22A	-	P-2F	-	-	LCL33NL	EA-20	SSHM2.5-3
A20Q-PDUNR/L11-D250	-	LCS22A	-	P-2F	-	-	LCL33NL	EA-20	SSHM2.5-3
A25R-PDUNR/L11-D320	ELSD317BR/L	-	LCS3	-	P-2.5	LSP3	LCL33L	EA-25	SSHM3-4
A32S-PDUNR/L15-D400	LSD42BR/L	-	LCS4	-	P-3	LSP4	LCL4	EA-32	SSHM5-6
A40T-PDUNR/L15-D500	LSD42BR/L	-	LCS4	-	P-3	LSP4	LCL4	-	SSHM6-6
A50U-PDUNR/L15-D630	LSD42BR/L	-	LCS4	-	P-3	LSP4	LCL4	-	SSHM6-6
A32S-PDUNR/L1506-D400	ELSD42	-	ELCS4	-	P-3	LSP4S	LCL44	EA-20	SSHM5-6
A40T-PDUNR/L1506-D500	ELSD42	-	ELCS4	-	P-3	LSP4S	LCL44	-	SSHM6-6
A50U-PDUNR/L1506-D630	ELSD42	-	ELCS4	-	P-3	LSP4S	LCL44	-	SSHM6-6

*Optional

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting				
	Grade	NS9530	GT9530	T9215	T9215				
	Breaker Shape	TF	TSF	TM	TH				
									
Cutting conditions						B004			

K	Application	Finishing	Medium cutting	Medium to heavy cutting				
	Grade	T515	T515	T515				
	Breaker Shape	All-round	All-round	All-round				
								
Cutting conditions					B008			

S	Application	Precision finishing	Finishing	Medium cutting				
	Grade	CBN	HRF	HRM				
	Breaker Shape							
								
Cutting conditions					B012			

M	Application	Finishing	Medium cutting	Medium to heavy cutting				
	Grade	T6215	AH6225	AH6225				
	Chipbreaker shape	SF	SM	SH				
								
Cutting conditions					B006			

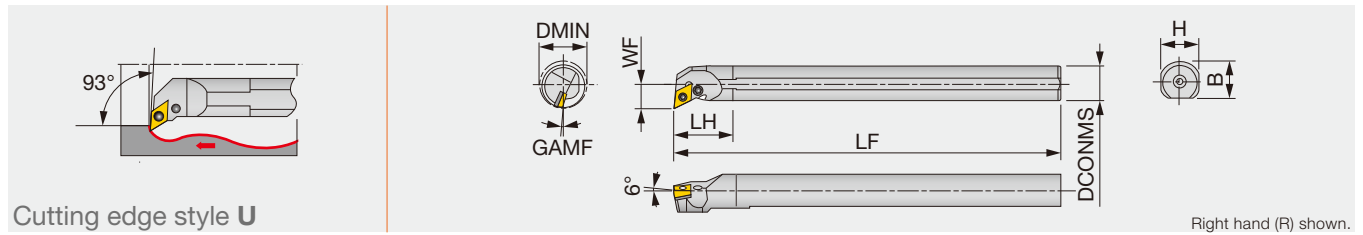
N	Application	Precision finishing	Finishing	Medium cutting				
	Grade	DX120	DX140	TH10				
	Breaker Shape	DIA	with rake T-DIA	P				
								
Cutting conditions					B010			

H	Application	Precision finishing	Finishing	
	Grade	BXA10	BXA20	
	Breaker Shape	HP	HS	
				
Cutting conditions			B014	

Reference pages: A-PDUNR/L: Insert → **B066** -, **B075**, CBN → **B172** -, PCD → **B211**

S-PDUNR/L

Lever-lock boring bar, for negative 55°/45° rhombic inserts



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	B	GAMF	RE**	Insert
S20Q-PDUNR/L11	Steel	25	20	13	180	35	18	19	-14°	0.8	DN**/FNMG1104...
S25R-PDUNR/L11	Steel	32	25	17	200	40	23	24	-12°	0.8	DN**/FNMG1104...
S32S-PDUNR/L15	Steel	40	32	22	250	50	30	29.5	-13°	0.8	DN**/FNGA1504...
S40T-PDUNR/L15	Steel	50	40	27	300	55	37	37.5	-10°	0.8	DN**/FNGA1504...
S50U-PDUNR/L15	Steel	63	50	35	350	65	47	47.5	-8°	0.8	DN**/FNGA1504...

**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	Shim	Clamping screw 1	Clamping screw 2	Wrench 1	Wrench 2	Spring pin	Lever
S20Q-PDUNR/L11	-	LCS22A	-	P-2F	-	-	LCL33NL
S25R-PDUNR11	ELSD317BR	-	LCS3	-	P-2.5	LSP3	LCL33L
S25R-PDUNL11	ELSD317BL	-	LCS3	-	P-2.5	LSP3	LCL33L
S32S-PDUNR15	LSD42BR	-	LCS4	-	P-3	LSP4	LCL4
S32S-PDUNL15	LSD42BL	-	LCS4	-	P-3	LSP4	LCL4
S40T-PDUNR15	LSD42BR	-	LCS4	-	P-3	LSP4	LCL4
S40T-PDUNL15	LSD42BL	-	LCS4	-	P-3	LSP4	LCL4
S50U-PDUNR15	LSD42BR	-	LCS4	-	P-3	LSP4	LCL4
S50U-PDUNL15	LSD42BL	-	LCS4	-	P-3	LSP4	LCL4

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Breaker Shape	TF	TSF	TM	TH
	Cutting conditions	B004			

K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Breaker Shape	All-round	All-round	All-round
	Cutting conditions	B008		

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	CBN	HRF	HRM
	Breaker Shape	BX470	AH8005	AH8005
	Cutting conditions	B012		

M	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T6215	AH6225	AH6225
	Chipbreaker shape	SF	SM	SH
	Cutting conditions	B006		

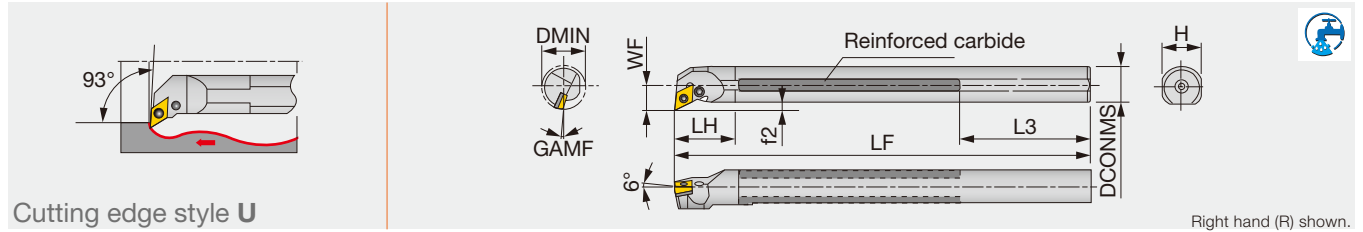
N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	TH10
	Breaker Shape	DIA	DIA with rake	P
	Cutting conditions	B010		

H	Application	Precision finishing	Finishing
	Grade	HP	HS
	Breaker Shape	BXA10	BXA20
	Cutting conditions	B014	

Reference pages: S-PDUNR/L: Insert → **B066** -, **B075**, CBN → **B172** -, PCD → **B211**

T-PDUNR

Lever-lock boring bar, for negative 55°/45° rhombic inserts (Tsuppari-Ichiban)



Cutting edge style U

Designation	Material	DMIN	CNT	DCONMS	WF	LF	LH	L3	H	f2	GAMF	RE**	Insert
T32U-PDUNR15C	Reinforced	40	Rc1/2	32	22	350	50	103	30	6	-13°	0.8	DN**/FNGA1504...
T40V-PDUNR15C	Reinforced	50	Rc1/2	40	27	400	55	88	37	7	-10°	0.8	DN**/FNGA1504...
T50W-PDUNR15C	Reinforced	63	Rc1/2	50	35	450	65	63	47	10	-8°	0.8	DN**/FNGA1504...

**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).

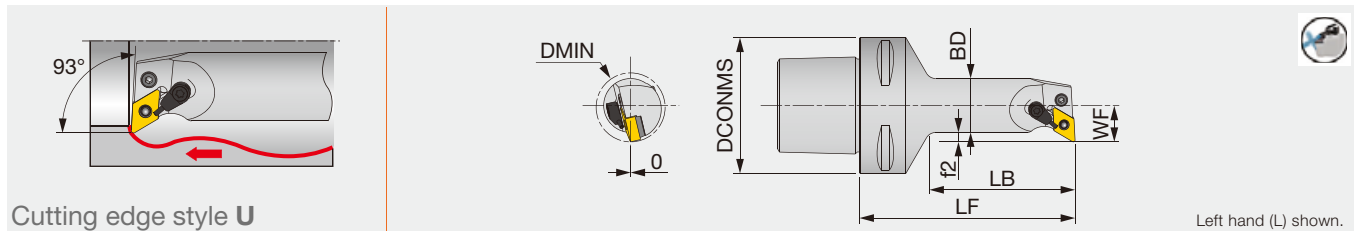
SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
T**-PDUNR15C	LSD42BR	LCS4	P-3	LSP4	LCL4

TUNGCAP

C-PDUNL-CHP

Lever-lock boring bar with TungCap connection, with 93° approach angle, for negative 55°/45° rhombic inserts, with high pressure coolant capability



Cutting edge style U

Designation	DMIN	DCONMS	BD	LF	LB	WF	f2	RE**	Insert
C6PDUNL17100-1104-CHP	32	63	25	100	67.5	17	4.5	0.8	DN**/FNMGI1104...

Applicable for 14 MPa coolant

**RE : Standard corner radius

SPARE PARTS

Designation	Shim	Clamping screw	Coolant unit	Wrench	Spring pin	Lever
C6PDUNL17100-1104-CHP	ELSD317BL	LCS43	S-CU-CHP	P-2.5	LSP3	LCL33L

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Breaker Shape	TF	TSF	TM	TH
					
Cutting conditions		B004			

K	Application	Finishing	Medium cutting	Medium to heavy cutting	
	Grade	T515	T515	T515	
	Breaker Shape	All-round	All-round	All-round	
					
Cutting conditions		B008			

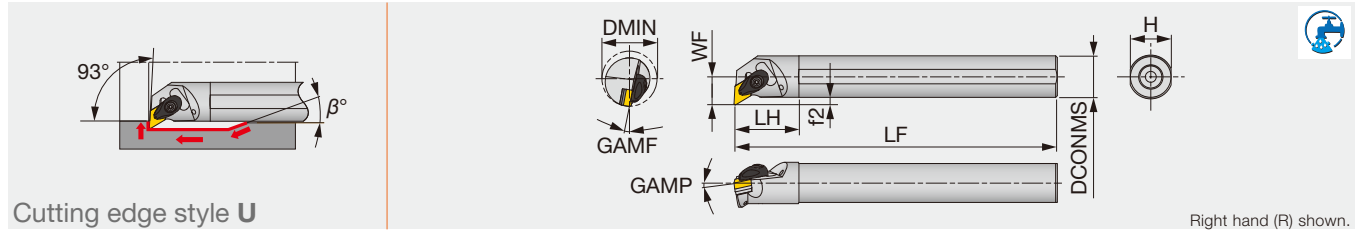
S	Application	Precision finishing	Finishing	Medium cutting	
	Grade	BX470	AH8005	AH8005	
	Breaker Shape	CBN	HRF	HRM	
					
Cutting conditions		B012			

M	Application	Finishing	Medium cutting	Medium to heavy cutting	
	Grade	T6215	AH6225	AH6225	
	Chipbreaker shape	SF	SM	SH	
					
Cutting conditions		B006			

N	Application	Precision finishing	Finishing	Medium cutting	
	Grade	DX120	DX140	TH10	
	Breaker Shape	DIA	DIA with rake	P	
					
Cutting conditions		B010			

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Breaker Shape	HP	HS
			
Cutting conditions		B014	

Reference pages: T-PDUNR, C-PDUNL-CHP: Insert → **B066 -**, **B075**, CBN → **B172 -**, PCD → **B211**



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	β°	RE**	Insert	Torque*
A25R-ADUNR/L1104-D320	Steel	32	25	17	200	45	23	4.5	-6°	-13°	20	0.8	DN**/FNMG1104...	3
A32S-ADUNR/L1104-D400	Steel	40	32	22	250	50	30	6	-6°	-11°	20	0.8	DN**/FNMG1104...	3
A25R-ADUNR/L15-D320	Steel	32	25	17	200	45	23	4.5	-6°	-13°	30	0.8	DN**/FNGA1504...	3
A32S-ADUNR/L15-D400	Steel	40	32	22	250	50	30	6	-6°	-11°	20	0.8	DN**/FNGA1504...	3
A40T-ADUNR15-D500	Steel	50	40	27	300	55	37	7	-6°	-8°	15	0.8	DN**/FNGA1504...	3
A50U-ADUNR15-D630	Steel	63	50	35	350	65	47	10	-6°	-7°	15	0.8	DN**/FNGA1504...	3
A25R-ADUNR/L1506-D320	Steel	32	25	17	200	45	23	4.5	-6°	-13°	15	0.8	DN**/FNGA1506...	3
A32S-ADUNR/L1506-D400	Steel	40	32	22	250	50	30	6	-6°	-11°	20	0.8	DN**/FNGA1506...	3

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
A**-ADUNR/L1104-D...	ACP3S-E	ACS-5W	BP-7	SP-2.5	ASD322	CSTB-3.5	T-15F
A**-ADUNR/L15-D...	ACP4S	ACS-5W	BP-7	SP-2.5	ASD432	CSTB-3.5	T-15F
A**-ADUNR/L1506-D...	ACP4S	ACS-5W	BP-7	SP-2.5	ASD423	CSTB-3.5	T-15F

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Breaker Shape	TF	TSF	TM	TH
	Cutting conditions	B004			

K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Breaker Shape	All-round	All-round	All-round
	Cutting conditions	B008		

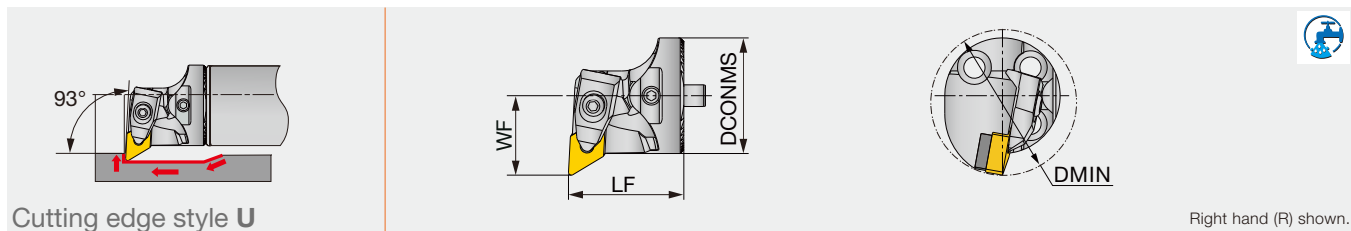
S	Application	Precision finishing	Finishing	Medium cutting
	Grade	CBN	HRF	HRM
	Breaker Shape	BX470	AH8005	AH8005
	Cutting conditions	B012		

M	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T6215	AH6225	AH6225
	Chipbreaker shape	SF	SM	SH
	Cutting conditions	B006		

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	TH10
	Breaker Shape	DIA	DIA with rake	P
	Cutting conditions	B010		

H	Application	Precision finishing	Finishing
	Grade	HP	HS
	Breaker Shape	BXA10	BXA20
	Cutting conditions	B014	

Reference pages: A-ADUNR/L: Insert → **B066 -**, **B075**, CBN → **B172 -**, PCD → **B211**



Cutting edge style **U**

Right hand (R) shown.

Designation	DMIN	DCONMS	WF	LF	Shank size	Insert
S32-DDUNR/L11T-H	40	32	22	32	D32	DN**/FNMG1104...
S40-DDUNR/L15T-H ⁽¹⁾	50	40	27	38	D40, D50, D60	DN**/FNGA1506(04)...

Note: When using a right or left hand insert, the right hand insert (R) is used for the left hand toolholders (DDUNL** type), and the left hand insert (L) is used for the right hand toolholders (DDUNR** type).

(1) DN**/FNGA1504... inserts require a separate shim (# RDT443).

SPARE PARTS

Designation	Shim 1	Shim 2 (Optional)	Shim screw	Clamp	Clamping screw	Spring	Wrench
S32-DDUNR/L11T-H	RDT3-2	-	SR40085I	LCGR-3	SRRC3	KSP3	HW2.5
S40-DDUNR/L15T-H	RDT433	(RDT443)	SR14-506	DLM4	DLS4	DSP4	HW3.0

INSERT SELECTION

Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
Grade	NS9530	GT9530	T9215	T9215
Breaker Shape	TF	TSF	TM	TH

Cutting conditions B004

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T515	T515	T515
Breaker Shape	All-round	All-round	All-round

Cutting conditions B008

Application	Precision finishing	Finishing	Medium cutting
Grade	BX470	AH8005	AH8005
Breaker Shape	CBN	HRF	HRM

Cutting conditions B012

Application	Finishing	Medium cutting	Medium to heavy cutting
Grade	T6215	AH6225	AH6225
Chipbreaker shape	SF	SM	SH

Cutting conditions B006

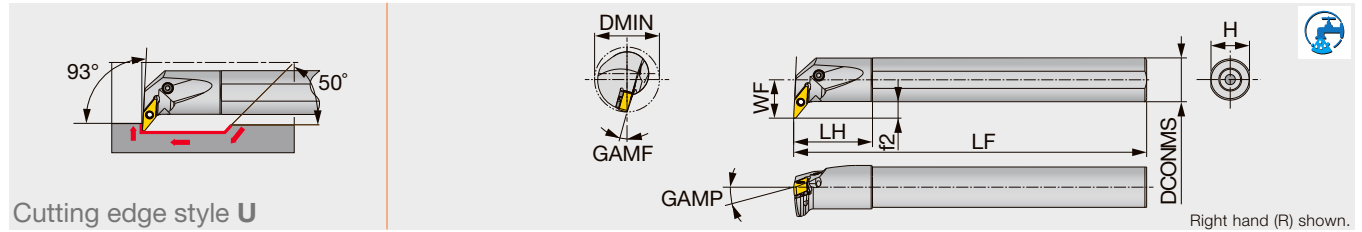
Application	Precision finishing	Finishing	Medium cutting
Grade	DX120	DX140	TH10
Breaker Shape	T-DIA	with rake T-DIA	P

Cutting conditions B010

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Breaker Shape	HP	HS

Cutting conditions B014

Reference pages: S-DDUNR/L-H: Insert → **B066 - B075**, CBN → **B172 -**, PCD → **B211**
Shank → **D090 - D092**



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A25R-PVUNR/L1204-D320	Steel	32	25	18	200	45	23	5.0	-5°	-15°	0.8	VN**1204...	3
A25R-PVUNR/L1204-D370	Steel	37	25	22	200	45	23	8.0	-4°	-15°	0.8	VN**1204...	3
A32S-PVUNR/L1204-D400	Steel	40	32	22	250	50	30	5.5	-6°	-12°	0.8	VN**1204...	3
A25R-PVUNR/L16-D370	Steel	37	25	22	200	45	23	9.5	-5°	-14°	0.8	VN**/YN**1604...	2.7
A32S-PVUNR/L16-D400	Steel	40	32	22	250	50	30	6	-5°	-12°	0.8	VN**/YN**1604...	2.7
A40T-PVUNR/L16-D500	Steel	50	40	27	300	60	37	7	-5°	-10°	0.8	VN**/YN**1604...	2.7

*Torque: Recommended clamping torque (N-m)

**RE: Standard corner radius

SPARE PARTS

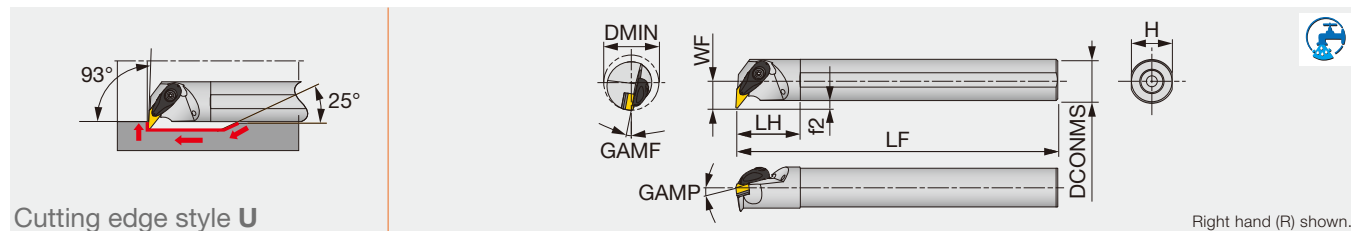
Designation	Shim	Clamping screw	Wrench	Spring pin	Lever	Oil supply attachment*	Screw for oil hole*
A25R-PVUNR/L1204-D...	LSV212	LCS3V	P-2.5	LSP3	LCL3V	EA-25	SSHM4-5
A32S-PVUNR/L1204-D400	LSV212	LCS3V	P-2.5	LSP3	LCL3V	EA-32	SSHM4-5
A25R-PVUNR/L16-D370	LSV317BR/L	LCS3V	P-2.5	LSP3	LCL3V	EA-25	SSHM4-5
A32S-PVUNR/L16-D400	LSV317BR/L	LCS3V	P-2.5	LSP3	LCL3V	EA-32	SSHM4-5
A40T-PVUNR/L16-D500	LSV317BR/L	LCS3V	P-2.5	LSP3	LCL3V	-	SSHM5-6

*Optional

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting
	Grade	NS9530	GT9530	T9215
	Breaker Shape	TF	TSF	TM
	Cutting conditions	B004		
M	Application	Finishing	Medium cutting	
	Grade	T6215	AH6225	
	Chipbreaker shape	SF	SM	
	Cutting conditions	B006		
K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Breaker Shape	All-round	All-round	All-round
	Cutting conditions	B008		
N	Application	Precision finishing		
	Grade	DX120		
	Breaker Shape	DIA with rake		
	Cutting conditions	B010		
S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX470	AH8005	AH8005
	Breaker Shape	CBN	HRF	HRM
	Cutting conditions	B012		
H	Application	Precision finishing	Finishing	
	Grade	BXA10	BXA20	
	Breaker Shape	HP	HS	
	Cutting conditions	B014		

Reference pages: A-PVUNR/L: Insert → **B098 -**, **B110**, CBN → **B186 -**, PCD → **B188**



Cutting edge style U

Right hand (R) shown.

Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMPF	RE**	Insert	Torque*
A32S-AVUNR/L16-D400	Steel	40	32	22	250	50	30	6	-6°	-10°	0.8	VN**/YN**1604...	3
A40T-AVUNR/L16-D500	Steel	50	40	27	300	55	37	7	-6°	-8°	0.8	VN**/YN**1604...	3

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

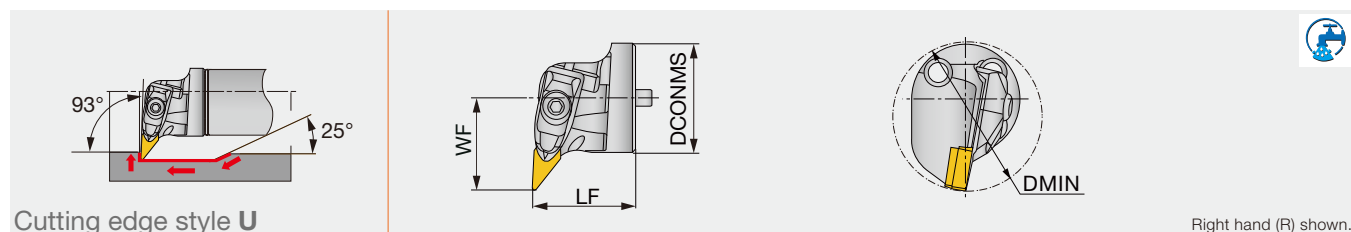
SPARE PARTS

Designation	Clamp	Clamp screw	Spring	Spring pin	Shim	Shim screw	Wrench
A**-AVUNR/L16-D...	ACP3L	ACS-5W	BP-7	SP-2.5	ASV322	CSTB-3.5	T-15F

BOREMEISTER

S-DVUNR/L-H

Double-clamp exchangeable boring head, for negative 35° rhombic inserts



Cutting edge style U

Right hand (R) shown.

Designation	DMIN	DCONMS	WF	LF	Shank	Insert
S40-DVUNR/L16T-H	56	40	34	38	D40, D50, D60	VN**1604...

SPARE PARTS

Designation	Shim	Shim screw	Clamp	Clamp screw	Spring	Wrench
S40-DVUNR/L16T-H	ASV322	SR35080I	DLM3V	SR10402267	KSP5	HW4.0

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting
	Grade	NS9530	GT9530	T9215
	Breaker Shape	TF	TSF	TM
	Cutting conditions	B004		

M	Application	Finishing	Medium cutting
	Grade	T6215	AH6225
	Chipbreaker shape	SF	SM
	Cutting conditions	B006	

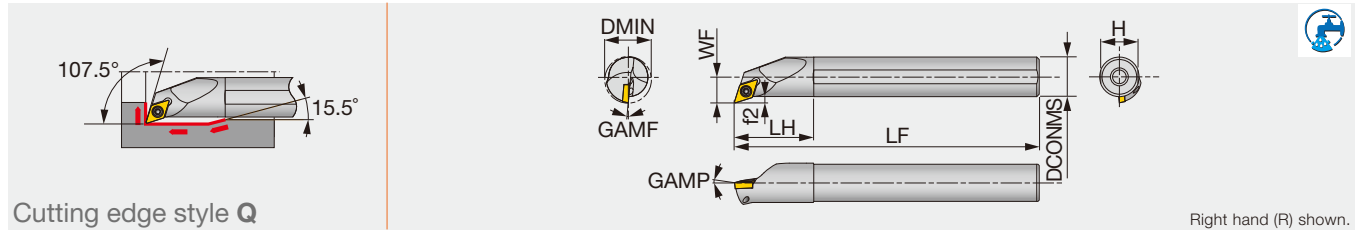
K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Breaker Shape	All-round	All-round	All-round
	Cutting conditions	B008		

N	Application	Precision finishing
	Grade	DX120
	Breaker Shape	DIA with rake
	Cutting conditions	B010

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX470	AH8005	AH8005
	Breaker Shape	CBN	HRF	HRM
	Cutting conditions	B012		

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Breaker Shape	HP	HS
	Cutting conditions	B014	

Reference pages: A-AVUNR/L, S-DVUNR/L-H: Insert → **B098 - B110**, CBN → **B186 -**, PCD → **B192**
Shank → **D090 - D092**



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A10K-SDQCR/L07-D130	Steel	13	10	7.6	125	20	9	2.6	0°	-8°	0.4	DC**0702...	1.2
A12M-SDQCR/L07-D160	Steel	16	12	8.6	150	24	11	2.6	0°	-6°	0.4	DC**0702...	1.2
A16Q-SDQCR/L07-D200	Steel	20	16	10.6	180	32	15	2.6	0°	-5°	0.4	DC**0702...	1.2
A20R-SDQCR/L11-D250	Steel	25	20	13.7	200	36	18	3.7	0°	-7°	0.8	DC**11T3...	3
A25S-SDQCR/L11-D300	Steel	30	25	16.2	250	45	23	3.7	0°	-4°	0.8	DC**11T3...	3
E10H-SDQCR07-D130	Carbide	13	10	7.6	100	25	9	2.5	0°	-8°	0.4	DC**0702...	1.2
E10M-SDQCR/L07-D130	Carbide	13	10	7.6	150	25	9	2.6	0°	-8°	0.4	DC**0702...	1.2
E12J-SDQCR07-D160	Carbide	16	12	8.6	110	27	11	2.5	0°	-6°	0.4	DC**0702...	1.2
E12Q-SDQCR/L07-D160	Carbide	16	12	8.6	180	27	11	2.6	0°	-6°	0.4	DC**0702...	1.2
E16L-SDQCR07-D200	Carbide	20	16	10.6	130	32	15	2.5	0°	-5°	0.4	DC**0702...	1.2
E16R-SDQCR/L07-D200	Carbide	20	16	10.6	200	32	15	2.6	0°	-5°	0.4	DC**0702...	1.2
E20S-SDQCR/L11-D250	Carbide	25	20	13.7	250	36	18	3.7	0°	-7°	0.8	DC**11T3...	3

*Torque: Recommended clamping torque (N-m)

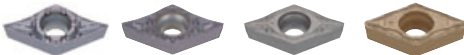
**RE : Standard corner radius

Note: Use right-hand toolholders (SDQCR**) with left-hand inserts (L); and left-hand toolholders (SDQL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
A1**-SDQCR/L07-D**0	CSTB-2.5S	T-8F
A2**-SDQCR/L11-D**0	CSTB-4S	T-15F
E1**-SDQCR/L07-D**0	CSTB-2.5S	T-8F
E20S-SDQCR/L11-D250	CSTB-4S	T-15F

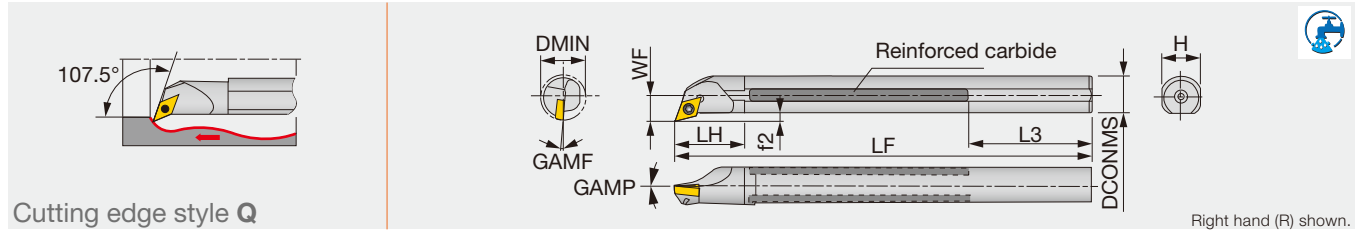
INSERT SELECTION

P	Application	Precision finishing	Finishing		Finishing to medium cutting					
	Grade	SH725	SH725	NS9530	T9215					
	Breaker Shape	JP	JS	PSS	PS					
										
Cutting conditions						B016				
P	Application	Medium cutting								
	Grade	T9215								
	Breaker Shape	PM								
										
Cutting conditions						B016				
K	Application	Finishing to medium cutting								
	Grade	T515								
	Breaker Shape	CM								
										
Cutting conditions						B020				
S	Application	Precision finishing	Finishing	Finishing to medium cutting						
	Grade	BX470	AH8005	AH8015						
	Breaker Shape	CBN	PS	PS						
										
Cutting conditions						B024				
M	Application	Precision finishing	Finishing		Finishing to medium cutting					
	Grade	SH725	SH725	AH6225	AH6225					
	Breaker Shape	JP	JS	PSS	PS					
										
Cutting conditions						B018				
M	Application	Medium cutting								
	Grade	AH6225								
	Breaker Shape	PM								
										
Cutting conditions						B018				
N	Application	Precision finishing	Finishing	Finishing to medium cutting						
	Grade	DX120	DX140	KS05F						
	Breaker Shape	DIA	with rake	AL						
										
Cutting conditions						B022				
H	Application	Precision finishing	Finishing							
	Grade	BXA10	BXA20							
	Breaker Shape	HP	HS							
										
Cutting conditions						B026				

Reference pages: A/E-SDQCR/L: Insert → **B121**, CBN → **B193** -, PCD → **B214**

T-SDQCR/L

Screw-on boring bar, for positive 55° rhombic inserts (Tsuppari-Ichiban)



Designation	Material	DMIN	CNT	DCONMS	WF	LF	LH	L3	H	f2	GAMF	GAMF	RE**	Insert	Torque*
T16Q-SDQCR/L07	Reinforced	20	-	16	11	180	27	59	15	3	0°	-6°	0.4	DC**0702...	1.2
T20R-SDQCR/L11C	Reinforced	25	Rc1/4	20	13	200	35	49	18	3	0°	-6°	0.8	DC**11T3...	3
T25S-SDQCR/L11C	Reinforced	32	Rc1/4	25	17	250	40	64	23	4.5	0°	-4°	0.8	DC**11T3...	3

*Torque: Recommended clamping torque (N·m)

**RE : Standard corner radius

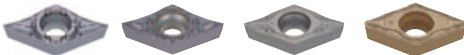
*The hole specification of applicable inserts conforms to ISO standard.

Note: Use right-hand toolholders (SDQCR**) with left-hand inserts (L); and left-hand toolholders (SDQCL**) with right-hand inserts (R).

SPARE PARTS

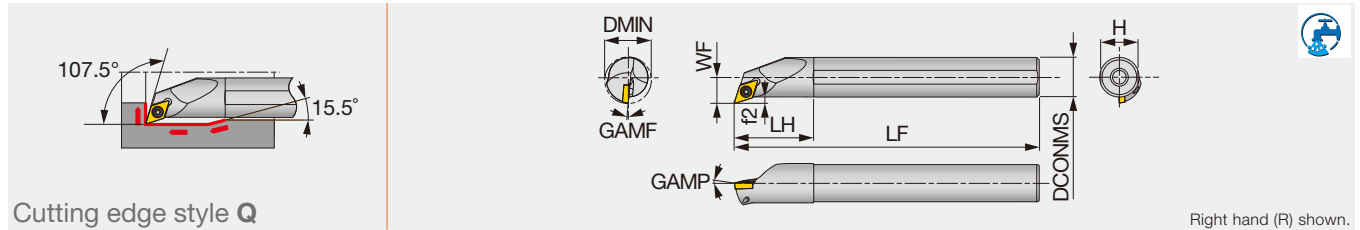
Designation	Clamping screw	Wrench
T16Q-SDQCR/L07	CSTB-2.5	T-8F
T20R-SDQCR/L11C	CSTB-4M	T-15F
T25S-SDQCR/L11C	CSTB-4	T-15F

INSERT SELECTION

P	Application	Precision finishing	Finishing		Finishing to medium cutting					
	Grade	SH725	SH725	NS9530	T9215					
	Breaker Shape	JP	JS	PSS	PS					
										
Cutting conditions						B016				
P	Application	Medium cutting								
	Grade	T9215								
	Breaker Shape	PM								
	Cutting conditions						B016			
K	Application	Finishing to medium cutting								
	Grade	T515								
	Breaker Shape	CM								
	Cutting conditions						B020			
S	Application	Precision finishing	Finishing	Finishing to medium cutting						
	Grade	BX470	AH8005	AH8015						
	Breaker Shape	CBN	PS	PS						
										
Cutting conditions						B024				

M	Application	Precision finishing	Finishing		Finishing to medium cutting					
	Grade	SH725	SH725	AH6225	AH6225					
	Breaker Shape	JP	JS	PSS	PS					
										
Cutting conditions						B018				
M	Application	Medium cutting								
	Grade	AH6225								
	Breaker Shape	PM								
	Cutting conditions						B018			
N	Application	Precision finishing	Finishing	Finishing to medium cutting						
	Grade	DX120	DX140	KS05F						
	Breaker Shape	DIA	with rake	AL						
										
Cutting conditions						B022				
H	Application	Precision finishing	Finishing							
	Grade	BXA10	BXA20							
	Breaker Shape	HP	HS							
										
Cutting conditions						B026				

Reference pages: T-SDQCR/L: Insert → **B121**, CBN → **B193** -, PCD → **B214**



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A12M-SDQPR07-D150-P	Special alloy steel	15	12	8.3	150	24	11	2.3	5	0	0.40	DPMT0702...	1.2
A12M-SDQPL07-D150-P	Special alloy steel	15	12	8.3	150	24	11	2.3	5	0	0.40	DPMT0702...	1.2
A12M-SDQPR07-D180-P	Special alloy steel	18	12	9.6	150	24	11	3.6	5	0	0.40	DPMT0702...	1.2
A12M-SDQPL07-D180-P	Special alloy steel	18	12	9.6	150	24	11	3.6	5	0	0.40	DPMT0702...	1.2
A16Q-SDQPR07-D220-P	Special alloy steel	22	16	11.6	180	32	15	3.6	5	0	0.40	DPMT0702...	1.2
A16Q-SDQPL07-D220-P	Special alloy steel	22	16	11.6	180	32	15	3.6	5	0	0.40	DPMT0702...	1.2
E12Q-SDQPR07-D150	Carbide	15	12	8.3	180	27	11	2.3	5	0	0.40	DPMT0702...	1.2
E12Q-SDQPL07-D150	Carbide	15	12	8.3	180	27	11	2.3	5	0	0.40	DPMT0702...	1.2
E12Q-SDQPR07-D180	Carbide	18	12	9.6	180	27	11	3.6	5	0	0.40	DPMT0702...	1.2
E12Q-SDQPL07-D180	Carbide	18	12	9.6	180	27	11	3.6	5	0	0.40	DPMT0702...	1.2
E16R-SDQPR07-D220	Carbide	22	16	11.6	200	32	15	3.6	5	0	0.40	DPMT0702...	1.2
E16R-SDQPL07-D220	Carbide	22	16	11.6	200	32	15	3.6	5	0	0.40	DPMT0702...	1.2

*Torque: Recommended clamping torque (N·m)

**RE : Standard corner radius

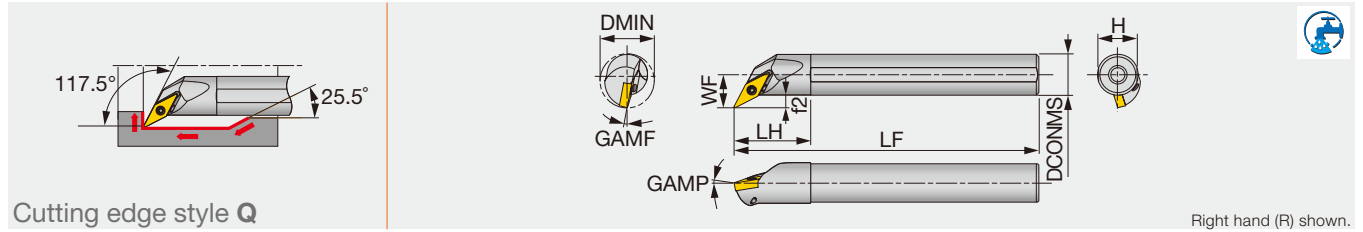
Note: Use right-hand toolholders (SDQCR**) with left-hand inserts (L); and left-hand toolholders (SDQCL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
A**-SDQPR/L07-D**0-P	CSTB-2.5S	T-8F
E**-SDQPR/L07-D**0	CSTB-2.5S	T-8F

INSERT SELECTION

P	Application	Finishing	Finishing to medium cutting
	Grade	NS9530	T9215
	Breaker Shape	PS	PS
	Cutting conditions	B016	
M	Application	Finishing	Finishing to medium cutting
	Grade	AH6225	AH6225
	Chipbreaker shape	PS	PS
	Cutting conditions	B018	
K	Application	Finishing	Finishing to medium cutting
	Grade	NS9530	T9215
	Breaker Shape	PS	PS
	Cutting conditions	B020	
S	Application	Finishing	Finishing to medium cutting
	Grade	AH8015	AH8015
	Breaker Shape	PS	PS
	Cutting conditions	B024	



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A12M-SVQBR/L11-D170	Steel	17	12	10.5	150	24	11	4.5	-5°	-10°	0.4	VB**1103...	1.2
A16Q-SVQBR/L11-D215	Steel	21.5	16	13	180	30	15	5	-5°	-8°	0.4	VB**1103...	1.2
A20R-SVQBR/L11-D255	Steel	25.5	20	15	200	36	18	5	-5°	-6°	0.4	VB**1103...	1.2
A25S-SVQBR/L16-D305	Steel	30.5	25	17.5	250	45	23	5	-5°	-8°	0.8	VB**1604...	3
E12Q-SVQBR/L11-D170	Carbide	17	12	10.5	180	27	11	4.5	-5°	-10°	0.4	VB**1103...	1.2
E16R-SVQBR/L11-D215	Carbide	21.5	16	13	200	32	15	5	-5°	-8°	0.4	VB**1103...	1.2
E20S-SVQBR/L11-D255	Carbide	25.5	20	15	250	36	18	5	-5°	-6°	0.4	VB**1103...	1.2
E25T-SVQBR/L16-D305	Carbide	30.5	25	17.5	300	45	23	5	-5°	-8°	0.8	VB**1604...	3

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

Note: Use right-hand toolholders (SVQBR**) with left-hand inserts (L); and left-hand toolholders (SVQBL**) with right-hand inserts (R).

Designation	Clamping screw	Wrench
A**-SVQBR/L11-D...	CSTB-2.5	T-8F
A25S-SVQBR/L16-D305	CSTB-3.5	T-15F
E**-SVQBR/L11-D...	CSTB-2.5	T-8F
E25T-SVQBR/L16-D305	CSTB-3.5	T-15F

INSERT SELECTION

P	Application	Precision finishing	Finishing		Finishing to medium cutting
	Grade	SH725	SH725	NS9530	T9215
	Breaker Shape	JP	JS	PSS	PS
	   				
Cutting conditions B014					

P	Application	Medium cutting
	Grade	T9215
	Breaker Shape	PS
		
Cutting conditions B014		

K	Application	Finishing to medium cutting	S	Application	Finishing	Finishing to medium cutting
	Grade	T515		Grade	AH8005	AH8015
	Breaker Shape	CM		Breaker Shape	PS	PS
				 		
Cutting conditions B020			Cutting conditions B024			

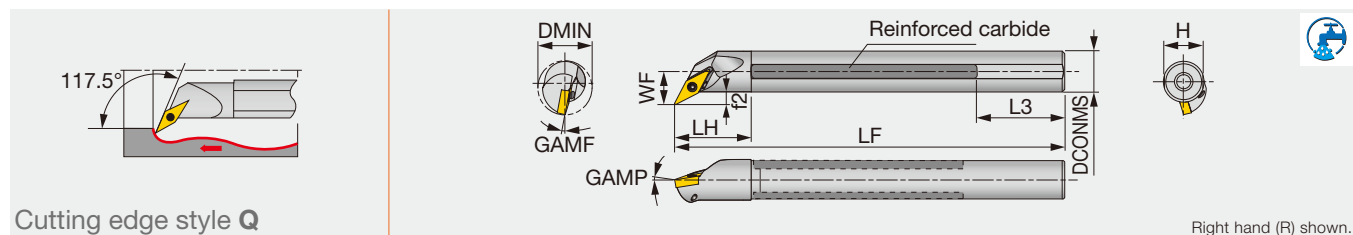
H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Breaker Shape	HP	HS
	 		
Cutting conditions B026			

M	Application	Precision finishing	Finishing		Finishing to medium cutting
	Grade	SH725	SH725	AH6225	AH6225
	Chipbreaker shape	JP	JS	PSS	PS
	   				
Cutting conditions B016					

M	Application	Medium cutting
	Grade	AH6225
	Chipbreaker shape	PS
		
Cutting conditions B016		

T-SVQBR

Screw-on boring bar, for positive 35° rhombic inserts (Tsuppari-Ichiban)



Cutting edge style Q

Right hand (R) shown.

Designation	Material	DMIN	CNT	DCONMS	WF	LF	LH	L3	H	f2	GAMP	GAMF	RE**	Insert	Torque*
T20R-SVQBR11C	Reinforced	25	Rc1/4	20	14	200	30	59	18	4	-5°	-7°	0.4	VB**1103...	1.2

*Torque: Recommended clamping torque (N·m)

**RE : Standard corner radius

*The hole specification of applicable inserts conforms to ISO standard.

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
T20R-SVQBR11C	CSTB-2.5	T-8F

INSERT SELECTION

P	Application	Precision finishing	Finishing		Finishing to medium cutting
	Grade	SH725	SH725	NS9530	T9215
	Breaker Shape	JP	JS	PSS	PS
	Cutting conditions	B014			

P	Application	Medium cutting
	Grade	T9215
	Breaker Shape	PS
	Cutting conditions	B014

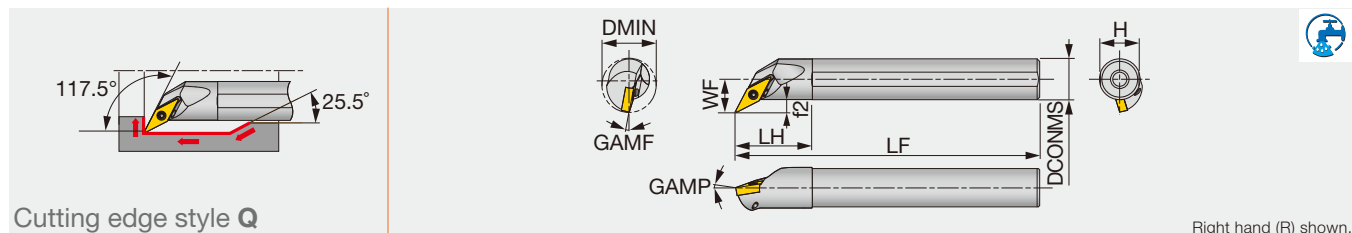
K	Application	Finishing to medium cutting	S	Application	Finishing	Finishing to medium cutting
	Grade	T515		Grade	AH8005	AH8015
	Breaker Shape	CM		Breaker Shape	PS	PS
	Cutting conditions	B020		Cutting conditions	B024	

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Breaker Shape	HP	HS
	Cutting conditions	B026	

M	Application	Precision finishing	Finishing		Finishing to medium cutting
	Grade	SH725	SH725	AH6225	AH6225
	Chipbreaker shape	JP	JS	PSS	PS
	Cutting conditions	B016			

M	Application	Medium cutting
	Grade	AH6225
	Chipbreaker shape	PS
	Cutting conditions	B016

Reference pages: T-SVQBR: Insert → B150 -, CBN → B207 -



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A10K-SVQCR/L08-D135	Steel	13.5	10	8	125	20	9	3	-5°	-8°	0.4	VC**0802...	0.6
A16Q-SVQCR/L11-D215	Steel	21.5	16	13	180	30	15	4.9	-5°	-8°	0.4	VC**1103...	1.2
E10M-SVQCR/L08-D135	Carbide	13.5	10	8	150	25	9	3	-5°	-8°	0.4	VC**0802...	0.6
E16R-SVQCR/L11-D215	Carbide	21.5	16	13	200	32	15	4.9	-5°	-8°	0.4	VC**1103...	1.2

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

Note: Use right-hand toolholders (SVQCR**) with left-hand inserts (L); and left-hand toolholders (SVQCL**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
A10K-SVQCR/L08-D135	CSTB-2L	T-6F
A16Q-SVQCR/L11-D215	CSTB-2.5	T-8F
E10M-SVQCR/L08-D135	CSTB-2L	T-6F
E16R-SVQCR/L11-D215	CSTB-2.5	T-8F

INSERT SELECTION

P	Application	Finishing	Finishing to medium cutting
	Grade	NS9530	T9215
	Breaker Shape	PSS	PS
	Cutting conditions	B016	

M	Application	Finishing	Finishing to medium cutting
	Grade	AH6225	AH6225
	Chipbreaker shape	PSS	PS
	Cutting conditions	B018	

K	Application	Finishing to medium cutting
	Grade	T515
	Breaker Shape	CM
	Cutting conditions	B020

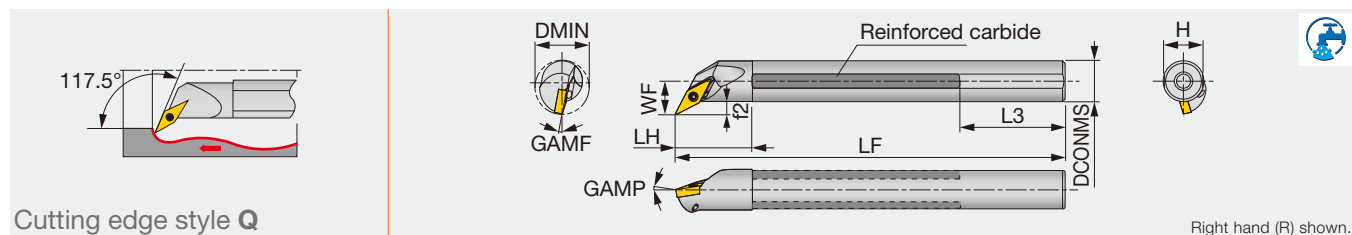
N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	KS05F
	Breaker Shape	DIA	with rake DIA	AL
	Cutting conditions	B022		

S	Application	Finishing	Finishing to medium cutting
	Grade	AH8005	AH8015
	Breaker Shape	PS	PS
	Cutting conditions	B024	

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Breaker Shape	CBN	CBN
	Cutting conditions	B026	

T-SVQCR

Screw-on boring bar, for positive 35° rhombic inserts (Tsuppari-Ichiban)



Designation	Material	DMIN	CNT	DCONMS	WF	LF	LH	L3	H	f2	GAMP	GAMF	RE**	Insert	Torque*
T25S-SVQCR16C	Reinforced	32	Rc1/4	25	17	250	40	64	23	4.5	0°	-5°	0.8	VC**1604...	3

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

*The hole specification of applicable inserts conforms to ISO standard.

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
T25S-SVQCR16C	CSTB-3.5L	T-15F

INSERT SELECTION

P	Application	Finishing	Finishing to medium cutting
	Grade	NS9530	T9215
	Breaker Shape	PSS	PS
	Cutting conditions	B016	

M	Application	Finishing	Finishing to medium cutting
	Grade	AH6225	AH6225
	Chipbreaker shape	PSS	PS
	Cutting conditions	B018	

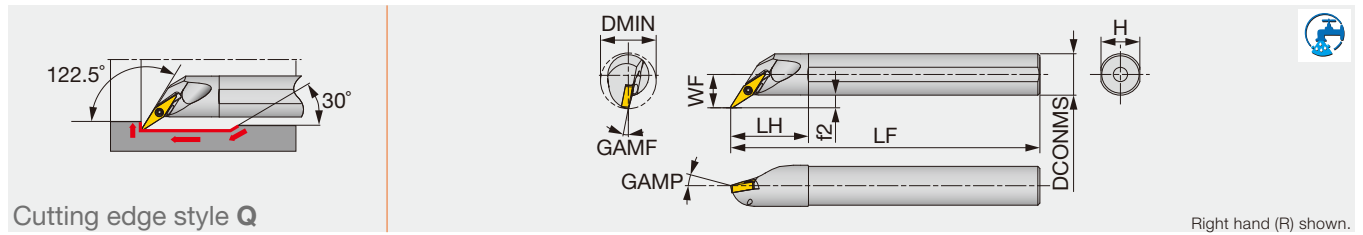
K	Application	Finishing to medium cutting
	Grade	T515
	Breaker Shape	CM
	Cutting conditions	B020

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	KS05F
	Breaker Shape	DIA	with rake DIA	AL
	Cutting conditions	B022		

S	Application	Finishing	Finishing to medium cutting
	Grade	AH8005	AH8015
	Breaker Shape	PS	PS
	Cutting conditions	B024	

H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Breaker Shape	CBN	CBN
	Cutting conditions	B026	

Reference pages: T-SVQCR: Insert → **B152 -**, CBN → **B209**, PCD → **B220**



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A12M-SYQBR/L11-D170	Steel	17	12	10.5	150	24	11	4.5	-5°	-10°	0.4	YW**11T2...	0.6
A16Q-SYQBR/L11-D215	Steel	21.5	16	13	180	30	15	5	-5°	-8°	0.4	YW**11T2...	0.6
E12Q-SYQBR/L11-D170	Carbide	17	12	10.5	180	27	11	4.5	-5°	-10°	0.4	YW**11T2...	0.6
E16R-SYQBR/L11-D215	Carbide	21.5	16	13	200	32	15	5	-5°	-8°	0.4	YW**11T2...	0.6

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

SPARE PARTS

Designation	Clamping screw	Wrench
A**-SYQBR/L11-D...	CSTB-2L	T-6F
E**-SYQBR/L11-D...	CSTB-2L	T-6F

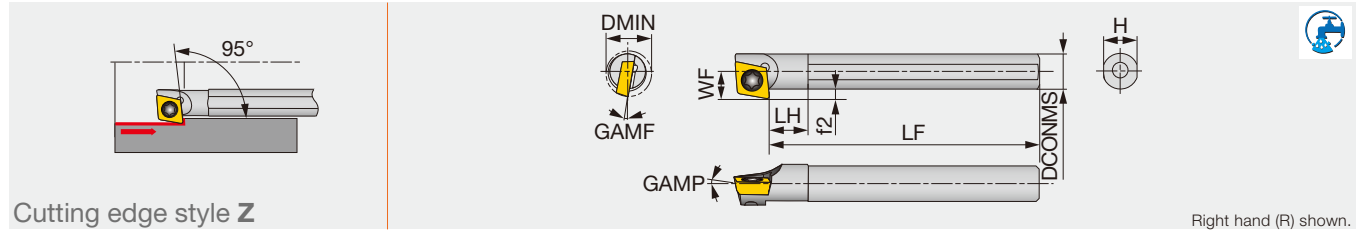
INSERT SELECTION

Application	Finishing	Finishing to medium cutting	Medium cutting
Grade	GT9215	T9215	T9215
Breaker Shape	ZF	ZF	ZM
Cutting conditions	B016		

Application	Finishing	Finishing to medium cutting	Medium cutting
Grade	GT9530	T9215	T9215
Breaker Shape	ZF	ZF	ZM
Cutting conditions	B020		

Application	Finishing	Finishing to medium cutting	Medium cutting
Grade	AH8015	AH8015	AH8015
Breaker Shape	ZF	ZF	ZM
Cutting conditions	B018		

Application	Finishing	Finishing to medium cutting	Medium cutting
Grade	AH8015	AH8015	AH8015
Breaker Shape	ZF	ZF	ZM
Cutting conditions	B024		



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A04F-SEZPR/L03-D055	Steel	5.5	4	3.2	80	4	3.8	1.2	0°	-8°	0.2	EP**03X1...	0.6
A05F-SEZPR/L03-D065	Steel	6.5	5	3.7	80	5	4.8	1.2	0°	-6°	0.2	EP**03X1...	0.6
E04G-SEZPR/L03-D055	Carbide	5.5	4	3.2	90	5	3.8	1.2	0°	-8°	0.2	EP**03X1...	0.6
E05G-SEZPR/L03-D065	Carbide	6.5	5	3.7	90	6	4.8	1.2	0°	-6°	0.2	EP**03X1...	0.6

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

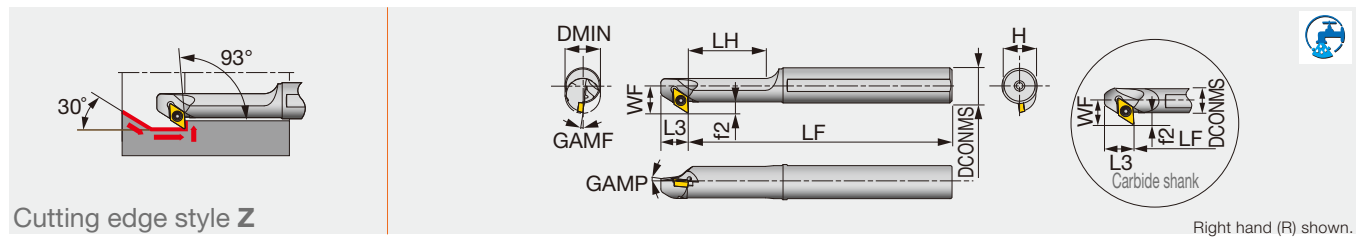
Note: Use right-hand toolholders (SEZPR**) with right-hand inserts (R); and left-hand toolholders (SEZPL**) with left-hand inserts (L).

SPARE PARTS

Designation	Clamping screw	Wrench
A**-SEZPR/L03-D...	CSTA-1.6	T-6F
E**-SEZPR/L03-D...	CSTA-1.6	T-6F

INSERT SELECTION

P	Application	Finishing	M	Application	Finishing	K	Application	Finishing	S	Application	Finishing
	Grade	SH725		Grade	SH725		Grade	SH725		Grade	SH725
	Breaker Shape			Breaker Shape			Breaker Shape			Breaker Shape	
	Cutting conditions	B016		Cutting conditions	B018		Cutting conditions	B020		Cutting conditions	B024
N	Application	Precision finishing	H	Application	Precision finishing		Application	Precision finishing		Application	Precision finishing
	Grade	DX140		Grade	BX310		Grade	CBN		Grade	CBN
	Breaker Shape			Breaker Shape			Breaker Shape			Breaker Shape	
	Cutting conditions	B022		Cutting conditions	B026		Cutting conditions	B026		Cutting conditions	B026



Designation	Material	DMIN	DCONMS	WF	LF	LH	L3	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A12M-SDZCR/L07-D140	Steel	14	12	10.5	150	30	12.5	11	4.5	0°	-9°	0.4	DC**0702...	1.2
A16Q-SDZCR/L07-D160	Steel	16	16	12.5	180	35	12.5	15	4.5	0°	-8°	0.4	DC**0702...	1.2
A20R-SDZCR/L11-D200	Steel	20	20	15.5	200	40	15.0	18	5.5	0°	-8°	0.8	DC**11T3...	3
A25S-SDZCR/L11-D250	Steel	25	25	18	250	50	15	23	5.5	0°	-6°	0.8	DC**11T3...	3
E12Q-SDZCR/L07-D180	Carbide	18	12	10.5	180	-	12.5	11	4.5	0°	-8°	0.4	DC**0702...	1.2
E16R-SDZCR/L07-D220	Carbide	22	16	12.5	200	-	12.5	15	4.5	0°	-6°	0.4	DC**0702...	1.2

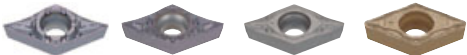
*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

Note: Use right-hand toolholders (SDZCR**) with right-hand inserts (R); and left-hand toolholders (SDZCL**) with left-hand inserts (L).

Designation	Clamping screw	Wrench
A1**-SDZCR/L07-D1*0	CSTB-2.5	T-8F
A2**-SDZCR/L11-D2*0	CSTB-4S	T-15F
E1**-SDZCR/L07-D**0	CSTB-2.5	T-8F

INSERT SELECTION

P	Application	Precision finishing	Finishing		Finishing to medium cutting					
	Grade	SH725	SH725	NS9530	T9215					
	Breaker Shape	JP	JS	PSS	PS					
										
Cutting conditions						B016				

P	Application	Medium cutting			
	Grade	T9215			
	Breaker Shape	PM			
					
Cutting conditions			B016		

K	Application	Finishing to medium cutting			
	Grade	T515			
	Breaker Shape	CM			
					
Cutting conditions			B020		

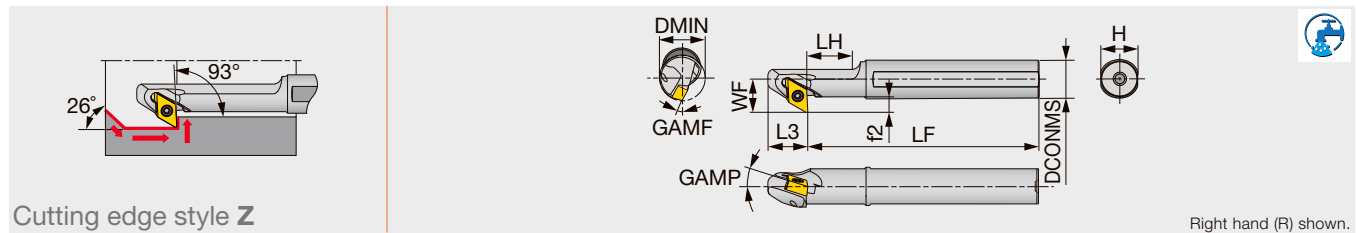
S	Application	Precision finishing	Finishing	Finishing to medium cutting					
	Grade	CBN	PS	PS					
	Breaker Shape								
									
Cutting conditions					B024				

M	Application	Precision finishing	Finishing		Finishing to medium cutting					
	Grade	SH725	SH725	AH6225	AH6225					
	Breaker Shape	JP	JS	PSS	PS					
										
Cutting conditions						B018				

M	Application	Medium cutting			
	Grade	AH6225			
	Breaker Shape	PM			
					
Cutting conditions			B018		

N	Application	Precision finishing	Finishing	Finishing to medium cutting					
	Grade	DX120	DX140	KS05F					
	Breaker Shape	DIA	AL						
									
Cutting conditions					B022				

H	Application	Precision finishing	Finishing				
	Grade	BXA10	BXA20				
	Breaker Shape	HP	HS				
							
Cutting conditions				B026			



Designation	Material	DMIN	DCONMS	WF	LF	LH	L3	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A12M-SDZXR/L07-D140	Steel	14	12	10.5	150	30	13	11	4.5	-10°	-14°	0.4	DXG/MU0703**R/L...	0.9
A16Q-SDZXR/L07-D160	Steel	16	16	12.5	180	35	13	15	4.5	-10°	-12.5°	0.4	DXG/MU0703**R/L...	0.9
A20R-SDZXR/L07-D200	Steel	20	20	14.5	200	40	13	18	4.5	-10°	-10.5°	0.4	DXG/MU0703**R/L...	0.9
E12Q-SDZXR/L07-D180	Carbide	18	12	10.5	180	-	13	11	4.5	-11°	-11°	0.4	DXG/MU0703**R/L...	0.9
E16R-SDZXR/L07-D220	Carbide	22	16	12.5	200	-	13	15	4.5	-11°	-9°	0.4	DXG/MU0703**R/L...	0.9

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

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

SPARE PARTS

Designation	Clamping screw	Wrench
A/E*-SDZXR/L...	SR34-514	T-7F

INSERT SELECTION

P	Application	Precision finishing	Finishing		Finishing to medium cutting
	Grade	SH725	SH725	NS9530	T9215
	Breaker Shape	JS	JTS	SS	TS
	Cutting conditions	D096			

P	Application	Medium cutting
	Grade	T9215
	Breaker Shape	TS
	Cutting conditions	D096

K	Application	Precision finishing	Finishing		Finishing to medium cutting
	Grade	SH725	SH725	NS9530	T9215
	Breaker Shape	JS	JTS	SS	TS
	Cutting conditions	D096			

K	Application	Medium cutting
	Grade	T9215
	Breaker Shape	TS
	Cutting conditions	D096

S	Application	Precision finishing	Finishing		Finishing to medium cutting
	Grade	SH725	SH725	AH8015	AH8015
	Breaker Shape	JS	JTS	SS	TS
	Cutting conditions	D096			

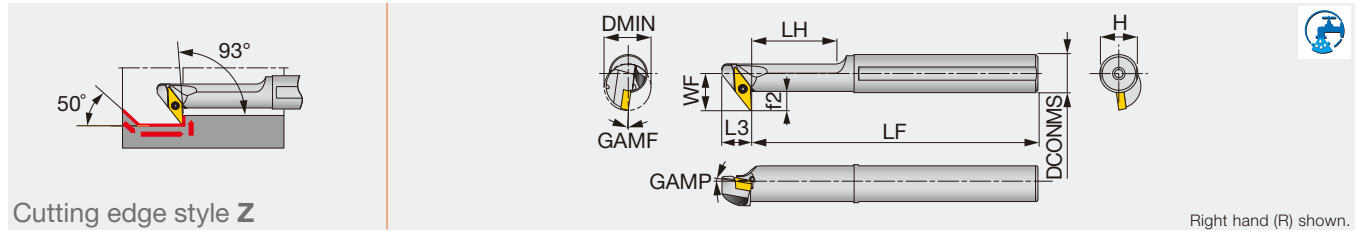
S	Application	Medium cutting
	Grade	AH8015
	Breaker Shape	TS
	Cutting conditions	D096

M	Application	Precision finishing	Finishing		Finishing to medium cutting
	Grade	SH725	SH725	AH8015	AH8015
	Chipbreaker shape	JS	JTS	SS	TS
	Cutting conditions	D096			

M	Application	Medium cutting
	Grade	AH8015
	Chipbreaker shape	TS
	Cutting conditions	D096

N	Application	Finishing	Finishing to medium cutting	Medium cutting
	Grade	KS05F	KS05F	KS05F
	Breaker Shape	SS	TS	TS
	Cutting conditions	D096		

Reference pages: A/E-SDZXR/L: Insert → **B126** -
Standard cutting conditions → **D096**



Designation	Material	DMIN	DCONMS	WF	LF	LH	L3	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A16Q-SVZBR/L11-D200	Steel	20	16	15.5	180	35	12.5	15	8	0°	-8°	0.4	VB**1103...	1.2
A20R-SVZBR/L11-D250	Steel	25	20	17.5	200	40	12.5	18	8	0°	-7°	0.4	VB**1103...	1.2
A25S-SVZBR/L16-D320	Steel	32	25	24	250	50	17.5	23	12	0°	-6°	0.8	VB**1604...	3
A32T-SVZBR/L16-D400	Steel	40	32	27.5	300	72	17.5	30	12	0°	-5°	0.8	VB**1604...	3

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

Note: Use right-hand toolholders (SVZBR**) with right-hand inserts (R); and left-hand toolholders (SVZBL**) with left-hand inserts (L).

SPARE PARTS

Designation	Clamping screw	Wrench
A**-SVZBR/L11-D2*0	CSTB-2.5	T-8F
A25S-SVZBR/L16-D320	CSTB-3.5	T-15F
A32T-SVZBR/L16-D400	CSTB-3.5L	T-15F

INSERT SELECTION

P

Application	Precision finishing	Finishing		Finishing to medium cutting
Grade	SH725	SH725	NS9530	T9215
Breaker Shape	JP	JS	PSS	PS
				
Cutting conditions	B014			

M

Application	Precision finishing	Finishing		Finishing to medium cutting
Grade	SH725	SH725	AH6225	AH6225
Chipbreaker shape	JP	JS	PSS	PS
				
Cutting conditions	B016			

P

Application	Medium cutting
Grade	T9215
Breaker Shape	PS
	
Cutting conditions	B014

M

Application	Medium cutting
Grade	AH6225
Chipbreaker shape	PS
	
Cutting conditions	B016

K

Application	Finishing to medium cutting
Grade	T515
Breaker Shape	CM
	
Cutting conditions	B020

S

Application	Finishing	Finishing to medium cutting
Grade	AH8005	AH8015
Breaker Shape	PS	PS
		
Cutting conditions	B024	

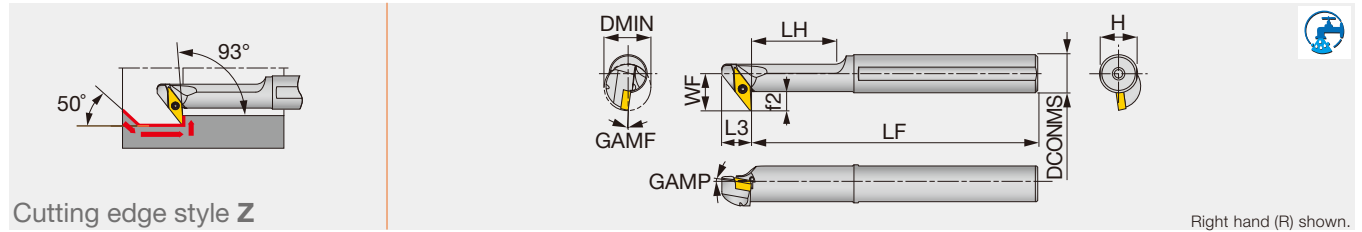
H

Application	Precision finishing	Finishing
Grade	BXA10	BXA20
Breaker Shape	HP	HS
		
Cutting conditions	B026	

STREAMJETBAR

A-SVZCR/L

Screw-on boring bar, for positive 35° rhombic inserts



Designation	Material	DMIN	DCONMS	WF	LF	LH	L3	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A12M-SVZCR/L08-D160	Steel	16	12	11	150	30	10	11	5.5	0°	-8°	0.4	VC**0802...	0.6

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

Note: Use right-hand toolholders (SVZCR**) with right-hand inserts (R); and left-hand toolholders (SVZCL**) with left-hand inserts (L).

SPARE PARTS

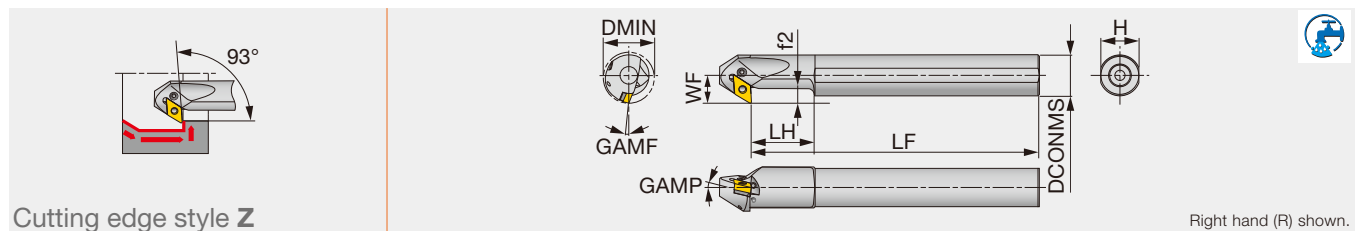
Designation	Clamping screw	Wrench
A12M-SVZCR/L08-D160	CSTB-2L	T-6F

INSERT SELECTION

P Application: Finishing, Finishing to medium cutting Grade: NS9530, T9215 Breaker Shape: PSS, PS Cutting conditions: B014	M Application: Finishing, Finishing to medium cutting Grade: AH6225, AH6225 Chipbreaker shape: PSS, PS Cutting conditions: B016	K Application: Finishing to medium cutting Grade: T515 Breaker Shape: CM Cutting conditions: B020
N Application: Precision finishing, Finishing, Medium cutting Grade: DIA, DX120, DX140, AL, KS05F Breaker Shape: with rake, DIA, AL Cutting conditions: B022	S Application: Finishing, Finishing to medium cutting Grade: PS, AH8005, PS, AH8015 Breaker Shape: PS, AH8005, PS, AH8015 Cutting conditions: B024	H Application: Precision finishing, Finishing Grade: CBN, BXA10, CBN, BXA20 Breaker Shape: CBN, BXA10, CBN, BXA20 Cutting conditions: B026

A-PDZNR/L

Lever-lock boring bar, for negative 55°/45° rhombic inserts



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A32S-PDZNR/L15-D400	Steel	40	32	22	250	50	30	11.5	-6°	-13°	0.8	DN**/FNGA1504...	4.8
A40T-PDZNR/L15-D500	Steel	50	40	27	300	60	37	14.5	-6°	-10°	0.8	DN**/FNGA1504...	4.8
A50U-PDZNR/L15-D630	Steel	63	50	35	350	65	47	14.5	-6°	-8°	0.8	DN**/FNGA1504...	4.8

*Torque: Recommended clamping torque (N-m)

**RE : Standard corner radius

Note: Use right-hand toolholders (PDZNR**) with right-hand inserts (R); and left-hand toolholders (PDZNL**) with left-hand inserts (L).

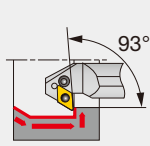
SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever	Oil supply attachment*	Screw for oil hole*
A32S-PDZNR15-D400	LSZ42BR	LCS4	P-3	LSP4	LCL4	EA-32	SSH4-5
A32S-PDZNL15-D400	LSZ42BL	LCS4	P-3	LSP4	LCL4	EA-32	SSH4-5
A40T-PDZNR15-D500	LSZ42BR	LCS4	P-3	LSP4	LCL4	-	SSH5-6
A40T-PDZNL15-D500	LSZ42BL	LCS4	P-3	LSP4	LCL4	-	SSH5-6
A50U-PDZNR15-D630	LSZ42BR	LCS4	P-3	LSP4	LCL4	-	SSH6-6
A50U-PDZNL15-D630	LSZ42BL	LCS4	P-3	LSP4	LCL4	-	SSH6-6

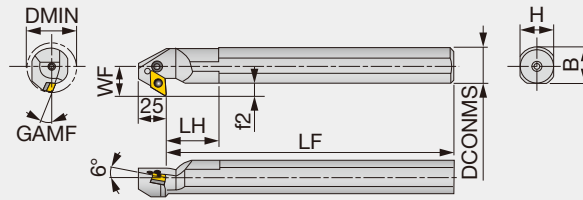
*Optional

Reference pages: A-SVZCR/L: Insert → B152 -, CBN → B209, PCD → B220

A-PDZNR/L: Insert → B066 -, B075, CBN → B172 -, PCD → B211



Cutting edge style Z



Right hand (R) shown.

Designation	Material	DMIN	DCONMS	WF	LF	LH	H	f2	B	GAMF	RE**	Insert
S32S-PDZNR/L15	Steel	40	32	22	250	30	30	6	29.5	-13°	0.8	DN**/FNGA1504...
S40T-PDZNR15	Steel	50	40	27	300	35	37	7	37.5	-10°	0.8	DN**/FNGA1504...
S50U-PDZNR15	Steel	63	50	35	350	40	47	10	47.5	-8°	0.8	DN**/FNGA1504...

**RE : Standard corner radius

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

SPARE PARTS

Designation	Shim	Clamping screw	Wrench	Spring pin	Lever
S32S-PDZNR15	LSZ42BR	LCS4	P-3	LSP4	LCL4
S32S-PDZNL15	LSZ42BL	LCS4	P-3	LSP4	LCL4
S*0*-PDZNR15	LSZ42BR	LCS4	P-3	LSP4	LCL4

INSERT SELECTION

P	Application	Precision finishing	Finishing	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Breaker Shape	TF	TSF	TM	TH
	Cutting conditions	B004			

K	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Breaker Shape	All-round	All-round	All-round
	Cutting conditions	B008		

S	Application	Precision finishing	Finishing	Medium cutting
	Grade	BX470	AH8005	AH8005
	Breaker Shape	CBN	HRF	HRM
	Cutting conditions	B012		

M	Application	Finishing	Medium cutting	Medium to heavy cutting
	Grade	T6215	AH6225	AH6225
	Chipbreaker shape	SF	SM	SH
	Cutting conditions	B006		

N	Application	Precision finishing	Finishing	Medium cutting
	Grade	DX120	DX140	TH10
	Breaker Shape	DIA	DIA with rake	P
	Cutting conditions	B010		

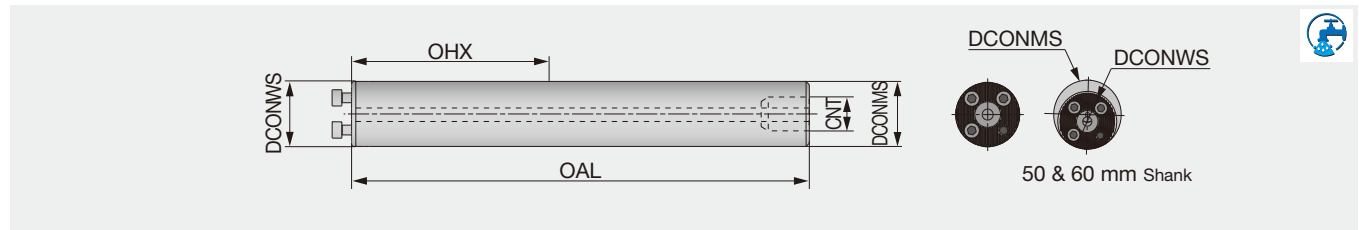
H	Application	Precision finishing	Finishing
	Grade	BXA10	BXA20
	Breaker Shape	HP	HS
	Cutting conditions	B014	

Technical Guide

BOREMEISTER

Anti-vibration bar

Anti-vibration bar for exchangeable turning heads, with through coolant



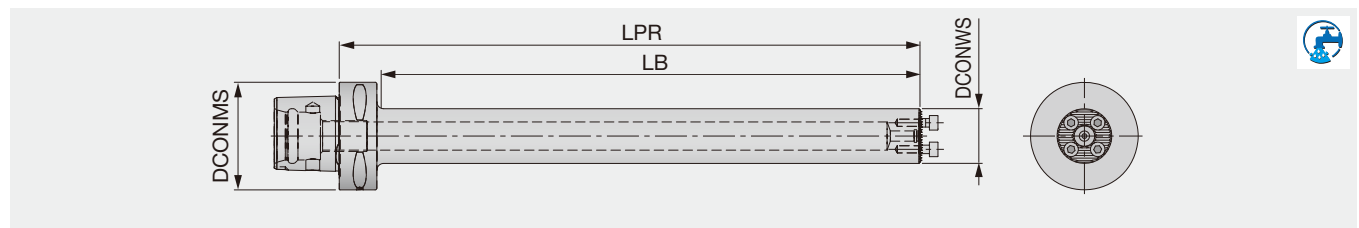
Designation	Material	DCONWS	DCONMS	OAL	OHX	CNT
D16-L156-7D-C	Steel	16	16	156.3	92	G1/8
G16-L204-10D-E	Carbide	16	16	204.3	140	-
D20-L200-7D-C	Steel	20	20	200.3	120	G1/4
G20-L260-10D-E	Carbide	20	20	260.3	180	-
D25-L255-7D-C	Steel	25	25	257.5	155	G1/4
D25-L330-10D-C	Steel	25	25	332.5	230	G1/4
D32-L320-7D-C	Steel	32	32	323	192	G3/8
D32-L416-10D-C	Steel	32	32	419	288	G3/8
D40-L408-7D-C	Steel	40	40	411	248	G1/2
D40-L528-10D-C	Steel	40	40	531	368	G1/2
D50-L518-7D-C	Steel	40	50	523	318	G1/2
D50-L668-10D-C	Steel	40	50	673	468	G1/2
D60-L628-7D-C	Steel	40	60	633	388	G3/4
D60-L808-10D-C	Steel	40	60	813	568	G3/4

SPARE PARTS

Designation	Clamping screw	Wrench
D16-L..., G16-L...	SRM3X10DIN912	HW2.5
D20-L..., G20-L...	SR55-2M3.5X10	HW2.5
D25-L...	SRM4X12DIN912	HW3.0
D32-L...	SRM5X12DIN912	HW4.0
D40-L..., D50-L..., D60-L...	SRM6X16DIN912-12.9	HW5.0

C6-9D-C

PSC adapter with anti vibration, L/D = 9



Designation	Material	DCONWS	DCONMS	LPR	LB	WT (kg)
C6-D25-L230-9D-C	Steel	25	63	230.5	200.1	1.65
C6-D32-L288-9D-C	Steel	32	63	288.5	259.5	2.73
C6-D40-L368-9D-C	Steel	40	63	368.5	339	4.45

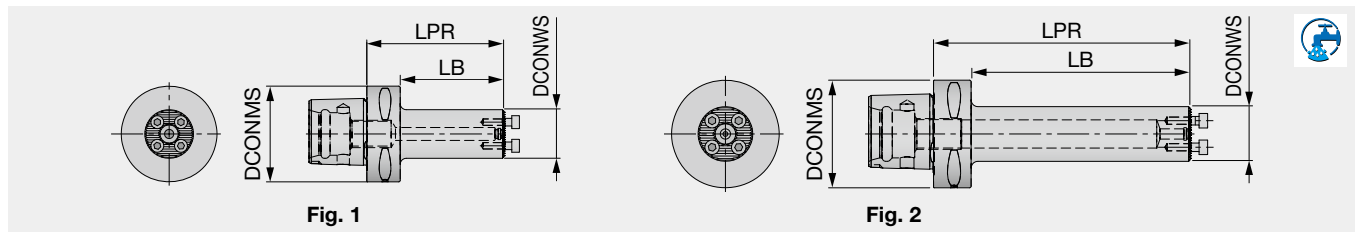
SPARE PARTS

Designation	Clamping screw	Wrench
C6-D25...	SRM4X12DIN912	HW3.0
C6-D32...	SRM5X12DIN912	HW4.0
C6-D40...	SRM6X16DIN912-12.9	HW5.0

BOREMEISTER

C#-SH-CHP / C#-SH-E-CHP

PSC compatible adapter with steel or carbide core



Designation	Material	DCONWS	DCONMS	LPR	LB	Fig.
C4-SH-D16-2.5D-CHP	Steel	16	40	40	20	1
C4-SH-D20-2.5D-CHP	Steel	20	40	50	30	1
C4-SH-D25-2.5D-CHP	Steel	25	40	55	35	1
C4-SH-D32-2.5D-CHP	Steel	32	40	75	55	1
C4-SH-D40-3D-CHP	Steel	40	40	80	80	1
C6-SH-D20-5D-E-CHP	Carbide	20	63	100	78	2
C6-SH-D25-5D-E-CHP	Carbide	25	63	115	93	2
C6-SH-D32-5D-E-CHP	Carbide	32	63	150	128	2
C6-SH-D40-5D-E-CHP	Carbide	40	63	185	163	2

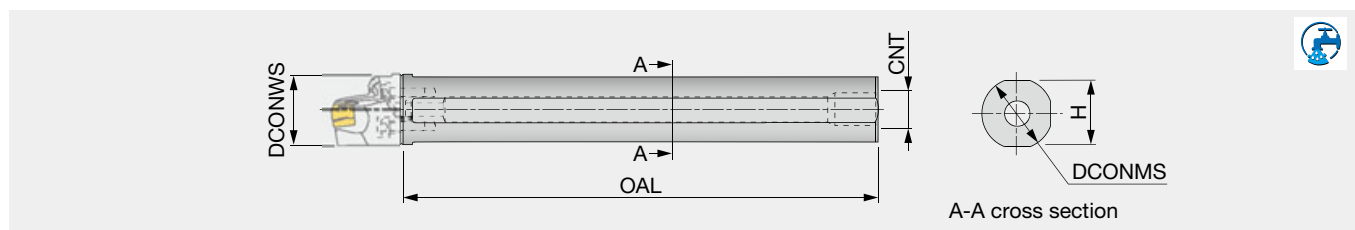
SPARE PARTS



Designation	Clamping screw
C4**D16...	SRM3X10DIN912
C4/C6**D20...	SR55-2M3.5X10
C4/C6**D25...	SR M4X12DIN912
C4/C6**D32...	SR M5X12 DIN912
C4/C6**D40...	SRM6X16DIN912-12.9

D#4D-SH

Steel shank for internal turning, with through coolant



Designation	Material	DCONWS	DCONMS	OAL	CNT	H
D16-L105-4D-SH	Steel	16	16	105	UNC-2B 3/8"-16	15
D20-L140-4D-SH	Steel	20	20	140	UNFC-2B 3/8"-24	18
D25-L200-4D-SH	Steel	25	25	200	UNF-2B 1/2"-20	23
D32-L218-4D-SH	Steel	32	32	218	UNF-2B 1/2"-20	29
D40-L283-4D-SH	Steel	40	40	283	UNF-2B 1/2"-20	36

SPARE PARTS



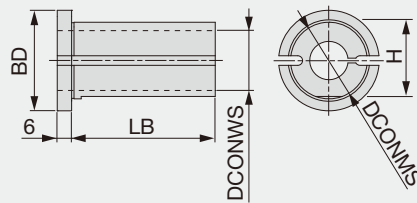

Designation	Clamping screw	Wrench
D16**4D-SH	SRM3X10DIN912	HW 2.5
D20**4D-SH	SR55-2M3.5X10	HW 2.5
D25**4D-SH	SR M4X12DIN912	HW 3.0
D32**4D-SH	SR M5X12 DIN912	HW4.0
D40**4D-SH	SRM6X16DIN912-12.9	HW 5.0

Technical Guide

BOREMEISTER

RSL sleeve

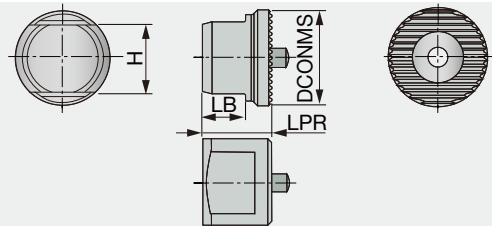
Split sleeve for anti-vibration bar



Designation	DCONWS	DCONMS	BD	LB	H
RSL-32-16-L66	16	32	42	60	31
RSL-32-20-L66	20	32	42	60	31
RSL-32-25-L66	25	32	42	60	31
RSL-40-16-L76	16	40	50	70	38.5
RSL-40-20-L76	20	40	50	70	38.5
RSL-40-25-L76	25	40	50	70	38.5

AVC-SET

Center height set up device

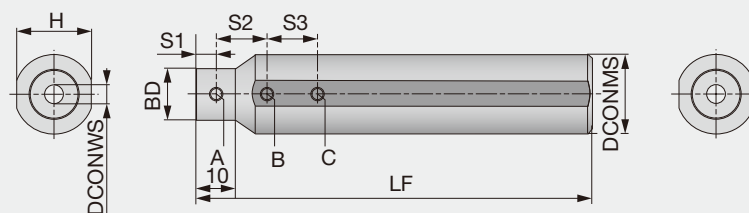


Designation	DCONMS	H	LPR	LB	Applicable shank
AVC-SET 16-25	20	15	14.5	8.9	16, 20, 25
AVC-SET 32-60	29	16	17.5	11.43	32, 40, 50, 60

STREAMJETBAR

BLM sleeve

Round shank sleeve for StreamJetBar-Mini series



Designation	DCONMS	DCONWS	BD	LF	H	S1	S2	S3
BLM159-04	15.875	4	15	100	15	5	15	15
BLM159-05	15.875	5	15	100	15	5	15	15
BLM159-06	15.875	6	15	100	15	5	20	20
BLM159-07	15.875	7	15	100	15	5	20	20
BLM16-04	16	4	15	100	15	5	15	15
BLM16-05	16	5	15	100	15	5	15	15
BLM16-06	16	6	15	100	15	5	20	20
BLM16-07	16	7	15	100	15	5	20	20
BLM19-04	19.05	4	18	100	18	5	15	15
BLM19-05	19.05	5	18	100	18	5	15	15
BLM19-06	19.05	6	18	100	18	5	20	20
BLM19-07	19.05	7	18	100	18	5	20	20
BLM20-04	20	4	13	100	19	5	15	15
BLM20-05	20	5	14	100	19	5	15	15
BLM20-06	20	6	15	100	19	5	20	20
BLM20-07	20	7	16	100	19	5	20	20
BLM22-04	22	4	13	125	21	5	15	15
BLM22-05	22	5	14	125	21	5	15	15
BLM22-06	22	6	15	125	21	5	20	20
BLM22-07	22	7	16	125	21	5	20	20
BLM25-04	25	4	13	125	24	5	15	15
BLM25-05	25	5	14	125	24	5	15	15
BLM25-06	25	6	15	125	24	5	20	20
BLM25-07	25	7	16	125	24	5	20	20
BLM254-04	25.4	4	13	125	24	5	15	15
BLM254-05	25.4	5	14	125	24	5	15	15
BLM254-06	25.4	6	15	125	24	5	20	20
BLM254-07	25.4	7	16	125	24	5	20	20

SPARE PARTS

Designation	Clamping screw A	Clamping screw B, C	Wrench	Seal cap* (inner screw)
BLM159, 16...	SSH4-4	SSH4-4	P-2	CA-16(M6)
BLM19-04	SSH4-4	SSH4-6	P-2	CA-16(M6)
BLM19-05, 06, 07	SSH4-4	SSH4-4	P-2	CA-16(M6)
BLM20-04, 05	SSH4-4	SSH4-6	P-2	CA-16(M6)
BLM20-06, 07	SSH4-4	SSH4-4	P-2	CA-16(M6)
BLM22-...	SSH4-4	SSH4-6	P-2	CA-16(M6)
BLM25-04, 05	SSH4-4	SSH4-8	P-2	CA-16(M6)
BLM25-06	SSH4-4	SSH4-8	P-2	CA-16(M6)
BLM25-07	SSH4-4	SSH4-6	P-2	CA-16(M6)
BLM254-04, 05, 06	SSH4-4	SSH4-8	P-2	CA-16(M6)
BLM254-07	SSH4-4	SSH4-6	P-2	CA-16(M6)

*Optional

Grade

Insert

Ext. Toolholder

Int. Toolholder

Threading

Grooving

Miniature tool

Milling cutter

Endmill

Drilling tool

Tooling System

User's Guide

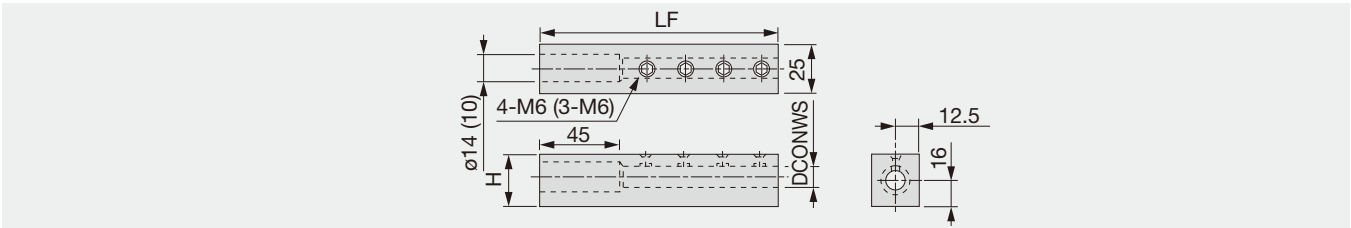
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Technical Guide

STREAMJETBAR

BLS sleeve

Square shank sleeve for boring bars (regular length)



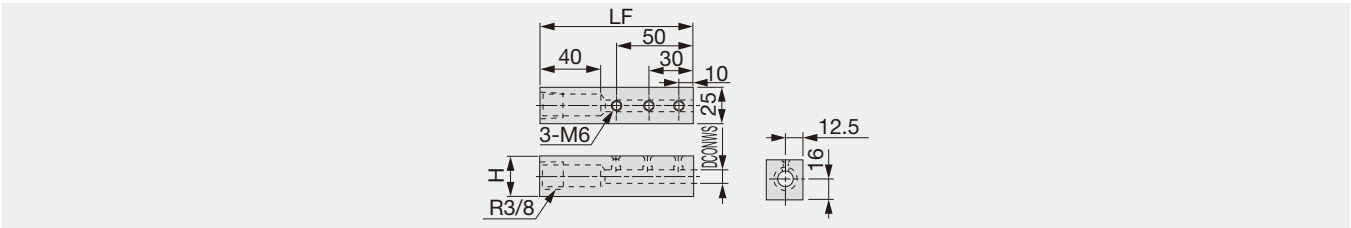
Designation	DCONWS	LF	H
BLS16-08	8	125	28
BLS16-10	10	125	28
BLS16-12	12	125	28

SPARE PARTS

Designation	Wrench
BLS16-...	P-3

BLS-C sleeve

Square shank sleeve for boring bars (short type)



Designation	DCONWS	LF	H
BLS16-08C	8	100	28
BLS16-10C	10	100	28
BLS16-12C	12	100	28

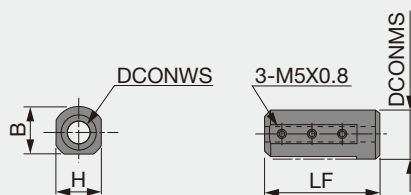
SPARE PARTS

Designation	Wrench
BLS16-**C	P-3

STREAMJETBAR

BLM sleeve

Round shank sleeve for boring bars



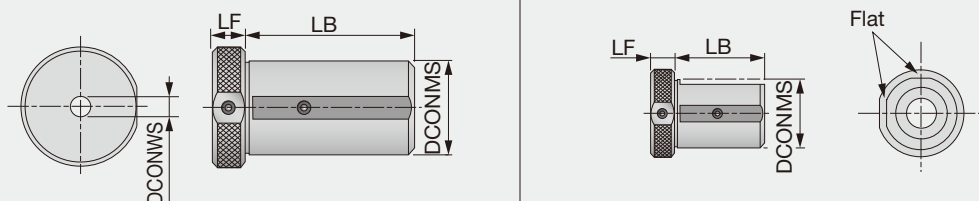
Designation	DCONWS	DCONMS	LF	H	B
BLM19-08	8	19.05	100	18	18
BLM20-08	8	20	100	18	19
BLM22-08	8	22	125	21	21
BLM254-08	8	25.4	125	24	24
BLM25-08C	8	25	55	23	24
BLM25-10C	10	25	55	23	24
BLM25-12C	12	25	55	23	24

SPARE PARTS

Designation	Wrench
BLM...	P-2.5

BLC sleeve

Round shank sleeve for boring bars



Designation	DCONWS	LB	LF	DCONMS
BLC40-8	8	73	13	40
BLC40-10	10	73	13	40
BLC40-12	12	73	13	40
BLC40-16	16	73	13	40
BLC32-8C	8	45	20	32
BLC32-10C	10	45	20	32
BLC32-12C	12	45	20	32
BLC40-8C	8	55	13	40
BLC40-10C	10	55	13	40
BLC40-12C	12	55	13	40
BLC40-16C	16	55	13	40

SPARE PARTS

Designation	Wrench
BLC40-8	P-3
BLC40-1...	P-4
BLC32-8C	P-3
BLC32-1°C	P-4
BLC40-8C	P-3
BLC40-1°C	P-4

Technical Guide

MINIFORCE

STANDARD CUTTING CONDITIONS

FOR INTERNAL TURNING

ISO	Workpiece material	Grade		Cutting speed Vc (m/min)	Depth of cut ap (mm)	Feed f (mm/rev)
		First choice	Second choice			
P	Low carbon steel / Low alloy steel	T9215	-	120 - 350	0.3 - 2	0.08 - 0.3
		T9225	-	100 - 300	0.3 - 2	0.08 - 0.3
		AH8015	-	50 - 200	0.3 - 2	0.08 - 0.3
		-	AH725	50 - 180	0.3 - 2	0.08 - 0.3
		-	NS9530	80 - 250	0.3 - 2	0.08 - 0.3
		-	GT9530	80 - 300	0.3 - 2	0.08 - 0.3
	Carbon steel / Alloy steel	T9215	-	80 - 350	0.3 - 2	0.08 - 0.3
		T9225	-	80 - 300	0.3 - 2	0.08 - 0.3
		AH8015	-	50 - 200	0.3 - 2	0.08 - 0.3
		-	AH725	50 - 180	0.3 - 2	0.08 - 0.3
		-	NS9530	80 - 250	0.3 - 2	0.08 - 0.3
		-	GT9530	80 - 300	0.3 - 2	0.08 - 0.3
M	Stainless steel (Austenitic)	AH8015	-	50 - 150	0.3 - 2	0.08 - 0.3
		-	AH725	50 - 150	0.3 - 2	0.08 - 0.3
		-	T9215	50 - 200	0.3 - 2	0.08 - 0.3
	Stainless steel (Martensitic and ferritic)	AH8015	-	50 - 150	0.3 - 2	0.08 - 0.3
		-	AH725	50 - 150	0.3 - 2	0.08 - 0.3
		-	T9215	50 - 200	0.3 - 2	0.08 - 0.3
	Stainless steel (Precipitation hardening)	AH8015	-	50 - 150	0.3 - 2	0.08 - 0.3
		-	AH725	50 - 150	0.3 - 2	0.08 - 0.3
		-	T9215	50 - 200	0.3 - 2	0.08 - 0.3
K	Grey cast iron	T9215	-	100 - 350	0.3 - 2	0.08 - 0.3
		T9225	-	100 - 350	0.3 - 2	0.08 - 0.3
		-	AH8015	50 - 200	0.3 - 2	0.08 - 0.3
		-	AH725	50 - 180	0.3 - 2	0.08 - 0.3
		-	NS9530	80 - 250	0.3 - 2	0.08 - 0.3
		-	GT9530	80 - 300	0.3 - 2	0.08 - 0.3
	Ductile cast iron	T9215	-	100 - 350	0.3 - 2	0.08 - 0.3
		T9225	-	100 - 350	0.3 - 2	0.08 - 0.3
		-	AH8015	50 - 200	0.3 - 2	0.08 - 0.3
		-	AH725	50 - 180	0.3 - 2	0.08 - 0.3
		-	NS9530	80 - 250	0.3 - 2	0.08 - 0.3
		-	GT9530	80 - 300	0.3 - 2	0.08 - 0.3
N	Aluminum alloys	KS05F	-	100 - 300	0.3 - 2	0.08 - 0.3
	Copper alloys	KS05F	-	100 - 300	0.3 - 2	0.08 - 0.3
S	Titanium alloys	AH8015	-	20 - 80	0.3 - 2	0.08 - 0.3
	Nickel-based alloys	AH8015	-	20 - 80	0.3 - 2	0.08 - 0.3
H	Hardened steel	BXA20	-	50 - 220	0.12 - 0.8	0.1 - 0.3
		-	BXA10	50 - 220	0.12 - 0.8	0.1 - 0.3

Reference pages: A/E-SCLXR/L → **D021**, S-SCLXR/L-H → **D022**
A/E-SWLXR/L → **D023**, S-SWLXR/L-H → **D024**
A/E-SDXXR/L → **D036**

LNMX1204

*Values in red are for facing.

ISO	Workpiece material	Chip breaker	Grade	Cutting speed Vc (m/min)	Depth of cut: ap (mm)		Feed: f (mm/rev)	
					RE : 0.8	RE : 1.2	RE : 0.8	RE : 1.2
P	Steels S45C, SCM415, etc. C45, 18CrMo4, etc.	TDR	T9115	120 - 250	0.5 - 5 0.5 - 2.2	0.8 - 5 0.8 - 2.2	0.15 - 0.6	0.25 - 0.8
		TDR	T9125	80 - 180	0.5 - 5 0.5 - 2.2	0.8 - 5 0.8 - 2.2	0.15 - 0.6	0.25 - 0.8
M	Stainless steels SUS304, SUS316, etc. X5CrNi18-9, X5CrNiMo17-12-2, etc.	TDR	T9115	100 - 180	0.5 - 5 0.5 - 2.2	0.8 - 5 0.8 - 2.2	0.15 - 0.6	0.25 - 0.8
		TDR	T9125	80 - 180	0.5 - 5 0.5 - 2.2	0.8 - 5 0.8 - 2.2	0.15 - 0.6	0.25 - 0.8

LNMX1606

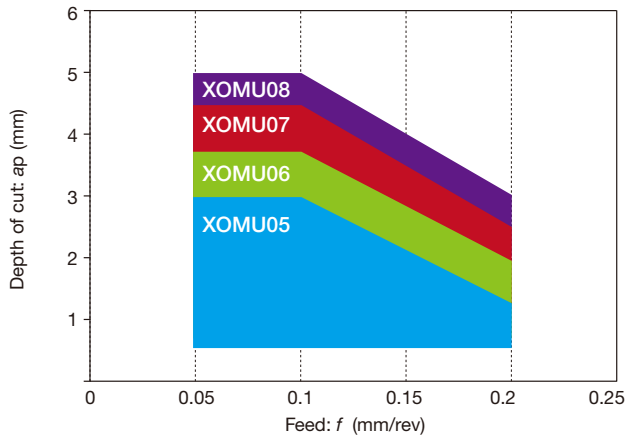
ISO	Workpiece material	Chip breaker	Grade	Cutting speed Vc (m/min)	Depth of cut: ap (mm)			Feed: f (mm/rev)		
					RE : 0.8	RE : 1.2	RE : 1.6	RE : 0.8	RE : 1.2	RE : 1.6
P	Steels S45C, SCM415, etc. C45, 18CrMo4, etc.	TDR	T9115	120 - 250	0.5 - 5 0.5 - 3.2	0.8 - 6 0.8 - 3.2	1 - 8 1 - 3.2	0.15 - 0.6	0.25 - 0.8	0.3 - 1
		TDR	T9125	80 - 180	0.5 - 5 0.5 - 3.2	0.8 - 6 0.8 - 3.2	1 - 8 1 - 3.2	0.15 - 0.6	0.25 - 0.8	0.3 - 1
		TWR	T9115	120 - 250	1 - 8 1 - 3.2	0.8 - 6 0.8 - 3.2	-	0.15 - 0.6	0.25 - 0.8	-
		TWR	T9125	80 - 180	1 - 8 1 - 3.2	0.8 - 6 0.8 - 3.2	-	0.15 - 0.6	0.25 - 0.8	-
M	Stainless steels SUS304, SUS316, etc. X5CrNi18-9, X5CrNiMo17-12-2, etc.	TDR	T9115	100 - 180	0.5 - 5 0.5 - 3.2	0.8 - 6 0.8 - 3.2	1 - 8 1 - 3.2	0.15 - 0.6	0.25 - 0.8	0.3 - 1
		TDR	T9125	80 - 180	0.5 - 5 0.5 - 3.2	0.8 - 6 0.8 - 3.2	1 - 8 1 - 3.2	0.15 - 0.6	0.25 - 0.8	0.3 - 1
		MDR	T9115	100 - 150	1.5 - 6 0.5 - 3.2	1.5 - 7 0.8 - 3.2	-	0.1 - 0.5	0.15 - 0.7	-
		MDR	AH725	50 - 150	1.5 - 6 0.5 - 3.2	1.5 - 7 0.8 - 3.2	-	0.1 - 0.5	0.15 - 0.7	-
		TWR	T9115	100 - 180	0.5 - 5 0.5 - 3.2	0.8 - 6 0.8 - 3.2	-	0.15 - 0.6	0.25 - 0.8	-
		TWR	T9125	80 - 180	0.5 - 5 0.5 - 3.2	0.8 - 6 0.8 - 3.2	-	0.15 - 0.6	0.25 - 0.8	-

LNMX2410

ISO	Workpiece material	Chip breaker	Grade	Cutting speed Vc (m/min)	Depth of cut: ap (mm)		Feed: f (mm/rev)	
					RE : 1.6	RE : 2.4	RE : 1.6	RE : 2.4
P	Steels S45C, SCM415, etc. C45, 18CrMo4, etc.	TDR	T9115	120 - 250	4 - 15 1 - 4.5	5 - 15 1 - 4.5	0.3 - 1	0.3 - 1.1
		TDR	T9125	80 - 150	4 - 15 1 - 4.5	5 - 15 1 - 4.5	0.3 - 1	0.3 - 1.1
M	Stainless steels SUS304, SUS316, etc. X5CrNi18-9, X5CrNiMo17-12-2, etc.	TDR	T9115	100 - 180	4 - 15 1 - 4.5	5 - 15 1 - 4.5	0.3 - 1	0.3 - 1.1
		TDR	T9125	80 - 150	4 - 15 1 - 4.5	5 - 15 1 - 4.5	0.3 - 1	0.3 - 1.1

STANDARD CUTTING CONDITIONS

DMIN	Description Insert	Depth of cut ap (mm)	Feed f (mm/rev)	Cutting speed: Vc (m/min)	
				Carbon steel, Alloy steel	Stainless steel
ø10	XOMU05X204-PS	0.5 - 3	0.05 - 0.2	50 - 180 m/min	50 - 160 m/min
ø12	XOMU06H204-PS	0.5 - 3.5			
ø14	XOMU07H304-PS	0.5 - 4.5			
ø16	XOMU08T304-PS	0.5 - 5			



Threading Tool



- Products are listed by product series and thread shape to be machined.
- Inserts and toolholders in the catalog are our standard items.

Method ③ Select an item from Quick Guide on E004 - E007.

[illegible]

- | | |
|---|--|
| ① : Screw shape | ⑤ : Designation (for external, for internal) |
| ② : Series name | ⑥ : Dimension table (conforming to ISO13399) |
| ③ : Drawing of thread, threading insert, threading toolholder | ⑦ : Applicable toolholder |
| ④ : Applicable pitch and the number of threads | ⑧ : Spare parts |
| | ⑨ : Reference page |

- Please specify the designation and quantity for threading toolholders.
e.g. **TSNR0020R22 ... 1** (one threading toolholder per package)
- Please specify the designation, grade, and quantity for threading inserts.
e.g. **16IR175ISO AH725 ... 5** (five threading inserts per package)

Main products

Thread form	
60°	E010
55°	E015
M (Metric)	E017
UN (Unified)	E021
W (Whitworth)	E023
BSPT (R, PT)	E024
NPT	E025
NPTF	E026
TR (Metric, 30° Trapezoidal)	E027
Round (DIN405)	E027
UNJ	E028
MJ	E028
ACME (29° Trapezoidal)	E029
STUB ACME (29° Trapezoidal)	E030
API Round	E030
API Buttress	E032
API Rotary Shoulder Connection	E035



TUNGTHREAD

Lay down insert, toolholder

Standard items cover a wide variety of threading inserts. Standard tool series with double-clamp system for excellent insert stability in machining API-standard threads.

E004 -, E010 -
E067



TETRAMCUT

Standard tool with 4 corners for threading on Swiss lathes. In small diameter threading using the center of the tool post on general NC lathes, interference with the center is less likely occur.

E004 -, E008



DUOJUST

Standard tool suitable for all types of threading on Swiss lathes. The incomplete thread part from the workpiece face to the thread groove can be the shortest thanks to the excellent accessibility to the workpiece face.

E004 -, E009



J-SERIES

Tool series with 3-cornered inserts. Subselection for threading on Swiss lathes. Standard tool also suitable for radial Swiss lathes.

E004, E013
E016, E048



TUNG-CLAMP

Tool with high clamp rigidity that firmly holds the insert with a clamp. Grooving insert and threading insert can be used with the same toolholder.

E004 -, E014
E062 -, E068



On edge insert, toolholder

ACME and STUB ACME inserts can be used for the range of 16 to 3TPI with 2 types of toolholders. The special full-profile insert realizes both the fine adjustment of thread height and the minimum burr on the crest.

E004 -, E029 -
E052, E065



Chaser

Threading tool with multiple cutting edges for highly efficient machining of API-standard round, buttress, and NPT.

E005 -, E026
E031 -, E053
E066



BOREMEISTER

Boring heads for deep hole threading. All 16-size inserts of TungThread Internal series are applicable, allowing to apply for large variety of threads type.

E056 -



TINYM^{INI}TURN

Internal threading tool suitable for the minimum machining diameter ø4. All tools have oil holes that can supply coolant from the cutting edge.

E059 -, E068

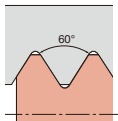
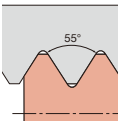
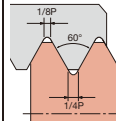
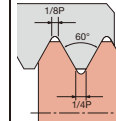
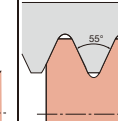
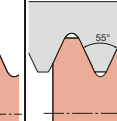
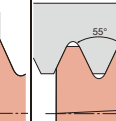
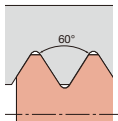
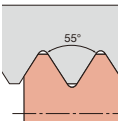
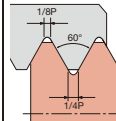
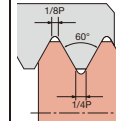
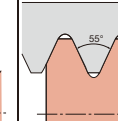
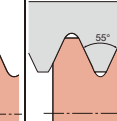
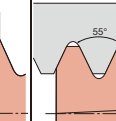
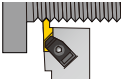


Other tool

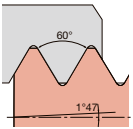
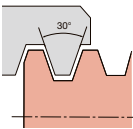
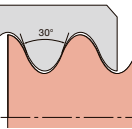
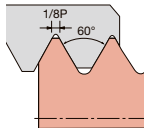
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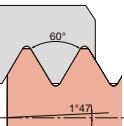
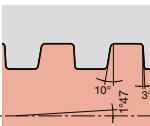
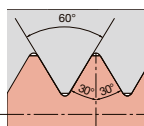
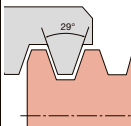
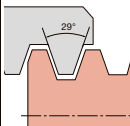
E004 -, E014
E016, E053,
E066

Applicable tool for each external thread type

Applicable tool for each external thread type			General purpose, Machine parts for machine and automotive parts				For valve and pump parts; pneumatic, hydraulic, oil and gas pipes		
Thread types			60°	55°	ISO metric threads, coarse and fine	Unified national threads series, 60° inch threads	- British standard whitworth - British standard fine	- British standard parallel pipe - British standard pipe - Parallel pipe thread (JIS B 9912) - 55° inch thread	- JIS tapered pipe thread - British standard pipe taper
Thread symbols			M, UN, UNC, UNF, UNEF, UNS	G, BSP, PF, BSPP	M	UN, UNR, UNC, UNRC, UNF, UNRF, UNEF, UNREF, UNS, UNRS	BSW, BSF, W	G, BSP, PF, BSPP	R, PT, BSPT
Thread form									
Tool type	Full profile								
	With	Without							
ST type  E036	○		—	—	0.5 ~ 6 mm E017	32 ~ 5TPI E021	28 ~ 5TPI E023	28 ~ 5TPI E023	28 ~ 11TPI E024
	○		0.5 ~ 6 mm 48 ~ 4TPI E010	0.5 ~ 5 mm 48 ~ 5TPI E015	—	—	—	—	—
TETRAMCUT  E041	○		—	—	0.5 ~ 1.5 mm E020	—	—	—	—
	○		0.4 ~ 3 mm 64 ~ 8TPI E012	—	—	—	—	—	—
DUOJUST  E047	○		0.2 ~ 1.5 mm 127 ~ 16TPI E012	—	—	—	—	—	—
	○		0.5 ~ 1 mm 48 ~ 25TPI E013	0.5 ~ 1 mm 48 ~ 25TPI E016	—	—	—	—	—
TUNG-CLAMP  E050	○		1.27 ~ 4.23 mm 20 ~ 6TPI E014	—	—	—	—	—	—
	○		~ 3 mm ~ 8TPI E014	~ 3 mm ~ 8TPI E016	—	—	—	—	—
TT type  E053	○		—	—	—	—	—	—	—

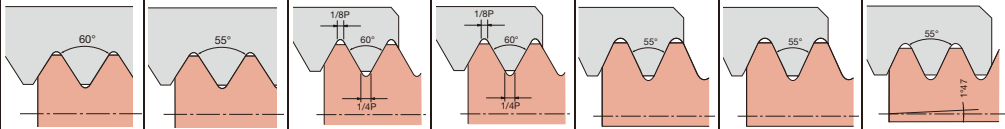
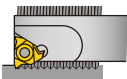
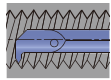
Please see page **E***** for the product details.

Applicable tool for each external thread type		For valve and pump parts; pneumatic, hydraulic, oil and gas pipes		Machine parts		Aerospace threads
Thread types		National pipe taper thread	National pipe taper fuel thread	- TR - 30° trapezoidal - ISO trapezoidal	Knuckle thread	Unified inch screw threads
Thread symbols		NPT	NPTF	TR	Rd	UNJ, UNJC, UNJF, UNUEF, UNJS
Thread form						
Tool type	Full profile					
	With Without					
ST type 		27 ~ 8TPI E025	27 ~ 8TPI E026	1.5 ~ 6 mm E027	8TPI, 6TPI E027	32 ~ 8TPI E028
Chaser 		11.5TPI, 8TPI E026	—	—	—	—

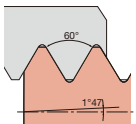
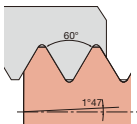
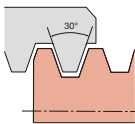
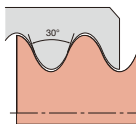
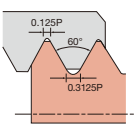
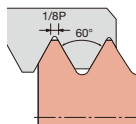
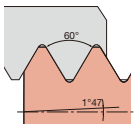
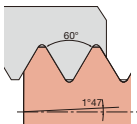
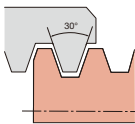
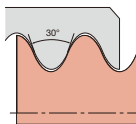
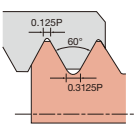
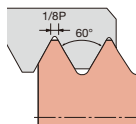
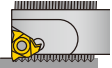
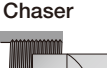
Applicable tool for each external thread type			Oil and gas fields and OCTG drill pipes						Machine parts, Pipe		
Thread types			- API round - API casing - Short casing - API tubing	API buttress casing	- API rotary shoulder connection for drill pipe and collar connections					- ACME - 29° trapezoidal thread	- STUB ACME - 29° trapezoidal thread
					V-0.038R 2TPF	V-0.038R 3TPF	V-0.040R 3TPF	V-0.050R 2TPF	V-0.050R 3TPF		
Thread symbols			CSG, LCSG, TBG, UPTBG	BCSG	NC	NC	REG	REG, FH	REG	—	—
Thread form											
Tool type	Full profile										
	With	Without									
ST type 			10TPI, 8TPI E036	5TPI (0.75TPF) E032	—	—	—	—	—	12 ~ 5TPI E029	—
Chaser 			10TPI, 8TPI E053	5TPI (0.75TPF) E033	—	—	—	—	—	—	—
Other 			10TPI, 8TPI E051	5TPI (0.75TPF) 5TPI (1TPF) E032	4TPI (2TPF) 4TPI (3TPF) 5TPI (3TPF) E035			16 ~ 3TPI E029			16 ~ 3TPI E030

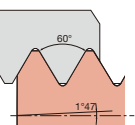
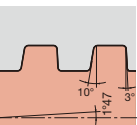
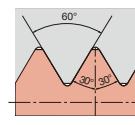
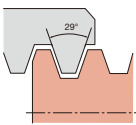
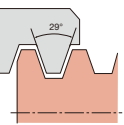
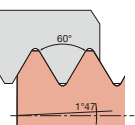
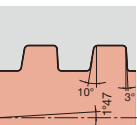
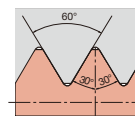
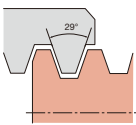
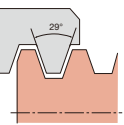
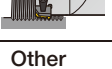
Please see page **E***** for the product details.

Applicable tool for each internal thread type

Applicable tool for each external thread type		General purpose, Machine parts for machine and automotive parts				For valve and pump parts; pneumatic, hydraulic, oil and gas pipes		
Thread types		60°	55°	ISO metric threads, coarse and fine	Unified national threads series, 60° inch threads	- British standard whitworth - British standard fine	- British standard parallel pipe - British standard pipe - Parallel pipe thread (JIS B 9912) - 55° inch thread	- JIS tapered pipe thread - British standard pipe taper
Thread symbols		M, UN, UNC, UNF, UNEF, UNS	G, BSP, PF, BSPP	M	UN, UNR, UNC, UNRC, UNF, UNRF, UNEF, UNREF, UNS, UNRS	BSW, BSF, W	G, BSP, PF, BSPP	R, PT, BSPT
Thread form								
Tool type	Full profile							
	With Without							
ST type 	○	—	—	0.5 ~ 6 mm E017	32 ~ 5TPI E021	28 ~ 5TPI E023	28 ~ 5TPI E023	19 ~ 11TPI E024
	○	0.5 ~ 6 mm E010	0.5 ~ 5 mm E015	—	—	—	—	—
TINYTURN 	○	0.5 ~ 1.5 mm E060	—	—	—	—	—	—
TUNG-CLAMP 	○	1.27 ~ 4.23 mm E014	—	—	—	—	—	—
TT type 	○	~ 3 mm ~ 8TPI E014	~ 3 mm ~ 8TPI E016	—	—	—	—	—

Please see page **E***** for the product details.

Applicable tool for each external thread type			For valve and pump parts; pneumatic, hydraulic, oil and gas pipes		Machine parts		Aerospace threads	
Thread types			National pipe taper thread	National pipe taper fuel thread	- TR - 30° trapezoidal - ISO trapezoidal	Knuckle thread	Aerospace standard MJ threads	Unified inch screw threads
Thread symbols			NPT	NPTF	TR	Rd	MJ	UNJ, UNJC, UNJF, UNUEF, UNJS
Thread form								
Tool type	Full profile							
	With	Without						
ST type  E054	○		27 ~ 8TPI E025	14 ~ 8TPI E026	1.5 ~ 5 mm E027	6TPI E027	1 mm E028	—
Chaser  E065	○		11.5TPI, 8TPI E026	—	—	—	—	—

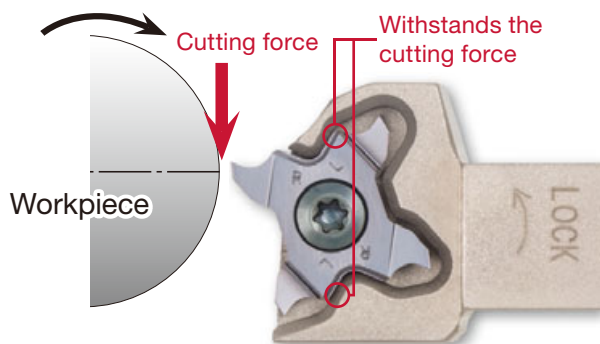
Applicable tool for each external thread type			Oil and gas fields and OCTG drill pipes							Machine parts, Pipe	
Thread types			- API round - API casing - API tubing - Short casing	API buttress casing	- API rotary shoulder connection for drill pipe and collar connections					ACME 29° trapezoidal thread	STUB ACME 29° trapezoidal thread
					V-0.038R 2TPF	V-0.038R 3TPF	V-0.040R 3TPF	V-0.050R 2TPF	V-0.050R 3TPF		
Thread symbols			CSG, LCSG, TBG, UPTBG	BCSG	NC	NC	REG	REG, FH	REG	—	—
Thread form											
Tool type	Full profile										
	With	Without									
ST type  E054	○		10TPI, 8TPI E030	5TPI (0.75TPF) E032	—	—	—	—	—	12 ~ 5TPI E029	—
Chaser  E065	○		10TPI, 8TPI E031	5TPI (0.75TPF) E033	—	—	—	—	—	—	—
Other  E063	○		10TPI, 8TPI E031	5TPI (0.75TPF) 5TPI (1TPF) E032	4TPI (2TPF) 4TPI (3TPF) 5TPI (3TPF) E035					—	—

Please see page E*** for the product details.



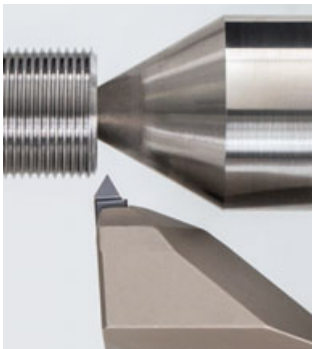
Unique clamping system

The unique pocket design provides accurate indexing repeatability of the cutting edge height.



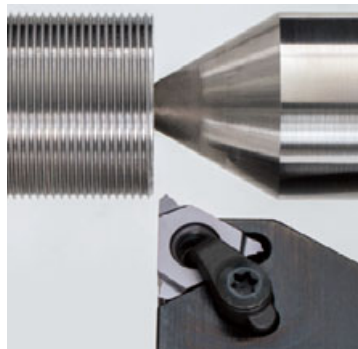
No tool interference with the lathe center when machining small parts

TETRAMCUT M16x1



Insert: TCT18R-60N-020

Conventional M24x1



Insert: 16ER10ISO



Unique clamping system for highly rigid clamping

The unused cutting edge is always protected due to the innovative clamping system. Even if the first cutting edge is chipped, the other unused cutting edge can be used because the insert is clamped in the center.

Insert is secured at 3 points



Excellent accessibility to the workpiece face

Utilizing various tools minimizes the incomplete thread part.



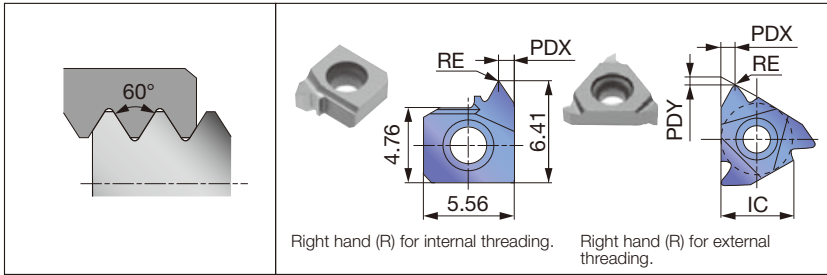
	Type A	Type B	Type N
Right hand	 $a > b$	 $a < b$	 $a = b$
Left hand	 $a > b$	 $a < b$	 $a = b$



Insert designation	Cutting edge geometry (mm)	PDX (mm)	Pitch (mm)										
			0.2	0.25	0.35	0.4	0.5	0.6	0.8	1	1.25	1.5	
JXTG12FR-60A-000	0.05 (flat)	0.25	Applicable area										
JXTG12FL-60A-000													
JXTG12FR-60B-000	0.05 (flat)	2.25	Applicable area										
JXTG12FL-60B-000													
JXTG12FR-60A-005	R0.05	0.6	Applicable area										
JXTG12FL-60A-005													
JXTG12FR-60B-005	R0.05	1.9	Applicable area										
JXTG12FL-60B-005													
JXTG12FR-60N-010	R0.1	1.25	Applicable area								Applicable area		
JXTG12FL-60N-010													
			127	72		52		32				16	
			Threads per inch (TPI)										

Reference pages: Inserts → **E012**, External toolholders → **E047 - E048**,
Standard cutting conditions → **E067**

60° thread angle (General purpose)



Applicable toolholder

Insert size	External	Internal
6		SNR/L000*K06SC... SNR/L000*H06...
06		SIR0005...
08		SIR0007...
11	SER**11	SNR/L**11...
16	CER/L**16... (C*CER/L...) JSER**16... JS**SEL16 SER**16-CHP B-SER/L**16 B-CER/L**16 BC-SER/L**16	TSNR/L**16 SNR/L**16... TCNR/L**16... CNR/L**16...
22	CER/L**22... SER**22-CHP	TSNR/L**22 SNR/L**22... TCNR/L**22... CNR/L**22...
27	CER/L**27...	CNR/L**27...

Partial-profile insert

Insert size	Pitch (Reference)	TPI	Hand of cut	External insert								Internal insert											
				Designation	Grade				IC	PDX	PDY	RE	Designation	Grade					IC	PDX	PDY	RE	
					AH8015	AH725	T313V	Uncoated						TH10	Coated								Uncoated
															AH8015	AH725	GH330	T313V					
6	0.5 - 1.5	48 - 16	R									6IRA60	●	●		●	-	0.9	-	0.04			
06	0.5 - 1.25	48 - 20	R									06IRA60				●**		4	0.6	0.6	0.05		
08	0.5 - 1.5	48 - 16	R									08IRA60		●**				5	0.7	0.6	0.05		
11	0.5 - 1.5	48 - 16	R	11ERA60	●				6.35	0.9	0.8	0.06	11IRA60	●	●		●	6.35	0.9	0.7	0.04		
11	0.5 - 1.5	48 - 16	L									11ILA60		●		●	●	6.35	0.9	0.7	0.04		
16	0.5 - 1.5	48 - 16	R	16ERA60	●	●	●	●	9.525	0.9	0.7	0.06	16IRA60	●	●		●	9.525	0.9	0.7	0.04		
16	0.5 - 1.5	48 - 16	L	16ELA60		●	●	●	9.525	0.9	0.7	0.06	16ILA60		●		●	9.525	0.9	0.7	0.04		
16	0.5 - 3	48 - 8	R	16ERAG60	●	●	●		9.525	1.6	1.2	0.06	16IRAG60	●	●		●	9.525	1.6	1.2	0.04		
16	1.75 - 3	14 - 8	R	16ERG60	●	●	●	●	9.525	1.6	1.2	0.22	16IRG60	●	●		●	9.525	1.6	1.2	0.12		
16	1.75 - 3	14 - 8	L	16ELG60		●	●		9.525	1.6	1.2	0.22	16ILG60		●		●	9.525	1.6	1.2	0.12		
22	3.5 - 5	7 - 5	R	22ERN60	●	●	●	●	12.7	2.5	1.7	0.44	22IRN60	●	●		●	12.7	2.5	1.7	0.25		
22	3.5 - 5	7 - 5	L	22ELN60		●	●		12.7	2.5	1.7	0.44	22ILN60		●		●	12.7	2.5	1.7	0.25		
27	4 - 6	6 - 4	R	27ERZ60	●	●			15.875	3.2	2.2	0.5	27IRZ60		●		●	15.875	3.2	2.2	0.28		

●** : Both ..06IR... and ..08IR... inserts have 3 cutting edges.

● : Line up / 5 pieces per package

Partial-profile insert

Insert size	Pitch	TPI	Hand of cut	External insert						
				Designation	Grade	IC	PDX	PDY	RE	
					CBN					
					BX330					
16	1 - 2	20 - 13	R	1QP-16ER60-014-SP	●	9.525	0.95	0.7	0.14	
16	1.5 - 3	16 - 8	R	1QP-16ER60-020-SP	●	9.525	1.55	1.2	0.2	

● : Line up / 1 piece per package

Reference pages: External toolholders → **E036 - E040**
Internal toolholders → **E054 - E056**

Partial-profile insert with chipbreaker

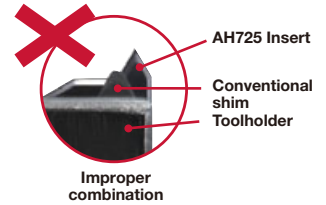
Insert size	Pitch (Reference)	TPI	Hand of cut	External insert								Internal insert							
				Designation	Grade			IC	PDX	PDY	RE	Designation	Grade			IC	PDX	PDY	RE
					Coated		Cermet						Coated		Cermet				
					AH8015	AH725	NS9530						AH8015	AH725	NS9530				
11	0.5 - 1.5	48 - 16	R									11IRA60-B		●		6.35	0.9	0.7	0.04
11	0.5 - 1.5	48 - 16	R									11IRA60-M	●		●	6.35	0.9	0.7	0.04
16	0.5 - 1.5	48 - 16	R	16ERA60-B		●*		9.525	0.9	0.8	0.05	16IRA60-B		●*		9.525	0.9	0.8	0.05
16	0.5 - 1.5	48 - 16	R	16ERA60-M	●		●	9.525	0.9	0.7	0.06	16IRA60-M	●		●	9.525	0.9	0.7	0.04
16	0.5 - 3	48 - 8	R	16ERAG60-B		●*		9.525	1.7	1.2	0.08	16IRAG60-B		●*		9.525	1.7	1.2	0.05
16	0.5 - 3	48 - 8	R	16ERAG60-M	●	●	●	9.525	1.6	1.2	0.06	16IRAG60-M	●	●	●	9.525	1.6	1.2	0.04
16	1.75 - 3	14 - 8	R	16ERG60-B		●*		9.525	1.7	1.2	0.25	16IRG60-B		●*		9.525	1.7	1.2	0.1
16	1.75 - 3	14 - 8	R	16ERG60-M	●		●	9.525	1.6	1.2	0.22	16IRG60-M	●		●	9.525	1.6	1.2	0.14
22	3.5 - 5	7 - 5	R	22ERN60-B		●		12.7	2.5	1.7	0.32	22IRN60-B		●		12.7	2.5	1.7	0.19

●* : The cutting edge position needs re-adjusting for these inserts have different PDY and PDX dimensions (Note: for size 16 inserts only).

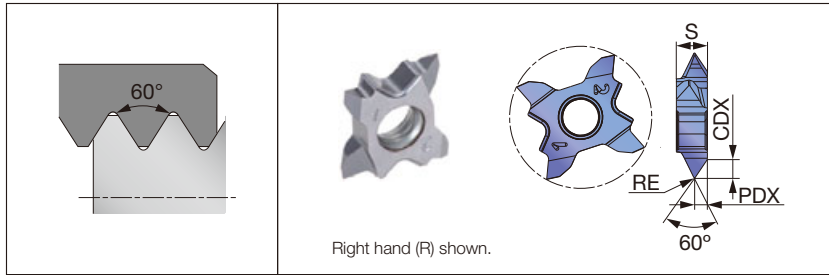
● requires the use of dedicated shim.

When using a new AH725 with chipbreaker, the conventional shim may need to be replaced with a new standard shim. Please refer to the page [E69](#).

● : Line up / 5 pieces per package



60° thread angle (General purpose)



Applicable toolholder

External
STCR/L**-18
STCR/L**18-CHP
JS**-STCL18
C*STCFL**18-CHP
C*STCR/L**18-CHP
QC**STCR/L18 (-Y)
QC**STCR/L18 (-Y)-CHP

Partial-profile insert

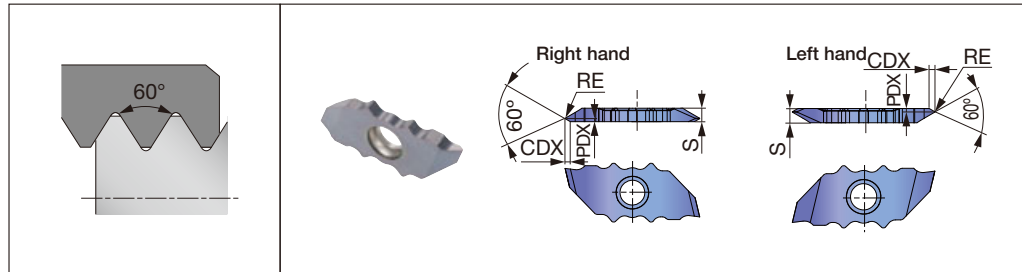
Pitch	TPI	Hand of cut	External insert						
			Designation	Grade		PDX	CDX	RE	S
				Coated					
				SH725	AH725				
0.4 - 1	25 - 64	R	TCT18FR-60A-005	●		0.6	0.99	0.05	4
1 - 2	25 - 12	R	TCT18FR-60A-010	●		1	1.63	0.1	4
0.8 - 3	8 - 32	R/L	TCT18R/L-60N-010		●	1.6	2.67	0.1	4
1.5 - 3	8 - 16	R/L	TCT18R/L-60N-020		●	1.6	2.57	0.2	4

● : Line up / 5 pieces per package

DUOJUST

INSERT

60° thread angle (General purpose)



Applicable toolholder

External
JSXXR/L**09
JSXXR/L**09-CHP
JS**-SXXL09

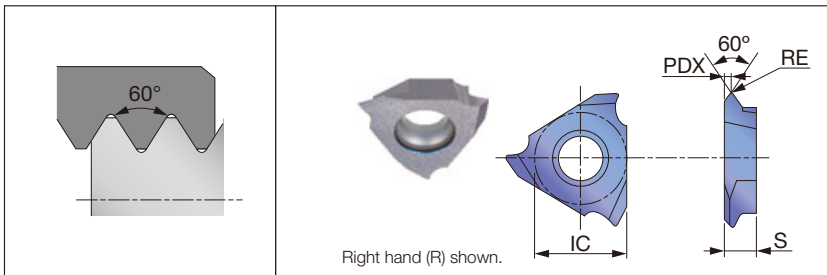
Partial-profile insert

Insert size	Pitch	TPI	Hand of cut	External insert						
				Designation	Grade		PDX	CDX	RE	S
					Coated					
					SH725					
				R	L					
12	0.2 - 0.4	64 - 127	R/L	JXTG12FR/L-60A-000	●	●	0.25	0.4	0.05 max flat	2.5
12	0.2 - 0.4	64 - 127	R/L	JXTG12FR/L-60B-000	●	●	2.25	0.4	0.05 max flat	2.5
12	0.4 - 1	25 - 64	R/L	JXTG12FR/L-60A-005	●	●	0.6	0.99	0.05	2.5
12	0.4 - 1	25 - 64	R/L	JXTG12FR/L-60B-005	●	●	1.9	0.99	0.05	2.5
12	1 - 1.5	16 - 25	R/L	JXTG12FR/L-60N-010	●	●	1.25	2.07	0.1	2.5

● : Line up / 5 pieces per package

	Type A	Type B	Type N
Right hand			
Left hand			

60° thread angle (General purpose)



Applicable toolholder

External
JSTTR/L**3
JS**-TTL3

Partial-profile insert

Pitch	TPI	Hand of cut	External insert												
			Designation	Grade								IC	PDX	S	RE
				Coated				Cermet		Uncoated					
				SH725		J740		NS9530		TH10					
				R	L	R	L	R	L	R	L				
0.5 - 1	25 - 48	R/L	JTTR3005F	●	●	●		●		●		9.525	0.6	3.18	0.05
0.5 - 1	25 - 48	R/L	JTTL3010F	●	●	●		●		●		9.525	1.1	3.18	0.1

● : Line up / 10 pieces per package

60° thread angle (General purpose)



Applicable toolholder

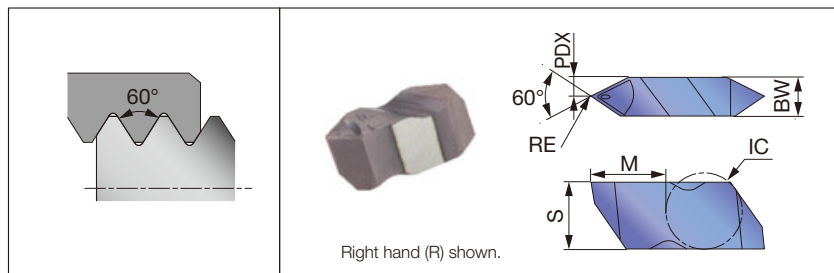
External
JSXBR**K8
JSXBR**K8-C

Partial-profile insert

Pitch	TPI	Hand of cut	External insert					
			Designation	Grade		IC	S	RE
				Coated	Uncoated			
				J740	TH10			
0.5 - 1	25 - 48	R	JXT1R6000F	●	●	8	3.97	0.03
0.5 - 1	25 - 48	R	JXT2R6000F	●	●	8	3.97	0.03

● : Line up / 10 pieces per package

60° thread angle (General purpose)



Applicable toolholder

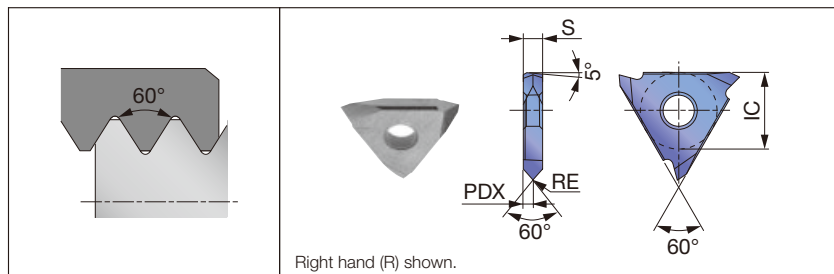
External	Internal
FLASR/L-1616M3	A**M-FLER/L3
FLSR/L-**M3	HS**-FLER3W

Partial-profile insert for external and internal threads

TPI	Hand of cut	External Pitch	Internal Pitch	Designation	Grade	IC	PDX	BW	RE	S	M
					Coated						
					AH725						
6 - 20	R/L	1.27 - 4.23	2.11 - 5.08	FLT-3R/L-HCB	●	9.525	2.49	4.95	0.17	8.74	10.16
11 - 20	R/L	2.31 - 4.23	3.175 - 5.08	FLT-3R/LC-HCB	●	9.525	2.49	4.95	0.35	8.74	10.16
6 - 20	R/L	1.27 - 4.23	2.11 - 5.08	FLT-3R/L-CB	●	9.525	2.49	4.95	0.17	8.74	10.16

● : Line up / 10 pieces per package

TT type / 60° thread angle (General purpose)



Applicable toolholder

External	Internal
TT-****RE/LI	TT-2525RI

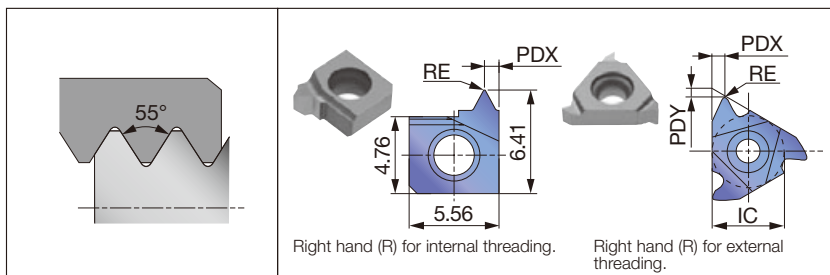
Partial-profile insert for external and internal threads

Pitch	TPI	Hand of cut	Designation	Grade		IC	PDX	S	RE
				Cermet	Uncoated				
				NS9530	TH10				
≤ 3	≥ 8	R	TTR42M-005	●	●	12.7	1.6	3.2	0.05
≤ 3	≥ 8	L	TTL42M-005	●	●	12.7	1.6	3.2	0.05

● : Line up / 5 pieces per package

Reference pages: TungT-Clamp : External toolholders → **E050**,
Internal toolholders → **E063 - E064**
TT type : External toolholders → **E053**
Internal toolholders → **E066**

55° thread angle (General purpose)



Applicable toolholder

Insert size	External	Internal
6		SNR/L000*K06SC... SNR/L000*H06...
06		SIR0005...
08		SIR0007...
11	SER**11	SNR/L**11...
16	CER/L**16... (C*CER/L...) JSER**16... JS**SEL16 SER**16-CHP B-SER/L**16 B-CER/L**16 BC-SER/L**16	TSNR/L**16 SNR/L**16... TCNR/L**16... CNR/L**16...
22	CER/L**22... SER**22-CHP	TSNR/L**22 SNR/L**22... TCNR/L**22... CNR/L**22...

Partial-profile insert

Insert size	Pitch (Reference)	TPI	Hand of cut	External insert								Internal insert										
				Designation	Grade				IC	PDX	PDY	RE	Designation	Grade					IC	PDX	PDY	RE
					AH8015	AH725	T313V	TH10						Coated				Uncoated				
														AH8015	AH725	GH330	T313V					
6	0.5 - 1.5	48 - 16	R									6IRA55	●			●	-	0.9	-	0.07		
06	0.5 - 1.25	48 - 20	R									06IRA55			●**			4	0.5	0.5	0.08	
08	0.5 - 1.5	48 - 16	R									08IRA55		●**				5	0.7	0.6	0.08	
11	0.5 - 1.5	48 - 16	R	11ERA55	●				6.35	0.9	0.8	0.05	11IRA55	●	●		●	●	6.35	0.9	0.7	0.07
16	0.5 - 1.5	48 - 16	R	16ERA55	●	●	●		9.525	0.9	0.7	0.07	16IRA55	●			●	●	9.525	0.9	0.7	0.07
16	0.5 - 3	48 - 8	R	16ERAG55	●				9.525	1.7	1.2	0.07	16IRAG55	●					9.525	1.7	1.2	0.07
16	1.75 - 3	14 - 8	R	16ERG55	●	●	●	●	9.525	1.6	1.2	0.25	16IRG55	●	●		●	●	9.525	1.7	1.2	0.25
22	3.5 - 5	7 - 5	R	22ERN55	●	●	●		12.7	2.5	1.7	0.5	22IRN55	●			●	●	12.7	2.5	1.7	0.5

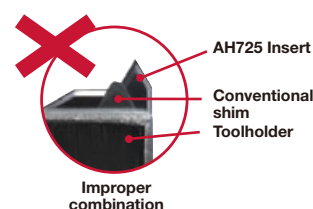
● : Line up / 5 pieces per package

Partial-profile insert with chipbreaker

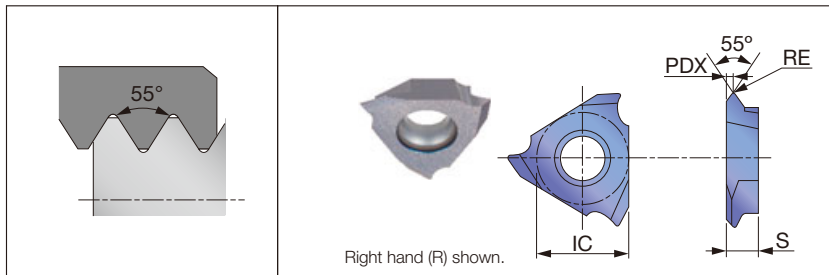
Insert size	Pitch (Reference)	TPI	Hand of cut	External insert						Internal insert					
				Designation	Grade	IC	PDX	PDY	RE	Designation	Grade	IC	PDX	PDY	RE
					Coated						Coated				
					AH725						AH725				
16	0.5 - 3	48 - 16	R	16ERAG55-B	●*	9.525	1.7	1.2	0.07	16IRAG55-B	●*	9.525	1.7	1.2	0.05
16	1.75 - 3	14 - 8	R	16ERG55-B	●*	9.525	1.7	1.2	0.23	16IRG55-B	●*	9.525	1.7	1.2	0.2

● : Line up / 5 pieces per package

- * : The cutting edge position needs re-adjusting for these inserts have different PDY and PDX dimensions (Note: for size 16 inserts only).
 - ** : Both ..06IR... and ..08IR... inserts have 3 cutting edges.
 - requires the use of dedicated shim.
- When using a new AH725 with chipbreaker, the conventional shim may need to be replaced with a new standard shim. Please refer to the page **E069**.



55° thread angle (General purpose)



Applicable toolholder

External
JSTTR/L**3
JS**-TTL3

Partial-profile insert

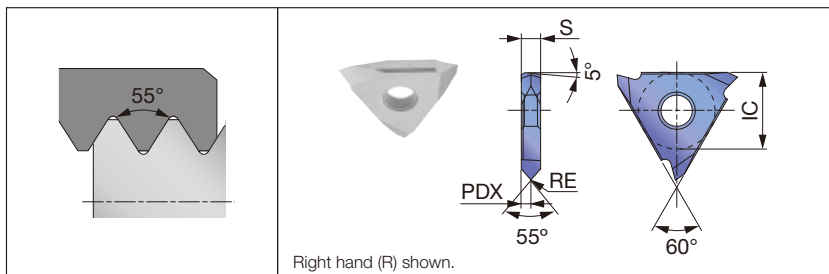
Pitch	TPI	Hand of cut	External insert								
			Designation	Grade				IC	PDX	S	RE
				Coated							
				SH725		J740					
R	L	R	L								
0.5 - 1	25 - 48	R/L	JTTR/L3005F-55	●		●		9.525	0.6	3.18	0.05

● : Line up / 5 pieces per package

TUNGTHREAD

INSERT

TT type / 55° thread angle (General purpose)



Applicable toolholder

External	Internal
TT-****RE/LI	TT-2525RI

Partial-profile insert for external and internal threads

Pitch	TPI	Hand of cut	Designation	Grade		IC	PDX	S	RE
				Cermet	Uncoated				
				NS9530	TH10				
≤ 3	≥ 8	R	TTR42W-005	●	●	12.7	1.6	3.2	0.05
≤ 3	≥ 8	L	TTL42W-005	●	●	12.7	1.6	3.2	0.05

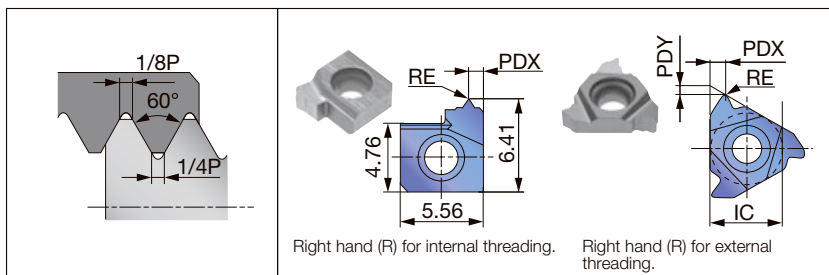
● : Line up / 5 pieces per package

Reference pages: J-Series: External toolholders → **E048 - E049**

TT type: External toolholders → **E053**

Internal toolholders → **E066**

ISO metric (General purpose)



Applicable toolholder

Insert size	External	Internal
6		SNR/L000*K06SC... SNR/L000*H06...
06		SIR0005...
08		SIR0007...
11	SER**11	SNR/L**11...
16	CER/L**16... (C*CER/L...) JSER**16... JS**SEL16 SER**16-CHP B-SER/L**16 B-CER/L**16 BC-SER/L**16	TSNR/L**16 SNR/L**16... TCNR/L**16... CNR/L**16...
22	CER/L**22... SER**22-CHP	TSNR/L**22 SNR/L**22... TCNR/L**22... CNR/L**22...
27	CER/L**27...	CNR/L**27...

Full-profile insert

Insert size	Pitch (Reference)	Hand of cut	External insert								Internal insert									
			Designation	Grade				IC	PDX	PDY	RE	Designation	Grade				IC	PDX	PDY	RE
				Coated			Uncoated						Coated			Uncoated				
				AH8015	AH725	T313V							TH10	AH8015	AH725					
6	0.75	R									6IR075ISO	●		●	-	0.5	-	0.05		
6	1	R									6IR10ISO	●	●		●	-	0.9	-	0.07	
6	1.25	R									6IR125ISO	●	●		●	-	0.9	-	0.09	
6	1.5	R									6IR15ISO	●	●		●	-	0.9	-	0.11	
6	1.75	R									6IR175ISO	●	●		●	-	0.9	-	0.12	
6	2	R									6IR20ISO	●	●		●	-	0.9	-	0.14	
06	0.5	R									06IR05ISO	●	**			4	0.4	0.6	0.04	
06	0.75	R									06IR075ISO	●	**			4	0.5	0.6	0.06	
06	1	R									06IR10ISO	●	**			4	0.6	0.6	0.05	
06	1.25	R									06IR125ISO	●	**			4	0.6	0.6	0.07	
08	1	R									08IR10ISO	●	**			5	0.6	0.6	0.07	
08	1.25	R									08IR125ISO	●	**			5	0.7	0.7	0.09	
08	1.5	R									08IR15ISO	●	**			5	0.7	0.7	0.1	
08	1.75	R									08IR175ISO	●	**			5	0.8	0.6	0.15	
11	0.35	R	11ER035ISO	●				6.35	0.4	0.6	0.04									
11	0.5	R	11ER05ISO	●				6.35	0.6	0.6	0.07	11IR05ISO	●		●	6.35	0.5	1.2	0.04	
11	0.7	R	11ER07ISO	●				6.35	0.6	0.6	0.11									
11	0.75	R	11ER075ISO	●				6.35	0.6	0.6	0.11	11IR075ISO	●	●		6.35	0.5	1.2	0.05	
11	0.8	R	11ER080ISO	●				6.35	0.6	0.6	0.12									
11	1	R	11ER10ISO	●				6.35	0.7	0.7	0.15	11IR10ISO	●	●	●	●	6.35	0.9	0.7	0.07
11	1	L									11IL10ISO	●	●			6.35	0.9	0.7	0.07	
11	1.25	R	11ER125ISO	●				6.35	0.9	0.8	0.16	11IR125ISO	●			6.35	0.9	0.7	0.09	
11	1.25	L									11IL125ISO	●				6.35	0.9	0.7	0.09	
11	1.5	R	11ER15ISO	●				6.35	0.8	1	0.19	11IR15ISO	●	●	●	●	6.35	0.9	0.7	0.11
11	1.5	L									11IL15ISO	●	●			6.35	0.9	0.7	0.11	
11	1.75	R									11IR175ISO	●	●			6.35	0.9	0.7	0.12	
11	1.75	L									11IL175ISO	●				6.35	0.9	0.7	0.12	
11	2	R									11IR20ISO	●	●	●		6.35	0.9	0.7	0.14	
11	2	L									11IL20ISO	●	●			6.35	0.9	0.7	0.14	

●** : Both ..06IR... and ..08IR... inserts have 3 cutting edges.

● : Line up / 5 pieces per package

Reference pages: External toolholders → **E036 - E040**
Internal toolholders → **E054 - E056**

Thread
form

60°

55°

M
(Metric)

UN
(Unified)

W
(Whitworth)

BSPT
(R, PT)

NPT

NPTF

TR
(Metric, 30°
Trapezoidal)

Round
(DIN405)

UNJ

MJ

ACME
(29° Trapezoidal)

STUB
ACME
(29° Trapezoidal)

API
Round

API
Buttress

API
Rotary
Shoulder
Connection

Insert size	Pitch (Reference)	Hand of cut	External insert								Internal insert									
			Designation	Grade				IC	PDX	PDY	RE	Designation	Grade				IC	PDX	PDY	RE
				Coated			Uncoated						Coated			Uncoated				
				AH8015	AH725	T313V							TH10	AH8015	AH725					
16	0.5	R	16ER05ISO	●	●		●	9.525	0.5	1.2	0.06	16IR05ISO		●			9.525	0.5	1.2	0.04
16	0.75	R	16ER075ISO	●	●	●	●	9.525	0.5	1.2	0.09	16IR075ISO		●			9.525	0.5	1.2	0.05
16	1	R	16ER10ISO	●	●	●	●	9.525	0.9	0.7	0.13	16IR10ISO	●	●	●	●	9.525	0.9	0.7	0.07
16	1	L										16IL10ISO	●	●			9.525	0.9	0.7	0.07
16	1.25	R	16ER125ISO	●	●	●		9.525	0.9	0.7	0.16	16IR125ISO		●			9.525	0.9	0.7	0.09
16	1.25	L										16IL125ISO		●			9.525	0.9	0.7	0.09
16	1.5	R	16ER15ISO	●	●	●	●	9.525	0.9	0.7	0.19	16IR15ISO	●	●	●	●	9.525	0.9	0.7	0.11
16	1.5	L	16EL15ISO	●				9.525	0.9	0.7	0.19	16IL15ISO	●	●			9.525	0.9	0.7	0.11
16	1.75	R	16ER175ISO	●	●	●		9.525	1.6	1.2	0.22	16IR175ISO		●	●		9.525	1.6	1.2	0.12
16	2	R	16ER20ISO	●	●		●	9.525	1.6	1.2	0.25	16IR20ISO	●	●	●	●	9.525	1.6	1.2	0.14
16	2	L	16EL20ISO	●	●			9.525	1.6	1.2	0.25	16IL20ISO		●			9.525	1.6	1.2	0.14
16	2.5	R	16ER25ISO	●	●	●	●	9.525	1.6	1.2	0.31	16IR25ISO	●	●	●	●	9.525	1.6	1.2	0.18
16	3	R	16ER30ISO	●	●	●	●	9.525	1.6	1.2	0.38	16IR30ISO	●	●	●	●	9.525	1.6	1.2	0.21
16	3	L										16IL30ISO		●			9.525	1.6	1.2	0.21
22	3.5	R	22ER35ISO	●	●	●		12.7	2.5	1.7	0.44	22IR35ISO	●	●	●		12.7	2.5	1.7	0.25
22	4	R	22ER40ISO	●	●	●		12.7	2.5	1.7	0.5	22IR40ISO	●	●	●		12.7	2.5	1.7	0.28
22	4.5	R	22ER45ISO	●	●			12.7	2.5	1.7	0.56	22IR45ISO	●	●			12.7	2.5	1.7	0.32
22	5	R	22ER50ISO		●	●		12.7	2.5	1.7	0.63	22IR50ISO		●	●		12.7	2.5	1.7	0.35
27	6	R	27ER60ISO		●	●		15.875	3.2	2.2	0.75	27IR60ISO		●	●		15.875	3.2	2.2	0.42

● : Line up / 5 pieces per package

Full-profile insert with chipbreaker

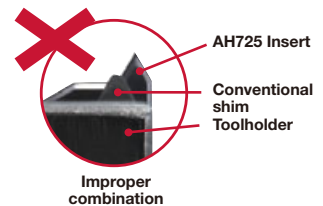
Insert size	Pitch (Reference)	Hand of cut	External insert								Internal insert							
			Designation	Grade			IC	PDX	PDY	RE	Designation	Grade			IC	PDX	PDY	RE
				Coated		Cermet						Coated		Cermet				
				AH8015	AH725							NS9530	AH8015					
11	0.5	R									11IR05ISO-B	●		6.35	0.5	1.2	0.04	
11	0.5	R									11IR05ISO-M		●	6.35	0.5	1.2	0.04	
11	0.75	R									11IR075ISO-B	●		6.35	0.5	1.2	0.05	
11	0.75	R									11IR075ISO-M		●	6.35	0.5	1.2	0.05	
11	1	R									11IR10ISO-B	●		6.35	0.9	0.7	0.08	
11	1	R									11IR10ISO-M	●		●	6.35	0.9	0.7	0.08
11	1.25	R									11IR125ISO-B	●		6.35	0.9	0.7	0.1	
11	1.25	R									11IR125ISO-M	●		●	6.35	0.9	0.7	0.1
11	1.5	R									11IR15ISO-B	●		6.35	0.9	0.7	0.12	
11	1.5	R									11IR15ISO-M	●		●	6.35	0.9	0.7	0.12
11	1.75	R									11IR175ISO-B	●		6.35	0.9	0.7	0.12	
11	1.75	R									11IR175ISO-M		●	6.35	0.9	0.7	0.12	
11	2	R									11IR20ISO-B	●		6.35	0.9	0.7	0.14	
11	2	R									11IR20ISO-M	●		●	6.35	0.9	0.7	0.14
16	0.5	R	16ER05ISO-M			●	9.525	0.5	1.2	0.06								
16	0.75	R	16ER075ISO-B		●*		9.525	0.6	0.6	0.08								
16	0.75	R	16ER075ISO-M	●		●	9.525	0.5	1.2	0.09								
16	1	R	16ER10ISO-B		●*		9.525	0.7	0.7	0.11	16IR10ISO-B		●*		9.525	0.7	0.6	0.05
16	1	R	16ER10ISO-M	●	●	●	9.525	0.9	0.7	0.13	16IR10ISO-M	●		●	9.525	0.9	0.7	0.08
16	1.25	R	16ER125ISO-B		●*		9.525	0.9	0.8	0.14	16IR125ISO-B		●*		9.525	0.9	0.8	0.06
16	1.25	R	16ER125ISO-M	●		●	9.525	0.9	0.7	0.16	16IR125ISO-M			●	9.525	0.9	0.7	0.1
16	1.5	R	16ER15ISO-B		●*		9.525	1	0.8	0.19	16IR15ISO-B		●*		9.525	1	0.8	0.08
16	1.5	R	16ER15ISO-M	●	●	●	9.525	0.9	0.7	0.19	16IR15ISO-M	●	●	●	9.525	0.9	0.7	0.12
16	1.75	R	16ER175ISO-B		●*		9.525	1.2	0.9	0.25	16IR175ISO-B		●*		9.525	1.2	0.9	0.10
16	1.75	R	16ER175ISO-M	●		●	9.525	1.6	1.2	0.22	16IR175ISO-M			●	9.525	1.6	1.2	0.14
16	2	R	16ER20ISO-B		●*		9.525	1.3	1	0.28	16IR20ISO-B		●*		9.525	1.3	1	0.11
16	2	R	16ER20ISO-M	●	●	●	9.525	1.6	1.2	0.25	16IR20ISO-M	●		●	9.525	1.6	1.2	0.14
16	2.5	R	16ER25ISO-B		●*		9.525	1.5	1.1	0.3	16IR25ISO-B		●*		9.525	1.5	1.1	0.14
16	2.5	R	16ER25ISO-M	●		●	9.525	1.6	1.2	0.31	16IR25ISO-M			●	9.525	1.6	1.2	0.18
16	3	R	16ER30ISO-B		●*		9.525	1.6	1.2	0.38	16IR30ISO-B		●*		9.525	1.5	1.1	0.22
16	3	R	16ER30ISO-M	●		●	9.525	1.6	1.2	0.38	16IR30ISO-M	●		●	9.525	1.6	1.2	0.21
22	3.5	R	22ER35ISO-B		●		12.7	2.3	1.6	0.48								
22	4	R	22ER40ISO-B		●		12.7	2.3	1.6	0.52								

- ●* : The cutting edge position needs re-adjusting for these inserts have different PDY and PDX dimensions
(Note: for size 16 inserts only).

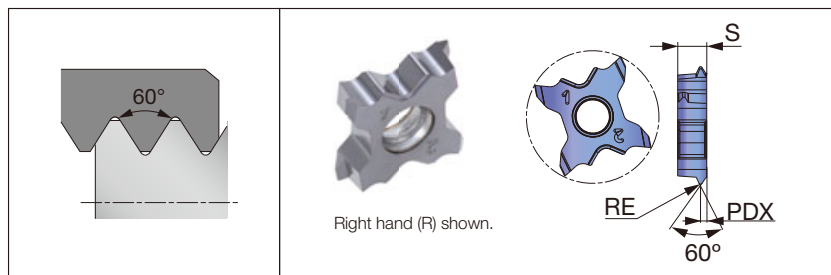
- requires the use of dedicated shim.

When using a new AH725 with chipbreaker, the conventional shim may need to be replaced with a new standard shim.
Please refer to the page [E069](#).

● : Line up / 5 pieces per package



ISO metric (General purpose)



Applicable toolholder

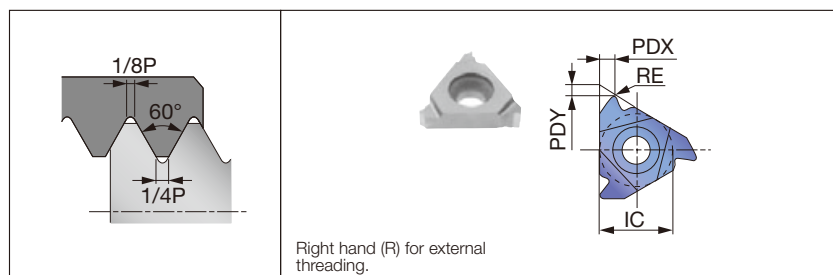
External
STCR/L**-18
STCR/L**18-CHP
JS**-STCL18
C*STCFL**18-CHP
C*STCR/L**18-CHP
QC**STCR/L18 (-Y)
QC**STCR/L18 (-Y)-CHP

Full-profile insert

Pitch	Hand of cut	External insert					
		Designation	Grade		PDX	RE	S
			Coated				
			SH725	AH725			
0.5	R	TCT18FR-05ISO	●		0.35	0.06	4
0.7	R	TCT18FR-07ISO	●		0.45	0.09	4
0.75	R	TCT18FR-075ISO	●		0.5	0.09	4
0.8	R	TCT18FR-08ISO	●		0.5	0.1	4
1	R	TCT18R-10ISO		●	0.6	0.13	4
1.25	R	TCT18R-125ISO		●	0.7	0.17	4
1.5	R	TCT18R-15ISO		●	0.8	0.2	4

● : Line up / 5 pieces per package

Unified (General purpose)



Applicable toolholder

Insert size	External	Internal
11	SER**11	SNR/L**11...
16	CER/L**16... (C*CER/L...) JSER**16... JS**SEL16 SER**16-CHP B-SER/L**16 B-CER/L**16 BC-SER/L**16	TSNR/L**16 SNR/L**16... TCNR/L**16... CNR/L**16...
22	CER/L**22... SER**22-CHP	TSNR/L**22 SNR/L**22... TCNR/L**22... CNR/L**22...

Full-profile insert

Insert size	Pitch (Reference)	TPI	Hand of cut	External insert								Internal insert							
				Designation	Grade			IC	PDX	PDY	RE	Designation	Grade			IC	PDX	PDY	RE
					Coated								Coated						
					AH8015	AH725	T313V						AH8015	AH725	T313V				
11	(0.794)	32	R									11IR32UN	●		6.35	0.5	1.2	0.06	
11	(0.907)	28	R									11IR28UN	●		6.35	0.5	1.2	0.06	
11	(1.058)	24	R									11IR24UN	●		6.35	0.9	0.7	0.07	
11	(1.27)	20	R									11IR20UN	●		6.35	0.9	0.7	0.09	
11	(1.411)	18	R									11IR18UN	●		6.35	0.9	0.7	0.1	
11	(1.588)	16	R									11IR16UN	●	●	6.35	0.9	0.7	0.11	
11	(1.814)	14	R									11IR14UN	●		6.35	0.9	0.7	0.13	
16	(0.794)	32	R	16ER32UN	●	●		9.525	0.5	1.2	0.1	16IR32UN	●		9.525	0.5	1.2	0.06	
16	(0.907)	28	R	16ER28UN	●	●		9.525	0.5	1.2	0.11	16IR28UN	●		9.525	0.5	1.2	0.06	
16	(1.058)	24	R	16ER24UN	●	●		9.525	0.9	0.7	0.13	16IR24UN	●		9.525	0.9	0.7	0.07	
16	(1.27)	20	R	16ER20UN	●	●		9.525	0.9	0.7	0.16	16IR20UN	●		9.525	0.9	0.7	0.09	
16	(1.411)	18	R	16ER18UN	●	●		9.525	0.9	0.7	0.18	16IR18UN	●		9.525	0.9	0.7	0.1	
16	(1.588)	16	R	16ER16UN	●	●	●	9.525	0.9	0.7	0.2	16IR16UN	●	●	9.525	0.9	0.7	0.11	
16	(1.814)	14	R	16ER14UN	●	●	●	9.525	1.6	1.2	0.23	16IR14UN	●	●	9.525	1.6	1.2	0.13	
16	(1.954)	13	R	16ER13UN		●		9.525	1.6	1.2	0.24	16IR13UN	●		9.525	1.6	1.2	0.14	
16	(2.117)	12	R	16ER12UN	●	●	●	9.525	1.6	1.2	0.27	16IR12UN	●	●	9.525	1.6	1.2	0.15	
16	(2.309)	11	R	16ER11UN		●		9.525	1.6	1.2	0.29	16IR11UN	●		9.525	1.6	1.2	0.16	
16	(2.54)	10	R	16ER10UN	●	●		9.525	1.6	1.2	0.32	16IR10UN	●		9.525	1.6	1.2	0.18	
16	(2.822)	9	R	16ER9UN		●		9.525	1.6	1.2	0.35	16IR9UN	●		9.525	1.6	1.2	0.2	
16	(3.175)	8	R	16ER8UN		●	●	9.525	1.6	1.2	0.4	16IR8UN	●	●	9.525	1.6	1.2	0.22	
22	(3.629)	7	R	22ER7UN		●		12.7	2.5	1.7	0.45	22IR7UN	●		12.7	2.5	1.7	0.25	
22	(4.233)	6	R	22ER6UN		●		12.7	2.5	1.7	0.53	22IR6UN	●		12.7	2.5	1.7	0.3	
22	(5.08)	5	R	22ER5UN		●		12.7	2.5	1.7	0.64	22IR5UN	●		12.7	2.5	1.7	0.36	

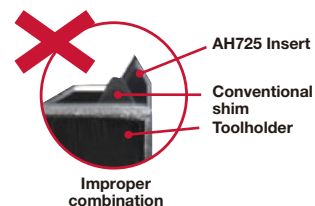
● : Line up / 5 pieces per package

Full-profile insert with chipbreaker

Insert size	Pitch (Reference)	TPI	Hand of cut	External insert								Internal insert							
				Designation	Grade			IC	PDX	PDY	RE	Designation	Grade			IC	PDX	PDY	RE
					Coated		Cermet						Coated		Cermet				
					AH8015	AH725							NS9530	AH8015					
16	(1.058)	24	R	16ER24UN-B	●*			9.525	0.8	0.7	0.11								
16	(1.058)	24	R	16ER24UN-M			●	9.525	0.9	0.7	0.13								
16	(1.27)	20	R	16ER20UN-B	●*			9.525	0.9	0.8	0.14	16IR20UN-B	●*			9.525	0.9	0.8	0.06
16	(1.27)	20	R	16ER20UN-M	●		●	9.525	0.9	0.7	0.16	16IR20UN-M			●	9.525	0.9	0.7	0.09
16	(1.411)	18	R	16ER18UN-B	●*			9.525	1	0.8	0.15	16IR18UN-B	●*			9.525	1	0.8	0.08
16	(1.411)	18	R	16ER18UN-M	●		●	9.525	0.9	0.7	0.18	16IR18UN-M	●		●	9.525	0.9	0.7	0.1
16	(1.588)	16	R	16ER16UN-B	●*			9.525	1.1	0.9	0.19	16IR16UN-B	●*			9.525	1.1	0.9	0.09
16	(1.588)	16	R	16ER16UN-M	●		●	9.525	0.9	0.7	0.2	16IR16UN-M			●	9.525	0.9	0.7	0.11
16	(1.814)	14	R	16ER14UN-B	●*			9.525	1.2	1	0.22	16IR14UN-B	●*			9.525	1.2	0.9	0.11
16	(1.814)	14	R	16ER14UN-M	●		●	9.525	1.6	1.2	0.23	16IR14UN-M			●	9.525	1.6	1.2	0.13
16	(1.954)	13	R	16ER13UN-B	●*			9.525	1.3	1	0.24								
16	(2.117)	12	R	16ER12UN-B	●*			9.525	1.4	1.1	0.25	16IR12UN-B	●*			9.525	1.4	1.1	0.12
16	(2.117)	12	R	16ER12UN-M	●		●	9.525	1.6	1.2	0.27	16IR12UN-M	●		●	9.525	1.6	1.2	0.15
16	(3.175)	8	R	16ER8UN-B	●*			9.525	1.6	1.2	0.41	16IR8UN-B	●*			9.525	1.5	1.1	0.2
16	(3.175)	8	R	16ER8UN-M			●	9.525	1.6	1.2	0.4	16IR8UN-M			●	9.525	1.6	1.2	0.22

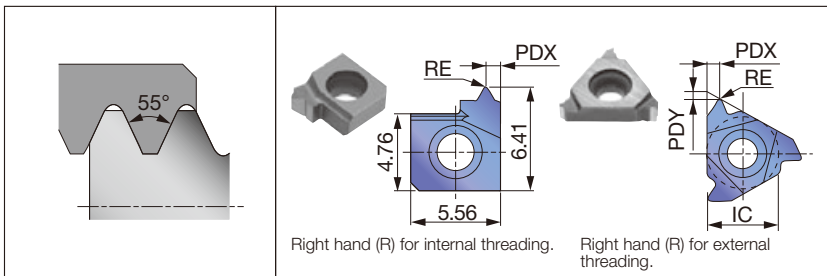
● : Line up / 5 pieces per package

- * : The cutting edge position needs re-adjusting for these inserts have different PDY and PDX dimensions (Note: for size 16 inserts only).
 - requires the use of dedicated shim.
- When using a new AH725 with chipbreaker, the conventional shim may need to be replaced with a new standard shim. Please refer to the page [E069](#).



Reference pages: External toolholders → [E036 - E040](#), Internal toolholders → [E054 - E056](#)

Whitworth, Parallel pipe thread



Applicable toolholder

Insert size	External	Internal
6		SNR/L000*K06SC... SNR/L000*H06...
11	SER**11	SNR/L**11...
16	CER/L**16... (C*CER/L...) JSER**16... JS**SEL16 SER**16-CHP B-SER/L**16 B-CER/L**16 BC-SER/L**16	TSNR/L**16... SNR/L**16... TCNR/L**16... CNR/L**16...
22	CER/L**22... SER**22-CHP	TSNR/L**22... SNR/L**22... TCNR/L**22... CNR/L**22...

Full-profile insert

Insert size	Pitch (Reference)	TPI	Hand of cut	External insert									Internal insert												
				Designation	Grade				IC	PDX	PDY	RE	Designation	Grade				IC	PDX	PDY	RE				
					Coated			Uncoated						Coated			Uncoated								
					AH8015	AH725	T313V							TH10	AH8015	AH725						T313V	TH10		
6	(1.337)	19	R										6IR19W	●	●		●	-	0.9	-	0.17				
11	(1.337)	19	R										11IR19W	●	●	●	●	6.35	0.9	0.7	0.17				
11	(1.814)	14	R										11IR14W	●	●	●	●	6.35	0.9	0.7	0.23				
16	(0.907)	28	R	16ER28W			●	●		9.525	0.9	0.7	0.11	16IR28W			●		9.525	0.9	0.7	0.11			
16	(0.97)	26	R	16ER26W			●			9.525	0.9	0.7	0.12	16IR26W			●		9.525	0.9	0.7	0.12			
16	(1.27)	20	R	16ER20W			●			9.525	0.9	0.7	0.16	16IR20W			●		9.525	0.9	0.7	0.16			
16	(1.337)	19	R	16ER19W			●	●	●	9.525	0.9	0.7	0.17	16IR19W			●		9.525	0.9	0.7	0.17			
16	(1.411)	18	R	16ER18W			●			9.525	0.9	0.7	0.18	16IR18W			●		9.525	0.9	0.7	0.18			
16	(1.588)	16	R	16ER16W			●	●		9.525	0.9	0.7	0.2	16IR16W			●	●	9.525	0.9	0.7	0.2			
16	(1.814)	14	R	16ER14W			●	●	●	●	9.525	1.6	1.2	0.23	16IR14W			●	●	●	●	9.525	1.6	1.2	0.23
16	(1.814)	14	L	16EL14W			●			9.525	1.6	1.2	0.23												
16	(2.117)	12	R	16ER12W			●	●		9.525	1.6	1.2	0.27	16IR12W			●	●	9.525	1.6	1.2	0.27			
16	(2.309)	11	R	16ER11W			●	●	●	●	9.525	1.6	1.2	0.29	16IR11W			●	●	●	●	9.525	1.6	1.2	0.29
16	(2.54)	10	R	16ER10W			●	●		9.525	1.6	1.2	0.32	16IR10W			●	●	9.525	1.6	1.2	0.32			
16	(2.822)	9	R	16ER9W			●			9.525	1.6	1.2	0.35	16IR9W			●		9.525	1.6	1.2	0.35			
16	(3.175)	8	R	16ER8W			●	●		9.525	1.6	1.2	0.4	16IR8W			●	●	9.525	1.6	1.2	0.4			
22	(3.629)	7	R	22ER7W			●			12.7	2.5	1.7	0.45	22IR7W			●		12.7	2.5	1.7	0.45			
22	(4.233)	6	R	22ER6W			●			12.7	2.5	1.7	0.53	22IR6W			●		12.7	2.5	1.7	0.53			
22	(5.08)	5	R	22ER5W			●			12.7	2.5	1.7	0.64	22IR5W			●		12.7	2.5	1.7	0.64			

Full-profile insert with chipbreaker

Insert size	Pitch (Reference)	TPI	Hand of cut	External insert								Internal insert							
				Designation	Grade			IC	PDX	PDY	RE	Designation	Grade			IC	PDX	PDY	RE
					Coated		Cermet						Coated		Cermet				
					AH8015	AH725	NS9530						AH8015	AH725	NS9530				
16	(1.337)	19	R	16ER19W-B		●*		9.525	1	0.8	0.16								
16	(1.337)	19	R	16ER19W-M	●		●	9.525	0.9	0.7	0.17	16IR19W-M			●	9.525	0.9	0.7	0.17
16	(1.588)	16	R	16ER16W-B		●*		9.525	1.1	0.9	0.2	16IR16W-B			●*	9.525	1.1	0.9	0.18
16	(1.814)	14	R	16ER14W-B		●*		9.525	1.2	1	0.24	16IR14W-B			●*	9.525	1.2	1	0.21
16	(1.814)	14	R	16ER14W-M	●		●	9.525	1.6	1.2	0.23	16IR14W-M	●		●	9.525	1.6	1.2	0.23
16	(2.309)	11	R	16ER11W-B		●*		9.525	1.5	1.1	0.27	16IR11W-B			●*	9.525	1.5	1.1	0.27
16	(2.309)	11	R	16ER11W-M	●		●	9.525	1.6	1.2	0.29	16IR11W-M	●		●	9.525	1.6	1.2	0.29

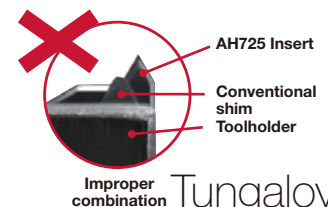
- ●* : The cutting edge position needs re-adjusting for these inserts have different PDY and PDX dimensions
(Note: for size 16 inserts only).

- requires the use of dedicated shim.

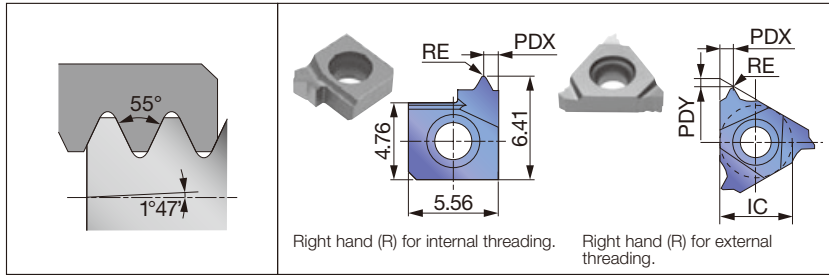
When using a new AH725 with chipbreaker, the conventional shim may need to be replaced with a new standard shim.
Please refer to the page E069.

Reference pages: External toolholders → E036 - E040

Internal toolholders → E054 - E056



BSPT (for Pipe)



Applicable toolholder

Insert size	External	Internal
6		SNR/L000*K06SC... SNR/L000*H06...
11	SER**11	SNR/L**11...
16	CER/L**16... (C*CER/L...) JSER**16... JS**SEL16 SER**16-CHP B-SER/L**16 B-CER/L**16 BC-SER/L**16	TSNR/L**16 SNR/L**16... TCNR/L**16... CNR/L**16...

Full-profile insert

Insert size	Pitch (Reference)	TPI	Hand of cut	External insert								Internal insert									
				Designation	Grade				IC	PDX	PDY	RE	Designation	Grade				IC	PDX	PDY	RE
					Coated			Uncoated						Coated			Uncoated				
					AH8015	AH725	T313V							TH10	AH8015	AH725					
6	(1.337)	19	R									6IR19PT	●	●		●	-	0.9	-	0.14	
11	(1.337)	19	R									11IR19PT	●	●	●	●	6.35	0.9	0.7	0.14	
11	(1.814)	14	R									11IR14PT	●	●	●	●	6.35	0.9	0.7	0.16	
16	(0.907)	28	R	16ER28PT		●	●		9.525	0.9	0.7	0.09									
16	(1.337)	19	R	16ER19PT	●	●	●		9.525	0.9	0.7	0.14	16IR19PT		●		9.525	0.9	0.7	0.14	
16	(1.814)	14	R	16ER14PT	●	●	●		9.525	1.6	1.2	0.16	16IR14PT	●	●	●	●	9.525	1.6	1.2	0.16
16	(2.309)	11	R	16ER11PT	●	●	●		9.525	1.6	1.2	0.26	16IR11PT	●	●	●	●	9.525	1.6	1.2	0.26

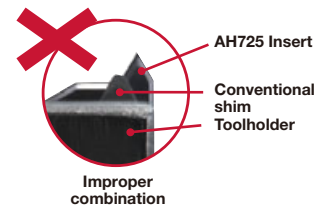
● : Line up / 5 pieces per package

Full-profile insert with chipbreaker

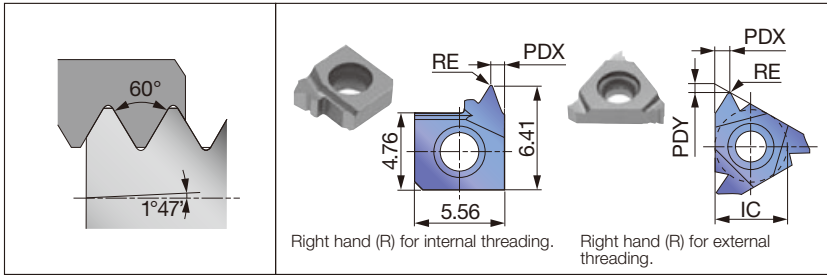
Insert size	Pitch (Reference)	TPI	Hand of cut	External insert								Internal insert							
				Designation	Grade			IC	PDX	PDY	RE	Designation	Grade			IC	PDX	PDY	RE
					Coated		Cermet						Coated		Cermet				
					AH8015	AH725							NS9530	AH8015					
16	(1.337)	19	R	16ER19PT-M			●	9.525	0.9	0.7	0.18	16IR19PT-M			●	9.525	0.9	0.7	0.18
16	(1.814)	14	R	16ER14PT-B			●*	9.525	1.2	1	0.24	16IR14PT-B			●*	9.525	1.2	1	0.21
16	(1.814)	14	R	16ER14PT-M	●		●	9.525	1.6	1.2	0.25	16IR14PT-M	●		●	9.525	1.6	1.2	0.25
16	(2.309)	11	R	16ER11PT-B			●*	9.525	1.5	1.1	0.31	16IR11PT-B			●*	9.525	1.5	1.1	0.31
16	(2.309)	11	R	16ER11PT-M	●		●	9.525	1.6	1.2	0.32	16IR11PT-M	●		●	9.525	1.6	1.2	0.32

- * : The cutting edge position needs re-adjusting for these inserts have different PDY and PDX dimensions (Note: for size 16 inserts only).
 - requires the use of dedicated shim.
- When using a new AH725 with chipbreaker, the conventional shim may need to be replaced with a new standard shim. Please refer to the page [E069](#).

● : Line up / 5 pieces per package



NPT (for Pipe)



Applicable toolholder

Insert size	External	Internal
6		SNR/L000*K06SC... SNR/L000*H06...
16	CER/L**16... (C*CER/L...) JSER**16... JS**SEL16 SER**16-CHP B-SER/L**16 B-CER/L**16 BC-SER/L**16	TSNR/L**16 SNR/L**16... TCNR/L**16... CNR/L**16...

Full-profile insert

Insert size	Pitch (Reference)	TPI	Hand of cut	External insert								Internal insert									
				Designation	Grade				IC	PDX	PDY	RE	Designation	Grade				IC	PDX	PDY	RE
					Coated			Uncoated						Coated			Uncoated				
					AH8015	AH725	T313V							TH10	AH8015	AH725					
6	(1.411)	18	R									6IR18NPT	●		●		-	0.9	-	0.03	
16	(0.941)	27	R	16ER27NPT	●				9.525	0.5	1.2	0.02	16IR27NPT	●				9.525	0.5	1.2	0.02
16	(1.411)	18	R	16ER18NPT	●	●			9.525	0.9	0.7	0.03	16IR18NPT	●				9.525	0.9	0.7	0.03
16	(1.814)	14	R	16ER14NPT	●				9.525	1.6	1.2	0.04	16IR14NPT	●	●		●	9.525	1.6	1.2	0.04
16	(2.209)	11.5	R	16ER115NPT	●				9.525	1.6	1.2	0.05	16IR115NPT	●		●		9.525	1.6	1.2	0.05
16	(3.175)	8	R	16ER8NPT	●				9.525	1.6	1.2	0.07	16IR8NPT	●		●		9.525	1.6	1.2	0.07

● : Line up / 5 pieces per package

Full-profile insert with chipbreaker

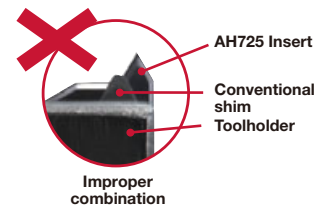
Insert size	Pitch (Reference)	TPI	Hand of cut	External insert								Internal insert							
				Designation	Grade			IC	PDX	PDY	RE	Designation	Grade			IC	PDX	PDY	RE
					Coated		Cermet						Coated		Cermet				
					AH8015	AH725	NS9530						AH8015	AH725	NS9530				
16	(1.411)	18	R	16ER18NPT-B		●*		9.525	1	0.8	0.05								
16	(1.411)	18	R	16ER18NPT-M	●		●	9.525	0.9	0.7	0.07	16IR18NPT-M			●	9.525	0.9	0.7	0.07
16	(1.814)	14	R	16ER14NPT-B		●*		9.525	1.2	0.9	0.05	16IR14NPT-B		●*		9.525	1.2	0.9	0.05
16	(1.814)	14	R	16ER14NPT-M	●		●	9.525	1.6	1.2	0.08	16IR14NPT-M	●		●	9.525	1.6	1.2	0.08
16	(2.209)	11.5	R	16ER115NPT-B		●*		9.525	1.5	1.1	0.09	16IR115NPT-B		●*		9.525	1.5	1.1	0.09
16	(2.209)	11.5	R	16ER115NPT-M			●	9.525	1.6	1.2	0.09	16IR115NPT-M	●		●	9.525	1.6	1.2	0.09
16	(3.175)	8	R	16ER8NPT-B		●*		9.525	1.8	1.3	0.12	16IR8NPT-B		●*		9.525	1.8	1.3	0.12

- ●* : The cutting edge position needs re-adjusting for these inserts have different PDY and PDX dimensions (Note: for size 16 inserts only).

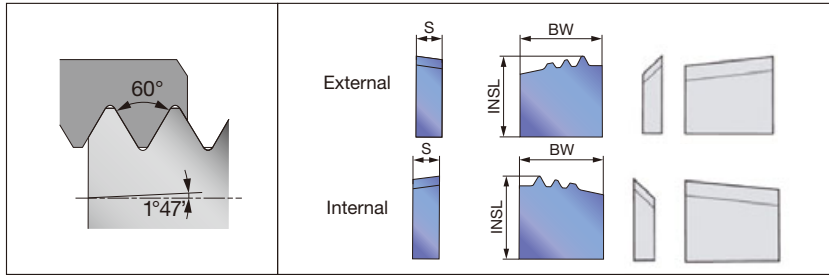
- ● requires the use of dedicated shim.

When using a new AH725 with chipbreaker, the conventional shim may need to be replaced with a new standard shim. Please refer to the page E069.

● : Line up / 5 pieces per package



NPT (for Pipe)



Applicable toolholder

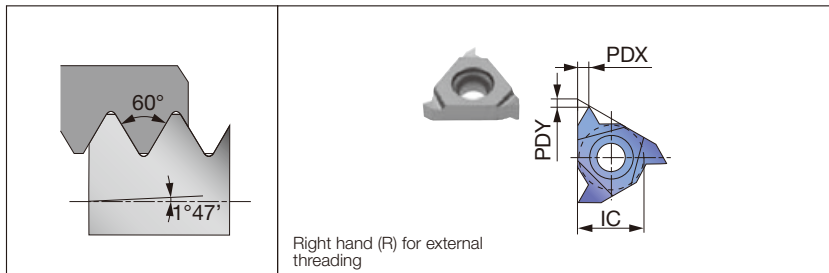
External	Internal
CLVOR-**M...	SI-CLHOR...

Full-profile insert (chaser)

Pitch (Reference)	TPI	Taper		External insert						Internal insert					
				Designation	Grade	BW	INSL	S	Chip breaking attachment	Designation	Grade	BW	INSL	S	Chip breaking attachment
		Coated	Coated												
		mm/ mm	TPF		AH725						AH725				
(2.209)	11.5	1/16	0.75	CR-11.5NPT-4E	●	16	15.7	5.2	CR-8R / 10R-3E / 4E-CB	CR-11.5NPT-4I	●	16	15.7	5.2	CR-8R / 10R-3I / 4I-CB
(3.175)	8	1/16	0.75	CR-8NPT-4E	●	16	15.7	5.2	CR-8R / 10R-3E / 4E-CB	CR-8NPT-4I	●	16	15.7	5.2	CR-8R / 10R-3I / 4I-CB

● : Line up / 5 pieces per package

NPTF (for Pipe)



Applicable toolholder

Insert size	External	Internal
16	CER/L**16... (C*CER/L...) JSER**16... JS**SEL16 SER**16-CHP B-SER/L**16 B-CER/L**16 BC-SER/L**16	TSNR/L**16 SNR/L**16... TCNR/L**16... CNR/L**16...

Full-profile insert

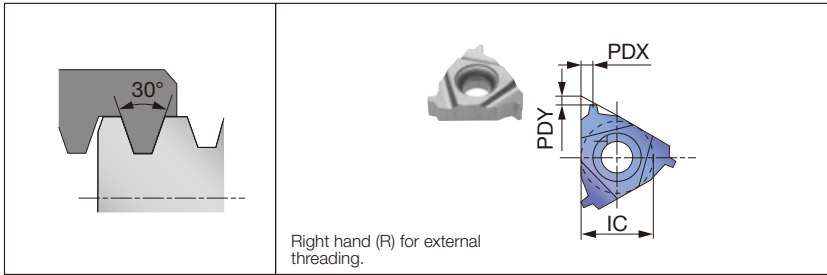
Insert size	Pitch (Reference)	TPI	Hand of cut	External insert						Internal insert					
				Designation	Grade	IC	PDX	PDY	RE	Designation	Grade	IC	PDX	PDY	RE
					Coated						Coated				
					AH725						AH725				
16	(0.941)	27	R	16ER27NPTF	●	9.525	0.5	1.2	-						
16	(1.411)	18	R	16ER18NPTF	●	9.525	0.9	0.7	-						
16	(1.814)	14	R	16ER14NPTF	●	9.525	1.6	1.2	-	16IR14NPTF	●	9.525	1.6	1.2	-
16	(2.209)	11.5	R	16ER115NPTF	●	9.525	1.6	1.2	-	16IR115NPTF	●	9.525	1.6	1.2	-
16	(3.175)	8	R	16ER8NPTF	●	9.525	1.6	1.2	-	16IR8NPTF	●	9.525	1.6	1.2	-

● : Line up / 5 pieces per package

Reference pages: NPT: External toolholders → **E053**, Internal toolholders → **E066**

NPTF: External toolholders → **E036 - E040**, Internal toolholders → **E054 - E056**

30° Trapezoidal / DIN103 (for Machine parts)



Applicable toolholder

Insert size	External	Internal
16	CER/L**16... (C*CER/L...) JSER**16... JS**SEL16 SER**16-CHP B-SER/L**16 B-CER/L**16 BC-SER/L**16	TSNR/L**16 SNR/L**16... TCNR/L**16... CNR/L**16...
22	CER/L**22... SER**22-CHP	TSNR/L**22 SNR/L**22... TCNR/L**22... CNR/L**22...
27	CER/L**27...	CNR/L**27...

With the special full-profile insert

Insert size	Pitch (Reference)	Hand of cut	External insert						Internal insert					
			Designation	Grade		IC	PDX	PDY	Designation	Grade		IC	PDX	PDY
				Coated						Coated				
				AH725	T313V					AH725	T313V			
16	1.5	R	16ER15TR	●		9.525	0.9	0.7	16IR15TR	●		9.525	0.9	0.7
16	2	R	16ER20TR	●	●	9.525	1.6	1.3	16IR20TR	●	●	9.525	1.6	1.3
16	3	R	16ER30TR	●	●	9.525	1.6	1.3	16IR30TR	●	●	9.525	1.6	1.3
22	4	R	22ER40TR	●	●	12.7	2.5	2	22IR40TR	●	●	12.7	2.5	2
22	5	R	22ER50TR	●	●	12.7	2.5	2	22IR50TR	●	●	12.7	2.5	2
27	6	R	27ER60TR	●	●	15.875	3.2	2.5						

● : Line up / 5 pieces per package

Round / DIN405 (for Machine parts)



Applicable toolholder

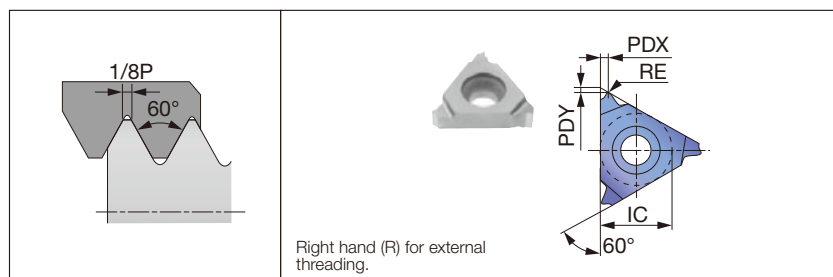
Insert size	External	Internal
16	CER/L**16... (C*CER/L...) JSER**16... JS**SEL16 SER**16-CHP B-SER/L**16 B-CER/L**16 BC-SER/L**16	TSNR/L**16 SNR/L**16... TCNR/L**16... CNR/L**16...

Full-profile insert

Insert size	Pitch (Reference)	TPI	Hand of cut	External insert						Internal insert					
				Designation	Grade	IC	PDX	PDY	RE	Designation	Grade	IC	PDX	PDY	RE
					Coated						Coated				
					AH725						AH725				
16	(3.175)	8	R	16ER8RD-B	●	9.525	1.3	1.4	0.75						
16	(4.233)	6	R	16ER6RD-B	●	9.525	1.7	1.5	1.01	16IR6RD-B	●	9.525	1.5	1.4	0.94

● : Line up / 5 pieces per package

UNJ (for Aerospace industry)



Applicable toolholder

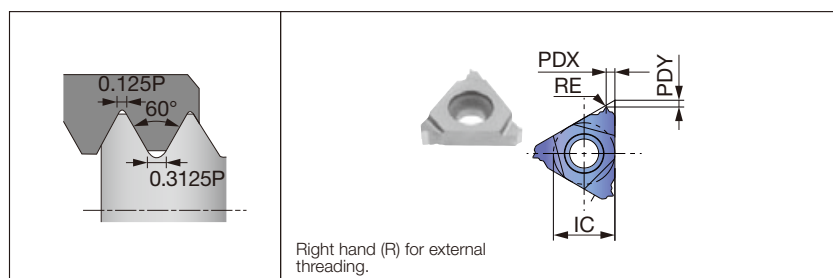
Insert size	External
16	CER/L**16... (C*CER/L...) JSER**16... JS**SEL16 SER**16-CHP B-SER/L**16 B-CER/L**16 BC-SER/L**16

Full-profile insert

Insert size	Pitch (Reference)	TPI	Hand of cut	External insert						
				Designation	Grade		IC	PDX	PDY	RE
					Coated					
					AH8015	AH725				
16	(0.794)	32	R	16ER32UNJ	●	●	9.525	0.5	1.2	0.13
16	(0.907)	28	R	16ER28UNJ	●	●	9.525	0.5	1.2	0.15
16	(1.058)	24	R	16ER24UNJ	●	●	9.525	0.9	0.7	0.18
16	(1.27)	20	R	16ER20UNJ	●	●	9.525	0.9	0.7	0.21
16	(1.411)	18	R	16ER18UNJ	●	●	9.525	0.9	0.7	0.24
16	(1.588)	16	R	16ER16UNJ	●	●	9.525	0.9	0.7	0.26
16	(1.814)	14	R	16ER14UNJ	●	●	9.525	1.6	1.2	0.3
16	(2.117)	12	R	16ER12UNJ	●	●	9.525	1.6	1.2	0.35
16	(2.54)	10	R	16ER10UNJ	●	●	9.525	1.6	1.2	0.42
16	(3.175)	8	R	16ER8UNJ	●	●	9.525	1.6	1.2	0.53

● : Line up / 5 pieces per package

MJ (for Aerospace industry)



Applicable toolholder

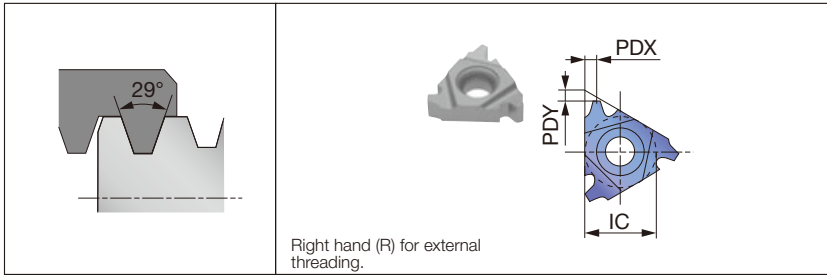
Insert size	Internal
11	SNR/L**11...

Insert size	Pitch (Reference)	Hand of cut	Internal insert						
			Designation	Grade		IC	PDX	PDY	RE
				Coated					
				AH8015					
11	1	R	11IR10MJ	●	6.35	0.9	0.7	0.05	

● : Line up / 5 pieces per package

Reference pages: UNJ : External toolholders → **E036 - E040**
MJ : Internal toolholders → **E055**

29° Trapezoidal / ACME (for Machine parts, Pipe)



Applicable toolholder

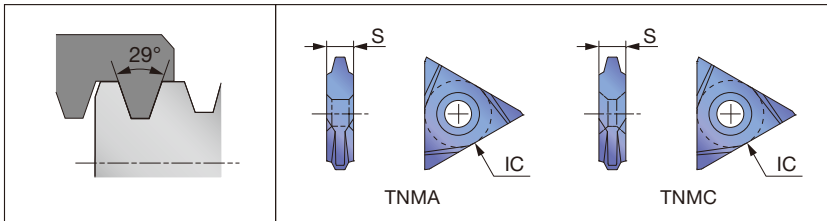
Insert size	External	Internal
16	CER/L**16... (C*CER/L...) JSER**16... JS**SEL16 SER**16-CHP B-SER/L**16 B-CER/L**16 BC-SER/L**16	TSNR/L**16 SNR/L**16... TCNR/L**16... CNR/L**16...
22	CER/L**22... SER**22-CHP	TSNR/L**22 SNR/L**22... TCNR/L**22... CNR/L**22...

With the special full-profile insert

Insert size	Pitch (Reference)	TPI	Hand of cut	External insert						Internal insert					
				Designation	Grade		IC	PDX	PDY	Designation	Grade		IC	PDX	PDY
					Coated						Coated				
					AH725	T313V					AH725	T313V			
16	(2.117)	12	R	16ER12ACME	●		9.525	1.6	1.3	16IR12ACME	●		9.525	1.6	1.3
16	(2.540)	10	R	16ER10ACME	●		9.525	1.6	1.3	16IR10ACME	●		9.525	1.6	1.3
16	(3.175)	8	R	16ER8ACME	●	●	9.525	1.6	1.3	16IR8ACME	●	●	9.525	1.6	1.3
22	(4.233)	6	R	22ER6ACME	●	●	12.7	2.5	2	22IR6ACME	●	●	12.7	2.5	2
22	(5.080)	5	R	22ER5ACME	●	●	12.7	2.5	2	22IR5ACME	●	●	12.7	2.5	2

● : Line up / 5 pieces per package

29° Trapezoidal / ACME (for Machine parts, Pipe)



Applicable toolholder

External
MTVOR-**M..
STVOR-**M...

On edge

Pitch	TPI	Taper		External insert			
		mm/mm	TPF	Designation	Grade	IC	S
					Coated		
(1.588)	16	-	-	TNMA43NT16PEXT-PT	●	12.7	4.8
(1.814)	14	-	-	TNMA43NT14PEXT-PT	●	12.7	4.8
(2.117)	12	-	-	TNMA43NT12PEXT-PT	●	12.7	4.8
(2.54)	10	-	-	TNMA43NT10PEXT-PT	●	12.7	4.8
(3.175)	8	-	-	TNMA43NT8PEXT-PT	●	12.7	4.8
(4.233)	6	-	-	TNMA43NT6PEXT-PT	●	12.7	4.8
(5.08)	5	-	-	TNMA54NT5PEXT-PT	●	15.875	6.4
(6.35)	4	-	-	TNMA54NT4PEXT-PT	●	15.875	6.4
(8.47)	3	-	-	TNMA54NT3PEXT-PT	●	15.875	6.4
(1.588)	16	-	-	TNMC43NT16PEXT-PT	●	12.7	4.8
(1.814)	14	-	-	TNMC43NT14PEXT-PT	●	12.7	4.8
(2.117)	12	-	-	TNMC43NT12PEXT-PT	●	12.7	4.8
(2.54)	10	-	-	TNMC43NT10PEXT-PT	●	12.7	4.8
(3.175)	8	-	-	TNMC43NT8PEXT-PT	●	12.7	4.8
(4.233)	6	-	-	TNMC43NT6PEXT-PT	●	12.7	4.8
(5.08)	5	-	-	TNMC54NT5PEXT-PT	●	15.875	6.4
(6.35)	4	-	-	TNMC54NT4PEXT-PT	●	15.875	6.4
(8.47)	3	-	-	TNMC54NT3PEXT-PT	●	15.875	6.4

● : Line up / 10 pieces per package

Reference pages: 29° Trapezoidal With the special full-profile insert : External toolholders → **E036 - E040**, Internal toolholders → **E054 - E056**
 29° Trapezoidal On edge : External toolholders → **E052**

29° Trapezoidal/ STUB ACME (for Machine parts, Pipe)

On edge

Applicable toolholder

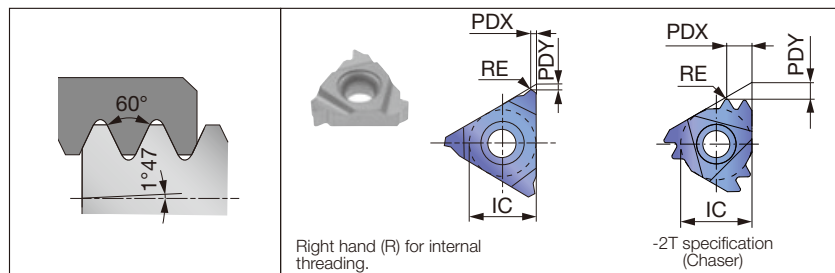
Pitch (Reference)	TPI	Taper		External insert			
		mm/mm	TPF	Designation	Grade	IC	S
					Coated		
					AH725		
(1.588)	16	-	-	TNMA43NT16PSTUBE-PT	●	12.7	4.8
(1.814)	14	-	-	TNMA43NT14PSTUBE-PT	●	12.7	4.8
(2.117)	12	-	-	TNMA43NT12PSTUBE-PT	●	12.7	4.8
(2.54)	10	-	-	TNMA43NT10PSTUBE-PT	●	12.7	4.8
(3.175)	8	-	-	TNMA43NT8PSTUBE-PT	●	12.7	4.8
(4.233)	6	-	-	TNMA43NT6PSTUBE-PT	●	12.7	4.8
(5.08)	5	-	-	TNMA54NT5PSTUBE-PT	●	15.875	6.4
(6.35)	4	-	-	TNMA54NT4PSTUBE-PT	●	15.875	6.4
(8.47)	3	-	-	TNMA54NT3PSTUBE-PT	●	15.875	6.4
(1.588)	16	-	-	TNMC43NT16PSTUBE-PT	●	12.7	4.8
(1.814)	14	-	-	TNMC43NT14PSTUBE-PT	●	12.7	4.8
(2.117)	12	-	-	TNMC43NT12PSTUBE-PT	●	12.7	4.8
(2.54)	10	-	-	TNMC43NT10PSTUBE-PT	●	12.7	4.8
(3.175)	8	-	-	TNMC43NT8PSTUBE-PT	●	12.7	4.8
(4.233)	6	-	-	TNMC43NT6PSTUBE-PT	●	12.7	4.8
(5.08)	5	-	-	TNMC54NT5PSTUBE-PT	●	15.875	6.4
(6.35)	4	-	-	TNMC54NT4PSTUBE-PT	●	15.875	6.4
(8.47)	3	-	-	TNMC54NT3PSTUBE-PT	●	15.875	6.4

Note: ACME and STUB ACME can cut crest radius. Crest flat of ACME and STUB ACME need to be cut by another tool.

● : Line up / 10 pieces per package

External
MTVOR-**M..
STVOR-**M...

API Round (for Energy industry)



Applicable toolholder

Insert size	External	Internal
16	CER/L**16... (C*CER/L...) JSER**16... JS**SEL16 SER**16-CHP B-SER/L**16 B-CER/L**16 BC-SER/L**16	TSNR/L**16 SNR/L**16... TCNR/L**16... CNR/L**16...
22	CER/L**22... SER**22-CHP	TSNR/L**22 SNR/L**22... TCNR/L**22... CNR/L**22...

Full-profile insert

Insert size	Pitch (Reference)	TPI	Hand of cut	External insert							Internal insert							
				Designation	Grade		IC	PDX	PDY	RE	Designation	Grade			IC	PDX	PDY	RE
					Coated							Coated						
					AH725	T313V						AH8015	AH725	T313V				
16	(2.54)	10	R	16ER10RAPI	●		9.525	1.6	1.2	0.36	16IR10RAPI	●	●		9.525	1.6	1.2	0.36
16	(3.175)	8	R	16ER8RAPI	●		9.525	1.6	1.2	0.43	16IR8RAPI	●	●	●	9.525	1.6	1.2	0.43
22	(3.175)	8	R								22IR8RAPI-2T	●			12.7	4.5	3	0.43

● : Line up / 5 pieces per package

Full-profile insert with chipbreaker

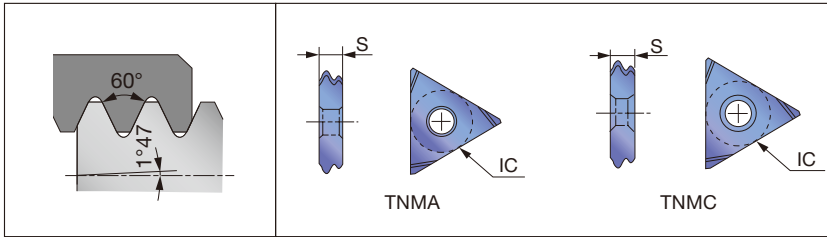
Insert size	Pitch (Reference)	TPI	Hand of cut	External insert						Internal insert					
				Designation	Grade	IC	PDX	PDY	RE	Designation	Grade	IC	PDX	PDY	RE
					Coated						Coated				
					AH725						AH725				
16	(2.54)	10	R	16ER10RD-CB	●	9.525	1.2	1.5	0.36	16IR10RD-CB	●	9.525	1.2	1.5	0.36
16	(3.175)	8	R	16ER8RD-CB	●	9.525	1.3	1.5	0.43	16IR8RD-CB	●	9.525	1.3	1.5	0.43

● : Line up / 10 pieces per package

Reference pages: 29° Trapezoidal : External toolholders → **E052**

API Round : External toolholders → **E036 - E040**, Internal toolholders → **E054 - E056**

API Round (for Energy)



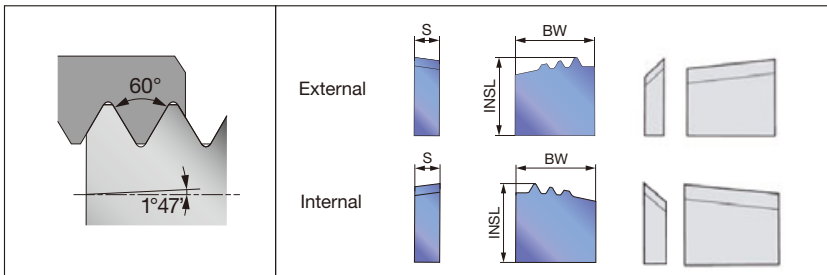
Applicable toolholder

External	Internal
MTVOR-**M.. STVOR-**M...	HS**-MTHOR...

On edge

Pitch (Reference)	TPI	Taper		External insert				Internal insert			
		mm/mm	TPF	Designation	Grade	IC	S	Designation	Grade	IC	S
					Coated				Coated		
(2.54)	10	1/16	0.75	TNMA4310RDEXT	●	12.7	4.8	TNMA4310RDINT	●	12.7	4.8
(3.175)	8	1/16	0.75	TNMA438RDEXT	●	12.7	4.8	TNMA438RDINT	●	12.7	4.8
(2.54)	10	1/16	0.75	TNMC4310RDEXT	●	12.7	4.8	TNMC4310RDINT	●	12.7	4.8
(3.175)	8	1/16	0.75	TNMC438RDEXT	●	12.7	4.8	TNMC438RDINT	●	12.7	4.8

● : Line up / 10 pieces per package



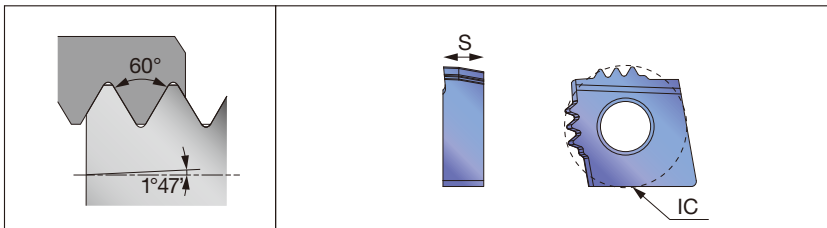
Applicable toolholder

External	Internal
CLVOR-**M...	SI-CLHOR...

Full-profile insert (chaser)

Pitch (Reference)	TPI	Taper		External insert						Internal insert					
		mm/mm	TPF	Designation	Grade	BW	INSL	S	Chip breaking attachment	Designation	Grade	BW	INSL	S	Chip breaking attachment
					Coated						Coated				
(3.175)	8	1/16	0.75	CR-8R-3E	●	16	15	5.2	CR-8R / 10R-3E / 4E-CB	CR-8R-3I	●	16	15	5.2	CR-8R / 10R-3I / 4I-CB
(2.54)	10	1/16	0.75	CR-10R-3E	●	16	15.9	5.2	CR-8R / 10R-3E / 4E-CB	CR-10R-3I	●	16	15.9	5.2	CR-8R / 10R-3I / 4I-CB

● : Line up / 10 pieces per package



Full-profile insert (chaser)

Pitch (Reference)	TPI	Taper		External insert			
		mm/mm	TPF	Designation	Grade	IC	S
					Coated		
(2.54)	10	1/16	0.75	CNGA-10R-3E	●	19.05	6.4
(3.175)	8	1/16	0.75	CNGA-8R-3E	●	19.05	6.4

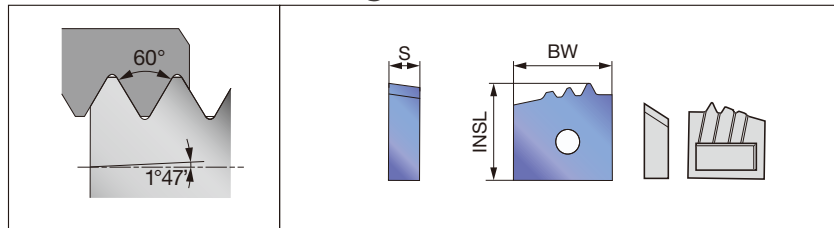
Note: Toolholders need to be customized for these types of inserts.

● : Line up / 10 pieces per package

Reference pages: API Round On edge : External toolholders → **E052**, Internal toolholders → **E065**

API Round Full-profile insert : External toolholders → **E053**, Internal toolholders → **E066**

API Round (for Energy industry) For tool-rotating machines



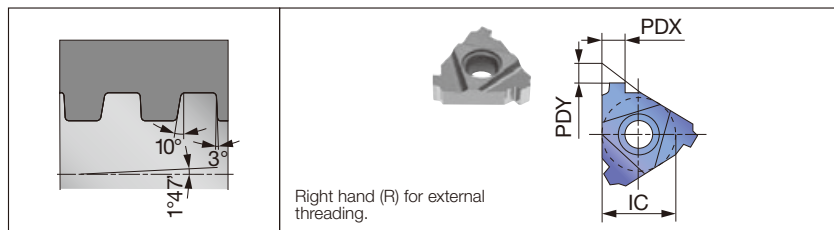
Full-profile insert (chaser)

Pitch (Reference)	TPI	Taper		External insert					
		mm/ mm	TPF	Designation	Grade	BW	INSL	S	Chip breaking attachment
					Coated				
					AH725				
(3.175)	8	1/16	0.75	CR-8R-3E#1	●	16	14.7	5.2	TD39318R-1-CBW/CAVITY
(3.175)	8	1/16	0.75	CR-8R-3E#2	●	16	14.9	5.2	TD39328R-2-CBW/CAVITY
(3.175)	8	1/16	0.75	CR-8R-3E#3	●	16	15	5.2	TD39338R-3-CBW/CAVITY

Note: Toolholders need to be customized for these types of inserts.

● : Line up / 10 pieces per package

API Buttress (for Energy industry)



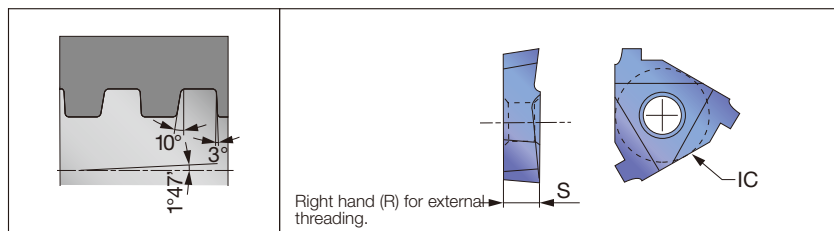
Applicable toolholder

Insert size	External	Internal
22	CER/L**22... SER**22-CHP	TSNR/L**22... SNR/L**22... TCNR/L**22... CNR/L**22...

Full-profile insert

Insert size	Pitch (Reference)	TPI	Hand of cut	External insert					Internal insert				
				Designation	Grade	IC	PDX	PDY	Designation	Grade	IC	PDX	PDY
					Coated					Coated			
					AH725					AH725			
22	(5.08)	5	R	22ER5BAPI	●	12.7	3.72	2.2	22IR5BAPI	●	12.7	3.45	2.2

● : Line up / 5 pieces per package



Applicable toolholder

External	Internal
MTVNR**M5	HS**-LNFR...

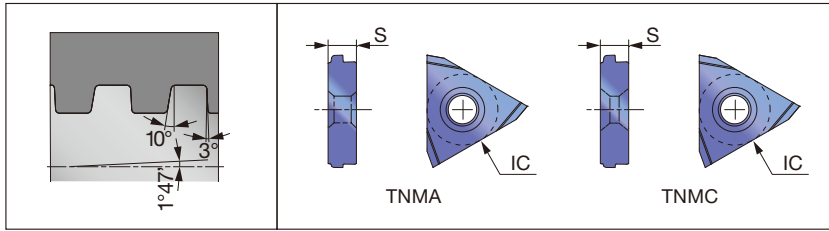
Full-profile insert (single side)

Pitch (Reference)	TPI	Taper		External insert				Internal insert			
		mm/mm	TPF	Designation	Grade	IC	S	Designation	Grade	IC	S
					Coated				Coated		
					AH725				AH725		
(5.08)	5	1/16	0.75	L535B75EXT-FC	●	15.875	4.8	L535B75INT-FC	●	15.875	4.8
(5.08)	5	1/12	1	L535B1EXT-FC	●	15.875	4.8	L535B1INT-FC	●	15.875	4.8

● : Line up / 10 pieces per package

Reference pages: API Buttress Full-profile insert : External toolholders → **E036, E038**, Internal toolholders → **E055 - E056**
API Buttress Full-profile insert (single side) : External toolholders → **E051**, Internal toolholders → **E064**

API Buttress (for Energy industry)



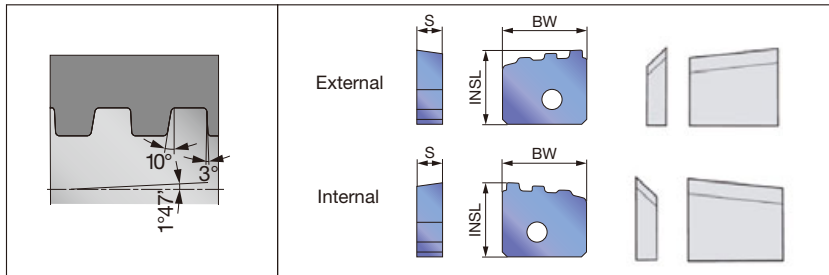
Applicable toolholder

External	Internal
MTVOR-**M...	HS**-MTHOR...
STVOR-**M...	

On edge

Pitch (Reference)	TPI	Taper		External insert				Internal insert			
		mm/mm	TPF	Designation	Grade	IC	S	Designation	Grade	IC	S
					Coated				Coated		
					AH725				AH725		
(5.08)	5	1/12	1	TNMA545B1EXT-FC	●	15.875	6.4	TNMA545B1INT-FC	●	15.875	6.4
(5.08)	5	1/16	0.75	TNMA545B75EXT-FC	●	15.875	6.4	TNMA545B75INT-FC	●	15.875	6.4
(5.08)	5	1/12	1	TNMC545B1EXT-FC	●	15.875	6.4	TNMC545B1INT-FC	●	15.875	6.4
(5.08)	5	1/16	0.75	TNMC545B75EXT-FC	●	15.875	6.4	TNMC545B75INT-FC	●	15.875	6.4

● : Line up / 10 pieces per package



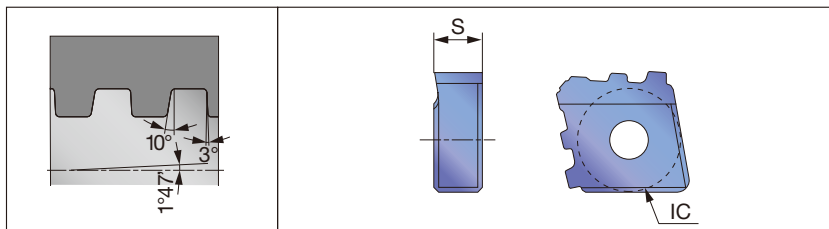
Applicable toolholder

External	Internal
CLVOR-**M...	SI-CLHOR...

Full-profile insert (chaser)

Pitch (Reference)	TPI	Taper		External insert						Internal insert					
		mm/mm	TPF	Designation	Grade	BW	INSL	S	Chip breaking attachment	Designation	Grade	BW	INSL	S	Chip breaking attachment
					Coated						Coated				
					AH725						AH725				
(5.08)	5	1/16	0.75	CR-5B75-4E	●	20.4	15.9	5.1	CR-5B75 / 5B1-4E-CB	CR-5B75-3I	●	16	15.8	5.2	CR-8R / 10R-3I / 4I-CB

● : Line up / 10 pieces per package



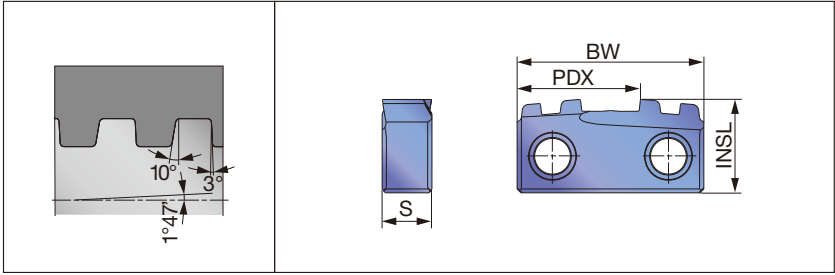
Full-profile insert (chaser)

Pitch (Reference)	TPI	Taper		External insert			
		mm/mm	TPF	Designation	Grade	IC	S
					Coated		
					AH725		
(5.08)	5	1/16	0.75	CNGA-5B75-3E	●	19.05	6.4

Note: Toolholders need to be customized for these types of inserts.

● : Line up / 10 pieces per package

API Buttress (for Energy industry)

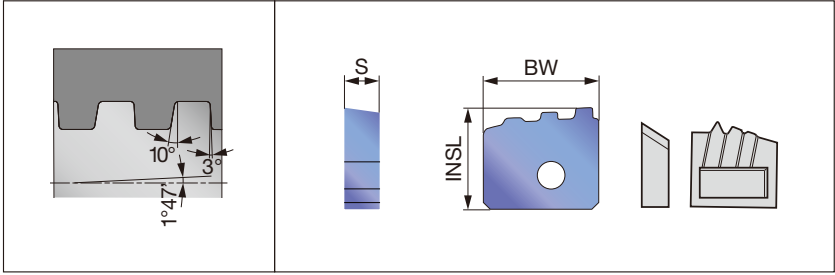


Full-profile insert

Insert size	Pitch (Reference)	TPI	Hand of cut	Internal insert					
				Designation	Grade	BW	INSL	PDX	S
					Coated				
					T05HP				
22	(5.08)	5	R	CR-5B75-2I-W24	●	24	12	15.85	6.4

Note: Toolholders need to be customized for these types of inserts. ● : Line up / 10 pieces per package

API Buttress (for Energy industry)
For tool-rotating machines

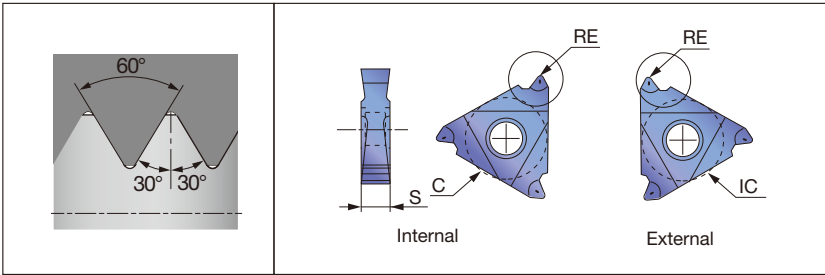


Full-profile insert (chaser)

Pitch (Reference)	TPI	Taper		External insert						
				Designation	Grade	BW	INSL	S	RE	Chip breaking attachment
		Coated								
		AH725								
(5.08)	5	1/16	0.75	CR-5B75-3E#1	●	17	14.6	5.2	TD46015B75-1-CBW/CAVITY	
(5.08)	5	1/16	0.75	CR-5B75-3E#2	●	17	14.8	5.2	TD46025B75-2-CBW/CAVITY	
(5.08)	5	1/16	0.75	CR-5B75-3E#3	●	17	15	5.2	TD46035B75-3-CBW/CAVITY	

Note: Toolholders need to be customized for these types of inserts. ● : Line up / 10 pieces per package

API Rotary shoulder connection (for Energy industry)



Applicable toolholder

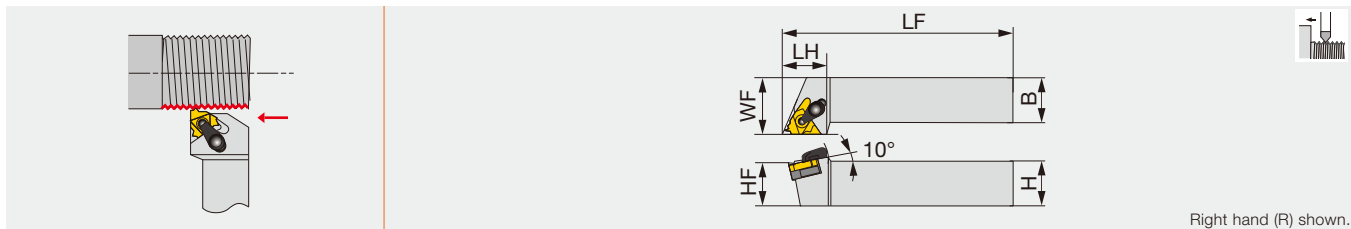
External	Internal
MTVNR-3232M54	HS**-LNFR-54API

Full-profile insert (Double side)

Pitch (Reference)	TPI	Connection	Taper		Designation	Grade	IC	S	RE
			mm/mm	TPF		Coated			
						AH725			
(6.35)	4	V-0.038R	1/6	2	LDS54428FT-CB#1	●	15.875	6.4	0.97
(6.35)	4	V-0.038R	1/4	3	LDS54438FT-CB#2	●	15.875	6.4	0.97
(6.35)	4	V-0.050	1/6	2	LDS54425FT-CB#3	●	15.875	6.4	0.64
(6.35)	4	V-0.050	1/4	3	LDS54435FT-CB#4	●	15.875	6.4	0.64
(5.08)	5	V-0.040	1/4	3	LDS54530FT-CB#5	●	15.875	6.4	0.51

● : Line up / 10 pieces per package

External threading toolholder, alternative clamping of screw-on or clamp-on only for DT type

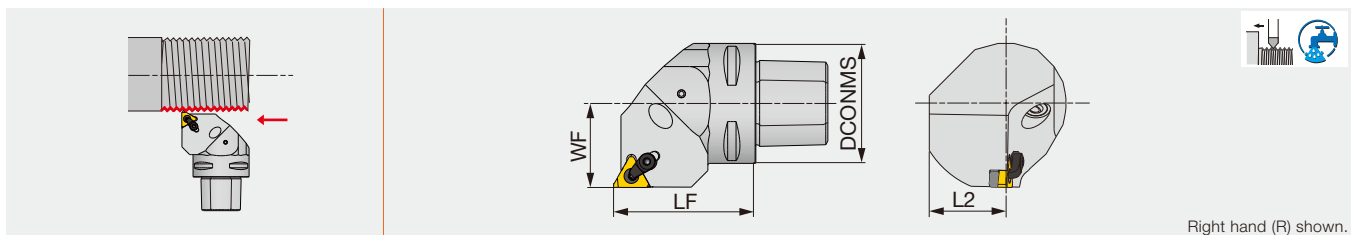


Designation	H	B	LF	LH	HF	WF	Insert
CER/L1212H16DT	12	12	100	24	12	16	16ER/L...
CER/L1616H16DT	16	16	100	24	16	20	16ER/L...
CER/L2020K16DT	20	20	125	24	20	25	16ER/L...
CER/L2525M16DT	25	25	150	28	25	32	16ER/L...
CER/L2525M22DT	25	25	150	31.3	25	32	22ER/L...
CER3232P16T	32	32	170	32	32	40	16ER...
CER3232P22T	32	32	170	32	32	40	22ER...
CER2525M27T	25	25	150	34	25	32	27ER...
CER3232P27T	32	32	170	34	32	40	27ER...

Note: A clamp set consists of a clamp and a clamping screw. A shim set consists of a shim and a shim screw to secure the shim to the shank.
Standard shims can be used on both right- and left-hand toolholders. Please use either of the sides depending on the tool hand.
When using DT type, please remove either the clamp set or the insert clamping screw.

C-CER/L

External threading toolholder, alternative clamping of screw-on or clamp-on



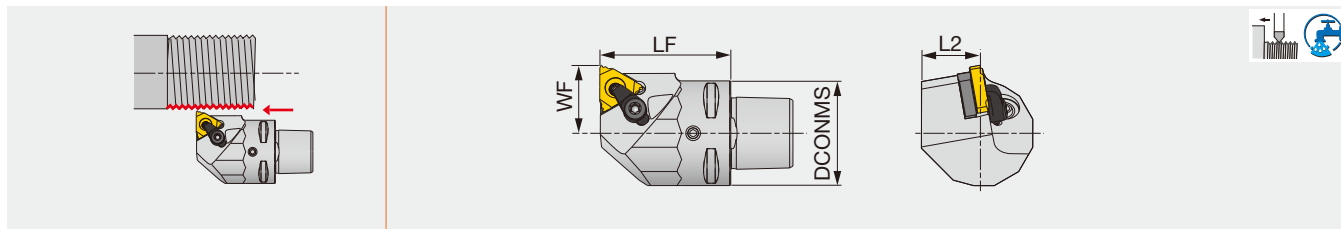
Designation	DCONMS	LF	L2	WF	Insert
C3CER/L22040-16ERN ⁽²⁾	32	40	20	22	16ER/L...
C4CER/L27050-16ERN ⁽²⁾	40	50	25	27	16ER/L...
C5CER/L35060-16ERN ⁽¹⁾	50	60	32	35	16ER/L...
C5CER/L35060-16ERN ⁽²⁾	50	60	32	35	16ER/L...
C6CER/L45065-16ERN ⁽¹⁾	63	65	41	45	16ER/L...
C6CER/L45065-16ERN ⁽²⁾	63	65	41	45	16ER/L...

(1) Applicable for 3 MPa coolant (2) Applicable for 7 MPa coolant

SPARE PARTS									
Designation	Clamp set	Clamping screw	Coolant parts	Shim screw	Shim	Shim set	Wrench 1	Wrench 2	Wrench 3
CER/L*16DT	CSP16	CSTB-3.5ST	-	DTS5-3.5	A16-1DT	-	P-3.5	T-15F	-
CER/L2525M22DT	CSP22	CSTB-4ST	-	DTS6-4	GX22-1DT	-	P-4	T-15F	T-20F
CER3232P16T	CSP16	-	-	-	-	A16-1	-	T-15F	-
CER3232P22T	CSP22	-	-	-	-	NXE22-1	-	T-20F	-
CER*27T	CSP27	-	-	-	-	NXE27-1	P-4	-	-
C3CE*22040-16ERN, C4CE*27050-16ERN	CSP16	CSTB-3.5ST	SATZ-M8X1-M3	DTS5-3.5	A16-1DT	-	P-3.5	T-15F	-
C5CE*35060-16ER, C6CE*45065-16ER	CSP16	CSTB-3.5ST	EZ104	DTS5-3.5	A16-1DT	-	P-3.5	T-15F	-
C5CE*35060-16ERN, C6CE*45065-16ERN	CSP16	CSTB-3.5ST	SATZ-M10X1-M5	DTS5-3.5	A16-1DT	-	P-3.5	T-15F	-

Reference pages: Inserts → **E010 - E011, E015, E017 - E030, E032**

External threading toolholder, alternative clamping of screw-on or clamp-on



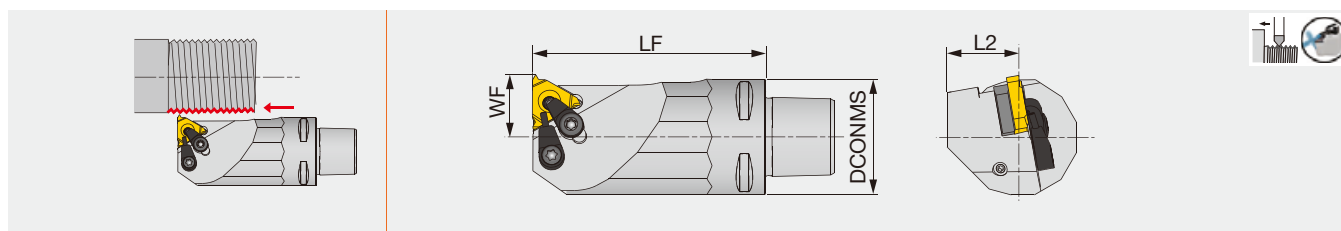
Designation	DCONMS	LF	L2	WF	Insert
C3CEL22040-16ERN-B	32	40	18	22	16ER...

Applicable for 7 MPa coolant
Cannot be used for boring

C-CEL-ERB-CHP

Tube connection

External threading toolholder, alternative clamping of screw-on or clamp-on, with high pressure coolant capability



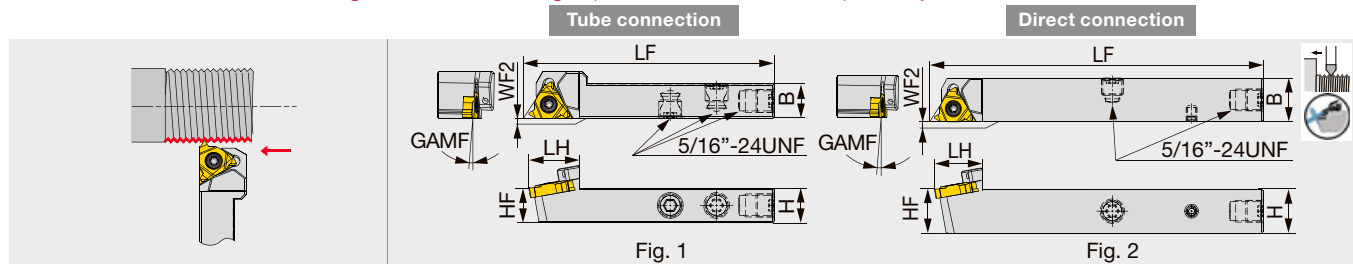
Designation	DCONMS	LF	L2	WF	Insert
C3CEL18065-16ERB-CHP	32	65	20	18	16ER...

Applicable for 14 MPa coolant
Cannot be used for boring

SPARE PARTS

Designation	Shim	Shim screw	Clamping screw	Clamping screw	Wrench 1	Wrench 2	Coolant parts	Coolant unit
C3CEL22040-16ERN-B	A16-1DT	DTS5-3.5	CSTB-3.5ST	CSP16	T-15F	P-3.5	SATZ-M8X1-M3	-
C3CEL18065-16ERB-CHP	A16-1DT	DTS5-3.5	CSTB-3.5ST	CSP16	T-15F	P-3.5	-	S-CU-CHP

Screw-on external threading toolholders-High-pressure coolant capability with tube and direct connection

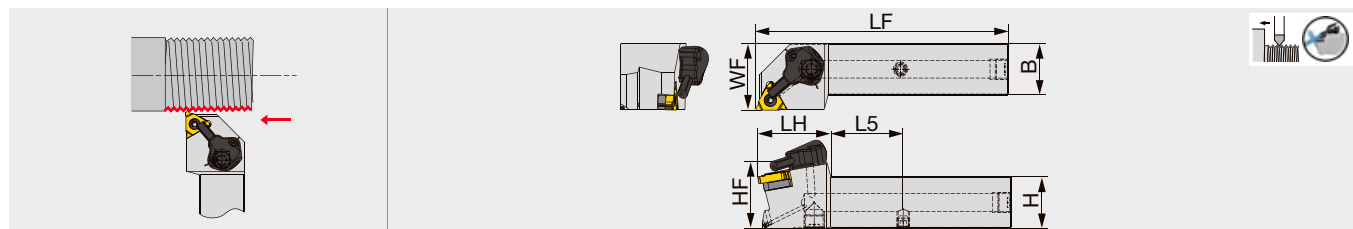


Designation	H	B	LF	LH	HF	WF2	GAMF	Fig.	Insert
JSE2R1212F16-CHP	12	12	85	19	12	0	1°	1	16ER...
JSE2R1212X16-CHP	12	12	120	19	12	0	1°	2	16ER...
JSE2R1616X16-CHP	16	16	120	19	16	0	1°	2	16ER...

SER-X-CHP-MC

Direct connection

Screw-on external threading toolholders-High-pressure coolant capability with tube and direct connection



Designation	H	B	LF	LH	HF	WF	L5	Insert
SER2020X16-CHP-MC	20	20	107	36	20	25	27.9	16ER...
SER2525X16-CHP-MC	25	25	122	36	25	32	33.75	16ER...
SER2525X22-CHP-MC	25	25	122	36	25	32	33.75	22ER...

SPARE PARTS

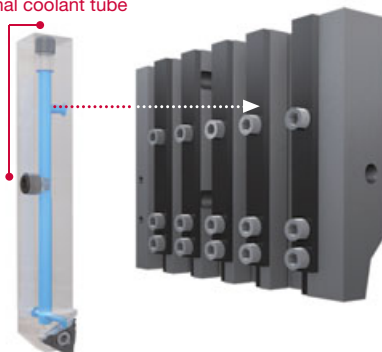
Designation	Clamping screw	Wrench	Shim screw	Shim	Coolant unit	Coolant plug	Wrench
JSE2R**16-CHP	CSTB-3.5	T-15F	-	-	-	SR5/16UNFTL360	P-4
SER**X16-CHP-MC	CSTB-3.5ST	T-15F	DTS5-3.5	A16-1DT	CU-V-CHP	PLUGG1/8-6.5TL360	P-3.5
SER**X22-CHP-MC	CSTB-4ST	T-15F	DTS6-4	GX22-1DT	CU-CW-CHP	PLUGG1/8-6.5TL360	P-4

No need for coolant tube setup.

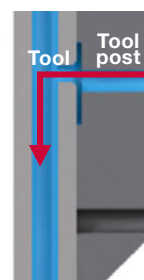
Eliminates chip entanglement on tubes and streamlines tool replacement.

Coolant is supplied from the tool post directly to the tools

Internal thread
Optional connection with
external coolant tube

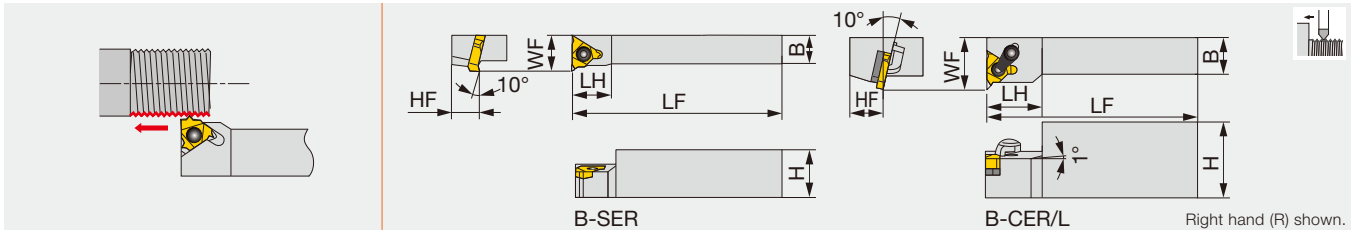


Detailed view of the coolant
flow after connection



B-S/CER/L

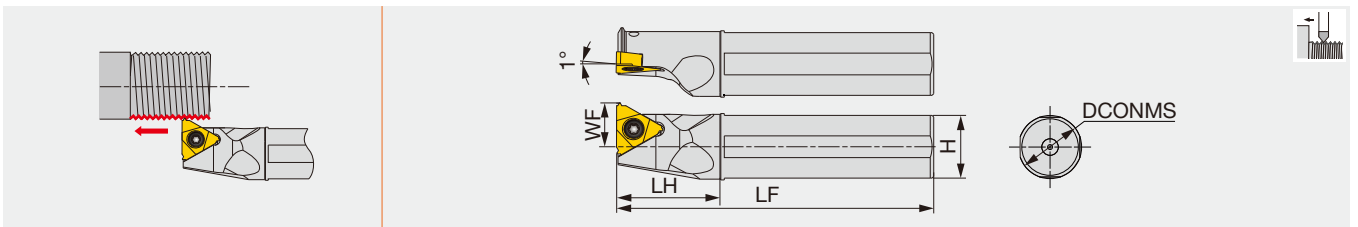
External threading toolholder for Swiss lathes



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...

JS-SEL16

External threading toolholder for Swiss lathes



Designation	DCONMS	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...
JS25H-SEL16	25	24	100	30	15.5	16ER...
JS254X-SEL16	25.4	24	120	30	15.7	16ER...

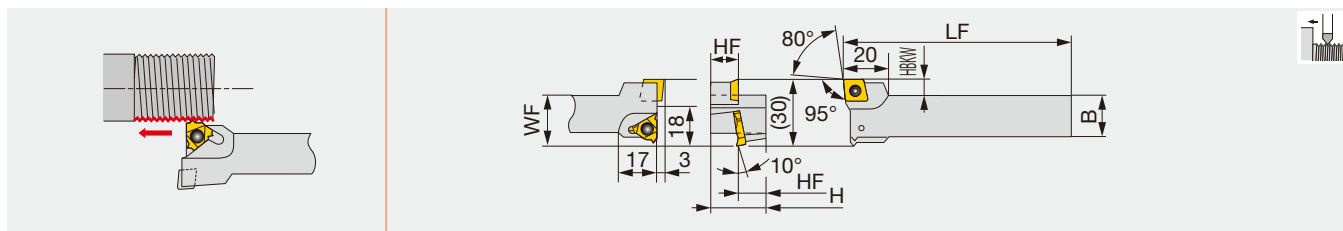
Note: Use the right-hand insert (16ER...) for a left-hand holder (JS***-SEL...).

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
JS***-SEL16	-	-	CSTB-3.5	T-15F

Reference pages: Inserts → [E010](#) - [E011](#), [E015](#), [E017](#) - [E030](#)

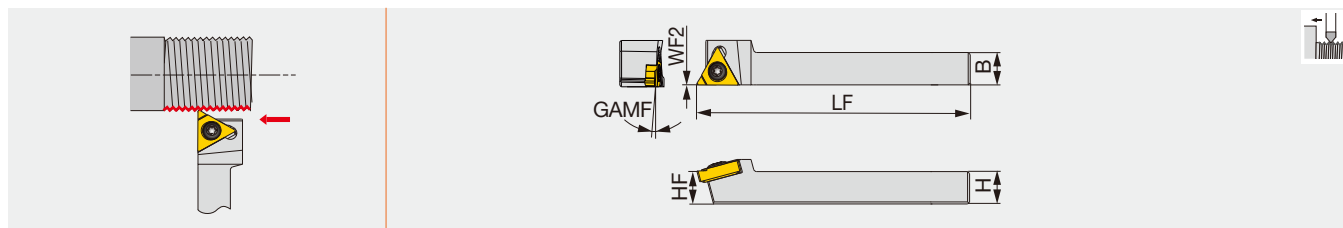
External threading toolholder for multi-functional Swiss lathes



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

SER

Screw-on external threading toolholders



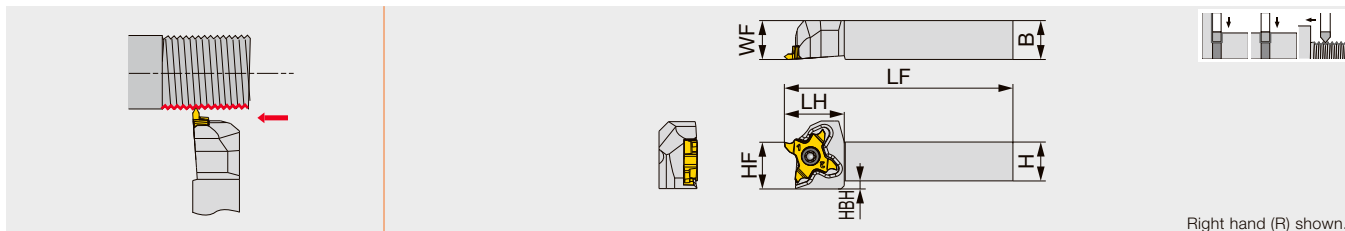
Designation	H	B	LF	HF	WF2	GAMF	Insert
SER0808H11	8	8	100	8	0	1.5°	11ER...
SER1010H11	10	10	100	10	0	1.5°	11ER...

SPARE PARTS



Designation	Clamping screw	Wrench
BC-SER12K16	CSTB-3.5	T-15F
SER**H11	SR M2.6-L6.7-S11	T-8/5

External grooving and threading toolholder



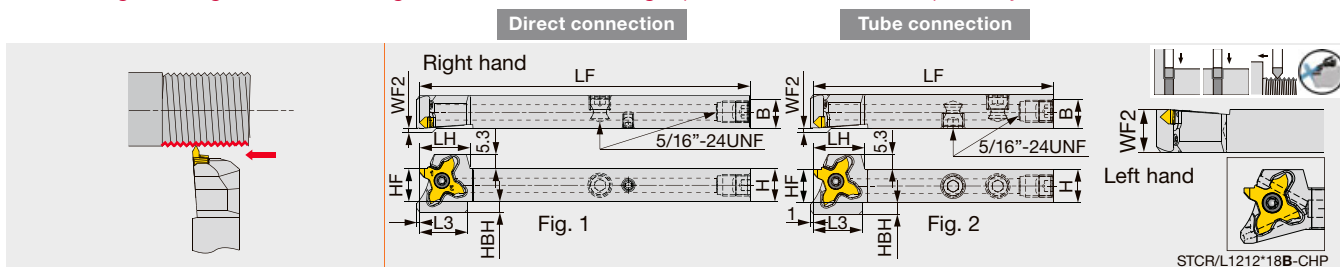
Designation	H	B	LF	LH	HF	WF	HBH	Insert	Torque*
STCR/L1010X18	10	10	120	18.5	10	10	4.5	TCT18...	1.2
STCR/L1212F18	12	12	85	18.5	12	12	2.5	TCT18...	1.2
STCR/L1212X18	12	12	120	18.5	12	12	2.5	TCT18...	1.2
STCR/L1616X18	16	16	120	18.5	16	16	-	TCT18...	1.2
STCR/L2020H18	20	20	100	18.5	20	20	-	TCT18...	1.2
STCR/L2020X18	20	20	120	23	20	25	-	TCT18...	1.2
STCR/L2525Z18	25	25	135	23	25	30	-	TCT18...	1.2

Torque* : Recommended clamping torque (N-m)

Note: Use the right-hand insert (TC*18R...) for a right-hand holder (STCR...); the left-hand insert (TC*18L...) for a left-hand holder (STCL...).

STCR/L-18-CHP

External grooving and threading toolholder, with high pressure coolant capability



Designation	H	B	LF	LH	HBL	HF	WF2**	HBH	Fig.	Insert	Torque*
STCR/L1012H18-CHP ⁽¹⁾	10	12	100	17.1	10	17.1	0/12	4	1	TCT18...	1.2
STCR/L1212F18B-CHP	12	12	120	18.5	17.5	12	0/12	4	2	TCT18...	1.2
STCR/L1212X18B-CHP ⁽¹⁾	12	12	120	18.5	17.5	12	0/12	4	1	TCT18...	1.2
STCR/L1616X18-CHP ⁽¹⁾	16	16	120	18.5	-	16	0/16	-	1	TCT18...	1.2

Torque* : Recommended clamping torque (N-m)

WF2** : The first value before "/" indicates the WF2 for the right-hand holder and the second value after "/" for the left-hand holder.

(1) Compatible to the direct internal coolant supply system without the use of external coolant hose.

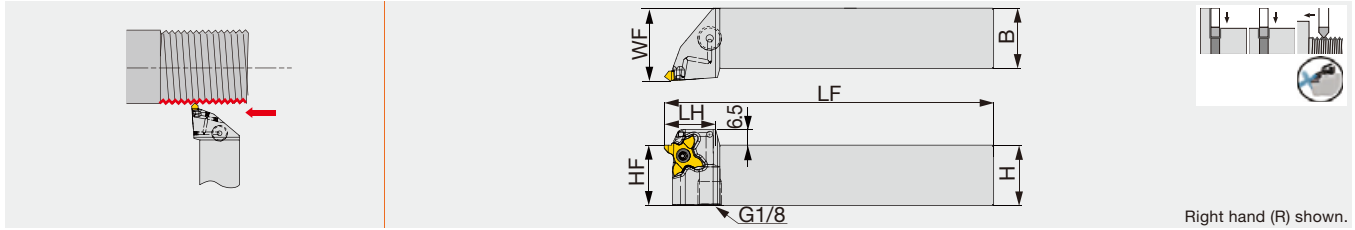
Note: This toolholder can be used with threading and grooving inserts.

Use the right-hand insert (TC*18R...) for a right-hand holder (STCR...); the left-hand insert (TC*18L...) for a left-hand holder (STCL...).

SPARE PARTS

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

External threading with high pressure coolant capability



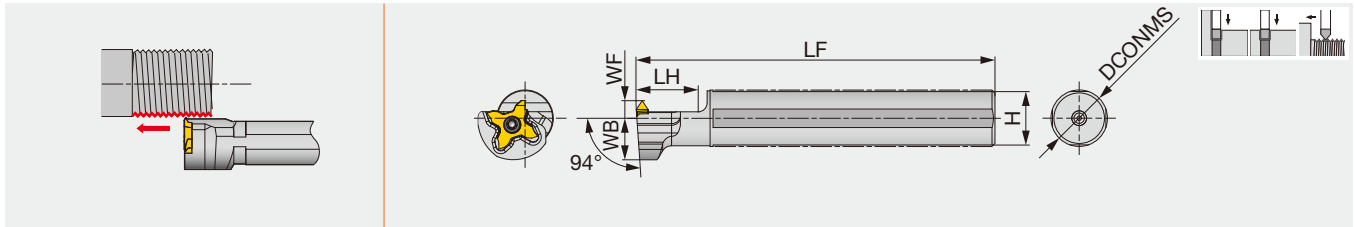
Designation	H	B	LF	LH	HBL	HF	WF	HBH	Insert	Torque*
STCR/L2020X18-CHP	20	20	120	23	-	20	25	-	TC*18...	1.2
STCR/L2525Z18-CHP	25	25	135	23	-	25	30	-	TC*18...	1.2

Torque* : Recommended clamping torque (N·m)

Note: Use the right-hand insert (TC*18R...) for a right-hand toolholders (STCR...); the left-hand insert (TC*18L...) for a left-hand holder (STCL...).

JS-STCL18

External grooving and threading toolholder with round shank



Designation	DCONMS	LF	LH	H	WB	WF	Insert	Torque*
JS14H-STCL18	14	100	20	13	14	6	TCT18R...	1.2
JS159F-STCL18	15.875	85	20	15	14	6	TCT18R...	1.2
JS16F-STCL18	16	85	20	15	14	6	TCT18R...	1.2
JS19G-STCL18	19.05	90	20	18	14	6	TCT18R...	1.2
JS19X-STCL18	19.05	120	20	18	14	6	TCT18R...	1.2
JS20G-STCL18	20	90	20	19	14	6	TCT18R...	1.2
JS20X-STCL18	20	120	20	19	14	6	TCT18R...	1.2
JS22X-STCL18	22	120	20	21	12.25	10	TCT18R...	1.2
JS25H-STCL18	25	100	20	24	12.25	10	TCT18R...	1.2
JS254X-STCL18	25.4	120	20	24	12.25	10	TCT18R...	1.2

Torque* : Recommended clamping torque (N·m)

Note: Use the right-hand insert (TC*18R...) for a left-hand holder (STCL...).

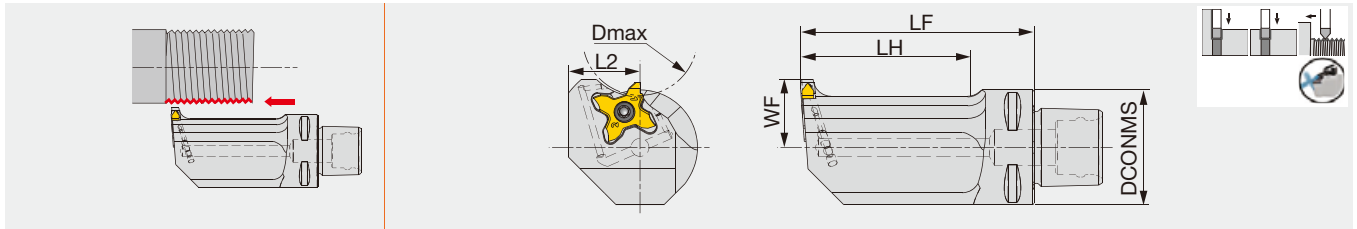
SPARE PARTS



Designation	Clamping screw	Wrench
STCL**18-CHP	CSTC-4L100DR	T-1008/5
STCR**18-CHP, JS**STCL18	CSTC-4L100DL	T-1008/5

C-STCFL-18-CHP

External grooving and threading toolholder, with high pressure coolant capability



Designation	DCONMS	LF	LH	L2	WF	Dmax	Insert	Torque*
C3STCFL18040-18-CHP	32	40	21.5	20	18	32	TC*18R...	1.2
C3STCFL18065-18-CHP	32	65	46.5	20	18	32	TC*18R...	1.2

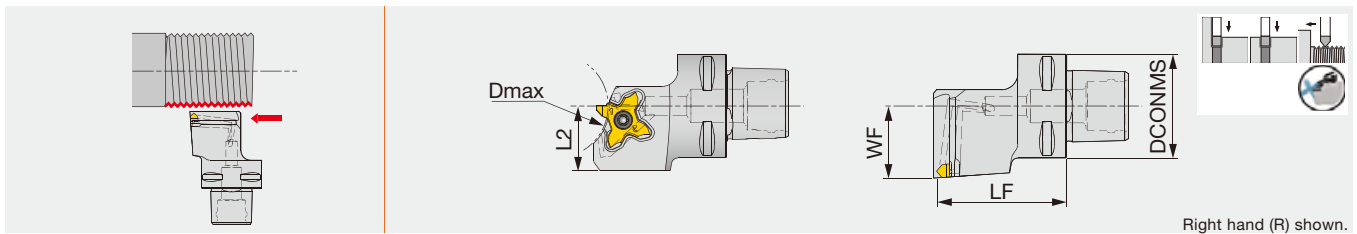
Torque* : Recommended clamping torque (N·m)

Applicable for 14 MPa coolant

Note: Use the right-hand insert (TC*18R...) for a left-hand holder (STCFL...).

C-STCR/L-18-CHP

External grooving and threading toolholder, with high pressure coolant capability



Designation	DCONMS	LF	L2	WF	Dmax	Insert	Torque*
C3STCR/L22040-18-CHP	32	40	20	22	32	TC*18...	1.2
C4STCR/L27050-18-CHP	40	50	25	27	75 ⁽¹⁾	TC*18...	1.2

Torque* : Recommended clamping torque (N·m)

Applicable for 14 MPa coolant

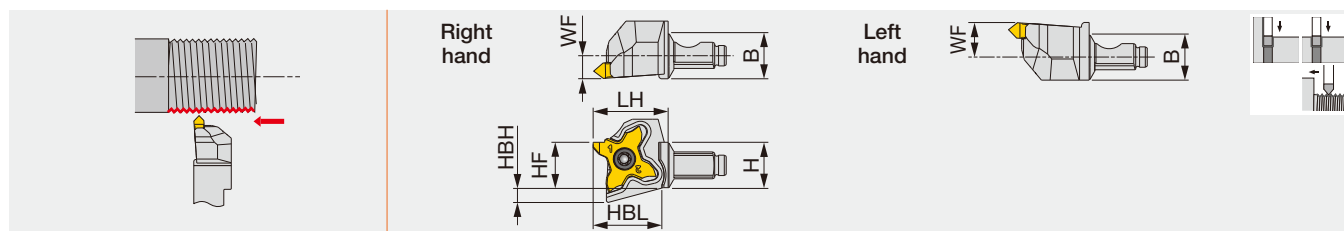
(1) The value for 3.5 mm groove depth. Dmax varies according to the grooving depth required. For further information, see Tungaloy Report #416 TetraMini-Cut/TetraForce-Cut.

Note: Use the right-hand insert (TC*18R...) for a right-hand holder (STCR...); the left-hand insert (TC*18L...) for a left-hand holder (STCL...).

SPARE PARTS

Designation	Clamping screw	Wrench
C*STCL*-18-CHP	CSTC-4L100DR	T-1008/5
C3STCFL*-18-CHP, C*STCR*-18-CHP	CSTC-4L100DL	T-1008/5

External grooving and threading head



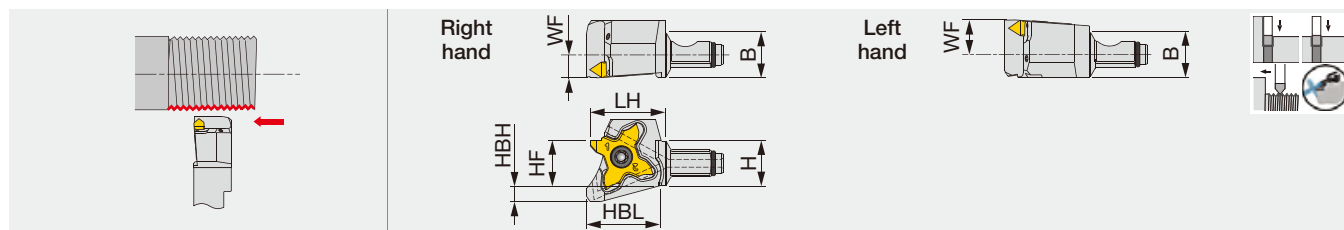
Designation	H	B	LH	HF	HBH	HBL	WF	Insert	Torque*
QC12-STCR18	12	12	19.5	12	3.9	17.9	6	TC*18R...	1.2
QC12-STCL18	12	12	21	12	3.9	18.3	9	TC*18L...	1.2

Torque* : Recommended clamping torque (N·m)

Note: Use the right-hand insert (TC*18R...) for a right-hand holder (QC12-STCR...); the left-hand insert (TC*18L...) for a left-hand holder (QC12-STCL...).

QC12-STCR/L-CHP

External grooving and threading head, with high pressure coolant capability



Designation	H	B	LH	HF	HBH	HBL	WF	Insert	Torque*
QC12-STCR18-CHP	12	12	19.5	12	4.2	19.3	6	TC*18R...	1.2
QC12-STCL18-CHP	12	12	21	12	4.2	19.3	9	TC*18L...	1.2

Torque* : Recommended clamping torque (N·m)

Through-coolant head

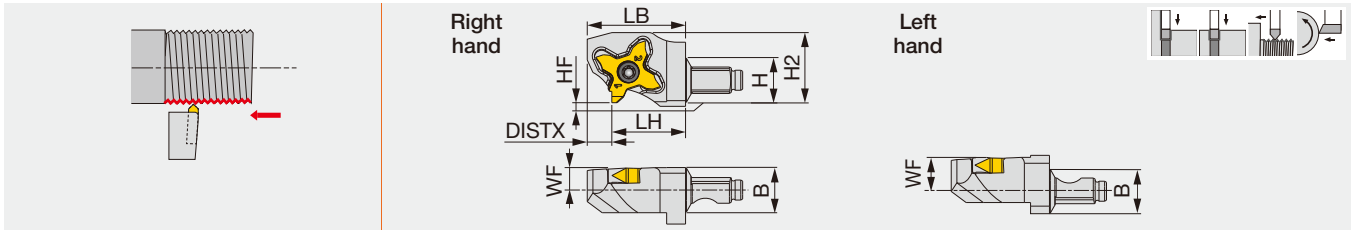
Note: Use the right-hand insert (TC*18R...) for a right-hand holder (QC12-STCR...); the left-hand insert (TC*18L...) for a left-hand holder (QC12-STCL...).

SPARE PARTS

Designation	Clamping screw	Wrench	O-ring
QC12-STCR18	CSTC-4L100DL	T-1008/5	-
QC12-STCL18	CSTC-4L100DR	T-1008/5	-
QC12-STCR18-CHP	CSTC-4L100DL	T-1008/5	ORSS-0454.5X1.0NBR70
QC12-STCL18-CHP	CSTC-4L100DR	T-1008/5	ORSS-0454.5X1.0NBR70

QC12-STCR/L-Y

Y-axis turning modular head for external grooving and threading



Designation	H	B	LH	HF	WF**	LB	H2	DISTX	Insert	Torque*
QC12-STCR/L18-Y	12	12	19.5	0	6/9	26	18.6	6.5	TC*18...	1.2

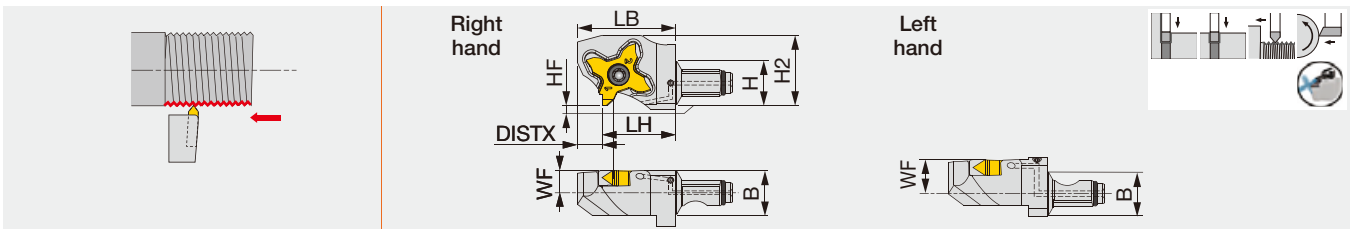
Torque* : Recommended clamping torque (N·m)

WF** : The first value before "/" indicates the WF for the right-hand holder and the second value after "/" for the left-hand holder.

Note: Use the right-hand insert (TC*18R...) for a right-hand holder (QC12-STCR...); the left-hand insert (TC*18L...) for a left-hand holder (QC12-STCL...).

QC12-STCR/L-Y-CHP

Y-axis turning modular head for external grooving and threading, with high pressure coolant capability



Designation	H	B	LH	HF	WF**	LB	H2	DISTX	Insert	Torque*
QC12-STCR/L18-Y-CHP	12	12	19.5	0	6/9	26	18.6	6.5	TC*18...	1.2

Torque* : Recommended clamping torque (N·m)

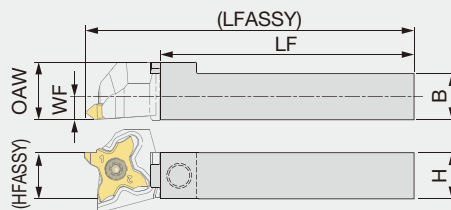
WF** : The first value before "/" indicates the WF for the right-hand holder and the second value after "/" for the left-hand holder.

Through-coolant head

Note: Use the right-hand insert (TC*18R...) for a right-hand holder (QC12-STCR...); the left-hand insert (TC*18L...) for a left-hand holder (QC12-STCL...).

SPARE PARTS

Designation	Clamping screw	Wrench	O-ring
QC12-STCR18-Y	CSTC-4L100DL	T-1008/5	-
QC12-STCL18-Y	CSTC-4L100DR	T-1008/5	-
QC12-STCR18-Y-CHP	CSTC-4L100DL	T-1008/5	ORSS-0454.5X1.0NBR70
QC12-STCL18-Y-CHP	CSTC-4L100DR	T-1008/5	ORSS-0454.5X1.0NBR70



Designation	H	B	WF	LF	OAW	HFASSY	LFASSY ⁽¹⁾	Torque*
QC-1212F	12	12	6	65	15	12	85	3
QC-1212X	12	12	6	100	15	12	120	3

Torque* : Recommended clamping torque (N-m)

(1) The size is true when the modular head with LH = 19.5 mm is mounted.

QC-1212-CHP

Shank for modular heads, with high pressure coolant capability

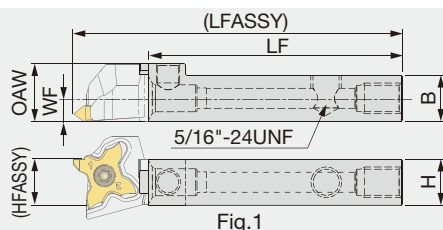


Fig.1

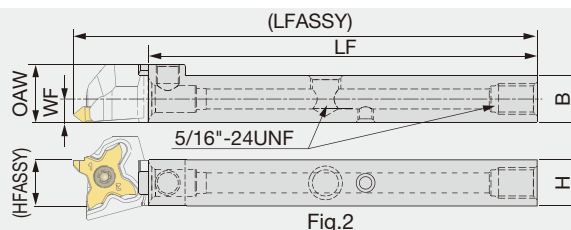


Fig.2

Designation	H	B	LF	WF	OAW	HFASSY	LFASSY ⁽¹⁾	Torque*	Fig.
QC-1212F-CHP	12	12	65	6	15	12	85	3	1
QC-1212X-CHP (*)	12	12	100	6	15	12	120	3	2

Torque* : Recommended clamping torque (N-m)

Through-coolant shank

(*) : Compatible to the direct internal coolant supply system without the use of external coolant hose.

(1) The size is true when the modular head with LH = 19.5 mm is mounted.

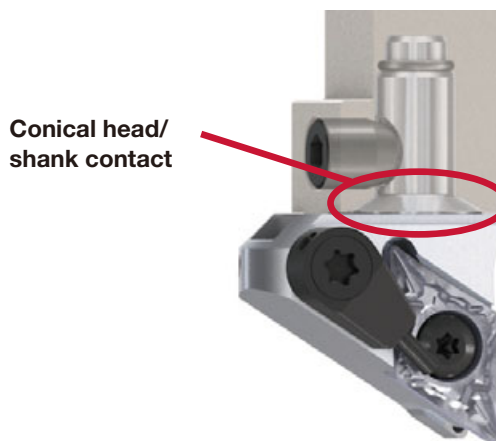
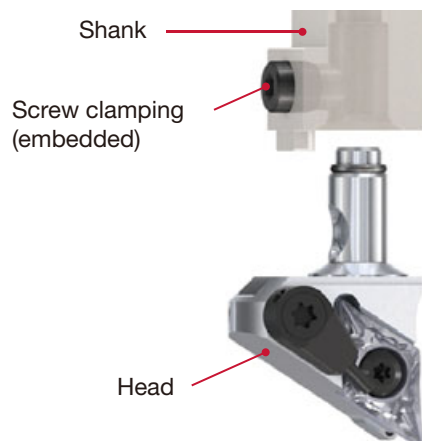
SPARE PARTS

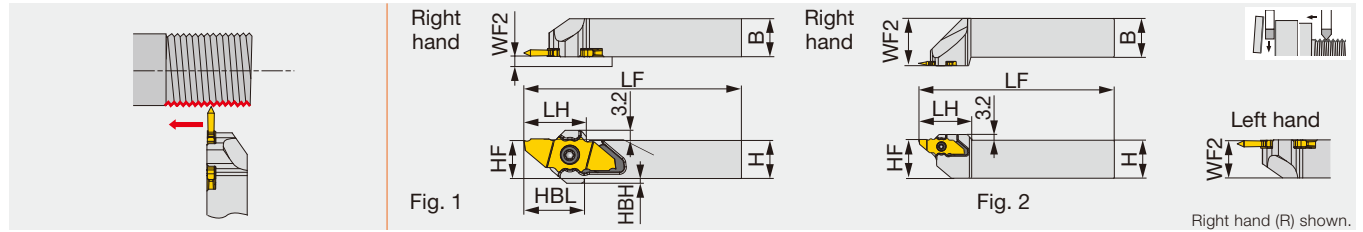
Designation	Clamping screw	Wrench 1	Coolant plug	Wrench 2	DirectJet plug	Wrench 3
QC-1212*	SRM6X0.5-26977	P-3	-	-	-	-
QC-1212F-CHP	SRM6X0.5-26977	P-3	SR5/16UNFTL360	P-4	-	-
QC-1212X-CHP	SRM6X0.5-26977	P-3	SR5/16UNFTL360	P-4	SSH4-6-TB	P-2

Unique coupling design

Simply loosen the clamping screw for easy tool exchanges.

Unique coupling design allows extremely high repeatability.





Designation	H	B	LF	LH	HF	WF2 ⁽¹⁾	HBL	HBH	Insert	Torque*	Fig.
JSXXR/L1010X09	10	10	118	17.65	10	0.2/9.8	17	3	JX**12...	1.2	1
JSXXR/L1212F09	12	12	83	17.65	12	0.2/11.8	17	1.5	JX**12...	1.2	1
JSXXR/L1212X09	12	12	118	17.65	12	0.2/11.8	17	1.5	JX**12...	1.2	1
JSXXR/L1616X09	16	16	118	17.65	16	0.2/15.8	-	-	JX**12...	1.2	1
JSXXR/L2020H09	20	20	98	20.5	20	0.2/19.8	-	-	JX**12...	1.2	1
JSXXR/L2525Z09	25	25	133	32	25	30	-	-	JX**12...	1.2	2

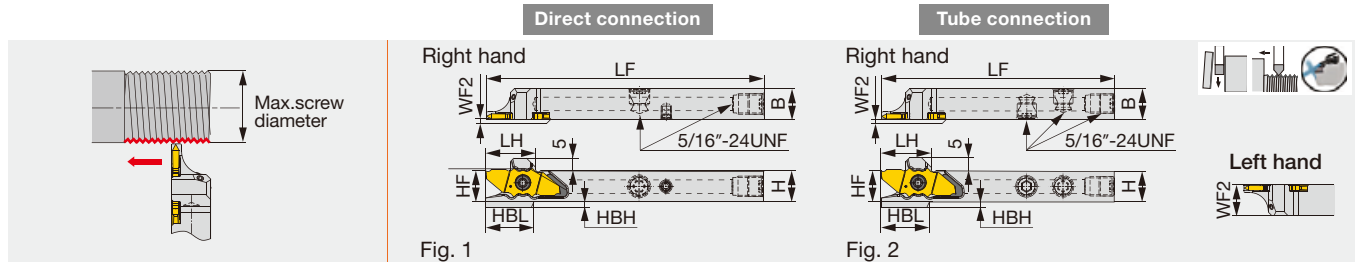
Torque* : Recommended clamping torque (N·m)

(1) The first value before "/" indicates the WF2 for the right-hand holder and the second value after "/" for the left-hand holder.

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

JSXXR/L-F/H/X-CHP

Parting and threading toolholder, with high pressure coolant capability



Designation	H	B	LF	LH	HF	WF2 ⁽¹⁾	HBL	HBH	Insert	Torque*	Fig.
JSXXR/L1012H09-CHP ⁽²⁾	10	12	100	17.2	10	0.2/11.8	16.7	3	JX**12...	1.2	1
JSXXR/L1212F09-CHP	12	12	83	17.4	12	0.2/11.8	16.8	2	JX**12...	1.2	2
JSXXR/L1212X09-CHP ⁽²⁾	12	12	118	17.4	12	0.2/11.8	16.8	2	JX**12...	1.2	1
JSXXR1616X09-CHP ^{(2),(3)}	16	16	118	17.4	16	0.2	16.7	2.5	JX**12...	1.2	1
JSXXR/L1616X09B-CHP ⁽²⁾	16	16	118	17.4	16	0.2/15.8	16.7	-	JX**12...	1.2	1

Torque* : Recommended clamping torque (N·m)

(1) The first value before "/" indicates the WF2 for the right-hand holder and the second value after "/" for the left-hand holder.

(2) Compatible to the direct internal coolant supply system without the use of external coolant hose.

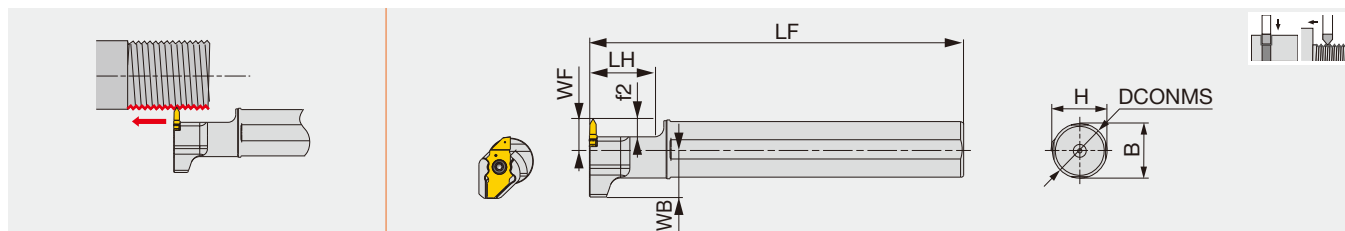
(3) To be replaced with the new design

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

SPARE PARTS

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

External threading toolholder, for 2 corner inserts

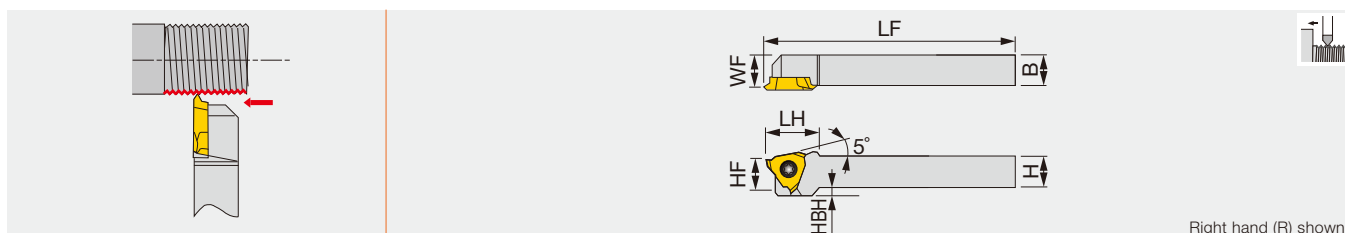


Designation	DCONMS	H	B	LF	LH	WB	WF	f2	Insert	Torque*
JS19G-SXXL09	19.05	18	18	90	21	15.43	8	4	JX**12...	1.2
JS19X-SXXL09	19.05	18	18	120	21	15.43	8	4	JX**12...	1.2
JS20G-SXXL09	20	19	19	90	21	15.4	8	4	JX**12...	1.2
JS20X-SXXL09	20	19	19	120	21	15.4	8	4	JX**12...	1.2
JS22X-SXXL09	22	21	21	120	21	15.4	8	4	JX**12...	1.2
JS25H-SXXL09	25	24	24	100	21	15.4	8	4	JX**12...	1.2
JS254X-SXXL09	25.4	24	24	120	21	15.4	8	4	JX**12...	1.2

Torque* : Recommended clamping torque (N-m)

J-SERIES
JSTTR/L

External toolholder for Swiss lathes



Right hand (R) shown.

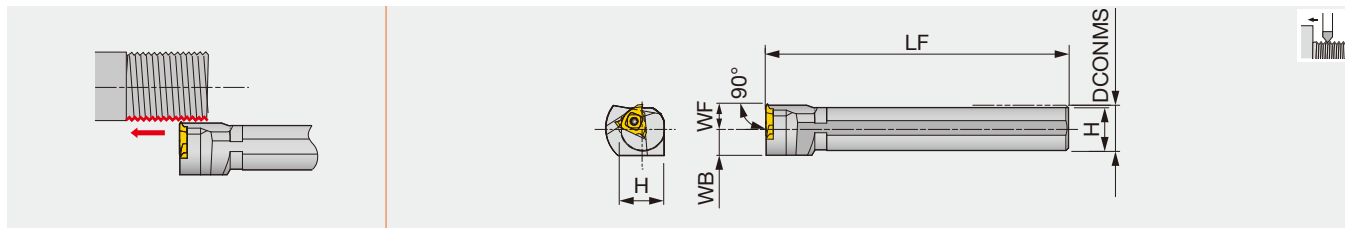
Designation	H	B	LF	LH	HF	WF	HBH	Insert
JSTTR/L1010X3	10	10	120	18.5	10	9.5	2	JTTR/L30...
JSTTR/L1212F3	12	12	85	18.5	12	11.5	-	JTTR/L30...
JSTTR/L1212X3	12	12	120	18.5	12	11.5	-	JTTR/L30...
JSTTR/L1616X3	16	16	120	16.5	16	15.5	-	JTTR/L30...

Recommended clamping torque: 1.2 N-m

SPARE PARTS

Designation	Clamping screw 1	Clamping screw 2	Wrench 1	Wrench 2	Wrench 2 (Optional)
JSTTR/L...	-	CSTB-4SD	-	T-8F	(T-8L)
JS**-SXXL09	CSTC-4L055L	-	T-1008/5	-	-

Reference pages: DuoJust-Cut : Inserts → **E012**
J-Series : Inserts → **E013**

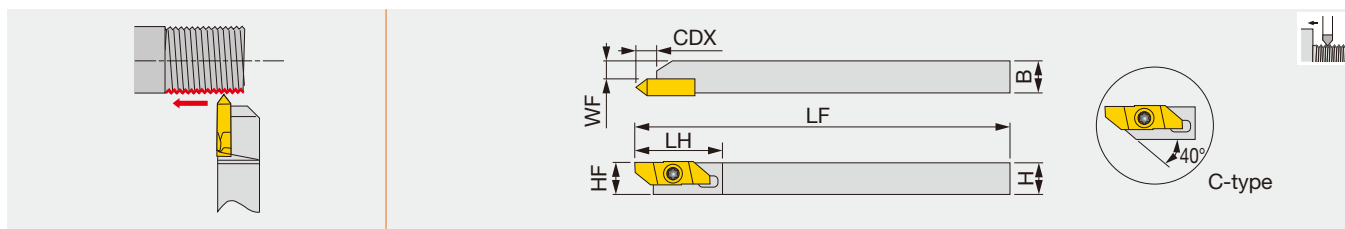


Designation	DCONMS	WF	LF	H	WB	Insert
JS19K-TTL3	19.05	10	125	18	11.5	JTTR30...
JS20K-TTL3	20	10	125	19	11.5	JTTR30...
JS22K-TTL3	22	10	125	21	11.5	JTTR30...
JS25K-TTL3	25.4	10	125	24	12.7	JTTR30...

Recommended clamping torque: 3.5 N·m

JSXBR

External threading toolholder for Swiss lathes



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...

Note: Can be wrenched also from the back with a double-head screw.
This toolholder can be used for JXB back-turning insert and JXT threading insert.

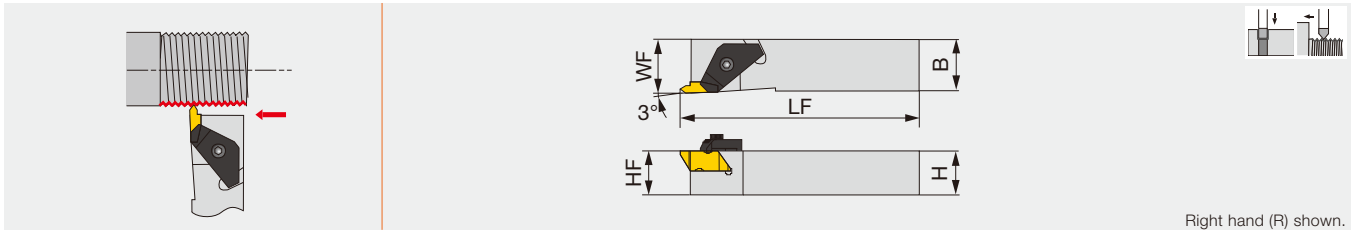
SPARE PARTS

Designation	Clamping screw	Wrench 1	Wrench 2 (Optional)
JS**-TTL3	CSTB-4S	T-15F	-
JSXBR...	CSTB-4SD	T-8F	(T-8L)

TUNGST-CLAMP

FLASR/L

External grooving and threading toolholder, for Swiss lathes



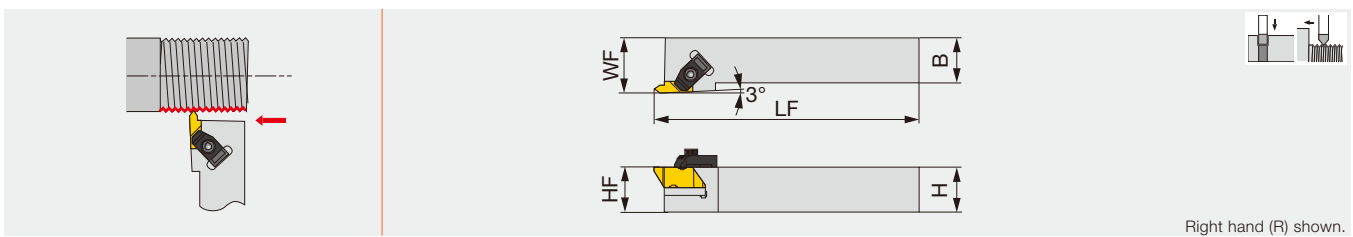
Designation	H	B	LF	HF	WF	Insert	Torque*
FLASR/L-1616M3	16	16	125	16	16	FLT-3...	3

Torque* : Recommended clamping torque (N·m)

Note: Use the right-hand insert (FLT-3R...) for a right-hand holder (FLASR...); the left-hand insert (FLT-3L...) for a left-hand holder (FLASL...).

FLSR/L

External grooving and threading toolholder



Designation	H	B	LF	HF	WF	Insert	Torque*
FLSR/L-2020M3	20	20	125	20	32	FLT-3...	3
FLSR/L-2525M3	25	25	150	25	32	FLT-3...	3

Torque* : Recommended clamping torque (N·m)

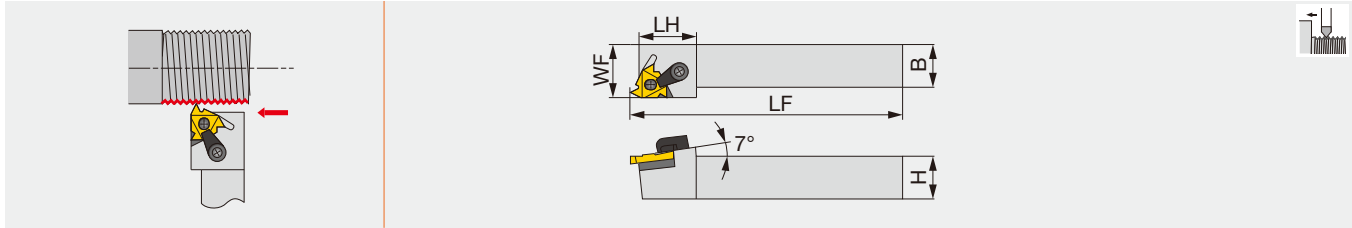
Note: Use the right-hand insert (FLT-3R...) for a right-hand holder (FLSR...); the left-hand insert (FLT-3L...) for a left-hand holder (FLSL...).

SPARE PARTS

Designation	Clamp	Clamping screw	Wrench
FLASR-1616M3	TF-184	S-412	5/32HEX
FLASL-1616M3	TF-185	S-412	5/32HEX
FLSR-****M3	TF-72	S-412	5/32HEX
FLSL-****M3	TF-73	S-412	5/32HEX

Reference pages: Inserts → **E014**

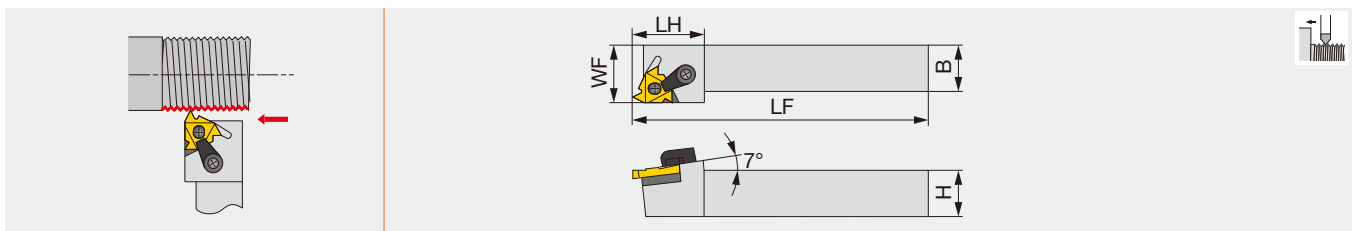
External threading toolholder, for single-sided lay down inserts



Designation	H	B	LF	LH	WF	Insert
MTVNR-2525M5	25	25	152	39	31.8	L535B**EXT-FC
MTVNR-3232M5	32	32	178	39	38.1	L535B**EXT-FC

MTVNR-54

External threading toolholder, for double-sided lay down inserts



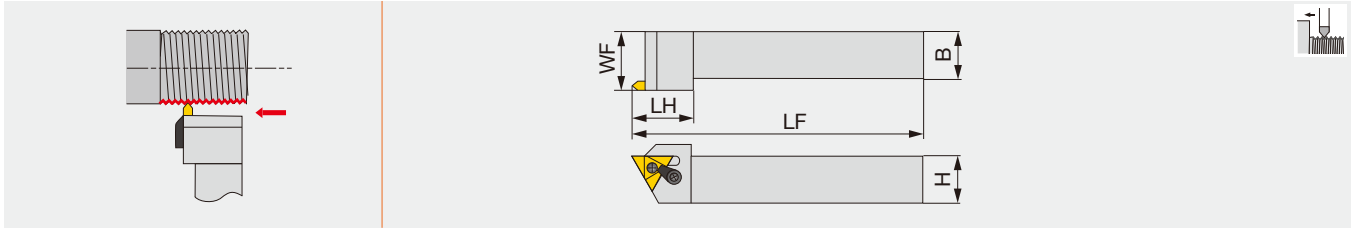
Designation	H	B	LF	LH	WF	Insert
MTVNR-3232M54	32	32	178	39	38.1	LDS54**FT-CB#...

SPARE PARTS

Designation	 Shim	 Lock pin	 Clamp	 Clamping screw	 Wrench
MTVNR-..., MTVNR-3232M54	LS53NOFORMEXT	NL-58	TC-250	STC-11	1/8HEX



Multi-clamp external threading toolholder, for on edge inserts

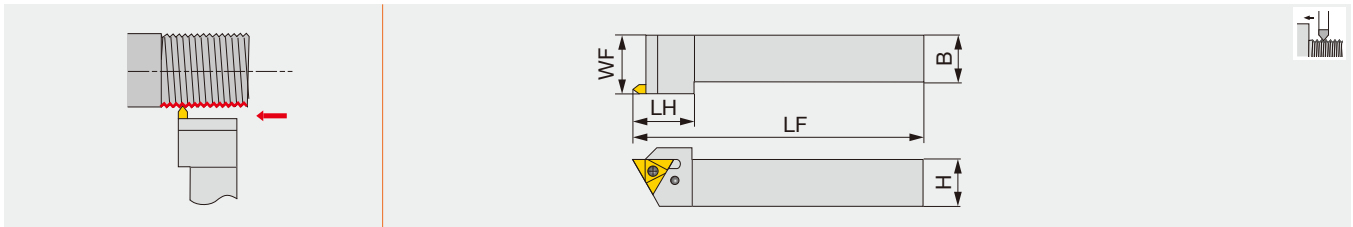


Designation	H	B	LF	LH	WF	Insert
MTVOR-2525M4	25	25	150	31	31.7	TNM*43...
MTVOR-3232M4	32	32	170	32	38.1	TNM*43...
MTVOR-2525M5	25	25	150	36	31.7	TNM*54...
MTVOR-3232M5	32	32	178	36	38.1	TNM*54...

Note: STVOR is recommended for TNMC insert although the insert can be used on multi-clamp (M type) toolholder.

STVOR

Screw-on external threading toolholder, for on edge inserts



Designation	H	B	LF	LH	WF	Insert
STVOR-2525M4	25	25	150	31	31.7	TNMC43...
STVOR-3232M4	32	32	178	31	38.1	TNMC43...
STVOR-2525M5	25	25	150	36	31.7	TNMC54...
STVOR-3232M5	32	32	178	36	38.1	TNMC54...

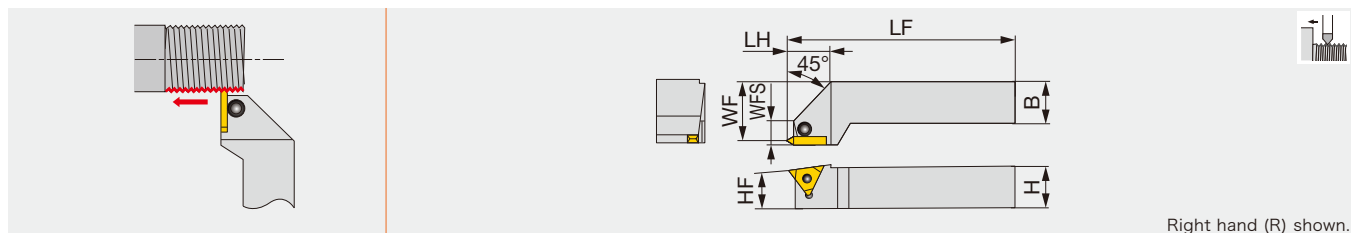
SPARE PARTS



Designation	Clamping screw	Lock pin	Wrench 1	Wrench 2	Clamp (Optional)	Clamping screw (Optional)
MTVOR-**M4	-	NL-44	-	3/32HEX	TC-190	STC-5
MTVOR-**M5	-	NL-56	-	1/8HEX	TC-250	STC-11
STVOR-**M4	SD2	-	T-20TORX	3/32HEX	TC-190	STC-9
STVOR-**M5	SD3	-	T-20TORX	1/8HEX	TC-250	STC-11

TT-R/LE

TT-type pin-lock external threading toolholder

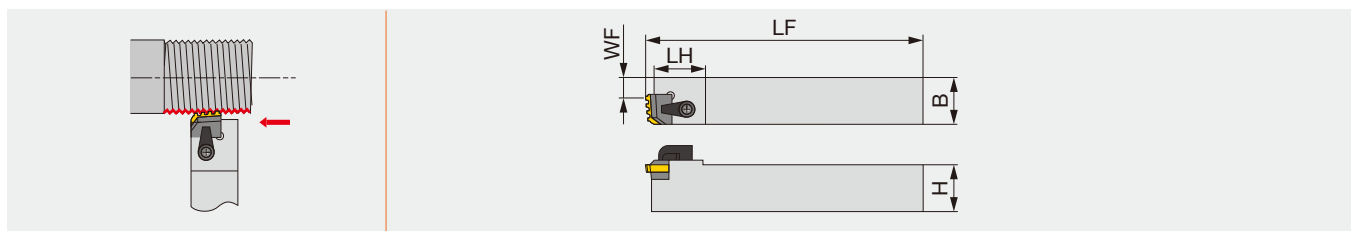


Right hand (R) shown.

Designation	H	B	LF	LH	HF	WF	WFS	Insert
TT-2525R/LE	25	25	150	25	25	32	15	TTR/L42...

CLVOR

External threading toolholder, for chaser inserts



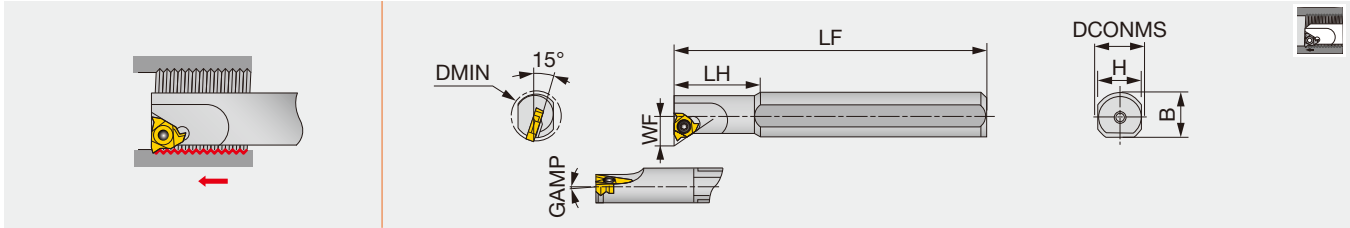
Designation	WF	LF	LH	H	B	Insert
CLVOR-25M6	16.1	177	32	25	25	CR...
CLVOR-32M6	16.1	177	32	32	32	CR...
CLVOR-40M8	21	170	38.1	40	40	CR-5B75-4E

SPARE PARTS

Designation	Shim	Shim screw	Clamp 1	Clamp 2	Clamping screw	Wrench 1	Wrench 2
TT-2525R/LE	-	-	CP91	-	DS-6	-	P-3
CLVOR-25M6	TF1207	SF80	-	TC-311	STC-4	T-25TORX	5/32HEX
CLVOR-32M6	TF1207	SF85	-	TC-311	STC-4	T-25TORX	5/32HEX
CLVOR-40M8	TF8132-E	SF60	-	TC-311	STC-4	T-20TORX	5/32HEX

Reference pages: TT-R/LE : Inserts → **E014, E016**
CLVOR : Inserts → **E026, E031 - E034**

Internal threading bars, Screw-on clamp



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	B	GAMP	Coolant hole	Insert
SIR0005H06	STEEL	6.4	12	4.3	100	12	11	-	1.5°	Without	06IR...
SIR0007K08	STEEL	8	16	5.3	125	18	15	-	1.5°	Without	08IR...
SIR0005H06CB	CARBIDE	6.4	6	4.3	100	25	5	-	1.5°	With	06IR...
SIR0007K08CB	CARBIDE	7.8	8	5.3	125	30	7	-	1.5°	With	08IR...

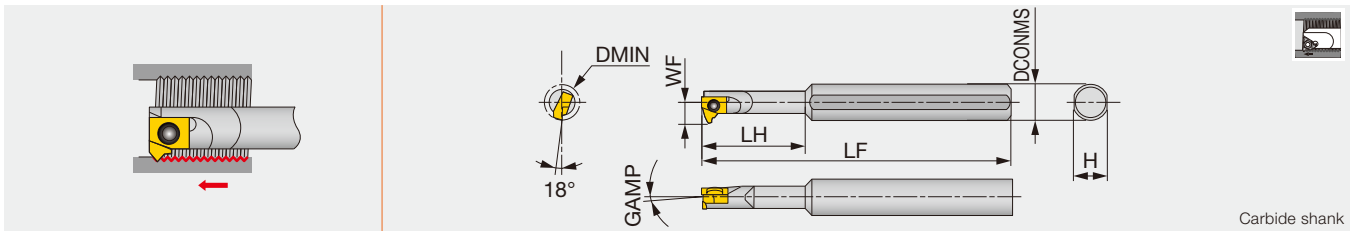
Note: Use the right-hand insert (**IR...) for a right-hand holder (SIR...).
Recommend over 1 mm clearance between internal diameter of thread and each tools DMIN.

Applicable thread size

Description	ISO metric	Unified IRA60 Insert	Parallel pipe IRA55 Insert
SIR0005H06...	≥ M9	≥ 3/8-24 UNF	≥ G1/8
SIR0007K08...	≥ M11	≥ 7/16-20 UNF	≥ G1/4

SNR-2/3

Screw-on internal threading toolholder



Designation	Material	DMIN	DCONMS	WF	LF	LH	H	GAMP	Insert
SNR0006H06-2	Steel	8	8	4.7	100	18	7	2°	6IR...
SNR0006H06-3	Steel	8	8	4.7	100	18	7	3°	6IR...
SNR0008H06-2	Steel	10	8	5.7	100	18	7	2°	6IR...
SNR0008H06-3	Steel	10	8	5.7	100	18	7	3°	6IR...
SNR0006K06SC-2	Carbide	8	8	4.7	125	30	7	2°	6IR...
SNR0006K06SC-3	Carbide	8	8	4.7	125	30	7	3°	6IR...
SNR0008K06SC-2	Carbide	10	8	5.7	125	18	7	2°	6IR...
SNR0008K06SC-3	Carbide	10	8	5.7	125	18	7	3°	6IR...

Note: Use the right-hand insert (6IR...) for a right-hand holder (SNR...).

SPARE PARTS

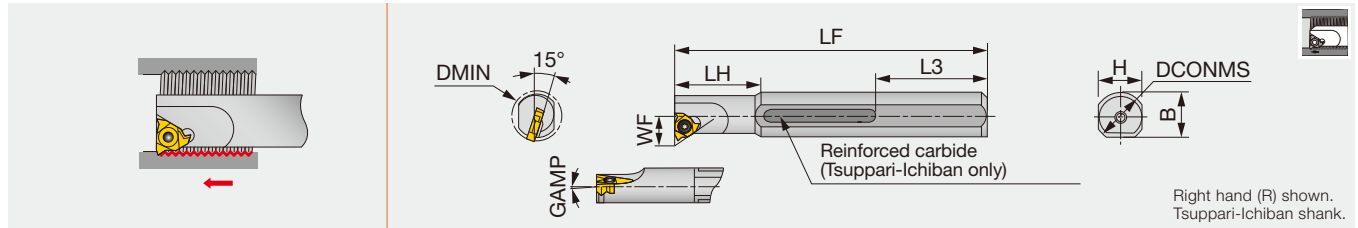


Designation	Clamping screw	Wrench
SIR0005H06...	SR 14-552	T-6F-S
SIR0007K08...	SR 14-558	T-6F-S
SNR0006H06...	CSTB-2L040	T-6F
SNR0008H06...	CSTB-2L	T-6F
SNR0006K06SC...	CSTB-2L040	T-6F
SNR0008K06SC...	CSTB-2L	T-6F

Reference pages: SIR : Inserts → **E010, E015, E017**
SNR-2/3 : Inserts → **E010, E015, E017, E023 - E025**

SNR/L

Screw-on internal threading toolholder



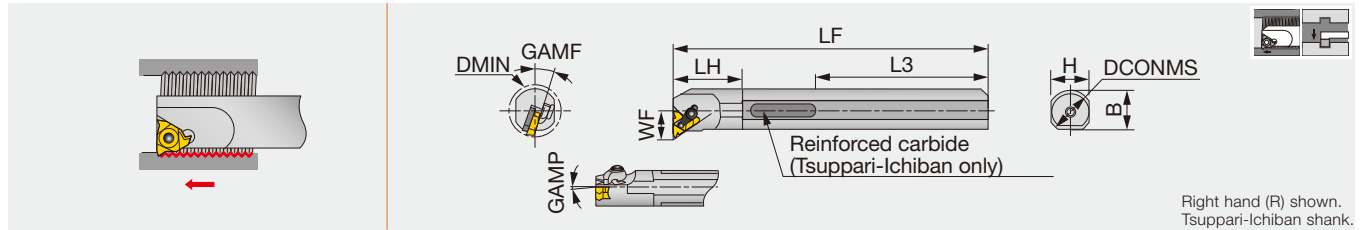
Designation	Material	DMIN	DCONMS	WF	LF	LH	L3	H	B	GAMP	Insert
TSNR0016Q16	Reinforced	19	16	10.6	180	40	59	15	-	1°	16IR...
TSNR0020R22	Reinforced	24	20	13.9	200	50	49	18	-	1°	22IR...
SNR/L0010K11	Steel	12	16	6.6	125	25	-	15	15.5	1°	11IR/L...
SNR0010K11-2	Steel	12	16	6.6	125	25	-	15	15.5	2°	11IR...
SNR0010K11-3	Steel	12	16	6.6	125	25	-	15	15.5	3°	11IR...
SNR/L0013L11	Steel	15	16	8.2	140	32.5	-	15	15.5	1°	11IR/L...
SNR0013L11-2	Steel	15	16	8.2	140	32.5	-	15	15.5	2°	11IR...
SNR0013L11-3	Steel	15	16	8.2	140	32.5	-	15	15.5	3°	11IR...
SNR/L0016M16	Steel	19	16	10.6	150	40	-	15	15.5	1°	16IR/L...
SNR0016M16-2	Steel	19	16	10.6	150	40	-	15	15.5	2°	16IR...
SNR0016M16-3	Steel	19	16	10.6	150	40	-	15	15.5	3°	16IR...
SNR/L0020Q22	Steel	24	20	13.9	180	50	-	18	19	1°	22IR/L...
SNR0020Q22-2	Steel	24	20	13.9	180	50	-	18	19	2°	22IR...
SNR0020Q22-3	Steel	24	20	13.9	180	50	-	18	19	3°	22IR...
SNR0010M11SC	Carbide	13	10	7.4	150	24	-	9	-	1°	11IR...
SNR0010M11SC-2	Carbide	13	10	7.4	150	24	-	9	-	2°	11IR...
SNR0010M11SC-3	Carbide	13	10	7.4	150	24	-	9	-	3°	11IR...
SNR0012P11SC	Carbide	15	12	8.5	170	28	-	11	-	1°	11IR...
SNR0012P11SC-2	Carbide	15	12	8.5	170	28	-	11	-	2°	11IR...
SNR0012P11SC-3	Carbide	15	12	8.5	170	28	-	11	-	3°	11IR...
SNR/L0016R16SC	Carbide	20	16	11.9	200	35	-	15	-	1°	16IR/L...
SNR0016R16SC-2	Carbide	20	16	11.9	200	35	-	15	-	2°	16IR...

Note: Use the right-hand insert (**IR...) for a right-hand holder (SNR...); the left-hand insert (**IL...) for a left-hand holder (SNL...).

SPARE PARTS

Designation	Clamping screw	Wrench
TSNR0016Q16	CSTB-3.5	T-15F
TSNR0020R22	CSTB-4	T-15F
SNR/L00**11...	CSTB-2.5	T-8F
SNR/L0016M16...	CSTB-3.5	T-15F
SNR/L0020Q22...	CSTB-4	T-15F
SNR00**11SC...	CSTB-2.5	T-8F
SNR/L0016R16SC...	CSTB-3.5	T-15F

Clamp-on internal threading toolholder (alternative clamping of screw-on or clamp-on only for DT type)



Designation	Material	DMIN	DCONMS	WF	LF	LH	L3	H	B	GAMF	GAMP	Insert
TCNR0020R16DT	Reinforced	24	20	14	200	30	49	18	-	15°	1°	16IR...
TCNR0025S16DT	Reinforced	29	25	16.5	250	38	64	23	-	15°	1°	16IR...
TCNR0025S22DT	Reinforced	30	25	18.2	250	38	64	23	-	15°	1°	22IR...
CNR/L0020P16	Steel	24	20	14	170	30	-	18	19	15°	1°	16IR/L...
CNR/L0025R16	Steel	29	25	16.5	200	38	-	23	24	15°	1°	16IR/L...
CNR/L0032S16	Steel	37	32	20.1	250	48	-	30	31	15°	1°	16IR/L...
CNR/L0025R22	Steel	30	25	18.2	200	38	-	23	24	15°	1°	22IR/L...
CNR/L0032S22	Steel	38	32	21.9	250	48	-	30	31	15°	1°	22IR/L...
CNR0040T27	Steel	46	40	26.9	300	60	-	37	38.5	10°	1°	27IR...

Note: A clamp set consists of a clamp and a clamping screw.

A shim set consists of a shim and a shim screw to secure the shim to the shank.

Standard shims can be used on both right- and left-hand toolholders. Please use either of the sides depending on the tool hand.

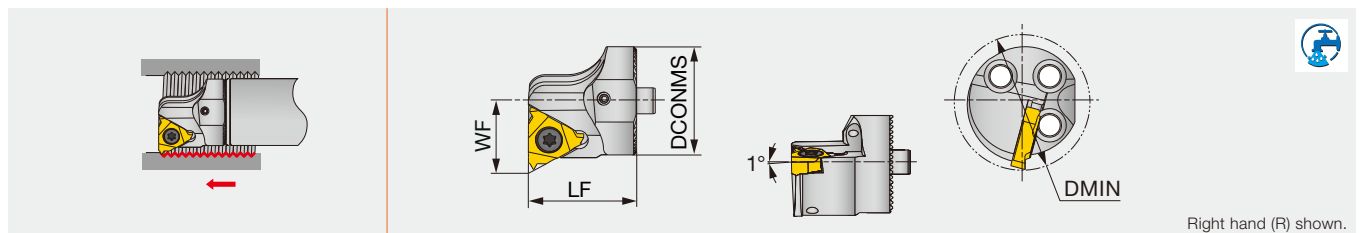
Use the right-hand insert (**IR...) for a right-hand holder (CNR...); the left-hand insert (**IL...) for a left-hand holder (CNL...).

When using DT type, please remove either the clamp set or the insert clamping screw.

BOREMEISTER

S-SNR-H

Screw-on clamp exchangeable boring head, for threading inserts



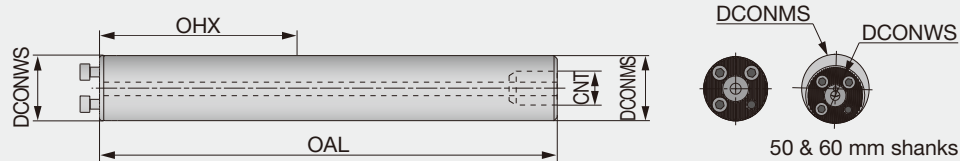
Designation	DMIN	DCONMS	WF	LF	Shank	Insert
S20-SNR16-H	25	20	14	25	D20	16IR...
S25-SNR16-H	32	25	17	25	D25	16IR...
S32-SNR16-H	40	32	22	32	D32	16IR...
S40-SNR16-H	50	40	27	32	D40, D50, D60	16IR...

SPARE PARTS

Designation	Clamp set	Clamping screw	Shim screw	Shim	Shim set R	Shim set L	Wrench 1	Wrench 2	Wrench 3
TCNR002**16DT	CSP16	CSTB-3.5ST	DTS5-3.5	A16-1DT	-	-	P-3.5	T-15F	-
TCNR0025S22DT	CSP22	CSTB-4ST	DTS6-4	GX22-1DT	-	-	P-4	T-15F	T-20F
CNR/L**16	CSP16	-	-	-	A16-1	A16-1	-	T-15F	-
CNR/L**22	CSP22	-	-	-	NXN22-1	NXE22-1	-	T-20F	-
CNR0040T27	CSP27	-	-	-	NXN27-1	NXE27-1	P-4	-	-
S**-SNR16-H	-	CSTB-3.5	-	-	-	-	-	T-15F	-

Reference pages: CNR/L : Inserts → **E010 - E011, E015, E017 - E030, E032**
S-SNR-H : Inserts → **E010 - E011, E015, E018 - E030**

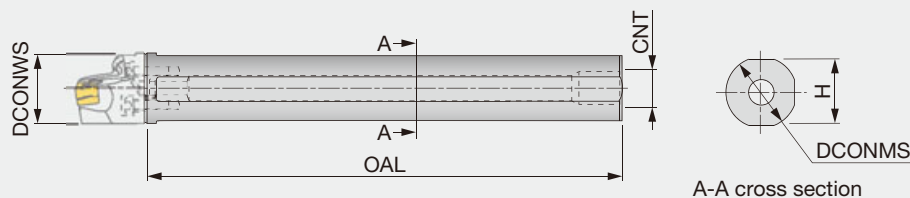
Anti-vibration bars with through coolant for interchangeable turning heads



Designation	Material	DCONWS	DCONMS	OAL	OHX	CNT
D16-L156-7D-C	Steel	16	16	156.3	92	G1/8
G16-L204-10D-E	Carbide	16	16	204.3	140	-
D20-L200-7D-C	Steel	20	20	200.3	120	G1/4
G20-L260-10D-E	Carbide	20	20	260.3	180	-
D25-L255-7D-C	Steel	25	25	257.5	155	G1/4
D25-L330-10D-C	Steel	25	25	332.5	230	G1/4
D32-L320-7D-C	Steel	32	32	323	192	G3/8
D32-L416-10D-C	Steel	32	32	419	288	G3/8
D40-L408-7D-C	Steel	40	40	411	248	G1/2
D40-L528-10D-C	Steel	40	40	531	368	G1/2
D50-L518-7D-C	Steel	40	50	523	318	G1/2
D50-L668-10D-C	Steel	40	50	673	468	G1/2
D60-L628-7D-C	Steel	40	60	633	388	G3/4
D60-L808-10D-C	Steel	40	60	813	568	G3/4

D#4D-SH

Steel shank for internal turning, with through coolant

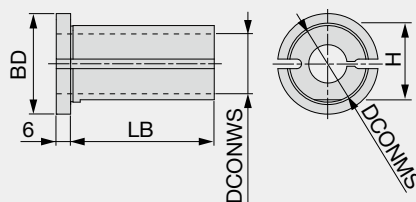


Designation	Material	DCONWS	DCONMS	OAL	CNT	H
D16-L105-4D-SH	Steel	16	16	105	UNC-2B 3/8"-16	15
D20-L140-4D-SH	Steel	20	20	140	UNFC-2B 3/8"-24	18
D25-L200-4D-SH	Steel	25	25	200	UNF-2B 1/2"-20	23
D32-L218-4D-SH	Steel	32	32	218	UNF-2B 1/2"-20	29
D40-L283-4D-SH	Steel	40	40	283	UNF-2B 1/2"-20	36

SPARE PARTS



Designation	Clamping screw	Wrench
D16-L..., G16-L..., D16**4D-SH	SRM3X10DIN912	HW2.5
D20-L..., G20-L..., D20**4D-SH	SR55-2M3.5X10	HW2.5
D25-L..., D25**4D-SH	SRM4X12DIN912	HW3.0
D32-L..., D32**4D-SH	SRM5X12DIN912	HW4.0
D40-L..., D50-L..., D60-L..., D40**4D-SH	SRM6X16DIN912-12.9	HW5.0



Designation	DCONWS	DCONMS	BD	LB	H
RSL-32-16-L66	16	32	42	60	31
RSL-32-20-L66	20	32	42	60	31
RSL-32-25-L66	25	32	42	60	31
RSL-40-16-L76	16	40	50	70	38.5
RSL-40-20-L76	20	40	50	70	38.5
RSL-40-25-L76	25	40	50	70	38.5

C#-SH-CHP / C#-SH-E-CHP

PSC compatible adapter with steel or carbide core

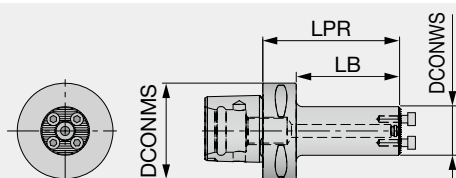


Fig. 1

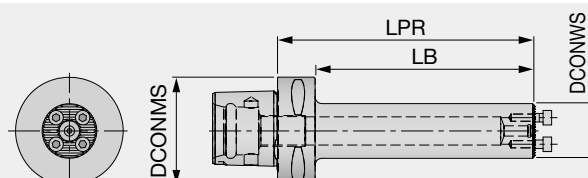


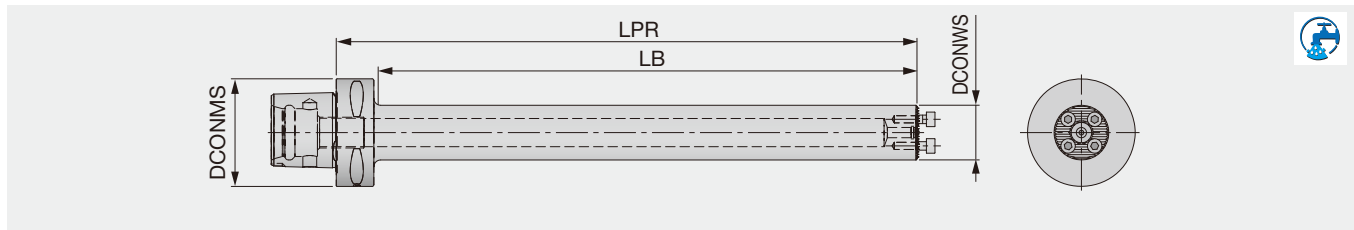
Fig. 2

Designation	Material	DCONWS	DCONMS	LPR	LB	Fig
C4-SH-D16-2.5D-CHP	Steel	16	40	40	20	1
C4-SH-D20-2.5D-CHP	Steel	20	40	50	30	1
C4-SH-D25-2.5D-CHP	Steel	25	40	55	35	1
C4-SH-D32-2.5D-CHP	Steel	32	40	75	55	1
C4-SH-D40-3D-CHP	Steel	40	40	80	80	1
C6-SH-D20-5D-E-CHP	Carbide	20	63	100	78	2
C6-SH-D25-5D-E-CHP	Carbide	25	63	115	93	2
C6-SH-D32-5D-E-CHP	Carbide	32	63	150	128	2
C6-SH-D40-5D-E-CHP	Carbide	40	63	185	163	2

SPARE PARTS



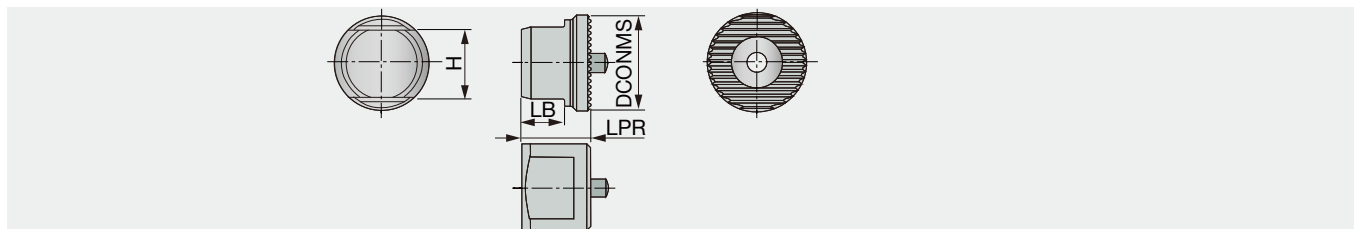
Designation	Clamping screw
C4**D16...	SRM3X10DIN912
C4/C6**D20...	SR55-2M3.5X10
C4/C6**D25...	SR M4X12DIN912
C4/C6**D32...	SR M5X12 DIN912
C4/C6**D40...	SRM6X16DIN912-12.9



Designation	Material	DCONWS	DCONMS	LPR	LB	WT (kg)
C6-D25-L230-9D-C	Steel	25	63	230.5	200.1	1.65
C6-D32-L288-9D-C	Steel	32	63	288.5	259.5	2.73
C6-D40-L368-9D-C	Steel	40	63	368.5	339	4.45

AVC-SET

Center height set up device



Designation	DCONMS	H	LPR	LB	Applicable shank
AVC-SET 16-25	20	15	14.5	8.9	16, 20, 25
AVC-SET 32-60	29	16	17.5	11.43	32, 40, 50, 60

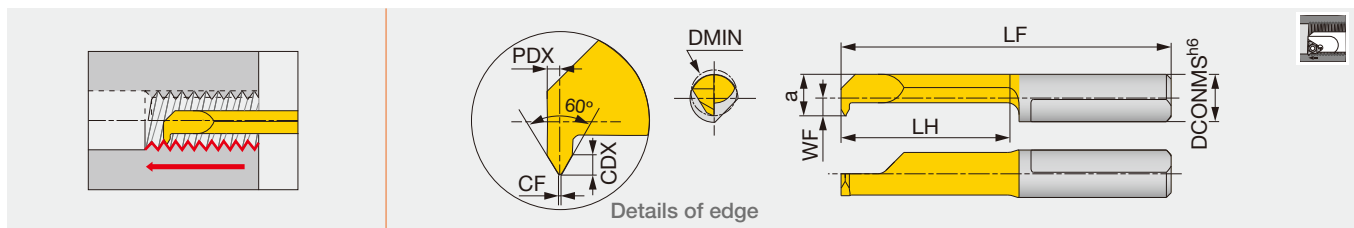
SPARE PARTS

Designation	Clamping screw	Wrench
C6-D25...	SRM4X12DIN912	HW3.0
C6-D32...	SRM5X12DIN912	HW4.0
C6-D40...	SRM6X16DIN912-12.9	HW5.0

TINYM^{INI}TURN

TBIR

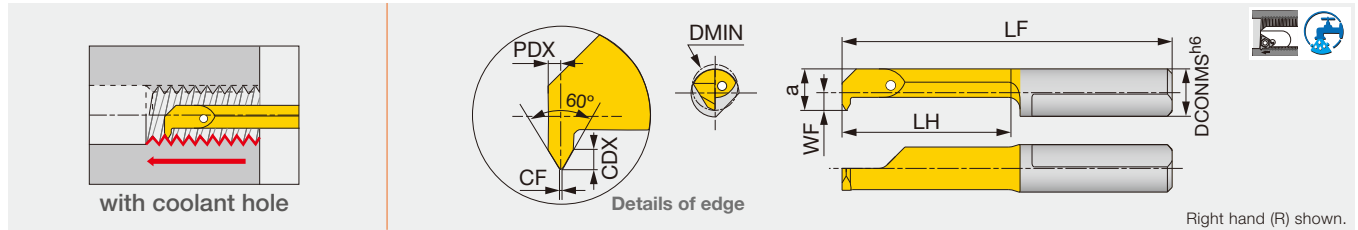
Solid boring bar for internal threading



Designation	SH725	Pitch	DMIN	CF- ⁰ _{0.02}	DCONMS	WF	a	LF	LH	CDX	PDX
TBIR04140050-D040	●	0.5	4	0.06	4	1.5	3.5	30	14	0.3	0.35
TBIR07140050-D050	●	0.5	5	0.06	7	0.9	4.4	30	14	0.3	0.35
TBIR07140075-D050	●	0.75	5	0.09	7	0.9	4.4	30	14	0.4	0.45
TBIR07140100-D048	●	1	4.8	0.12	7	0.9	4.4	30	14	0.6	0.55
TBIR07140100-D060	●	1	6	0.12	7	1.8	5.3	30	14	0.6	0.55
TBIR07140150-D060	●	1.5	6	0.18	7	1.8	5.3	30	14	0.8	0.75

● : Line up

Solid boring bars for threading (metric)



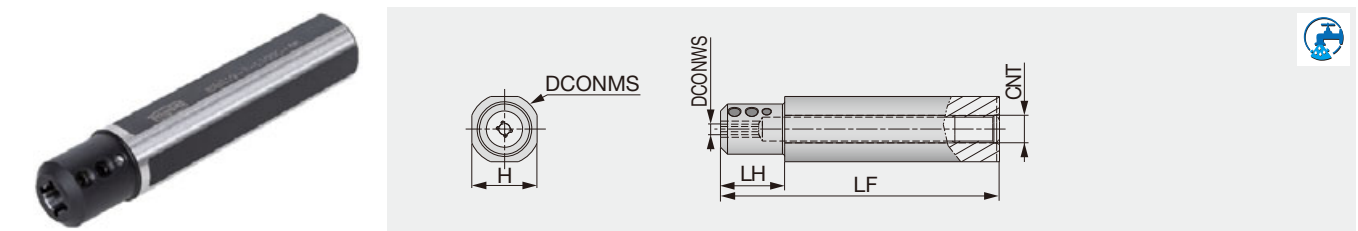
Right hand (R) shown.

Designation	SH730	Pitch	DMIN	CF $\frac{0}{0.02}$	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

JBBS-4N

Sleeve for internal coolant supply with 4 coolant holes



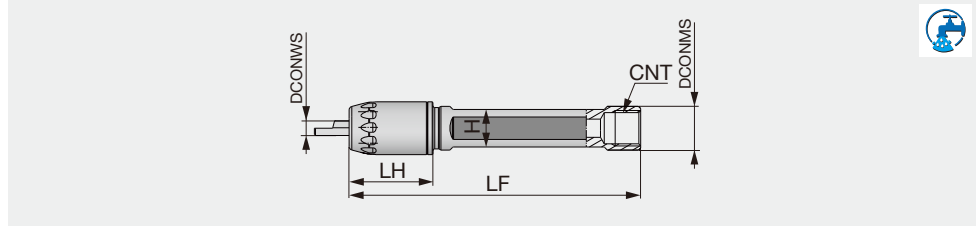
Designation	DCONMS	DCONWS	LF	LH	H	CNT
JBBS12-4-L80C-4N	12	4	80	10	10.3	Rc1/16
JBBS127-4-L80C-4N	12.7	4	80	10	11.6	Rc1/16
JBBS14-4-L80C-4N	14	4	80	10	12	Rc1/8
JBBS159-4-L100C-4N	15.875	4	100	10	14.58	Rc1/8
JBBS159-7-L100C-4N	15.875	7	100	10	14.58	Rc1/8
JBBS16-4-L100C-4N	16	4	100	10	15	Rc1/8
JBBS16-7-L100C-4N	16	7	100	10	15	Rc1/8
JBBS19-4-L100C-4N	19.05	4	100	20	17.2	Rc1/8
JBBS19-7-L100C-4N	19.05	7	100	20	17.2	Rc1/8
JBBS20-4-L100C-4N	20	4	100	20	18	Rc1/8
JBBS20-7-L100C-4N	20	7	100	20	18	Rc1/8
JBBS22-4-L100C-4N	22	4	100	20	20	Rc1/8
JBBS22-7-L100C-4N	22	7	100	20	20	Rc1/8
JBBS25-4-L100C-4N	25	4	100	23	23	Rc1/8
JBBS25-7-L100C-4N	25	7	100	23	23	Rc1/8
JBBS254-4-L100C-4N	25.4	4	100	23	23.4	Rc1/8
JBBS254-7-L100C-4N	25.4	7	100	23	23.4	Rc1/8

SPARE PARTS

Designation	Clamping screw	Wrench
JBBS**-4-L***C-4N	SSHMS-6PF-S	P-2.5
JBBS**-7-L***C-4N	SSHMS-4PF-S	P-2.5

JBBSA-C

Collet chuck sleeve with internal coolant supply



Designation	DCONMS	DCONWS	LF	LH	H	CNT
JBBSA12-4-L80C	12	4	80	23	10.3	Rc1/8
JBBSA127-4-L80C	12.7	4	80	23	11.6	Rc1/8
JBBSA14-4-L80C	14	4	80	23	12	Rc1/8
JBBSA159-4-L100C	15.875	4	100	23	14	Rc1/8
JBBSA159-7-L100C	15.875	7	100	23	14	Rc1/8
JBBSA16-4-L100C	16	4	100	23	14	Rc1/8
JBBSA16-7-L100C	16	7	100	23	14	Rc1/8
JBBSA19-4-L120C	19.05	4	120	23	17.2	Rc1/8
JBBSA19-7-L120C	19.05	7	120	23	17.2	Rc1/8
JBBSA20-4-L120C	20	4	120	23	18	Rc1/8
JBBSA20-7-L120C	20	7	120	23	18	Rc1/8
JBBSA22-4-L135C	22	4	135	23	20	Rc1/8
JBBSA22-7-L135C	22	7	135	23	20	Rc1/8
JBBSA25-4-L135C	25	4	120	23	23	Rc1/8
JBBSA25-7-L135C	25	7	120	23	23	Rc1/8
JBBSA254-4-L120C	25.4	4	120	23	23.4	Rc1/8
JBBSA254-7-L120C	25.4	7	120	23	23.4	Rc1/8

SPARE PARTS



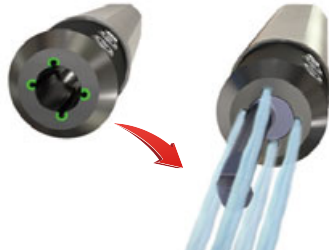
Designation	Cap	Wrench
JBBSA**-4-L...	CAP-A-4	WRENCH-A-4
JBBSA**-7-L...	CAP-A-7	WRENCH-A-7

New sleeve with four coolant holes for optimal performance

- Optimum sleeve option for all boring operations. Sleeves with four coolant holes can be used with all TinyMini-Turn tools
- 4 streams of coolant jets are directed to the cutting point, improving chip evacuation
- Sufficient coolant supply eliminates chip bird-nesting on the tools or workpiece, enabling trouble-free, unattended operation over an extended time
- Significantly prolongs tool life

Internal coolant sleeve

First recommendation!

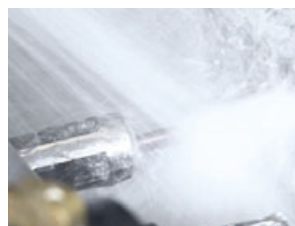


Excellent chip evacuation



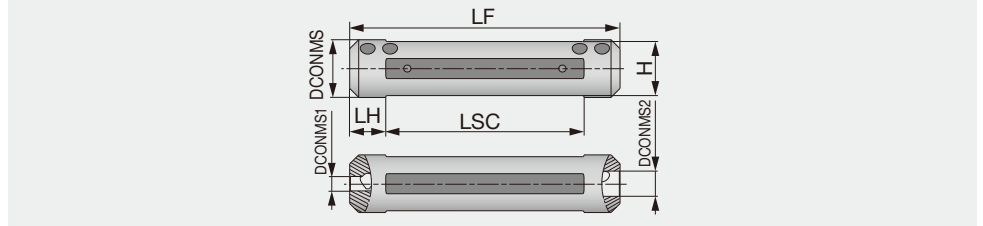
- No chip jamming
- No machine stoppage
- No downtime

Conventional (External coolant)



- Chip jamming
- Increased machine downtime

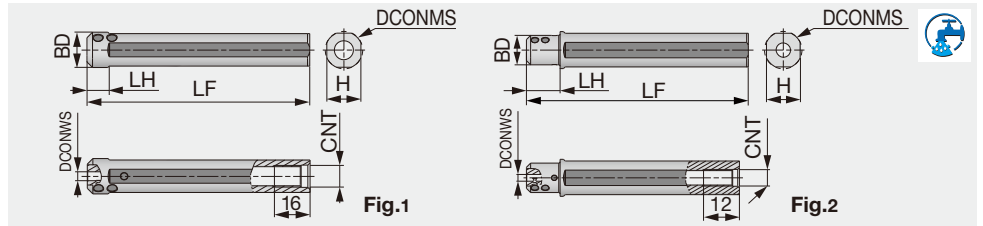
Sleeve for external coolant supply



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

JBBS-C

Sleeve for internal coolant supply

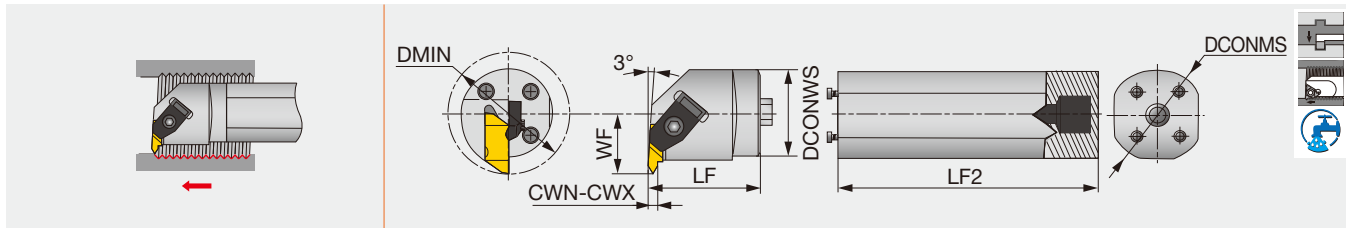


Designation	DCONMS	BD	DCONWS	LF	LH	H	CNT	Fig
JBBS159-4-L100C	15.875	15.875	4	100	10	14.58	Rc1/8	1
JBBS159-7-L100C	15.875	15.875	7	100	10	14.58	Rc1/8	1
JBBS16-4-L100C	16	16	4	100	10	15	Rc1/8	1
JBBS16-7-L100C	16	16	7	100	10	15	Rc1/8	1
JBBS19-4-L100C	19.05	17.5	4	100	20	17.2	Rc1/8	2
JBBS19-7-L100C	19.05	17.5	7	100	20	17.2	Rc1/8	2
JBBS20-4-L100C	20	17.5	4	100	20	18	Rc1/8	2
JBBS20-7-L100C	20	17.5	7	100	20	18	Rc1/8	2
JBBS22-4-L100C	22	17.5	4	100	20	20	Rc1/8	2
JBBS22-7-L100C	22	17.5	7	100	20	20	Rc1/8	2
JBBS25-4-L100C	25	18	4	100	23	23	Rc1/8	2
JBBS25-7-L100C	25	18	7	100	23	23	Rc1/8	2
JBBS254-4-L100C	25.4	18	4	100	23	23.4	Rc1/8	2
JBBS254-7-L100C	25.4	18	7	100	23	23.4	Rc1/8	2

SPARE PARTS



Designation	Clamping screw	Wrench
JBBS12-4-4, JBBS14-4-4 JBBS**-7-L100C	SSHM5-4PF-S	P-2.5
JBBS127-4-4, JBBS**-4-7 JBBS**-4-L100C	SSHM5-6PF-S	P-2.5



Designation	DMIN	DCONWS	LF	WF	Insert	Torque*
HS40-FLER3W	56.1	40	41.3	25.4	FLT-3L...	3
HS50-FLER3W	70.1	50	41.9	35	FLT-3L...	3

Torque* : Recommended clamping torque (N-m)

Note: Use the left-hand insert (FLT-3L...) for a right-hand holder (HS**-FLER...).

SPARE PARTS

Designation	Clamp	Clamping screw 2	Wrench
HS40-FLER3W	TF-73	S-412	5/32HEX
HS50-FLER3W	TF-73	S-412	5/32HEX

Shank

Designation	DCONMS	LF2
S-570-40M-40	40	273
S-570-50M-50	50	366

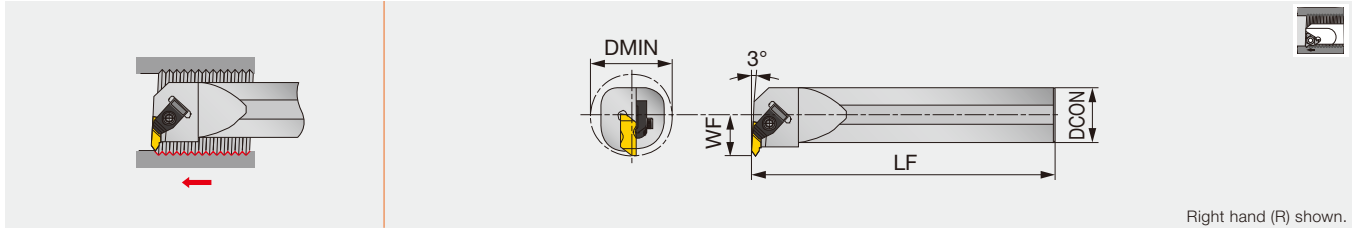
Spare parts

Designation	Clamping screw	Wrench
S-570-40M-40	SS100	5/32HEX
S-570-50M-50	SS94	1/4EX

TUNGST-CLAMP

A_M-FLER/L

Internal grooving and threading toolholder



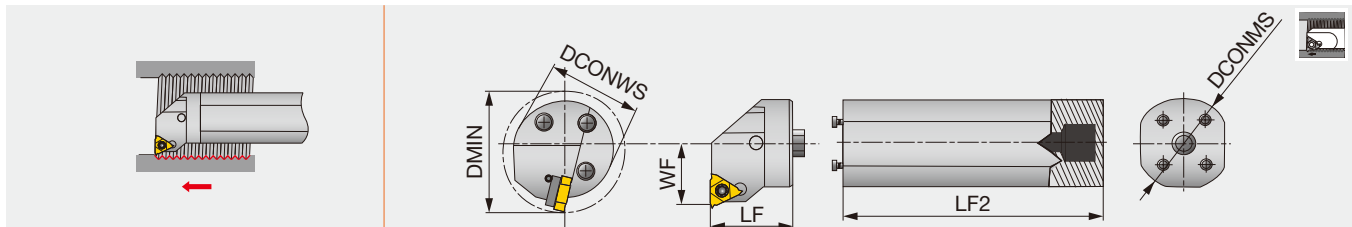
Right hand (R) shown.

Designation	Pitch	DMIN	DCON	LF	WF	Insert
A25M-FLER/L3	2.11 - 5.08	34.9	25	300	17.7	FLT-3...
A32M-FLER/L3	2.11 - 5.08	44.5	32	350	22.1	FLT-3...
A40M-FLER3	2.11 - 5.08	50.8	40	350	24.5	FLT-3L...

TUNGTHREAD

HS-LNFR-53

Head exchangeable internal threading, for single-sided lay down inserts



Designation	DMIN	DCONWS	WF	LF	Insert
HS40-LNFR-53	50	40	28.7	41.3	L535B**INT-FC
HS50-LNFR-53	63	50	32.7	41.3	L535B**INT-FC

SPARE PARTS

Designation	Lock pin	Clamp 1	Clamp 2	Clamping screw 1	Clamping screw 2	Wrench
A**M-FLER3	-	TF-73	-	S-412	-	5/32HEX
A**M-FLEL3	-	TF-72	-	S-412	-	5/32HEX
HS**-LNFR-53	NL-56	-	TC-250	-	STC-11	1/8HEX

Shank

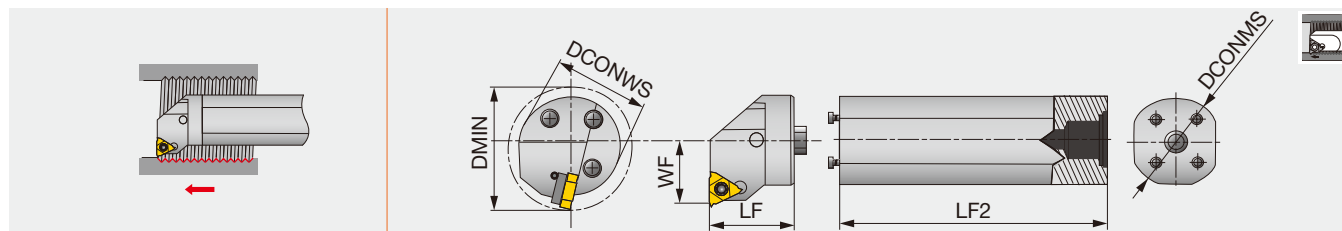
Designation	DCONMS	LF2
S-570-40M-40	40	273
S-570-50M-50	50	366

SPARE PARTS

Designation	Clamping screw	Wrench
S-570-40M-40	SS100	5/32HEX
S-570-50M-50	SS94	1/4EX

Reference pages: A_M-FLER/L : Inserts → [E014](#)
HS-LNFR-53 : Inserts → [E032](#)

Head exchangeable internal threading toolholder, for double-sided lay down inserts



Designation	DMIN	DCONWS	WF	LF	Insert
HS40-LNFR-54API	50	40	27	32	LDS54**FT-CB#...
HS50-LNFR-54API	63	50	35	40	LDS54**FT-CB#...

Shank

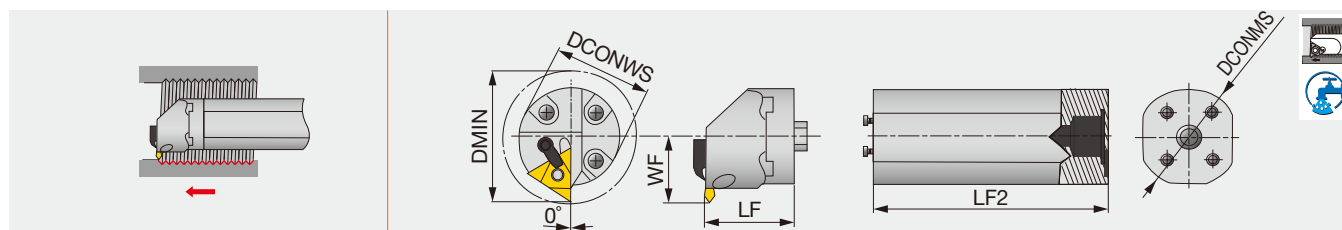
Designation	DCONMS	LF2
S-570-40M-40	40	273
S-570-50M-50	50	366

SPARE PARTS

Designation	Clamping screw	Wrench
S-570-40M-40	SS100	5/32HEX
S-570-50M-50	SS94	1/4EX

HS-MTHOR

Multi-clamp internal threading toolholder, for on edge inserts



Designation	DMIN	DCONWS	WF	LF	Insert
HS40-MTHOR-4	66.7	40	25.9	32	TNM*43...
HS50-MTHOR-4	73	50	35.9	40	TNM*43...
HS40-MTHOR-5	81.3	40	30.6	32	TNM*54...
HS50-MTHOR-5	82.6	50	35.9	40	TNM*54...

Shank

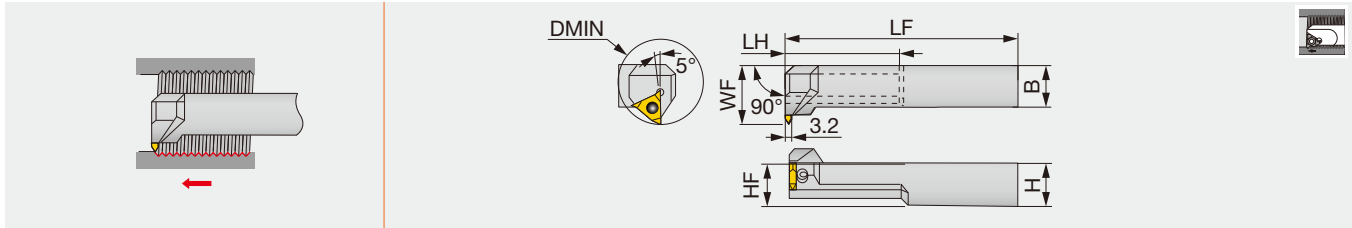
Designation	DCONMS	LF2
S-570-40M-40	40	273
S-570-50M-50	50	366

SPARE PARTS

Designation	Clamping screw	Wrench
S-570-40M-40	SS100	5/32HEX
S-570-50M-50	SS94	1/4EX

SPARE PARTS

Designation	Lock pin	Clamp	Clamping screw	Wrench
HS40-LNFR-54API	H410-1	TC-250	STC-11	1/8HEX
HS50-LNFR-54API	NL-56	TC-250	STC-11	1/8HEX
HS**-MTHOR-4	NL-44	TC-190	STC-5	3/32HEX
HS**-MTHOR-5	NL-56	TC-250	STC-11	1/8HEX

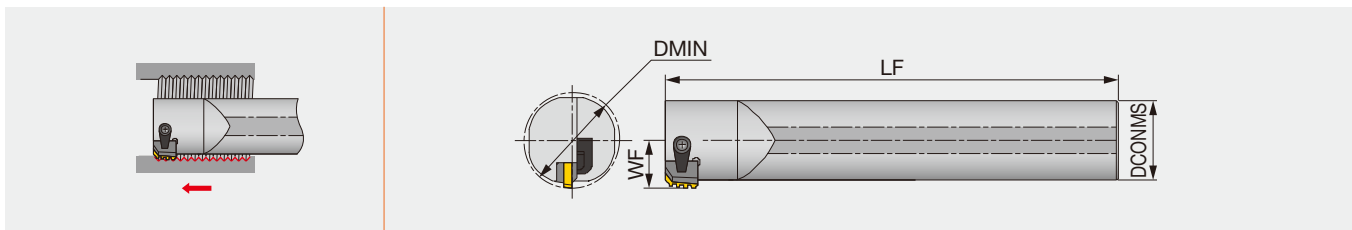


Designation	DMIN	H	B	LF	LH	HF	WF	Insert
TT-2525RI	50	25	25	200	70	25	35	TTL42...

Note: Use the left-hand insert (TTL42...) for a right-hand holder (TT-2525RI).

SI-CLHOR

Internal threading toolholder, for chaser inserts



Designation	DMIN	DCONMS	WF	LF	Insert
SI-CLHOR-40M6	50.8	40	23.16	400	CR...

SPARE PARTS

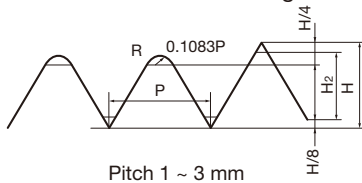
Designation	Clamp	Clamp	Right-left screw	Wrench
TT-2525RI	CP91	-	DS-6	P-3
SI-CLHOR-40M6	-	TC-311	STC-8	5/32HEX

Reference pages: TT-RI : Inserts → [E014](#), [E016](#)

SI-CLHOR : Inserts → [E026](#), [E031](#)

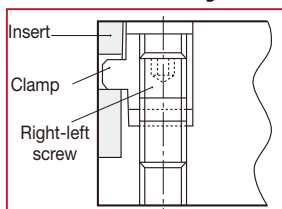
Technical Guide

- Relationship between pitch, depth of cut and number of passes for external metric threading



Note: Maximum machinable pitch is 3 mm.

Part assembly



	P	1	1.25	1.5	1.75	2	2.5	3
	H ₂	0.6	0.76	0.92	1.09	1.25	1.57	1.9
	H	0.866	1.083	1.299	1.516	1.732	2.165	2.598
Number of passes	1	0.25	0.3	0.3	0.3	0.35	0.4	0.4
	2	0.15	0.2	0.25	0.25	0.25	0.3	0.35
	3	0.1	0.1	0.15	0.2	0.2	0.25	0.28
	4	0.05	0.06	0.1	0.1	0.16	0.2	0.2
	5	0.05	0.06	0.05	0.1	0.1	0.15	0.2
	6		0.06	0.05	0.07	0.07	0.1	0.13
	7			0.02	0.05	0.05	0.07	0.1
	8				0.02	0.02	0.05	0.1
	9					0.02	0.03	0.05
	10						0.02	0.05
	11							0.02
	12							0.02

STANDARD CUTTING CONDITIONS

TUNGTHREAD

ISO	Workpiece material	Hardness	Cutting speed: Vc (m/min)						
			AH8015	T05HP	AH725	T313V	NS9530	TH10	BX330
P	Steel / Alloy steel S45C, SCM440, etc. C45, 42CrMoS4, etc.	< 200HB	80 - 180	100 - 200	80 - 180	100 - 200	150 - 200	-	-
		> 200HB	60 - 160	100 - 150	60 - 160	100 - 150	100 - 170	-	-
M	Stainless steel SUS304, etc. X5CrNi18-9, etc.	-	50 - 130	70 - 130	50 - 130	70 - 130	-	-	-
K	Cast iron FC250, FC300, etc. 250, 300, etc.	-	60 - 150	70 - 150	50 - 100	70 - 150	-	70 - 90	-
N	Non-ferrous metal	-	-	-	-	-	-	100 - 500	-
S	Superalloys Ti-6Al-4V, Inconel718, etc.	-	20 - 80	-	-	-	-	10 - 40	-
H	Hardened steel	50 - 60HRC	-	-	-	-	-	10 - 30	50 - 200

TETRAMCUT

TCT18R/L / TCT18FR

ISO	Workpiece material	Hardness	Priority	Grade	Cutting speed Vc (m/min)	Pitch (mm)	Threads per inch (TPI)
P	Steel / Alloy steel S45C, SCM440, etc. C45, 42CrMoS4, etc.	< 200HB	First choice	SH725	60 - 150	0.4 - 2.0	64 - 12
			Fracture resistance	AH725	60 - 150	0.8 - 3.0	32 - 8
		> 200HB	First choice	SH725	60 - 150	0.4 - 2.0	64 - 12
			Fracture resistance	AH725	60 - 150	0.8 - 3.0	32 - 8
M	Stainless steel SUS304, etc. X5CrNi18-9, etc.	-	First choice	SH725	50 - 80	0.4 - 2.0	64 - 12
		-	Fracture resistance	AH725	50 - 80	0.8 - 3.0	32 - 8
K	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	Superalloys Ti-6Al-4V, Inconel718, etc.	-	First choice	SH725	30 - 100	0.4 - 2.0	64 - 12
		-	Fracture resistance	AH725	30 - 100	0.8 - 3.0	32 - 8

DUOJUST CUT

ISO	Workpiece material	Hardness	Grade	Cutting speed Vc (m/min)	Pitch (mm)	Threads per inch (TPI)
P	Steel / Alloy steel S45C, SCM440, etc. C45, 42CrMoS4, etc.	< 200HB	SH725	50 - 200	0.2 - 1.5	127 - 16
		> 200HB	SH725	50 - 200	0.2 - 1.5	127 - 16
M	Stainless steel SUS304, etc. X5CrNi18-9, etc.	-	SH725	50 - 200	0.2 - 1.5	127 - 16
N	Aluminium alloys A5056, A6061, etc.	-	SH725	150 - 200	0.2 - 1.5	127 - 16
	Copper alloy C2600, C280C, etc.	-	SH725	100 - 200	0.2 - 1.5	127 - 16
S	Superalloys Ti-6Al-4V, Inconel718, etc.	-	SH725	30 - 80	0.2 - 1.5	127 - 16

Reference pages: TungThread : Inserts → **E010 - E011, E015 - E035**

External toolholders → **E036 - E040, E051 - E053**

Internal toolholders → **E054 - E056, E064 - E066**

TetraMini-Cut: Inserts → **E012**, External toolholders → **E041 - E045**

DuoJust-Cut : Inserts → **E012**, External toolholders → **E047 - E048**

Technical Guide

STANDARD CUTTING CONDITIONS

TUNG^T-CLAMP

ISO	Workpiece material	Hardness	Grade	Application	Cutting speed V _c (m/min)	Pitch (mm)	Threads per inch (TPI)
P	Steel / Alloy steel S45C, SCM440, etc. C45, 42CrMoS4, etc.	< 200HB	AH725	Threading	80 - 180	Internal 2.11 - 5.08 External 1.27 - 4.23	Internal 5 - 12 External 6- 20
		> 200HB	AH725	Threading	60 - 160	Internal 2.11 - 5.08 External 1.27 - 4.23	Internal 5 - 12 External 6- 20
M	Stainless steel SUS304, etc. X5CrNi18-9, etc.	-	AH725	Threading	50 - 130	Internal 2.11 - 5.08 External 1.27 - 4.23	Internal 5 - 12 External 6- 20

TINY^{MINI}TURN



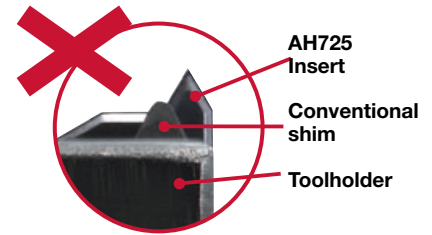
Internal threading

ISO	Workpiece material	Hardness	Grade	Cutting speed V _c (m/min)	Number of passes				
					Pitch (mm)				
					0.5	0.75	1	1.25	1.5
P	Steel / Alloy steel S45C, SCM440, etc. C45, 42CrMoS4, etc.	< 200HB	SH730, SH725	40 - 140	6 - 8	8 - 10	10 - 12	12 - 15	15 - 18
		> 200HB	SH730, SH725	40 - 140	6 - 8	8 - 10	10 - 12	12 - 15	15 - 18
M	Stainless steel SUS304, etc. X5CrNi18-9, etc.	-	SH730, SH725	40 - 140	8	10	12	15	18
K	Cast iron FC250, FC300, etc. 250, 300, etc.	-	SH730, SH725	30 - 100	7	9	12	14	17
N	Aluminium alloys, Copper alloy Si < 12%	-	SH730, SH725	90 - 200	6	8	10	12	15

Reference pages: TungT-Clamp : Inserts → **E014**, External toolholders → **E050**
Internal toolholders → **E063 - E064**
TinyMini-Turn: Solid carbide boring bars → **E059**

IMPORTANT - Replacement of shim

AH725 insert has 2 types of shims according to the chipbreaker geometry. Please find an appropriate shim in the table below. When using a wrong shim, the insert seating may become unstable or the tool life may be shortened.



Improper combination

Interchangeable shim (Insert size: 16)

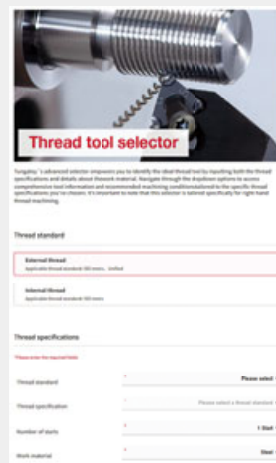
Toolholder screw type	Lead angle	External		Internal	
		① Conventional shim	① Standard (New)	② Conventional shim	② Standard (New)
Dual clamping methods of screw-on and clamp-on	4°	GXE16-4DT	AE16-4DT	GXN16-4DT	AN16-4DT
	3°	GXE16-3DT	AE16-3DT	GXN16-3DT	AN16-3DT
	2°	GXE16-2DT	AE16-2DT	GXN16-2DT	AN16-2DT
	1° (Standard)	GX16-1DT	A16-1DT	GX16-1DT	A16-1DT
	0°	GXE16-0DT	AE16-0DT	GXN16-0DT	AN16-0DT
	-1°	GXE16-99DT	AE16-99DT	GXN16-99DT	AN16-99DT
	-2°	GXE16-98DT	AE16-98DT	GXN16-98DT	AN16-98DT
Clamp-on	4°	GXE16-4	AE16-4	GXN16-4	AN16-4
	3°	GXE16-3	AE16-3	GXN16-3	AN16-3
	2°	GXE16-2	AE16-2	GXN16-2	AN16-2
	1° (Standard)	GXE16-1	A16-1	GXN16-1	A16-1
	0°	GXE16-0	AE16-0	GXN16-0	AN16-0
	-1°	GXE16-99	AE16-99	GXN16-99	AN16-99
	-2°	GXE16-98	AE16-98	GXN16-98	AN16-98

Shim to be replaced (Insert size: 16)

Thread	External		Replacement	Internal		Replacement
	Designation	Grade		Designation	Grade	
ISO			① Conventional shim ② Standard (New)	16IR15ISO-B	AH725	② Conventional shim ③ Standard (New)
				16IR175ISO-B	AH725	
				16IR20ISO-B	AH725	
55°	16ERAG55-B	AH725		16IRAG55-B	AH725	
				16IRG55-B	AH725	
60°	16ERA60-B	AH725		16IRAG60-B	AH725	
				16IRA60-B	AH725	
				16IRG60-B	AH725	
UN				16IR18UN-B	AH725	
				16IR16UN-B	AH725	
				16IR14UN-B	AH725	
W				16IR16W-B	AH725	
				16IR14W-B	AH725	
PT				16IR14PT-B	AH725	
NPT	16ER8NPT-B	AH725		16IR14NPT-B	AH725	
				16IR115NPT-B	AH725	

Optimize Your Thread Machining with Tungaloy's Selector

Tungaloy's advanced selector empowers you to identify the ideal thread tool by inputting both the thread specifications and details about the work material. Navigate through the dropdown options to access comprehensive tool information and recommended machining conditions tailored to the specific thread specifications you've chosen. It's important to note that this selector is tailored specifically for right-hand thread machining.



Scan this QR code to access the website

Parting, Grooving



Parting, Grooving - Content structure

- Products are listed by application.
- Each item is listed by product series.
- Internal grooving tools are listed according to the order of the minimum machining diameter (from small to larger).

How to use the page

Method ①

Select the application (①) at the left end of each page and choose a designation you need (④) in the dimension table (③). Applicable inserts are shown in (⑥).

TETRAMCUT
STCR/L-18
Precision grooving tools with uniquely shaped insert for swiss type machine and general lathes

Fig. 1 Fig. 2

① ④ ③ ⑥

Designation	CW	CWX	H	B	LF	LH	HF	WF	HBM	Insert	Torque*	Fig.
STCR/L1010X18	0.33	3.18	10	10	120	18.5	10	10	4.5	TC18...	1.2	1
STCR/L1212P18	0.33	3.18	12	12	85	18.5	12	12	2.5	TC18...	1.2	1
STCR/L1212X18	0.33	3.18	12	12	120	18.5	12	12	2.5	TC18...	1.2	1
STCR/L1616X18	0.33	3.18	16	16	120	18.5	16	16	-	TC18...	1.2	1
STCR/L2020H18	0.33	3.18	20	20	100	18.5	20	20	-	TC18...	1.2	1
STCR/L2020P18	0.33	3.18	20	20	100	23	20	25	-	TC18...	1.2	2
STCR/L2525Z18	0.33	3.18	25	25	135	23	25	30	-	TC18...	1.2	2

STCR/L-18-CHP
External grooving and threading toolholder, high pressure coolant compatible

③ ⑥

Method ②

Select the tool series name on **F004 - F005** and check the details on the product page.

Machining Overview

External grooving F012 page

Max. groove depth: 6.4 mm

Max. groove depth: 50 mm

TETRAMCUT F044 page

TETRAFCUT F059 page

GBR/L F059 page

TUNGECUT F014 page

ADDFCUT F012 page

DUOJCUT F071 page

TUNEHROOVE F065 page

MY-T SERIES F077 page

Internal grooving F120 page

General internal grooving and turning

ADDFCUT F120 page

TUNGECUT F126 page

ADDFCUT F122 page

MY-T SERIES F148 page

GBR/L F156 page

SNE / CNE F159 page

F004 tungaloy.com

Method ③

Select the tool series or the tool specification from Quick Guide on **F006 - F007** and see the details on each page.

Quick Guide

Series	Insert shape	External grooving				Parting			
		CW (mm)	CDX (mm)	Priority	Page	CW (mm)	CUTDIA (mm)	Priority	Page
ADDFCUT		2-5	33	○	F012	2-5	120	○	F024
TUNGECUT		1.2-8	35	○	F014	1.2-8	120	○	F229
TETRAFCUT		0.5-4	10	○	F059	0.5-4	20	○	F059
TETRAMCUT		0.33-3.3	3.5	○	F044	0.33-3	7	○	F044
DUOJCUT		0.6-2.5	10.5	○	F071	0.6-2	20	○	F247
GBR/L		0.33-4.5	5	○	F059				
MY-T SERIES		2-5	25	○	F077	2-5	120	○	F352
EASYMCUT									
TUNEHROOVE		10-25	50	○	F065				
SNE / CNE									
XQ/XX		1-4.5 (GDR/L)	6	○	F105				
Other		1-3 (FLD-CB)	4.07	○	F081				
		1-2.25 (GTON)	1.8	○	F093				
		1.15-4.2 (SLRL)	4	○	F103				

F006 tungaloy.com

2 **TETRAMCUT**
STCR/L-18

Precision grooving tools with uniquely shaped insert for swiss type machine and general lathes

5

4 **STCR/L-18-CHP**
External grooving and threading toolholder, high pressure coolant compatible

3

6 Direct connection

7

10 Reference pages: Inserts → F051 - F057, Standard cutting conditions → F058
Parts for coolant hose → F266

F044 tungaloy.com

8 **INSERTS**
TCS18R/L (3D chipbreaker, honed edge)

5

4

Reference pages: Toolholders → F044 - F050, Standard cutting conditions → F058

F052 tungaloy.com

9 **STANDARD CUTTING CONDITIONS**

TCS18R/L, TCL18R/L (3D chipbreaker), TCG18R/L (honed edge), TCG18R/L (Full R)

ISO	Workpiece materials	Grade	Cutting speed Vc (m/min)	TC18	TC18	Feed: f (mm/rev)
P	Low carbon steel S15C, S45C, etc., C15A, E275A, etc.	AH7025	80 - 180	0.03 - 0.12	0.04 - 0.16	0.04 - 0.14
P	Carbon steel, alloy steel S55C, SCr440, etc., CR5, 42CrMo4, etc.	AH7025	80 - 180	0.03 - 0.12	0.04 - 0.16	0.04 - 0.14
M	Prehardened steel NAK80, P18, etc.	AH7025	80 - 180	0.03 - 0.12	0.04 - 0.16	0.04 - 0.14
M	Stainless steel SUS304, SUS316, etc., SCr440, SCr440Mn7-12-3, etc.	AH7025	50 - 120	0.03 - 0.12	0.04 - 0.16	0.04 - 0.14
K	Gray cast iron FC250, FC300, etc., 250, 300, etc., GG25, GG30, etc.	AH7025	50 - 180	0.03 - 0.12	0.04 - 0.16	0.04 - 0.14
K	Ductile cast iron FCDA00, etc., 400-155, etc., GG40, etc.	AH7025	30 - 60	0.03 - 0.12	0.04 - 0.16	0.04 - 0.14
S	Titanium alloys Ti-6Al-4V, etc.	AH7025	30 - 60	0.03 - 0.12	0.04 - 0.16	0.04 - 0.14
S	Superalloys Inconel718, etc.	AH7025	20 - 40	0.03 - 0.12	0.04 - 0.16	0.04 - 0.14

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, S45C, etc., C15A, E275A, etc.	First choice	SH725	80 - 180	0.03 - 0.1
P	Carbon steel, alloy steel S55C, SCr440, etc., CR5, 42CrMo4, etc.	Toughness	AH725	80 - 180	0.03 - 0.1
P	Prehardened steel NAK80, P18, etc.	Toughness	AH725	80 - 180	0.03 - 0.1
M	Stainless steel SUS304, SUS316, etc., SCr440, SCr440Mn7-12-3, etc.	First choice	SH725	50 - 120	0.03 - 0.1
M	Gray cast iron FC250, FC300, etc., 250, 300, etc., GG25, GG30, etc.	First choice	AH725	50 - 180	0.03 - 0.1
M	Ductile cast iron FCDA00, etc., 400-155, etc., GG40, etc.	First choice	SH725	30 - 60	0.03 - 0.1
S	Titanium alloys Ti-6Al-4V, etc.	First choice	SH725	30 - 60	0.03 - 0.1
S	Superalloys Inconel718, etc.	First choice	AH725	20 - 40	0.03 - 0.1

1 : Application

2 : Tool series name

3 : Dimension table

4 : Toolholder designation

e.g. right-hand, 12x12 mm square shank

→ **STC****R** **1212** **F18**

5 : Dimension (conforming to ISO13399)

6 : Applicable insert

7 : Spare parts

8 : Insert

9 : Standard cutting conditions

10 : Reference pages

When ordering

- Please specify the designation and quantity for toolholders.

e.g. **CTER2020-4T25 ... 1**

- Please specify the designation and quantity for shank and adapter set when ordering both.

e.g. **CHSR2020-CHP ... 1**, **CAER-3T20-CHP ... 1** (one shank per package, one adapter per package)

* Clamp screw for adapter is included.

- Please specify the designation, grade, and quantity for inserts.

e.g. **DGS3-020 AH7025 ... 10** (10 inserts per package)

* You will find a note if the number per package is not 10.

Machining Overview

External grooving

F012 page

Max. groove depth: 6.4 mm

Economy **TETRAMCUT** F044 page

Economy **TETRAFCUT** F059 page

GBR/L F099 page



Max. groove depth: 50 mm

First choice **TUNG**CUT F014 page

ADDFCUT F012 page

DUOJCUT F071 page

TUNGH^{HY}GROOVE F095 page

MY-T SERIES F077 page



Internal grooving

F120 page

General internal grooving and turning

First choice **ADD**^{INTERNAL}CUT F120 page

TUNGCUT F126 page

ADDFCUT F122 page

MY-T SERIES F146 page

GBR/L F156 page

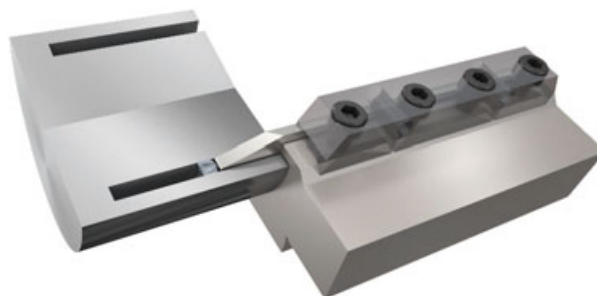
SNG / CNG F159 page



Face grooving

F168 page

First choice	TUNG CUT	F172 page
	EASY ^{ULTRA} M CUT	F168 page
Economy	TETRA ^{MC} CUT	F199 page
	MY-T SERIES	F214 page



Parting

F224 page

General parting

First choice	ADD ^{FACE} F CUT	F224 page
	TUNG CUT	F229 page
Economy	TETRA ^{FACE} F CUT	F059 page
Economy	TETRA ^{MC} CUT	F044 page
	DUO ^{JUST} J CUT	F247 page
	MY-T SERIES	F252 page



Grade

Insert

Ext. Toolholder

Int. Toolholder

Threading

Grooving

Miniature tool

Milling cutter

Endmill

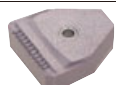
Drilling tool

Tooling System

User's Guide

Index

Quick Guide

Series	Insert shape	External grooving				Parting			
		CW (mm)	CDX (mm)	Priority	Page	CW (mm)	CUTDIA (mm)	Priority	Page
ADD^{FORCE}CUT		2 - 5	33	◎ F012		2 - 5	120	First choice ◎ F224	
ADD^{INTERNAL}CUT									
TUNG^{CUT}		1.2 - 8	35	First choice ◎ F014		1.2 - 8	120	◎ F229	
TETRA^{FORCE}CUT		0.5 - 4	10	Economy ◎ F059		0.5 - 4	20	Economy ◎ F059	
TETRA^MCUT		0.33 - 3	3.5	Economy ◎ F044		0.33 - 3	7	Economy ◎ F044	
DUO^{JUST}CUT		0.6 - 2.5	10.5	◎ F071		0.6 - 2	20	◎ F247	
GBR/L		0.33 - 4.5	5	○ F099					
MY-T SERIES		2 - 5	25	○ F077		2 - 5	120	○ F252	
EASY^{ULTI}M^{CUT}									
TUNG^{HYX}HO^{VE}		10 - 25	50	◎ F095					
SNG / CNG									
XG/XN		1 - 4.5 (XGR/L)	6	○ F105					
Other		1 - 3 (FLG-CB)	4.07	○ F091					
		1 - 2.25 (GTGN)	1.8	○ F093					
		1.15 - 4.2 (GLR/L)	4	○ F103					

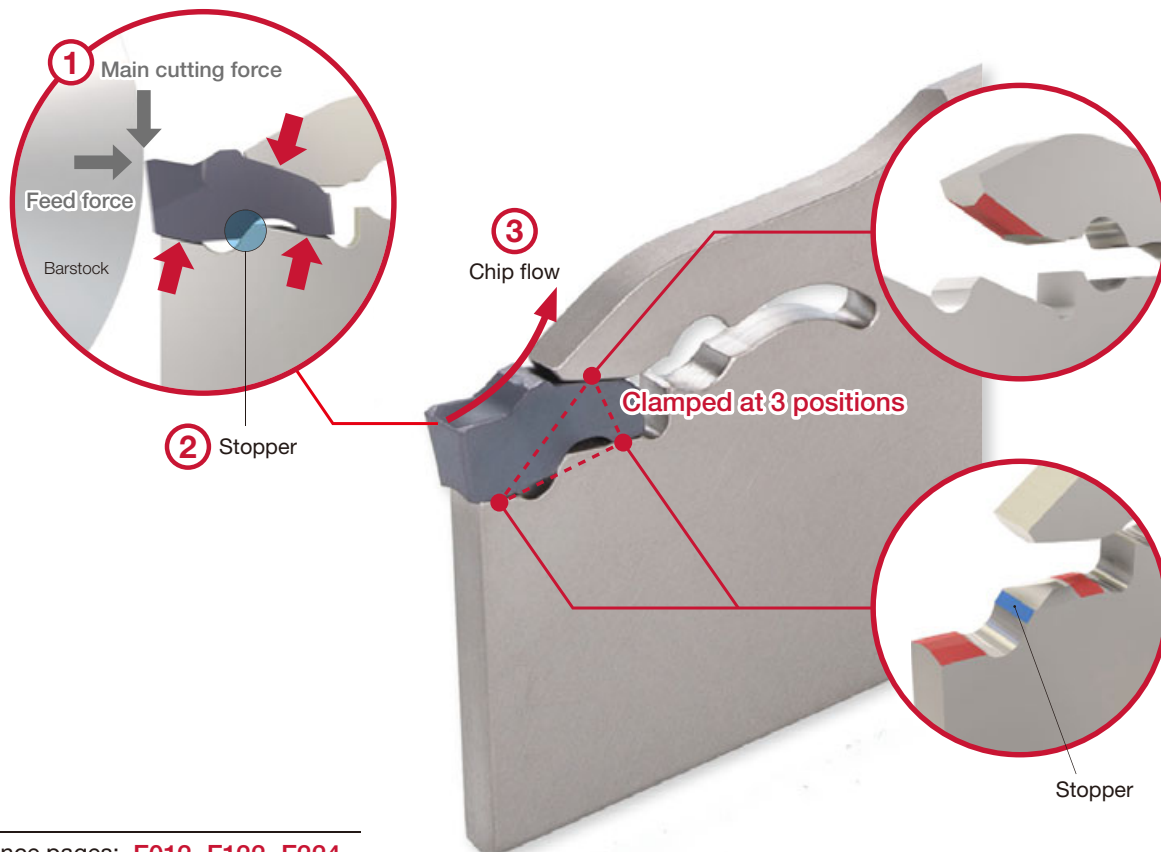
⊙ : First choice
○ : Usable

Face grooving						Internal grooving					Profiling (Full-R)				Turning			
CW (mm)	CDX (mm)	DAXN (mm)	Priority	Page		CW (mm)	CDX (mm)	DMIN (mm)	Priority	Page	CW (mm)	CDX (mm)	Priority	Page	CW (mm)	CDX (mm)	Priority	Page
						2 - 4	32	55	⊙	F122								
						0.5 - 3	3	10.5	First choice ⊙	F120								
2 - 6	25	25	First choice ⊙	F172		2 - 8	10	25	⊙	F126	2 - 8	35	First choice ⊙	F014 F262	2 - 8	35	First choice ⊙	F014
											1.57 - 3	6.4	Economy ⊙	F059				
0.33 - 3	3	6	Economy ⊙	F199							1 - 3.18	3.5	Economy ⊙	F044				
															2 - 2.5 (JDX)	6	⊙	F071
						0.33 - 4.5	2.5	35	○	F156	1 - 4	5	○	F099				
3 - 5	22	30	○	F214		3 - 5	6	25	○	F146	3 - 5	25	○	F077	3 - 5	25	○	F077
4 - 6	65	30	⊙	F168														
						1 - 3.5	3	8	○	F159								
1 - 4.5 (XNR/L)	6	55	○	F222		1 - 4.5 (XGR/L)	6	55	○	F166								
						1 - 3 (FLG-CB)	4.07	34.9	○	F152								
						1 - 2.25 (GTGN)	1.8	24	○	F154								

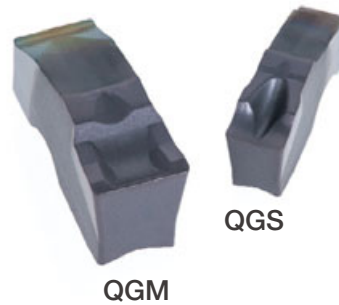


Highly rigid self-clamping system improves productivity for deep grooving and parting-off operations

- ① The stopper supporting the insert bottom ensures secure edge position for excellent repeatability
- ② The pocket is designed to securely spring-clamp the insert with three contact faces for stability
- ③ Smooth uninterrupted chip flow is possible thanks to two variations of effective 3D chipbreakers



Reference pages: **F012, F122, F224**



Grade

Insert

Ext. Toolholder

Int. Toolholder

Threading

Grooving

Miniature tool

Milling cutter

Endmill

Drilling tool

Tooling System

User's Guide

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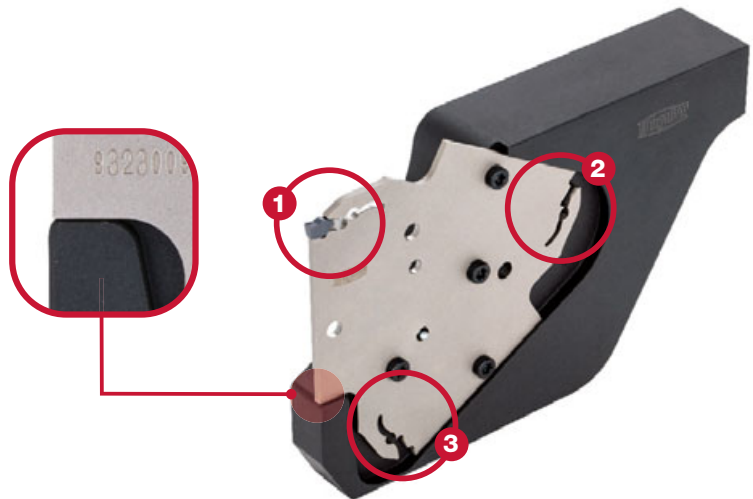


Strong holder design ensures tool stability and productivity gains during demanding cutting conditions

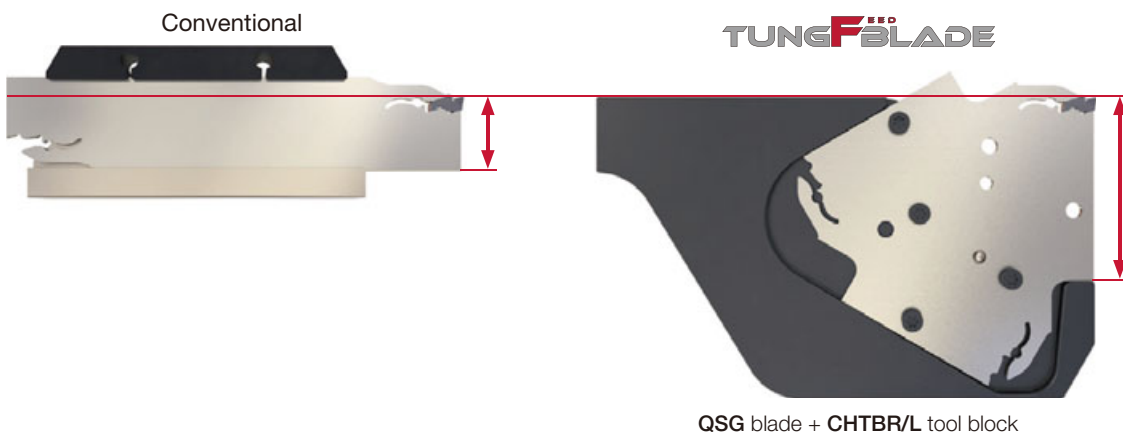
The blade provides reduced tooling cost with three insert pockets, while its strong backing beneath the insert withstands heavy cutting loads during machining.

Economical blade with three insert pockets.

Specially designed tool block has two contact faces to provide enhanced tool rigidity.



With much thicker support than existing grooving blades, tool deflection and chatter are minimized even at higher feed rates.



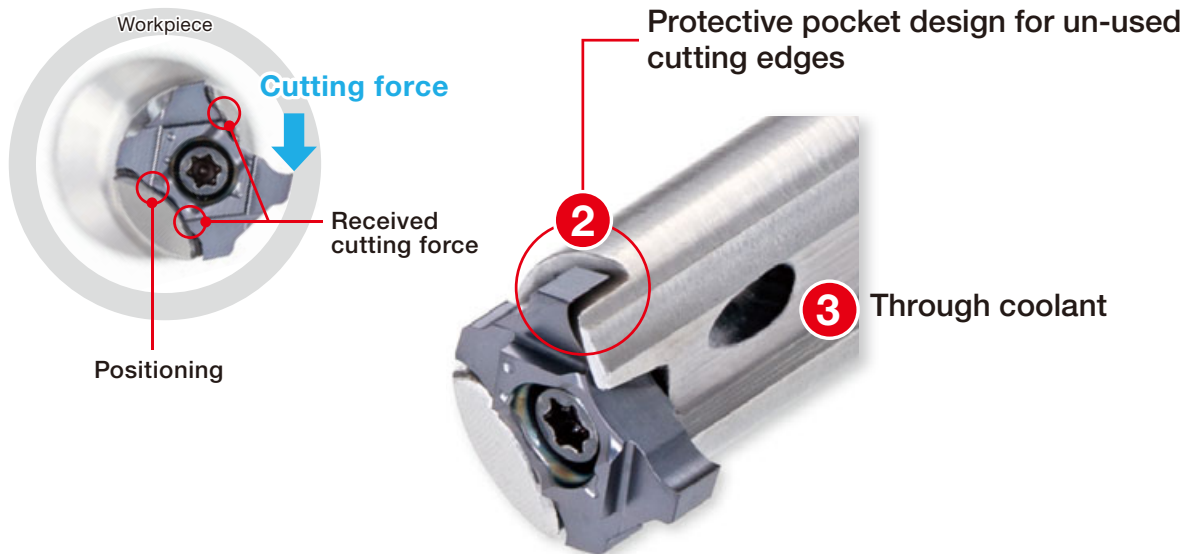
QSG blade + CHTBR/L tool block

Reference pages: **F226, F234, F235**



Unique insert clamping system ensures high indexing repeatability and clamping rigidity

- 1 The insert is supported at three optimized positions for rigid clamping and superior repeatability



- 4 The same insert can be assembled on either left- or right-handed holder



Multi-functional grooving tool series with excellent versatility

New modular holder system enhances versatility of existing monoblock holder and TungCap (PSC) lines. High-pressure coolant system improves chip flow and tool life.

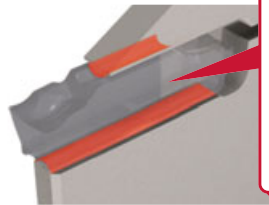
High clamping rigidity

For stable tool life and accuracy

Clamping system

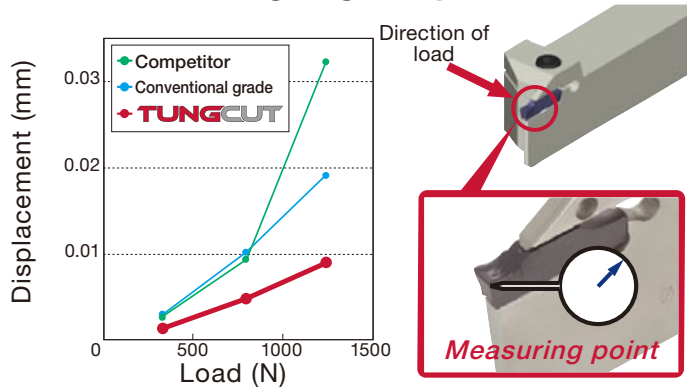


Stable and safe contact areas



High repeatability and durability due to long pocket!

Minimizes cutting edge displacement



Excellent chip control at low feed rates

P Bearing steel (B1/52100/SUJ2)

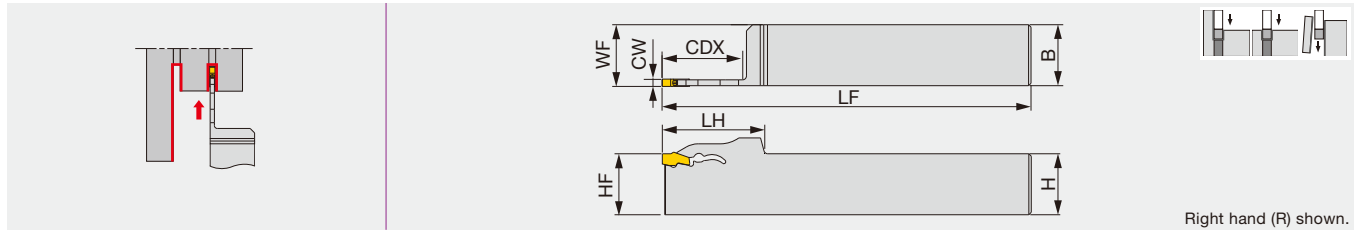
First choice chipbreaker for bearing steel. Excellent chip control at low feed rates.



DGL

Workpiece material : SUJ2
Toolholder : CTER2525-3T09
Insert : DGL3-025
Cutting speed : $V_c = 50, 100$ m/min
Groove width : 3 mm

Cutting speed: V_c (m/min)		Feed: f (mm/rev)			
		0.03	0.05	0.07	0.1
100					
50					



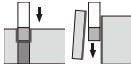
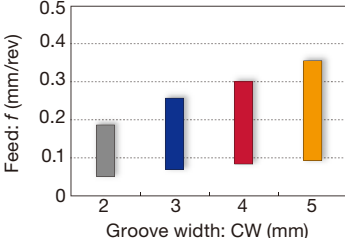
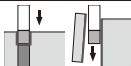
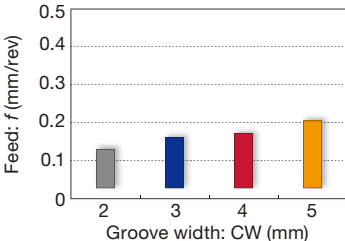
Designation	CW	CDX	Seat size	H	B	LF	LH	HF	WF
QSER/L2020-2T26	2	26	2	20	20	125	36	20	20.1
QSER/L2020-2T33	2	33	2	20	20	125	42	20	20.1
QSER/L2525-2T26	2	26	2	25	25	150	36	25	25.1
QSER/L2525-2T33	2	33	2	25	25	150	42	25	25.1
QSER/L2020-3T26	3	26	3	20	20	125	36	20	20.3
QSER/L2020-3T33	3	33	3	20	20	125	42	20	20.3
QSER/L2525-3T26	3	26	3	25	25	150	36	25	25.3
QSER/L2525-3T33	3	33	3	25	25	150	42	25	25.3
QSER/L2020-4T33	4	33	4	20	20	125	42	20	20.4
QSER/L2525-4T33	4	33	4	25	25	150	42	25	25.4
QSER/L2525-5T33	5	33	5	25	25	150	42	25	25.5

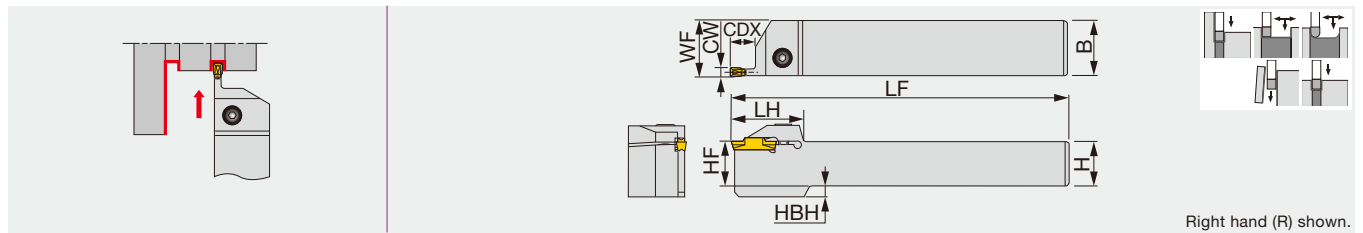
SPARE PARTS

Designation	Wrench
QSER/L...	QL-39



CHIPBREAKER GUIDE

QGM 	First choice for grooving and parting Smooth chip evacuation Well-designed edge with high strength CW = 2 - 5 mm	 ■ Standard feed  <table border="1"><thead><tr><th>Groove width: CW (mm)</th><th>Feed: f (mm/rev)</th></tr></thead><tbody><tr><td>2</td><td>0.18</td></tr><tr><td>3</td><td>0.25</td></tr><tr><td>4</td><td>0.30</td></tr><tr><td>5</td><td>0.35</td></tr></tbody></table>	Groove width: CW (mm)	Feed: f (mm/rev)	2	0.18	3	0.25	4	0.30	5	0.35
Groove width: CW (mm)	Feed: f (mm/rev)											
2	0.18											
3	0.25											
4	0.30											
5	0.35											
QGS 	Lower cutting force and superior sharpness Uniquely designed edge and chipbreaker CW = 2 - 5 mm	 ■ Standard feed  <table border="1"><thead><tr><th>Groove width: CW (mm)</th><th>Feed: f (mm/rev)</th></tr></thead><tbody><tr><td>2</td><td>0.12</td></tr><tr><td>3</td><td>0.15</td></tr><tr><td>4</td><td>0.17</td></tr><tr><td>5</td><td>0.20</td></tr></tbody></table>	Groove width: CW (mm)	Feed: f (mm/rev)	2	0.12	3	0.15	4	0.17	5	0.20
Groove width: CW (mm)	Feed: f (mm/rev)											
2	0.12											
3	0.15											
4	0.17											
5	0.20											



Designation	CW	Seat size	CDX	H	B	LF	LH	HF	WF ⁽¹⁾	HBH	Torque*
CTER/L1616-2T08	2	2	8	16	16	110	33	16	16.1	4	5
CTER/L2020-2T08	2	2	8	20	20	125	33	20	20.1	-	5
CTER/L2525-2T08	2	2	8	25	25	150	33	25	25.1	-	5
CTER/L1616-2T12	2	2	12	16	16	110	32	16	16.1	4	5
CTER/L2020-2T12	2	2	12	20	20	125	32	20	20.1	-	5
CTER/L2525-2T12	2	2	12	25	25	150	32	25	25.1	-	5
CTER/L1616-2T17	2	2	17	16	16	110	37	16	16.1	4	5
CTER/L2020-2T17	2	2	17	20	20	125	37	20	20.1	-	5
CTER/L2525-2T17	2	2	17	25	25	150	37	25	25.1	-	5
CTER/L2525-2T20	2	2	20	25	25	150	38.5	25	25.1	-	5
CTER/L1616-3T09	3	3	9	16	16	110	32	16	16.3	4	5
CTER/L2020-3T09	3	3	9	20	20	125	32	20	20.3	-	5
CTER/L2525-3T09	3	3	9	25	25	150	32	25	25.3	-	5
CTER/L1616-3T12	3	3	12	16	16	110	32	16	16.3	4	5
CTER/L2020-3T12	3	3	12	20	20	125	32	20	20.3	-	5
CTER/L2525-3T12	3	3	12	25	25	150	32	25	25.3	-	5
CTER/L1616-3T20	3	3	20	16	16	110	38.5	16	16.3	4	5
CTER/L2020-3T20	3	3	20	20	20	125	38.5	20	20.3	-	5
CTER/L2525-3T20	3	3	20	25	25	150	38.5	25	25.3	-	5
CTER/L2525-3T25	3	3	25	25	25	150	44.5	25	25.3	-	5
CTER/L1616-4T10	4	4	10	16	16	110	32	16	16.5	4	8.5
CTER/L2020-4T10	4	4	10	20	20	125	32	20	20.5	-	8.5
CTER/L2525-4T10	4	4	10	25	25	150	32	25	25.5	-	8.5
CTER/L2020-4T15	4	4	15	20	20	125	33	20	20.5	-	8.5
CTER/L2525-4T15	4	4	15	25	25	150	33	25	25.5	-	8.5
CTER/L1616-4T25	4	4	25	16	16	110	45	16	16.5	4	8.5
CTER/L2020-4T25	4	4	25	20	20	125	45	20	20.5	-	8.5
CTER/L2525-4T25	4	4	25	25	25	150	45	25	25.5	-	8.5
CTER/L3232-4T25	4	4	25	32	32	170	45	32	32.5	-	8.5
CTER/L2020-5T12	5	5	12	20	20	125	37	20	20.6	-	8.5
CTER/L2525-5T12	5	5	12	25	25	150	37	25	25.6	-	8.5
CTER/L2525-5T17	5	5	17	25	25	150	37	25	25.6	-	8.5
CTER/L2525-5T20	5	5	20	25	25	150	37	25	25.6	-	8.5
CTER/L2525-5T32	5	5	32	25	25	150	56	25	25.6	-	8.5
CTER/L3232-5T32	5	5	32	32	32	170	56	32	32.6	-	8.5
CTER/L2020-6T12	6	6	12	20	20	125	37	20	20.6	-	12
CTER/L2525-6T12	6	6	12	25	25	150	37	25	25.6	7	12
CTER/L2525-6T16	6	6	16	25	25	150	39	25	25.6	7	12
CTER/L2525-6T20	6	6	20	25	25	150	41	25	25.6	7	12
CTER/L2525-6T25	6	6	25	25	25	150	47	25	25.6	7	12
CTER/L2525-6T32	6	6	32	25	25	150	56	25	25.6	7	12
CTER/L3232-6T32	6	6	32	32	32	170	56	32	32.6	-	12
CTER/L2525-8T16	8	8	16	25	25	150	47	25	26.1	7	12
CTER/L2525-8T25	8	8	25	25	25	150	47	25	26.1	7	12
CTER/L3232-8T25	8	8	25	32	32	170	47	32	33.1	-	12
CTER/L3232-8T32	8	8	32	32	32	170	56	32	33.1	-	12
CTER/L2525-8T36	8	8	36	25	25	150	60	25	26.1	7	12
CTER/L3232-8T36	8	8	36	32	32	170	60	32	33.1	-	12

When groove depth is larger than (insert length - 1.5 mm), please use 1-cornered insert.

(1) "WF" value is calculated with groove width "CW" shown in the table.

Torque*: Recommended clamping torque (N·m)

SPARE PARTS



Designation	Clamping screw	Wrench
CTER/L1616-2T08	CM5X0.8X16-A	P-4
CTER/L2020-2T08	CM5X0.8X20-A	P-4
CTER/L2525-2T08	CM5X0.8X25-A	P-4
CTER/L1616-2T12	CM5X0.8X16-A	P-4
CTER/L2020-2T12	CM5X0.8X20-A	P-4
CTER/L2525-2T12	CM5X0.8X25-A	P-4
CTER/L1616-2T17	CM5X0.8X16-A	P-4
CTER/L2020-2T17	CM5X0.8X20-A	P-4
CTER/L2525-2T17	CM5X0.8X25-A	P-4
CTER/L2525-2T20	CM5X0.8X25-A	P-4
CTER/L1616-3T09	CM5X0.8X16-A	P-4
CTER/L2020-3T09	CM5X0.8X20-A	P-4
CTER/L2525-3T09	CM5X0.8X25-A	P-4
CTER/L1616-3T12	CM5X0.8X16-A	P-4
CTER/L2020-3T12	CM5X0.8X20-A	P-4
CTER/L2525-3T12	CM5X0.8X25-A	P-4
CTER/L1616-3T20	CM5X0.8X16-A	P-4
CTER/L2020-3T20	CM5X0.8X20-A	P-4
CTER/L2525-3T20	CM5X0.8X25-A	P-4
CTER/L2525-3T25	CM5X0.8X25-A	P-4
CTER/L1616-4T10	CM6X1X16-A	P-5
CTER/L2020-4T10	CM6X1X20-A	P-5
CTER/L2525-4T10	CM6X1X25-A	P-5
CTER/L2020-4T15	CM6X1X20-A	P-5
CTER/L2525-4T15	CM6X1X25-A	P-5
CTER/L1616-4T25	CM6X1X16-A	P-5
CTER/L2020-4T25	CM6X1X20-A	P-5
CTER/L2525-4T25	CM6X1X25-A	P-5
CTER/L3232-4T25	CM6X1X25-A	P-5
CTER/L2020-5T12	CM6X1X20-A	P-5
CTER/L2525-5T12	CM6X1X25-A	P-5
CTER/L2525-5T17	CM6X1X25-A	P-5
CTER/L2525-5T20	CM6X1X25-A	P-5
CTER/L2525-5T32	CM6X1X25-A	P-5
CTER/L3232-5T32	CM6X1X25-A	P-5
CTER/L2020-6T12	CM8X1.25X20-A	P-6
CTER/L2525-6T12	CM8X1.25X25-A	P-6
CTER/L2525-6T16	CM8X1.25X25-A	P-6
CTER/L2525-6T20	CM8X1.25X25-A	P-6
CTER/L2525-6T25	CM8X1.25X25-A	P-6
CTER/L2525-6T32	CM8X1.25X25-A	P-6
CTER/L3232-6T32	CM8X1.25X25-A	P-6
CTER/L2525-8T16	CM8X1.25X25-A	P-6
CTER/L2525-8T25	CM8X1.25X25-A	P-6
CTER/L3232-8T25	CM8X1.25X25-A	P-6
CTER/L3232-8T32	CM8X1.25X25-A	P-6
CTER/L2525-8T36	CM8X1.25X25-A	P-6
CTER/L3232-8T36	CM8X1.25X25-A	P-6

Grade

Insert

Ext. Toolholder

Int. Toolholder

Threading

Grooving

Miniature tool

Milling cutter

Endmill

Drilling tool

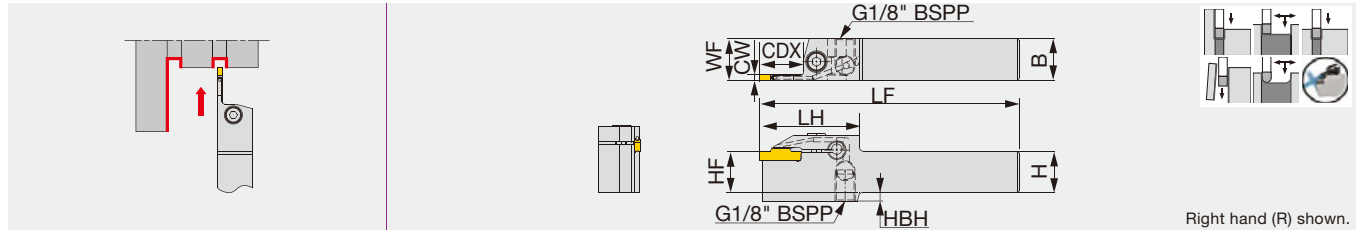
Tooling System

User's Guide

Index

Reference pages: Inserts → **F028 - F042**, Standard cutting conditions → **F043**

External grooving and parting toolholder, with high pressure coolant capability



Designation	CW	Seat size	CDX	H	B	LF	LH	HF	WF ⁽¹⁾	HBH	Torque*
CTER/L2020-2T17-CHP	2	2	17	20	20	125	45	20	20.1	4	5.5
CTER/L2525-2T17-CHP	2	2	17	25	25	150	45	25	25.1	-	5.5
CTER/L2020-3T20-CHP	3	3	20	20	20	125	48	20	20.3	4	5.5
CTER/L2525-3T20-CHP	3	3	20	25	25	150	48	25	25.3	-	5.5
CTER/L2525-3T25-CHP	3	3	25	25	25	150	51	25	25.3	-	5.5
CTER/L2525-4T25-CHP	4	4	25	25	25	150	55	25	25.5	-	8
CTER/L2525-5T20-CHP	5	5	20	25	25	150	49	25	25.58	-	8
CTER/L2525-6T20-CHP	6	6	20	25	25	150	52	25	25.58	7	12

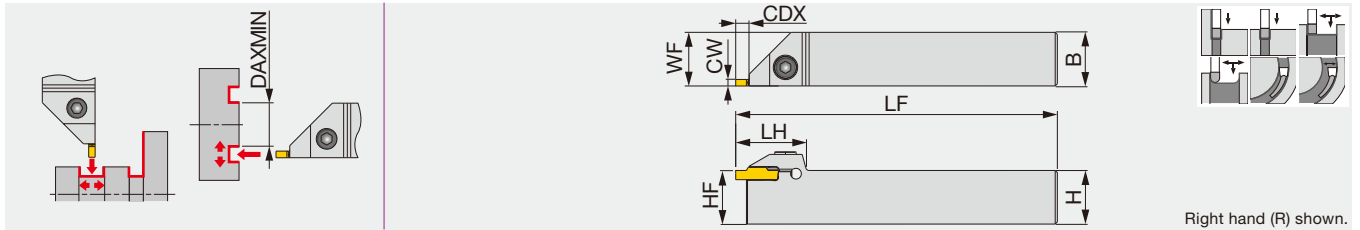
When groove depth is larger than (insert length - 1.5 mm), please use 1-cornered insert.
 (1) "WF" value is calculated with groove width "CW" shown in the table.
 Torque*: Recommended clamping torque (N·m)

SPARE PARTS

Designation	Clamping screw	Wrench
CTER/L2020-2T17-CHP	CM5x0.8x20-A	P-4
CTER/L2525-2T17-CHP	CM5x0.8x25-A	P-4
CTER/L2020-3T20-CHP	CM5x0.8x20-A	P-4
CTER/L2525-3T20-CHP	CM5x0.8x25-A	P-4
CTER/L2525-3T25-CHP	CM5x0.8x25-A	P-4
CTER/L2525-4T25-CHP	CM6x1x16-A	P-5
CTER/L2525-5T20-CHP	CM6x1x16-A	P-5
CTER/L2525-6T20-CHP	CM8x1.25x20-A	P-6

CTEFR/L

External face grooving and turning toolholder



Designation	CW	Seat size	CDX	H	B	LF	LH	HF	WF ⁽¹⁾	Torque*
CTEFR/L2020-4T04	4	2, 3, 4	4.8	20	20	125	33	20	20.5	8.5
CTEFR/L2525-4T04	4	2, 3, 4	4.8	25	25	150	33	25	25.5	8.5
CTEFR/L2020-6T04	6	5, 6	4.8	20	20	125	37	20	20.6	8.5
CTEFR/L2525-6T04	6	5, 6	4.8	25	25	150	37	25	25.6	8.5

Use the right-hand insert for the right-hand holder with DTF insert.

(1) "WF" value is calculated with groove width "CW" shown in the table.

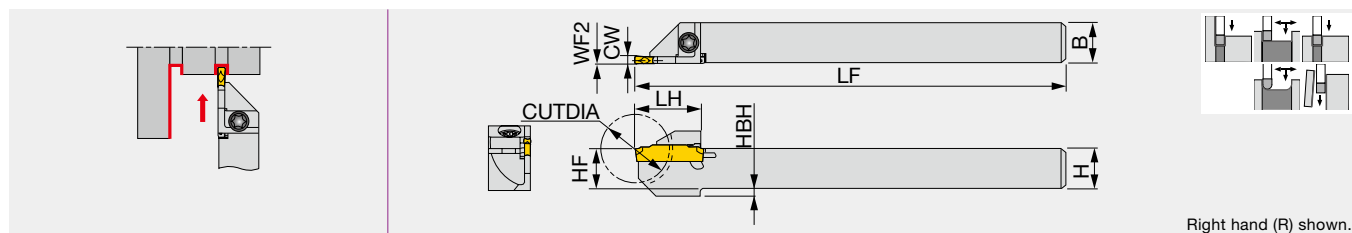
Torque*: Recommended clamping torque (N·m)

SPARE PARTS

Designation	Clamping screw	Wrench
CTEFR/L2020-4T04	CM6X1X20-A	P-5
CTEFR/L2525-4T04	CM6X1X25-A	P-5
CTEFR/L2020-6T04	CM6X1X20-A	P-5
CTEFR/L2525-6T04	CM6X1X25-A	P-5

Insert	Groove width CW	Face grooving Min. machining dia. DAXMIN
DGM / DGS / SGN / DGL	2	295
DGM / DGS / SGN / DGL	3	92
DGM / DGS / SGN / DGL	4	37
DGM / DGS / SGN / DGL	5	60
DGM / DGS / DGL	6	57
DTX / DTM / DTR	2	295
DTE / DGG / DTM	3	62
DTE / DGG / DTM	4	42
DTE / DGG / DTM	5	64
DTE / DGG / DTM	6	61

Insert	Groove width CW	Face grooving Min. machining dia. DAXMIN
DTR	3	44
DTR	4	32
DTR	5	48
DTR	6	48
DTX	3	22
DTX	4	20
DTX	5	20
DTX	6	23
DTF	3	20
DTF	4	20

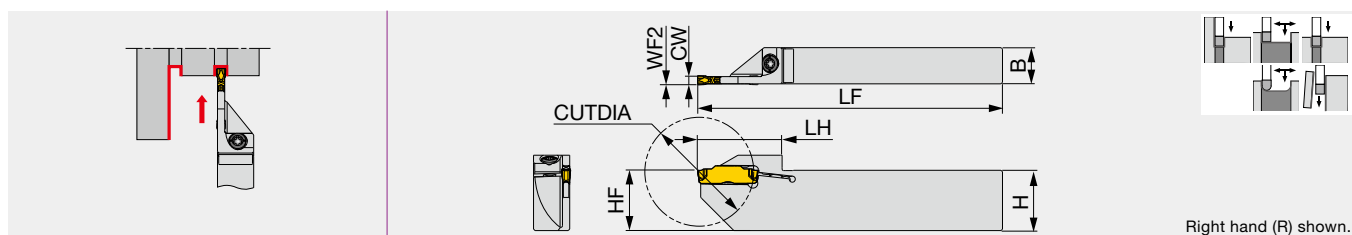


Designation	CW	Seat size	CUTDIA	H	B	LF	LH	HF	WF2 ⁽¹⁾	HBH	Torque*
JCTER/L1010X1.4T10	1.4	1	20	10	10	120	18	10	0.2/10.2	-	3
JCTER/L1212F1.4T12	1.4	1	24	12	12	85	19.5	12	0.2/12.2	-	3
JCTER/L1212X1.4T12	1.4	1	24	12	12	120	19.5	12	0.2/12.2	-	3
JCTER/L1414-1.4T12	1.4	1	24	14	14	125	19.5	14	0.2/14.2	-	3
JCTER/L1616X1.4T16	1.4	1	32	16	16	120	24	16	0.2/16.2	-	3
JCTER/L1010X2T10	2	2	20	10	10	120	19	10	0.1/10.1	2	3
JCTER/L1212F2T12	2	2	24	12	12	85	19	12	0.1/12.1	2	3
JCTER/L1212X2T12	2	2	24	12	12	120	19	12	0.1/12.1	2	3
JCTER/L1414-2T12	2	2	24	14	14	125	19	14	0.1/14.1	-	3
JCTER/L1616X2T16	2	2	32	16	16	120	24	16	0.1/16.1	-	3
JCTER/L1212F3T12	3	3	24	12	12	85	19	12	0.3/12.3	2	3
JCTER/L1212X3T12	3	3	24	12	12	120	19	12	0.3/12.3	2	3
JCTER/L1616X3T16	3	3	32	16	16	120	24	16	0.3/16.3	-	3
JCTER/L2020H3T16	3	3	32	20	20	100	24	20	0.3/20.3	-	3

(1) "WF2" value is calculated with groove width "CW" shown in the table.
Torque*: Recommended clamping torque (N·m)

JCTER/L2012

External grooving and parting toolholder, for Swiss lathes, with 20 mm shank height



Designation	CW	Seat size	CUTDIA	H	B	LF	LH	HF	WF2 ⁽¹⁾	Torque*
JCTER/L2012H2T18	2	2	36	20	12	100	25	20	0.1/12.1	3
JCTER/L2012H3T21	3	3	42	20	12	100	28	20	0.3/12.3	3

(1) "WF2" value is calculated with groove width "CW" shown in the table.
Torque*: Recommended clamping torque (N·m)

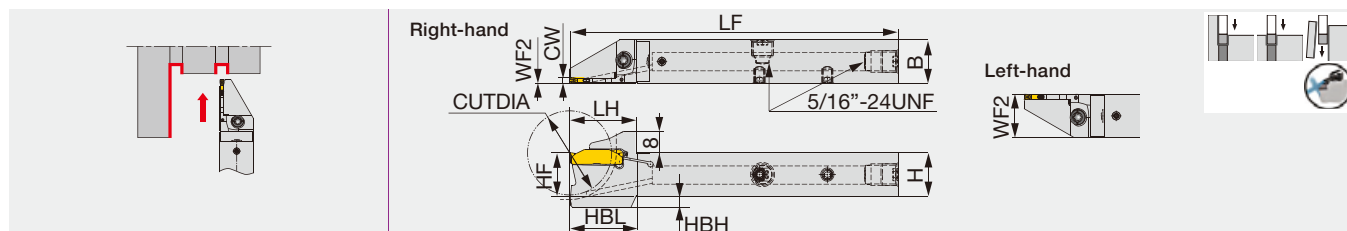
SPARE PARTS

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

JCTER/L-CHP

Direct connection

External grooving and parting toolholder, with high pressure coolant capability



Designation	CW	Seat size	CUTDIA	H	B	LF	LH	HF	WF2 ⁽¹⁾	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) "WF2" value is calculated with groove width "CW" shown in the table. The first value before "/" indicates the WF2 for the right-hand holder and the second value after "/" for the left-hand holder.

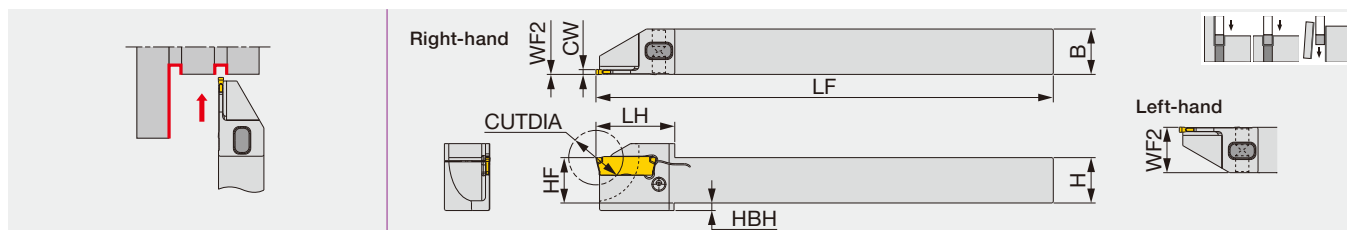
Torque*: Recommended clamping torque (N·m)

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

JTTER/L

External grooving and parting toolholder, for Swiss lathes



Designation	CW	Seat size	CUTDIA	H	B	LF	LH	HF	WF2 ⁽¹⁾	HBH	Torque*
JTTER/L1010H1.2D12	1.2	0.9	12	10	10	100	17	10	0/10	-	1.5
JTTER/L1212F1.2D16	1.2	0.9	16	12	12	85	19	12	0/12	-	1.5
JTTER/L1212X1.2D16	1.2	0.9	16	12	12	120	19	12	0/12	-	1.5
JTTER/L1212X1.2D20	1.2	0.9	20	12	12	120	21	12	0/12	2	1.5
JTTER/L1616X1.2D20	1.2	0.9	20	16	16	120	21	16	0/16	-	2

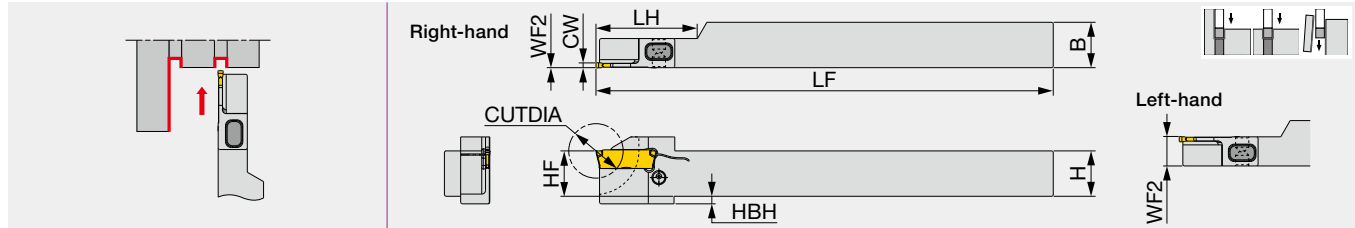
(1) "WF2" value is calculated with groove width "CW" shown in the table. The first value before "/" indicates the WF2 for the right-hand holder and the second value after "/" for the left-hand holder.

Torque*: Recommended clamping torque (N·m)

SPARE PARTS

Designation	Clamping screw	Clamping pin	Wrench
JTTER/L1010...	SSM3.5x0.35	PIN-SL-TC	P-2F
JTTER/L1212...	SSM3.5x0.35	PIN-SL-TC	P-2F
JTTER/L1616...	SRM5-24145-RL	PIN-32121	P-2.5F

Reference pages: Inserts → **F028 - F042**, Standard cutting conditions → **F043**
Parts for coolant hose → **F266**



Designation	CW	Seat size	CUTDIA	H	B	LF	LH	HF	WF2 ⁽¹⁾	HBH	Torque*
JTTER/L1010H1.2D12-S	1.2	0.9	12	10	10	100	22.8	10	0/7.7	-	1.5
JTTER/L1212F1.2D16-S ⁽²⁾	1.2	0.9	16	12	12	85	22.8	12	0	-	1.5
JTTER/L1212X1.2D16-S	1.2	0.9	16	12	12	120	26.8	12	0/7.7	-	1.5
JTTER/L1212X1.2D20-S	1.2	0.9	20	12	12	120	26.8	12	0/7.7	2	1.5
JTTER/L1616X1.2D20-S	1.2	0.9	20	16	16	120	26.8	16	0/7.7	-	1.5

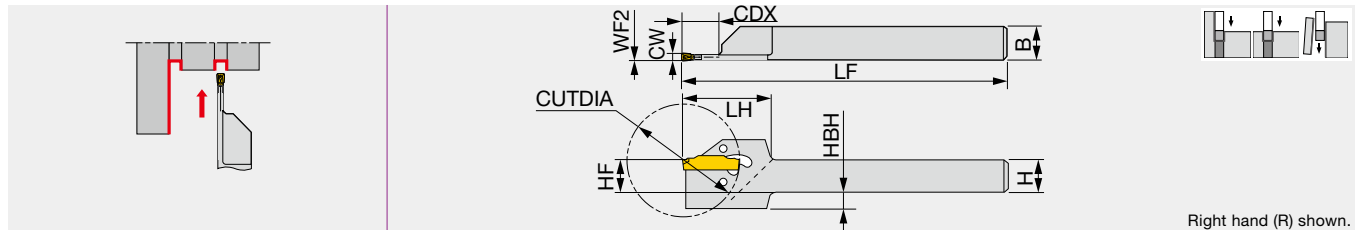
(1) "WF2" value is calculated with groove width "CW" shown in the table. The first value before "/" indicates the WF2 for the right-hand holder and the second value after "/" for the left-hand holder.

(2) No clamping screw from the insert side.
Torque*: Recommended clamping torque (N·m)

SPARE PARTS

Designation	Clamping screw	Clamping pin	Wrench
JTTER/L*-S	SSM3.5x0.35	PIN-SL-TC	P-2F

CGER/L



Designation	CW	Seat size	CUTDIA ⁽¹⁾	CDX	H	B	LF	LH	HF	WF2 ⁽²⁾	HBH
CGER/L2020-1.4T14	1.4	1	29/29	9.7	20	20	125	31	20	0.2/20.2	-
CGER/L1212-2T17	2	2	35/35	11.8	12	12	150	31	12	0.1/12.1	6
CGER/L1616-2T17	2	2	35/35	11.8	16	16	150	31	16	0.1/16.1	2
CGER/L2020-2T17	2	2	35/35	9.8	20	20	125	31	20	0.1/20.1	-
CGER/L1212-3T19	3	3	38/40	12	12	12	150	31	12	0.3/12.3	6
CGER/L1616-3T19	3	3	38/45	14.9	16	16	150	31	16	0.3/16.3	2
CGER/L2020-3T19	3	3	38/45	13.2	20	20	125	31	20	0.3/20.3	-
CGER/L2020-4T19	4	4	38/55	20.3	20	20	125	33	20	0.4/20.4	-

Wrench (CRW**) is not included. Please order it separately. Insert is clamped by the elastic deformation of the upper jaw.

(1) DG*/SG* maximum parting diameter will depend on the insert.

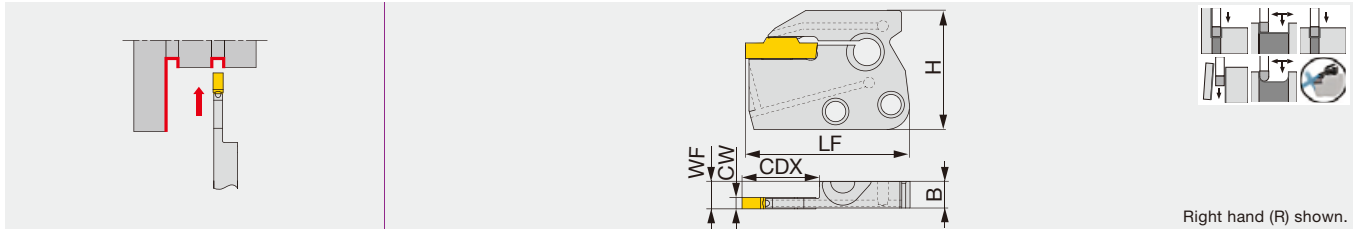
(2) "WF2" value is calculated with groove width "CW" shown in the table.

SPARE PARTS

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

CAER/L-CHP

External grooving and parting adapter, with high pressure coolant capability



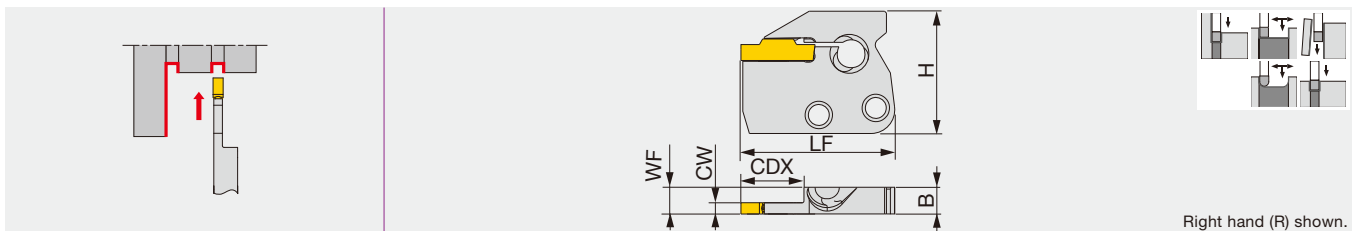
Right hand (R) shown.

Designation	CW	Seat size	CDX	H	B	LF	WF ⁽¹⁾
CAER/L-2T16-CHP	2	2	16	33	7.2	41.5	7.3
CAER/L-2T20-CHP	2	2	20	33	7.2	45.5	7.3
CAER/L-3T16-CHP	3	3	16	33	7.2	41.5	7.4
CAER/L-3T20-CHP	3	3	20	33	7.2	45.5	7.5
CAER/L-4T16-CHP	4	4	16	33	7.2	41.5	7.7
CAER/L-4T20-CHP	4	4	20	33	7.2	45.5	7.7
CAER/L-5T20-CHP	5	5	20	33	7.2	46.3	7.8
CAER/L-6T20-CHP	6	6	20	33	7.2	46.3	7.8
CAER/L-8T25-CHP	8	8	25	33	7.2	51.1	8.3

When groove depth is larger than (insert length - 1.5 mm), please use 1-cornered insert.
(1) WF is calculated with the groove width (CW) in the above table.

CAER/L-MD

External grooving and parting adapter



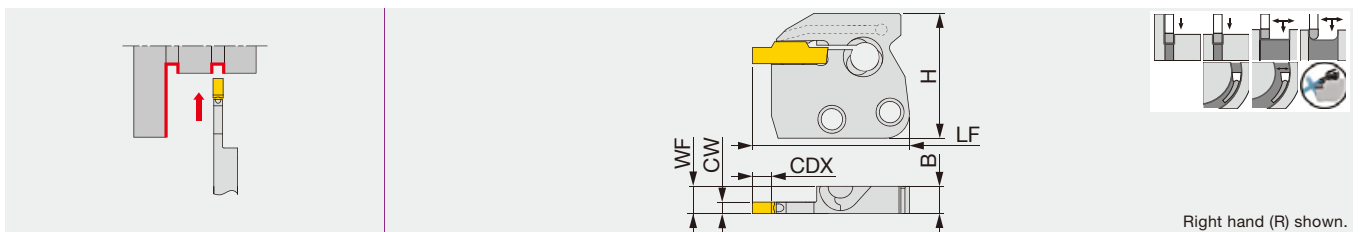
Right hand (R) shown.

Designation	CW	Seat size	CDX	H	B	LF	WF ⁽¹⁾
CAER/L-2T16-MD	2	2	16	33	7.2	41.5	7.3
CAER/L-3T16-MD	3	3	16	33	7.2	41.5	7.4
CAER/L-4T16-MD	4	4	16	33	7.2	41.5	7.7
CAER/L-5T20-MD	5	5	20	33	7.2	46.3	7.8
CAER/L-6T20-MD	6	6	20	33	7.2	46.3	7.8
CAER/L-8T25-MD	8	8	25	33	7.2	51.1	8.3

(1) WF is calculated with the groove width (CW) in the above table.

CAEFR/L-CHP

Face and external grooving adapter, with high pressure coolant capability



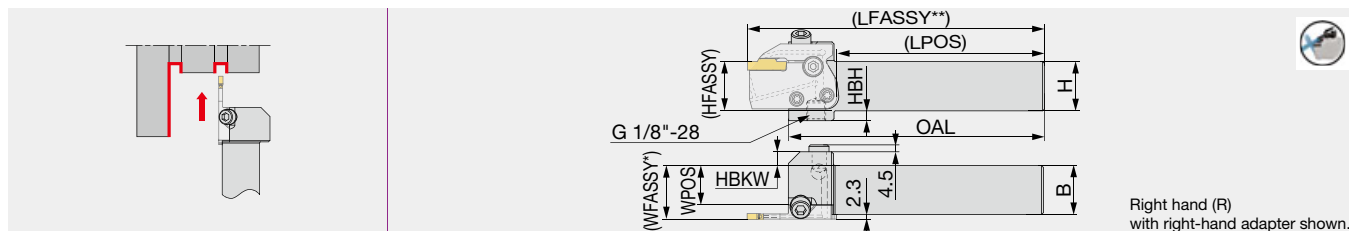
Right hand (R) shown.

Designation	CW	Seat size	CDX	H	B	LF	WF ⁽¹⁾
CAEFR/L-4T04-CHP	4	2,3,4	4.8	33	7.2	41.5	7.7
CAEFR/L-6T04-CHP	6	5,6	4.8	33	7.2	46.3	7.8

Use the right-hand insert for the right-hand holder with DTF insert.
(1) "WF" value is calculated with groove width "CW" shown in the table.

Reference pages: Inserts → **F028 - F042**, Shanks and toolholders → **F022 - F024**
Standard cutting conditions → **F043**, Technical Reference → **L053**

Shank for adapter, with high pressure coolant capability



Right hand (R)
with right-hand adapter shown.

Designation	H	B	OAL	LPOS	WPOS	HBKW	HFASSY	HBH	Adapter (Option)	Torque*
CHSR/L2020-CHP	20	20	130	105.5	15.1	12	20	10	CAE*R/L**-CHP, -MD	6.5
CHSR/L2525-CHP	25	25	130	105.5	20.1	7	25	5	CAE*R/L**-CHP, -MD	6.5

WFASSY* : Shank (WPOS) + adapter (WF)

LFASSY** : Shank (LPOS) + adapter (LF)

Depend on the adapter type, the value of LFASSY or WFASSY may change.

Torque*: Recommended clamping torque (N·m)

Applicable for 30 MPa coolant

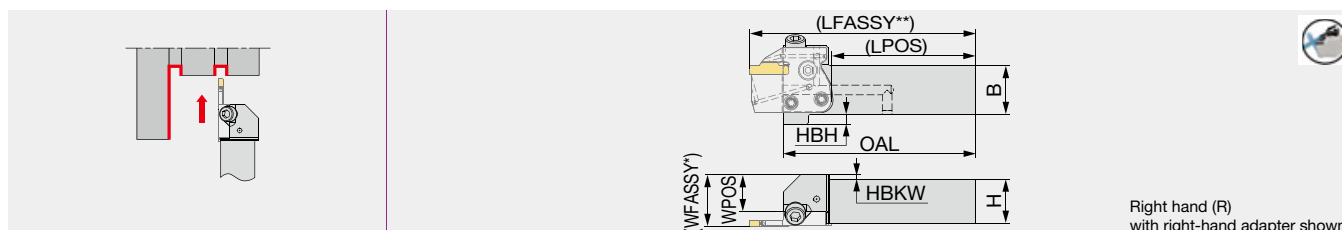
Please see page L053 for instructions on installing and removing the adapter or the insert.



CHSR/L-CHP-MC

Direct connection

Shank for adapter, with high pressure coolant capability



Right hand (R)
with right-hand adapter shown.

Designation	H	B	OAL	LPOS	WPOS	HBKW	HBH	Adapter (Option)	Torque*
CHSR/L2020-CHP-MC	20	20	98	73.5	14	6	10	CAE*R/L**-CHP, -MD	6.5
CHSR/L2525-CHP-MC	25	25	98	73.5	19	-	5	CAE*R/L**-CHP, -MD	6.5

WFASSY* : Shank (WPOS) + adapter (WF)

LFASSY** : Shank (LPOS) + adapter (LF)

Depend on the adapter type, the value of LFASSY or WFASSY may change.

Torque*: Recommended clamping torque (N·m)

Applicable for 30 MPa coolant

Please see page L053 for instructions on installing and removing the adapter or the insert.

SPARE PARTS

Designation	Clamping screw 1	Wrench 1	Clamping screw 2	Clamping screw 3	Wrench 2	O-ring	Plug
CHSR/L**-CHP	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW5.0	OR 5X1N	PLUGG1/8ISO1179
CHSR/L**-CHP-MC	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW5.0	OR 5X1N	-

Recommended clamping torque (N·m)

Clamping screw	Torque (N·m)
SR M5-04451	2.5
SR M6X12DIN6912	6.5
SR M6X20-XT	6.5

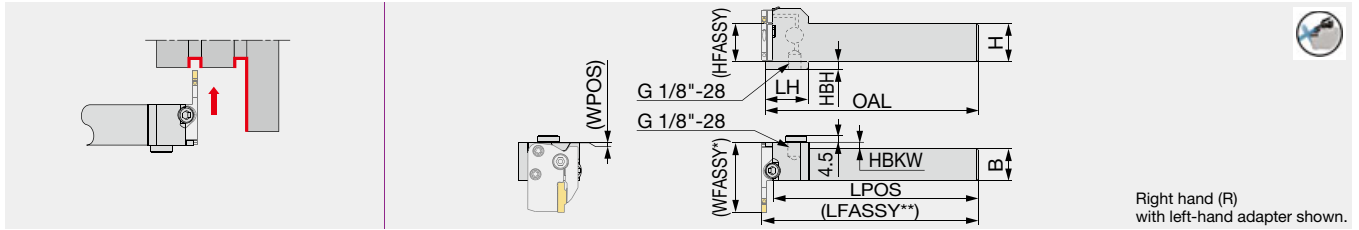
Combination of adapter and shank

Shank	External grooving adapter		Face grooving adapter		External and face grooving adapter	
	CAE**R/L**-CHP, -MD	CAEL**R/L**-CHP, -MD	CAFR**R/L**-CHP	CAFL**R/L**-CHP	CAEFR**R/L**-CHP	CAEFL**R/L**-CHP
CHSR**R/L**-CHP (-MC)	●			●	●	
CHSL**R/L**-CHP (-MC)		●	●			●

● : Corresponding

Reference pages: Inserts → F028 - F042, Adapters → F021, Standard cutting conditions → F043
Parts for coolant hose → F266, Technical Reference → L053

Shank for perpendicularly-mounted adapter, with high pressure coolant capability



Designation	H	B	OAL	LH	LPOS	WPOS	HBKW	HFASSY	HBH	Adapter (Option)	Torque*
CHFVR/L2020-CHP	20	20	140	28	135.1	0.5	5	20	10	CAE*L/R**-CHP, -MD	6.5
CHFVR/L2525-CHP	25	25	140	28	135.1	0.5	0	25	5	CAE*L/R**-CHP, -MD	6.5

WFASSY* : Shank (WPOS) + adapter (LF)

LFASSY** : Shank (LPOS) + adapter (WF)

Depend on the adapter type, the value of LFASSY or WFASSY may change.

Torque*: Recommended clamping torque (N·m)

Applicable for 30 MPa coolant

Please see page L053 for instructions on installing and removing the adapter or the insert.

SPARE PARTS

Designation	Clamping screw 1	Wrench 1	Clamping screw 2	Clamping screw 3	Wrench 2	O-ring	Plug
CHFVR/L...	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW5.0	OR 5X1N	PLUGG1/8ISO1179

Recommended clamping torque (N·m)

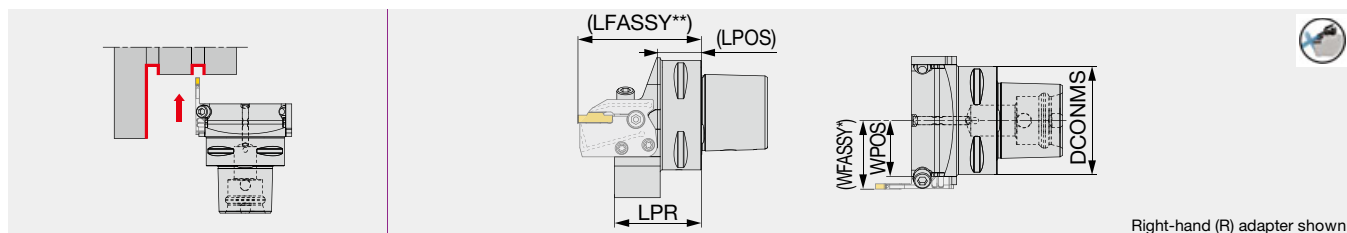
Clamping screw	Torque (N·m)
SR M5-04451	2.5
SR M6X12DIN6912	6.5
SR M6X20-XT	6.5

Combination of adapter and shank

Shank	External grooving adapter		Face grooving adapter		External and face grooving adapter	
	CAER**-CHP, -MD	CAEL**-CHP, -MD	CAFR**-CHP	CAFL**-CHP	CAEFR**-CHP	CAEFL**-CHP
CHFVR**-CHP		●	●			●
CHFVL**-CHP	●			●	●	

● : Corresponding

Toolholder with TungCap connection, for adapter, with high pressure coolant capability



Right-hand (R) adapter shown.

Designation	DCONMS	LPR	LPOSS	WPOSS	Adapter (Option)	Torque*
C3CHSN19045-CHP	32	45	17.5	18.5	CAE*R/L**-CHP, -MD	6.5
C4CHSN21047-CHP	40	46.5	21.5	21	CAE*R/L**-CHP, -MD	6.5
C5CHSN26047-CHP	50	47	22.5	26	CAE*R/L**-CHP, -MD	6.5
C6CHSN33050-CHP	63	50	24.5	32.5	CAE*R/L**-CHP, -MD	6.5

WFASSY* : Toolholder (WPOSS) + adapter (WF)

LFASSY** : Toolholder (LPOSS) + adapter (LF)

Depend on the adapter type, the value of LFASSY or WFASSY may change.

Torque*: Recommended clamping torque (N·m)

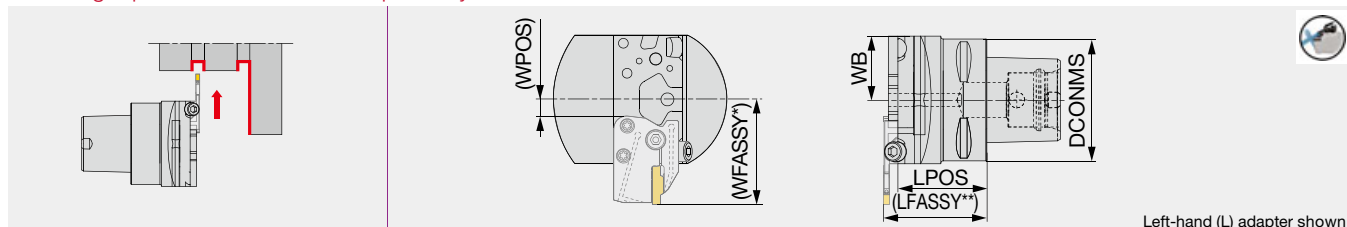
Applicable for 30 MPa coolant

Please see page L053 for instructions on installing and removing the adapter or the insert.

C*CHFVN-CHP

Direct connection

Toolholder with TungCap connection, for perpendicularly-mounted adapter, with high pressure coolant capability



Left-hand (L) adapter shown.

Designation	DCONMS	LPOSS	WB	WPOSS	Adapter (Option)	Torque*
C3CHFVN26040-CHP	32	40	26	1.5	CAE*R/L**-CHP, -MD	6.5
C4CHFVN26046-CHP	40	46	26	1.5	CAE*R/L**-CHP, -MD	6.5
C5CHFVN26046-CHP	50	46	26	1.5	CAE*R/L**-CHP, -MD	6.5
C6CHFVN33046-CHP	63	46	33	8.5	CAE*R/L**-CHP, -MD	6.5

WFASSY* : Toolholder (WPOSS) + adapter (LF)

LFASSY** : Toolholder (LPOSS) + adapter (WF)

Depend on the adapter type, the value of LFASSY or WFASSY may change.

Torque*: Recommended clamping torque (N·m)

Applicable for 30 MPa coolant

Please see page L053 for instructions on installing and removing the adapter or the insert.

SPARE PARTS

Designation	Clamping screw 1	Wrench 1	Clamping screw 2	Clamping screw 3	Wrench 2	O-ring
C*CH**N**-CHP	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW5.0	OR 5X1N

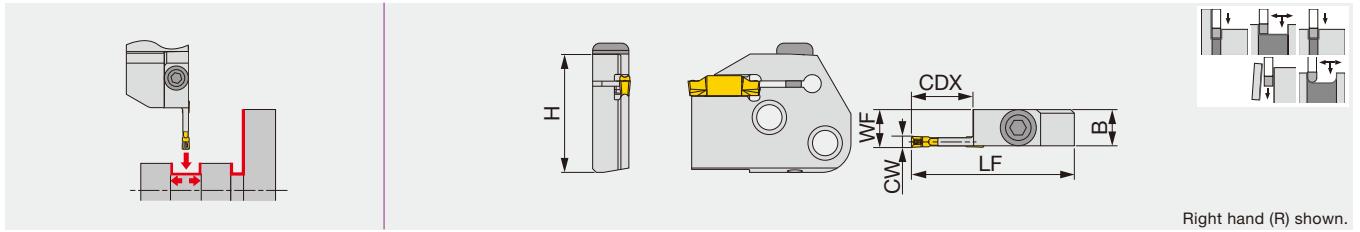
Recommended clamping torque (N·m)

Clamping screw	Torque (N·m)
SR M5-04451	2.5
SR M6X12DIN6912	6.5
SR M6X20-XT	6.5

Reference pages: Inserts → F028 - F042, Adapters → F021, Standard cutting conditions → F043
Technical Reference → L053

CAER/L

External grooving, parting and turning adapter



Designation	CW	Seat size	CDX	H	B	LF	WF	Torque*
CAER/L-3T16	3	3	16	32.7	10	45	10.4	5
CAER/L-4T16	4	4	16	32.7	10	45	10.5	5
CAER/L-5T20	5	5	20	32.7	10	49	10.5	5
CAER/L-6T20	6	6	20	32.7	10	49	10.5	5

Torque*: Recommended clamping torque (N·m)

Not compatible with TungModularSystem

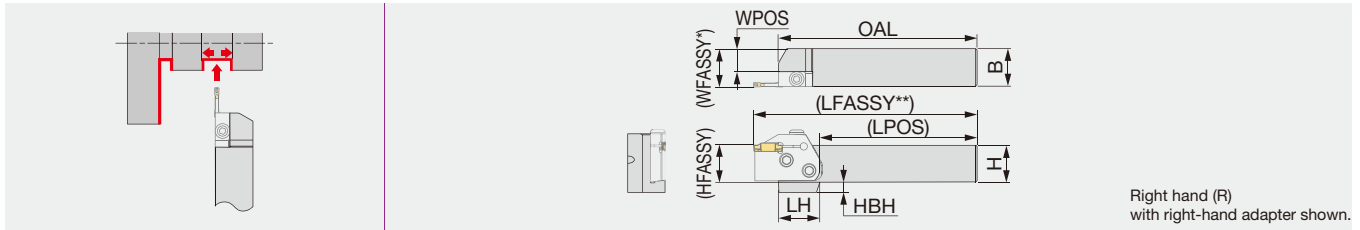
When groove depth is larger than insert length - 1.5 mm, please use 1-cornered insert.

SPARE PARTS

Designation	Clamping screw	Wrench
CAER/L...	BHM6-20-A	P-4

Reference pages: Inserts → **F028 - F042**, Shanks and toolholders → **F026, F027**
Standard cutting conditions → **F043**

Shank for adapter

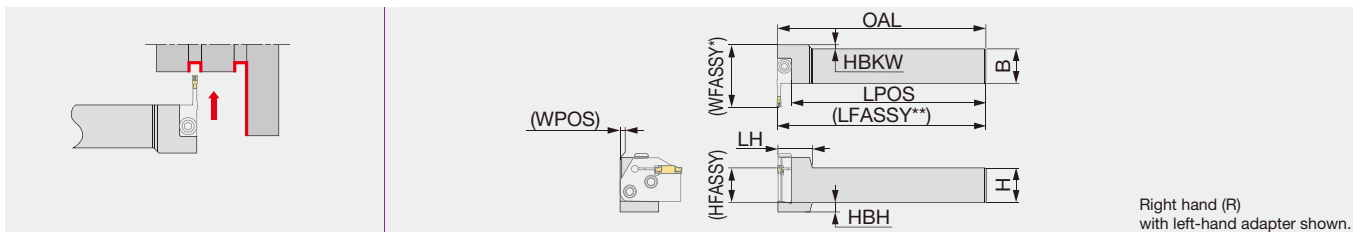


Designation	H	B	OAL	LPOS	LH	WPOS	HFASSY	HBH	Adapter (Option)
CHSR/L2020	20	20	133	105	35	10	20	12	CAER/L...
CHSR/L2525	25	25	133	105	28	15	25	7	CAER/L...
CHSR/L3232	32	32	153	125	-	22	32	-	CAER/L...

WFASSY* : Shank (WPOS) + adapter (WF)
 LFASSY** : Shank (LPOS) + adapter (LF)
 Depend on the adapter type, the value of LFASSY or WFASSY may change.
 Not compatible with TungModularSystem

CHFVR/L

Shank for adapter, perpendicularly mounted



Designation	H	B	OAL	LPOS	LH	WPOS	HBKW	HFASSY	HBH	Adapter (Option)
CHFVR/L2020	20	20	150	140	25	0	8	20	12	CAEL/R...
CHFVR/L2525	25	25	150	140	25	0	3	25	7	CAEL/R...
CHFVR/L3232	32	32	170	160	25	4	-	32	-	CAEL/R...

WFASSY* : Shank (WPOS) + adapter (LF)
 LFASSY** : Shank (LPOS) + adapter (WF)
 Depend on the adapter type, the value of LFASSY or WFASSY may change.
 Not compatible with TungModularSystem

SPARE PARTS

Designation	Clamping screw	Wrench
CH**R/L...	CSHB-6-A	P-4

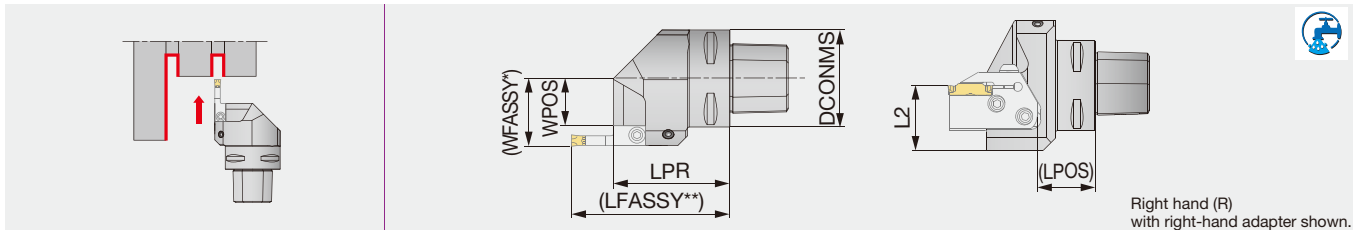
Combination of adapter and shank

Shank	External grooving adapter		Face grooving adapter	
	CAER...	CAEL...	CAFR...	CAFL...
CHSR...	●			●
CHSL...		●	●	
CHFVR...		●	●	
CHFVL...	●			●

● : Corresponding

C-CHSR/L

Toolholder with TungCap connection for adapter



Designation	DCONMS	LPR	LPOS	L2	WPOS	Adapter (Option)
C3CHSR/L22050N	32	50	22.1	35	11.5	CAER/L...
C4CHSR/L27050N	40	50	22.1	36	16.5	CAER/L...
C5CHSR/L35060N	50	60	32.1	36	24.5	CAER/L...
C6CHSR/L45065N	63	65	32.1	41	34.5	CAER/L...

WFASSY* : Toolholder (WPOS) + adapter (WF)

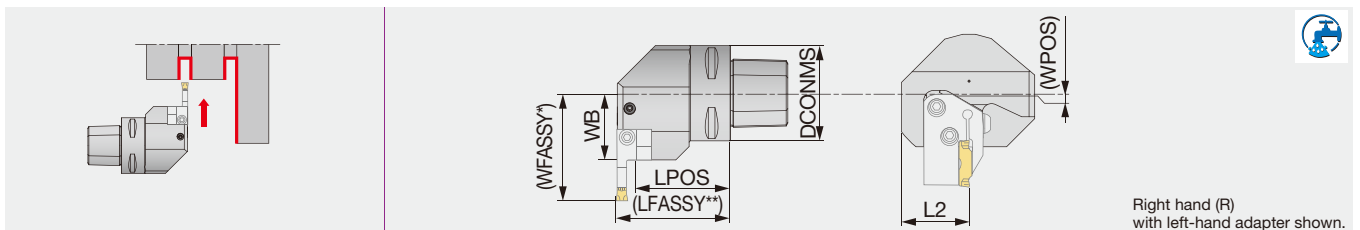
LFASSY** : Toolholder (LPOS) + adapter (LF)

Depend on the adapter type, the value of LFASSY or WFASSY may change. If needed, the coolant direction can be adjusted by the nozzle.

Applicable for 7 MPa coolant. Not compatible with TungModularSystem.

C-CHFVR/L

Toolholder with TungCap connection for adapter, perpendicularly mounted



Designation	DCONMS	LPOS	L2	WB	WPOS	Adapter (Option)
C3CHFVR/L22040N	32	32.5	35	22	-5.9	CAEL/R...
C4CHFVR/L27050N	40	42.5	36	27	-0.9	CAEL/R...
C5CHFVR/L35060N	50	49.5	36	35	7.1	CAEL/R...
C6CHFVR/L45065N	63	54.5	41	45	17.1	CAEL/R...

WFASSY* : Toolholder (WPOS) + adapter (LF)

LFASSY** : Toolholder (LPOS) + adapter (WF)

Depend on the adapter type, the value of LFASSY or WFASSY may change. If needed, the coolant direction can be adjusted by the nozzle.

Applicable for 7 MPa coolant. Not compatible with TungModularSystem.

SPARE PARTS

Designation	Coolant parts	Clamping screw	Wrench
C3CH**R/L...	SATZ-M8X1-M3	CSHB-6-A	P-4
C4CH**R/L...	SATZ-M8X1-M3	CSHB-6-A	P-4
C5CH**R/L...	SATZ-M10X1-M5	CSHB-6-A	P-4
C6CH**R/L...	SATZ-M10X1-M5	CSHB-6-A	P-4

Combination of adapter and toolholder

Toolholder	External grooving adapter		Face grooving adapter	
	CAER...	CAEL...	CAFR...	CAFL...
C*CHSR...	●			●
C*CHSL...		●	●	
C*CHFVR...		●	●	
C*CHFVL...	●			●

● : Corresponding

External grooving and parting

DGM type (2 corners) SGM type (1 corner)

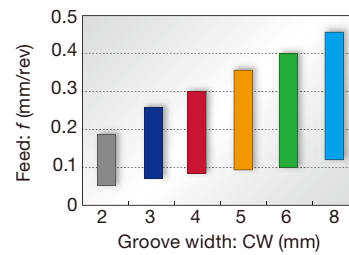


F032, F033

1st choice for grooving and parting

Smooth chip evacuation
Well-designed edge with high strength
Handed insert available
CW = 2 - 8 mm

Standard feed



DGS type (2 corners) SGS type (1 corner)

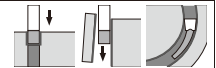
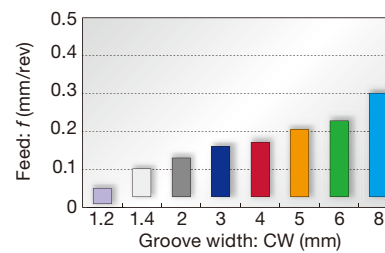


F034, F035

Lower cutting force and superior sharpness

Unique-designed edge and chipbreaker
Handed insert available
CW = 1.2 - 8 mm

Standard feed



DGL type (2 corners)

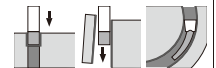
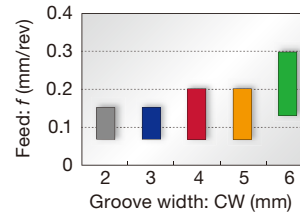


F035

1st choice for mild steel

Chipbreaker with excellent chip control at low feed
Suitable for mild steel that often gives difficulties in chip control
CW = 2 - 6 mm

Standard feed



DGG type (2 corners)

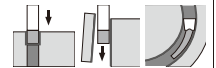
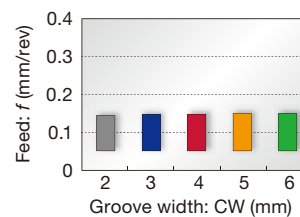


F036

For non-ferrous materials and titanium

Chipbreaker with low cutting force
Sharp cutting edge that prevents vibration and delivers fine surface finish
CW = 2 - 6 mm

Standard feed



DGE type (2 corners)

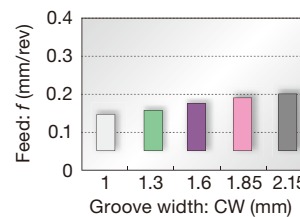


F036

For high accurate and shallow groove

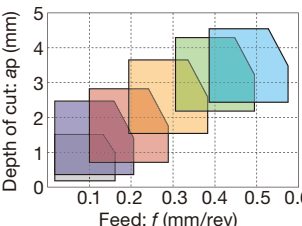
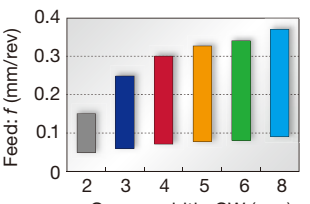
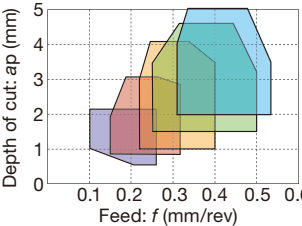
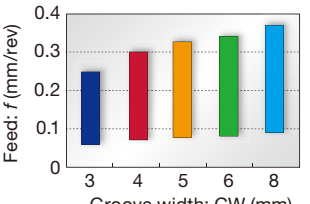
Excellent chip control
CW = 1 - 2.15 mm

Standard feed

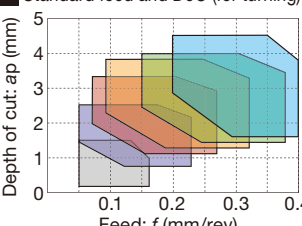
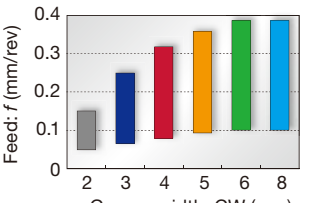


Please see page F*** for the product details.

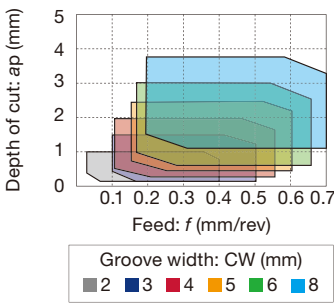
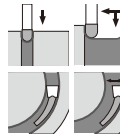
External and face grooving, and turning

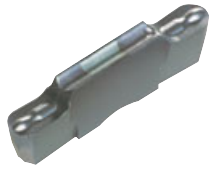
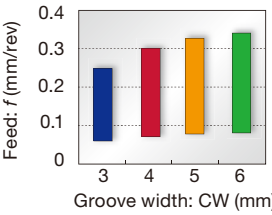
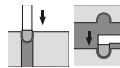
DTM type (2 corners)  F037	General purpose 1st choice for grooving and turning Suitable for light to medium cutting Excellent chip control in machining steel, alloy steel, stainless steel, and heat-resistant alloy CW = 2 - 8 mm Standard feed and DoC (for turning)  Depth of cut: ap (mm) Feed: f (mm/rev) Groove width: CW (mm) 2 3 4 5 6 8 Standard feed  Feed: f (mm/rev) Groove width: CW (mm)
DTE type (2 corners)  F037, F038	General purpose Unique chipbreaker makes chips shorter Molded and ground insert available CW = 2.65 - 8 mm Standard feed and DoC (for turning)  Depth of cut: ap (mm) Feed: f (mm/rev) Groove width: CW (mm) 3 4 5 6 8 Standard feed  Feed: f (mm/rev) Groove width: CW (mm)

External, internal and face grooving, and turning

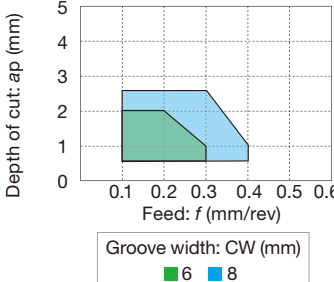
DTX type (2 corners)  F038	Multi-functional type Well balanced sharpness and strength Multi-functional insert CW = 2 - 8 mm Standard feed and DoC (for turning)  Depth of cut: ap (mm) Feed: f (mm/rev) Groove width: CW (mm) 2 3 4 5 6 8 Standard feed  Feed: f (mm/rev) Groove width: CW (mm)
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Profiling and undercutting

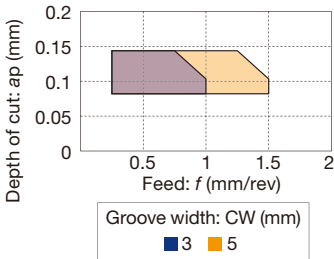
DTR type (2 corners) STR type (1 corner) Molded DTR, STR Ground DTR  F039, F040	Full radius type Excellent chip control Molded and ground inserts available CW = 2 - 8 mm	■ Standard feed and DoC (for turning) 	
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DTIU type (2 corners)  F040	Full radius type Excellent chip control for undercutting CW = 3 - 6 mm	■ Standard feed and DoC 	
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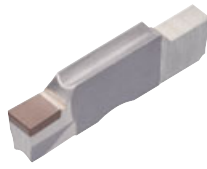
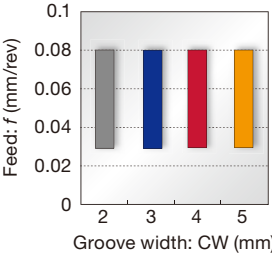
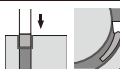
Aluminium wheel machining

DTA type (2 corners)  F041	Full radius type Excellent chip control For aluminium wheel profiling Ground insert CW = 6 - 8 mm	■ Standard feed and DoC (for turning) 	
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For high feed external and face turning of hardened steel parts

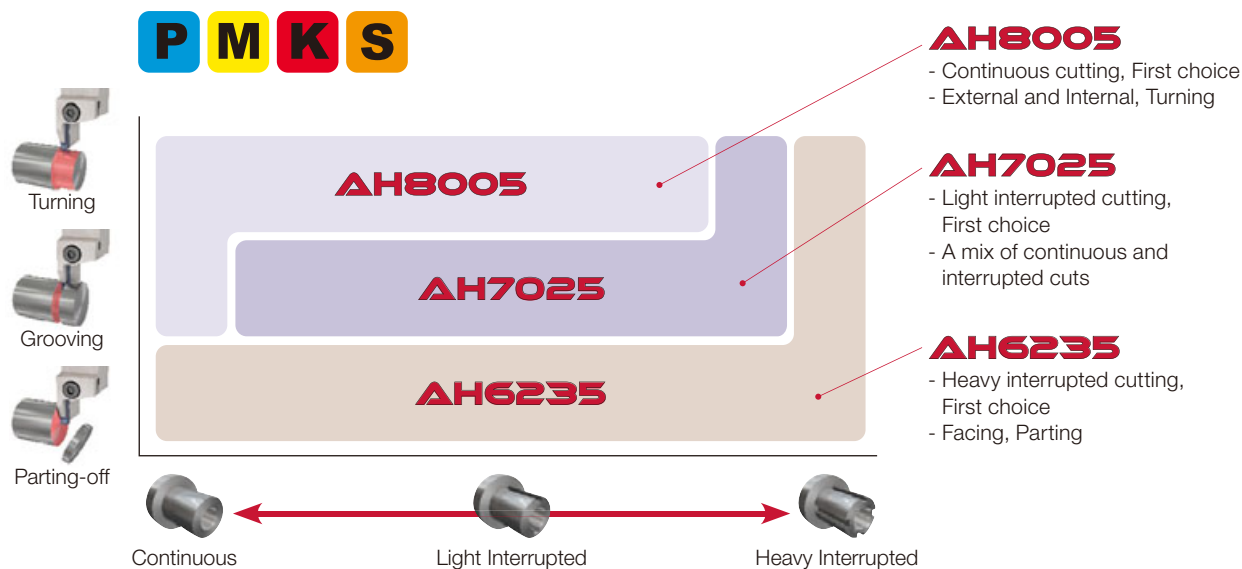
STH type (1 corner)  F041	External and face turning of hardened steel parts High efficiency machining using light D.O.C. and increased feeds CW = 3, 5 mm	■ Standard feed and DoC (for turning) 	
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External grooving of hardened steel

SGN-CBN type (1 corner)  F042	For hardened steel cutting Optimum cutting edge shape for grooving of hardened steels High tolerance width for finishing CW = 2 - 5 mm (CW = ±0.025 mm)	■ Standard feed 	
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Please see page F*** for the product details.

GRADE SELECTION



GRADES

AH8005

P M K S

- First choice for external, internal, and side-turning, continuous cuts

AH7025

P M K S

- First choice for light interrupted cuts or a mix of continuous and interrupted cuts
- New PVD coating with high Al content provides excellent adhesion strength
- Improved wear and chipping resistance

AH6235

P M K

- First choice for heavy interrupted cuts, as well as parting and facing applications

AH725

P M S

- General purpose PVD grade for high fracture resistance

T515

K

- First recommended grade for cast iron
- Excellent wear resistance in high speed machining

T9225

P

- Suitable for steel machining at high speeds
- New CVD coating and substrate deliver an outstanding balance of wear and chipping resistance

NS9530

P

- Advanced cermet for finish cutting of steel
- Innovative grade with incredible fracture and high wear resistance

GH130

P M K

- Recommended for interrupted machining
- TiCNO PVD coating layer with high wear resistance
- High hardness wear resistance

AH905

S

- Remarkable for machining of heat resistant alloys
- Exclusive coating layer improves adhesion strength and wear resistance

KS05F

N S

- Recommended for non-ferrous materials and titanium

TH10

N

- Recommended for non-ferrous materials

BXA10

H

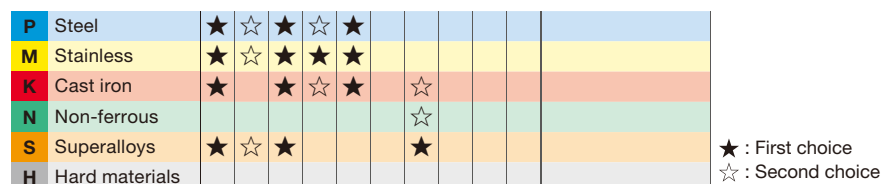
- Coated CBN grade designed for turning hardened steel parts

BX360

H

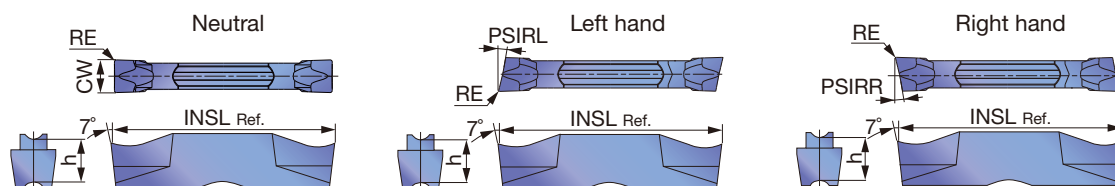
- Developed for grooving applications of hardened steel parts

External deep grooving and parting



Designation	Seat size	HAND	CW±0.05	RE	Coated					Uncoated								
					AH7025	AH725	AH8005	GH130	AH6235	KS05F								
SGM2-020	2	N	2	0.2	●	●	●	●	●	●					20	5	0°	0°
SGM2-020-6R	2	R	2	0.2	●	●		●							20	5	0°	6°
SGM2-020-6L	2	L	2	0.2	●	●		●							20	5	6°	0°
SGM3-020	3	N	3	0.2	●	●	●	●	●	●					20	5	0°	0°
SGM3-020-6R	3	R	3	0.2	●	●		●							20	5	0°	6°
SGM3-020-6L	3	L	3	0.2	●	●		●							20	5	6°	0°
SGM3-020-15R	3	R	3	0.2	●	●		●							20	5	0°	15°
SGM3-020-15L	3	L	3	0.2	●	●		●							20	5	15°	0°
SGM4-030	4	N	4	0.3	●	●	●	●	●	●					20	5	0°	0°
SGM4-030-4R	4	R	4	0.3	●	●		●							20	5	0°	4°
SGM4-030-4L	4	L	4	0.3	●	●		●							20	5	4°	0°
SGM5-030	5	N	5	0.3	●	●	●	●	●	●					25	5.5	0°	0°
SGM6-030	6	N	6	0.3	●	●	●	●	●	●					25	5.5	0°	0°
SGM8-040	8	N	8	0.4	●		●		●	●					30	6.7	0°	0°

● : Line up

[illegible]

★ : First choice
☆ : Second choice

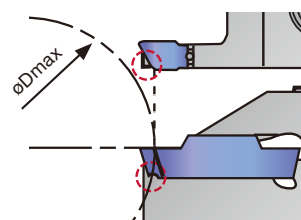


Designation	Seat size	HAND	CW±0.05	RE	Coated					Cermet	Uncoated			INSL	h	PSIRL	PSIRR
					T9225	AH7025	AH725	AH8005	GH130	AH6235	NS9530	KS05F					
DGS1.2-003	0.9	N	1.2	0.03			●							16	4.7	0°	0°
DGS1.4-005	1	N	1.4	0.05			●							16	4.3	0°	0°
DGS1.4-010	1	N	1.4	0.1			●							16	4.3	0°	0°
DGS1.4-016	1	N	1.4	0.16		●	●		●					16	4.3	0°	0°
DGS2-005	2	N	2	0.05			●							20	5	0°	0°
DGS2-010	2	N	2	0.1			●							20	5	0°	0°
DGS2-020	2	N	2	0.2	●	●	●	●	●	●	●		●	20	5	0°	0°
DGS2-020-6R	2	R	2	0.2		●	●		●					20	5	0°	6°
DGS2-020-6L	2	L	2	0.2		●	●		●					20	5	6°	0°
DGS2-002-6R	2	R	2	0.02			●		●					19.5	5	0°	6°
DGS2-002-6L	2	L	2	0.02			●		●					19.5	5	6°	0°
DGS2-020-15R	2	R	2	0.2		●	●		●					20	5	0°	15°
DGS2-020-15L	2	L	2	0.2		●	●		●					20	5	15°	0°
DGS2-002-15R	2	R	2	0.02			●		●					19.5	5	0°	15°
DGS2-002-15L	2	L	2	0.02			●		●					19.5	5	15°	0°
DGS2.39-020	2	N	2.39	0.2		●		●		●				20	5	0°	0°
DGS3-020	3	N	3	0.2	●	●	●	●	●	●	●		●	20	5	0°	0°
DGS3-020-6R	3	R	3	0.2		●	●		●					20	5	0°	6°
DGS3-020-6L	3	L	3	0.2		●	●		●					20	5	6°	0°
DGS3-002-6R	3	R	3	0.02			●		●					19.45	5	0°	6°
DGS3-002-6L	3	L	3	0.02			●		●					19.45	5	6°	0°
DGS3-020-15R	3	R	3	0.2		●	●		●					20	5	0°	15°
DGS3-020-15L	3	L	3	0.2		●	●		●					20	5	15°	0°
DGS3-002-15R	3	R	3	0.02			●		●					19.45	5	0°	15°
DGS3-002-15L	3	L	3	0.02			●		●					19.45	5	15°	0°
DGS3.18-020	3	N	3.18	0.2		●		●		●				20	5	0°	0°
DGS4-030	4	N	4	0.3	●	●	●	●	●	●	●		●	20	5	0°	0°
DGS4-030-4R	4	R	4	0.3		●	●		●					20	5	0°	4°
DGS4-030-4L	4	L	4	0.3		●	●		●					20	5	4°	0°
DGS4.76-040	5	N	4.76	0.4		●		●		●				25	5.5	0°	0°
DGS5-030	5	N	5	0.3	●	●	●	●	●	●	●		●	25	5.5	0°	0°
DGS6-030	6	N	6	0.3	●	●	●	●	●	●			●	25	5.5	0°	0°
DGS6.35-040	6	N	6.35	0.4		●		●		●				25	5.5	0°	0°
DGS8-040	8	N	8	0.4		●		●		●			●	30	6.7	0°	0°

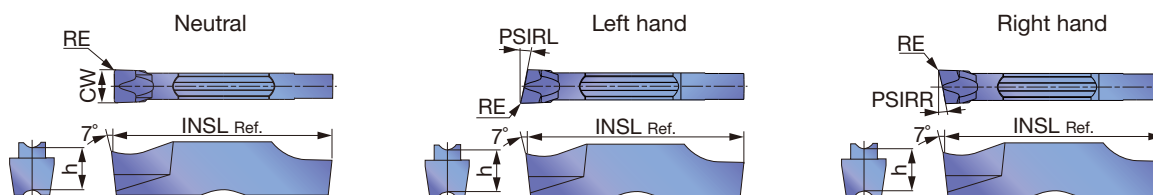
● : Line up

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

Designation	øDmax (mm)	Designation	øDmax (mm)
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



Reference pages: Toolholders → **F014 - F027**, Standard cutting conditions → **F043**



		Strength	Stiffness	Toughness	Corrosion resistance	Wear resistance	Machinability	Cost	Availability
P	Steel	★☆☆	★★★	★★★★					
M	Stainless	★★☆	★★★	★★★★					
K	Cast iron	★★	★★	★★★	★				
N	Non-ferrous				★				
S	Superalloys	★★☆			★				
H	Hard materials								

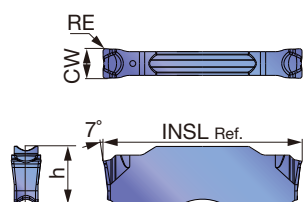
★ : First choice
☆ : Second choice

Designation	Seat size	HAND	CW±0.05	RE	Coated					Uncoated								
					AH7025	AH725	AH8005	GH130	AH6235	KS05F			INSL	h	PSIRL	PSIRR		
SGS2-020	2	N	2	0.2	●	●	●	●	●	●					20	5	0°	0°
SGS2-020-6R	2	R	2	0.2	●	●		●							20	5	0°	6°
SGS2-020-6L	2	L	2	0.2	●	●		●							20	5	6°	0°
SGS2-020-15R	2	R	2	0.2	●	●		●							20	5	0°	15°
SGS2-020-15L	2	L	2	0.2	●	●		●							20	5	15°	0°
SGS3-020	3	N	3	0.2	●	●	●	●	●	●					20	5	0°	0°
SGS3-020-6R	3	R	3	0.2	●	●		●							20	5	0°	6°
SGS3-020-6L	3	L	3	0.2	●	●		●							20	5	6°	0°
SGS3-002-6R	3	R	3	0.02		●		●							19.8	5	0°	6°
SGS3-002-6L	3	L	3	0.02		●		●							19.8	5	6°	0°
SGS3-020-15R	3	R	3	0.2	●	●		●							20	5	0°	15°
SGS3-020-15L	3	L	3	0.2	●	●		●							20	5	15°	0°
SGS3-002-15R	3	R	3	0.02		●		●							19.8	5	0°	15°
SGS3-002-15L	3	L	3	0.02		●		●							19.8	5	15°	0°
SGS4-030	4	N	4	0.3	●	●	●	●	●	●					20	5	0°	0°
SGS5-030	5	N	5	0.3	●	●	●	●	●	●					25	5.5	0°	0°
SGS6-030	6	N	6	0.3	●	●	●	●	●	●					25	5.5	0°	0°
SGS8-040	8	N	8	0.4	●		●		●						30	6.7	0°	0°

● : Line up

DGL

External grooving and parting



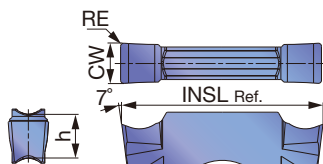
P	Steel	★	★	★				
M	Stainless	★	★	★				
K	Cast iron	★	★	★				
N	Non-ferrous							
S	Superalloys	★	★					
H	Hard materials							

★ : First choice
☆ : Second choice

[illegible]

● : Line up

External grooving (for high precision)



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

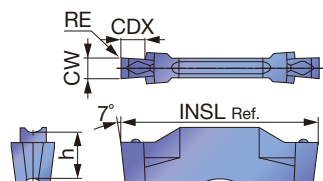
★ : First choice
☆ : Second choice



Designation	Seat size	CW±0.02	RE	Coated	Cermet	Uncoated					INSL	h	
				AH7025	NS9530	KS05F							
DGG200-020	2	2	0.2	●	●	●						20	5
DGG300-020	3	3	0.2	●	●	●						20	5
DGG400-040	4	4	0.4	●	●	●						20	5
DGG500-040	5	5	0.4	●	●	●						25	5.5
DGG600-040	6	6	0.4	●	●	●						25	5.5

●: Line up

External grooving (for high precision)



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

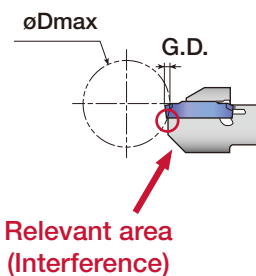
★ : First choice
☆☆ : Second choice

Designation	Seat size	CW±0.02	RE	Coated			Cermet		CDX	INSL	h
				AH7025	AH725	GH130	NS9530				
DGE100-000	2	1	0	●	●	●	●		2.5	20	5
DGE130-000	2	1.3	0	●	●	●	●		2.5	20	5
DGE160-010	2	1.6	0.1	●	●	●	●		2.5	20	5
DGE185-010	2	1.85	0.1	●	●	●	●		3.5	20	5
DGE215-015	2	2.15	0.15	●	●	●	●		3.5	20	5

●: Line up

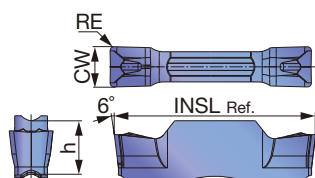
G.D = Groove depth

Designation	Max. groove depth (mm)	øDmax (mm)				
		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						



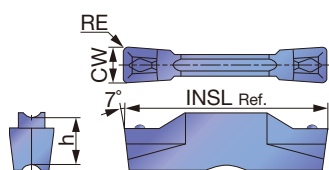
Reference pages: Toolholders → **F014 - F027**, Standard cutting conditions → **F043**

External face grooving and turning



	P	Steel	★	★	★																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																</
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External face grooving and turning (for high precision)



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

★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.02	RE	Coated				Cermet						INSL	h	
				T9225	AH7025	AH725	GH130			NS9530						
DTE265-015	3	2.65	0.15	●	●	●	●			●					20	5
DTE300-020	3	3	0.2	●	●	●	●			●					20	5
DTE300-040	3	3	0.4	●	●	●	●			●					20	5
DTE315-015	3	3.15	0.15	●	●	●	●			●					20	5
DTE400-040	4	4	0.4	●	●	●	●			●					20	5
DTE400-080	4	4	0.8	●	●	●	●			●					20	5
DTE415-015	4	4.15	0.15	●	●	●	●			●					20	5
DTE478-055	5	4.78	0.55	●	●	●	●			●					25	5.5
DTE500-040	5	5	0.4	●	●	●	●			●					25	5.5
DTE500-080	5	5	0.8	●	●	●	●			●					25	5.5
DTE515-015	5	5.15	0.15	●	●	●	●								25	5.5
DTE600-080	6	6	0.8	●	●	●	●								25	5.5
DTE600-120	6	6	1.2	●	●	●	●								25	5.5
DTE800-080	8	8	0.8	●	●	●	●								30	6.7
DTE800-120	8	8	1.2	●	●	●	●								30	6.7

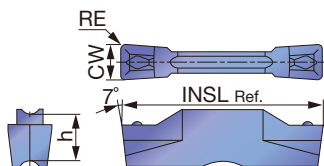
●: Line up

●: Line up

Reference pages: Toolholders → **F014 - F027**, Standard cutting conditions → **F043**

DTE

External face grooving and turning



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

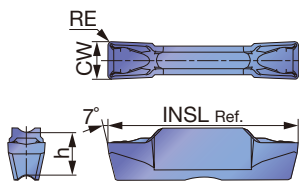
★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.05	RE	Coated						Cermets				INSL	h
				T9225	T515	AH7025	AH725	AH8005	GH130	AH6235	NS9530				
DTE3-020	3	3	0.2			●		●		●				20	5
DTE3-040	3	3	0.4	●	●	●	●	●	●	●	●			20	5
DTE4-040	4	4	0.4	●	●	●	●	●	●	●	●			20	5
DTE4-080	4	4	0.8			●		●		●				20	5
DTE5-040	5	5	0.4		●	●		●		●				25	5.5
DTE5-080	5	5	0.8			●		●		●				25	5.5
DTE6-080	6	6	0.8		●	●		●		●				25	5.5

● : Line up

DTX

External, internal and face grooving, and turning



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

★ : First choice
☆ : Second choice

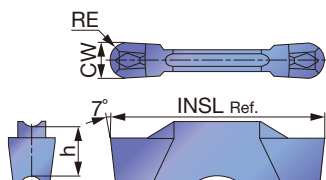
Designation	Seat size	CW±0.05	RE	Coated						Cermets		Uncoated		INSL	h
				T9225	AH7025	AH725	AH8005	GH130	AH6235	NS9530		KS05F			
DTX2-020	2	2	0.2		●		●		●			●		20	5
DTX3-030	3	3	0.3	●	●	●	●	●	●	●		●		20	5
DTX4-040	4	4	0.4	●	●	●	●	●	●	●		●		20	5
DTX5-040	5	5	0.4	●	●	●	●	●	●	●		●		25	5.5
DTX6-080	6	6	0.8		●	●	●	●	●			●		25	5.5
DTX8-080	8	8	0.8		●		●		●			●		30	6.7

● : Line up

Reference pages: Toolholders → **F014 - F027**, Standard cutting conditions → **F043**

DTR

Profiling and undercutting (for high precision)



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

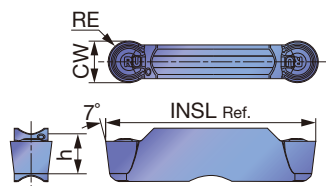
★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.02	RE	Coated						Cermet						INSL	h
				T9225	AH7025	AH725	GH130			NS9530							
DTR300-150	3	3	1.5	●	●	●	●			●						20	5
DTR400-200	4	4	2	●	●	●	●			●						20	5
DTR478-239	5	4.78	2.39	●	●	●	●			●						25	5.5
DTR500-250	5	5	2.5	●	●	●	●			●						25	5.5
DTR600-300	6	6	3	●	●	●	●									25	5.5

● : Line up

DTR

Profiling and undercutting



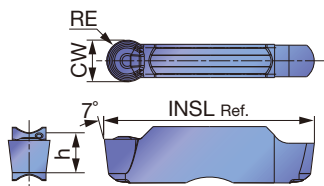
P	Steel	★	★	☆	★		☆	★		★									
M	Stainless		★	☆	★		★	★											
K	Cast iron		★		★	☆	☆	★		☆			☆						
N	Non-ferrous												☆						
S	Superalloys		★	☆	★	★							★						
H	Hard materials																		

★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.05	RE	Coated						Cermet		Uncoated				INSL	h
				T9225	AH7025	AH725	AH8005	AH905	GH130	AH6235	NS9530		KS05F				
DTR2-100	2	2	1		●		●			●			●			20	5
DTR3-150	3	3	1.5	●	●	●	●	●	●	●	●		●			20	5
DTR4-200	4	4	2	●	●	●	●	●	●	●	●		●			20	5
DTR5-250	5	5	2.5	●	●	●	●	●	●	●	●		●			25	5.5
DTR6-300	6	6	3	●	●	●	●		●	●			●			25	5.5
DTR8-400	8	8	4	●	●	●	●		●	●			●			30	6.7

● : Line up

Profiling and undercutting



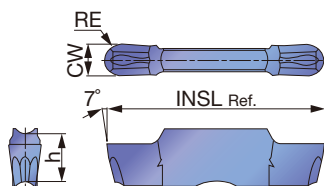
P	Steel	★	★								
M	Stainless	★	★								
K	Cast iron	★	★					☆			
N	Non-ferrous							☆			
S	Superalloys	★	★					★			
H	Hard materials										

★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.05	RE	Coated				Uncoated						INSL	h	
				AH7025	AH8005					KS05F						
STR2-100	2	2	1	●	●					●					20	5
STR3-150	3	3	1.5	●	●					●					20	5
STR4-200	4	4	2	●	●					●					20	5
STR5-250	5	5	2.5	●	●					●					25	5.5
STR6-300	6	6	3	●	●					●					25	5.5
STR8-400	8	8	4	●	●					●					30	6.7

●: Line up

Profiling and undercutting (for high precision)



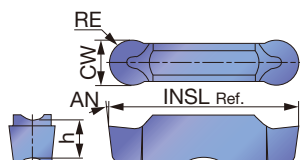
P	Steel	★	☆	☆			
M	Stainless	★	☆	★			
K	Cast iron	★		☆			
N	Non-ferrous						
S	Superalloys	★	☆				
H	Hard materials						

★ : First choice
☆ : Second choice

[illegible]

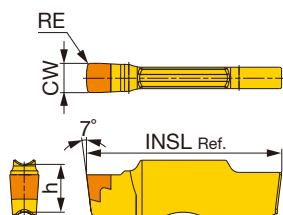
●: Line up

Aluminium wheel machining (for high precision)



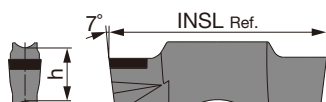
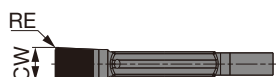
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External and face turning



Designation	Seat size	CW ± 0.025	RE	CBN							INSL	h
				●								
STH300-SR	3	3	0.3	●							20	5
STH500-SR	5	5	0.3	●							25	5.5

●: Line up



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

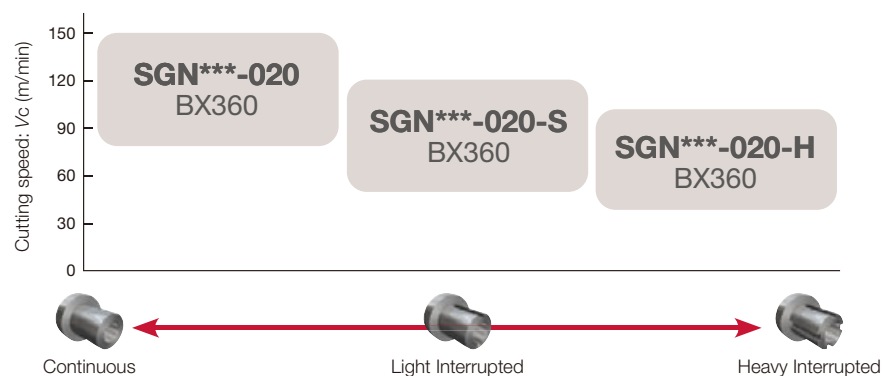
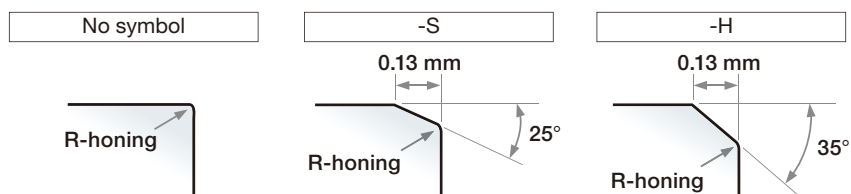
★ : First choice
☆ : Second choice



Designation	Seat size	CW±0.025	RE	CBN			INSL	h	Condition		
				BX360					Continuous	Light interrupted	Heavy interrupted
SGN200-020	2	2	0.2	●			20	5	○		
SGN200-020-S	2	2	0.2	●			20	5		○	
SGN200-020-H	2	2	0.2	●			20	5			○
SGN300-020	3	3	0.2	●			20	5	○		
SGN300-020-S	3	3	0.2	●			20	5		○	
SGN300-020-H	3	3	0.2	●			20	5			○
SGN400-020	4	4	0.2	●			20	5	○		
SGN400-020-S	4	4	0.2	●			20	5		○	
SGN400-020-H	4	4	0.2	●			20	5			○
SGN500-020-S	5	5	0.2	●			25	5.5		○	
SGN500-020-H	5	5	0.2	●			25	5.5			○

●: Line up

■ Edge preparations



Reference pages: Toolholders → **F014 - F027**, Standard cutting conditions → **F043**

STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Hardness	Priority	Grade	Cutting speed V _c (m/min)
P	Steel S45C, SCM435, etc. C45, 34CrMo4, etc.	< 300 HB	First choice	AH7025, AH725	50 - 180
		< 300 HB	Wear resistance	T9225, AH8005	80 - 300
		< 300 HB	Impact resistance	AH6235, GH130	50 - 120
		< 300 HB	Surface quality	NS9530	80 - 220
M	Stainless steel SUS303, SUS304, etc. X10CrNiS18-9, X5CrNi18-9, etc.	< 200 HB	First choice	AH7025, AH725	50 - 120
		< 200 HB	Wear resistance	AH8005	50 - 120
		< 200 HB	Impact resistance	AH6235, GH130	50 - 120
K	Grey cast iron FC250, etc. 250, etc.	-	First choice	T515	150 - 700
		-	Impact resistance	AH8005, AH7025, AH6235, GH130	50 - 180
	Ductile cast iron FCD450, etc. 450-10S, etc.	-	First choice	T515	150 - 300
		-	Impact resistance	AH8005, AH7025, AH6235, GH130	50 - 120
N	Aluminium alloys Si < 12%	-	First choice	TH10	100 - 500
		-	First choice	KS05F	100 - 600
S	Superalloys Inconel718, etc.	< HRC 40	First choice	AH8005	20 - 60
		< HRC 40	Impact resistance	AH7025, AH725, AH6235	20 - 40
	Titanium alloys Ti-6Al-4V, etc.	< HRC 40	First choice	KS05F	20 - 100
		< HRC 40	Impact resistance	AH7025, AH725	20 - 80

Please see page **F028 - F030** for feed: *f* (mm/rev).

STH

ISO	Grade	CW	Application	Cutting speed V _c (m/min)	Depth of cut a _p (mm)	Feed <i>f</i> (mm/rev)
H	BXA10	3	External turning	100 - 230	0.08 - 0.12	0.4 - 1
			Face turning	100 - 230	0.08 - 0.12	0.4 - 0.8
		5	External turning	100 - 230	0.08 - 0.12	0.5 - 1.5
			Face turning	100 - 230	0.08 - 0.12	0.5 - 0.8

SGN

ISO	Grade	Edge preparation	Workpiece condition	Cutting speed V _c (m/min)	Feed <i>f</i> (mm/rev)
H	BX360	No symbol	Continuous	80 - 150	0.03 - 0.08
		-S	Light interrupted	50 - 120	0.03 - 0.08
		-H	Heavy interrupted	40 - 100	0.03 - 0.06

Grade

Insert

Ext. Toolholder

Int. Toolholder

Threading

Grooving

Miniature tool

Milling cutter

Endmill

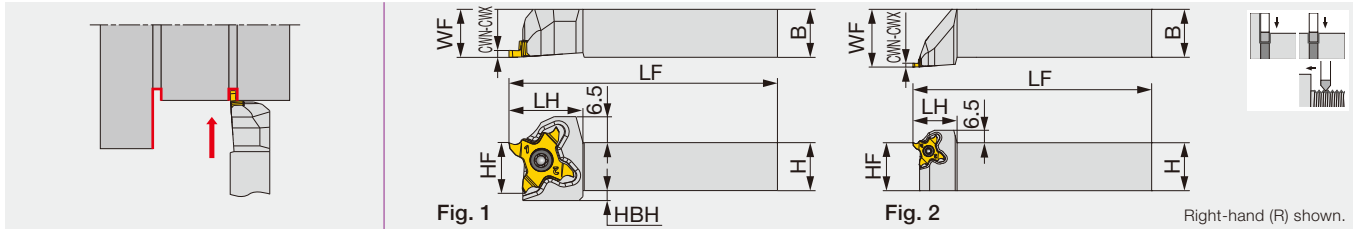
Drilling tool

Tooling System

User's Guide

Index

Precision grooving tools with uniquely shaped insert for swiss type machine and general lathes



Designation	CWN	CWX	H	B	LF	LH	HF	WF	HBH	Insert	Torque*	Fig.
STCR/L1010X18	0.33	3.18	10	10	120	18.5	10	10	4.5	TC*18...	1.2	1
STCR/L1212F18	0.33	3.18	12	12	85	18.5	12	12	2.5	TC*18...	1.2	1
STCR/L1212X18	0.33	3.18	12	12	120	18.5	12	12	2.5	TC*18...	1.2	1
STCR/L1616X18	0.33	3.18	16	16	120	18.5	16	16	-	TC*18...	1.2	1
STCR/L2020H18	0.33	3.18	20	20	100	18.5	20	20	-	TC*18...	1.2	1
STCR/L2020X18	0.33	3.18	20	20	120	23	20	25	-	TC*18...	1.2	2
STCR/L2525Z18	0.33	3.18	25	25	135	23	25	30	-	TC*18...	1.2	2

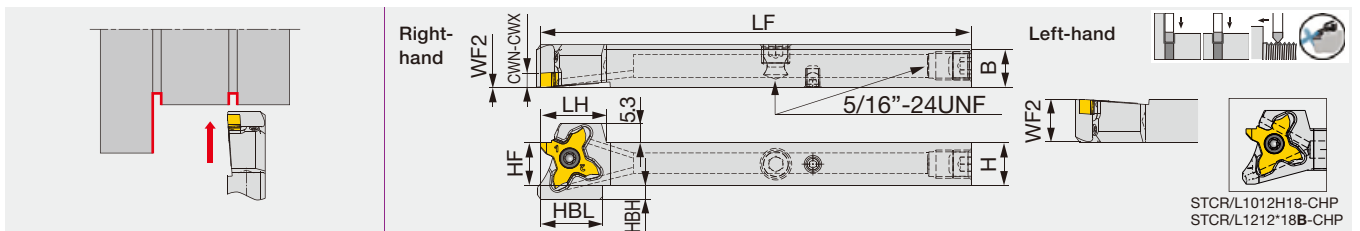
The right hand insert (TC*18R...) is used for the right hand toolholders (STCR...), and the left hand insert is used for the left hand toolholders

*Torque: Recommended clamping torque: N·m

STCR/L-18-CHP

Direct connection

External grooving and threading toolholder, high pressure coolant compatible



Designation	CWN	CWX	H	B	LF	LH	HBL	HF	WF2	HBH	Insert	Torque*
STCR/L1012H18-CHP	0.33	3.18	10	12	100	17.1	17.1	10	0/12	4	TC*18...	1.2
STCR/L1212X18B-CHP	0.33	3.18	12	12	120	18.5	17.5	12	0/12	4	TC*18...	1.2
STCR/L1616X18-CHP	0.33	3.18	16	16	120	18.5	-	16	0/16	0	TC*18...	1.2

The right hand insert (TC*18R...) is used for the right hand toolholders (STCR...), and the left hand insert (TC*18L...) is used for the left hand toolholders (STCL...).

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

SPARE PARTS

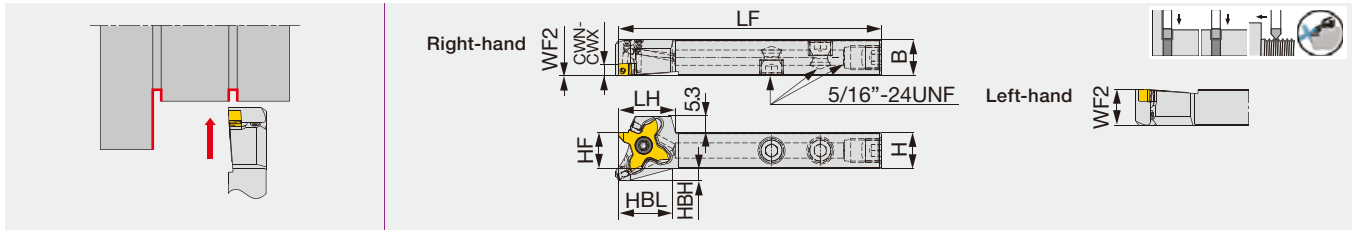
Designation	Clamping screw	Wrench	Coolant plug	Wrench	DirectJet plug	Wrench
STCR**18	CSTC-4L100DL	T-1008/5	-	-	-	-
STCL**18	CSTC-4L100DR	T-1008/5	-	-	-	-
STCL**18-CHP	CSTC-4L100DR	T-1008/5	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2
STCR**18-CHP	CSTC-4L100DL	T-1008/5	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2

Reference pages: Inserts → **F051 - F057**, Standard cutting conditions → **F058**
Parts for coolant hose → **F266**

STCR/L-18-CHP

Tube connection

External grooving and threading toolholder. High pressure coolant capability.



Designation	CWN	CWX	H	B	LF	LH	HBL	HF	WF2 ⁽¹⁾	HBH	Insert	Torque*
STCR/L1212F18B-CHP	0.33	3.18	12	12	85	18.5	17.5	12	0/12	4	TC*18...	1.2

The right hand insert (TC*18R**) is used for the right hand toolholders (STCR**), and the left hand insert (TC*18L**) is used for the left hand toolholders (STCL**).

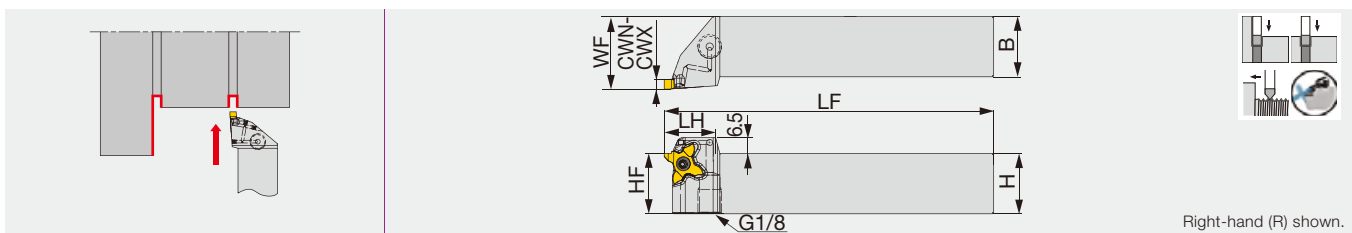
(1) "0/12" for the WF2 dimension indicates WF2 = 0 for the right handed tool, WF2 = 12 for the left handed tool.

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

STCR/L-18-CHP

Tube connection

Threading tool - for external theading with high pressure coolant capability



Designation	CWN	CWX	H	B	LF	LH	HBL	HF	WF	HBH	Insert	Torque*
STCR/L2020X18-CHP	0.33	3.18	20	20	120	23	-	20	25	-	TC*18...	1.2
STCR/L2525Z18-CHP	0.33	3.18	25	25	135	23	-	25	30	-	TC*18...	1.2

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...).

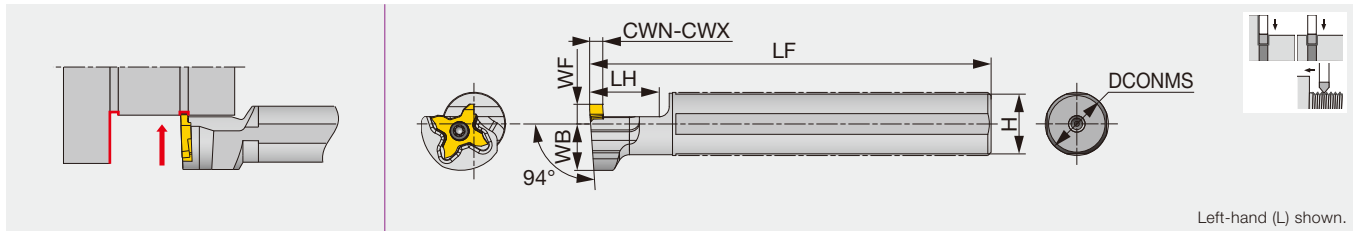
*Torque: Recommended torque (N·m) for clamping

SPARE PARTS

Designation	Clamping screw	Wrench	Coolant plug	Wrench
STCL**F18B-CHP	CSTC-4L100DR	T-1008/5	SR5/16UNFTL360	P-4
STCR**F18B-CHP	CSTC-4L100DL	T-1008/5	SR5/16UNFTL360	P-4
STCL**18-CHP	CSTC-4L100DR	T-1008/5	-	-
STCR**18-CHP	CSTC-4L100DL	T-1008/5	-	-

Reference pages: Inserts → **F051 - F057**, Standard cutting conditions → **F058**
Parts for coolant hose → **F266**

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



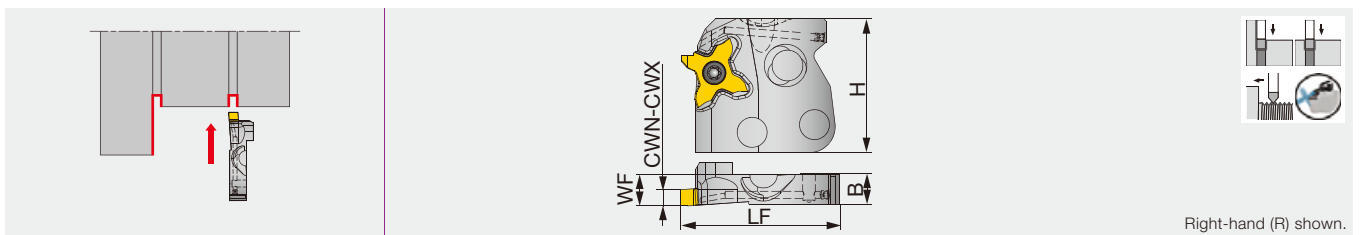
Designation	CWN	CWX	DCONMS	LF	LH	H	WB	WF	Insert	Torque*
JS14H-STCL18	0.33	3.18	14	100	20	13	14	6	TC*18R...	1.2
JS159F-STCL18	0.33	3.18	15.875	85	20	15	14	6	TC*18R...	1.2
JS16F-STCL18	0.33	3.18	16	85	20	15	14	6	TC*18R...	1.2
JS19G-STCL18	0.33	3.18	19.05	90	20	18	14	6	TC*18R...	1.2
JS19X-STCL18	0.33	3.18	19.05	120	20	18	14	6	TC*18R...	1.2
JS20G-STCL18	0.33	3.18	20	90	20	19	14	6	TC*18R...	1.2
JS20X-STCL18	0.33	3.18	20	120	20	19	14	6	TC*18R...	1.2
JS22X-STCL18	0.33	3.18	22	120	20	21	12.25	10	TC*18R...	1.2
JS25H-STCL18	0.33	3.18	25	100	20	24	12.25	10	TC*18R...	1.2
JS254X-STCL18	0.33	3.18	25.4	120	20	24	12.25	10	TC*18R...	1.2

The left hand toolholder (STCL...) is used with the right hand inserts (TC*18R...)

*Torque: Recommended clamping torque: N·m

STCAR/L18-CHP

External grooving and threading adapter, with high pressure coolant capability



Designation	CWN	CWX	WF	H	LF	B	Insert	Torque*
STCAR/L18-CHP	0.33	3.18	7.5	33	38	7.2	TC*18...	1.2

Use the right hand insert (TC*18R...) with the right hand adapter (STCAR...). Use the left hand insert (TC*18L...) with the left hand adapter (STCAL...).

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

SPARE PARTS



Designation	Clamping screw	Wrench
JS**STCL18	CSTC-4L100DL	T-1008/5
STCAL18-CHP	CSTC-4L100DR	T-1008/5
STCAR18-CHP	CSTC-4L100DL	T-1008/5

Reference pages: JS-STCL18: Inserts → **F051 - F057**, Standard cutting conditions → **F058**

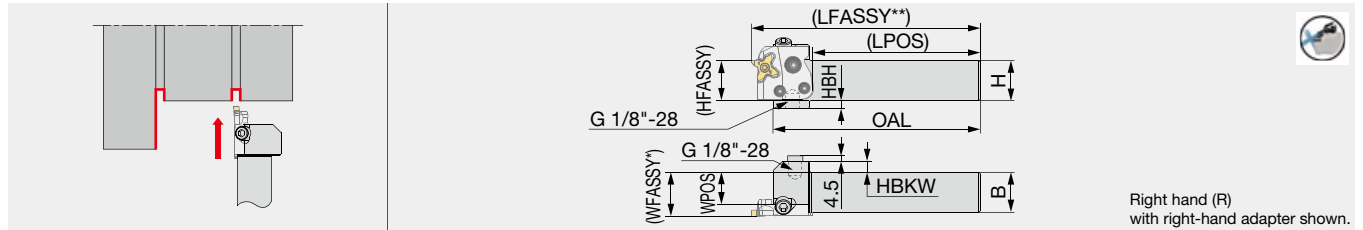
STCAR/L18-CHP: Inserts → **F051 - F057**, Shanks and toolholders → **F047 - F049**

Standard cutting conditions → **F058**, Technical Reference → **L053**

CHSR/L-CHP

Tube connection

Shank for adapter, with high pressure coolant capability



Designation	H	B	OAL	LPOS	WPOS	HBKW	HFASSY	HBH	Adapter (Option)	Torque*
CHSR/L2020-CHP	20	20	130	105.5	15.1	12	20	10	STCAR/L18-CHP	6.5
CHSR/L2525-CHP	25	25	130	105.5	20.1	7	25	5	STCAR/L18-CHP	6.5

WFASSY* : Shank (WPOS) + adapter (WF)

LFASSY** : Shank (LPOS) + adapter (LF)

Depend on the adapter type, the value of LFASSY or WFASSY may change.

Torque*: Recommended clamping torque (N·m)

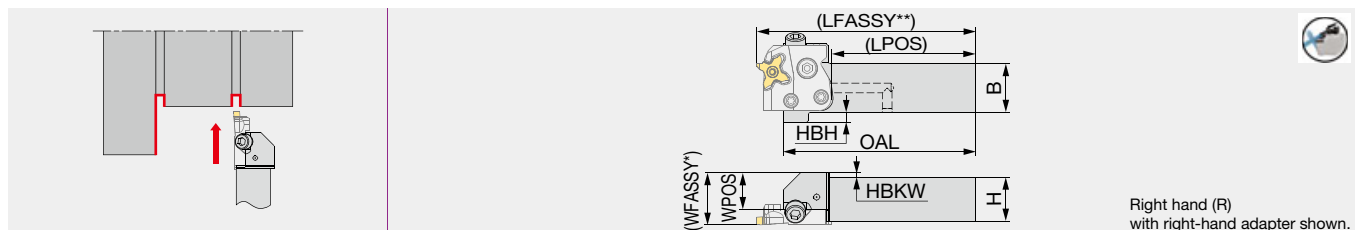
Applicable for 30 MPa coolant

Please see page L053 for instructions on installing and removing the adapter or the insert.

CHSR/L-CHP-MC

Direct connection

Shank for adapter, with high pressure coolant capability



Designation	H	B	OAL	LPOS	WPOS	HBKW	HBH	Adapter (Option)	Torque*
CHSR/L2020-CHP-MC	20	20	98	73.5	14	6	10	STCAR/L18-CHP	6.5
CHSR/L2525-CHP-MC	25	25	98	73.5	19	-	5	STCAR/L18-CHP	6.5

WFASSY* : Shank (WPOS) + adapter (WF)

LFASSY** : Shank (LPOS) + adapter (LF)

Depend on the adapter type, the value of LFASSY or WFASSY may change.

Torque*: Recommended clamping torque (N·m)

Applicable for 30 MPa coolant

Please see page L053 for instructions on installing and removing the adapter or the insert.

SPARE PARTS

Designation	Clamping screw 1	Wrench 1	Clamping screw 2	Clamping screw 3	Wrench 2	O-ring	Plug
CHSR/L*-CHP	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW5.0	OR 5X1N	PLUGG1/8ISO1179
CHSR/L*-CHP-MC	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW5.0	OR 5X1N	-

Recommended clamping torque (N·m)

Clamping screw	Torque (N·m)
SR M5-04451	2.5
SR M6X12DIN6912	6.5
SR M6X20-XT	6.5

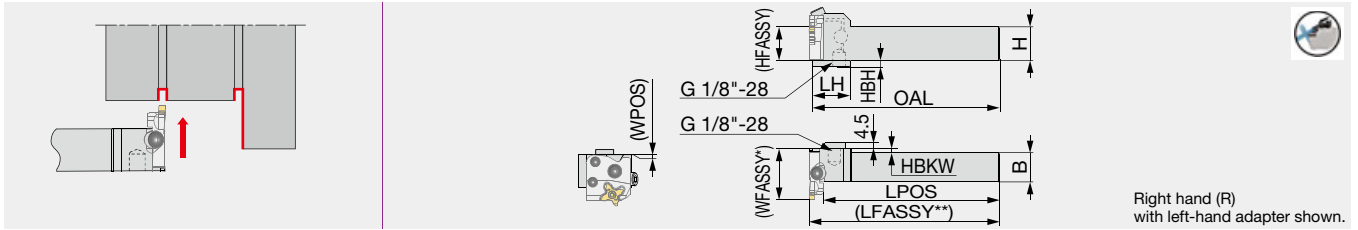
Combination of adapter and shank

Shank	Adapter	
	STCAR18-CHP	STCAL18-CHP
CHSR**-CHP (-MC)	●	
CHSL**-CHP (-MC)		●
CHFVR**-CHP		●
CHFVL**-CHP	●	

● : Corresponding

Reference pages: Inserts → **F051 - F057**, Adapters → **F046**, Standard cutting conditions → **F058**
Parts for coolant hose → **F266**, Technical Reference → **L053**

Shank for perpendicularly-mounted adapter, with high pressure coolant capability



Designation	H	B	OAL	LH	LPOS	WPOS	HBKW	HFASSY	HBH	Adapter (Option)	Torque*
CHFVR/L2020-CHP	20	20	140	28	135.1	0.5	5	20	10	STCAL/R18-CHP	6.5
CHFVR/L2525-CHP	25	25	140	28	135.1	0.5	0	25	5	STCAL/R18-CHP	6.5

WFASSY* : Shank (WPOS) + adapter (LF)

LFASSY** : Shank (LPOS) + adapter (WF)

Depend on the adapter type, the value of LFASSY or WFASSY may change.

Torque*: Recommended clamping torque (N·m)

Applicable for 30 MPa coolant

Please see page L053 for instructions on installing and removing the adapter or the insert.

SPARE PARTS

Designation	Clamping screw 1	Wrench 1	Clamping screw 2	Clamping screw 3	Wrench 2	O-ring	Plug
CHFVR/L...	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW5.0	OR 5X1N	PLUGG1/8ISO1179

Recommended clamping torque (N·m)

Clamping screw	Torque (N·m)
SR M5-04451	2.5
SR M6X12DIN6912	6.5
SR M6X20-XT	6.5

Combination of adapter and shank

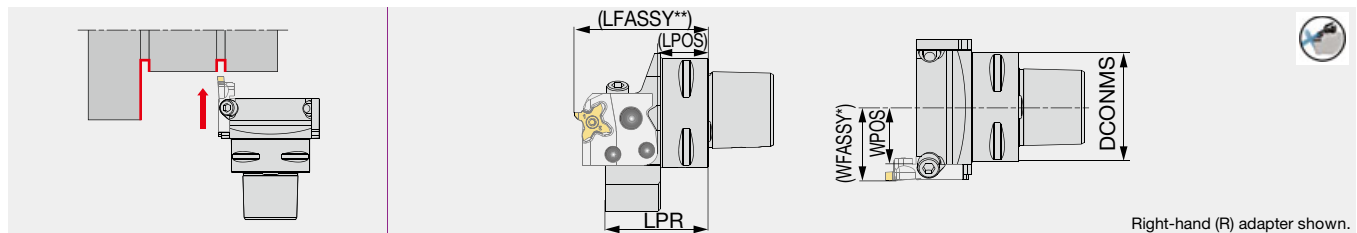
Shank	Adapter	
	STCAR18-CHP	STCAL18-CHP
CHSR**-CHP (-MC)	●	
CHSL**-CHP (-MC)		●
CHFVR**-CHP		●
CHFVL**-CHP	●	

● : Corresponding

C*CHSN-CHP

Direct connection

Toolholder with TungCap connection, for adapter, with high pressure coolant capability



Right-hand (R) adapter shown.

Designation	DCONMS	LPR	LPOSS	WPOSS	Adapter (Option)	Torque*
C3CHSN19045-CHP	32	45	17.5	18.5	STCAR/L18-CHP	6.5
C4CHSN21047-CHP	40	46.5	21.5	21	STCAR/L18-CHP	6.5
C5CHSN26047-CHP	50	47	22.5	26	STCAR/L18-CHP	6.5
C6CHSN33050-CHP	63	50	24.5	32.5	STCAR/L18-CHP	6.5

WFOSS*: Toolholder (WPOSS) + adapter (WF)

LFOSS*: Toolholder (LPOSS) + adapter (LF)

Depend on the adapter type, the value of LFOSS or WFOSS may change.

Torque*: Recommended clamping torque (N·m)

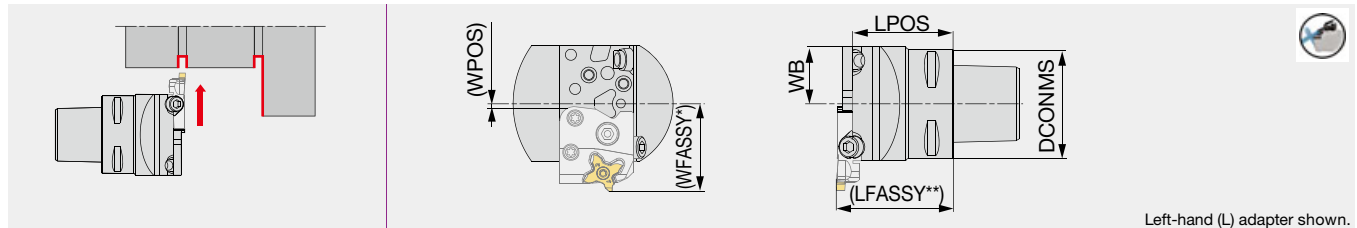
Applicable for 30 MPa coolant

Please see page L053 for instructions on installing and removing the adapter or the insert.

C*CHFVN-CHP

Direct connection

Toolholder with TungCap connection, for perpendicularly-mounted adapter, with high pressure coolant capability



Left-hand (L) adapter shown.

Designation	DCONMS	LPOSS	WB	WPOSS	Adapter (Option)	Torque*
C3CHFVN26040-CHP	32	40	26	1.5	STCAR/L18-CHP	6.5
C4CHFVN26046-CHP	40	46	26	1.5	STCAR/L18-CHP	6.5
C5CHFVN26046-CHP	50	46	26	1.5	STCAR/L18-CHP	6.5
C6CHFVN33046-CHP	63	46	33	8.5	STCAR/L18-CHP	6.5

WFOSS*: Toolholder (WPOSS) + adapter (LF)

LFOSS*: Toolholder (LPOSS) + adapter (WF)

Depend on the adapter type, the value of LFOSS or WFOSS may change.

Torque*: Recommended clamping torque (N·m)

Applicable for 30 MPa coolant

Please see page L053 for instructions on installing and removing the adapter or the insert.

SPARE PARTS

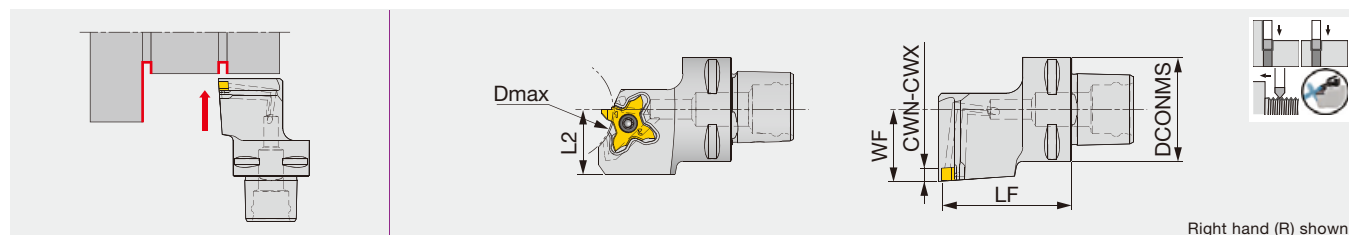
Designation	Clamping screw 1	Wrench 1	Clamping screw 2	Clamping screw 3	Wrench 2	O-ring
C*CH**N*-CHP	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW5.0	OR 5X1N

Recommended clamping torque (N·m)

Clamping screw	Torque (N·m)
SR M5-04451	2.5
SR M6X12DIN6912	6.5
SR M6X20-XT	6.5

Reference pages: Inserts → F051 - F057, Adapters → F046, Standard cutting conditions → F058
Technical Reference → L053

External grooving and threading toolholder, with high pressure coolant capability



Right hand (R) shown.

Designation	CWN	CWX	DCONMS	LF	L2	WF	Dmax	Insert	Torque*
C3STCR/L22040-18-CHP	0.33	3.18	32	40	20	22	32	TC*18...	1.2
C4STCR/L27050-18-CHP	0.33	3.18	40	50	25	27	75 ⁽¹⁾	TC*18...	1.2

Applicable for 14 MPa coolant

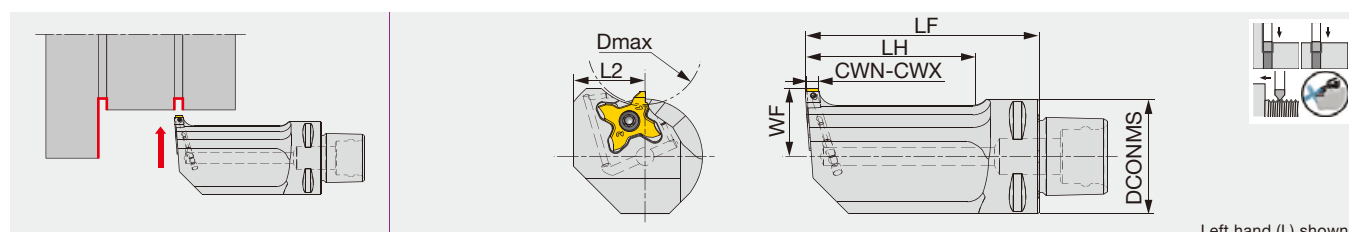
Use the right hand insert (TC*18R...) with the right hand holder (STCR...). Use the left hand insert (TC*18L...) with the left hand holder (STCL...).

(1) The value for 3.5 mm groove depth. Dmax varies according to the grooving depth required.

*Torque: Recommended clamping torque (N·m)

C-STCFL-18-CHP

External grooving and threading toolholder, with high pressure coolant capability



Left hand (L) shown.

Designation	CWN	CWX	DCONMS	LF	LH	L2	WF	Dmax	Insert	Torque*
C3STCFL18040-18-CHP	0.33	3.18	32	40	21.5	20	18	32	TC*18R...	1.2
C3STCFL18065-18-CHP	0.33	3.18	32	65	46.5	20	18	32	TC*18R...	1.2

Applicable for 14 MPa coolant

Use the right hand insert (TC*18R...) with the left hand holder (STCFL...).

*Torque: Recommended clamping torque (N·m)

SPARE PARTS

Designation	Clamping screw	Wrench
C*STCL*-18-CHP	CSTC-4L100DR	T-1008/5
C*STCR*-18-CHP	CSTC-4L100DL	T-1008/5
C3STCFL*-18-CHP	CSTC-4L100DL	T-1008/5

Reference pages: Inserts → **F051 - F057**, Standard cutting conditions → **F058**

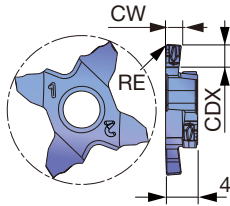
External grooving

TCS18 (4 corners)  F052, F053	First choice for O.D. grooving General-purpose pressed-in 3D chipbreaker for smooth chip control CW = 1 - 3 mm CDX = 3.5 mm 	TCL18 (4 corners)  F053	For lighter cutting action Features pressed-in 3D chipbreaker with sharp cutting edge for light cutting action. Provides excellent chip control at low feed rates. CW = 1.5 - 3 mm CDX = 3.5 mm 
TCG18 (4 corners)  F054, F055	For better chipping resistance Features an optimum rake angle and edge preparation for a good balance of light cutting action and fracture resistance. CW = 1 - 3.18 mm CDX = 3.5 mm 	TCP18 (4 corners)  F056, F057	For higher surface quality Featuring a large rake angle, providing light cutting action and better surface finish. TCP-F style insert is also available for sharp cutting edge. CW = 0.33 - 3 mm CDX = 3.5 mm 

Please see page F*** for the product details.

INSERTS

TCS18R/L (3D chipbreaker, honed edge)



Right-hand (R) shown.

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

★ : First choice



Designation	HAND	CW±0.02	RE	Coated										CDX
				AH7025										
TCS18R100-010	R	1	0.1	●										2
TCS18L100-010	L	1	0.1	●										2
TCS18R120-010	R	1.2	0.1	●										2
TCS18L120-010	L	1.2	0.1	●										2
TCS18R125-010	R	1.25	0.1	●										2
TCS18L125-010	L	1.25	0.1	●										2
TCS18R125-020	R	1.25	0.2	●										2
TCS18L125-020	L	1.25	0.2	●										2
TCS18R130-020	R	1.3	0.2	●										3.5
TCS18L130-020	L	1.3	0.2	●										3.5
TCS18R140-010	R	1.4	0.1	●										3.5
TCS18L140-010	L	1.4	0.1	●										3.5
TCS18R140-020	R	1.4	0.2	●										3.5
TCS18L140-020	L	1.4	0.2	●										3.5
TCS18R145-010	R	1.45	0.1	●										3.5
TCS18L145-010	L	1.45	0.1	●										3.5
TCS18R150-010	R	1.5	0.1	●										3.5
TCS18L150-010	L	1.5	0.1	●										3.5
TCS18R150-020	R	1.5	0.2	●										3.5
TCS18L150-020	L	1.5	0.2	●										3.5
TCS18R160-020	R	1.6	0.2	●										3.5
TCS18L160-020	L	1.6	0.2	●										3.5
TCS18R170-020	R	1.7	0.2	●										3.5
TCS18L170-020	L	1.7	0.2	●										3.5
TCS18R175-010	R	1.75	0.1	●										3.5
TCS18L175-010	L	1.75	0.1	●										3.5
TCS18R175-020	R	1.75	0.2	●										3.5
TCS18L175-020	L	1.75	0.2	●										3.5
TCS18R185-020	R	1.85	0.2	●										3.5
TCS18L185-020	L	1.85	0.2	●										3.5
TCS18R195-020	R	1.95	0.2	●										3.5
TCS18L195-020	L	1.95	0.2	●										3.5
TCS18R200-010	R	2	0.1	●										3.5
TCS18L200-010	L	2	0.1	●										3.5
TCS18R200-020	R	2	0.2	●										3.5
TCS18L200-020	L	2	0.2	●										3.5
TCS18R225-020	R	2.25	0.2	●										3.5
TCS18L225-020	L	2.25	0.2	●										3.5
TCS18R230-020	R	2.3	0.2	●										3.5
TCS18L230-020	L	2.3	0.2	●										3.5
TCS18R250-010	R	2.5	0.1	●										3.5
TCS18L250-010	L	2.5	0.1	●										3.5

5 pieces per package

● : Line up

Reference pages: Toolholders → **F044 - F050**, Standard cutting conditions → **F058**

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

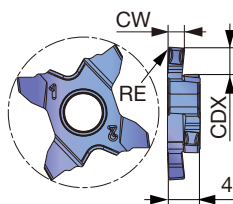
★ : First choice

Designation	HAND	CW±0.02	RE	Coated					CDX
				AH7025					
TCS18R250-020	R	2.5	0.2	●					3.5
TCS18L250-020	L	2.5	0.2	●					3.5
TCS18R250-030	R	2.5	0.3	●					3.5
TCS18L250-030	L	2.5	0.3	●					3.5
TCS18R265-030	R	2.65	0.3	●					3.5
TCS18L265-030	L	2.65	0.3	●					3.5
TCS18R280-030	R	2.8	0.3	●					3.5
TCS18L280-030	L	2.8	0.3	●					3.5
TCS18R300-010	R	3	0.1	●					3.5
TCS18L300-010	L	3	0.1	●					3.5
TCS18R300-020	R	3	0.2	●					3.5
TCS18L300-020	L	3	0.2	●					3.5
TCS18R300-030	R	3	0.3	●					3.5
TCS18L300-030	L	3	0.3	●					3.5

5 pieces per package

● : Line up

TCL18R/L (3D chipbreaker, honed edge)



Right-hand (R) shown.

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

★ : First choice

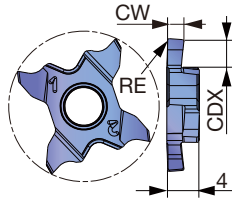
Designation	HAND	CW±0.02	RE	Coated					CDX
				AH7025					
TCL18R150-010	R	1.5	0.1	●					3.5
TCL18L150-010	L	1.5	0.1	●					3.5
TCL18R150-020	R	1.5	0.2	●					3.5
TCL18L150-020	L	1.5	0.2	●					3.5
TCL18R175-020	R	1.75	0.2	●					3.5
TCL18L175-020	L	1.75	0.2	●					3.5
TCL18R200-010	R	2	0.1	●					3.5
TCL18L200-010	L	2	0.1	●					3.5
TCL18R200-020	R	2	0.2	●					3.5
TCL18L200-020	L	2	0.2	●					3.5
TCL18R250-030	R	2.5	0.3	●					3.5
TCL18L250-030	L	2.5	0.3	●					3.5
TCL18R300-010	R	3	0.1	●					3.5
TCL18L300-010	L	3	0.1	●					3.5
TCL18R300-020	R	3	0.2	●					3.5
TCL18L300-020	L	3	0.2	●					3.5
TCL18R300-030	R	3	0.3	●					3.5
TCL18L300-030	L	3	0.3	●					3.5

5 pieces per package

● : Line up

Reference pages: Toolholders → **F044 - F050**, Standard cutting conditions → **F058**

TCG18R/L (honed edge)



Right-hand (R) shown.

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

★ : First choice



Designation	HAND	CW±0.02	RE	AH7025	Coated										CDX	
TCG18R100-010	R	1	0.1	●												2
TCG18L100-010	L	1	0.1	●												2
TCG18R120-010	R	1.2	0.1	●												2
TCG18L120-010	L	1.2	0.1	●												2
TCG18R125-010	R	1.25	0.1	●												2
TCG18L125-010	L	1.25	0.1	●												2
TCG18R125-020	R	1.25	0.2	●												2
TCG18L125-020	L	1.25	0.2	●												2
TCG18R130-020	R	1.3	0.2	●												2
TCG18L130-020	L	1.3	0.2	●												2
TCG18R140-010	R	1.4	0.1	●												3.5
TCG18L140-010	L	1.4	0.1	●												3.5
TCG18R140-020	R	1.4	0.2	●												3.5
TCG18L140-020	L	1.4	0.2	●												3.5
TCG18R145-010	R	1.45	0.1	●												3.5
TCG18L145-010	L	1.45	0.1	●												3.5
TCG18R145-020	R	1.45	0.2	●												3.5
TCG18L145-020	L	1.45	0.2	●												3.5
TCG18R150-010	R	1.5	0.1	●												3.5
TCG18L150-010	L	1.5	0.1	●												3.5
TCG18R150-020	R	1.5	0.2	●												3.5
TCG18L150-020	L	1.5	0.2	●												3.5
TCG18R160-020	R	1.6	0.2	●												3.5
TCG18L160-020	L	1.6	0.2	●												3.5
TCG18R170-020	R	1.7	0.2	●												3.5
TCG18L170-020	L	1.7	0.2	●												3.5
TCG18R175-010	R	1.75	0.1	●												3.5
TCG18L175-010	L	1.75	0.1	●												3.5
TCG18R175-020	R	1.75	0.2	●												3.5
TCG18L175-020	L	1.75	0.2	●												3.5
TCG18R185-020	R	1.85	0.2	●												3.5
TCG18L185-020	L	1.85	0.2	●												3.5
TCG18R195-020	R	1.95	0.2	●												3.5
TCG18L195-020	L	1.95	0.2	●												3.5
TCG18R200-010	R	2	0.1	●												3.5
TCG18L200-010	L	2	0.1	●												3.5
TCG18R200-020	R	2	0.2	●												3.5
TCG18L200-020	L	2	0.2	●												3.5
TCG18R225-020	R	2.25	0.2	●												3.5
TCG18L225-020	L	2.25	0.2	●												3.5
TCG18R230-020	R	2.3	0.2	●												3.5
TCG18L230-020	L	2.3	0.2	●												3.5
TCG18R250-010	R	2.5	0.1	●												3.5
TCG18L250-010	L	2.5	0.1	●												3.5

5 pieces per package

● : Line up

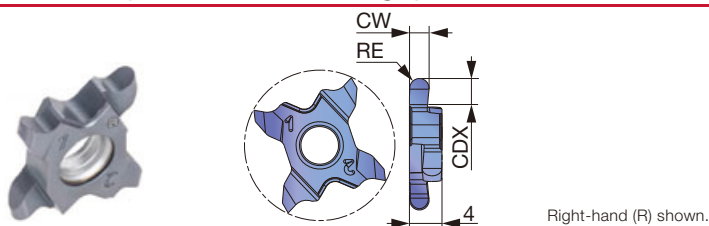
Reference pages: Toolholders → **F044 - F050**, Standard cutting conditions → **F058**

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

Designation	HAND	CW±0.02	RE	Coated		CDX
				AH7025		
TCG18R250-020	R	2.5	0.2	●		3.5
TCG18L250-020	L	2.5	0.2	●		3.5
TCG18R250-030	R	2.5	0.3	●		3.5
TCG18L250-030	L	2.5	0.3	●		3.5
TCG18R265-030	R	2.65	0.3	●		3.5
TCG18L265-030	L	2.65	0.3	●		3.5
TCG18R280-030	R	2.8	0.3	●		3.5
TCG18L280-030	L	2.8	0.3	●		3.5
TCG18R300-010	R	3	0.1	●		3.5
TCG18L300-010	L	3	0.1	●		3.5
TCG18R300-020	R	3	0.2	●		3.5
TCG18L300-020	L	3	0.2	●		3.5
TCG18R300-030	R	3	0.3	●		3.5
TCG18L300-030	L	3	0.3	●		3.5

5 pieces per package
● : Line up

TCG18R/L (Full R, honed edge)

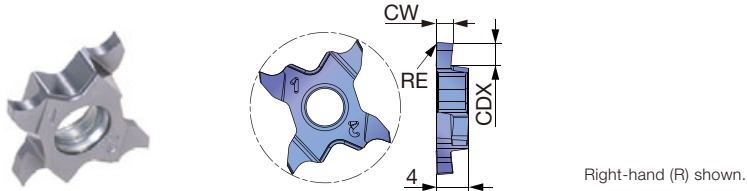


P	Steel	★			
M	Stainless	★			
K	Cast iron	★			
N	Non-ferrous				
S	Superalloys	★			
H	Hard materials				

Designation	HAND	CW±0.02	RE	Coated		CDX
				AH7025		
TCG18R100-050	R	1	0.5	●		2
TCG18L100-050	L	1	0.5	●		2
TCG18R158-079	R	1.58	0.79	●		3.5
TCG18L158-079	L	1.58	0.79	●		3.5
TCG18R200-100	R	2	1	●		3.5
TCG18L200-100	L	2	1	●		3.5
TCG18R239-120	R	2.39	1.2	●		3.5
TCG18L239-120	L	2.39	1.2	●		3.5
TCG18R300-150	R	3	1.5	●		3.5
TCG18L300-150	L	3	1.5	●		3.5
TCG18R318-159	R	3.18	1.59	●		3.5
TCG18L318-159	L	3.18	1.59	●		3.5

Reference pages: Toolholders → **F044 - F050**, Standard cutting conditions → **F058**

TCP18R/L (lightly honed edge)



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

★ : First choice

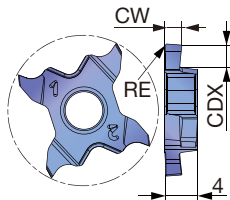


Designation	HAND	CW±0.02	RE	Coated								CDX
				AH725								
TCP18R033-005	R	0.33	0.05	●								0.8
TCP18L033-005	L	0.33	0.05	●								0.8
TCP18R043-005	R	0.43	0.05	●								1.2
TCP18L043-005	L	0.43	0.05	●								1.2
TCP18R050-005	R	0.5	0.05	●								1.2
TCP18L050-005	L	0.5	0.05	●								1.2
TCP18R075-005	R	0.75	0.05	●								2
TCP18L075-005	L	0.75	0.05	●								2
TCP18R095-005	R	0.95	0.05	●								2
TCP18L095-005	L	0.95	0.05	●								2
TCP18R100-010	R	1	0.1	●								2
TCP18L100-010	L	1	0.1	●								2
TCP18R120-010	R	1.2	0.1	●								2
TCP18L120-010	L	1.2	0.1	●								2
TCP18R125-010	R	1.25	0.1	●								2
TCP18L125-010	L	1.25	0.1	●								2
TCP18R140-010-35	R	1.4	0.1	●								3.5
TCP18L140-010-35	L	1.4	0.1	●								3.5
TCP18R145-010	R	1.45	0.1	●								2
TCP18L145-010	L	1.45	0.1	●								2
TCP18R145-010-35	R	1.45	0.1	●								3.5
TCP18L145-010-35	L	1.45	0.1	●								3.5
TCP18R150-010	R	1.5	0.1	●								2
TCP18L150-010	L	1.5	0.1	●								2
TCP18R150-010-35	R	1.5	0.1	●								3.5
TCP18L150-010-35	L	1.5	0.1	●								3.5
TCP18R175-010	R	1.75	0.1	●								2
TCP18L175-010	L	1.75	0.1	●								2
TCP18R175-010-35	R	1.75	0.1	●								3.5
TCP18L175-010-35	L	1.75	0.1	●								3.5
TCP18R200-010	R	2	0.1	●								2.5
TCP18L200-010	L	2	0.1	●								2.5
TCP18R200-010-35	R	2	0.1	●								3.5
TCP18L200-010-35	L	2	0.1	●								3.5
TCP18R250-010	R	2.5	0.1	●								2.5
TCP18L250-010	L	2.5	0.1	●								2.5
TCP18R250-010-35	R	2.5	0.1	●								3.5
TCP18L250-010-35	L	2.5	0.1	●								3.5
TCP18R300-010	R	3	0.1	●								2.5
TCP18L300-010	L	3	0.1	●								2.5
TCP18R300-010-35	R	3	0.1	●								3.5
TCP18L300-010-35	L	3	0.1	●								3.5

5 pieces per package
● : Line up

Reference pages: Toolholders → **F044 - F050**, Standard cutting conditions → **F058**

TCP18R/L-F (sharp edge)



Right-hand (R) shown.

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

★ : First choice

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

5 pieces per package
● : Line up

Reference pages: Toolholders → **F044 - F050**, Standard cutting conditions → **F058**



STANDARD CUTTING CONDITIONS

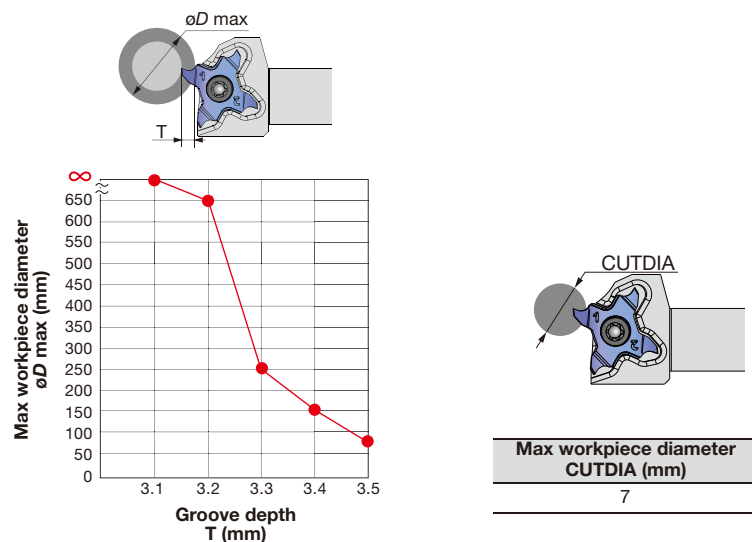
TCS18R/L, TCL18R/L (3D chipbreaker), TCG18R/L (honed edge), TCG18R/L (Full R)

ISO	Workpiece materials	Grade	Cutting speed Vc (m/min)	Feed: f (mm/rev)		
				TCL18	TCS18	TCG18
P	Low carbon steel S15C, SS400, etc., C15E4, E275A, etc.	AH7025	80 - 180	0.03 - 0.12	0.04 - 0.16	0.04 - 0.14
	Carbon steel, Alloy steel S55C, SCM440, etc., C55, 42CrMo4, etc.	AH7025	80 - 180	0.03 - 0.12	0.04 - 0.16	0.04 - 0.14
	Prehardened steel NAK80, PX5, etc.	AH7025	80 - 180	0.03 - 0.12	0.04 - 0.16	0.04 - 0.14
M	Stainless steel SUS304, SUS316, etc., X5CrNi18-9, X5CrNiMo17-12-3, etc.	AH7025	50 - 120	0.03 - 0.12	0.04 - 0.16	0.04 - 0.14
K	Grey cast iron FC250, FC300, etc., 250, 300, etc., GG25, GG30, etc.	AH7025	50 - 180	0.03 - 0.12	0.04 - 0.16	0.04 - 0.14
	Ductile cast iron FCD400, etc., 400-15S, etc., GGG40, etc.	AH7025	50 - 180	0.03 - 0.12	0.04 - 0.16	0.04 - 0.14
S	Titanium alloys Ti-6Al-4V, etc.	AH7025	30 - 60	0.03 - 0.12	0.04 - 0.16	0.04 - 0.14
	Superalloys Inconel718, etc.	AH7025	20 - 40	0.03 - 0.12	0.04 - 0.16	0.04 - 0.14

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, SS400, etc., C15E4, E275A, etc.	First choice	SH725	80 - 180	0.03 - 0.1
		Toughness	AH725	80 - 180	0.03 - 0.1
	Carbon steel, Alloy steel S55C, SCM440, etc., C55, 42CrMo4, etc.	First choice	SH725	80 - 180	0.03 - 0.1
		Toughness	AH725	80 - 180	0.03 - 0.1
	Prehardened steel NAK80, PX5, etc.	First choice	SH725	80 - 180	0.03 - 0.1
Toughness		AH725	80 - 180	0.03 - 0.1	
M	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
K	Grey cast iron FC250, FC300, etc., 250, 300, etc., GG25, GG30, etc.	First choice	AH725	50 - 180	0.03 - 0.1
		Sharpness	SH725	50 - 180	0.03 - 0.1
	Ductile cast iron FCD400, etc., 400-15S, etc., GGG40, 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	AH725	20 - 40	0.03 - 0.1

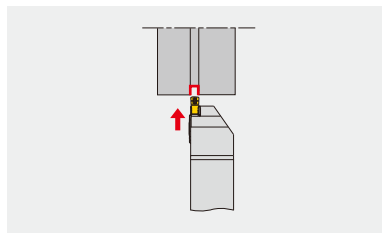
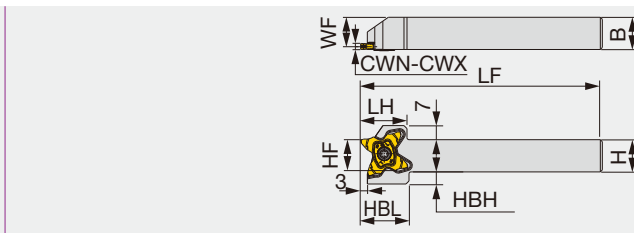
Precautions of processing



*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.

External toolholders for grooving, parting

Right-hand (R) shown.

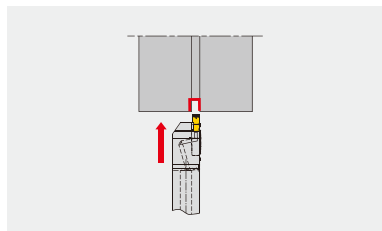
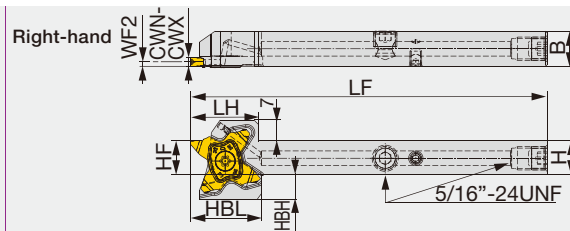
Designation	CWN	CWX	H	B	LF	LH	HBL	HF	WF	HBH	Insert	Torque*
STCR/L1010-27	0.5	3.18	10	10	120	23	24	10	8.5	9.5	TC*27...	2.5
STCR/L1212-27	0.5	3.18	12	12	120	23	24	12	10.5	8	TC*27...	2.5
STCR/L1616-27	0.5	3.18	16	16	120	23	24	16	14.5	6	TC*27...	2.5
STCR/L2020-27	0.5	3.18	20	20	120	23	24	20	18.5	2	TC*27...	2.5
STCR/L2525-27	0.5	3.18	25	25	135	23	-	25	23.5	-	TC*27...	2.5

*Torque: Recommended clamping torque: N·m

STCR/L-27-CHP

Direct connection

Grooving and parting-off toolholder. High pressure coolant capability.

Right-hand

Left-hand

Designation	CWN	CWX	H	B	LF	LH	HF	WF2 ⁽¹⁾	HBH	HBL	Insert	Torque*
STCR/L1212-27-CHP	0.5	3.18	12	12	120	23	12	1.5/10.5	8	24	TC*27...	2.5

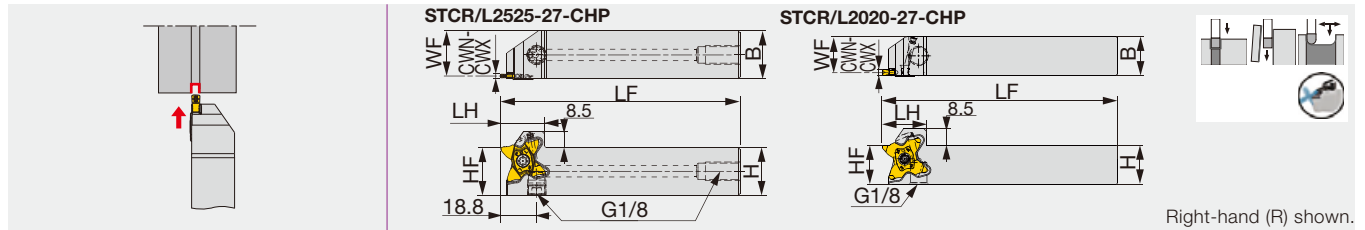
- Make sure to avoid tool interferences when used on Swiss machines
(1) The above WF2 value is valid when an insert width of CW=3 is mounted.
*Torque: Recommended torque (N·m) for clamping

SPARE PARTS



Designation	Screw	Wrench	Coolant plug	Wrench	DirectJet plug	Wrench
STCR**27	SR16-212-01397L	T-2010/5	-	-	-	-
STCL**27	SR16-212-01397	T-2010/5	-	-	-	-
STCR1212-27-CHP	SR16-212-01397L	T-2010/5	SR5/16UNFTL360	P-4	SSH4-6-TB	P-2
STCL1212-27-CHP	SR16-212-01397	T-2010/5	SR5/16UNFTL360	P-4	SSH4-6-TB	P-2

External grooving and parting toolholder, with high pressure coolant capability

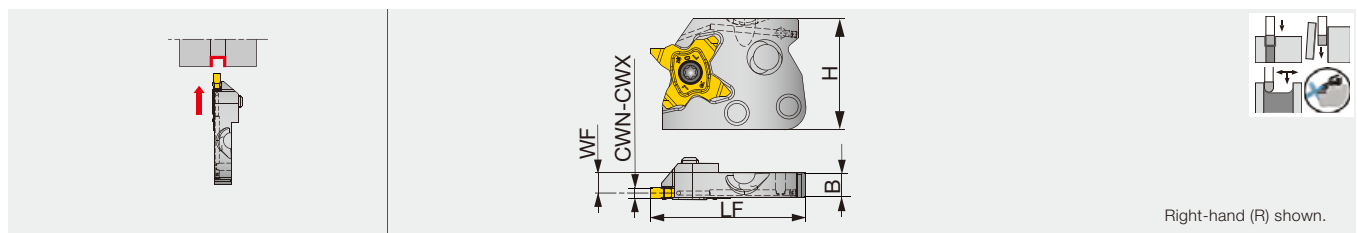


Designation	CWN	CWX	H	B	LF	LH	HF	WF	Insert	Torque*
STCR/L2020-27-CHP	0.5	3.18	20	20	120	23	20	18.5	TC*27...	2.5
STCR/L2525-27-CHP	0.5	3.18	25	25	125	23	25	23.5	TC*27...	2.5

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

STCAR/L27-CHP

External grooving and parting adapter, with high pressure coolant capability



Designation	CWN	CWX	WF	H	LF	B	Insert	Torque*
STCAR/L27-CHP	0.5	3.18	6	33	46	7.2	TC*27...	2.5

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

SPARE PARTS

Designation	Screw	Wrench
STCR*-27-CHP	SR16-212-01397L	T-2010/5
STCL*-27-CHP	SR16-212-01397	T-2010/5
STCAR27-CHP	SR16-212-01397L	T-2010/5
STCAL27-CHP	SR16-212-01397	T-2010/5

Reference pages: STCR/L-27-CHP: Inserts → **F065 - F069**, Standard cutting conditions → **F070**

Parts for coolant hose → **F266**

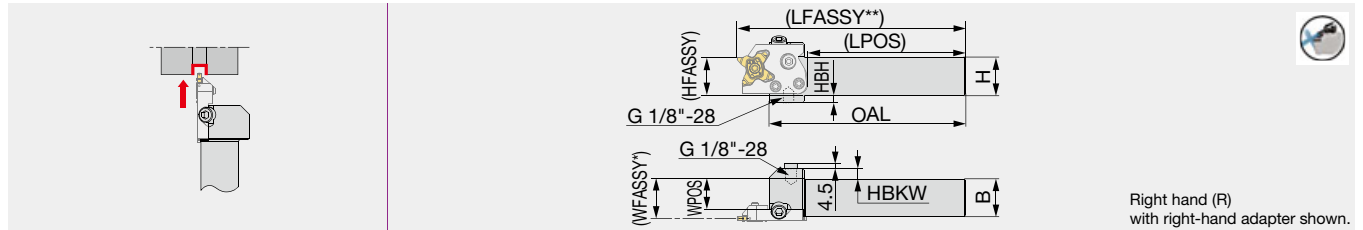
STCAR/L27-CHP: Inserts → **F065 - F069**, Shanks and toolholders → **F061 - F063**

Standard cutting conditions → **F070**, Technical Reference → **L053**

CHSR/L-CHP

Tube connection

Shank for adapter, with high pressure coolant capability



Designation	H	B	OAL	LPOS	WPOS	HBK	HFASSY	HBH	Adapter (Option)	Torque*
CHSR/L2020-CHP	20	20	130	105.5	15.1	12	20	10	STCAR/L27-CHP	6.5
CHSR/L2525-CHP	25	25	130	105.5	20.1	7	25	5	STCAR/L27-CHP	6.5

WFASSY* : Shank (WPOS) + adapter (WF)

LFASSY** : Shank (LPOS) + adapter (LF)

Depend on the adapter type, the value of LFASSY or WFASSY may change.

Torque*: Recommended clamping torque (N·m)

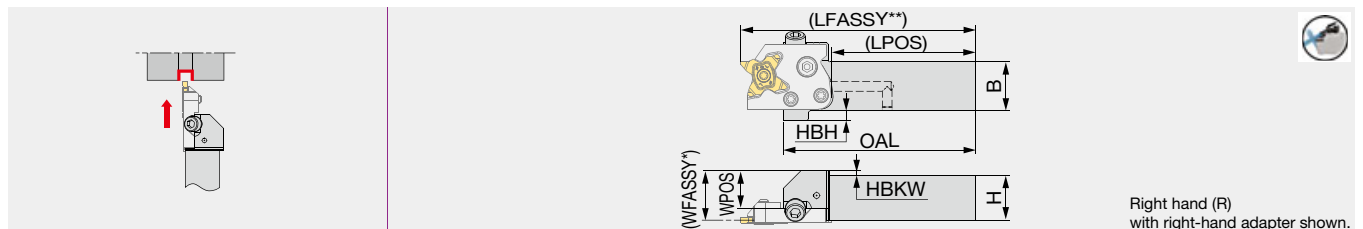
Applicable for 30 MPa coolant

Please see page L053 for instructions on installing and removing the adapter or the insert.

CHSR/L-CHP-MC

Direct connection

Shank for adapter, with high pressure coolant capability



Designation	H	B	OAL	LPOS	WPOS	HBK	HFASSY	HBH	Adapter (Option)	Torque*
CHSR/L2020-CHP-MC	20	20	98	73.5	14	6	10	10	STCAR/L27-CHP	6.5
CHSR/L2525-CHP-MC	25	25	98	73.5	19	-	5	5	STCAR/L27-CHP	6.5

WFASSY* : Shank (WPOS) + adapter (WF)

LFASSY** : Shank (LPOS) + adapter (LF)

Depend on the adapter type, the value of LFASSY or WFASSY may change.

Torque*: Recommended clamping torque (N·m)

Applicable for 30 MPa coolant

Please see page L053 for instructions on installing and removing the adapter or the insert.

SPARE PARTS

Designation	Clamping screw 1	Wrench 1	Clamping screw 2	Clamping screw 3	Wrench 2	O-ring	Plug
CHSR/L*-CHP	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW5.0	OR 5X1N	PLUGG1/8ISO1179
CHSR/L*-CHP-MC	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW5.0	OR 5X1N	-

Recommended clamping torque (N·m)

Clamping screw	Torque (N·m)
SR M5-04451	5
SR M6X12DIN6912	8.5
SR M6X20-XT	8.5

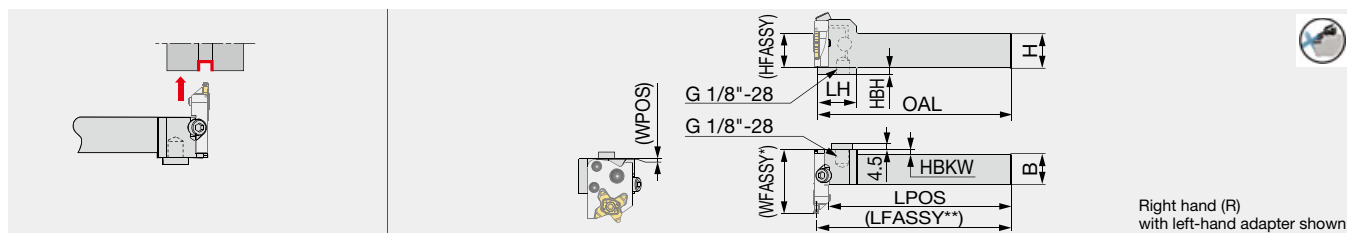
Combination of adapter and shank

Shank	Adapter	
	STCAR27-CHP	STCAL27-CHP
CHSR*-CHP (-MC)	●	
CHSL*-CHP (-MC)		●
CHFVR*-CHP		●
CHFVL*-CHP	●	

● : Corresponding

Reference pages: Inserts → F065 - F069, Adapters → F060, Standard cutting conditions → F070
Parts for coolant hose → F266, Technical Reference → L053

Shank for perpendicularly-mounted adapter, with high pressure coolant capability



Designation	H	B	OAL	LH	LPOS	WPOS	HBKW	HFASSY	HBH	Adapter (Option)	Torque*
CHFVR/L2020-CHP	20	20	140	28	135.1	0.5	5	20	10	STCAL/R27-CHP	6.5
CHFVR/L2525-CHP	25	25	140	28	135.1	0.5	0	25	5	STCAL/R27-CHP	6.5

WFASSY* : Shank (WPOS) + adapter (LF)

LFASSY** : Shank (LPOS) + adapter (WF)

Depend on the adapter type, the value of LFASSY or WFASSY may change.

Torque*: Recommended clamping torque (N·m)

Applicable for 30 MPa coolant

Please see page L053 for instructions on installing and removing the adapter or the insert.

SPARE PARTS

Designation	Clamping screw 1	Wrench 1	Clamping screw 2	Clamping screw 3	Wrench 2	O-ring	Plug
CHFVR/L...	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW5.0	OR 5X1N	PLUGG1/8ISO1179

Recommended clamping torque (N·m)

Clamping screw	Torque (N·m)
SR M5-04451	2.5
SR M6X12DIN6912	6.5
SR M6X20-XT	6.5

Combination of adapter and shank

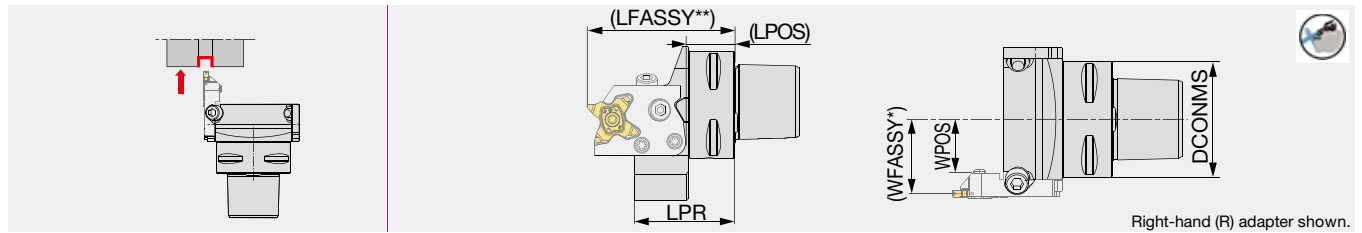
Shank	Adapter	
	STCAR27-CHP	STCAL27-CHP
CHSR**-CHP (-MC)	●	
CHSL**-CHP (-MC)		●
CHFVR**-CHP		●
CHFVL**-CHP	●	

● : Corresponding

C*CHSN-CHP

Direct connection

Toolholder with TungCap connection, for adapter, with high pressure coolant capability



Right-hand (R) adapter shown.

Designation	DCONMS	LPR	LPOS	WPOS	Adapter (Option)	Torque*
C3CHSN19045-CHP	32	45	17.5	18.5	STCAR/L27-CHP	6.5
C4CHSN21047-CHP	40	46.5	21.5	21	STCAR/L27-CHP	6.5
C5CHSN26047-CHP	50	47	22.5	26	STCAR/L27-CHP	6.5
C6CHSN33050-CHP	63	50	24.5	32.5	STCAR/L27-CHP	6.5

WFASSY* : Toolholder (WPOS) + adapter (WF)

LFASSY** : Toolholder (LPOS) + adapter (LF)

Depend on the adapter type, the value of LFASSY or WFASSY may change.

Torque*: Recommended clamping torque (N·m)

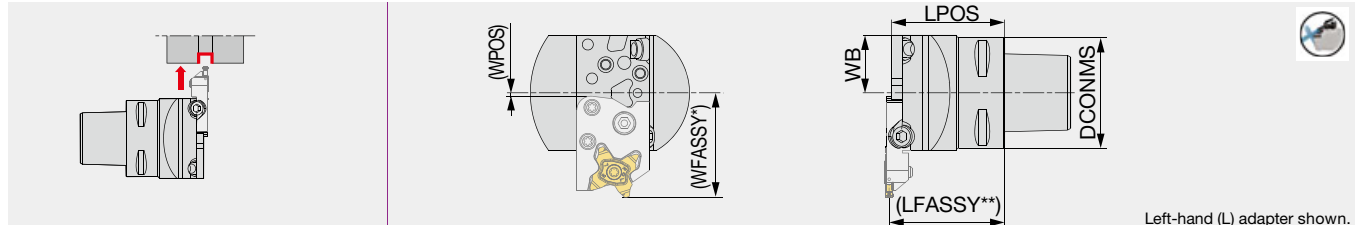
Applicable for 30 MPa coolant

Please see page L053 for instructions on installing and removing the adapter or the insert.

C*CHFVN-CHP

Direct connection

Toolholder with TungCap connection, for perpendicularly-mounted adapter, with high pressure coolant capability



Left-hand (L) adapter shown.

Designation	DCONMS	LPOS	WB	WPOS	Adapter (Option)	Torque*
C3CHFVN26040-CHP	32	40	26	1.5	STCAR/L27-CHP	6.5
C4CHFVN26046-CHP	40	46	26	1.5	STCAR/L27-CHP	6.5
C5CHFVN26046-CHP	50	46	26	1.5	STCAR/L27-CHP	6.5
C6CHFVN33046-CHP	63	46	33	8.5	STCAR/L27-CHP	6.5

WFASSY* : Toolholder (WPOS) + adapter (LF)

LFASSY** : Toolholder (LPOS) + adapter (WF)

Depend on the adapter type, the value of LFASSY or WFASSY may change.

Torque*: Recommended clamping torque (N·m)

Applicable for 30 MPa coolant

Please see page L053 for instructions on installing and removing the adapter or the insert.

SPARE PARTS

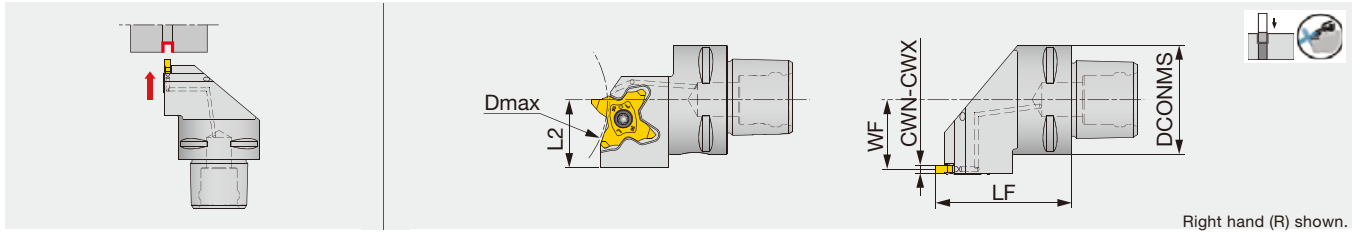
Designation	Clamping screw 1	Wrench 1	Clamping screw 2	Clamping screw 3	Wrench 2	O-ring
C*CH**N*-CHP	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW5.0	OR 5X1N

Recommended clamping torque (N·m)

Clamping screw	Torque (N·m)
SR M5-04451	2.5
SR M6X12DIN6912	6.5
SR M6X20-XT	6.5

Reference pages: Inserts → F065 - F069, Adapters → F060, Standard cutting conditions → F070
Technical Reference → L053

External grooving toolholder, with high pressure coolant capability



Designation	CWN	CWX	DCONMS	LF	L2	WF	Dmax	Insert	Torque*
C4STCR/L27050-27-CHP	0.5	3.18	40	50	25	25.5	68 ⁽¹⁾	TC*27R/L...	2.5

Applicable for 14 MPa coolant.

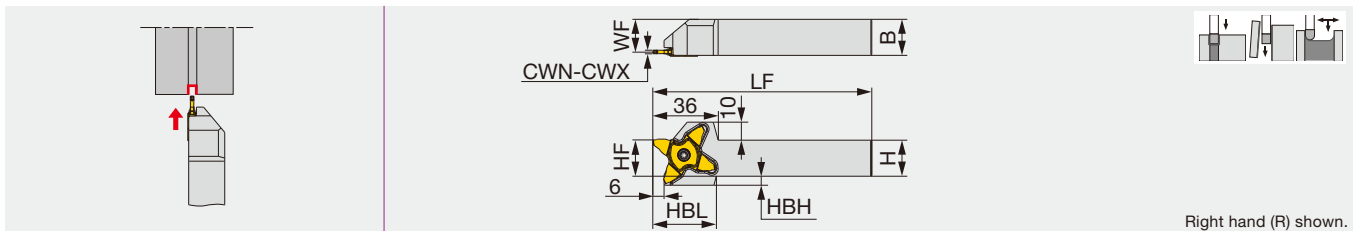
(1) The value for 6.4 mm groove depth. Dmax varies according to the grooving depth required.

*Torque: Recommended clamping torque (N·m)



STCR/L-38

External grooving and parting toolholder



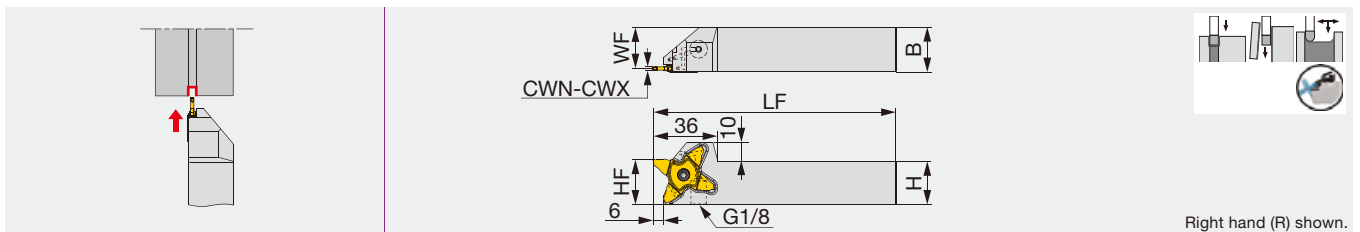
Designation	CWN	CWX	H	B	LF	HF	WF	HBH	HBL	Insert	Torque*
STCR/L2020-38	1.5	4	20	20	120	20	18.1	5	35	TCL38...	2.5
STCR/L2525-38	1.5	4	25	25	135	25	23.1	-	-	TCL38...	2.5
STCR/L3232-38	1.5	4	32	32	135	32	30.1	-	-	TCL38...	2.5

*Torque: Recommended clamping torque (N·m)

STCR/L-38-CHP

Tube connection

External grooving and parting toolholder, with high pressure coolant capability



Designation	CWN	CWX	H	B	LF	HF	WF	Insert	Torque*
STCR/L2525-38-CHP	1.5	4	25	25	135	25	23.1	TCL38...	2.5

*Torque: Recommended clamping torque (N·m)

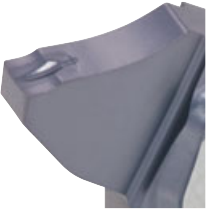
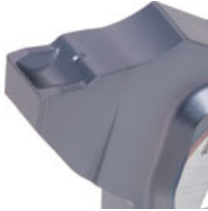
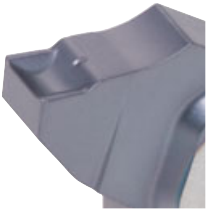
SPARE PARTS



Designation	Screw	Wrench
C4STCR27050-27-CHP	SR16-212-01397L	T-2010/5
C4STCL27050-27-CHP	SR16-212-01397	T-2010/5
STCR...	SR16-212-01397L	T-2010/5
STCL...	SR16-212-01397	T-2010/5

Reference pages: Inserts → **F065 - F069**, Standard cutting conditions → **F070**
Parts for coolant hose → **F266**

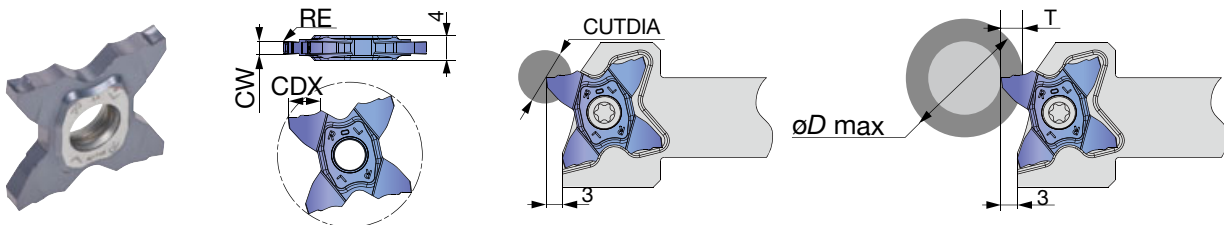
External grooving and parting

TCS27 (4 corners)  F066, F067	First choice for grooving For general machining Lower cutting force and superior sharpness CW = 0.5 - 3.18 mm CDX = 6.4 mm	TCM27 (4 corners)  F068, F069	For higher efficiency For high feed machining Well-designed edge with high strength and fracture resistance CW = 1.5 - 3.18 mm CDX = 6.4 mm
TCL27 (4 corners)  F065	For lighter cutting action Extremely sharp cutting edge A large dimple geometry eliminates chip jamming CW = 1.5 - 3 mm CDX = 6.4 mm	TCL38 (4 corners)  F069	For lighter cutting action Sharp edge for light cutting action Excellent chip control at low feeds CW = 1.5 - 4 mm CDX = 10 mm

Please see page F*** for the product details.

INSERTS

TCL27 (for grooving and parting off)



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

★ : First choice

Designation	CW±0.02	RE	Coated				CDX	CUTDIA	Relation of groove depth (T) and Max. diameter (øD max)									
			AH725	AH7025	AH8005	AH6235			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
TCL27-150-015	1.5	0.15	▲	●	●	●	5.7	11.4	∞	600	280	180	130	50	35	-	-	-
TCL27-200-020	2	0.2	▲	●	●	●	6.4	12.8	∞	600	280	180	130	105	85	60	50	30
TCL27-250-020	2.5	0.2	▲	●	●	●	6.4	12.8	∞	600	280	180	130	105	85	60	50	30
TCL27-300-020	3	0.2	▲	●	●	●	6.4	12.8	∞	600	280	180	135	105	95	85	78	55

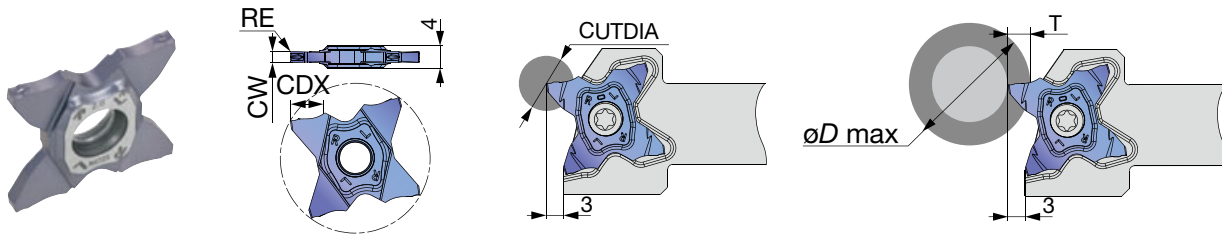
5 pieces per package

● : Line up

▲ : To be discontinued

Reference pages: Toolholders → F059 - F064, Standard cutting conditions → F070

TCS27 (for grooving and parting off)



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

★ : First choice

Designation	CW±0.02	RE	Coated				CDX	CUTDIA	Relation of groove depth (T) and Max. diameter (øD max)									
			AH725	AH7025	AH8005	AH6235			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	▲	★	★	★	1	2	∞	-	-	-	-	-	-	-	-	-
TCS27-050-004	0.5	0.04	▲	★	★	★	2.5	5	∞	-	-	-	-	-	-	-	-	-
TCS27-075-010	0.75	0.1	▲	●	●	●	2.5	5	∞	-	-	-	-	-	-	-	-	-
TCS27-080-000	0.8	0	▲	★	★	★	1.6	3.2	∞	-	-	-	-	-	-	-	-	-
TCS27-100-006	1	0.06	▲	●	●	●	3.5	7	∞	600	-	-	-	-	-	-	-	-
TCS27-100-010	1	0.1	▲	●	●	●	3.5	7	∞	600	-	-	-	-	-	-	-	-
TCS27-104-000	1.04	0	▲	★	★	★	2	4	∞	-	-	-	-	-	-	-	-	-
TCS27-120-000	1.2	0	▲	★	★	★	2	4	∞	-	-	-	-	-	-	-	-	-
TCS27-125-010	1.25	0.1	▲	●	●	●	3.5	7	∞	600	-	-	-	-	-	-	-	-
TCS27-125-020	1.25	0.2	▲	●	●	●	3.5	7	∞	600	-	-	-	-	-	-	-	-
TCS27-140-000	1.4	0	▲	★	★	★	2	4	∞	-	-	-	-	-	-	-	-	-
TCS27-147-000	1.47	0	▲	★	★	★	2.5	5	∞	-	-	-	-	-	-	-	-	-
TCS27-150-010	1.5	0.1	▲	●	●	●	5.7	11.4	∞	600	280	180	130	50	35	-	-	-
TCS27-150-020	1.5	0.2	▲	●	●	●	5.7	11.4	∞	600	280	180	130	50	35	-	-	-
TCS27-157-015	1.57	0.15	▲	●	●	●	3	6	∞	-	-	-	-	-	-	-	-	-
TCS27-170-010	1.7	0.1	▲	●	●	●	3	6	∞	-	-	-	-	-	-	-	-	-
TCS27-175-010	1.75	0.1	▲	●	●	●	3	6	∞	-	-	-	-	-	-	-	-	-
TCS27-175-020	1.75	0.2	▲	●	●	●	3	6	∞	-	-	-	-	-	-	-	-	-
TCS27-178-018	1.78	0.18	▲	●	●	●	3	6	∞	-	-	-	-	-	-	-	-	-
TCS27-185-020	1.85	0.2	▲	●	●	●	3	6	∞	-	-	-	-	-	-	-	-	-
TCS27-196-015	1.96	0.15	▲	●	●	●	3	6	∞	-	-	-	-	-	-	-	-	-
TCS27-200-010	2	0.1	▲	●	●	●	6.4	12.8	∞	600	280	180	130	105	85	60	50	30
TCS27-200-020	2	0.2	▲	●	●	●	6.4	12.8	∞	600	280	180	130	105	85	60	50	30
TCS27-222-015	2.22	0.15	▲	●	●	●	3.5	7	∞	600	-	-	-	-	-	-	-	-
TCS27-230-020	2.3	0.2	▲	●	●	●	3.5	7	∞	600	-	-	-	-	-	-	-	-
TCS27-239-015	2.39	0.15	▲	●	●	●	5.7	11.4	∞	600	280	180	130	50	35	-	-	-
TCS27-247-020	2.47	0.2	▲	●	●	●	5.7	11.4	∞	600	280	180	130	50	35	-	-	-
TCS27-250-010	2.5	0.1	▲	●	●	●	5.7	11.4	∞	600	280	180	130	50	35	-	-	-
TCS27-250-030	2.5	0.3	▲	●	●	●	5.7	11.4	∞	600	280	180	130	50	35	-	-	-
TCS27-270-010	2.7	0.1	▲	●	●	●	6.2	12.4	∞	600	280	180	135	105	95	85	78	-
TCS27-287-020	2.87	0.2	▲	●	●	●	6.2	12.4	∞	600	280	180	135	105	95	85	78	-
TCS27-300-000	3	0	▲	★	★	★	6.4	12.8	∞	600	280	180	135	105	95	85	78	55
TCS27-300-020	3	0.2	▲	●	●	●	6.4	12.8	∞	600	280	180	135	105	95	85	78	55
TCS27-300-030	3	0.3	▲	●	●	●	6.4	12.8	∞	600	280	180	135	105	95	85	78	55
TCS27-300-040	3	0.4	▲	●	●	●	6.4	12.8	∞	600	280	180	135	105	95	85	78	55
TCS27-315-015	3.15	0.15	▲	●	●	●	6.4	12.8	∞	600	280	180	135	105	95	85	78	68
TCS27-318-020	3.18	0.2	▲	●	●	●	6.4	12.8	∞	600	280	180	135	105	95	85	78	68

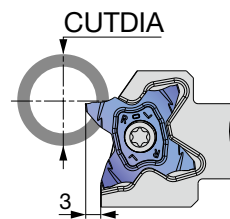
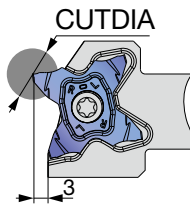
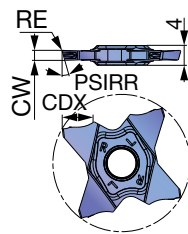
5 pieces per package

★ : Will be released in January 2025

● : Line up

▲ : To be discontinued

TCS27-R/L (for parting off)



Right hand (R) shown.

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

★ : First choice

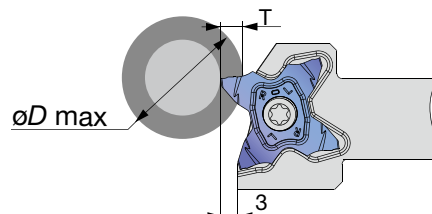
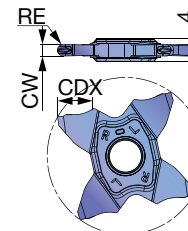
Designation	HAND	CW±0.02	RE	Coated				CDX	PSIRL	PSIRR	Max. parting off dia. CUTDIA	
				AH725	AH7025	AH8005	AH6235				Solid bar	Tube
TCS27-100-15R	R	1	0.06	▲	●	●	●	3.5	0°	15°	7	600
TCS27-100-15L	L	1	0.06	▲	●	●	●	3.5	15°	0°	7	600
TCS27-150-6R	R	1.5	0.06	▲	●	●	●	5.7	0°	6°	11.4	35
TCS27-150-6L	L	1.5	0.06	▲	●	●	●	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

▲ : To be discontinued

TCS27 (for grooving and profiling, full R)



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

★ : First choice

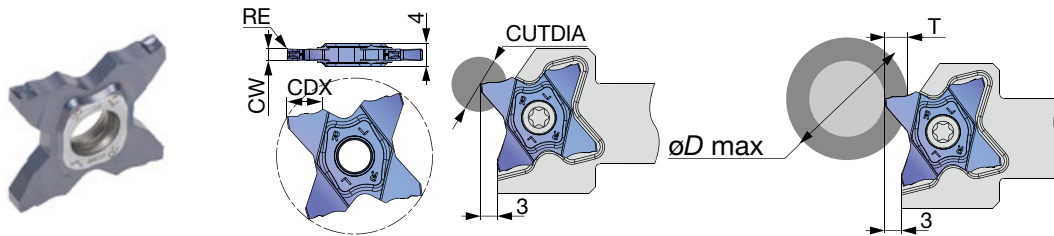
Designation	CW±0.02	RE	Coated				CDX	Relation of groove depth (T) and Max. diameter (øD max)									
			AH725	AH7025	AH8005	AH6235		T ≤ 3	T ≤ 3.5	T ≤ 4	T ≤ 4.5	T ≤ 5	T ≤ 5.5	T ≤ 5.7	T ≤ 6	T ≤ 6.2	T ≤ 6.4
TCS27-157-079	1.57	0.79	▲	●	●	●	3	∞	-	-	-	-	-	-	-	-	-
TCS27-200-100	2	1	▲	●	●	●	3	∞	-	-	-	-	-	-	-	-	-
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

▲ : To be discontinued

TCM27 (for grooving and parting off)



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

★ : First choice

Designation	CW±0.02	RE	Coated				CDX	CUTDIA	Relation of groove depth (T) and Max. diameter (øD max)									
			AH725	AH7025	AH8005	AH6235			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	∞	600	280	180	130	50	35	-	-	-
TCM27-150-020	1.5	0.2	▲	●	●	●	5.7	11.4	∞	600	280	180	130	50	35	-	-	-
TCM27-157-015	1.57	0.15	▲	●	●	●	3	6	∞	-	-	-	-	-	-	-	-	-
TCM27-170-010	1.7	0.1	▲	●	●	●	3	6	∞	-	-	-	-	-	-	-	-	-
TCM27-175-010	1.75	0.1	▲	●	●	●	3	6	∞	-	-	-	-	-	-	-	-	-
TCM27-175-020	1.75	0.2	▲	●	●	●	3	6	∞	-	-	-	-	-	-	-	-	-
TCM27-178-018	1.78	0.18	▲	●	●	●	3	6	∞	-	-	-	-	-	-	-	-	-
TCM27-185-020	1.85	0.2	▲	●	●	●	3	6	∞	-	-	-	-	-	-	-	-	-
TCM27-196-015	1.96	0.15	▲	●	●	●	3	6	∞	-	-	-	-	-	-	-	-	-
TCM27-200-010	2	0.1	▲	●	●	●	6.4	12.8	∞	600	280	180	130	105	85	60	50	30
TCM27-200-020	2	0.2	▲	●	●	●	6.4	12.8	∞	600	280	180	130	105	85	60	50	30
TCM27-222-015	2.22	0.15	▲	●	●	●	3.5	7	∞	600	-	-	-	-	-	-	-	-
TCM27-230-020	2.3	0.2	▲	●	●	●	3.5	7	∞	600	-	-	-	-	-	-	-	-
TCM27-239-015	2.39	0.15	▲	●	●	●	5.7	11.4	∞	600	280	180	130	50	35	-	-	-
TCM27-247-020	2.47	0.2	▲	●	●	●	5.7	11.4	∞	600	280	180	130	50	35	-	-	-
TCM27-250-010	2.5	0.1	▲	●	●	●	5.7	11.4	∞	600	280	180	130	50	35	-	-	-
TCM27-250-030	2.5	0.3	▲	●	●	●	5.7	11.4	∞	600	280	180	130	50	35	-	-	-
TCM27-270-010	2.7	0.1	▲	●	●	●	6.2	12.4	∞	600	280	180	135	105	95	85	78	-
TCM27-287-020	2.87	0.2	▲	●	●	●	6.2	12.4	∞	600	280	180	135	105	95	85	78	-
TCM27-300-000	3	0	▲	★	★	★	6.4	12.8	∞	600	280	180	135	105	95	85	78	55
TCM27-300-020	3	0.2	▲	●	●	●	6.4	12.8	∞	600	280	180	135	105	95	85	78	55
TCM27-300-030	3	0.3	▲	●	●	●	6.4	12.8	∞	600	280	180	135	105	95	85	78	55
TCM27-300-040	3	0.4	●	●	●	●	6.4	12.8	∞	600	280	180	135	105	95	85	78	55
TCM27-315-015	3.15	0.15	●	●	●	●	6.4	12.8	∞	600	280	180	135	105	95	85	78	68
TCM27-318-020	3.18	0.2	●	●	●	●	6.4	12.8	∞	600	280	180	135	105	95	85	78	68

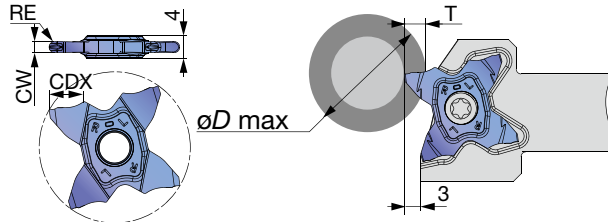
5 pieces per package

★: Will be released in January 2025

●: Line up

▲: To be discontinued

TCM27 (for grooving and profiling, full R)



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

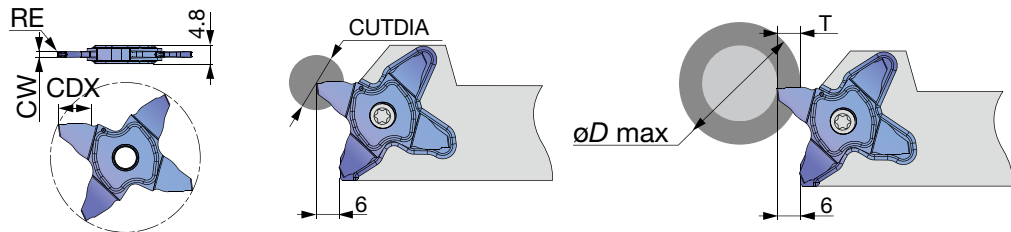
★ : First choice

Designation	CW±0.02	RE	Coated			CDX	CUTDIA	Relation of groove depth (T) and Max. diameter (øD max)									
			AH7025	AH8005	AH6235			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	∞	-	-	-	-	-	-	-	-	-
TCM27-200-100	2	1	●	●	●	3	6	∞	-	-	-	-	-	-	-	-	-
TCM27-239-120	2.39	1.2	●	●	●	5.7	11.4	∞	600	280	180	130	50	35	-	-	-
TCM27-300-150	3	1.5	●	●	●	6.4	12.8	∞	600	280	180	135	105	95	85	78	55

5 pieces per package

● : Line up

TCL38 (for grooving and parting off)



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

★ : First choice

Designation	CW±0.02	RE	Coated		CDX	CUTDIA	Relation of groove depth (T) and Max. diameter (øD max)					
			AH7025				T ≤ 5	T ≤ 6	T ≤ 7	T ≤ 8	T ≤ 9	T ≤ 10
TCL38-150-020	1.5	0.2	●		9	18	∞	950	315	190	45	-
TCL38-200-020	2	0.2	●		9	18	∞	950	315	190	45	-
TCL38-300-020	3	0.2	●		10	20	∞	950	315	190	130	50
TCL38-400-030	4	0.3	●		10	20	∞	950	315	190	130	50

5 pieces per package

● : Line up

STANDARD CUTTING CONDITIONS

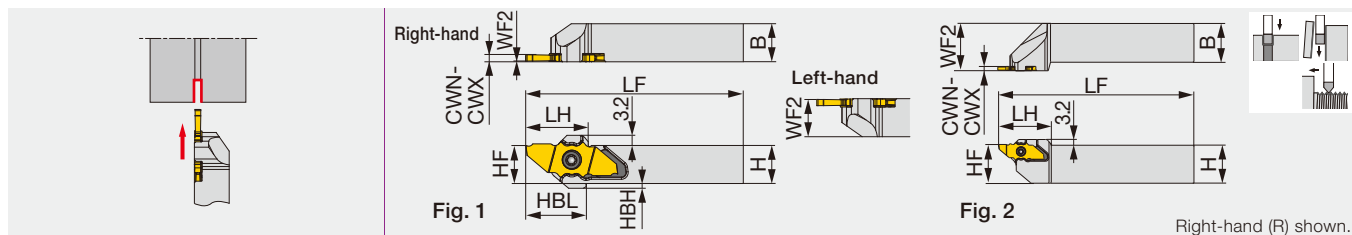
TCL27, TCS27, TCM27

ISO	Workpiece materials	Grades	Cutting speed Vc (m/min)	Feed: <i>f</i> (mm/rev)						Depth of cut for profiling (with full radius insert)
				Grooving, Parting-off			Parting-off (with hand)	Profiling (with full radius insert)		
				TCL27	TCS27	TCM27	TCS27	TCS27	TCM27	
P	Carbon steel (S45C / C45, etc.)	AH725	100 - 200	0.03 - 0.12	0.05 - 0.15	0.05 - 0.25	0.04 - 0.12	0.05 - 0.1	0.05 - 0.15	0.5
	Alloy steel (SCM435 / 34CrMo4, etc.)	AH725	50 -180	0.03 - 0.12	0.05 - 0.15	0.05 - 0.25	0.04 - 0.12	0.05 - 0.1	0.05 - 0.15	0.5
M	Stainless steel (SUS304 / X5CrNi18-9, etc.)	AH725	100 - 150	0.03 - 0.12	0.05 - 0.15	0.05 - 0.2	0.04 - 0.12	0.05 - 0.1	0.05 - 0.15	0.5
K	Grey cast iron (FC250 / 250 / GGG25, etc.)	AH725	50 - 180	0.03 - 0.12	0.05 - 0.15	0.05 - 0.25	0.04 - 0.12	0.05 - 0.1	0.05 - 0.15	0.5
	Ductile cast iron (FCD400 / 400-15 / GGG400, etc.)	AH725	50 - 120	0.03 - 0.12	0.05 - 0.15	0.05 - 0.2	0.04 - 0.12	0.05 - 0.1	0.05 - 0.15	0.5
S	Titanium alloys (Ti-6Al-4V, etc.)	AH725	30 - 60	0.03 - 0.12	0.05 - 0.15	0.05 - 0.15	0.04 - 0.12	0.05 - 0.1	0.05 - 0.1	0.5
	Superalloys (Inconel718, etc.)	AH725	20 - 50	0.03 - 0.12	0.05 - 0.15	0.05 - 0.15	0.04 - 0.12	0.05 - 0.1	0.05 - 0.1	0.5

TCL38

ISO	Workpiece materials	Grades	Cutting speed Vc (m/min)	Feed: <i>f</i> (mm/rev)
				Grooving, Parting-off
				TCL38
P	Carbon steel (S45C / C45, etc.)	AH7025	80 - 180	0.03 - 0.18
	Alloy steel (SCM435 / 34CrMo4, etc.)	AH7025	50 - 180	0.03 - 0.18
M	Stainless steel (SUS304 / X5CrNi18-9, etc.)	AH7025	50 - 150	0.03 - 0.14
K	Grey cast iron (FC250 / 250 / GG25, etc.)	AH7025	50 - 180	0.03 - 0.14
	Ductile cast iron (FCD400 / 400-15 / GGG400, etc.)	AH7025	50 - 120	0.03 - 0.14
S	Titanium alloys (Ti-6Al-4V, etc.)	AH7025	30 - 60	0.03 - 0.14
	Superalloys (Inconel718, etc.)	AH7025	20 - 50	0.03 - 0.14

Parting-off and grooving toolholders



Designation	CWN	CWX	H	B	LF ⁽¹⁾	LH ⁽¹⁾	HF	WF2 ⁽²⁾	HBL ⁽¹⁾	HBH	Insert	Torque*	Fig.
JSXXR/L1010X09	0.6	2.5	10	10	120	19.65	10	0.2/9.8	19	3	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L1212F09	0.6	2.5	12	12	85	19.65	12	0.2/11.8	19	1.5	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L1212X09	0.6	2.5	12	12	120	19.65	12	0.2/11.8	19	1.5	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L1616X09	0.6	2.5	16	16	120	19.65	16	0.2/15.8	-	-	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L2020H09	0.6	2.5	20	20	100	22.5	20	0.2/19.8	-	-	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L2525Z09	0.6	2.5	25	25	135	34	25	30	-	-	JX**06...,12...,16..., 20...	1.2	2

*Torque: Recommended clamping torque (N·m)

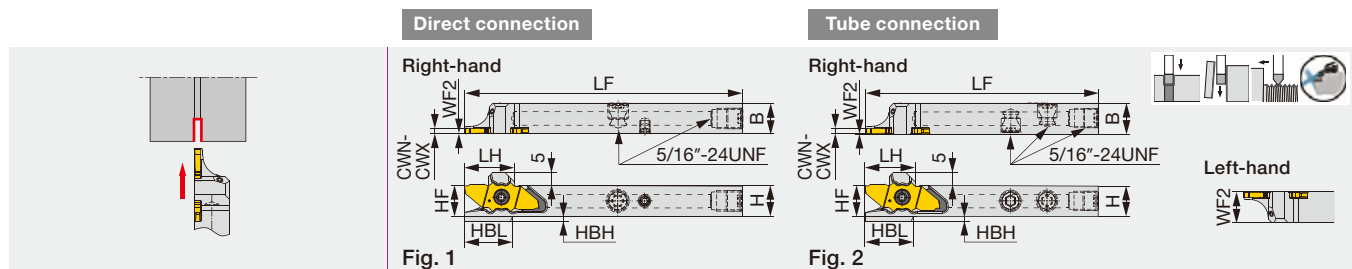
(1) LF (Functional Length) LH (Head Length), and HBL (Head-bottom Offset Length) values shown above are true with JX**16... insert. LF, LH, and HBL will all be 2 mm shorter than the above values with JX**12... and JX**20... inserts, and 4 mm shorter for JX**06... insert.

(2) The first value before "/" indicates the WF2 for the right-hand holder and the second value after "/" for the left-hand holder.

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

JSXXR/L-F/H/X-CHP

Parting-off toolholders with high pressure coolant capability, for swiss lathes



Designation	CWN	CWX	H	B	LF ⁽¹⁾	LH ⁽¹⁾	HF	WF2 ⁽²⁾	HBL ⁽¹⁾	HBH	Insert	Torque*	Fig.
JSXXR/L1012H09-CHP ⁽³⁾	0.6	2.5	10	12	102	19.2	10	0.2/11.8	18.7	3	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L1212F09-CHP	0.6	2.5	12	12	85	19.4	12	0.2/11.8	18.8	2	JX**06...,12...,16..., 20...	1.2	2
JSXXR/L1212X09-CHP ⁽³⁾	0.6	2.5	12	12	120	19.4	12	0.2/11.8	18.8	2	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L1616X09-CHP ^{(3),(4)}	0.6	2.5	16	16	120	19.4	16	0.2	18.7	2.5	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L1616X09B-CHP ⁽³⁾	0.6	2.5	16	16	120	19.4	16	0.2/15.8	18.7	-	JX**06...,12...,16..., 20...	1.2	1

*Torque: Recommended clamping torque (N·m)

(1) LF (Functional Length) LH (Head Length), and HBL (Head-bottom Offset Length) values shown above are true with JX**16... insert. LF, LH, and HBL will all be 2 mm shorter than the above values with JX**12... and JX**20... inserts, and 4 mm shorter for JX**06... insert.

(2) The first value before "/" indicates the WF2 for the right-hand holder and the second value after "/" for the left-hand holder.

(3) Compatible to the direct internal coolant supply system without the use of external coolant hose.

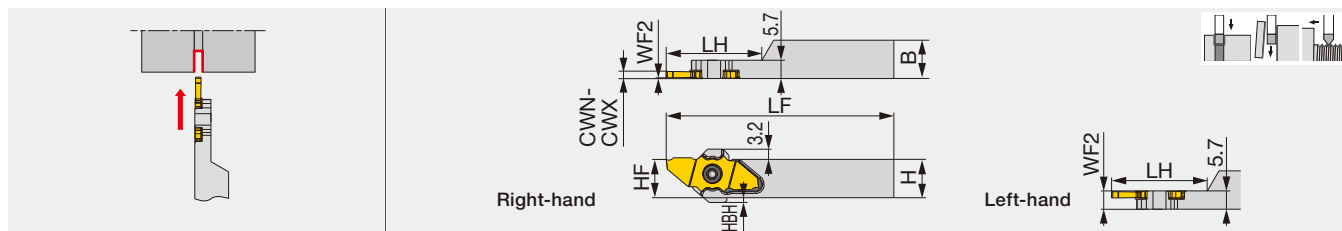
(4) To be replaced with the new design

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

SPARE PARTS

Designation	Clamping screw	Wrench 1	Coolant plug	Wrench 2	DirectJet plug	Wrench 3
JSXXR**09	CSTC-4L100DL	T-1008/5	-	-	-	-
JSXXL**09	CSTC-4L100DR	T-1008/5	-	-	-	-
JSXXR**F**-CHP	CSTC-4L100DL	T-1008/5	SR5/16UNFTL360	P-4	-	-
JSXXL**F**-CHP	CSTC-4L100DR	T-1008/5	SR5/16UNFTL360	P-4	-	-
JSXXR**H**-CHP	CSTC-4L100DL	T-1008/5	SR5/16UNFTL360	P-4	SSH4-6-TB	P-2
JSXXL**H**-CHP	CSTC-4L100DR	T-1008/5	SR5/16UNFTL360	P-4	SSH4-6-TB	P-2

Parting-off toolholders, for swiss lathes (for sub spindle)



Designation	CWN	CWX	H	B	LF ⁽¹⁾	LH ⁽¹⁾	HF	WF2 ⁽²⁾	HBH	Insert	Torque*
JSXXR/L1010X09-S	0.6	2.5	10	10	120	26	10	0.2/5.5	3	JX**06...,12...,16... ⁽³⁾	1.2
JSXXR/L1212F09-S	0.6	2.5	12	12	85	26	12	0.2/5.5	1.5	JX**06...,12...,16... ⁽³⁾	1.2
JSXXR/L1212X09-S	0.6	2.5	12	12	120	30	12	0.2/5.5	1.5	JX**06...,12...,16... ⁽³⁾	1.2
JSXXR/L1616X09-S	0.6	2.5	16	16	120	30	16	0.2/5.5	-	JX**06...,12...,16..., 20...	1.2

*Torque: Recommended clamping torque (N·m)

(1) LF (Functional Length) and LH (Head Length) values shown above are true with JX**16... insert. Both LF and LH will be 2 mm shorter than the above value with JX**12... and JX**20... inserts; 4 mm shorter with JX**06... insert.

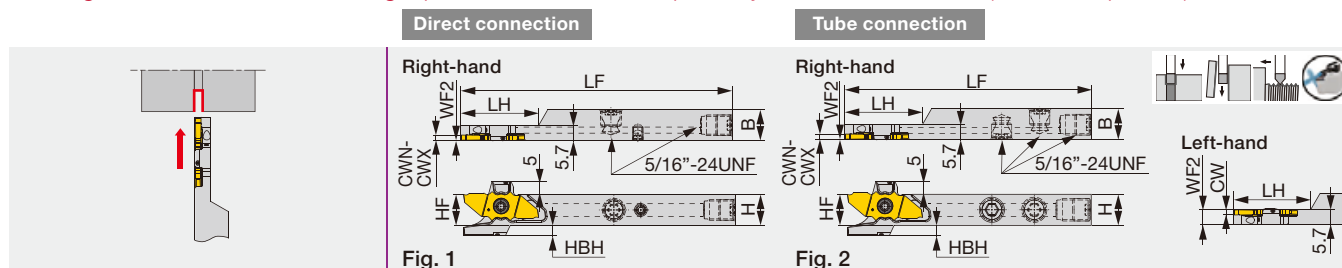
(2) The first value before "/" indicates the WF2 for the right-hand holder and the second value after "/" for the left-hand holder.

(3) JX**20... insert will not fit.

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

JSXXR/L-F/X-S-CHP

Parting-off toolholders with high pressure coolant capability, for swiss lathes (for sub spindle)



Designation	CWN	CWX	H	B	LF ⁽¹⁾	LH ⁽¹⁾	HF	WF2 ⁽²⁾	HBH	Insert	Torque*	Fig.
JSXXR/L1212F09-S-CHP ⁽⁴⁾	0.6	2.5	12	12	85	26	12	0.2	4	JX**06...,12...,16..., 20...	1.2	2
JSXXR/L1212F09B-S-CHP	0.6	2.5	12	12	85	30	12	0.2/5.5	2	JX**06...,12...,16..., 20...	1.2	2
JSXXR/L1212X09-S-CHP ^{(3),(4)}	0.6	2.5	12	12	120	30	12	0.2/5.5	4	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L1212X09B-S-CHP ⁽³⁾	0.6	2.5	12	12	120	30	12	0.2/5.5	2	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L1616X09-S-CHP ^{(3),(4)}	0.6	2.5	16	16	120	30	16	0.2	1.5	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L1616X09B-S-CHP ⁽³⁾	0.6	2.5	16	16	120	30	16	0.2/5.5	-	JX**06...,12...,16..., 20...	1.2	1

*Torque: Recommended clamping torque (N·m)

(1) LF (Functional Length) and LH (Head Length) values shown above are true with JX**16... insert. Both LF and LH will be 2 mm shorter than the above value with JX**12... and JX**20... inserts; 4 mm shorter with JX**06... insert.

(2) The first value before "/" indicates the WF2 for the right-hand holder and the second value after "/" for the left-hand holder.

(3) Compatible to the direct internal coolant supply system without the use of external coolant hose.

(4) To be replaced with the new design

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

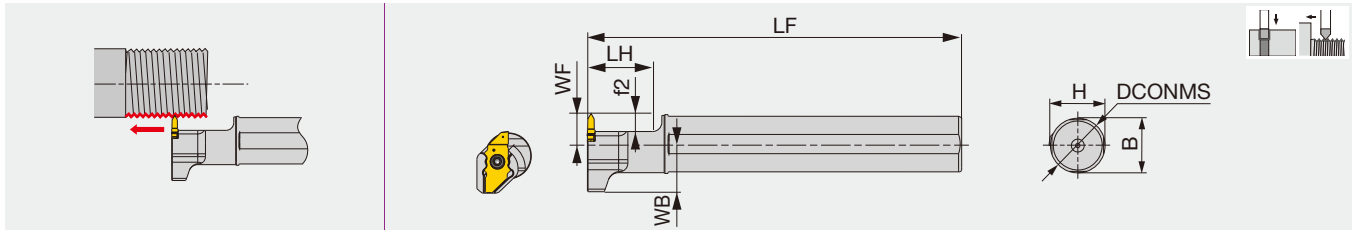
SPARE PARTS

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

Reference pages: Inserts → **F074, F075**, Standard cutting conditions → **F076**
Parts for coolant hose → **F266**

JS-SXXL09

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



Designation	DCONMS	H	B	LF	LH	WB	WF ⁽¹⁾	f2 ⁽¹⁾	Insert	Torque*
JS19G-SXXL09	19.05	18	18	90	21	15.43	10	6	JX**06,12*R	1.2
JS19X-SXXL09	19.05	18	18	120	21	15.43	10	6	JX**06,12*R	1.2
JS20G-SXXL09	20	19	19	90	21	15.4	10	6	JX**06,12*R	1.2
JS20X-SXXL09	20	19	19	120	21	15.4	10	6	JX**06,12*R	1.2
JS22X-SXXL09	22	21	21	120	21	15.4	10	6	JX**06,12*R	1.2
JS25H-SXXL09	25	24	24	100	21	15.4	10	6	JX**06,12*R	1.2
JS254X-SXXL09	25.4	24	24	120	21	15.4	10	6	JX**06,12*R	1.2

*Torque: Recommended clamping torque (N·m)

(1) When using JX..06... insert, both WF and f2 sizes will be 2 mm shorter than the values provided above.

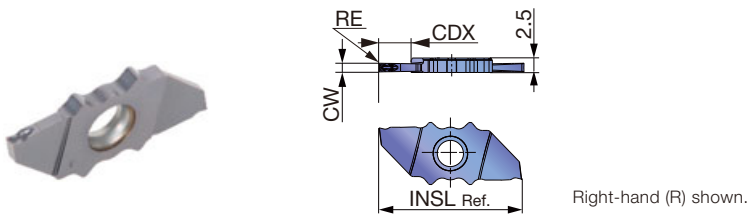
SPARE PARTS



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

INSERTS

JXPS**R/L-F (with 3D chipbreaker, sharp edge)



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

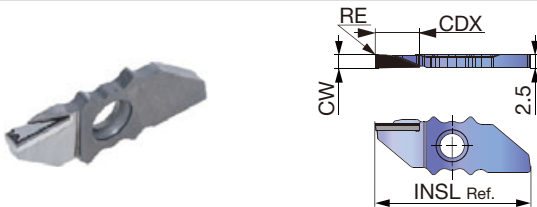
★ : First choice

Designation	HAND	CW±0.025	RE	Coated				CUTDIA	CDX*	INSL
				SH725						
JXPS06R06F	R	0.6	0.05	●				6	3.5	21
JXPS06L06F	L	0.6	0.05	●				6	3.5	21
JXPS12R08F	R	0.8	0.05	●				12	6.5	25
JXPS12L08F	L	0.8	0.05	●				12	6.5	25
JXPS12R10F	R	1	0.05	●				12	6.5	25
JXPS12L10F	L	1	0.05	●				12	6.5	25
JXPS12R15F	R	1.5	0.05	●				12	6.5	25
JXPS12L15F	L	1.5	0.05	●				12	6.5	25
JXPS16R15F	R	1.5	0.05	●				16	8.5	29
JXPS16L15F	L	1.5	0.05	●				16	8.5	29
JXPS20R20F	R	2	0.05	●				20	10.5	33
JXPS20L20F	L	2	0.05	●				20	10.5	33

*Max grooving depth (CDX) varies depending on workpiece diameters.

● : Line up

JXDX**R-F (PCD insert)



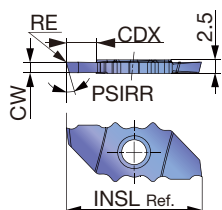
P	Steel							
M	Stainless							
K	Cast iron							
N	Non-ferrous	★						
S	Superalloys							
H	Hard materials							

★ : First choice

Designation	HAND	CW±0.05	RE	PCD				CDX	INSL
				DX110					
JXDX12R20F	R	2	< 0.1	●				6	25
JXDX12R25F	R	2.5	< 0.1	●				6.5	25
JXDX16R25F	R	2.5	< 0.1	●				7	29

● : Line up

Reference pages: Toolholders → **F071 - F073**, Standard cutting conditions → **F076**

JXPGR/L-F (Sharp edge)**


Right-hand (R) shown.

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

★ : First choice

Designation	HAND	CW±0.025	RE	Coated				CUTDIA	CDX*	INSL	PSIRR
				SH725							
JXPG06R10F	R	1	0.05	●				6	3.5	21	0°
JXPG06L10F	L	1	0.05	●				6	3.5	21	0°
JXPG06R15F	R	1.5	0.05	●				6	3.5	21	0°
JXPG06L15F	L	1.5	0.05	●				6	3.5	21	0°
JXPG06R10F-15	R	1	0.05	●				6	3.5	21	15°
JXPG06L10F-15	L	1	0.05	●				6	3.5	21	15°
JXPG06R15F-15	R	1.5	0.05	●				6	3.5	21	15°
JXPG06L15F-15	L	1.5	0.05	●				6	3.5	21	15°
JXPG12R15F	R	1.5	0.05	●				12	6.5	25	0°
JXPG12L15F	L	1.5	0.05	●				12	6.5	25	0°
JXPG12R20F	R	2	0.05	●				12	6.5	25	0°
JXPG12L20F	L	2	0.05	●				12	6.5	25	0°
JXPG12R15F-15	R	1.5	0.05	●				12	6.5	25	15°
JXPG12L15F-15	L	1.5	0.05	●				12	6.5	25	15°
JXPG12R20F-15	R	2	0.05	●				12	6.5	25	15°
JXPG12L20F-15	L	2	0.05	●				12	6.5	25	15°
JXPG16R15F	R	1.5	0.05	●				16	8.5	29	0°
JXPG16L15F	L	1.5	0.05	●				16	8.5	29	0°
JXPG16R20F	R	2	0.05	●				16	8.5	29	0°
JXPG16L20F	L	2	0.05	●				16	8.5	29	0°
JXPG16R15F-15	R	1.5	0.05	●				16	8.5	29	15°
JXPG16L15F-15	L	1.5	0.05	●				16	8.5	29	15°
JXPG16R20F-15	R	2	0.05	●				16	8.5	29	15°
JXPG16L20F-15	L	2	0.05	●				16	8.5	29	15°
JXPG20R15F	R	1.5	0.05	●				20	10.5	33	0°
JXPG20L15F	L	1.5	0.05	●				20	10.5	33	0°
JXPG20R20F	R	2	0.05	●				20	10.5	33	0°
JXPG20L20F	L	2	0.05	●				20	10.5	33	0°
JXPG20R15F-15	R	1.5	0.05	●				20	10.5	33	15°
JXPG20L15F-15	L	1.5	0.05	●				20	10.5	33	15°
JXPG20R20F-15	R	2	0.05	●				20	10.5	33	15°
JXPG20L20F-15	L	2	0.05	●				20	10.5	33	15°

*Max grooving depth (CDX) varies depending on workpiece diameters.

● : Line up

 Reference pages: Toolholders → **F071 - F073**, Standard cutting conditions → **F076**

STANDARD CUTTING CONDITIONS

Parting, Grooving

ISO	Workpiece materials	Grades	Cutting speed V_c (m/min)	Feed f (mm/rev)
P	Low carbon steels S15C, SS400, etc. C15E4, E275A, 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, X5CrNi18-9, 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

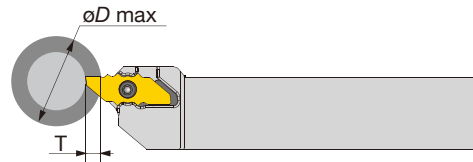


For aluminium and non-ferrous metal PCD insert

ISO	Workpiece materials	Grades	Operation	Cutting speed V_c (m/min)	Feed f (mm/rev)	Depth of cut a_p (mm)
N	Aluminium alloys A5056, A6061, etc.	DX110	Grooving	100 - 300	0.03 - 0.15	-
		DX110	Turning	100 - 300	0.03 - 0.15	< 6

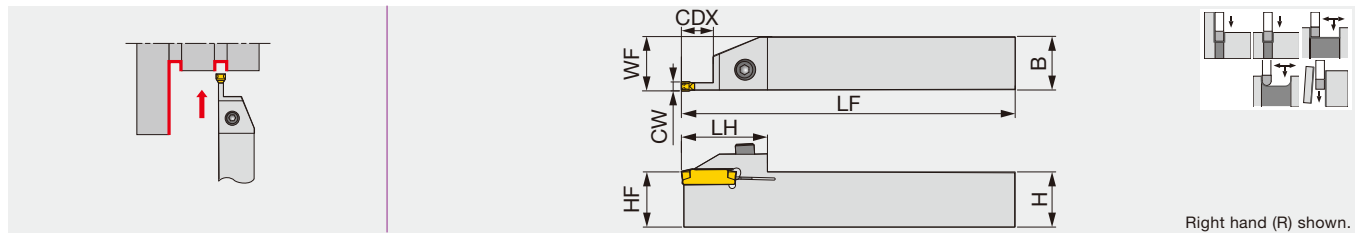
Maximum grooving depths (T) in relation to workpiece diameters (ϕD max) without interference

Maximum grooving depth (T) is limited relative to workpiece diameter (ϕD max) to avoid interference between workpiece and insert.



Grooving depths (T) and workpiece diameters (ϕD max) for each insert

Designation	$T \leq 1.0$	$T \leq 2.0$	$T \leq 2.5$	$T \leq 3.0$	$T \leq 3.5$	$T \leq 4.0$	$T \leq 5.0$	$T \leq 5.5$	$T \leq 6.0$	$T \leq 6.5$	$T \leq 7.0$	$T \leq 7.5$	$T \leq 8.0$	$T \leq 8.5$	$T \leq 9.0$	$T \leq 9.5$	$T \leq 10.0$	$T \leq 10.5$
JXP*06...	∞	∞	200	60	30	-	-	-	-	-	-	-	-	-	-	-	-	-
JXP*12...	∞	∞	∞	∞	∞	∞	∞	100	60	35	-	-	-	-	-	-	-	-
JXP*16...	∞	∞	∞	∞	∞	∞	∞	∞	∞	∞	200	90	50	25	-	-	-	-
JXP*20...	∞	∞	∞	∞	∞	∞	∞	∞	∞	∞	∞	∞	∞	∞	200	80	50	25

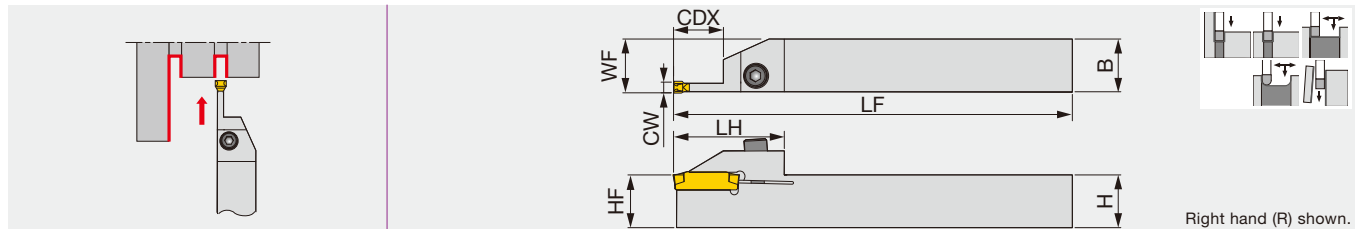


Designation	CW	CDX	H	B	LF	LH	HF	WF	Insert	Torque*
CGWSR/L1616-W30	3	12	16	16	125	34	16	16.4	WG*30, WGE30R/L	5
CGWSR/L2020-W30	3	12	20	20	150	34	20	20.4	WG*30, WGE30R/L	5
CGWSR/L2525-W30	3	12	25	25	150	34	25	25.4	WG*30, WGE30R/L	5
CGWSR/L2020-W40	4	13	20	20	150	39	20	20.4	WG*40, WGE40R/L	5
CGWSR/L2525-W40	4	13	25	25	150	39	25	25.4	WG*40, WGE40R/L	5
CGWSR/L2020-W50	5	13	20	20	150	39	20	20.4	WG*50, WGE50R/L	5
CGWSR/L2525-W50	5	13	25	25	150	39	25	25.4	WG*50, WGE50R/L	5

*Torque: Recommended clamping torque (N·m)

CGWSR/L-W-L

External deep grooving, parting and turning toolholder, for 2 corner inserts



Designation	CW	CDX	H	B	LF	LH	HF	WF	Insert	Torque*
CGWSR/L1616-W20-L	2	15	16	16	125	37	16	16.2	WGE20, WGE20R/L	5
CGWSR/L2020-W20-L	2	15	20	20	150	37	20	20.2	WGE20, WGE20R/L	5
CGWSR/L2525-W20-L	2	15	25	25	150	37	25	25.2	WGE20, WGE20R/L	5
CGWSR/L1616-W30-L	3	16.5, 17.5 ⁽¹⁾	16	16	125	37	16	16.4	WG*30, WGE30R/L	5
CGWSR/L2020-W30-L	3	16.5, 17.5 ⁽¹⁾	20	20	150	37	20	20.4	WG*30, WGE30R/L	5
CGWSR/L2525-W30-L	3	16.5, 17.5 ⁽¹⁾	25	25	150	37	25	25.4	WG*30, WGE30R/L	5
CGWSR/L2020-W40-L	4	21, 21.5 ⁽¹⁾	20	20	150	42	20	20.4	WG*40, WGE40R/L	5
CGWSR/L2525-W40-L	4	21, 21.5 ⁽¹⁾	25	25	150	42	25	25.4	WG*40, WGE40R/L	5
CGWSR/L2020-W50-L	5	21	20	20	150	42	20	20.4	WG*50, WGE50R/L	5
CGWSR/L2525-W50-L	5	21	25	25	150	42	25	25.4	WG*50, WGE50R/L	5

*Torque: Recommended clamping torque (N·m)

(1) The value is true when using the WGR insert.

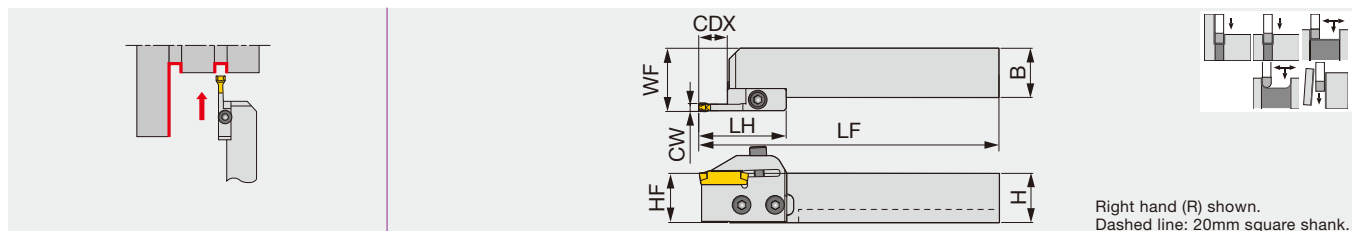
SPARE PARTS

Designation	Clamping screw	Wrench
CGWSR/L***-W...	CHHM5-18	P-4

MY-T SERIES

CGWSR/L-WG

External grooving, parting and turning toolholder, for 2 corner inserts



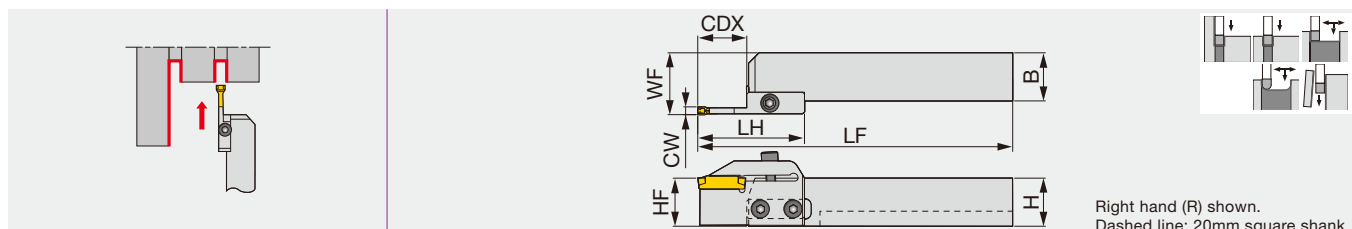
Designation	CW	CDX	H	B	LF	LH	HF	WF	Insert	Shank	Adapter	Torque*
CGWSR/L2020-W30GR/L	3	12	20	20	150.5	43.5	20	26.9	WG*30, WGE30R/L	CGWSR/L2020	W30GR/L	5
CGWSR/L2525-W30GR/L	3	12	25	25	150.5	43.5	25	31.9	WG*30, WGE30R/L	CGWSR/L2525	W30GR/L	5
CGWSR/L2020-W40GR/L	4	13	20	20	151.5	44.5	20	26.9	WG*40, WGE40R/L	CGWSR/L2020	W40GR/L	5
CGWSR/L2525-W40GR/L	4	13	25	25	151.5	44.5	25	31.9	WG*40, WGE40R/L	CGWSR/L2525	W40GR/L	5
CGWSR/L2020-W50GR/L	5	13	20	20	151.5	44.5	20	26.9	WG*50, WGE50R/L	CGWSR/L2020	W50GR/L	5
CGWSR/L2525-W50GR/L	5	13	25	25	151.5	44.5	25	31.9	WG*50, WGE50R/L	CGWSR/L2525	W50GR/L	5

Note: Use right-hand adapters (R) with right-hand shanks (R); and left-hand adapters (L) with left-hand shanks (L).

*Torque: Recommended clamping torque (N·m)

CGWSR/L-WG-L

External deep grooving, parting and turning toolholder, for 2 corner inserts



Designation	CW	CDX	H	B	LF	LH	HF	WF	Insert	Shank	Adapter	Torque*
CGWSR/L2020-W20GR/L-L	2	15	20	20	153.5	46.5	20	26.7	WGE20, WGE20R/L	CGWSR/L2020	W20GR/L-L	5
CGWSR/L2525-W20GR/L-L	2	15	25	25	153.5	46.5	25	31.7	WGE20, WGE20R/L	CGWSR/L2525	W20GR/L-L	5
CGWSR/L2020-W30GR/L-L	3	16.5, 17.5 ⁽¹⁾	20	20	157.5	50.5	20	26.9	WG*30, WGE30R/L	CGWSR/L2020	W30GR/L-L	5
CGWSR/L2525-W30GR/L-L	3	16.5, 17.5 ⁽¹⁾	25	25	157.5	50.5	25	31.9	WG*30, WGE30R/L	CGWSR/L2525	W30GR/L-L	5
CGWSR/L2020-W40GR/L-L	4	21, 21.5 ⁽¹⁾	20	20	162.5	55.5	20	26.9	WG*40, WGE40R/L	CGWSR/L2020	W40GR/L-L	5
CGWSR/L2525-W40GR/L-L	4	21, 21.5 ⁽¹⁾	25	25	162.5	55.5	25	31.9	WG*40, WGE40R/L	CGWSR/L2525	W40GR/L-L	5
CGWSR/L2020-W50GR/L-L	5	21	20	20	162.5	55.5	20	26.9	WG*50, WGE50R/L	CGWSR/L2020	W50GR/L-L	5
CGWSR/L2525-W50GR/L-L	5	21	25	25	162.5	55.5	25	31.9	WG*50, WGE50R/L	CGWSR/L2525	W50GR/L-L	5

Note: Use right-hand adapters (R) with right-hand shanks (R); and left-hand adapters (L) with left-hand shanks (L).

*Torque: Recommended clamping torque (N·m)

(1) The value is true when using the WGR insert.

SPARE PARTS

Designation	Clamping screw	Adapter screw	Wrench
CGWSR/L***-W**G...	CHHM5-18	CSHB-6	P-4

Combination of adapter and shank

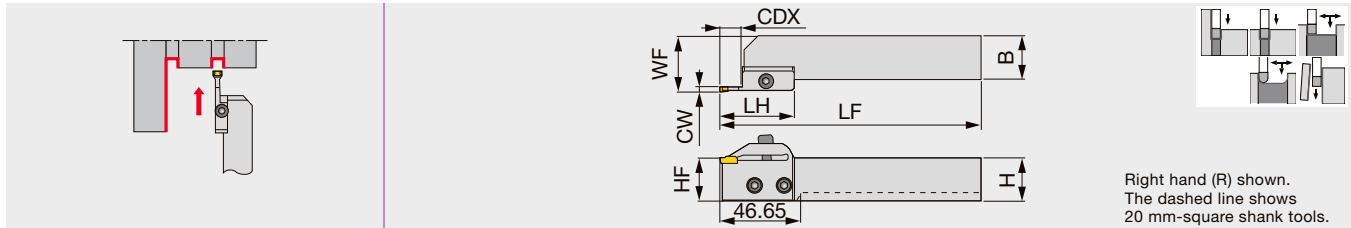
Shank	Adapter	
	**GR, **GR-L	**GL, **GL-L
CGWSR...	●	
CGWSL...		●
CGWTR...		●
CGWTL...	●	

● : Corresponding

Reference pages: Inserts → **F082 - F084**, Shanks → **F081**, Standard cutting conditions → **F084**

CGWSR/L-G

External grooving, parting and turning toolholder, for 1 corner inserts



Designation	CW	CDX	H	B	LF	LH	HF	WF	Insert	Shank	Adapter	Torque*
CGWSR/L2020-20GR/L	2	12	20	20	150.2	43.15	20	26.8	GE20, GE20-AL	CGWSR/L2020	20GR/L	5
CGWSR/L2525-20GR/L	2	12	25	25	150.2	43.15	25	31.8	GE20, GE20-AL	CGWSR/L2525	20GR/L	5
CGWSR/L2020-30GR/L	3	12	20	20	150.2	43.15	20	27	G*30,GE30R/L,GE30-AL	CGWSR/L2020	30GR/L	5
CGWSR/L2525-30GR/L	3	12	25	25	150.2	43.15	25	32	G*30,GE30R/L,GE30-AL	CGWSR/L2525	30GR/L	5
CGWSR/L2020-40GR/L	4	12	20	20	150.2	43.15	20	27.1	G*40,GE40R/L,GE40-AL	CGWSR/L2020	40GR/L	5
CGWSR/L2525-40GR/L	4	12	25	25	150.2	43.15	25	32.1	G*40,GE40R/L,GE40-AL	CGWSR/L2525	40GR/L	5
CGWSR/L2020-50GR/L	5	12	20	20	150.2	43.15	20	27.2	G*50,GE50R	CGWSR/L2020	50GR	5

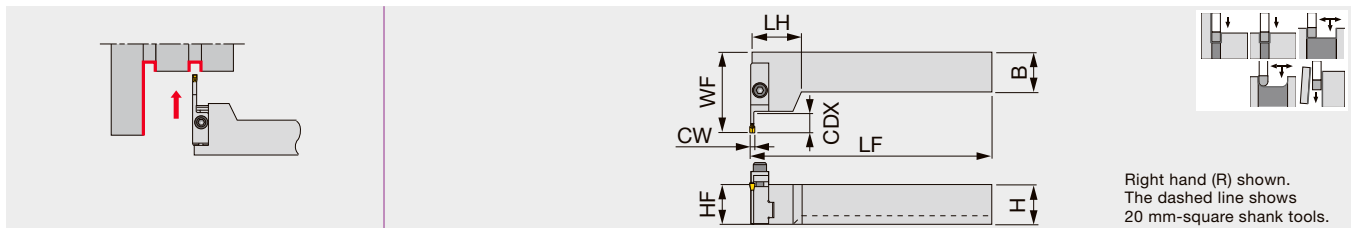
Note: For diameter compensation values in traversing, see page F115.

Use right-hand adapters (R) with right-hand shanks (R); and left-hand adapters (L) with left-hand shanks (L).

*Torque: Recommended clamping torque (N·m)

CGWTR/L-G

External grooving, parting and turning toolholder, for 1 corner inserts



Designation	CW	CDX	H	B	LF	LH	HF	WF	Insert	Shank	Adapter	Torque*
CGWTR/L2020-30GL/R	3	12	20	20	150	12.9	20	49.9	G*30,GE30R/L,GE30-AL	CGWTR/L2020	30GL/R	5
CGWTR/L2525-30GL/R	3	12	25	25	150	12.9	25	49.9	G*30,GE30R/L,GE30-AL	CGWTR/L2525	30GL/R	5
CGWTR/L2020-40GL/R	4	12	20	20	150.1	12.9	20	49.9	G*40,GE40R/L,GE40-AL	CGWTR/L2020	40GL/R	5
CGWTR/L2525-40GL/R	4	12	25	25	150.1	12.9	25	49.9	G*40,GE40R/L,GE40-AL	CGWTR/L2525	40GL/R	5
CGWTR/L2020-50GL/R	5	12	20	20	150.2	12.9	20	49.9	G*50,GE50R/L	CGWTR/L2020	50GL/R	5
CGWTR/L2525-50GL/R	5	12	25	25	150.2	12.9	25	49.9	G*50,GE50R/L	CGWTR/L2525	50GL/R	5

Note: For diameter compensation values in traversing, see page F115.

Use left-hand adapters (L) with right-hand shanks (R); and right-hand adapters (R) with left-hand shanks (L).

*Torque: Recommended clamping torque (N·m)

SPARE PARTS

Designation	Clamping screw	Adapter screw	Wrench
CGW*R/L***-**G...	CHHM5-18	CSHB-6	P-4

Combination of adapter and shank

Shank	Adapter	
	**GR, **GR-L	**GL, **GL-L
CGWSR...	●	
CGWSL...		●
CGWTR...		●
CGWTL...	●	

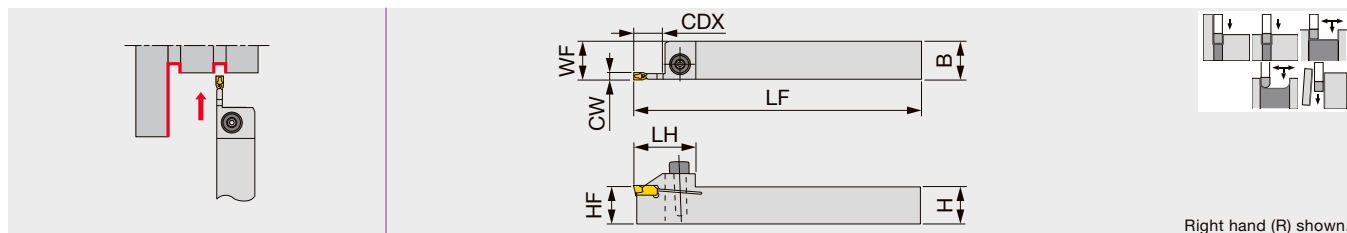
● : Corresponding

Reference pages: Inserts → F085 - F090, Shanks → F081, Standard cutting conditions → F090

MY-T SERIES

CGSSR/L

External grooving, parting and turning toolholder, for 1 corner inserts

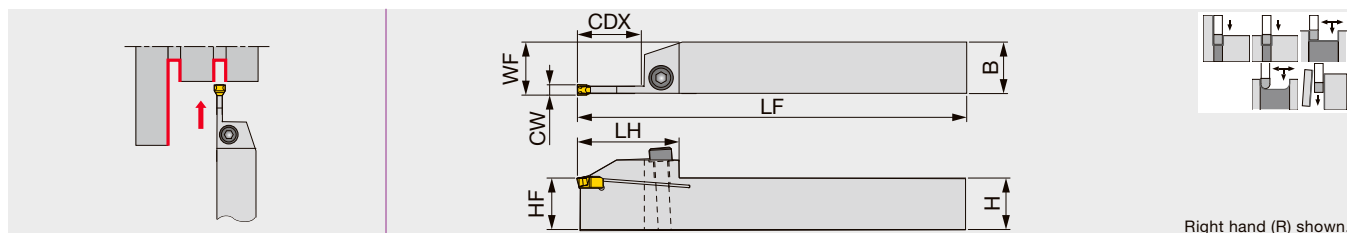


Designation	CW	CDX	H	B	LF	LH	HF	WF	Insert	Torque*
CGSSR/L1616-20	2	16	16	16	125	27	16	16.2	GE20, GE20-AL	5
CGSSR/L2020-20	2	16	20	20	150	27	20	20.2	GE20, GE20-AL	5
CGSSR/L2525-20	2	16	25	25	150	27	25	25.2	GE20, GE20-AL	5
CGSSR/L1616-30	3	12	16	16	125	27	16	16.5	G*30, GE30R/L, GE30-AL	5
CGSSR/L2020-30	3	12	20	20	150	27	20	20.5	G*30, GE30R/L, GE30-AL	5
CGSSR/L2525-30	3	12	25	25	150	27	25	25.5	G*30, GE30R/L, GE30-AL	5
CGSSR/L2020-40	4	12	20	20	150	27	20	20.6	G*40, GE40R/L, GE40-AL	5
CGSSR/L2525-40	4	12	25	25	150	27	25	25.6	G*40, GE40R/L, GE40-AL	5
CGSSR/L2020-50	5	12	20	20	150	27	20	20.7	G*50, GE50R/L	5
CGSSR/L2525-50	5	12	25	25	150	27	25	25.7	G*50, GE50R/L	5

*Torque: Recommended clamping torque (N·m)

CGSSR/L-D

External grooving, parting and turning toolholder, for 1 corner inserts



Designation	CW	CDX	H	B	LF	LH	HF	WF	Insert	Torque*
CGSSR/L1616-30D	3	22	16	16	125	36.2	16	16.5	G*30, GE30R/L, GE30-AL	5
CGSSR/L2020-30D	3	22	20	20	150	36.2	20	20.5	G*30, GE30R/L, GE30-AL	5
CGSSR/L2525-30D	3	22	25	25	150	36.2	25	25.5	G*30, GE30R/L, GE30-AL	5
CGSSR/L2020-40D	4	25	20	20	150	39.5	20	20.6	G*40, GE40R/L, GE40-AL	5
CGSSR/L2525-40D	4	25	25	25	150	39.5	25	25.6	G*40, GE40R/L, GE40-AL	5
CGSSR/L2020-50D	5	25	20	20	150	39.5	20	20.7	G*50, GE50R/L	5
CGSSR/L2525-50D	5	25	25	25	150	39.5	25	25.7	G*50, GE50R/L	5

*Torque: Recommended clamping torque (N·m)

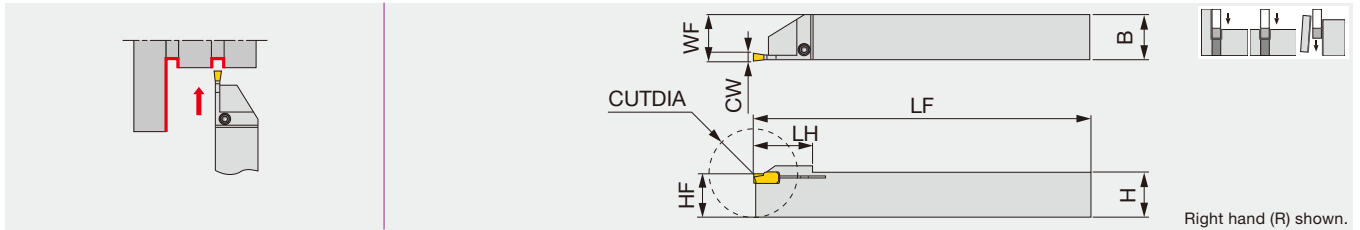
SPARE PARTS

Designation	Clamping screw	Wrench
CGSSR/L...	CHHM5-18	P-4

Reference pages: Inserts → **F085 - F090**, Standard cutting conditions → **F090**

JCGSSR/L

External grooving and parting toolholder, for Swiss lathes



Designation	CW	CUTDIA	H	B	LF	LH	HF	WF	Insert	Torque*
JCGSSR/L1010-20	2	20	10	10	125	15	10	10.2	GE20, GE20-AL	2.3
JCGSSR/L1212-20	2	25	12	12	125	19	12	12.2	GE20, GE20-AL	2.3
JCGSSR/L1616-20	2	32	16	16	125	22.5	16	16.2	GE20, GE20-AL	2.3

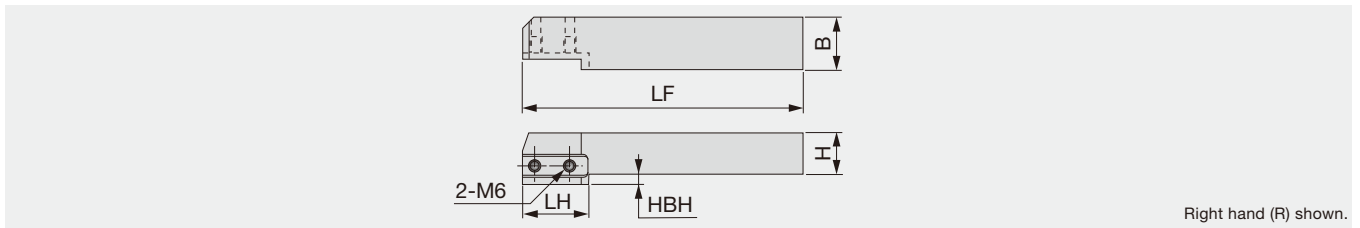
*Torque: Recommended clamping torque (N·m)

SPARE PARTS

Designation	Clamping screw	Wrench
JCGSSR/L...	CSTB-3	T-9F

CGWSR/L

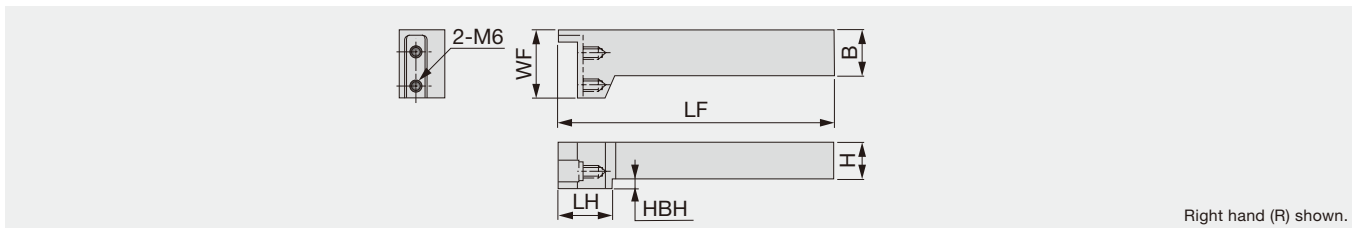
Shank for CGWSR/L-WG, -WG-L, -G, -CGD, -FL-G/TP, and -#S/D toolholders



Designation	H	B	LF	LH	HBH
CGWSR/L2020	20	20	137	32.5	5
CGWSR/L2525	25	25	137	-	-

CGWTR/L

Shank for CGWSR/L-WG, -WG-L, -G, -CGD, -FL-G/TP, and -#S/D toolholders, for tangentially clamped adapter



Designation	H	B	LF	LH	WF	HBH
CGWTR/L2020	20	20	150	30.5	37	5
CGWTR/L2525	25	25	150	-	37	-

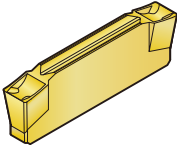
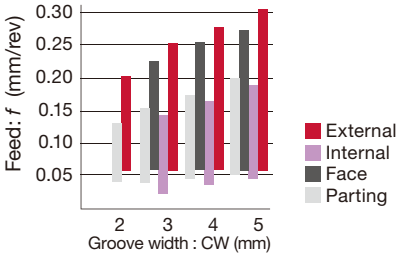
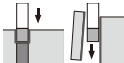
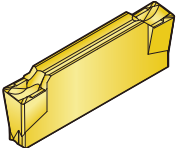
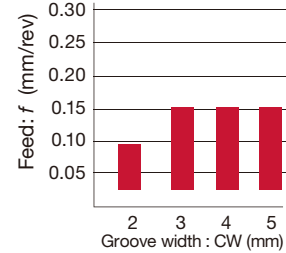
SPARE PARTS

Designation	Adapter screw
CGWTR/L...	CSHB-6

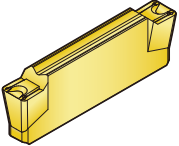
Reference pages: Inserts → **F085 - F090**, Standard cutting conditions → **F090**

CHIPBREAKER GUIDE (for 2 corner inserts)

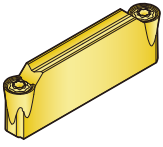
External grooving and parting

WGE  F083	1st choice for external grooving and parting Excellent chip control for grooving CW = 2 - 5 mm	<table><thead><tr><th>Groove width : CW (mm)</th><th>External</th><th>Internal</th><th>Face</th><th>Parting</th></tr></thead><tbody><tr><td>2</td><td>0.20</td><td>0.13</td><td>0.22</td><td>0.05</td></tr><tr><td>3</td><td>0.25</td><td>0.14</td><td>0.23</td><td>0.05</td></tr><tr><td>4</td><td>0.28</td><td>0.17</td><td>0.25</td><td>0.05</td></tr><tr><td>5</td><td>0.30</td><td>0.18</td><td>0.27</td><td>0.05</td></tr></tbody></table> 	Groove width : CW (mm)	External	Internal	Face	Parting	2	0.20	0.13	0.22	0.05	3	0.25	0.14	0.23	0.05	4	0.28	0.17	0.25	0.05	5	0.30	0.18	0.27	0.05
Groove width : CW (mm)	External	Internal	Face	Parting																							
2	0.20	0.13	0.22	0.05																							
3	0.25	0.14	0.23	0.05																							
4	0.28	0.17	0.25	0.05																							
5	0.30	0.18	0.27	0.05																							
WGE R/L  F083	Handed insert Minimize burr generation when workpiece is cut off CW = 2 - 5 mm	<table><thead><tr><th>Groove width : CW (mm)</th><th>External</th></tr></thead><tbody><tr><td>2</td><td>0.09</td></tr><tr><td>3</td><td>0.15</td></tr><tr><td>4</td><td>0.15</td></tr><tr><td>5</td><td>0.15</td></tr></tbody></table> 	Groove width : CW (mm)	External	2	0.09	3	0.15	4	0.15	5	0.15															
Groove width : CW (mm)	External																										
2	0.09																										
3	0.15																										
4	0.15																										
5	0.15																										

External grooving and turning

WGT  F084	1st choice for turning Low cutting force and good chip control for traversing CW = 3 - 5 mm	<table border="1"> <caption>Depth of cut ap (mm) vs Feed: f (mm/rev) for WGT</caption> <thead> <tr> <th>Feed: f (mm/rev)</th> <th>WGT50</th> <th>WGT40</th> <th>WGT30</th> </tr> </thead> <tbody> <tr> <td>0.05</td> <td>1.5</td> <td>1.2</td> <td>1.0</td> </tr> <tr> <td>0.10</td> <td>1.8</td> <td>1.4</td> <td>1.1</td> </tr> <tr> <td>0.15</td> <td>2.0</td> <td>1.6</td> <td>1.2</td> </tr> <tr> <td>0.20</td> <td>2.2</td> <td>1.8</td> <td>1.3</td> </tr> <tr> <td>0.25</td> <td>2.4</td> <td>2.0</td> <td>1.4</td> </tr> <tr> <td>0.30</td> <td>2.6</td> <td>2.2</td> <td>1.5</td> </tr> </tbody> </table>	Feed: f (mm/rev)	WGT50	WGT40	WGT30	0.05	1.5	1.2	1.0	0.10	1.8	1.4	1.1	0.15	2.0	1.6	1.2	0.20	2.2	1.8	1.3	0.25	2.4	2.0	1.4	0.30	2.6	2.2	1.5	
Feed: f (mm/rev)	WGT50	WGT40	WGT30																												
0.05	1.5	1.2	1.0																												
0.10	1.8	1.4	1.1																												
0.15	2.0	1.6	1.2																												
0.20	2.2	1.8	1.3																												
0.25	2.4	2.0	1.4																												
0.30	2.6	2.2	1.5																												

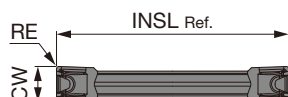
Profiling

WGR  F084	Low cutting force and good chip control for profiling CW = 3 - 5 mm	<table border="1"> <caption>Depth of cut ap (mm) vs Feed: f (mm/rev) for WGR</caption> <thead> <tr> <th>Feed: f (mm/rev)</th> <th>WGR50</th> <th>WGR40</th> <th>WGR30</th> </tr> </thead> <tbody> <tr> <td>0.05</td> <td>1.5</td> <td>1.2</td> <td>1.0</td> </tr> <tr> <td>0.10</td> <td>1.8</td> <td>1.4</td> <td>1.1</td> </tr> <tr> <td>0.15</td> <td>2.0</td> <td>1.6</td> <td>1.2</td> </tr> <tr> <td>0.20</td> <td>2.2</td> <td>1.8</td> <td>1.3</td> </tr> <tr> <td>0.25</td> <td>2.4</td> <td>2.0</td> <td>1.4</td> </tr> <tr> <td>0.30</td> <td>2.6</td> <td>2.2</td> <td>1.5</td> </tr> </tbody> </table>	Feed: f (mm/rev)	WGR50	WGR40	WGR30	0.05	1.5	1.2	1.0	0.10	1.8	1.4	1.1	0.15	2.0	1.6	1.2	0.20	2.2	1.8	1.3	0.25	2.4	2.0	1.4	0.30	2.6	2.2	1.5	
Feed: f (mm/rev)	WGR50	WGR40	WGR30																												
0.05	1.5	1.2	1.0																												
0.10	1.8	1.4	1.1																												
0.15	2.0	1.6	1.2																												
0.20	2.2	1.8	1.3																												
0.25	2.4	2.0	1.4																												
0.30	2.6	2.2	1.5																												

Please see page F*** for the product details.

WGT

For external grooving, parting, and turning



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

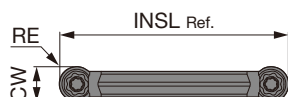
★ : First choice
☆ : Second choice

Designation	CW ^{+0.1} ₀	RE	Coated			Cermet			INSL	h
			T9225	AH120	GH730	NS9530				
WGT30	3	0.4	●	●	●	●			20	5.5
WGT40	4	0.4	●	●	●	●			25	5.7
WGT50	5	0.4	●	●	●	●			25	5.9

● : Line up

WGR

For profiling (full radius)



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

★ : First choice
☆ : Second choice

Designation	CW ^{+0.1} ₀	RE	Coated			Cermet			INSL	h
			T9225	AH120	GH730	NS9530				
WGR30	3	1.5	●	●	●	●			20	5.5
WGR40	4	2	●	●	●	●			25	5.7
WGR50	5	2.5	●	●	●	●			25	5.9

● : Line up

STANDARD CUTTING CONDITIONS (for 2 corner inserts)

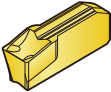
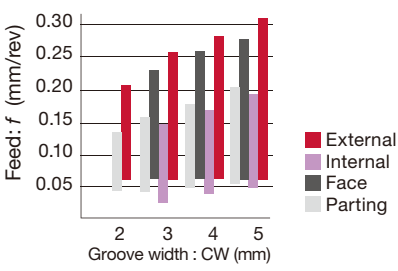
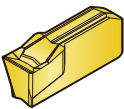
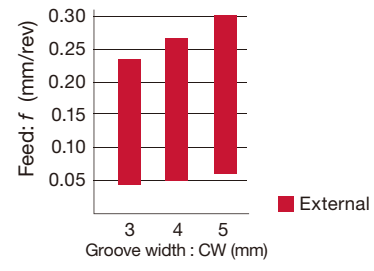
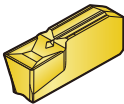
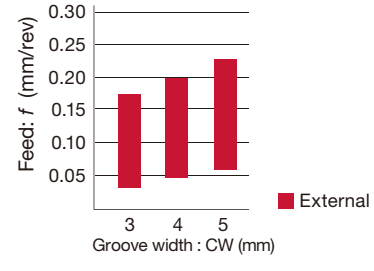
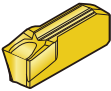
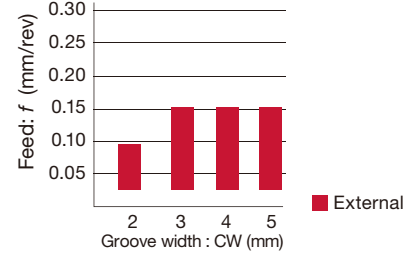
ISO	Workpiece material	Recommended grade	Cutting speed V _c (m/min)	Operation	Feed: f (mm/rev)			
					Groove width: CW (mm)			
					2	3	4	5
P	Low carbon steels Alloy steels (~ HB150)	T9225	80 - 300	Grooving (WGE□□)	0.06 ~ 0.20	0.06 ~ 0.25	0.07 ~ 0.27	0.07 ~ 0.30
		NS9530	100 - 200					
		GH730, AH120	50 - 180	Parting (WGE□□R/L)	0.04 ~ 0.10	0.04 ~ 0.14	0.04 ~ 0.14	0.04 ~ 0.14
	Medium carbon steels Alloy steels (HB150 ~ 250)	T9225	80 - 220					
		NS9530	80 - 180					
	High carbon steels Alloy steels (HB250 ~)	T9225	80 - 220	Turning (WGT□□)	-	ap = 0.5 ~ 1.5 f = 0.06 ~ 0.2	ap = 0.5 ~ 2.0 f = 0.06 ~ 0.25	ap = 0.5 ~ 2.5 f = 0.06 ~ 0.27
		NS9530	80 - 150					
M	Stainless steels	GH730, AH120	50 - 120	Profiling (WGR□□)	-	ap = 0.5 ~ 1.4 f = 0.05 ~ 0.25	ap = 0.5 ~ 1.5 f = 0.05 ~ 0.26	ap = 0.5 ~ 1.6 f = 0.05 ~ 0.3
K	Grey and ductile cast irons	GH730, AH120	50 - 180					

Note: For diameter compensation values in traversing, see page F115.

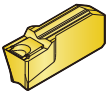
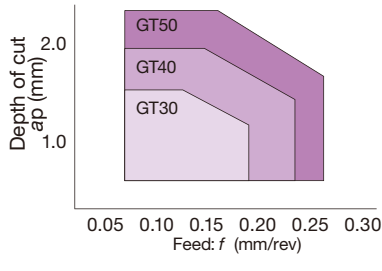
Reference pages: Toolholders → F077, F078

CHIPBREAKER GUIDE (for 1 corner inserts)

External grooving and parting

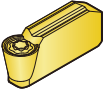
GE  F087	1st choice for external grooving and parting Excellent chip control CW = 2 - 5 mm 
GF  F088	1st choice for face grooving Low cutting force and good chip control for face grooving CW = 3 - 5 mm 
GN  F089	1st choice for internal grooving Low cutting force and good chip control for internal grooving CW = 3 - 5 mm 
GE R/L  F089	Handed insert Minimize burr generation when workpiece is cut off CW = 3 - 5 mm 

External grooving and turning

GT  F087	1st choice for turning Low cutting force and good chip control for traversing CW = 3 - 5 mm 
--	--

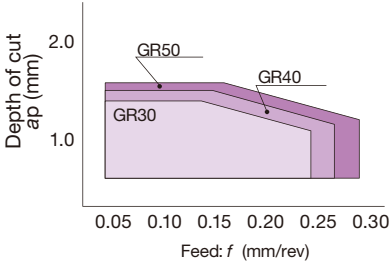
Profiling

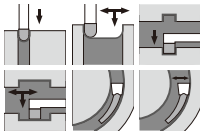
GR



F088

Full radius type
Low cutting force and good chip control for profiling
CW = 3 - 5 mm





For aluminium and non-ferrous metal

External

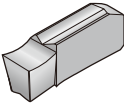
Internal

Face

Parting

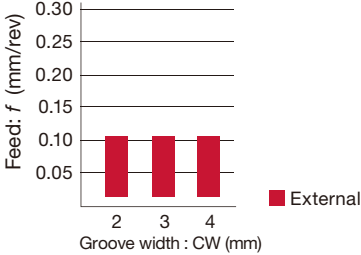
Others

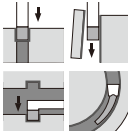
GE-AL



F090

Reduce cutting force and welding due to sharp chipbreaker
CW = 2 - 4 mm

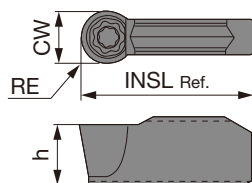




Please see page F*** for the product details.

GR

For profiling (full radius)



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

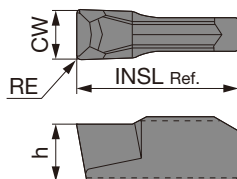
★ : First choice
☆ : Second choice

Designation	CW ^{+0.1} ₀	RE	Coated			Cermet			INSL	h
			T9225	AH120	GH730	NS9530				
GR30	3	1.5	●	●	●	●			10	3.5
GR40	4	2	●	●	●	●			10	4
GR50	5	2.5	●	●	●	●			12	4.5

● : Line up

GF

For face grooving



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

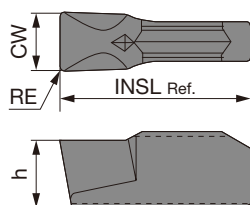
★ : First choice
☆ : Second choice

Designation	CW ^{+0.1} ₀	RE	Coated		Cermet		INSL	h
			GH730		NS9530			
GF30	3	0.2	●		●		10	3.5
GF40	4	0.2	●		●		10	4
GF50	5	0.2	●		●		12	4.5

● : Line up

Reference pages: Toolholders → **F079 - F081**, Standard cutting conditions → **F090**

For internal grooving



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

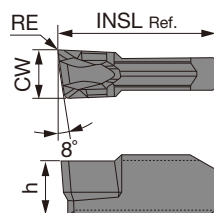
★ : First choice
☆ : Second choice

[illegible]

● : Line up

GE-R/L

For parting off (handed inserts)



Right hand (R) shown.

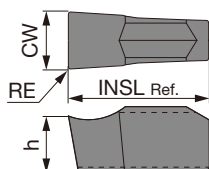
P	Steel	★	★				
M	Stainless	★	★				
K	Cast iron	★	☆				
N	Non-ferrous						
S	Superalloys	☆					
H	Hard materials						

★ : First choice
☆ : Second choice

[illegible]

● : Line up

For aluminium and non-ferrous metal



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

★ : First choice
☆ : Second choice

Designation	$CW_{0}^{+0.1}$	RE	Uncoated						INSL	h
			KS05F							
GE20-AL	2	0.2	●						10	3.5
GE30-AL	3	0.2	●						10	3.5
GE40-AL	4	0.2	●						10	4

● : Line up

ISO	Workpiece material	Grades	Cutting speed Vc (m/min)
P	Low carbon steel, Alloy steel (~ HB150)	T9225	80 - 300
		NS9530	100 - 200
		GH730, AH120	50 - 180
	Medium carbon steel, Alloy steel (HB150 ~ 250)	T9225	80 - 220
		NS9530	80 - 180
		GH730, AH120	50 - 150
	High carbon steel, Alloy steel (HB250 ~)	T9225	80 - 220
		NS9530	80 - 150
		GH730, AH120	50 - 120
M	Stainless steel	GH730, AH120	50 - 120
K	Grey iron, Ductile cast iron	GH730, AH120	50 - 180
N	Aluminium alloy, Non-ferrous metal	KS05F	200 - 300

Operation	Feed: f (mm/rev)			
	Groove width: CW (mm)			
	2	3	4	5
Grooving (GE**)	0.06 - 0.2	0.06 - 0.25	0.07 - 0.27	0.07 - 0.3
Parting off (GE**R/L)	0.04 - 0.1	0.04 - 0.14	0.04 - 0.14	0.04 - 0.14
Traversing (GT**)	-	$ap = 0.5 - 1.5$ $f = 0.06 - 0.2$	$ap = 0.5 - 2$ $f = 0.06 - 0.25$	$ap = 0.5 - 2.5$ $f = 0.06 - 0.27$
Profiling (GR**)	-	$ap = 0.5 - 1.4$ $f = 0.05 - 0.25$	$ap = 0.5 - 1.5$ $f = 0.05 - 0.26$	$ap = 0.5 - 1.6$ $f = 0.05 - 0.3$
Grooving for Aluminium alloys (GE**-AL)	0.03 - 0.1	0.03 - 0.1	0.03 - 0.1	-

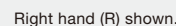
For diameter compensation values in traversing, see page **F115**.

Reference pages: Toolholders → **F079 - F081**



FLASR/L

External grooving and threading toolholder, for Swiss lathes

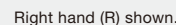


Designation	CWN	CWX	HF	H	B	LF	WF	Insert	Torque*
FLASR/L-1616M3	1	3	16	16	16	125	16	FL*-3**R/L...	3

*Torque: Recommended clamping torque (N·m)

FLSR/L

External grooving and threading toolholder, for Swiss lathes



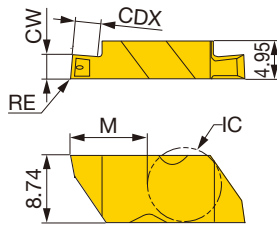
Designation	CWN	CWX	HF	H	B	LF	WF	Insert	Torque*
FLSR/L-2020M3	1	3	20	20	20	125	32	FL*-3**R/L...	3
FLSR/L-2525M3	1	3	25	25	25	150	32	FL*-3**R/L...	3

*Torque: Recommended clamping torque (N·m)

SPARE PARTS

Designation	Clamp	Clamping screw	Wrench
FLASR-1616M3	TF-184	S-412	5/32HEX
FLASL-1616M3	TF-185	S-412	5/32HEX
FLSR-****M3	TF-72	S-412	5/32HEX
FLSL-****M3	TF-73	S-412	5/32HEX

FLG-CB (For grooving)



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

★ : First choice
☆ : Second choice



Designation	HAND	CW±0.025	RE	Coated								CDX	IC	M
				AH110										
FLG-3M100R-CB	R	1	0.19	●								1.4	9.525	10.3
FLG-3M100L-CB	L	1	0.19	●								1.4	9.525	10.3
FLG-3M150R-CB	R	1.5	0.19	●								2.55	9.525	10.3
FLG-3M150L-CB	L	1.5	0.19	●								2.55	9.525	10.3
FLG-3M200R-CB	R	2	0.19	●								2.55	9.525	10.3
FLG-3M200L-CB	L	2	0.19	●								2.55	9.525	10.3
FLG-3M250R-CB	R	2.5	0.19	●								4.07	9.525	10.3
FLG-3M250L-CB	L	2.5	0.19	●								4.07	9.525	10.3
FLG-3M300R-CB	R	3	0.19	●								4.07	9.525	10.3
FLG-3M300L-CB	L	3	0.19	●								4.07	9.525	10.3

● : Line up

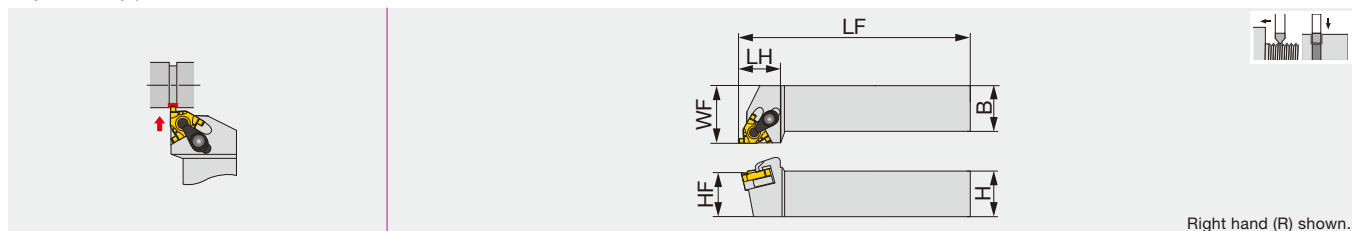
STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Grade	Application	Cutting speed Vc (m/min)	Feed f (mm/rev)
P	High carbon steel S45C, etc. C45, etc.	AH110	Grooving	100 - 200	0.12 - 0.35
	Alloy steel SCM435, etc. 34CrMo4, etc.	AH110	Grooving	50 - 80	0.12 - 0.3
M	Stainless steel SUS304, etc. X5CrNi18-9, etc.	AH110	Grooving	50 - 150	0.1 - 0.2
K	Gray cast iron FC250, etc. 250, etc.	AH110	Grooving	50 - 180	0.1 - 0.25
	Ductile cast iron FCD400, etc. 40-15, etc.	AH110	Grooving	50 - 120	0.1 - 0.25

Reference pages: Toolholders → **F091**

CER/L

External grooving and threading toolholder (The -DT holders can be used either with the insert screw or top-clamp)



Designation	CWN	CWX	H	B	LF	LH	HF	WF	Insert	Torque*
CER/L1212H16DT	1	2.25	12	12	100	24	12	16	GTGN-16...	3.5
CER/L1616H16DT	1	2.25	16	16	100	24	16	20	GTGN-16...	3.5
CER/L2020K16DT	1	2.25	20	20	125	24	20	25	GTGN-16...	3.5
CER/L2525M16DT	1	2.25	25	25	150	28	25	32	GTGN-16...	3.5
CER3232P16T	1	2.25	32	32	170	32	32	40	GTGN-16...	3.5

Note: A clamp set consists of a clamp and a clamping screw. A shim set consists of a shim and a shim screw to secure the shim to the toolholder.

Standard shims can be used on both right- and left-hand toolholders. Please use either of the sides depending on the tool hand.

When using grooving inserts, please use shims for grooving. Shims for grooving inserts are sold separately.

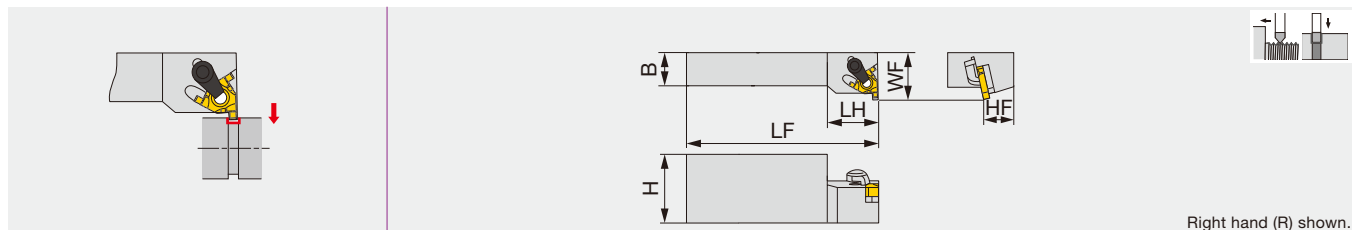
Use right-hand toolholders (R) with right-hand inserts (R); and left-hand toolholders (L) with left-hand inserts (L).

*Torque: Recommended clamping torque (N-m)

Designation	Clamp set	Clamp screw	Shim screw	*Optional: Shim for grooving	Wrench 1	Wrench 2
CER*****16DT	CSP16	CSTB-3.5ST	DTS5-3.5	G16ER/IL-DT	P-3.5	T-15F
CEL*****16DT	CSP16	CSTB-3.5ST	DTS5-3.5	G16EL/IR-DT	P-3.5	T-15F
CER3232P16T	CSP16	-	-	G16ER/IR-S	-	T-15F

B-CER/L

External threading and grooving toolholder, for Swiss lathes



Designation	CWN	CWX	H	B	LF	LH	HF	WF	Insert	Torque*
B-CER/L16M16	1	2.25	32	16	150	24	16	22	GTGN-16...	3.5

Note: When using grooving inserts, please use shims for grooving. Shims for grooving inserts are sold separately.

Use right-hand toolholders (R) with right-hand inserts (R); and left-hand toolholders (L) with left-hand inserts (L).

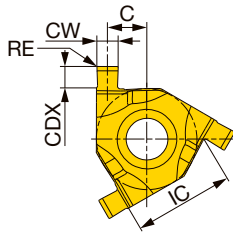
*Torque: Recommended clamping torque (N-m)

Designation	Clamp set	Clamp screw	Wrench	*Optional: Shim for grooving
B-CER16M16	CSP16	-	T-15F	G16ER/IL-S
B-CEL16M16	CSP16	-	T-15F	G16EL/IR-S

Reference pages: Inserts, Standard cutting conditions → **F094**

INSERT

GTGN16



ER/IL shown.

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

★ : First choice
☆ : Second choice

Designation	HAND (External)	CW±0.03	RE	Coated			Insert size	CDX	IC	C	Shim	
				SH730							Dual-clamp toolholder: screw-on and clamp-on	Clamp-on toolholder
GTGN-16ER/IL100	R	1	0.1	●			16	1.25	9.525	4.22	G16ER/IL-DT	G16ER/IL-S
GTGN-16EL/IR100	L	1	0.1	●			16	1.25	9.525	4.22	G16EL/IR-DT	G16EL/IR-S
GTGN-16ER/IL120	R	1.2	0.1	●			16	1.3	9.525	4.12	G16ER/IL-DT	G16ER/IL-S
GTGN-16EL/IR120	L	1.2	0.1	●			16	1.3	9.525	4.12	G16EL/IR-DT	G16EL/IR-S
GTGN-16ER/IL140	R	1.4	0.1	●			16	1.5	9.525	4.02	G16ER/IL-DT	G16ER/IL-S
GTGN-16EL/IR140	L	1.4	0.1	●			16	1.5	9.525	4.02	G16EL/IR-DT	G16EL/IR-S
GTGN-16ER/IL170	R	1.7	0.1	●			16	1.7	9.525	3.67	G16ER/IL-DT	G16ER/IL-S
GTGN-16EL/IR170	L	1.7	0.1	●			16	1.7	9.525	3.67	G16EL/IR-DT	G16EL/IR-S
GTGN-16ER/IL195	R	1.95	0.1	●			16	1.7	9.525	3.75	G16ER/IL-DT	G16ER/IL-S
GTGN-16EL/IR195	L	1.95	0.1	●			16	1.7	9.525	3.75	G16EL/IR-DT	G16EL/IR-S
GTGN-16ER/IL225	R	2.25	0.1	●			16	1.8	9.525	3.6	G16ER/IL-DT	G16ER/IL-S
GTGN-16EL/IR225	L	2.25	0.1	●			16	1.8	9.525	3.6	G16EL/IR-DT	G16EL/IR-S

Note: GTGN insert can be used for both external and internal machining, but the tool hand is reversed.
Shim for GTGN depends on the toolholder type.

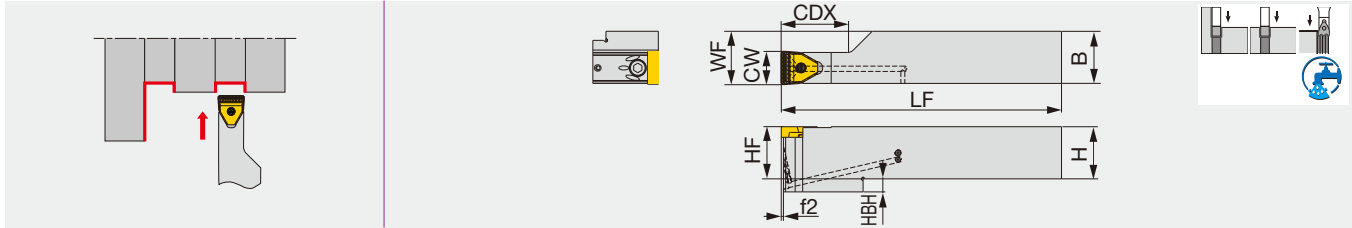
● : Line up

STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Grade	Cutting speed Vc (m/min)	Feed f (mm/rev)
P	Steels S45C, SCM440 etc. C45, 42CrMo4, etc.	SH730	50 - 150	0.05 - 0.1
M	Stainless steels SUS304, SUS316 etc. X5CrNi18-9, X5CrNiMo17-12-2, etc.	SH730	30 - 120	0.05 - 0.1
S	Heat-resistant alloys, Titanium alloys etc. Ti-6Al-4V, etc.	SH730	30 - 40	0.05 - 0.1

Reference pages: Toolholders → **F093**

External grooving toolholder



Designation	CW	CDX	H	B	LF	HF	WF	HBH	f2	Insert ⁽¹⁾	Torque*
FPGR2525M-10T20	10	20	25	25	150	25	25.5	-	0.5	PSG*10...	2.2
FPGR3232P-10T36	10	36	32	32	170	32	32.5	-	0.5	PSG*10...	2.2
FPGR2525M-15T20	15	20	25	25	150	25	25.5	-	0.5	PSG*15...	2.2
FPGR3232P-15T40	15	40	32	32	170	32	32.5	-	0.4	PSG*15...	2.2
FPGR3232P-20T40	20	40	32	32	170	32	32.5	8	0.4	PSG*20...	8.5
FPGR4040R-20T50	20	50	40	40	200	40	40.5	8	0.4	PSG*20...	8.5
FPGR3232P-25T40	25	40	32	32	170	32	32.5	8	0.4	PSG*25...	8.5
FPGR4040R-25T50	25	50	40	40	200	40	40.5	8	0.4	PSG*25...	8.5

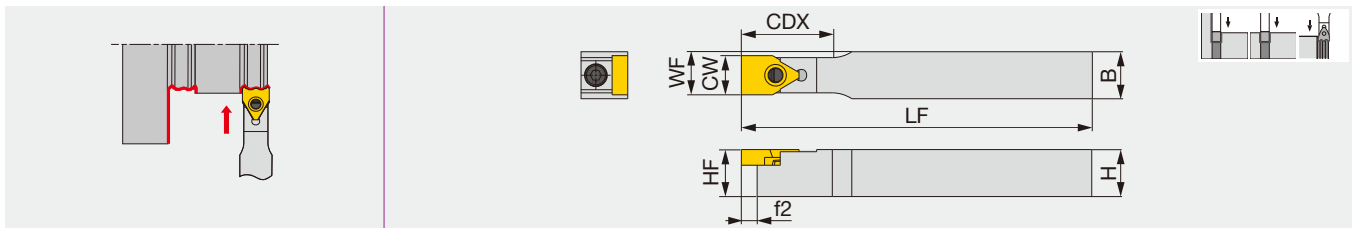
(1) Can be used for both wide grooving and wide profile grooving

*Torque: Recommended clamping torque (N·m)

CDX, LF, f2 are dimensions when PSGM insert is attached. When mounting PSGB insert, the dimensions will be 5 mm longer.

FPGN

External profile grooving toolholder



Designation	CW	CDX	H	B	LF	HF	WF	f2	Insert ⁽¹⁾	Torque*
FPGN1212X-10T20	10	25	12	12	125	12	11	5.5	PSG*10...	2.2
FPGN1616X-10T20	10	25	16	16	125	16	13	5.5	PSG*10...	2.2
FPGN2020K-10T20	10	25	20	20	130	20	15	5.5	PSG*10...	2.2
FPGN1616X-15T25	15	30	16	16	125	16	15.5	5.5	PSG*15...	2.2
FPGN2020K-15T25	15	30	20	20	130	20	17.5	5.5	PSG*15...	2.2
FPGN2020K-20T32	20	37	20	20	130	20	20	5.5	PSG*20...	8.5
FPGN2525M-20T32	20	37	25	25	155	25	22.5	5.5	PSG*20...	8.5
FPGN2525M-25T36	25	41	25	25	155	25	25	5.5	PSG*25...	8.5

*PSGB insert blank is available for tailored inserts.

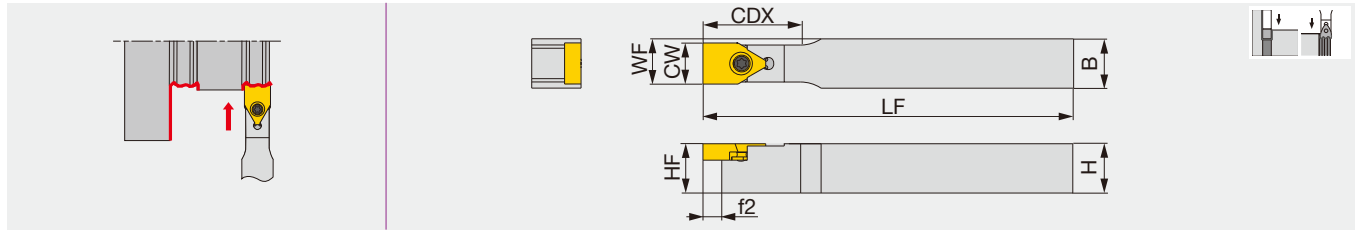
(1) Can be used for both wide grooving and wide profile grooving

*Torque: Recommended clamping torque (N·m)

CDX, LF, f2 are dimensions when PSGB insert is attached. When mounting PSGM insert, the dimensions will be 5 mm shorter.

SPARE PARTS

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



Designation	CW	CDX	H	B	LF	HF	WF	f2	Insert ⁽¹⁾	Torque*
SPGN1212X-10T20	10	25	12	12	125	12	11	5.5	PSGB10	1.3
SPGN1616X-10T20	10	25	16	16	125	16	13	5.5	PSGB10	1.3
SPGN2020K-10T20	10	25	20	20	130	20	15	5.5	PSGB10	1.3
SPGN1616X-15T25	15	30	16	16	125	16	15.5	5.5	PSGB15	3.5
SPGN2020K-15T25	15	30	20	20	130	20	17.5	5.5	PSGB15	3.5
SPGN2020K-20T32	20	37	20	20	130	20	20	5.5	PSGB20	5
SPGN2525M-20T32	20	37	25	25	155	25	22.5	5.5	PSGB20	5
SPGN2525M-25T36	25	41	25	25	155	25	25	5.5	PSGB25	5

*PSGB insert blank is available for tailored inserts.

*Torque: Recommended clamping torque (N·m)

SPARE PARTS

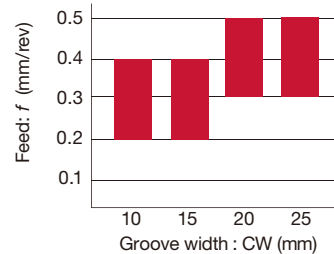
Designation	Clamping screw	Wrench
SPGN*****-10T20	CSTB-3L081	T-8F
SPGN*****-15T25	CSTB-4	T-15F
SPGN*****-20T..., 25T...	CSTB-5	T-20F

CHIPBREAKER GUIDE

PSGM



For wide grooving
Improved productivity with excellent chip control and the chipbreaker designed for high feed
CW = 10 - 25 mm

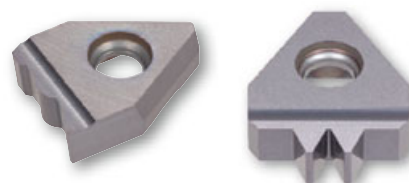


PSGB

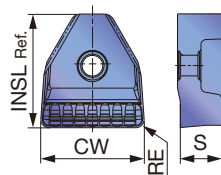


Blank for wide profile grooving inserts
Can be prepared for various insert shapes Shortened cutting time and improved productivity with one-pass operations
CW = 10 - 25 mm

Specially tailored inserts (example)



PSGM



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

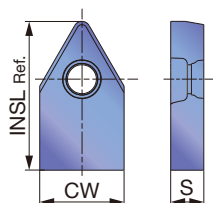
★ : First choice
☆ : Second choice

[illegible]

*Tolerance: CW ± 0.08 (CW = 10 mm), ± 0.1 (CW ≥ 15 mm)

● : Line up

PSGB



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

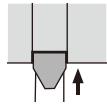
★ : First choice
☆ : Second choice

[illegible]

● : Line up

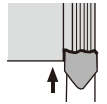
Reference pages: Toolholders → **F095, F096**, Standard cutting conditions → **F098**

STANDARD CUTTING CONDITIONS



Wide grooving (PSGM insert)

ISO	Workpiece material	Hardness (HB)	Grade	Cutting Speed Vc (m/min)
P	Alloy steel SCM440, etc. 42CrMo4, etc.	< 300	AH725	50 - 180
Groove width: CW (mm)				
	10	15	20	25
Feed: f (mm/rev)	0.2 - 0.4	0.2 - 0.4	0.3 - 0.5	0.3 - 0.5

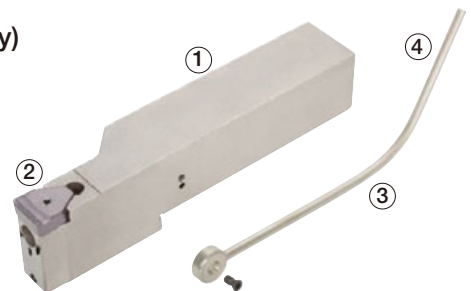


Wide profile grooving (PSGB insert)

ISO	Workpiece material	Hardness (HB)	Grade	Cutting Speed Vc (m/min)
P	Carbon steel S45C, etc. C45, etc.	< 200	UX30	50 - 150
P	Alloy steel SCM440, etc. 42CrMo4, etc.	< 300	UX30	50 - 120
M	Stainless steel SUS303, etc. X10CrNiS18-9, etc.	< 200	UX30	50 - 120
K	Grey cast iron FC250, etc. 250, etc.	-	TH10	50 - 150
K	Ductile cast irons FCD450, etc. 450-10S, etc.	-	TH10	50 - 120
N	Aluminium alloy Si < 12%, etc.	-	TH10	100 - 500

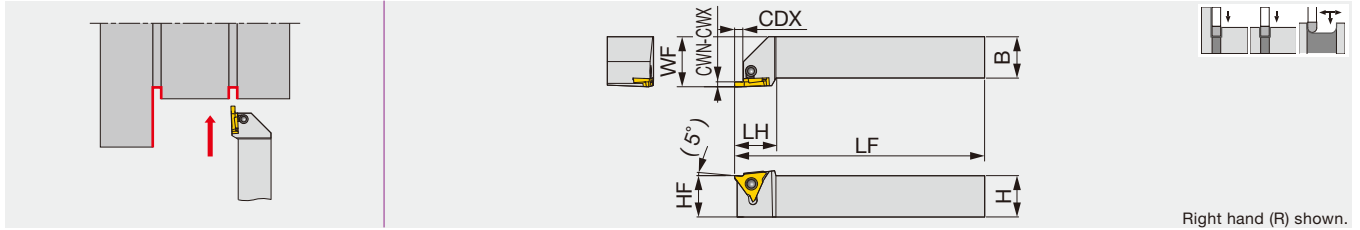
■ Spare parts for internal coolant supply attachment (Order separately)

No.	Parts name	Designation	Note
①	Body	FPGR...	-
②	Insert	PSGM...	-
③	Coolant supply attachment	SGCU-341	-
④	Connector	Commercial items can be used	G 1/8 thread
			NPT 1/8 thread



TGTSR/L

External grooving toolholder, for 3 corner insert



Designation	CWN	CWX	CDX	H	B	LF	LH	HF	WF	Torque*
TGTSR/L2020K16	0.33	2.5	2.5	20	20	125	25	20	25	3
TGTSR/L2525M16	0.33	2.5	2.5	25	25	150	25	25	30	3
TGTSR/L2020K22-1	1	1.45	2	20	20	125	25	20	25	3
TGTSR/L2020K22-2	1.5	2.3	3.5	20	20	125	25	20	25	3
TGTSR/L2020K22-3	2.5	4.5	5	20	20	125	25	20	25	3
TGTSR/L2525M22-1	1	1.45	2	25	25	150	25	25	30	3
TGTSR/L2525M22-2	1.5	2.3	3.5	25	25	150	25	25	30	3
TGTSR/L2525M22-3	2.5	4.5	5	25	25	150	25	25	30	3

Use right-hand toolholders (TGTSR) with right-hand inserts (GBR); and left-hand toolholders (TGTSR) with left-hand inserts (GBL).
*Torque: Recommended clamping torque (N·m)

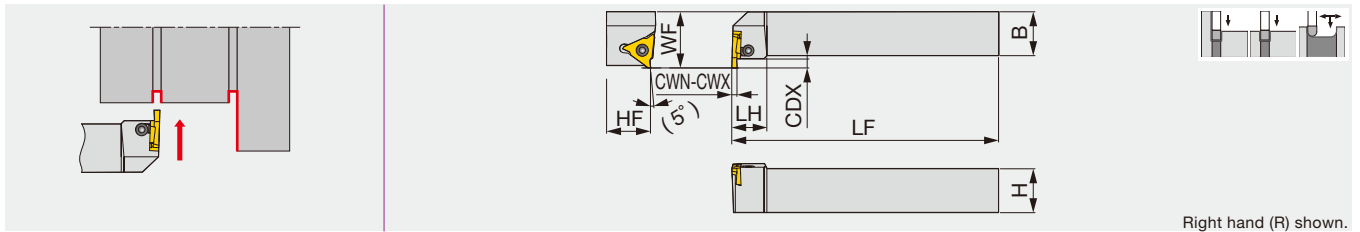
Designation	Insert
TGTSR/L2020K16	GBR/L32...
TGTSR/L2525M16	GBR/L32...
TGTSR/L2020K22-1	GBR/L43125 ~ 145 GBR/L43050R
TGTSR/L2020K22-2	GBR/L43150 ~ 230 GBR/L43075R ~ 100R
TGTSR/L2020K22-3	GBR/L43250 ~ 450 GBR/L43125R ~ 200R
TGTSR/L2525M22-1	GBR/L43125 ~ 145 GBR/L43050R
TGTSR/L2525M22-2	GBR/L43150 ~ 230 GBR/L43075R ~ 100R
TGTSR/L2525M22-3	GBR/L43250 ~ 450 GBR/L43125R ~ 200R

SPARE PARTS

Designation	Clamp	Clamping screw	Wrench
TGTSR/L*****16	CP900	MCS520-2.5	P-2.5
TGTSR/L*****22...	CP910	MCS520-2.5	P-2.5

TGTTR/L

External grooving with tangential pocket, for 3 corner insert



Designation	CWN	CWX	CDX	H	B	LF	LH	HF	WF	Torque*
TGTTR/L2020K16	0.33	2.5	2.5	20	20	125	20	20	27	3
TGTTR/L2525M16	0.33	2.5	2.5	25	25	150	20	25	32	3
TGTTR/L2020K22-1	1	1.45	2	20	20	125	20	20	27	3
TGTTR/L2020K22-2	1.5	2.3	3.5	20	20	125	20	20	27	3
TGTTR/L2020K22-3	2.5	4.5	5	20	20	125	20	20	27	3
TGTTR/L2525M22-1	1	2.3	2	25	25	150	20	25	32	3
TGTTR/L2525M22-2	1.5	2.3	3.5	25	25	150	20	25	32	3
TGTTR/L2525M22-3	2.5	4.5	5	25	25	150	20	25	32	3

Use right-hand toolholders (TGTTR) with left-hand inserts (GBL); and left-hand toolholders (TGTTL) with right-hand inserts (GBR).
*Torque: Recommended clamping torque (N·m)

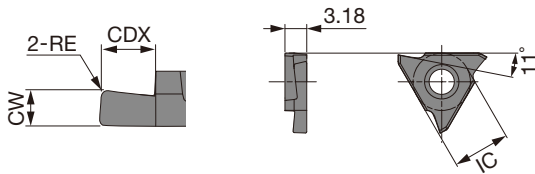
Designation	Insert
TGTTR/L2020K16	GBL/R32...
TGTTR/L2525M16	GBL/R32...
TGTTR/L2020K22-1	GBL/R43125 ~ 145 GBL/R43050R
TGTTR/L2020K22-2	GBL/R43150 ~ 230 GBL/R43075R ~ 100R
TGTTR/L2020K22-3	GBL/R43250 ~ 450 GBL/R43125R ~ 200R
TGTTR/L2525M22-1	GBL/R43125 ~ 145 GBL/R43050R
TGTTR/L2525M22-2	GBL/R43150 ~ 230 GBL/R43075R ~ 100R
TGTTR/L2525M22-3	GBL/R43250 ~ 450 GBL/R43125R ~ 200R

SPARE PARTS

Designation	Clamp	Clamping screw	Wrench
TGTTR/L*****16	CP900	MCS520-2.5	P-2.5
TGTTR/L*****22...	CP910	MCS520-2.5	P-2.5

Reference pages: Inserts → **F100 - F102**, Standard cutting conditions → **F102**

GBR/L32



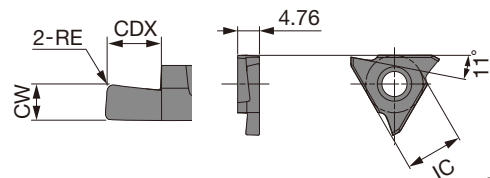
Right hand (R) shown.

[illegible]

★ : First choice
☆ : Second choice

[illegible]

● : Line up



Right hand (R) shown.

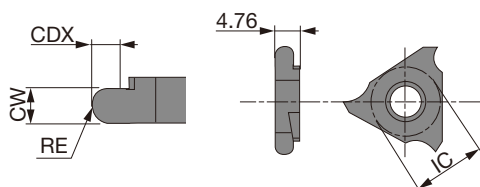
P	Steel	★		★					
M	Stainless	★							
K	Cast iron	★		☆					
N	Non-ferrous					★			
S	Superalloys	☆				☆			
H	Hard materials								

★ : First choice
☆ : Second choice

Designation	HAND	CW±0.025	RE	Coated		Cermet		Uncoated			CDX	IC
				AH710		NS9530		KS05F				
GBR43125	R	1.25	0.2	●		●		●			2	12.7
GBL43125	L	1.25	0.2	●							2	12.7
GBR43145	R	1.45	0.2	●		●		●			2	12.7
GBL43145	L	1.45	0.2	●							2	12.7
GBR43150	R	1.50	0.2	●		●		●			3.5	12.7
GBL43150	L	1.50	0.2	●		●					3.5	12.7
GBR43175	R	1.75	0.2	●		●		●			3.5	12.7
GBL43175	L	1.75	0.2	●		●					3.5	12.7
GBR43185	R	1.85	0.2	●		●		●			3.5	12.7
GBL43185	L	1.85	0.2	●		●					3.5	12.7
GBR43200	R	2	0.2	●		●		●			3.5	12.7
GBL43200	L	2	0.2	●		●					3.5	12.7
GBR43230	R	2.3	0.2	●		●		●			3.5	12.7
GBL43230	L	2.3	0.2	●		●					3.5	12.7
GBR43250	R	2.5	0.3	●		●		●			5	12.7
GBL43250	L	2.5	0.3	●							5	12.7
GBR43265	R	2.65	0.3	●		●		●			5	12.7
GBL43265	L	2.65	0.3	●							5	12.7
GBR43280	R	2.8	0.3	●		●		●			5	12.7
GBL43280	L	2.8	0.3	●							5	12.7
GBR43300	R	3	0.3	●		●		●			5	12.7
GBL43300	L	3	0.3	●							5	12.7
GBR43330	R	3.3	0.3	●		●		●			5	12.7
GBL43330	L	3.3	0.3	●							5	12.7
GBR43350	R	3.5	0.3	●		●		●			5	12.7
GBL43350	L	3.5	0.3	●							5	12.7
GBR43400	R	4	0.4	●		●		●			5	12.7
GBL43400	L	4	0.4	●							5	12.7
GBR43430	R	4.3	0.4	●		●		●			5	12.7
GBL43430	L	4.3	0.4	●							5	12.7
GBR43450	R	4.5	0.4	●		●		●			5	12.7
GBL43450	L	4.5	0.4	●							5	12.7

● : Line up

GBR/L43-R(full radius)



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±0.025	RE	Coated		Cermet		Uncoated		CDX	IC
				AH710		NS9530		KS05F			
GBR43050R	R	1	0.5	●		●		●		2	12.7
GBL43050R	L	1	0.5	●				●		2	12.7
GBR43075R	R	1.5	0.75	●		●		●		3.5	12.7
GBL43075R	L	1.5	0.75	●				●		3.5	12.7
GBR43100R	R	2	1	●		●		●		3.5	12.7
GBL43100R	L	2	1	●				●		3.5	12.7
GBR43125R	R	2.5	1.25	●		●		●		5	12.7
GBL43125R	L	2.5	1.25	●				●		5	12.7
GBR43150R	R	3	1.5	●		●		●		5	12.7
GBL43150R	L	3	1.5	●				●		5	12.7
GBR43200R	R	4	2	●		●		●		5	12.7
GBL43200R	L	4	2	●				●		5	12.7

● : Line up

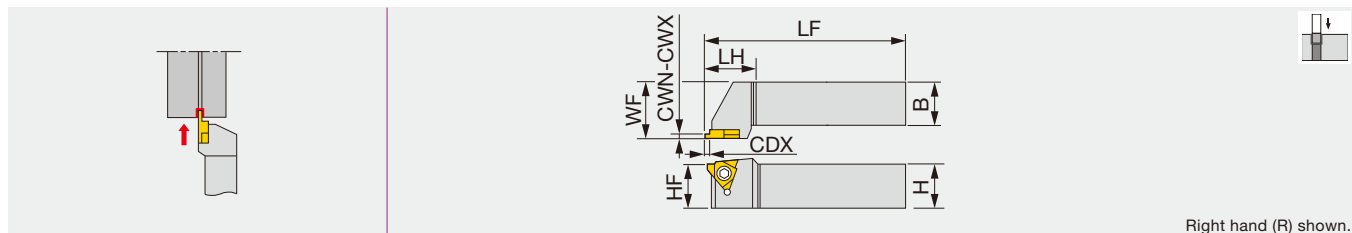
STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Hardness	Grade	Cutting Speed V _c (m/min)	Feed f (mm/rev)
P	Carbon steels, Alloy steels S45C, SCM415, etc. C45, 18CrMo4, etc.	150 - 240HB	NS9530	100 - 200	0.02 - 0.25
		150 - 240HB	AH710	60 - 150	0.05 - 0.25
M	Stainless steel SUS304, etc. X5CrNi18-9, etc.	≤ 240HB	AH710	60 - 150	0.05 - 0.15
K	Cast irons FC250, etc. 250, etc.	Tensile strength ≤ 350 N/mm ²	AH710	60 - 150	0.05 - 0.15
N	Non-ferrous metal Aluminum, etc.	-	KS05F	200 - 300	0.05 - 0.15

Reference pages: Toolholders → **F099**

SGTR/L

External grooving toolholder, for 3 corner inserts



Designation	CWN	CWX	CDX	H	B	LF	LH	HF	WF	Insert	Torque*
SGTR1616-3	1.15	2.7	1.5 - 3	16	16	100	20	16	20	GLR/L3...	3.5
SGTR/L2020-3	1.15	2.7	1.5 - 3	20	20	125	20	20	25	GLR/L3...	3.5
SGTR/L2525-3	1.15	2.7	1.5 - 3	25	25	150	20	25	32	GLR/L3...	3.5
SGTR/L2020-4	1.15	4.2	1.5 - 4	20	20	125	30	20	25	GLR/L4..., GOR/L4...	5
SGTR/L2525-4	1.15	4.2	1.5 - 4	25	25	150	30	25	32	GLR/L4..., GOR/L4...	5

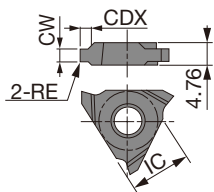
*Torque: Recommended clamping torque (N·m)

SPARE PARTS

Designation	Clamping screw	Wrench
SGTR/L***-3	CSTB-4	T-15F
SGTR/L***-4	CSTB-5	T-20F

INSERTS

GOR/L (For O-ring)



Right hand (R) shown.

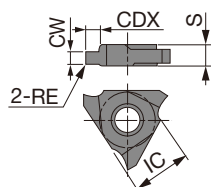
P	Steel	★		★						
M	Stainless			★						
K	Cast iron	☆								
N	Non-ferrous									
S	Superalloys									
H	Hard materials									

★ : First choice
☆ : Second choice

Designation	HAND	CW ^{+0.1 +0.05}	RE	Cermets		Uncoated				CDX	IC
				NS9530	UX30						
GOR4190	R	2.5	0.4	●	●					1.5	12.7
GOR4240	R	3.2	0.4	●	●					2	12.7
GOR4310	R	4.1	0.7	●	●					2.5	12.7

● : Line up

GLR/L (For lock ring)



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 ^{+0.1 +0.05}	RE	Cermet		Uncoated								CDX	IC	S
				NS9530		UX30										
GLR3115	R	1.15	0.1	●		●								1.5	9.53	3.18
GLL3115	L	1.15	0.1	●		●								1.5	9.53	3.18
GLR3135	R	1.35	0.1	●		●								1.5	9.53	3.18
GLL3135	L	1.35	0.1	●										1.5	9.53	3.18
GLR3165	R	1.65	0.1	●		●								2	9.53	3.18
GLR3175	R	1.75	0.1	●		●								2	9.53	3.18
GLL3175	L	1.75	0.1	●		●								2	9.53	3.18
GLR3195	R	1.95	0.1	●		●								2.5	9.53	3.18
GLL3195	L	1.95	0.1	●		●								2.5	9.53	3.18
GLR3220	R	2.2	0.1	●		●								3	9.53	3.18
GLL3220	L	2.2	0.1			●								3	9.53	3.18
GLR3270	R	2.7	0.1	●		●								3	9.53	3.18
GLL3270	L	2.7	0.1			●								3	9.53	3.18
GLR4115	R	1.15	0.1	●		●								1.5	12.7	4.76
GLR4135	R	1.35	0.1	●		●								1.5	12.7	4.76
GLR4165	R	1.65	0.1	●		●								2	12.7	4.76
GLR4175	R	1.75	0.1	●		●								2	12.7	4.76
GLR4190	R	1.9	0.1	●										2.5	12.7	4.76
GLR4195	R	1.95	0.1	●		●								2.5	12.7	4.76
GLR4220	R	2.2	0.1	●		●								3.5	12.7	4.76
GLL4220	L	2.2	0.1			●								3.5	12.7	4.76
GLR4270	R	2.7	0.1	●		●								3.5	12.7	4.76
GLR4320	R	3.2	0.1	●		●								4	12.7	4.76
GLL4320	L	3.2	0.1			●								4	12.7	4.76
GLR4420	R	4.2	0.1	●		●								4	12.7	4.76
GLL4420	L	4.2	0.1			●								4	12.7	4.76

● : Line up

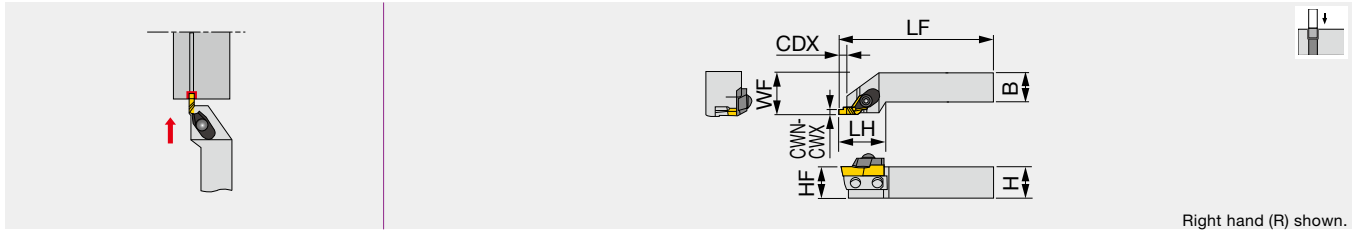
STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Grade	Cutting Speed Vc (m/min)	Feed: f (mm/rev)		
				CW < 2 mm	CW = 2 ~ 4 mm	CW > 4 mm
	Carbon steel	NS9530	80 - 200	0.05 - 0.1	0.08 - 0.2	0.08 - 0.25
		UX30	60 - 150	0.05 - 0.1	0.08 - 0.2	0.08 - 0.25

Reference pages: Toolholders → **F103**

GX-R/LE

External grooving toolholder, for 2 corner inserts



Right hand (R) shown.

Designation	CWN	CWX	CDX	H	B	LF	LH	HF	WF	Insert	Torque*
GX-2020R/LE	1	4.5	1.5 - 6	20	20	125	40	20	25	XGR/L63...	5
GX-2525R/LE	1	4.5	1.5 - 6	25	25	150	38	25	32	XGR/L63...	5

Use right-hand toolholders (GX-****RE) with right-hand inserts (XGR...); and left-hand toolholders (GX-****LE) with left-hand inserts (XGL...).

*Torque: Recommended clamping torque (N·m)

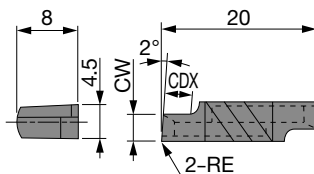
SPARE PARTS

Designation	Clamp set	Clamp screw	Shim	Shim screw	Wrench
GX-2020RE	CP81A	RT-1	SL-6R	BHM4-8	P-4
GX-2020LE	CP81A	RT-1	SL-6L	BHM4-8	P-4
GX-2525RE	CP81A	RT-1	SL-1R	BHM4-8	P-4
GX-2525LE	CP81A	RT-1	SL-1L	BHM4-8	P-4

Note: Max. groove width and max. groove depth will depend on the insert type.

INSERTS

XGR/L



Right hand (R) shown.

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

★ : First choice
☆ : Second choice

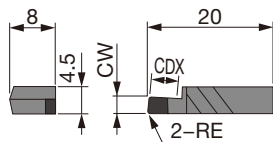
Designation	HAND	CW±0.05	RE	Cermet		Uncoated		CDX
				NS9530	TH10	UX30		
XGR6310-02	R	1	0.2	●	●	●		1.5
XGL6310-02	L	1	0.2	●	●	●		1.5
XGR6315-02	R	1.5	0.2	●	●	●		2.3
XGL6315-02	L	1.5	0.2	●	●	●		2.3
XGR6320-02	R	2	0.2	●	●	●		3
XGL6320-02	L	2	0.2	●	●	●		3
XGR6325-02	R	2.5	0.2	●	●	●		3.8
XGL6325-02	L	2.5	0.2	●	●	●		3.8
XGR6330-02	R	3	0.2	●	●	●		4.5
XGL6330-02	L	3	0.2	●	●	●		4.5
XGR6335-02	R	3.5	0.2	●	●	●		5.3
XGL6335-02	L	3.5	0.2	●	●	●		5.3
XGR6340-02	R	4	0.2	●	●	●		6
XGL6340-02	L	4	0.2	●	●	●		6
XGR6345-02	R	4.5	0.2	●	●	●		6
XGL6345-02	L	4.5	0.2	●	●	●		6

Use right-hand toolholders (GX-****RE) with right-hand inserts (XGR...)
left-hand toolholders (GX-****LE) with left-hand inserts (XGL...).

● : Line up

Reference pages: Inserts → **F105, F106**, Standard cutting conditions → **F106**

XGR/L-QBN



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±0.05	RE	CBN								CDX
				BX360								
XGL6310S-QBN	L	1	0.2	●								1.5
XGR6315S-QBN	R	1.5	0.2	●								2.3
XGL6315S-QBN	L	1.5	0.2	●								2.3
XGR6320S-QBN	R	2	0.2	●								3
XGL6320S-QBN	L	2	0.2	●								3
XGR6325S-QBN	R	2.5	0.2	●								3.8
XGL6325S-QBN	L	2.5	0.2	●								3.8
XGR6330S-QBN	R	3	0.2	●								4.5
XGL6330S-QBN	L	3	0.2	●								4.5
XGR6335S-QBN	R	3.5	0.2	●								5.3
XGL6335S-QBN	L	3.5	0.2	●								5.3
XGR6340S-QBN	R	4	0.2	●								6
XGL6340S-QBN	L	4	0.2	●								6
XGR6345S-QBN	R	4.5	0.2	●								6
XGL6345S-QBN	L	4.5	0.2	●								6

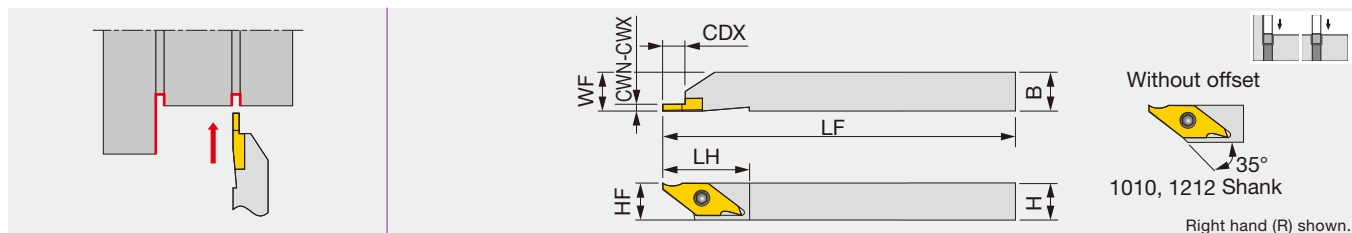
Use right-hand toolholders (GX-****RE) with right-hand inserts (XGR...)
left-hand toolholders (GX-****LE) with left-hand inserts (XGL...).

● : Line up

STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Grade	Cutting Speed Vc (m/min)	Feed: f (mm/rev)		
				CW < 2 mm	CW = 2 ~ 4 mm	CW > 4 mm
P	Carbon steel	NS9530	80 - 200	0.05 - 0.1	0.08 - 0.2	0.08 - 0.25
		UX30	60 - 150	0.05 - 0.1	0.08 - 0.2	0.08 - 0.25
K	Cast irons , Light alloys	TH10	60 - 150	0.05 - 0.1	0.08 - 0.2	0.08 - 0.25
H	Hardened steels	BX360	50 - 180	0.05 - 0.15	0.05 - 0.15	0.05 - 0.15

Reference pages: Toolholders → **F105**



Designation	CWN	CWX	CDX	H	B	LF	LH	HF	WF	Insert	Torque*
JSVGR/L1010K-C	0.33	2	0.7 - 5.5	10	10	125	23	10	10	JVGR/L...	2.3
JSVGR/L1212K-C	0.33	2	0.7 - 5.5	12	12	125	23	12	12	JVGR/L...	2.3
JSVGR/L1616K	0.33	2	0.7 - 5.5	16	16	125	23	16	16	JVGR/L...	2.3

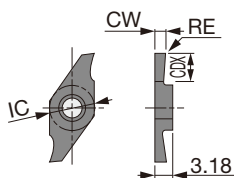
*Torque: Recommended clamping torque (N·m)

SPARE PARTS

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

INSERT

JVG (with hand, sharp edge)



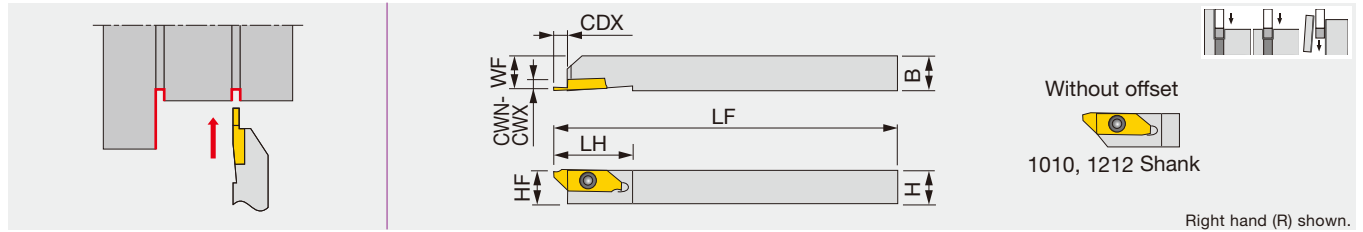
Right hand (R) shown.

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

★ : First choice
☆ : Second choice

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

● : Line up



Designation	CWN	CWX	CDX	H	B	LF	LH	HF	WF	Insert	Torque*
JSXGR/L1010K8-C	0.7	2	4.5 - 6	10	10	125	29	10	9.9	JXG...	1.3
JSXGR/L1212K8-C	0.7	2	4.5 - 6	12	12	125	29	12	11.9	JXG...	1.3
JSXGR/L1616K8	0.7	2	4.5 - 6	16	16	125	29	16	15.9	JXG...	1.3
JSXGR/L2020K8	0.7	2	4.5 - 6	20	20	125	29	20	19.9	JXG...	1.3
JSXGR/L2525K8	0.7	2	4.5 - 6	25	25	125	29	25	24.9	JXG...	1.3

Can be wrenched also from the back with a double-head screw.

This toolholder can be used for JXF front-turning insert, JXR reverse-turning insert, and JXG parting and grooving insert.

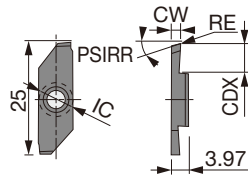
*Torque: Recommended clamping torque (N·m)

SPARE PARTS

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

INSERT

JXG (with hand, sharp edge)



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

★ : First choice
☆ : Second choice

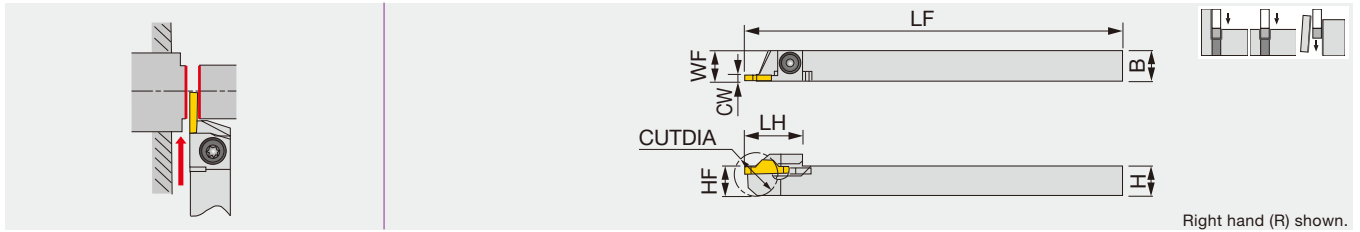
Designation	HAND	CW±0.025	RE	Coated		Uncoated		CDX	IC	PSIRR
				J740	TH10					
JXGR8070FA	R	0.7	0	●	●			4.5	8	15°
JXGL8070FA	L	0.7	0	●	●			4.5	8	15°
JXGR8070FA-005	R	0.7	0.05	●				4.5	8	15°
JXGR8100FA	R	1	0	●	●			6	8	15°
JXGL8100FA	L	1	0	●	●			6	8	15°
JXGR8100FA-005	R	1	0.05	●				6	8	15°
JXGR8100FA45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

● : Line up

Reference pages: Standard cutting conditions → **F114**

JCCWSR/L

External grooving and parting toolholder, for Swiss lathes



Designation	CW	CUTDIA	H	B	LF	LH	HF	WF	Insert	Torque*
JCCWSR/L1010K2	2	20	10	10	125	19	10	10	JCC*200...	3.5
JCCWSR/L1212K2	2	20	12	12	125	19	12	12	JCC*200...	3.5
JCCWSR/L1616K2	2	20	16	16	125	19	16	16	JCC*200...	3.5
JCCWSR/L2020K2	2	20	20	20	125	19	20	20	JCC*200...	3.5
JCCWSR/L2525K2	2	20	25	25	125	19	25	25	JCC*200...	3.5

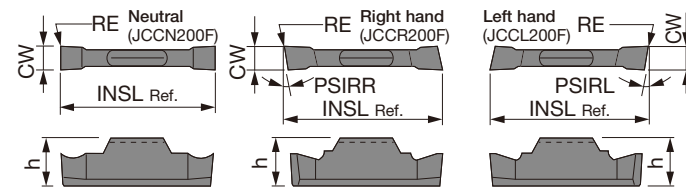
*Torque: Recommended clamping torque (N·m)

SPARE PARTS

Designation	Clamping screw	Wrench 1	Wrench 2 (Optional)
JCCWSR/L...	CSTB-4S	T-15F	(T-15L)

INSERT

JCC (Sharp edge)



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

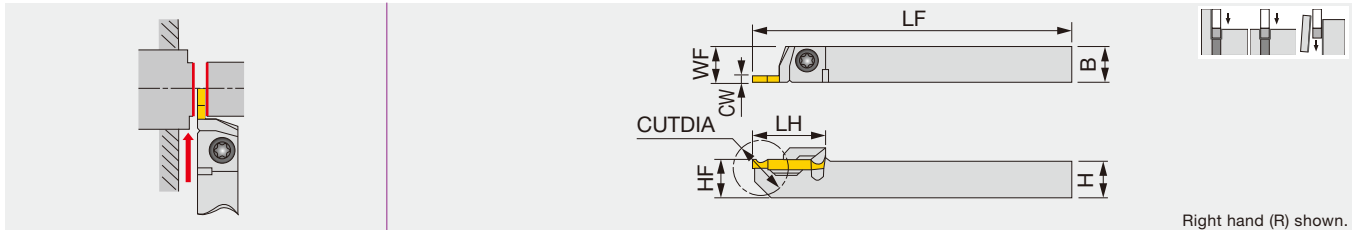
★ : First choice
☆ : Second choice

Designation	HAND	CW±0.025	RE	Coated		Uncoated		INSL	h	PSIRL	PSIRR
				J740	TH10						
JCCN200F	N	2	0	●	●			15	4.8	0°	0°
JCCN200F-005	N	2	0.05	●				15	4.8	0°	0°
JCCR200F	R	2	0	●	●			15	4.8	0°	15°
JCCL200F	L	2	0	●	●			15	4.8	15°	0°
JCCR200F-005	R	2	0.05	●				15	4.8	0°	15°
JCCL200F-005	L	2	0.05	●				15	4.8	15°	0°

● : Line up

Reference pages: Standard cutting conditions → **F114**

External grooving and parting toolholder, for Swiss lathes



Designation	CW	CUTDIA	H	B	LF	LH	HF	WF	Insert	Torque*
JCGWSR/L1010K2	2	20	10	10	125	20	10	10	JCGN200F...	3.5
JCGWSR/L1212K2	2	20	12	12	125	20	12	12	JCGN200F...	3.5
JCGWSR/L1616K2	2	20	16	16	125	20	16	16	JCGN200F...	3.5

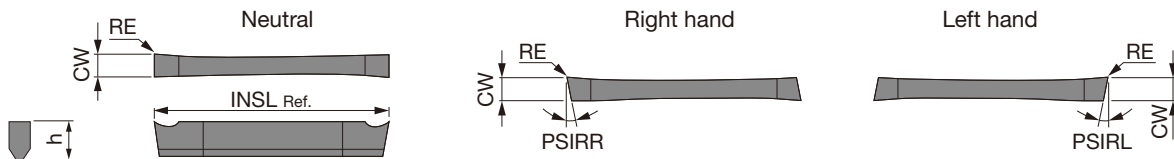
*Torque: Recommended clamping torque (N·m)

SPARE PARTS

Designation	Clamping screw	Wrench 1	Wrench 2 (Optional)
JCGWSR/L...	CSTB-4S	T-15F	(T-15L)

 INSERT

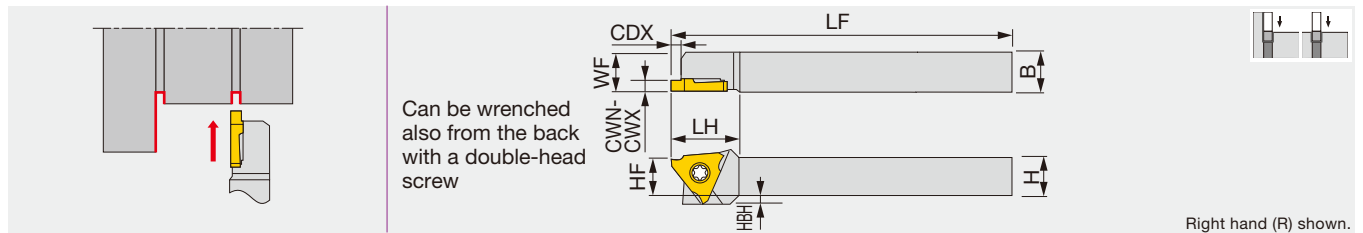
JCGN (Sharp edge)

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● : Line up

JSTGR/L

External grooving toolholder, for Swiss lathes

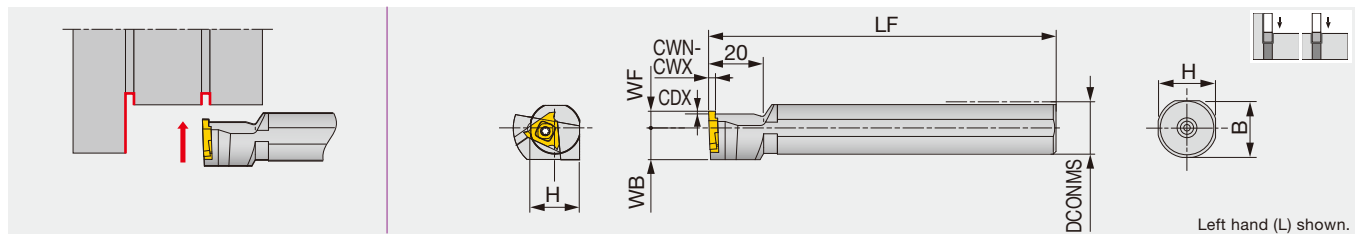


Designation	CWN	CWX	CDX	H	B	LF	LH	HF	WF	HBH	Insert	Torque*
JSTGR/L1010X3	0.33	3	0.7 - 2.6	10	10	120	18.5	10	10	2	JTGR/L3...	1.2
JSTGR/L1212F3	0.33	3	0.7 - 2.6	12	12	85	18.5	12	12	-	JTGR/L3...	1.2
JSTGR/L1212X3	0.33	3	0.7 - 2.6	12	12	120	18.5	12	12	-	JTGR/L3...	1.2
JSTGR/L1616X3	0.33	3	0.7 - 2.6	16	16	120	18.5	16	16	-	JTGR/L3...	1.2
JSTGL1616K3	0.33	3	0.7 - 2.6	16	16	125	18.5	16	16	-	JTGR/L3...	1.2

*Torque: Recommended clamping torque (N·m)

JS-TGL3

External grooving toolholder, for Swiss lathes



Designation	CWN	CWX	CDX	DCONMS	H	B	LF	WF	WB	Insert	Torque*
JS19K-TGL3	0.33	3	0.7 - 2.6	19.05	18	18	125	6	11.5	JTGR3...	3
JS20K-TGL3	0.33	3	0.7 - 2.6	20	19	19	125	6	11.5	JTGR3...	3
JS22K-TGL3	0.33	3	0.7 - 2.6	22	21	21	125	6	11.5	JTGR3...	3
JS25K-TGL3	0.33	3	0.7 - 2.6	25.4	24	24	125	10	12.7	JTGR3...	3

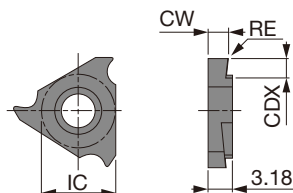
Note: Use left-hand toolholders (L) with right-hand inserts (R).

*Torque: Recommended clamping torque (N·m)

SPARE PARTS

Designation	Clamping screw	Wrench 1	Wrench 2 (Optional)
JSTGR/L...	CSTB-4SD	T-8F	(T-8L)
JS***-TGL3	CSTB-4S	T-15F	-

JTG (Sharp edge)



Right hand (R) shown.

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

★ : First choice
☆ : Second choice



External

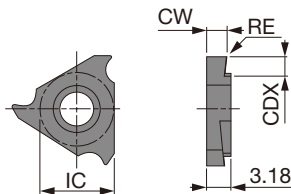


Designation	HAND	CW ₀ ^{+0.05}	RE	Coated		Cermet	Uncoated		CDX	IC
				SH725	J740	NS9530	TH10			
JTGR3033F	R	0.33	0.03	●	●		●		0.7	9.53
JTGL3033F	L	0.33	0.03		●		●		0.7	9.53
JTGR3033F-005	R	0.33	0.05	●					0.7	9.53
JTGR3043F	R	0.43	0.03		●				1.1	9.53
JTGR3050F	R	0.5	0.03	●	●	●	●		1.1	9.53
JTGL3050F	L	0.5	0.03	●	●		●		1.1	9.53
JTGR3050F-005	R	0.5	0.05	●					1.1	9.53
JTGL3050F-005	L	0.5	0.05	●					1.1	9.53
JTGR3065F	R	0.65	0.03	●	●				1.9	9.53
JTGR3065F-010	R	0.65	0.1	●					1.9	9.53
JTGR3075F	R	0.75	0.03	●	●	●	●		1.9	9.53
JTGL3075F	L	0.75	0.03	●	●	●	●		1.9	9.53
JTGR3075F-010	R	0.75	0.1	●					1.9	9.53
JTGL3075F-010	L	0.75	0.1	●					1.9	9.53
JTGR3080F	R	0.8	0.03	●	●				1.9	9.53
JTGR3080F-010	R	0.8	0.1	●					1.9	9.53
JTGR3085F	R	0.85	0.03	●	●				1.9	9.53
JTGR3095F	R	0.95	0.03	●	●	●	●		1.9	9.53
JTGL3095F	L	0.95	0.03	●	●		●		1.9	9.53
JTGR3095F-010	R	0.95	0.1	●					1.9	9.53
JTGL3095F-010	L	0.95	0.1	●					1.9	9.53
JTGR3100F	R	1	0.05	●	●	●	●		2.1	9.53
JTGL3100F	L	1	0.05	●	●		●		2.1	9.53
JTGR3100F-010	R	1	0.1	●					2.1	9.53
JTGL3100F-010	L	1	0.1	●					2.1	9.53
JTGR3110F	R	1.1	0.05	●	●				2.1	9.53
JTGR3120F	R	1.2	0.05	●	●				2.1	9.53
JTGR3120F-010	R	1.2	0.1	●					2.1	9.53
JTGR3125F	R	1.25	0.05	●	●	●	●		2.1	9.53
JTGL3125F	L	1.25	0.05	●	●		●		2.1	9.53
JTGR3125F-010	R	1.25	0.1	●					2.1	9.53
JTGL3125F-010	L	1.25	0.1	●					2.1	9.53
JTGR3130F	R	1.3	0.05	●	●				2.1	9.53
JTGR3140F	R	1.4	0.05	●	●				2.1	9.53
JTGR3140F-010	R	1.4	0.1	●					2.1	9.53
JTGR3145F	R	1.45	0.05	●	●	●	●		2.1	9.53
JTGL3145F	L	1.45	0.05		●		●		2.1	9.53
JTGR3145F-010	R	1.45	0.1	●					2.1	9.53
JTGR3150F	R	1.5	0.05	●	●	●	●		2.1	9.53
JTGL3150F	L	1.5	0.05	●	●		●		2.1	9.53
JTGR3150F-010	R	1.5	0.1	●					2.1	9.53
JTGL3150F-010	L	1.5	0.1	●					2.1	9.53

● : Line up

Reference pages: Toolholders → **F111**, Standard cutting conditions → **F114**

JTG (Sharp edge)



Right hand (R) shown.

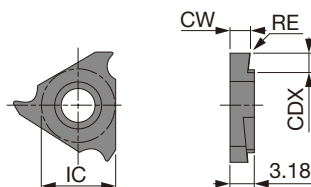
P	Steel	★	★		★		☆			
M	Stainless	★	★							
K	Cast iron				☆		★			
N	Non-ferrous						★			
S	Superalloys						★			
H	Hard materials									

★ : First choice
☆ : Second choice

Designation	HAND	CW ^{+0.05} ₀	RE	Coated			Cermet			Uncoated			CDX	IC
				SH725	J740		NS9530			TH10				
JTGR3175F	R	1.75	0.05	●	●		●			●			2.1	9.53
JTGL3175F	L	1.75	0.05		●		●			●			2.1	9.53
JTGR3175F-010	R	1.75	0.1	●									2.1	9.53
JTGR3180F	R	1.8	0.05	●	●								2.1	9.53
JTGR3200F	R	2	0.05	●	●		●			●			2.6	9.53
JTGL3200F	L	2	0.05	●	●					●			2.6	9.53
JTGR3200F-010	R	2	0.1	●									2.6	9.53
JTGL3200F-010	L	2	0.1	●									2.6	9.53
JTGR3225F	R	2.25	0.05	●	●								2.6	9.53
JTGR3250F	R	2.5	0.05	●	●		●			●			2.6	9.53
JTGL3250F	L	2.5	0.05	●	●					●			2.6	9.53
JTGR3250F-010	R	2.5	0.1	●									2.6	9.53
JTGL3250F-010	L	2.5	0.1	●									2.6	9.53
JTGR3275F	R	2.75	0.05		●								2.6	9.53
JTGR3300F	R	3	0.05	●	●								2.6	9.53
JTGR3300F-010	R	3	0.1	●									2.6	9.53

● : 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

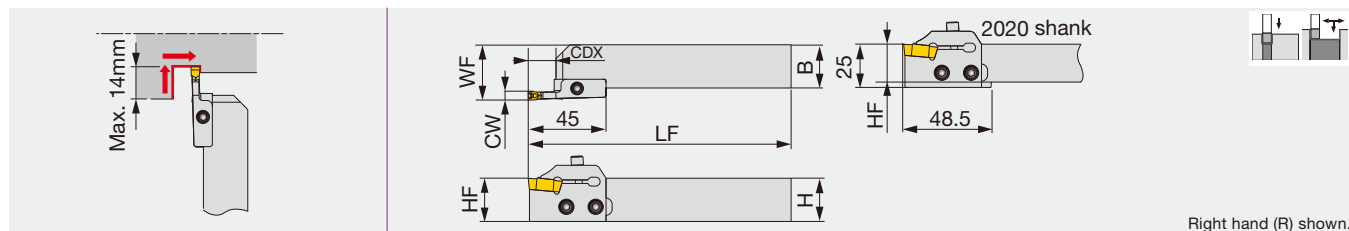
Designation	HAND	CW ^{+0.05} ₀	RE	Coated			Cermet			Uncoated			CDX	IC
				J9530										
JTGR3100	R	1	0.05	●									2.1	9.53
JTGR3125	R	1.25	0.05	●									2.1	9.53
JTGR3150	R	1.5	0.05	●									2.1	9.53
JTGR3200	R	2	0.05	●									2.6	9.53

● : Line up

STANDARD CUTTING CONDITIONS (J-Series grooving tool)

ISO	Workpiece material	Grade	Cutting Speed Vc (m/min)	Feed f (mm/rev)
P	General steels, Free-cutting steels, etc.	J740	10 - 100	0.01 - 0.1
		SH725	50 - 150	0.01 - 0.1
		NS9530	50 - 150	0.01 - 0.1
		J9530	50 - 150	0.01 - 0.1
M	Stainless steels, etc.	J740	10 - 100	0.01 - 0.1
		SH725	50 - 150	0.01 - 0.1
N	Aluminium alloys, copper alloys, etc.	TH10	10 - 200	0.01 - 0.1
S	Difficult-to-cut materials, titanium alloys, etc.	TH10	10 - 30	0.01 - 0.1





Right hand (R) shown.

Designation	CW	CDX	H	B	LF	HF	WF	Insert	Shank	Adapter	Torque*
CGWSR/L2020-FLR/L3GP	3	10	20	20	152	20	27	FLEX30R/L	CGWSR/L2020	FLR/L3GP	5
CGWSR/L2525-FLR/L3GP	3	10	25	25	152	25	32	FLEX30R/L	CGWSR/L2525	FLR/L3GP	5
CGWSR/L2020-FLR/L4GP	4	12	20	20	152	20	27	FLEX40R/L	CGWSR/L2020	FLR/L4GP	5
CGWSR/L2525-FLR/L4GP	4	12	25	25	152	25	32	FLEX40R/L	CGWSR/L2525	FLR/L4GP	5
CGWSR/L2020-FLR/L5GP	5	14	20	20	152	20	27	FLEX50R/L	CGWSR/L2020	FLR/L5GP	5
CGWSR/L2525-FLR/L5GP	5	14	25	25	152	25	32	FLEX50R/L	CGWSR/L2525	FLR/L5GP	5

Toolholders are in stock with the designations of: a set of shank and adapter; a shank; a adapter. Combining the designations of a adapter and a shank will make the designation of a set. Please check the stock and place an order with the designation of a set or a shank+a adapter.

Use right-hand toolholders (CGWSR...) with right-hand adapter (FLR...); and left-hand toolholders (CGWSL...) with left-hand adapter (FLL...).

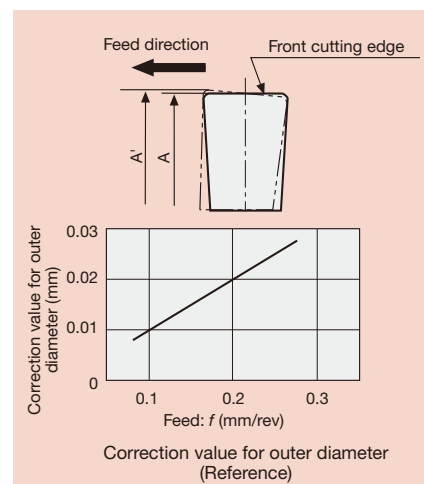
*Torque: Recommended clamping torque (N·m)

SPARE PARTS

Designation	Clamping screw	Adapter screw	Wrench
CGWSR/L****-FLR/L#GP	CHHM5-18	CSHB-6	P-4

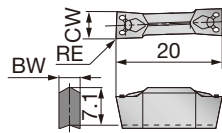
Caution

Toolholders with FLEX insert have mechanism in which the end cutting edge angle is formed by accepting a cutting force. In external grooving, there is a possibility that if the cutting conditions (feed and depth of cut) are set too high, the programmed diameter will not be achieved. To prevent this problem, it is necessary to perform a compensation in the program by an amount that is equal to the amount A'-A that is shown in the drawing on the right. The values of compensation corresponding to the feeds are also shown in the graph.

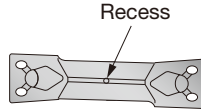


INSERT

FLEX(R/L)



Right hand (R) shown.



To distinguish the insert hands, the V-shape surface (top surface) of a left-hand insert has a recess. (not of a right-hand insert)

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

★ : First choice
☆ : Second choice

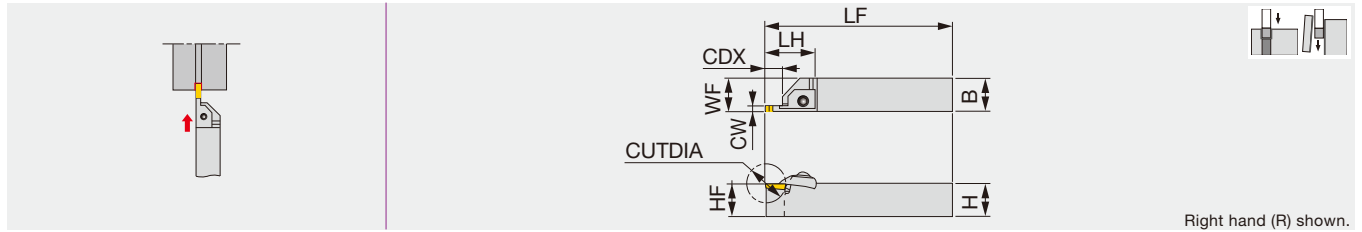
Designation	HAND	CW±0.05	RE	Coated		Cermet		Uncoated		BW
				T9225		NS9530		UX30		
FLEX30R	R	3	0.4			●				2.2
FLEX30L	L	3	0.4			●				2.2
FLEX40R	R	4	0.4			●				3.1
FLEX40L	L	4	0.4			●				3.1
FLEX50R	R	5	0.4	●		●		●		4
FLEX50L	L	5	0.4	●		●		●		4

● : Line up

STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Grade	Cutting Speed Vc (m/min)	Feed: f (mm/rev)	
				Grooving	Turning
P	Carbon steel	T9225	80 - 300	0.05 - 0.25	0.1 - 0.3
		NS9530	80 - 200	0.05 - 0.25	0.1 - 0.3
		UX30	60 - 150	0.05 - 0.25	0.1 - 0.3

External grooving and parting toolholder, for 2 corner inserts



Designation	CW	CUTDIA	CDX	H	B	LF	LH	HF	WF	Insert	Torque*
CTWR/L2020-3	3	32	14	20	20	150	41	20	20.25	CTD3	5
CTWR/L2525-3	3	32	14	25	25	150	41	25	25.25	CTD3	5
CTWR/L2020-4	4	32	14	20	20	150	41	20	20.25	CTD4	5
CTWR/L2525-4	4	32	14	25	25	150	41	25	25.25	CTD4	5
CTWR/L2525-5	5	42	20	25	25	150	46	25	25.25	CTD5	5

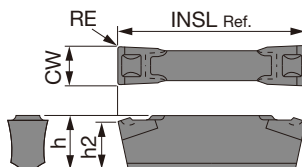
*Torque: Recommended clamping torque (N·m)

SPARE PARTS

SPARE PARTS						
	Designation	Clamp	Pin	Clamping screw	Washer	Wrench
	CTWR2020-3	CTC-3R	BP-360	CTS-M6	CDW6	P-4
	CTWL2020-3	CTC-3L	BP-360	CTS-M6	CDW6	P-4
	CTWR2525-3	CTC-3R	BP-360	CTS-M6	CDW6	P-4
	CTWL2525-3	CTC-3L	BP-360	CTS-M6	CDW6	P-4
	CTWR2020-4	CTC-4R	BP-360	CTS-M6	CDW6	P-4
	CTWL2020-4	CTC-4L	BP-360	CTS-M6	CDW6	P-4
	CTWR2525-4	CTC-4R	BP-360	CTS-M6	CDW6	P-4
	CTWL2525-4	CTC-4L	BP-360	CTS-M6	CDW6	P-4
CTWR2525-5	CTC-5R	BP-360	CTS-M6	CDW6	P-4	
CTWL2525-5	CTC-5L	BP-360	CTS-M6	CDW6	P-4	

■ INSERT

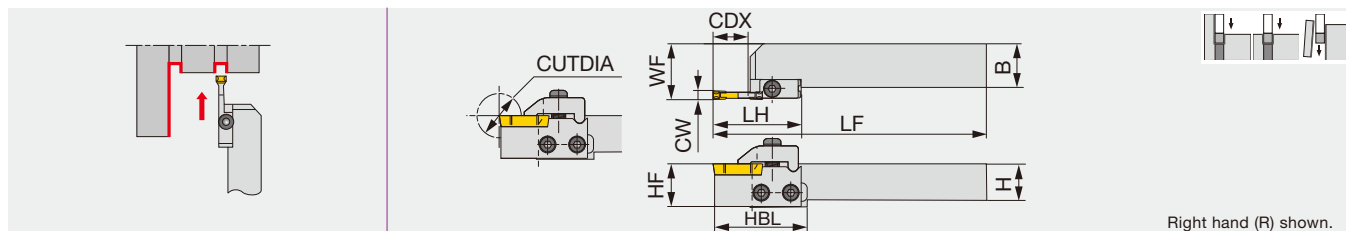
CTD

[illegible]

● : Line up

STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Grade	Cutting Speed Vc (m/min)	Feed: f (mm/rev)	
				Grooving	Parting off
P	Carbon steel	AH725	80 - 180	0.08 - 0.3	0.08 - 0.15
M	Stainless steel	AH725	50 - 120	0.08 - 0.25	0.08 - 0.1



Designation	CW	CUTDIA	CDX	H	B	LF	LH	HBL	HF	WF	Insert	Shank	Adapter	Torque*
CGWSR/L2020-CGDR/L2	2	35	16	20	20	152	45	48.5	20	26.45	CGD200	CGWSR/L2020	CGDR/L2	5
CGWSR/L2525-CGDR/L2	2	35	16	25	25	152	45	-	25	31.45	CGD200	CGWSR/L2525	CGDR/L2	5
CGWSR/L2020-CGDR/L3	3	46	21.6	20	20	157.6	50.6	54.1	20	26.45	CGD300	CGWSR/L2020	CGDR/L3	5
CGWSR/L2525-CGDR/L3	3	46	21.6	25	25	157.6	50.6	-	25	31.45	CGD300	CGWSR/L2525	CGDR/L3	5
CGWSR/L2020-CGDR/L4	4	46	21.6	20	20	157.6	50.6	54.1	20	26.65	CGD400	CGWSR/L2020	CGDR/L4	5
CGWSR/L2525-CGDR/L4	4	46	21.6	25	25	157.6	50.6	-	25	31.65	CGD400	CGWSR/L2525	CGDR/L4	5
CGWSR/L2020-CGDR/L5	5	46	21.6	20	20	157.6	50.6	54.1	20	26.95	CGD500	CGWSR/L2020	CGDR/L5	5
CGWSR/L2525-CGDR/L5	5	46	21.6	25	25	157.6	50.6	-	25	31.95	CGD500	CGWSR/L2525	CGDR/L5	5
CGWSR/L2020-CGDR/L6	6	46	21.6	20	20	157.6	50.6	54.1	20	27.1	CGD600	CGWSR/L2020	CGDR/L6	5
CGWSR/L2525-CGDR/L6	6	46	21.6	25	25	157.6	50.6	-	25	32.1	CGD600	CGWSR/L2525	CGDR/L6	5
CGWSR2525-8	7 / 8	50	21.6	25	25	150	-	-	25	26.35	CGD700, CGD800	-	-	8.5
CGWSR3232-8	7 / 8	50	21.6	32	32	170	-	-	32	33.35	CGD700, CGD800	-	-	8.5

When using a right or left hand adapter set, the right hand adapter set is used with right hand shank and the left hand adapter set is used with left hand shank.

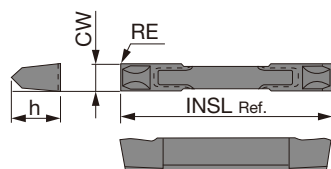
*Torque: Recommended clamping torque (N·m)

SPARE PARTS

Designation	Adapter	Clamp	Clamping screw	Adapter screw	Spring pin	Spring	Wrench
CGWSR****-CGDR2	TCR2	CCR2	RT-1	CSHB-6	-	BP-9	P-4
CGWSL****-CGDL2	TCL2	CCL2	RT-1	CSHB-6	-	BP-9	P-4
CGWSR****-CGDR3	TCR3	CCR3	RT-1	CSHB-6	-	BP-9	P-4
CGWSL****-CGDL3	TCL3	CCL3	RT-1	CSHB-6	-	BP-9	P-4
CGWSR****-CGDR4	TCR4	CCR4	RT-1	CSHB-6	-	BP-9	P-4
CGWSL****-CGDL4	TCL4	CCL4	RT-1	CSHB-6	-	BP-9	P-4
CGWSR****-CGDR5	TCR5	CCR5	RT-1	CSHB-6	-	BP-9	P-4
CGWSL****-CGDL5	TCL5	CCL5	RT-1	CSHB-6	-	BP-9	P-4
CGWSR****-CGDR6	TCR6	CCR6	RT-1	CSHB-6	-	BP-9	P-4
CGWSL****-CGDL6	TCL6	CCL6	RT-1	CSHB-6	-	BP-9	P-4
CGWSR****-8	-	CCR/L-8	CHHM6-20	-	5X14AW	BP-9	P-5

INSERT

CGD



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

★ : First choice
☆ : Second choice

Designation	CW±0.025	RE	Coated		Cermet		Uncoated		INSL	h
			GH330		NS9530		UX30			
CGD200	2	0.2	●		●		●		20	3.25
CGD300	3	0.2	●		●		●		28.6	6.3
CGD400	4	0.2	●		●		●		28.6	6.3
CGD500	5	0.2	●		●		●		28.6	6.3
CGD600	6	0.2	●		●		●		28.6	8.5
CGD700	7	0.2	●				●		28.6	8.5
CGD800	8	0.2	●				●		28.6	8.5

● : Line up

STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Grade	Cutting Speed Vc (m/min)	Feed: f (mm/rev)	
				Grooving	Parting off
P	Carbon steel	GH330	70 - 180	0.08 - 0.3	0.08 - 0.15
		NS9530	80 - 200	0.08 - 0.3	0.08 - 0.15
		UX30	60 - 150	0.08 - 0.3	0.08 - 0.15

Grade

Insert

Ext. Toolholder

Int. Toolholder

Threading

Grooving

Miniature tool

Milling cutter

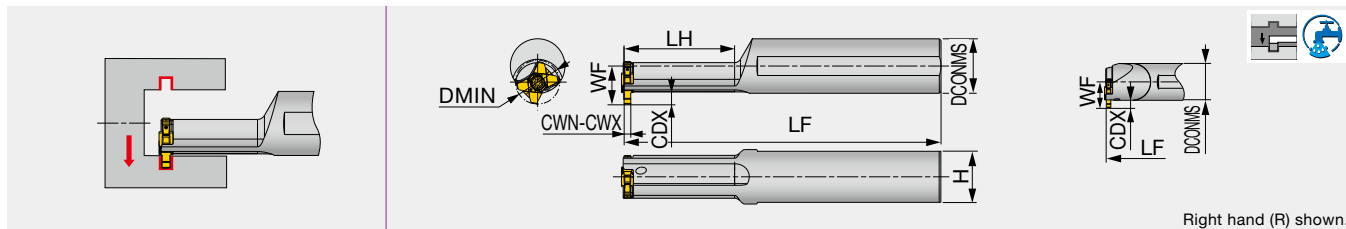
Endmill

Drilling tool

Tooling System

User's Guide

Index



Right hand (R) shown.

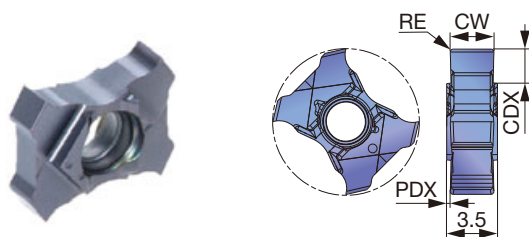
Designation	Material	CWN	CWX	DMIN	DCONMS	LH	LF	WF	H	Insert	Torque*
A12H-STCIR/L10-D105	Steel	0.5	3	10.5	12	25	100	8.3	11	TCIG10...	1
A12H-STCIR/L10-D120	Steel	0.5	3	12	12	31	100	8.3	11	TCIG10...	1
E12K-STCIR/L10-D150	Carbide	0.5	3	15	12	-	125	8.3	11	TCIG10...	1
A16J-STCIR/L12-D130	Steel	1	3	13	16	33	110	11.3	15	TCIG12...	1.3
A16J-STCIR/L12-D160	Steel	1	3	16	16	41	110	11.3	15	TCIG12...	1.3
E16M-STCIR/L12-D200	Carbide	1	3	20	16	-	150	11.3	15	TCIG12...	1.3

Torque*: Recommended clamping torque (N-m)

SPARE PARTS



Designation	Clamping screw
A/E-STCIR10-...	CSTB-2.2L053DR
A/E-STCIL10-...	CSTB-2.2L053DL
A/E-STCIR12-...	CSTB-2.5L054DR
A/E-STCIL12-...	CSTB-2.5L054DL



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

★ : First choice

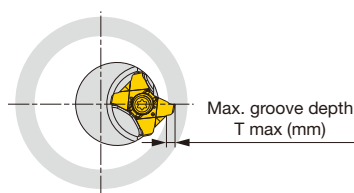
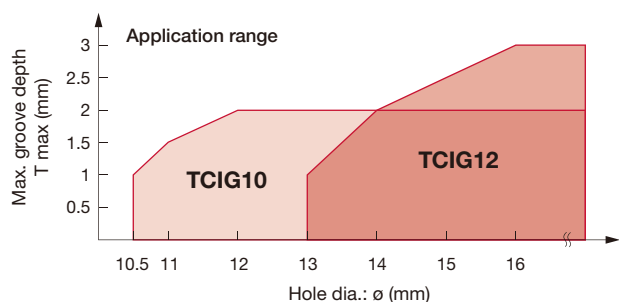
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● : Line up

Shallower groove depths (T max) for smaller bores

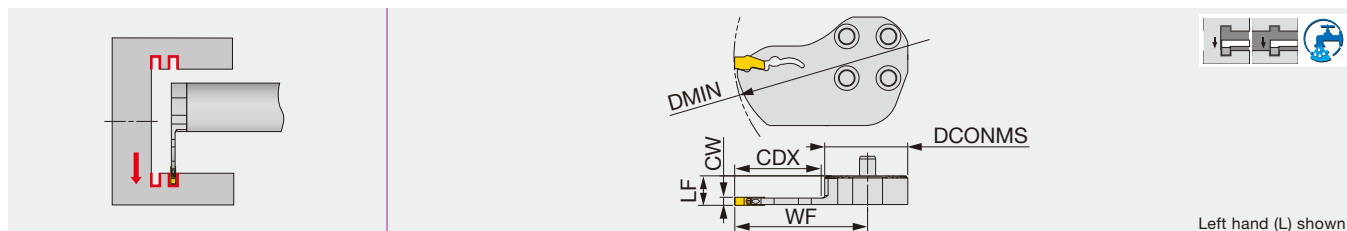
Maximum groove depths (T max) for TCIG10 inserts are smaller than the CDX value shown above when the grooving bore diameter is < 12 mm; and for TCIG12, when the bore diameter is < 16 mm.

See the chart below for T max values in relation to the given bore diameter.



STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Hardness	Priority	Cutting speed Vc (m/min)	Feed f (mm/rev)
P	Steel S45C, C45, SCM435, 34CrMo4, etc.	< 300 HB	First choice	30 - 80	0.01 - 0.05
M	Stainless steel SUS303, X10CrNiS18-9, etc.	< 200 HB	First choice	30 - 50	0.01 - 0.05
S	Titanium alloys Ti-6Al-4V, etc.	< HRC 40	First choice	10 - 50	0.01 - 0.05



Designation	CW	CDX	DMIN	DCONMS*	Seat size	LF	WF	Shank
S25-QSIR/L2T26D550-H	2	26	55	25	2	8.5	40.1	D25
S25-QSIR/L3T26D550-H	3	26	55	25	3	9	40.1	D25
S32-QSIR/L3T32D700-H	3	32	70	32	3	11	49.6	D32
S32-QSIR/L4T32D700-H	4	32	70	32	4	11.5	49.6	D32

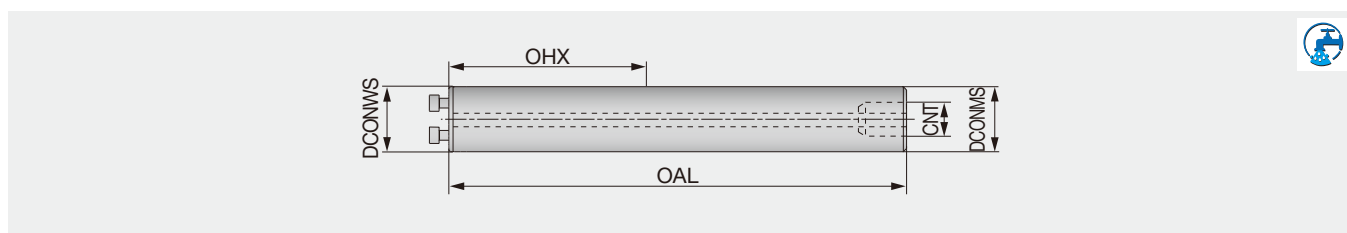
DCONMS*: Mounting part diameter on the shank

SPARE PARTS

Designation	Wrench
S**-QSIR/L...	QL-39

Straight Shank

Anti-vibration bars with through coolant for interchangeable turning heads, for S-QSIR/L modular heads



Designation	Material	DCONWS*	DCONMS	OAL	OHX	CNT
D25-L255-7D-C	Steel	25	25	257.5	155	G1/4
D25-L330-10D-C	Steel	25	25	332.5	230	G1/4
D32-L320-7D-C	Steel	32	32	323	192	G3/8
D32-L416-10D-C	Steel	32	32	419	288	G3/8

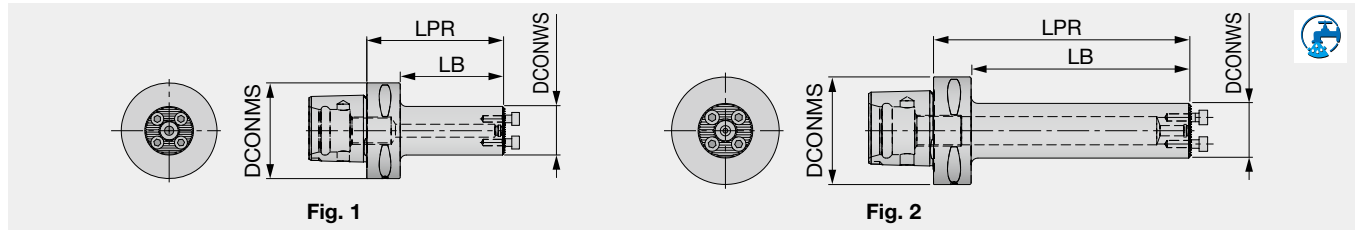
DCONWS*: Mounting part diameter on the head

SPARE PARTS

Designation	Clamping screw	Wrench
D25-L...	SRM4X12DIN912	HW3.0
D32-L...	SRM5X12DIN912	HW4.0

C#-SH-CHP / C#-SH-E-CHP

Tool adapter with PSC connection (made of steel or carbide), for S-QSIR/L modular heads

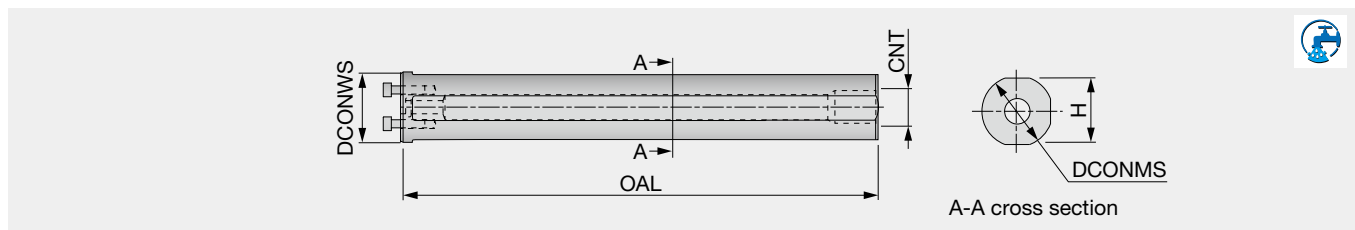


Designation	Material	DCONWS*	DCONMS	LPR	LB	Fig
C4-SH-D25-2.5D-CHP	Steel	25	40	55	35	1
C4-SH-D32-2.5D-CHP	Steel	32	40	75	55	1
C6-SH-D25-5D-E-CHP	Carbide	25	63	115	93	2
C6-SH-D32-5D-E-CHP	Carbide	32	63	150	128	2

DCONWS*: Mounting part diameter on the head

D#4D-SH

Steel shank for internal turning, with through coolant, for S-QSIR/L modular heads

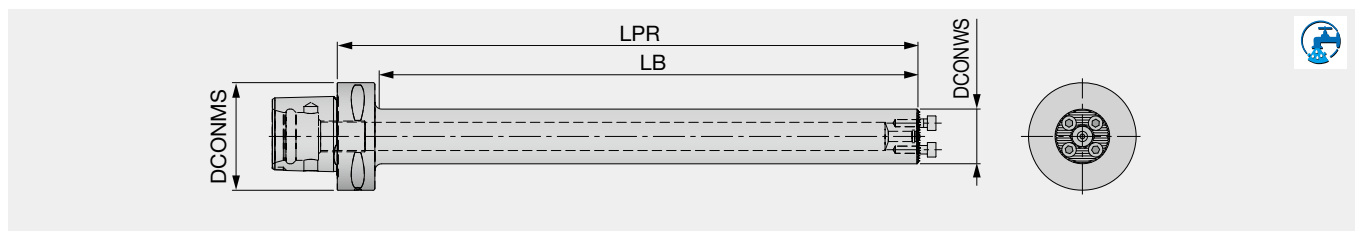


Designation	Material	DCONWS*	DCONMS	OAL	CNT	H
D25-L200-4D-SH	Steel	25	25	200	UNF-2B 1/2"-20	23
D32-L218-4D-SH	Steel	32	32	218	UNF-2B 1/2"-20	29

DCONWS*: Mounting part diameter on the head

C6-9D-C

Vibration-dampening toolholder with PSC connection, 9xD, for S-QSIR/L modular heads



Designation	Material	DCONWS*	DCONMS	LPR	LB	WT (kg)
C6-D25-L230-9D-C	Steel	25	63	230.5	200.1	1.65
C6-D32-L288-9D-C	Steel	32	63	288.5	259.5	2.73

DCONWS*: Mounting part diameter on the head

SPARE PARTS

Designation	Clamping screw	Wrench
C4/C6**D25...	SR M4X12DIN912	-
C4/C6**D32...	SR M5X12 DIN912	-
D25-L...	SR M4X12DIN912	HW 3.0
D32-L...	SR M5X12 DIN912	HW4.0

Reference pages: Inserts → **F124, F125**, Standard cutting conditions → **F125**

CHIPBREAKER GUIDE

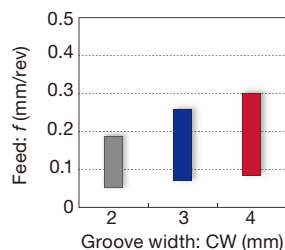
QGM



First choice for grooving and parting

Smooth chip evacuation
Well-designed edge with
high strength
CW = 2 - 4 mm

■ Standard feed



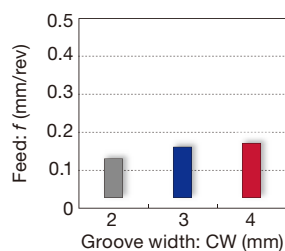
QGS



Lower cutting force and superior sharpness

Uniquely designed edge
and chipbreaker
CW = 2 - 4 mm

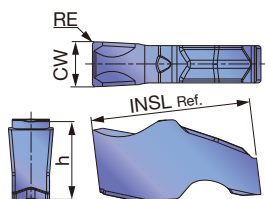
■ Standard feed



■ INSERTS

QGM

External/internal deep grooving and parting



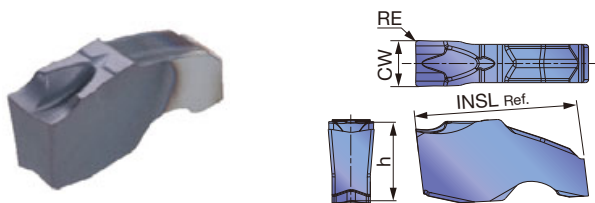
P	Steel	★			
M	Stainless	★			
K	Cast iron	★			
N	Non-ferrous				
S	Superalloys	★			
H	Hard materials				

★ : First choice

[illegible]

● : Line up

External/internal deep grooving and parting



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

★ : First choice

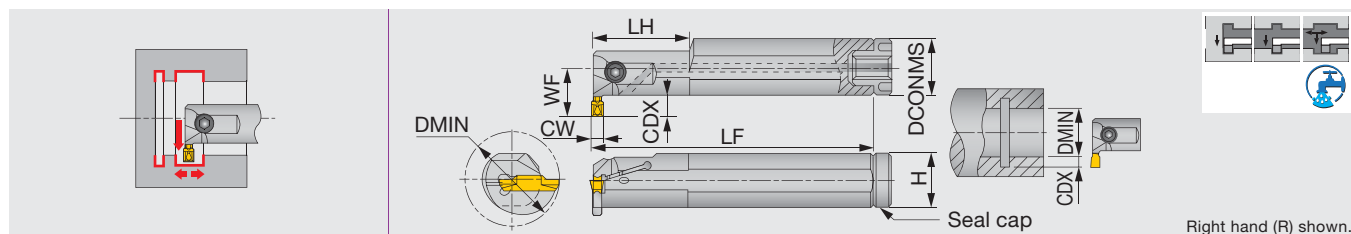
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● : Line up

STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Hardness	Grade	Cutting speed Vc (m/min)
P	Steels C45, 34CrMo4, etc.	< 300 HB	AH7025	50 - 180
M	Stainless steel X10CrNiS18-9, etc.	< 200 HB	AH7025	50 - 120
K	Gray cast iron GG25, 250, etc.	-	AH7025	50 - 180
	Ductile cast irons GGG45, 450-10S, etc.	-	AH7025	50 - 120
S	Superalloys Inconel718, etc.	< HRC 40	AH7025	20 - 40
	Titanium alloys Ti-6Al-4V, etc.	< HRC 40	AH7025	20 - 60

Please see page **F124** for feed: f (mm/rev).



Designation	CW	DMIN	Seat size	CDX	DCONMS	H	LF ⁽¹⁾	LH	WF	Insert	Torque*
CTIR/L16-2T08-D250	2	25	2	8	16	14	125	-	16.5	DGIM..., DGIS..., DTX...	5
CTIR/L20-2T06-D250	2	25	2	6	20	18	160	40	15.8	DGIM..., DGIS..., DTX...	5
CTIR/L20-3T06-D250	3	25	3	6	20	18	160	40	15.8	DTI..., DTX...	5
CTIR/L25-3T05-D250	3	25	3	5.1	25	23	200	40	17.5	DTI..., DTX...	5
CTIR/L25-3T08-D320	3	32	3	8	25	23	200	40	21.5	DTI..., DTX...	5
CTIR/L32-3T10-D400	3	40	3	10	32	30	250	60	27	DTI..., DTX...	5
CTIR/L20-4T06-D250	4	25	4	6	20	18	160	40	15.8	DTI..., DTX...	5
CTIR/L25-4T08-D320	4	32	4	8	25	23	200	40	21.5	DTI..., DTX...	5
CTIR/L32-4T04-D310	4	31	4	4	32	30	250	60	20.8	DTI..., DTX...	5
CTIR/L32-4T10-D400	4	40	4	10	32	30	250	60	27	DTI..., DTX...	5
CTIR/L25-5T05-D310	5	31	5	5	25	23	200	60	17.3	DTI..., DTX...	8.5
CTIR/L32-5T10-D400	5	40	5	10	32	30	250	60	27	DTI..., DTX...	8.5
CTIR/L32-6T04-D310	6	31	6	4	32	30	250	60	20.8	DTI..., DTX...	8.5
CTIR/L32-6T10-D400	6	40	6	10	32	30	250	60	27	DTI..., DTX...	8.5
CTIR/L32-8T05-D370	8	37	8	5	32	30	250	60	21.3	DTI..., DTX...	8.5
CTIR/L40-8T05-D420	8	42	8	5.8	40	38	300	65	25.8	DTI..., DTX...	8.5

(1) LF is calculated with the groove width CW in the above table.

Torque*: Recommended clamping torque (N·m)

Always use a single-ended insert to prevent interference when grooving near the bottom of a hole.

SPARE PARTS

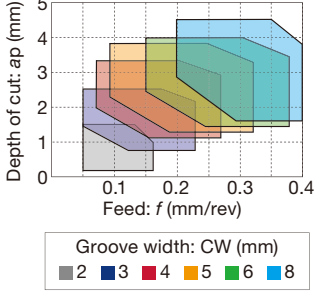
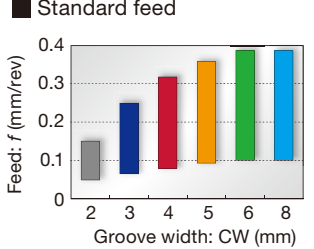
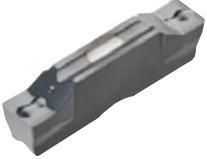
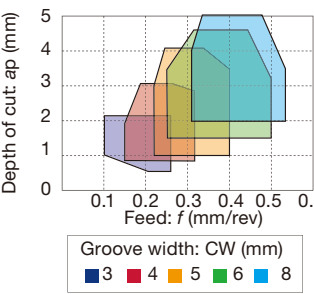
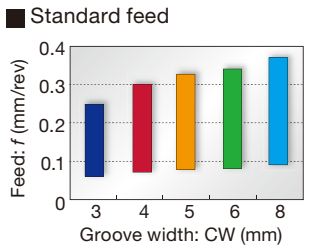
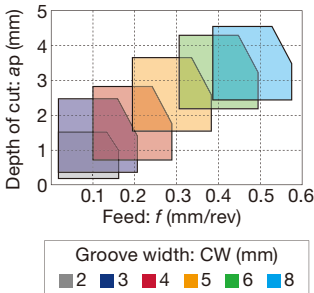
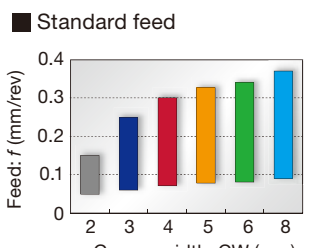
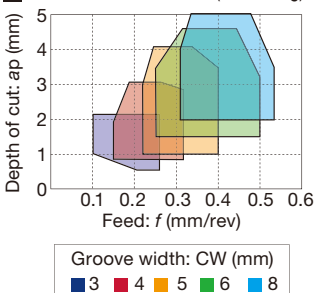
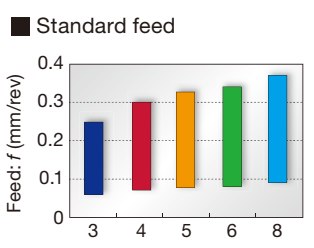


Designation	Clamping screw	Wrench	Seal cap	Thread type for connection
CTIR/L16-2T08-D250	CM5X0.8X10-A	P-4	CA-16	M6
CTIR/L20-2T06-D250	CM5X0.8X12-A	P-4	CA-20	M6
CTIR/L20-3T06-D250	CM5X0.8X12-A	P-4	CA-20	M6
CTIR/L25-3T05-D250	CM5X0.8X16-A	P-4	CA-25	R1/8"
CTIR/L25-3T08-D320	CM5X0.8X16-A	P-4	CA-25	R1/8"
CTIR/L32-3T10-D400	CM5X0.8X16-A	P-4	CA-32	R1/8"
CTIR/L20-4T06-D250	CM5X0.8X12-A	P-4	CA-20	M6
CTIR/L25-4T08-D320	CM5X0.8X16-A	P-4	CA-25	R1/8"
CTIR/L32-4T04-D310	CM5X0.8X16-A	P-4	CA-32	R1/8"
CTIR/L32-4T10-D400	CM5X0.8X16-A	P-4	CA-32	R1/8"
CTIR/L25-5T05-D310	CM6X1X16-A	P-5	CA-25	R1/8"
CTIR/L32-5T10-D400	CM6X1X20-A	P-5	CA-32	R1/8"
CTIR/L32-6T04-D310	CM6X1X20-A	P-5	CA-32	R1/8"
CTIR/L32-6T10-D400	CM6X1X20-A	P-5	CA-32	R1/8"
CTIR/L32-8T05-D370	CM6X1X20-A	P-5	CA-32	R1/8"
CTIR/L40-8T05-D420	CM6X1X25-A	P-5	CA-40	R1/8"

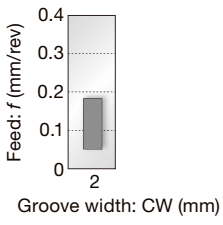
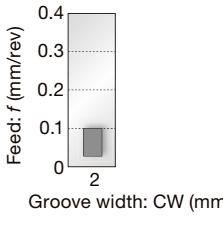
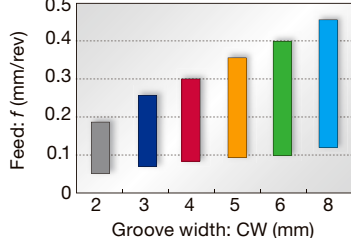
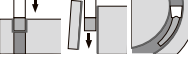
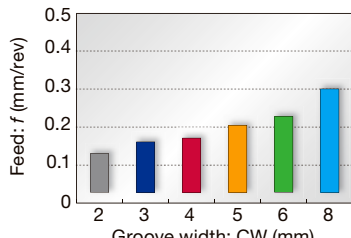
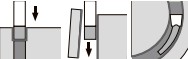
When using the inserts that are not in the above

INSERT	Groove width CW	Min. diameter DMIN
DGM / DGS / SGN / DGL / DTM	2	50
DGM / DGS / SGN / DGL / DTM	3	50
DGM / DGS / SGN / DTM / DGL	4	50
DGM / DGS / DTM / DGL	5	60
DGM / DGS / DTM / DGL	6	60
DGM / DGS / DTM	8	70
DTE / DGG	3	40
DTE / DGG	4	40
DTE / DGG	5	50
DTE / DGG	6	50
DTE / DGG	8	62
DTR	2	45
DTR	3	38
DTR	4	38
DTR	5	43
DTR	6	46
DTR	8	56

Internal grooving and turning

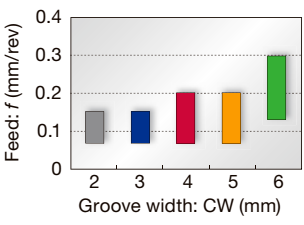
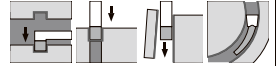
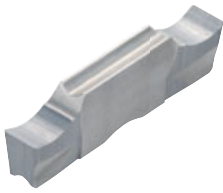
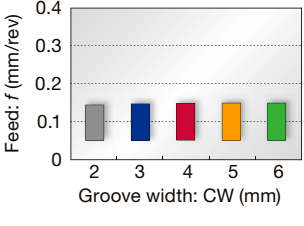
DTX type (2 corners) First choice  F132	Multi-functional type Well balanced sharpness and strength Multi-functional insert CW = 2 - 8 mm Standard feed and DoC (for turning)  Standard feed 
DTI type (2 corners)  F133, F134	For general purpose I.D. grooving Unique chipbreaker makes chips shorter Molded and ground inserts available CW = 3 - 8 mm Standard feed and DoC (for turning)  Standard feed 
DTM type (2 corners)  F134	General purpose 1st choice for grooving and turning Suitable for light to medium cutting Excellent chip control in machining steel, alloy steel, stainless steel, and heat-resistant alloy CW = 2 - 8 mm Standard feed and DoC (for turning)  Standard feed 
DTE type (2 corners)  F139	General purpose Unique chipbreaker makes chips shorter Molded and ground insert available CW = 2.65 - 8 mm Standard feed and DoC (for turning)  Standard feed 

Internal grooving

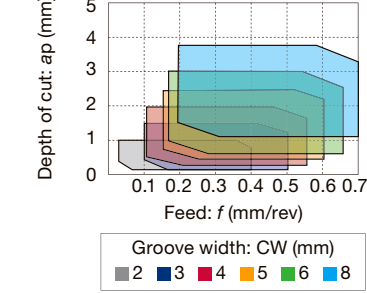
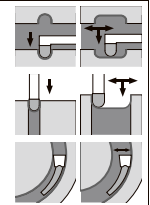
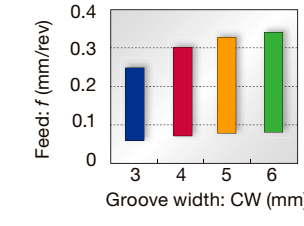
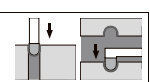
DGIM type (2 corners)  F132	2 mm insert width only (For general purpose) Unique chipbreaker for excellent chip control Excellent fracture resistance due to optimum land on the cutting edge For general applications on steels & stainless steels CW = 2 mm	■ Standard feed  
DGIS type (2 corners)  F133	2 mm insert width only (Lower cutting force) Lower cutting force Excellent fracture resistance due to optimum land on the cutting edge Applicable for low carbon steels & stainless steels CW = 2 mm	■ Standard feed  
DGM type (2 corners) SGM type (1 corner)  F135, F136	1st choice for grooving and parting Smooth chip evacuation Well-designed edge with high strength Handed insert available CW = 2 - 8 mm	■ Standard feed  
DGS type (2 corners) SGS type (1 corner)  F137, F138	Lower cutting force and superior sharpness Unique-designed edge and chipbreaker Handed insert available CW = 2 - 8 mm	■ Standard feed  

Please see page F*** for the product details.

Internal grooving

DGL type (2 corners)  F139	1st choice for mild steel Chipbreaker with excellent chip control at low feed Suitable for mild steel that often gives difficulties in chip control CW = 2 - 6 mm	■ Standard feed  
DGG type (2 corners)  F140	For non-ferrous materials and titanium Chipbreaker with low cutting force Sharp cutting edge that prevents vibration and delivers fine surface finish CW = 2 - 6 mm	■ Standard feed  

Profiling and undercutting

DTR type (2 corners) STR type (1 corner) Molded DTR, STR  Ground DTR  F141, F142	Full radius type Excellent chip control Molded and ground inserts available CW = 2 - 8 mm	■ Standard feed and DoC (for turning)  
DTIU type (2 corners)  F142	Full radius type Excellent chip control for undercutting CW = 3 - 6 mm	■ Standard feed and DoC  

Aluminium wheel machining

DTA type (2 corners)

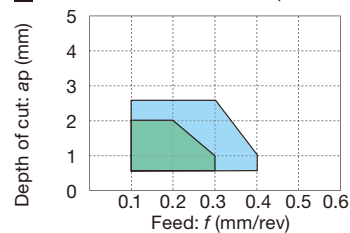


F143

Full radius type

Excellent chip control
For aluminium wheel profiling
Ground insert
CW = 6 - 8 mm

Standard feed and DoC (for turning)



Groove width: CW (mm)
6 8



For high feed external/internal/face turning of hardened steel parts

STH type (1 corner)

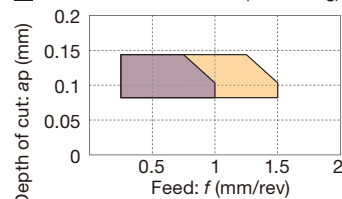


F143

External and face turning of hardened steel parts

High efficiency machining using light D.O.C. and increased feeds
CW = 3, 5 mm

Standard feed and DoC (for turning)



Groove width: CW (mm)
3 5



External/internal grooving of hardened steel

SGN-CBN type (1 corner)

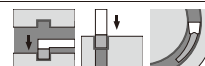
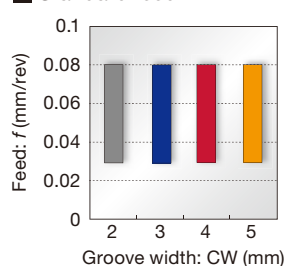


F144

For hardened steel cutting

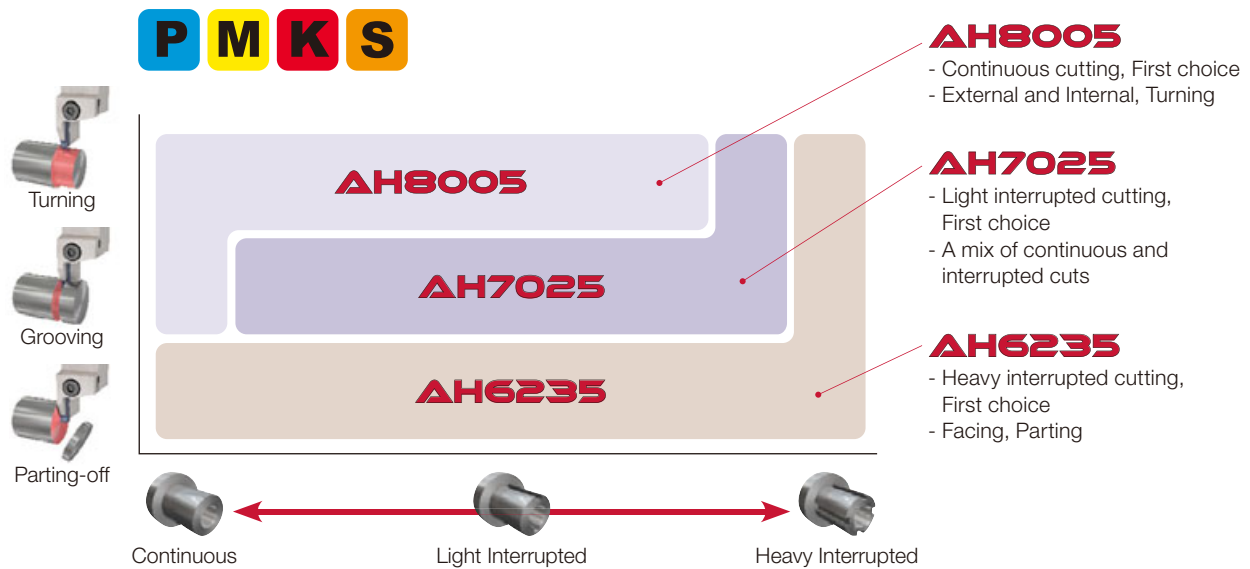
Optimum cutting edge shape for grooving of hardened steels
High tolerance width for finishing
CW = 2 - 5 mm
(CW = ± 0.025 mm)

Standard feed



Please see page F*** for the product details.

GRADE SELECTION



GRADES

AH8005

P M K S

- First choice for external, internal, and side-turning, continuous cuts

AH7025

P M K S

- First choice for light interrupted cuts or a mix of continuous and interrupted cuts
- New PVD coating with high Al content provides excellent adhesion strength
- Improved wear and chipping resistance

AH6235

P M K

- First choice for heavy interrupted cuts, as well as parting and facing applications

AH725

P M S

- General purpose PVD grade for high fracture resistance

T515

K

- First recommended grade for cast iron
- Excellent wear resistance in high speed machining

T9225

P

- Suitable for steel machining at high speeds
- New CVD coating and substrate deliver an outstanding balance of wear and chipping resistance

NS9530

P

- Advanced cermet for finish cutting of steel
- Innovative grade with incredible fracture and high wear resistance

GH130

P M K

- Recommended for interrupted machining
- TiCNO PVD coating layer with high wear resistance
- High hardness wear resistance

AH905

S

- Remarkable for machining of heat resistant alloys
- Exclusive coating layer improves adhesion strength and wear resistance

KS05F

N S

- Recommended for non-ferrous materials and titanium

TH10

N

- Recommended for non-ferrous materials

BXA10

H

- Coated CBN grade designed for turning hardened steel parts

BX360

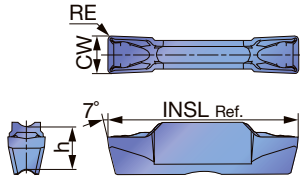
H

- Developed for grooving applications of hardened steel parts

INSERTS

DTX

External/internal/face grooving and turning



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

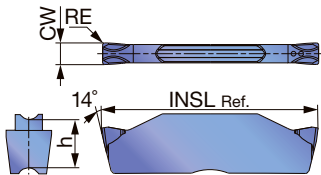
★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.05	RE	Coated					Cermet		Uncoated		INSL	h
				T9225	AH7025	AH725	AH8005	GH130	AH6235	NS9530		KS05F		
DTX2-020	2	2	0.2	●	●	●	●	●	●		●		20	5
DTX3-030	3	3	0.3	●	●	●	●	●	●		●		20	5
DTX4-040	4	4	0.4	●	●	●	●	●	●		●		20	5
DTX5-040	5	5	0.4	●	●	●	●	●	●		●		25	5.5
DTX6-080	6	6	0.8	●	●	●	●	●	●		●		25	5.5
DTX8-080	8	8	0.8	●	●	●	●	●	●		●		30	6.7

●: Line up

DGIM

Internal grooving



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

★ : First choice
☆ : Second choice

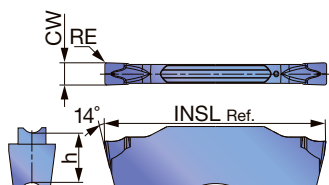
Designation	Seat size	CW±0.05	RE	Coated				Cermet						INSL	h	
				T9225	AH7025	AH725	GH130			NS9530						
DGIM2-020	2	2	0.2	●	●	●	●			●					20	5

●: Line up

Reference pages: Toolholders → **F126**, Standard cutting conditions → **F145**

DGIS

Internal grooving



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

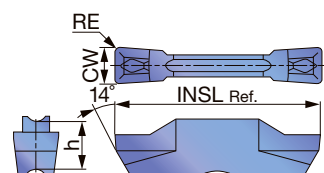
★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.05	RE	Coated				Cermet				INSL	h
				T9225	AH7025	AH725	GH130			NS9530			
DGIS2-020	2	2	0.2	●	●	●	●			●		20	5

●: Line up

DTI

Internal grooving and turning (for high precision)



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

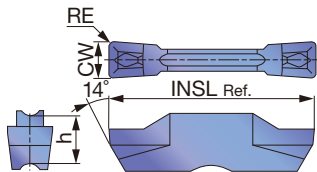
★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.02	RE	Coated				Cermet				INSL	h
				T9225	AH7025	AH725	GH130			NS9530			
DTI300-040	3	3	0.4	●	●	●	●			●		20	5
DTI400-040	4	4	0.4	●	●	●	●			●		20	5
DTI400-080	4	4	0.8	●	●	●	●			●		20	5
DTI500-040	5	5	0.4	●	●	●	●			●		25	5.5
DTI500-080	5	5	0.8	●	●	●	●			●		25	5.5
DTI600-080	6	6	0.8	●	●	●	●					25	5.5
DTI600-120	6	6	1.2	●	●	●	●					25	5.5
DTI800-080	8	8	0.8	●	●	●	●					30	6.7
DTI800-120	8	8	1.2	●	●	●	●					30	6.7

●: Line up

DTI

Internal grooving and turning



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

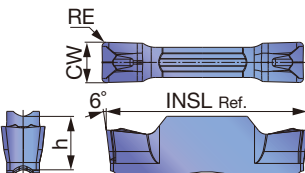
★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.05	RE	Coated				Cermet				INSL	h
				T9225	AH7025	AH725	GH130			NS9530			
DTI3-040	3	3	0.4	●	●	●	●			●		20	5
DTI4-040	4	4	0.4	●	●	●	●			●		20	5

●: Line up

DTM

External/internal/face grooving and turning



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

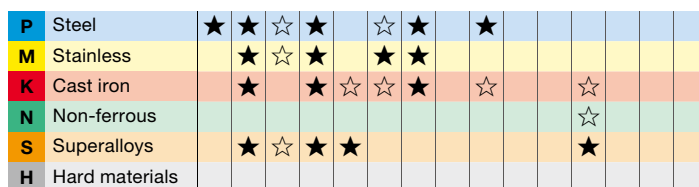
★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.05	RE	Coated				INSL	h
				AH7025	AH8005	AH6235			
DTM2-020	2	2	0.2	●	●	●		20	5
DTM3-030	3	3	0.3	●	●	●		20	5
DTM4-040	4	4	0.4	●	●	●		20	5
DTM4-080	4	4	0.8	●	●	●		20	5
DTM5-080	5	5	0.8	●	●	●		25	5.5
DTM6-080	6	6	0.8	●	●	●		25	5.5
DTM8-080	8	8	0.8	●	●	●		30	6.7

●: Line up

Reference pages: Toolholders → **F126**, Standard cutting conditions → **F145**

External/internal grooving and parting

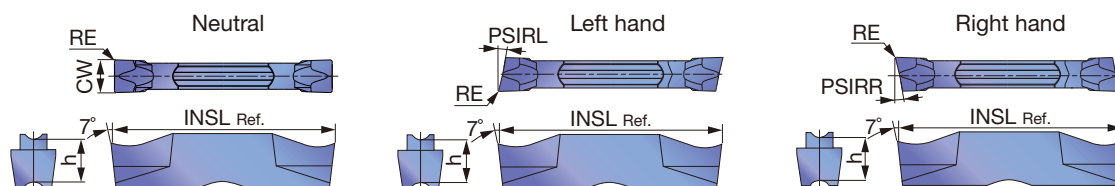


Designation	Seat size	HAND	CW±0.05	RE	Coated						Cermet		Uncoated			INSL	h	PSIRL	PSIRR		
					T9225	AH7025	AH725	AH8005	AH905	GH130	AH6235	NS9530		KS05F							
DGM2-020	2	N	2	0.2	●	●		●		●	●	●		●	●			20	5	0°	0°
DGM2-020-6R	2	R	2	0.2		●	●											20	5	0°	6°
DGM2-020-6L	2	L	2	0.2		●	●											20	5	6°	0°
DGM2-020-8R	2	R	2	0.2		●	●				●							20	5	0°	8°
DGM2-020-8L	2	L	2	0.2		●	●				●							20	5	8°	0°
DGM2-020-15R	2	R	2	0.2		●	●				●							20	5	0°	15°
DGM2-020-15L	2	L	2	0.2		●	●				●							20	5	15°	0°
DGM2-002-15R	2	R	2	0.02			●				●							19.35	5	0°	15°
DGM2-002-15L	2	L	2	0.02			●				●							19.35	5	15°	0°
DGM2.39-020	2	N	2.39	0.2		●		●			●							20	5	0°	0°
DGM3-020	3	N	3	0.2	●	●	●	●	●	●	●	●	●	●	●			20	5	0°	0°
DGM3-020-6R	3	R	3	0.2		●	●				●							20	5	0°	6°
DGM3-020-6L	3	L	3	0.2		●	●				●							20	5	6°	0°
DGM3-002-6R	3	R	3	0.02			●				●							19.45	5	0°	6°
DGM3-002-6L	3	L	3	0.02			●				●							19.45	5	6°	0°
DGM3-020-15R	3	R	3	0.2		●	●				●							20	5	0°	15°
DGM3-020-15L	3	L	3	0.2		●	●				●							20	5	15°	0°
DGM3.18-020	3	N	3.18	0.2		●		●			●							20	5	0°	0°
DGM4-030	4	N	4	0.3	●	●	●	●	●	●	●	●	●	●	●			20	5	0°	0°
DGM4-030-4R	4	R	4	0.3		●	●				●							20	5	0°	4°
DGM4-030-4L	4	L	4	0.3		●	●				●							20	5	4°	0°
DGM4-030-15R	4	R	4	0.3		●	●				●							20	5	0°	15°
DGM4-030-15L	4	L	4	0.3		●	●				●							20	5	15°	0°
DGM4.76-040	5	N	4.76	0.4		●		●			●							25	5.5	0°	0°
DGM5-030	5	N	5	0.3	●	●	●	●	●	●	●	●	●	●	●			25	5.5	0°	0°
DGM5-030-4R	5	R	5	0.3		●	●				●							25	5.5	0°	4°
DGM6-030	6	N	6	0.3	●	●	●	●	●	●	●	●	●	●	●	●		25	5.5	0°	0°
DGM6.35-040	6	N	6.35	0.4		●		●			●							25	5.5	0°	0°
DGM8-040	8	N	8	0.4	●	●	●	●			●	●			●			30	6.7	0°	0°

●: Line up

★ : First choice
☆ : Second choice

●: Line up



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

★ : First choice
☆ : Second choice

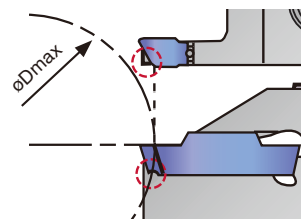
Designation	Seat size	HAND	CW±0.05	RE	Coated					Cermet	Uncoated			INSL	h	PSIRL	PSIRR
					T9225	AH7025	AH725	AH8005	GH130	AH6235	NS9530	KS05F					
DGS2-005	2	N	2	0.05			●							20	5	0°	0°
DGS2-010	2	N	2	0.1			●							20	5	0°	0°
DGS2-020	2	N	2	0.2	●	●	●	●	●	●		●		20	5	0°	0°
DGS2-020-6R	2	R	2	0.2		●	●		●					20	5	0°	6°
DGS2-020-6L	2	L	2	0.2		●	●		●					20	5	6°	0°
DGS2-002-6R	2	R	2	0.02			●		●					19.5	5	0°	6°
DGS2-002-6L	2	L	2	0.02			●		●					19.5	5	6°	0°
DGS2-020-15R	2	R	2	0.2		●	●		●					20	5	0°	15°
DGS2-020-15L	2	L	2	0.2		●	●		●					20	5	15°	0°
DGS2-002-15R	2	R	2	0.02			●		●					19.5	5	0°	15°
DGS2-002-15L	2	L	2	0.02			●		●					19.5	5	15°	0°
DGS2.39-020	2	N	2.39	0.2		●		●		●				20	5	0°	0°
DGS3-020	3	N	3	0.2	●	●	●	●	●	●	●	●		20	5	0°	0°
DGS3-020-6R	3	R	3	0.2		●	●		●					20	5	0°	6°
DGS3-020-6L	3	L	3	0.2		●	●		●					20	5	6°	0°
DGS3-002-6R	3	R	3	0.02			●		●					19.45	5	0°	6°
DGS3-002-6L	3	L	3	0.02			●		●					19.45	5	6°	0°
DGS3-020-15R	3	R	3	0.2		●	●		●					20	5	0°	15°
DGS3-020-15L	3	L	3	0.2		●	●		●					20	5	15°	0°
DGS3-002-15R	3	R	3	0.02			●		●					19.45	5	0°	15°
DGS3-002-15L	3	L	3	0.02			●		●					19.45	5	15°	0°
DGS3.18-020	3	N	3.18	0.2		●		●		●				20	5	0°	0°
DGS4-030	4	N	4	0.3	●	●	●	●	●	●	●	●		20	5	0°	0°
DGS4-030-4R	4	R	4	0.3		●	●		●					20	5	0°	4°
DGS4-030-4L	4	L	4	0.3		●	●		●					20	5	4°	0°
DGS4.76-040	5	N	4.76	0.4		●		●		●				25	5.5	0°	0°
DGS5-030	5	N	5	0.3	●	●	●	●	●	●	●	●		25	5.5	0°	0°
DGS6-030	6	N	6	0.3	●	●	●	●	●	●		●		25	5.5	0°	0°
DGS6.35-040	6	N	6.35	0.4		●		●		●				25	5.5	0°	0°
DGS8-040	8	N	8	0.4		●		●		●		●		30	6.7	0°	0°

●: Line up

Caution

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

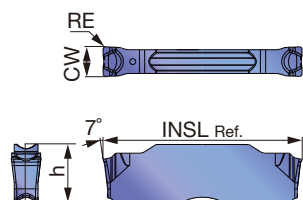
Designation	øDmax (mm)	Designation	øDmax (mm)
DGM2-002-15R/L	28	DGS2-002-15R/L	28
DGM3-002-15R/L	29	DGS3-002-15R/L	29
DGM4-030-15R/L	30	SGS3-020-15R/L	103
SGM3-020-15R/L	103	SGS3-002-15R/L	34



★ : First choice
☆ : Second choice

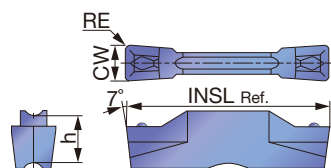
●: Line up

External/internal grooving and parting



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External/internal/face grooving and turning (for high precision)



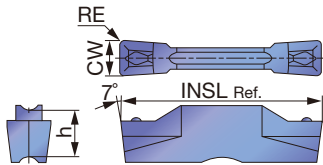
Designation	Seat size	CW±0.02	RE	Coated				Cermet		INSL	h
				T9225	AH7025	AH725	GH130	NS9530			
DTE265-015	3	2.65	0.15	●	●	●	●	●		20	5
DTE300-020	3	3	0.2	●	●	●	●	●		20	5
DTE300-040	3	3	0.4	●	●	●	●	●		20	5
DTE315-015	3	3.15	0.15	●	●	●	●	●		20	5
DTE400-040	4	4	0.4	●	●	●	●	●		20	5
DTE400-080	4	4	0.8	●	●	●	●	●		20	5
DTE415-015	4	4.15	0.15	●	●	●	●	●		20	5
DTE478-055	5	4.78	0.55	●	●	●	●	●		25	5.5
DTE500-040	5	5	0.4	●	●	●	●	●		25	5.5
DTE500-080	5	5	0.8	●	●	●	●	●		25	5.5
DTE515-015	5	5.15	0.15	●	●	●	●			25	5.5
DTE600-080	6	6	0.8	●	●	●	●			25	5.5
DTE600-120	6	6	1.2	●	●	●	●			25	5.5
DTE800-080	8	8	0.8	●	●	●	●			30	6.7
DTE800-120	8	8	1.2	●	●	●	●			30	6.7

●: Line up

Reference pages: Toolholders → **F126**, Standard cutting conditions → **F145**

DTE

External/internal/face grooving and turning



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

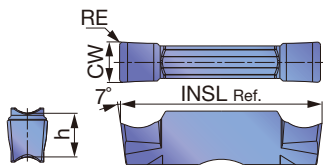
★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.05	RE	Coated						Cermet				INSL	h
				T9225	T515	AH7025	AH725	AH8005	GH130	AH6235	NS9530				
DTE3-020	3	3	0.2			●		●		●				20	5
DTE3-040	3	3	0.4	●	●	●	●	●	●	●	●			20	5
DTE4-040	4	4	0.4	●	●	●	●	●	●	●	●			20	5
DTE4-080	4	4	0.8			●		●		●				20	5
DTE5-040	5	5	0.4		●	●		●		●				25	5.5
DTE5-080	5	5	0.8			●		●		●				25	5.5
DTE6-080	6	6	0.8		●	●		●		●				25	5.5

● : Line up

DGG

External/internal grooving (for high precision)



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

★ : First choice
☆ : Second choice

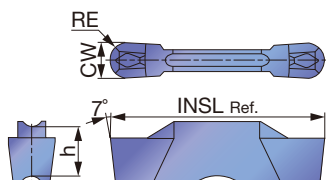
Designation	Seat size	CW±0.02	RE	Coated		Cermet		Uncoated		INSL	h
				AH7025		NS9530		KS05F			
DGG200-020	2	2	0.2	●		●		●		20	5
DGG300-020	3	3	0.2	●		●		●		20	5
DGG400-040	4	4	0.4	●		●		●		20	5
DGG500-040	5	5	0.4	●		●		●		25	5.5
DGG600-040	6	6	0.4	●		●		●		25	5.5

● : Line up

Reference pages: Toolholders → **F126**, Standard cutting conditions → **F145**

DTR

Profiling and undercutting (for high precision)



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

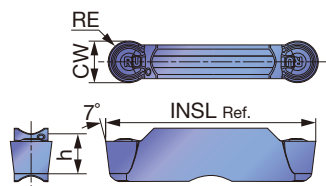
★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.02	RE	Coated						Cermet						INSL	h
				T9225	AH7025	AH725	GH130			NS9530							
DTR300-150	3	3	1.5	●	●	●	●			●						20	5
DTR400-200	4	4	2	●	●	●	●			●						20	5
DTR478-239	5	4.78	2.39	●	●	●	●			●						25	5.5
DTR500-250	5	5	2.5	●	●	●	●			●						25	5.5
DTR600-300	6	6	3	●	●	●	●									25	5.5

●: Line up

DTR

Profiling and undercutting



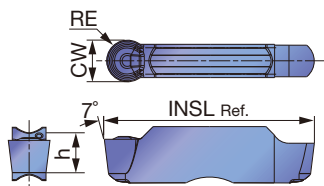
P	Steel	★	★	☆	★		☆	★		★									
M	Stainless		★	☆	★		★	★											
K	Cast iron		★		★	☆	☆	★		☆			☆						
N	Non-ferrous												☆						
S	Superalloys		★	☆	★	★							★						
H	Hard materials																		

★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.05	RE	Coated						Cermet		Uncoated		INSL	h
				T9225	AH7025	AH725	AH8005	AH905	GH130	AH6235	NS9530		KS05F		
DTR2-100	2	2	1		●		●			●			●	20	5
DTR3-150	3	3	1.5	●	●	●	●	●	●	●	●		●	20	5
DTR4-200	4	4	2	●	●	●	●	●	●	●	●		●	20	5
DTR5-250	5	5	2.5	●	●	●	●	●	●	●	●		●	25	5.5
DTR6-300	6	6	3	●	●	●	●		●	●			●	25	5.5
DTR8-400	8	8	4	●	●	●	●		●	●			●	30	6.7

●: Line up

Profiling and undercutting



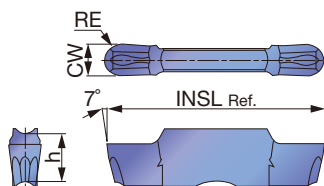
P	Steel	★	★									
M	Stainless	★	★									
K	Cast iron	★	★					☆				
N	Non-ferrous							☆				
S	Superalloys	★	★					★				
H	Hard materials											

★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.05	RE	Coated				Uncoated						INSL	h	
				AH7025	AH8005					KS05F						
STR2-100	2	2	1	●	●					●					20	5
STR3-150	3	3	1.5	●	●					●					20	5
STR4-200	4	4	2	●	●					●					20	5
STR5-250	5	5	2.5	●	●					●					25	5.5
STR6-300	6	6	3	●	●					●					25	5.5
STR8-400	8	8	4	●	●					●					30	6.7

●: Line up

Profiling and undercutting (for high precision)



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

★ : First choice
☆ : Second choice

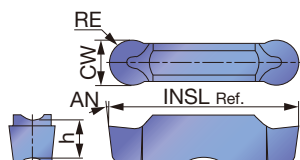
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●: Line up

Reference pages: Toolholders → **F126**, Standard cutting conditions → **F145**

DTA

Aluminium wheel machining (for high precision)

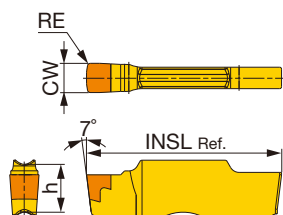


Designation	Seat size	CW±0.02	RE	Uncoated								INSL	h	AN
				TH10										
DTA600-300	6	6	3	●								25	5.5	7°
DTA800-400	8	8	4	●								30	6.7	10°

●: Line up

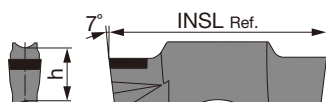
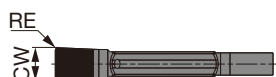
STH

External/internal/face turning



Designation	Seat size	CW±0.025	RE	CBN								INSL	h
				BXA10									
STH300-SR	3	3	0.3	●								20	5
STH500-SR	5	5	0.3	●								25	5.5

●: Line up



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

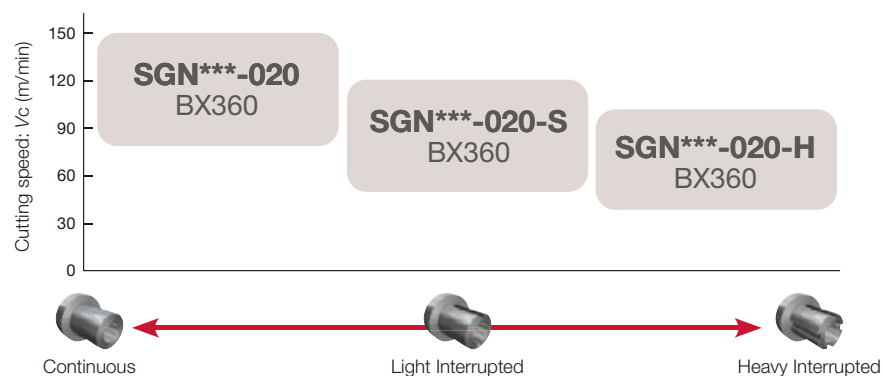
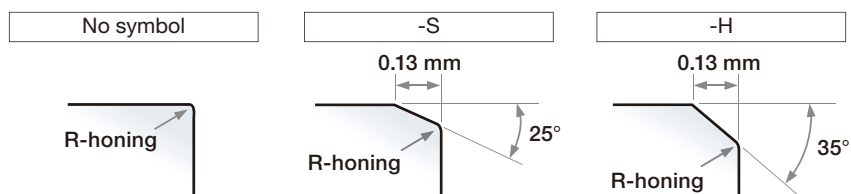
★ : First choice

★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.025	RE	CBN					INSL	h	Condition			
				BX360								Continuous	Light interrupted	Heavy interrupted
SGN200-020	2	2	0.2	●						20	5	○		
SGN200-020-S	2	2	0.2	●						20	5		○	
SGN200-020-H	2	2	0.2	●						20	5			○
SGN300-020	3	3	0.2	●						20	5	○		
SGN300-020-S	3	3	0.2	●						20	5		○	
SGN300-020-H	3	3	0.2	●						20	5			○
SGN400-020	4	4	0.2	●						20	5	○		
SGN400-020-S	4	4	0.2	●						20	5		○	
SGN400-020-H	4	4	0.2	●						20	5			○
SGN500-020-S	5	5	0.2	●						25	5.5		○	
SGN500-020-H	5	5	0.2	●						25	5.5			○

●: Line up

■ Edge preparations



Reference pages: Toolholders → **F126**, Standard cutting conditions → **F145**

STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Hardness	Priority	Grade	Cutting speed V _c (m/min)
P	Steel S45C, SCM435, etc. C45, 34CrMo4, etc.	< 300 HB	First choice	AH7025, AH725	50 - 180
		< 300 HB	Wear resistance	T9225, AH8005	80 - 300
		< 300 HB	Impact resistance	AH6235, GH130	50 - 120
		< 300 HB	Surface quality	NS9530	80 - 220
M	Stainless steel SUS303, SUS304, etc. X10CrNiS18-9, X5CrNi18-9, etc.	< 200 HB	First choice	AH7025, AH725	50 - 120
		< 200 HB	Wear resistance	AH8005	50 - 120
		< 200 HB	Impact resistance	AH6235, GH130	50 - 120
K	Grey cast iron FC250, etc. 250, etc.	-	First choice	T515	150 - 700
		-	Impact resistance	AH8005, AH7025, AH6235, GH130	50 - 180
	Ductile cast iron FCD450, etc. 450-10S, etc.	-	First choice	T515	150 - 300
		-	Impact resistance	AH8005, AH7025, AH6235, GH130	50 - 120
N	Aluminium alloys Si < 12%	-	First choice	TH10	100 - 500
		-	First choice	KS05F	100 - 600
S	Superalloys Inconel718, etc.	< HRC 40	First choice	AH8005	20 - 60
		< HRC 40	Impact resistance	AH7025, AH725, AH6235	20 - 40
	Titanium alloys Ti-6Al-4V, etc.	< HRC 40	First choice	KS05F	20 - 100
		< HRC 40	Impact resistance	AH7025, AH725	20 - 80

Please see page **F127 - F130** for feed: *f* (mm/rev).

STH

ISO	Grade	CW	Application	Cutting speed V _c (m/min)	Depth of cut a _p (mm)	Feed <i>f</i> (mm/rev)
H	BXA10	3	External turning	100 - 230	0.08 - 0.12	0.4 - 1
			Face turning	100 - 230	0.08 - 0.12	0.4 - 0.8
		5	External turning	100 - 230	0.08 - 0.12	0.5 - 1.5
			Face turning	100 - 230	0.08 - 0.12	0.5 - 0.8

SGN

ISO	Grade	Edge preparation	Workpiece condition	Cutting speed V _c (m/min)	Feed <i>f</i> (mm/rev)
H	BX360	No symbol	Continuous	80 - 150	0.03 - 0.08
		-S	Light interrupted	50 - 120	0.03 - 0.08
		-H	Heavy interrupted	40 - 100	0.03 - 0.06

Grade

Insert

Ext. Toolholder

Int. Toolholder

Threading

Grooving

Miniature tool

Milling cutter

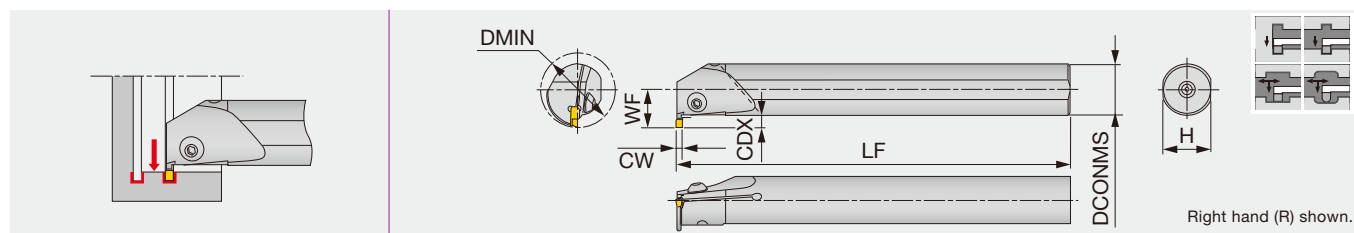
Endmill

Drilling tool

Tooling System

User's Guide

Index



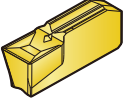
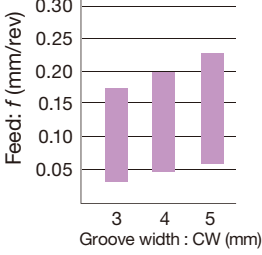
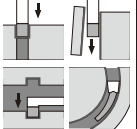
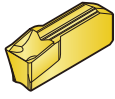
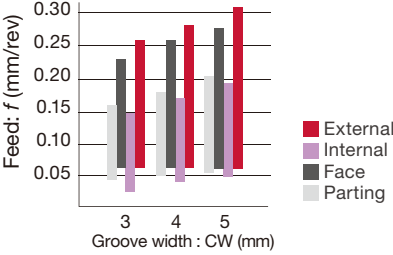
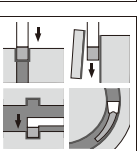
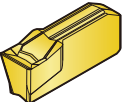
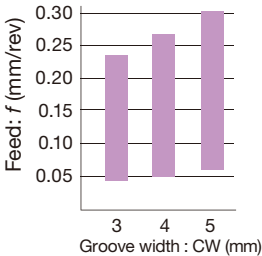
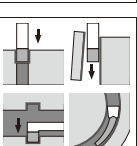
Designation	CW	DMIN	CDX	DCONMS	H	LF	WF	Insert	Torque*
S20Q-CGTR/L30	3	25	3.5	20	18	180	14.5	G*30, GE30-AL	3
S25R-CGTR/L30	3	32	5	25	23	200	18.5	G*30, GE30-AL	3
S25R-CGTR/L40	4	32	5	25	23	200	18.5	G*40, GE40-AL	3
S32S-CGTR/L40	4	40	6	32	30	250	23	G*40, GE40-AL	3
S25R-CGTR/L50	5	32	5	25	23	200	18.5	G*50	3
S32S-CGTR/L50	5	40	6	32	30	250	23	G*50	3

*Torque: Recommended clamping torque (N·m)

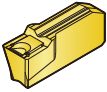
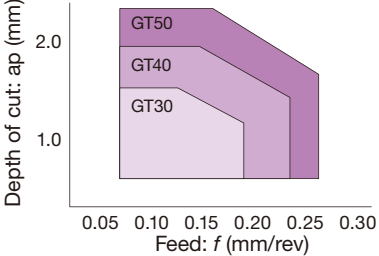
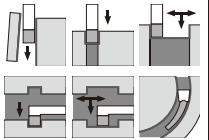
SPARE PARTS

Designation	Clamping screw	Wrench
S***-CGTR/L...	BHM5-14	P-3

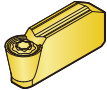
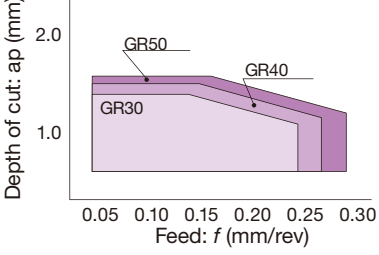
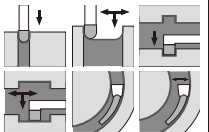
Internal grooving

GN  F150	1st choice for internal grooving Low cutting force and good chip control for internal grooving CW = 3 - 5 mm  
GE  F148	1st choice for external grooving and parting Excellent chip control CW = 3 - 5 mm  
GF  F149	1st choice for face grooving Low cutting force and good chip control for face grooving CW = 3 - 5 mm  

Grooving and turning

GT  F148	1st choice for turning Low cutting force and good chip control for traversing CW = 3 - 5 mm  
---	---

Profiling

GR  F149	Full radius type Low cutting force and good chip control for profiling CW = 3 - 5 mm  
---	--

Please see page F*** for the product details.

GE-AL

F150

Reduce cutting force and welding
due to sharp chipbreaker

CW = 3 - 4 mm

Groove width : CW (mm)	Feed: f (mm/rev)
3	0.10
4	0.10

Internal

 INSERTS
 GE

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

★ : First choice
☆ : Second choice

Designation	CW ^{+0.1} ₀	RE	Coated			Cermet					INSL	h		
			T9225	AH120	GH730									
GE30	3	0.2	●	●	●		●						10	3.5
GE40	4	0.2	●	●	●		●						10	4
GE50	5	0.2	●	●	●		●						12	4.5

GT

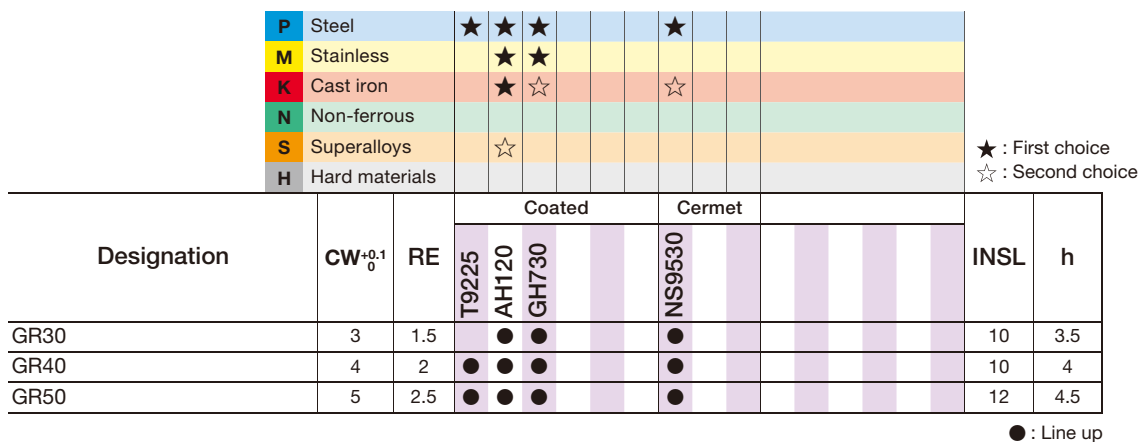
P	Steel	★	★	★				★			
M	Stainless		★	★							
K	Cast iron		★	☆				☆			
N	Non-ferrous										
S	Superalloys		☆								
H	Hard materials										

★ : First choice
☆ : Second choice

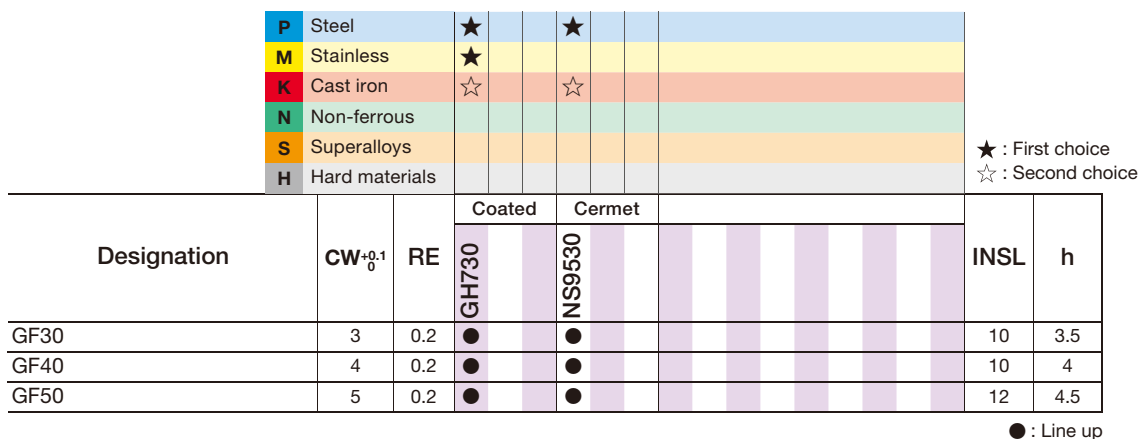
Designation	CW ^{+0.1} ₀	RE	Coated				Cermet						INSL	h	
			T9225	AH120	GH730			NS9530							
GT30	3	0.4		●	●			●						10	3.5
GT40	4	0.4		●	●			●						10	4
GT50	5	0.4	●	●	●			●						12	4.5

Reference pages: Toolholders → **F146**, Standard cutting conditions → **F151**

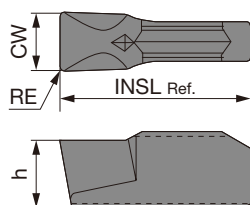
For profiling (full radius)



For face grooving



For internal grooving



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

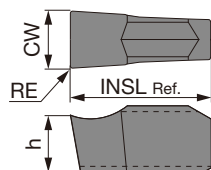
★ : First choice
☆ : Second choice

[illegible]

● : Line up

GE-AL

For aluminium and non-ferrous metal



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

★ : First choice
☆ : Second choice

Designation	CW ^{+0.1} ₀	RE	Uncoated							INSL	h
			KS05F								
GE30-AL	3	0.2	●							10	3.5
GE40-AL	4	0.2	●							10	4

● : Line up

STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Grade	Cutting speed Vc (m/min)
P	Low carbon steel, Alloy steel (~ HB150)	T9225	80 - 300
		NS9530	100 - 200
		GH730, AH120	50 - 180
	Medium carbon steel, Alloy steel (HB150 ~ 250)	T9225	80 - 220
		NS9530	80 - 180
		GH730, AH120	50 - 150
	High carbon steel, Alloy steel (HB250 ~)	T9225	80 - 220
		NS9530	80 - 150
		GH730, AH120	50 - 120
M	Stainless steel	GH730, AH120	50 - 120
K	Grey iron, Ductile cast iron	GH730, AH120	50 - 180
N	Aluminium alloy, Non-ferrous metal	KS05F	200 - 300

Internal

Operation	Feed: <i>f</i> (mm/rev)		
	Groove width: CW (mm)		
	3	4	5
Internal grooving (GE**)	0.04 - 0.14	0.05 - 0.15	0.05 - 0.16
Internal grooving (GN**)	0.04 - 0.16	0.05 - 0.18	0.05 - 0.2
Internal traversing (GT**)	<i>ap</i> = 0.5 - 1.5 <i>f</i> = 0.06 - 0.2	<i>ap</i> = 0.5 - 2 <i>f</i> = 0.06 - 0.25	<i>ap</i> = 0.5 - 2.5 <i>f</i> = 0.06 - 0.27
Internal traversing (GR**)	<i>ap</i> = 0.5 - 1.4 <i>f</i> = 0.05 - 0.25	<i>ap</i> = 0.5 - 1.5 <i>f</i> = 0.05 - 0.26	<i>ap</i> = 0.5 - 1.6 <i>f</i> = 0.05 - 0.3
Aluminium alloys (GE**-AL)	0.03 - 0.1	0.03 - 0.1	-

For diameter compensation values in traversing, see page **F115**.

When vibration occurs in turning, please use the lower limit value in the above table

Grade

Insert

Ext. Toolholder

Int. Toolholder

Threading

Grooving

Miniature tool

Milling cutter

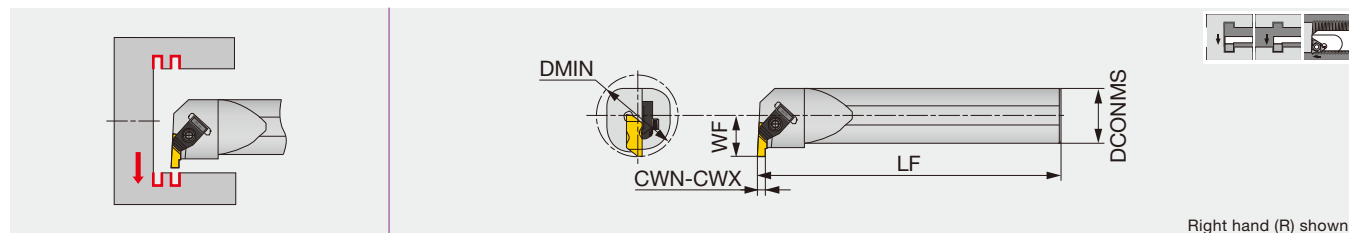
Endmill

Drilling tool

Tooling System

User's Guide

Index



Right hand (R) shown.

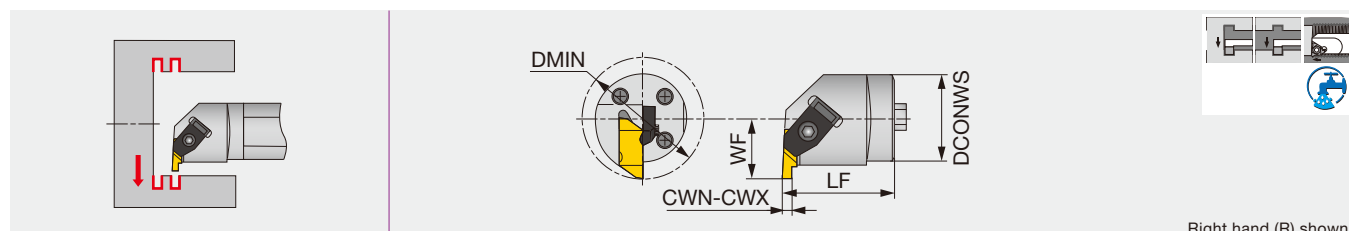
Designation	CWN	CWX	DMIN	DCONMS	LF	WF	Insert	Torque*
A25M-FLER/L3	1	3	34.9	25	300	17.7	FL*-3**/L/R...	3
A32M-FLER/L3	1	3	44.45	32	350	22.1	FL*-3**/L/R...	3
A40M-FLER3	1	3	50.8	40	350	24.5	FL*-3**/L...	3

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

*Torque: Recommended clamping torque (N·m)

HS-FLER/L

Internal grooving and threading head, for S-570 shank



Right hand (R) shown.

Designation	CWN	CWX	DMIN	DCONWS	LF	WF	Insert	Torque*
HS40-FLER3W	1	3	56.1	40	40.1	28	FL*-3**/L...	3
HS50-FLER3W	1	3	70.1	50	41.9	35	FL*-3**/L...	3

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

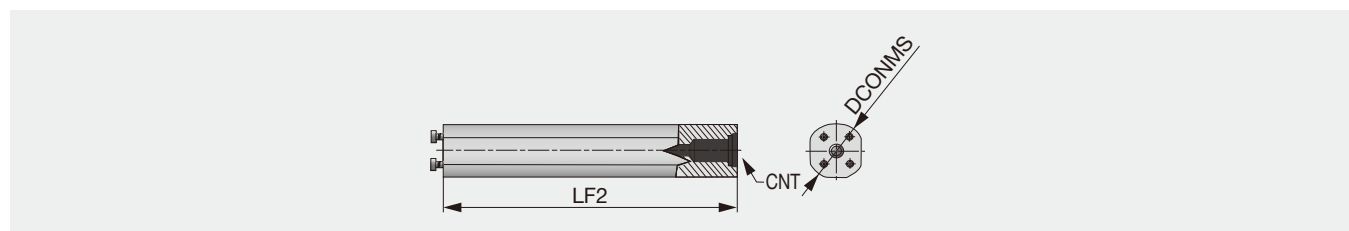
*Torque: Recommended clamping torque (N·m)

SPARE PARTS

Designation	Clamp	Clamping screw	Wrench
A/HS**-FLER...	TF-73	S-412	5/32HEX
A**M-FLEL3	TF-72	S-412	5/32HEX

S-570

Steel shank for head exchangeable tools



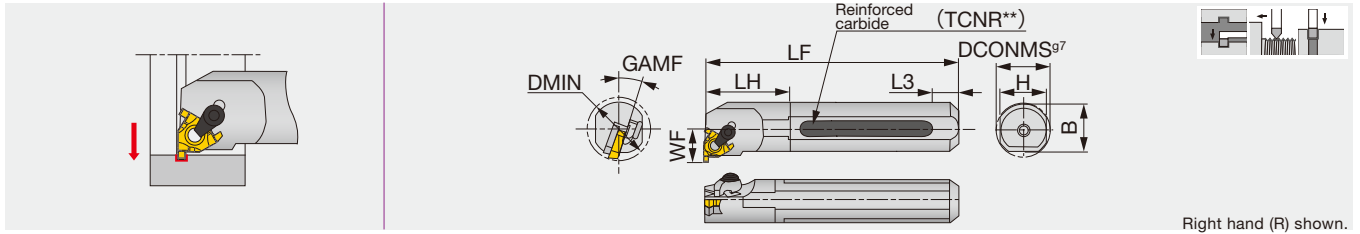
Designation	DCONMS	LF2	CNT
S-570-40M-40	40	273	1/2-14NPT
S-570-50M-50	50	366	1/2-14NPT

SPARE PARTS

Designation	Clamping screw	Wrench
S-570-40M-40	SS100	5/32HEX
S-570-50M-50	SS94	1/4HEX

CNR/L

Internal threading and grooving toolholder (The -DT holders can be used either with the insert screw or top-clamp)



Designation	Material	CWN	CWX	DMIN	DCONMS	H	B	LF	LH	WF	L3	GAMF	Insert	Torque*
TCNR0020R16DT	Reinforced	1	2.25	24	20	18	-	200	30	14	49	15°	GTGN-16...	3.5
TCNR0025S16DT	Reinforced	1	2.25	29	25	23	-	250	38	16.5	64	15°	GTGN-16...	3.5
CNR/L0020P16	Steel	1	2.25	24	20	18	19	170	30	14	-	15°	GTGN-16...	3.5
CNR/L0025R16	Steel	1	2.25	29	25	23	24	200	38	16.5	-	15°	GTGN-16...	3.5
CNR/L0032S16	Steel	1	2.25	37	32	30	31	250	48	20.1	-	15°	GTGN-16...	3.5

Note: A clamp set consists of a clamp and a clamping screw.

A shim set consists of a shim and a shim screw to secure the shim to the toolholder.

Use right-hand toolholders (T/CNR...) with right-hand inserts (**IR...); and left-hand toolholders (T/CNL...) with left-hand inserts (**IL...).

Standard shims can be used on both right- and left-hand toolholders. Please use either of the sides depending on the tool hand.

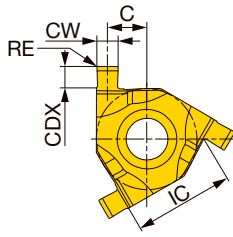
When using grooving inserts, please use shims for grooving. Shims for grooving inserts are sold separately.

*Torque: Recommended clamping torque (N·m)

SPARE PARTS						
Designation	Clamp set	Clamping screw	Shim screw	Shim (Optional)	Wrench1	Wrench2
TCNR002**16DT	CSP16	CSTB-3.5ST	DTS5-3.5	G16EL/IR-DT	P-3.5	T-15F
CNR00***16	CSP16	-	-	G16EL/IR-S	-	T-15F
CNL00***16	CSP16	-	-	G16ER/IL-S	-	T-15F

INSERT

GTGN16



ER/IL shown.

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

★ : First choice
☆ : Second choice

Designation	HAND (Internal)	CW±0.03	RE	Coated			Insert size	CDX	IC	C	Shim	
				SH730							Dual-clamp toolholder: screw-on and clamp-on	Clamp-on toolholder
GTGN-16ER/IL100	L	1	0.1	●			16	1.25	9.525	4.22	G16ER/IL-DT	G16ER/IL-S
GTGN-16EL/IR100	R	1	0.1	●			16	1.25	9.525	4.22	G16EL/IR-DT	G16EL/IR-S
GTGN-16ER/IL120	L	1.2	0.1	●			16	1.3	9.525	4.12	G16ER/IL-DT	G16ER/IL-S
GTGN-16EL/IR120	R	1.2	0.1	●			16	1.3	9.525	4.12	G16EL/IR-DT	G16EL/IR-S
GTGN-16ER/IL140	L	1.4	0.1	●			16	1.5	9.525	4.02	G16ER/IL-DT	G16ER/IL-S
GTGN-16EL/IR140	R	1.4	0.1	●			16	1.5	9.525	4.02	G16EL/IR-DT	G16EL/IR-S
GTGN-16ER/IL170	L	1.7	0.1	●			16	1.7	9.525	3.67	G16ER/IL-DT	G16ER/IL-S
GTGN-16EL/IR170	R	1.7	0.1	●			16	1.7	9.525	3.67	G16EL/IR-DT	G16EL/IR-S
GTGN-16ER/IL195	L	1.95	0.1	●			16	1.7	9.525	3.75	G16ER/IL-DT	G16ER/IL-S
GTGN-16EL/IR195	R	1.95	0.1	●			16	1.7	9.525	3.75	G16EL/IR-DT	G16EL/IR-S
GTGN-16ER/IL225	L	2.25	0.1	●			16	1.8	9.525	3.6	G16ER/IL-DT	G16ER/IL-S
GTGN-16EL/IR225	R	2.25	0.1	●			16	1.8	9.525	3.6	G16EL/IR-DT	G16EL/IR-S

Note: GTGN insert can be used for both external and internal machining, but the tool hand is reversed.
Shim for GTGN depends on the toolholder type.

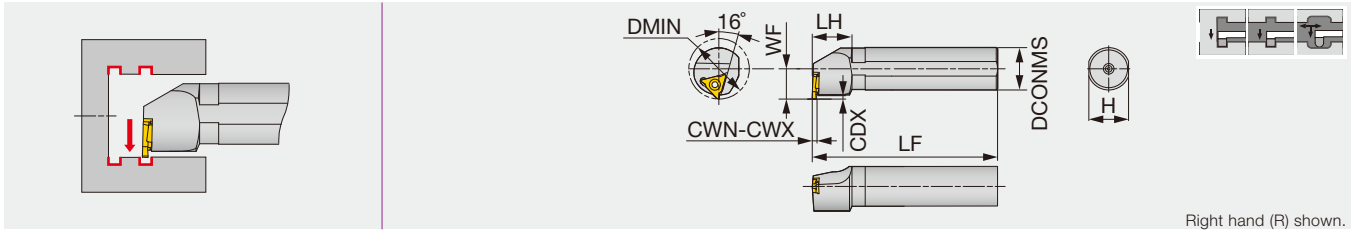
● : Line up

STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Grade	Cutting Speed Vc (m/min)	Feed f (mm/rev)
P	Steels S45C, SCM440, etc. C45, 42CrMo4, etc.	SH730	50 - 150	0.05 - 0.1
M	Stainless steels SUS304, SUS316, etc. X5CrNi18-9, X5CrNiMo17-12-2, etc.	SH730	30 - 150	0.05 - 0.1
S	Heat-resistant alloys, Titanium alloys etc. Ti-6Al-4V, etc.	SH730	30 - 100	0.05 - 0.1

S-SGTR/L

Internal grooving



Right hand (R) shown.

Designation	CWN	CWX	DMIN	CDX	DCONMS	H	LF	LH	WF	Insert	Torque*
S25R-SGTR/L16	0.33	2.5	35	2	25	23	200	30	17.5	GBL/R32...	3.5
S32S-SGTR/L22	1.25	4.5	40	2.5	32	30	250	30	23	GBL/R43...	5

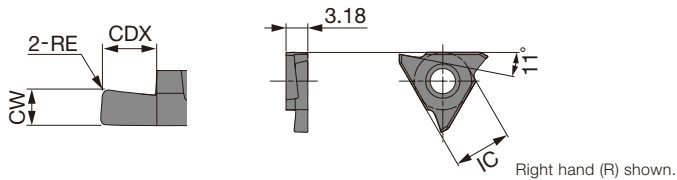
Use right-hand toolholders (SGTR) with left-hand inserts (GBL); and left-hand toolholders (SGTL) with right-hand inserts (GBR).
*Torque: Recommended clamping torque (N·m)

SPARE PARTS

Designation	Clamping screw	Wrench
S25R-SGTR/L16	CSTB-4S	T-15F
S32S-SGTR/L22	CSTB-5S	T-20F

INSERTS

GBR/L32



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

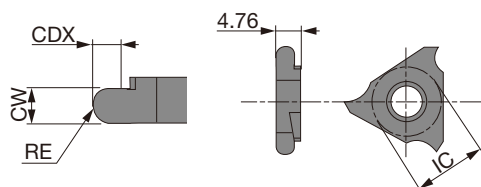
★ : First choice
☆ : Second choice

Designation	HAND	CW±0.025	RE	Coated			Cermet			Uncoated			CDX	IC
				AH710			NS9530			KS05F				
GBR32033	R	0.33	0.03	●			●			●			0.8	9.53
GBL32033	L	0.33	0.03	●									0.8	9.53
GBR32050	R	0.5	0.05	●			●			●			1.2	9.53
GBL32050	L	0.5	0.05	●									1.2	9.53
GBR32075	R	0.75	0.05	●			●			●			2	9.53
GBL32075	L	0.75	0.05	●			●						2	9.53
GBR32095	R	0.95	0.05	●			●			●			2	9.53
GBL32095	L	0.95	0.05	●			●						2	9.53
GBR32100	R	1	0.05	●			●			●			2	9.53
GBL32100	L	1	0.05	●			●						2	9.53
GBR32125	R	1.25	0.2	●			●			●			2	9.53
GBL32125	L	1.25	0.2	●			●						2	9.53
GBR32145	R	1.45	0.2	●			●			●			2	9.53
GBL32145	L	1.45	0.2	●									2	9.53
GBR32150	R	1.5	0.2	●			●			●			2	9.53
GBL32150	L	1.5	0.2	●									2	9.53
GBR32200	R	2	0.2	●			●			●			2.5	9.53
GBL32200	L	2	0.2	●									2.5	9.53
GBR32250	R	2.5	0.2	●			●			●			2.5	9.53
GBL32250	L	2.5	0.2	●									2.5	9.53

● : Line up

Reference pages: Inserts → **F156 - F158**, Standard cutting conditions → **F158**

GBR/L43-R (full radius)



Right hand (R) shown.

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

★ : First choice

☆ : Second choice



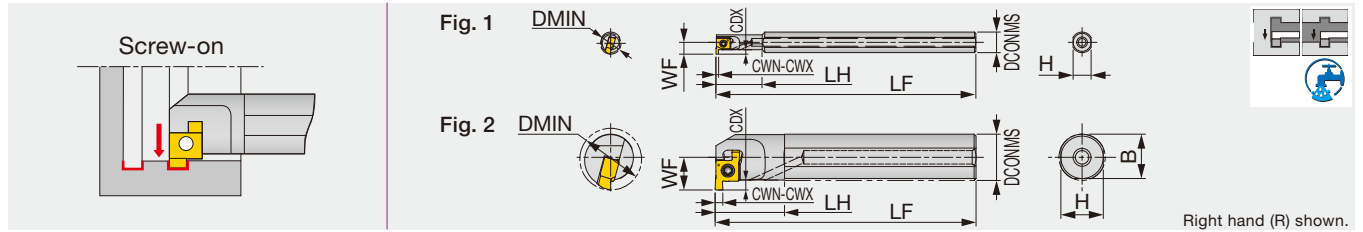
Designation	HAND	CW±0.025	RE	Coated		Cermet		Uncoated						CDX	IC
				AH710		NS9530		KS05F							
GBR43050R	R	1	0.5	●		●		●						2	12.7
GBL43050R	L	1	0.5	●				●						2	12.7
GBR43075R	R	1.5	0.75	●		●		●						3.5	12.7
GBL43075R	L	1.5	0.75	●				●						3.5	12.7
GBR43100R	R	2	1	●		●		●						3.5	12.7
GBL43100R	L	2	1	●				●						3.5	12.7
GBR43125R	R	2.5	1.25	●		●		●						5	12.7
GBL43125R	L	2.5	1.25	●				●						5	12.7
GBR43150R	R	3	1.5	●		●		●						5	12.7
GBL43150R	L	3	1.5	●				●						5	12.7
GBR43200R	R	4	2	●		●		●						5	12.7
GBL43200R	L	4	2	●				●						5	12.7

● : Line up

STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Hardness	Grade	Cutting speed V _c (m/min)	Feed f (mm/rev)
P	Carbon steels, Alloy steels S45C, SCM415, etc. C45, 18CrMo4, etc.	150 - 240HB	NS9530	100 - 200	0.02 - 0.25
		150 - 240HB	AH710	60 - 150	0.05 - 0.25
M	Stainless steels SUS304, etc. X5CrNi18-9, etc.	≤ 240HB	AH710	60 - 150	0.05 - 0.15
K	Cast irons FC250, etc. 250, etc.	Tensile strength ≤ 350 N/mm ²	AH710	60 - 150	0.05 - 0.15
N	Non-ferrous metals Aluminium, etc.	-	KS05F	200 - 300	0.05 - 0.15

Reference pages: Toolholders → **F156**



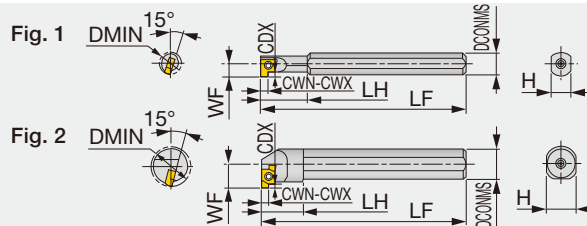
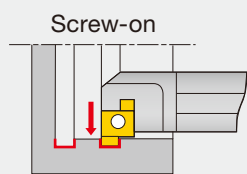
Designation	Material	CWN	CWX	DMIN	CDX	DCONMS	H	B	LF	LH	WF	Insert	Torque*	Fig.
A08H-SNGR06-D080	Steel	1	2	8	1.5	8	7	-	100	18	4.73	6GMR..., 6GR...	0.7	1
A08H-SNGR07-D100	Steel	1	2	10	1.5	8	7	-	100	23	5.8	7GMR..., 7GR...	1.0	1
A10K-SNGR07-D120	Steel	1	2	12	1.5	10	9	-	125	29	6.8	7GMR..., 7GR...	1.0	1
A10K-SNGR08-D140	Steel	1.5	3.5	14	2	10	9	-	125	15	7.6	8GMR..., 8GR...	1.0	2
A12M-SNGR08-D160	Steel	1.5	3.5	16	2	12	11	11.5	150	18	8.6	8GMR..., 8GR...	1.0	2
A16Q-SNGR09-D200	Steel	1.5	3.5	20	3	16	15	15.5	180	20	11.6	9GMR..., 9GR...	1.3	2
A20R-SNGR09-D240	Steel	1.5	3.5	24	3	20	18	19	200	25	13.6	9GMR..., 9GR...	1.3	2
E08X-SNGR07-D100	Carbide	1	2	10	1.5	8	7.5	-	120.5	35	5.8	7GMR..., 7GR...	1.0	1
E10X-SNGR07-D120	Carbide	1	2	12	1.5	10	9	-	143.5	45	6.8	7GMR..., 7GR...	1.0	1
E10X-SNGR08-D140	Carbide	1.5	3.5	14	2	10	9	-	146	-	7.6	8GMR..., 8GR...	1.0	2
E12X-SNGR08-D160	Carbide	1.5	3.5	16	2	12	11	-	174.8	-	8.6	8GMR..., 8GR...	1.0	2
E16X-SNGR09-D200	Carbide	1.5	3.5	20	3	16	15	-	194.6	-	11.6	9GMR..., 9GR...	1.5	2

Note: Use the right-hand insert (□GR) with the right-hand holder (□NGR).

*Torque: Recommended clamping torque (N·m)

SPARE PARTS

Designation	Clamping screw	Wrench
A**-SNGR06-D...	CSTB-2L040	T-6F
A**-SNGR07-D...	CSTB-2.2S	T-7F
A**-SNGR08-D...	CSTB-2.2	T-7F
A**-SNGR09-D...	CSTB-2.5L080	T-8F
E**-SNGR07-D...	CSTB-2.2S	T-7F
E**-SNGR08-D...	CSTB-2.2	T-7F
E**-SNGR09-D...	CSTB-2.5L080	T-8F



Right hand (R) shown.

Designation	Material	CWN	CWX	DMIN	CDX	DCONMS	H	LF	LH	WF	Insert	Torque*	Fig.
SNGR/L08H06	Steel	1	2	8	1.5	8	7	100	18	4.7	6GMR..., 6GR/L...	0.7	1
SNGR/L08H07	Steel	1	2	10	1.5	8	7	100	23	5.8	7GMR..., 7GR/L...	1.0	1
SNGR/L10K07	Steel	1	2	12	1.5	10	9	125	29	6.8	7GMR..., 7GR/L...	1.0	1
SNGR/L10K08	Steel	1.5	3.5	14	2	10	9	125	15	7.6	8GMR..., 8GR/L...	1.0	2
SNGR/L12M08	Steel	1.5	3.5	16	2	12	11	150	18	8.6	8GMR..., 8GR/L...	1.0	2
SNGR/L16Q09	Steel	1.5	3.5	20	3	16	15	180	20	11.6	9GMR..., 9GR/L...	1.3	2
SNGR/L20R09	Steel	1.5	3.5	24	3	20	18	200	25	13.6	9GMR..., 9GR/L...	1.3	2
SNGR/L08K06SC	Carbide	1	2	8	1.5	8	7	125	28	4.7	6GMR..., 6GR/L...	0.7	1
SNGR/L08K07SC	Carbide	1	2	10	1.5	8	7	125	35	5.8	7GMR..., 7GR/L...	1.0	1
SNGR/L10M07SC	Carbide	1	2	12	1.5	10	9	150	45	6.8	7GMR..., 7GR/L...	1.0	1
SNGR/L10M08SC	Carbide	1.5	3.5	14	2	10	9	150	45	7.6	8GMR..., 8GR/L...	1.0	2
SNGR/L12Q08SC	Carbide	1.5	3.5	16	2	12	11	180	-	8.6	8GMR..., 8GR/L...	1.0	2
SNGR/L16R09SC	Carbide	1.5	3.5	20	3	16	15	200	-	11.6	9GMR..., 9GR/L...	1.5	2

Note: Use the right-hand insert (□GR) with the right-hand holder (□NGR), and use the left-hand insert (□GL) with the left-hand holder (□NGL).

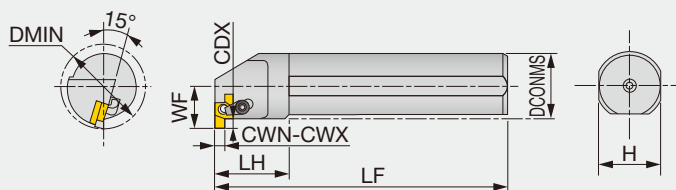
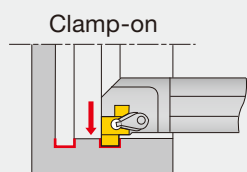
*Torque: Recommended clamping torque (N·m)

SPARE PARTS

Designation	Clamping screw	Wrench
SNGR/L***06	CSTB-2L040	T-6F
SNGR/L***07	CSTB-2.2S	T-7F
SNGR/L***08	CSTB-2.2	T-7F
SNGR/L***09	CSTB-2.5L080	T-8F
SNGR/L***06SC	CSTB-2L040	T-6F
SNGR/L***07SC	CSTB-2.2S	T-7F
SNGR/L***08SC	CSTB-2.2	T-7F
SNGR/L***09SC	CSTB-2.5L080	T-8F

CNGR/L

Toolholders for internal grooving



Right hand (R) shown.

Designation	CWN	CWX	DMIN	CDX	DCONMS	H	LF	LH	WF	Insert	Torque*
CNGR/L25S15	2	5	32	5	25	23	250	30	18.1	15GR/L...	7
CNGR/L32T15	2	5	40	5	32	30	300	35	22.1	15GR/L...	7
CNGR/L40U15	2	5	48	5	40	38	350	45	26.1	15GR/L...	7

Note: Use the right-hand insert (□GR) with the right-hand holder (□NGR), and use the left-hand insert (□GL) with the left-hand holder (□NGL).

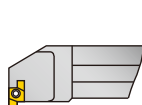
*Torque: Recommended clamping torque (N·m)

Optional parts for CNG holders

Use the following parts for screw clamp options.

SPARE PARTS

Designation	Clamp set	Screw	Shim	Wrench
CNGR...	CSP22	DTS5-3.5	SGSR151	T-20F
CNGL...	CSP22	DTS5-3.5	SGSL151	T-20F

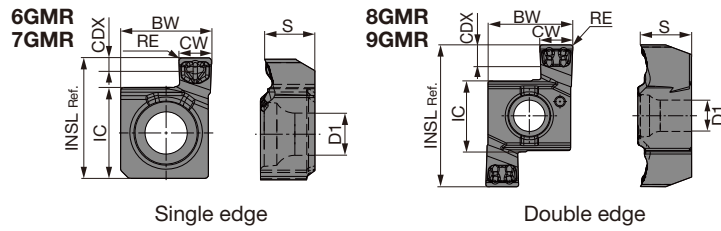


Designation	Clamping screw	Wrench
CNGR/L...	CSTB-3.5L	T-15F

Reference pages: Inserts → **F161, F162**, Standard cutting conditions → **F163**

INSERTS

**GMR/L



Single edge

Double edge

Right hand (R) shown.

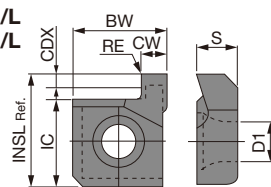
P	Steel	★
M	Stainless	★
K	Cast iron	★
N	Non-ferrous	
S	Superalloys	★
H	Hard materials	

★ : First choice
☆ : Second choice

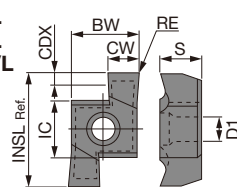
Designation	HAND	CW±0.025	RE	Coated					CDX	BW	S	IC	INSL	D1
				AH7025										
6GMR100-015	R	1	0.15	●					1.5	5.56	2.34	4.76	6.4	2.3
7GMR200-020	R	2	0.2	●					1.5	5.56	3.08	5.56	7.4	2.6
8GMR150-020	R	1.5	0.2	●					2	6.15	3.87	5.56	10.2	2.6
9GMR200-020	R	2	0.2	●					3	7.74	4.66	6.35	13	2.9
9GMR300-020	R	3	0.2	●					3	7.74	4.66	6.35	13	2.9

● : Line up

8GR/L
9GR/L
15GR/L



Single edge



Double edge

Right hand (R) shown.

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

★ : First choice
☆ : Second choice

Note: Use the right-hand insert (□GR) with the right-hand holder (□NGR), and use the left-hand insert (□GL) with the left-hand holder (□NGL).

● : Line up

STANDARD CUTTING CONDITIONS

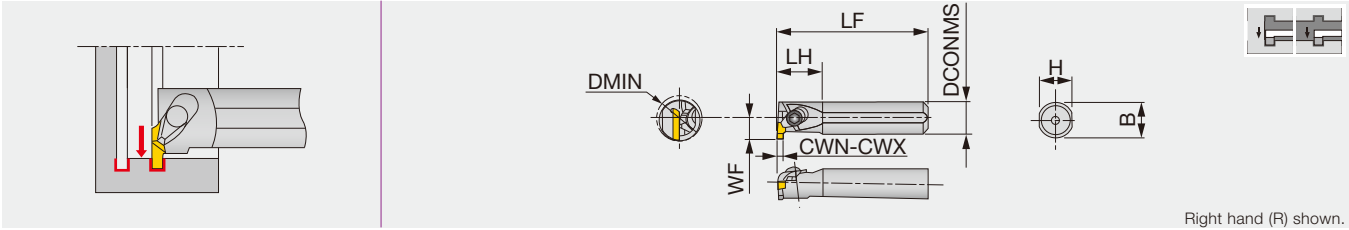
ISO	Workpiece material	Grade	Cutting speed Vc (m/min)	Feed rate: f (mm/rev)	
				**GMR...	**GR/L...
P	Carbon steel S45C, C45, etc.	AH7025	80 - 180	0.03 - 0.12	-
		NS9530	80 - 200	-	0.05 - 0.15
		UX30	40 - 150	-	0.05 - 0.15
	Alloy steel SCM435, 34CrMo4, etc.	AH7025	80 - 180	0.03 - 0.12	-
		NS9530	80 - 200	-	0.05 - 0.15
		UX30	40 - 150	-	0.05 - 0.15
M	Stainless steel SUS304, X5CrNi18-9, etc.	AH7025	50 - 120	0.03 - 0.12	-
		UX30	40 - 100	-	0.03 - 0.10
K	Grey cast irons F250, GG25, 250, etc.	AH7025	50 - 220	0.03 - 0.12	-
		TH10	60 - 200	-	0.05 - 0.15
	Ductile cast irons FCD400, etc.	AH7025	50 - 180	0.03 - 0.12	-
		TH10	40 - 160	-	0.05 - 0.15
S	Titanium alloys Ti-6Al-4V, etc.	AH7025	30 - 80	0.03 - 0.12	-
		TH10	20 - 50	-	0.05 - 0.08
	Superalloys Inconel718, etc.	AH7025	20 - 40	0.03 - 0.12	-
		TH10	10 - 30	-	0.03 - 0.08

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



CGXR/L

Internal grooving



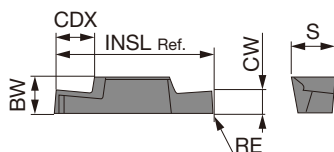
Designation	Material	CWN	CWX	DMIN	CDX	DCONMS	H	B	LF	LH	WF	Insert	Torque*
CGXR/L0016	Steel	1	3	20	3	16	15	15.5	150	24	11.3	GIR/L52...	2.2
CGXR/L0020	Steel	1	3	24	3	20	18	19	180	30	13.3	GIR/L52...	2.2
CGXR/L0025	Steel	1	5	32	5.3	25	23	24	200	38	18	GIR/L63...	5
CGXR/L0032	Steel	1	5	40	5.3	32	30	31	250	48	23	GIR/L63...	5
CGXR/L0040	Steel	1	5	48	5.3	40	37	38.5	300	60	27	GIR/L63...	5
CGXR/L16SC	Carbide	1	3	20	3	16	15	-	200	24	11.3	GIR/L52...	2.2

Note: Use right-hand holder (CGXR) with right-hand insert (GIR); and left-hand holder (L) with left-hand insert (GIL).
*Torque: Recommended clamping torque (N·m)

SPARE PARTS

Designation	Clamp set	Wrench1	Wrench2
CGXR/L0016/20	CSW-0	-	P-2.5T
CGXR/L0025/32/40	CSW-2	P-4	-
CGXR/L16SC	CSW-0	-	P-2.5T

GIR/L



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±0.05	RE	Cermet		Uncoated										CDX	INSL	BW	S		
				NS9530		TH10															
GIR5210-02	R	1	0.2	●		●												1.5	15	3.5	4.4
GIL5210-02	L	1	0.2	●		●												1.5	15	3.5	4.4
GIR5215-02	R	1.5	0.2	●		●												2.3	15	3.5	4.4
GIL5215-02	L	1.5	0.2	●		●												2.3	15	3.5	4.4
GIR5220-02	R	2	0.2	●		●												3	15	3.5	4.4
GIL5220-02	L	2	0.2	●		●												3	15	3.5	4.4
GIR5225-02	R	2.5	0.2	●		●												3	15	3.5	4.4
GIL5225-02	L	2.5	0.2			●												3	15	3.5	4.4
GIR5230-02	R	3	0.2	●		●												3	15	3.5	4.4
GIL5230-02	L	3	0.2			●												3	15	3.5	4.4
GIR6310-02	R	1	0.2	●		●												1.5	24	5.5	6.4
GIL6310-02	L	1	0.2			●												1.5	24	5.5	6.4
GIR6315-02	R	1.5	0.2	●		●												2.3	24	5.5	6.4
GIL6315-02	L	1.5	0.2	●		●												2.3	24	5.5	6.4
GIR6320-02	R	2	0.2	●		●												3	24	5.5	6.4
GIL6320-02	L	2	0.2	●		●												3	24	5.5	6.4
GIR6325-02	R	2.5	0.2	●		●												3.8	24	5.5	6.4
GIL6325-02	L	2.5	0.2	●		●												3.8	24	5.5	6.4
GIR6330-02	R	3	0.2	●		●												4.5	24	5.5	6.4
GIL6330-02	L	3	0.2	●		●												4.5	24	5.5	6.4
GIR6335-02	R	3.5	0.2	●		●												5.3	24	5.5	6.4
GIL6335-02	L	3.5	0.2	●		●												5.3	24	5.5	6.4
GIR6340-02	R	4	0.2	●		●												5.3	24	5.5	6.4
GIL6340-02	L	4	0.2	●		●												5.3	24	5.5	6.4
GIR6345-02	R	4.5	0.2	●		●												5.3	24	5.5	6.4
GIL6345-02	L	4.5	0.2			●												5.3	24	5.5	6.4
GIR6350-02	R	5	0.2	●		●												5.3	24	5.5	6.4
GIL6350-02	L	5	0.2			●												5.3	24	5.5	6.4

Use right-hand toolholders (CGXR~) with right-hand inserts (GIR); and left-hand toolholders (GX-****L) with left-hand inserts (XGR).

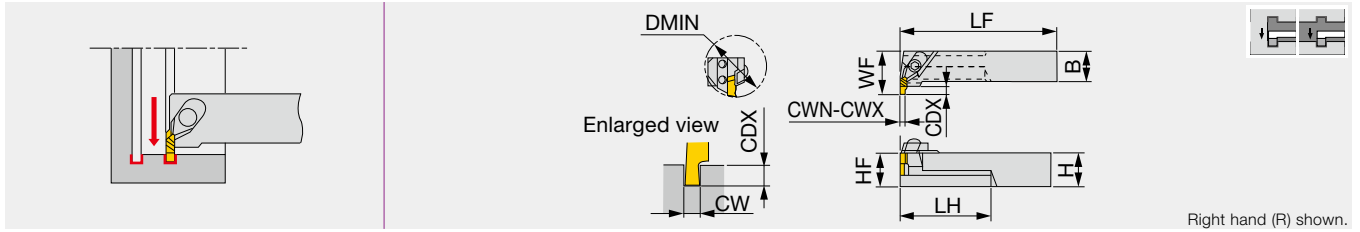
● : Line up

STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Grade	Cutting speed Vc (m/min)	Feed f (mm/rev)		
				W < 2 mm	W = 2 ~ 4 mm	W > 4 mm
	Carbon steels	NS9530	80 - 150	0.05 - 0.1	0.08 - 0.15	0.08 - 0.2
	Cast irons, Light alloys	TH10	60 - 150	0.05 - 0.1	0.08 - 0.15	0.08 - 0.2

GX-R/LI

Internal grooving



Designation	CWN	CWX	DMIN	CDX	H	B	LF	LH	HF	WF	Insert	Torque*
GX-2525R/LI	1	4.5	55	1.5 - 6	25	25	200	70	25	35	XGL/R63...	5

Use right-hand toolholders (GX-****R) with left-hand inserts (XGL...); and left-hand toolholders (GX-****L) with right-hand inserts (XGR...).

*Torque: Recommended clamping torque (N·m)

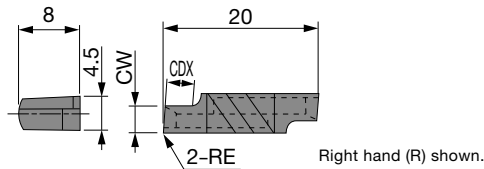
SPARE PARTS

Designation	Clamp set	Clamp screw	Shim	Shim screw	Wrench
GX-2525RI	CP81B	RT-1	SL-2R	BHM3-8	P-4
GX-2525LI	CP81B	RT-1	SL-2L	BHM3-8	P-4

Note: Max. groove width and max. groove depth will depend on the insert type.

INSERT

XGR/L



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

★ : First choice

☆ : Second choice

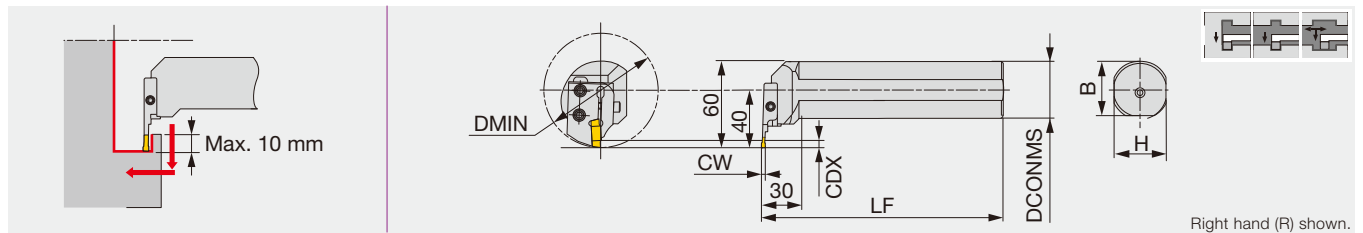
Designation	HAND	CW±0.05	RE	Cermet		Uncoated		CDX
				NS9530		TH10	UX30	
XGR6310-02	R	1	0.2	●		●	●	1.5
XGL6310-02	L	1	0.2	●		●	●	1.5
XGR6315-02	R	1.5	0.2	●		●	●	2.3
XGL6315-02	L	1.5	0.2	●		●	●	2.3
XGR6320-02	R	2	0.2	●		●	●	3
XGL6320-02	L	2	0.2	●		●	●	3
XGR6325-02	R	2.5	0.2	●		●	●	3.8
XGL6325-02	L	2.5	0.2	●		●	●	3.8
XGR6330-02	R	3	0.2	●		●	●	4.5
XGL6330-02	L	3	0.2	●		●	●	4.5
XGR6335-02	R	3.5	0.2	●		●	●	5.3
XGL6335-02	L	3.5	0.2	●		●	●	5.3
XGR6340-02	R	4	0.2	●		●	●	6
XGL6340-02	L	4	0.2	●		●	●	6
XGR6345-02	R	4.5	0.2	●		●	●	6
XGL6345-02	L	4.5	0.2	●		●	●	6

Use right-hand toolholders (GX-****R) with left-hand inserts (XGL...)
left-hand toolholders (GX-****L) with right-hand inserts (XGR...).

● : Line up

STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Grade	Cutting speed Vc (m/min)	Feed f (mm/rev)		
				W < 2 mm	W = 2 ~ 4 mm	W > 4 mm
P	Carbon steels	NS9530	80 - 200	0.05 - 0.1	0.08 - 0.2	0.08 - 0.25
		UX30	60 - 150	0.05 - 0.1	0.08 - 0.2	0.08 - 0.25
K	Cast irons, Light alloys	TH10	60 - 150	0.05 - 0.1	0.08 - 0.2	0.08 - 0.25
H	Hardened steel	BX360	50 - 180	0.05 - 0.15	0.05 - 0.15	0.05 - 0.15



Designation	CW	DMIN	CDX	DCONMS	LF	H	B	Insert	Shank	Adapter Torque*
CGWTR/L0040-FLL/R3NP	3	80	10	40	180	37.5	37	FLEX30L/R	CGWTR/L0040	FLL/R3NP 5

Please place an order with the designation of a set or a shank+a adapter

Note: Use right-hand shanks (CGWTR) with left-hand adapters (FLL3NP); and left-hand shanks (CGWTL) with right-hand adapters (FLR3NP).

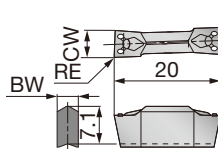
*Torque: Recommended clamping torque (N·m)

SPARE PARTS

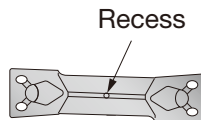
Designation	Clamping screw	Adapter screw	Wrench
CGWTR/L0040-FLL/R3NP	CHHM5-18	CSHB-6	P-4

■ INSERT

FLEX(R/L)



Right hand (R) shown.



To distinguish the insert hands, the V-shape surface (top surface) of a left-hand insert has a recess. (not of a right-hand insert)

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

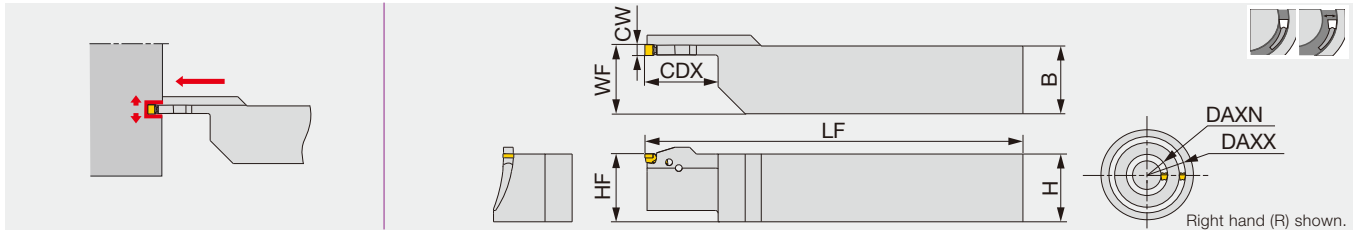
★ : First choice
☆ : Second choice

Designation	HAND	CW±0.05	RE	Coated		Cermet		Uncoated		BW
				T9225		NS9530		UX30		
FLEX30R	R	3	0.4							2.2
FLEX30L	L	3	0.4			●				2.2
FLEX40R	R	4	0.4			●				3.1
FLEX40L	L	4	0.4			●				3.1
FLEX50R	R	5	0.4	●		●		●		4
FLEX50L	L	5	0.4	●		●		●		4

● : Line up

STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Grade	Cutting speed Vc (m/min)	Feed: f (mm/rev)	
				Grooving	Turning
	Carbon steels	T9225	80 - 300	0.05 - 0.25	0.1 - 0.3
		NS9530	80 - 200	0.05 - 0.25	0.1 - 0.3
		UX30	60 - 150	0.05 - 0.25	0.1 - 0.3



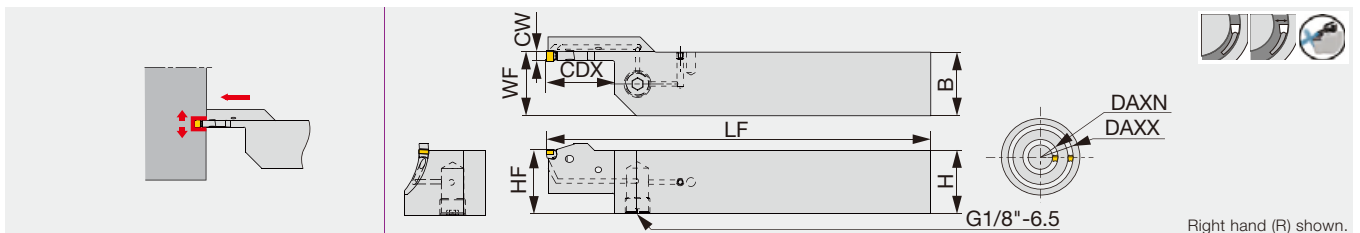
Designation	CW	DAXN	DAXX	CDX	H	B	LF	HF	WF	Insert
ETFR/L2020-4T15-030035	4	30	35	15	20	20	125	20	20.5	E**4...
ETFR/L2525-4T15-030035	4	30	35	15	25	25	150	25	25.5	E**4...
ETFR/L2020-4T22-035045	4	35	45	22	20	20	125	20	20.5	E**4...
ETFR/L2525-4T22-035045	4	35	45	22	25	25	150	25	25.5	E**4...
ETFR/L2020-4T25-045055	4	45	55	25	20	20	125	20	20.5	E**4...
ETFR/L2525-4T25-045055	4	45	55	25	25	25	150	25	25.5	E**4...
ETFR/L2020-4T25-055075	4	55	75	25	20	20	125	20	20.5	E**4...
ETFR/L2525-4T25-055075	4	55	75	25	25	25	150	25	25.5	E**4...
ETFR/L2020-4T25-075120	4	75	120	25	20	20	125	20	20.5	E**4...
ETFR/L2525-4T25-075120	4	75	120	25	25	25	150	25	25.5	E**4...
ETFR/L2525-4T25-120200	4	120	200	25	25	25	150	25	25.5	E**4...
ETFR/L2525-4T25-200500	4	200	500	25	25	25	150	25	25.5	E**4...
ETFR/L2525-5T25-035045	5	35	45	25	25	25	150	25	25.5	ETX5...
ETFR/L2525-5T25-045055	5	45	55	25	25	25	150	25	25.5	ETX5...
ETFR/L2525-5T25-055075	5	55	75	25	25	25	150	25	25.5	ETX5...
ETFR/L2525-5T32-075120	5	75	120	32	25	25	150	25	25.5	ETX5...
ETFR/L2525-5T32-120200	5	120	200	32	25	25	150	25	25.5	ETX5...
ETFR/L2525-5T32-200500	5	200	500	32	25	25	150	25	25.5	ETX5...
ETFR/L2525-6T25-040055	6	40	55	25	25	25	150	25	25.5	ETX6...
ETFR/L2525-6T25-055075	6	55	75	25	25	25	150	25	25.5	ETX6...
ETFR/L2525-6T32-075120	6	75	120	32	25	25	150	25	25.5	ETX6...
ETFR/L2525-6T32-120200	6	120	200	32	25	25	150	25	25.5	ETX6...
ETFR/L2525-6T32-200500	6	200	500	32	25	25	150	25	25.5	ETX6...

Wrench (ECW...) is not included. Please order it separately.

ETFR-CHP

Tube connection

Face grooving and turning toolholder, with high pressure coolant capability



Designation	CW	DAXN	DAXX	CDX	H	B	LF	HF	WF	Insert
ETFR2525-4T15-030035-CHP	4	30	35	15	25	25	150	25	25.5	E**4...
ETFR2525-4T22-035045-CHP	4	35	45	22	25	25	150	25	25.5	E**4...
ETFR2525-4T25-045055-CHP	4	45	55	25	25	25	150	25	25.5	E**4...
ETFR2525-4T25-055075-CHP	4	55	75	25	25	25	150	25	25.5	E**4...
ETFR2525-4T25-075120-CHP	4	75	120	25	25	25	150	25	25.5	E**4...
ETFR2525-4T25-120200-CHP	4	120	200	25	25	25	150	25	25.5	E**4...
ETFR2525-4T25-200500-CHP	4	200	500	25	25	25	150	25	25.5	E**4...

Wrench (ECW...) is not included. Please order it separately.

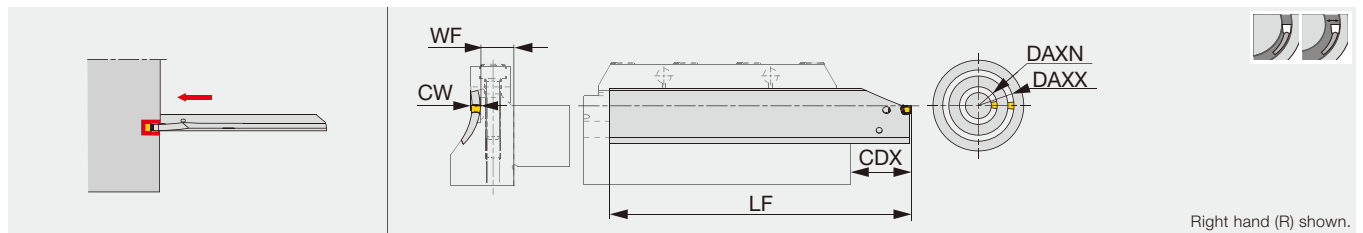
SPARE PARTS

Designation	Wrench (Optional)
ETFR/L...	ECW-456EF

Reference pages: Inserts → **F170, F171**, Standard cutting conditions → **F171**
Parts for coolant hose → **F266**

EFPR/L

Face grooving blade



Designation	CW	DAXN	DAXX	WF	LF	Min. CDX	Max. CDX	Insert
EFPR/L-4-030035	4	30	35	13.6	125	18	50	E**4...
EFPR-4-035045	4	35	45	13.6	125	18	50	E**4...
EFPR-4-045055	4	45	55	13.6	125	18	50	E**4...
EFPR-4-055075	4	55	75	13.6	125	18	50	E**4...
EFPR-4-075120	4	75	120	13.6	140	18	65	E**4...
EFPR-4-120200	4	120	200	13.6	140	18	65	E**4...
EFPR-4-200500	4	200	500	13.6	140	18	65	E**4...
EFPR-5-035045	5	35	45	13.6	125	19	50	ETX5...
EFPR-5-045055	5	45	55	13.6	125	19	50	ETX5...
EFPR-5-055075	5	55	75	13.6	125	19	50	ETX5...
EFPR-5-075120	5	75	120	13.6	140	19	65	ETX5...
EFPR-5-120200	5	120	200	13.6	140	19	65	ETX5...
EFPR-5-200500	5	200	500	13.6	140	19	65	ETX5...
EFPR-6-045055	6	45	55	13.6	125	20	50	ETX6...
EFPR-6-055075	6	55	75	13.6	125	20	50	ETX6...
EFPR-6-075120	6	75	120	13.6	140	20	65	ETX6...
EFPR-6-120200	6	120	200	13.6	140	20	65	ETX6...
EFPR/L-6-200500	6	200	500	13.6	140	20	65	ETX6...

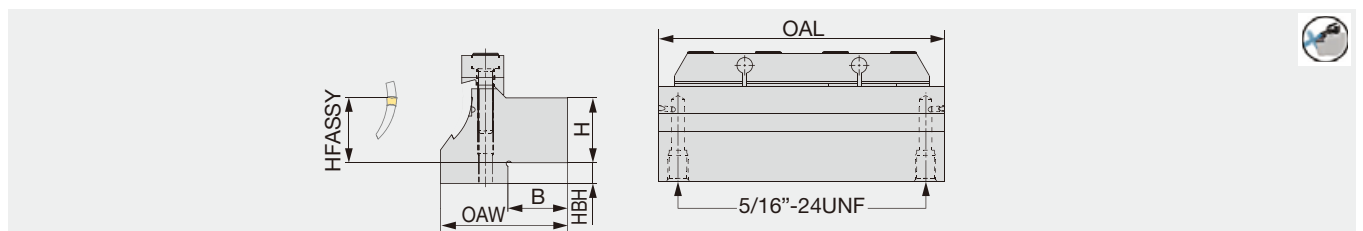
Wrench (ECW...) is not included. Please order it separately.

SPARE PARTS

Designation	Wrench (Optional)
EFPR/L...	ECW-456I

CTBU-CHP for EFPR/L

Tool block for EFP blades with high pressure coolant capability



Designation	CW	DAXN	H	B	HFASSY	HBH	OAW	OAL	Blade
CTBU25-030-4-CHP	4	30	25	23	25	8	49	110	EFPR/L-4-030035
CTBU25-035-4/5-CHP	4, 5	35	25	23	25	8	49	110	EFPR-4/5-035045
CTBU25-045-4/5-CHP	4, 5	45	25	23	25	8	49	110	EFPR-4/5-045055
CTBU25-055-4/5-CHP	4, 5	55	25	23	25	8	47	110	EFPR-4/5-055075
CTBU25-075-4/5-CHP	4, 5	75	25	23	25	8	45	110	EFPR-4/5-075120
CTBU25-120-4/5-CHP	4, 5	120	25	23	25	8	44	110	EFPR-4/5-120200
CTBU25-200-4/5-CHP	4, 5	200	25	23	25	8	41.5	110	EFPR-4/5-200500
CTBU25-045-6-CHP	6	45	25	23	25	8	51	110	EFPR-6-045055
CTBU25-055-6-CHP	6	55	25	23	25	8	49	110	EFPR-6-055075
CTBU25-075-6-CHP	6	75	25	23	25	8	47	110	EFPR-6-075120
CTBU25-120-6-CHP	6	120	25	23	25	8	46	110	EFPR-6-120200
CTBU25-200-6-CHP	6	200	25	23	25	8	43.5	110	EFPR/L-6-200500

SPARE PARTS

Designation	Clamp	Clamping screw	Wrench
CTBU25-***-***-CHP	CT-110	CM6X30-S	P-5

Reference pages: Inserts → **F170, F171**

Standard cutting conditions → **F171**

Parts for coolant hose → **F266**

CHIPBREAKER GUIDE

ETX type

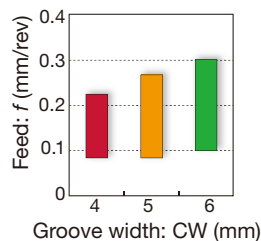


Multi-functional insert
Grooving and turning suitable
for light to medium cutting
Well-balanced sharpness and
strength

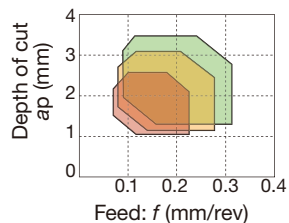
CW = 4 - 6 mm



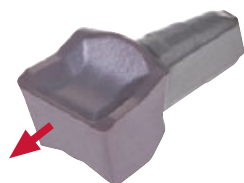
■ Standard feed



■ Standard feed and depth of cut for turning



EGM type

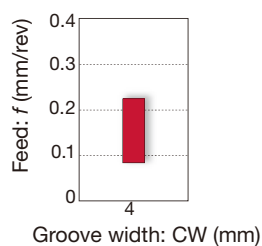


1st choice for parting
High strength
Well-designed edge

CW = 4 mm

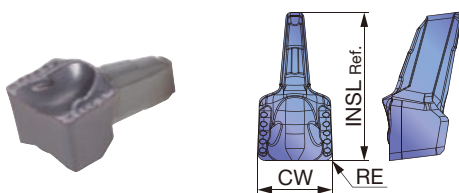


■ Standard feed



INSERTS

ETX



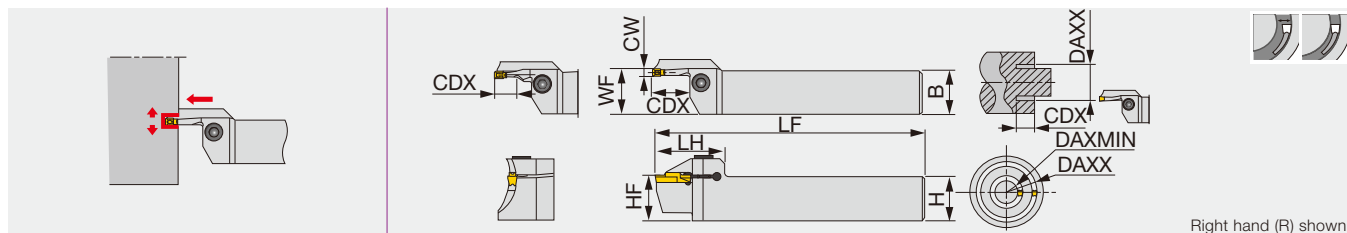
P	Steel	★			
M	Stainless	★			
K	Cast iron	☆			
N	Non-ferrous				
S	Superalloys				
H	Hard materials				

★ : First choice
☆ : Second choice

Designation	CW±0.05	RE	Coated						INSL	
			AH725							
ETX4-040	4	0.4	●							8
ETX5-040	5	0.4	●							10
ETX6-040	6	0.4	●							12

● : Line up

Reference pages: Toolholders → **F168, F169**



Right hand (R) shown.

Designation	CW	DAXMIN	DAXX	Seat size	CDX	H	B	LF	LH	HF	WF ⁽¹⁾	Torque*
CTFR/L2525-3T10-024035	3	24	35	3	10	25	25	150	38	25	25.5	5
CTFR/L2525-3T10-029040	3	29	40	3	10	25	25	150	38	25	25.5	5
CTFR/L2525-3T10-034050	3	34	50	3	10	25	25	150	38	25	25.5	5
CTFR/L2525-3T15-044070	3	44	70	3	15	25	25	150	38	25	25.5	5
CTFR/L2525-3T15-064100	3	64	100	3	15	25	25	150	38	25	25.5	5
CTFR/L2525-4T10-022036	4	22	36	4	10	25	25	150	39	25	25.6	5
CTFR/L2525-4T20-028042	4	28	42	4	20	25	25	150	39	25	25.6	5
CTFR/L2525-4T20-034050	4	34	50	4	20	25	25	150	39	25	25.6	5
CTFR/L2525-4T20-042070	4	42	70	4	20	25	25	150	39	25	25.6	5
CTFR/L2525-4T20-062120	4	62	120	4	20	25	25	150	39	25	25.6	5
CTFR/L2525-4T20-112200	4	112	200	4	20	25	25	150	39	25	25.6	5
CTFR/L2525-5T25-050080	5	50	80	5	25	25	25	150	49	25	25.6	12
CTFR/L2525-5T25-070110	5	70	110	5	25	25	25	150	49	25	25.6	12
CTFR/L2525-5T25-100150	5	100	150	5	25	25	25	150	49	25	25.6	12
CTFR/L2525-5T25-140200	5	140	200	5	25	25	25	150	49	25	25.6	12
CTFR/L2525-6T25-048070	6	48	70	6	25	25	25	150	49	25	25.6	12
CTFR/L2525-6T25-058100	6	58	100	6	25	25	25	150	49	25	25.6	12
CTFR/L2525-6T25-088180	6	88	180	6	25	25	25	150	49	25	25.6	12
CTFR/L2525-6T25-168400	6	168	400	6	25	25	25	150	49	25	25.6	12

When depth is deeper than (insert length - 1.5 mm), 1 corner type is recommended.

Max. groove depth will be 15 mm with DTF insert.

Use the right-hand insert for the right-hand holder with DTF insert.

(1) WF is calculated with the groove width (CW) in the above table.

Torque*: Recommended clamping torque (N·m)

SPARE PARTS

Designation	Clamping screw	Wrench
CTFR/L2525-3T - 4T...	CM6X1X25-A	P-5
CTFR/L2525-5T - 6T...	CM8X1.25X25-A	P-6

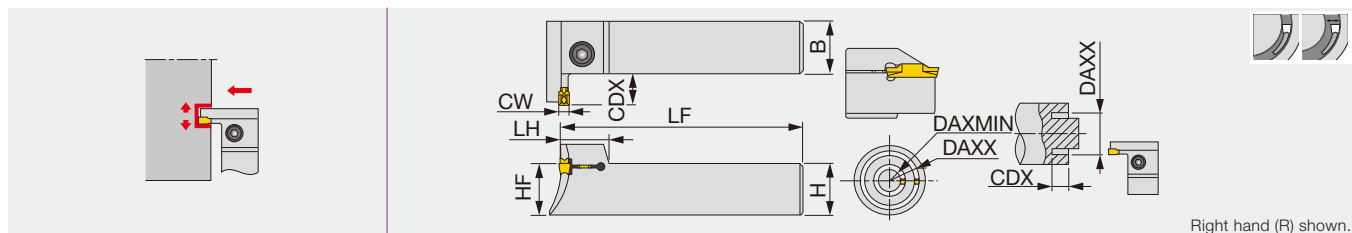
INSERT

Designation	Seat size	Insert
CTFR/L2525-3T10-024035	3	DTF, DTX
CTFR/L2525-3T10-029040	3	DTF, DTX
CTFR/L2525-3T10-034050	3	DTF, DTX
CTFR/L2525-3T15-044070	3	DTF, DTX, DTR, DTE, DGG, DTM
CTFR/L2525-3T15-064100	3	DTF, DTX, DTE, DGG, DGM, DGS, DTR, SGN, DGL, DTM
CTFR/L2525-4T10-022036	4	DTF, DTX
CTFR/L2525-4T20-028042	4	DTF, DTX, DTR
CTFR/L2525-4T20-034050	4	DTF, DTX, DTE, DGG, DGM, DGS, DTR, DTM, DGL, SGN
CTFR/L2525-4T20-042070	4	DTF, DTX, DTE, DGG, DGM, DGS, DTR, SGN, DTM, DGL
CTFR/L2525-4T20-062120	4	DTF, DTX, DTE, DGG, DGM, DGS, DTR, SGN, DTM, DGL
CTFR/L2525-4T20-112200	4	DTF, DTX, DTE, DGG, DGM, DGS, DTR, SGN, DTM, DGL
CTFR/L2525-5T25-...	5	DTX, DTE, DGG, DGM, DGS, DTR, DTM, DGL, SGN
CTFR/L2525-6T25-...	6	DTX, DTE, DGG, DGM, DGS, DTR, DTM, DGL, SGN

Insert	Groove width CW	Face grooving Min. machining dia. DAXMIN
DGM / DGS / SGN / DGL	3	92
DGM / DGS / SGN / DGL	4	37
DGM / DGS / SGN / DGL	5	60
DGM / DGS / DGL	6	57
DTE / DGG / DTM	3	62
DTE / DGG / DTM	4	42
DTE / DGG / DTM	5	64
DTE / DGG / DTM	6	61
DTR	3	44
DTR	4	32
DTR	5	48
DTR	6	48
DTX	3	22
DTX	4	20
DTX	5	20
DTX	6	23
DTF	3	20
DTF	4	20

CTFVR/L

Face grooving and turning perpendicular toolholder



Designation	CW	DAXMIN	DAXX	Seat size	CDX	H	B	LF	LH	HF	Torque*
CTFVR/L2525-3T10-024035	3	24	35	3	10	25	25	150	18	25	5
CTFVR/L2525-3T10-029040	3	29	40	3	10	25	25	150	18	25	5
CTFVR/L2525-3T10-034050	3	34	50	3	10	25	25	150	18	25	5
CTFVR/L2525-3T15-044060	3	44	60	3	15	25	25	150	18	25	5
CTFVR/L2525-3T15-054085	3	54	85	3	15	25	25	150	18	25	5
CTFVR/L2525-4T12-022040	4	22	40	4	12	25	25	150	18.5	25	8.5
CTFVR/L2525-4T15-032050	4	32	50	4	15	25	25	150	18.5	25	8.5
CTFVR/L2525-4T15-042060	4	42	60	4	15	25	25	150	18.5	25	8.5
CTFVR/L2525-4T15-052085	4	52	85	4	15	25	25	150	18.5	25	8.5
CTFVR/L2525-5T20-050080	5	50	80	5	20	25	25	150	22	25	12
CTFVR/L2525-5T20-070110	5	70	110	5	20	25	25	150	22	25	12
CTFVR/L2525-5T20-100150	5	100	150	5	20	25	25	150	22	25	12
CTFVR/L2525-5T20-140200	5	140	200	5	20	25	25	150	22	25	12
CTFVR/L2525-6T20-048085	6	48	85	6	20	25	25	150	22	25	12
CTFVR/L2525-6T20-073150	6	73	150	6	20	25	25	150	22	25	12
CTFVR/L2525-6T20-138250	6	138	250	6	20	25	25	150	22	25	12

When depth is deeper than (insert length - 1.5 mm), 1 corner type is recommended
 Max. groove depth will be 15 mm with DTF insert.
 Use the right-hand insert for the right-hand holder with DTF insert.
 Torque*: Recommended clamping torque (N·m)

SPARE PARTS

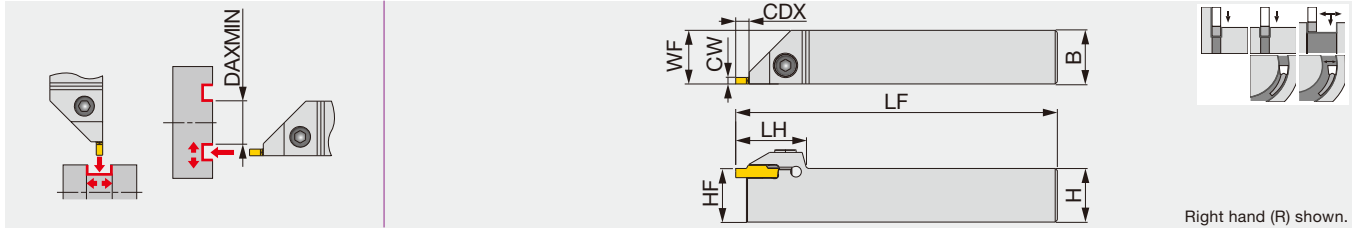
Designation	Clamping screw	Wrench
CTFVR/L2525-3T...	CM5X0.8X25-A	P-4
CTFVR/L2525-4T...	CM6X1X25-A	P-5
CTFVR/L2525-5T..., 6T...	CM8X1.25X25-A	P-6

INSERT

Designation	Seat size	Insert
CTFVR/L2525-3T10-024035	3	DTF, DTX
CTFVR/L2525-3T10-029040	3	DTF, DTX
CTFVR/L2525-3T10-034050	3	DTF, DTX, DTR
CTFVR/L2525-3T15-044060	3	DTF, DTX, DTR
CTFVR/L2525-3T15-054085	3	DTF, DTX, DTE, DGG, DTR, DTM
CTFVR/L2525-4T12-022040	4	DTF, DTX, DTR
CTFVR/L2525-4T15-032050	4	DTF, DTX, DTE, DGG, DGM, DGS, DTR, DTM, DGL, SGN
CTFVR/L2525-4T15-042060	4	DTF, DTX, DTE, DGG, DGM, DGS, DTR, SGN, DTM, DGL
CTFVR/L2525-4T15-052085	4	DTF, DTX, DTE, DGG, DGM, DGS, DTR, SGN, DTM, DGL
CTFVR/L2525-5T20-...	5	DTX, DTE, DGG, DGM, DGS, DTR, DTM, DGL, SGN
CTFVR/L2525-6T20-...	6	DTX, DTE, DGG, DGM, DGS, DTR, DTM, DGL

Insert	Groove width CW	Face grooving Min. machining dia. DAXMIN
DGM / DGS / SGN / DGL	3	92
DGM / DGS / SGN / DGL	4	37
DGM / DGS / SGN / DGL	5	60
DGM / DGS / DGL	6	57
DTE / DGG / DTM	3	62
DTE / DGG / DTM	4	42
DTE / DGG / DTM	5	64
DTE / DGG / DTM	6	61
DTR	3	44
DTR	4	32
DTR	5	48
DTR	6	48
DTX	3	22
DTX	4	20
DTX	5	20
DTX	6	23
DTF	3	20
DTF	4	20

Reference pages: Inserts → **F183 - F197**, Standard cutting conditions → **F198**



Designation	CW	Seat size	CDX	H	B	LF	LH	HF	WF ⁽¹⁾	Torque*
CTEFR/L2020-4T04	4	2, 3, 4	4.8	20	20	125	33	20	20.5	8.5
CTEFR/L2525-4T04	4	2, 3, 4	4.8	25	25	150	33	25	25.5	8.5
CTEFR/L2020-6T04	6	5, 6	4.8	20	20	125	37	20	20.6	8.5
CTEFR/L2525-6T04	6	5, 6	4.8	25	25	150	37	25	25.6	8.5

(1) "WF" value is calculated with groove width "CW" shown in the table.
Torque*: Recommended clamping torque (N·m)

SPARE PARTS

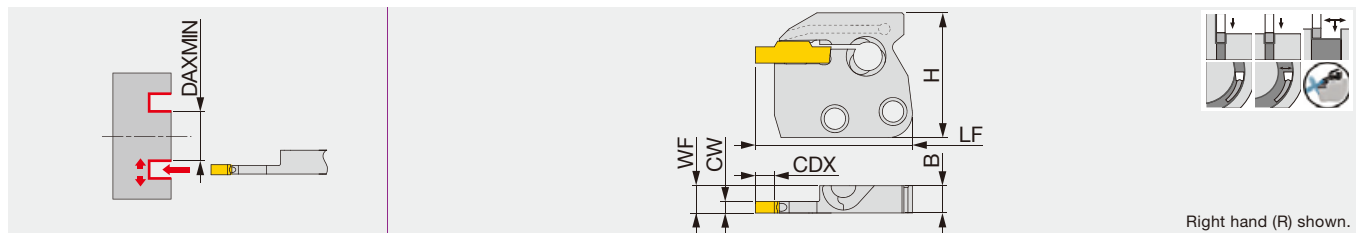
Designation	Clamping screw	Wrench
CTEFR/L2020-4T04	CM6X1X20-A	P-5
CTEFR/L2525-4T04	CM6X1X25-A	P-5
CTEFR/L2020-6T04	CM6X1X20-A	P-5
CTEFR/L2525-6T04	CM6X1X25-A	P-5

Insert	Groove width CW	Face grooving Min. machining dia. DAXMIN
DGM / DGS / SGN / DGL	2	295
DGM / DGS / SGN / DGL	3	92
DGM / DGS / SGN / DGL	4	37
DGM / DGS / SGN / DGL	5	60
DGM / DGS / DGL	6	57
DTX / DTM / DTR	2	295
DTE / DGG / DTM	3	62
DTE / DGG / DTM	4	42
DTE / DGG / DTM	5	64
DTE / DGG / DTM	6	61

Insert	Groove width CW	Face grooving Min. machining dia. DAXMIN
DTR	3	44
DTR	4	32
DTR	5	48
DTR	6	48
DTX	3	22
DTX	4	20
DTX	5	20
DTX	6	23
DTF	3	20
DTF	4	20

CAEFR/L-CHP

Face and external grooving adapter, with high pressure coolant capability



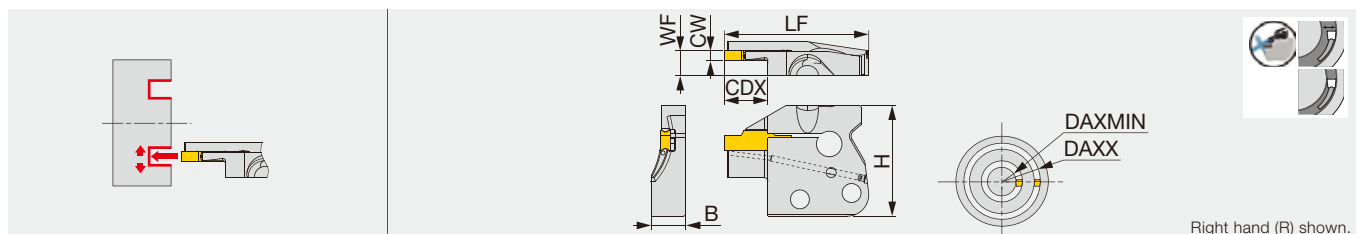
Right hand (R) shown.

Designation	CW	Seat size	CDX	H	B	LF	WF ⁽¹⁾
CAEFR/L-4T04-CHP	4	2,3,4	4.8	33	7.2	41.5	7.7
CAEFR/L-6T04-CHP	6	5,6	4.8	33	7.2	46.3	7.8

(1) "WF" value is calculated with groove width "CW" shown in the table.

CAFR/L-CHP

Face grooving and turning adapter, with high pressure coolant capability



Right hand (R) shown.

Designation	CW	DAXMIN	DAXX	Seat size	CDX	H	B	LF	WF ⁽¹⁾
CAFR/L-3T12-040055-CHP	3	40	55	3	12	33	10.2	43	7.5
CAFR/L-3T12-055075-CHP	3	55	75	3	12	33	10.2	43	7.5
CAFR/L-3T12-075100-CHP	3	75	100	3	12	33	10.2	43	7.5
CAFR/L-3T12-100140-CHP	3	100	140	3	12	33	10.2	43	7.5
CAFR/L-3T12-140200-CHP	3	140	200	3	12	33	10.2	43	7.5
CAFR/L-4T16-050070-CHP	4	50	70	4	16	33	10.2	43	8
CAFR/L-4T16-070100-CHP	4	70	100	4	16	33	10.2	43	8
CAFR/L-4T16-100150-CHP	4	100	150	4	16	33	10.2	43	8
CAFR/L-4T16-150250-CHP	4	150	250	4	16	33	10.2	43	8
CAFR/L-5T20-055080-CHP	5	55	80	5	20	33	10.2	47	8.5
CAFR/L-5T20-080120-CHP	5	80	120	5	20	33	10.2	47	8.5
CAFR/L-5T20-120180-CHP	5	120	180	5	20	33	10.2	47	8.5
CAFR/L-5T20-180300-CHP	5	180	300	5	20	33	10.2	47	8.5
CAFR/L-5T20-300000-CHP	5	300	∞	5	20	33	10.2	47	8.5
CAFR/L-6T25-060090-CHP	6	60	90	6	25	33	10.2	52	9
CAFR/L-6T25-090150-CHP	6	90	150	6	25	33	10.2	52	9
CAFR/L-6T25-150250-CHP	6	150	250	6	25	33	10.2	52	9
CAFR/L-6T25-250400-CHP	6	250	400	6	25	33	10.2	52	9

When groove depth is larger than (insert length - 1.5 mm), please use 1-cornered insert.
Max. groove depth will be 15 mm with DTF insert.

Use the right-hand insert for the right-hand holder with DTF insert.

(1) WF is calculated with the groove width (CW) in the above table.

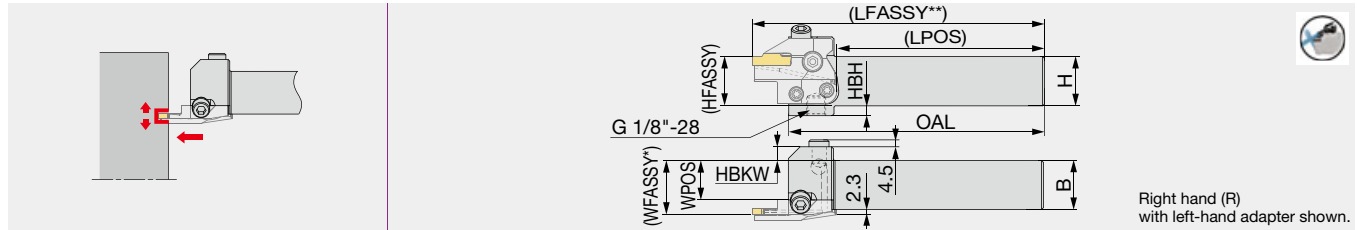
Insert	Groove width CW	Face grooving Min. machining dia. DAXMIN
DGM / DGS / SGN / DGL	2	295
DGM / DGS / SGN / DGL	3	92
DGM / DGS / SGN / DGL	4	37
DGM / DGS / SGN / DGL	5	60
DGM / DGS / DGL	6	57
DTX / DTM / DTR	2	295
DTE / DGG / DTM	3	62
DTE / DGG / DTM	4	42
DTE / DGG / DTM	5	64
DTE / DGG / DTM	6	61

Insert	Groove width CW	Face grooving Min. machining dia. DAXMIN
DTR	3	44
DTR	4	32
DTR	5	48
DTR	6	48
DTX	3	22
DTX	4	20
DTX	5	20
DTX	6	23
DTF	3	20
DTF	4	20

Reference pages: Inserts → **F183 - F197**, Shanks and toolholders → **F176 - F178**

Standard cutting conditions → **F198**, Technical Reference → **L053**

Shank for adapter, with high pressure coolant capability



Designation	H	B	OAL	LPOS	WPOS	HBKW	HFASSY	HBH	Adapter (Option)	Torque*
CHSR/L2020-CHP	20	20	130	105.5	15.1	12	20	10	CA*FL/R**-CHP	6.5
CHSR/L2525-CHP	25	25	130	105.5	20.1	7	25	5	CA*FL/R**-CHP	6.5

WFASSY* : Shank (WPOS) + adapter (WF)

LFASSY** : Shank (LPOS) + adapter (LF)

Depend on the adapter type, the value of LFASSY or WFASSY may change.

Torque*: Recommended clamping torque (N·m)

Applicable for 30 MPa coolant

Please see page L053 for instructions on installing and removing the adapter or the insert.

External

Internal

Face

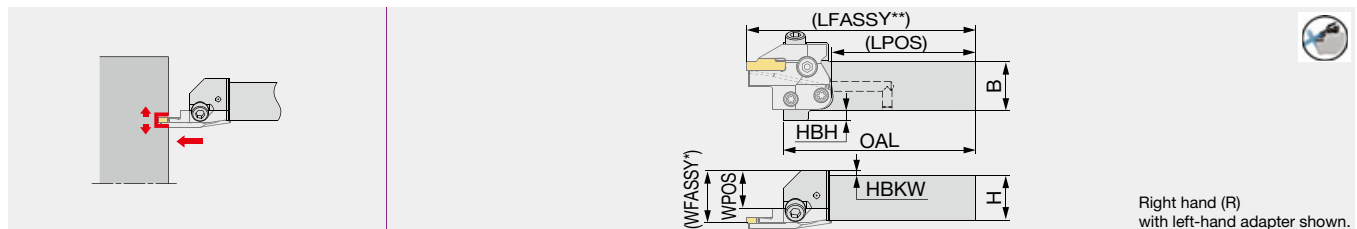
Parting

Others

CHSR/L-CHP-MC

Direct connection

Shank for adapter, with high pressure coolant capability



Designation	H	B	OAL	LPOS	WPOS	HBKW	HBH	Adapter (Option)	Torque*
CHSR/L2020-CHP-MC	20	20	98	73.5	14	6	10	CA*FL/R**-CHP	6.5
CHSR/L2525-CHP-MC	25	25	98	73.5	19	-	5	CA*FL/R**-CHP	6.5

WFASSY* : Shank (WPOS) + adapter (WF)

LFASSY** : Shank (LPOS) + adapter (LF)

Depend on the adapter type, the value of LFASSY or WFASSY may change.

Torque*: Recommended clamping torque (N·m)

Applicable for 30 MPa coolant

Please see page L053 for instructions on installing and removing the adapter or the insert.

SPARE PARTS

Designation	Clamping screw 1	Wrench 1	Clamping screw 2	Clamping screw 3	Wrench 2	O-ring	Plug
CHSR/L**-CHP	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW5.0	OR 5X1N	PLUGG1/8ISO1179
CHSR/L**-CHP-MC	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW5.0	OR 5X1N	-

Recommended clamping torque (N·m)

Clamping screw	Torque (N·m)
SR M5-04451	2.5
SR M6X12DIN6912	6.5
SR M6X20-XT	6.5

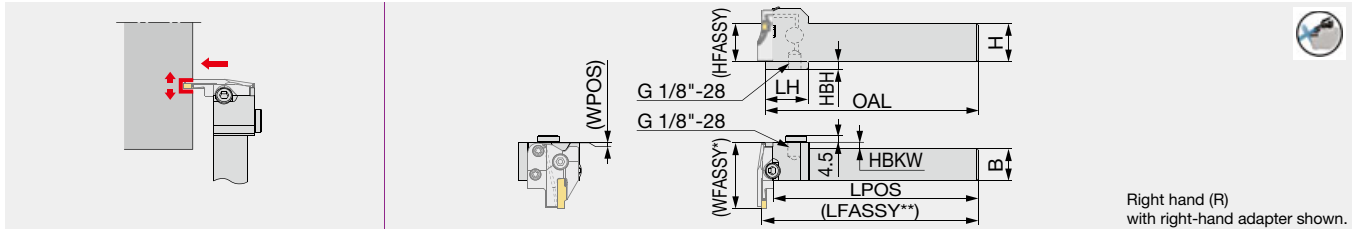
Combination of adapter and shank

Shank	External grooving adapter		Face grooving adapter		External and face grooving adapter	
	CAER**-CHP, -MD	CAEL**-CHP, -MD	CAFR**-CHP	CAFL**-CHP	CAEFR**-CHP	CAEFL**-CHP
CHSR**-CHP (-MC)	●			●	●	
CHSL**-CHP (-MC)		●	●			●

● : Corresponding

Reference pages: Inserts → **F183 - F197**, Adapters → **F175**, Standard cutting conditions → **F198**
Parts for coolant hose → **F266**, Technical Reference → **L053**

Shank for perpendicularly-mounted adapter, with high pressure coolant capability

Right hand (R)
with right-hand adapter shown.

Designation	H	B	OAL	LH	LPOS	WPOS	HBKW	HFASSY	HBH	Adapter (Option)	Torque*
CHFVR/L2020-CHP	20	20	140	28	135.1	0.5	5	20	10	CA*FR/L**-CHP	6.5
CHFVR/L2525-CHP	25	25	140	28	135.1	0.5	0	25	5	CA*FR/L**-CHP	6.5

WFASSY* : Shank (WPOS) + adapter (LF)

LFASSY** : Shank (LPOS) + adapter (WF)

Depend on the adapter type, the value of LFASSY or WFASSY may change.

Torque*: Recommended clamping torque (N·m)

Applicable for 30 MPa coolant

Please see page L053 for instructions on installing and removing the adapter or the insert.

SPARE PARTS

Designation	Clamping screw 1	Wrench 1	Clamping screw 2	Clamping screw 3	Wrench 2	O-ring	Plug
CHFVR/L...	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW5.0	OR 5X1N	PLUGG1/8ISO1179

Recommended clamping torque (N·m)

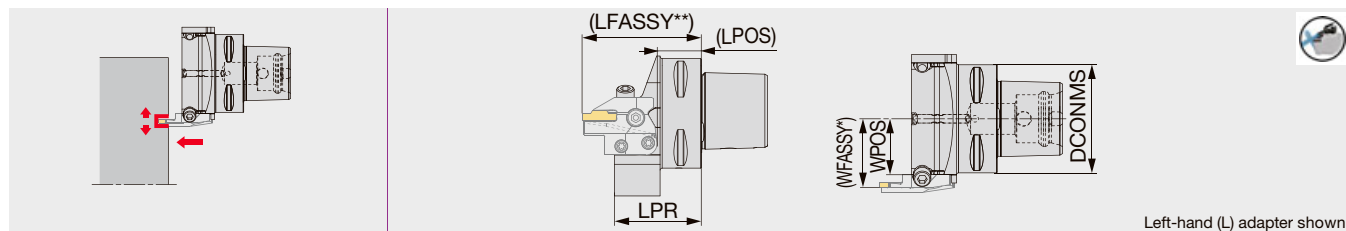
Clamping screw	Torque (N·m)
SR M5-04451	2.5
SR M6X12DIN6912	6.5
SR M6X20-XT	6.5

Combination of adapter and shank

Shank	External grooving adapter		Face grooving adapter		External and face grooving adapter	
	CAER**-CHP, -MD	CAEL**-CHP, -MD	CAFR**-CHP	CAFL**-CHP	CAEFR**-CHP	CAEFL**-CHP
CHFVR**-CHP		●	●			●
CHFVL**-CHP	●			●	●	

● : Corresponding

Toolholder with TungCap connection, for adapter, with high pressure coolant capability



Left-hand (L) adapter shown.

Designation	DCONMS	LPR	LPOSS	WPOSS	Adapter (Option)	Torque*
C3CHSN19045-CHP	32	45	17.5	18.5	CA*FR/L*-CHP	6.5
C4CHSN21047-CHP	40	46.5	21.5	21	CA*FR/L*-CHP	6.5
C5CHSN26047-CHP	50	47	22.5	26	CA*FR/L*-CHP	6.5
C6CHSN33050-CHP	63	50	24.5	32.5	CA*FR/L*-CHP	6.5

WFASSY* : Toolholder (WPOSS) + adapter (WF)

LFASSY** : Toolholder (LPOSS) + adapter (LF)

Depend on the adapter type, the value of LFASSY or WFASSY may change.

Torque*: Recommended clamping torque (N·m)

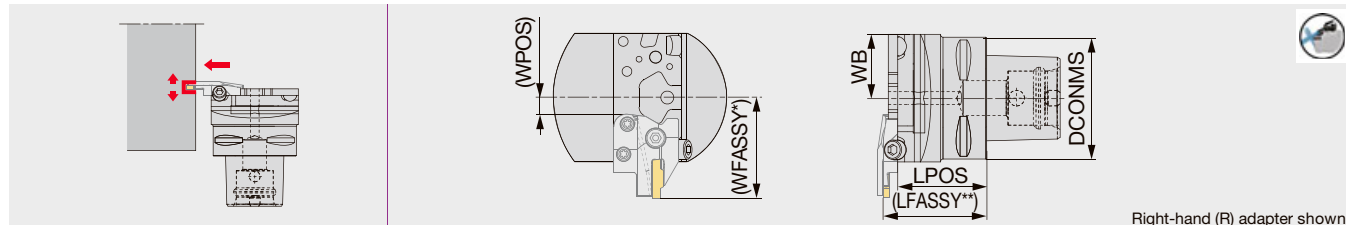
Applicable for 30 MPa coolant

Please see page L053 for instructions on installing and removing the adapter or the insert.

C*CHFVN-CHP

Direct connection

Toolholder with TungCap connection, for perpendicularly-mounted adapter, with high pressure coolant capability



Right-hand (R) adapter shown.

Designation	DCONMS	LPOSS	WB	WPOSS	Adapter (Option)	Torque*
C3CHFVN26040-CHP	32	40	26	1.5	CA*FR/L*-CHP	6.5
C4CHFVN26046-CHP	40	46	26	1.5	CA*FR/L*-CHP	6.5
C5CHFVN26046-CHP	50	46	26	1.5	CA*FR/L*-CHP	6.5
C6CHFVN33046-CHP	63	46	33	8.5	CA*FR/L*-CHP	6.5

WFASSY* : Toolholder (WPOSS) + adapter (LF)

LFASSY** : Toolholder (LPOSS) + adapter (WF)

Depend on the adapter type, the value of LFASSY or WFASSY may change.

Torque*: Recommended clamping torque (N·m)

Applicable for 30 MPa coolant

Please see page L053 for instructions on installing and removing the adapter or the insert.

SPARE PARTS

Designation	Clamping screw 1	Wrench 1	Clamping screw 2	Clamping screw 3	Wrench 2	O-ring
C*CH**N*-CHP	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW5.0	OR 5X1N

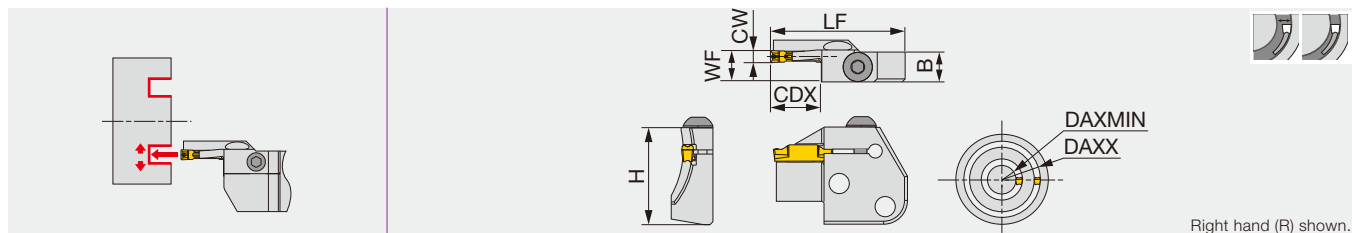
Recommended clamping torque (N·m)

Clamping screw	Torque (N·m)
SR M5-04451	2.5
SR M6X12DIN6912	6.5
SR M6X20-XT	6.5

Reference pages: Inserts → **F183 - F197**, Adapters → **F175**, Standard cutting conditions → **F198**
 Technical Reference → **L053**

CAFR/L

Face grooving and turning adapter



Designation	CW	DAXMIN	DAXX	Seat size	CDX	H	B	LF	WF ⁽¹⁾	Torque*
CAFR/L-3T12-040055	3	40	55	3	12	32.7	10	45	10.4	5
CAFR/L-3T12-055075	3	55	75	3	12	32.7	10	45	10.4	5
CAFR/L-3T12-075100	3	75	100	3	12	32.7	10	45	10.4	5
CAFR/L-3T12-100140	3	100	140	3	12	32.7	10	45	10.4	5
CAFR/L-3T12-140200	3	140	200	3	12	32.7	10	45	10.4	5
CAFR/L-4T16-050070	4	50	70	4	16	32.7	10	45	10.5	5
CAFR/L-4T16-070100	4	70	100	4	16	32.7	10	45	10.5	5
CAFR/L-4T16-100150	4	100	150	4	16	32.7	10	45	10.5	5
CAFR/L-4T16-150250	4	150	250	4	16	32.7	10	45	10.5	5
CAFR/L-5T20-055080	5	55	80	5	20	32.7	10	49	10.5	5
CAFR/L-5T20-080120	5	80	120	5	20	32.7	10	49	10.5	5
CAFR/L-5T20-120180	5	120	180	5	20	32.7	10	49	10.5	5
CAFR/L-5T20-180300	5	180	300	5	20	32.7	10	49	10.5	5
CAFR/L-5T20-300000	5	300	∞	5	20	32.7	10	49	10.5	5
CAFR/L-6T25-060090	6	60	90	6	25	32.7	10	55	10.5	5
CAFR/L-6T25-090150	6	90	150	6	25	32.7	10	55	10.5	5
CAFR/L-6T25-150250	6	150	250	6	25	32.7	10	55	10.5	5
CAFR/L-6T25-250400	6	250	400	6	25	32.7	10	55	10.5	5

When groove depth is larger than (insert length - 1.5 mm), please use 1-cornered insert.

Max. groove depth will be 15 mm with DTF insert.

Use the right-hand insert for the right-hand holder with DTF insert.

Not compatible with TungModularSystem

(1) WF is calculated with the groove width (CW) in the above table.

Torque*: Recommended clamping torque (N·m)

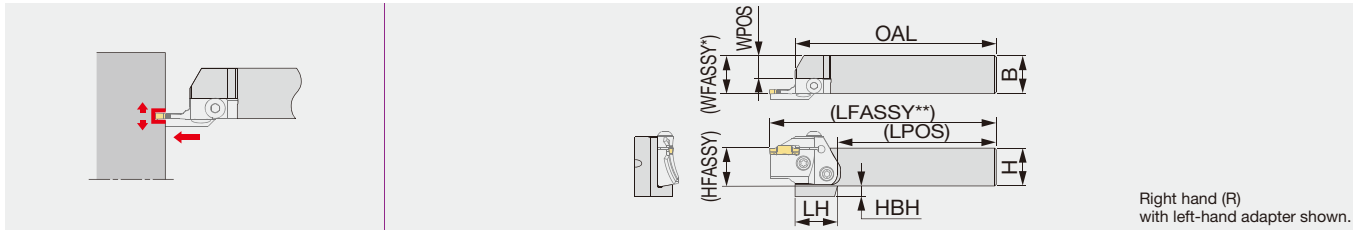
SPARE PARTS

Designation	Clamping screw	Wrench
CAFR/L...	BHM6-20-A	P-4

Insert	Groove width CW	Face grooving Min. machining dia. DAXMIN
DGM / DGS / SGN / DGL	3	92
DGM / DGS / SGN / DGL	4	37
DGM / DGS / SGN / DGL	5	60
DGM / DGS / DGL	6	57
DTE / DGG / DTM	3	62
DTE / DGG / DTM	4	42
DTE / DGG / DTM	5	64
DTE / DGG / DTM	6	61
DTR	3	44
DTR	4	32
DTR	5	48
DTR	6	48
DTX	3	22
DTX	4	20
DTX	5	20
DTX	6	23
DTF	3	20
DTF	4	20

Reference pages: Inserts → **F183 - F197**, Shanks and toolholders → **F180, F181**
Standard cutting conditions → **F198**

Shank for adapter

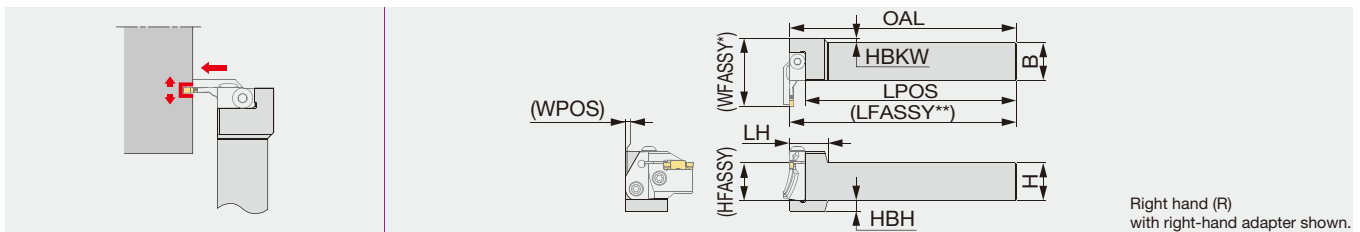


Designation	H	B	OAL	LPOS	LH	WPOS	HFASSY	HBH	Adapter (Option)
CHSR/L2020	20	20	133	105	35	10	20	12	CAFL/R...
CHSR/L2525	25	25	133	105	28	15	25	7	CAFL/R...
CHSR/L3232	32	32	153	125	-	22	32	-	CAFL/R...

WFASSY* : Shank (WPOS) + adapter (WF)
 LFASSY** : Shank (LPOS) + adapter (LF)
 Depend on the adapter type, the value of LFASSY or WFASSY may change.
 Not compatible with TungModularSystem

CHFVR/L

Shank for adapter, perpendicularly mounted



Designation	H	B	OAL	LPOS	LH	WPOS	HBKW	HFASSY	HBH	Adapter (Option)
CHFVR/L2020	20	20	150	140	25	0	8	20	12	CAFR/L...
CHFVR/L2525	25	25	150	140	25	0	3	25	7	CAFR/L...
CHFVR/L3232	32	32	170	160	25	4	-	32	-	CAFR/L...

WFASSY* : Shank (WPOS) + adapter (LF)
 LFASSY** : Shank (LPOS) + adapter (WF)
 Depend on the adapter type, the value of LFASSY or WFASSY may change.
 Not compatible with TungModularSystem

SPARE PARTS

Designation	Clamping screw	Wrench
CH**R/L...	CSHB-6-A	P-4

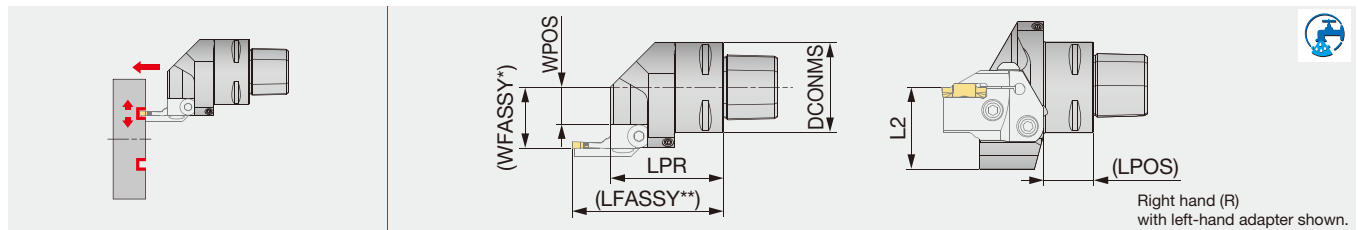
Combination of adapter and shank

Shank	External grooving adapter		Face grooving adapter	
	CAER...	CAEL...	CAFR...	CAFL...
CHSR...	●			●
CHSL...		●	●	
CHFVR...		●	●	
CHFVL...	●			●

● : Corresponding

C-CHSR/L

Toolholder with TungCap connection for adapter



Designation	DCONMS	LPR	LPOS	L2	WPOS	Adapter (Option)
C3CHSR/L22050N	32	50	22.1	35	11.5	CAFL/R...
C4CHSR/L27050N	40	50	22.1	36	16.5	CAFL/R...
C5CHSR/L35060N	50	60	32.1	36	24.5	CAFL/R...
C6CHSR/L45065N	63	65	32.1	41	34.5	CAFL/R...

WFASSY* : Toolholder (WPOS) + adapter (WF)

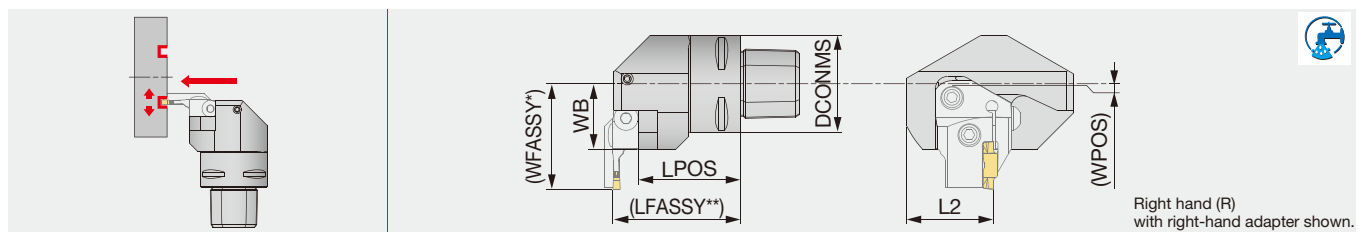
LFASSY** : Toolholder (LPOS) + adapter (LF)

Depend on the adapter type, the value of LFASSY or WFASSY may change. If needed, the coolant direction can be adjusted by the nozzle.

Applicable for 7 MPa coolant. Not compatible with TungModularSystem.

C-CHFVR/L

Toolholder with TungCap connection for adapter, perpendicularly mounted



Designation	DCONMS	LPOS	L2	WB	WPOS	Adapter (Option)
C3CHFVR/L22040N	32	32.5	35	22	-5.9	CAFR/L...
C4CHFVR/L27050N	40	42.5	36	27	-0.9	CAFR/L...
C5CHFVR/L35060N	50	49.5	36	35	7.1	CAFR/L...
C6CHFVR/L45065N	63	54.5	41	45	17.1	CAFR/L...

WFASSY* : Toolholder (WPOS) + adapter (LF)

LFASSY** : Toolholder (LPOS) + adapter (WF)

Depend on the adapter type, the value of LFASSY or WFASSY may change. If needed, the coolant direction can be adjusted by the nozzle.

Applicable for 7 MPa coolant. Not compatible with TungModularSystem.

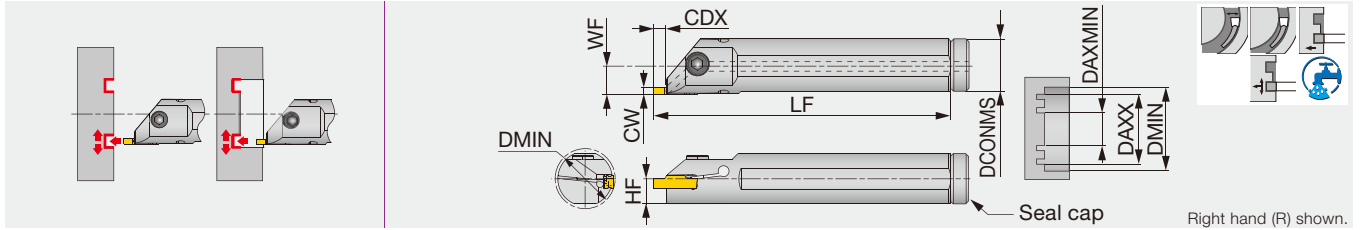
SPARE PARTS

Designation	Coolant parts	Clamping screw	Wrench
C3CH**R/L...	SATZ-M8X1-M3	CSHB-6-A	P-4
C4CH**R/L...	SATZ-M8X1-M3	CSHB-6-A	P-4
C5CH**R/L...	SATZ-M10X1-M5	CSHB-6-A	P-4
C6CH**R/L...	SATZ-M10X1-M5	CSHB-6-A	P-4

Combination of adapter and toolholder

Toolholder	External grooving adapter		Face grooving adapter	
	CAER...	CAEL...	CAFR...	CAFL...
C*CHSR...	●			●
C*CHSL...		●	●	
C*CHFVR...		●	●	
C*CHFVL...	●			●

● : Corresponding



Designation	CW	Seat size	CDX	DCONMS	LF	HF	WF ⁽¹⁾	Torque*
CTIFR/L25-4T05-D270	4	2, 3, 4	5.5	25	200	11.5	13.3	5
CTIFR/L32-4T05-D340	4	2, 3, 4	5.5	32	250	15	16.8	5
CTIFR/L25-5T05-D270	6	5, 6	5.5	25	200	11.5	13.3	5
CTIFR/L32-5T05-D340	6	5, 6	5.5	32	250	15	16.8	5

Use the right-hand insert for the right-hand holder with DTF insert.

(1) WF is calculated with the groove width CW in the above table.

Torque*: Recommended clamping torque (N·m)

SPARE PARTS

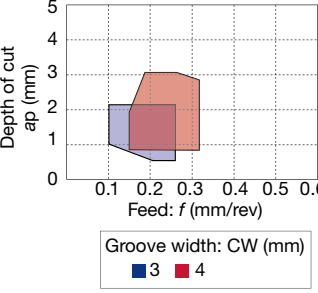
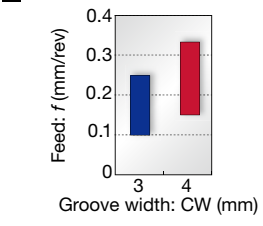
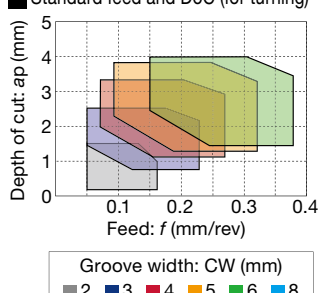
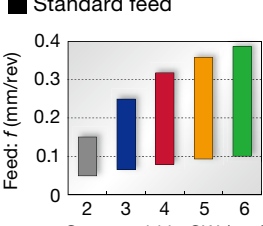
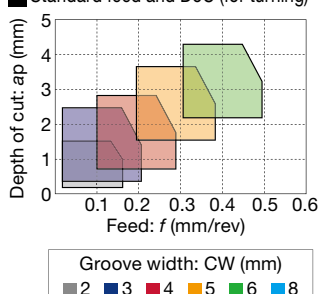
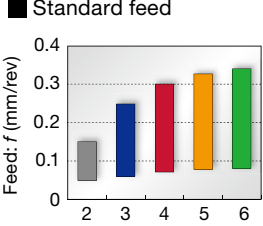
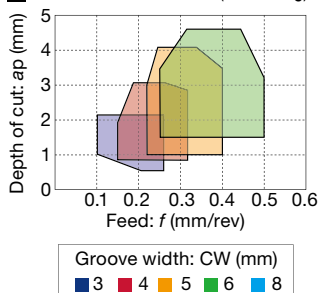
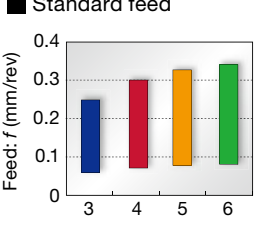
Designation	Clamping screw	Wrench	Seal cap
CTIFR/L25-4T05-D270	CM6X1X16-A	P-5	CA-25
CTIFR/L32-4T05-D340	CM6X1X20-A	P-5	CA-32
CTIFR/L25-5T05-D270	CM6X1X16-A	P-5	CA-25
CTIFR/L32-5T05-D340	CM6X1X20-A	P-5	CA-32

Seat size	Min. machining dia.: DMIN	
	DCONMS = 25 mm	DCONMS = 32 mm
2	299	299
3	26.3	33.3
4	26.8	33.8
5	26.3	33.3
6	26.8	33.8

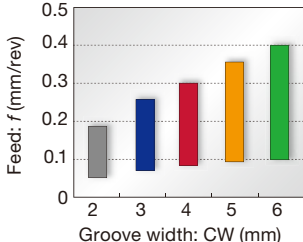
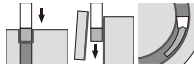
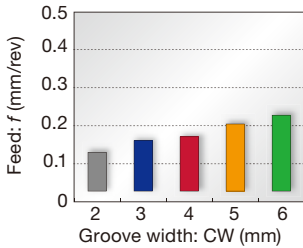
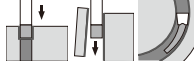
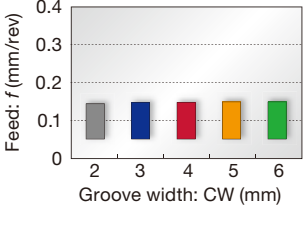
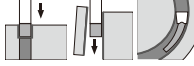
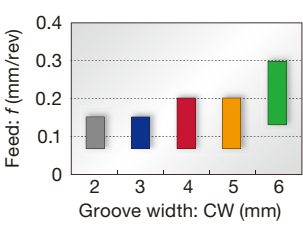
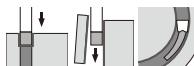
Insert	Groove width CW	Face grooving Min. machining dia. DAXMIN
DGM / DGS / SGN / DGL	2	295
DGM / DGS / SGN / DGL	3	92
DGM / DGS / SGN / DGL	4	37
DGM / DGS / SGN / DGL	5	60
DGM / DGS / DGL	6	57
DTX / DTM / DTR	2	295
DTE / DGG / DTM	3	62
DTE / DGG / DTM	4	42
DTE / DGG / DTM	5	64
DTE / DGG / DTM	6	61

Insert	Groove width CW	Face grooving Min. machining dia. DAXMIN
DTR	3	44
DTR	4	32
DTR	5	48
DTR	6	48
DTX	3	22
DTX	4	20
DTX	5	20
DTX	6	23
DTF	3	20
DTF	4	20

Face grooving and turning

DTF type (2 corners) First choice  F187	1st choice for face grooving Unique chipbreaker makes chips shorter CW = 3 - 4 mm	Standard feed and DoC (for turning)  Standard feed 
DTX type (2 corners)  F187	Multi-functional type Well balanced sharpness and strength Multi-functional insert CW = 2 - 6 mm	Standard feed and DoC (for turning)  Standard feed 
DTM type (2 corners)  F188	General purpose 1st choice for grooving and turning Suitable for light to medium cutting Excellent chip control in machining steel, alloy steel, stainless steel, and heat-resistant alloy CW = 2 - 6 mm	Standard feed and DoC (for turning)  Standard feed 
DTE type (2 corners)  F188, F189	General purpose Unique chipbreaker makes chips shorter Molded and ground insert available CW = 2.65 - 6 mm	Standard feed and DoC (for turning)  Standard feed 

Grooving

DGM type (2 corners) SGM type (1 corner)  F190, F191	1st choice for grooving and parting Smooth chip evacuation Well-designed edge with high strength Handed insert available CW = 2 - 6.35 mm	■ Standard feed <table><thead><tr><th>Groove width: CW (mm)</th><th>Feed: f (mm/rev)</th></tr></thead><tbody><tr><td>2</td><td>0.18</td></tr><tr><td>3</td><td>0.25</td></tr><tr><td>4</td><td>0.30</td></tr><tr><td>5</td><td>0.35</td></tr><tr><td>6</td><td>0.40</td></tr></tbody></table> 	Groove width: CW (mm)	Feed: f (mm/rev)	2	0.18	3	0.25	4	0.30	5	0.35	6	0.40
Groove width: CW (mm)	Feed: f (mm/rev)													
2	0.18													
3	0.25													
4	0.30													
5	0.35													
6	0.40													
DGS type (2 corners) SGS type (1 corner)  F192, F193	Lower cutting force and superior sharpness Unique-designed edge and chipbreaker Handed insert available CW = 2 - 6.35 mm	■ Standard feed <table><thead><tr><th>Groove width: CW (mm)</th><th>Feed: f (mm/rev)</th></tr></thead><tbody><tr><td>2</td><td>0.12</td></tr><tr><td>3</td><td>0.15</td></tr><tr><td>4</td><td>0.17</td></tr><tr><td>5</td><td>0.20</td></tr><tr><td>6</td><td>0.22</td></tr></tbody></table> 	Groove width: CW (mm)	Feed: f (mm/rev)	2	0.12	3	0.15	4	0.17	5	0.20	6	0.22
Groove width: CW (mm)	Feed: f (mm/rev)													
2	0.12													
3	0.15													
4	0.17													
5	0.20													
6	0.22													
DGG type (2 corners)  F193	For non-ferrous materials and titanium Chipbreaker with low cutting force Sharp cutting edge that prevents vibration and delivers fine surface finish CW = 2 - 6 mm	■ Standard feed <table><thead><tr><th>Groove width: CW (mm)</th><th>Feed: f (mm/rev)</th></tr></thead><tbody><tr><td>2</td><td>0.15</td></tr><tr><td>3</td><td>0.15</td></tr><tr><td>4</td><td>0.15</td></tr><tr><td>5</td><td>0.15</td></tr><tr><td>6</td><td>0.15</td></tr></tbody></table> 	Groove width: CW (mm)	Feed: f (mm/rev)	2	0.15	3	0.15	4	0.15	5	0.15	6	0.15
Groove width: CW (mm)	Feed: f (mm/rev)													
2	0.15													
3	0.15													
4	0.15													
5	0.15													
6	0.15													
DGL type (2 corners)  F194	1st choice for mild steel Chipbreaker with excellent chip control at low feed Suitable for mild steel that often gives difficulties in chip control CW = 2 - 6 mm	■ Standard feed <table><thead><tr><th>Groove width: CW (mm)</th><th>Feed: f (mm/rev)</th></tr></thead><tbody><tr><td>2</td><td>0.15</td></tr><tr><td>3</td><td>0.15</td></tr><tr><td>4</td><td>0.20</td></tr><tr><td>5</td><td>0.20</td></tr><tr><td>6</td><td>0.30</td></tr></tbody></table> 	Groove width: CW (mm)	Feed: f (mm/rev)	2	0.15	3	0.15	4	0.20	5	0.20	6	0.30
Groove width: CW (mm)	Feed: f (mm/rev)													
2	0.15													
3	0.15													
4	0.20													
5	0.20													
6	0.30													

Please see page F*** for the product details.

Profiling and undercutting

**DTR type (2 corners)
STR type (1 corner)**

Molded
DTR, STR



Ground
DTR

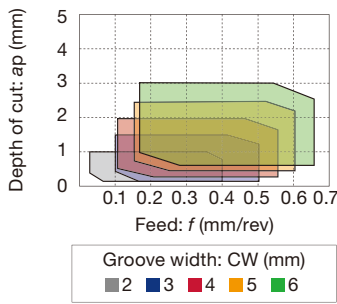


F194, F195

Full radius type

Excellent chip control
Molded and ground inserts available
CW = 2 - 6 mm

■ Standard feed and DoC (for turning)



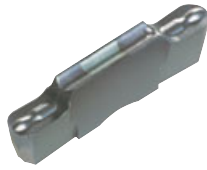
Depth of cut: ap (mm)

Feed: f (mm/rev)

Groove width: CW (mm)

■ 2 ■ 3 ■ 4 ■ 5 ■ 6

**DTIU type
(2 corners)**

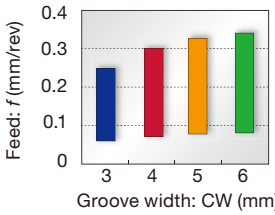


F196

Full radius type

Excellent chip control for undercutting
CW = 3 - 6 mm

■ Standard feed and DoC



Feed: f (mm/rev)

Groove width: CW (mm)

■ 3 ■ 4 ■ 5 ■ 6

Aluminium wheel machining

**DTA type
(2 corners)**

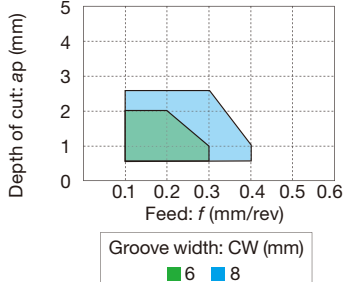


F196

Full radius type

Excellent chip control
For aluminium wheel profiling
Ground insert
CW = 6 - 8 mm

■ Standard feed and DoC (for turning)



Depth of cut: ap (mm)

Feed: f (mm/rev)

Groove width: CW (mm)

■ 6 ■ 8

For high feed external and face turning of hardened steel parts

**STH type
(1 corner)**

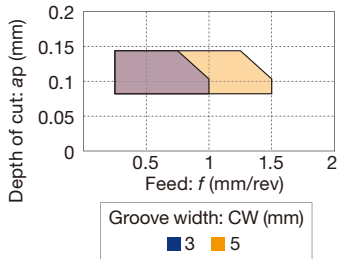


F197

External and face turning of hardened steel parts

High efficiency machining using light D.O.C. and increased feeds
CW = 3, 5 mm

■ Standard feed and DoC (for turning)



Depth of cut: ap (mm)

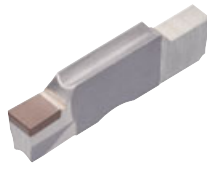
Feed: f (mm/rev)

Groove width: CW (mm)

■ 3 ■ 5

External grooving of hardened steel

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

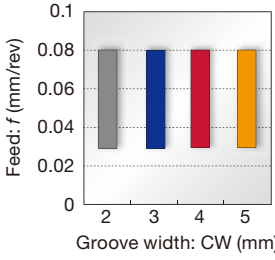


F197

For hardened steel cutting

Optimum cutting edge shape for grooving of hardened steels
High tolerance width for finishing
CW = 2 - 5 mm
(CW = ±0.025 mm)

■ Standard feed



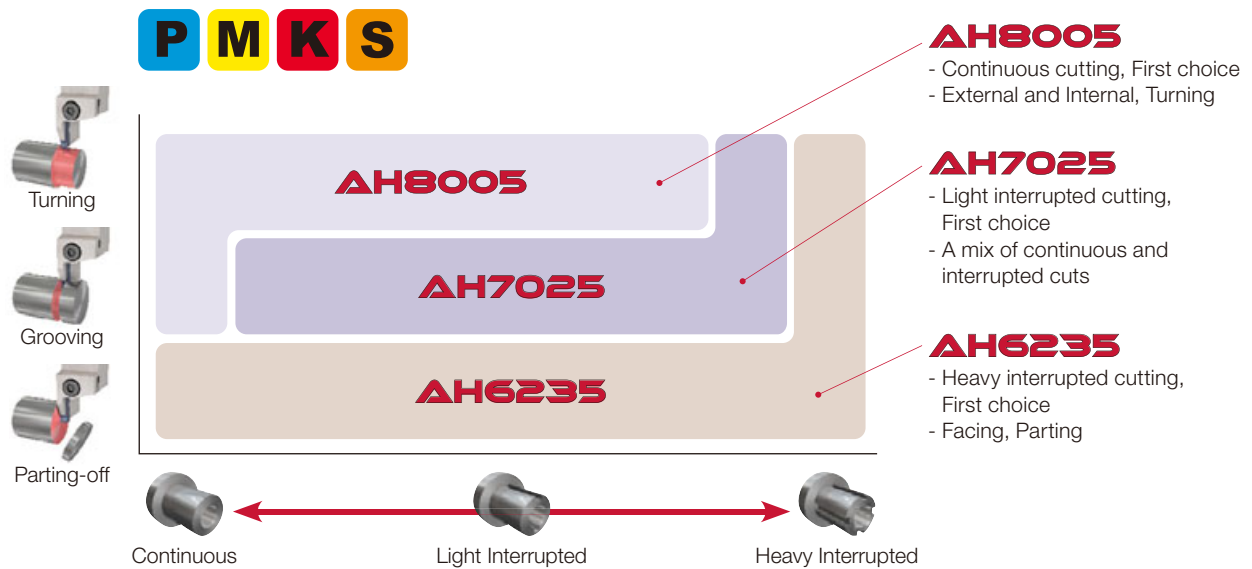
Feed: f (mm/rev)

Groove width: CW (mm)

■ 2 ■ 3 ■ 4 ■ 5

Please see page F*** for the product details.

GRADE SELECTION



GRADES

AH8005

P M K S

- First choice for external, internal, and side-turning, continuous cuts

AH7025

P M K S

- First choice for light interrupted cuts or a mix of continuous and interrupted cuts
- New PVD coating with high Al content provides excellent adhesion strength
- Improved wear and chipping resistance

AH6235

P M K

- First choice for heavy interrupted cuts, as well as parting and facing applications

AH725

P M S

- General purpose PVD grade for high fracture resistance

T515

K

- First recommended grade for cast iron
- Excellent wear resistance in high speed machining

T9225

P

- Suitable for steel machining at high speeds
- New CVD coating and substrate deliver an outstanding balance of wear and chipping resistance

NS9530

P

- Advanced cermet for finish cutting of steel
- Innovative grade with incredible fracture and high wear resistance

GH130

P M K

- Recommended for interrupted machining
- TiCNO PVD coating layer with high wear resistance
- High hardness wear resistance

AH905

S

- Remarkable for machining of heat resistant alloys
- Exclusive coating layer improves adhesion strength and wear resistance

KS05F

N S

- Recommended for non-ferrous materials and titanium

TH10

N

- Recommended for non-ferrous materials

BXA10

H

- Coated CBN grade designed for turning hardened steel parts

BX360

H

- Developed for grooving applications of hardened steel parts

DTF

Technical drawing of a 3D printed part. The drawing includes a side view and a top view. The side view shows a part with a central cylindrical section and two end sections. The top view shows a rectangular part with a central rectangular section and two end sections. Dimensions and angles are labeled: RE (Radius of End), CW (Channel Width), 12° (Angle), 7° (Angle), h (Height), $INSL$ (Inlet Length), $Ref.$ (Reference), and $L1$ (Length).

[illegible]

Designation	Seat size	HAND	CW±0.05	RE	Coated				Cermet						INSL	h	L1		
					T9225	AH7025	AH725	GH130			NS9530								
DTF3-040-R	3	R	3	0.4	●	●	●	●			●						20	5	16
DTF3-040-L	3	L	3	0.4	●	●	●	●			●						20	5	16
DTF4-040-R	4	R	4	0.4	●	●	●	●			●						20	5	16
DTF4-040-L	4	L	4	0.4	●	●	●	●			●						20	5	16

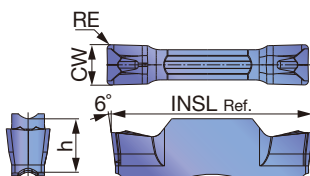
DTX

[illegible]

Designation	Seat size	CW±0.05	RE	Coated					Cermet		Uncoated		INSL	h
				T9225	AH7025	AH725	AH8005	GH130	AH6235	NS9530		KS05F		
DTX2-020	2	2	0.2	●	●		●		●		●		20	5
DTX3-030	3	3	0.3	●	●	●	●	●	●		●		20	5
DTX4-040	4	4	0.4	●	●	●	●	●	●		●		20	5
DTX5-040	5	5	0.4	●	●	●	●	●	●		●		25	5.5
DTX6-080	6	6	0.8		●	●		●			●		25	5.5

Tungaloy F187

External face grooving and turning

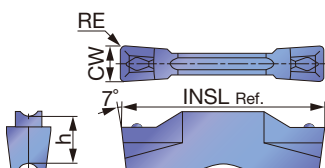


★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.05	RE	Coated								INSL	h
				AH7025	AH8005	AH6235							
DTM2-020	2	2	0.2	●	●	●						20	5
DTM3-030	3	3	0.3	●	●	●						20	5
DTM4-040	4	4	0.4	●	●	●						20	5
DTM4-080	4	4	0.8	●	●	●						20	5
DTM5-080	5	5	0.8	●	●	●						25	5.5
DTM6-080	6	6	0.8	●	●	●						25	5.5

● : Line up

External face grooving and turning (for high precision)



★ : First choice
☆ : Second choice

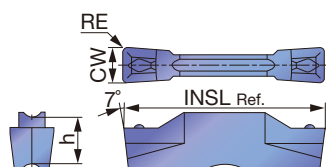
Designation	Seat size	CW±0.02	RE	Coated				Cermet		INSL	h
				T9225	AH7025	AH725	GH130	NS9530			
DTE265-015	3	2.65	0.15	●	●	●	●	●		20	5
DTE300-020	3	3	0.2	●	●	●	●	●		20	5
DTE300-040	3	3	0.4	●	●	●	●	●		20	5
DTE315-015	3	3.15	0.15	●	●	●	●	●		20	5
DTE400-040	4	4	0.4	●	●	●	●	●		20	5
DTE400-080	4	4	0.8	●	●	●	●	●		20	5
DTE415-015	4	4.15	0.15	●	●	●	●	●		20	5
DTE478-055	5	4.78	0.55	●	●	●	●	●		25	5.5
DTE500-040	5	5	0.4	●	●	●	●	●		25	5.5
DTE500-080	5	5	0.8	●	●	●	●	●		25	5.5
DTE515-015	5	5.15	0.15	●	●	●	●			25	5.5
DTE600-080	6	6	0.8	●	●	●	●			25	5.5
DTE600-120	6	6	1.2	●	●	●	●			25	5.5

●: Line up

Reference pages: Toolholders → **F172 - F182**, Standard cutting conditions → **F198**

DTE

External face grooving and turning



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

★ : First choice
☆ : Second choice

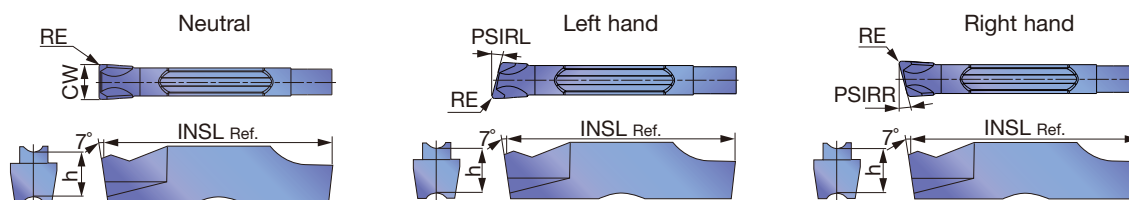
Designation	Seat size	CW±0.05	RE	Coated						Cermet		INSL	h
				T9225	T515	AH7025	AH725	AH8005	GH130	AH6235	NS9530		
DTE3-020	3	3	0.2			●		●		●		20	5
DTE3-040	3	3	0.4	●	●	●	●	●	●	●	●	20	5
DTE4-040	4	4	0.4	●	●	●	●	●	●	●	●	20	5
DTE4-080	4	4	0.8			●		●		●		20	5
DTE5-040	5	5	0.4		●	●		●		●		25	5.5
DTE5-080	5	5	0.8			●		●		●		25	5.5
DTE6-080	6	6	0.8		●	●		●		●		25	5.5

● : Line up



★ : First choice
☆ : Second choice

● : Line up



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

★ : First choice
☆ : Second choice

Designation	Seat size	HAND	CW±0.05	RE	Coated					Uncoated						INSL	h	PSIRL	PSIRR
					AH7025	AH725	AH8005	GH130	AH6235	KS05F									
SGM2-020	2	N	2	0.2	●	●	●	●	●	●						20	5	0°	0°
SGM2-020-6R	2	R	2	0.2	●	●		●								20	5	0°	6°
SGM2-020-6L	2	L	2	0.2	●	●		●								20	5	6°	0°
SGM3-020	3	N	3	0.2	●	●	●	●	●	●						20	5	0°	0°
SGM3-020-6R	3	R	3	0.2	●	●		●								20	5	0°	6°
SGM3-020-6L	3	L	3	0.2	●	●		●								20	5	6°	0°
SGM3-020-15R	3	R	3	0.2	●	●		●								20	5	0°	15°
SGM3-020-15L	3	L	3	0.2	●	●		●								20	5	15°	0°
SGM4-030	4	N	4	0.3	●	●	●	●	●	●						20	5	0°	0°
SGM4-030-4R	4	R	4	0.3	●	●		●								20	5	0°	4°
SGM4-030-4L	4	L	4	0.3	●	●		●								20	5	4°	0°
SGM5-030	5	N	5	0.3	●	●	●	●	●	●						25	5.5	0°	0°
SGM6-030	6	N	6	0.3	●	●	●	●	●	●						25	5.5	0°	0°

● : Line up



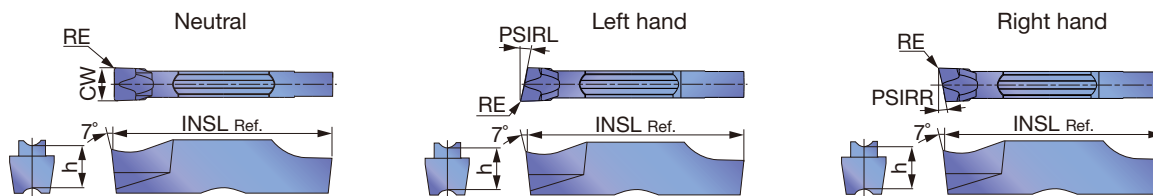
★ : First choice
☆ : Second choice

● : Line up

The tool will interfere with the workpiece when grooving larger diameters than ϕD_{max} .

SGS

External/face deep grooving and parting



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

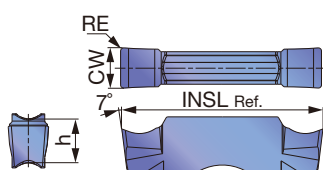
★ : First choice
☆ : Second choice

Designation	Seat size	HAND	CW±0.05	RE	Coated					Uncoated					INSL	h	PSIRL	PSIRR
					AH7025	AH725	AH8005	GH130	AH6235	KS05F								
SGS2-020	2	N	2	0.2	●	●	●	●	●	●					20	5	0°	0°
SGS2-020-6R	2	R	2	0.2	●	●	●	●	●						20	5	0°	6°
SGS2-020-6L	2	L	2	0.2	●	●	●	●	●						20	5	6°	0°
SGS2-020-15R	2	R	2	0.2	●	●	●	●	●						20	5	0°	15°
SGS2-020-15L	2	L	2	0.2	●	●	●	●	●						20	5	15°	0°
SGS3-020	3	N	3	0.2	●	●	●	●	●	●					20	5	0°	0°
SGS3-020-6R	3	R	3	0.2	●	●	●	●	●						20	5	0°	6°
SGS3-020-6L	3	L	3	0.2	●	●	●	●	●						20	5	6°	0°
SGS3-002-6R	3	R	3	0.02		●	●	●	●						19.8	5	0°	6°
SGS3-002-6L	3	L	3	0.02		●	●	●	●						19.8	5	6°	0°
SGS3-020-15R	3	R	3	0.2	●	●	●	●	●						20	5	0°	15°
SGS3-020-15L	3	L	3	0.2	●	●	●	●	●						20	5	15°	0°
SGS3-002-15R	3	R	3	0.02		●	●	●	●						19.8	5	0°	15°
SGS3-002-15L	3	L	3	0.02		●	●	●	●						19.8	5	15°	0°
SGS4-030	4	N	4	0.3	●	●	●	●	●	●					20	5	0°	0°
SGS5-030	5	N	5	0.3	●	●	●	●	●	●					25	5.5	0°	0°
SGS6-030	6	N	6	0.3	●	●	●	●	●	●					25	5.5	0°	0°

● : Line up

DGG

External/face grooving (for high precision)



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

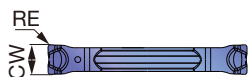
★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.02	RE	Coated		Cermet		Uncoated		INSL	h
				AH7025		NS9530		KS05F			
DGG200-020	2	2	0.2	●		●		●		20	5
DGG300-020	3	3	0.2	●		●		●		20	5
DGG400-040	4	4	0.4	●		●		●		20	5
DGG500-040	5	5	0.4	●		●		●		25	5.5
DGG600-040	6	6	0.4	●		●		●		25	5.5

● : Line up

Reference pages: Toolholders → **F172 - F182**, Standard cutting conditions → **F198**

External/face grooving and parting

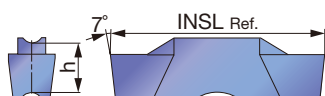
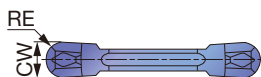


★ : First choice
☆ : Second choice

[illegible]

● : Line up

Profiling and undercutting (for high precision)

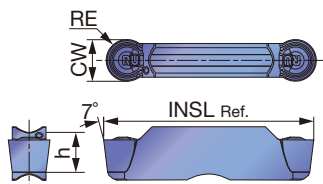


★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.02	RE	Coated				Cermet					INSL	h	
				T9225	AH7025	AH725	GH130		NS9530						
DTR300-150	3	3	1.5	●	●	●	●		●					20	5
DTR400-200	4	4	2	●	●	●	●		●					20	5
DTR478-239	5	4.78	2.39	●	●	●	●		●					25	5.5
DTR500-250	5	5	2.5	●	●	●	●		●					25	5.5
DTR600-300	6	6	3	●	●	●	●							25	5.5

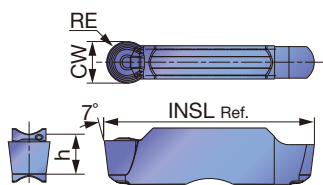
●: Line up

Profiling and undercutting



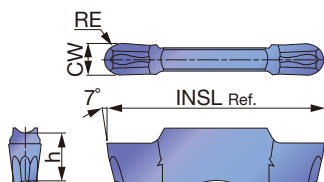
● : Line up

Profiling and undercutting



●: Line up

Profiling and undercutting (for high precision)

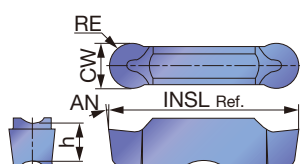


★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.02	RE	Coated								INSL	h
				AH7025	AH725	GH130							
DTIU300-150	3	3	1.5	●	●	●						20	5
DTIU400-200	4	4	2	●	●	●						20	5
DTIU500-250	5	5	2.5	●	●	●						25	5.5
DTIU600-300	6	6	3	●	●	●						25	5.5

●: Line up

Aluminium wheel machining (for high precision)

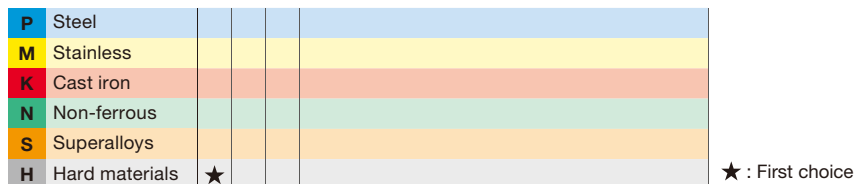


★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.02	RE	Coating materials						INSL	h	AN		
				Uncoated										
DTA600-300	6	6	3	●								25	5.5	7°

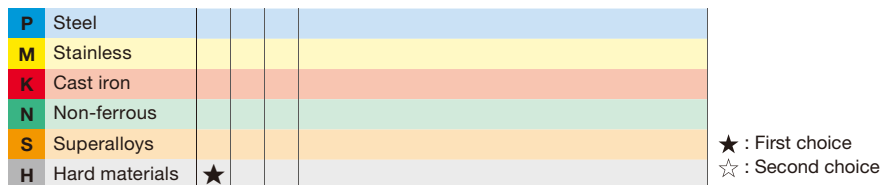
●: Line up

External and face turning



●: Line up

External/face grooving



●: Line up

■ Edge preparations



STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Hardness	Priority	Grade	Cutting speed V _c (m/min)
P	Steel S45C, SCM435, etc. C45, 34CrMo4, etc.	< 300 HB	First choice	AH7025, AH725	50 - 180
		< 300 HB	Wear resistance	T9225, AH8005	80 - 300
		< 300 HB	Impact resistance	AH6235, GH130	50 - 120
		< 300 HB	Surface quality	NS9530	80 - 220
M	Stainless steel SUS303, SUS304, etc. X10CrNiS18-9, X5CrNi18-9, etc.	< 200 HB	First choice	AH7025, AH725	50 - 120
		< 200 HB	Wear resistance	AH8005	50 - 120
		< 200 HB	Impact resistance	AH6235, GH130	50 - 120
K	Grey cast iron FC250, etc. 250, etc.	-	First choice	T515	150 - 700
		-	Impact resistance	AH8005, AH7025, AH6235, GH130	50 - 180
	Ductile cast iron FCD450, etc. 450-10S, etc.	-	First choice	T515	150 - 300
		-	Impact resistance	AH8005, AH7025, AH6235, GH130	50 - 120
N	Aluminium alloys Si < 12%	-	First choice	TH10	100 - 500
		-	First choice	KS05F	100 - 600
S	Superalloys Inconel718, etc.	< HRC 40	First choice	AH8005	20 - 60
		< HRC 40	Impact resistance	AH7025, AH725, AH6235	20 - 40
	Titanium alloys Ti-6Al-4V, etc.	< HRC 40	First choice	KS05F	20 - 100
		< HRC 40	Impact resistance	AH7025, AH725	20 - 80

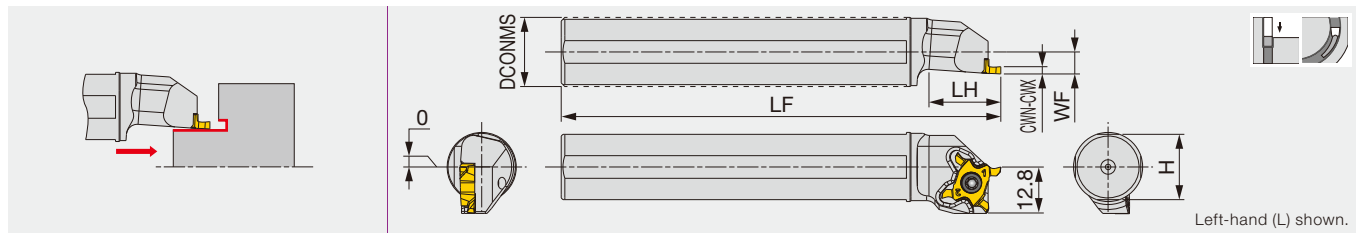
Please see page **F183 - F185** for feed: f (mm/rev).

STH

ISO	Grade	CW	Application	Cutting speed V _c (m/min)	Depth of cut a _p (mm)	Feed f (mm/rev)
H	BXA10	3	External turning	100 - 230	0.08 - 0.12	0.4 - 1
			Face turning	100 - 230	0.08 - 0.12	0.4 - 0.8
		5	External turning	100 - 230	0.08 - 0.12	0.5 - 1.5
			Face turning	100 - 230	0.08 - 0.12	0.5 - 0.8

SGN

ISO	Grade	Edge preparation	Workpiece condition	Cutting speed V _c (m/min)	Feed f (mm/rev)
H	BX360	No symbol	Continuous	80 - 150	0.03 - 0.08
		-S	Light interrupted	50 - 120	0.03 - 0.08
		-H	Heavy interrupted	40 - 100	0.03 - 0.06



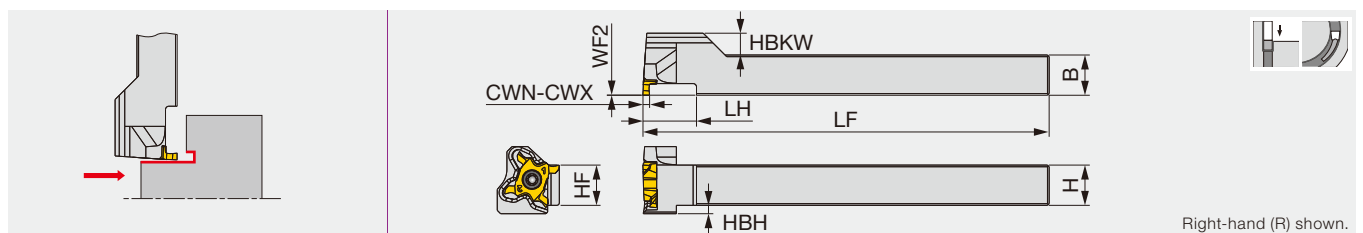
Designation	CWN	CWX	DCONMS	LF	LH	H	WF	Insert	Torque*
JS16F-STCFL18	0.33	3.18	16	85	20	15	6	TCF18L...	1.2
JS19G-STCFL18	0.33	3.18	19.05	90	20	18	6	TCF18L...	1.2
JS19X-STCFL18	0.33	3.18	19.05	120	20	18	6	TCF18L...	1.2
JS20G-STCFL18	0.33	3.18	20	90	20	19	6	TCF18L...	1.2
JS20X-STCFL18	0.33	3.18	20	120	20	19	6	TCF18L...	1.2
JS22X-STCFL18	0.33	3.18	22	120	20	21	6	TCF18L...	1.2
JS25H-STCFL18	0.33	3.18	25	100	20	24	6	TCF18L...	1.2
JS254X-STCFL18	0.33	3.18	25.4	120	20	24.5	6	TCF18L...	1.2

Note: The left hand insert (L) is used for the left hand toolholders (L).

Torque*: Recommended clamping torque: N·m

STCFVR-18

Face grooving toolholder with square shank, for Swiss lathes



Designation	CWN	CWX	H	B	LF	LH	HF	WF2	HBKW	HBH	Insert	Torque*
STCFVR1010H18	0.33	3.18	10	10	100	12	10	0	8.5	4.5	TCF18L...	1.2
STCFVR1212F18	0.33	3.18	12	12	85	16	12	0	6.5	2.5	TCF18L...	1.2
STCFVR1212X18	0.33	3.18	12	12	120	16	12	0	6.5	2.5	TCF18L...	1.2
STCFVR1616X18	0.33	3.18	16	16	120	20	16	0	2.5	0	TCF18L...	1.2

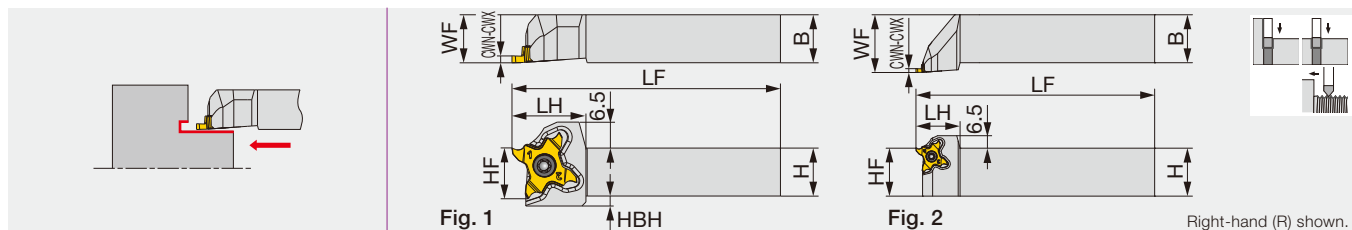
Note: The left hand insert (L) is used for the right hand toolholders (R).

Torque*: Recommended clamping torque: N·m

SPARE PARTS

Designation	Clamping screw	Wrench
JS**-STCFL18, STCFVR**18	CSTC-4L100DR	T-1008/5

Precision grooving tools with uniquely shaped insert for swiss type machine and general lathes



Designation	CWN	CWX	H	B	LF	LH	HF	WF	HBH	Insert	Torque*	Fig.
STCR/L1010X18	0.33	3.18	10	10	120	18.5	10	10	4.5	TC*18...	1.2	1
STCR/L1212F18	0.33	3.18	12	12	85	18.5	12	12	2.5	TC*18...	1.2	1
STCR/L1212X18	0.33	3.18	12	12	120	18.5	12	12	2.5	TC*18...	1.2	1
STCR/L1616X18	0.33	3.18	16	16	120	18.5	16	16	-	TC*18...	1.2	1
STCR/L2020H18	0.33	3.18	20	20	100	18.5	20	20	-	TC*18...	1.2	1
STCR/L2020X18	0.33	3.18	20	20	120	23	20	25	-	TC*18...	1.2	2
STCR/L2525Z18	0.33	3.18	25	25	135	23	25	30	-	TC*18...	1.2	2

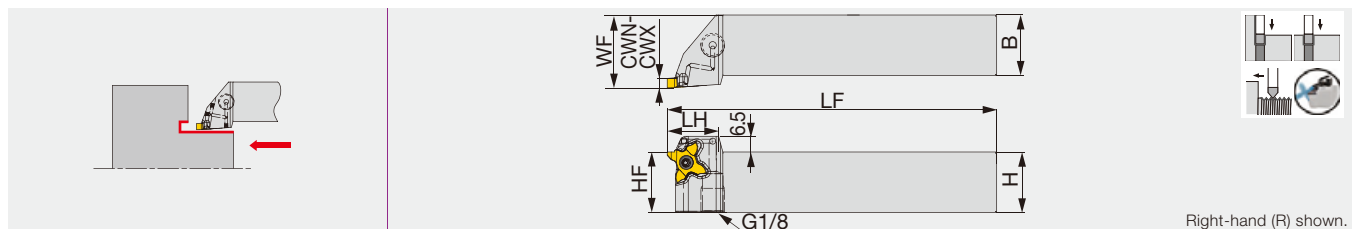
The right hand insert (TC*18R...) is used for the right hand toolholders (STCR...), and the left hand insert is used for the left hand toolholders

*Torque: Recommended clamping torque: N·m

STCR/L-18-CHP

Tube connection

Threading tool - for external threading with high pressure coolant capability



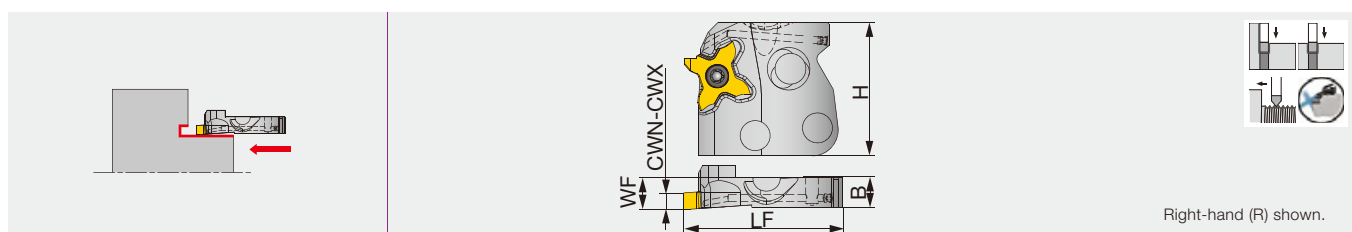
Designation	CWN	CWX	H	B	LF	LH	HBH	HF	WF	HBH	Insert	Torque*
STCR/L2020X18-CHP	0.33	3.18	20	20	120	23	-	20	25	-	TC*18...	1.2
STCR/L2525Z18-CHP	0.33	3.18	25	25	135	23	-	25	30	-	TC*18...	1.2

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...).

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

STCAR/L18-CHP

External grooving and threading adapter, with high pressure coolant capability



Designation	CWN	CWX	WF	H	LF	B	Insert	Torque*
STCAR/L18-CHP	0.33	3.18	7.5	33	38	7.2	TC*18...	1.2

Use the right hand insert (TC*18R...) with the right hand adapter (STCAR...). Use the left hand insert (TC*18L...) with the left hand adapter (STCAL...).

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

SPARE PARTS

Designation	Clamping screw	Wrench
STCL**18, STCL**18-CHP, STCAL18-CHP	CSTC-4L100DR	T-1008/5
STCR**18, STCR**18-CHP, STCAR18-CHP	CSTC-4L100DL	T-1008/5

Reference pages: STCR/L-18: Inserts → **F204 - F211**, Standard cutting conditions → **F212**

STCR/L-18-CHP: Inserts → **F204 - F211**, Standard cutting conditions → **F212**

Parts for coolant hose → **F266**

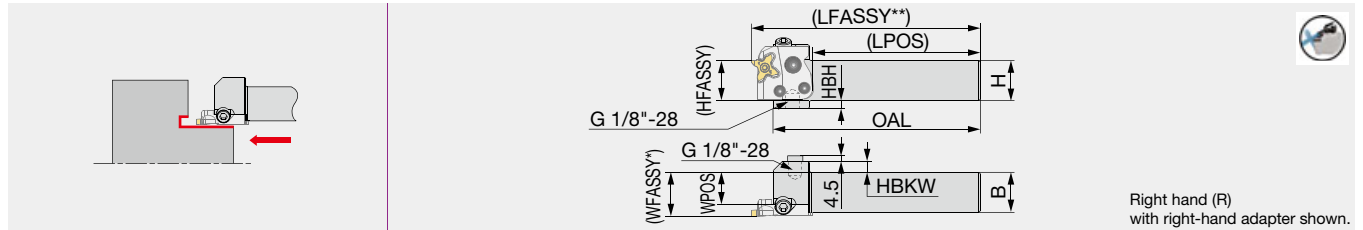
STCAR/L18-CHP: Inserts → **F204 - F211**, Shanks and toolholders → **F201 - F203**

Standard cutting conditions → **F212**, Technical Reference → **L053**

CHSR/L-CHP

Tube connection

Shank for adapter, with high pressure coolant capability



Right hand (R)
with right-hand adapter shown.

Designation	H	B	OAL	LPOS	WPOS	HBKW	HFASSY	HBH	Adapter (Option)	Torque*
CHSR/L2020-CHP	20	20	130	105.5	15.1	12	20	10	STCAR/L18-CHP	6.5
CHSR/L2525-CHP	25	25	130	105.5	20.1	7	25	5	STCAR/L18-CHP	6.5

WFASSY* : Shank (WPOS) + adapter (WF)

LFASSY** : Shank (LPOS) + adapter (LF)

Depend on the adapter type, the value of LFASSY or WFASSY may change.

Torque*: Recommended clamping torque (N·m)

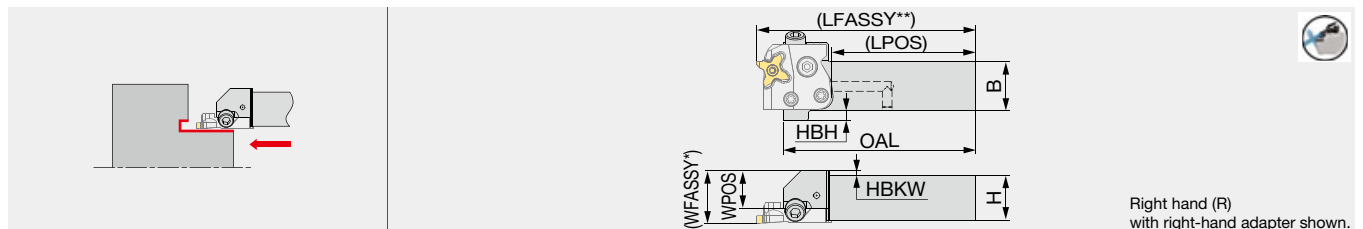
Applicable for 30 MPa coolant

Please see page L053 for instructions on installing and removing the adapter or the insert.

CHSR/L-CHP-MC

Direct connection

Shank for adapter, with high pressure coolant capability



Designation	H	B	OAL	LPOS	WPOS	HBKW	HBH	Adapter (Option)	Torque*
CHSR/L2020-CHP-MC	20	20	98	73.5	14	6	10	STCAR/L18-CHP	6.5
CHSR/L2525-CHP-MC	25	25	98	73.5	19	-	5	STCAR/L18-CHP	6.5

WFASSY* : Shank (WPOS) + adapter (WF)

LFASSY** : Shank (LPOS) + adapter (LF)

Depend on the adapter type, the value of LFASSY or WFASSY may change.

Torque*: Recommended clamping torque (N·m)

Applicable for 30 MPa coolant

Please see page L053 for instructions on installing and removing the adapter or the insert.

SPARE PARTS

Designation	Clamping screw 1	Wrench 1	Clamping screw 2	Clamping screw 3	Wrench 2	O-ring	Plug
CHSR/L*-CHP	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW5.0	OR 5X1N	PLUGG1/8ISO1179
CHSR/L*-CHP-MC	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW5.0	OR 5X1N	-

Recommended clamping torque (N·m)

Clamping screw	Torque (N·m)
SR M5-04451	2.5
SR M6X12DIN6912	6.5
SR M6X20-XT	6.5

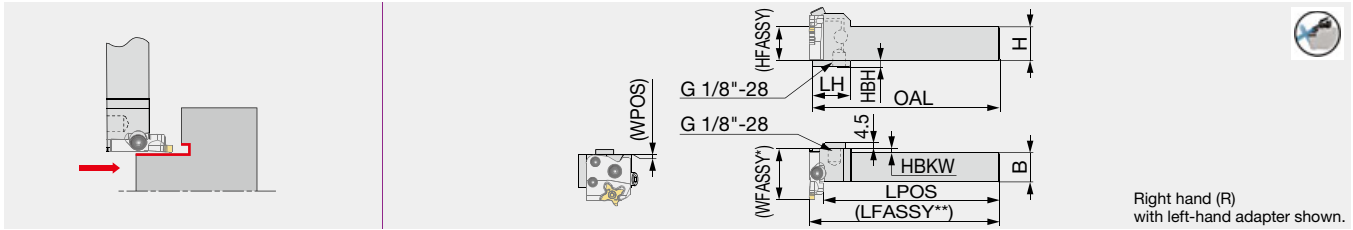
Combination of adapter and shank

Shank	Adapter	
	STCAR18-CHP	STCAL18-CHP
CHSR**-CHP (-MC)	●	
CHSL**-CHP (-MC)		●
CHFVR**-CHP		●
CHFVL**-CHP	●	

● : Corresponding

Reference pages: Inserts → **F204 - F211**, Adapters → **F200**, Standard cutting conditions → **F212**
Parts for coolant hose → **F266**, Technical Reference → **L053**

Shank for perpendicularly-mounted adapter, with high pressure coolant capability



Designation	H	B	OAL	LH	LPOS	WPOS	HBKW	HFASSY	HBH	Adapter (Option)	Torque*
CHFVR/L2020-CHP	20	20	140	28	135.1	0.5	5	20	10	STCAL/R18-CHP	6.5
CHFVR/L2525-CHP	25	25	140	28	135.1	0.5	0	25	5	STCAL/R18-CHP	6.5

WFASSY* : Shank (WPOS) + adapter (LF)

LFASSY** : Shank (LPOS) + adapter (WF)

Depend on the adapter type, the value of LFASSY or WFASSY may change.

Torque*: Recommended clamping torque (N·m)

Applicable for 30 MPa coolant

Please see page L053 for instructions on installing and removing the adapter or the insert.

SPARE PARTS

Designation	Clamping screw 1	Wrench 1	Clamping screw 2	Clamping screw 3	Wrench 2	O-ring	Plug
CHFVR/L...	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW5.0	OR 5X1N	PLUGG1/8ISO1179

Recommended clamping torque (N·m)

Clamping screw	Torque (N·m)
SR M5-04451	2.5
SR M6X12DIN6912	6.5
SR M6X20-XT	6.5

Combination of adapter and shank

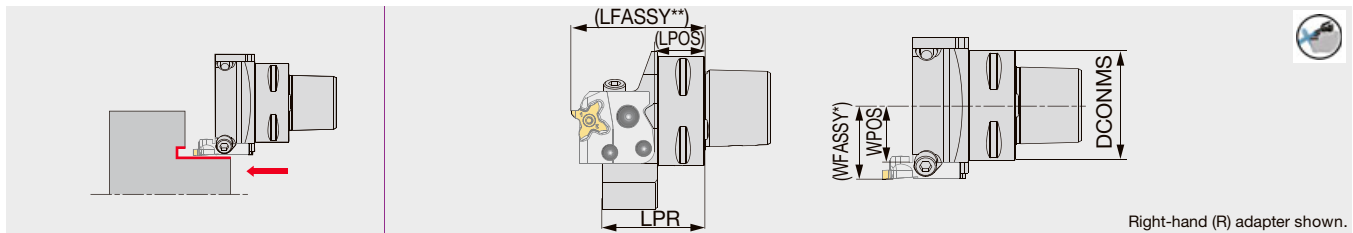
Shank	Adapter	
	STCAR18-CHP	STCAL18-CHP
CHSR**-CHP (-MC)	●	
CHSL**-CHP (-MC)		●
CHFVR**-CHP		●
CHFVL**-CHP	●	

● : Corresponding

C*CHSN-CHP

Direct connection

Toolholder with TungCap connection, for adapter, with high pressure coolant capability



Right-hand (R) adapter shown.

Designation	DCONMS	LPR	LPOS	WPOS	Adapter (Option)	Torque*
C3CHSN19045-CHP	32	45	17.5	18.5	STCAR/L18-CHP	6.5
C4CHSN21047-CHP	40	46.5	21.5	21	STCAR/L18-CHP	6.5
C5CHSN26047-CHP	50	47	22.5	26	STCAR/L18-CHP	6.5
C6CHSN33050-CHP	63	50	24.5	32.5	STCAR/L18-CHP	6.5

WFASSY* : Toolholder (WPOS) + adapter (WF)

LFASSY** : Toolholder (LPOS) + adapter (LF)

Depend on the adapter type, the value of LFASSY or WFASSY may change.

Torque*: Recommended clamping torque (N·m)

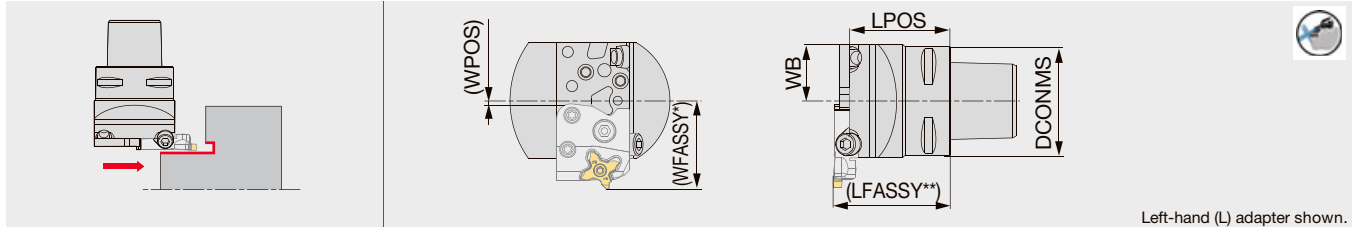
Applicable for 30 MPa coolant

Please see page L053 for instructions on installing and removing the adapter or the insert.

C*CHFVN-CHP

Direct connection

Toolholder with TungCap connection, for perpendicularly-mounted adapter, with high pressure coolant capability



Left-hand (L) adapter shown.

Designation	DCONMS	LPOS	WB	WPOS	Adapter (Option)	Torque*
C3CHFVN26040-CHP	32	40	26	1.5	STCAR/L18-CHP	6.5
C4CHFVN26046-CHP	40	46	26	1.5	STCAR/L18-CHP	6.5
C5CHFVN26046-CHP	50	46	26	1.5	STCAR/L18-CHP	6.5
C6CHFVN33046-CHP	63	46	33	8.5	STCAR/L18-CHP	6.5

WFASSY* : Toolholder (WPOS) + adapter (LF)

LFASSY** : Toolholder (LPOS) + adapter (WF)

Depend on the adapter type, the value of LFASSY or WFASSY may change.

Torque*: Recommended clamping torque (N·m)

Applicable for 30 MPa coolant

Please see page L053 for instructions on installing and removing the adapter or the insert.

SPARE PARTS

Designation	Clamping screw 1	Wrench 1	Clamping screw 2	Clamping screw 3	Wrench 2	O-ring
C*CH**N*-CHP	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW5.0	OR 5X1N

Recommended clamping torque (N·m)

Clamping screw	Torque (N·m)
SR M5-04451	2.5
SR M6X12DIN6912	6.5
SR M6X20-XT	6.5

Reference pages: Inserts → F204 - F211, Adapters → F200, Standard cutting conditions → F212
Technical Reference → L053

Face grooving

TCF18 (4 corners)



First choice for face grooving

Provides light cutting action and excellent surface finish.
Provides superior chip evacuation for face grooving operations.
CW = 0.5 - 2.5 mm
CDX = 3 mm



F205

External grooving

TCS18 (4 corners)



First choice for O.D. grooving

General-purpose pressed-in 3D chipbreaker for smooth chip control
CW = 1 - 3 mm
CDX = 3 mm



F205, F206

TCL18 (4 corners)



For lighter cutting action

Features pressed-in 3D chipbreaker with sharp cutting edge for light cutting action. Provides excellent chip control at low feed rates.
CW = 1.5 - 3 mm
CDX = 3 mm



F207

TCG18 (4 corners)



For better chipping resistance

Features an optimum rake angle and edge preparation for a good balance of light cutting action and fracture resistance.
CW = 1 - 3.18 mm
CDX = 3 mm



F208, F209

TCP18 (4 corners)



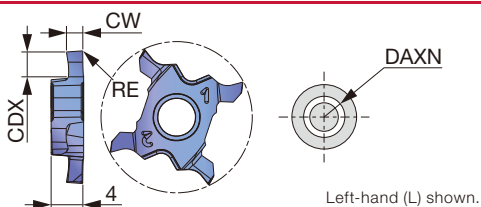
For higher surface quality

Featuring a large rake angle, providing light cutting action and better surface finish. TCP-F style insert is also available for sharp cutting edge.
CW = 0.33 - 3 mm
CDX = 3 mm



F210, F211

TCF18L (Face grooving, sharp edge)



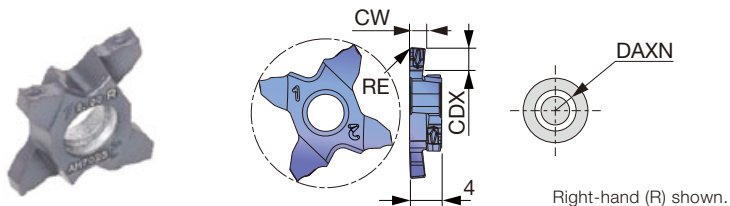
P	Steel	★				
M	Stainless	★				
K	Cast iron	★				
N	Non-ferrous					
S	Superalloys	★				
H	Hard materials					

★: First choice

[illegible]

5 pieces per package
●: Line up

TCS18R/L (3D chipbreaker, honed edge)



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

★ : First choice

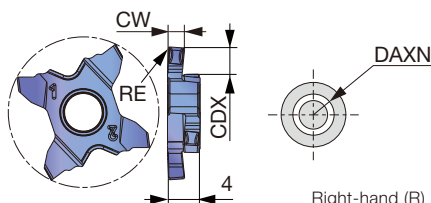
[illegible]

5 pieces per package
● : Line up

Reference pages: Toolholders → **F199 - F203**, Standard cutting conditions → **F212**

★ : First choice

5 pieces per package
● : Line up



Right-hand (R) shown.

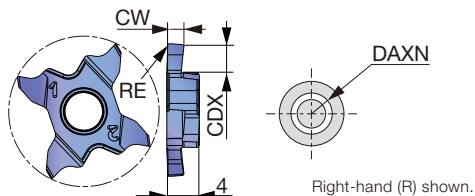
P	Steel	★		
M	Stainless	★		
K	Cast iron	★		
N	Non-ferrous			
S	Superalloys	★		
H	Hard materials			

★ : First choice

Designation	HAND	CW±0.02	RE	Coated		CDX	DAXN
				AH7025			
TCL18R150-010	R	1.5	0.1	●		3	65
TCL18L150-010	L	1.5	0.1	●		3	65
TCL18R150-020	R	1.5	0.2	●		3	65
TCL18L150-020	L	1.5	0.2	●		3	65
TCL18R175-020	R	1.75	0.2	●		3	65
TCL18L175-020	L	1.75	0.2	●		3	65
TCL18R200-010	R	2	0.1	●		3	65
TCL18L200-010	L	2	0.1	●		3	65
TCL18R200-020	R	2	0.2	●		3	65
TCL18L200-020	L	2	0.2	●		3	65
TCL18R250-030	R	2.5	0.3	●		3	65
TCL18L250-030	L	2.5	0.3	●		3	65
TCL18R300-010	R	3	0.1	●		3	65
TCL18L300-010	L	3	0.1	●		3	65
TCL18R300-020	R	3	0.2	●		3	65
TCL18L300-020	L	3	0.2	●		3	65
TCL18R300-030	R	3	0.3	●		3	65
TCL18L300-030	L	3	0.3	●		3	65

5 pieces per package
● : Line up

TCG18R/L (honed edge)



Right-hand (R) shown.

★ : First choice

5 pieces per package
● : Line up

Reference pages: Toolholders → **F199 - F203**, Standard cutting conditions → **F212**

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

★ : First choice

Designation	HAND	CW±0.02	RE	Coated		CDX	DAXN
				AH7025			
TCG18R250-020	R	2.5	0.2	●		3	65
TCG18L250-020	L	2.5	0.2	●		3	65
TCG18R250-030	R	2.5	0.3	●		3	65
TCG18L250-030	L	2.5	0.3	●		3	65
TCG18R265-030	R	2.65	0.3	●		3	65
TCG18L265-030	L	2.65	0.3	●		3	65
TCG18R280-030	R	2.8	0.3	●		3	65
TCG18L280-030	L	2.8	0.3	●		3	65
TCG18R300-010	R	3	0.1	●		3	65
TCG18L300-010	L	3	0.1	●		3	65
TCG18R300-020	R	3	0.2	●		3	65
TCG18L300-020	L	3	0.2	●		3	65
TCG18R300-030	R	3	0.3	●		3	65
TCG18L300-030	L	3	0.3	●		3	65

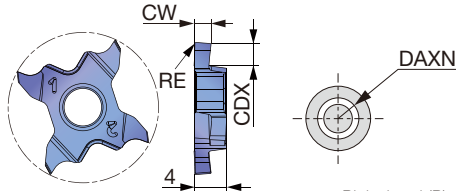
TCG18R/L (Full R, honed edge)

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

★ : First choice

Designation	HAND	CW±0.02	RE	Coated			CDX	DAXN
				AH7025				
TCG18R100-050	R	1	0.5	●			2	65
TCG18L100-050	L	1	0.5	●			2	65
TCG18R158-079	R	1.58	0.79	●			3	65
TCG18L158-079	L	1.58	0.79	●			3	65
TCG18R200-100	R	2	1	●			3	65
TCG18L200-100	L	2	1	●			3	65
TCG18R239-120	R	2.39	1.2	●			3	65
TCG18L239-120	L	2.39	1.2	●			3	65
TCG18R300-150	R	3	1.5	●			3	65
TCG18L300-150	L	3	1.5	●			3	65
TCG18R318-159	R	3.18	1.59	●			3	65
TCG18L318-159	L	3.18	1.59	●			3	65

TCP18R/L (lightly honed edge)



Right-hand (R) shown.

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

★ : First choice



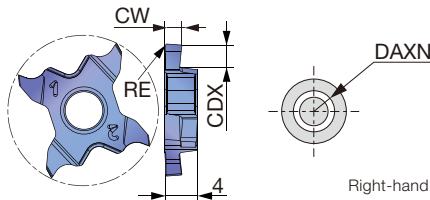
Designation	HAND	CW±0.02	RE	Coated		CDX	DAXN
				AH725			
TCP18R033-005	R	0.33	0.05	●		0.8	65
TCP18L033-005	L	0.33	0.05	●		0.8	65
TCP18R043-005	R	0.43	0.05	●		1.2	65
TCP18L043-005	L	0.43	0.05	●		1.2	65
TCP18R050-005	R	0.5	0.05	●		1.2	65
TCP18L050-005	L	0.5	0.05	●		1.2	65
TCP18R075-005	R	0.75	0.05	●		2	65
TCP18L075-005	L	0.75	0.05	●		2	65
TCP18R095-005	R	0.95	0.05	●		2	65
TCP18L095-005	L	0.95	0.05	●		2	65
TCP18R100-010	R	1	0.1	●		2	65
TCP18L100-010	L	1	0.1	●		2	65
TCP18R120-010	R	1.2	0.1	●		2	65
TCP18L120-010	L	1.2	0.1	●		2	65
TCP18R125-010	R	1.25	0.1	●		2	65
TCP18L125-010	L	1.25	0.1	●		2	65
TCP18R140-010-35	R	1.4	0.1	●		3	65
TCP18L140-010-35	L	1.4	0.1	●		3	65
TCP18R145-010	R	1.45	0.1	●		2	65
TCP18L145-010	L	1.45	0.1	●		2	65
TCP18R145-010-35	R	1.45	0.1	●		3	65
TCP18L145-010-35	L	1.45	0.1	●		3	65
TCP18R150-010	R	1.5	0.1	●		2	65
TCP18L150-010	L	1.5	0.1	●		2	65
TCP18R150-010-35	R	1.5	0.1	●		3	65
TCP18L150-010-35	L	1.5	0.1	●		3	65
TCP18R175-010	R	1.75	0.1	●		2	65
TCP18L175-010	L	1.75	0.1	●		2	65
TCP18R175-010-35	R	1.75	0.1	●		3	65
TCP18L175-010-35	L	1.75	0.1	●		3	65
TCP18R200-010	R	2	0.1	●		2.5	65
TCP18L200-010	L	2	0.1	●		2.5	65
TCP18R200-010-35	R	2	0.1	●		3	65
TCP18L200-010-35	L	2	0.1	●		3	65
TCP18R250-010	R	2.5	0.1	●		2.5	65
TCP18L250-010	L	2.5	0.1	●		2.5	65
TCP18R250-010-35	R	2.5	0.1	●		3	65
TCP18L250-010-35	L	2.5	0.1	●		3	65
TCP18R300-010	R	3	0.1	●		2.5	65
TCP18L300-010	L	3	0.1	●		2.5	65
TCP18R300-010-35	R	3	0.1	●		3	65
TCP18L300-010-35	L	3	0.1	●		3	65

5 pieces per package

● : Line up

Reference pages: Toolholders → **F199 - F203**, Standard cutting conditions → **F212**

TCP18R/L-F (sharp edge)



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

★ : First choice

Designation	HAND	CW±0.02	RE	Coated										CDX	DAXN
				SH725											
TCP18R033F-005	R	0.33	0.05	●										0.8	65
TCP18L033F-005	L	0.33	0.05	●										0.8	65
TCP18R043F-005	R	0.43	0.05	●										1.2	65
TCP18L043F-005	L	0.43	0.05	●										1.2	65
TCP18R050F-005	R	0.5	0.05	●										1.2	65
TCP18L050F-005	L	0.5	0.05	●										1.2	65
TCP18R075F-005	R	0.75	0.05	●										2	65
TCP18L075F-005	L	0.75	0.05	●										2	65
TCP18R095F-005	R	0.95	0.05	●										2	65
TCP18L095F-005	L	0.95	0.05	●										2	65
TCP18R100F-005	R	1	0.05	●										2	65
TCP18R100F-010	R	1	0.1	●										2	65
TCP18L100F-010	L	1	0.1	●										2	65
TCP18R120F-005	R	1.2	0.05	●										2	65
TCP18R120F-010	R	1.2	0.1	●										2	65
TCP18L120F-010	L	1.2	0.1	●										2	65
TCP18R125F-005	R	1.25	0.05	●										2	65
TCP18R125F-010	R	1.25	0.1	●										2	65
TCP18L125F-010	L	1.25	0.1	●										2	65
TCP18R140F-010-35	R	1.4	0.1	●										3	65
TCP18R145F-005-35	R	1.45	0.05	●										3	65
TCP18R145F-010	R	1.45	0.1	●										2	65
TCP18L145F-010	L	1.45	0.1	●										2	65
TCP18R145F-010-35	R	1.45	0.1	●										3	65
TCP18L145F-010-35	L	1.45	0.1	●										3	65
TCP18R150F-005-35	R	1.5	0.05	●										3	65
TCP18R150F-010	R	1.5	0.1	●										2	65
TCP18L150F-010	L	1.5	0.1	●										2	65
TCP18R150F-010-35	R	1.5	0.1	●										3	65
TCP18L150F-010-35	L	1.5	0.1	●										3	65
TCP18R175F-005-35	R	1.75	0.05	●										3	65
TCP18R175F-010	R	1.75	0.1	●										2	65
TCP18L175F-010	L	1.75	0.1	●										2	65
TCP18R175F-010-35	R	1.75	0.1	●										3	65
TCP18L175F-010-35	L	1.75	0.1	●										3	65
TCP18R200F-005-35	R	2	0.05	●										3	65
TCP18R200F-010	R	2	0.1	●										2.5	65
TCP18L200F-010	L	2	0.1	●										2.5	65
TCP18R200F-010-35	R	2	0.1	●										3	65
TCP18L200F-010-35	L	2	0.1	●										3	65
TCP18R250F-010	R	2.5	0.1	●										2.5	65
TCP18L250F-010	L	2.5	0.1	●										2.5	65
TCP18R250F-010-35	R	2.5	0.1	●										3	65
TCP18L250F-010-35	L	2.5	0.1	●										3	65
TCP18R300F-010	R	3	0.1	●										2.5	65
TCP18L300F-010	L	3	0.1	●										2.5	65
TCP18R300F-010-35	R	3	0.1	●										3	65
TCP18L300F-010-35	L	3	0.1	●										3	65

5 pieces per package
● : Line up

Reference pages: Toolholders → **F199 - F203**, Standard cutting conditions → **F212**



STANDARD CUTTING CONDITIONS

TCF18L (Face grooving)

ISO	Workpiece materials	Grades	Cutting speed Vc (m/min)	Feed f (mm/rev)
P	Low carbon steel S15C, C15E, C15E4, S20C, C20, etc.	SH725	30 - 100	0.01 - 0.04
	Carbon steels, Alloy steel S55C, C55, SCM440, 42CrMoS4, etc.	SH725	30 - 100	0.01 - 0.04
	Prehardened steel NAK80, PX5, etc.	SH725	30 - 100	0.01 - 0.04
M	Stainless steel SUS304, X5CrNi18-9, X5CrNiMo17-12-2, etc.	SH725	30 - 100	0.01 - 0.04
K	Grey cast iron FC250, GG25, 250, FC300, GG30, 300, etc.	SH725	30 - 100	0.01 - 0.04
	Ductile cast iron FCD400, 400-15, FCD600, GGG60, 600-3, etc.	SH725	30 - 100	0.01 - 0.04
S	Titanium alloys Ti-6Al-4V, etc.	SH725	20 - 40	0.01 - 0.04
	Superalloys Inconel718, etc.	SH725	10 - 30	0.01 - 0.04

External

Internal

Face

Parting

Others

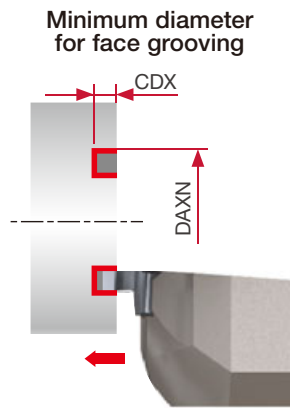
TCS18R/L, TCL18R/L (3D chipbreaker), TCG18R/L (honed edge), TCG18R/L (Full R)

ISO	Workpiece materials	Grade	Cutting speed Vc (m/min)	Feed: f (mm/rev)		
				TCL18	TCS18	TCG18
P	Low carbon steel S15C, SS400, etc., C15E4, E275A, etc.	AH7025	80 - 180	0.03 - 0.12	0.04 - 0.16	0.04 - 0.14
	Carbon steel, Alloy steel S55C, SCM440, etc., C55, 42CrMo4, etc.	AH7025	80 - 180	0.03 - 0.12	0.04 - 0.16	0.04 - 0.14
	Prehardened steel NAK80, PX5, etc.	AH7025	80 - 180	0.03 - 0.12	0.04 - 0.16	0.04 - 0.14
M	Stainless steel SUS304, SUS316, etc., X5CrNi18-9, X5CrNiMo17-12-3, etc.	AH7025	50 - 120	0.03 - 0.12	0.04 - 0.16	0.04 - 0.14
K	Grey cast iron FC250, FC300, etc., 250, 300, etc., GG25, GG30, etc.	AH7025	50 - 180	0.03 - 0.12	0.04 - 0.16	0.04 - 0.14
	Ductile cast iron FCD400, etc., 400-15S, etc., GGG40, etc.	AH7025	50 - 180	0.03 - 0.12	0.04 - 0.16	0.04 - 0.14
S	Titanium alloys Ti-6Al-4V, etc.	AH7025	30 - 60	0.03 - 0.12	0.04 - 0.16	0.04 - 0.14
	Superalloys Inconel718, etc.	AH7025	20 - 40	0.03 - 0.12	0.04 - 0.16	0.04 - 0.14

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, SS400, etc., C15E4, E275A, etc.	First choice	SH725	80 - 180	0.03 - 0.1
		Toughness	AH725	80 - 180	0.03 - 0.1
	Carbon steel, Alloy steel S55C, SCM440, etc., C55, 42CrMo4, etc.	First choice	SH725	80 - 180	0.03 - 0.1
		Toughness	AH725	80 - 180	0.03 - 0.1
	Prehardened steel NAK80, PX5, etc.	First choice	SH725	80 - 180	0.03 - 0.1
		Toughness	AH725	80 - 180	0.03 - 0.1
M	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
K	Grey cast iron FC250, FC300, etc., 250, 300, etc., GG25, GG30, etc.	First choice	AH725	50 - 180	0.03 - 0.1
		Sharpness	SH725	50 - 180	0.03 - 0.1
	Ductile cast iron FCD400, etc., 400-15S, etc., GGG40, 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	AH725	20 - 40	0.03 - 0.1

Precautions of processing



Minimum face diameter DAXN (mm)	Maximum groove depth CDX (mm)
65	3

Grade

A

Insert

B

Ext. Toolholder

C

Int. Toolholder

D

Threading

E

Grooving

F

Miniature tool

G

Milling cutter

H

Endmill

I

Drilling tool

J

Tooling System

K

User's Guide

L

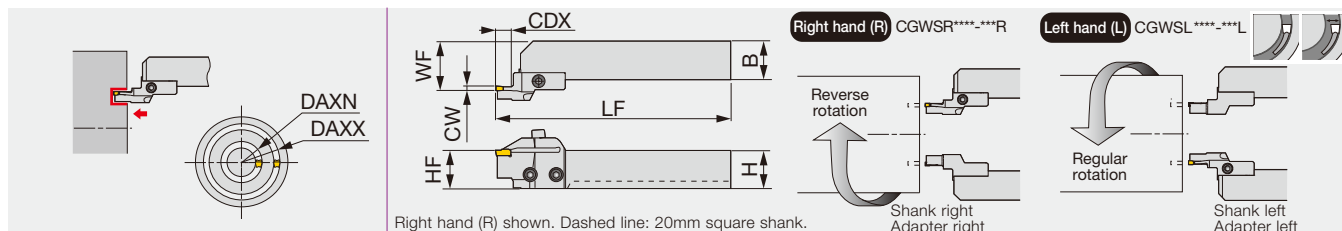
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M

MY-T SERIES

#S/D##R/L+CGWSR/L

Adapter for face grooving and turning toolholders (CGWSR/L-#S/D, CGWTR/L-#S/D)



Designation	CW	DAXN	DAXX	CDX	H	B	LF	HF	WF	Insert	Shank	Torque*
30S3040R/L	3	30	40	10	20/25	20/25	152.5	20/25	27/32	G*30, GE30-AL	CGWSR/L...	5
30S4050R/L	3	40	50	10	20/25	20/25	152.5	20/25	27/32	G*30, GE30-AL	CGWSR/L...	5
30S5065R/L	3	50	65	10	20/25	20/25	152.5	20/25	27/32	G*30, GE30-AL	CGWSR/L...	5
30S6590R/L	3	65	90	10	20/25	20/25	152.5	20/25	27/32	G*30, GE30-AL	CGWSR/L...	5
30S90150R/L	3	90	150	10	20/25	20/25	152.5	20/25	27/32	G*30, GE30-AL	CGWSR/L...	5
30S150500R/L	3	150	500	10	20/25	20/25	152.5	20/25	27/32	G*30, GE30-AL	CGWSR/L...	5
40S3545R/L	4	35	45	14	20/25	20/25	152.5	20/25	27/32	G*40, GE40-AL	CGWSR/L...	5
40S4555R/L	4	45	55	14	20/25	20/25	152.5	20/25	27/32	G*40, GE40-AL	CGWSR/L...	5
40S5580R/L	4	55	80	14	20/25	20/25	152.5	20/25	27/32	G*40, GE40-AL	CGWSR/L...	5
40S80140R/L	4	80	140	14	20/25	20/25	152.5	20/25	27/32	G*40, GE40-AL	CGWSR/L...	5
40S140500R/L	4	140	500	14	20/25	20/25	152.5	20/25	27/32	G*40, GE40-AL	CGWSR/L...	5
40D3545R/L	4	35	45	22	20/25	20/25	160.5	20/25	27/32	G*40, GE40-AL	CGWSR/L...	5
40D4555R/L	4	45	55	22	20/25	20/25	160.5	20/25	27/32	G*40, GE40-AL	CGWSR/L...	5
40D5580R/L	4	55	80	22	20/25	20/25	160.5	20/25	27/32	G*40, GE40-AL	CGWSR/L...	5
40D80140R/L	4	80	140	22	20/25	20/25	160.5	20/25	27/32	G*40, GE40-AL	CGWSR/L...	5
40D140500R/L	4	140	500	22	20/25	20/25	160.5	20/25	27/32	G*40, GE40-AL	CGWSR/L...	5
50S3545R/L	5	35	45	14	20/25	20/25	152.5	20/25	27/32	G*50	CGWSR/L...	5
50S4555R/L	5	45	55	14	20/25	20/25	152.5	20/25	27/32	G*50	CGWSR/L...	5
50S5575R/L	5	55	75	14	20/25	20/25	152.5	20/25	27/32	G*50	CGWSR/L...	5
50S75130R/L	5	75	130	14	20/25	20/25	152.5	20/25	27/32	G*50	CGWSR/L...	5
50S130500R/L	5	130	500	14	20/25	20/25	152.5	20/25	27/32	G*50	CGWSR/L...	5
50D3545R/L	5	35	45	22	20/25	20/25	160.5	20/25	27/32	G*50	CGWSR/L...	5
50D4555R/L	5	45	55	22	20/25	20/25	160.5	20/25	27/32	G*50	CGWSR/L...	5
50D5575R/L	5	55	75	22	20/25	20/25	160.5	20/25	27/32	G*50	CGWSR/L...	5
50D75130R/L	5	75	130	22	20/25	20/25	160.5	20/25	27/32	G*50	CGWSR/L...	5
50D130500R/L	5	130	500	22	20/25	20/25	160.5	20/25	27/32	G*50	CGWSR/L...	5

Toolholders are in stock with the designations of: a set of shank and adapter; a shank; a adapter. Combining the designations of a adapter and a shank will make the designation of a set. Please check the stock and place an order with the designation of a set or a shank+a adapter.
Use right-hand shanks (CGWSR~) with right-hand adapters (~R); and left-hand shanks (CGWSL~) with left-hand adapters (~L).
Torque*: Recommended clamping torque (N·m)

SPARE PARTS

Designation	Clamping screw	Adapter screw	Wrench
30S..., 40S...	CHHM5-18	CSHB-6	P-4
40D...	CM5X0.8X16	CSHB-6	P-4
50S...	CHHM5-18	CSHB-6	P-4
50D...	CM5X0.8X16	CSHB-6	P-4

Combination of adapter and shank

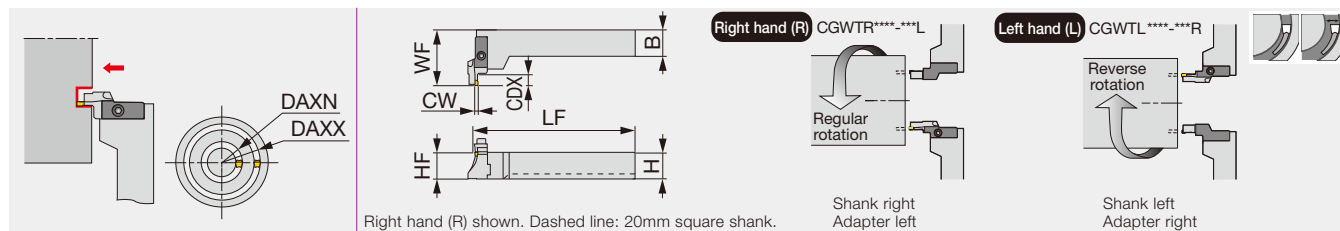
Shank	Adapter	
	S/DR	**S/D**L
CGWSR...	●	
CGWSL...		●
CGWTR...		●
CGWTL...	●	

● : Corresponding

Reference pages: Inserts → [F217 - F220](#), Shanks → [F216](#), Standard cutting conditions → [F221](#)

#S/D##R/L+CGWTR/L

Adapter for face grooving and turning toolholders (CGWSR/L-#S/D, CGWTR/L-#S/D)



Designation	CW	DAXN	DAXX	CDX	H	B	LF	HF	WF	Insert	Shank	Torque*
30S3040R/L	3	30	40	10	20/25	20/25	150	20/25	52.25	G*30, GE30-AL	CGWTL/R...	5
30S4050R/L	3	40	50	10	20/25	20/25	150	20/25	52.25	G*30, GE30-AL	CGWTL/R...	5
30S5065R/L	3	50	65	10	20/25	20/25	150	20/25	52.25	G*30, GE30-AL	CGWTL/R...	5
30S6590R/L	3	65	90	10	20/25	20/25	150	20/25	52.25	G*30, GE30-AL	CGWTL/R...	5
30S90150R/L	3	90	150	10	20/25	20/25	150	20/25	52.25	G*30, GE30-AL	CGWTL/R...	5
30S150500R/L	3	150	500	10	20/25	20/25	150	20/25	52.25	G*30, GE30-AL	CGWTL/R...	5
40S3545R/L	4	35	45	14	20/25	20/25	150	20/25	52.25	G*40, GE40-AL	CGWTL/R...	5
40S4555R/L	4	45	55	14	20/25	20/25	150	20/25	52.25	G*40, GE40-AL	CGWTL/R...	5
40S5580R/L	4	55	80	14	20/25	20/25	150	20/25	52.25	G*40, GE40-AL	CGWTL/R...	5
40S80140R/L	4	80	140	14	20/25	20/25	150	20/25	52.25	G*40, GE40-AL	CGWTL/R...	5
40S140500R/L	4	140	500	14	20/25	20/25	150	20/25	52.25	G*40, GE40-AL	CGWTL/R...	5
40D3545R/L	4	35	45	22	20/25	20/25	150	20/25	60.25	G*40, GE40-AL	CGWTL/R...	5
40D4555R/L	4	45	55	22	20/25	20/25	150	20/25	60.25	G*40, GE40-AL	CGWTL/R...	5
40D5580R/L	4	55	80	22	20/25	20/25	150	20/25	60.25	G*40, GE40-AL	CGWTL/R...	5
40D80140R/L	4	80	140	22	20/25	20/25	150	20/25	60.25	G*40, GE40-AL	CGWTL/R...	5
40D140500R/L	4	140	500	22	20/25	20/25	150	20/25	60.25	G*40, GE40-AL	CGWTL/R...	5
50S3545R/L	5	35	45	14	20/25	20/25	150	20/25	52.25	G*50	CGWTL/R...	5
50S4555R/L	5	45	55	14	20/25	20/25	150	20/25	52.25	G*50	CGWTL/R...	5
50S5575R/L	5	55	75	14	20/25	20/25	150	20/25	52.25	G*50	CGWTL/R...	5
50S75130R/L	5	75	130	14	20/25	20/25	150	20/25	52.25	G*50	CGWTL/R...	5
50S130500R/L	5	130	500	14	20/25	20/25	150	20/25	52.25	G*50	CGWTL/R...	5
50D3545R/L	5	35	45	22	20/25	20/25	150	20/25	60.25	G*50	CGWTL/R...	5
50D4555R/L	5	45	55	22	20/25	20/25	150	20/25	60.25	G*50	CGWTL/R...	5
50D5575R/L	5	55	75	22	20/25	20/25	150	20/25	60.25	G*50	CGWTL/R...	5
50D75130R/L	5	75	130	22	20/25	20/25	150	20/25	60.25	G*50	CGWTL/R...	5
50D130500R/L	5	130	500	22	20/25	20/25	150	20/25	60.25	G*50	CGWTL/R...	5

Toolholders are in stock with the designations of: a set of shank and adapter; a shank; a adapter. Combining the designations of a adapter and a shank will make the designation of a set. Please check the stock and place an order with the designation of a set or a shank+a adapter.
Use right-hand shanks (CGWTR~) with left-hand adapters (~L); and left-hand shanks (CGWTL~) with right-hand adapters (~R).
Torque*: Recommended clamping torque (N·m)

SPARE PARTS

Designation	Clamping screw	Adapter screw	Wrench
30S..., 40S...	CHHM5-18	CSHB-6	P-4
40D...	CM5X0.8X16	CSHB-6	P-4
50S...	CHHM5-18	CSHB-6	P-4
50D...	CM5X0.8X16	CSHB-6	P-4

Combination of adapter and shank

Shank	Adapter	
	S/DR	**S/D**L
CGWSR...	●	
CGWSL...		●
CGWTR...		●
CGWTL...	●	

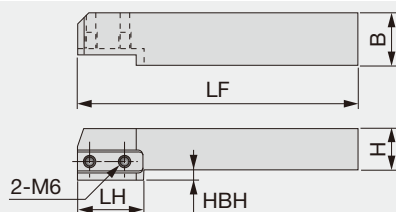
● : Corresponding

Reference pages: Inserts → **F217 - F220**, Shanks → **F216**, Standard cutting conditions → **F221**

MY-T SERIES

CGWSR/L

Shank for CGWSR/L-WG, -WG-L, -G, -CGD, -FL-G/TP, and -#S/D toolholders



Right hand (R) shown.

Designation	H	B	LF	LH	HBH
CGWSR/L2020	20	20	137	32.5	5
CGWSR/L2525	25	25	137	-	-



External



Internal



Face

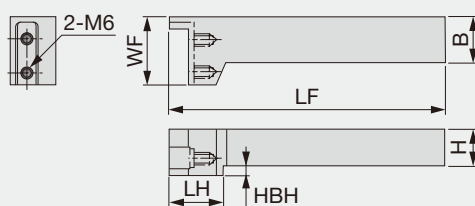


Parting

Others

CGWTR/L

Shank for CGWSR/L-WG, -WG-L, -G, -CGD, -FL-G/TP, and -#S/D toolholders, for tangentially clamped adapter



Right hand (R) shown.

Designation	H	B	LF	LH	WF	HBH
CGWTR/L2020	20	20	150	30.5	37	5
CGWTR/L2525	25	25	150	-	37	-

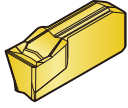
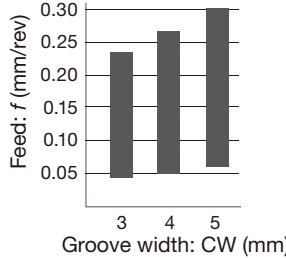
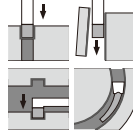
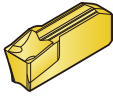
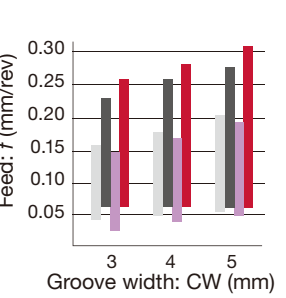
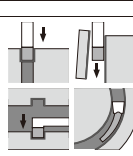
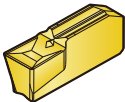
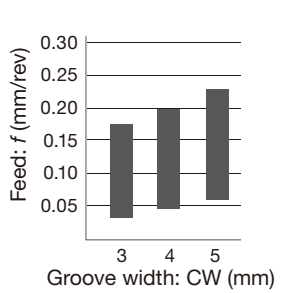
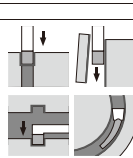
SPARE PARTS



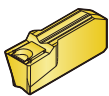
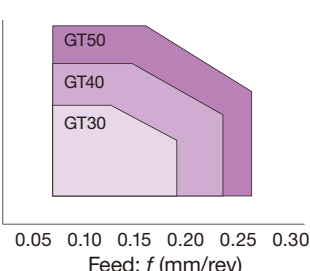
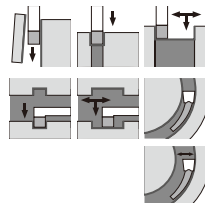
Designation	Adapter screw
CGW*R/L...	CSHB-6

Reference pages: Inserts → **F217 - F220**, Standard cutting conditions → **F221**

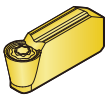
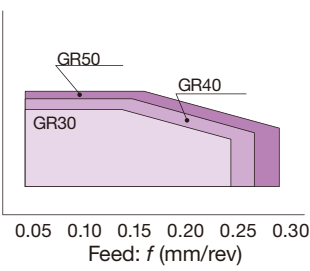
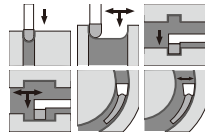
Face grooving

GF  F219	1st choice for face grooving Low cutting force and good chip control for face grooving CW = 3 - 5 mm	 Feed: f (mm/rev) Groove width: CW (mm) ■ Face grooving 
GE  F218	1st choice for external grooving and parting Excellent chip control for grooving CW = 3 - 5 mm	 Feed: f (mm/rev) Groove width: CW (mm) ■ External grooving ■ Internal grooving ■ Face grooving ■ Parting 
GN  F220	1st choice for internal grooving Low cutting force and good chip control for internal grooving CW = 3 - 5 mm	 Feed: f (mm/rev) Groove width: CW (mm) ■ Face grooving 

External grooving and turning

GT  F218	1st choice for turning Low cutting force and good chip control for traversing CW = 3 - 5 mm	 Depth of cut a_p (mm) Feed: f (mm/rev) GT50 GT40 GT30 
---	--	---

For profiling

GR  F219	Full radius type Low cutting force and good chip control for profiling CW = 3 - 5 mm	 Depth of cut a_p (mm) Feed: f (mm/rev) GR50 GR40 GR30 
---	---	---

For aluminium and non-ferrous metal

GE-AL



F220

Reduce cutting force and welding
due to sharp chipbreaker

CW = 3 - 4 mm



Groove width: CW (mm)	Feed: f (mm/rev)
3	0.10
4	0.10

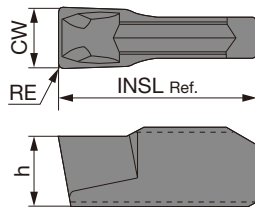


Please see page **F***** for the product details.

■ INSERTS

GE

For external grooving and parting



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

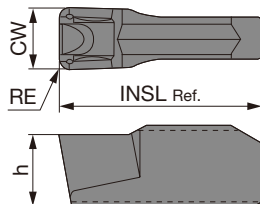
★ : First choice
☆ : Second choice

Designation	CW ^{+0.1} ₀	RE	Coated				Cermet						INSL	h	
			T9225	AH120	GH730			NS9530							
GE30	3	0.2	●	●	●			●						10	3.5
GE40	4	0.2	●	●	●			●						10	4
GE50	5	0.2	●	●	●			●						12	4.5

● : Line up

GT

For external grooving and turning



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

★ : First choice
☆ : Second choice

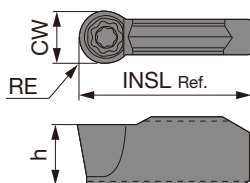
Designation	CW ₀ ^{+0.1}	RE	Coated				Cermet						INSL	h
			T9225	AH120	GH730			NS9530						
GT30	3	0.4	●	●			●						10	3.5
GT40	4	0.4		●	●			●					10	4
GT50	5	0.4	●	●	●			●					12	4.5

● : Line up

Reference pages: Toolholders → **F214 - F216**, Standard cutting conditions → **F221**

GR

For profiling (full radius)



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

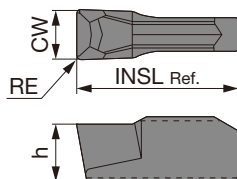
★ : First choice
☆ : Second choice

Designation	CW ^{+0.1} ₀	RE	Coated			Cermet			INSL	h
			T9225	AH120	GH730	NS9530				
GR30	3	1.5	●	●	●	●			10	3.5
GR40	4	2	●	●	●	●			10	4
GR50	5	2.5	●	●	●	●			12	4.5

● : Line up

GF

For face grooving



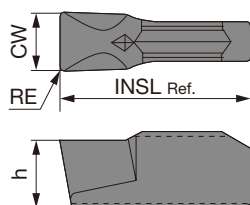
P	Steel	★		★				
M	Stainless	★						
K	Cast iron	☆		☆				
N	Non-ferrous							
S	Superalloys							
H	Hard materials							

★ : First choice
☆ : Second choice

Designation	CW ^{+0.1} ₀	RE	Coated		Cermet		INSL	h
			GH730		NS9530			
GF30	3	0.2	●		●		10	3.5
GF40	4	0.2	●		●		10	4
GF50	5	0.2	●		●		12	4.5

● : Line up

For internal grooving



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

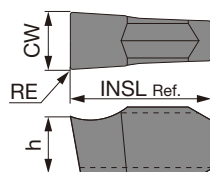
★ : First choice
☆ : Second choice

[illegible]

● : Line up

GE-AL

For aluminium and non-ferrous metal



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

★ : First choice
☆ : Second choice

Designation	CW ^{+0.1} ₀	RE	Uncoated							INSL	h
			KS05F								
GE30-AL	3	0.2	●							10	3.5
GE40-AL	4	0.2	●							10	4

● : Line up

STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Grade	Cutting speed Vc (m/min)
P	Low carbon steel, Alloy steel (~ HB150)	T9225	80 - 300
		NS9530	100 - 200
		GH730, AH120	50 - 180
	Medium carbon steel, Alloy steel (HB150 ~ 250)	T9225	80 - 220
		NS9530	80 - 180
		GH730, AH120	50 - 150
	High carbon steel, Alloy steel (HB250 ~)	T9225	80 - 220
		NS9530	80 - 150
		GH730, AH120	50 - 120
M	Stainless steel	GH730, AH120	50 - 120
K	Grey iron, Ductile cast iron	GH730, AH120	50 - 180
N	Aluminium alloy, Non-ferrous metal	KS05F	200 - 300

For face grooving

Operation	Feed: <i>f</i> (mm/rev)		
	Groove width: CW (mm)		
	3	4	5
Face grooving (GE**)	0.06 - 0.22	0.06 - 0.24	0.07 - 0.26
Face grooving (GF**)	0.04 - 0.25	0.05 ~ 0.26	0.05 - 0.30
Traversing (GT**)	<i>ap</i> = 0.5 - 1.5 <i>f</i> = 0.06 - 0.2	<i>ap</i> = 0.5 - 2 <i>f</i> = 0.06 - 0.25	<i>ap</i> = 0.5 - 2.5 <i>f</i> = 0.06 - 0.27
Traversing (GR**)	<i>ap</i> = 0.5 - 1.4 <i>f</i> = 0.05 - 0.25	<i>ap</i> = 0.5 - 1.5 <i>f</i> = 0.05 - 0.26	<i>ap</i> = 0.5 - 1.6 <i>f</i> = 0.05 - 0.3
Grooving for Aluminium alloys (GE*-AL)	0.03 - 0.1	0.03 - 0.1	-

For diameter compensation values in traversing, **F115** page

When vibration occurs in turning, please use the lower limit value in the above table.

Grade

Insert

Ext. Toolholder

Int. Toolholder

Threading

Grooving

Miniature tool

Milling cutter

Endmill

Drilling tool

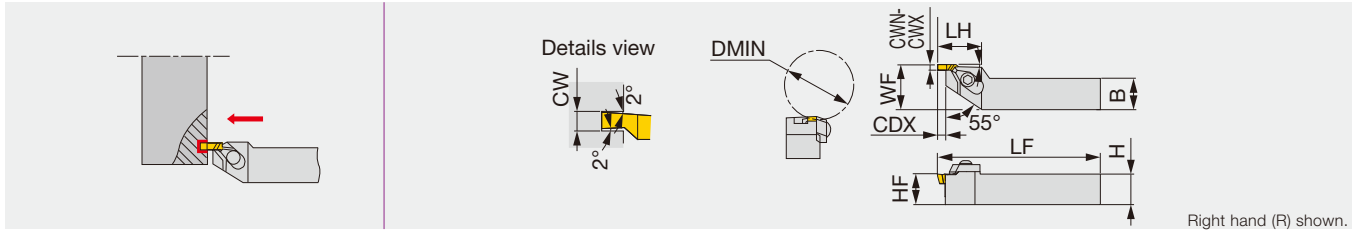
Tooling System

User's Guide

Index

GX-R/LF

Face grooving toolholder



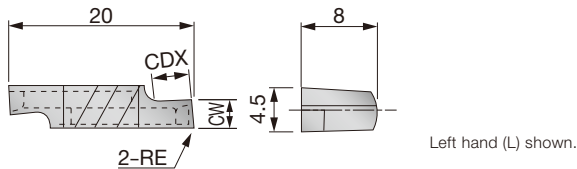
Designation	CWN	CWX	DMIN	CDX	H	B	LF	LH	HF	WF	Insert	Torque*
GX-2525R/LF	1	4.5	55	1.5 - 6	25	25	150	35	25	32	XNL/R63...	5

Use right-hand toolholders (GX-...RF) with left-hand inserts (XNL); and left-hand toolholders (GX-...LF) with right-hand inserts (XNR).
Torque*: Recommended clamping torque (N·m)

Designation	Clamp set	Clamping screw	Shim	Shim screw	Wrench
GX-2525RF	CP81A	RT-1	SL-3R	BHM4-8	P-4
GX-2525LF	CP81A	RT-1	SL-3L	BHM4-8	P-4

INSERT

XNR/L



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

★ : First choice
☆ : Second choice

Designation	HAND	CW±0.05	RE	Cermet		Uncoated						CDX
				NS9530		TH10						
XNR6310-02	R	1	0.2	●		●						1.5
XNL6310-02	L	1	0.2	●		●						1.5
XNR6315-02	R	1.5	0.2	●		●						2.3
XNL6315-02	L	1.5	0.2	●		●						2.3
XNR6320-02	R	2	0.2	●		●						3
XNL6320-02	L	2	0.2	●		●						3
XNR6325-02	R	2.5	0.2	●		●						3.8
XNL6325-02	L	2.5	0.2	●		●						3.8
XNR6330-02	R	3	0.2	●		●						4.5
XNL6330-02	L	3	0.2	●		●						4.5
XNR6335-02	R	3.5	0.2	●		●						5.3
XNL6335-02	L	3.5	0.2	●		●						5.3
XNR6340-02	R	4	0.2	●		●						6
XNL6340-02	L	4	0.2	●		●						6
XNR6345-02	R	4.5	0.2	●		●						6
XNL6345-02	L	4.5	0.2	●		●						6

● : Line up

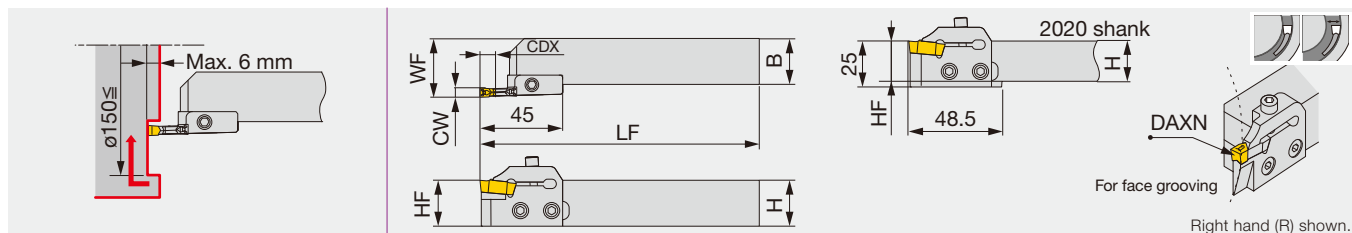
STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Grade	Cutting speed Vc (m/min)	Feed: f (mm/rev)		
				CW < 2 mm	CW = 2 ~ 4 mm	CW > 4 mm
P	Carbon steels	NS9530	80 - 200	0.05 - 0.1	0.08 - 0.2	0.08 - 0.25
K	Cast irons, Light alloys	TH10	60 - 150	0.05 - 0.1	0.08 - 0.2	0.08 - 0.25

MY-T SERIES

CGWSR/L-FLR/L5TP

Face grooving and turning toolholder



Designation	CW	DAXN	CDX	H	B	LF	HF	WF	Insert	Shank	Adapter	Torque*
CGWSR/L2020-FLR/L5TP	5	150	6	20	20	152	20	27	FLEX50R/L	CGWSR/L2020	FLR/L5TP	5
CGWSR/L2525-FLR/L5TP	5	150	6	25	25	152	25	32	FLEX50R/L	CGWSR/L2525	FLR/L5TP	5

Toolholders are in stock with the designations of: a set of shank and adapter; a shank; a adapter. Combining the designations of a adapter and a shank will make the designation of a set. Please check the stock and place an order with the designation of a set or a shank+a adapter.

Note: Use right-hand shanks (CGWSR...) with right-hand adapters (FLR5TP); and left-hand shanks (CGWSL...) with left-hand adapters (FLR5TP).

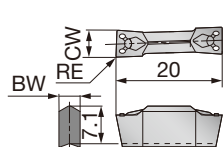
Torque*: Recommended clamping torque (N·m)

SPARE PARTS

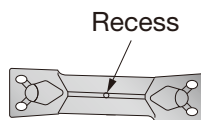
Designation	Clamping screw	Adapter screw	Wrench
CGWSR/L****-FLR/L5TP	CHHM5-18	CSHB-6	P-4

INSERT

FLEX(R/L)



Right hand (R) shown.



To distinguish the insert hands, the V-shape surface (top surface) of a left-hand insert has a recess. (not of a right-hand insert)

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

★ : First choice
☆ : Second choice

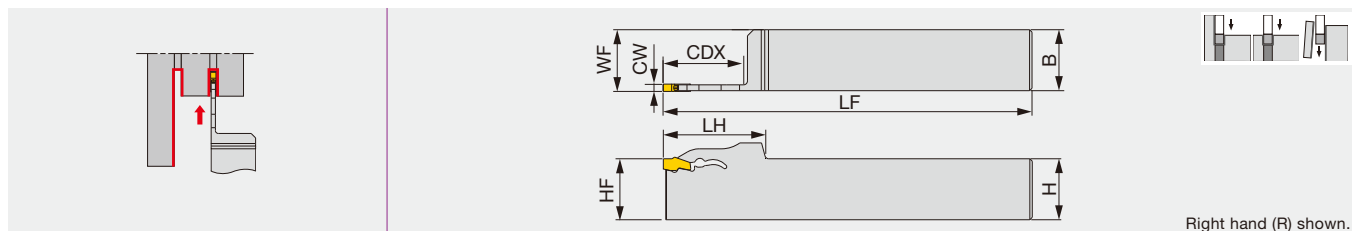
Designation	HAND	CW±0.05	RE	Coated		Cermet		Uncoated		BW
				T9225		NS9530		UX30		
FLEX30R	R	3	0.4			●				2.2
FLEX30L	L	3	0.4			●				2.2
FLEX40R	R	4	0.4			●				3.1
FLEX40L	L	4	0.4			●				3.1
FLEX50R	R	5	0.4	●		●		●		4
FLEX50L	L	5	0.4	●		●		●		4

● : Line up

STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Grade	Cutting speed Vc (m/min)	Feed: f (mm/rev)	
				Grooving	Turning
P	Carbon steels	T9225	80 - 300	0.05 - 0.25	0.1 - 0.3
		NS9530	80 - 200	0.05 - 0.25	0.1 - 0.3
		UX30	60 - 150	0.05 - 0.25	0.1 - 0.3

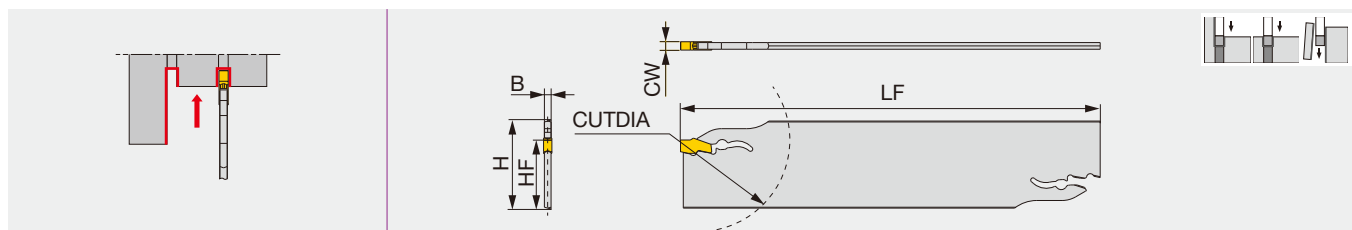
External toolholders for grooving and parting



Designation	CW	CDX	Seat size	H	B	LF	LH	HF	WF
QSER/L2020-2T26	2	26	2	20	20	125	36	20	20.1
QSER/L2020-2T33	2	33	2	20	20	125	42	20	20.1
QSER/L2525-2T26	2	26	2	25	25	150	36	25	25.1
QSER/L2525-2T33	2	33	2	25	25	150	42	25	25.1
QSER/L2020-3T26	3	26	3	20	20	125	36	20	20.3
QSER/L2020-3T33	3	33	3	20	20	125	42	20	20.3
QSER/L2525-3T26	3	26	3	25	25	150	36	25	25.3
QSER/L2525-3T33	3	33	3	25	25	150	42	25	25.3
QSER/L2020-4T33	4	33	4	20	20	125	42	20	20.4
QSER/L2525-4T33	4	33	4	25	25	150	42	25	25.4
QSER/L2525-5T33	5	33	5	25	25	150	42	25	25.5

QSP

Blades for external deep grooving and parting



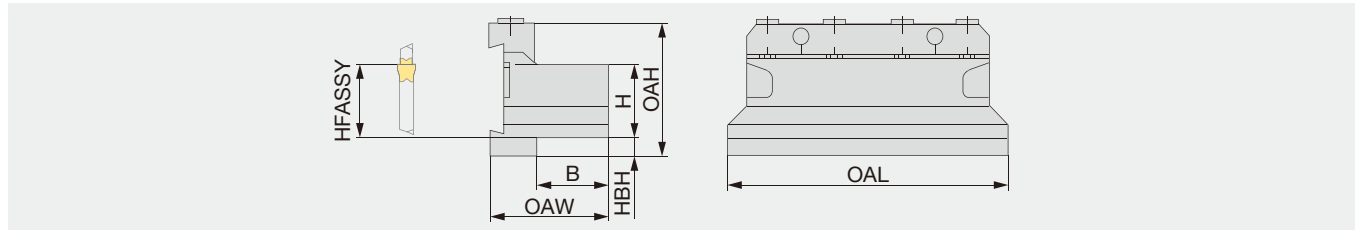
Designation	CW	CUTDIA	Seat size	H	B	LF	HF
QSP26-2D	2	52	2	26	1.8	150	21.4
QSP32-2D	2	66	2	32	1.8	150	24.8
QSP26-3D	3	75	3	26	2.4	150	21.4
QSP32-3D	3	120	3	32	2.4	150	24.8
QSP26-4D	4	80	4	26	3.2	150	21.4
QSP32-4D	4	120	4	32	3.2	150	24.9
QSP32-5D	5	120	5	32	4	150	24.9

SPARE PARTS

Designation	Wrench
QS...	QL-39

CTBU

Tool block for QSP blades



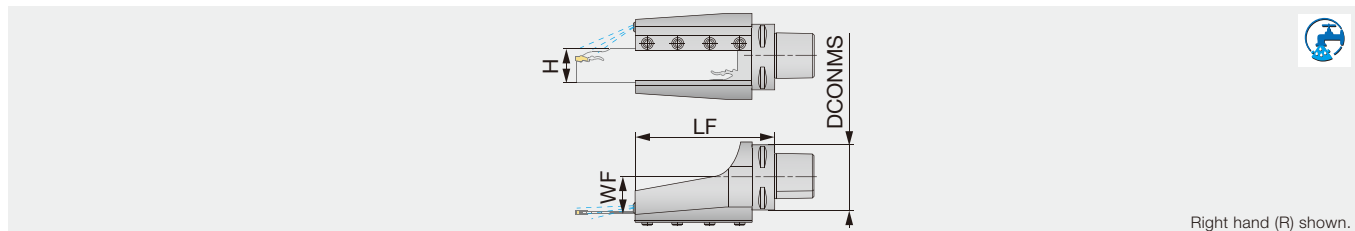
Designation	H	B	OAL	HFASSY	HBH	OAH	OAW	Blade (Optional)
CTBU20-26	20	21	86	20	9	43	38	QSP26...
CTBU25-26	25	23	110	25	5	45	43	QSP26...
CTBU20-32	20	19	100	20	13	50	38	QSP32...
CTBU25-32	25	23	110	25	8	50	42	QSP32...
CTBU32-32	32	29	110	32	5	54	48	QSP32...

SPARE PARTS

Designation	Clamp	Clamping screw	Wrench
CTBU20-26	CT-86	CM6X30-S	P-5
CTBU25-26	CT-105	CM6X30-S	P-5
CTBU20-32	CT-100	CM6X30-S	P-5
CTBU25-32	CT-110	CM6X30-S	P-5
CTBU32-32	CT-110	CM6X30-S	P-5

C-TBK-R/L

Toolholder with TungCap connection for parting-off blade



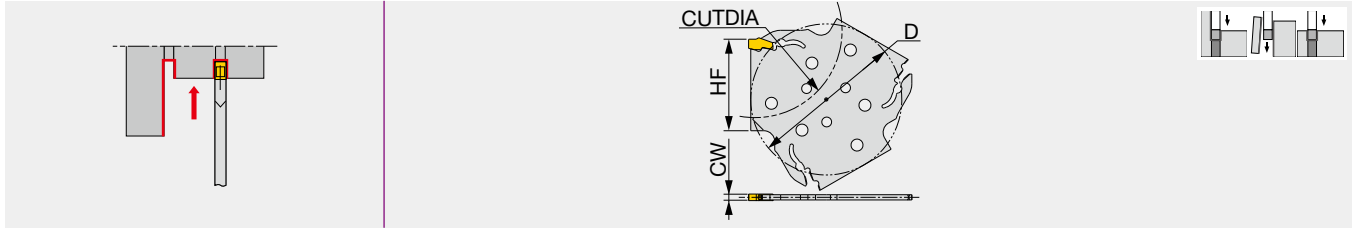
Designation	DCONMS	WF	LF	H
C6TBK-32R/L	63	32	138	32

Applicable for 3 MPa coolant

SPARE PARTS

Designation	Clamp	Clamping screw	Wrench	Coolant parts
C6TBK-32R/L	BK32-9WEDG	SRM6X16DIN912-12.9	HW5.0	EZ125

Reference pages: Inserts → **F227, F228**, Standard cutting conditions → **F228**



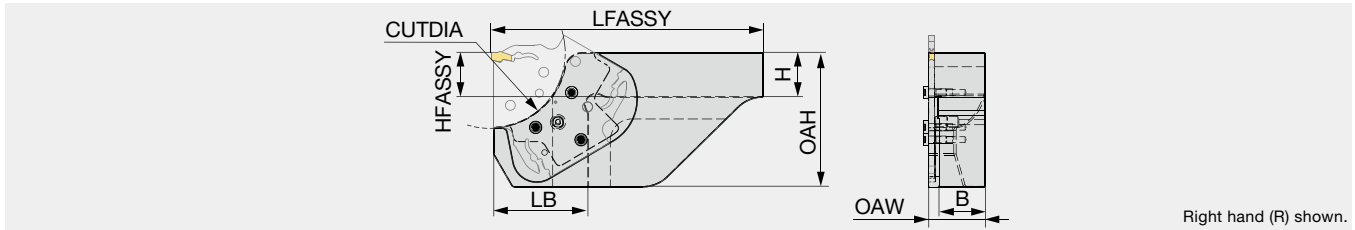
Designation	CW	Seat size	CUTDIA	HF	D
QSG52-2T	2	2	52	27	48.3
QSG82-2T	2	2	82	42	69.3
QSG52-3T	3	3	52	27	48.3
QSG82-3T	3	3	82	42	69.3
QSG120-3T	3	3	120	61	88
QSG52-4T	4	4	52	27	69.3
QSG82-4T	4	4	82	42	69.3
QSG120-4T	4	4	120	61	88
QSG120-5T	5	5	120	61	88

SPARE PARTS

Designation	Wrench
QSG...	QL-39

CHTBR/L

Tool block for QSG blade

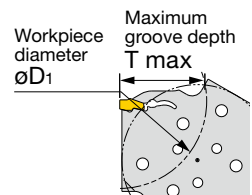


Designation	CUTDIA	H	B	LFASSY	HFASSY	OAH	OAW	LB
CHTBR/L2020-52	52	20	20.5	100	20	50	26.5	37
CHTBR/L2525-52	52	25	25.5	125	25	50	31.5	37
CHTBR/L2020-82	82	20	20.5	140	20	75	26.5	53
CHTBR/L2525-82	82	25	25.5	150	25	75	31.5	53
CHTBR/L2525-120	120	25	25.5	165	25	100	31.5	67
CHTBR/L3232-120	120	32	32.5	165	32	100	38.5	67

The blade clamping screw heads protrude out for as much as 3.1 mm over the insert cutting edge point.
Maintain the clearance from the chucking device to avoid interference.

SPARE PARTS

Designation	Clamping screw	Grip	Torx bit
CHTBR/L...	SR ISO 14580 M4X10	SW6-SD	BLDT20/S7



Maximum groove depth (T max) as function of workpiece diameter (øD1)

Designation	øD ₁																	
CHTBR/L***-52	53	54	55	56	58	60	62	65	68	72	78	84	92	102	115	133	159	198
CHTBR/L***-82	104	108	112	116	121	127	134	142	151	162	176	192	212	237	270	313	375	468
CHTBR/L***-120	205	214	224	235	247	261	278	297	319	345	376	414	462	522	601	709	865	1112
T max	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4

Designation	øD1									
CHTBR/L****-82	83	84	84	85	86	87	89	90	92	94
CHTBR/L****-120	144	147	150	153	156	160	164	168	173	178
T max	34	33	32	31	30	29	28	27	26	25

Designation									øD1								
CHTBR/L****-120	121	122	123	124	125	126	127	128	129	130	131	133	134	136	138	140	142
T max	55	52	50	48	47	46	45	44	43	42	41	40	39	38	37	36	35

Reference pages: Inserts → **F227, F228**, Standard cutting conditions → **F228**

CHIPBREAKER GUIDE

QGM



First choice for grooving and parting

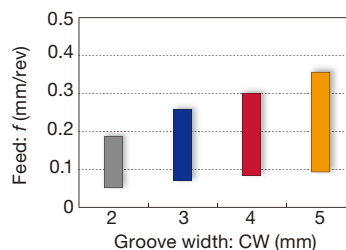
Smooth chip evacuation
Well-designed edge with
high strength
CW = 2 - 5 mm

TUNGFEED BLADE

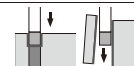
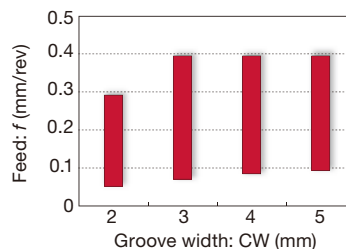
Enables high feed machining
when combined with extremely
rigid TungFeed-Blade toolholder

CW = 2 - 5 mm
CUTDIA = $\varnothing 52$, $\varnothing 82$, $\varnothing 120$ mm

■ Standard feed



■ Recommended feed when using TungFeed-Blade



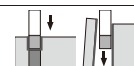
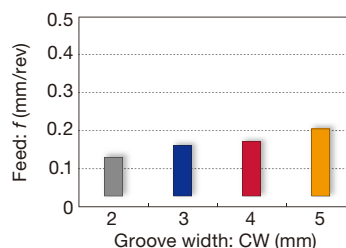
QGS



Lower cutting force and superior sharpness

Uniquely designed edge
and chipbreaker
CW = 2 - 5 mm

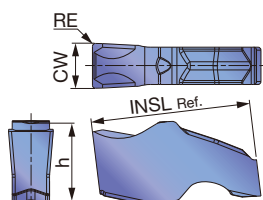
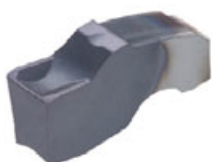
■ Standard feed



INSERTS

QGM

External deep grooving and parting



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

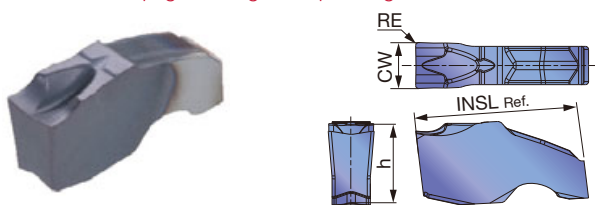
★ : First choice

Designation	Seat size	CW±0.05	RE	Coated					INSL	h	
				AH7025							
QGM2-020	2	2	0.2	●						11	5.3
QGM3-020	3	3	0.2	●						11	5.3
QGM4-030	4	4	0.3	●						13	7.3
QGM5-030	5	5	0.3	●						13	7.3

●: Line up

Reference pages: Toolholders → **F224 - F226**, Standard cutting conditions → **F228**

External deep grooving and parting



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

★ : First choice

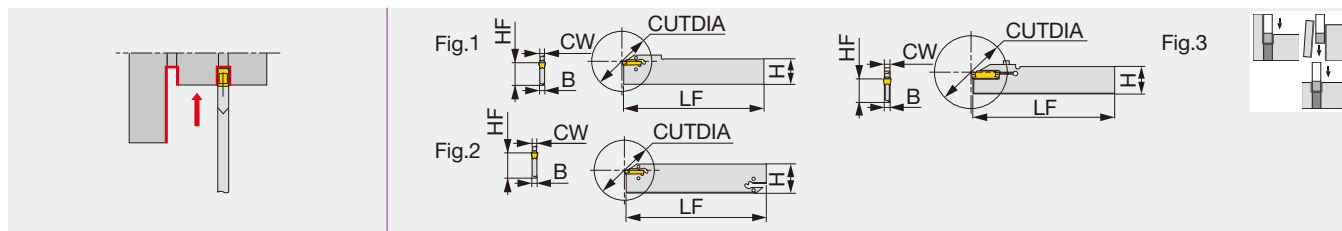
[illegible]

●: Line up

ISO

ISO	Workpiece material	Hardness	Grade	Cutting speed Vc (m/min)
P	Steels C45, 34CrMo4, etc.	< 300 HB	AH7025	50 - 180
M	Stainless steel X10CrNiS18-9, etc.	< 200 HB	AH7025	50 - 120
K	Gray cast iron GG25, 250, etc.	-	AH7025	50 - 180
	Ductile cast irons GGG45, 450-10S, etc.	-	AH7025	50 - 120
S	Superalloys Inconel718, etc.	< HRC 40	AH7025	20 - 60
	Titanium alloys Ti-6Al-4V, etc.	< HRC 40	AH7025	20 - 80

Please see page **F227** for feed: f (mm/rev).



Designation	CW	Seat size	CUTDIA	H	B	LF	HF	Fig.	Torque*
CGP26-1.4S	1.4	1	26	26	1	150	21.4	1	-
CGP32-1.4D	1.4	1	26	32	1	150	24.8	2	-
CGP26-2S	2	2	40	26	1.8	150	21.4	1	-
CGP32-2D	2	2	50	32	1.8	150	24.8	2	-
CGP26-3S	3	3	50	26	2.4	150	21.4	1	-
CGP32-3D	3	3	100	32	2.4	150	24.8	2	-
CGP26-4S	4	4	80	26	3.2	150	21.4	1	-
CGP32-4D	4	4	100	32	3.2	150	24.9	2	-
CGP45-4D	4	4	120	45	3.2	150	38.1	2	-
CGP32-5D	5	5	120	32	4	150	24.9	2	-
CGP32-6D	6	6	120	32	5.2	150	24.9	2	-
CGP32-8S-CL	8	8	80	32	6.2	150	24.9	3	3

When depth is deeper than (insert length - 1.5mm), 1 corner type is recommended.

Wrench (CRW...) is not included. Please order it separately.

*Torque: Recommended clamping torque (N·m)

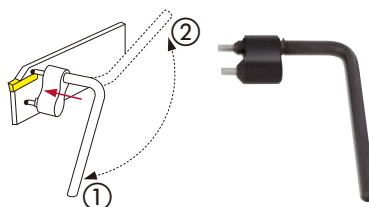
SPARE PARTS

Designation	Clamping screw	Wrench	Wrench (Optional)
CGP**-1.4*	-	-	CRW23
CGP**-2/3/4/5/6	-	-	CRW33
CGP32-8S-CL	CM4X0.7X20-M0-A	P-3	-

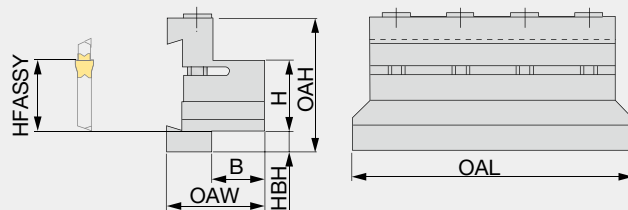
Caution

Newly developed clamp

Insert is clamped by the elastic deformation of upper jaw. Low clamping stress increases the stability and tool life.



①→② : unclamp
②→① : clamp



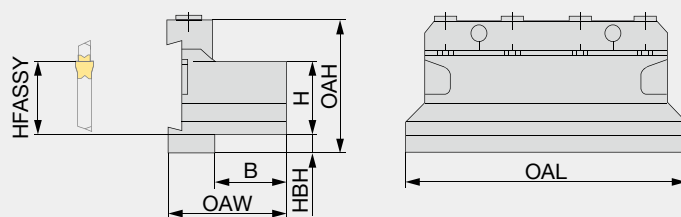
Designation	H	B	OAL	HFASSY	HBH	OAH	OAW	Blade (Optional)
CTBF25-45	25	22	110	25	25	66	40	CGP45...
CTBF32-45	32	28	120	32	18	66	45	CGP45...

External

Internal

CTBU

Tool block for CGP blade



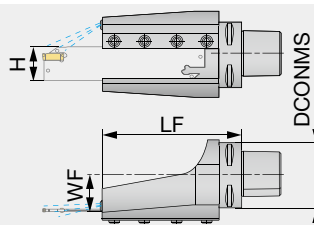
Designation	H	B	OAL	HFASSY	HBH	OAH	OAW	Blade (Optional)
CTBU20-26	20	21	86	20	9	43	38	CGP26...
CTBU25-26	25	23	110	25	5	45	43	CGP26...
CTBU20-32	20	19	100	20	13	50	38	CGP32...
CTBU25-32	25	23	110	25	8	50	42	CGP32...
CTBU32-32	32	29	110	32	5	54	48	CGP32...

SPARE PARTS

Designation	Clamp	Clamping screw	Wrench
CTBF...	-	CM6X1.0X40-A	P-5
CTBU20-26	CT-86	CM6X30-S	P-5
CTBU25-26	CT-105	CM6X30-S	P-5
CTBU20-32	CT-100	CM6X30-S	P-5
CTBU25-32	CT-110	CM6X30-S	P-5
CTBU32-32	CT-110	CM6X30-S	P-5

C-TBK-R/L

Toolholder with TungCap connection for parting-off blade



Right hand (R) shown.

Designation	DCONMS	WF	LF	H
C6TBK-32R/L	63	32	138	32

Applicable for 3 MPa coolant

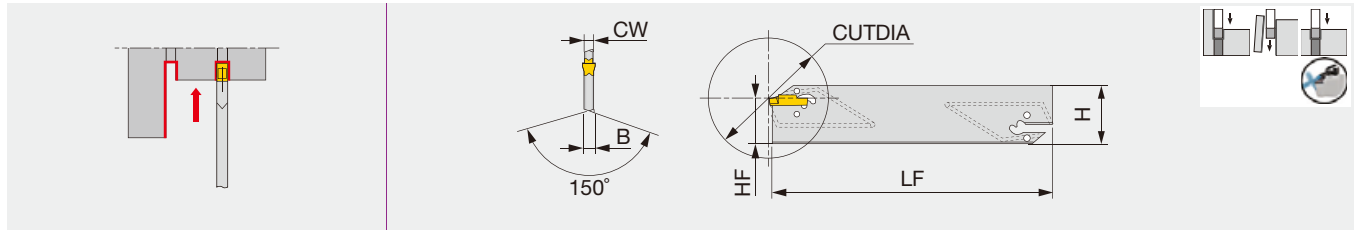
SPARE PARTS

Designation	Clamp	Clamping screw	Wrench	Coolant parts
C6TBK-32R/L	BK32-9WEDG	SRM6X16DIN912-12.9	HW5.0	EZ125

Reference pages: Inserts → **F236 - F245**, Blades → **F229**, Standard cutting conditions → **F246**

CGP32-CHP

External deep grooving and parting blade, with high pressure coolant capability



Designation	CW	Seat size	CUTDIA	H	B	LF	HF
CGP32-2D-CHP	2	2	50	32	1.8	150	24.8
CGP32-3D-CHP	3	3	90	32	2.5	150	24.8
CGP32-4D-CHP	4	4	90	32	3.2	150	24.9
CGP32-5D-CHP	5	5	110	32	4	150	24.9
CGP32-6D-CHP	6	6	110	32	5.2	150	24.9

When depth is deeper than (insert length - 1.5mm), 1 corner type is recommended.
Wrench (CRW...) is not included. Please order it separately.

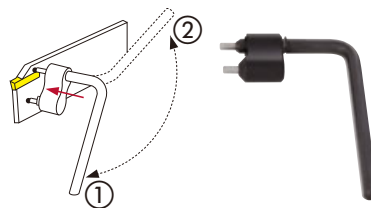
SPARE PARTS

Designation	Sealing screw	Wrench (Optional)
CGP32-*D-CHP	SGC340	CRW33

Caution

Newly developed clamp

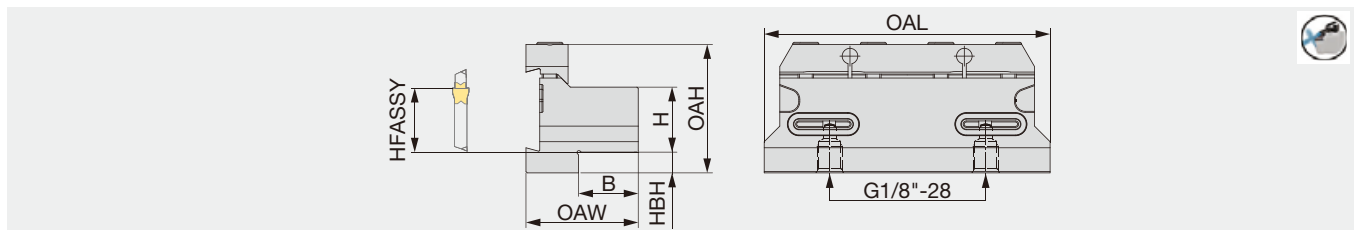
Insert is clamped by the elastic deformation of upper jaw.
Low clamping stress increases the stability and tool life.



①→② : unclamp
②→① : clamp

CTBU-CHP

Tool block for CGP-CHP blade, with high pressure coolant capability



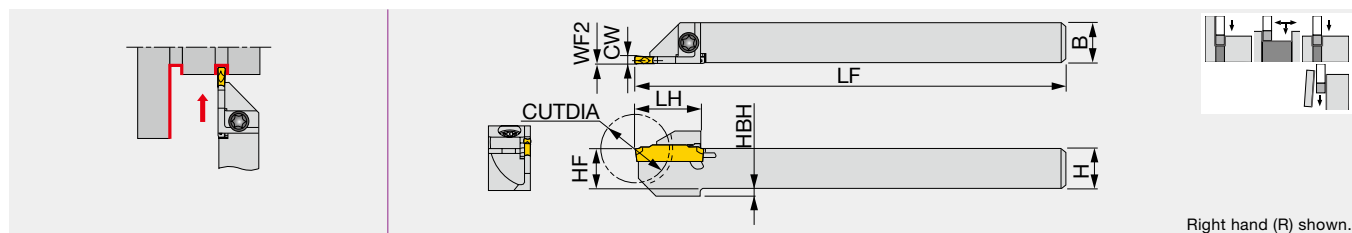
Designation	H	B	OAL	HFASSY	HBH	OAH	OAW	Blade (Optional)
CTBU25-32-CHP	25	23	110	25	8	50	43.2	CGP32-*D-CHP

Applicable for 14 MPa coolant

SPARE PARTS

Designation	Clamping screw	Clamp	Wrench	O-ring
CTBU25-32-CHP	SRM6X16DIN912-12.9	CT-110	P-5	OR14X2.5NN

Reference pages: Inserts → **F236 - F245**, Standard cutting conditions → **F246**
Parts for coolant hose → **F266**

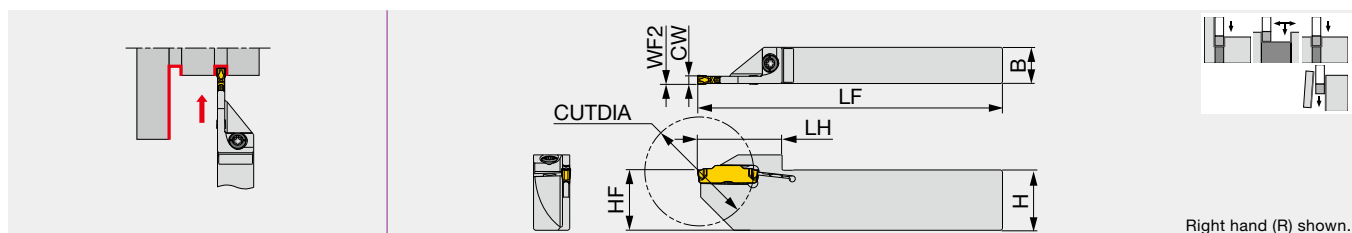


Designation	CW	Seat size	CUTDIA	H	B	LF	LH	HF	WF2 ⁽¹⁾	HBH	Torque*
JCTER/L1010X1.4T10	1.4	1	20	10	10	120	18	10	0.2/10.2	-	3
JCTER/L1212F1.4T12	1.4	1	24	12	12	85	19.5	12	0.2/12.2	-	3
JCTER/L1212X1.4T12	1.4	1	24	12	12	120	19.5	12	0.2/12.2	-	3
JCTER/L1414-1.4T12	1.4	1	24	14	14	125	19.5	14	0.2/14.2	-	3
JCTER/L1616X1.4T16	1.4	1	32	16	16	120	24	16	0.2/16.2	-	3
JCTER/L1010X2T10	2	2	20	10	10	120	19	10	0.1/10.1	2	3
JCTER/L1212F2T12	2	2	24	12	12	85	19	12	0.1/12.1	2	3
JCTER/L1212X2T12	2	2	24	12	12	120	19	12	0.1/12.1	2	3
JCTER/L1414-2T12	2	2	24	14	14	125	19	14	0.1/14.1	-	3
JCTER/L1616X2T16	2	2	32	16	16	120	24	16	0.1/16.1	-	3
JCTER/L1212F3T12	3	3	24	12	12	85	19	12	0.3/12.3	2	3
JCTER/L1212X3T12	3	3	24	12	12	120	19	12	0.3/12.3	2	3
JCTER/L1616X3T16	3	3	32	16	16	120	24	16	0.3/16.3	-	3
JCTER/L2020H3T16	3	3	32	20	20	100	24	20	0.3/20.3	-	3

(1) "WF2" value is calculated with groove width "CW" shown in the table.
Torque*: Recommended clamping torque (N·m)

JCTER/L2012

External grooving and parting toolholder, for Swiss lathes, with 20 mm shank height



Designation	CW	Seat size	CUTDIA	H	B	LF	LH	HF	WF2 ⁽¹⁾	Torque*
JCTER/L2012H2T18	2	2	36	20	12	100	25	20	0.1/12.1	3
JCTER/L2012H3T21	3	3	42	20	12	100	28	20	0.1/12.1	3

(1) "WF2" value is calculated with groove width "CW" shown in the table.
Torque*: Recommended clamping torque (N·m)

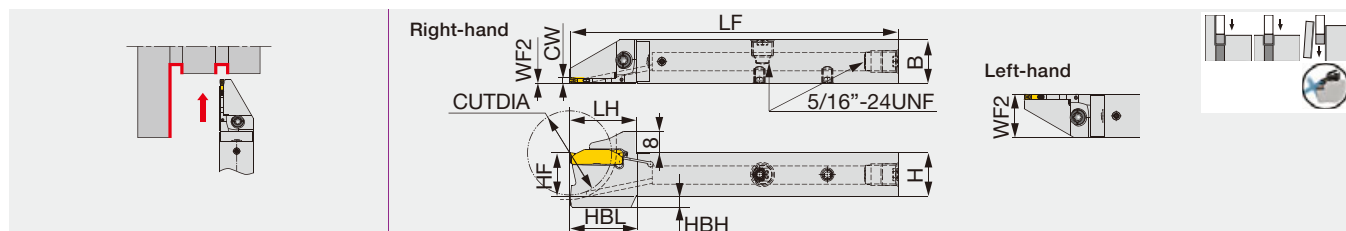
SPARE PARTS

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

JCTER/L-CHP

Direct connection

External grooving and parting toolholder, with high pressure coolant capability



Designation	CW	Seat size	CUTDIA	H	B	LF	LH	HF	WF2 ⁽¹⁾	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) "WF2" value is calculated with groove width "CW" shown in the table. The first value before "/" indicates the WF2 for the right-hand holder and the second value after "/" for the left-hand holder.

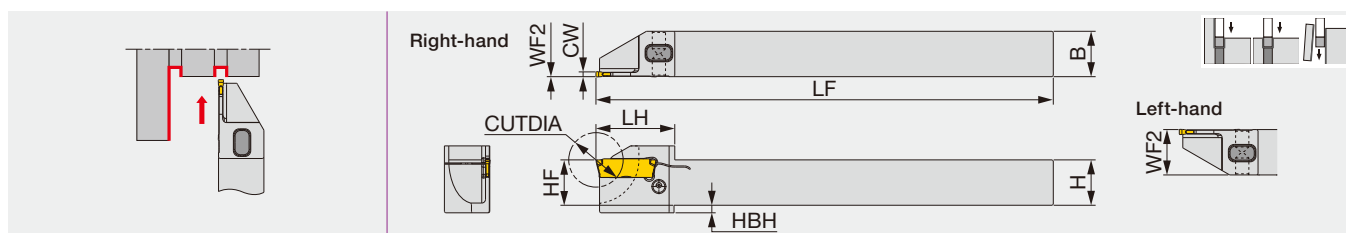
Torque*: Recommended clamping torque (N·m)

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

JTTER/L

External grooving and parting toolholder, for Swiss lathes



Designation	CW	Seat size	CUTDIA	H	B	LF	LH	HF	WF2 ⁽¹⁾	HBH	Torque*
JTTER/L1010H1.2D12	1.2	0.9	12	10	10	100	17	10	0/10	-	1.5
JTTER/L1212F1.2D16	1.2	0.9	16	12	12	85	19	12	0/12	-	1.5
JTTER/L1212X1.2D16	1.2	0.9	16	12	12	120	19	12	0/12	-	1.5
JTTER/L1212X1.2D20	1.2	0.9	20	12	12	120	21	12	0/12	2	1.5
JTTER/L1616X1.2D20	1.2	0.9	20	16	16	120	21	16	0/16	-	2

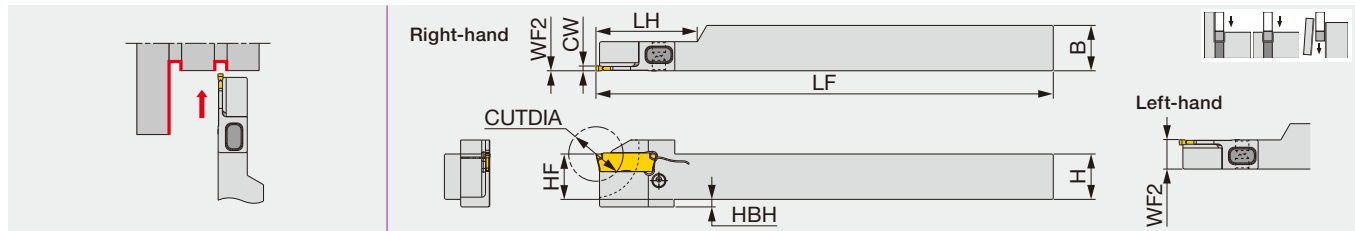
(1) "WF2" value is calculated with groove width "CW" shown in the table. The first value before "/" indicates the WF2 for the right-hand holder and the second value after "/" for the left-hand holder.

Torque*: Recommended clamping torque (N·m)

SPARE PARTS

Designation	Clamping screw	Clamping pin	Wrench
JTTER/L1010...	SSM3.5x0.35	PIN-SL-TC	P-2F
JTTER/L1212...	SSM3.5x0.35	PIN-SL-TC	P-2F
JTTER/L1616...	SRM5-24145-RL	PIN-32121	P-2.5F

Reference pages: Inserts → **F236 - F245**, Standard cutting conditions → **F246**
Parts for coolant hose → **F266**



Designation	CW	Seat size	CUTDIA	H	B	LF	LH	HF	WF2 ⁽¹⁾	HBH	Torque*
JTTER/L1010H1.2D12-S	1.2	0.9	12	10	10	100	22.8	10	0/7.7	-	1.5
JTTER/L1212F1.2D16-S ⁽²⁾	1.2	0.9	16	12	12	85	22.8	12	0	-	1.5
JTTER/L1212X1.2D16-S	1.2	0.9	16	12	12	120	26.8	12	0/7.7	-	1.5
JTTER/L1212X1.2D20-S	1.2	0.9	20	12	12	120	26.8	12	0/7.7	2	1.5
JTTER/L1616X1.2D20-S	1.2	0.9	20	16	16	120	26.8	16	0/7.7	-	1.5

(1) "WF2" value is calculated with groove width "CW" shown in the table. The first value before "/" indicates the WF2 for the right-hand holder and the second value after "/" for the left-hand holder.

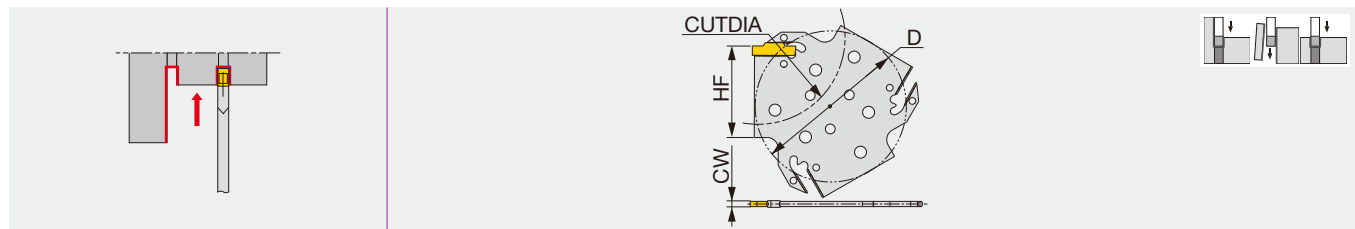
(2) No clamping screw from the insert side.
Torque*: Recommended clamping torque (N·m)

SPARE PARTS

Designation	Clamping screw	Clamping pin	Wrench
JTTER/L*-S	SSM3.5x0.35	PIN-SL-TC	P-2F

CHGP

Parting-off and external grooving blade



Designation	CW	Seat size	CUTDIA	HF	D
CHGP52-2T	2	2	52	27	48.3
CHGP52-3T	3	3	52	27	48.3
CHGP82-3T	3	3	82	42	69.3
CHGP82-4T	4	4	82	42	69.3

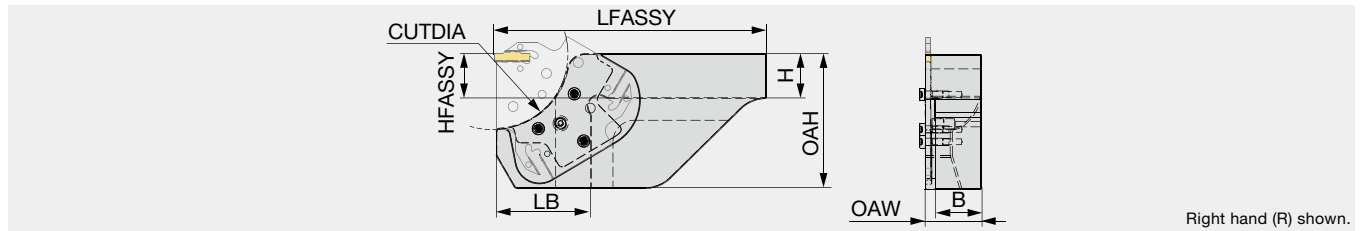
When depth is deeper than insert length - 1.5mm, 1 corner type is recommended.

SPARE PARTS

Designation	Wrench (Option)
CHGP...	CRW33

CHTBR/L

Tool block for CHGP blade



Designation	CUTDIA	H	B	LFASSY	HFASSY	OAH	OAW	LB
CHTBR/L2020-52	52	20	20.5	100	20	50	26.5	37
CHTBR/L2525-52	52	25	25.5	125	25	50	31.5	37
CHTBR/L2020-82	82	20	20.5	140	20	75	26.5	53
CHTBR/L2525-82	82	25	25.5	150	25	75	31.5	53

Note: The blade clamping screw heads protrude out for as much as 3.1 mm over the insert cutting edge point.
Maintain the clearance from the chucking device to avoid interference.

SPARE PARTS

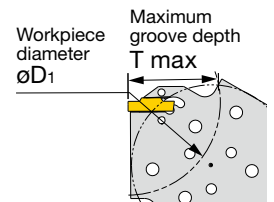


Designation	Clamping screw	Grip	Torx bit
CHTBR/L...	SR ISO 14580 M4X10	SW6-SD	BLDT20/S7

Maximum groove depth (T max) as function of workpiece diameter (ϕD_1)

Designation	ϕD_1															
CHTBR/L****-52	53	54	55	56	58	60	62	65	68	72	78	84	92	102	115	133
CHTBR/L****-82	104	108	112	116	121	127	134	142	151	162	176	192	212	237	270	313
T max	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6

Designation	ϕD_1											
CHTBR/L****-82	83	84	85	86	87	89	90	92	94	96	98	101
T max	34	33	31	30	29	28	27	26	25	24	23	22



External grooving and parting

DGM type (2 corners) SGM type (1 corner)



F239, F240

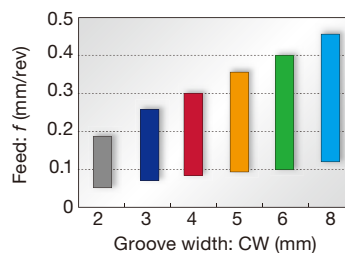
1st choice for grooving and parting

Smooth chip evacuation
Well-designed edge with high strength
Handed insert available
CW = 2 - 8 mm

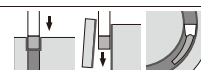
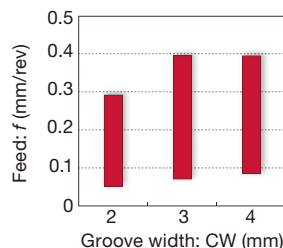
TUNGFEED^{BLADE}

Enables high feed machining when combined with extremely rigid TungFeed-Blade toolholder
CW = 2 - 4 mm
CUTDIA = $\varnothing 52$, $\varnothing 82$ mm

Standard feed



Recommended feed when using TungFeed-Blade



DGS type (2 corners) SGS type (1 corner)

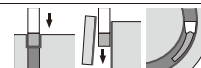
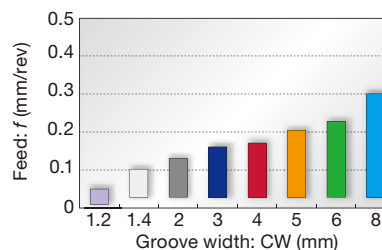


F241, F242

Lower cutting force and superior sharpness

Unique-designed edge and chipbreaker
Handed insert available
CW = 1.2 - 8 mm

Standard feed



DGG type (2 corners)

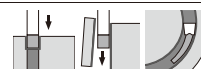
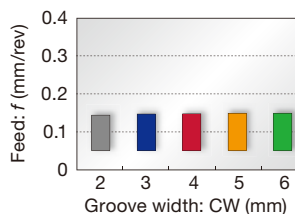


F243

For non-ferrous materials and titanium

Chipbreaker with low cutting force
Sharp cutting edge that prevents vibration and delivers fine surface finish
CW = 2 - 6 mm

Standard feed



DGL type (2 corners)

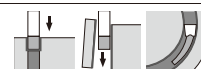
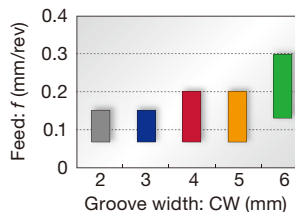


F243

1st choice for mild steel

Chipbreaker with excellent chip control at low feed
Suitable for mild steel that often gives difficulties in chip control
CW = 2 - 6 mm

Standard feed



External grooving and parting

DTM type
(2 corners)



F244

General purpose

1st choice for grooving and turning
Suitable for light to medium cutting
Excellent chip control in machining steel, alloy steel, stainless steel, and heat-resistant alloy
CW = 2 - 8 mm

Standard feed and DoC (for turning)

Standard feed

External grooving, turning and parting

DTE type
(2 corners)



F244, F245

General purpose

Unique chipbreaker makes chips shorter
Molded and ground insert available
CW = 2.65 - 8 mm

Standard feed and DoC (for turning)

Standard feed

DTX type
(2 corners)



F245

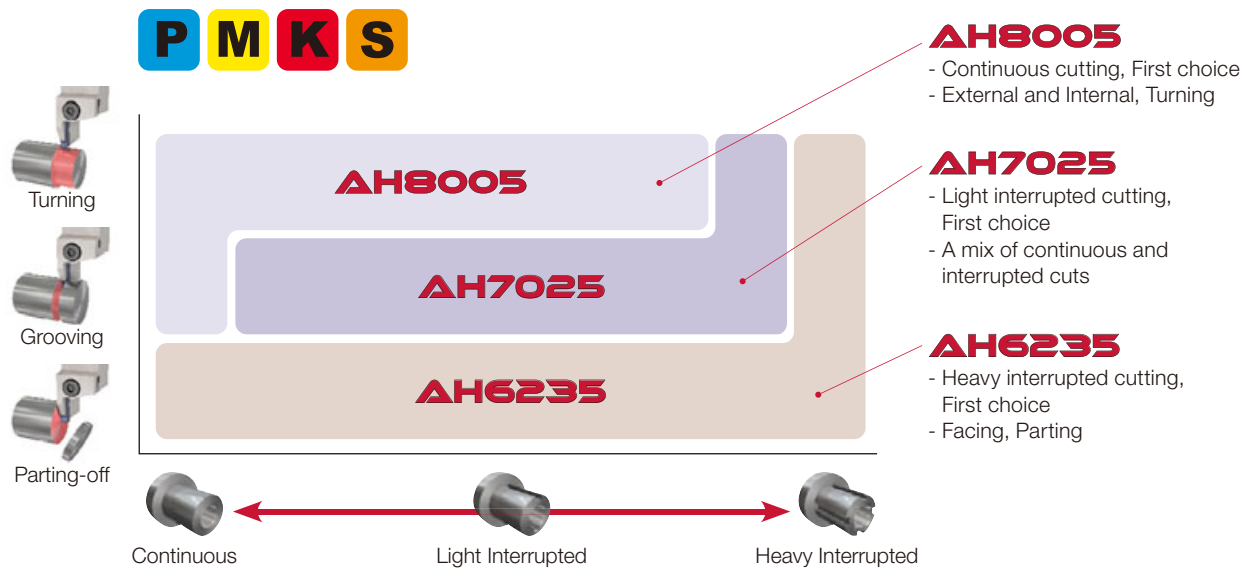
Multi-functional type

Well balanced sharpness and strength
Multi-functional insert
CW = 2 - 8 mm

Standard feed and DoC (for turning)

Standard feed

GRADE SELECTION



GRADES

AH8005

P M K S

- First choice for external, internal, and side-turning, continuous cuts

AH7025

P M K S

- First choice for light interrupted cuts or a mix of continuous and interrupted cuts
- New PVD coating with high Al content provides excellent adhesion strength
- Improved wear and chipping resistance

AH6235

P M K

- First choice for heavy interrupted cuts, as well as parting and facing applications

AH725

P M S

- General purpose PVD grade for high fracture resistance

T515

K

- First recommended grade for cast iron
- Excellent wear resistance in high speed machining

T9225

P

- Suitable for steel machining at high speeds
- New CVD coating and substrate deliver an outstanding balance of wear and chipping resistance

NS9530

P

- Advanced cermet for finish cutting of steel
- Innovative grade with incredible fracture and high wear resistance

GH130

P M K

- Recommended for interrupted machining
- TiCNO PVD coating layer with high wear resistance
- High hardness wear resistance

AH905

S

- Remarkable for machining of heat resistant alloys
- Exclusive coating layer improves adhesion strength and wear resistance

KS05F

N S

- Recommended for non-ferrous materials and titanium

TH10

N

- Recommended for non-ferrous materials

BXA10

H

- Coated CBN grade designed for turning hardened steel parts

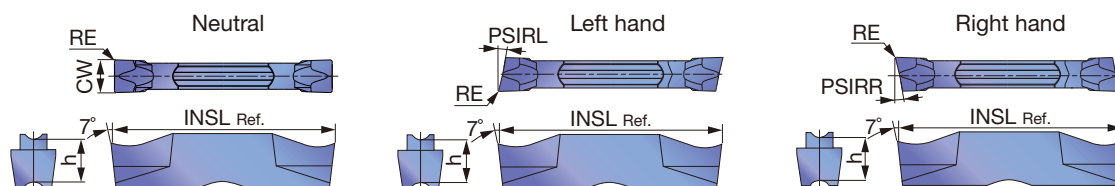
BX360

H

- Developed for grooving applications of hardened steel parts

★ : First choice
☆ : Second choice

● : Line up



		Strength	Stiffness	Toughness	Corrosion resistance	Wear resistance	Machinability	Cost	Availability	Weight	Thermal stability	Electrical properties	Other
P	Steel	★	★	☆	★	☆	★		★				
M	Stainless		★	☆	★	★	★						
K	Cast iron		★		★	☆	★		☆			☆	
N	Non-ferrous											☆	
S	Superalloys		★	☆	★							★	
H	Hard materials												

★ : First choice
 ☆ : Second choice

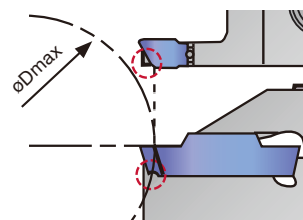
Designation	Seat size	HAND	CW±0.05	RE	Coated					Cermet		Uncoated			INSL	h	PSIRL	PSIRR
					T9225	AH7025	AH725	AH8005	GH130	AH6235	NS9530		KS05F					
DGS1.2-003	0.9	N	1.2	0.03			●								16	4.7	0°	0°
DGS1.4-005	1	N	1.4	0.05			●								16	4.3	0°	0°
DGS1.4-010	1	N	1.4	0.1			●								16	4.3	0°	0°
DGS1.4-016	1	N	1.4	0.16		●	●		●						16	4.3	0°	0°
DGS2-005	2	N	2	0.05			●								20	5	0°	0°
DGS2-010	2	N	2	0.1			●								20	5	0°	0°
DGS2-020	2	N	2	0.2	●	●	●	●	●	●	●		●		20	5	0°	0°
DGS2-020-6R	2	R	2	0.2		●	●		●						20	5	0°	6°
DGS2-020-6L	2	L	2	0.2		●	●		●						20	5	6°	0°
DGS2-002-6R	2	R	2	0.02			●		●						19.5	5	0°	6°
DGS2-002-6L	2	L	2	0.02			●		●						19.5	5	6°	0°
DGS2-020-15R	2	R	2	0.2		●	●		●						20	5	0°	15°
DGS2-020-15L	2	L	2	0.2		●	●		●						20	5	15°	0°
DGS2-002-15R	2	R	2	0.02			●		●						19.5	5	0°	15°
DGS2-002-15L	2	L	2	0.02			●		●						19.5	5	15°	0°
DGS2.39-020	2	N	2.39	0.2		●		●		●					20	5	0°	0°
DGS3-020	3	N	3	0.2	●	●	●	●	●	●	●		●		20	5	0°	0°
DGS3-020-6R	3	R	3	0.2		●	●		●						20	5	0°	6°
DGS3-020-6L	3	L	3	0.2		●	●		●						20	5	6°	0°
DGS3-002-6R	3	R	3	0.02			●		●						19.45	5	0°	6°
DGS3-002-6L	3	L	3	0.02			●		●						19.45	5	6°	0°
DGS3-020-15R	3	R	3	0.2		●	●		●						20	5	0°	15°
DGS3-020-15L	3	L	3	0.2		●	●		●						20	5	15°	0°
DGS3-002-15R	3	R	3	0.02			●		●						19.45	5	0°	15°
DGS3-002-15L	3	L	3	0.02			●		●						19.45	5	15°	0°
DGS3.18-020	3	N	3.18	0.2		●		●		●					20	5	0°	0°
DGS4-030	4	N	4	0.3	●	●	●	●	●	●	●		●		20	5	0°	0°
DGS4-030-4R	4	R	4	0.3		●	●		●						20	5	0°	4°
DGS4-030-4L	4	L	4	0.3		●	●		●						20	5	4°	0°
DGS4.76-040	5	N	4.76	0.4		●		●		●					25	5.5	0°	0°
DGS5-030	5	N	5	0.3	●	●	●	●	●	●	●		●		25	5.5	0°	0°
DGS6-030	6	N	6	0.3	●	●	●	●	●	●			●		25	5.5	0°	0°
DGS6.35-040	6	N	6.35	0.4		●		●		●					25	5.5	0°	0°
DGS8-040	8	N	8	0.4		●		●		●			●		30	6.7	0°	0°

● : Line up

Caution

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

Designation	øDmax (mm)	Designation	øDmax (mm)
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

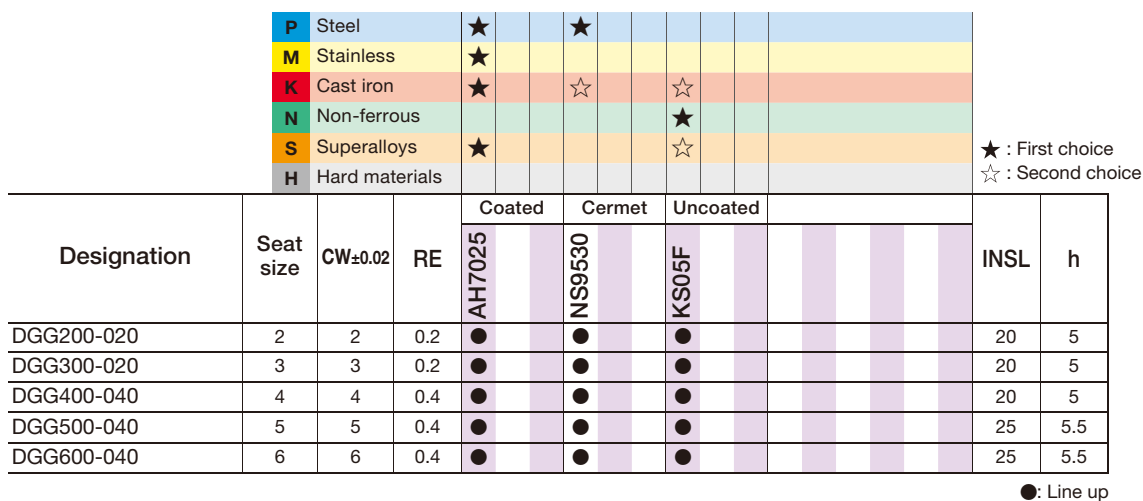




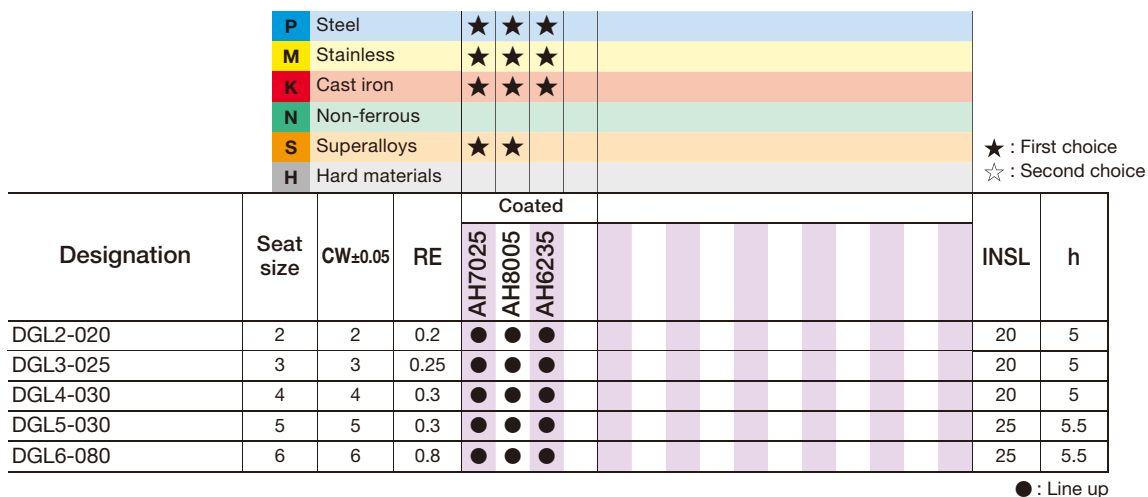
Designation	Seat size	HAND	CW±0.05	RE	Coated					Uncoated								
					AH7025	AH725	AH8005	GH130	AH6235	KS05F			INSL	h	PSIRL	PSIRR		
SGS2-020	2	N	2	0.2	●	●	●	●	●	●					20	5	0°	0°
SGS2-020-6R	2	R	2	0.2	●	●		●							20	5	0°	6°
SGS2-020-6L	2	L	2	0.2	●	●		●							20	5	6°	0°
SGS2-020-15R	2	R	2	0.2	●	●		●							20	5	0°	15°
SGS2-020-15L	2	L	2	0.2	●	●		●							20	5	15°	0°
SGS3-020	3	N	3	0.2	●	●	●	●	●	●					20	5	0°	0°
SGS3-020-6R	3	R	3	0.2	●	●		●							20	5	0°	6°
SGS3-020-6L	3	L	3	0.2	●	●		●							20	5	6°	0°
SGS3-002-6R	3	R	3	0.02		●		●							19.8	5	0°	6°
SGS3-002-6L	3	L	3	0.02		●		●							19.8	5	6°	0°
SGS3-020-15R	3	R	3	0.2	●	●		●							20	5	0°	15°
SGS3-020-15L	3	L	3	0.2	●	●		●							20	5	15°	0°
SGS3-002-15R	3	R	3	0.02		●		●							19.8	5	0°	15°
SGS3-002-15L	3	L	3	0.02		●		●							19.8	5	15°	0°
SGS4-030	4	N	4	0.3	●	●	●	●	●	●					20	5	0°	0°
SGS5-030	5	N	5	0.3	●	●	●	●	●	●					25	5.5	0°	0°
SGS6-030	6	N	6	0.3	●	●	●	●	●	●					25	5.5	0°	0°
SGS8-040	8	N	8	0.4	●		●		●						30	6.7	0°	0°

● : Line up

External grooving and parting (for high precision)



External grooving and parting



External/face grooving, turning and parting



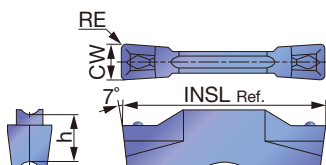
P	Steel	★	★	★		
M	Stainless	★	★	★		
K	Cast iron	★	★	★		
N	Non-ferrous					
S	Superalloys	★	★			
H	Hard materials					

★ : First choice
☆ : Second choice

[illegible]

● : Line up

External/face grooving, turning and parting (for high precision)



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

★ : First choice
☆ : Second choice

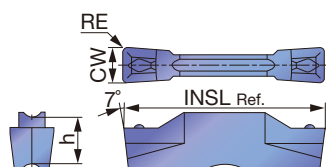
Designation	Seat size	CW±0.02	RE	Coated				Cermet				INSL	h	
				T9225	AH7025	AH725	GH130			NS9530				
DTE265-015	3	2.65	0.15	●	●	●	●			●			20	5
DTE300-020	3	3	0.2	●	●	●	●			●			20	5
DTE300-040	3	3	0.4	●	●	●	●			●			20	5
DTE315-015	3	3.15	0.15	●	●	●	●			●			20	5
DTE400-040	4	4	0.4	●	●	●	●			●			20	5
DTE400-080	4	4	0.8	●	●	●	●			●			20	5
DTE415-015	4	4.15	0.15	●	●	●	●			●			20	5
DTE478-055	5	4.78	0.55	●	●	●	●			●			25	5.5
DTE500-040	5	5	0.4	●	●	●	●			●			25	5.5
DTE500-080	5	5	0.8	●	●	●	●			●			25	5.5
DTE515-015	5	5.15	0.15	●	●	●	●						25	5.5
DTE600-080	6	6	0.8	●	●	●	●						25	5.5
DTE600-120	6	6	1.2	●	●	●	●						25	5.5
DTE800-080	8	8	0.8	●	●	●	●						30	6.7
DTE800-120	8	8	1.2	●	●	●	●						30	6.7

●: Line up

Reference pages: Toolholders → **F229 - F235**, Standard cutting conditions → **F246**

DTE

External/face grooving, turning and parting



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

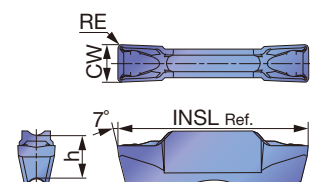
★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.05	RE	Coated						Cermet				INSL	h
				T9225	T515	AH7025	AH725	AH8005	GH130	AH6235	NS9530				
DTE3-020	3	3	0.2			●		●		●				20	5
DTE3-040	3	3	0.4	●	●	●	●	●	●	●	●			20	5
DTE4-040	4	4	0.4	●	●	●	●	●	●	●	●			20	5
DTE4-080	4	4	0.8			●		●		●				20	5
DTE5-040	5	5	0.4		●	●		●		●				25	5.5
DTE5-080	5	5	0.8			●		●		●				25	5.5
DTE6-080	6	6	0.8		●	●		●		●				25	5.5

● : Line up

DTX

External/internal/face grooving, turning and parting



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

★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.05	RE	Coated						Cermet		Uncoated		INSL	h
				T9225	AH7025	AH725	AH8005	GH130	AH6235	NS9530		KS05F			
DTX2-020	2	2	0.2		●		●		●			●		20	5
DTX3-030	3	3	0.3	●	●	●	●	●	●	●		●		20	5
DTX4-040	4	4	0.4	●	●	●	●	●	●	●		●		20	5
DTX5-040	5	5	0.4	●	●	●	●	●	●	●		●		25	5.5
DTX6-080	6	6	0.8		●	●	●	●	●			●		25	5.5
DTX8-080	8	8	0.8		●		●		●			●		30	6.7

● : Line up

Reference pages: Toolholders → **F229 - F235**, Standard cutting conditions → **F246**

STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Hardness	Priority	Grade	Cutting speed V _c (m/min)
P	Steel S45C, SCM435, etc. C45, 34CrMo4, etc.	< 300 HB	First choice	AH7025, AH725	50 - 180
		< 300 HB	Wear resistance	T9225, AH8005	80 - 300
		< 300 HB	Impact resistance	AH6235, GH130	50 - 120
		< 300 HB	Surface quality	NS9530	80 - 220
M	Stainless steel SUS303, SUS304, etc. X10CrNiS18-9, X5CrNi18-9, etc.	< 200 HB	First choice	AH7025, AH725	50 - 120
		< 200 HB	Wear resistance	AH8005	50 - 120
		< 200 HB	Impact resistance	AH6235, GH130	50 - 120
K	Grey cast iron FC250, etc. 250, etc.	-	First choice	T515	150 - 700
		-	Impact resistance	AH8005, AH7025, AH6235, GH130	50 - 180
	Ductile cast iron FCD450, etc. 450-10S, etc.	-	First choice	T515	150 - 300
		-	Impact resistance	AH8005, AH7025, AH6235, GH130	50 - 120
N	Aluminium alloys Si < 12%	-	First choice	TH10	100 - 500
		-	First choice	KS05F	100 - 600
S	Superalloys Inconel718, etc.	< HRC 40	First choice	AH8005	20 - 60
		< HRC 40	Impact resistance	AH7025, AH725, AH6235	20 - 40
	Titanium alloys Ti-6Al-4V, etc.	< HRC 40	First choice	KS05F	20 - 100
		< HRC 40	Impact resistance	AH7025, AH725	20 - 80

Please see page **F236, F237** for feed: f (mm/rev).

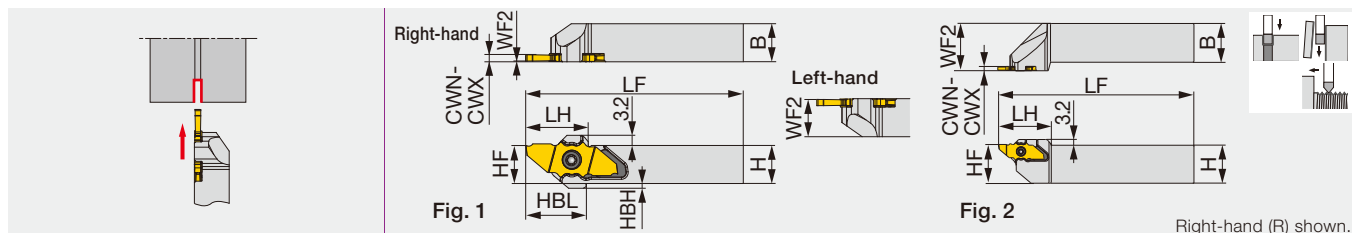
STH

ISO	Grade	CW	Application	Cutting speed V _c (m/min)	Depth of cut a _p (mm)	Feed f (mm/rev)
H	BXA10	3	External turning	100 - 230	0.08 - 0.12	0.4 - 1
			Face turning	100 - 230	0.08 - 0.12	0.4 - 0.8
		5	External turning	100 - 230	0.08 - 0.12	0.5 - 1.5
			Face turning	100 - 230	0.08 - 0.12	0.5 - 0.8

SGN

ISO	Grade	Edge preparation	Workpiece condition	Cutting speed V _c (m/min)	Feed f (mm/rev)
H	BX360	No symbol	Continuous	80 - 150	0.03 - 0.08
		-S	Light interrupted	50 - 120	0.03 - 0.08
		-H	Heavy interrupted	40 - 100	0.03 - 0.06

Parting-off and grooving toolholders



Designation	CWN	CWX	H	B	LF ⁽¹⁾	LH ⁽¹⁾	HF	WF2 ⁽²⁾	HBL ⁽¹⁾	HBH	Insert	Torque*	Fig.
JSXXR/L1010X09	0.6	2.5	10	10	120	19.65	10	0.2/9.8	19	3	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L1212F09	0.6	2.5	12	12	85	19.65	12	0.2/11.8	19	1.5	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L1212X09	0.6	2.5	12	12	120	19.65	12	0.2/11.8	19	1.5	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L1616X09	0.6	2.5	16	16	120	19.65	16	0.2/15.8	-	-	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L2020H09	0.6	2.5	20	20	100	22.5	20	0.2/19.8	-	-	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L2525Z09	0.6	2.5	25	25	135	34	25	30	-	-	JX**06...,12...,16..., 20...	1.2	2

*Torque: Recommended clamping torque (N·m)

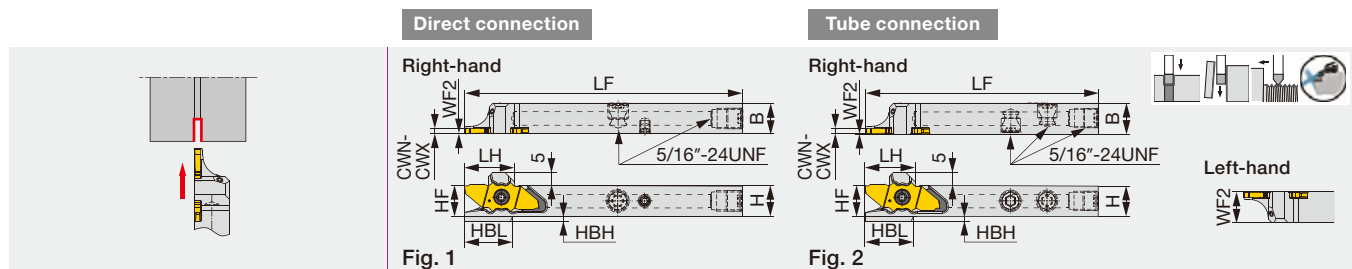
(1) LF (Functional Length) LH (Head Length), and HBL (Head-bottom Offset Length) values shown above are true with JX**16... insert. LF, LH, and HBL will all be 2 mm shorter than the above values with JX**12... and JX**20... inserts, and 4 mm shorter for JX**06... insert.

(2) The first value before "/" indicates the WF2 for the right-hand holder and the second value after "/" for the left-hand holder.

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

JSXXR/L-F/H/X-CHP

Parting-off toolholders with high pressure coolant capability, for swiss lathes



Designation	CWN	CWX	H	B	LF ⁽¹⁾	LH ⁽¹⁾	HF	WF2 ⁽²⁾	HBL ⁽¹⁾	HBH	Insert	Torque*	Fig.
JSXXR/L1012H09-CHP ⁽³⁾	0.6	2.5	10	12	102	19.2	10	0.2/11.8	18.7	3	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L1212F09-CHP	0.6	2.5	12	12	85	19.4	12	0.2/11.8	18.8	2	JX**06...,12...,16..., 20...	1.2	2
JSXXR/L1212X09-CHP ⁽³⁾	0.6	2.5	12	12	120	19.4	12	0.2/11.8	18.8	2	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L1616X09-CHP ^{(3),(4)}	0.6	2.5	16	16	120	19.4	16	0.2	18.7	2.5	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L1616X09B-CHP ⁽³⁾	0.6	2.5	16	16	120	19.4	16	0.2/15.8	18.7	-	JX**06...,12...,16..., 20...	1.2	1

*Torque: Recommended clamping torque (N·m)

(1) LF (Functional Length) LH (Head Length), and HBL (Head-bottom Offset Length) values shown above are true with JX**16... insert. LF, LH, and HBL will all be 2 mm shorter than the above values with JX**12... and JX**20... inserts, and 4 mm shorter for JX**06... insert.

(2) The first value before "/" indicates the WF2 for the right-hand holder and the second value after "/" for the left-hand holder.

(3) Compatible to the direct internal coolant supply system without the use of external coolant hose.

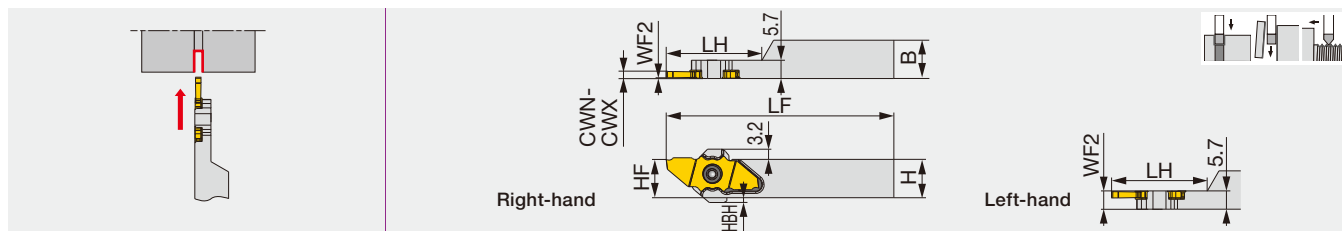
(4) To be replaced with the new design

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

SPARE PARTS

Designation	Clamping screw	Wrench 1	Coolant plug	Wrench 2	DirectJet plug	Wrench 3
JSXXR**09	CSTC-4L100DL	T-1008/5	-	-	-	-
JSXXL**09	CSTC-4L100DR	T-1008/5	-	-	-	-
JSXXR**F**-CHP	CSTC-4L100DL	T-1008/5	SR5/16UNFTL360	P-4	-	-
JSXXL**F**-CHP	CSTC-4L100DR	T-1008/5	SR5/16UNFTL360	P-4	-	-
JSXXR**H**-CHP	CSTC-4L100DL	T-1008/5	SR5/16UNFTL360	P-4	SSH4-6-TB	P-2
JSXXL**H**-CHP	CSTC-4L100DR	T-1008/5	SR5/16UNFTL360	P-4	SSH4-6-TB	P-2

Parting-off toolholders, for swiss lathes (for sub spindle)



Designation	CWN	CWX	H	B	LF ⁽¹⁾	LH ⁽¹⁾	HF	WF2 ⁽²⁾	HBH	Insert	Torque*
JSXXR/L1010X09-S	0.6	2.5	10	10	120	26	10	0.2/5.5	3	JX**06...,12...,16... ⁽³⁾	1.2
JSXXR/L1212F09-S	0.6	2.5	12	12	85	26	12	0.2/5.5	1.5	JX**06...,12...,16... ⁽³⁾	1.2
JSXXR/L1212X09-S	0.6	2.5	12	12	120	30	12	0.2/5.5	1.5	JX**06...,12...,16... ⁽³⁾	1.2
JSXXR/L1616X09-S	0.6	2.5	16	16	120	30	16	0.2/5.5	-	JX**06...,12...,16..., 20...	1.2

*Torque: Recommended clamping torque (N·m)

(1) LF (Functional Length) and LH (Head Length) values shown above are true with JX**16... insert. Both LF and LH will be 2 mm shorter than the above value with JX**12... and JX**20... inserts; 4 mm shorter with JX**06... insert.

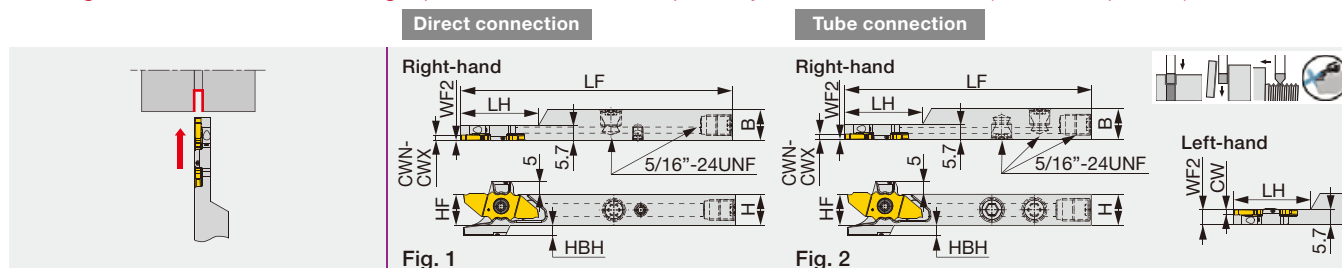
(2) The first value before "/" indicates the WF2 for the right-hand holder and the second value after "/" for the left-hand holder.

(3) JX**20... insert will not fit.

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

JSXXR/L-F/X-S-CHP

Parting-off toolholders with high pressure coolant capability, for swiss lathes (for sub spindle)



Designation	CWN	CWX	H	B	LF ⁽¹⁾	LH ⁽¹⁾	HF	WF2 ⁽²⁾	HBH	Insert	Torque*	Fig.
JSXXR/L1212F09-S-CHP ⁽⁴⁾	0.6	2.5	12	12	85	26	12	0.2	4	JX**06...,12...,16..., 20...	1.2	2
JSXXR/L1212F09B-S-CHP	0.6	2.5	12	12	85	30	12	0.2/5.5	2	JX**06...,12...,16..., 20...	1.2	2
JSXXR/L1212X09-S-CHP ^{(3),(4)}	0.6	2.5	12	12	120	30	12	0.2/5.5	4	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L1212X09B-S-CHP ⁽³⁾	0.6	2.5	12	12	120	30	12	0.2/5.5	2	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L1616X09-S-CHP ^{(3),(4)}	0.6	2.5	16	16	120	30	16	0.2	1.5	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L1616X09B-S-CHP ⁽³⁾	0.6	2.5	16	16	120	30	16	0.2/5.5	-	JX**06...,12...,16..., 20...	1.2	1

*Torque: Recommended clamping torque (N·m)

(1) LF (Functional Length) and LH (Head Length) values shown above are true with JX**16... insert. Both LF and LH will be 2 mm shorter than the above value with JX**12... and JX**20... inserts; 4 mm shorter with JX**06... insert.

(2) The first value before "/" indicates the WF2 for the right-hand holder and the second value after "/" for the left-hand holder.

(3) Compatible to the direct internal coolant supply system without the use of external coolant hose.

(4) To be replaced with the new design

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

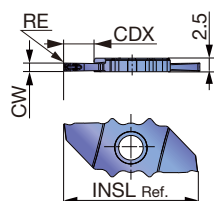
SPARE PARTS

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

Reference pages: Inserts → **F249, F250**, Standard cutting conditions → **F251**
Parts for coolant hose → **F266**

INSERTS

JXPS**R/L-F (with 3D chipbreaker, sharp edge)



Right-hand (R) shown.

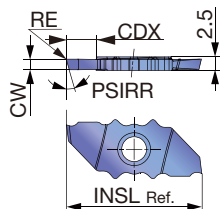
P	Steel	★						
M	Stainless	★						
K	Cast iron	★						
N	Non-ferrous							
S	Superalloys	★						
H	Hard materials							

★ : First choice

Designation	HAND	CW±0.025	RE	Coated				CUTDIA	CDX*	INSL
				SH725						
JXPS06R06F	R	0.6	0.05	●				6	3.5	21
JXPS06L06F	L	0.6	0.05	●				6	3.5	21
JXPS12R08F	R	0.8	0.05	●				12	6.5	25
JXPS12L08F	L	0.8	0.05	●				12	6.5	25
JXPS12R10F	R	1	0.05	●				12	6.5	25
JXPS12L10F	L	1	0.05	●				12	6.5	25
JXPS12R15F	R	1.5	0.05	●				12	6.5	25
JXPS12L15F	L	1.5	0.05	●				12	6.5	25
JXPS16R15F	R	1.5	0.05	●				16	8.5	29
JXPS16L15F	L	1.5	0.05	●				16	8.5	29
JXPS20R20F	R	2	0.05	●				20	10.5	33
JXPS20L20F	L	2	0.05	●				20	10.5	33

*Max grooving depth (CDX) varies depending on workpiece diameters.

● : Line up

JXPGR/L-F (Sharp edge)**


Right-hand (R) shown.

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

★ : First choice

Designation	HAND	CW±0.025	RE	Coated				CUTDIA	CDX*	INSL	PSIRR
				SH725							
JXPG06R10F	R	1	0.05	●				6	3.5	21	0°
JXPG06L10F	L	1	0.05	●				6	3.5	21	0°
JXPG06R15F	R	1.5	0.05	●				6	3.5	21	0°
JXPG06L15F	L	1.5	0.05	●				6	3.5	21	0°
JXPG06R10F-15	R	1	0.05	●				6	3.5	21	15°
JXPG06L10F-15	L	1	0.05	●				6	3.5	21	15°
JXPG06R15F-15	R	1.5	0.05	●				6	3.5	21	15°
JXPG06L15F-15	L	1.5	0.05	●				6	3.5	21	15°
JXPG12R15F	R	1.5	0.05	●				12	6.5	25	0°
JXPG12L15F	L	1.5	0.05	●				12	6.5	25	0°
JXPG12R20F	R	2	0.05	●				12	6.5	25	0°
JXPG12L20F	L	2	0.05	●				12	6.5	25	0°
JXPG12R15F-15	R	1.5	0.05	●				12	6.5	25	15°
JXPG12L15F-15	L	1.5	0.05	●				12	6.5	25	15°
JXPG12R20F-15	R	2	0.05	●				12	6.5	25	15°
JXPG12L20F-15	L	2	0.05	●				12	6.5	25	15°
JXPG16R15F	R	1.5	0.05	●				16	8.5	29	0°
JXPG16L15F	L	1.5	0.05	●				16	8.5	29	0°
JXPG16R20F	R	2	0.05	●				16	8.5	29	0°
JXPG16L20F	L	2	0.05	●				16	8.5	29	0°
JXPG16R15F-15	R	1.5	0.05	●				16	8.5	29	15°
JXPG16L15F-15	L	1.5	0.05	●				16	8.5	29	15°
JXPG16R20F-15	R	2	0.05	●				16	8.5	29	15°
JXPG16L20F-15	L	2	0.05	●				16	8.5	29	15°
JXPG20R15F	R	1.5	0.05	●				20	10.5	33	0°
JXPG20L15F	L	1.5	0.05	●				20	10.5	33	0°
JXPG20R20F	R	2	0.05	●				20	10.5	33	0°
JXPG20L20F	L	2	0.05	●				20	10.5	33	0°
JXPG20R15F-15	R	1.5	0.05	●				20	10.5	33	15°
JXPG20L15F-15	L	1.5	0.05	●				20	10.5	33	15°
JXPG20R20F-15	R	2	0.05	●				20	10.5	33	15°
JXPG20L20F-15	L	2	0.05	●				20	10.5	33	15°

*Max grooving depth (CDX) varies depending on workpiece diameters.

● : Line up

 Reference pages: Toolholders → **F247, F248**

STANDARD CUTTING CONDITIONS

Parting, Grooving

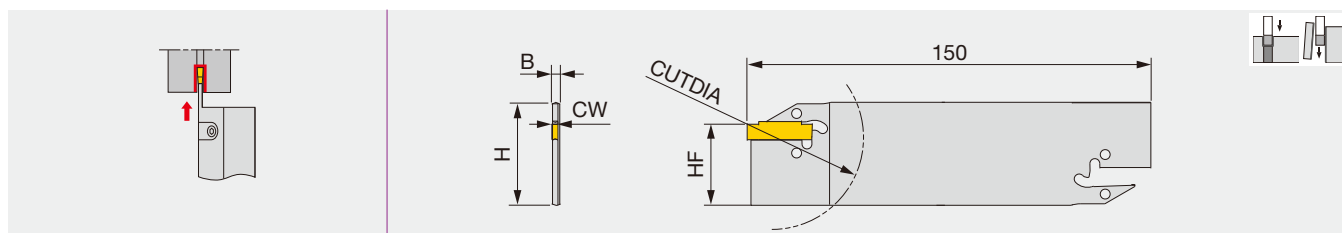
ISO	Workpiece materials	Grades	Cutting speed V _c (m/min)	Feed f (mm/rev)
P	Low carbon steels S15C, SS400, etc. C15E4, E275A, etc.	SH725	50 - 200	0.01 - 0.05
	Carbon steels, Alloy steels S55C, SCM440, etc. C55, 42CrMo4, etc.	SH725	50 - 200	0.01 - 0.05
	Free cutting steels SUH22, SUH23, etc.	SH725	50 - 200	0.01 - 0.05
M	Stainless steels SUS304, X5CrNi18-9, 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

Grade	A
Insert	B
Ext. Toolholder	C
Int. Toolholder	D
Threading	E
Grooving	F
Miniature tool	G
Milling cutter	H
Endmill	I
Drilling tool	J
Tooling System	K
User's Guide	L
Index	M

MY-T SERIES

CCH-W

External grooving and parting blade, for 2 corner inserts



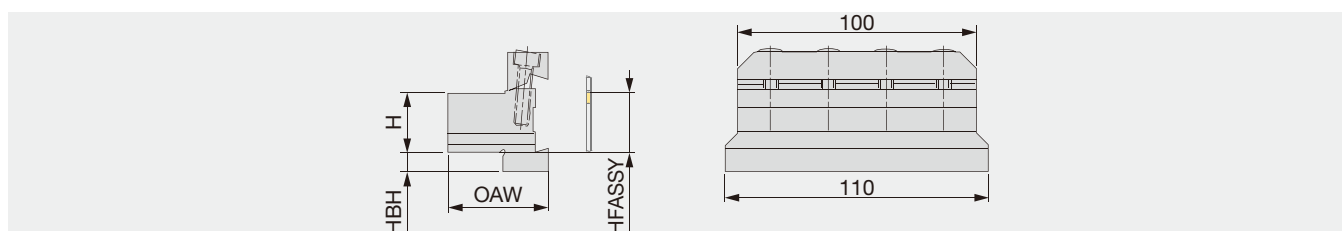
Designation	CW	CUTDIA	H	B	HF	Insert
CCH32-W20	2	33	32	1.6	24.6	WGE20, WGE20R/L
CCH32-W30	3	33	32	2.2	24.6	WG*30, WGE30R/L
CCH32-W40	4	42	32	3.2	24.5	WG*40, WGE40R/L
CCH32-W50	5	42	32	4.2	24.3	WG*50, WGE50R/L

SPARE PARTS

Designation	Wrench (Optional)
CCH32-W...	CRW33

CCBS-32

Tool block for CCH blade



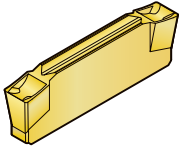
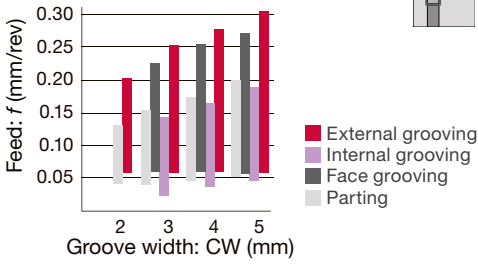
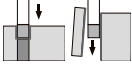
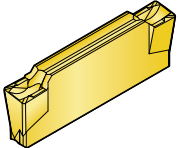
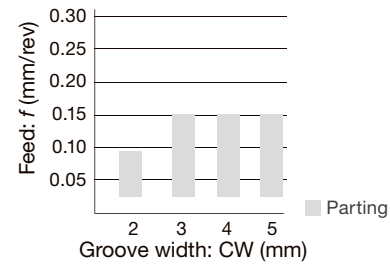
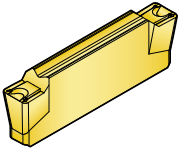
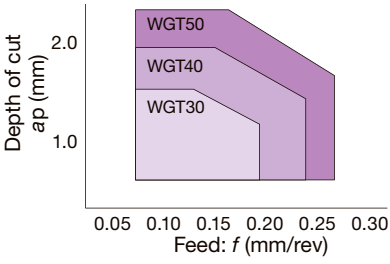
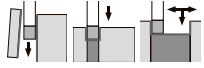
Designation	H	HFASSY	HBH	OAW	Blade
CCBS20-32	20	20	13	38	CCH32...
CCBS25-32	25	25	8	42	CCH32...
CCBS32-32	32	32	5	42	CCH32...

SPARE PARTS

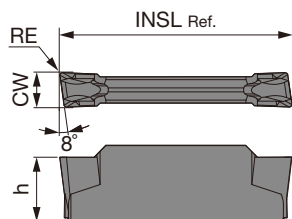
Designation	Clamp	Screw	Wrench
CCBS*-32	CC-32	CM6X25	P-5

Reference pages: Inserts → **F253 - F255**, Standard cutting conditions → **F255**

External grooving and parting

WGE  F254	1st choice for external grooving and parting Excellent chip control for grooving CW = 2 - 5 mm  
WGE R/L  F255	Handed insert Minimize burr generation when workpiece is cut off CW = 2 - 5 mm  
WGT  F254	1st choice for turning Low cutting force and good chip control for traversing CW = 3 - 5 mm  

For parting off (handed inserts)



Right hand (R) shown.

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

★ : First choice
☆ : Second choice

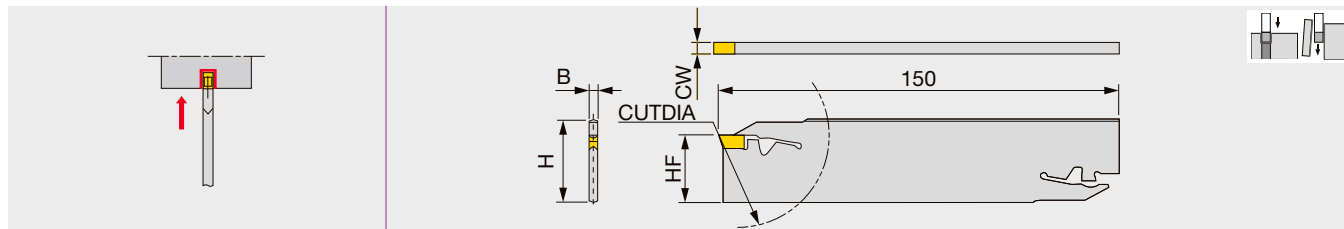
Designation	HAND	CW ^{+0.1} ₀	RE	Coated										INSL	h
				AH120	GH730										
WGE20R	R	2	0.2		●									20	4.7
WGE20L	L	2	0.2		●									20	4.7
WGE30R	R	3	0.2	●	●									20	5.5
WGE30L	L	3	0.2		●									20	5.5
WGE40R	R	4	0.2		●									25	5.7
WGE40L	L	4	0.2		●									25	5.7
WGE50R	R	5	0.2		●									25	5.9
WGE50L	L	5	0.2		●									25	5.9

●: Line up

STANDARD CUTTING CONDITIONS (for 2 corner inserts)

ISO	Workpiece material	Recommended grade	Cutting speed Vc (m/min)
P	Low carbon steels	T9225	80 - 300
	Alloy steels (~ HB150)	NS9530	100 - 200
		GH730, AH120	50 - 180
	Medium carbon steels	T9225	80 - 220
	Alloy steels (HB150 ~ 250)	NS9530	80 - 180
		GH730, AH120	50 - 150
	High carbon steels	T9225	80 - 220
M	Stainless steels	NS9530	80 - 150
		GH730, AH120	50 - 150
		GH730, AH120	50 - 120
K	Grey and ductile cast irons	GH730, AH120	50 - 180

Operation	Feed: f (mm/rev)			
	Groove width: CW (mm)			
	2	3	4	5
Grooving (WGE□□)	0.06 ~ 0.20	0.06 ~ 0.25	0.07 ~ 0.27	0.07 ~ 0.30
Parting-off (WGE□□R/L)	0.04 ~ 0.10	0.04 ~ 0.14	0.04 ~ 0.14	0.04 ~ 0.14
Turning (WGT□□)	-	$a_p = 0.5 \sim 1.5$ $f = 0.06 \sim 0.2$	$a_p = 0.5 \sim 2.0$ $f = 0.06 \sim 0.25$	$a_p = 0.5 \sim 2.5$ $f = 0.06 \sim 0.27$



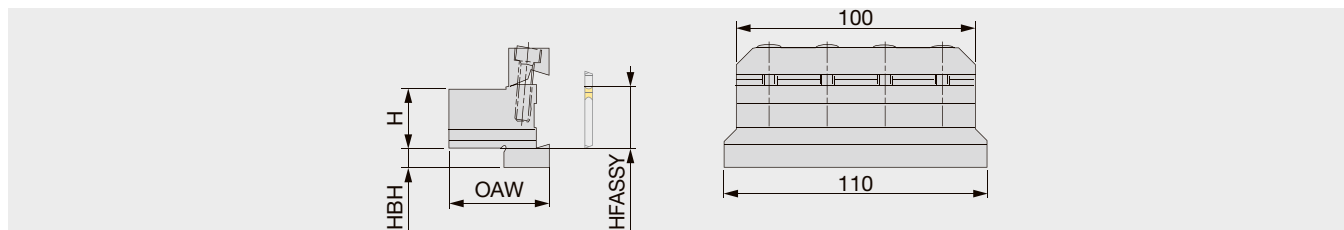
Designation	CW	CUTDIA	H	B	HF	Insert
CCH32-30	3	100	32	2.2	24.6	GE30, GE30R/L, GE30-AL
CCH32-40	4	100	32	3.2	24.5	GE40, GE40R/L, GE40-AL
CCH32-50	5	120	32	4.2	24.3	GE50, GE50R/L

SPARE PARTS

Designation	Wrench
CCH32-...	CTL-2

CCBS-32

Tool block for CCH blade

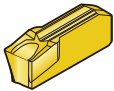
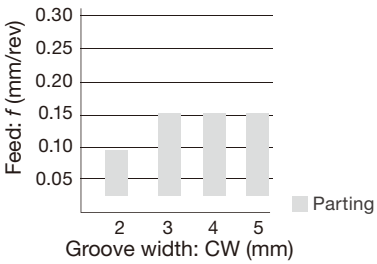
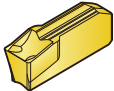
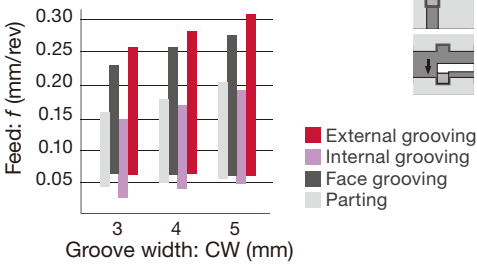
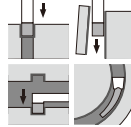
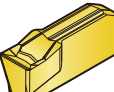
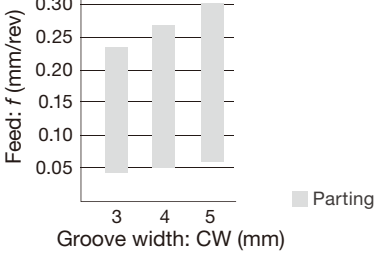
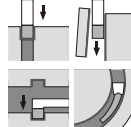
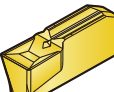
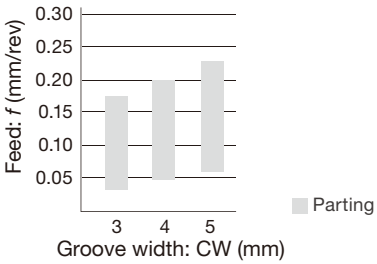
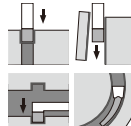


Designation	H	HFASSY	HBH	OAW	Blade
CCBS20-32	20	20	13	38	CCH32...
CCBS25-32	25	25	8	42	CCH32...
CCBS32-32	32	32	5	42	CCH32...

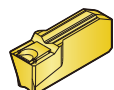
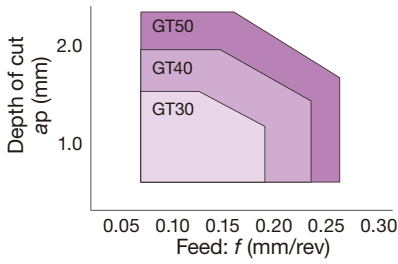
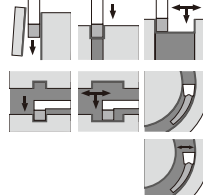
SPARE PARTS

Designation	Clamp	Screw	Wrench
CCBS*-32	CC-32	CM6X25	P-5

External grooving and parting

GE R/L  F258	Handed insert Minimize burr generation when workpiece is cut off CW = 3 - 5 mm  
GE  F259	1st choice for external grooving and parting Excellent chip control for grooving CW = 3 - 5 mm  
GF  F259	1st choice for face grooving Low cutting force and good chip control for face grooving CW = 3 - 5 mm  
GN  F260	1st choice for internal grooving Low cutting force and good chip control for internal grooving CW = 3 - 5 mm  

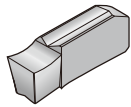
External grooving and turning

GT  F260	1st choice for turning Low cutting force and good chip control for traversing CW = 3 - 5 mm  
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Please see page F*** for the product details.

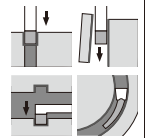
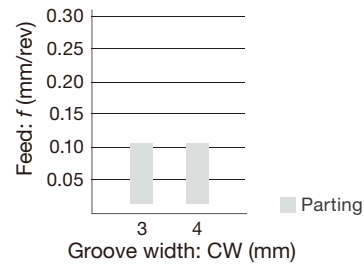
For aluminium and non-ferrous metal

GE-AL



Reduce cutting force and welding
due to sharp chipbreaker
CW = 3 - 4 mm

F261



Please see page **F***** for the product details.

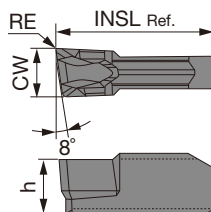


Parting

■ INSERTS (1 corner)

GE-R/L

For parting off (handed inserts)



Right hand (R) shown.

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

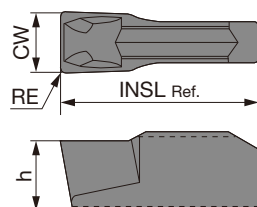
★ : First choice
☆ : Second choice

[illegible]

●: Line up

Reference pages: Toolholders → **F256**, Standard cutting conditions → **F261**

For external grooving and parting



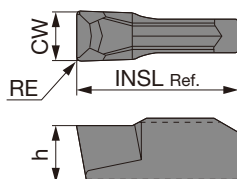
P	Steel	★	★	★				★			
M	Stainless		★	★							
K	Cast iron		★	☆				☆			
N	Non-ferrous										
S	Superalloys		☆								
H	Hard materials										

★ : First choice
☆ : Second choice

Designation	CW ^{+0.1} ₀	RE	Coated				Cermet			INSL	h	
			T9225	AH120	GH730			NS9530				
GE30	3	0.2	●	●	●			●			10	3.5
GE40	4	0.2	●	●	●			●			10	4
GE50	5	0.2	●	●	●			●			12	4.5

●: Line up

For face grooving



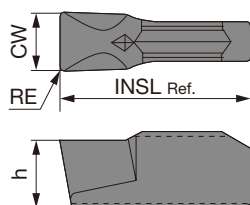
P	Steel	★		★			
M	Stainless	★					
K	Cast iron	☆		☆			
N	Non-ferrous						
S	Superalloys						
H	Hard materials						

★ : First choice
☆ : Second choice

Designation	CW ^{+0.1} ₀	RE	Coated	Cermet						INSL	h
			GH730	NS9530							
GF30	3	0.2	●	●						10	3.5
GF40	4	0.2	●	●						10	4
GF50	5	0.2	●	●						12	4.5

● : Line up

For internal grooving



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

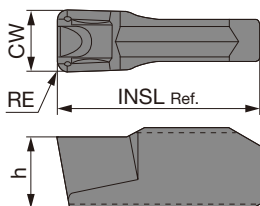
★ : First choice
 ☆ : Second choice

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● : Line up

GT

For external grooving and turning



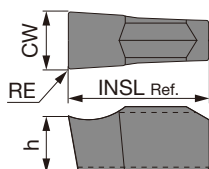
P	Steel	★	★	★			★			
M	Stainless		★	★						
K	Cast iron		★	☆			☆			
N	Non-ferrous									
S	Superalloys		☆							
H	Hard materials									

★ : First choice
☆ : Second choice

Designation	CW ^{+0.1} ₀	RE	Coated				Cermet						INSL	h
			T9225	AH120	GH730			NS9530						
GT30	3	0.4		●	●			●					10	3.5
GT40	4	0.4		●	●			●					10	4
GT50	5	0.4	●	●	●			●					12	4.5

●: Line up

For aluminium and non-ferrous metal



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

★ : First choice
☆ : Second choice

Designation	CW ^{+0.1} ₀	RE	Uncoated							INSL	h
			KS05F								
GE30-AL	3	0.2	●							10	3.5
GE40-AL	4	0.2	●							10	4

●: Line up

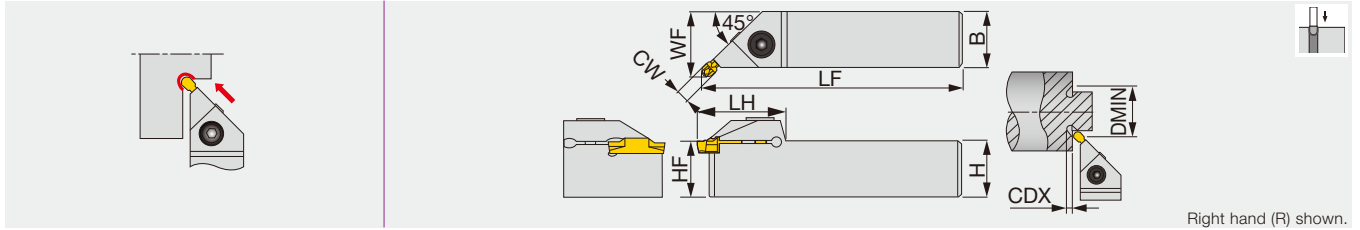
STANDARD CUTTING CONDITIONS (for 1 corner inserts)

ISO	Workpiece material	Grade	Cutting speed Vc (m/min)
P	Low carbon steel, Alloy steel (~ HB150)	T9225	80 - 300
		NS9530	100 - 200
		GH730, AH120	50 - 180
	Medium carbon steel, Alloy steel (HB150 ~ 250)	T9225	80 - 220
		NS9530	80 - 180
		GH730, AH120	50 - 150
	High carbon steel, Alloy steel (HB250 ~)	T9225	80 - 220
		NS9530	80 - 150
		GH730, AH120	50 - 120
M	Stainless steel	GH730, AH120	50 - 120
K	Grey iron, Ductile cast iron	GH730, AH120	50 - 180
N	Aluminium alloy, Non-ferrous metal	KS05F	200 - 300

For Parting

Operation	Feed: f (mm/rev)		
	Groove width: CW (mm)		
	3	4	5
Grooving (GE**)	0.06 - 0.25	0.07 - 0.27	0.07 - 0.3
Parting-off (GE**R/L)	0.04 - 0.14	0.04 - 0.14	0.04 - 0.14
Traversing (GT**)	$a_p = 0.5 - 1.5$ $f = 0.06 - 0.2$	$a_p = 0.5 - 2$ $f = 0.06 - 0.25$	$a_p = 0.5 - 2.5$ $f = 0.06 - 0.27$
Parting-off for Aluminium alloys (GE**-AL)	0.03 - 0.1	0.03 - 0.1	-

Reference pages: Toolholders → **F256**



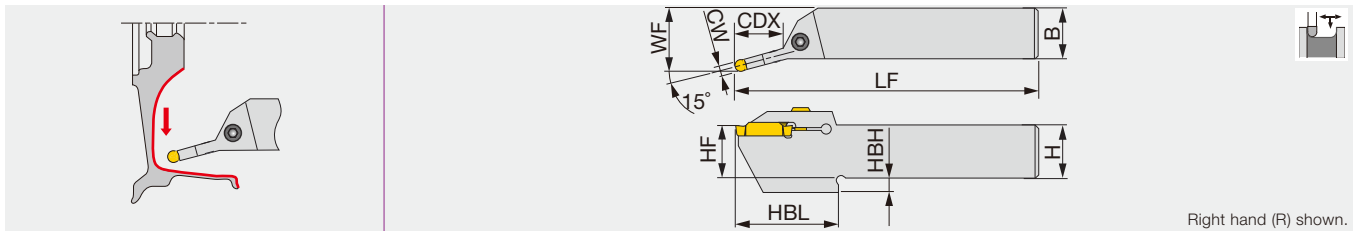
Right hand (R) shown.

Designation	CW	DMIN	Seat size	CDX	H	B	LF	LH	HF	WF ⁽¹⁾	Insert	Torque*
CGEUR/L1616-3T02	3	32	3	2.8	16	16	110	30	16	19.3	DTIU...	5
CGEUR/L2020-3T02	3	32	3	2.8	20	20	125	30	20	23.3	DTIU...	5
CGEUR/L2525-3T02	3	32	3	2.8	25	25	150	30	25	28.3	DTIU...	5
CGEUR/L1616-4T02	4	32	4	2.8	16	16	110	31	16	19.5	DTIU...	8.5
CGEUR/L2020-4T02	4	32	4	2.8	20	20	125	31	20	23.5	DTIU...	8.5
CGEUR/L2525-4T02	4	32	4	2.8	25	25	150	31	25	28.5	DTIU...	8.5
CGEUR/L2525-6T03	6	34	5, 6	3.4	25	25	150	35	25	28.9	DTIU...	8.5

(1) "WF" value is calculated with groove width "CW" shown in the table.
Torque*: Recommended clamping torque (N·m)

CTER/L-15A

Square shank toolholder for profiling aluminium wheel



Right hand (R) shown.

Designation	CW	Seat size	CDX	H	B	LF	HF	WF	HBH	HBL	Insert	Torque*
CTER/L2525-6T25-15A	6	6	25	25	25	150	25	32.2	7	50.5	DTA...	5
CTER/L2525-8T30-15A	8	8	30	25	25	150	25	32.9	7	55	DTA...	5

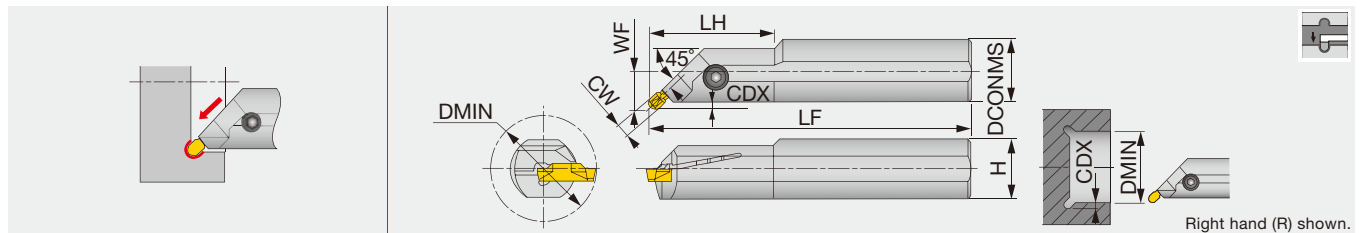
Torque*: Recommended clamping torque (N·m)

SPARE PARTS

Designation	Clamping screw	Wrench
CGEUR/L****-3T02	CM5X0.8X16-A	P-4
CGEUR/L1616-4T02	CM6X1X16-A	P-5
CGEUR/L2020-4T02	CM6X1X20-A	P-5
CGEUR/L2525-...	CM6X1X25-A	P-5
CTER/L2525*-15A	M8X1.25X25	P-5

CGIUR/L

Internal 45° undercutting toolholder



Designation	CW	DMIN	Seat size	CDX	DCONMS	H	LF	LH	WF ⁽¹⁾	Insert	Torque*
CGIUR/L20-3T02-D380	3	38	3	2.8	20	19	160	-	12.8	DTIU...	5
CGIUR/L25-3T02-D380	3	38	3	2.8	25	23	200	40	14.8	DTIU...	5
CGIUR/L20-4T02-D380	4	38	4	2.8	20	19	160	-	12.9	DTIU...	5
CGIUR/L25-4T02-D460	4	46	4	2.8	25	23	200	40	14.9	DTIU...	5
CGIUR/L25-6T02-D460	6	46	5, 6	2.8	25	23	200	-	15.2	DTIU...	8.5

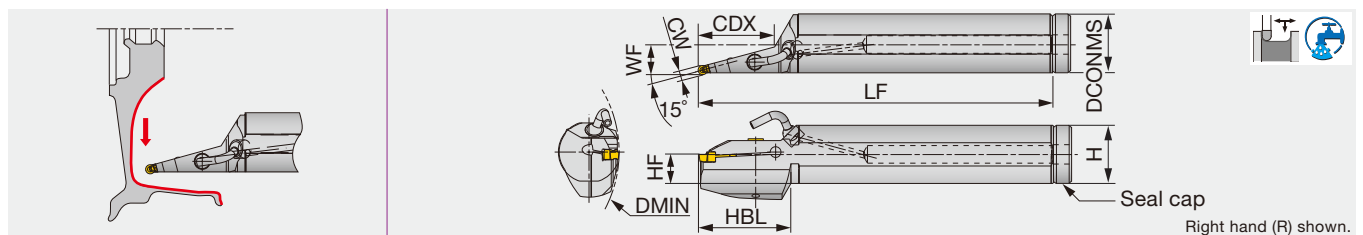
(1) WF is calculated with the groove width CW in the above table.
Torque*: Recommended clamping torque (N·m)

SPARE PARTS

Designation	Clamping screw	Wrench
CGIUR/L20-3T02-D380	CM5X0.8X12-A	P-4
CGIUR/L25-3T02-D380	CM5X0.8X16-A	P-4
CGIUR/L20-4T02-D380	CM5X0.8X12-A	P-4
CGIUR/L25-4T02-D460	CM5X0.8X16-A	P-4
CGIUR/L25-6T02-D460	CM6X1X16-A	P-5

CGIUR/L-15A

Round-shank toolholder for profiling aluminium wheel



Designation	CW	DMIN	Seat size	CDX	DCONMS	H	WF	LF	HF	HBL	Insert	Seal cap	Torque*
CGIUR/L40-6T50-D160-15A	6	160	6	50	40	38.5	19.7	320	19	60	DTA...	CA-40	5
CGIUR/L40-8T83-D160-15A	8	160	8	83	40	38.5	20.5	320	19	85	DTA...	CA-40	5
CGIUR/L50-6T85-D200-15A	6	200	6	85	50	48.5	25.2	350	23.5	85	DTA...	-	5
CGIUR/L50-8T85-D200-15A	8	200	8	85	50	48.5	25.9	350	23.5	85	DTA...	-	5

Torque*: Recommended clamping torque (N·m)

SPARE PARTS

Designation	Clamping screw	Wrench	Seal cap
CGIUR/L*-15A	CM6X1X25-A	P-5	CA-40

NOZZLE

Coolant pipe	Coolant nozzle
PNZ5	CNZ125

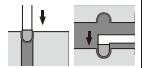
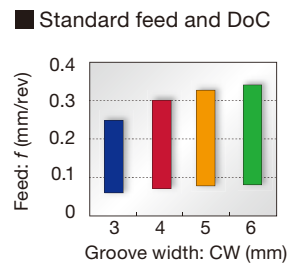
CHIPBREAKER GUIDE

Profiling and undercutting

DTIU type
(2 corners)

Full radius type

Excellent chip control for undercutting
CW = 3 - 6 mm



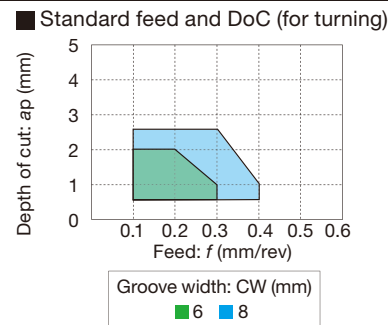
Aluminium wheel machining

DTA type
(2 corners)



Full radius type

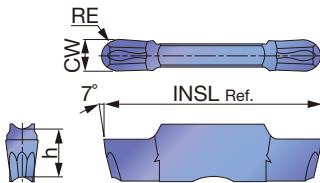
Excellent chip control
For aluminium wheel profiling
Ground insert
CW = 6 - 8 mm



INSERTS

DTIU

Profiling and undercutting (for high precision)



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

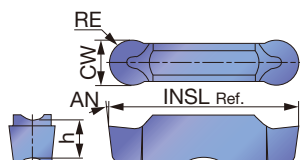
★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.02	RE	Coated								INSL	h	
				AH7025	AH725	GH130								
DTIU300-150	3	3	1.5	●	●	●							20	5
DTIU400-200	4	4	2	●	●	●							20	5
DTIU500-250	5	5	2.5	●	●	●							25	5.5
DTIU600-300	6	6	3	●	●	●							25	5.5

●: Line up

Reference pages: Toolholders → **F262, F263**

Aluminium wheel machining (for high precision)

[illegible]

STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Hardness	Priority	Grade	Cutting speed Vc (m/min)
P	Steel S45C, SCM435, etc. C45, 34CrMo4, etc.	< 300 HB	First choice	AH7025, AH725	50 - 180
		< 300 HB	Impact resistance	GH130	50 - 120
M	Stainless steel SUS303, SUS304, etc. X10CrNiS18-9, X5CrNi18-9, etc.	< 200 HB	First choice	AH7025, AH725	50 - 120
		< 200 HB	Impact resistance	GH130	50 - 120
K	Grey cast iron FC250, etc. 250, etc.	-	First choice	AH7025	150 - 700
		-	Impact resistance	GH130	50 - 180
	Ductile cast iron FCD450, etc. 450-10S, etc.	-	First choice	AH7025	150 - 300
		-	Impact resistance	GH130	50 - 120
N	Aluminium alloys Si < 12%	-	First choice	TH10	100 - 500
S	Superalloys Inconel718, etc.	< HRC 40	First choice	AH7025, AH725	20 - 60
		< HRC 40	Impact resistance	GH130	20 - 40
	Titanium alloys Ti-6Al-4V, etc.	< HRC 40	Impact resistance	AH7025, AH725	20 - 80

Please see page **F264** for feed: f (mm/rev).

PARTS FOR COOLANT HOSE

Connecting hose

Fig.1

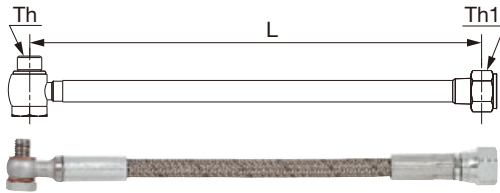
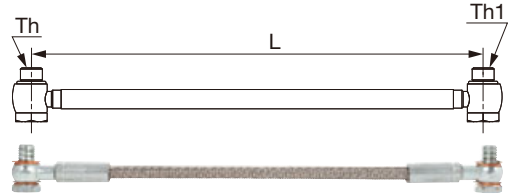
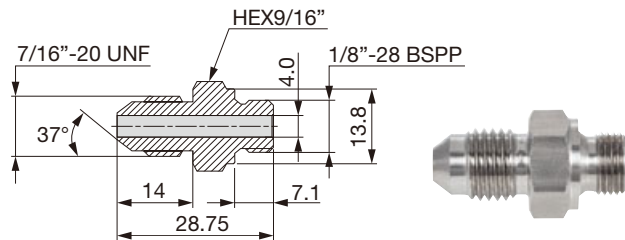


Fig.2



Designation	Length L	Screw		Max. pressure (Mpa)	Fig.
		Th	Th1		
CHP-HOSE-G1/8-7/16-200BS	200	G1/8"-28 BSPP	7/16"-20 UNF	26	1
CHP-HOSE-G1/8-7/16-250BS	250	G1/8"-28 BSPP	7/16"-20 UNF	26	1
CHP-HOSE-5/16-7/16-200BS	200	5/16"-24UNF	7/16"-20 UNF	20	1
CHP-HOSE-5/16-G1/8-200BS	200	5/16"-24UNF	G1/8"-28 BSPP	20	1
CHP-HOSE-G1/8-G1/8-200BB	200	G1/8"-28 BSPP	G1/8"-28 BSPP	26	2
CHP-HOSE-G1/8-G1/8-250BB	250	G1/8"-28 BSPP	G1/8"-28 BSPP	26	2

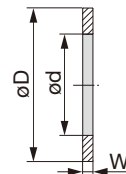
Connector



Designation

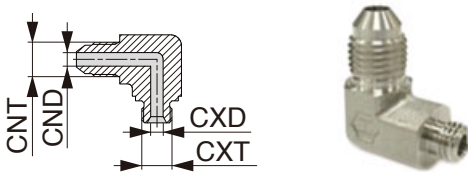
CHP-NIPPLE-G1/8-7/16UNF

Seal washer



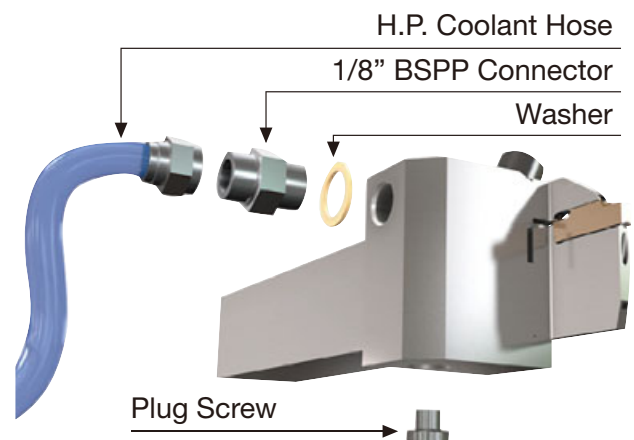
Designation	øD	ød	W
CHP-COPPER-SEAL1/8	15	10	1
CHP-COPPER-SEAL5/16	11.9	8.15	1.35
CHP-COPPER-SEAL5/16-2.5	9.4	8	2.5

Connector elbow



Designation

Designation	CNT	CND	CXT	CXD
CHP-ELBOW-90-G1/8-7/16UNF	7/16"-20 UNF	4.4	1/8"-28 BSPP	4
CHP-ELBOW-90-5/16-7/16UNF	7/16"-20 UNF	4.4	5/16"-24 UNF	4



Miniature Machining



Main products

L	95°	G040
J	93°	G052
N	63°	G070
P	62.5°	G073
A	91°	G074
G	91°	G078
D	45°	G079
F	91°	G080
Special		G081



MODUM^{INI}TURN

Modular head turning toolholder system



G036



MINI^{LOCK}VERGROOVE

High precision grooving and threading tool series for CNC automatic lathes



G022, G030, G110 -, G150 -



MINI^{FORCE}TURN

Economical double-sided inserts with excellent sharpness



G039



J-SERIES

Toolholders for small-part machining



G004 -, G042 -
G051, G054 -, G063 -
G070 -, G073 -, G084 -
G088 -, G133 -, G164 -



TETRA^{MC}CUT

Unique insert pocket geometry for grooving with high quality and precision



CW = 0.33 - 3.18 mm

G022 -
G026 -, G030 -
G113 -, G147 -, G152 -



TETRA^{FORCE}CUT

4-cornered insert with good clamping rigidity for highly precise grooving and parting



CW = 0.5 - 3.18 mm

G022, G126 -



DUO^{FORCE}CUT

New flexible turning tool series for CNC automatic lathes and cam-driven lathes

CW = 0.5 - 1 mm

G026, G086 -, G167 -



DUO^{JUST}CUT

Innovative clamping system for high rigidity in parting



CW = 0.6 - 2 mm

G026 -, G032 -
G158 -, G169 -



TUNG^{CUT}CUT

Multi-functional tool series for various grooving operations



CW = 1.2 - 4 mm

G028 -, G177 -



TINY^{INI}MTURN

Solid boring bar for turning small diameters with high precision



G034 -, G097 -



TUNG^{HEAVY}GROOVE

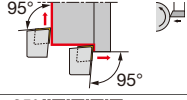
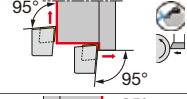
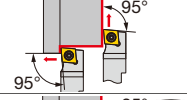
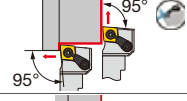
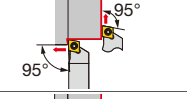
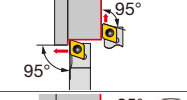
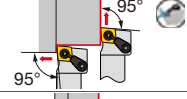
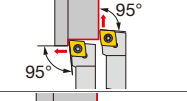
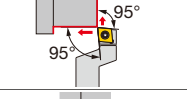
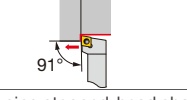
Highly rigid clamping for wide grooving and profiling in one pass

CW = 10 - 25 mm

G024, G138 -

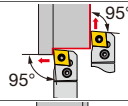
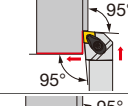
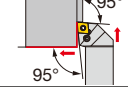
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CC** inserts

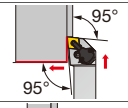
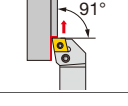
Cutting edge angle	Application	Designation	Insert	Square shank (height x width)						Holder			Clamping style		Offset	Page
				8 x 8	10 x 10	12 x 12	12 x 16	16 x 16	16 x 20	MODUM TM TURN (Modular head)	Y-axis feed	TUNGJET (Through-coolant)	Screw-on	Back-clamp		
95°		QC12-JSCL2CR-Y	CC**09			○	○			○	○		✓		without*	G040
		QC12-JSCL2CR-Y-CHP	CC**09			○	○			○	○	○	✓		without	G040
		QC12-JSCL2CR	CC**09			○	○			○			✓		without*	G040
		QC12-JSCL2CR-CHP	CC**09			○	○			○		○	✓		without*	G041
		JSCL2CR/L	CC**06/09		○	○		○					✓		without*	G042
		JTCL2CR/L	CC**06/09		○	○		○						✓	without	G042
		JSCL2CR/L-CHP	CC**09			○		○				○	✓		without*	G042
		JSCLCR/L	CC**06/09	○	○	○		○					✓		with	G043
		JSCLCR-F15	CC**09				○		○				✓		with	G043
91°		JSCGCR/L	CC**06/09			○		○						✓	with	G078

* When using stepped-head shank, the "Offset" will be "with".

CN** inserts

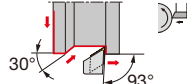
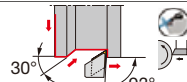
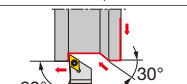
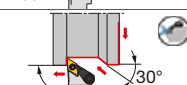
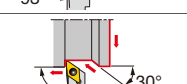
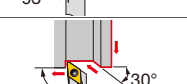
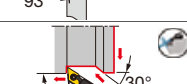
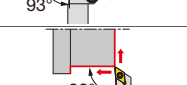
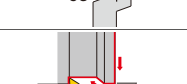
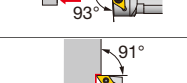
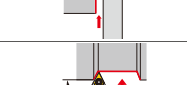
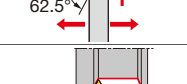
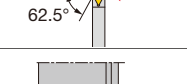
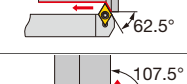
Cutting edge angle	Application	Designation	Insert	Square shank		Clamping style		Offset	Page
				16 x 16	20 x 20	Lever-lock	Double-clamp		
95°		PCL2NR	CN**1204		○	✓		without	G050
		ACLNR/L	CN**0904/ 1204		○		✓	with	C015
		PCLNR	CN**1204		○	✓		with	G050

CN** inserts

Cutting edge angle	Application	Designation	Insert	Square shank		Holder	Clamping style		Offset	Page
				16 x 16	20 x 20		Lever-lock	Double-clamp		
95°		PCLNR/L-CHP	CN**0904/ 1204		○		✓		with	C019
91°		PCFNR/L	CN**1204		○		✓		with	C087

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DC** inserts

Cutting edge angle	Application	Designation	Insert	Square shank (height x width)								Cylindrical shank (shank dia.)				
				8 x 8	10 x 10	10 x 12	10 x 16	12 x 12	12 x 16	16 x 16	16 x 20	20 x 20	ø19.05	ø20	ø22	
93°		QC12-JSDJ2CR-Y	DC**11					○	○							
		QC12-JSDJ2CR-Y-CHP	DC**11					○	○							
		QC12-JSDJ2CR	DC**07/11					○	○							
		QC12-JSDJ2CR-CHP	DC**07/11					○	○							
		JSDJ2CR/L	DC**07/11	○	○			○		○						
		JTDJ2CR/L	DC**07/11		○			○		○						
		JSDJ2CR/L-CHP	DC**07/11			○		○		○						
		JSDJCR-F15	DC**07/11				○		○		○					
		JSDJCR/L	DC**07/11	○	○			○		○						
		JS***-SDUCL	DC**07/11									○	○	○	○	
91°		JSDFCR/L	DC**07/11					○		○						
62.5°		JSDNCN	DC**07/11		○			○		○						
		SDNCN	DC**11							○		○				
		JSDN3CR	DC**07/11					○		○						
107.5°		SDQCR/L	DC**11								○					

* When using stepped-head shank, the "Offset" will be "with".

	Holder			Clamping style		Offset	Page
	MODUM ^{TURN} (Modular head)	Y-axis feed	TUNG ^{TURN} (Through-coolant)	Screw-on	Back-clamp		
	○	○		✓		without*	G052
	○	○	○	✓		without	G052
	○			✓		without*	G053
	○		○	✓		without*	G053
				✓		without	G054
					✓	without	G054
			○	✓		without	G055 G056
				✓		with	G057
				✓		with	G056
				✓		—	G081
				✓		with	G080
				✓		with	G070
				✓		with	C073
				✓		with	G070
				✓		with	C096

Grade

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DX*U inserts

Cutting edge angle	Application	Designation	Insert	Square shank (height x width)								Cylindrical shank (shank dia.)				
				10 x 10	10 x 12	10 x 16	12 x 12	12 x 16	16 x 16	16 x 20	20 x 20	ø14	ø15.875	ø16	ø19.05	ø20
93°		QC12-JSDJ2XR-Y	DX*U				○	○								
		QC12-JSDJ2XR-Y-CHP	DX*U				○	○								
		QC12-JSDJ2XR	DX*U				○	○								
		QC12-JSDJ2XR-CHP	DX*U				○	○								
		JSDJ2XR/L	DX*U	○			○		○		○					
		JPDJ2XR/L	DX*U	○			○		○							
		JSDJ2XR/L-CHP	DX*U		○		○		○							
		JSDJXR-F15	DX*U			○		○		○						
		JSDJXR/L	DX*U								○					
		JS***-SDUXL	DX*U									○	○	○	○	○
62.5°		QC12-JSDNXR-CHP	DX*U				○	○								

* When using stepped-head shank, the "Offset" will be "with".

	ø22	ø25	ø25.4	Holder			Clamping style		Offset	Page
				MODUMTMTURN (Modular head)	Y-axis feed	TUNGTJET (Through-coolant)	Screw-on	Back-clamp		
				○	○		✓		without*	G058
				○	○	○	✓		without*	G058
				○			✓		without*	G058
				○		○	✓		without*	G059
							✓		without	G059
								✓	without	G060
						○	✓		without	G060
							✓		with	G061
							✓		with	C045
	○	○	○				✓		—	G082
				○		○	✓		with	G072

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DN** inserts

Cutting edge angle	Application	Designation	Insert	Square shank		Holder TUNGTJET (Through-coolant)	Clamping style		Offset	Page
				16 x 16	20 x 20		Lever-lock	Double-clamp		
93°		ADJNR/L	DN**1104/1504/1506		○			✓	with	C034
		PDJNR/L	DN**1104/1504/1506	○	○		✓		with	G068
		PDJNR/L-CHP	DN**1104/1504		○	○	✓		with	C037
62.5°		ADPNN	DN**1504		○			✓	with	C108
107.5°		ADQNR/L	DN**1104/1504/1506		○			✓	with	C092



SC/P** inserts

Cutting edge angle	Application	Designation	Insert	Square shank (height x width)			Clamping style		Offset	Page
				10 x 10	12 x 12	16 x 16	Screw-on	Back-clamp		
93°		SSDC/PN	SC**07/09 SP**04	○	○	○	✓		with	G079



TC** inserts

Cutting edge angle	Application	Designation	Insert	Square shank (height x width)				Clamping style		Offset	Page
				8 x 8	10 x 10	12 x 12	16 x 16	Screw-on	Back-clamp		
91°		JSTACR/L	TC**08/11	○	○	○	○	✓		without*	G074



TN** inserts

Cutting edge angle	Application	Designation	Insert	Square shank (height x width)			Holder TUNGTJET (Through-coolant)	Clamping style			Offset	Page
				12 x 16	16 x 16	20 x 20		Lever-lock	Back-clamp	Double-clamp		
95°		PTL2NR/L	TN**1604			○		✓			without	G051
		JTTLNR/L	TN**1604	○	○				✓		without	G051
93°		ATJNR/L	TN**1604			○				✓	with	C032
91°		JTTANR/L	TN**1604	○	○				✓		without	G077
		ATGNR/L	TN**1604			○				✓	with	C057
		PTGNR/L	TN**1104/ 1604		○	○		✓			with	C058
		PTGNR/L -CHP	TN**1104/ 1604			○	○	✓			with	C059
		ATFNR/L	TN**1604			○				✓	with	C088
		PTFNR/L	TN**1104/ 1604		○	○		✓			with	C089
105°		ATQNR/L	TN**1604			○				✓	with	C091

Grade

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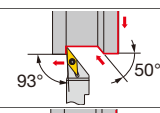
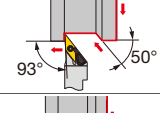
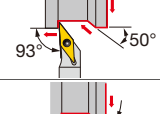
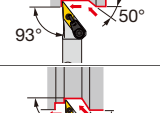
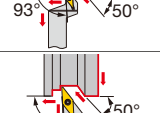
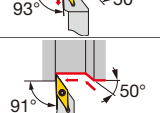
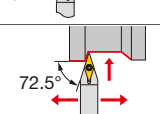
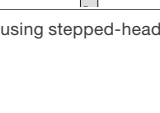
K

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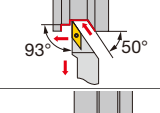
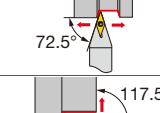
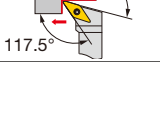
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VB** inserts

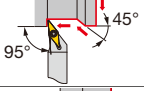
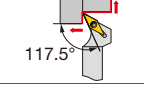
Cutting edge angle	Application	Designation	Insert	Square shank (height x width)					Holder		Clamping style		Offset	Page
				10 x 10	12 x 12	12 x 16	16 x 16	16 x 20	MODUMTURN (Modular head)	TUNGJET (Through-coolant)	Screw-on	Back-clamp		
93°		QC12-JSVJ2BR	VB**11		○	○			○		✓		without*	G062
		QC12-JSVJ2BR-CHP	VB**11		○	○			○	○	✓		without	G062
		JSVJ2BR/L	VB**11	○	○		○				✓		without	G062
		JSVJ2BR/L-CHP	VB**11		○		○			○	✓		without	G063
		JSVJBR-F15	VB**11			○		○			✓		with	G064
		JSVJBR/L	VB**11	○	○		○				✓		with	G064
91°		JSVABR/L	VB**11	○	○						✓		without	G076
72.5°		JSVNBN	VB**11	○	○		○				✓		with	G071

* When using stepped-head shank, the "Offset" will be "with".

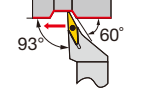
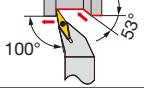
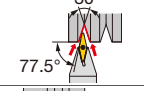
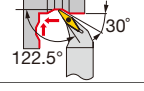
VC** inserts

Cutting edge angle	Application	Designation	Insert	Square shank		Clamping style		Offset	Page
				16 x 16	20 x 20	Screw-on	Back-clamp		
93°		SVJCR	VC**16	○	○	✓		with	C048
72.5°		SVVCN	VC**16		○	✓		with	C052
117.5°		SVQCR/L	VC**16		○	✓		with	C097

VP** inserts

Cutting edge angle	Application	Designation	Insert	Square shank (height x width)			Clamping style		Offset	Page
				10 x 10	12 x 12	16 x 16	Screw-on	Back-clamp		
95°		JSVL2PR/L	VP**08/11	○	○	○	✓		without	G044
117.5°		JSVP2PR/L	VP**08/11	○	○	○	✓		without	G073

YWMT inserts

Cutting edge angle	Application	Designation	Insert	Square shank	Clamping style		Offset	Page
				20 x 20	Screw-on	Back-clamp		
93°		SYJBR/L	YWMT16	○	✓		with	C049
100°		SYHBR/L	YWMT16	○	✓		with	C099
77.5°		SYIBN	YWMT16	○	✓		with	C053
122.5°		SYQBR/L	YWMT16	○	✓		with	C098

Grade

Insert

Ext. Toolholder

Int. Toolholder

Threading

Grooving

Miniature tool

Milling cutter

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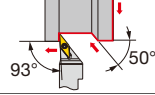
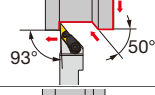
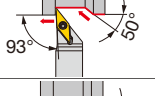
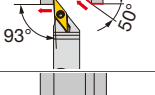
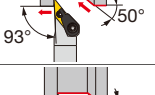
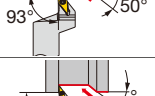
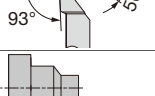
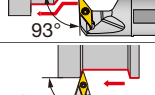
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M

Miniature External Turning - Quick Guide

VXGU inserts

Cutting edge angle	Application	Designation	Insert	Square shank (height x width)								Cylindrical shank (shank dia.)				
				10 x 10	10 x 12	10 x 16	12 x 12	12 x 16	16 x 16	16 x 20	20 x 20	ø15.875	ø16	ø19.05	ø20	ø22
93°		QC12-JSVJ2XR	VXGU				○	○								
		QC12-JSVJ2XR-CHP	VXGU				○	○								
		JSVJ2XR/L	VXGU	○			○		○		○					
		JPVJ2XR/L	VXGU	○			○		○							
		JSVJ2XR/L-CHP	VXGU		○		○		○							
		JSVJXR-F15	VXGU			○		○		○						
		JSVJXR/L	VXGU								○					
		JS***-SVUXL	VXGU									○	○	○	○	○
72.5°		QC12-JSVVXR-CHP	VXGU				○	○								

* When using stepped-head shank, the "Offset" will be "with".

	ø25	ø25.4	Holder		Clamping style		Offset	Page
			MODUM ^{TURN} (Modular head)	TUNG ^{TJET} (Through-coolant)	Screw-on	Back-clamp		
			○		✓		without*	G065
			○	○	✓		without*	G066
					✓		without	G065
						✓	without	G066
					✓		without	G067
					✓		with	G067
				○	✓		with	C047
	○	○			✓		–	C114
			○	○	✓		with	G083

Grade

Insert

Ext. Toolholder

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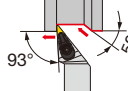
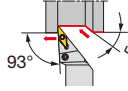
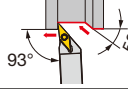
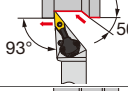
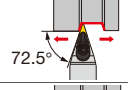
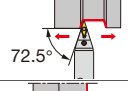
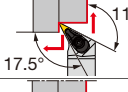
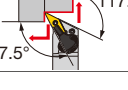
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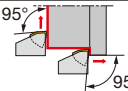
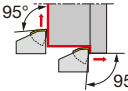
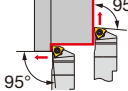
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Miniature External Turning - Quick Guide

V/YN** inserts

Cutting edge angle	Application	Designation	Insert	Square shank (height x width)			Holder 	Clamping style			Offset	Page
				12 x 12	16 x 16	20 x 20		Lever-lock	Back-clamp	Double-clamp		
93°		AVJNR/L	VN**1204 V/YN**1604			○				✓	with	C041
		PVJNR/L	VN**1204		○	○		✓			with	C042
		JPVJ2NR/L	VN**1204	○	○				✓		without	G069
		PVJNR/L-CHP	VN**1204 V/YN**1604			○	○	✓			with	C043
72.5°		AVVNN	VN**1204 V/YN**1604			○				✓	with	C050
		PVVNN	VN**1204			○		✓			with	C050
117.5°		AVQNR/L	VN**1204 V/YN**1604			○				✓	with	C094
		PVQNR/L	VN**1204			○		✓			with	C094
		PVQNR/L-CHP	V/YN**1604			○	○	✓			with	C095

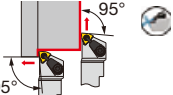
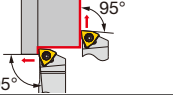
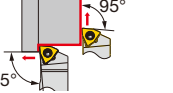
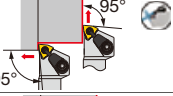
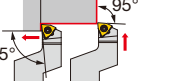
WXGU inserts

Cutting edge angle	Application	Designation	Insert	Square shank		Holder		Clamping style		Offset	Page
				12 x 12	12 x 16	MODULTURN (Modular head) Y-axis feed		Screw-on	Back-clamp		
95°		QC12-JSWL2XR-Y	WXGU	○	○	○	○	✓		without*	G045
		QC12-JSWL2XR-Y-CHP	WXGU	○	○	○	○	✓		without	G045
		QC12-JSWL2XR	WXGU	○	○	○		✓		without*	G046

* When using stepped-head shank, the "Offset" will be "with".



WXGU inserts

Cutting edge angle	Application	Designation	Insert	Square shank (height x width)							Holder		Clamping style		Offset	Page
				10 x 10	10 x 16	12 x 12	12 x 16	16 x 16	16 x 20	20 x 20	MODUMTURN (Modular head)	TUNGJET (Through-coolant)	Screw-on	Back-clamp		
95°		QC12-JSWL2XR-CHP	WXGU			○	○				○	○	✓		without*	G046
		JSWL2XR/L	WXGU	○		○		○		○			✓		without	G046
		JPWL2XR/L	WXGU	○		○		○						✓	without	G047
		JSWL2XR/L-CHP	WXGU			○		○				○	✓		without	G048
		JSWLXR-F15	WXGU		○		○		○				✓		with	G049

* When using stepped-head shank, the "Offset" will be "with".



WN** inserts

Cutting edge angle	Application	Designation	Insert	Square shank	Holder	Clamping style		Offset	Page
				20 x 20		Lever-lock	Double-clamp		
95°		AWLNR/L	WN**0604/ 0804	○			✓	with	C024
		PWLNR/L	WN**0604	○		✓		with	C026
		PWLNR/L-CHP	WN**0604/ 0804	○	○	✓		with	C026

Miniature External Turning - Quick Guide



JV*N inserts

Cutting edge angle	Application	Designation	Insert	Square shank (height x width)				Clamping style		Offset	Page
				6 x 6	7 x 7	8 x 8	10 x 10	Screw-on	Back-clamp		
Front turning		JSXXR/L*05	JVFN45R/L	○	○	○	○	✓		without	G086



JXF inserts

Cutting edge angle	Application	Designation	Insert	Square shank (height x width)				Clamping style		Offset	Page
				10 x 10	12 x 12	16 x 16	20 x 20	Screw-on	Back-clamp		
Front turning, Reverse turning		JSXGR/L	JXFR/L8 JXRR/L8	○	○	○	○	✓		without	G088



JXB inserts

Cutting edge angle	Application	Designation	Insert	Square shank (height x width)				Clamping style		Offset	Page
				10 x 10	12 x 12	16 x 16	20 x 20	Screw-on	Back-clamp		
Front turning		JSXBR/L	JXBR/L	○	○	○	○	✓		without	G092



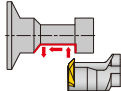
J10E inserts

Cutting edge angle	Application	Designation	Insert	Square shank (height x width)				Holder	Clamping style		Offset	Page
				10 x 10	12 x 12	12 x 16	16 x 16		Screw-on	Back-clamp		
Back turning		QC12-JSEGR	J10ER		○	○			✓		without	G089
		QC12-JSEGR-CHP	J10ER		○	○			✓		without	G089
		JSEGR/L	J10ER/L	○	○		○		✓		without	G089

* When using stepped-head shank, the "Offset" will be "with".



JTB inserts

Cutting edge angle	Application	Designation	Insert	Square shank (height x width)			Cylindrical shank (shank dia.)				Clamping style		Offset	Page
				10 x 10	12 x 12	16 x 16	ø19.05	ø20	ø22	ø25.4	Screw-on	Back-clamp		
Back turning		JSTBR/L3	JTBR/L3	○	○	○					✓		without	G083
		JS-TBL3	JTBR3				○	○	○	○	✓		-	G084

Grade

Insert

Ext. Toolholder

Int. Toolholder

Threading

Grooving

Miniature tool

Milling cutter

Endmill

Drilling tool

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Miniature Internal Turning - Quick Guide

Positive type

StreamJet-Bar

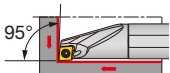
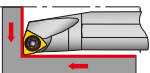
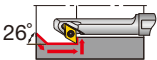
Appli- cation	Style	Designation	Insert	Material	Through coolant	ISO Insert	Y-PRO	Min. bore diameter DMIN (mm)						Page
								0	10	20	30	40	50	
Boring & Internal facing		SEXPR/L	EP ...	Steel Carbide	○	✓		ø4.5	ø7					D034 D035
		SCLCR/L	CC...	Steel Carbide	○	✓		ø5			ø27			D014 D016
		SCLPR/L	CP ...	Steel Carbide	○	✓		ø10			ø27			D018 D019
Boring & internal profiling		SDUCR/L	DC ...	Steel Carbide	○	✓		ø13			ø32			D056
		SDUPR/L	DPMT...	Steel Carbide	○	✓		ø15			ø22			D058
		SVUCR/L	VC ...	Steel Carbide	○	✓		ø16			ø32			D061 D062
		SVUBR/L	VB ...	Steel Carbide	○	✓		ø20			ø32			D059 D060
		SDQCR/L	DC ...	Steel Carbide	○	✓		ø13			ø30			D076 D077
		SDQPR/L	DPMT...	Steel Carbide	○	✓		ø15			ø22			D078
		SVQCR/L	VC ...	Steel Carbide	○	✓		ø13.5			ø21.5			D081 D082
		SVQBR/L	VB ...	Steel Carbide	○	✓		ø17			ø30.5			D079 D080
		SYUBR/L	YW ...	Steel Carbide	○		✓	ø20					ø24.5	D064
		SWUBR/L	WB...	Steel Carbide	○	✓		ø6	ø8					D052
Boring		STUPR/L	TP ...	Steel Carbide	○	✓		ø8			ø34			D053 D055
		STFPR/L	TP...	Steel Carbide	○	✓		ø10			ø27			D046
		STFCR/L	TC...	Steel Carbide	○	✓		ø12			ø18			D045
Blind hole boring		STFCR/L	TC...	Steel Carbide	○	✓		ø12			ø18			D045

StreamJet-Bar

Appli- cation	Style	Designation	Insert	Material	Through coolant	ISO Insert	Y-PRO	Min. bore diameter DMIN (mm)						Page
								0	10	20	30	40	50	
Internal undercut & profiling		SYQBR/L	YW...	Steel Carbide	○	✓		ø17	ø21.5	ø17	ø21.5			D083
		SDZCR/L	DC...	Steel Carbide	○	✓		ø14	ø25	ø18	ø22			D085
		SVZCR/L	VC...	Steel	○	✓				ø16				D088
		SVZBR/L	VB...	Steel	○	✓				ø20	ø40			D087
		SEZPR/L	EP...	Steel Carbide	○	✓		ø5.5	ø6.5	ø5.5	ø6.5			D084
		SVJCR/L	VC...	Steel	○	✓				ø16	ø20			D039
Internal sphere cutting		SVJBR/L	VB...	Steel	○	✓				ø25	ø30			D038

Double-sided insert with positive cutting edges

MiniForce-Turn

MiniForce-Turn							MINI F TURN	Min. bore diameter DMIN (mm)						Page
Appli- cation	Style	Designation	Insert	Material	Through coolant									
						0		10	20	30	40	50		
Boring & Internal facing		SCLXR/L	CXMU...	Steel Carbide	○	✓	ø12		ø22				D021	
		SWLXR/L	WX*U...	Steel Carbide	○	✓	ø12		ø22				D023	
Boring & Internal profiling		SDXXR/L	DX*U...	Steel Carbide	○	✓	ø13		ø24				D036	
Back boring		SDZXR/L	DX*U...	Steel Carbide	○	✓	ø14		ø20				D086	
								ø18		ø22				

Miniature Grooving - Quick Guide

External Grooving



MiniVLockGroove

Application	Designation	Insert	Square shank (height x width)					Holder			Groove width (mm)			Max. groove depth (mm)	Page
			8 x 8	10 x 10	10 x 12	12 x 12	12 x 16	MODULTURN (Modular head)	TUNGET (Through-coolant)	Direct connection	0	1	2		
	QC12-SVER/L-CHP Modular head	VGP...				○	○	○	○	○	0.33	1		2.5 - 4	G110
	SVER/L	VGP...	○	○	○						0.5	1		2 - 4	G110
	SVER/L-CHP	VGP...			○	○			○	○	0.5	1		2.5 - 4	G110



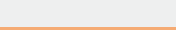
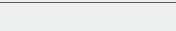
TetraMini-Cut

Application	Designation	Insert	Square shank (height x width)						Cylindrical shank (shank dia.)							
			10 x 10	10 x 12	12 x 12	12 x 16	16 x 16	20 x 20	ø14	ø15.875	ø16	ø19.05	ø20	ø22	ø25	ø25.4
	QC12-STCR/L-Y Modular head	TC*18R/L...			○	○										
	QC12-STCR/L-Y-CHP Modular head	TC*18R/L...			○	○										
	QC12-STCR/L Modular head	TC*18R/L...			○	○										
	QC12-STCR/L-CHP Modular head	TC*18R/L...			○	○										
	STCR/L-18	TC*18R/L...	○		○		○	○								
	STCR/L-18-CHP	TC*18R/L...		○	○		○	○								
	JS-STCL18	TC*18R...							○	○	○	○	○	○	○	○



TetraForce-Cut

Application	Designation	Insert	Square shank (height x width)				Holder		Groove width (mm)						Max. groove depth (mm)	Page
			10 x 10	12 x 12	16 x 16	20 x 20	TUNGET (Through-coolant)	Direct connection	0	1	2	3	4	5		
	STCR/L-27	TC*27...	○	○	○	○			0.5				3.18		1 - 6.4	G126
	STCR/L-27-CHP	TC*27...		○		○	○	○	0.5				3.18		1 - 6.4	G126
	STCR/L-38	TCL38...				○			0.5				4		9 - 10	G132

	Holder				Groove width (mm)							Max. groove depth (mm)	Page
	MODUL ^{TURN} (Modular head)	Y-axis feed	TUNET ^{JET} (Through-coolant)	Direct connection	0	1	2	3	4	5			
													
	☐	☐			0.33					3.18	0.8 - 3.5	G113	
	☐	☐	☐	☐	0.33					3.18	0.8 - 3.5	G113	
	☐				0.33					3.18	0.8 - 3.5	G114	
	☐		☐	☐	0.33					3.18	0.8 - 3.5	G114	
					0.33					3.18	0.8 - 3.5	G115	
			☐	☐	0.33					3.18	0.8 - 3.5	G115 G116	
					0.33					3.18	0.8 - 3.5	G116	

Grade

Insert

Ext. Toolholder

Int. Toolholder

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Miniature Parting - Quick Guide

External Grooving



GTGN

Application	Designation	Insert	Square shank (height x width)			Groove width (mm)						Max. groove depth (mm)	Page
			12 x 12	16 x 16	20 x 20	0	1	2	3	4	5		
	CER/L	GTGN-16E...	☐	☐	☐		1		2.25			1 - 1.8	F093



TungHeavyGroove

Application	Designation	Insert	Square shank (height x width)			Groove width (mm)						Max. groove depth (mm)	Page
			12 x 12	16 x 16	20 x 20	0	10	20	30	40	50		
	FPGN	PSGB...	☐	☐	☐		10		25			-	G138
	SPGN	PSGB...	☐	☐	☐		10		25			-	G139

Internal Grooving



AddInternalCut

Application	Designation	Insert	Cylindrical shank		Groove width (mm)	Max. groove depth (mm)	Through coolant
			ø12	ø16			
	A/E-STCIR/L	TCIG10/12...	☐	☐	0.5 - 3	1 - 3	☐



SNG

Application	Designation	Insert	Cylindrical shank (shank dia.)					Groove width (mm)	Max. groove depth (mm)	Through coolant
			ø8	ø10	ø12	ø16	ø20			
	A/E-SNGR	*GR/L... *GMR...	☐	☐	☐	☐	☐	1 - 3.5	1.5 - 3	☐

Min. bore diameter DMIN (mm)							Page
0	5	10	15	20	25		
		ø10.5			ø20		G140

Min. bore diameter DMIN (mm)							Page
0	5	10	15	20	25		
		ø8			ø24		G142

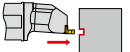
Grade	A
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Face Grooving



TetraMini-Cut

	TetraMini-Cut		Square shank (height x width)			Cylindrical shank (shank dia.)							
			10 x 10	12 x 12	16 x 16	ø14	ø15.875	ø16	ø19.05	ø20	ø22	ø25	ø25.4
Application	Designation	Insert											
	JS-STCFL18	TCF18L...				○	○	○	○	○	○	○	
	STCFVR-18	TCF18L...	○	○	○								

Parting



DuoForceCut

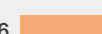
Application	Designation	Insert	Square shank (height x width)				Groove width (mm)	Max. parting diameter (mm)						Page
			6 x 6	7 x 7	8 x 8	10 x 10		0	10	20	30	40	50	
	JSXXR/L*05	JVPN...	○	○	○	○	0.5 - 1	ø4	ø12					G167



DuoJustCut

Application	Designation	Insert	Square shank (height x width)					Groove width (mm)	Holder TUNGJET (Through-coolant)
			10 x 10	10 x 12	12 x 12	16 x 16	20 x 20		
	JSXXR/L*09	JXP...	○		○	○	○	0.6 - 2	
	JSXXR/L*09-CHP	JXP...		○	○	○		0.6 - 2	○
	JSXXR/L-S	JXP...			○	○		0.6 - 2	
	JSXXR/L*09-S-CHP	JXP...	○		○	○		0.6 - 2	○

	Groove width (mm)	Max. groove depth (mm)	Min. face groove outside diameter (mm)						Page
			0	5	10	15	20	25	
	0.5 - 2.5	1 - 3	ø6 						G147
	0.5 - 2.5	1 - 3	ø6 						G147

	Max. parting diameter (mm)						Page
	0	10	20	30	40	50	
	ø6					ø20	G169
	ø6					ø20	G170
	ø6					ø20	G169
	ø6					ø20	G170

Grade

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Miniature Parting - Quick Guide

Parting



TungCut

Application	Designation	Insert	Square shank (height x width)						Groove width (mm)	Holder		
			10 x 10	12 x 12	12 x 16	16 x 16	20 x 12	20 x 20		MODUMTURN (Modular head)	TUNGJET (Through-coolant)	Direct connection
	QC12-JTTER/L-CHP Modular head	DG.../ SG...		○	○				1.2 - 2.39	○	○	○
	J*TER/L	DG.../ SG...	○	○		○	○	○	1.2 - 3.18			
	JCTER/L-CHP	DG.../ SG...		○		○		○	2 - 2.39		○	○
	CGER/L	DG.../ SG...		○		○		○	1.4 - 4			
	CHGP	DG.../ SG...						○	2 - 4			
	CGP	DG.../ SG...						○	1.4 - 8			



AddForceCut

Application	Designation	Insert	Square shank 20 x 20	Groove width (mm)	Max. parting diameter (mm)						Page
					0	25	50	75	100	125	
	QSER/L	QG...	○	2 - 4			ø52	ø66			G191
	QSG	QG...	○	2 - 4			ø52		ø82		G192
	QSP	QG...	○	2 - 5			ø50			ø120	G191

Max. parting diameter (mm)							Page
10	25	50	75	100	125		
ø20							G178
ø12		ø42					G177 G178 G179
ø25		ø32					G180
ø29		ø55					G179
	ø52		ø82				G180
ø26		ø120					G181

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Miniature Threading - Quick Guide

External Threading



MiniVLockGroove

Application	Designation	Insert	Square shank (height x width)			Corner R (mm)	Holder			Pitch (mm)						Page
			10 x 10	12 x 12	12 x 16		MODUM ^{TURN} (Modular head)	TUNG ^{TJET} (Through-coolant)	Direct connection	0	1	2	3	4	5	
	QC12-SVER/L-CHP Modular head	VGT10F...		○	○	0.05 - 0.1	○	○	○	0.4			2			G150
	SVER/L	VGT10F...	○	○		0.05 - 0.1				0.4			2			G150
	SVER/L-CHP	VGT10F...		○		0.05 - 0.1		○	○	0.4			2			G150



TetraMini-Cut

Application	Designation	Insert	Square shank (height x width)					Cylindrical shank (shank dia.)							
			10 x 10	12 x 12	12 x 16	16 x 16	20 x 20	ø14	ø15.875	ø16	ø19.05	ø20	ø22	ø25	ø25.4
	QC12-STCR/L-Y Modular head	TCT18R/L...		○	○										
	QC12-STCR/L-Y-CHP Modular head	TCT18R/L...		○	○										
	QC12-STCR/L Modular head	TCT18R/L...		○	○										
	QC12-STCR/L-CHP Modular head	TCT18R/L...		○	○										
	STCR/L-18	TCT18R/L...	○	○		○	○								
	STCR/L-18-CHP	TCT18R/L...	○	○		○	○								
	JS-STCL18	TCT18R...						○	○	○	○	○	○	○	○

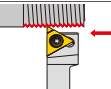
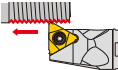
	Corner R (mm)	Holder				Pitch (mm)							Page
		MODUL ^{IT} URN (Modular head)	Y-axis feed	TUNG ^{IT} JET (Through-coolant)	Direct connection	0	1	2	3	4	5		
	0.05 - 0.2					0.4		3					G152
	0.05 - 0.2					0.4		3					G152
	0.05 - 0.2					0.4		3					G153
	0.05 - 0.2					0.4		3					G153
	0.05 - 0.2					0.4		3					G154
	0.05 - 0.2					0.4		3					G154 G155
	0.05 - 0.2					0.4		3					G155

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External Threading

			Square shank (height x width)					Cylindrical shank (shank dia.)					Corner R (mm)	Holder TUNGJET (Through-coolant)	Direct connection
Application	Designation	Insert	10 x 10	10 x 12	12 x 12	16 x 16	20 x 20	ø19.05	ø20	ø22	ø25	ø25.4			
	JSXXR/L*09	JXTG12...	○		○	○	○						0.05Max. - 0.1		
	JSXXR/L*09-CHP	JXTG12...		○	○	○							0.05Max. - 0.1	○	○
	JSXXR/L*09-S	JXTG12...	○		○	○							0.05Max. - 0.1		
	JSXXR/L*09-S-CHP	JXTG12...			○	○							0.05Max. - 0.1	○	○
	JS-SXXL09	JXTG12R...						○	○	○	○	○	0.05Max. - 0.1		



			Square shank (height x width)									Cylindrical shank (shank dia.)				
Application	Designation	Insert	8 x 8	10 x 10	12 x 12	16 x 16	20 x 10	20 x 20	24 x 12	24 x 16	32 x 16	ø16	ø19.05	ø20	ø25	ø25.4
	SER*11	11ER...	○	○												
	JSE2R16-CHP	16ER...			○	○										
	CER/L	16ER/L...			○	○		○								
	JS-SEL16	16ER...										○	○	○	○	○
	B-S/CER/L	16ER/L...					○		○		○					
	BC-SER/L	16ER/L...								○						

Internal Threading

			Min. bore diameter DMIN (mm)	Corner R (mm)	Pitch (mm)						Page
Application	Designation	Insert			0	1	2	3	4	5	
	SIR	6/8IR...	ø6.4 - ø8	0.04 - 0.17	0.5		2				E054
	SNR	6IR...	ø8 - ø10	0.04 - 0.1	0.5		1.75				E054

Pitch (mm)							Page
0	1	2	3	4	5		
0.2		1.5					G158
0.2		1.5					G159
0.2		1.5					G158
0.2		1.5					G159
0.2		1.5					G160

Corner R (mm)	Holder			Pitch (mm)						Page
			Direct connection	0	1	2	3	4	5	
0.04 - 0.19				0.35		1.5				G164
0.05 - 0.22				0.5		3				G162
0.05 - 0.22				0.5		3				E036
0.05 - 0.22				0.5		3				G163
0.05 - 0.22				0.5		3				G163
0.05 - 0.22				0.5		3				G163

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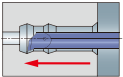
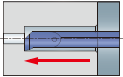
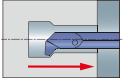
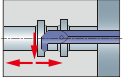
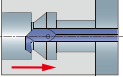
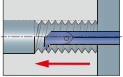
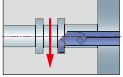
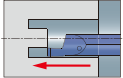
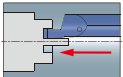
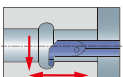
L

M

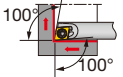
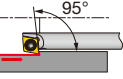
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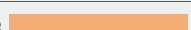
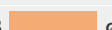
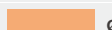
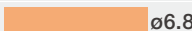
TinyMini-Turn

Solid carbide tools for small diameters turning

	Application	Description	Material	Through coolant	Cylindrical shank		Groove width
					ø4	ø7	
Boring, profiling & chamfering		TBT	Carbide		○	○	-
		JBT	Carbide	○	○	○	
Internal, Face grooving		TBP	Carbide		○	○	-
		JBP	Carbide	○	○	○	
Back boring & chamfering		TBU	Carbide			○	-
		JBU	Carbide	○		○	
Boring & 45° chamfering		TBC	Carbide			○	-
		JBC	Carbide	○		○	
Back boring		TBB	Carbide		○	○	-
		JBB	Carbide	○	○	○	
Threading (Metric thread)		TBI	Carbide		○	○	-
		JBI	Carbide	○	○	○	
Internal Grooving		TBG	Carbide		○	○	0.5 - 2
		JBG	Carbide	○	○	○	
Face grooving		TBF	Carbide			○	1 - 3
		JBF	Carbide	○		○	
Face grooving (for shaft)		TBS	Carbide			○	2
		JBS	Carbide	○		○	
Boring & profiling (full radius type)		TBR	Carbide			○	1
		JBR	Carbide	○		○	

Indexable tools for small diameters turning

	Application	Description	Cylindrical shank	Through coolant	Min. bore diameter DMIN (mm)						Page
			ø7		0	2	4	6	8	10	
Boring & internal facing		SEXPR	○	○				ø5  ø6			G106
Back boring		SEZPR	○	○				ø5.5 			G106

Min. bore diameter DMIN (mm)										Page	Grade	
0	2	4	6	8	10	12	14	15				
ø0.6									ø7	G097	Ext. Toolholder	A
ø1									ø7	G098	Ext. Toolholder	B
	ø2.8							ø5	G099	Ext. Toolholder	C	
	ø2.8							ø5			D	
		ø5								G099	Int. Toolholder	E
		ø5								G100	Int. Toolholder	F
		ø5					ø6.8	G100		Threading	G	
		ø5					ø6.8				H	
	ø3					ø7	G101			Threading	I	
	ø3					ø5					J	
		ø4					ø7	G101		Grooving	K	
		ø4					ø6	G102		Grooving	L	
	ø2					ø6.8	G102			Miniature tool	M	
	ø2					ø6.8	G103			Miniature tool		
		ø6						ø15	G104			
		ø6						ø15				
		ø6								G105	Milling cutter	
		ø6										
		ø5					ø6.8	G105			Endmill	
		ø5					ø6.8					

Grade

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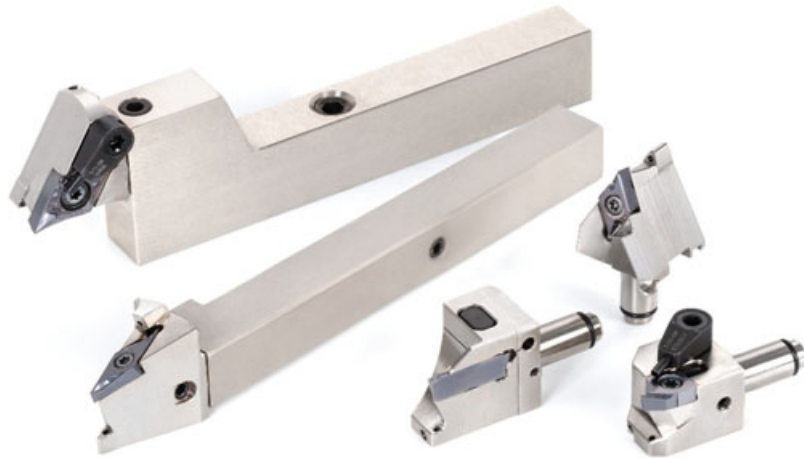
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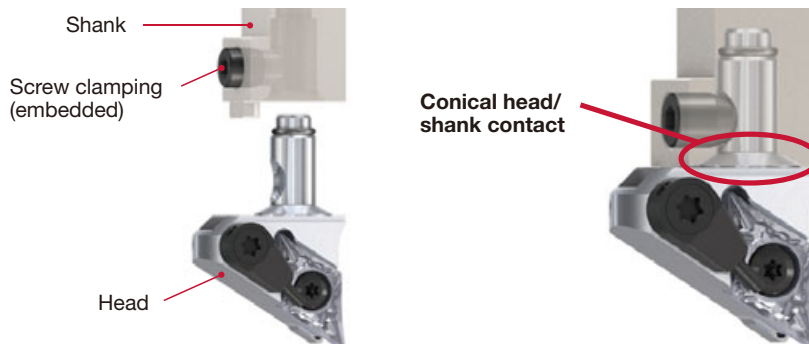
M



Modular style Swiss turning tool system facilitates tool changes with high repeatability

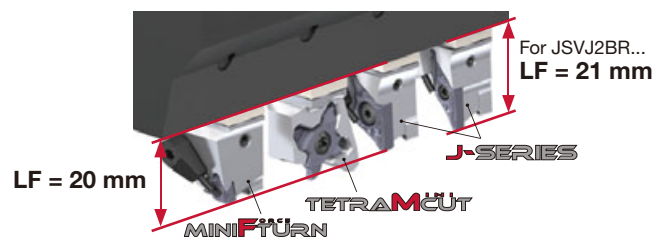
Unique coupling design

Simply loosen the clamping screw for easy tool exchanges. Unique coupling design allows extremely high repeatability.



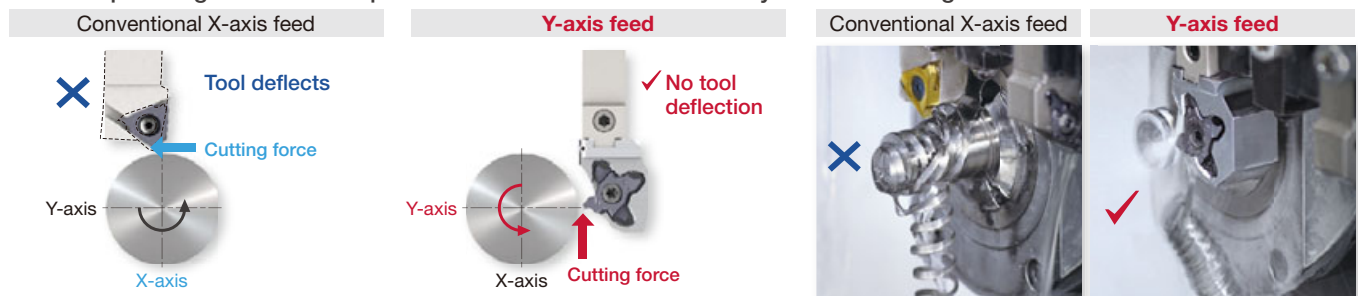
Benefits of Y-axis feed

Designed with common functional lengths (LF), the cutting heads allow easy tool changes without removing the shank from the tool post.



Benefits of Y-axis feed

No chip entanglements — Chips are directed downward and away from the cutting zone





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



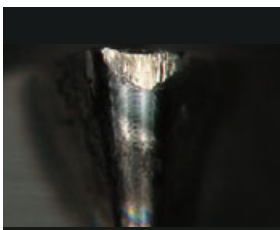
High pressure coolant (7 MPa)



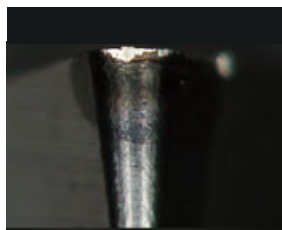
- Coolant jets from two outlets ensure high cutting efficiency and extended tool life

Directly to the cutting edge

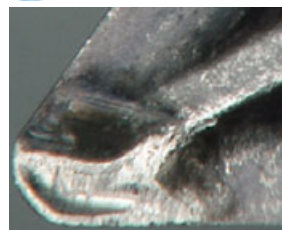
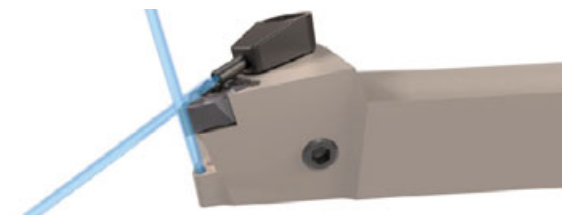
- Reliable chip control
- Reduces crater and notch wears



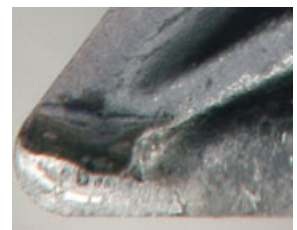
Excessive wear with external coolant supply (at normal pressure)



High pressure coolant (7 MPa)



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

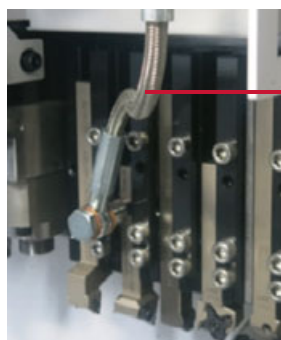


High pressure coolant (7 MPa)

Reference pages: [G040](#) -, [G045](#), [G052](#) -, [G055](#) -, [G058](#) -, [G062](#) -, [G065](#) -, [G072](#), [G083](#), [G089](#), [G095](#), [G110](#), [G113](#) - [G126](#), [G132](#), [G148](#), [G150](#), [G152](#) -, [G159](#), [G162](#), [G170](#), [G178](#) -

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

Conventional



Hose

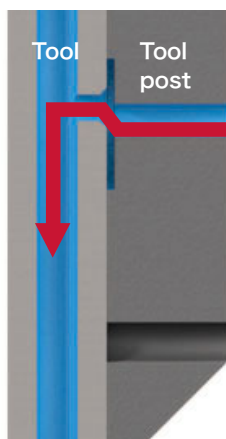
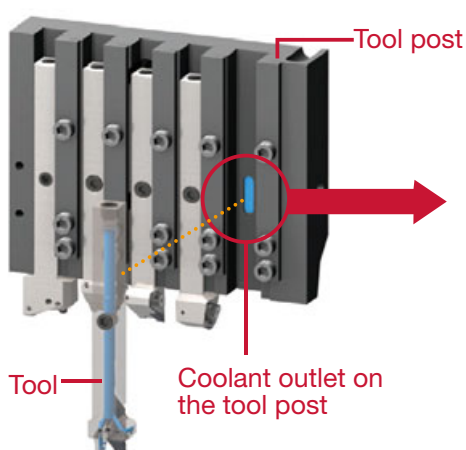


DirectTung-Jet system

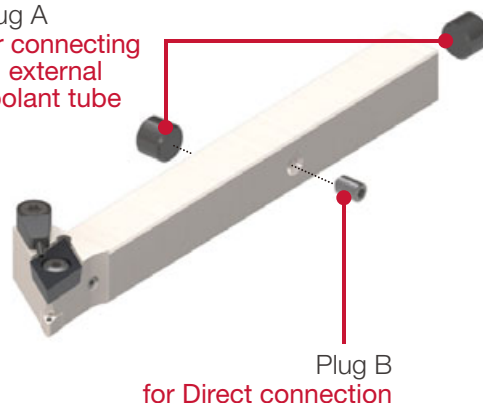


No need for coolant tube setup.
Eliminates chip entanglement on tubes and streamlines tool replacement.

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

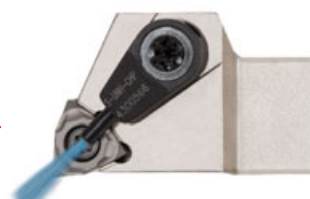


Plug A
for connecting
an external
coolant tube



Plug B
for Direct connection

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

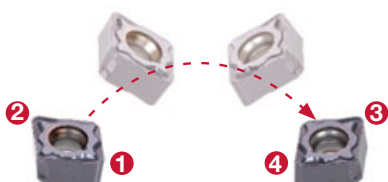


Economical double-sided positive insert

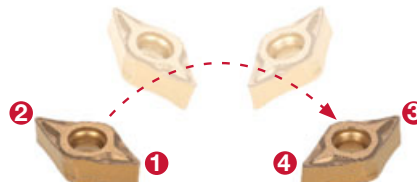
Innovative geometry and seat interface ensures stability and high performance.

Insert

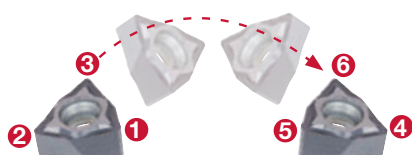
CXMU0603... 4 edges, rhombic 80°



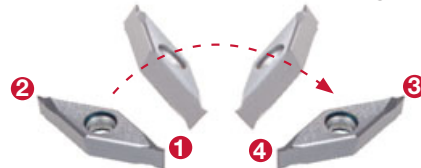
DXM/GU0703... 4 edges, rhombic 55°



WXGU0403... 6 positive cutting edges



VXGU09T2... 4 positive cutting edges



High rake angle

WXGU0403...

External turning

External turning



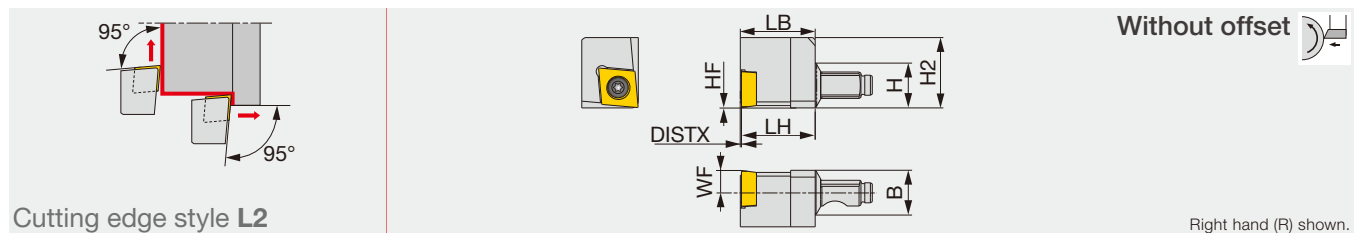
DXGU0703...

Internal turning

Internal turning



Screw-on Y-axis turning modular head with 95° approach angle, for positive 80° rhombic inserts



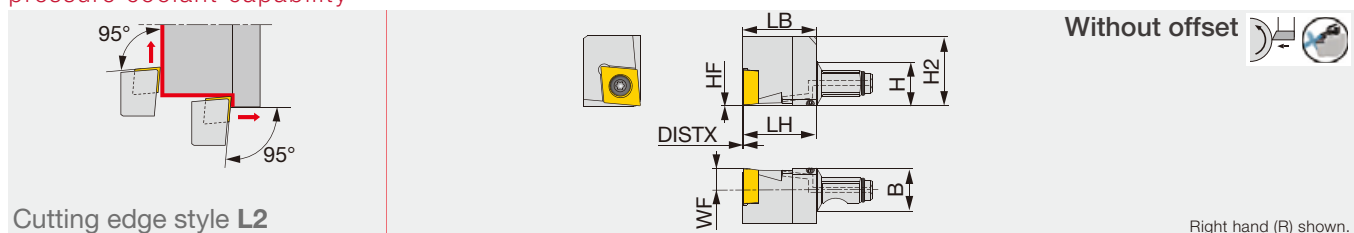
Designation	H	B	LH	HF	WF	LB	H2	DISTX	RE**	Insert	Torque*
QC12-JSCL2CR09-Y	12	12	19.5	0	6	19.8	18.6	0.3	0.2	CC**09T3...	1.2

Torque*: Recommended clamping torque (N-m)

RE**: Standard corner radius

QC12-JSCL2CR-Y-CHP

Screw-on Y-axis turning modular head with 95° approach angle, for positive 80° rhombic inserts, with high pressure coolant capability



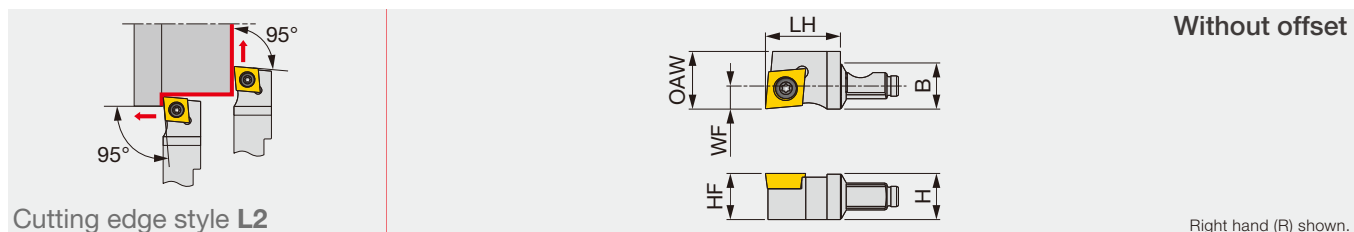
Designation	H	B	LH	HF	WF	LB	H2	DISTX	RE**	Insert	Torque*
QC12-JSCL2CR09-Y-CHP	12	12	19.5	0	6	19.8	18.6	0.3	0.2	CC**09T3...	1.2

Torque*: Recommended clamping torque (N-m)

RE**: Standard corner radius

QC12-JSCL2CR

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



Designation	H	B	LH	HF	WF	OAW	RE**	Insert	Torque*
QC12-JSCL2CR09	12	12	19.5	12	6	15	0.2	CC**09T3...	1.2

Torque*: Recommended clamping torque (N-m)

RE**: Standard corner radius

SPARE PARTS

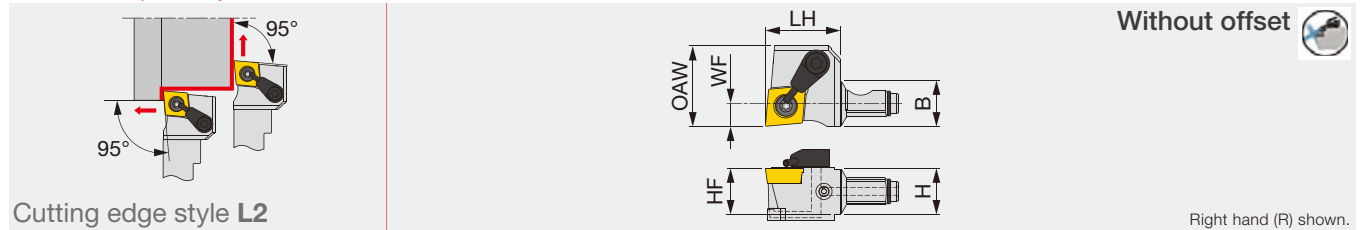
Designation	Clamping screw	Wrench	O-ring
QC12-JSCL2CR09-Y, QC12-JSCL2CR09	CSTB-4SD	T-8F	-
QC12-JSCL2CR09-Y-CHP	CSTB-4SD	T-8F	ORSS-0454.5X1.0NBR70

Reference pages : QC12-JSCL2CR-Y, QC12-JSCL2CR-Y-CHP, QC12-JSCL2CR:

Inserts → **B112** -, CBN → **B191**, PCD → **B213**, Shank, Accessory → **G095**, **G096**

QC12-JSCL2CR-CHP

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



Designation	H	B	LH	HF	WF	OAW	RE**	Insert	Torque*
QC12-JSCL2CR09-CHP	12	12	19.5	12	6	21	0.2	CC**09T3...	1.2

Torque*: Recommended clamping torque (N-m)

RE**: Standard corner radius

SPARE PARTS

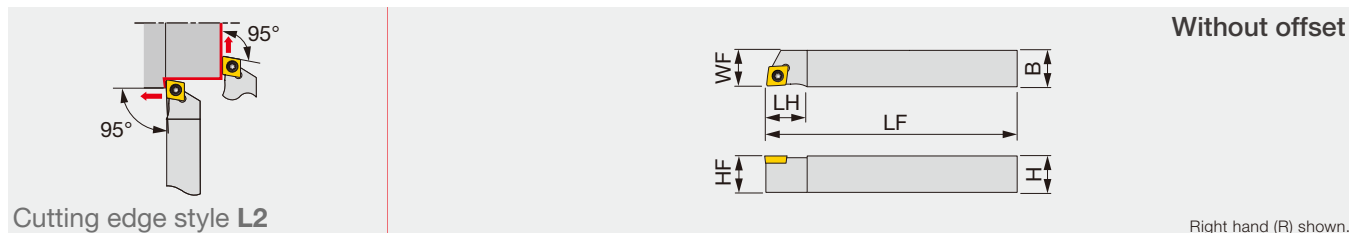
Designation	Clamping screw	Coolant unit	Wrench	O-ring
QC12-JSCL2CR09-CHP	CSTB-4SD	S-CU-CHP	T-8F	ORSS-0454.5X1.0NBR70

INSERT SELECTION

P	Application areas	Precision finishing		Finish cutting	Medium to finish cutting
	Grade	SH725	SH725	SH725	SH725
	Breaker Shape	01	JP	JS	JS
	Cutting conditions	G094			
P	Application areas	Medium to finish cutting			
	Grade	SH725			
	Breaker Shape	J10			
	Cutting conditions	G094			
K	Application areas	medium to finish cutting			
	Grade	T515			
	Breaker Shape	CM			
	Cutting conditions	B020			
S	Application areas	Finish cutting	Medium to finish cutting		
	Grade	SH725	SH725		
	Breaker Shape	JS	JS		
	Cutting conditions	G094			
M	Application areas	Precision finishing		Finish cutting	Medium to finish cutting
	Grade	SH725	SH725	SH725	SH725
	Breaker Shape	01	JP	JS	JS
	Cutting conditions	G094			
M	Application areas	Medium to finish cutting			
	Grade	SH725			
	Breaker Shape	J10			
	Cutting conditions	G094			
N	Application areas	Precision finishing	Finish cutting	Medium cutting	
	Grade	DX110	TH10	KS05F	
	Breaker Shape	NS	W20	AL	
	Cutting conditions	B022			
H	Application areas	Precision finishing	Finish cutting		
	Grade	BXA10	BXA20		
	Breaker Shape	CBN	CBN		
	Cutting conditions	B026			

Reference pages : QC12-JSCL2CR-CHP: Inserts → **B112** -, CBN → **B191**, PCD → **B213**,
Shank, Accessory → **G095**, **G096**

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

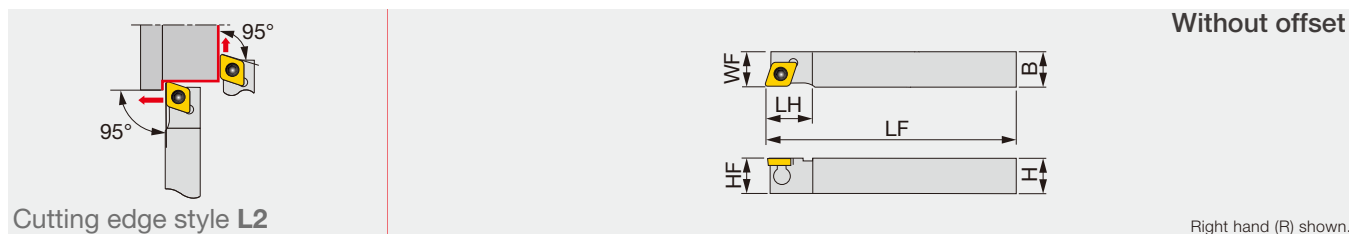


Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JSCL2CR/L1010X06	10	10	120	12	10	10	0.2	CC**0602...	1.2
JSCL2CR/L1212F06	12	12	85	12	12	12	0.2	CC**0602...	1.2
JSCL2CR/L1212X06	12	12	120	12	12	12	0.2	CC**0602...	1.2
JSCL2CR/L1212F09	12	12	85	16	12	12	0.2	CC**09T3...	1.2
JSCL2CR/L1212X09	12	12	120	16	12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

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

JTCL2CR/L

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



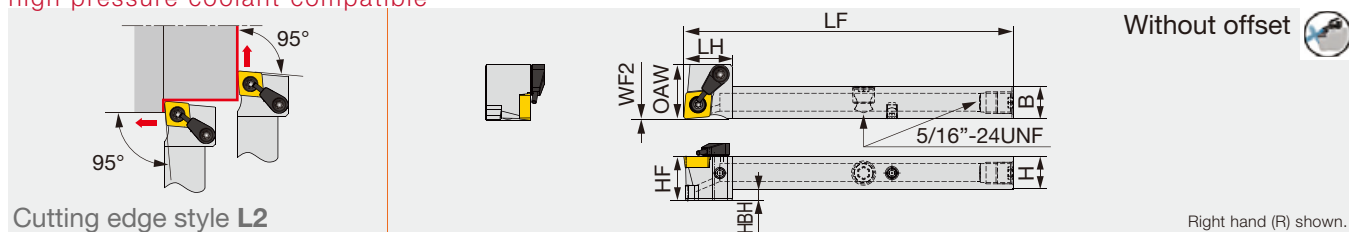
Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JTCL2CR/L1010X06	10	10	120	12	10	10	0.2	CC**0602...	0.9
JTCL2CR/L1212F09	12	12	85	16	12	12	0.2	CC**09T3...	1.2
JTCL2CR/L1212X09	12	12	120	16	12	12	0.2	CC**09T3...	1.2
JTCL2CR/L1616X09	16	16	120	16	16	16	0.2	CC**09T3...	1.2

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

JSCL2CR-CHP

Direct connection

Screw-on toolholder without offset, 95° approach angle for positive 80° rhombic inserts, high pressure coolant compatible



Designation	H	B	LF	LH	HF	HBH	WF2	OAW	RE	Insert	Torque*
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 clamping torque (N-m) RE**: Standard corner radius

SPARE PARTS

Designation	Clamping screw	Clamp	Clamping screw	Wrench	Wrench 1	Wrench 2 (Optional)
JTCL2CR/L**06	-	JCP-2	JDS-3525	P-2F	-	-
JTCL2CR/L**09	-	JCP-3	JDS-5040	P-2.5F	-	-
JSCL2CR/L**06	CSTB-2.5	-	-	-	T-8F	(T-8L)
JSCL2CR/L**09	CSTB-4SD	-	-	-	T-8F	(T-8L)

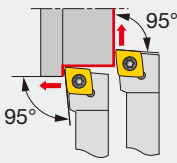
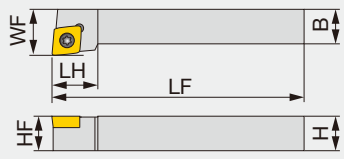
SPARE PARTS

Designation	Clamping screw	Coolant unit	Wrench	Coolant plug	Wrench 1	DirectJet plug	Wrench 2	Wrench 3 (Optional)
JSCL2CR**-CHP	CSTB-4SD	S-CU-CHP	T-8F	SR5/16UNFTL360	P-4	SSH4-6-TB	P-2	-

Reference pages : JSCL2CR/L, JTCL2CR/L, JSCL2CR-CHP: Inserts → **B112 -**, CBN → **B191**, PCD → **B213**

JSCLCR/L

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

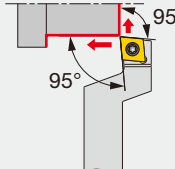
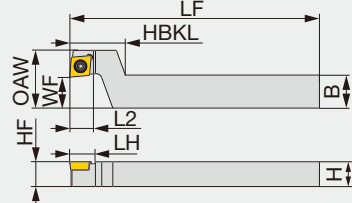
Right hand (R) shown.

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

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

JSCLCR-F

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

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 clamping torque (N·m)
RE**: Standard corner radius

SPARE PARTS

Designation	Clamping screw	Wrench 1	Wrench 2 (Optional)
JSCLCR/L**H06	CSTB-2.5	T-8F	-
JSCLCR/L**H09	CSTB-4SD	T-8F	-
JSCLCR**F15	CSTB-4SD	T-8F	(T-8L)

INSERT SELECTION

P	Application areas	Precision finishing		Finish cutting	Medium to finish cutting
	Grade	SH725	SH725	SH725	SH725
	Breaker Shape	01 	JP 	JS 	JS 
	Cutting conditions	G094			

P	Application areas	Medium to finish cutting
	Grade	SH725
	Breaker Shape	J10 
	Cutting conditions	G094

K	Application areas	medium to finish cutting
	Grade	T515
	Breaker Shape	CM 
	Cutting conditions	B020

S	Application areas	Finish cutting	Medium to finish cutting
	Grade	SH725	SH725
	Breaker Shape	JS 	JS 
	Cutting conditions	G094	

M	Application areas	Precision finishing		Finish cutting	Medium to finish cutting
	Grade	SH725	SH725	SH725	SH725
	Breaker Shape	01 	JP 	JS 	JS 
	Cutting conditions	G094			

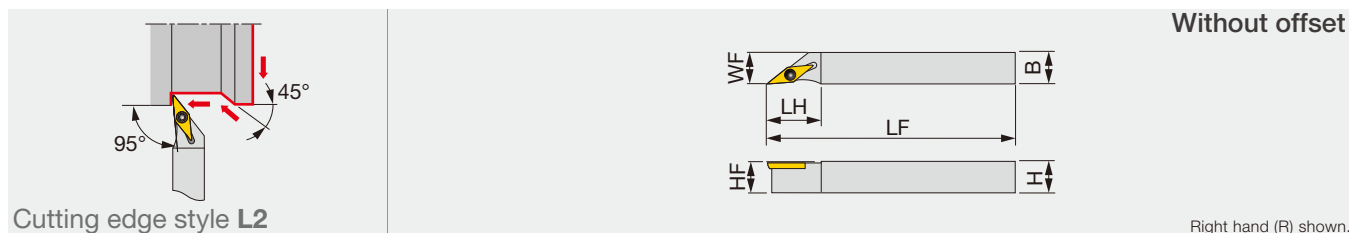
M	Application areas	Medium to finish cutting
	Grade	SH725
	Breaker Shape	J10 
	Cutting conditions	G094

N	Application areas	Precision finishing	Finish cutting	Medium cutting
	Grade	DX110	TH10	KS05F
	Breaker Shape	NS 	W20 	AL 
	Cutting conditions	B022		

H	Application areas	Precision finishing	Finish cutting
	Grade	BXA10	BXA20
	Breaker Shape	CBN 	CBN 
	Cutting conditions	B026	

Reference pages : JSCLCR/L, JSCLCR-F: Inserts → **B112** -, CBN → **B191**, PCD → **B213**

Screw-on toolholder with 95° approach angle, for positive 35° rhombic inserts



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 clamping torque (N-m)
RE**: Standard corner radius

SPARE PARTS

Designation	Clamping screw	Wrench 1	Wrench 2 (Optional)
JSVL2PR/L**08	CSTB-2L	T-6F	(T-6L)
JSVL2PR/L**11	CSTB-2.5	T-8F	(T-8L)

INSERT SELECTION

P	Application areas	Finish cutting	Finish cutting	M	Application areas	Finish cutting	Finish cutting
	Grade	SH725	SH725		Grade	SH725	SH725
	Breaker Shape	JRP	JSP		Breaker Shape	JRP	JSP
	Cutting conditions	G094			Cutting conditions	G094	
S	Application areas	Finish cutting	Finish cutting				
	Grade	SH725	SH725				
	Breaker Shape	JRP	JSP				
	Cutting conditions	G094					

Reference pages : JSVL2PR/L: Inserts → **B154** -

Screw-on Y-axis turning modular head with 95° approach angle, for WXGU inserts

Without offset

Right hand (R) shown.

Cutting edge style **L2**

Designation	H	B	LH	HF	WF	LB	H2	DISTX	RE**	Insert	Torque*
QC12-JSWL2XR04-Y	12	12	19.5	0	6	22.3	12	2.8	0.2	WXGU0403**L...	0.9

Torque*: Recommended clamping torque (N-m)

RE**: Standard corner radius

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

QC12-JSWL2XR-Y-CHP

Screw-on Y-axis turning modular head with 95° approach angle, for WXGU inserts, with high pressure coolant capability

Constant capacity

Diagram illustrating the cutting edge style L2, showing a 95° approach angle and a red cutting path.

Small inset diagram showing a tool tip.

Diagram illustrating the tool dimensions: LB (tool length), LF (tool length), H2 (tool height), H1 (tool height), WF (tool width), DISTX (tool distance), LH (tool length), HF (tool height), and B (tool width).

Without offset

Diagram showing the right hand (R) and left hand (L) tool configurations.

Right hand (R) shown.

Cutting edge style L2

Designation	H	B	LH	HF	WF	LB	H2	DISTX	RE**	Insert	Torque*
QC12-JSWL2XR04-Y-CHP	12	12	19.5	0	6	22.3	12	2.8	0.2	WXGU0403**L...	0.9

Torque*: Recommended clamping torque (N-m)

RE**: Standard corner radius

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

SPARE PARTS

Designation	Clamping screw	Wrench	O-ring
QC12-JSWL2XR04-Y	SR34-514	T-7F	-
QC12-JSWL2XR04-Y-CHP	SR34-514	T-7F	ORSS-0454.5X1.0NBR70

INSERT SELECTION

For Swiss lathes

P	Application areas	Finish cutting	Medium to finish cutting
	Grade	SH725	SH725
	Breaker Shape	JSS 	JS 
	Cutting conditions G094		

M	Application areas	Finish cutting	Medium to finish cutting
	Grade	SH725	SH725
	Breaker Shape	JSS 	JS 
	Cutting conditions G094		

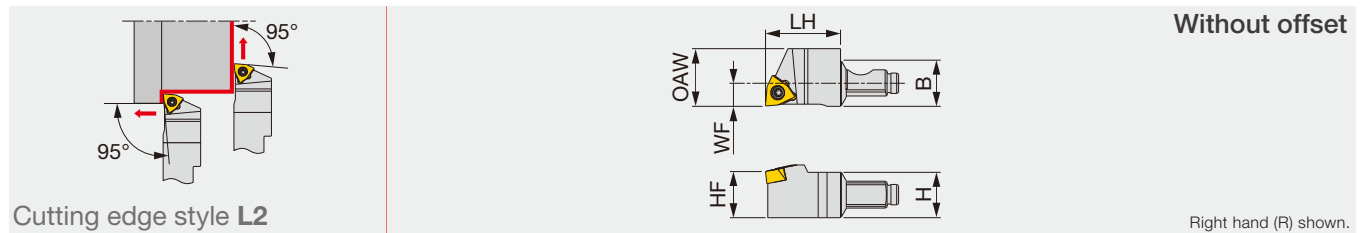
H	Application areas	Precision finishing	
	Grade	BXA10	
	Breaker Shape	HP 	
	Cutting conditions B026		

For Small CNC lathes

P	Application areas	Finish cutting	Medium cutting
	Grade	AH725	AH725
	Breaker Shape	SS 	TS 
	Cutting conditions	G094	
M	Application areas	Finish cutting	Medium cutting
	Grade	AH8015	AH8015
	Breaker Shape	SS 	TS 
	Cutting conditions	G094	
N	Application areas	Medium to finish cutting	
	Grade	KS05F	KS05F
	Breaker Shape	SS 	TS 
	Cutting conditions	B022	

Reference pages : JSCLCR-F: Inserts → **B157** -, CBN → **B210**, Standard cutting conditions → **G094**

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



Designation	H	B	LH	HF	WF	OAW	RE**	Insert	Torque*
QC12-JSWL2XR04	12	12	19.5	12	6	15	0.2	WXGU0403**L...	0.9

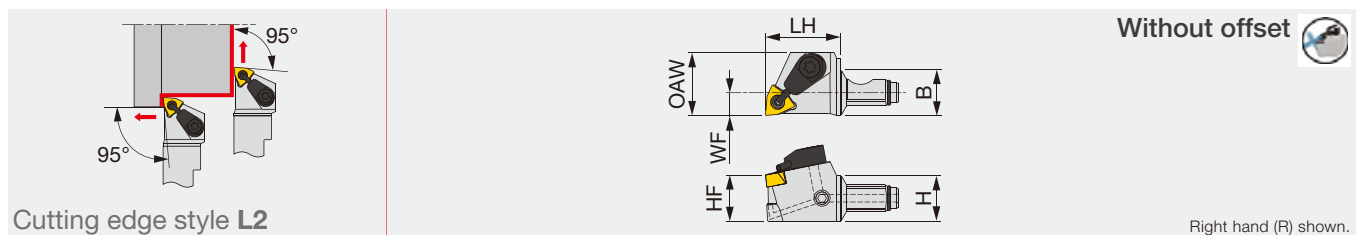
Torque*: Recommended clamping torque (N-m)

RE**: Standard corner radius

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

QC12-JSWL2XR-CHP

Screw-on modular head with 95° approach angle, for WXGU inserts, with high pressure coolant capability



Designation	H	B	LH	HF	WF	OAW	RE**	Insert	Torque*
QC12-JSWL2XR04-CHP	12	12	19.5	12	6	16.5	0.2	WXGU0403**L...	0.9

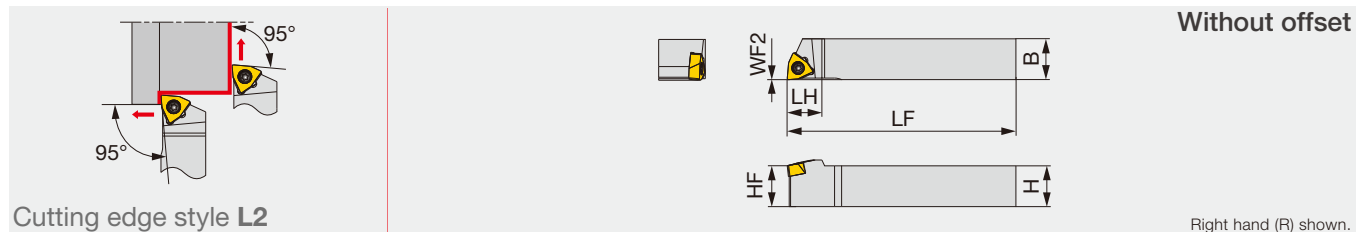
Torque*: Recommended clamping torque (N-m)

RE**: Standard corner radius

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

JSWL2XR/L

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



Designation	H	B	LF	LH	HF	WF2	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 clamping torque (N-m)

RE**: Standard corner radius

Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

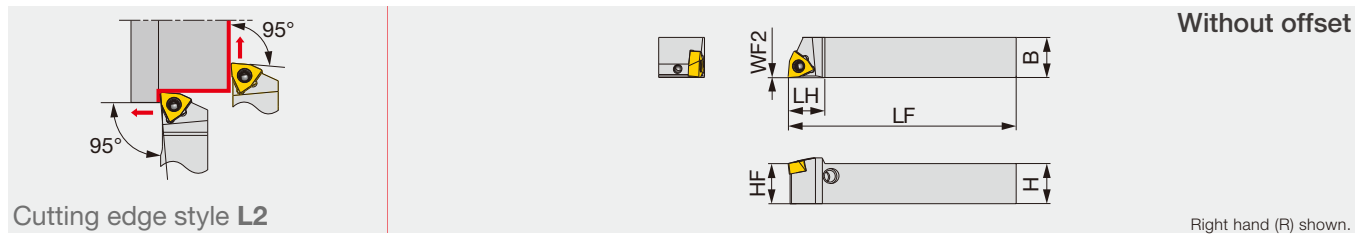
SPARE PARTS

Designation	Clamping screw 1	Coolant unit	Wrench 1	O-ring
QC12-JSWL2XR04-CHP	SR34-514	S-CU-CHP	T-7F	ORSS-0454.5X1.0NBR70
QC12-JSWL2XR04 JSWL2XR/L/...	SR34-514	-	T-7F	-

Reference pages : QC12-JSWL2XR, QC12-JSWL2XR-CHP, JSWL2XR/L: Inserts → **B157 -**, CBN → **B210**
Shank, Accessory → **G095**, **G096**, Standard cutting conditions → **G094**

JPWL2XR/L

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



Designation	H	B	LF	LH	HF	WF2	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 clamping torque (N·m)

RE**: Standard corner radius

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 1	Lever	Pin	Clamping screw 2	Wrench 1	Wrench 2
JSWL2XR/L...	SR34-514	-	-	-	T-7F	-
JPWL2XR/L...	-	SLLV-2	SL-PI-2	SR10400611	-	HW2.0/5RED

INSERT SELECTION

For Swiss lathes

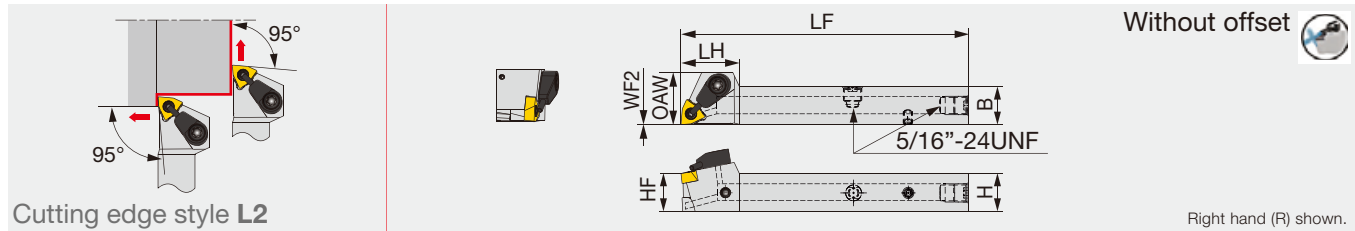
P	Application areas	Finish cutting	Medium to finish cutting	M	Application areas	Finish cutting	Medium to finish cutting	H	Application areas	Precision finishing
	Grade	SH725	SH725		Grade	SH725	SH725		Grade	HP
	Breaker Shape				Breaker Shape				Breaker Shape	
	Cutting conditions	G094			Cutting conditions	G094			Cutting conditions	B026

For Small CNC lathes

P	Application areas	Finish cutting	Medium cutting	M	Application areas	Finish cutting	Medium cutting	N	Application areas	Medium to finish cutting
	Grade	AH725	AH725		Grade	AH8015	AH8015		Grade	KS05F
	Breaker Shape				Breaker Shape				Breaker Shape	
	Cutting conditions	G094			Cutting conditions	G094			Cutting conditions	B022

Reference pages : JPWL2XR/L: Inserts → **B157** -, CBN → **B210**, Standard cutting conditions → **G094**

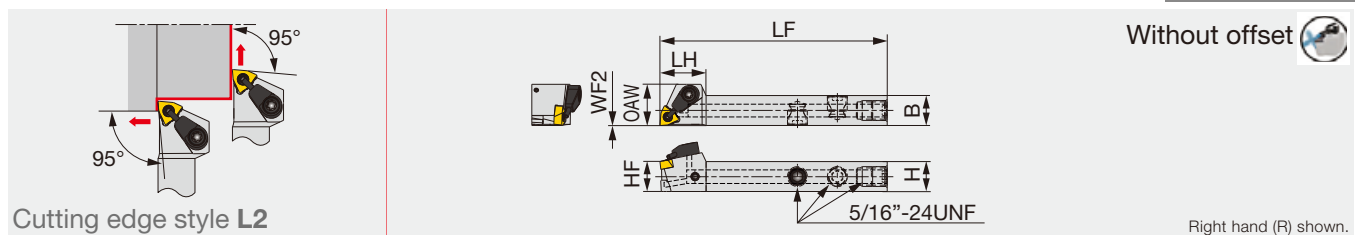
Screw-on toolholder without offset, 95° approach angle, for WXGU inserts, high pressure coolant compatible



Designation	H	B	LF	LH	HF	WF2	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

Right hand (R) shown.

Tube connection



Designation	H	B	LF	LH	HF	WF2	OAW	RE**	Insert	Torque*
JSWL2XR/L1212F04-CHP	12	12	85	18	12	0	16.5	0.2	WXGU0403**L/R...	0.9

Torque*: Recommended clamping torque (N-m)

RE**: Standard corner radius

Note: Right-hand toolholders (R) are used with left-hand inserts (L). Left-hand toolholders (L) are used with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Coolant unit	Wrench	Coolant plug	Wrench	DirectJet plug	Wrench
JSWL2XR**04-CHP	SR34-514	S-CU-CHP	T-7F	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2
JSWL2XR/L1212F04-CHP	SR34-514	S-CU-CHP	T-7F	SR5/16UNFTL360	P-4	-	-

INSERT SELECTION

For Swiss lathes

P	Application areas	Finish cutting	Medium to finish cutting	M	Application areas	Finish cutting	Medium to finish cutting	H	Application areas	Precision finishing
	Grade	SH725	SH725		Grade	SH725	SH725		Grade	BXA10
	Breaker Shape	JSS	JS		Breaker Shape	JSS	JS		Breaker Shape	HP
	Cutting conditions	G094			Cutting conditions	G094			Cutting conditions	B026

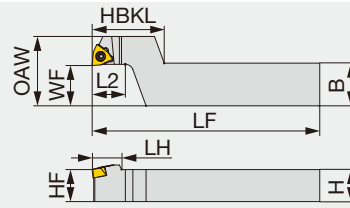
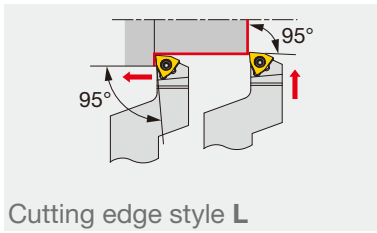
For Small CNC lathes

P	Application areas	Finish cutting	Medium cutting	M	Application areas	Finish cutting	Medium cutting	N	Application areas	Medium to finish cutting	
	Grade	AH725	AH725		Grade	AH8015	AH8015		Grade	KS05F	KS05F
	Breaker Shape	SS 	TS 		Breaker Shape	SS 	TS 		Breaker Shape	SS 	TS 
	Cutting conditions	G094			Cutting conditions	G094			Cutting conditions	B022	

Reference pages : JSWL2XR/L-CHP: Inserts → **B157** -, CBN → **B210**
Standard cutting conditions → **G094**

JSWLXR-F

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



Right hand (R) shown.

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

SPARE PARTS

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

INSERT SELECTION

For Swiss lathes

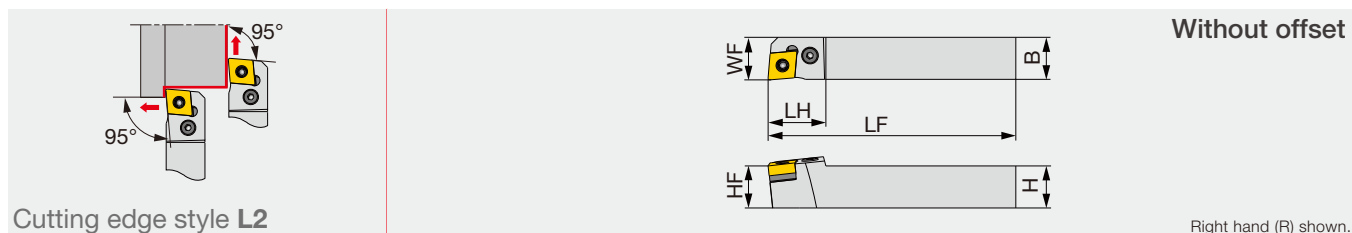
P	Application areas Grade	Finish cutting SH725	Medium to finish cutting SH725	M	Application areas Grade	Finish cutting SH725	Medium to finish cutting SH725	H	Application areas Grade	Precision finishing BXA10
	Breaker Shape	JSS	JS		Breaker Shape	JSS	JS		Breaker Shape	HP
	Cutting conditions	G094			Cutting conditions	G094			Cutting conditions	B026

For Small CNC lathes

P	Application areas Grade	Finish cutting AH725	Medium cutting AH725	M	Application areas Grade	Finish cutting AH8015	Medium cutting AH8015	N	Application areas Grade	Medium to finish cutting KS05F
	Breaker Shape	SS	TS		Breaker Shape	SS	TS		Breaker Shape	SS
	Cutting conditions	G094			Cutting conditions	G094			Cutting conditions	B022

Reference pages : JSWLXR-F: Inserts → **B157** -, CBN → **B210**, Standard cutting conditions → **G094**

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 clamping torque (N·m)

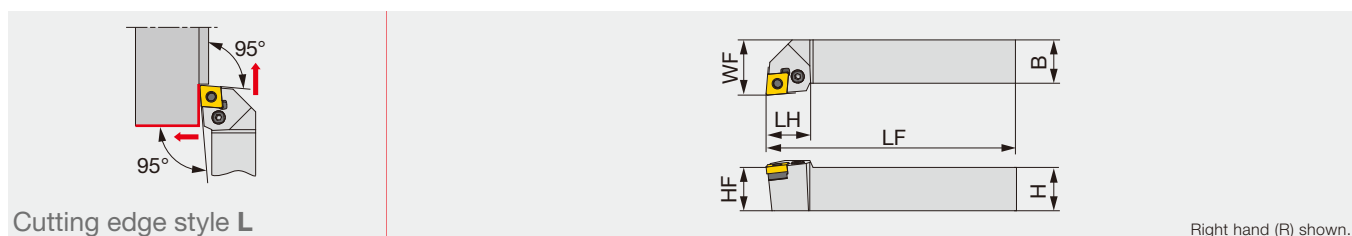
RE**: Standard corner radius

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 clamping torque (N·m)

RE**: Standard corner radius

SPARE PARTS

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

INSERT SELECTION

P	Application areas	Precision finishing	Finish cutting	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Breaker Shape	TF	TSF	TM	TH
					
Cutting conditions		B004			

K	Application areas	Finish cutting	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Breaker Shape	All-round	All-round	All-round
				
Cutting conditions		B008		

S	Application areas	Precision finishing	Finish cutting	Medium cutting
	Grade	CBN	HRF	HRM
	Breaker Shape			
	Cutting conditions	B012		

M	Application areas	Finish cutting	Medium cutting	Medium to heavy cutting
	Grade	T6215	AH6225	AH6225
	Breaker Shape	SF	SM	SH
				
Cutting conditions		B006		

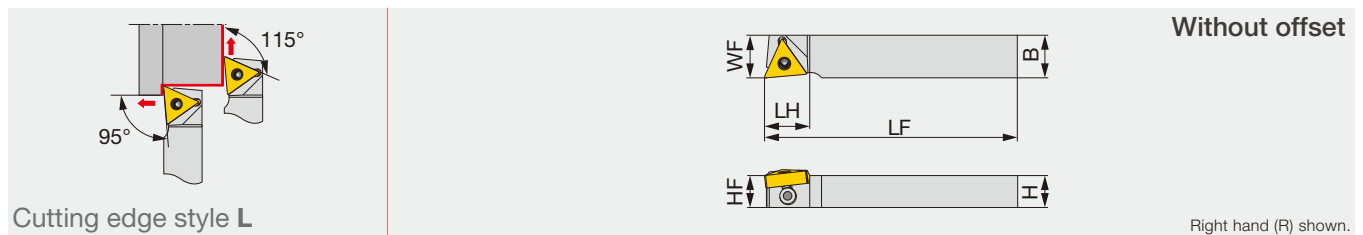
N	Application areas	Finish cutting	Medium cutting	
	Grade	DX110	TH10	KS05F
	Breaker Shape	DIA	P	28
				
Cutting conditions		B010		

H	Application areas	Precision finishing
	Grade	BXA10
	Breaker Shape	HP
		
Cutting conditions		B014

Reference pages : PCL2NR, PCLNR: Inserts → **B054** -, CBN → **B168** -, PCD → **B211**

JTTLNR/L

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



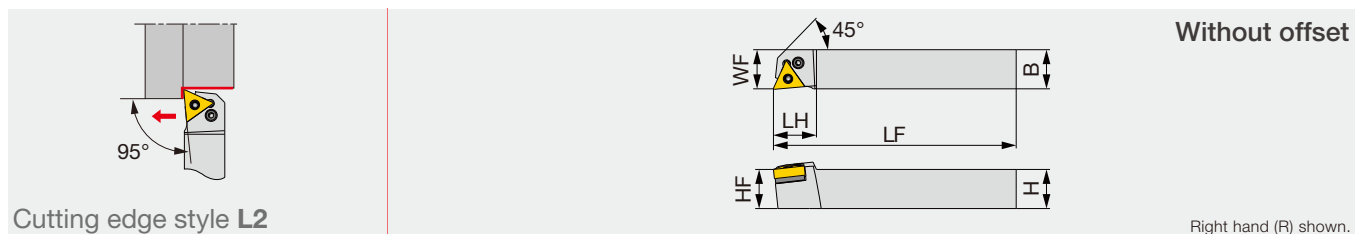
Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JTTLNR/L1216F16	12	16	85	17	12	16	0.4	TN**1604...	1
JTTLNR/L1216X16	12	16	120	17	12	16	0.4	TN**1604...	1
JTTLNR/L1616X16	16	16	120	17	16	16	0.4	TN**1604...	1

Torque*: Recommended clamping torque (N·m)

RE**: Standard corner radius

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 clamping torque (N·m)

RE**: Standard corner radius

Designation	Clamp	Shim	Clamping screw	Clamping screw 1	Wrench	Wrench 1	Spring pin	Lever
JTTLNR/L...	JCP-3N	-	JDS-5040	-	P-2.5F	-	-	-
PTL2NR/L...	-	LST317 D30	-	LCS3	-	P-2.5	LSP3	LCL3

INSERT SELECTION

P	Application areas	Precision finishing	Finish cutting		Medium cutting
	Grade	SH725	SH725	GT9530	T9215
	Breaker Shape	01 	JRP 	TSF 	TM 
	Cutting conditions	G094		B004	

P	Application areas	Medium to heavy cutting
	Grade	T9215
	Breaker Shape	TH 
	Cutting conditions	B004

N	Application areas	Precision finishing	Finish cutting	Medium cutting	
	Grade	DX110	DX140	TH10	KS05F
	Breaker Shape	DIA  with rake	DIA 	P 	28 
	Cutting conditions	B010			

H	Application areas	Precision finishing	Finish cutting
	Grade	BXA10	BXA10
	Breaker Shape	HP 	CBN 
	Cutting conditions	B014	

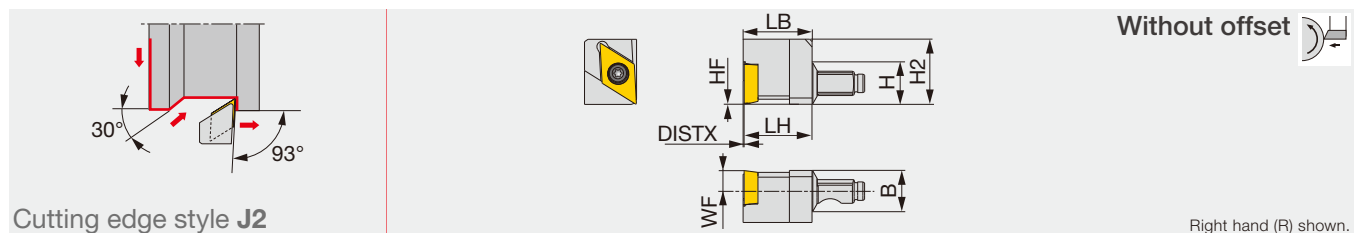
M	Application areas	Precision finishing	Finish cutting	Medium cutting
	Grade	SH725	SH725	AH6225
	Breaker Shape	01 	JRP 	SM 
	Cutting conditions	G094		B006

K	Application areas	Finish cutting	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Breaker Shape	All-round 	All-round 	All-round 
	Cutting conditions	B008		

S	Application areas	Precision finishing	Finish cutting	Medium cutting
	Grade	BX950	AH8005	AH8005
	Breaker Shape	CBN 	HRF 	HRM 
	Cutting conditions	B012		

Reference pages : JTTLNR/L, PTL2NR/L: Inserts → **B087** -, CBN → **B182** -, PCD → **B212**

Screw-on Y-axis turning modular head with 93° approach angle, for positive 55° rhombic inserts



Cutting edge style J2

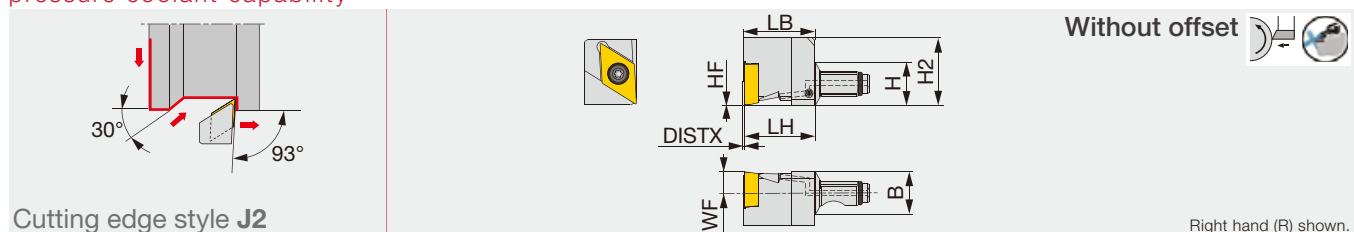
Designation	H	B	LH	HF	WF	LB	H2	DISTX	RE**	Insert	Torque*
QC12-JSDJ2CR11-Y	12	12	19.5	0	6	19.8	18.7	0.3	0.2	DC**11T3...	1.2

Torque*: Recommended clamping torque (N-m)

RE**: Standard corner radius

QC12-JSDJ2CR-Y-CHP

Screw-on Y-axis turning modular head with 93° approach angle, for positive 55° rhombic inserts, with high pressure coolant capability



Cutting edge style J2

Designation	H	B	LH	HF	WF	LB	H2	DISTX	RE**	Insert	Torque*
QC12-JSDJ2CR11-Y-CHP	12	12	19.5	0	6	19.8	18.7	0.3	0.2	DC**11T3...	1.2

Torque*: Recommended clamping torque (N-m)

RE**: Standard corner radius

SPARE PARTS

Designation	Clamping screw	Wrench	O-ring
QC12-JSDJ2CR11-Y, QC12-JSDJ2CR11	CSTB-4SD	T-8F	-
QC12-JSDJ2CR11-Y-CHP	CSTB-4SD	T-8F	ORSS-0454.5X1.0NBR70

INSERT SELECTION

P	Application areas	Precision finishing		Finish cutting	Medium to finish cutting
	Grade	SH725		SH725	SH725
	01	JP	JS	JS	
	Breaker Shape				
Cutting conditions		G094			

P	Application areas	Medium to finish cutting
	Grade	SH725
	01	
	Breaker Shape	
Cutting conditions		G094

K	Application areas	Medium to finish cutting
	Grade	T515
	CM	
	Breaker Shape	
Cutting conditions		B020

S	Application areas	Finish cutting	Medium to finish cutting
	Grade	SH725	SH725
	JS	JS	
	Breaker Shape		
Cutting conditions		G094	

M	Application areas	Precision finishing	Finish cutting	Medium to finish cutting	
	Grade	SH725	SH725	SH725	
	01	JP	JS	JS	
	Breaker Shape				
Cutting conditions		G094			

M	Application areas	Medium to finish cutting
	Grade	SH725
	01	
	Breaker Shape	
Cutting conditions		G094

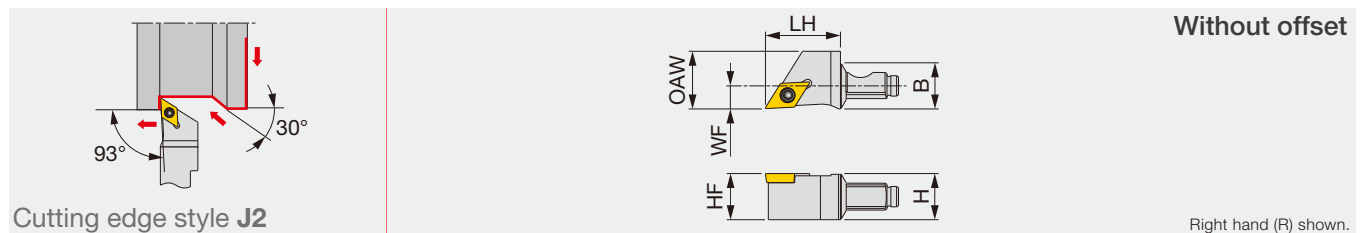
N	Application areas	Precision finishing	Medium cutting
	Grade	DX110	KS05F
	NS	AL	
	Breaker Shape		
Cutting conditions		B022	

H	Application areas	Precision finishing	Finish cutting
	Grade	BXA10	BXA20
	CBN	CBN	
	Breaker Shape		
Cutting conditions		B026	

Reference pages : QC12-JSDJ2CR-Y, QC12-JSDJ2CR-Y-CHP: Inserts → **B121 -**, CBN → **B193 -**, PCD → **B214**
Shank, Accessory → **G095**, **G096**

QC12-JSDJ2CR

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



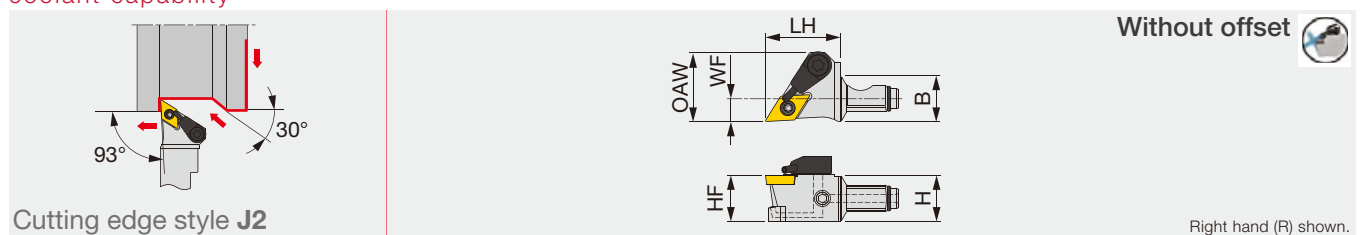
Designation	H	B	LH	HF	WF	OAW	RE**	Insert	Torque*
QC12-JSDJ2CR07	12	12	19.5	12	6	15	0.2	DC**0702...	1.2
QC12-JSDJ2CR11	12	12	19.5	12	6	15	0.2	DC**11T3...	1.2

Torque*: Recommended clamping torque (N-m)

RE**: Standard corner radius

QC12-JSDJ2CR-CHP

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



Designation	H	B	LH	HF	WF	OAW	RE**	Insert	Torque*
QC12-JSDJ2CR07-CHP	12	12	19.5	12	6	18	0.2	DC**0702...	1.2
QC12-JSDJ2CR11-CHP	12	12	19.5	12	6	21	0.2	DC**11T3...	1.2

Torque*: Recommended clamping torque (N-m)

RE**: Standard corner radius

SPARE PARTS

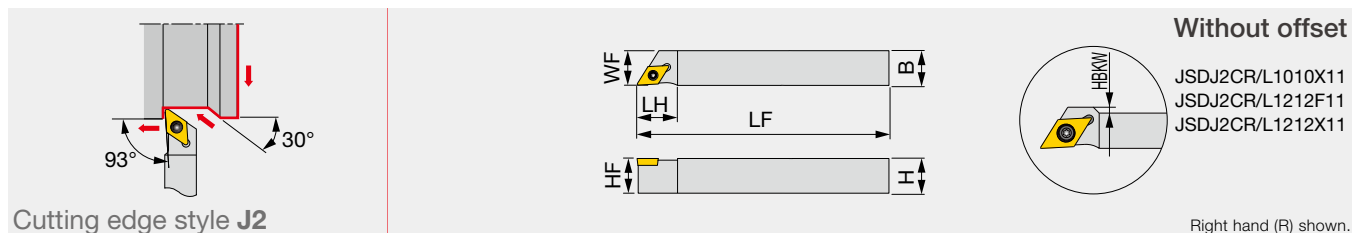
Designation	Clamping screw	Coolant unit	Wrench	O-ring
QC12-JSDJ2CR07	CSTB-2.5	-	T-8F	-
QC12-JSDJ2CR07-CHP	CSTB-2.5	S-CU-CHP	T-8F	ORSS-0454.5X1.0NBR70
QC12-JSDJ2CR11-CHP	CSTB-4SD	S-CU-CHP	T-8F	ORSS-0454.5X1.0NBR70

INSERT SELECTION

P	Application areas	Precision finishing	Finish cutting	Medium to finish cutting
	Grade	SH725	SH725	SH725
	Breaker Shape	01	JP	JS
	Cutting conditions	G094		
P	Application areas	Medium to finish cutting		
	Grade	SH725		
	Breaker Shape	01		
	Cutting conditions	G094		
K	Application areas	Medium to finish cutting		
	Grade	T515		
	Breaker Shape	CM		
	Cutting conditions	B020		
S	Application areas	Finish cutting	Medium to finish cutting	
	Grade	SH725	SH725	
	Breaker Shape	JS	JS	
	Cutting conditions	G094		
M	Application areas	Precision finishing	Finish cutting	Medium to finish cutting
	Grade	SH725	SH725	SH725
	Breaker Shape	01	JP	JS
	Cutting conditions	G094		
M	Application areas	Medium to finish cutting		
	Grade	SH725		
	Breaker Shape	01		
	Cutting conditions	G094		
N	Application areas	Precision finishing	Medium cutting	
	Grade	DX110	KS05F	
	Breaker Shape	NS	AL	
	Cutting conditions	B022		
H	Application areas	Precision finishing	Finish cutting	
	Grade	CBN	CBN	
	Breaker Shape	BXA10	BXA20	
	Cutting conditions	B026		

Reference pages : QC12-JSDJ2CR, QC12-JSDJ2CR-CHP: Inserts → **B121** -, CBN → **B193** -, PCD → **B214**,
Shank, Accessory → **G095**, **G096**

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



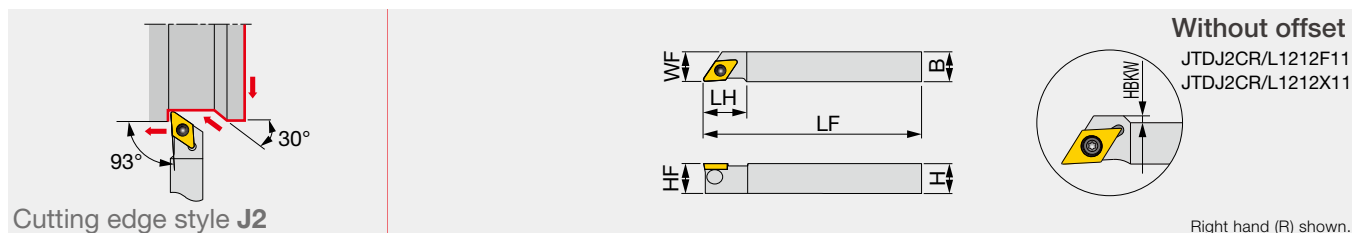
Cutting edge style J2

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 clamping torque (N-m)
RE**: Standard corner radius

JTDJ2CR/L

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



Cutting edge style J2

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 clamping torque (N-m)
RE**: Standard corner radius

SPARE PARTS

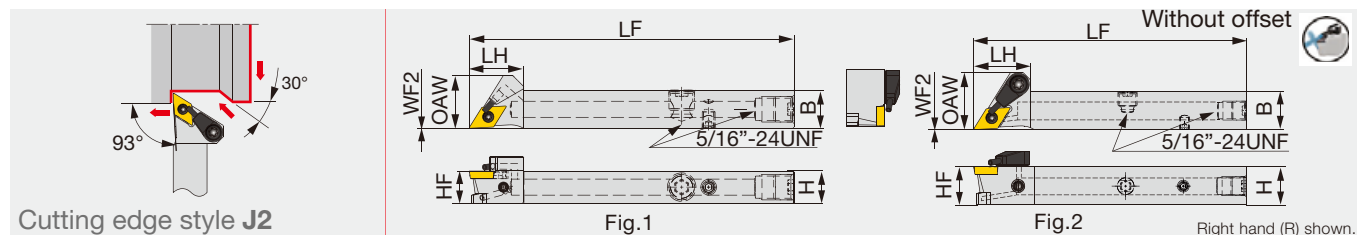
Designation	Clamping screw	Clamp	Clamping screw	Wrench 1	Wrench 2 (Optional)
JSDJ2CR/L**07	CSTB-2.5	-	-	T-8F	(T-8L)
JSDJ2CR/L**11	CSTB-4SD	-	-	T-8F	(T-8L)
JTDJ2CR/L**07	-	JCP-2	JDS-3525	P-2F	-
JTDJ2CR/L**11	-	JCP-3	JDS-5040	P-2.5F	-

Reference pages : JSDJ2CR/L, JTDJ2CR/L: Inserts → **B121 -**, CBN → **B193 -**, PCD → **B214**,
Shank, Accessory → **G095**, **G096**

JSDJ2CR-CHP

Direct connection

Screw-on toolholder without offset, 93° approach angle for positive 55° rhombic inserts, high pressure coolant compatible



Designation	H	B	LF	LH	HF	WF2	OAW	RE**	Insert	Torque*	Fig.
JSDJ2CR1012H07-CHP	10	12	100	17	10	0	16.4	0.2	DC**0702	1.2	1
JSDJ2CR1212X11-CHP	12	12	120	19	12	0	20.5	0.2	DC**11T3	1.2	2
JSDJ2CR1616X11-CHP	16	16	120	19	16	0	20.5	0.2	DC**11T3	1.2	2

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

SPARE PARTS

Designation	Clamping screw	Coolant nozzle	Nozzle retainer screw	Wrench	Coolant plug	Wrench	DirectJet plug	Wrench
JSDJ2CR1012H07-CHP	CSTB-2.5	NZ-1.10-7-CHP	SSH4-4-TB	T-8F	SR5/16UNFTL360	P-4	SSH4-6-TB	P-2
								
Designation	Clamping screw	Coolant unit	Wrench	Coolant plug	Wrench	DirectJet plug	Wrench	
JSDJ2CR**11-CHP	CSTB-4SD	S-CU-CHP	T-8F	SR5/16UNFTL360	P-4	SSH4-6-TB	P-2	

INSERT SELECTION

P	Application areas	Precision finishing		Finish cutting	Medium to finish cutting
	Grade	SH725		SH725	SH725
	Breaker Shape	01	JP	JS	JS
					
Cutting conditions		G094			

P	Application areas	Medium to finish cutting
	Grade	SH725
	Breaker Shape	01
		
Cutting conditions		G094

K	Application areas	Medium to finish cutting
	Grade	T515
	Breaker Shape	CM
		
Cutting conditions		B020

S	Application areas	Finish cutting	Medium to finish cutting
	Grade	SH725	SH725
	Breaker Shape	JS	JS
			
Cutting conditions			G094

M	Application areas	Precision finishing		Finish cutting	Medium to finish cutting
	Grade	SH725		SH725	SH725
	Breaker Shape	01	JP	JS	JS
					
Cutting conditions		G094			

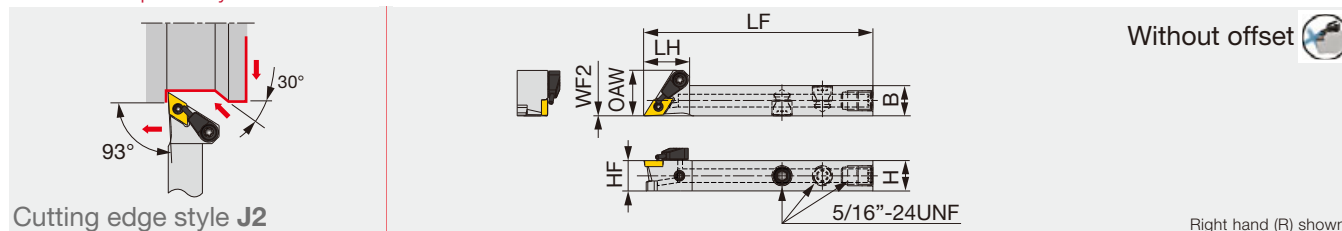
M	Application areas	Medium to finish cutting
	Grade	SH725
	Breaker Shape	01
		
Cutting conditions		G094

N	Application areas	Precision finishing	Medium cutting
	Grade	DX110	KS05F
	Breaker Shape	NS	AL
			
Cutting conditions		B022	

H	Application areas	Precision finishing	Finish cutting
	Grade	BXA10	BXA20
	Breaker Shape	CBN	CBN
			
Cutting conditions		B026	

Reference pages : JSDJ2CR-CHP: Inserts → **B121** -, CBN → **B193** -, PCD → **B214**
Shank, Accessory → **G095**, **G096**

Screw-on toolholders without offset – 93° approach angle. For positive 55° rhombic insert. High-pressure coolant capability.

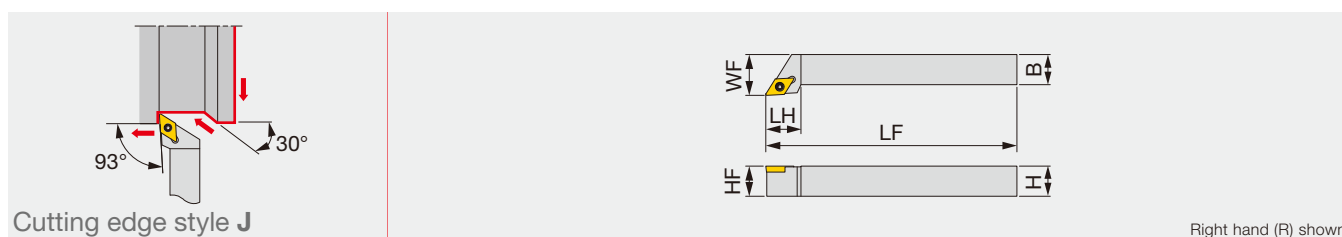


Designation	H	B	LF	LH	HF	WF2	OAW	RE**	Insert	Torque*
JSDJ2CR/L1212F07-CHP	12	12	85	18	12	0	18	0.2	DC**0702...	1.2
JSDJ2CR/L1212F11-CHP	12	12	85	19	12	0	20.5	0.2	DC**11T3...	1.2

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

JSDJCR/L

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



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

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

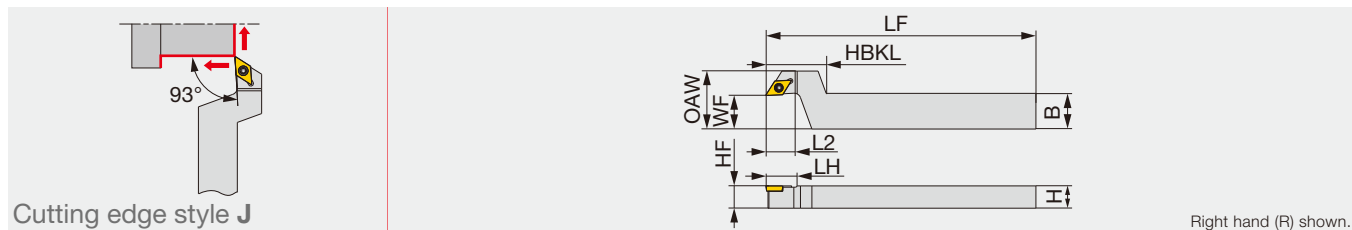
SPARE PARTS

Designation	Clamping screw	Coolant unit	Wrench 1	Wrench 2 (Optional)
JSDJ2CR/L1212F07-CHP	CSTB-2.5	S-CU-CHP	T-8F	-
JSDJ2CR/L1212F11-CHP	CSTB-4SD	S-CU-CHP	T-8F	-

Reference pages : JSDJ2CR/L-CHP, JSDJCR/L: Inserts → **B121 -**, CBN → **B193 -**, PCD → **B214**
Shank, Accessory → **G095**, **G096**

JSDJCR-F

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



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

Torque*: Recommended clamping torque (N-m)

RE**: Standard corner radius

SPARE PARTS

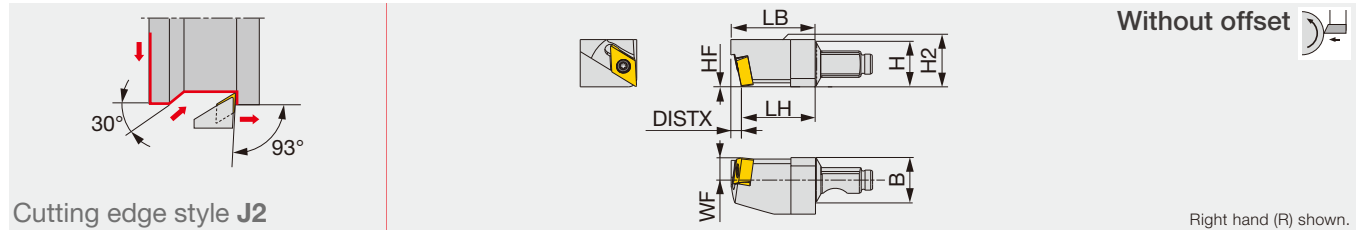
Designation	Clamping screw	Wrench 1	Wrench 2 (Optional)
JSDJC**H07, JSDJCR**07-F15	CSTB-2.5	T-8F	(T-8L)
JSDJC**H11, JSDJCR**11-F15	CSTB-4SD	T-8F	(T-8L)

INSERT SELECTION

P	Application areas	Precision finishing	Finish cutting	Medium to finish cutting
	Grade	SH725	SH725	SH725
P	Breaker Shape	01	JP	JS
	Cutting conditions	G094		
K	Application areas	Medium to finish cutting		
	Grade	T515		
S	Breaker Shape	CM		
	Cutting conditions	B020		
S	Application areas	Finish cutting	Medium to finish cutting	
	Grade	SH725	SH725	
S	Breaker Shape	JS	JS	
	Cutting conditions	G094		
M	Application areas	Precision finishing	Finish cutting	Medium to finish cutting
	Grade	SH725	SH725	SH725
M	Breaker Shape	01	JP	JS
	Cutting conditions	G094		
M	Application areas	Medium to finish cutting		
	Grade	SH725		
M	Breaker Shape	01		
	Cutting conditions	G094		
N	Application areas	Precision finishing	Medium cutting	
	Grade	DX110	KS05F	
N	Breaker Shape	NS	AL	
	Cutting conditions	B022		
H	Application areas	Precision finishing	Finish cutting	
	Grade	BXA10	BXA20	
H	Breaker Shape	CBN	CBN	
	Cutting conditions	B026		

Reference pages : JSDJCR-F: Inserts → **B121 -**, CBN → **B193 -**, PCD → **B214**
Shank, Accessory → **G095, G096**

Screw-on Y-axis turning modular head with 93° approach angle, for DX*U inserts



Designation	H	B	LH	HF	WF	LB	H2	DISTX	RE**	Insert	Torque*
QC12-JSDJ2XR07-Y	12	12	19.5	0	6	22.3	12.5	2.8	0.2	DX*U0703**L...	0.9

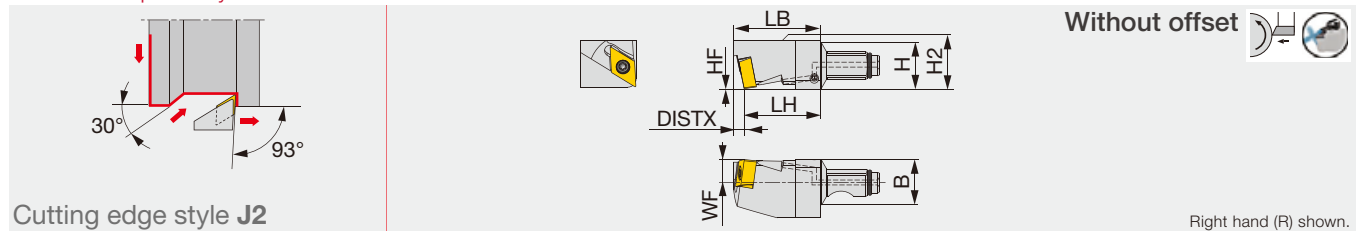
Torque*: Recommended clamping torque (N-m)

RE**: Standard corner radius

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

QC12-JSDJ2XR-Y-CHP

Screw-on Y-axis turning modular head with 93° approach angle, for DX*U inserts, with high pressure coolant capability



Designation	H	B	LH	HF	WF	LB	H2	DISTX	RE**	Insert	Torque*
QC12-JSDJ2XR07-Y-CHP	12	12	19.5	0	6	22.3	12.5	2.8	0.2	DX*U0703**L...	0.9

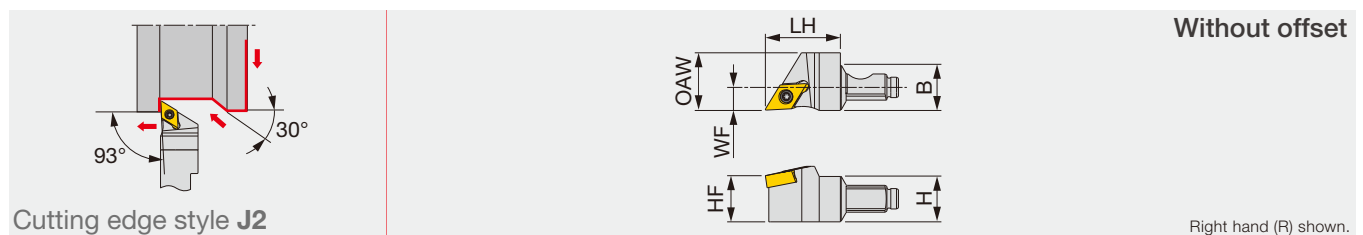
Torque*: Recommended clamping torque (N-m)

RE**: Standard corner radius

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

QC12-JSDJ2XR

Screw-on modular head with 93° approach angle, for DX*U inserts



Designation	H	B	LH	HF	WF	OAW	RE**	Insert	Torque*
QC12-JSDJ2XR07	12	12	19.5	12	6	15	0.2	DX*U0703**L...	0.9

Torque*: Recommended clamping torque (N-m)

RE**: Standard corner radius

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

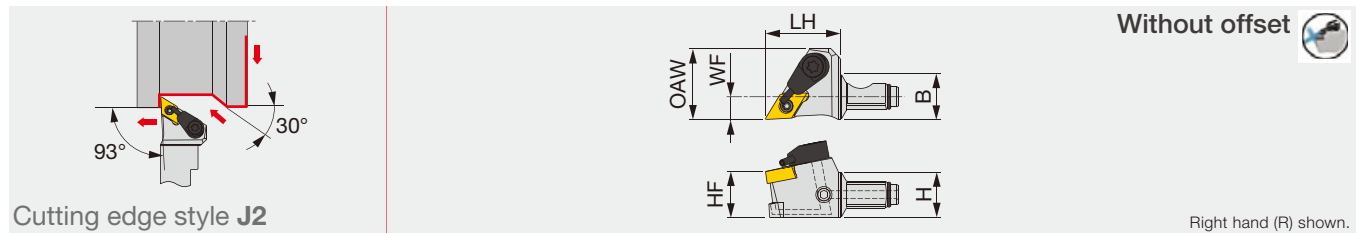
SPARE PARTS

Designation	Clamping screw	Wrench	O-ring
QC12-JSDJ2XR07-Y	SR34-514	T-7F	-
QC12-JSDJ2XR07-Y-CHP, QC12-JSDJ2XR07	SR34-514	T-7F	ORSS-0454.5X1.0NBR70

Reference pages : QC12-JSDJ2XR-Y, QC12-JSDJ2XR-Y-CHP, QC12-JSDJ2XR: Inserts → **B126**
Shank, accessory → **G095**, **G096**, Standard cutting conditions → **G094**

QC12-JSDJ2XR-CHP

Screw-on modular head with 93° approach angle, for DX*U inserts, with high pressure coolant capability



Designation	H	B	LH	HF	WF	OAW	RE**	Insert	Torque*
QC12-JSDJ2XR07-CHP	12	12	19.5	12	6	18.4	0.2	DX*U0703**L...	0.9

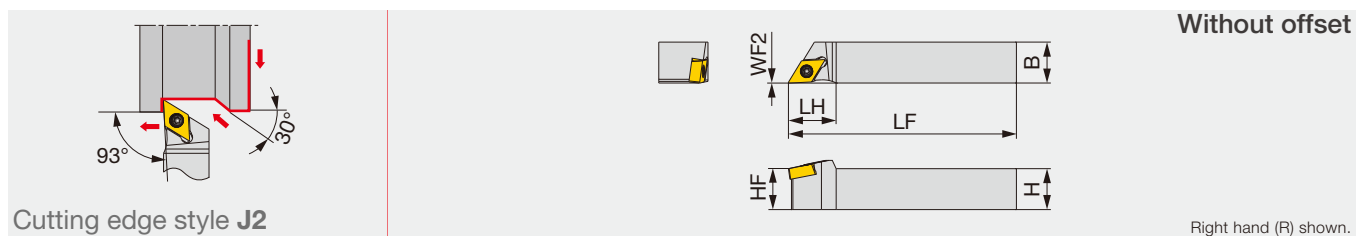
Torque*: Recommended clamping torque (N-m)

RE**: Standard corner radius

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

JSDJ2XR/L

Screw-on toolholder with 93° approach angle, for DX*U inserts



Designation	H	B	LF	LH	HF	WF2	RE**	Insert	Torque*
JSDJ2XR/L1010X07	10	10	120	14	10	0	0.2	DX*U0703**L/R...	0.9
JSDJ2XR/L1212F07	12	12	85	14	12	0	0.2	DX*U0703**L/R...	0.9
JSDJ2XR/L1212X07	12	12	120	14	12	0	0.2	DX*U0703**L/R...	0.9
JSDJ2XR/L1616X07	16	16	120	18	16	0	0.2	DX*U0703**L/R...	0.9
JSDJ2XR/L2020H07	20	20	100	18	20	0	0.2	DX*U0703**L/R...	0.9

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

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	O-ring
QC12-JSDJ2XR07-CHP	SR34-514	S-CU-CHP	T-7F	ORSS-0454.5X1.0NBR70
JSDJ2XR/L...	SR34-514	-	T-7F	-

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		Grade	SH725	SH725
	Breaker Shape	JSS	JS		Breaker Shape	JSS	JS
	Cutting conditions	G094			Cutting conditions	G094	

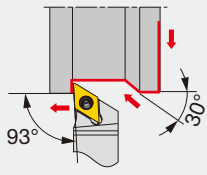
for Small CNC lathes

P	Application areas	Finish cutting	Medium cutting	M	Application areas	Finish cutting	Medium cutting	N	Application areas	Medium to finish cutting
	Grade	AH725	AH725		Grade	AH8015	AH8015		Grade	KS05F
	Breaker Shape	SS	TS		Breaker Shape	SS	TS		Breaker Shape	TS
	Cutting conditions	G094			Cutting conditions	G094			Cutting conditions	B022

Reference pages : QC12-JSDJ2XR-CHP, JSDJ2XR/L: Inserts → **B126**

Shank, accessory → **G095, G096**, Standard cutting conditions → **G094**

Lever-lock toolholder with 93° approach angle, for DX*U inserts

Without offset									
									
Cutting edge style J2									
	H	B	LF	LH	HF	WF2	RE**	Insert	Torque*
JPDJ2XR/L1010X07	10	10	120	14	10	0	0.2	DX*U0703**L/R...	0.9
JPDJ2XR/L1212F07	12	12	85	14	12	0	0.2	DX*U0703**L/R...	0.9
JPDJ2XR/L1212X07	12	12	120	14	12	0	0.2	DX*U0703**L/R...	0.9
JPDJ2XR/L1616X07	16	16	120	18	16	0	0.2	DX*U0703**L/R...	0.9

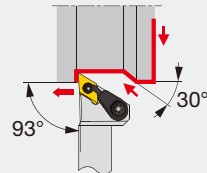
Torque*: Recommended clamping torque (N-m) RE**: Standard corner radius

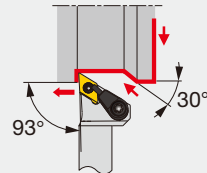
Use right-hand toolholders (R) with left-hand inserts (L); and left-hand toolholders (L) with right-hand inserts (R).

JSDJ2XR-CHP

Direct connection

Screw-on toolholder without offset, 93° approach angle, for DX*U inserts, high pressure coolant compatible

Without offset											
											
Cutting edge style J2											
	H	B	LF	LH	HF	WF2	OAW	RE**	Insert	Torque*	Fig.
JSDJ2XR1012H07-CHP	10	12	100	17	10	0	14.7	0.2	DX*U0703**L	0.9	1
JSDJ2XR1212X07-CHP	12	12	120	19	12	0	18.5	0.2	DX*U0703**L	0.9	2
JSDJ2XR1616X07-CHP	16	16	120	19	16	0	18.5	0.2	DX*U0703**L	0.9	2

Without offset											
											
Cutting edge style J2											
	H	B	LF	LH	HF	WF2	OAW	RE**	Insert	Torque*	
JSDJ2XR/L1212F07-CHP	12	12	85	19	12	0	18.5	0.2	DX*U0703**L/R...	0.9	

Torque*: Recommended clamping torque (N-m)

RE**: Standard corner radius

Right-hand toolholders (R) are used with left-hand inserts (L). Left-hand toolholders (L) are used with right-hand inserts (R).

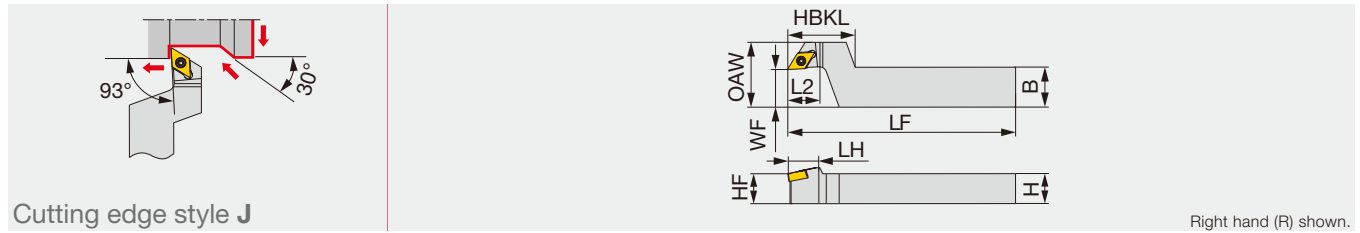
SPARE PARTS

Designation	Lever	Pin	Clamping screw 1	Wrench 1	Clamping screw 2	Coolant unit	Wrench 2	Coolant plug	Wrench 3	DirectJet plug	Wrench 4
JPDJ2XR/L**07	SLLV-2	SL-PI-2	SR10400611	HW2.0/5RED	-	-	-	-	-	-	-
JSDJ2XR1012H07-CHP	-	-	-	-	SR34-514	-	T-7F	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2
JSDJ2XR**07-CHP	-	-	-	-	SR34-514	S-CU-CHP	T-7F	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2
JSDJ2XR/L1212F07-CHP	-	-	-	-	SR34-514	S-CU-CHP	T-7F	SR5/16UNFTL360	P-4	-	-
JSDJXR**F15	-	-	-	-	SR34-514	-	T-7F	-	-	-	-

Reference pages : JPDJ2XR/L, JSDJ2XR-CHP: : Inserts → **B126** -
Standard cutting conditions → **G094**

JSDJXR-F

Screw-on stepped-head toolholder with 93° approach angle, for DX*U inserts



Right hand (R) shown.

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	DX*U0703**L...	0.9
JSDJXR1216F07-F15	12	16	85	12	27	14	12	15	26	0.2	DX*U0703**L...	0.9
JSDJXR1216X07-F15	12	16	120	12	27	14	12	15	26	0.2	DX*U0703**L...	0.9
JSDJXR1620X07-F15	16	20	120	12	27	14	16	15	26	0.2	DX*U0703**L...	0.9

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

SPARE PARTS



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

INSERT SELECTION

for Swiss lathes

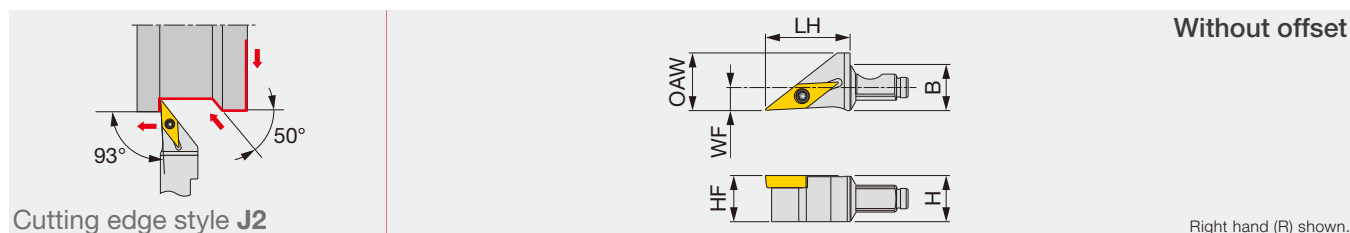
P	Application areas	Finish cutting	Medium to finish cutting	M	Application areas	Finish cutting	Medium to finish cutting
	Grade	SH725	SH725		Grade	SH725	SH725
	Breaker Shape	JSS	JS		Breaker Shape	JSS	JS
	Cutting conditions	G094			Cutting conditions	G094	

for Small CNC lathes

P	Application areas	Finish cutting	Medium cutting	M	Application areas	Finish cutting	Medium cutting	N	Application areas	Medium to finish cutting
	Grade	AH725	AH725		Grade	AH8015	AH8015		Grade	KS05F
	Breaker Shape	SS	TS		Breaker Shape	SS	TS		Breaker Shape	TS
	Cutting conditions	G094			Cutting conditions	G094			Cutting conditions	B022

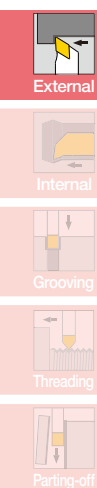
Reference pages : JSDJXR-F: Inserts → **B126 -**, Standard cutting conditions → **G094**

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



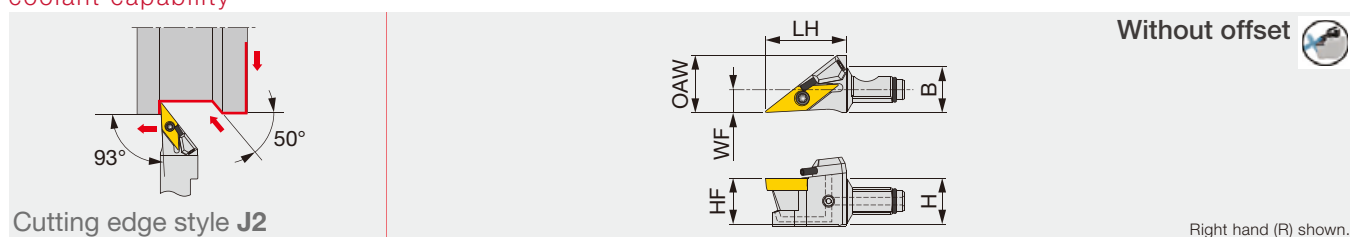
Designation	H	B	LH	HF	WF	OAW	RE**	Insert	Torque*
QC12-JSVJ2BR11	12	12	22	12	6	15	0.2	VB**1103...	1.2

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



QC12-JSVJ2BR-CHP

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



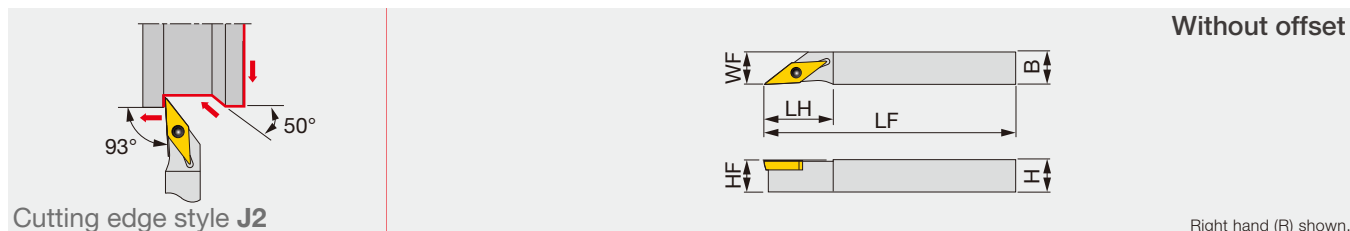
Designation	H	B	LH	HF	WF	OAW	RE**	Insert	Torque*
QC12-JSVJ2BR11-CHP	12	12	21	12	6	15	0.2	VB**1103...	1.2

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



JSVJ2BR/L

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

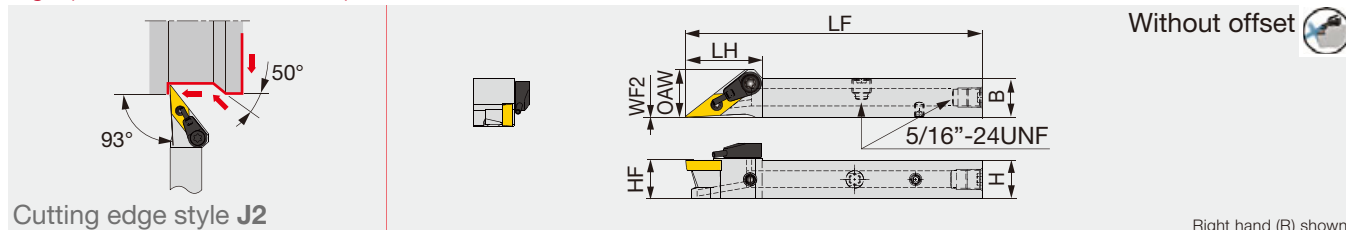
Torque*: Recommended clamping torque (N-m)
RE**: Standard corner radius

SPARE PARTS

Designation	Clamping screw	Wrench 1	O-ring	Coolant nozzle	Screw	Wrench 2
QC12-JSVJ2BR11, JSVJ2BR/L...	CSTB-2.5	T-8F	-	-	-	-
QC12-JSVJ2BR11-CHP	CSTB-2.5	T-8F	ORSS-0454.5X1.0NBR70	NZ-1.10-7-CHP	SSHM4-4-TB	P-2

Reference pages : QC12-JSVJ2BR, QC12-JSVJ2BR-CHP, JSVJ2BR/L: Inserts → **B150 -**, CBN → **B207 -**,
Shank, Accessory → **G095, G096**

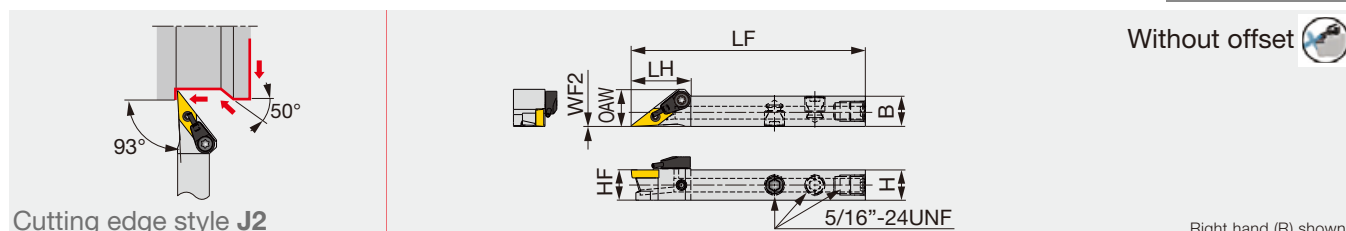
Screw-on toolholder without offset, 93° approach angle for positive 35° rhombic inserts, high pressure coolant compatible



Designation	H	B	LF	LH	HF	WF2	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

Right hand (R) shown.

Tube connection



Designation	H	B	LF	LH	HF	WF2	OAW	RE**	Insert	Torque*
JSVJ2BR/L1212F11-CHP	12	12	85	23.6	12	0	14.7	0.2	VB**1103...	1.2

Torque*: Recommended clamping torque (N-m)

RE**: Standard corner radius

SPARE PARTS

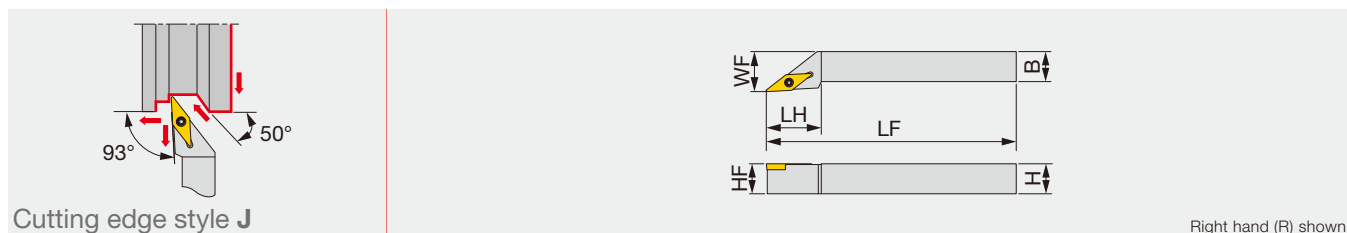
Designation	Clamping screw	Coolant unit	Wrench	Coolant plug	Wrench	DirectJet plug	Wrench
JSVJ2B**X11-CHP	CSTB-2.5	S-CU-CHP	T-8F	SR5/16UNFTL360	P-4	SSH4-6-TB	P-2
JSVJ2B**F11-CHP	CSTB-2.5	S-CU-CHP	T-8F	SR5/16UNFTL360	P-4	-	-

INSERT SELECTION

P	Application areas	Precision finishing	Finish cutting	Medium to finish cutting	Medium to finish cutting
	Grade	SH725	SH725	SH725	SH725
K	Breaker Shape	JP	JS	JS	J10
	Cutting conditions	G094			
K	Application areas	Medium to finish cutting			
	Grade	T515			
H	Breaker Shape	CM			
	Cutting conditions	B020			
S	Application areas	Finish cutting	Medium to finish cutting		
	Grade	SH725	SH725		
H	Breaker Shape	JS	JS		
	Cutting conditions	G094			
H	Application areas	Precision finishing	Finish cutting		
	Grade	BXA10	BXA10		
H	Breaker Shape	HP	CBN		
	Cutting conditions	B026			

Reference pages : JSVJ2BR/L-CHP: Inserts → **B150** -, CBN → **B207** -

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

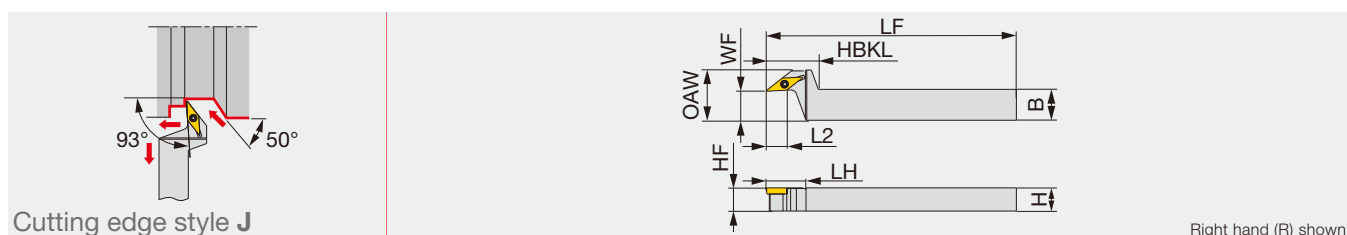


Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JSVJBR/L1010H11	10	10	100	20	10	12	0.4	VB**1103...	1.2
JSVJBR/L1212H11	12	12	100	22	12	16	0.4	VB**1103...	1.2
JSVJBR/L1616H11	16	16	100	22	16	20	0.4	VB**1103...	1.2

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

JSVJBR-F

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 clamping torque (N-m) RE**: Standard corner radius

SPARE PARTS

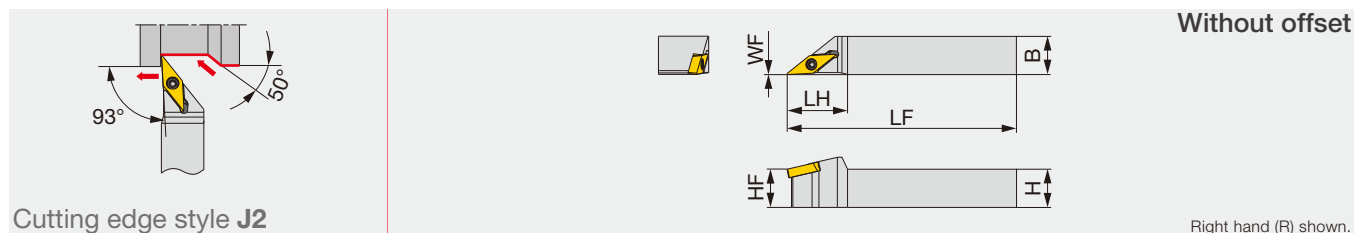
Designation	Clamping screw	Wrench 1	Wrench 2 (Optional)
JSVJBR/L..., JSVJBR**-F15	CSTB-2.5	T-8F	(T-8L)

INSERT SELECTION

P	Application areas Grade Breaker Shape Cutting conditions	Precision finishing SH725 JP G053	Finish cutting SH725 JS G053	Medium to Finish cutting AH725 JS G053	Medium to finish cutting SH725 J10 G053
K	Application areas Grade Breaker Shape Cutting conditions	Medium to finish cutting T515 CM B022			
H	Application areas Grade Breaker Shape Cutting conditions	Precision finishing BXA10 HP B028	Finish cutting BXA10 CBN		
M	Application areas Grade Breaker Shape Cutting conditions	Precision finishing SH725 JP G053	Finish cutting SH725 JS G053	Medium to finish cutting AH725 JS G053	Medium to finish cutting SH725 J10 G053
S	Application areas Grade Breaker Shape Cutting conditions	Finish cutting SH725 JS G053	Medium to finish cutting AH725 JS G053		

Reference pages : JSVJBR/L, JSVJBR-F: Inserts → B150 -, CBN → B207 -

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



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

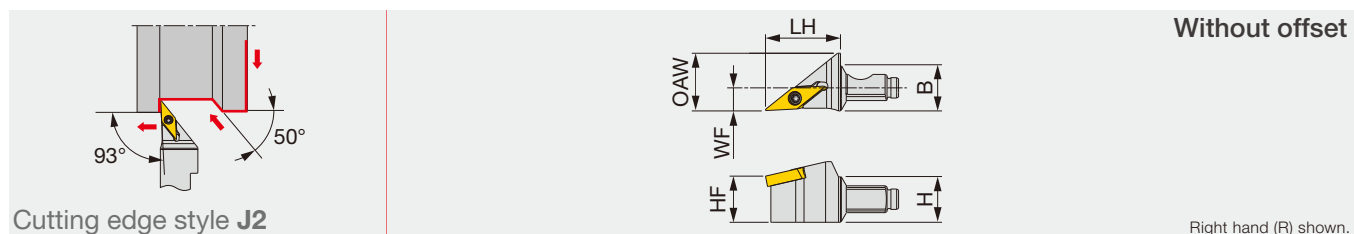
Torque*: Recommended clamping torque (N-m) RE**: Standard corner radius

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

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

QC12-JSVJ2XR

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



Designation	H	B	LH	HF	WF	OAW	RE**	Insert	Torque*
QC12-JSVJ2XR09	12	12	19.5	12	6	15	0.2	VXGU09T2**/L...	0.9

Torque*: Recommended clamping torque (N-m)

RE**: Standard corner radius

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

SPARE PARTS

Designation	Clamping screw	Wrench
JSVJ2XR/L..., QC12-JSVJ2XR09	SR34-508	T-7F

INSERT SELECTION

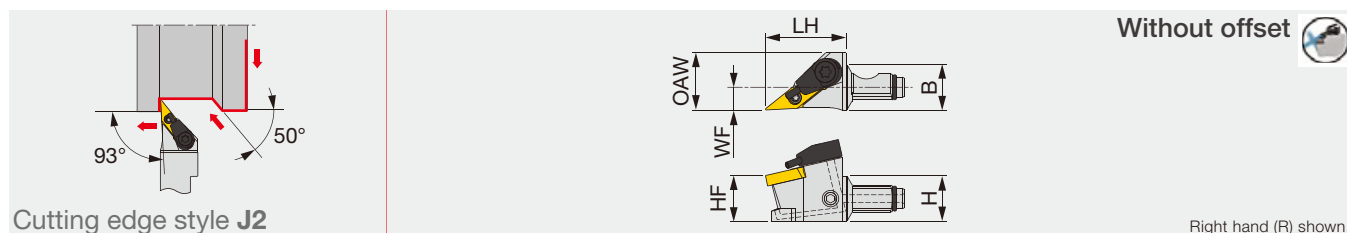
P	Application areas	Finish cutting	Medium to finish cutting	M	Application areas	Finish cutting	Medium to finish cutting
	Grade	SH725	SH725		Grade	SH725	SH725
	Breaker Shape	JRP	JS		Breaker Shape	JRP	JS
	Cutting conditions	G094			Cutting conditions	G094	

Reference pages : JSVJ2XR/L, QC12-JSVJ2XR: Inserts → **B155**, Shank, Accessory → **G095**, **G096**
Standard cutting conditions → **G094**

MINIFORCE

QC12-JSVJ2XR-CHP

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



Designation	H	B	LH	HF	WF	OAW	RE**	Insert	Torque*
QC12-JSVJ2XR09-CHP	12	12	21	12	6	15	0.2	VXGU09T2**L...	0.9

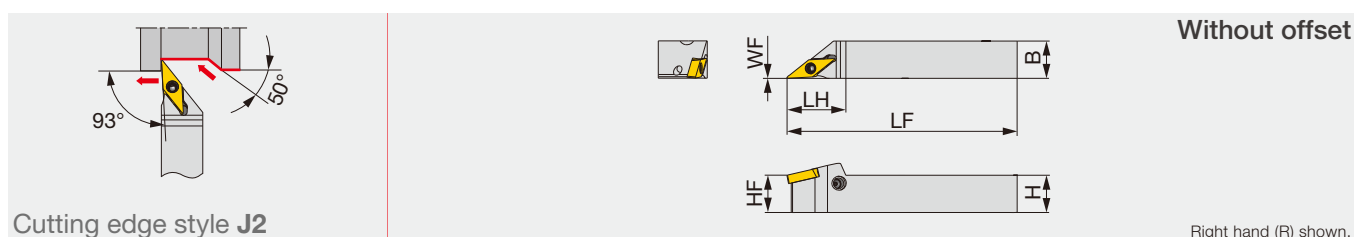
Torque*: Recommended clamping torque (N-m)

RE**: Standard corner radius

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

JPVJ2XR/L

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



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

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

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

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

SPARE PARTS

Designation	Clamping screw	Coolant unit	Wrench	O-ring	Lever	Pin	Clamping screw	Wrench
QC12-JSVJ2XR09-CHP	SR34-508	S-CU-CHP	T-7F	ORSS-0454.5X1.0NBR70	-	-	-	-
JPVJ2XR/L...	-	-	-	-	SLLV-1	SL-PI-2	SR10400611	HW2.0/5RED

INSERT SELECTION

P	Application areas	Finish cutting	Medium to finish cutting
	Grade	SH725	SH725
	Breaker Shape	JRP	JS
	Cutting conditions	G094	

M	Application areas	Finish cutting	Medium to finish cutting
	Grade	SH725	SH725
	Breaker Shape	JRP	JS
	Cutting conditions	G094	

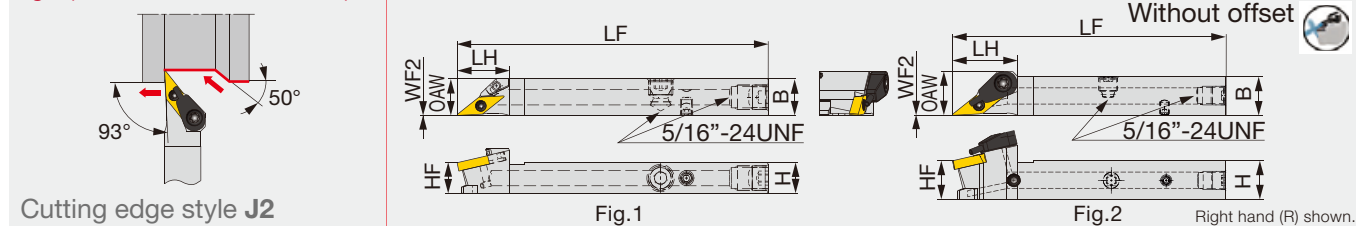
Reference pages : QC12-JSVJ2XR-CHP, JPVJ2XR/L: Inserts → **B155**

Shank, Accessory → **G095, G096**, Standard cutting conditions → **G094**

JSVJ2XR/L-CHP

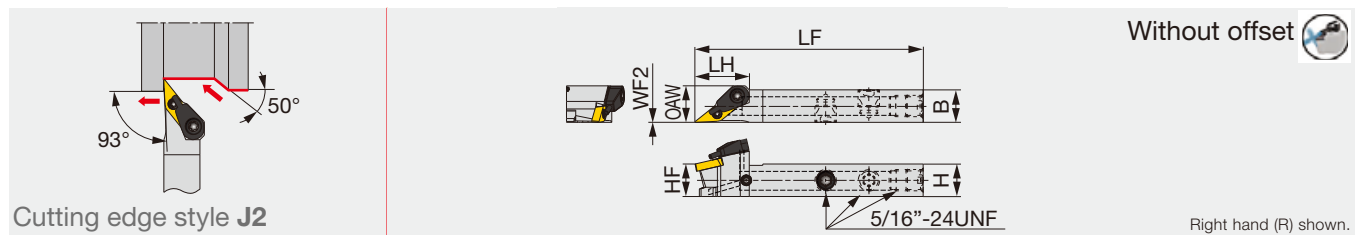
Direct connection

Screw-on toolholder without offset, 93° approach angle, for VXGU inserts, high pressure coolant compatible



Designation	H	B	LF	LH	HF	WF2	OAW	RE**	Insert	Torque*	Fig.
JSVJ2XR1012H09-CHP	10	12	100	17	10	0	12	0.2	VXGU09T2**L	0.9	1
JSVJ2XR1212X09-CHP	12	12	120	19.5	12	0	13.4	0.2	VXGU09T2**L	0.9	2
JSVJ2XR1616X09-CHP	16	16	120	19.5	16	0	16	0.2	VXGU09T2**L	0.9	2

Tube connection

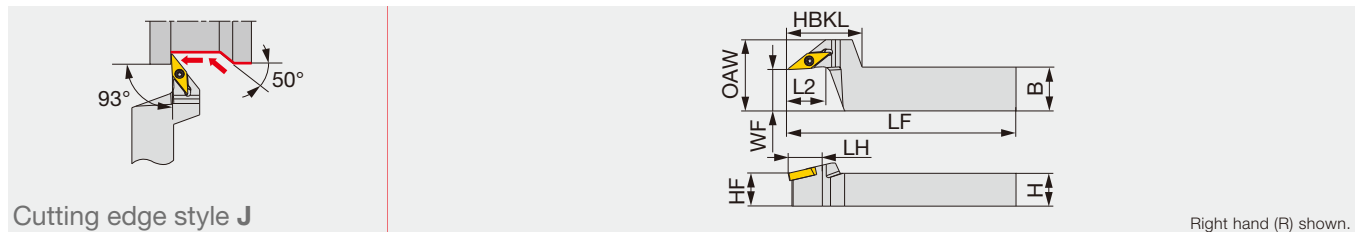


Designation	H	B	LF	LH	HF	WF2	OAW	RE**	Insert	Torque*
JSVJ2XR/L1212F09-CHP	12	12	85	20	12	0	13.5	0.2	VXGU09T2**L/R...	0.9

Torque*: Recommended clamping torque (N-m) RE**: Standard corner radius
Right-hand toolholders (R) are used with left-hand inserts (L). Left-hand toolholders (L) are used with right-hand inserts (R).

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

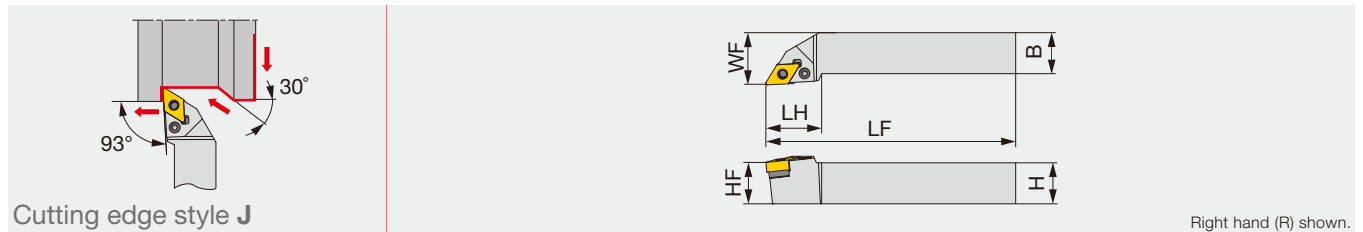
Torque*: Recommended clamping torque (N-m) RE**: Standard corner radius
Use right-hand toolholders (R) with left-hand inserts (L).

SPARE PARTS

Designation	Clamping screw	Coolant unit	Wrench	Coolant plug	Wrench	DirectJet plug	Wrench
JSVJ2XR1012H09-CHP	SR34-508	-	T-7F	SR5/16UNFTL360	P-4	SSH4-6-TB	P-2
JSVJ2XR**X09-CHP	SR34-508	S-CU-CHP	T-7F	SR5/16UNFTL360	P-4	SSH4-6-TB	P-2
JSVJ2XR/L1212F09-CHP	SR34-508	S-CU-CHP	T-7F	SR5/16UNFTL360	P-4	-	-
JSVJXR**-F15	SR34-508	-	T-7F	-	-	-	-

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 clamping torque (N·m)

RE**: Standard corner radius

SPARE PARTS

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



INSERT SELECTION

P	Application areas	Precision finishing	Finish cutting	Medium cutting	Medium to heavy cutting
	Grade	NS9530	GT9530	T9215	T9215
	Breaker Shape	TF	TSF	TM	TH
	Cutting conditions	B004			

M	Application areas	Finish cutting	Medium cutting	Medium to heavy cutting
	Grade	T6215	AH6225	AH6225
	Breaker Shape	SF	SM	SH
	Cutting conditions	B006		

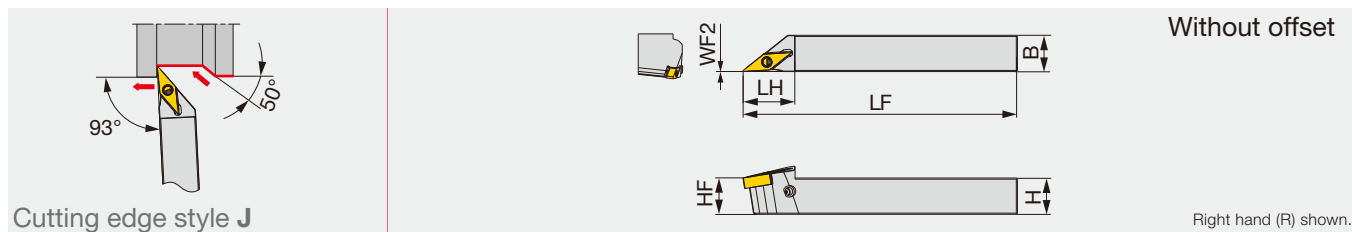
K	Application areas	Finish cutting	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Breaker Shape	All-round	All-round	All-round
	Cutting conditions	B008		

N	Application areas	Precision finishing	Finish cutting	Medium cutting
	Grade	DX110	DX140	TH10
	Breaker Shape	DIA	DIA	P
	Cutting conditions	B010		

S	Application areas	Precision finishing	Finish cutting	Medium cutting
	Grade	CBN	AH8005	AH8005
	Breaker Shape	CBN	HRF	HRM
	Cutting conditions	B012		

H	Application areas	Precision finishing	Finish cutting
	Grade	HP	HS
	Breaker Shape	HP	HS
	Cutting conditions	B014	

Reference pages : PDJNR: Inserts → **B066 -**, CBN → **B172 -**, PCD → **B211**



Designation	H	B	LF	LH	HF	WF2	RE**	Insert	Torque*
JPVJ2NR/L1212X1204	12	12	120	23	12	0	0.2	VN**1204...	0.9
JPVJ2NR/L1616X1204	16	16	120	23	16	0	0.2	VN**1204...	0.9

Torque*: Recommended clamping torque (N-m)

RE**: The holder measurements are true with this insert radius

SPARE PARTS

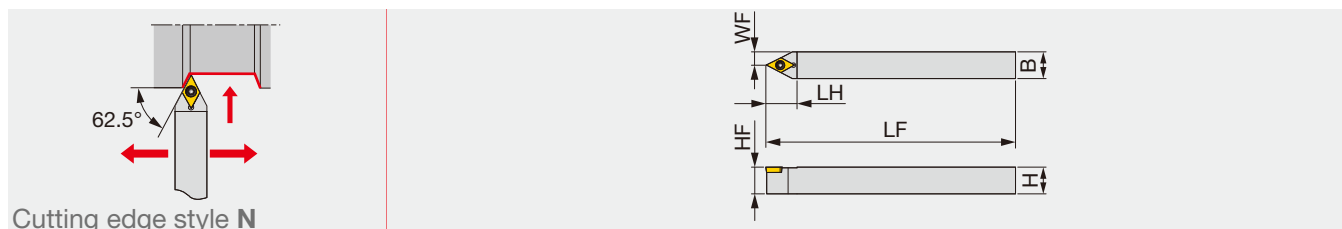
Designation	Lever	Pin	Clamping screw	Wrench
JPVJ2NR/L**1204	SLLV-4	SL-PI-2	SR10400611	HW2.0/5RED

INSERT SELECTION

P	Application	Finishing	Medium cutting
	Grade	T9215	T9215
	Chipbreaker shape	TSF	TM
	Cutting conditions	B004	

M	Application	Finishing	Medium cutting
	Grade	AH6225	AH6225
	Chipbreaker shape	SS	SM
	Cutting conditions	B006	

Screw-on toolholder with 62.5° approach angle, for positive 55° rhombic inserts



Cutting edge style N

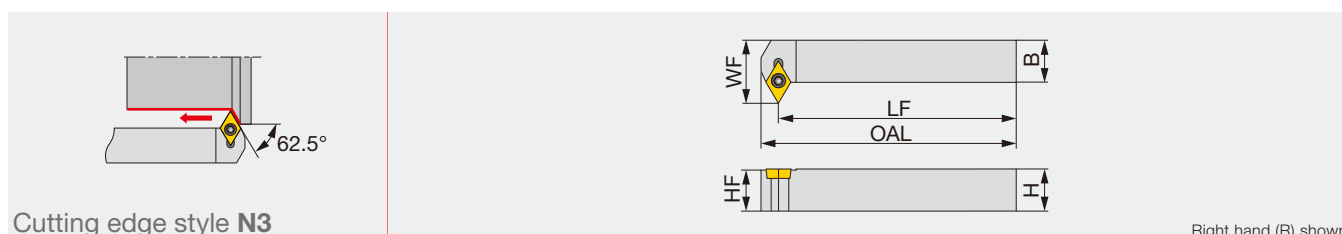
Designation	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JSDNCN1010X07	10	10	120	15	10	5	0.2	DC**0702...	1.2
JSDNCN1010X11	10	10	120	21	10	5	0.2	DC**11T3...	1.2
JSDNCN1212F07	12	12	85	15	12	6	0.2	DC**0702...	1.2
JSDNCN1212X07	12	12	120	15	12	6	0.2	DC**0702...	1.2
JSDNCN1212F11	12	12	85	21	12	6	0.2	DC**11T3...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

Torque*: Recommended clamping torque (N-m)

RE**: Standard corner radius

JSDN3CR

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

Torque*: Recommended clamping torque (N-m)

RE**: Standard corner radius

SPARE PARTS

Designation	Clamping screw	Wrench 1	Wrench 2 (Optional)
JSDNCN**07, JSDN3CR1212H07	CSTB-2.5	T-8F	(T-8L)
JSDNCN**11, JSDN3CR1616H11	CSTB-4SD	T-8F	(T-8L)

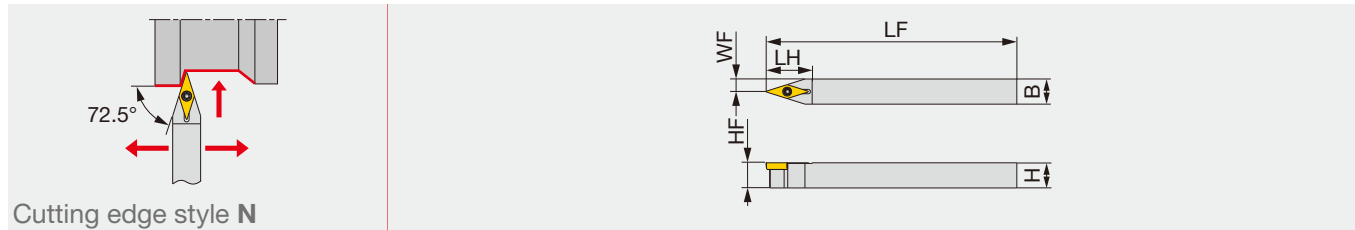
INSERT SELECTION

P	Application areas	Precision finishing	Finish cutting	Medium to finish cutting
	Grade	SH725	SH725	SH725
P	Application areas	Medium to finish cutting		
	Grade	SH725		
K	Application areas	Medium to finish cutting		
	Grade	T515		
S	Application areas	Finish cutting	Medium to finish cutting	
	Grade	SH725	SH725	
M	Application areas	Precision finishing	Finish cutting	Medium to finish cutting
	Grade	SH725	SH725	SH725
M	Application areas	Medium to finish cutting		
	Grade	SH725		
N	Application areas	Precision finishing	Finish cutting	Medium cutting
	Grade	DX110	DX140	KS05F
H	Application areas	Precision finishing	Finish cutting	
	Grade	BXA10	BXA10	

Reference pages : JSDNCN, JSDN3CR/L: Inserts → **B121** -, CBN → **B193** -, PCD → **B214**

JSVNB

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*
JSVNB1010X11	10	10	120	22	10	5	0.2	VB**1103...	1.2
JSVNB1212F11	12	12	85	22	12	6	0.2	VB**1103...	1.2
JSVNB1212X11	12	12	120	22	12	6	0.2	VB**1103...	1.2
JSVNB1616X11	16	16	120	22	16	8	0.2	VB**1103...	1.2

Torque*: Recommended clamping torque (N·m)

RE**: Standard corner radius

SPARE PARTS

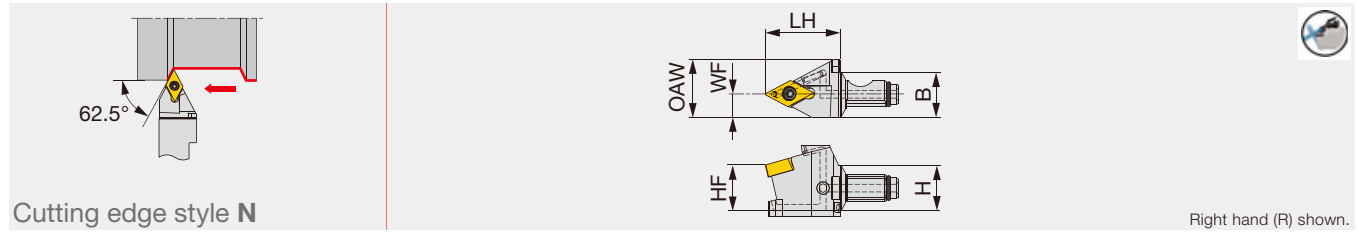
Designation	Clamping screw	Wrench 1	Wrench 2 (Optional)
JSVNB...	CSTB-2.5	T-8F	(T-8L)

INSERT SELECTION

P	Application areas	Precision finishing	Finish cutting	Medium to finish cutting	Medium to finish cutting
	Grade	SH725	SH725	SH725	SH725
	Breaker Shape	JP	JS	JS	J10
	Cutting conditions	G094			
K	Application areas	Medium to finish cutting			
	Grade	T515			
	Breaker Shape	CM			
	Cutting conditions	B020			
H	Application areas	Precision finishing	Finish cutting		
	Grade	BXA10	BXA10		
	Breaker Shape	HP	CBN		
	Cutting conditions	B026			
M	Application areas	Precision finishing	Finish cutting	Medium to finish cutting	Medium to finish cutting
	Grade	SH725	SH725	SH725	SH725
	Breaker Shape	JP	JS	JS	J10
	Cutting conditions	G094			
S	Application areas	Finish cutting	Medium to finish cutting		
	Grade	SH725	SH725		
	Breaker Shape	JS	JS		
	Cutting conditions	G094			

Reference pages : JSVNB: Inserts → **B150** -, CBN → **B207** -

Screw-on modular head with 62.5° approach angle, for DX*U inserts, with high pressure coolant capability



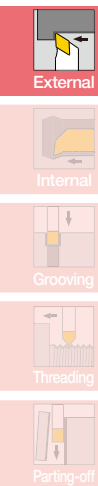
Cutting edge style N

Designation	H	B	LH	HF	WF	OAW	RE**	Insert	Torque*
QC12-JSDNXR07-CHP	12	12	19.5	12	6	15	0.2	DX*U0703**L...	0.9

Torque*: Recommended clamping torque (N·m)

RE**: Standard corner radius

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



SPARE PARTS

Designation	Clamping screw	Wrench	O-ring
QC12-JSDNXR07-CHP	SR 34-514	T-7F	ORSS-0454.5X1.0NBR70

INSERT SELECTION

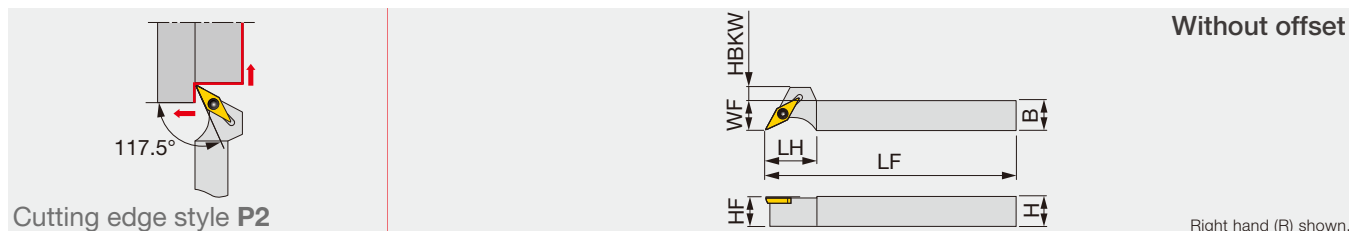
for Swiss lathes

P	Application areas	Finish cutting	Medium to finish cutting	M	Application areas	Finish cutting	Medium to finish cutting
	Grade	SH725	SH725		Grade	SH725	SH725
	Breaker Shape	JSS	JS		Breaker Shape	JSS	JS
	Cutting conditions	G094			Cutting conditions	G094	

for Small CNC lathes

P	Application areas	Finish cutting	Medium cutting	M	Application areas	Finish cutting	Medium cutting	N	Application areas	Medium to finish cutting	
	Grade	AH725	AH725		Grade	AH8015	AH8015		Grade	KS05F	KS05F
	Breaker Shape	SS 	TS 		Breaker Shape	SS 	TS 		Breaker Shape	SS 	TS 
	Cutting conditions	G094			Cutting conditions	G094			Cutting conditions	B022	

Reference pages : JSVJ2XR/L-CHP: Inserts → **B126 -**, Shank, Accessory → **G095, G096**
Standard cutting conditions → **G094**



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

Torque*: Recommended clamping torque (N-m)

RE**: Standard corner radius

SPARE PARTS

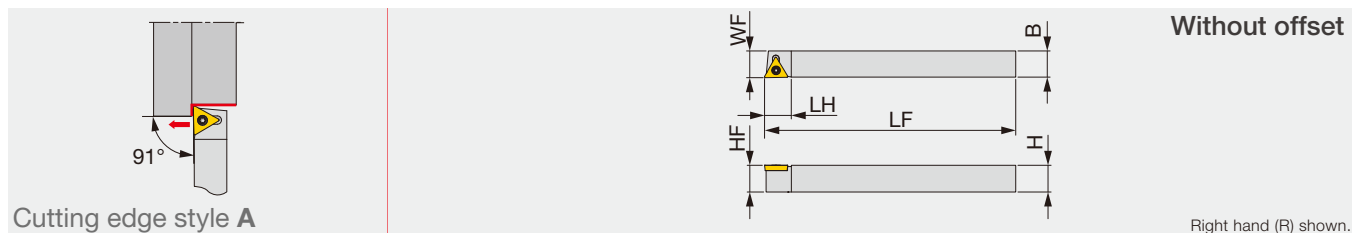
Designation	Clamping screw	Wrench 1	Wrench 2 (Optional)
JSVP2PR/L**08	CSTB-2L	T-6F	(T-6L)
JSVP2PR/L**11	CSTB-2.5	T-8F	(T-8L)

INSERT SELECTION

P	Application areas	Finish cutting	Finish cutting
	Grade	SH725	SH725
	Breaker Shape	JRP	JSP
	Cutting conditions	G094	

M	Application areas	Finish cutting	Finish cutting
	Grade	SH725	SH725
	Breaker Shape	JRP	JSP
	Cutting conditions	G094	

S	Application areas	Finish cutting	Finish cutting
	Grade	SH725	SH725
	Breaker Shape	JRP	JSP
	Cutting conditions	G094	



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 clamping torque (N-m) RE**: Standard corner radius

SPARE PARTS

Designation	Clamping screw	Wrench 1	Wrench 2 (Optional)
JSTACR/L**K08	CSTB-2L	T-6F	(T-6L)
JSTACR/L**11	CSTB-2.5	T-8F	(T-8L)

INSERT SELECTION

P	Application areas	Precision finishing		Finish cutting	Medium to finish cutting
	Grade	SH725	SH725	SH725	SH725
		01	JP	JS	JS
	Breaker Shape				
Cutting conditions G094					

P	Application areas	Medium to finish cutting
	Grade	SH725
		J10
	Breaker Shape	
Cutting conditions G094		

K	Application areas	Medium to finish cutting
	Grade	T515
		CM
	Breaker Shape	
Cutting conditions B020		

H	Application areas	Finish cutting
	Grade	BXA10
		CBN
	Breaker Shape	
Cutting conditions B026		

M	Application areas	Precision finishing		Finish cutting	Medium to finish cutting
	Grade	SH725	SH725	SH725	SH725
		01	JP	JS	JS
	Breaker Shape				
Cutting conditions G094					

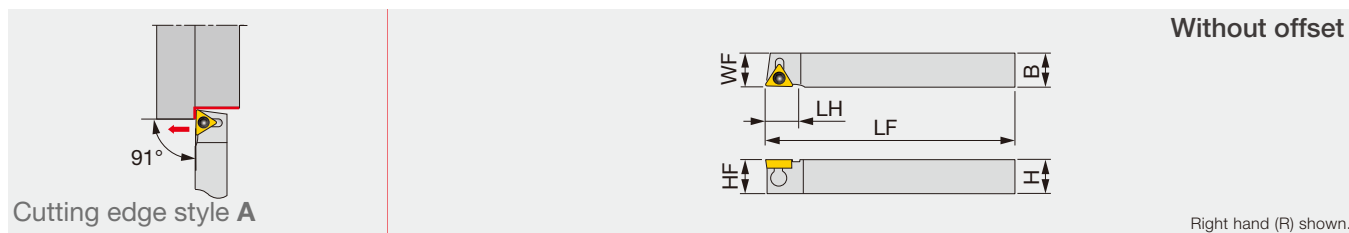
M	Application areas	Medium to finish cutting
	Grade	SH725
		J10
	Breaker Shape	
Cutting conditions G094		

N	Application areas	Precision finishing	Medium cutting
	Grade	DX120	KS05F
		DIA	with rake AL
	Breaker Shape		
Cutting conditions B022			

Reference pages : JSTACR/L: Inserts → **B138** -, CBN → **B198**, PCD → **B215**

JTTACR/L

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 clamping torque (N-m) 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

P	Application areas	Precision finishing		Finish cutting	Medium to finish cutting
	Grade	SH725		SH725	SH725
	Breaker Shape	01	JP	JS	JS
					
Cutting conditions		G094			

P	Application areas	Medium to finish cutting
	Grade	SH725
	Breaker Shape	J10
		
Cutting conditions		G094

K	Application areas	Medium to finish cutting
	Grade	T515
	Breaker Shape	CM
		
Cutting conditions		B020

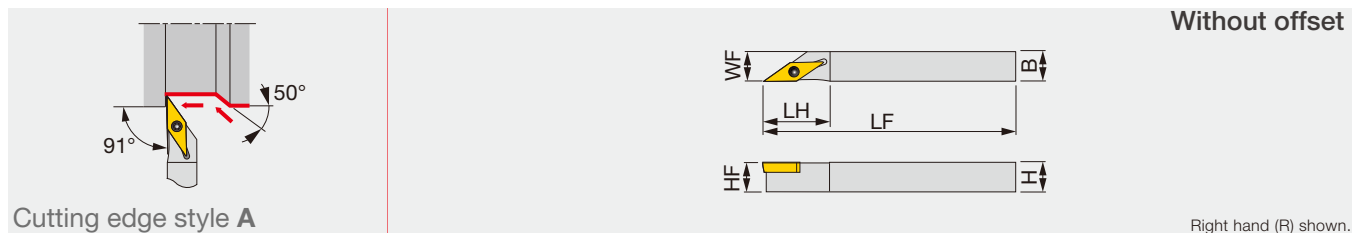
H	Application areas	Finish cutting
	Grade	BXA10
	Breaker Shape	CBN
		
Cutting conditions		B026

M	Application areas	Precision finishing		Finish cutting	Medium to finish cutting
	Grade	SH725		SH725	SH725
	Breaker Shape	01	JP	JS	JS
					
Cutting conditions		G094			

M	Application areas	Medium to finish cutting
	Grade	SH725
	Breaker Shape	J10
		
Cutting conditions		G094

N	Application areas	Precision finishing	Medium cutting
	Grade	DX120	KS05F
	Breaker Shape	DIA	AL
			
Cutting conditions		B022	

Reference pages : JTTACR/L: Inserts → **B138** -, CBN → **B198**, PCD → **B215**



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 clamping torque (N·m)

RE**: Standard corner radius

SPARE PARTS

Designation	Clamping screw	Wrench 1	Wrench 2 (Optional)
JSVABR/L...	CSTB-2.5	T-8F	(T-8L)

INSERT SELECTION

P	Application areas	Precision finishing	Finish cutting	Medium to finish cutting	Medium to finish cutting
	Grade	SH725	SH725	SH725	SH725
	Breaker Shape	JP	JS	JS	J10
	Cutting conditions	G094			

M	Application areas	Precision finishing	Finish cutting	Medium to finish cutting	Medium to finish cutting
	Grade	SH725	SH725	SH725	SH725
	Breaker Shape	JP	JS	JS	J10
	Cutting conditions	G094			

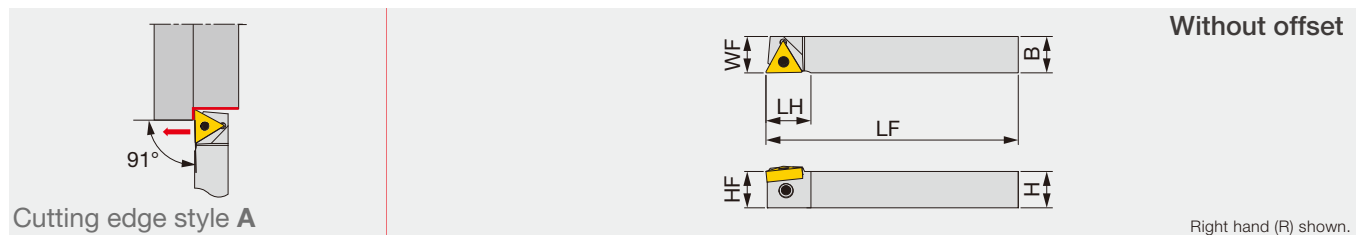
K	Application areas	Medium to finish cutting
	Grade	T515
	Breaker Shape	CM
	Cutting conditions	B020

S	Application areas	Finish cutting	Medium to finish cutting
	Grade	SH725	SH725
	Breaker Shape	JS	JS
	Cutting conditions	G094	

H	Application areas	Precision finishing	Finish cutting
	Grade	BXA10	BXA10
	Breaker Shape	HP	CBN
	Cutting conditions	B026	

JTTANR/L

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



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 clamping torque (N-m)

RE**: Standard corner radius

SPARE PARTS

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

INSERT SELECTION

P	Application areas	Precision finishing		Finish cutting		Medium cutting
	Grade	SH725		SH725	GT9530	T9215
	Breaker Shape	01	JRP	TSF	TM	
	Cutting conditions	G094				B004

P	Application areas	Medium to heavy cutting	
	Grade	T9215	
	Breaker Shape	TH	
	Cutting conditions	B004	

N	Application areas	Precision finishing	Finish cutting	Medium cutting	
	Grade	DX110	DX140	TH10	KS05F
	Breaker Shape	DIA	DIA with rake	P	28
	Cutting conditions	B010			

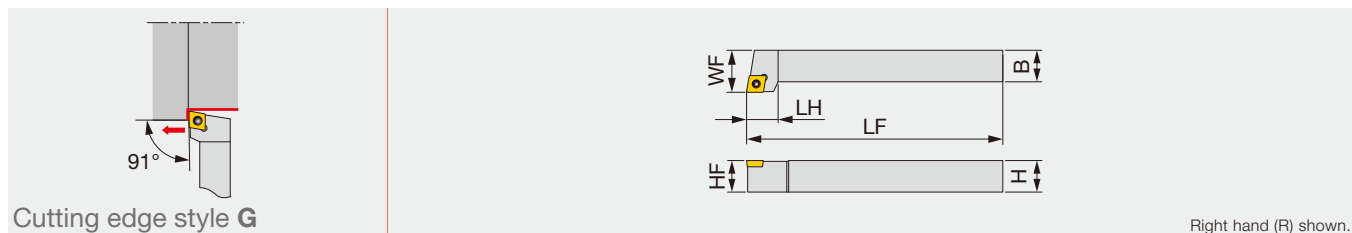
H	Application areas	Precision finishing	Finish cutting
	Grade	BXA10	BXA10
	Breaker Shape	HP	HS
	Cutting conditions	B014	

M	Application areas	Precision finishing	Finish cutting	Medium cutting
	Grade	SH725	SH725	AH6225
	Breaker Shape	01	JRP	SM
	Cutting conditions	G094		B006

K	Application areas	Finish cutting	Medium cutting	Medium to heavy cutting
	Grade	T515	T515	T515
	Breaker Shape	All-round	All-round	All-round
	Cutting conditions	B008		

S	Application areas	Precision finishing	Finish cutting	Medium cutting
	Grade	BX950	AH8005	AH8005
	Breaker Shape	CBN	HRF	HRM
	Cutting conditions	B012		

Reference pages : JTTANR/L: Inserts → **B087** -, CBN → **B182** -, PCD → **B212**



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 clamping torque (N-m)

RE**: Standard corner radius

SPARE PARTS

Designation	Clamping screw	Wrench 1	Wrench 2 (Optional)
JSCGCR/L1212H06	CSTB-2.5	T-8F	(T-8L)
JSCGCR/L1616H09	CSTB-4SD	T-8F	(T-8L)

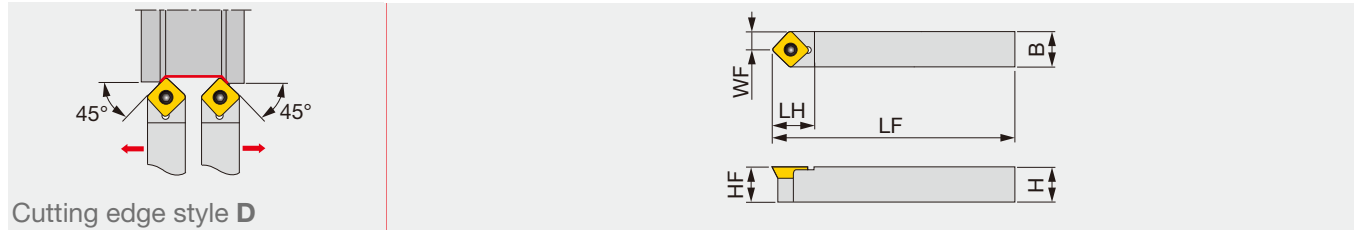
INSERT SELECTION

P	Application areas	Precision finishing		Finish cutting	Medium to finish cutting
	Grade	SH725	SH725	SH725	SH725
	Breaker Shape	01	JP	JS	JS
	Cutting conditions	G094			
P	Application areas	Medium to finish cutting			
	Grade	SH725			
	Breaker Shape	J10			
	Cutting conditions	G094			
K	Application areas	medium to finish cutting			
	Grade	T515			
	Breaker Shape	CM			
	Cutting conditions	B020			
S	Application areas	Finish cutting	Medium to finish cutting		
	Grade	SH725	SH725		
	Breaker Shape	JS	JS		
	Cutting conditions	G094			
M	Application areas	Precision finishing		Finish cutting	Medium to finish cutting
	Grade	SH725	SH725	SH725	SH725
	Breaker Shape	01	JP	JS	JS
	Cutting conditions	G094			
M	Application areas	Medium to finish cutting			
	Grade	SH725			
	Breaker Shape	J10			
	Cutting conditions	G094			
N	Application areas	Precision finishing	Finish cutting	Medium cutting	
	Grade	DX110	TH10	KS05F	
	Breaker Shape	NS	W20	AL	
	Cutting conditions	B022			
H	Application areas	Precision finishing	Finish cutting		
	Grade	BXA10	BXA20		
	Breaker Shape	CBN	CBN		
	Cutting conditions	B026			

Reference pages : JSCGCR/L: Inserts → **B112 -**, CBN → **B191**, PCD → **B213**
Shank, Accessory → **G095**, **G096**

SSDC/PN

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



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

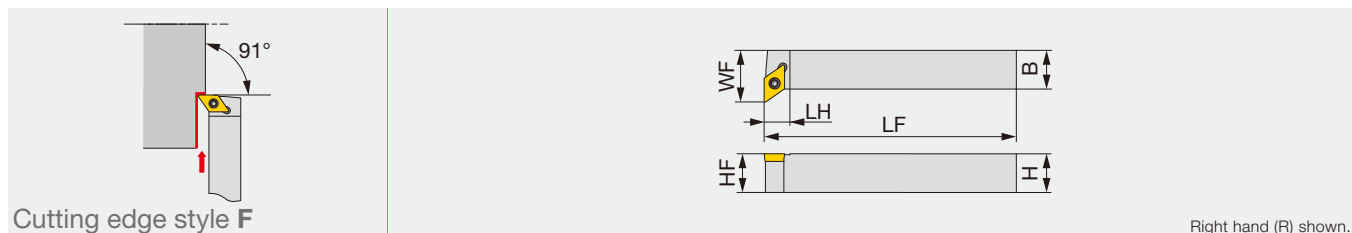
Designation	Clamping screw	Shim screw	Shim	Wrench 1	Wrench 2
SSDCN1010K07	CSTB-3	-	-	-	T-9F
SSDPN1010H	CSTA-NO3	-	-	-	T-9F
SSDCN1212K09	CSTB-4	-	-	-	T-15F
SSDPN1212H	CSTA-NO3	-	-	-	T-9F
SSDCN1616H09	CSTB-3.5L	DTS5-3.5	SSS32	P-3.5	T-15F
SSDPN1616H	CSTA-NO5	-	-	-	T-9F

INSERT SELECTION

P	Application areas	Medium to finish cutting	Medium cutting
	Grade	AH725	AH725
	Breaker Shape	PS	PM
Cutting conditions		B016	
M	Application areas	Medium cutting	
	Grade	AH725	
	Breaker Shape	PM	
Cutting conditions		B018	
K	Application areas	Medium to finish cutting	
	Grade	T515	
	Breaker Shape	CM	
Cutting conditions		B020	

Reference pages : SSDC/PN: Inserts → **B134** -

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



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

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

SPARE PARTS

Designation	Clamping screw	Wrench 1	Wrench 2 (Optional)
JSDFCR/L1212H07	CSTB-2.5	T-8F	(T-8L)
JSDFCR/L1616H11	CSTB-4SD	T-8F	(T-8L)

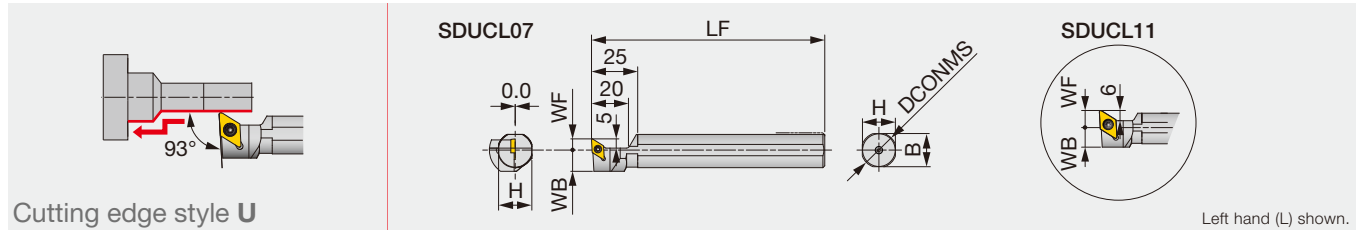
INSERT SELECTION

P	Application areas	Precision finishing	Finish cutting	Medium to finish cutting
	Grade	SH725	SH725	SH725
	Breaker Shape	01	JP	JS
	Cutting conditions	G094		
P	Application areas	Medium to finish cutting		
	Grade	SH725		
	Breaker Shape	J10		
	Cutting conditions	G094		
K	Application areas	Medium to finish cutting		
	Grade	T515		
	Breaker Shape	CM		
	Cutting conditions	B020		
S	Application areas	Finish cutting	Medium to finish cutting	
	Grade	SH725	SH725	
	Breaker Shape	JS	JS	
	Cutting conditions	G094		
M	Application areas	Precision finishing	Finish cutting	Medium to finish cutting
	Grade	SH725	SH725	SH725
	Breaker Shape	01	JP	JS
	Cutting conditions	G094		
M	Application areas	Medium to finish cutting		
	Grade	SH725		
	Breaker Shape	J10		
	Cutting conditions	G094		
N	Application areas	Precision finishing	Finish cutting	Medium cutting
	Grade	DX110	DX140	KS05F
	Breaker Shape	NS	DIA	AL
	Cutting conditions	B022		
H	Application areas	Precision finishing	Finish cutting	
	Grade	BXA10	BXA20	
	Breaker Shape	HP	CBN	
	Cutting conditions	B026		

Reference pages : JSDFCR/L: Inserts → B121 -, CBN → B193 -, PCD → B214

JS-SDUCL

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



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	12	125	24	24	12.5	0.8	DC**11T3...	1.2
JS254K-SDUCL11	25.4	12	125	24	24	12.7	0.8	DC**11T3...	1.2

Torque*: Recommended clamping torque (N·m)

RE**: Standard corner radius

SPARE PARTS

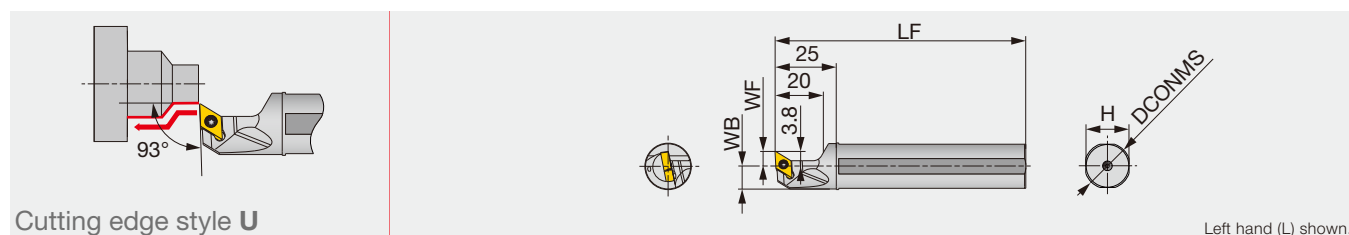
Designation	Clamping screw	Wrench
JS**K-SDUCL07	CSTB-2.5	T-8F
JS**K-SDUCL11	CSTB-4SD	T-8F

INSERT SELECTION

P	Application areas	Precision finishing	Finish cutting	Medium to finish cutting
	Grade	SH725	SH725	SH725
	Breaker Shape	01	JP	JS
	Cutting conditions	G094		
P	Application areas	Medium to finish cutting		
	Grade	SH725		
	Breaker Shape	01		
	Cutting conditions	G094		
K	Application areas	Medium to finish cutting		
	Grade	T515		
	Breaker Shape	CM		
	Cutting conditions	B020		
S	Application areas	Finish cutting	Medium to finish cutting	
	Grade	SH725	SH725	
	Breaker Shape	JS	JS	
	Cutting conditions	G094		
M	Application areas	Precision finishing	Finish cutting	Medium to finish cutting
	Grade	SH725	SH725	SH725
	Breaker Shape	01	JP	JS
	Cutting conditions	G094		
M	Application areas	Medium to finish cutting		
	Grade	SH725		
	Breaker Shape	01		
	Cutting conditions	G094		
N	Application areas	Precision finishing	Medium cutting	
	Grade	DX110	KS05F	
	Breaker Shape	NS	AL	
	Cutting conditions	B022		
H	Application areas	Precision finishing	Finish cutting	
	Grade	BXA10	BXA20	
	Breaker Shape	CBN	CBN	
	Cutting conditions	B026		

Reference pages : JS-SDUCL: Inserts → **B121** -, CBN → **B193** -, PCD → **B214**

Screw-on round-shank toolholder with 93° approach angle, for DX*U inserts



Designation	DCONMS	WF	LF	H	WB	RE**	Insert	Torque*
JS14H-SDUXL07	14	6	100	13	6.75	0.2	DX*U0703**L...	0.9
JS159F-SDUXL07	15.875	6	85	15	7.687	0.2	DX*U0703**L...	0.9
JS16F-SDUXL07	16	6	85	15	7.75	0.2	DX*U0703**L...	0.9
JS19G-SDUXL07	19.05	6	90	18	9.275	0.2	DX*U0703**L...	0.9
JS19X-SDUXL07	19.05	6	120	18	9.275	0.2	DX*U0703**L...	0.9
JS20G-SDUXL07	20	6	90	19	9.75	0.2	DX*U0703**L...	0.9
JS20X-SDUXL07	20	6	120	19	9.75	0.2	DX*U0703**L...	0.9
JS22X-SDUXL07	22	10	120	21	10.75	0.2	DX*U0703**L...	0.9
JS25H-SDUXL07	25	10	100	24	12.25	0.2	DX*U0703**L...	0.9
JS254X-SDUXL07	25.4	10	120	24	12.45	0.2	DX*U0703**L...	0.9

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

SPARE PARTS

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

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		Grade	SH725	SH725
	Breaker Shape	JSS	JS		Breaker Shape	JSS	JS
	Cutting conditions	G094			Cutting conditions	G094	

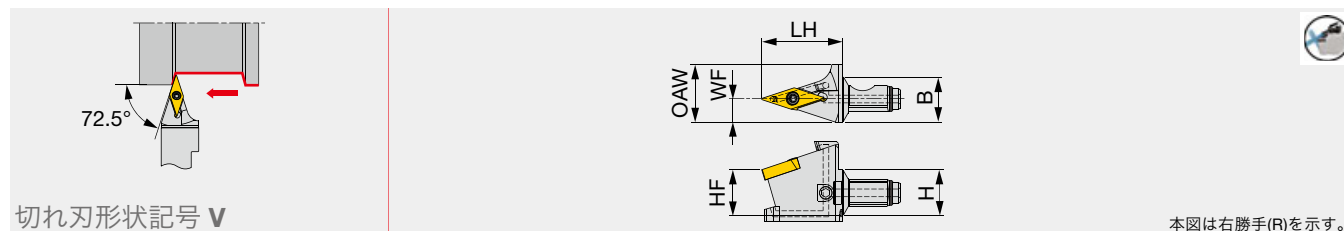
for Small CNC lathes

P	Application areas	Finish cutting	Medium cutting	M	Application areas	Finish cutting	Medium cutting	N	Application areas	Medium to finish cutting	
	Grade	AH725	AH725		Grade	AH8015	AH8015		Grade	KS05F	KS05F
	Breaker Shape	SS	TS		Breaker Shape	SS	TS		Breaker Shape	SS	TS
											
Cutting conditions		G094		Cutting conditions		G094		Cutting conditions		R022	

Reference pages : JS-SDUXL: Inserts → **B126 -**, Standard cutting conditions → **G094**

QC12-JSVVXR-CHP

高圧クーラント対応スクリーオン式ヘッド、アプローチ角72.5°、使用インサートVXGU形



切れ刃形状記号 V

本図は右勝手(R)を示す。

形番	H	B	LH	HF	WF	OAW	RE**	インサート	トルク*
QC12-JSVVXR09-CHP	12	12	21	12	6	15	0.2	VXGU09T2**L...	0.9

トルク*：推奨締付けトルク (N・m)

RE**：基準コーナ

右勝手のホルダ (R) には左勝手のインサート (L) を使用。

部品

形番	締付けねじ	スパナ	Oリング
QC12-JSVVXR09-CHP	SR34-508	T-7F	ORSS-0454.5X1.0NBR70

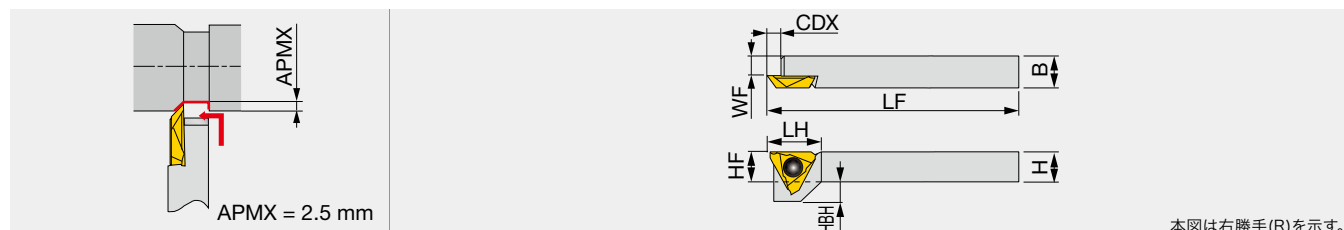
インサート基本選択

P	適応領域	仕上げ	仕上げ～中切削	M	適応領域	仕上げ	仕上げ～中切削
	材種	SH725	SH725		材種	SH725	SH725
	ブレーカ形状	JRP	JS		ブレーカ形状	JRP	JS
	標準切削条件	G094			標準切削条件	G094	

J-SERIES

JSTBR/L

スクリーオン式バイト、後挽き用



本図は右勝手(R)を示す。

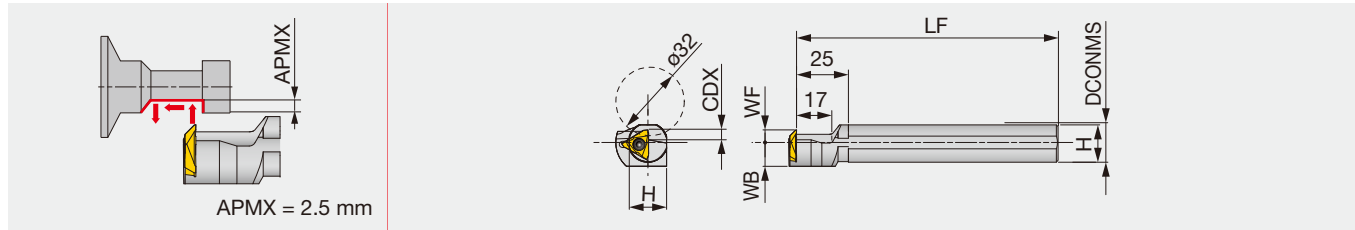
形番	H	B	LF	LH	CDX	HF	WF	HBH	インサート	トルク*
JSTBR/L1010X3	10	10	120	15	5	10	6	5	JTBR/L3...	1.2
JSTBL1010K3	10	10	125	15	5	10	6	5	JTBR/L3...	1.2
JSTBR/L1212F3	12	12	85	15	5	12	8	3	JTBR/L3...	1.2
JSTBR/L1212X3	12	12	120	15	5	12	8	3	JTBR/L3...	1.2
JSTBR/L1616X3	16	16	120	15	5	16	12	-	JTBR/L3...	1.2

トルク*：推奨締付けトルク (N・m)

部品

形番	締付けねじ	スパナ1	スパナ2 (オプション)
JSTBR/L...	CSTB-4SD	T-8F	(T-8L)

参照ページ：QC12-JSVVXR-CHP: インサート → **B155**, シャンク, 関連部品 → **G095**, **G096**, 標準切削条件 → **G094**
JSTBR/L: インサート → **G084**, **G085**, 標準切削条件 → **G085**



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

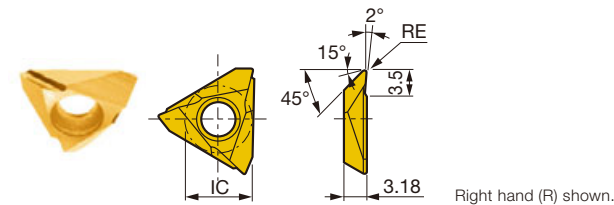
Torque*: Recommended clamping torque (N-m)

SPARE PARTS

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

INSERT

JTB (Sharp edge)



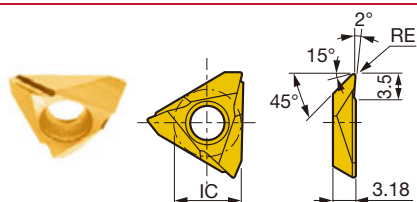
P	Steel	★	☆		★								
M	Stainless	★	☆										
K	Cast iron	★			☆		☆						
N	Non-ferrous						★						
S	Superalloys	☆	☆				★						
H	Hard materials						★						

★ : First choice
☆ : Second choice

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

● : Line up

JTBR/L (Honed edge)



Right hand (R) shown.

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

★ : First choice
☆ : Second choice

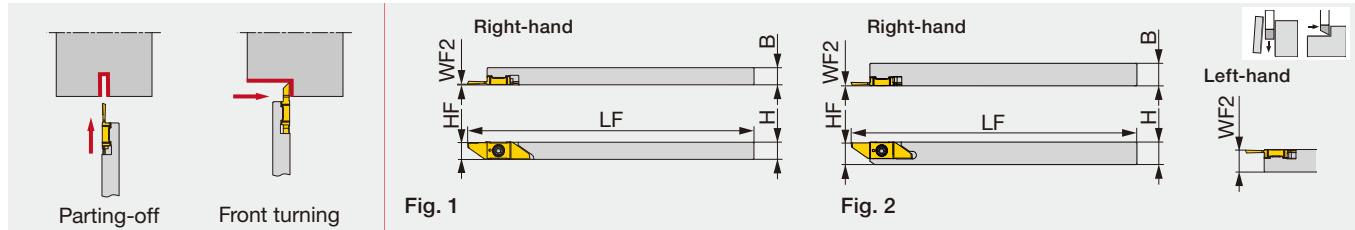
[illegible]

● : Line up

STANDARD CUTTING CONDITIONS (JTB type insert)

ISO	Workpiece material	Grade	Cutting speed Vc (m/min)	Feed f (mm/rev)
P	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
		J9530	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
M	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
		J9530	50 - 150	0.01 - 0.1
N	Aluminium alloys, Brass (Si < 12%, C3604B, etc. CW614N, etc.)	TH10	10 - 200	0.01 - 0.1
S	Difficult-to-machine material, Titanium alloys (Ti-6Al-4V, etc.)	TH10	10 - 30	0.01 - 0.1

Parting-off and front turning toolholders



Designation	H	B	LF	HF	WF2 ⁽¹⁾	Insert	Torque*	Fig.
JSXXL0606X05	6	6	120	5.6	5.8	JV*N..., JVN...	1.3	1
JSXXR/L0707X05	7	7	120	6.6	0.2/6.8	JV*N..., JVN...	1.3	1
JSXXR/L0808F05	8	8	85	7.7	0.2/7.8	JV*N..., JVN...	1.3	2
JSXXR/L0808H05	8	8	100	7.7	0.2/7.8	JV*N..., JVN...	1.3	2
JSXXR/L1010H05	10	10	100	9.7	0.2/9.8	JV*N..., JVN...	1.3	2

Torque*: Recommended clamping torque (N-m)

(1) The first value before "/" indicates the WF for the right-hand holder and the second value after "/" for the left-hand holder.

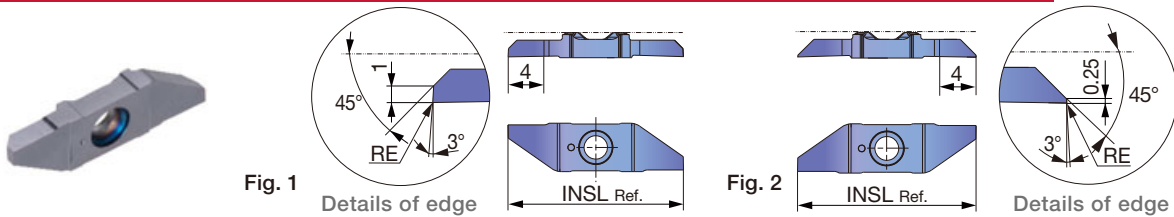
Use the right-hand insert (JV***R...) for a right-hand holder (JSXXR...); the left-hand insert (JV***L...) for a left-hand holder (JSXXL...).

SPARE PARTS

Designation	Clamping screw	Wrench
JSXXR...05	CSTB-2.5L054DL	T-7F
JSXXL...05	CSTB-2.5L054DR	T-7F

INSERT

JVFN45R/L (For front turning)



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

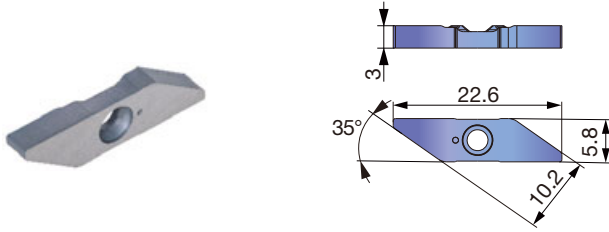
★ : First choice

Designation	HAND	RE	Coated				INSL	Fig.
			SH725					
JVFN45R0310F	R	0	●				21	1
JVFN45L0302FL	L	0	●				21	2

● : Line up

INSERT

JVNR/L (Semi-finished blanks)



Right-hand (R) shown.

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

★ : First choice

Designation	HAND	Uncoated							
		KS15F							
JVNR30	R	●							
JVNL30	L	●							

● : Line up

STANDARD CUTTING CONDITIONS

ISO	Workpiece materials	Grade	Cutting speed Vc (m/min)	Feed f (mm/rev)
P	Low carbon steels S15C, SS400, etc. C15E4, E275A, etc.	SH725	50 - 180	0.01 - 0.03
	Carbon steels, Alloy steels S55C, SCM440, etc. C55, 42CrMo4, etc.	SH725	50 - 180	0.01 - 0.03
	Free cutting steels SUH22, SUH23, etc.	SH725	50 - 180	0.01 - 0.03
M	Stainless steels SUS304, X5CrNi18-9, etc.	SH725	50 - 120	0.01 - 0.03
N	Aluminium alloys A5056, A6061, etc.	SH725	150 - 200	0.01 - 0.03
	Copper alloys C2600, C280C, etc.	SH725	100 - 200	0.01 - 0.03
S	Titanium alloys Ti-6Al-4V, etc.	SH725	30 - 80	0.01 - 0.03
	Superalloys Inconel718, etc.	SH725	30 - 80	0.01 - 0.03

Grade

Insert

Ext. Toolholder

Int. Toolholder

Threading

Grooving

Miniature tool

Milling cutter

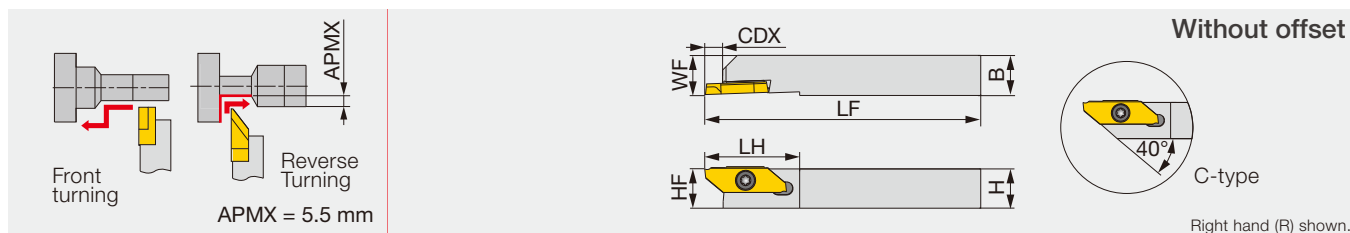
Endmill

Drilling tool

Tooling System

User's Guide

Index



Designation	H	B	LF	LH	CDX	HF	WF	Insert
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...

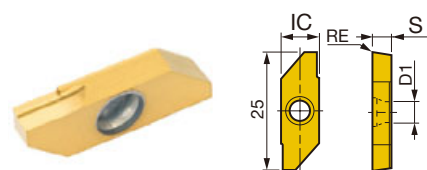
Can be used with JXG insert for parting and grooving.
Can be wrenched also from the back with a double-head screw.

SPARE PARTS

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

INSERT

JXF (For front turning)



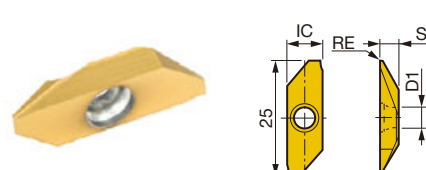
P Steel	★					
M Stainless	★					
K Cast iron						
N Non-ferrous	★					
S Superalloys	★					
H Hard materials						

★ : First choice

Designation	HAND	RE	Coated		Uncoated		IC	S	D1
			J740		TH10				
JXFR8000F	R	0.03	●		●		8	3.97	4.4
JXFR8010F	R	0.1	●		●		8	3.97	4.4

● : Line up

JXR (For reverse turning)



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

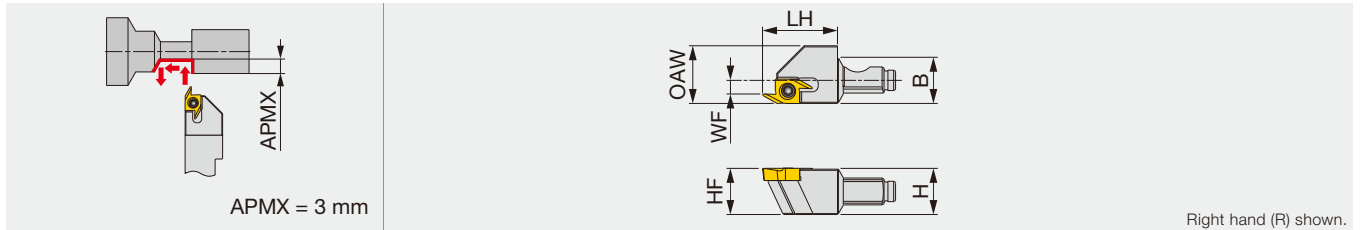
★ : First choice

Designation	HAND	RE	Coated		Uncoated		IC	S	D1
			J740		TH10				
JXRR8000F	R	0.03	●		●		8	3.97	4.4
JXRR8010F	R	0.1	●		●		8	3.97	4.4

● : Line up

QC12-JSEGR

Screw-on modular head for back turning

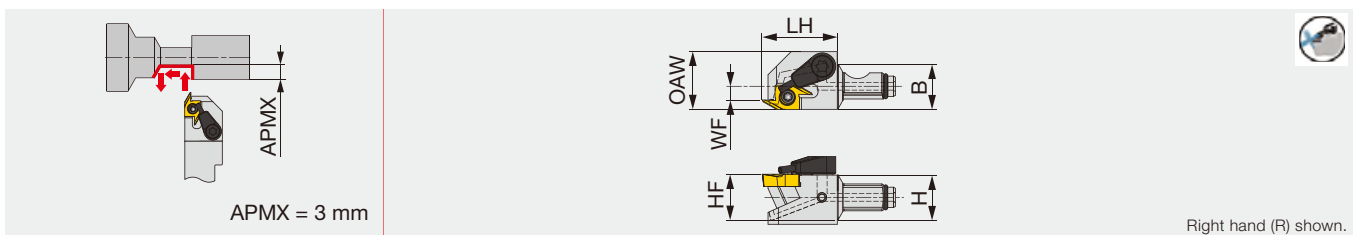


Designation	H	B	LH	HF	WF	OAW	Insert	Torque*
QC12-JSEGR10	12	12	19.5	12	3.5	15	J10ER...	1.2

Torque*: Recommended clamping torque (N-m)

QC12-JSEGR-CHP

Screw-on modular head for back turning, with high pressure coolant capability

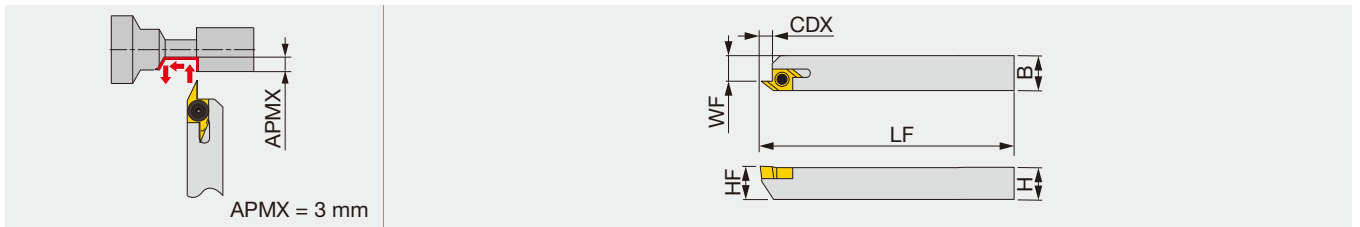


Designation	H	B	LH	HF	WF	OAW	Insert	Torque*
QC12-JSEGR10-CHP	12	12	19.5	12	3.5	15	J10ER...	1.2

Torque*: Recommended clamping torque (N-m)

JSEGR/L

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

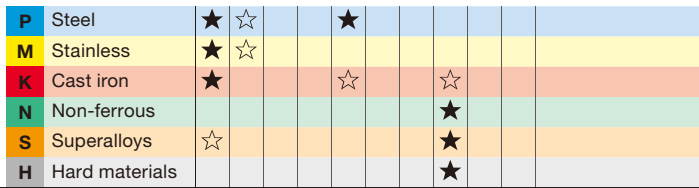
Torque*: Recommended clamping torque (N-m)

SPARE PARTS

Designation	Clamping screw	Coolant unit	Wrench	Wrench 2 (Optional)	O-ring
QC12-JSEGR10	CSTB-2.5		T-8F		
QC12-JSEGR10-CHP	CSTB-2.5	S-CU-CHP	T-8F		ORSS-0454.5X1.0NBR70
JSEGR/L...	CSTB-2.5		T-8F	(T-8L)	

Reference pages : QC12-JSEGR, QC12-JSEGR-CHP, JSEGR/L: Inserts → **G090**
Shank, Accessory → **G095, G096**, Standard cutting conditions → **G091**

J10E (Sharp edge)



● : Line up

0.5 RE

30°

60°

3.3

IC

3.18

Right hand (R) shown.

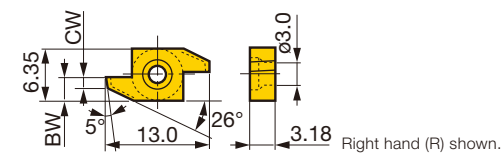
● : Line up

STANDARD CUTTING CONDITIONS (J10E type insert)

ISO	Workpiece material	Grade	Cutting speed Vc (m/min)	Feed f (mm/rev)
P	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
		J9530	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
M	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
N	Aluminium alloys, Brass Si < 12% C3604B, etc. CW614N, etc.	TH10	10 - 200	0.01 - 0.1
S	Difficult-to-machine material, Titanium alloys Ti-6Al-4V, etc.	TH10	10 - 30	0.01 - 0.1

INSERT

10E (Insert blank)

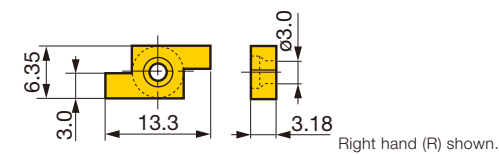


Designation	HAND	Uncoated	
		TH10	
10ER100B	R	●	
10EL100B	L	●	
10ER150B	R	●	
10EL150B	L	●	

● : 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)

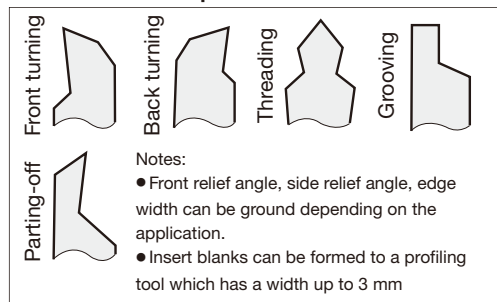


Designation	HAND	Uncoated	
		TH10	
10ER300	R	●	
10EL300	L	●	

● : Line up

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

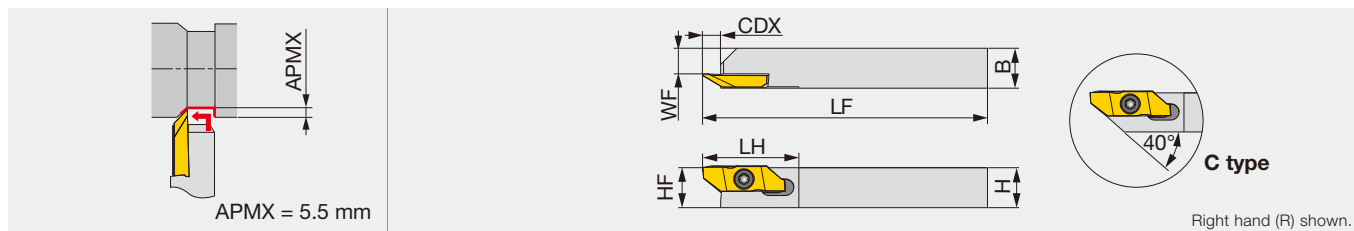
Formed examples of insert blanks



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...

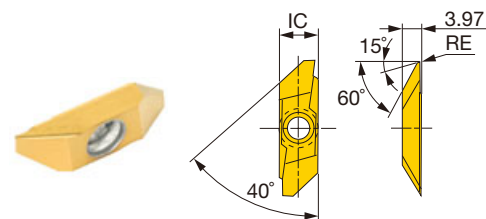
Can be used with JXT insert for threading.
Can be wrenched also from the back with a double-head screw.

SPARE PARTS

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

INSERT

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

● : Line up

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

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

STANDARD CUTTING CONDITIONS (JXB type insert)

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

Technical Guide

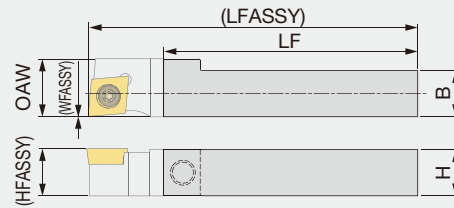
MINIFORCE STANDARD CUTTING CONDITIONS FOR EXTERNAL TURNING

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
	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.	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	Priority	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
S	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

Shank for modular heads



Designation	H	B	WFASSY	LF	OAW	HFASSY	LFASSY ⁽¹⁾	Torque*
QC-1212F	12	12	0	65	15	12	85	3
QC-1212X	12	12	0	100	15	12	120	3

Torque* : Recommended clamping torque (N·m)

(1) The size is true when the modular head with LH = 19.5 mm is mounted.

QC-1212-CHP

Shank for modular heads, with high pressure coolant capability

Tube connection

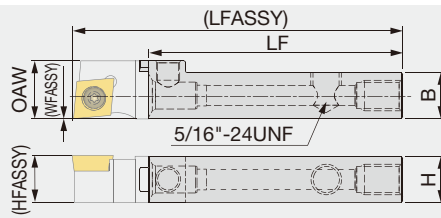


Fig.1

Direct connection

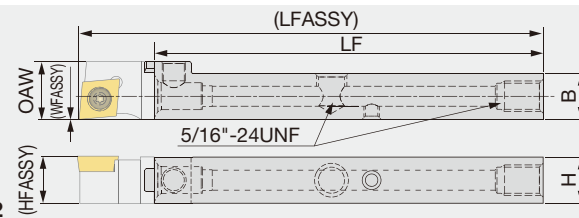


Fig.2

Designation	H	B	LF	WFASSY	OAW	HFASSY	LFASSY ⁽¹⁾	Torque*	Fig.
QC-1212F-CHP	12	12	65	0	15	12	85	3	1
QC-1212X-CHP (*)	12	12	100	0	15	12	120	3	2

Torque* : Recommended clamping torque (N·m)

Through-coolant shank

(*) : Compatible to the direct internal coolant supply system without the use of external coolant hose.

(1) The size is true when the modular head with LH = 19.5 mm is mounted.

QC-1216-F15-CHP

Stepped-head shank for modular heads, with high pressure coolant capability

Tube connection

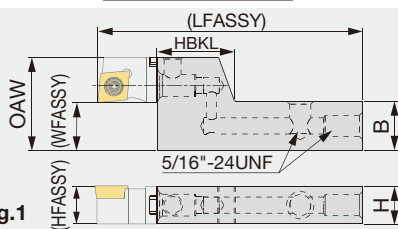


Fig.1

Direct connection

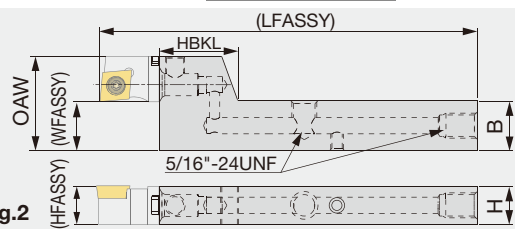


Fig.2

Designation	H	B	LF	OAW	WFASSY	HFASSY	LFASSY ⁽¹⁾	HBKL	Torque*	Fig.
QC-1216F-F15-CHP	12	16	65	30	15	12	85	25	3	1
QC-1216X-F15-CHP ⁽¹⁾	12	16	100	30	15	12	120	25	3	2

Torque* : Recommended clamping torque (N·m)

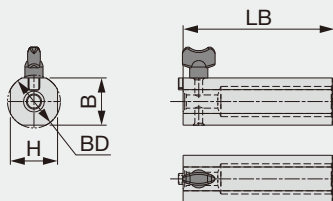
QC12 heads only can be mounted on these shanks.

(*) : Compatible to the direct internal coolant supply system without the use of external coolant hose.

(1) The size is true when the modular head with LH = 19.5 mm is mounted.

SPARE PARTS

Designation	Clamping screw	Wrench	Coolant plug	Wrench	DirectJet plug	Wrench
QC-1212*	SRM6X0.5-26977	P-3	-	-	-	-
QC-1212F-CHP, QC-1216F-F15-CHP	SRM6X0.5-26977	P-3	SR5/16UNFTL360	P-4	-	-
QC-1212X-CHP, QC-1216X-F15-CHP	SRM6X0.5-26977	P-3	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2



Designation	BD	LB	H	B
QC-12D28EXC	28	80	25	25

Note: This is a dedicated modular-head holder designed to facilitate insert changes. Do not use this holder for machining as it may cause damages to tool, workpiece, machine, and possible human injury.

SPARE PARTS



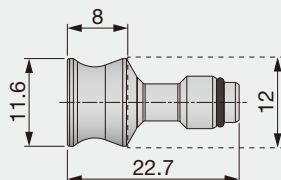
Designation	Fixing screw
QC-12D28EXC	KNOBM5X10



ModuMini-Turn modular heads are small. When it is difficult to change inserts while holding the modular head with fingers, use the dedicated holder to facilitate insert changes.

QC12-STOPPER

Protective plug for shank



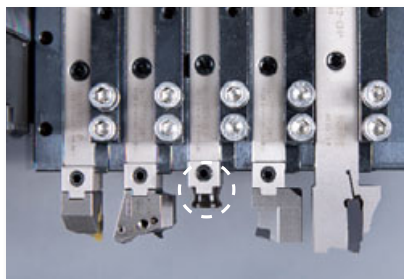
Designation

QC12-STOPPER

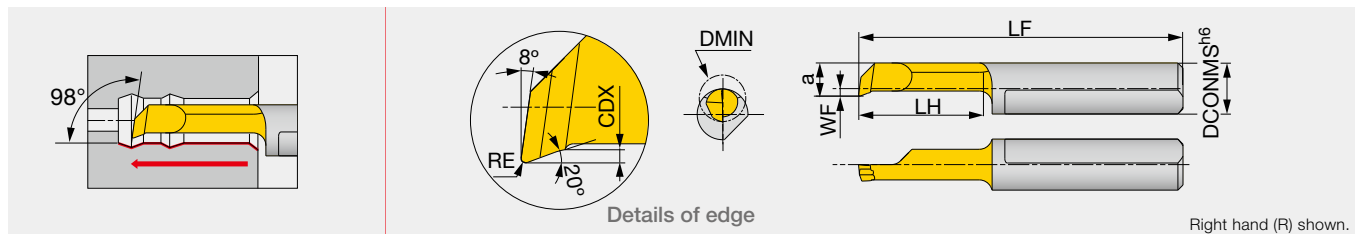
SPARE PARTS



Designation	O-ring
QC12-STOPPER	ORSS-0454.5X1.0NBR70

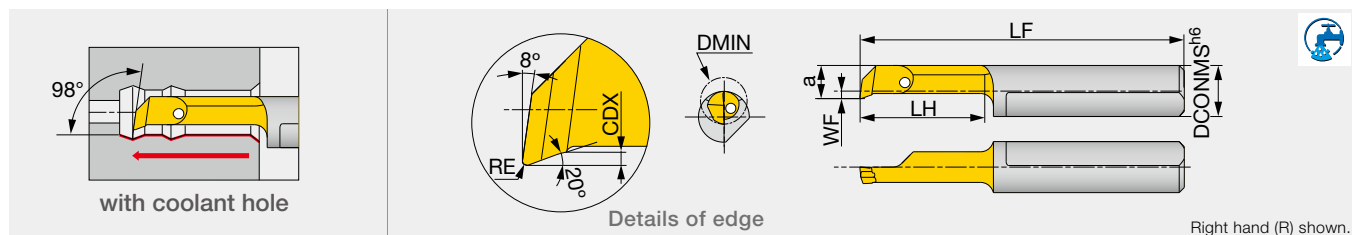


The cutting head located in the feed direction of the Y-axis tool can be removed to make room for machining larger-sized barstock. If this is the case, attach the plug to the shank to protect the coupling surface from chips, as well as prevent coolant leakage during machining.



Designation	SH725	DMIN	DCONMS	WF	a	LF	LH	CDX	RE ^{+0.05} ₀
TBTR04045005-D010	●	1	4	-1.1	0.9	21	4.5	0.1	0.05
TBTR04065005-D010	●	1	4	-1.1	0.9	23	6.5	0.1	0.05
TBTR04040005-D020	●	2	4	-0.3	1.7	20.5	4	0.1	0.05
TBTR04090005-D020	●	2	4	-0.3	1.7	25.5	9	0.1	0.05
TBTR04140005-D020	●	2	4	-0.3	1.7	30.5	14	0.1	0.05
TBTR/L04090010-D028	●	2.8	4	0.9	2.6	25.5	9	0.2	0.1
TBTR04150010-D028	●	2.8	4	0.9	2.6	31.5	15	0.2	0.1
TBTR04190010-D028	●	2.8	4	0.9	2.6	35.5	19	0.2	0.1
TBTR04090010-D040	●	4	4	1.5	3.5	25.5	9	0.3	0.1
TBTR04150010-D040	●	4	4	1.5	3.5	31.5	15	0.3	0.1
TBTR04190010-D040	●	4	4	1.5	3.5	35.5	19	0.3	0.1
TBTR04230010-D040	●	4	4	1.5	3.5	39.5	23	0.3	0.1
TBTR04270010-D040	●	4	4	1.5	3.5	43.5	27	0.3	0.1
TBTR07090015-D050	●	5	7	0.9	4.4	25	9	0.5	0.15
TBTR07140015-D050	●	5	7	0.9	4.4	30	14	0.5	0.15
TBTR07190015-D050	●	5	7	0.9	4.4	35	19	0.5	0.15
TBTR07240015-D050	●	5	7	0.9	4.4	40	24	0.5	0.15
TBTR07290015-D050	●	5	7	0.9	4.4	45	29	0.5	0.15
TBTR07340015-D050	●	5	7	0.9	4.4	50	34	0.5	0.15
TBTR07140015-D060	●	6	7	1.8	5.3	30	14	0.5	0.15
TBTR/L07210015-D060	●	6	7	1.8	5.3	37	21	0.5	0.15
TBTR07240015-D060	●	6	7	1.8	5.3	40	24	0.5	0.15
TBTR07290015-D060	●	6	7	1.8	5.3	45	29	0.5	0.15
TBTR07340015-D060	●	6	7	1.8	5.3	50	34	0.5	0.15
TBTR07410015-D060	●	6	7	1.8	5.3	57	41	0.5	0.15
TBTR07190015-D068	●	6.8	7	2.8	6.3	35	19	0.6	0.15
TBTR07240015-D068	●	6.8	7	2.8	6.3	40	24	0.6	0.15
TBTR07290015-D068	●	6.8	7	2.8	6.3	45	29	0.6	0.15
TBTR07340015-D070	●	7	7	2.8	6.3	50	34	0.6	0.15
TBTR07390015-D070	●	7	7	2.8	6.3	55	39	0.6	0.15
TBTR07440015-D070	●	7	7	2.8	6.3	60	44	0.6	0.15
TBTR07490015-D070	●	7	7	2.8	6.3	65	49	0.6	0.15

● : Line up

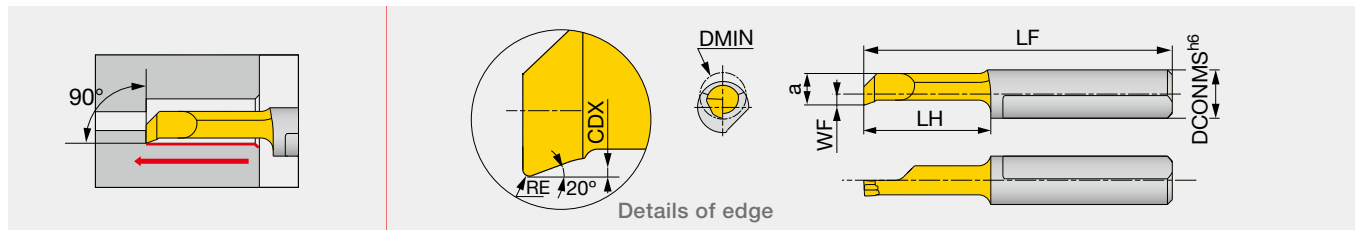


Designation	SH725	DMIN	DCONMS	WF	a	LF	LH	CDX	RE ^{+0.05} ₀
JBTR04020004-D006	●	0.6	4	-1.5	0.5	18.5	2	0.08	0.04
JBTR04030004-D006	●	0.6	4	-1.5	0.5	19.5	3	0.08	0.04
JBTR04045005-D010	●	1	4	-1.1	0.9	21	4.5	0.1	0.05
JBTR04065005-D010	●	1	4	-1.1	0.9	23	6.5	0.1	0.05
JBTR04040005-D020	●	2	4	-0.3	1.7	20.5	4	0.1	0.05
JBTR04090005-D020	●	2	4	-0.3	1.7	25.5	9	0.1	0.05
JBTR04140005-D020	●	2	4	-0.3	1.7	30.5	14	0.1	0.05
JBTR/L04090010-D028	●	2.8	4	0.9	2.6	25.5	9	0.2	0.1
JBTR/L04150010-D028	●	2.8	4	0.9	2.6	31.5	15	0.2	0.1
JBTR/L04190010-D028	●	2.8	4	0.9	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
JBTR07290015-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
JBTL07340015-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

TBPR

Solid boring bar for boring and chamfering

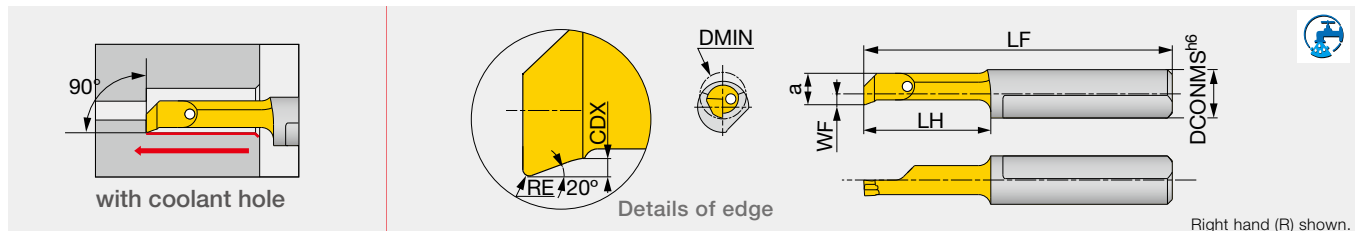


Designation	SH725	DMIN	DCONMS	WF	a	LF	LH	CDX	RE ^{+0.05} ₀
TBPR04090010-D028	●	2.8	4	0.9	2.6	25.5	9	0.2	0.1
TBPR04150010-D040	●	4	4	1.5	3.5	31.5	15	0.3	0.1
TBPR07140015-D050	●	5	7	0.9	4.4	30	14	0.5	0.15
TBPR07190015-D050	●	5	7	0.9	4.4	35	19	0.5	0.15

● : Line up

JBPR

Solid boring bar for boring and chamfering

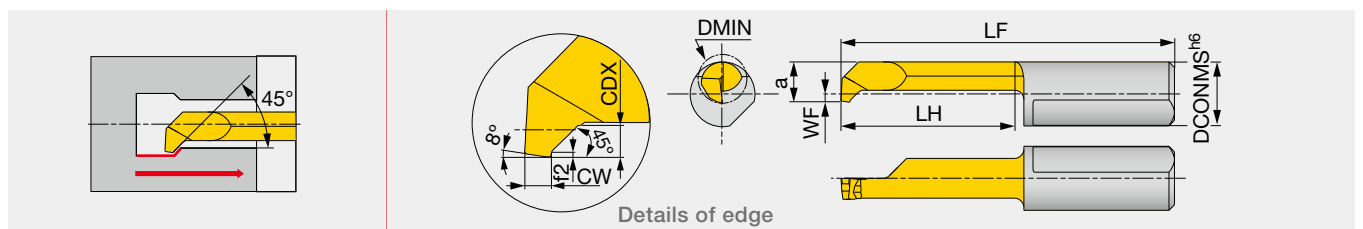


Designation	SH725	DMIN	DCONMS	WF	a	LF	LH	CDX	RE ^{+0.05} ₀
JBPR04090010-D028	●	2.8	4	0.9	2.6	25.5	9	0.2	0.1
JBPR04150010-D028	●	2.8	4	0.9	2.6	31.5	15	0.2	0.1
JBPR04090010-D040	●	4	4	1.5	3.5	25.5	9	0.3	0.1
JBPR04150010-D040	●	4	4	1.5	3.5	31.5	15	0.3	0.1
JBPR07140015-D050	●	5	7	0.9	4.4	30	14	0.5	0.15
JBPR07190015-D050	●	5	7	0.9	4.4	35	19	0.5	0.15

● : Line up

TBUR

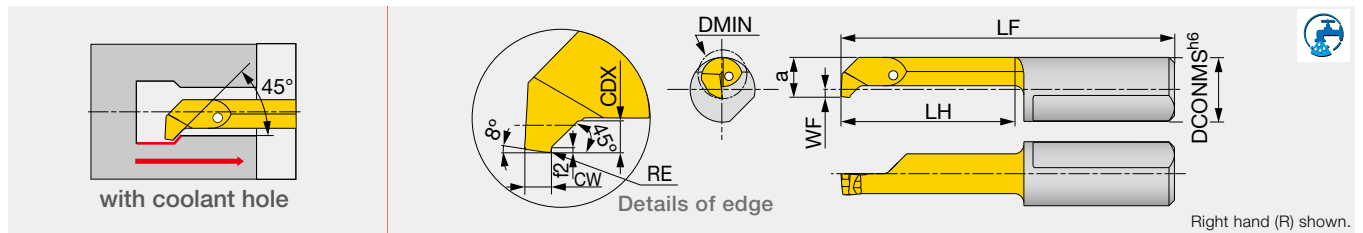
Solid boring bar for back boring and chamfering



Designation	SH725	DMIN	DCONMS	WF	a	LF	LH	f2	CDX	CW ^{+0.05} ₀
TBUR07140010-D050	●	5	7	0.9	4.4	30	14	0.2	1	1
TBUR07190010-D050	●	5	7	0.9	4.4	35	19	0.2	1	1

● : Line up

Solid boring bar for back boring and chamfering



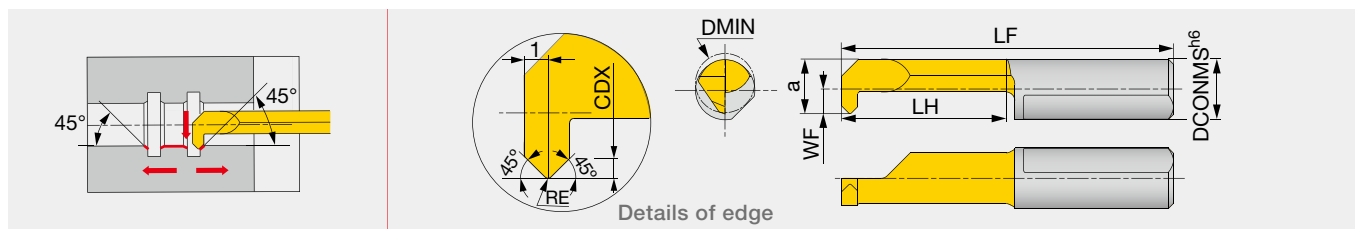
Designation	SH725	DMIN	DCONMS	WF	a	LF	LH	f2	CDX	CW ^{+0.05} ₀	RE
JBUR07140010-D050	●	5	7	0.9	4.4	30	14	0.2	1	1	0.1
JBUR07190010-D050	●	5	7	0.9	4.4	35	19	0.2	1	1	0.1

● : Line up



TBCR

Solid boring bar for boring and 45° chamfering



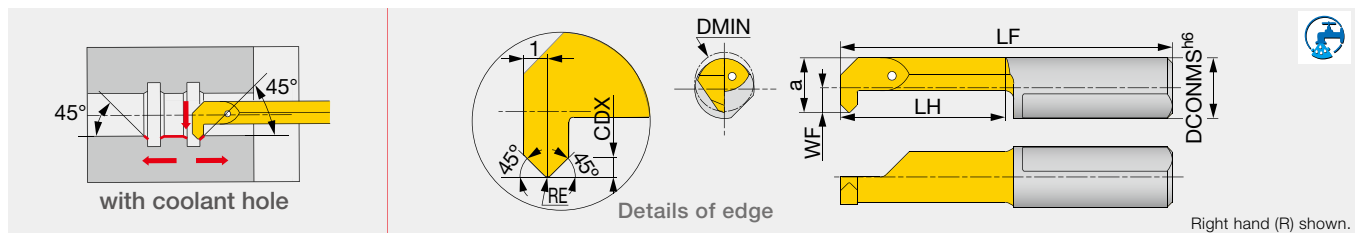
Designation	SH725	DMIN	DCONMS	WF	a	LF	LH	CDX	RE ^{+0.05} ₀
TBCR07140020-D050	●	5	7	0.9	4.4	30	14	0.7	0.2
TBCR07190020-D068	●	6.8	7	2.8	6.3	35	19	0.7	0.2

● : Line up



JBCR

Solid boring bar for boring and 45° chamfering

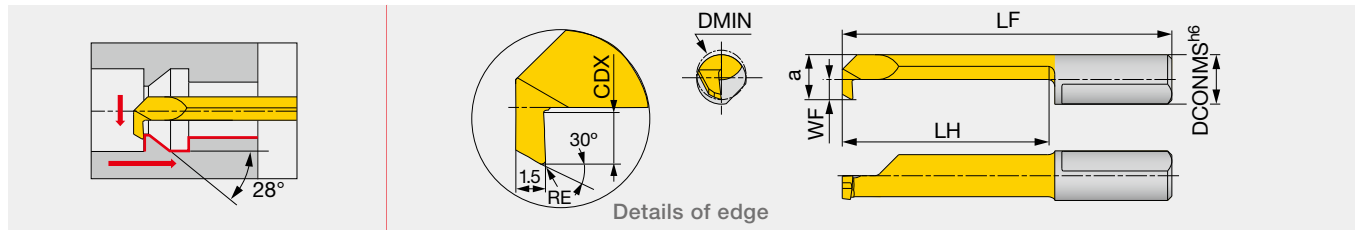


Designation	SH725	DMIN	DCONMS	WF	a	LF	LH	CDX	RE ^{±0.05}
JBCR07140020-D050	●	5	7	0.9	4.4	30	14	0.7	0.2
JBCR07190020-D050	●	5	7	0.9	4.4	35	19	0.7	0.2
JBCR07190020-D068	●	6.8	7	2.8	6.3	35	19	0.7	0.2

● : Line up

TBBR

Solid boring bar for back boring

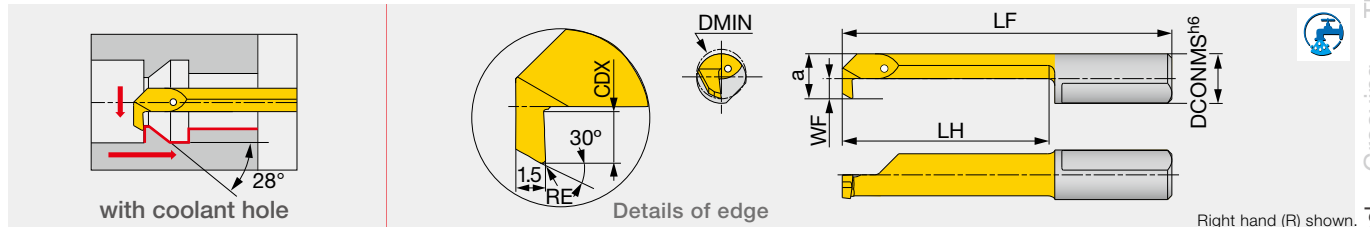


Designation	SH725	DMIN	DCONMS	WF	a	LF	LH	CDX	RE ^{+0.05} ₀
TBBR04140020-D030	●	3	4	0.6	2.6	30	14	0.5	0.2
TBBR04140015-D040	●	4	4	1.5	3.5	30	14	0.8	0.15
TBBR07190020-D050	●	5	7	0.9	4.4	35	19	1	0.2

● : Line up

JBBR

Solid boring bar for back boring



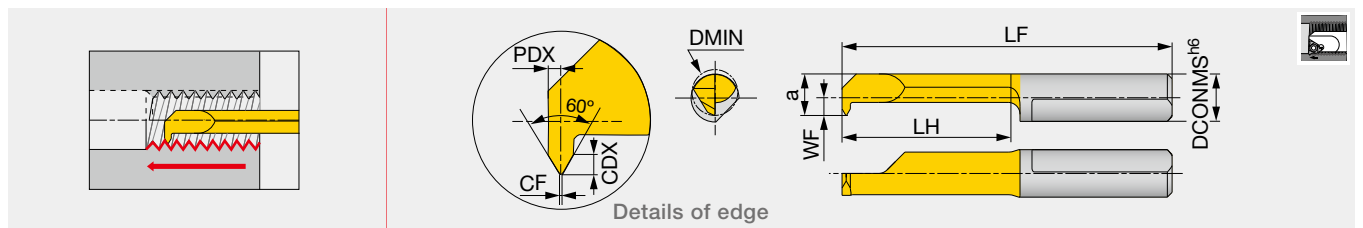
Right hand (R) shown.

Designation	SH725	DMIN	DCONMS	WF	a	LF	LH	CDX	RE ^{+0.05} ₀
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

TBIR

Solid boring bar for threading (metric)

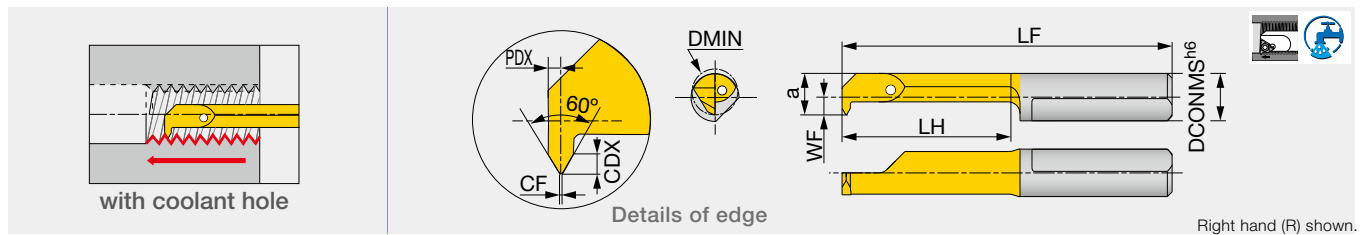


Designation	SH725	Pitch	DMIN	CF ⁰ _{-0.02}	DCONMS	WF	a	LF	LH	CDX	PDX
TBIR04140050-D040	●	0.5	4	0.06	4	1.5	3.5	30	14	0.3	0.35
TBIR07140050-D050	●	0.5	5	0.06	7	0.9	4.4	30	14	0.3	0.35
TBIR07140075-D050	●	0.75	5	0.09	7	0.9	4.4	30	14	0.4	0.45
TBIR07140100-D048	●	1	4.8	0.12	7	0.9	4.4	30	14	0.6	0.55
TBIR07140100-D060	●	1	6	0.12	7	1.8	5.3	30	14	0.6	0.55
TBIR07140150-D060	●	1.5	6	0.18	7	1.8	5.3	30	14	0.8	0.75

● : Line up

Reference pages : TBBR, JBBR, TBIR: Standard cutting conditions → **G109**

Solid boring bar for threading (metric)



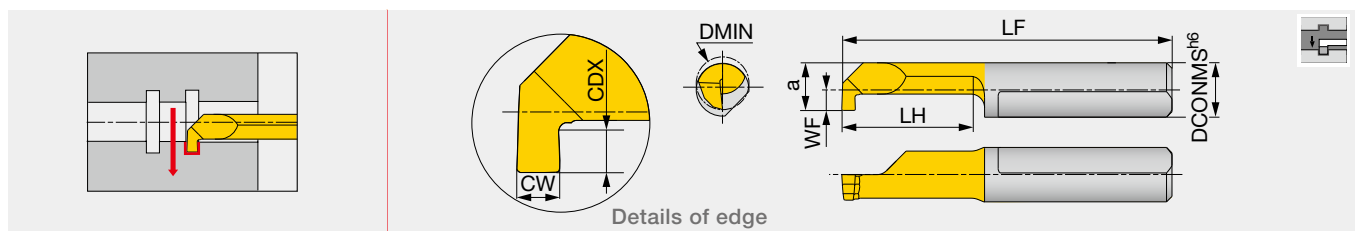
Designation	SH725	Pitch	DMIN	CF ^{0.02}	DCONMS	WF	a	LF	LH	CDX	PDX
JBIR04140050-D040	●	0.5	4	0.06	4	1.5	3.5	30	14	0.3	0.35
JBIR07140050-D050	●	0.5	5	0.06	7	0.9	4.4	30	14	0.3	0.35
JBIR07140075-D050	●	0.75	5	0.09	7	0.9	4.4	30	14	0.4	0.45
JBIR07140100-D048	●	1	4.8	0.12	7	0.9	4.4	30	14	0.6	0.55
JBIR07140100-D060	●	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



TBGR

Solid boring bar for internal grooving



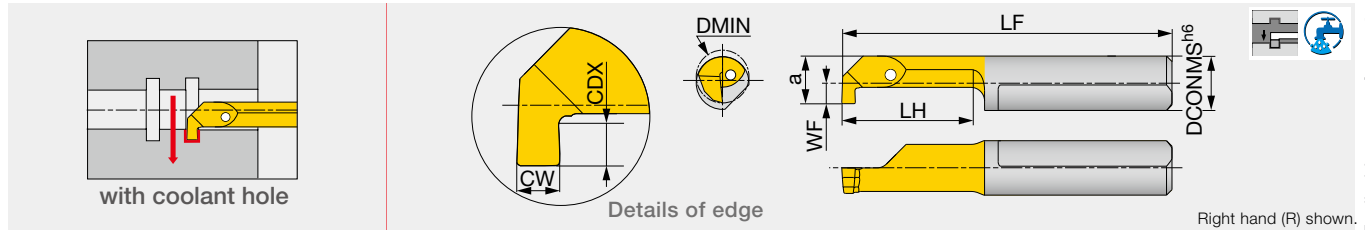
Designation	SH725	CW ^{+0.05} ₀	DMIN	DCONMS	WF	a	LF	LH	CDX
TBGR04100050-D020	●	0.5	2	4	-0.2	1.8	26	10	0.4
TBGR04090100-D040	●	1	4	4	1.5	3.5	25.5	9	0.8
TBGR04150100-D040	●	1	4	4	1.5	3.5	31.5	15	0.8
TBGR07090200-D050	●	2	5	7	0.9	4.4	25	9	1
TBGR07090100-D060	●	1	6	7	1.8	5.3	25	9	1.8
TBGR07140100-D060	●	1	6	7	1.8	5.3	30	14	1.8
TBGR07090150-D060	●	1.5	6	7	1.8	5.3	25	9	1.8
TBGR07090200-D060	●	2	6	7	1.8	5.3	25	9	1.8
TBGR07140200-D060	●	2	6	7	1.8	5.3	30	14	1.8
TBGR07090100-D068	●	1	6.8	7	2.7	6.2	25	9	2.5
TBGR07090150-D068	●	1.5	6.8	7	2.7	6.2	25	9	2.5
TBGR07140150-D068	●	1.5	6.8	7	2.7	6.2	30	14	2.5
TBGR07090200-D068	●	2	6.8	7	2.7	6.2	25	9	2.5
TBGR07140200-D068	●	2	6.8	7	2.7	6.2	30	14	2.5
TBGR07210200-D068	●	2	6.8	7	2.7	6.2	37	21	2.5
TBGR07290200-D068	●	2	6.8	7	2.7	6.2	45	29	2.5

Corner radius : less than 0.1 mm.

● : Line up

JBGR/L

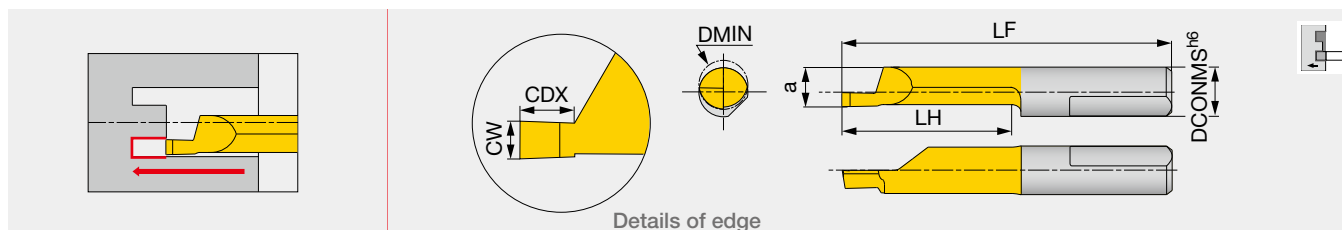
Solid boring bar for internal grooving



Designation	SH725	CW ^{+0.05} ₀	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	24	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



Designation	SH725	$CW^{+0.05}_0$	DMIN	DCONMS	a	LF	LH	CDX
TBFR07110100-D060	●	1	6	7	5.2	26	10	1.5
TBFR07110200-D060	●	2	6	7	5.2	26	10	3
TBFR07110100-D080	●	1	8	7	5.9	27	11	1.5
TBFR07110250-D080	●	2.5	8	7	5.9	27	11	3.5
TBFR07300300-D080	●	3	8	7	5.9	46	30	3.5
TBFR07200250-D150	●	2.5	15	7	5.9	36	20	20
TBFR07200300-D150	●	3	15	7	5.9	36	20	20
TBFR07300300-D150	●	3	15	7	5.9	46	30	30

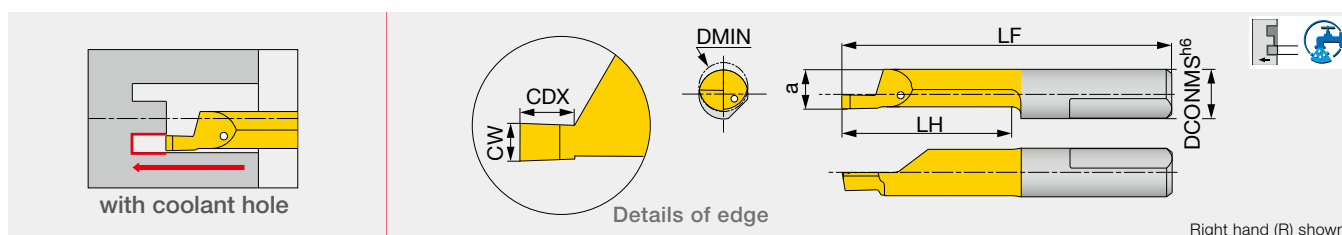
Corner radius : less than 0.1 mm.

● : Line up



JBFR/L

Solid boring bar for face grooving



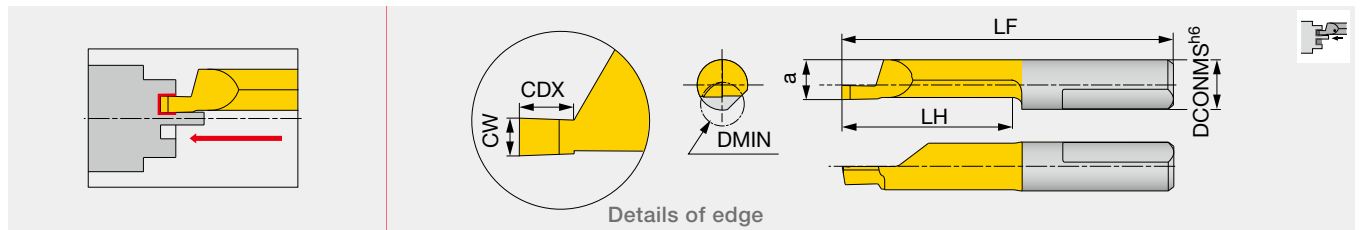
Designation	SH725	$CW^{+0.05}_0$	DMIN	DCONMS	a	LF	LH	CDX
JBFR07110100-D060	●	1	6	7	5.2	26	10	1.5
JBFR07110150-D060	●	1.5	6	7	5.2	26	10	2
JBFR07110200-D060	●	2	6	7	5.2	26	10	3
JBFR07110100-D080	●	1	8	7	5.9	27	11	1.5
JBFR07110150-D080	●	1.5	8	7	5.9	27	11	2.5
JBFR07110200-D080	●	2	8	7	5.9	27	11	3
JBFR07110250-D080	●	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

TBSR

Solid boring bar for face grooving (for shaft)



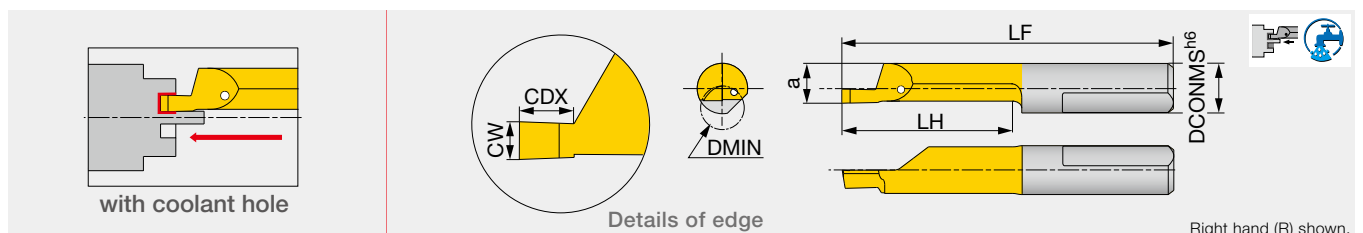
Designation	SH725	$CW^{+0.05}_0$	DMIN	DCONMS	a	LF	LH	CDX
TBSR07200200-D060	●	2	6	7	5.2	36	20	4

Corner radius : less than 0.1 mm.

● : Line up

JBSR

Solid boring bar for face grooving (for shaft)



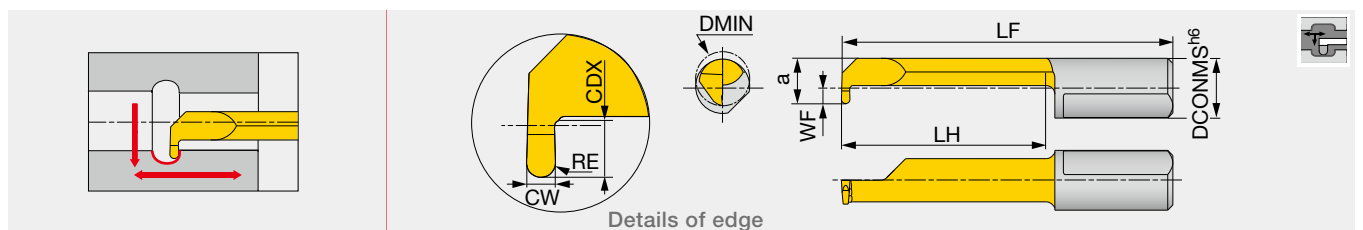
Designation	SH725	$CW^{+0.05}_0$	DMIN	DCONMS	a	LF	LH	CDX
JBSR07200200-D060	●	2	6	7	5.2	36	20	4

Corner radius: less than 0.1 mm

● : Line up

TBRR

Solid boring bar for boring and profiling

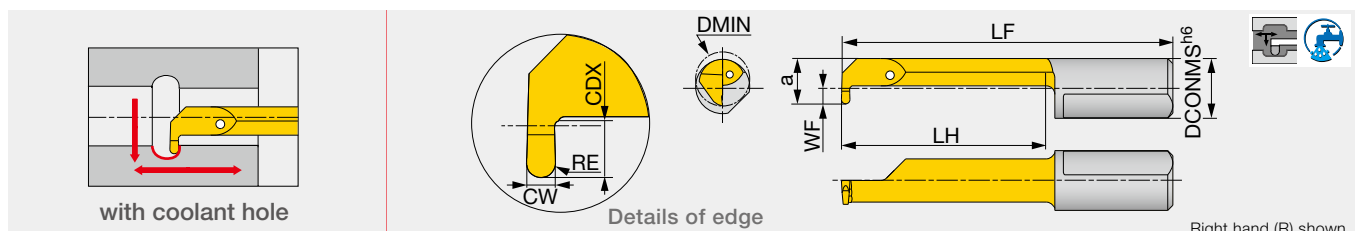


Designation	SH725	$CW^{+0.05}_0$	DMIN	DCONMS	WF	a	LF	LH	CDX	RE
TBRR07190050-D050	●	1	5	7	0.9	4.4	35	19	1	0.5
TBRR07240050-D060	●	1	6	7	1.8	5.3	40	24	1.8	0.5
TBRR07290050-D068	●	1	6.8	7	2.8	6.3	45	29	2.5	0.5

● : Line up

JBRR

Solid boring bar for boring and profiling

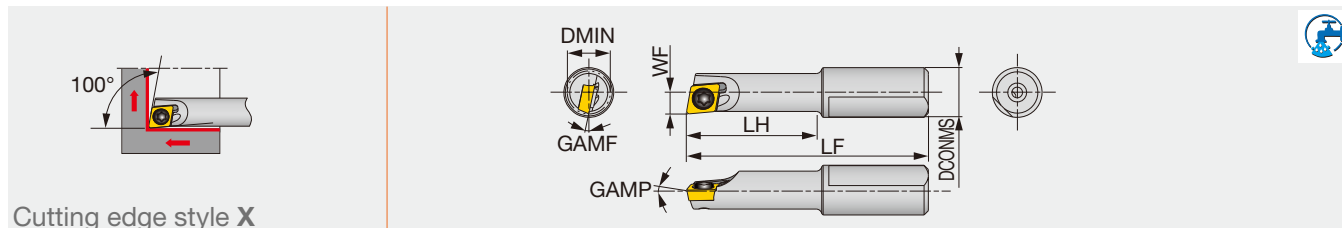


Designation	SH725	$CW^{+0.05}_0$	DMIN	DCONMS	WF	a	LF	LH	CDX	RE
JBRR07190050-D050	●	1	5	7	0.9	4.4	35	19	1	0.5
JBRR07240050-D060	●	1	6	7	1.8	5.3	40	24	1.8	0.5
JBRR07290050-D068	●	1	6.8	7	2.8	6.3	45	29	2.5	0.5

● : Line up

Reference pages : TBSR, JBSR, TBRR, JBRR: Standard cutting conditions → **G109**

Screw-on boring bar, for positive 75° rhombic inserts



Cutting edge style X

Designation	Material	DMIN	DCONMS	WF	LF	LH	GAMP	GAMF	RE**	Insert	Torque*
A07050-SEXPR03-3	Steel	5	7	2.5	31	15	0°	-13°	0.2	EPGT03X1...	0.6
A07060-SEXPR04-3	Steel	6	7	3.1	34	18	0°	-12°	0.2	EPGT0401...	0.6
E07050-SEXPR03-4	Carbide	5	7	2.5	37	20	0°	-13°	0.2	EPGT03X1...	0.6
E07050-SEXPR03-5	Carbide	5	7	2.5	42	25	0°	-13°	0.2	EPGT03X1...	0.6
E07060-SEXPR04-5	Carbide	6	7	3.1	46	30	0°	-12°	0.2	EPGT0401...	0.6

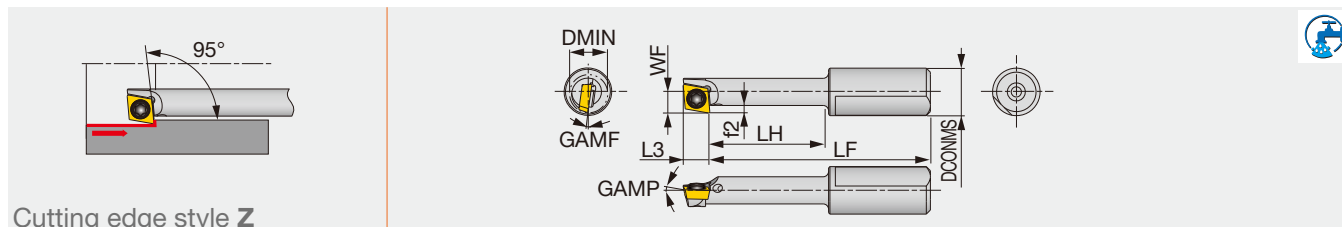
*Torque: Recommended clamping torque (N·m)

**RE : Standard corner radius

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

A/E-SEZPR

Screw-on boring bar, for positive 75° rhombic inserts



Cutting edge style Z

Designation	Material	DMIN	DCONMS	WF	LF	LH	f2	L3	GAMP	GAMF	RE**	Insert	Torque*
A07055-SEZPR03-3	Steel	5.5	7	3.2	32.5	16.5	1.2	3.9	0°	-8°	0.2	EPGT03X1...	0.6
E07055-SEZPR03-5	Carbide	5.5	7	3.2	44.7	27.5	1.2	3.9	0°	-8°	0.2	EPGT03X1...	0.6

*Torque: Recommended clamping torque (N·m)

**RE : Standard corner radius

Note: Use right-hand toolholders (SEZPR**) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench
A/E070**03-...	CSTA-1.6	T-6F
A/E070**04-...	CSTB-2	T-6F

INSERT SELECTION

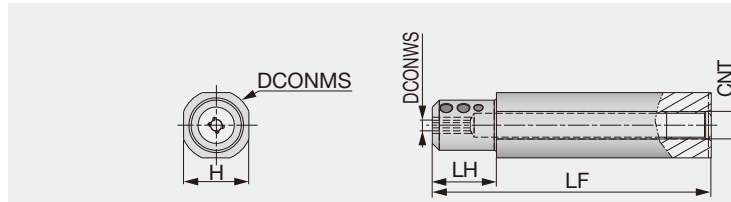
P	Application	Finishing	M	Application	Finishing	K	Application	Finishing	S	Application	Finishing
	Grade	SH725		Grade	SH725		Grade	SH725		Grade	SH725
	JS			JS			JS			JS	
	Breaker Shape			Breaker Shape			Breaker Shape			Breaker Shape	
Cutting conditions		B016	Cutting conditions		B018	Cutting conditions		B020	Cutting conditions		B024

N	Application	Precision finishing	Finishing	H	Application	Precision finishing
	Grade	DX140	SH725		Grade	BX310
	DIA		JS		CBN	
	Breaker Shape		Breaker Shape			
Cutting conditions		B022		Cutting conditions		B026

Reference pages: A/E-SEXPR, A/E-SEZPR: Insert → **B128 -**, CBN → **B195**, PCD → **B214**

JBBS-4N

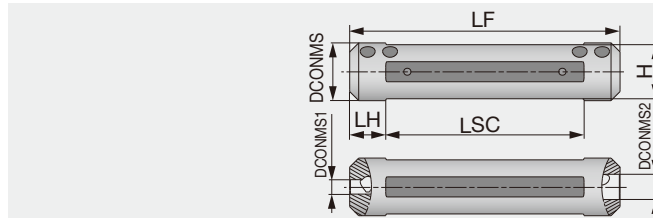
Sleeve for internal coolant supply with 4 coolant holes



Designation	DCONMS	DCONWS	LF	LH	H	CNT
JBBS12-4-L80C-4N	12	4	80	10	10.3	Rc1/16
JBBS127-4-L80C-4N	12.7	4	80	10	11.6	Rc1/16
JBBS14-4-L80C-4N	14	4	80	10	12	Rc1/8
JBBS159-4-L100C-4N	15.875	4	100	10	14.58	Rc1/8
JBBS159-7-L100C-4N	15.875	7	100	10	14.58	Rc1/8
JBBS16-4-L100C-4N	16	4	100	10	15	Rc1/8
JBBS16-7-L100C-4N	16	7	100	10	15	Rc1/8
JBBS19-4-L100C-4N	19.05	4	100	20	17.2	Rc1/8
JBBS19-7-L100C-4N	19.05	7	100	20	17.2	Rc1/8
JBBS20-4-L100C-4N	20	4	100	20	18	Rc1/8
JBBS20-7-L100C-4N	20	7	100	20	18	Rc1/8
JBBS22-4-L100C-4N	22	4	100	20	20	Rc1/8
JBBS22-7-L100C-4N	22	7	100	20	20	Rc1/8
JBBS25-4-L100C-4N	25	4	100	23	23	Rc1/8
JBBS25-7-L100C-4N	25	7	100	23	23	Rc1/8
JBBS254-4-L100C-4N	25.4	4	100	23	23.4	Rc1/8
JBBS254-7-L100C-4N	25.4	7	100	23	23.4	Rc1/8

JBBS

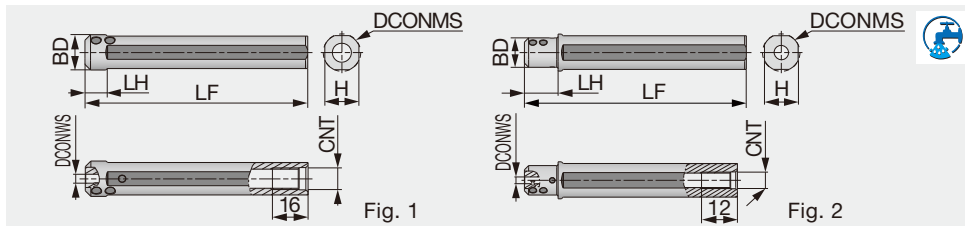
Sleeve for external coolant supply



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

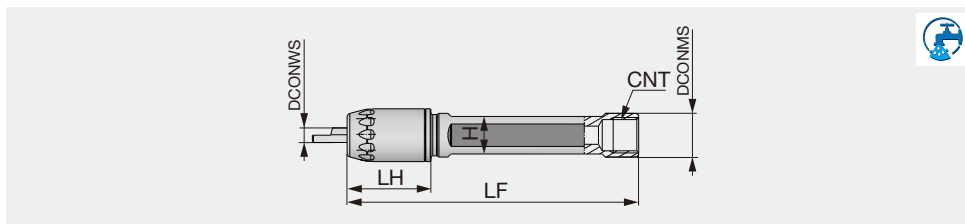
Designation	Clamping screw	Wrench
JBBS**-4-L**C-4N, JBBS127-4-4, JBBS**-4-7	SSHM5-6PF-S	P-2.5
JBBS**-7-L**C-4N, JBBS12-4-4, JBBS14-4-4	SSHM5-4PF-S	P-2.5



Designation	DCONMS	BD	DCONWS	LF	LH	H	CNT	Fig.
JBBS159-4-L100C	15.875	15.875	4	100	10	14.58	Rc1/8	1
JBBS159-7-L100C	15.875	15.875	7	100	10	14.58	Rc1/8	1
JBBS16-4-L100C	16	16	4	100	10	15	Rc1/8	1
JBBS16-7-L100C	16	16	7	100	10	15	Rc1/8	1
JBBS19-4-L100C	19.05	17.5	4	100	20	17.2	Rc1/8	2
JBBS19-7-L100C	19.05	17.5	7	100	20	17.2	Rc1/8	2
JBBS20-4-L100C	20	17.5	4	100	20	18	Rc1/8	2
JBBS20-7-L100C	20	17.5	7	100	20	18	Rc1/8	2
JBBS22-4-L100C	22	17.5	4	100	20	20	Rc1/8	2
JBBS22-7-L100C	22	17.5	7	100	20	20	Rc1/8	2
JBBS25-4-L100C	25	18	4	100	23	23	Rc1/8	2
JBBS25-7-L100C	25	18	7	100	23	23	Rc1/8	2
JBBS254-4-L100C	25.4	18	4	100	23	23.4	Rc1/8	2
JBBS254-7-L100C	25.4	18	7	100	23	23.4	Rc1/8	2

JBBSA-C

Collet chuck sleeve for solid carbide bars



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	Clamping screw	Cap	Wrench	Wrench 1
JBBS**-4-L100C	SSHM5-6PF-S		P-2.5	-
JBBS**-7-L100C	SSHM5-4PF-S		P-2.5	-
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)	
P	Low carbon steels S15C, S25C, etc. C15E, C15E4, etc.	SH730, SH725	40 - 140	0.01 - 0.08	Insert
	Carbon steels, Alloy steels S55C, SCM440, etc. C55, 42CrMo4, etc.	SH730, SH725	40 - 140	0.01 - 0.08	
	Prehardened steels NAK80, PX5, etc.	SH730, SH725	40 - 140	0.01 - 0.08	
M	Stainless steels SUS304, SUS316, etc. X5CrNi18-9, X5CrNiMo17-12-3, etc.	SH730, SH725	40 - 140	0.01 - 0.08	Ext. Toolholder
K	Grey cast irons FC250, FCD300, etc. GG25, 250, GG30, 300, etc.	SH730, SH725	30 - 100	0.01 - 0.08	Int. Toolholder
	Ductile cast irons FC450, FCD600, etc. GGG60, 600-3, etc.	SH730, SH725	30 - 100	0.01 - 0.08	
N	Aluminium alloys, Copper alloys Si < 12%	SH730, SH725	90 - 200	0.01 - 0.08	
S	Titanium alloys Ti-6Al-4V, etc.	SH730, SH725	30 - 100	0.01 - 0.08	Threading
	Superalloys Inconel718, etc.	SH730, SH725	30 - 100	0.01 - 0.08	

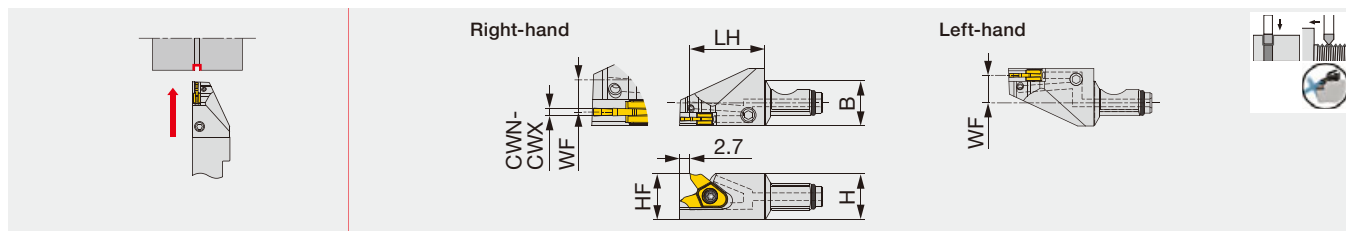
Threading (metric thread)

ISO	Workpiece material	Grade	Cutting speed Vc (m/min)	Number of passes Pitch (mm)					
				0.5	0.75	1	1.25	1.5	
P	Low carbon steels S15C, S25C, etc. C15E, C15E4, etc.	SH730, SH725	40 - 140	6 - 8	8 - 10	10 - 12	12 - 15	15 - 18	Grooving
	Carbon steels, Alloy steels S55C, SCM440, etc. C55, 42CrMo4, etc.	SH730, SH725	40 - 140	6 - 8	8 - 10	10 - 12	12 - 15	15 - 18	
	Prehardened steels NAK80, PX5, etc.	SH730, SH725	40 - 140	6 - 8	8 - 10	10 - 12	12 - 15	15 - 18	Miniature tool
M	Stainless steels SUS304, SUS316, etc. X5CrNi18-9, X5CrNiMo17-12-3, etc.	SH730, SH725	40 - 140	8	10	12	15	18	
K	Grey cast irons FC250, FCD300, etc. GG25, 250, GG30, 300, etc.	SH730, SH725	30 - 100	7	9	12	14	17	Milling cutter
	Ductile cast irons FC450, FCD600, etc. GGG60, 600-3, etc.	SH730, SH725	30 - 100	7	9	12	14	17	
N	Aluminium alloys, Copper alloys Si < 12%	SH730, SH725	90 - 200	6	8	10	12	15	Endmill

Internal and face grooving

ISO	Workpiece material	Grade	Cutting speed Vc (m/min)	Feed: f (mm/rev)		
				Internal grooving	Face grooving	
P	Low carbon steels S15C, S25C, etc. C15E, C15E4, etc.	SH730, SH725	40 - 140	0.01 - 0.03	0.01 - 0.05	Drilling tool
	Carbon steels, Alloy steels S55C, SCM440, etc. C55, 42CrMo4, etc.	SH730, SH725	40 - 140	0.01 - 0.03	0.01 - 0.05	
	Prehardened steels NAK80, PX5, etc.	SH730, SH725	40 - 140	0.01 - 0.03	0.01 - 0.05	
M	Stainless steels SUS304, SUS316, etc. X5CrNi18-9, X5CrNiMo17-12-3, etc.	SH730, SH725	40 - 140	0.01 - 0.03	0.01 - 0.05	Tooling System
K	Grey cast irons FC250, FCD300, etc. GG25, 250, GG30, 300, etc.	SH730, SH725	30 - 100	0.01 - 0.03	0.01 - 0.05	
	Ductile cast irons FC450, FCD600, etc. GGG60, 600-3, etc.	SH730, SH725	30 - 100	0.01 - 0.03	0.01 - 0.05	User's Guide
N	Aluminium alloys, Copper alloys Si < 12%	SH730, SH725	90 - 200	0.01 - 0.03	0.01 - 0.05	
S	Titanium alloys Ti-6Al-4V, etc.	SH730, SH725	30 - 100	0.01 - 0.03	0.01 - 0.05	
	Superalloys Inconel718, etc.	SH730, SH725	30 - 100	0.01 - 0.03	0.01 - 0.05	Index

Modular head for external grooving and threading, with high pressure coolant capability



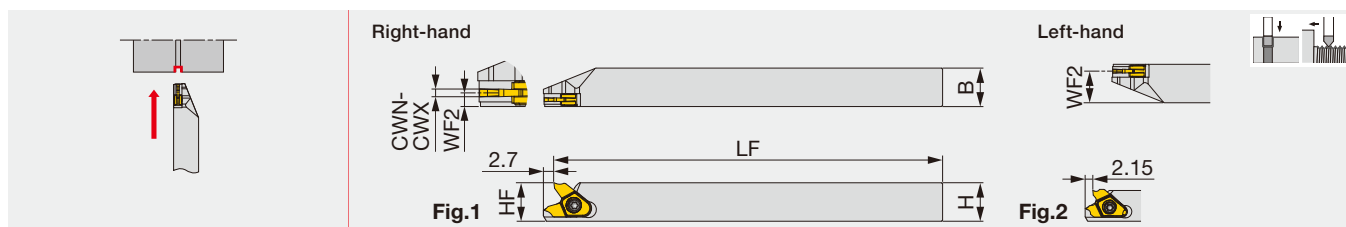
Designation	CWN	CWX	H	B	LH	HF	WF ⁽¹⁾	Insert	Torque*
QC12-SVER/L10-CHP	0.5	1	12	12	19.5	12	4.19/7.19	VG*10...	1.3

Torque*: Recommended clamping torque (N-m)

(1) "WF" indicates the distance from the reference position to the center of the cutting edge width. The first value before "/" indicates the WF for the right-hand holder and the second value after "/" for the left-hand holder.

SVER/L

External grooving and threading toolholder



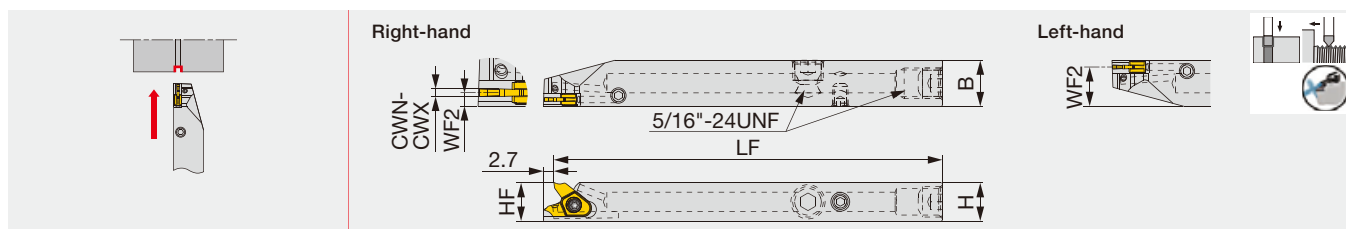
Designation	CWN	CWX	H	B	LF	HF	WF2 ⁽¹⁾	Insert	Torque*	Fig.
SVER/L0808H08	0.33	1	8	8	100	8	1.23/6.78	VGP08...	1.1	2
SVER/L1010H10	0.5	1	10	10	100	10	1.78/8.23	VG*10...	1.3	1
SVER/L1212X10	0.5	1	12	12	120	12	1.78/10.23	VG*10...	1.3	1

Torque*: Recommended clamping torque (N-m)

(1) "WF" indicates the distance from the reference position to the center of the cutting edge width. The first value before "/" indicates the WF for the right-hand holder and the second value after "/" for the left-hand holder.

SVER/L-CHP

External grooving and threading toolholder, with high pressure coolant capability



Designation	CWN	CWX	H	B	LF	HF	WF2 ⁽¹⁾	Insert	Torque*
SVER/L1012H10-CHP	0.5	1	10	12	100	10	1.78/10.23	VG*10...	1.3
SVER/L1212X10-CHP	0.5	1	12	12	120	12	1.78/10.23	VG*10...	1.3

Compatible to the direct internal coolant supply system without the use of external coolant hose.

Torque*: Recommended clamping torque (N-m)

(1) "WF" indicates the distance from the reference position to the center of the cutting edge width. The first value before "/" indicates the WF for the right-hand holder and the second value after "/" for the left-hand holder.

SPARE PARTS

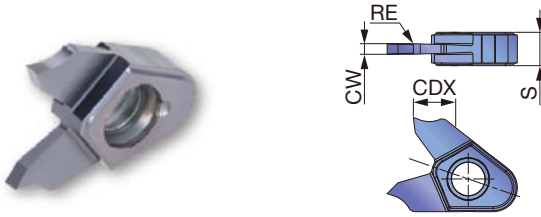
Designation	Clamping screw	Coolant plug	DirectJet plug	Wrench	Wrench 1	Wrench 2	O-ring
QC12-SVER10-CHP	CSTB-2.5L054DL	-	-	-	-	-	ORSS-0454.5X1.0NBR70
QC12-SVEL10-CHP	CSTB-2.5L054DR	-	-	-	-	-	ORSS-0454.5X1.0NBR70
SVER0808...	CSTB-2.2L053DL	-	-	T-7F	-	-	-
SVEL0808...	CSTB-2.2L053DR	-	-	T-7F	-	-	-
SVER1012/1212...	CSTB-2.5L054DL	SR5/16UNFTL360	SSH4-6-TB	T-7F	P-4	P-2	-
SVEL1012/1212...	CSTB-2.5L054DR	SR5/16UNFTL360	SSH4-6-TB	T-7F	P-4	P-2	-

Reference pages : QC12-SVER/L-CHP, SVER/L, SVER/L-CHP:

Shank, accessory → **G095**, **G096**, Standard cutting condition → **G112**

INSERTS

VGP08/10 (For grooving / sharp edge)



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

★ : First choice

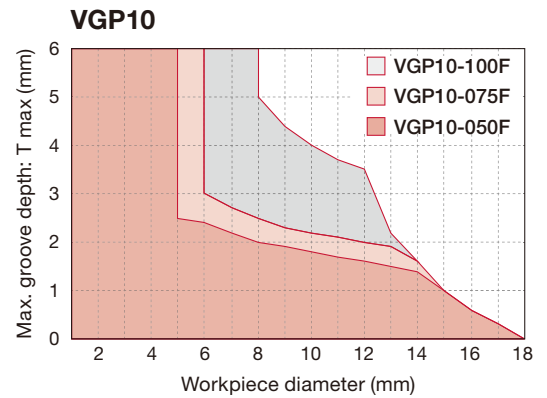
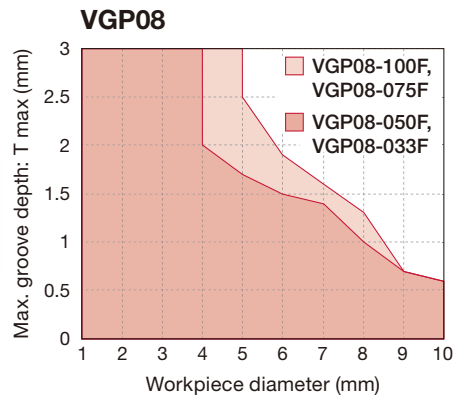
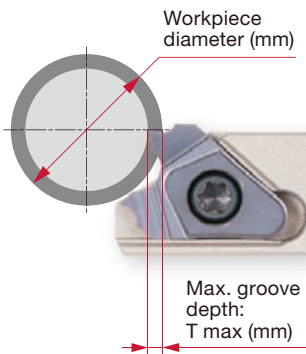
Designation	CW±0.025	RE	Coated					CDX*	CUTDIA	S
			SH725							
VGP08-033F-000	0.33	0	●					2	4	2.2
VGP08-050F-000	0.5	0	●					2	4	2.2
VGP08-075F-000	0.75	0	●					2.5	5	2.2
VGP08-100F-000	1	0	●					2.5	5	2.2
VGP10-050F-000	0.5	0	●					2.5	5	3.15
VGP10-050F-005	0.5	0.05	●					2.5	5	3.15
VGP10-075F-000	0.75	0	●					3	6	3.15
VGP10-075F-005	0.75	0.05	●					3	6	3.15
VGP10-100F-000	1	0	●					4	8	3.15
VGP10-100F-005	1	0.05	●					4	8	3.15

*Max grooving depth varies depending on workpiece diameters.
See below for details.

● : Line up

Note: Max grooving depths vs workpiece diameters

To avoid tool interference with the workpiece, max grooving depths (T max) for the insert used may be smaller than the CDX values listed above depending on the workpiece diameter.

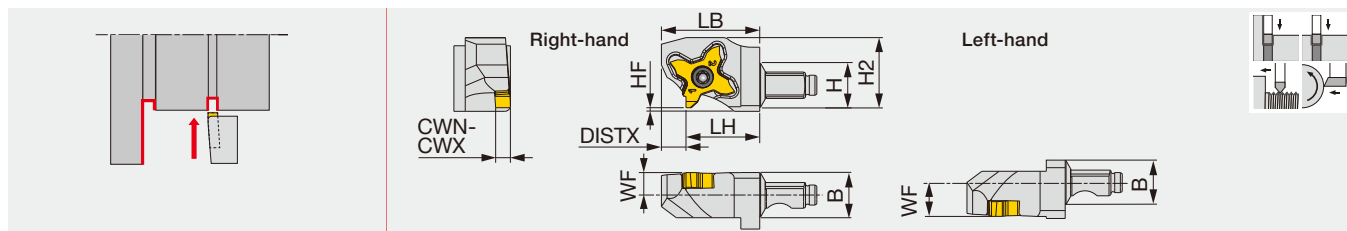


STANDARD CUTTING CONDITIONS

Grooving

ISO	Workpiece materials	Grade	Cutting speed V _c (m/min)	Feed f (mm/rev)
P	Low carbon steels S15C, SS400, etc. C15E4, E275A, etc.	SH725	50 - 150	0.005 - 0.1
	Carbon steels, Alloy steels S55C, SCM440, etc. C55, 42CrMo4, etc.	SH725	50 - 150	0.005 - 0.1
	Free cutting steels SUH22, SUH23, etc.	SH725	50 - 150	0.005 - 0.1
M	Stainless steels SUS304, X5CrNi18-9, etc.	SH725	50 - 100	0.005 - 0.1
N	Aluminium alloys A5056, A6061, etc.	SH725	150 - 200	0.005 - 0.1
	Copper alloy C2600, C280C, etc.	SH725	100 - 200	0.005 - 0.1
S	Titanium alloys Ti-6Al-4V, etc.	SH725	30 - 80	0.005 - 0.1
	Superalloys Inconel718, etc.	SH725	30 - 80	0.005 - 0.1





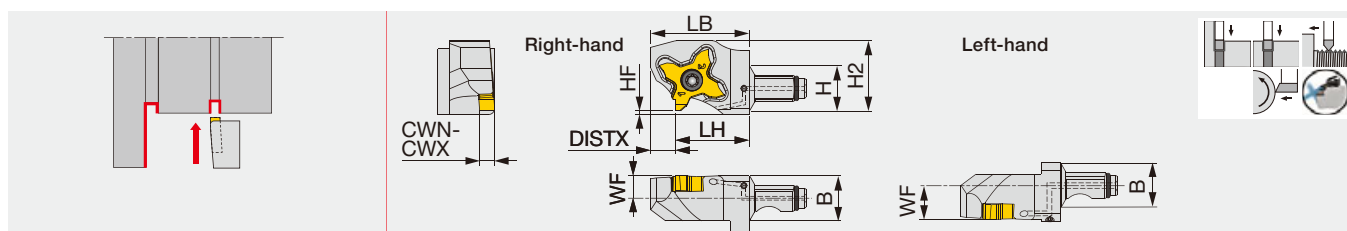
Designation	CWN	CWX	H	B	LH	HF	WF	LB	H2	DISTX	Insert	Torque*
QC12-STCR/L18-Y	0.33	3.18	12	12	19.5	0	6	26	18.6	6.5	TC*18R/L...	1.2

Torque*: Recommended clamping torque (N-m)

The right hand insert (R) is used for the right hand toolholders (R), and the left hand insert (L) is used for the left hand toolholders (L).

QC12-STCR/L-Y-CHP

Y-axis turning modular head for external grooving and threading, with high pressure coolant capability



Designation	CWN	CWX	H	B	LH	HF	WF	LB	H2	DISTX	Insert	Torque*
QC12-STCR/L18-Y-CHP	0.33	3.18	12	12	19.5	0	6	26	18.6	6.5	TC*18R/L...	1.2

Torque*: Recommended clamping torque (N-m)

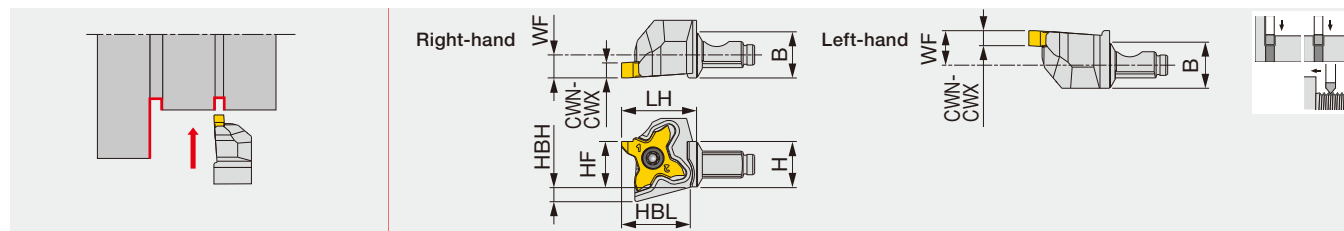
The right hand insert (R) is used for the right hand toolholders (R), and the left hand insert (L) is used for the left hand toolholders (L).

Through-coolant head

SPARE PARTS

Designation	Clamping screw	Wrench	O-ring
QC12-STCR18-Y, QC12-STCR18	CSTC-4L100DL	T-1008/5	-
QC12-STCL18-Y, QC12-STCL18	CSTC-4L100DR	T-1008/5	-
QC12-STCR18-Y-CHP	CSTC-4L100DL	T-1008/5	ORSS-0454.5X1.0NBR70
QC12-STCL18-Y-CHP	CSTC-4L100DR	T-1008/5	ORSS-0454.5X1.0NBR70

Modular head for external grooving and threading



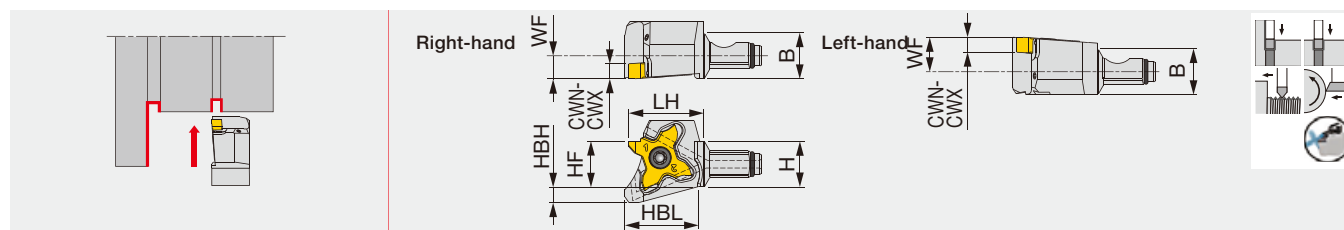
Designation	CWN	CWX	H	B	LH	HF	HBH	HBL	WF	Insert	Torque*
QC12-STCR18	0.33	3.18	12	12	19.5	12	3.9	17.9	6	TC*18R...	1.2
QC12-STCL18	0.33	3.18	12	12	21	12	3.9	18.3	9	TC*18L...	1.2

Torque*: Recommended clamping torque (N-m)

The right hand insert (R) is used for the right hand toolholders (R), and the left hand insert (L) is used for the left hand toolholders (L).

QC12-STCR/L-CHP

Modular head for external grooving and threading, with high pressure coolant capability



Designation	CWN	CWX	H	B	LH	HF	HBH	HBL	WF	Insert	Torque*
QC12-STCR/L18-CHP	0.33	3.18	12	12	21	12	4.2	19.3	9	TC*18R/L...	1.2

Torque*: Recommended clamping torque (N-m)

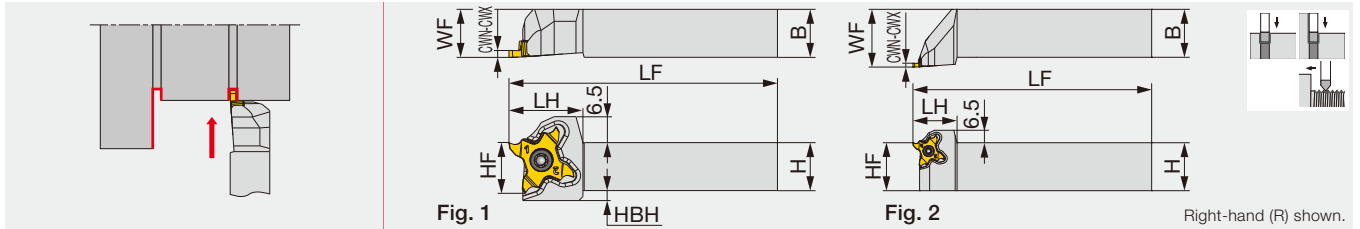
The right hand insert (R) is used for the right hand toolholders (R), and the left hand insert (L) is used for the left hand toolholders (L).

SPARE PARTS

Designation	Clamping screw	Wrench	O-ring
QC12-STCR18	CSTC-4L100DL	T-1008/5	-
QC12-STCL18	CSTC-4L100DR	T-1008/5	-
QC12-STCR18-CHP	CSTC-4L100DL	T-1008/5	ORSS-0454.5X1.0NBR70
QC12-STCL18-CHP	CSTC-4L100DR	T-1008/5	ORSS-0454.5X1.0NBR70

STCR/L-18

External grooving and threading toolholder



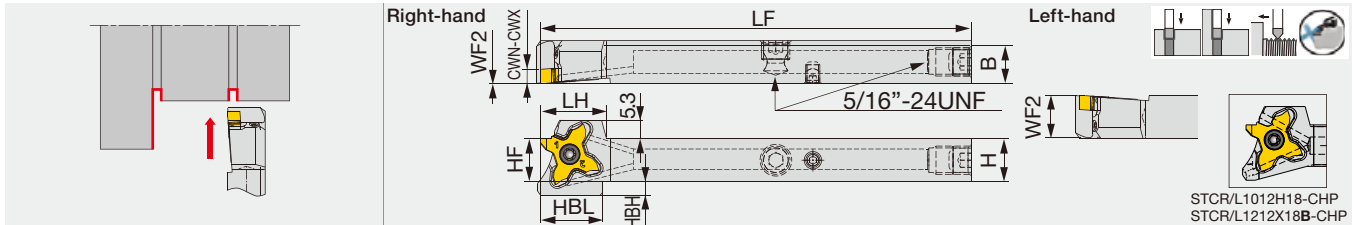
Designation	CWN	CWX	H	B	LF	LH	HF	WF	HBH	Insert	Torque*	Fig.
STCR/L1010X18	0.33	3.18	10	10	120	18.5	10	10	4.5	TC*18...	1.2	1
STCR/L1212F18	0.33	3.18	12	12	85	18.5	12	12	2.5	TC*18...	1.2	1
STCR/L1212X18	0.33	3.18	12	12	120	18.5	12	12	2.5	TC*18...	1.2	1
STCR/L1616X18	0.33	3.18	16	16	120	18.5	16	16	-	TC*18...	1.2	1
STCR/L2020H18	0.33	3.18	20	20	100	18.5	20	20	-	TC*18...	1.2	1
STCR/L2020X18	0.33	3.18	20	20	120	23	20	25	-	TC*18...	1.2	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 clamping torque: N·m

STCR/L-H/X18-CHP

Direct connection

External grooving and threading toolholder, with high pressure coolant capability



Designation	CWN	CWX	H	B	LF	LH	HBL	HF	WF2	HBH	Insert	Torque*
STCR/L1012H18-CHP	0.33	3.18	10	12	100	17.1	17.1	10	0/12	4	TC**18	1.2
STCR/L1212X18B-CHP	0.33	3.18	12	12	120	18.5	17.5	12	0/12	4	TC**18	1.2
STCR/L1616X18-CHP	0.33	3.18	16	16	120	18.5	-	16	0/16	0	TC**18	1.2

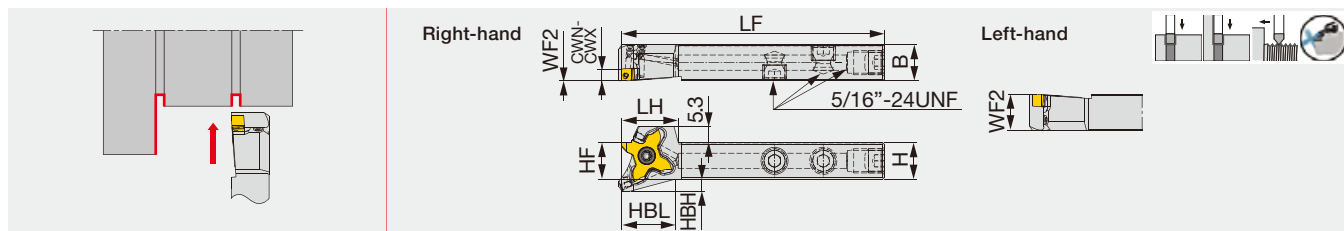
The right hand insert (TC*18R...) is used for the right hand toolholders (STCR...), and the left hand insert (TC*18L...) is used for the left hand toolholders (STCL...).
 *Torque: Recommended torque (N·m) for clamping

SPARE PARTS

Designation	Clamping screw	Wrench	Coolant plug	Wrench	DirectJet plug	Wrench
STCR**18	CSTC-4L100DL	T-1008/5	-	-	-	-
STCL**18	CSTC-4L100DR	T-1008/5	-	-	-	-
STCL**18-CHP	CSTC-4L100DR	T-1008/5	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2
STCR**18-CHP	CSTC-4L100DL	T-1008/5	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2

Threading pitch range: 0.8 ~ 3.0 mm

External grooving and threading toolholder, with high pressure coolant capability

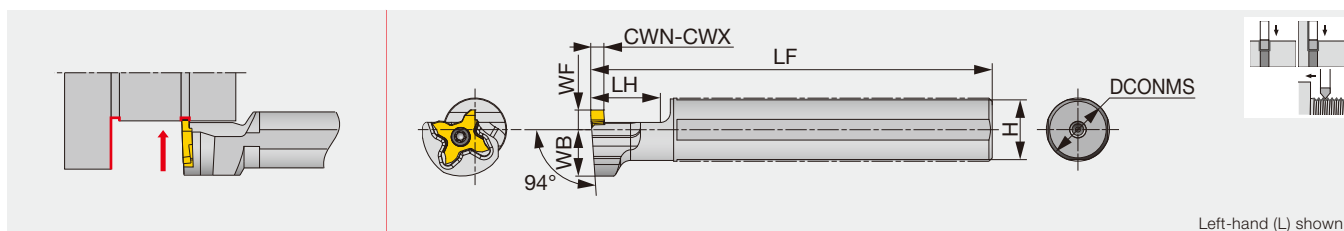


Designation	CWN	CWX	H	B	LF	LH	HBL	HF	WF2 ⁽¹⁾	HBH	Insert	Torque*
STCR/L1212F18B-CHP	0.33	3.18	12	12	85	18.5	17.5	12	0/12	4	TC**18	1.2

The right hand insert (TC*18R**) is used for the right hand toolholders (STCR**), and the left hand insert (TC*18L**) is used for the left hand toolholders (STCL**).
 (1) "0/12" for the WF dimension indicates WF = 0 for the right handed tool, WF = 12 for the left handed tool.
 *Torque: Recommended torque (N-m) for clamping

JS-STCL18

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



Designation	CWN	CWX	DCONMS	LF	LH	H	WB	WF	Insert	Torque*
JS14H-STCL18	0.33	3.18	14	100	20	13	14	6	TC*18R...	1.2
JS159F-STCL18	0.33	3.18	15.875	85	20	15	14	6	TC*18R...	1.2
JS16F-STCL18	0.33	3.18	16	85	20	15	14	6	TC*18R...	1.2
JS19G-STCL18	0.33	3.18	19.05	90	20	18	14	6	TC*18R...	1.2
JS19X-STCL18	0.33	3.18	19.05	120	20	18	14	6	TC*18R...	1.2
JS20G-STCL18	0.33	3.18	20	90	20	19	14	6	TC*18R...	1.2
JS20X-STCL18	0.33	3.18	20	120	20	19	14	6	TC*18R...	1.2
JS22X-STCL18	0.33	3.18	22	120	20	21	12.25	10	TC*18R...	1.2
JS25H-STCL18	0.33	3.18	25	100	20	24	12.25	10	TC*18R...	1.2
JS254X-STCL18	0.33	3.18	25.4	120	20	24	12.25	10	TC*18R...	1.2

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

SPARE PARTS

Designation	Clamping screw	Wrench	Coolant plug	Wrench
STCL**F18B-CHP	CSTC-4L100DR	T-1008/5	SR5/16UNFTL360	P-4
STCR**F18B-CHP	CSTC-4L100DL	T-1008/5	SR5/16UNFTL360	P-4
JS...STCL18	CSTC-4L100DL	T-1008/5	-	-

Threading pitch range: 0.8 - 3.0 mm

Selection guide for TetraMini-Cut inserts

Groove width CW (mm)	Corner rad. RE (mm)	TCL18R/L (G118 page)	TCS18R/L (G118 page -)	TCG18R/L (G120 page -)	TCP18R/L (G122 page)	TCP18R/L-F (G123 page)
		AH7025	AH7025	AH7025	AH725	SH725
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		●	●	●	●
	0.5			●		
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	●	●	●		
1.58	0.79			●		
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	●	●	●		
	1.0			●		
2.25	0.2		●	●		
2.30	0.2		●	●		
2.39	1.2			●		
2.50	0.1		●	●	●	●
	0.2		●	●		
	0.3	●	●	●		
2.65	0.3		●	●		
2.80	0.3		●	●		
3.00	0.1	●	●	●	●	●
	0.2	●	●	●		
	0.3	●	●	●		
	1.5			●		
3.18	1.59			●		

● : Line up

Grade

Insert

Ext. Toolholder

Int. Toolholder

Threading

Grooving

Miniature tool

Milling cutter

Milling

Endmill

Drilling tool

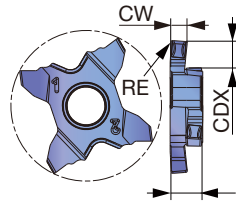
System

Tooling

User's Guide

Index

TCL18R/L (3D chipbreaker, honed edge)

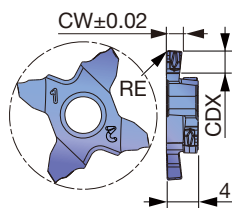


P	Steel	★		
M	Stainless	★		
K	Cast iron	★		
N	Non-ferrous			
S	Superalloys	★		
H	Hard materials			

Designation	HAND	CW±0.02	RE	Coated	CDX
				AH7025	
TCL18R150-010	R	1.5	0.1	●	3.5
TCL18L150-010	L	1.5	0.1	●	3.5
TCL18R150-020	R	1.5	0.2	●	3.5
TCL18L150-020	L	1.5	0.2	●	3.5
TCL18R175-020	R	1.75	0.2	●	3.5
TCL18L175-020	L	1.75	0.2	●	3.5
TCL18R200-010	R	2	0.1	●	3.5
TCL18L200-010	L	2	0.1	●	3.5
TCL18R200-020	R	2	0.2	●	3.5
TCL18L200-020	L	2	0.2	●	3.5
TCL18R250-030	R	2.5	0.3	●	3.5
TCL18L250-030	L	2.5	0.3	●	3.5
TCL18R300-010	R	3	0.1	●	3.5
TCL18L300-010	L	3	0.1	●	3.5
TCL18R300-020	R	3	0.2	●	3.5
TCL18L300-020	L	3	0.2	●	3.5
TCL18R300-030	R	3	0.3	●	3.5
TCL18L300-030	L	3	0.3	●	3.5

● : Line up

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



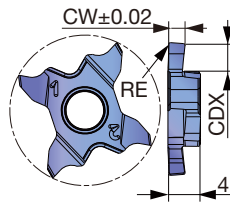
P	Steel	★		
M	Stainless	★		
K	Cast iron	★		
N	Non-ferrous			
S	Superalloys	★		
H	Hard materials			

Designation	HAND	CW±0.02	RE	Coated		CDX
				AH7025		
TCS18R100-010	R	1	0.1	●		2
TCS18L100-010	L	1	0.1	●		2
TCS18R120-010	R	1.2	0.1	●		2
TCS18L120-010	L	1.2	0.1	●		2
TCS18R125-010	R	1.25	0.1	●		2
TCS18L125-010	L	1.25	0.1	●		2

● : Line up

INSERT

TCG18R/L (honed edge)



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
				AH7025										
TCG18R100-010	R	1	0.1	●										2
TCG18L100-010	L	1	0.1	●										2
TCG18R120-010	R	1.2	0.1	●										2
TCG18L120-010	L	1.2	0.1	●										2
TCG18R125-010	R	1.25	0.1	●										2
TCG18L125-010	L	1.25	0.1	●										2
TCG18R125-020	R	1.25	0.2	●										2
TCG18L125-020	L	1.25	0.2	●										2
TCG18R130-020	R	1.3	0.2	●										2
TCG18L130-020	L	1.3	0.2	●										2
TCG18R140-010	R	1.4	0.1	●										3.5
TCG18L140-010	L	1.4	0.1	●										3.5
TCG18R140-020	R	1.4	0.2	●										3.5
TCG18L140-020	L	1.4	0.2	●										3.5
TCG18R145-010	R	1.45	0.1	●										3.5
TCG18L145-010	L	1.45	0.1	●										3.5
TCG18R145-020	R	1.45	0.2	●										3.5
TCG18L145-020	L	1.45	0.2	●										3.5
TCG18R150-010	R	1.5	0.1	●										3.5
TCG18L150-010	L	1.5	0.1	●										3.5
TCG18R150-020	R	1.5	0.2	●										3.5
TCG18L150-020	L	1.5	0.2	●										3.5
TCG18R160-020	R	1.6	0.2	●										3.5
TCG18L160-020	L	1.6	0.2	●										3.5
TCG18R170-020	R	1.7	0.2	●										3.5
TCG18L170-020	L	1.7	0.2	●										3.5
TCG18R175-010	R	1.75	0.1	●										3.5
TCG18L175-010	L	1.75	0.1	●										3.5
TCG18R175-020	R	1.75	0.2	●										3.5
TCG18L175-020	L	1.75	0.2	●										3.5
TCG18R185-020	R	1.85	0.2	●										3.5
TCG18L185-020	L	1.85	0.2	●										3.5
TCG18R195-020	R	1.95	0.2	●										3.5
TCG18L195-020	L	1.95	0.2	●										3.5
TCG18R200-010	R	2	0.1	●										3.5
TCG18L200-010	L	2	0.1	●										3.5
TCG18R200-020	R	2	0.2	●										3.5
TCG18L200-020	L	2	0.2	●										3.5
TCG18R225-020	R	2.25	0.2	●										3.5
TCG18L225-020	L	2.25	0.2	●										3.5
TCG18R230-020	R	2.3	0.2	●										3.5
TCG18L230-020	L	2.3	0.2	●										3.5
TCG18R250-010	R	2.5	0.1	●										3.5
TCG18L250-010	L	2.5	0.1	●										3.5

Please see page G125 for precautions of processing.

5 pieces per package

● : Line up

Reference pages : Toolholders → G113 - G116, Standard cutting conditions → G124

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

★ : First choice
☆ : Second choice

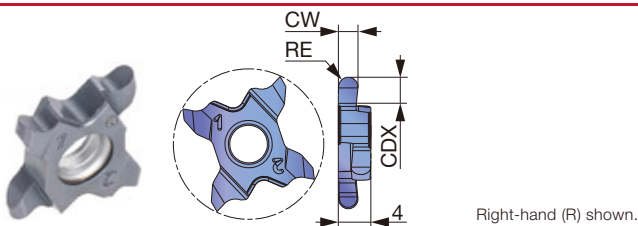
Designation	HAND	CW±0.02	RE	Coated						CDX
				AH7025						
TCG18R250-020	R	2.5	0.2	●						3.5
TCG18L250-020	L	2.5	0.2	●						3.5
TCG18R250-030	R	2.5	0.3	●						3.5
TCG18L250-030	L	2.5	0.3	●						3.5
TCG18R265-030	R	2.65	0.3	●						3.5
TCG18L265-030	L	2.65	0.3	●						3.5
TCG18R280-030	R	2.8	0.3	●						3.5
TCG18L280-030	L	2.8	0.3	●						3.5
TCG18R300-010	R	3	0.1	●						3.5
TCG18L300-010	L	3	0.1	●						3.5
TCG18R300-020	R	3	0.2	●						3.5
TCG18L300-020	L	3	0.2	●						3.5
TCG18R300-030	R	3	0.3	●						3.5
TCG18L300-030	L	3	0.3	●						3.5

Please see page G125 for precautions of processing.

5 pieces per package

● : Line up

TCG18R/L (Full R, honed edge)



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
				AH7025						
TCG18R100-050	R	1	0.5	●						2
TCG18L100-050	L	1	0.5	●						2
TCG18R158-079	R	1.58	0.79	●						3.5
TCG18L158-079	L	1.58	0.79	●						3.5
TCG18R200-100	R	2	1	●						3.5
TCG18L200-100	L	2	1	●						3.5
TCG18R239-120	R	2.39	1.2	●						3.5
TCG18L239-120	L	2.39	1.2	●						3.5
TCG18R300-150	R	3	1.5	●						3.5
TCG18L300-150	L	3	1.5	●						3.5
TCG18R318-159	R	3.18	1.59	●						3.5
TCG18L318-159	L	3.18	1.59	●						3.5

Please see page G125 for precautions of processing.

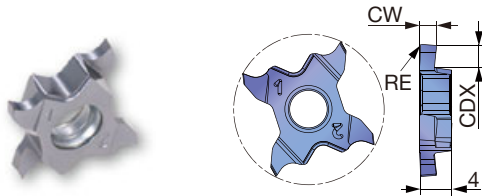
5 pieces per package

● : Line up

Reference pages : Toolholders → G113 - G116, Standard cutting conditions → G124

INSERT

TCP18R/L (lightly honed edge)



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

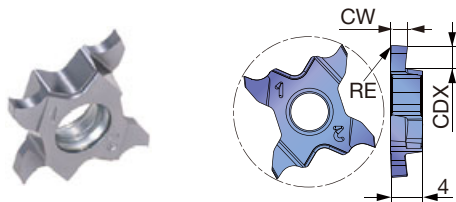
Please see page G125 for precautions of processing.

5 pieces per package

● : Line up

Reference pages : Toolholders → G113 - G116, Standard cutting conditions → G124

TCP18R/L-F (sharp edge)



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

Please see page G125 for precautions of processing.

5 pieces per package

● : Line up

Reference pages : Toolholders → G113 - G116, Standard cutting conditions → G124

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
P	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
M	Stainless steel SUS304, SUS316, etc. X5CrNi18-9, X5CrNiMo17-12-3, etc.	AH7025	50 - 120	0.03 - 0.12	0.03 - 0.15
K	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
S	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



TCL18R (3D chipbreaker), TCG18R/L (Full R, honed edge)

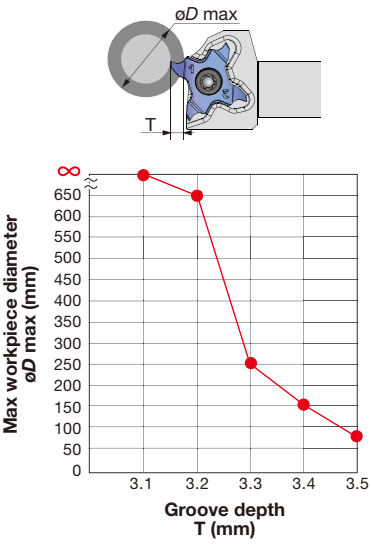
ISO	Workpiece materials	Grades	Cutting speed Vc (m/min)	Feed: f (mm/rev)	
				TCL18	TCG18
P	Low carbon steel S15C, S20C, etc. C15, C20, etc.	AH7025	80 - 180	0.03 - 0.12	0.04 - 0.14
	Carbon steels, Alloy steel S55C, SCM440, etc. C55, 42CrMoS4, etc.	AH7025	80 - 180	0.03 - 0.12	0.04 - 0.14
	Prehardened steel NAK80, PX5, etc.	AH7025	80 - 180	0.03 - 0.12	0.04 - 0.14
M	Stainless steel SUS304, SUS316, etc. X5CrNi18-9, X5CrNiMo17-12-3, etc.	AH7025	50 - 120	0.03 - 0.12	0.04 - 0.14
K	Grey cast iron FC250, FC300, etc. 250, 300, etc.	AH7025	50 - 180	0.03 - 0.12	0.04 - 0.14
	Ductile cast iron FCD400, FCD600, etc. 400-15, 600-3, etc.	AH7025	50 - 180	0.03 - 0.12	0.04 - 0.14
S	Titanium alloys Ti-6Al-4V, etc.	AH7025	30 - 80	0.03 - 0.12	0.04 - 0.14
	Superalloys Inconel718, etc.	AH7025	20 - 60	0.03 - 0.12	0.04 - 0.14



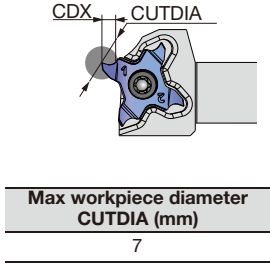
TCP18R/L (lightly honed edge) / TCP18R/L-F (sharp edge)

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
	Prehardened steel NAK80, PX5, etc.	First choice	SH725	80 - 180	0.03 - 0.1
		Toughness	AH725	80 - 180	0.03 - 0.1
M	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
K	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
	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

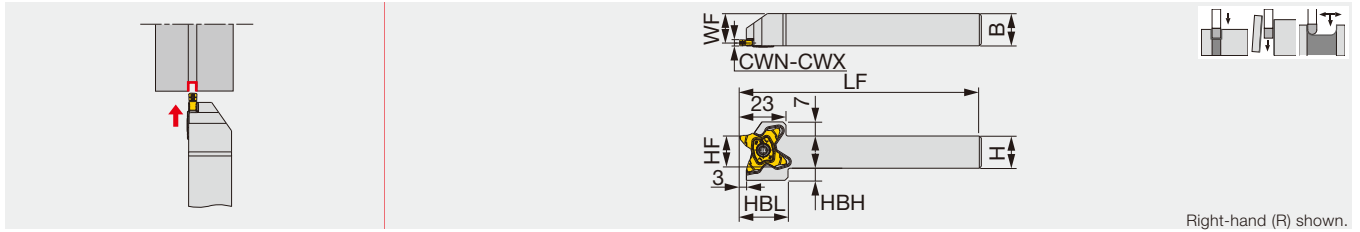
PRECAUTIONS OF PROCESSING



*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.



Grade	A
Insert	B
Ext. Toolholder	C
Int. Toolholder	D
Threading	E
Grooving	F
Miniature tool	G
Milling cutter	H
Endmill	I
Drilling tool	J
Tooling System	K
User's Guide	L
Index	M



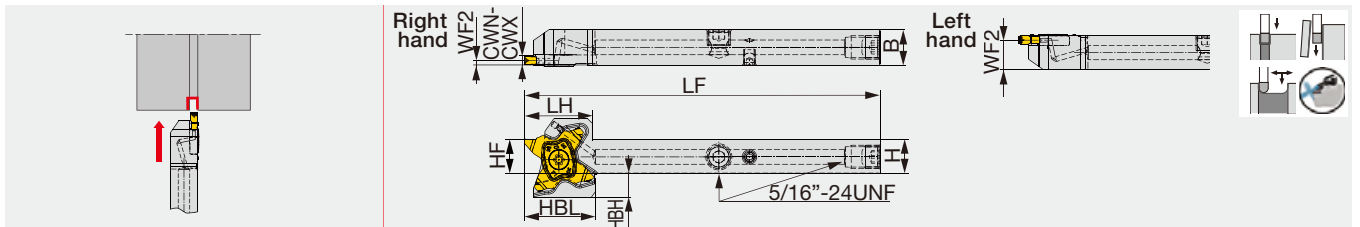
Designation	CWN	CWX	H	B	LF	HF	WF	HBH	HBL	Insert	Torque*
STCR/L1010-27	0.5	3.18	10	10	120	10	8.5	9.5	24	TC*27...	2.5
STCR/L1212-27	0.5	3.18	12	12	120	12	10.5	8	24	TC*27...	2.5
STCR/L1616-27	0.5	3.18	16	16	120	16	14.5	6	24	TC*27...	2.5
STCR/L2020-27	0.5	3.18	20	20	120	20	18.5	2	24	TC*27...	2.5

Torque*: Recommended clamping torque (N-m)

STCR/L1212-27-CHP

Direct connection

Grooving and parting-off toolholder. High pressure coolant capability.



Designation	CWN	CWX	H	B	LF	LH	HF	WF2 ⁽¹⁾	HBH	HBL	Insert	Torque*
STCR/L1212-27-CHP	0.5	3.18	12	12	120	23	12	1.5/10.5	8	24	TC*27...	2.5

(1) The above WF value is valid when an insert width of CW=3 is mounted.

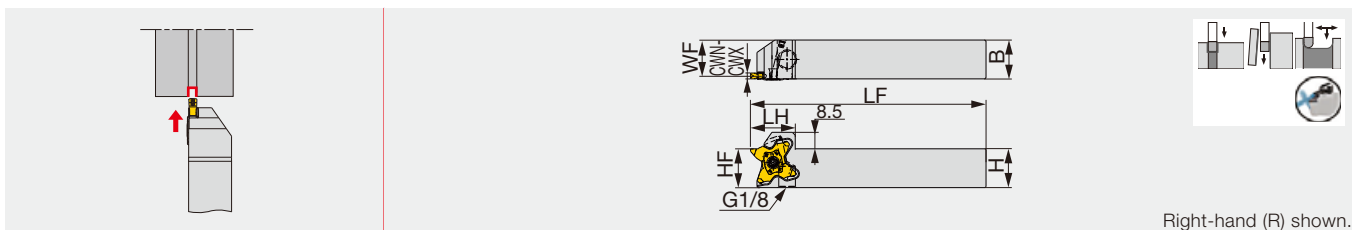
*Torque: Recommended torque (N-m) for clamping

Make sure to avoid tool interferences when used on Swiss machines

STCR/L2020-27-CHP

Tube connection

External grooving and parting-off toolholder with high pressure coolant supply



Designation	CWN	CWX	H	B	LF	LH	HF	WF	Insert	Torque*
STCR/L2020-27-CHP	0.5	3.18	20	20	120	23	20	18.5	TC*27...	2.5

Torque*: Recommended clamping torque (N-m)

SPARE PARTS

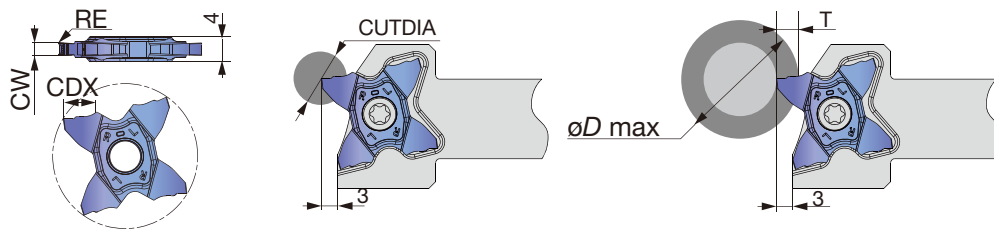
Designation	Screw	Wrench
STCR****-27, STCR...-27-CHP	SR16-212-01397L	T-2010/5
STCL****-27, STCL...-27-CHP	SR16-212-01397	T-2010/5

Reference pages : STCR/L-27, STCR/L1212-27-CHP, STCR/L2020-27-CHP:

Inserts → **G125 - G131**, Standard cutting conditions → **G131**

INSERT - FOR GROOVING AND PARTING OFF

TCL27



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

★ : First choice

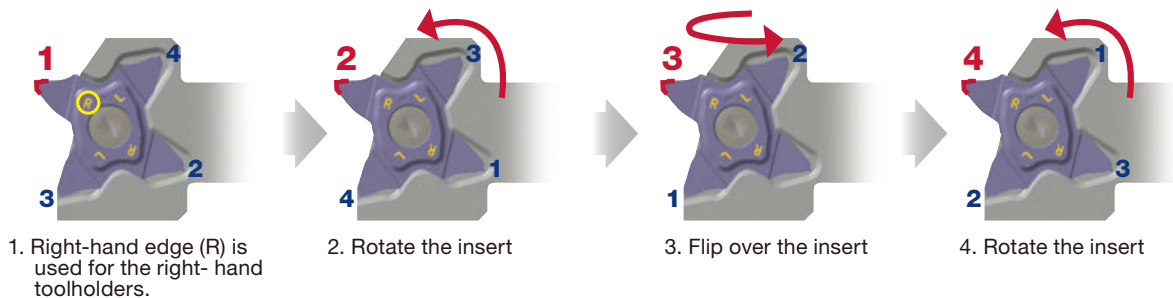
☆ : Second choice

Designation	CW±0.02	RE	Coated		CDX	CUTDIA	Relation of groove depth (T) and Max. diameter (øD max)									
			AH725				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
TCL27-150-015	1.5	0.15	●		5.7	11.4	∞	600	280	180	130	50	35	-	-	-
TCL27-200-020	2	0.2	●		6.4	12.8	∞	600	280	180	130	105	85	60	50	30
TCL27-250-020	2.5	0.2	●		6.4	12.8	∞	600	280	180	130	105	85	60	50	30
TCL27-300-020	3	0.2	●		6.4	12.8	∞	600	280	180	135	105	95	85	78	55

5 pieces per package

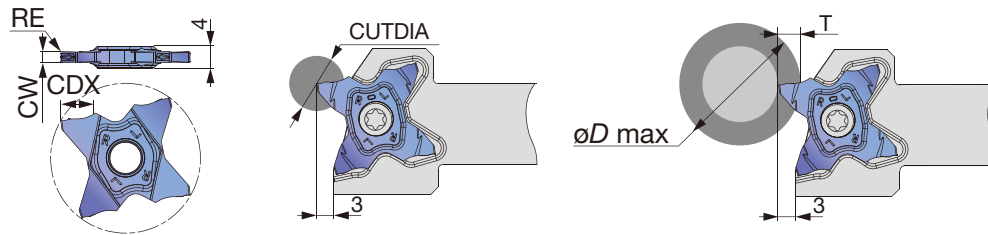
● : Line up

HOW TO INDEX INSERTS



INSERT - FOR GROOVING AND PARTING OFF

TCS27



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	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	●		1	2	∞	-	-	-	-	-	-	-	-	-	-	-	
TCS27-050-004	0.5	0.04	●		2.5	5	∞	∞	-	-	-	-	-	-	-	-	-	-	
TCS27-075-010	0.75	0.1	●		2.5	5	∞	∞	-	-	-	-	-	-	-	-	-	-	
TCS27-080-000	0.8	0	●		1.6	3.2	∞	-	-	-	-	-	-	-	-	-	-	-	
TCS27-100-006	1	0.06	●		3.5	7	∞	∞	∞	600	-	-	-	-	-	-	-	-	
TCS27-100-010	1	0.1	●		3.5	7	∞	∞	∞	600	-	-	-	-	-	-	-	-	
TCS27-104-000	1.04	0	●		2	4	∞	∞	-	-	-	-	-	-	-	-	-	-	
TCS27-120-000	1.2	0	●		2	4	∞	∞	-	-	-	-	-	-	-	-	-	-	
TCS27-125-010	1.25	0.1	●		3.5	7	∞	∞	∞	600	-	-	-	-	-	-	-	-	
TCS27-125-020	1.25	0.2	●		3.5	7	∞	∞	∞	600	-	-	-	-	-	-	-	-	
TCS27-140-000	1.4	0	●		2	4	∞	∞	-	-	-	-	-	-	-	-	-	-	
TCS27-147-000	1.47	0	●		2.5	5	∞	∞	-	-	-	-	-	-	-	-	-	-	
TCS27-150-010	1.5	0.1	●		5.7	11.4	∞	∞	∞	600	280	180	130	50	35	-	-	-	
TCS27-150-020	1.5	0.2	●		5.7	11.4	∞	∞	∞	600	280	180	130	50	35	-	-	-	
TCS27-157-015	1.57	0.15	●		3	6	∞	∞	∞	-	-	-	-	-	-	-	-	-	
TCS27-170-010	1.7	0.1	●		3	6	∞	∞	∞	-	-	-	-	-	-	-	-	-	
TCS27-175-010	1.75	0.1	●		3	6	∞	∞	∞	-	-	-	-	-	-	-	-	-	
TCS27-175-020	1.75	0.2	●		3	6	∞	∞	∞	-	-	-	-	-	-	-	-	-	
TCS27-178-018	1.78	0.18	●		3	6	∞	∞	∞	-	-	-	-	-	-	-	-	-	
TCS27-185-020	1.85	0.2	●		3	6	∞	∞	∞	-	-	-	-	-	-	-	-	-	
TCS27-196-015	1.96	0.15	●		3	6	∞	∞	∞	-	-	-	-	-	-	-	-	-	
TCS27-200-010	2	0.1	●		6.4	12.8	∞	∞	∞	600	280	180	130	105	85	60	50	30	
TCS27-200-020	2	0.2	●		6.4	12.8	∞	∞	∞	600	280	180	130	105	85	60	50	30	
TCS27-222-015	2.22	0.15	●		3.5	7	∞	∞	∞	600	-	-	-	-	-	-	-	-	
TCS27-230-020	2.3	0.2	●		3.5	7	∞	∞	∞	600	-	-	-	-	-	-	-	-	
TCS27-239-015	2.39	0.15	●		5.7	11.4	∞	∞	∞	600	280	180	130	50	35	-	-	-	
TCS27-247-020	2.47	0.2	●		5.7	11.4	∞	∞	∞	600	280	180	130	50	35	-	-	-	
TCS27-250-010	2.5	0.1	●		5.7	11.4	∞	∞	∞	600	280	180	130	50	35	-	-	-	
TCS27-250-030	2.5	0.3	●		5.7	11.4	∞	∞	∞	600	280	180	130	50	35	-	-	-	
TCS27-270-010	2.7	0.1	●		6.2	12.4	∞	∞	∞	600	280	180	135	105	95	85	78	-	
TCS27-287-020	2.87	0.2	●		6.2	12.4	∞	∞	∞	600	280	180	135	105	95	85	78	-	
TCS27-300-000	3	0	●		6.4	12.8	∞	∞	∞	600	280	180	135	105	95	85	78	55	
TCS27-300-020	3	0.2	●		6.4	12.8	∞	∞	∞	600	280	180	135	105	95	85	78	55	
TCS27-300-030	3	0.3	●		6.4	12.8	∞	∞	∞	600	280	180	135	105	95	85	78	55	
TCS27-300-040	3	0.4	●		6.4	12.8	∞	∞	∞	600	280	180	135	105	95	85	78	55	
TCS27-315-015	3.15	0.15	●		6.4	12.8	∞	∞	∞	600	280	180	135	105	95	85	78	68	
TCS27-318-020	3.18	0.2	●		6.4	12.8	∞	∞	∞	600	280	180	135	105	95	85	78	68	

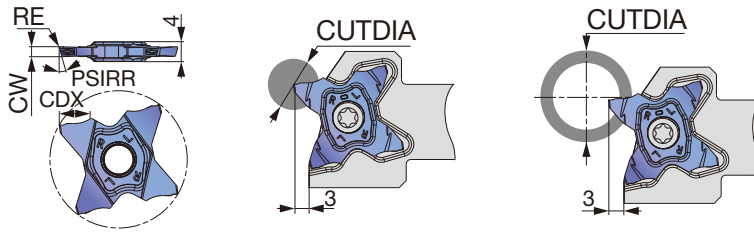
5 pieces per package

● : Line up

Reference pages : Toolholders → **G126**, Standard cutting conditions → **G131**

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

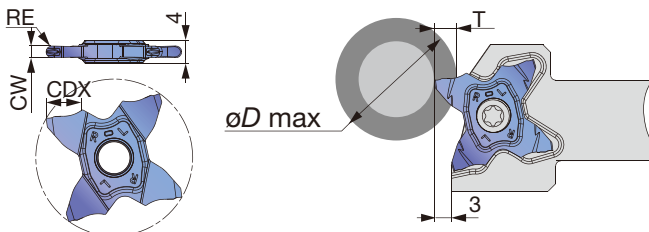
Designation	HAND	CW±0.02	RE	Coated		CDX	PSIRL	PSIRR	Max. parting off dia. CUTDIA	
				AH725					Solid bar	Tube
TCS27-100-15R	R	1	0.06	●		3.5	0°	15°	7	600
TCS27-100-15L	L	1	0.06	●		3.5	15°	0°	7	600
TCS27-150-6R	R	1.5	0.06	●		5.7	0°	6°	11.4	35
TCS27-150-6L	L	1.5	0.06	●		5.7	6°	0°	11.4	35
TCS27-150-15R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

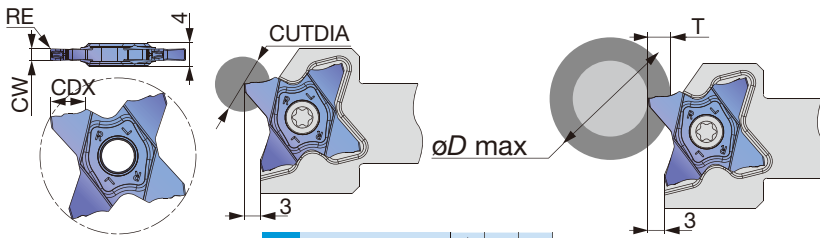
Designation	CW±0.02	RE	Coated		CDX	Relation of groove depth (T) and Max. diameter (øD max)									
			AH725			T ≤ 3	T ≤ 3.5	T ≤ 4	T ≤ 4.5	T ≤ 5	T ≤ 5.5	T ≤ 5.7	T ≤ 6	T ≤ 6.2	T ≤ 6.4
TCS27-157-079	1.57	0.79	●		3	∞	-	-	-	-	-	-	-	-	-
TCS27-200-100	2	1	●		3	∞	-	-	-	-	-	-	-	-	-
TCS27-239-120	2.39	1.2	●		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

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

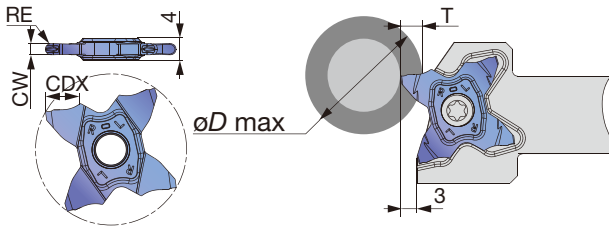
5 pieces per package

● : Line up

Reference pages : Toolholders → **G126**, Standard cutting conditions → **G131**

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

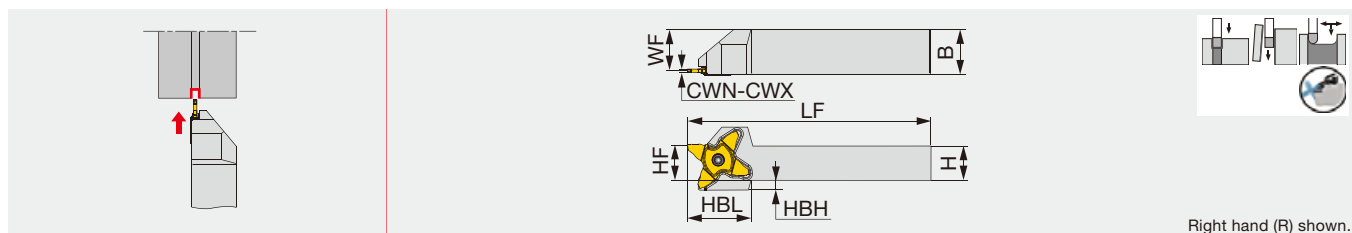
Designation	CW±0.02	RE	Coated	CDX	CUTDIA	Relation of groove depth (T) and Max. diameter (øD max)									
			AH725			T≤3	T≤3.5	T≤4	T≤4.5	T≤5	T≤5.5	T≤5.7	T≤6	T≤6.2	T≤6.4
TCM27-157-079	1.57	0.79	●	3	6	∞	-	-	-	-	-	-	-	-	-
TCM27-200-100	2	1	●	3	6	∞	-	-	-	-	-	-	-	-	-
TCM27-239-120	2.39	1.2	●	5.7	11.4	∞	600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

5 pieces per package

● : Line up

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)		
				TCL27	TCS27	TCM27	TCS27	TCS27	TCM27	
P	Carbon steel S45C, etc. C45, etc.	AH725	100 - 200	0.03 - 0.12	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	0.03 - 0.12	0.05 - 0.15	0.05 - 0.25	0.04 - 0.12	0.05 - 0.10	0.05 - 0.15	0.5
M	Stainless steel SUS304, etc. X5CrNi18-9, etc.	AH725	100 - 150	0.03 - 0.12	0.05 - 0.15	0.05 - 0.20	0.04 - 0.12	0.05 - 0.10	0.05 - 0.15	0.5
K	Grey cast iron FC250, etc. 250, etc.	AH725	50 - 180	0.03 - 0.12	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	0.03 - 0.12	0.05 - 0.15	0.05 - 0.20	0.04 - 0.12	0.05 - 0.10	0.05 - 0.15	0.5
S	Titanium alloys Ti-6Al-4V, etc.	AH725	30 - 60	0.03 - 0.12	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	0.03 - 0.12	0.05 - 0.15	0.05 - 0.15	0.04 - 0.12	0.05 - 0.10	0.05 - 0.10	0.5



Right hand (R) shown.

Designation	CWN	CWX	H	B	LF	HF	WF	HBH	HBL	Insert	Torque*
STCR/L2020-38	1.5	4	20	20	120	20	18.1	5	35	TCL38...	2.5

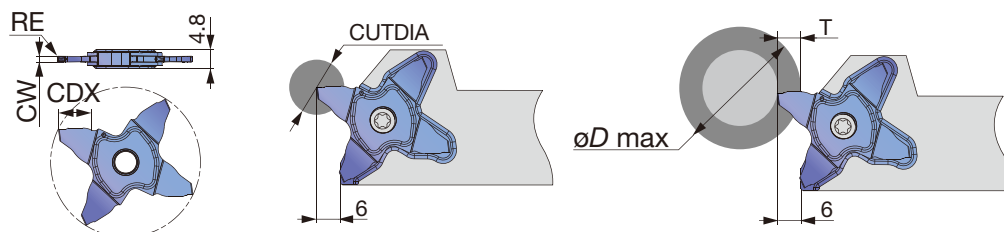
Torque*: Recommended clamping torque (N-m)

SPARE PARTS

Designation	Screw	Wrench
STCR****-38 (-CHP)	SR16-212-01397L	T-2010/5
STCL****-38 (-CHP)	SR16-212-01397	T-2010/5

INSERT - FOR GROOVING AND PARTING OFF

TCL38 (for grooving and parting off)



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

★ : First choice

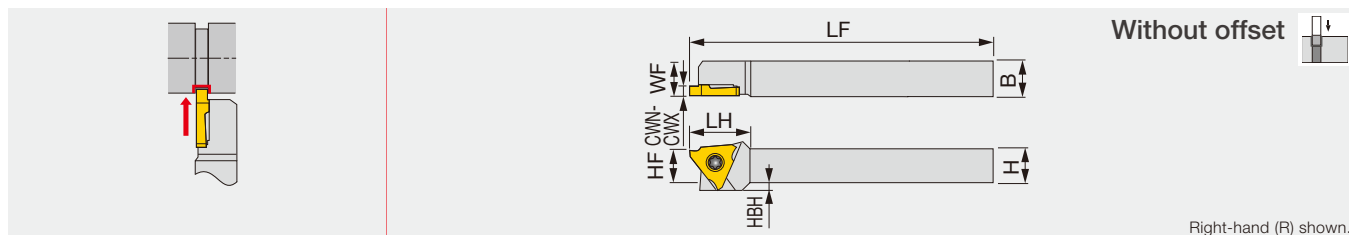
Designation	CW±0.02	RE	Coated AH7025	CDX	CUTDIA	Relation of groove depth (T) and Max. diameter (øD max)					
						T ≤ 5	T ≤ 6	T ≤ 7	T ≤ 8	T ≤ 9	T ≤ 10
TCL38-150-020	1.5	0.2	●	9	18	∞	950	315	190	45	-
TCL38-200-020	2	0.2	●	9	18	∞	950	315	190	45	-
TCL38-300-020	3	0.2	●	10	20	∞	950	315	190	130	50
TCL38-400-030	4	0.3	●	10	20	∞	950	315	190	130	50

5 pieces per package

● : Line up

STANDARD CUTTING CONDITIONS

ISO	Workpiece materials	Grades	Cutting speed Vc (m/min)	Feed: f (mm/rev)
				Grooving, Parting TCL38
P	Carbon steel (S45C / C45, etc.)	AH7025	80 - 180	0.03 - 0.18
	Alloy steel (SCM435 / 34CrMo4, etc.)	AH7025	50 - 180	0.03 - 0.18
M	Alloy steel (SCM435 / 34CrMo4, etc.)	AH7025	50 - 150	0.03 - 0.14
K	Grey cast iron (FC250 / 250 / GG25, etc.)	AH7025	50 - 180	0.03 - 0.14
	Ductile cast iron (FCD400 / 400-15 / GGG400, etc.)	AH7025	50 - 120	0.03 - 0.14
S	Titanium alloys (Ti-6Al-4V, etc.)	AH7025	30 - 60	0.03 - 0.14
	Superalloys (Inconel718, etc.)	AH7025	20 - 50	0.03 - 0.14



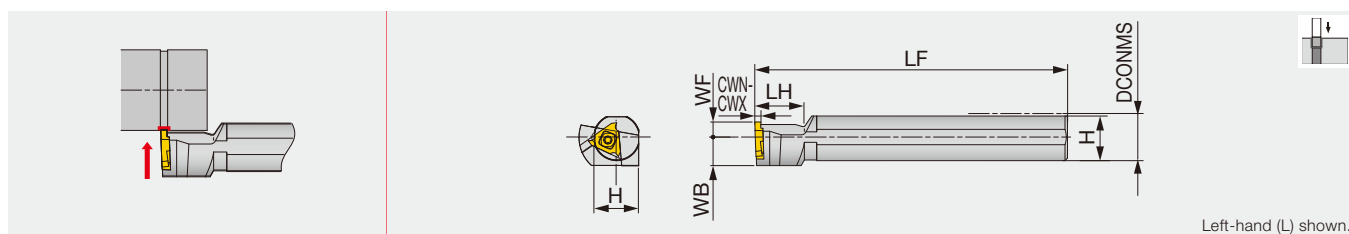
Right-hand (R) shown.

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 clamping torque (N-m)

JS-TGL3

Screw-on external grooving toolholder, for Swiss lathes



Left-hand (L) shown.

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

Torque*: Recommended clamping torque (N-m)

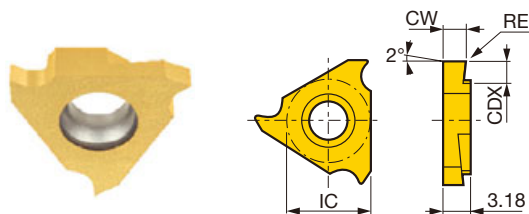
Use left-hand toolholders (L) with right-hand inserts (R).

SPARE PARTS

Designation	Clamping screw	Wrench 1	Wrench 2 (Optional)
JSTGR/L...	CSTB-4SD	T-8F	(T-8L)
JS**-TGL3	CSTB-4S	T-15F	-

INSERT

JTG (Sharp edge)



Right hand (R) shown.

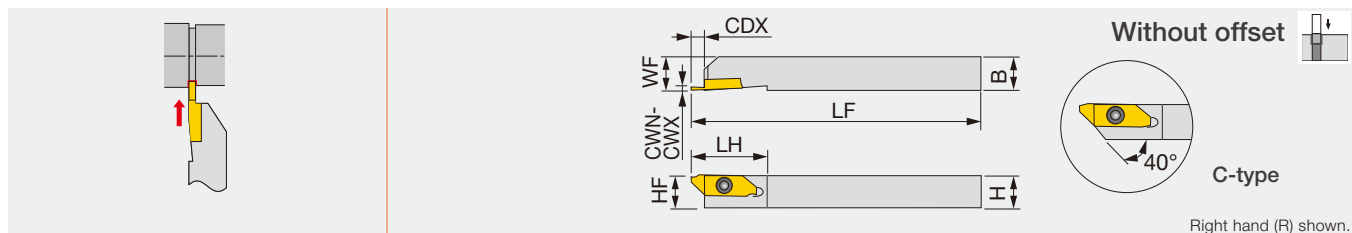
P	Steel	★	★		★		☆				
M	Stainless	★	★								
K	Cast iron				☆		★				
N	Non-ferrous						★				
S	Superalloys						★				
H	Hard materials										

★ : First choice
☆ : Second choice

Designation	HAND	CW ^{+0.05} ₀	RE	Coated		Cermet		Uncoated		CDX	IC	Max. groove depth
				SH725	J740	NS9530		TH10				
JTGR3033F	R	0.33	0.03	●	●			●		0.7	9.53	0.7
JTGL3033F	L	0.33	0.03		●			●		0.7	9.53	0.7
JTGR3033F-005	R	0.33	0.05	●						0.7	9.53	0.7
JTGR3043F	R	0.43	0.03		●					1.1	9.53	0.7
JTGR3050F	R	0.5	0.03	●	●	●		●		1.1	9.53	1.1
JTGL3050F	L	0.5	0.03	●	●			●		1.1	9.53	1.1
JTGR3050F-005	R	0.5	0.05	●						1.1	9.53	1.1
JTGL3050F-005	L	0.5	0.05	●						1.1	9.53	1.1
JTGR3065F	R	0.65	0.03	●	●					1.9	9.53	1.1
JTGR3065F-010	R	0.65	0.1	●						1.9	9.53	1.1
JTGR3075F	R	0.75	0.03	●	●	●		●		1.9	9.53	1.9
JTGL3075F	L	0.75	0.03	●	●	●		●		1.9	9.53	1.9
JTGR3075F-010	R	0.75	0.1	●						1.9	9.53	1.9
JTGL3075F-010	L	0.75	0.1	●						1.9	9.53	1.9
JTGR3080F	R	0.8	0.03	●	●					1.9	9.53	1.9
JTGR3080F-010	R	0.8	0.1	●						1.9	9.53	1.9
JTGR3085F	R	0.85	0.03	●	●					1.9	9.53	1.9
JTGR3095F	R	0.95	0.03	●	●	●		●		1.9	9.53	1.9
JTGL3095F	L	0.95	0.03	●	●			●		1.9	9.53	1.9
JTGR3095F-010	R	0.95	0.1	●						1.9	9.53	1.9
JTGL3095F-010	L	0.95	0.1	●						1.9	9.53	1.9
JTGR3100F	R	1	0.05	●	●	●		●		2.1	9.53	1.9
JTGL3100F	L	1	0.05	●	●			●		2.1	9.53	1.9
JTGR3100F-010	R	1	0.1	●						2.1	9.53	1.9
JTGL3100F-010	L	1	0.1	●						2.1	9.53	1.9
JTGR3110F	R	1.1	0.05	●	●					2.1	9.53	1.9
JTGR3120F	R	1.2	0.05	●	●					2.1	9.53	1.9
JTGR3120F-010	R	1.2	0.1	●						2.1	9.53	1.9
JTGR3125F	R	1.25	0.05	●	●	●		●		2.1	9.53	2.1
JTGL3125F	L	1.25	0.05	●	●			●		2.1	9.53	2.1
JTGR3125F-010	R	1.25	0.1	●						2.1	9.53	2.1
JTGL3125F-010	L	1.25	0.1	●						2.1	9.53	2.1
JTGR3130F	R	1.3	0.05	●	●					2.1	9.53	2.1
JTGR3140F	R	1.4	0.05	●	●					2.1	9.53	2.1
JTGR3140F-010	R	1.4	0.1	●						2.1	9.53	2.1
JTGR3145F	R	1.45	0.05	●	●	●		●		2.1	9.53	2.1
JTGL3145F	L	1.45	0.05		●			●		2.1	9.53	2.1
JTGR3145F-010	R	1.45	0.1	●						2.1	9.53	2.1
JTGR3150F	R	1.5	0.05	●	●	●		●		2.1	9.53	2.1
JTGL3150F	L	1.5	0.05	●	●			●		2.1	9.53	2.1
JTGR3150F-010	R	1.5	0.1	●						2.1	9.53	2.1
JTGL3150F-010	L	1.5	0.1	●						2.1	9.53	2.1
JTGR3175F	R	1.75	0.05	●	●	●		●		2.1	9.53	2.1
JTGL3175F	L	1.75	0.05		●	●		●		2.1	9.53	2.1
JTGR3175F-010	R	1.75	0.1	●						2.1	9.53	2.1

Reference pages: Toolholder → **G133**

●: Line up



Right hand (R) shown.

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...

Can be wrenched also from the back with a double-head screw.

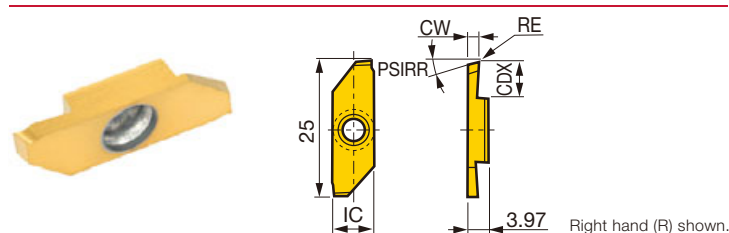
This toolholders can be used for JXG insert (grooving), JFX insert (front-turning), JXK insert (reverse-turning)

SPARE PARTS

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

INSERT

JXG (handed insert with sharp edge)



Right hand (R) shown.

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

★ : First choice
☆ : Second choice

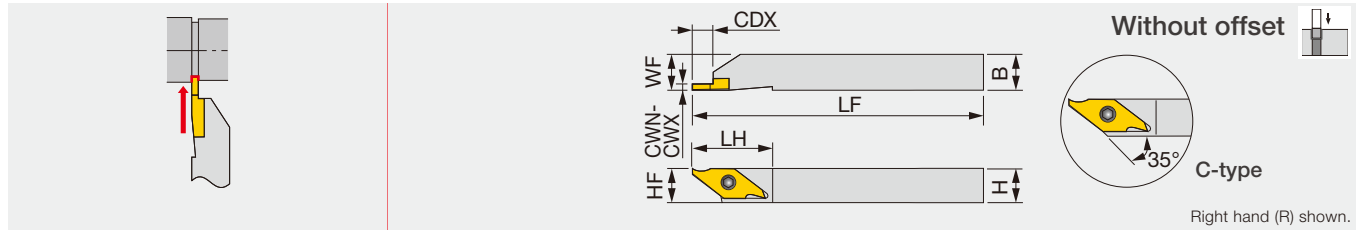
Designation	HAND	CW±0.025	RE	Coated		Uncoated		CDX	IC	PSIRR
				J740	TH10					
JXGR8070FA	R	0.7	0	●				4.5	8	15
JXGL8070FA	L	0.7	0	●	●			4.5	8	15
JXGR8070FA-005	R	0.7	0.05	●	●			4.5	8	15
JXGR8100FA	R	1	0	●				6	8	15
JXGL8100FA	L	1	0	●	●			6	8	15
JXGR8100FA-005	R	1	0.05	●	●			6	8	15
JXGR8100FA45	R	1	0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

●: Line up

Reference pages: JSXGR/L: Standard cutting conditions → **G138**

JSVGR/L

Screw-on external grooving toolholder, for Swiss lathes



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

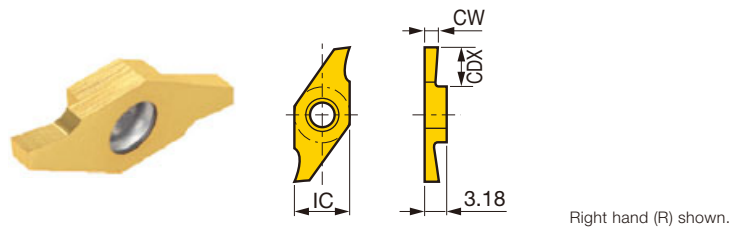
* Torque: Recommended torque (N-m) for clamping

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 ^{+0.05} ₀	RE	Coated		Cermet	Uncoated	CDX	IC
				SH725	J740	NS9530	TH10		
JVGR033F	R	0.33	0	●	●			0.7	7.94
JVGL033F	L	0.33	0	●	●		●	0.7	7.94
JVGR050F	R	0.5	0	●	●			1.1	7.94
JVGL050F	L	0.5	0	●	●		●	1.1	7.94
JVGR075F	R	0.75	0	●	●			1.9	7.94
JVGL075F	L	0.75	0	●	●		●	1.9	7.94
JVGR095F	R	0.95	0	●	●			1.9	7.94
JVGL095F	L	0.95	0	●	●		●	1.9	7.94
JVGR100F	R	1	0	●	●	●		5.5	7.94
JVGL100F	L	1	0	●	●	●	●	5.5	7.94
JVGR125F	R	1.25	0	●	●		●	5	7.94
JVGL125F	L	1.25	0	●	●		●	5	7.94
JVGR150F	R	1.5	0	●	●	●		5.5	7.94
JVGL150F	L	1.5	0	●	●	●	●	5.5	7.94
JVGR200F	R	2	0	●	●	●	●	5.5	7.94
JVGL200F	L	2	0	●	●	●	●	5.5	7.94

● : Line up

Reference pages: JSVGR/L: Standard cutting conditions → **G138**

STANDARD CUTTING CONDITIONS (JXG and JVG inserts)

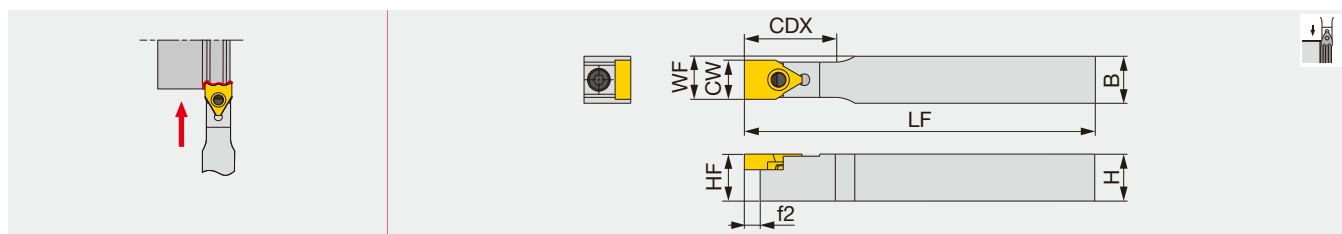
ISO	Workpiece material	Grade	Cutting speed V _c (m/min)	Feed f (mm/rev)
P	Steel S45C, etc. C45, etc.	SH725	50 - 200	0.01 - 0.1
		J740	10 - 100	0.01 - 0.1
		NS9530	50 - 150	0.01 - 0.1
	Free-cutting steel SUM22, etc. 11SMn28, etc.	SH725	50 - 200	0.01 - 0.1
		J740	10 - 100	0.01 - 0.1
M	Stainless steel SUS303,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



TUNG H^{AVV} 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...

PSGB insert blank is available for tailored inserts.

SPARE PARTS

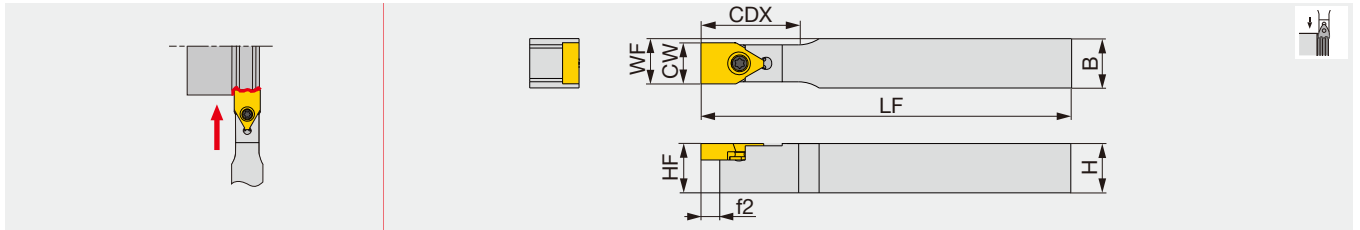


Designation	Lever	Clamping screw	Spring	Wrench
FPGN*****-10T..., 15T...	FCL4	FCS3	BP-5	P-2.5
FPGN*****-20T..., 25T...	FCL8	FCS6	BP-9	P-5

Reference pages: FPGN: Standard cutting conditions → **G140**

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

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

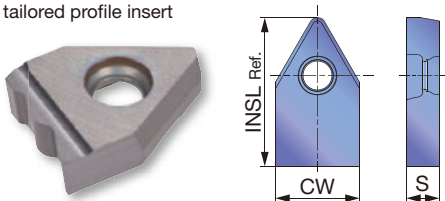
SPARE PARTS

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	☆	★	★	★	★	★

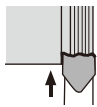
★ : First choice
☆ : Second choice

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

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

Package quantity = 5pcs.
● : Line up

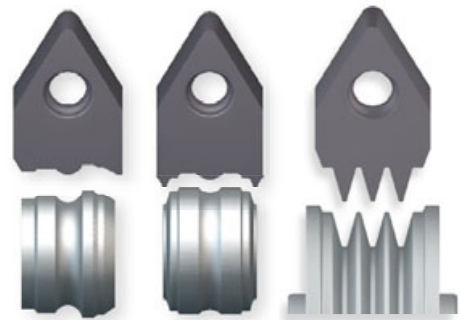
STANDARD CUTTING CONDITIONS



Wide profile grooving

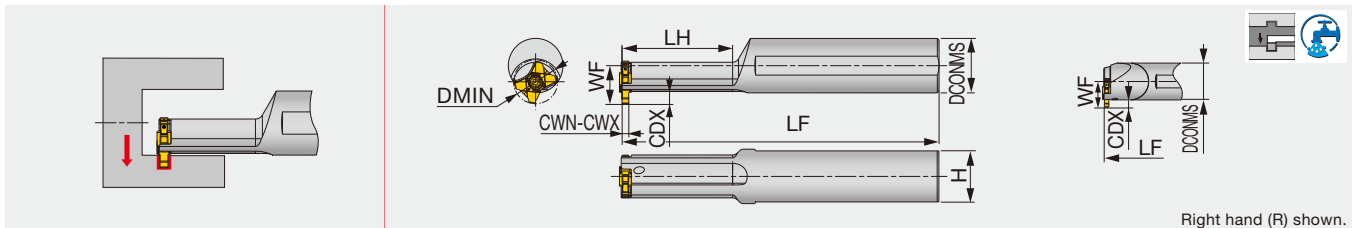
ISO	Workpiece material	Hardness (HB)	Grade	Cutting speed Vc (m/min)
P	Steel S45C, etc. C45, etc.	< 200	UX30	50 - 150
	Alloy steel SCM440, etc. 42CrMo4, etc.	< 300	UX30	50 - 120
M	Stainless steel SUS303, etc. X5CrNi18-9, etc.	< 200	UX30	50 - 120
K	Grey cast iron FC250, etc. 250, etc.	-	TH10	50 - 150
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



ADDICUT^{INTERNAL} A/E-STCIR/L

Internal grooving toolholder



Designation	Material	CWN	CWX	DMIN	DCONMS	LH	LF	WF	H	Insert	Torque*
A12H-STCIR/L10-D105	Steel	1.5	3	10.5	12	25	100	8.3	11	TCIG10...	1
A12H-STCIR/L10-D120	Steel	1.5	3	12	12	31	100	8.3	11	TCIG10...	1
E12K-STCIR/L10-D150	Carbide	1.5	3	15	12	-	125	8.3	11	TCIG10...	1
A16J-STCIR/L12-D130	Steel	1.5	3	13	16	33	110	11.3	15	TCIG12...	1.3
A16J-STCIR/L12-D160	Steel	1.5	3	16	16	41	110	11.3	15	TCIG12...	1.3
E16M-STCIR/L12-D200	Carbide	1.5	3	20	16	-	150	11.3	15	TCIG12...	1.3

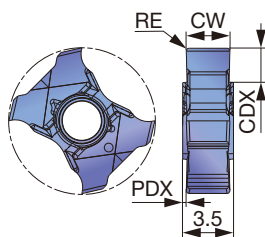
Torque*: Recommended clamping torque (N·m)

SPARE PARTS



Designation	Clamping screw
A/E-STCIR10-...	CSTB-2.2L053DR
A/E-STCIR10-...	CSTB-2.2L053DL
A/E-STCIR12-...	CSTB-2.5L054DR
A/E-STCIR12-...	CSTB-2.5L054DL

TCIG



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

★ : First choice

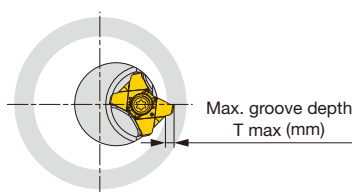
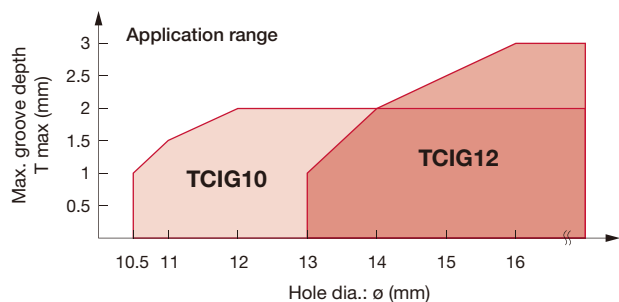
[illegible]

● : Line up

Shallower groove depths (T max) for smaller bores

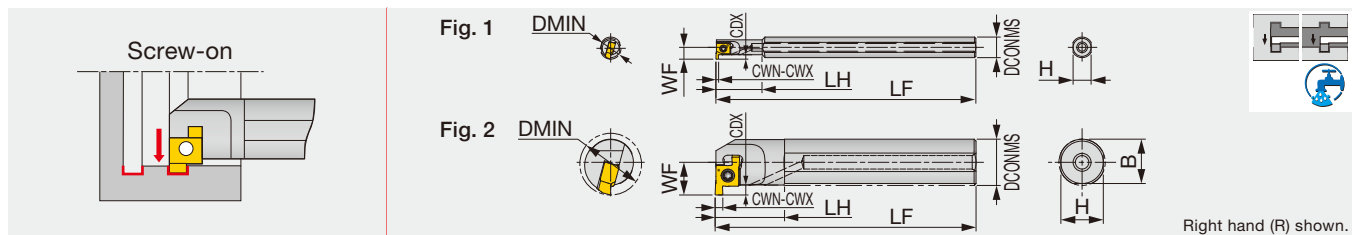
Maximum groove depths (T max) for TCIG10 inserts are smaller than the CDX value shown above when the grooving bore diameter is < 12 mm; and for TCIG12, when the bore diameter is < 16 mm.

See the chart below for T max values in relation to the given bore diameter.



STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Hardness	Priority	Cutting speed Vc (m/min)	Feed f (mm/rev)
P	Steel S45C, C45, SCM435, 34CrMo4, etc.	< 300 HB	First choice	30 - 80	0.01 - 0.05
M	Stainless steel SUS303, X10CrNiS18-9, etc.	< 200 HB	First choice	30 - 50	0.01 - 0.05
S	Titanium alloys Ti-6Al-4V, etc.	< HRC 40	First choice	10 - 50	0.01 - 0.05



Designation	Material	CWN	CWX	DMIN	CDX	DCONMS	H	B	LF	LH	WF	Insert	Torque*	Fig.
A08H-SNGR06-D080	Steel	1	2	8	1.5	8	7	-	100	18	4.73	6GMR..., 6GR...	0.7	1
A08H-SNGR07-D100	Steel	1	2	10	1.5	8	7	-	100	23	5.8	7GMR..., 7GR...	1.0	1
A10K-SNGR07-D120	Steel	1	2	12	1.5	10	9	-	125	29	6.8	7GMR..., 7GR...	1.0	1
A10K-SNGR08-D140	Steel	1.5	3.5	14	2	10	9	-	125	15	7.6	8GMR..., 8GR...	1.0	2
A12M-SNGR08-D160	Steel	1.5	3.5	16	2	12	11	11.5	150	18	8.6	8GMR..., 8GR...	1.0	2
A16Q-SNGR09-D200	Steel	1.5	3.5	20	3	16	15	15.5	180	20	11.6	9GMR..., 9GR...	1.3	2
A20R-SNGR09-D240	Steel	1.5	3.5	24	3	20	18	19	200	25	13.6	9GMR..., 9GR...	1.3	2
E08X-SNGR07-D100	Carbide	1	2	10	1.5	8	7.5	-	120.5	35	5.8	7GMR..., 7GR...	1.0	1
E10X-SNGR07-D120	Carbide	1	2	12	1.5	10	9	-	143.5	45	6.8	7GMR..., 7GR...	1.0	1
E10X-SNGR08-D140	Carbide	1.5	3.5	14	2	10	9	-	146	-	7.6	8GMR..., 8GR...	1.0	2
E12X-SNGR08-D160	Carbide	1.5	3.5	16	2	12	11	-	174.8	-	8.6	8GMR..., 8GR...	1.0	2
E16X-SNGR09-D200	Carbide	1.5	3.5	20	3	16	15	-	194.6	-	11.6	9GMR..., 9GR...	1.5	2

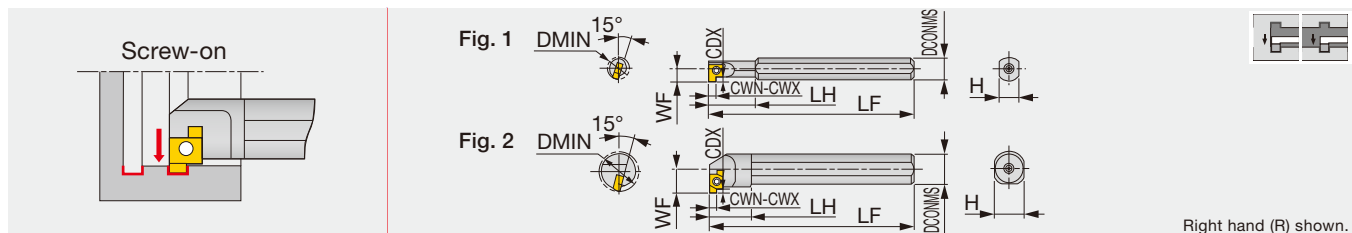
Note: Use the right-hand insert (□GR) with the right-hand holder (□NGR).
Torque*: Recommended clamping torque (N·m)

SPARE PARTS

Designation	Clamping screw	Wrench
A**-SNGR06-D...	CSTB-2L040	T-6F
A**-SNGR07-D...	CSTB-2.2S	T-7F
A**-SNGR08-D...	CSTB-2.2	T-7F
A**-SNGR09-D...	CSTB-2.5L080	T-8F
E**-SNGR07-D...	CSTB-2.2S	T-7F
E**-SNGR08-D...	CSTB-2.2	T-7F
E**-SNGR09-D...	CSTB-2.5L080	T-8F

SNGR/L

Toolholders for internal grooving



Designation	Material	CWN	CWX	DMIN	CDX	DCONMS	H	LF	LH	WF	Insert	Torque*	Fig.
SNGR/L08H06	Steel	1	2	8	1.5	8	7	100	18	4.7	6GMR..., 6GR/L...	0.7	1
SNGR/L08H07	Steel	1	2	10	1.5	8	7	100	23	5.8	7GMR..., 7GR/L...	1.0	1
SNGR/L10K07	Steel	1	2	12	1.5	10	9	125	29	6.8	7GMR..., 7GR/L...	1.0	1
SNGR/L10K08	Steel	1.5	3.5	14	2	10	9	125	15	7.6	8GMR..., 8GR/L...	1.0	2
SNGR/L12M08	Steel	1.5	3.5	16	2	12	11	150	18	8.6	8GMR..., 8GR/L...	1.0	2
SNGR/L16Q09	Steel	1.5	3.5	20	3	16	15	180	20	11.6	9GMR..., 9GR/L...	1.3	2
SNGR/L20R09	Steel	1.5	3.5	24	3	20	18	200	25	13.6	9GMR..., 9GR/L...	1.3	2
SNGR/L08K06SC	Carbide	1	2	8	1.5	8	7	125	28	4.7	6GMR..., 6GR/L...	0.7	1
SNGR/L08K07SC	Carbide	1	2	10	1.5	8	7	125	35	5.8	7GMR..., 7GR/L...	1.0	1
SNGR/L10M07SC	Carbide	1	2	12	1.5	10	9	150	45	6.8	7GMR..., 7GR/L...	1.0	1
SNGR/L10M08SC	Carbide	1.5	3.5	14	2	10	9	150	45	7.6	8GMR..., 8GR/L...	1.0	2
SNGR/L12Q08SC	Carbide	1.5	3.5	16	2	12	11	180	-	8.6	8GMR..., 8GR/L...	1.0	2
SNGR/L16R09SC	Carbide	1.5	3.5	20	3	16	15	200	-	11.6	9GMR..., 9GR/L...	1.5	2

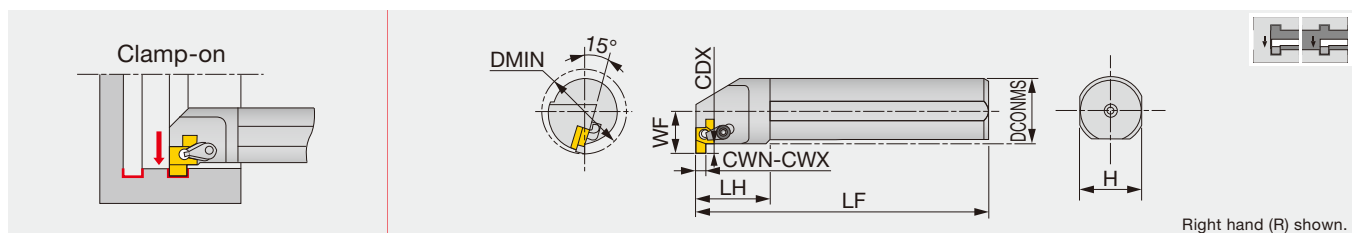
Note: Use the right-hand insert (□GR) with the right-hand holder (□NGR), and use the left-hand insert (□GL) with the left-hand holder (□NGL).
Torque*: Recommended clamping torque (N·m)

SPARE PARTS

Designation	Clamping screw	Wrench
SNGR/L***06	CSTB-2L040	T-6F
SNGR/L***07	CSTB-2.2S	T-7F
SNGR/L***08	CSTB-2.2	T-7F
SNGR/L***09	CSTB-2.5L080	T-8F
SNGR/L***06SC	CSTB-2L040	T-6F
SNGR/L***07SC	CSTB-2.2S	T-7F
SNGR/L***08SC	CSTB-2.2	T-7F
SNGR/L***09SC	CSTB-2.5L080	T-8F

CNGR/L

Toolholders for internal grooving



Designation	CWN	CWX	DMIN	CDX	DCONMS	H	LF	LH	WF	Insert	Torque*
CNGR/L25S15	2	5	32	5	25	23	250	30	18.1	15GR/L...	7
CNGR/L32T15	2	5	40	5	32	30	300	35	22.1	15GR/L...	7
CNGR/L40U15	2	5	48	5	40	38	350	45	26.1	15GR/L...	7

Note: Use the right-hand insert (□GR) with the right-hand holder (□NGR), and use the left-hand insert (□GL) with the left-hand holder (□NGL).
Torque*: Recommended clamping torque (N·m)

SPARE PARTS

Designation	Clamp set	Screw	Shim	Wrench
CNGR...	CSP22	DTS5-3.5	SGSR151	T-20F
CNGL...	CSP22	DTS5-3.5	SGSL151	T-20F

Optional parts for CNG holders

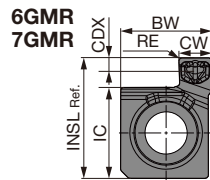
Use the following parts for screw clamp options.

Designation	Clamping screw	Wrench
CNGR/L...	CSTB-3.5L	T-15F

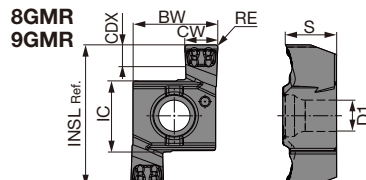
Reference pages: SNGR/L, CNGR/L: Inserts → **G144, G145**, Standard cutting conditions → **G146**

INSERTS

**GMR/L



Single edge



Double edge

Right hand (R) shown.

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

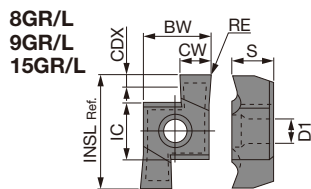
★ : First choice
☆ : Second choice

Designation	HAND	CW±0.025	RE	Coated					CDX	BW	S	IC	INSL	D1
				AH7025										
6GMR100-015	R	1	0.15	●					1.5	5.56	2.34	4.76	6.44	2.3
7GMR200-020	R	2	0.2	●					1.5	5.56	3.08	5.56	7.36	2.58
8GMR150-020	R	1.5	0.2	●					2	6.15	3.87	5.56	10.16	2.58
9GMR200-020	R	2	0.2	●					3	7.74	4.66	6.35	12.95	2.86
9GMR300-020	R	3	0.2	●					3	7.74	4.66	6.35	12.95	2.86

● : Line up



Reference pages: Toolholder → [G142](#), [G143](#), Standard cutting conditions → [G146](#)



Right hand (R) shown.

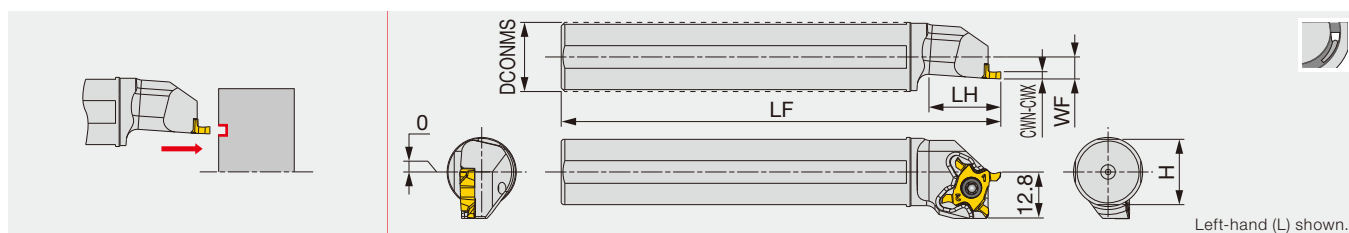
★ : First choice
☆ : Second choice

Note: Use the right-hand insert (□GB) with the right-hand holder (□NGB), and use the left-hand insert (□GL) with the left-hand holder (□NGL).

STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Grade	Cutting speed Vc (m/min)	Feed rate: <i>f</i> (mm/rev)	
				**GMR...	**GR/L...
P	Carbon steel S45C, C45, etc.	AH7025	80 - 180	0.03 - 0.12	-
		NS9530	80 - 200	-	0.05 - 0.15
		UX30	40 - 150	-	0.05 - 0.15
	Alloy steel SCM435, 34CrMo4, etc.	AH7025	80 - 180	0.03 - 0.12	-
		NS9530	80 - 200	-	0.05 - 0.15
		UX30	40 - 150	-	0.05 - 0.15
M	Stainless steel SUS304, X5CrNi18-9, etc.	AH7025	50 - 120	0.03 - 0.12	-
		UX30	40 - 100	-	0.03 - 0.10
K	Grey cast irons F250, GG25, 250, etc.	AH7025	50 - 220	0.03 - 0.12	-
		TH10	60 - 200	-	0.05 - 0.15
	Ductile cast irons FCD400, etc.	AH7025	50 - 180	0.03 - 0.12	-
		TH10	40 - 160	-	0.05 - 0.15
S	Titanium alloys Ti-6Al-4V, etc.	AH7025	30 - 80	0.03 - 0.12	-
		TH10	20 - 50	-	0.05 - 0.08
	Superalloys Inconel718, etc.	AH7025	20 - 60	0.03 - 0.12	-
		TH10	10 - 30	-	0.03 - 0.08





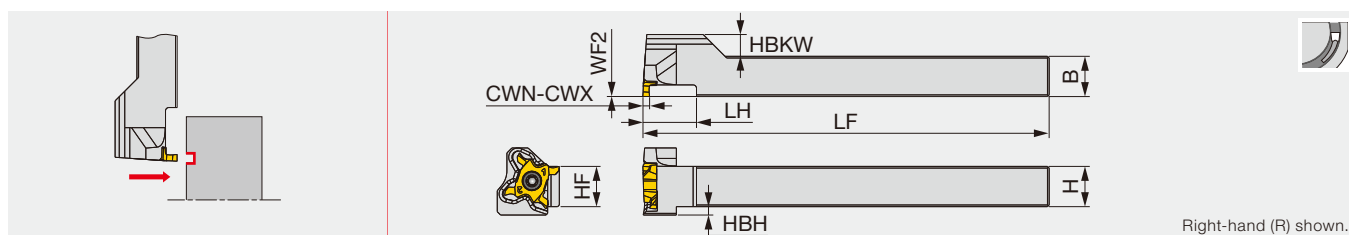
Designation	CWN	CWX	DCONMS	LF	LH	H	WF	Insert	Torque*
JS16F-STCFL18	0.5	2.5	16	85	20	15	6	TCF18L...	1.2
JS19G-STCFL18	0.5	2.5	19.05	90	20	18	6	TCF18L...	1.2
JS19X-STCFL18	0.5	2.5	19.05	120	20	18	6	TCF18L...	1.2
JS20G-STCFL18	0.5	2.5	20	90	20	19	6	TCF18L...	1.2
JS20X-STCFL18	0.5	2.5	20	120	20	19	6	TCF18L...	1.2
JS22X-STCFL18	0.5	2.5	22	120	20	21	6	TCF18L...	1.2
JS25H-STCFL18	0.5	2.5	25	100	20	24	6	TCF18L...	1.2
JS254X-STCFL18	0.5	2.5	25.4	120	20	24.5	6	TCF18L...	1.2

Note: The left hand insert (L) is used for the left hand toolholders (L).

Torque*: Recommended clamping torque: N·m

STCFVR-18

Face grooving toolholder with square shank, for Swiss lathes



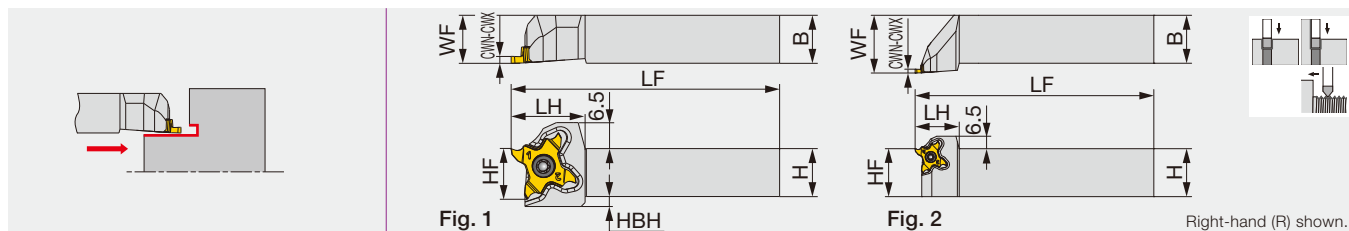
Designation	CWN	CWX	H	B	LF	LH	HF	WF2	HBKW	HBH	Insert	Torque*
STCFVR1010H18	0.5	2.5	10	10	100	12	10	0	8.5	4.5	TCF18L...	1.2
STCFVR1212F18	0.5	2.5	12	12	85	16	12	0	6.5	2.5	TCF18L...	1.2
STCFVR1212X18	0.5	2.5	12	12	120	16	12	0	6.5	2.5	TCF18L...	1.2
STCFVR1616X18	0.5	2.5	16	16	120	20	16	0	2.5	0	TCF18L...	1.2

Note: The left hand insert (L) is used for the right hand toolholders (R).

Torque*: Recommended clamping torque: N·m

STCR/L-18

Precision grooving tools with uniquely shaped insert for swiss type machine and general lathes



Designation	CWN	CWX	H	B	LF	LH	HF	WF	HBH	Insert	Torque*	Fig.
STCR/L1010X18	0.33	3.18	10	10	120	18.5	10	10	4.5	TC*18...	1.2	1
STCR/L1212F18	0.33	3.18	12	12	85	18.5	12	12	2.5	TC*18...	1.2	1
STCR/L1212X18	0.33	3.18	12	12	120	18.5	12	12	2.5	TC*18...	1.2	1
STCR/L1616X18	0.33	3.18	16	16	120	18.5	16	16	-	TC*18...	1.2	1
STCR/L2020H18	0.33	3.18	20	20	100	18.5	20	20	-	TC*18...	1.2	1
STCR/L2020X18	0.33	3.18	20	20	120	23	20	25	-	TC*18...	1.2	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 clamping torque: N·m

SPARE PARTS

Designation	Clamping screw	Wrench
JS*-STCFL18, STCFVR**18, STCL**18	CSTC-4L100DR	T-1008/5
STCR**18	CSTC-4L100DL	T-1008/5

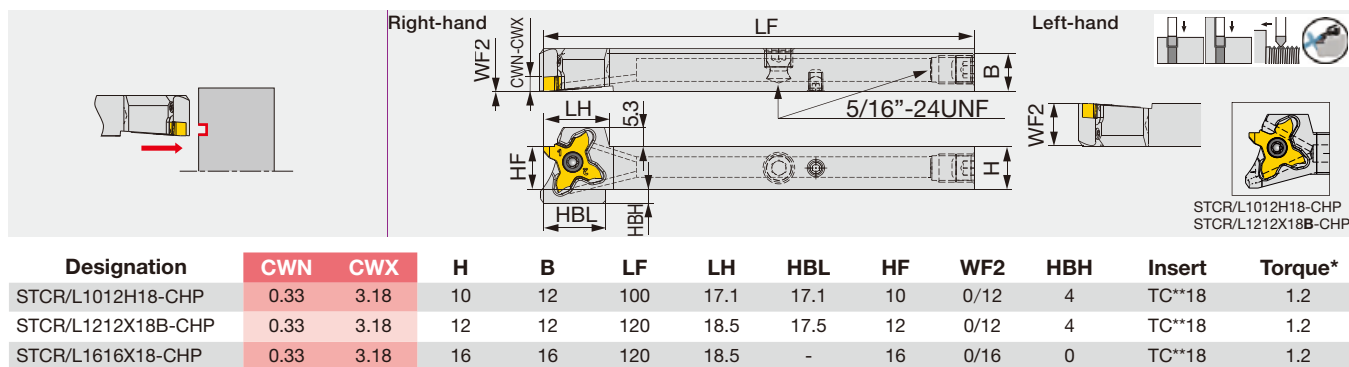
Threading pitch range: 0.8 - 3 mm

Reference pages :

JS-STCFL18, STCFVR-18, STCR/L-18:

Inserts, Standard cutting conditions → G149

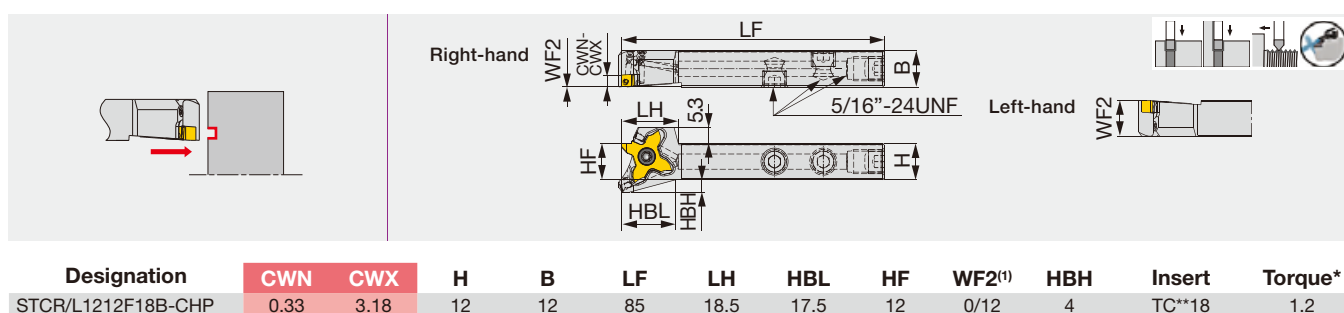
External grooving and threading toolholder, high pressure coolant compatible



STCR/L-18-CHP

Tube connection

External grooving and threading toolholder. High pressure coolant capability.



The right hand insert (TC*18R***) is used for the right hand toolholders (STCR***), and the left hand insert (TC*18L***) is used for the left hand toolholders (STCL***).

(1) "0/12" for the WF dimension indicates WF = 0 for the right handed tool, WF = 12 for the left handed tool.

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

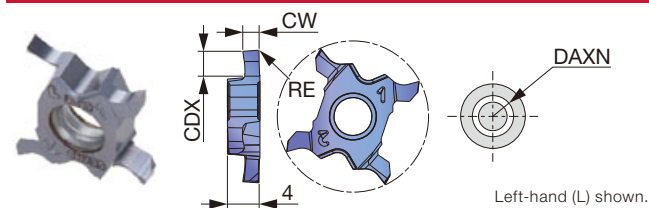
SPARE PARTS

Designation	Clamping screw	Wrench	Coolant plug	Wrench	DirectJet plug	Wrench
STCL**18-CHP	CSTC-4L100DR	T-1008/5	SR5/16UNFTL360	P-4	SSH4-6-TB	P-2
STCR**18-CHP	CSTC-4L100DL	T-1008/5	SR5/16UNFTL360	P-4	SSH4-6-TB	P-2
STCL**F18B-CHP	CSTC-4L100DR	T-1008/5	SR5/16UNFTL360	P-4	-	-
STCR**F18B-CHP	CSTC-4L100DL	T-1008/5	SR5/16UNFTL360	P-4	-	-

Threading pitch range: 0.8 ~ 3.0 mm

■ INSERT

TCF18L (Face grooving)



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

★: First choice

Designation	HAND	CW±0.02	RE	Coated								CDX	DAXN
				SH725									
TCF18L050F-005	L	0.5	0.05	●								1	6
TCF18L100F-005	L	1	0.05	●								2.5	6
TCF18L150F-005	L	1.5	0.05	●								2.5	6
TCF18L200F-005	L	2	0.05	●								3	6
TCF18L250F-005	L	2.5	0.05	●								3	6

5 pieces per package
● : Line up

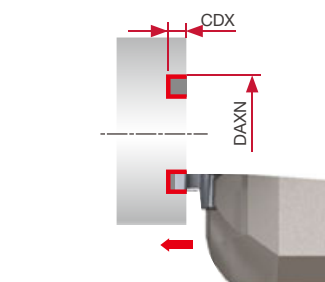
STANDARD CUTTING CONDITIONS

TCF18L (Face grooving)

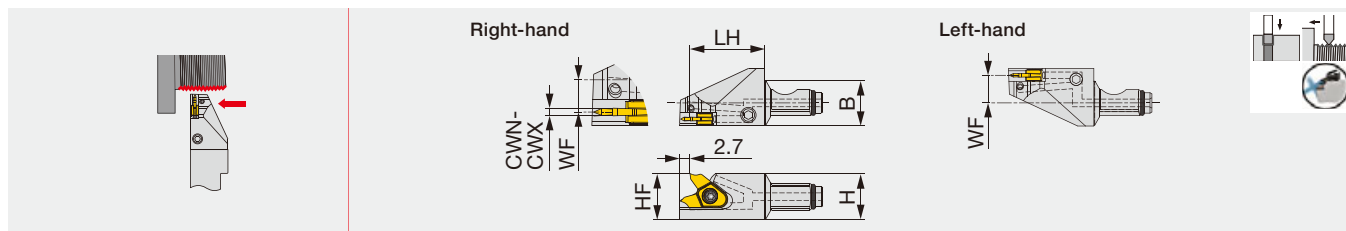
ISO	Workpiece materials	Grades	Cutting speed Vc (m/min)	Feed f (mm/rev)
P	Low carbon steel S15C, C15E, C15E4, S20C, C20, etc.	SH725	30 - 100	0.01 - 0.04
	Carbon steels, Alloy steel S55C, C55, SCM440, 42CrMoS4, etc.	SH725	30 - 100	0.01 - 0.04
	Prehardened steel NAK80, PX5, etc.	SH725	30 - 100	0.01 - 0.04
M	Stainless steel SUS304, X5CrNi18-9, X5CrNiMo17-12-2, etc.	SH725	30 - 100	0.01 - 0.04
K	Grey cast iron FC250, GG25, 250, FC300, GG30, 300, etc.	SH725	30 - 100	0.01 - 0.04
	Ductile cast iron FCD400, 400-15, FCD600, GGG60, 600-3, etc.	SH725	30 - 100	0.01 - 0.04
S	Titanium alloys Ti-6Al-4V, etc.	SH725	20 - 40	0.01 - 0.04
	Superalloys Inconel718, etc.	SH725	10 - 30	0.01 - 0.04

■ PRECAUTIONS OF PROCESSING

Minimum diameter for face grooving



Minimum face diameter DAXN (mm)	Maximum groove depth CDX (mm)
65	3



Designation	Pitch	TPI	H	B	LH	HF	WF ⁽¹⁾	Insert	Torque*
QC12-SVER/L10-CHP	0.4 - 1.5	64 - 12	12	12	19.5	12	4.19/7.19	VG*10...	1.3

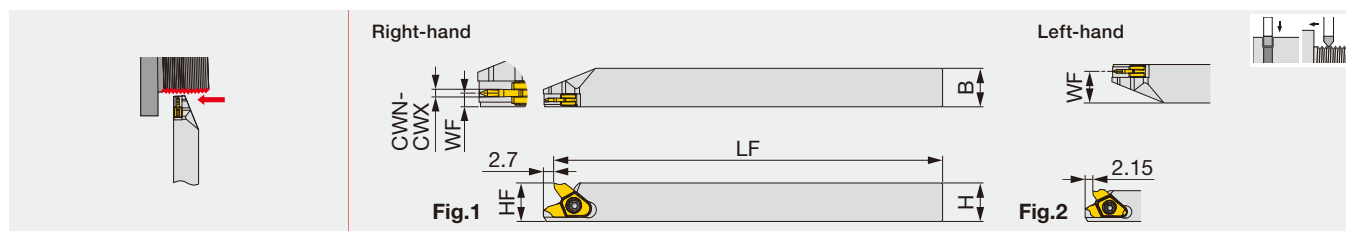
Torque*: Recommended clamping torque (N-m)

(1) "WF" indicates the distance from the reference position to the center of the cutting edge width.

The first value before "/" indicates the WF for the right-hand holder and the second value after "/" for the left-hand holder.

SVER/L

External grooving and threading toolholder



Designation	Pitch	TPI	H	B	LF	HF	WF ⁽¹⁾	Insert	Torque*	Fig.
SVER/L1010H10	0.4 - 1.5	64 - 12	10	10	100	10	1.78/8.23	VG*10...	1.3	1
SVER/L1212X10	0.4 - 1.5	64 - 12	12	12	120	12	1.78/10.23	VG*10...	1.3	1

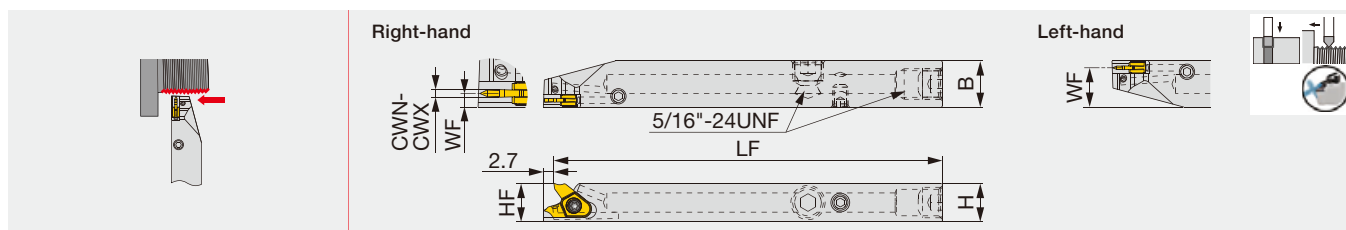
Torque*: Recommended clamping torque (N-m)

(1) "WF" indicates the distance from the reference position to the center of the cutting edge width.

The first value before "/" indicates the WF for the right-hand holder and the second value after "/" for the left-hand holder.

SVER/L-CHP

External grooving and threading toolholder, with high pressure coolant capability



Designation	Pitch	TPI	H	B	LF	HF	WF ⁽¹⁾	Insert	Torque*
SVER/L1012H10-CHP	0.4 - 1.5	64 - 12	10	12	100	10	1.78/10.23	VG*10...	1.3
SVER/L1212X10-CHP	0.4 - 1.5	64 - 12	12	12	120	12	1.78/10.23	VG*10...	1.3

Compatible to the direct internal coolant supply system without the use of external coolant hose.

Torque*: Recommended clamping torque (N-m)

(1) "WF" indicates the distance from the reference position to the center of the cutting edge width. The first value before "/" indicates the WF for the right-hand holder and the second value after "/" for the left-hand holder.

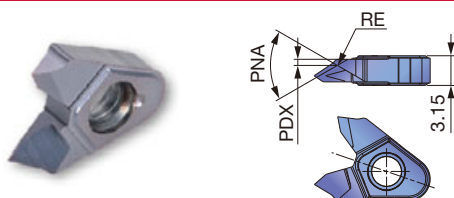
SPARE PARTS

Designation	Clamping screw	Wrench 1	O-ring	Coolant plug	Wrench 2	DirectJet plug	Wrench 3
QC12-SVER...	CSTB-2.5L054DL	T-7F	ORSS-0454.5X1.0NBR70	-	-	-	-
QC12-SVEL...	CSTB-2.5L054DR	T-7F	ORSS-0454.5X1.0NBR70	-	-	-	-
SVER1012/1212...	CSTB-2.5L054DL	T-7F	-	SR5/16UNFTL360	P-4	SSH4-6-TB	P-2
SVEL1012/1212...	CSTB-2.5L054DR	T-7F	-	SR5/16UNFTL360	P-4	SSH4-6-TB	P-2
SVER0808...	CSTB-2.2L053DL	T-7F	-	-	-	-	-
SVEL0808...	CSTB-2.2L053DR	T-7F	-	-	-	-	-
SVER1010/1212...	CSTB-2.5L054DL	T-7F	-	-	-	-	-
SVEL1010/1212...	CSTB-2.5L054DR	T-7F	-	-	-	-	-

Reference pages: QC12-SVER/L-CHP, SVER/L, SVER/L-CHP: Shank, Accessory → **G095, G096**

INSERT

VGT10 (For threading / sharp edge)



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

★ : First choice

Designation	RE	Coated					Pitch	TPI	PDX	PNA
		SH725								
VGT10F-60A-005	0.05	●					0.4 - 1	64 - 25	0.66	60°
VGT10F-60A-010	0.1	●					1 - 2	25 - 12	0.96	60°
VGT10F-55A-005	0.05	●					0.6 - 1.5	40 - 16	0.85	55°

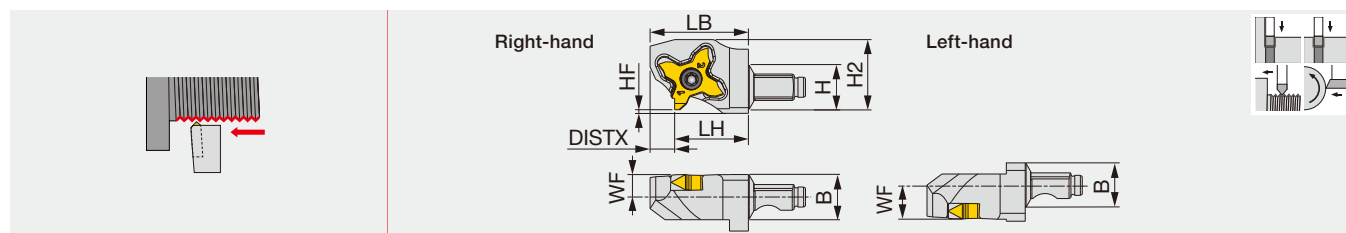
● : Line up

STANDARD CUTTING CONDITIONS

Threading

ISO	Workpiece materials	Grade	Cutting speed Vc (m/min)	Pitch (mm)	TPI
P	Low carbon steels S15C, SS400, etc. C15E4, E275A, etc.	SH725	50 - 150	0.4 - 2	64 - 12
	Carbon steels, Alloy steels S55C, SCM440, etc. C55, 42CrMo4, etc.	SH725	50 - 150	0.4 - 2	64 - 12
	Free cutting steels SUH22, SUH23, etc.	SH725	50 - 150	0.4 - 2	64 - 12
M	Stainless steels SUS304, X5CrNi18-9, etc.	SH725	50 - 100	0.4 - 2	64 - 12
N	Aluminium alloys A5056, A6061, etc.	SH725	150 - 200	0.4 - 2	64 - 12
	Copper alloy C2600, C280C, etc.	SH725	100 - 200	0.4 - 2	64 - 12
S	Titanium alloys Ti-6Al-4V, etc.	SH725	30 - 80	0.4 - 2	64 - 12
	Superalloys Inconel718, etc.	SH725	30 - 80	0.4 - 2	64 - 12

Y-axis turning modular head for external grooving and threading



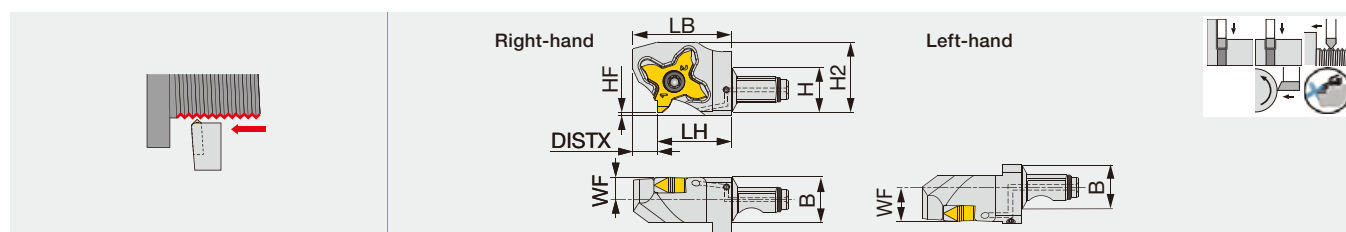
Designation	Pitch	H	B	LH	HF	WF	LB	H2	DISTX	Insert	Torque*
QC12-STCR/L18-Y	0.4 - 3	12	12	19.5	0	6	26	18.6	6.5	TC*18R/L...	1.2

Torque*: Recommended clamping torque (N-m)

The right hand insert (R) is used for the right hand toolholders (R), and the left hand insert (L) is used for the left hand toolholders (L).

QC12-STCR/L-Y-CHP

Y-axis turning modular head for external grooving and threading, with high pressure coolant capability



Designation	Pitch	H	B	LH	HF	WF	LB	H2	DISTX	Insert	Torque*
QC12-STCR/L18-Y-CHP	0.4 - 3	12	12	19.5	0	6	26	18.6	6.5	TC*18R/L...	1.2

Torque*: Recommended clamping torque (N-m)

The right hand insert (R) is used for the right hand toolholders (R), and the left hand insert (L) is used for the left hand toolholders (L).

Through-coolant head

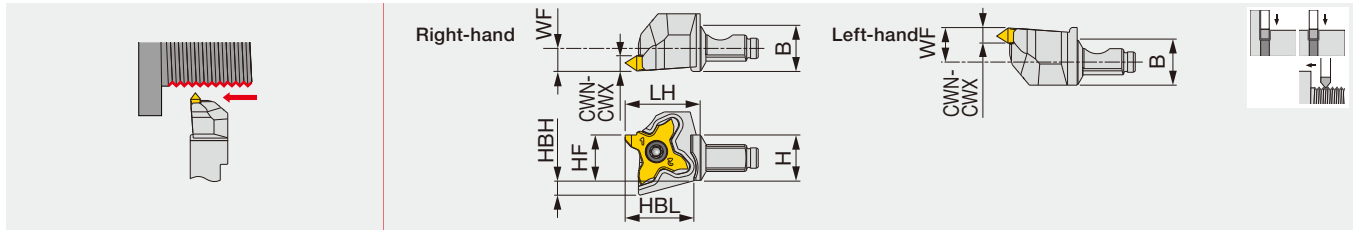
SPARE PARTS

Designation	Clamping screw	Wrench	O-ring
QC12-STCR18-Y	CSTC-4L100DL	T-1008/5	-
QC12-STCL18-Y	CSTC-4L100DR	T-1008/5	-
QC12-STCR18-Y-CHP	CSTC-4L100DL	T-1008/5	ORSS-0454.5X1.0NBR70
QC12-STCL18-Y-CHP	CSTC-4L100DR	T-1008/5	ORSS-0454.5X1.0NBR70

Reference pages: QC12-STC/LR-Y, QC12-STCR/L-Y-CHP: Inserts → [G156](#), [G157](#)
Shank, Accessory → [G095](#), [G096](#), Standard cutting conditions → [G157](#)

QC12-STCR/L

Modular head for external grooving and threading



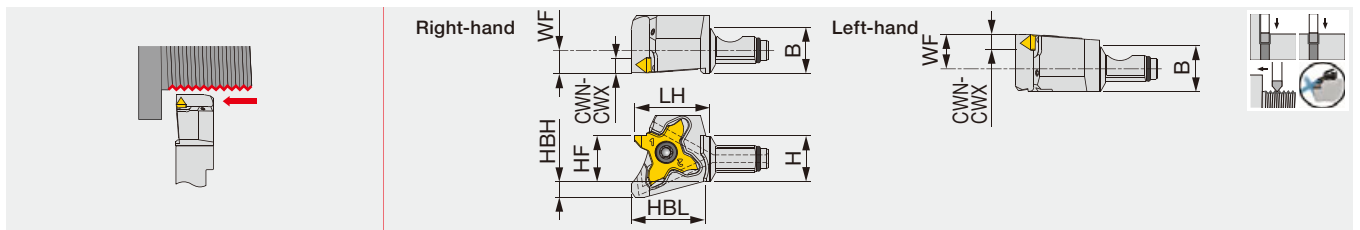
Designation	Pitch	H	B	LH	HF	HBH	HBL	WF	Insert	Torque*
QC12-STCR/L18	0.4 - 3	12	12	21	12	3.9	18.3	9	TC*18R/L...	1.2

Torque*: Recommended clamping torque (N-m)

The right hand insert (R) is used for the right hand toolholders (R), and the left hand insert (L) is used for the left hand toolholders (L).

QC12-STCR/L-CHP

Modular head for external grooving and threading, with high pressure coolant capability



Designation	Pitch	H	B	LH	HF	HBH	HBL	WF	Insert	Torque*
QC12-STCR/L18-CHP	0.4 - 3	12	12	21	12	4.2	19.3	9	TC*18R/L...	1.2

Torque*: Recommended clamping torque (N-m)

The right hand insert (R) is used for the right hand toolholders (R), and the left hand insert (L) is used for the left hand toolholders (L).

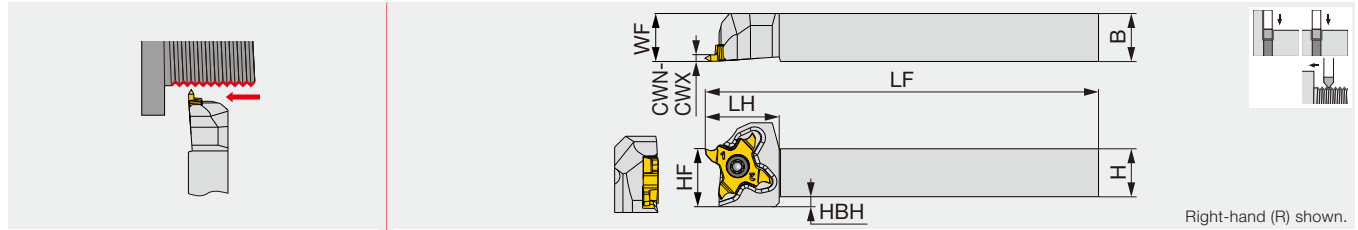
Through-coolant head

SPARE PARTS

Designation	Clamping screw	Wrench	O-ring
QC12-STCR18-CHP	CSTC-4L100DL	T-1008/5	ORSS-0454.5X1.0NBR70
QC12-STCL18-CHP	CSTC-4L100DR	T-1008/5	ORSS-0454.5X1.0NBR70
QC12-STCR18	CSTC-4L100DL	T-1008/5	-
QC12-STCL18	CSTC-4L100DR	T-1008/5	-

Reference pages: QC12-STCR/L, QC12-STCR/L-CHP: Inserts → [G156](#), [G157](#)
Shank, Accessory → [G095](#), [G096](#), Standard cutting conditions → [G157](#)

External grooving and threading toolholder



Right-hand (R) shown.

Designation	Pitch	H	B	LF	LH	HF	WF	HBH	Insert	Torque*
STCR/L1010X18	0.4 - 3	10	10	120	18.5	10	10	4.5	TC*18...	1.2
STCR/L1212F18	0.4 - 3	12	12	85	18.5	12	12	2.5	TC*18...	1.2
STCR/L1212X18	0.4 - 3	12	12	120	18.5	12	12	2.5	TC*18...	1.2
STCR/L1616X18	0.4 - 3	16	16	120	18.5	16	16	-	TC*18...	1.2
STCR/L2020H18	0.4 - 3	20	20	100	18.5	20	20	-	TC*18...	1.2
STCR/L2020X18	0.4 - 3	20	20	120	23.0	20	25	-	TC*18...	1.2

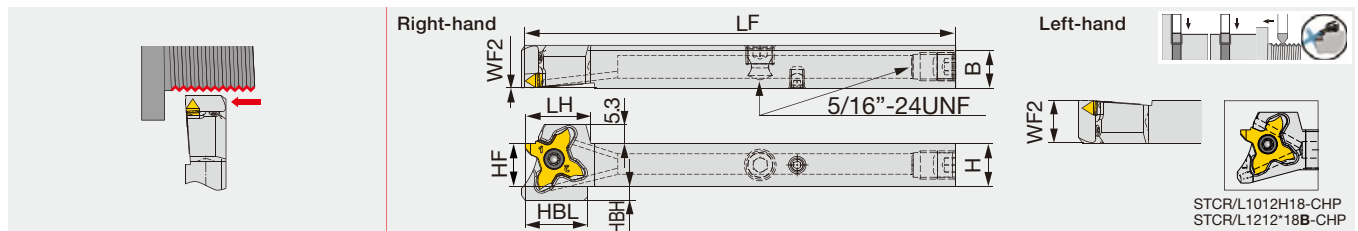
Torque*: Recommended torque (N-m) for clamping

The right hand insert (TC*18R...) is used for the right hand toolholders (STCR...), and the left hand insert (TC*18L...) is used for the left hand toolholders (STCL...).

STCR/L-H/X18-CHP

Direct connection

External grooving and threading toolholder, high pressure coolant compatible



STCR/L1012H18-CHP
STCR/L1212*18B-CHP

Designation	Pitch	H	B	LF	LH	HBL	HF	WF	HBH	Insert	Torque*
STCR/L1012H18-CHP	0.4 - 3	10	12	100	17.1	17.1	10	0/12	4	TC**18	1.2
STCR/L1212X18B-CHP	0.4 - 3	12	12	120	18.5	17.5	12	0/12	4	TC**18	1.2
STCR/L1616X18-CHP	0.4 - 3	16	16	120	18.5	-	16	0/16	0	TC**18	1.2

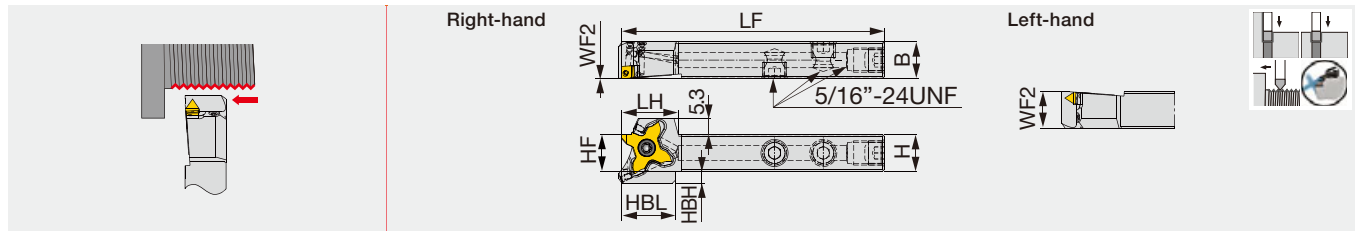
Torque*: Recommended torque (N-m) for clamping

The right hand insert (TC*18R...) is used for the right hand toolholders (STCR...), and the left hand insert (TC*18L...) is used for the left hand toolholders (STCL...).

SPARE PARTS

Designation	Clamping screw	Wrench	Coolant plug	Wrench	DirectJet plug	Wrench
STCR...18	CSTC-4L100DL	T-1008/5	-	-	-	-
STCL...18	CSTC-4L100DR	T-1008/5	-	-	-	-
STCL**18-CHP	CSTC-4L100DR	T-1008/5	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2
STCR**18-CHP	CSTC-4L100DL	T-1008/5	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2

External grooving and threading toolholder. High pressure coolant capability.

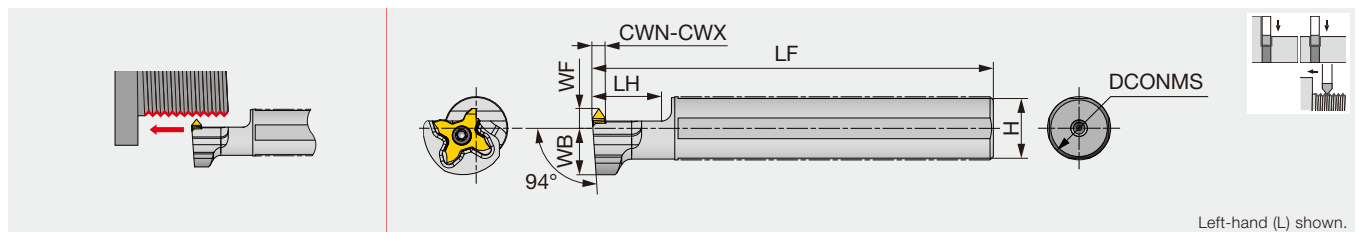


Designation	Pitch	H	B	LF	LH	HBL	HF	WF	HBH	Insert	Torque*
STCR/L1212F18B-CHP	0.4 - 3	12	12	85	18.5	17.5	12	0/12	4	TC**18	1.2

• The right hand insert (TC*18R**) is used for the right hand toolholders (STCR**), and the left hand insert (TC*18L**) is used for the left hand toolholders (STCL**).
 (1) *0/12" for the WF dimension indicates WF = 0 for the right handed tool, WF = 12 for the left handed tool.
 Torque*: Recommended torque (N-m) for clamping
 **: To be replaced with the new design

JS-STCL18

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



Designation	Pitch	DCONMS	H	LF	LH	WB	WF	Insert	Torque*
JS14H-STCL18	0.4 - 3	14	13	100	20	14	6	TC*18R...	1.2
JS159F-STCL18	0.4 - 3	15.875	15	85	20	14	6	TC*18R...	1.2
JS16F-STCL18	0.4 - 3	16	15	85	20	14	6	TC*18R...	1.2
JS19G-STCL18	0.4 - 3	19.05	18	90	20	14	6	TC*18R...	1.2
JS19X-STCL18	0.4 - 3	19.05	18	120	20	14	6	TC*18R...	1.2
JS20G-STCL18	0.4 - 3	20	19	90	20	14	6	TC*18R...	1.2
JS20X-STCL18	0.4 - 3	20	19	120	20	14	6	TC*18R...	1.2
JS22X-STCL18	0.4 - 3	22	21	120	20	12.25	10	TC*18R...	1.2
JS25H-STCL18	0.4 - 3	25	24	100	20	12.25	10	TC*18R...	1.2
JS254X-STCL18	0.4 - 3	25.4	24	120	20	12.25	10	TC*18R...	1.2

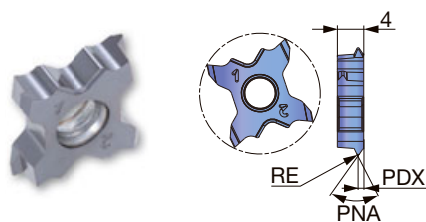
- The left hand toolholder (STCL...) is used with the right hand inserts (TC*18R...)
 Torque*: Recommended torque (N-m) for clamping

SPARE PARTS

Designation	Clamping screw	Wrench	Coolant plug	Wrench
STCL**18-CHP	CSTC-4L100DR	T-1008/5	SR5/16UNFTL360	P-4
STCR**18-CHP	CSTC-4L100DL	T-1008/5	SR5/16UNFTL360	P-4
JS...STCL18	CSTC-4L100DL	T-1008/5	-	-

INSERT

TCT18FR/R-ISO (Full profile threading insert)



Right-hand (R) shown.

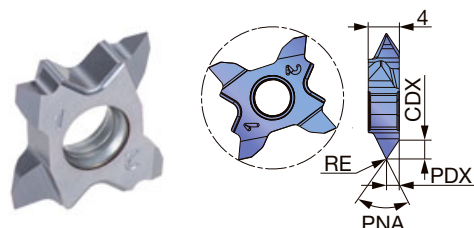
P	Steel	★	★	
M	Stainless	★	★	
K	Cast iron	★	★	
N	Non-ferrous			
S	Superalloys	★	★	
H	Hard materials			

★ : First choice
☆ : Second choice

Designation	HAND	RE	Coated		Pitch min	Pitch max	PDX	PNA
			SH725	AH725				
TCT18FR-05ISO	R	0.06	●			0.5	0.35	60°
TCT18FR-07ISO	R	0.09	●			0.7	0.45	60°
TCT18FR-075ISO	R	0.09	●			0.75	0.5	60°
TCT18FR-08ISO	R	0.1	●			0.8	0.5	60°
TCT18R-10ISO	R	0.13		●		1	0.6	60°
TCT18R-125ISO	R	0.17		●		1.25	0.7	60°
TCT18R-15ISO	R	0.2		●		1.5	0.8	60°

● : Line up

TCT18R/L (for threading)



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

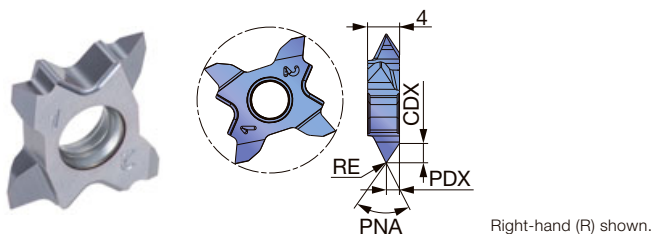
★ : First choice
☆ : Second choice

Designation	HAND	RE	Coated		Pitch min	Pitch max	PDX	CDX	PNA
			SH725	AH725					
TCT18R-60N-010	R	0.1	●		0.8	3	1.6	2.67	60°
TCT18L-60N-010	L	0.1	●		0.8	3	1.6	2.67	60°
TCT18R-60N-020	R	0.2	●		1.5	3	1.6	2.57	60°
TCT18L-60N-020	L	0.2	●		1.5	3	1.6	2.57	60°

● : Line up

Reference pages: Toolholder → **G152 - G155**

TCT18FR (sharp edge for threading)



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

★ : First choice
☆ : Second choice

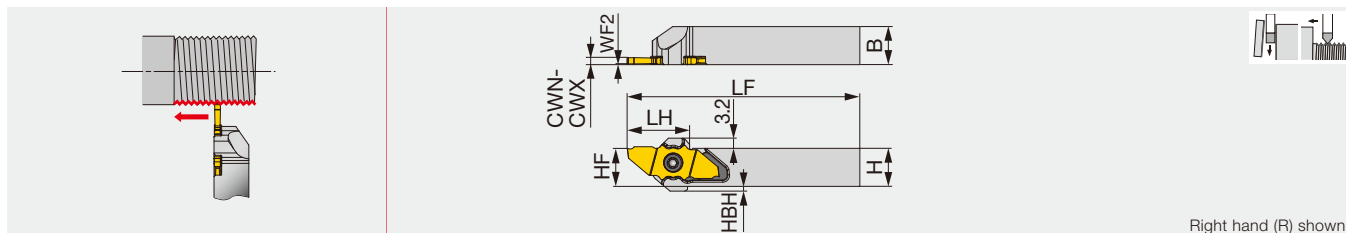
Designation	HAND	RE	Coated		Pitch min	Pitch max	PDX	CDX	PNA
			SH725						
TCT18FR-60A-005	R	0.05	●		0.4	1	0.6	0.99	60°
TCT18FR-60A-010	R	0.1	●		1	2	1	1.63	60°

● : Line up

STANDARD CUTTING CONDITIONS

TCT18FR/R-ISO (Full profile threading insert) / TCT18FR (Threading insert)

ISO	Workpiece materials	Priority	Grades	Cutting speed V _c (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 - 18
		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 - 18
		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 - 18
		Toughness	AH725	60 - 150	0.8 - 3.0	32 - 8
	Stainless steel SUS304, etc. X5CrNi18-9, etc.	First choice	SH725	50 - 80	0.4 - 2.0	64 - 18
		Toughness	AH725	50 - 80	0.8 - 3.0	32 - 8
K	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 - 18
	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 - 18
S	Titanium alloys Ti-6Al-4V, etc.	First choice	SH725	30 - 100	0.4 - 2.0	64 - 18
		Toughness	AH725	30 - 100	0.8 - 3.0	32 - 8
	Superalloys Inconel718, etc.	First choice	SH725	30 - 100	0.4 - 2.0	64 - 18
		Toughness	AH725	30 - 100	0.8 - 3.0	32 - 8



Designation	CWN	CWX	H	B	LF**	LH**	HF	WF2	HBL**	HBH	Insert	Torque*
JSXXR/L1010X09	0.6	2.5	10	10	120	19.65	10	0.2	19	3	JX**06...,12...,16...,20...	1.2
JSXXR/L1212F09	0.6	2.5	12	12	85	19.65	12	0.2	19	1.5	JX**06...,12...,16...,20...	1.2
JSXXR/L1212X09	0.6	2.5	12	12	120	19.65	12	0.2	19	1.5	JX**06...,12...,16...,20...	1.2
JSXXR/L1616X09	0.6	2.5	16	16	120	19.65	16	0.2	-	-	JX**06...,12...,16...,20...	1.2
JSXXR/L2020H09	0.6	2.5	20	20	100	22.5	20	0.2	-	-	JX**06...,12...,16...,20...	1.2

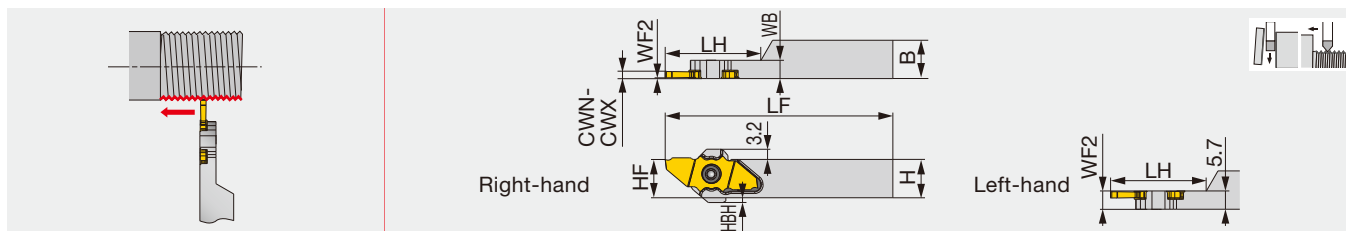
Torque*: Recommended torque (N-m) for clamping

**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***R...) for a right-hand holder (JSXXR...); the left-hand insert (JX***L...) for a left-hand holder (JSXXL...).

JSXXR/L-S

Parting toolholder, for Swiss lathes (for sub spindle)



Designation	CWN	CWX	H	B	LF**	LH**	HF	WF2	HBH	Insert	Torque*
JSXXR/L1010X09-S	0.6	2.5	10	10	120	26	10	0.2/5.5	3	JX**06...,12...,16...	1.2
JSXXR/L1212F09-S	0.6	2.5	12	12	85	26	12	0.2/5.5	1.5	JX**06...,12...,16...	1.2
JSXXR/L1212X09-S	0.6	2.5	12	12	120	30	12	0.2/5.5	1.5	JX**06...,12...,16...	1.2
JSXXR/L1616X09-S	0.6	2.5	16	16	120	30	16	0.2/5.5	-	JX**06...,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***R...) for a right-hand holder (JSXXR...); the left-hand insert (JX***L...) for a left-hand holder (JSXXL...).

SPARE PARTS

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

JSXXR/L-F/H/X-CHP

Parting-off toolholders with high pressure coolant capability, for swiss lathes

Designation	Direct connection		Tube connection		Right-hand		Left-hand		Insert		Torque*		Fig.
	CWN	CWX	H	B	LF ⁽¹⁾	LH ⁽¹⁾	HF	WF2 ⁽²⁾	HBL ⁽¹⁾	HBH			
JSXXR/L1012H09-CHP ⁽³⁾	0.6	2.5	10	12	102	19.2	10	0.2/11.8	18.7	3	JX**06...,12...,16...,20...	1.2	1
JSXXR/L1212F09-CHP	0.6	2.5	12	12	85	19.4	12	0.2/11.8	18.8	2	JX**06...,12...,16...,20...	1.2	2
JSXXR/L1212X09-CHP ⁽³⁾	0.6	2.5	12	12	120	19.4	12	0.2/11.8	18.8	2	JX**06...,12...,16...,20...	1.2	1
JSXXR/L1616X09B-CHP ⁽³⁾	0.6	2.5	16	16	120	19.4	16	0.2/15.8	18.7	-	JX**06...,12...,16...,20...	1.2	1

Torque*: Recommended clamping torque (N·m)

(1) LF (Functional Length) LH (Head Length), and HBL (Head-bottom Offset Length) values shown above are true with JX**16... insert. LF, LH, and HBL will all be 2 mm shorter than the above values with JX**12... and JX**20... inserts, and 4 mm shorter for JX**06... insert.

(2) The first value before "/" indicates the WF for the right-hand holder and the second value after "/" for the left-hand holder.

(3) Compatible to the direct internal coolant supply system without the use of external coolant hose.

(4) To be replaced with the new design

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

JSXXR/L-F/X-S-CHP

Parting-off toolholders with high pressure coolant capability, for swiss lathes (for sub spindle)

Direct connection

Tube connection

Designation	CWN	CWX	H	B	LF ⁽¹⁾	LH ⁽¹⁾	HF	WF2 ⁽²⁾	HBH	Insert	Torque*	Fig.
JSXXR/L1212F09-S-CHP ⁽⁴⁾	0.6	2.5	12	12	85	26	12	0.2	4	JX**06...,12...,16..., 20...	1.2	2
JSXXR/L1212F09B-S-CHP	0.6	2.5	12	12	85	30	12	0.2/5.5	2	JX**06...,12...,16..., 20...	1.2	2
JSXXR/L1212X09-S-CHP ^{(3),(4)}	0.6	2.5	12	12	120	30	12	0.2/5.5	4	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L1212X09B-S-CHP ⁽³⁾	0.6	2.5	12	12	120	30	12	0.2/5.5	2	JX**06...,12...,16..., 20...	1.2	1
JSXXR1616X09-S-CHP ^{(3),(4)}	0.6	2.5	16	16	120	30	16	0.2	1.5	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L1616X09B-S-CHP ⁽³⁾	0.6	2.5	16	16	120	30	16	0.2/5.5	-	JX**06...,12...,16..., 20...	1.2	1

Torque*: Recommended clamping torque (N·m)

(1) LF (Functional Length) and LH (Head Length) values shown above are true with JX**16... insert. Both LF and LH will be 2 mm shorter than the above value with JX**12... and JX**20... inserts; 4 mm shorter with JX**06... insert.

(2) The first value before "/" indicates the WF for the right-hand holder and the second value after "/" for the left-hand holder.

(3) Compatible to the direct internal coolant supply system without the use of external coolant hose.

(4) To be replaced with the new design

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

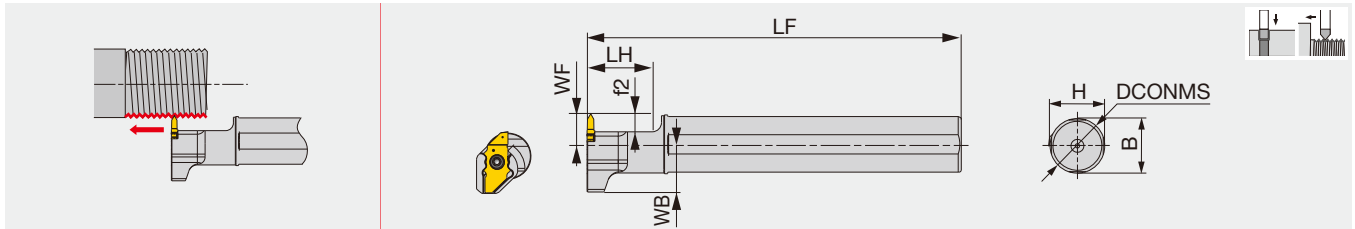
SPARE PARTS

Designation	Clamping screw	Wrench 1	Coolant plug	Wrench 2	DirectJet plug	Wrench 3
JSXXR**F...	CSTC-4L100DL	T-1008/5	SR5/16UNFTL360	P-4	-	-
JSXXL**F...	CSTC-4L100DR	T-1008/5	SR5/16UNFTL360	P-4	-	-
JSXXR**H/X...	CSTC-4L100DL	T-1008/5	SR5/16UNFTL360	P-4	SSH4-6-TB	P-2
JSXXL**H/X...	CSTC-4L100DR	T-1008/5	SR5/16UNFTL360	P-4	SSH4-6-TB	P-2

Reference pages: JSXXR/L-F/H/X-CHP, JSXXR/L-F/X-S-CHP:

Inserts → **G160**, Standard cutting conditions → **G161**

Round shanks, for threading



Designation	DCONMS	H	B	LF	LH	WB	WF ⁽¹⁾	f2 ⁽¹⁾	Insert	Torque*
JS19G-SXXL09	19.05	18	18	90	21	15.43	10	6	JX**06,12*R	1.2
JS19X-SXXL09	19.05	18	18	120	21	15.43	10	6	JX**06,12*R	1.2
JS20G-SXXL09	20	19	19	90	21	15.4	10	6	JX**06,12*R	1.2
JS20X-SXXL09	20	19	19	120	21	15.4	10	6	JX**06,12*R	1.2
JS22X-SXXL09	22	21	21	120	21	15.4	10	6	JX**06,12*R	1.2
JS25H-SXXL09	25	24	24	100	21	15.4	10	6	JX**06,12*R	1.2
JS254X-SXXL09	25.4	24	24	120	21	15.4	10	6	JX**06,12*R	1.2

Torque*: Recommended clamping torque (N·m)

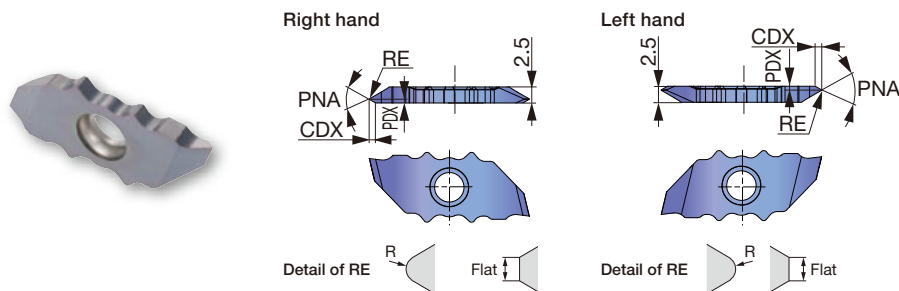
(1) When using JX..06... insert, both WF and f2 sizes will be 2 mm shorter than the values provided above.

SPARE PARTS

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

INSERT

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



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

★ : First choice

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

● : Line-up

Reference pages: Toolholder → **G158 - G160**

STANDARD CUTTING CONDITIONS

ISO	Workpiece materials	Grades	Cutting speed Vc (m/min)
P	Low carbon steels S15C, SS400, etc. C15E4, E275A, etc.	SH725	50 - 200
	Carbon steels, Alloy steels S55C, SCM440, etc. C55, 42CrMo4, etc.	SH725	50 - 200
	Free cutting steels SUH22, SUH23, etc.	SH725	50 - 200
M	Stainless steels SUS304, X5CrNi18-9, etc.	SH725	50 - 200
N	Aluminium alloys A5056, A6061, etc.	SH725	150 - 200
	Copper alloy C2600, C280C, etc.	SH725	100 - 200
S	Titanium alloys Ti-6Al-4V, etc.	SH725	30 - 80
	Superalloys Inconel718, etc.	SH725	30 - 80

Grade
Insert
Ext. Toolholder
Int. Toolholder
Threading
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Miniature tool
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Tooling System
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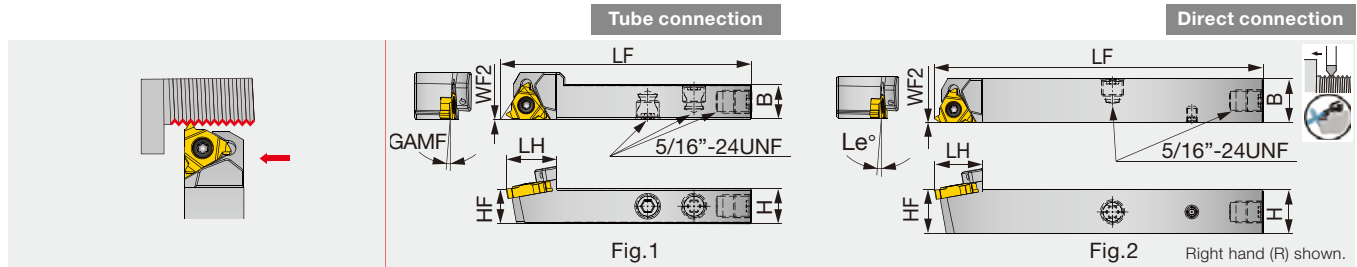
J

K

L

M

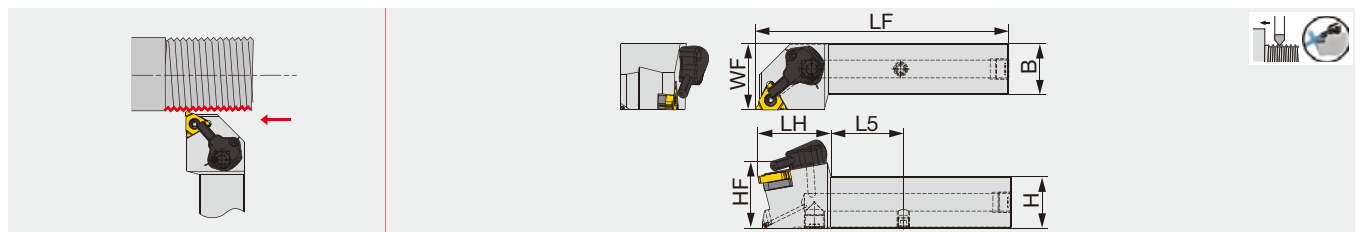
Screw-on external threading toolholders-High-pressure coolant capability with tube and direct connection



Designation	H	B	LF	LH	HF	WF2	GAMF	Insert	Fig.
JSE2R1212F16-CHP	12	12	85	19	12	0	1°	16ER...	1
JSE2R1212X16-CHP	12	12	120	19	12	0	1°	16ER...	2
JSE2R1616X16-CHP	16	16	120	19	16	0	1°	16ER...	2

SER-X-CHP-MC

Screw-on external threading toolholders-High-pressure coolant capability with tube and direct connection



Designation	H	B	LF	LH	HF	WF	L5	Insert
SER2020X16-CHP-MC	20	20	107	36	20	25	27.9	16ER...

SPARE PARTS

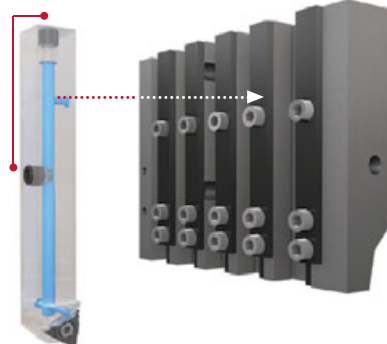
Designation	Clamping screw	Wrench	Shim screw	Shim	Coolant unit	Coolant plug	Wrench
JSE2R**16-CHP	CSTB-3.5	T-15F	-	-	-	SR5/16UNFTL360	P-4
SER**X16-CHP-MC	CSTB-3.5ST	T-15F	DTS5-3.5	A16-1DT	CU-V-CHP	PLUGG1/8-6.5TL360	P-3.5
SER**X22-CHP-MC	CSTB-4ST	T-15F	DTS6-4	GX22-1DT	CU-CW-CHP	PLUGG1/8-6.5TL360	P-4

No need for coolant tube setup.

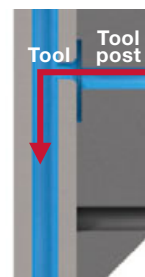
Eliminates chip entanglement on tubes and streamlines tool replacement.

Coolant is supplied from the tool post directly to the tools

Internal thread
Optional connection with
external coolant tube

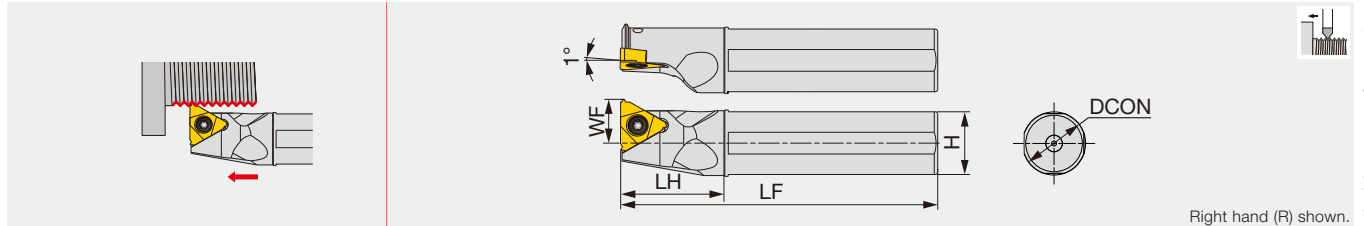


Detailed view of the coolant
flow after connection



JS-SEL16

External threading toolholder, for Swiss lathes



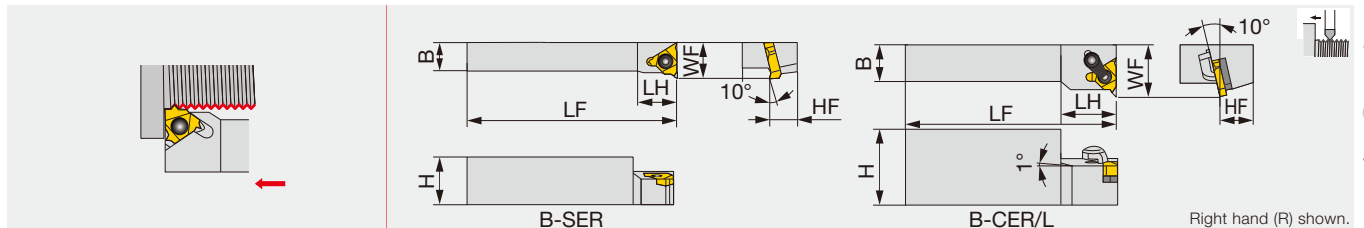
Right hand (R) shown.

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...
JS25H-SEL16	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).

B-S/CER/L

External threading toolholder, for Swiss lathes

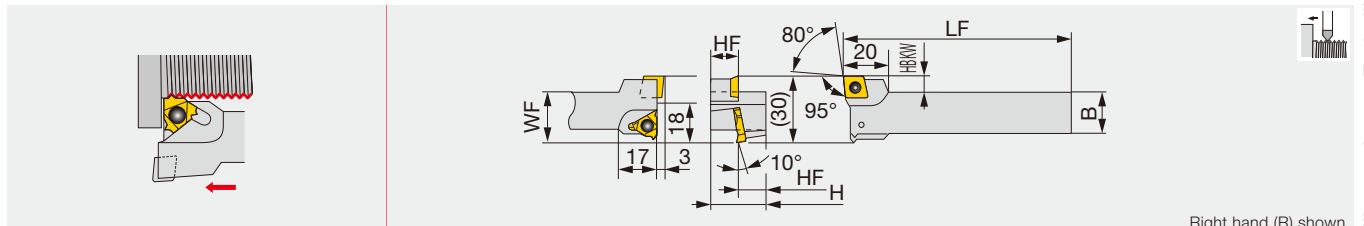


Right hand (R) shown.

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...

BC-SER/L

External threading toolholder, for multi-functional Swiss lathes



Right hand (R) shown.

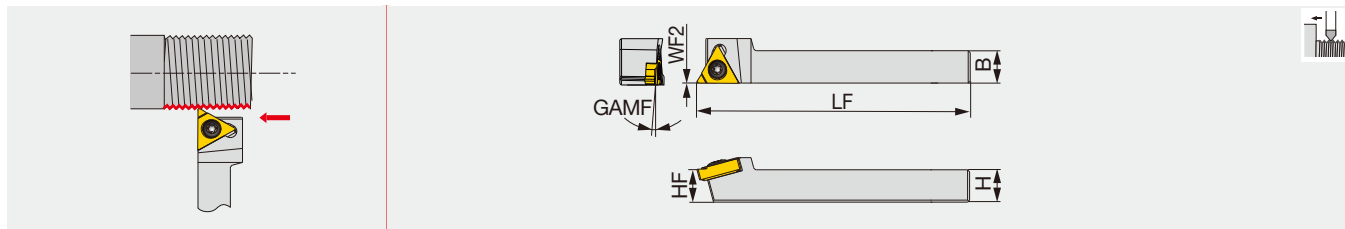
Designation	H	B	LF	HF	WF	HBKW	Insert
BC-SER12K16	24	16	125	12	23	7	16ER..., CC*T09T3...

SPARE PARTS

Designation	Clamp set	Shim set	Clamping screw	Wrench
JS***-SEL16, B-SER***16, BC-SER12K16	-	-	CSTB-3.5	T-15F
B-CER/L16M16	CSP16	A16-1	-	T-15F

Reference pages: JS-SEL16, B-S/CER/L: Inserts → **E010** -, Standard cutting conditions → **E067**
 BC-SER/L: Inserts → **B112** - (CC*T09T3...), **E010** - (16ER...),
 Standard cutting conditions → **E067**

Screw-on external threading toolholders

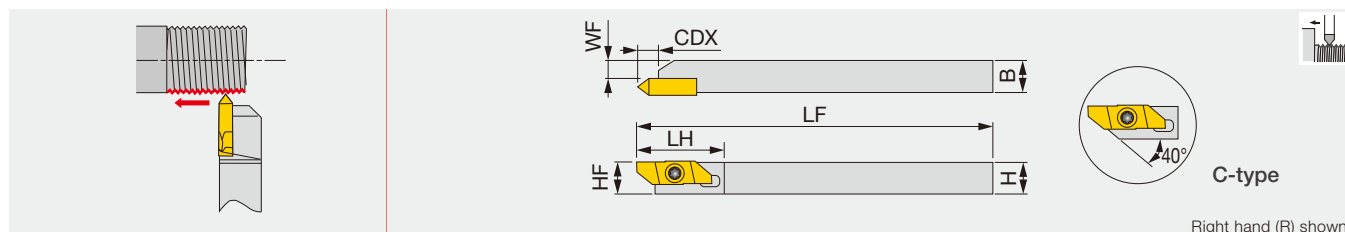


Designation	H	B	LF	HF	WF2	GAMF	Insert
SER0808H11	8	8	100	8	0	1.5°	11ER...
SER1010H11	10	10	100	10	0	1.5°	11ER...

J-SERIES

JSXBR/L

Screw-on external threading toolholder, for Swiss lathes



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

Can be wrenched from back side with both end torx screw.

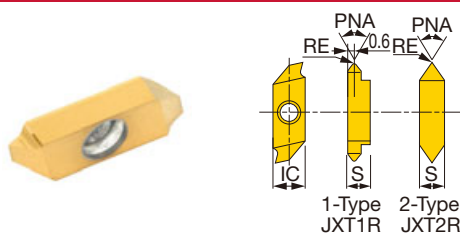
This toolholder is compatible with JXB-type inserts and JXT-type inserts.

SPARE PARTS

Designation	Clamping screw	Wrench 1	Wrench 2 (Optional)
SER**H11	SR M2.6-L6.7-S11	T-8/5	-
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				☆		

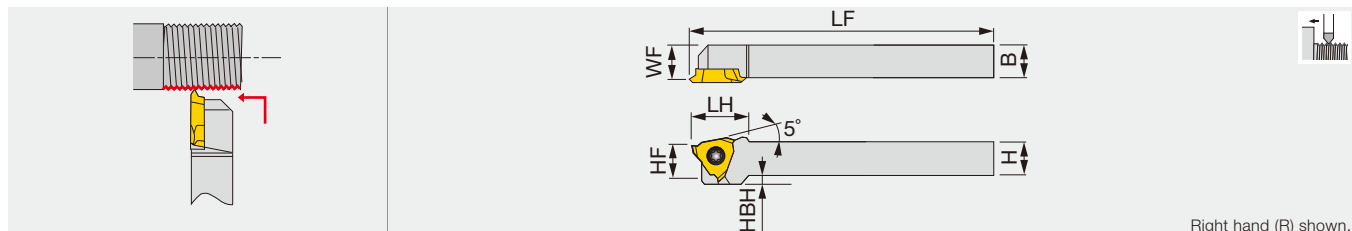
★ : First choice
☆ : Second choice

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

Machinable pitch range: 0.5 to 1 mm

● : Line up

Reference pages: SER: Inserts → **E010** -, Standard cutting conditions → **E067**



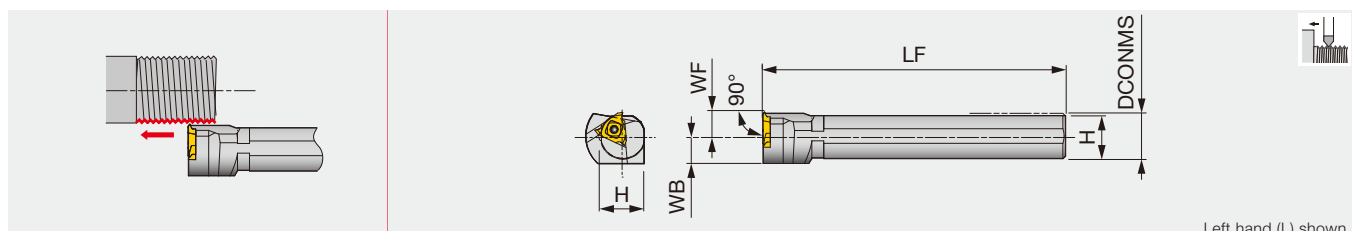
Right hand (R) shown.

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

JS-TTL3

Screw-on external threading toolholder, for Swiss lathes



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...

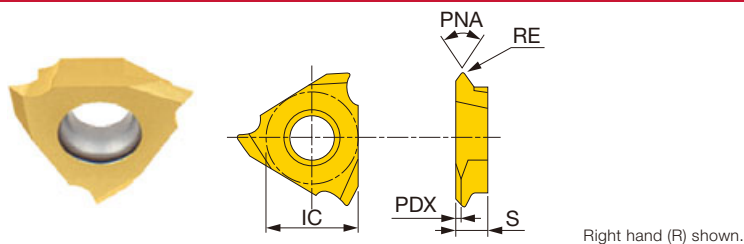
Recommended clamping torque: 3.5 N·m

SPARE PARTS

Designation	Clamping screw	Wrench 1	Wrench 2 (Optional)
JSTTR/L...	CSTB-4SD	T-8F	(T-8L)
JS**-TTL3	CSTB-4S	T-15F	-

INSERT

JTT (sharp edge)



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

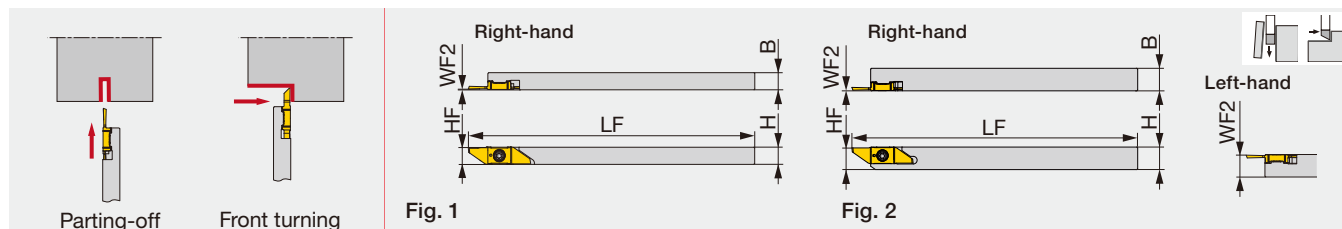
● : Line up

STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Grade	Cutting speed Vc (m/min)	Pitch (mm)	TPI
P	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
M	Stainless steel SUS304, SUS316 etc. X5CrNi18-9, X5CrNiMo17-12-2, etc.	SH725	50 - 80	0.5 - 1	50 - 25
K	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
S	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

Reference pages: Toolholder → **G165**

Parting-off and front turning toolholders



Designation	H	B	LF	HF	WF2 ⁽¹⁾	Insert	Torque*	Fig.
JSXXL0606X05	6	6	120	5.6	5.8	JV*N..., JVN...	1.3	1
JSXXR/L0707X05	7	7	120	6.6	0.2/6.8	JV*N..., JVN...	1.3	1
JSXXR/L0808F05	8	8	85	7.7	0.2/7.8	JV*N..., JVN...	1.3	2
JSXXR/L0808H05	8	8	100	7.7	0.2/7.8	JV*N..., JVN...	1.3	2
JSXXR/L1010H05	10	10	100	9.7	0.2/9.8	JV*N..., JVN...	1.3	2

Torque*: Recommended clamping torque (N-m)

(1) The first value before "/" indicates the WF for the right-hand holder and the second value after "/" for the left-hand holder.

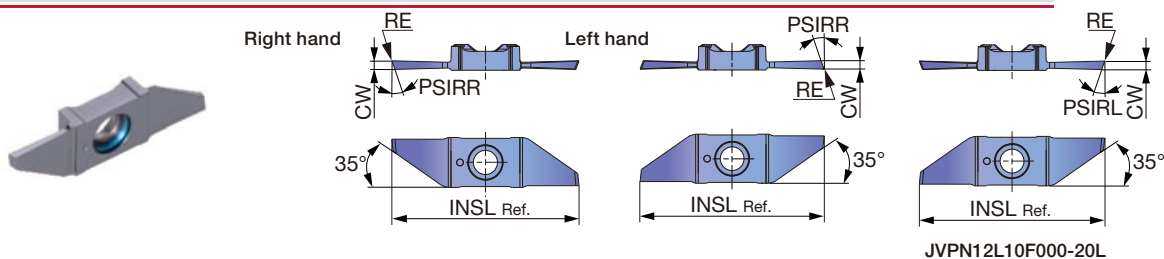
Use the right-hand insert (JV***R...) for a right-hand holder (JSXXR...); the left-hand insert (JV***L...) for a left-hand holder (JSXXL...).

SPARE PARTS

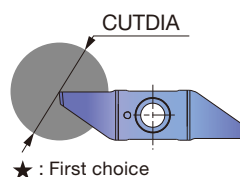
Designation	Clamping screw	Wrench
JSXXR...05	CSTB-2.5L054DL	T-7F
JSXXL...05	CSTB-2.5L054DR	T-7F

INSERTS

JVPN**R/L (For parting-off)



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



★ : First choice

Designation	HAND	CW±0.025	RE	Coated				CUTDIA	INSL	PSIRR	PSIRL
				SH725							
JVPN04R05F000-20	R	0.5	0	●				4	42.8	20°	-
JVPN04L05F000-20	L	0.5	0	●				4	42.8	20°	-
JVPN04R05F005-20	R	0.5	0.05	●				4	42.6	20°	-
JVPN04L05F005-20	L	0.5	0.05	●				4	42.6	20°	-
JVPN07R06F000-20	R	0.6	0	●				7	42.8	20°	-
JVPN07L06F000-20	L	0.6	0	●				7	42.8	20°	-
JVPN07R06F005-20	R	0.6	0.05	●				7	42.8	20°	-
JVPN07L06F005-20	L	0.6	0.05	●				7	42.8	20°	-
JVPN12R08F000-20	R	0.8	0	●				12	43.2	20°	-
JVPN12L08F000-20	L	0.8	0	●				12	43.2	20°	-
JVPN12R08F005-20	R	0.8	0.05	●				12	43	20°	-
JVPN12L08F005-20	L	0.8	0.05	●				12	43	20°	-
JVPN12R10F000-20	R	1	0	●				12	43.4	20°	-
JVPN12L10F000-20	L	1	0	●				12	43.4	20°	-
JVPN12R10F005-20	R	1	0.05	●				12	43.4	20°	-
JVPN12L10F005-20	L	1	0.05	●				12	43.4	20°	-
JVPN12L10F000-20L	L	1	0	●				12	43.4	-	20°

● : Line up

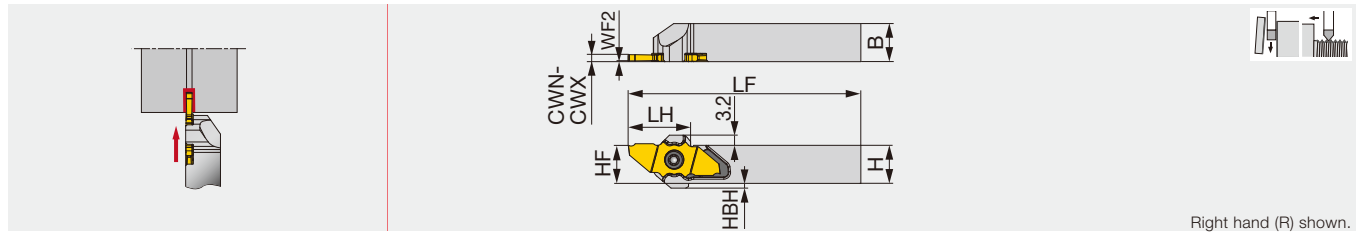
Reference pages: JSXXR/L: Standard cutting conditions → **G168**

STANDARD CUTTING CONDITIONS

Parting-off

ISO	Workpiece materials	Grade	Cutting speed V _c (m/min)	Feed f (mm/rev)
P	Low carbon steels S15C, SS400, etc. C15E4, E275A, etc.	SH725	50 - 180	0.01 - 0.05
	Carbon steels, Alloy steels S55C, SCM440, etc. C55, 42CrMo4, etc.	SH725	50 - 180	0.01 - 0.05
	Free cutting steels SUH22, SUH23, etc.	SH725	50 - 180	0.01 - 0.05
M	Stainless steels SUS304, X5CrNi18-9, etc.	SH725	50 - 120	0.01 - 0.05
N	Aluminium alloys A5056, A6061, etc.	SH725	150 - 200	0.01 - 0.05
	Copper alloys 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	CWN	CWX	H	B	LF**	LH**	HF	WF2	HBL**	HBH	Insert	Torque*
JSXXR/L1010X09	0.6	2.5	10	10	120	19.65	10	0.2	19	3	JX**06...,12...,16...,20...	1.2
JSXXR/L1212F09	0.6	2.5	12	12	85	19.65	12	0.2	19	1.5	JX**06...,12...,16...,20...	1.2
JSXXR/L1212X09	0.6	2.5	12	12	120	19.65	12	0.2	19	1.5	JX**06...,12...,16...,20...	1.2
JSXXR/L1616X09	0.6	2.5	16	16	120	19.65	16	0.2	-	-	JX**06...,12...,16...,20...	1.2
JSXXR/L2020H09	0.6	2.5	20	20	100	22.5	20	0.2	-	-	JX**06...,12...,16...,20...	1.2

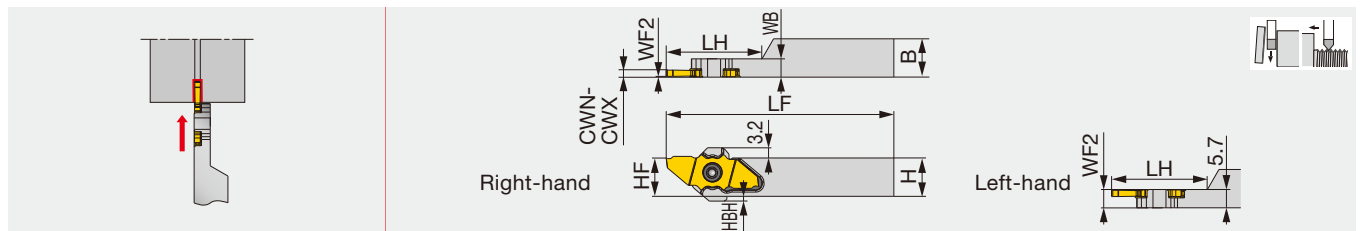
Torque*: Recommended torque (N·m) for clamping

**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****R...) for a right-hand holder (JSXXR...); the left-hand insert (JX****L...) for a left-hand holder (JSXXL...).

JSXXR/L-S

Parting toolholder, for Swiss lathes (for sub spindle)



Designation	CWN	CWX	H	B	LF**	LH**	HF	WF2	HBH	Insert	Torque*
JSXXR/L1010X09-S	0.6	2.5	10	10	120	26	10	0.2/5.5	3	JX**06...,12...,16...	1.2
JSXXR/L1212F09-S	0.6	2.5	12	12	85	26	12	0.2/5.5	1.5	JX**06...,12...,16...	1.2
JSXXR/L1212X09-S	0.6	2.5	12	12	120	30	12	0.2/5.5	1.5	JX**06...,12...,16...	1.2
JSXXR/L1616X09-S	0.6	2.5	16	16	120	30	16	0.2/5.5	-	JX**06...,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.

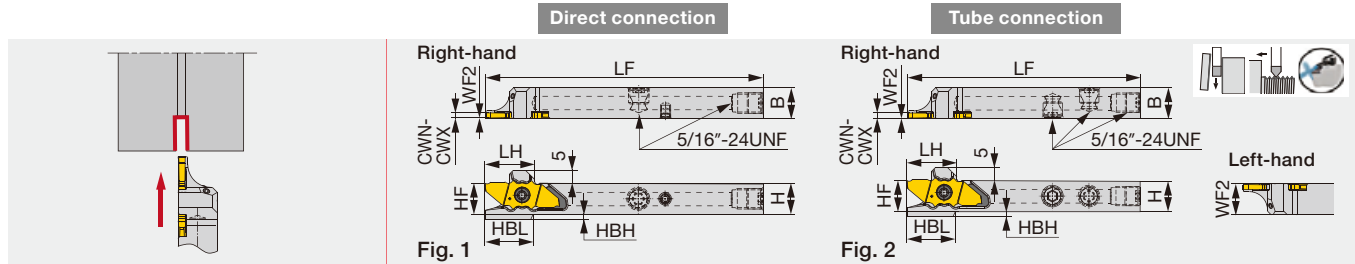
***JXPG20... Insert will not fit.

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

SPARE PARTS



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



Designation	CWN	CWX	H	B	LF ⁽¹⁾	LH ⁽¹⁾	HF	WF2 ⁽²⁾	HBL ⁽¹⁾	HBH	Insert	Torque*	Fig.
JSXXR/L1012H09-CHP ⁽³⁾	0.6	2.5	10	12	102	19.2	10	0.2/11.8	18.7	3	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L1212F09-CHP	0.6	2.5	12	12	85	19.4	12	0.2/11.8	18.8	2	JX**06...,12...,16..., 20...	1.2	2
JSXXR/L1212X09-CHP ⁽³⁾	0.6	2.5	12	12	120	19.4	12	0.2/11.8	18.8	2	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L1616X09B-CHP ⁽³⁾	0.6	2.5	16	16	120	19.4	16	0.2/15.8	18.7	-	JX**06...,12...,16..., 20...	1.2	1

Torque*: Recommended clamping torque (N·m)

(1) LF (Functional Length) LH (Head Length), and HBL (Head-bottom Offset Length) values shown above are true with JX**16... insert. LF, LH, and HBL will all be 2 mm shorter than the above values with JX**12... and JX**20... inserts, and 4 mm shorter for JX**06... insert.

(2) The first value before "/" indicates the WF for the right-hand holder and the second value after "/" for the left-hand holder.

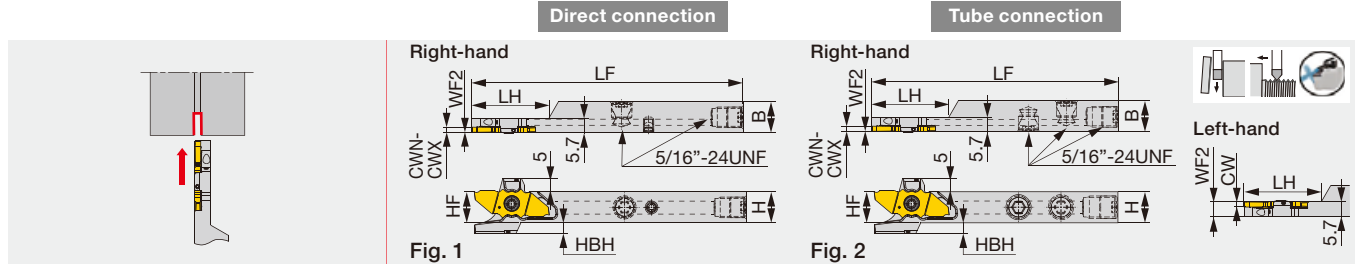
(3) Compatible to the direct internal coolant supply system without the use of external coolant hose.

(4) To be replaced with the new design

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

JSXXR/L-F/X-S-CHP

Parting-off toolholders with high pressure coolant capability, for swiss lathes (for sub spindle)



Designation	CWN	CWX	H	B	LF ⁽¹⁾	LH ⁽¹⁾	HF	WF2 ⁽²⁾	HBH	Insert	Torque*	Fig.
JSXXR/L1212F09-S-CHP ⁽⁴⁾	0.6	2.5	12	12	85	26	12	0.2	4	JX**06...,12...,16..., 20...	1.2	2
JSXXR/L1212F09B-S-CHP	0.6	2.5	12	12	85	30	12	0.2/5.5	2	JX**06...,12...,16..., 20...	1.2	2
JSXXR/L1212X09-S-CHP ^{(3),(4)}	0.6	2.5	12	12	120	30	12	0.2/5.5	4	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L1212X09B-S-CHP ⁽³⁾	0.6	2.5	12	12	120	30	12	0.2/5.5	2	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L1616X09-S-CHP ^{(3),(4)}	0.6	2.5	16	16	120	30	16	0.2	1.5	JX**06...,12...,16..., 20...	1.2	1
JSXXR/L1616X09B-S-CHP ⁽³⁾	0.6	2.5	16	16	120	30	16	0.2/5.5	-	JX**06...,12...,16..., 20...	1.2	1

Torque*: Recommended clamping torque (N·m)

(1) LF (Functional Length) and LH (Head Length) values shown above are true with JX**16... insert. Both LF and LH will be 2 mm shorter than the above value with JX**12... and JX**20... inserts; 4 mm shorter with JX**06... insert.

(2) The first value before "/" indicates the WF for the right-hand holder and the second value after "/" for the left-hand holder.

(3) Compatible to the direct internal coolant supply system without the use of external coolant hose.

(4) To be replaced with the new design

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

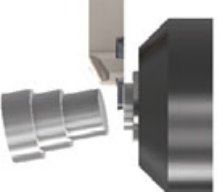
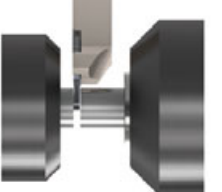
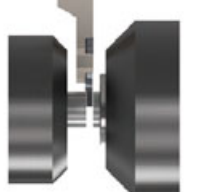
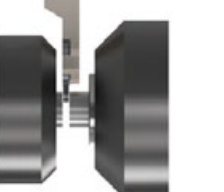
SPARE PARTS

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

Reference pages: JSXXR/L-F/H/X-CHP, JSXXR/L-F/X-S-CHP:

Inserts → **G173 - G175**, Standard cutting conditions → **G176**

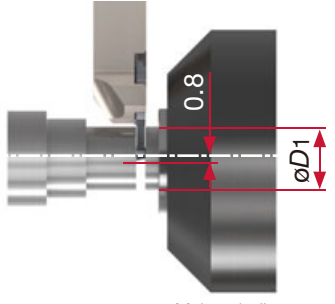
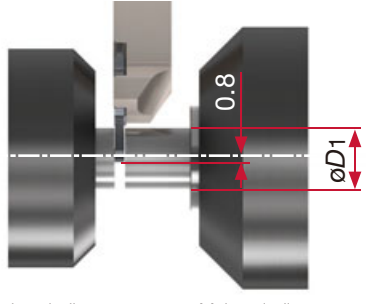
HOW TO SELECT TOOLS

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
	 Main spindle Position of parting-off is at the side of the main spindle	 Sub-spindle Main spindle Position of parting-off is at the side of the sub-spindle	 Sub-spindle Main spindle Position of parting-off is at the side of the main spindle	 Sub-spindle Main spindle Position of parting-off is at the side of the sub-spindle
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)

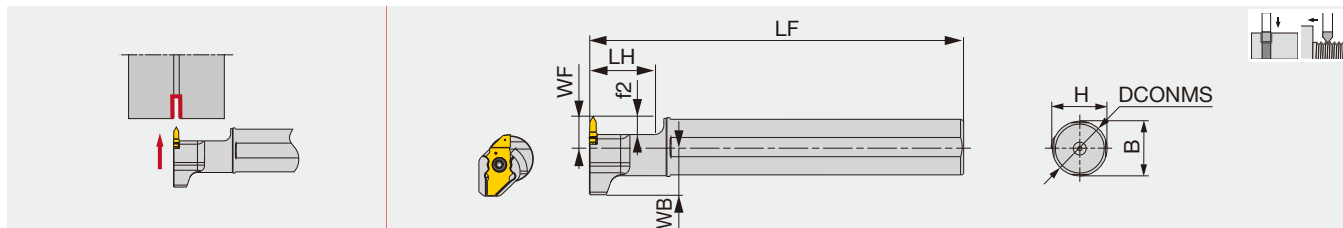
HOW TO SELECT TOOLHOLDERS FOR SUB-SPINDLE

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
 Main spindle	 Sub-spindle Main spindle

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	CWN	CWX	DCONMS	H	B	LF	LH	WB	WF	f2	Insert	Torque*
JS19G-SXXL09	0.6	2.5	19.05	18	18	90	21	15.43	10	6	JX**06,12*R	1.2
JS19X-SXXL09	0.6	2.5	19.05	18	18	120	21	15.43	10	6	JX**06,12*R	1.2
JS20G-SXXL09	0.6	2.5	20	19	19	90	21	15.4	10	6	JX**06,12*R	1.2
JS20X-SXXL09	0.6	2.5	20	19	19	120	21	15.4	10	6	JX**06,12*R	1.2
JS22X-SXXL09	0.6	2.5	22	21	21	120	21	15.4	10	6	JX**06,12*R	1.2
JS25H-SXXL09	0.6	2.5	25	24	24	100	21	15.4	10	6	JX**06,12*R	1.2
JS254X-SXXL09	0.6	2.5	25.4	24	24	120	21	15.4	10	6	JX**06,12*R	1.2

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

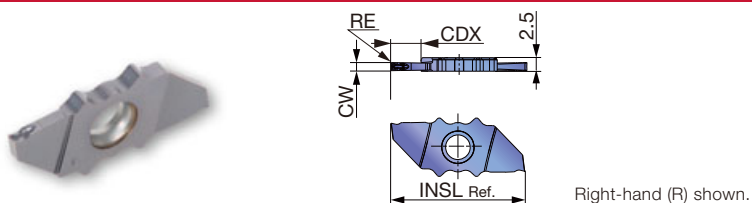
Threading insert (JXTG12FR) and parting-off inserts (JXPG06R ,12R) fit this holder.

SPARE PARTS

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

INSERT

JXPS**R/L-F (with 3D chipbreaker, sharp edge)



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

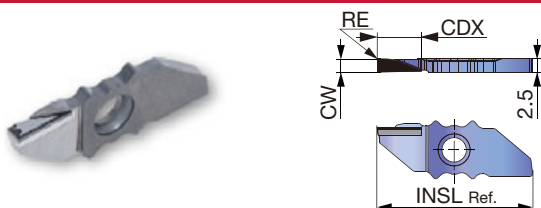
★ : First choice

Designation	HAND	CW±0.025	RE	Coated				CUTDIA	CDX*	INSL
				SH725						
JXPS06R06F	R	0.6	0.05	●				6	3.5	21
JXPS06L06F	L	0.6	0.05	●				6	3.5	21
JXPS12R08F	R	0.8	0.05	●				12	6.5	25
JXPS12L08F	L	0.8	0.05	●				12	6.5	25
JXPS12R10F	R	1	0.05	●				12	6.5	25
JXPS12L10F	L	1	0.05	●				12	6.5	25
JXPS12R15F	R	1.5	0.05	●				12	6.5	25
JXPS12L15F	L	1.5	0.05	●				12	6.5	25
JXPS16R15F	R	1.5	0.05	●				16	8.5	29
JXPS16L15F	L	1.5	0.05	●				16	8.5	29
JXPS20R20F	R	2	0.05	●				20	10.5	33
JXPS20L20F	L	2	0.05	●				20	10.5	33

*Max grooving depth (CDX) varies depending on workpiece diameters.

● : Line up

JXDX**R-F (PCD insert)



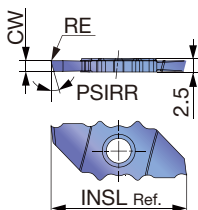
P	Steel						
M	Stainless						
K	Cast iron						
N	Non-ferrous	★					
S	Superalloys						
H	Hard materials						

★ : First choice

Designation	HAND	CW±0.05	RE	PCD				CDX	INSL
				DX110					
JXDX12R20F	R	2	< 0.1	●				6	25
JXDX12R25F	R	2.5	< 0.1	●				6.5	25
JXDX16R25F	R	2.5	< 0.1	●				7	29

● : Line up

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

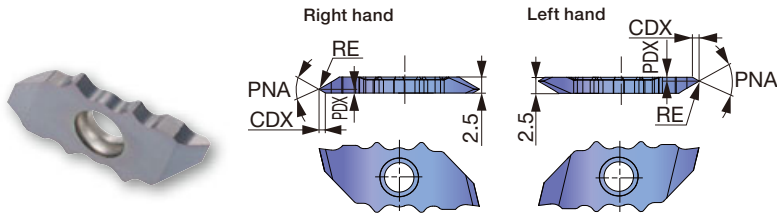


Right hand (R) shown.

★ : First choice
☆ : Second choice

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

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



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

★ : First choice
☆ : Second choice

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

● : Line-up
Packing quantity = 5 pcs.

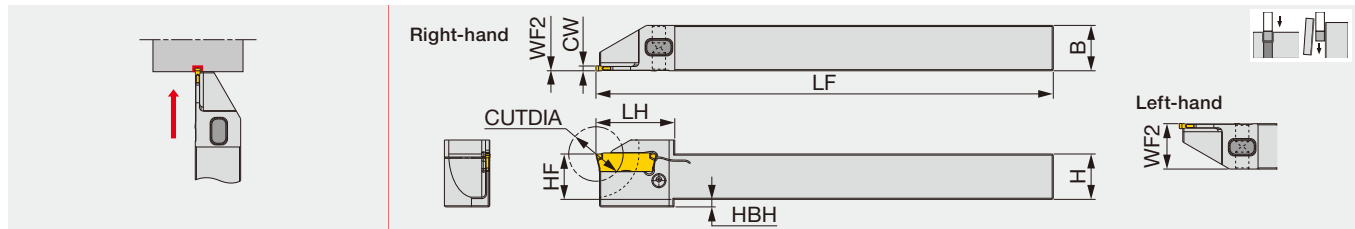
Parting, Grooving

ISO	Workpiece materials	Grades	Cutting speed V _c (m/min)	Feed f (mm/rev)
P	Low carbon steels S15C, SS400, etc. C15E4, E275A, 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, X5CrNi18-9, 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



For aluminium and non-ferrous metal PCD insert

ISO	Workpiece materials	Grades	Operation	Cutting speed V _c (m/min)	Feed f (mm/rev)	Depth of cut a _p (mm)
N	Aluminium alloys A5056, A6061, etc.	DX110	Grooving	100 - 300	0.03 - 0.15	-
		DX110	Turning	100 - 300	0.03 - 0.15	< 6



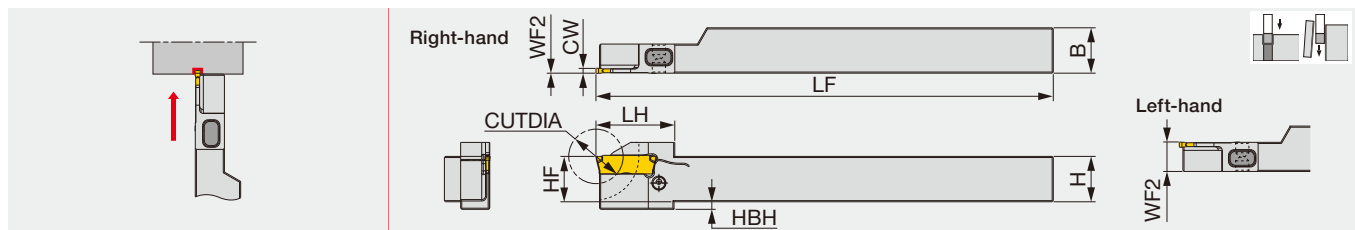
Designation	CW	Seat size	CUTDIA	H	B	LF	LH	HF	WF2 ⁽¹⁾	HBH	Torque*
JTTER/L1010H1.2D12	1.2	0.9	12	10	10	100	17	10	0/10	-	1.5
JTTER/L1212F1.2D16	1.2	0.9	16	12	12	85	19	12	0/12	-	1.5
JTTER/L1212X1.2D16	1.2	0.9	16	12	12	120	19	12	0/12	-	1.5
JTTER/L1212X1.2D20	1.2	0.9	20	12	12	120	21	12	0/12	2	1.5
JTTER/L1616X1.2D20	1.2	0.9	20	16	16	120	21	16	0/16	-	2

(1) "WF" value is calculated with groove width "CW" shown in the table. The first value before "/" indicates the WF for the right-hand holder and the second value after "/" for the left-hand holder.

Torque*: Recommended clamping torque (N-m)

JTTER/L-S

External grooving and parting toolholder, for Swiss lathes (for sub spindle)



Designation	CW	Seat size	CUTDIA	H	B	LF	LH	HF	WF2 ⁽¹⁾	HBH	Torque*
JTTER/L1010H1.2D12-S	1.2	0.9	12	10	10	100	17	10	0/7.7	-	1.5
JTTER/L1212F1.2D16-S ⁽²⁾	1.2	0.9	16	12	12	85	19	12	0	-	1.5
JTTER/L1212X1.2D16-S	1.2	0.9	16	12	12	120	21	12	0/7.7	-	1.5
JTTER/L1212X1.2D20-S	1.2	0.9	20	12	12	120	21	12	0/7.7	2	1.5
JTTER/L1616X1.2D20-S	1.2	0.9	20	16	16	120	21	16	0/7.7	-	1.5

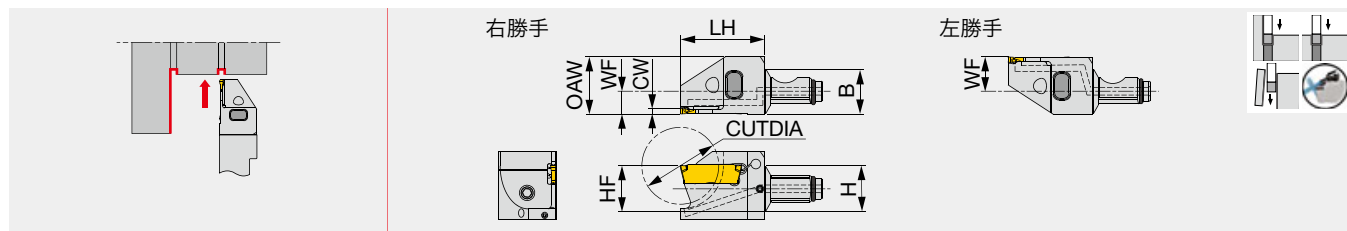
(1) "WF" value is calculated with groove width "CW" shown in the table. The first value before "/" indicates the WF for the right-hand holder and the second value after "/" for the left-hand holder.

(2) No clamping screw from the insert side.

Torque*: Recommended clamping torque (N-m)

SPARE PARTS

Designation	Clamping screw	Clamping pin	Wrench
JTTER/L1010, 1212..., JTTER/L*-S	SSM3.5x0.35	PIN-SL-TC	P-2F
JTTER/L1616...	SRM5-24145-RL	PIN-32121	P-2.5F

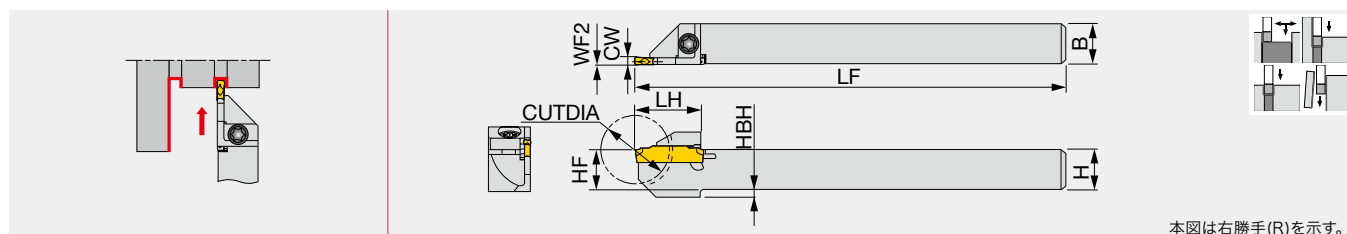


形番	CW	シートサイズ	CUTDIA	H	B	LH	HF	WF ⁽¹⁾	OAW	トルク*
QC12-JTTER/L1.2D20-CHP	1.2	0.9	20	12	12	22	12	6/9	15	1.5
QC12-JTTER/L1.4D20-CHP	1.4	1	20	12	12	22	12	6/9	15	1.5
QC12-JTTER/L2D20-CHP	2	2	20	12	12	22	12	6/9	15	1.5

(1) 上記中の "WF" 値は同表の溝幅 "CW" インサートを取付けた際の寸法です。右勝手/左勝手の順で "WF" 値を示します。
トルク*: 推奨締付けトルク (N・m)

JCTER/L

自動盤用外径溝入れ、突切りバイト



本図は右勝手(R)を示す。

形番	CW	シートサイズ	CUTDIA	H	B	LF	LH	HF	WF2 ⁽¹⁾	HBH	トルク*
JCTER/L1010X1.4T10	1.4	1	20	10	10	120	18	10	0.2/10.2	-	3
JCTER/L1212F1.4T12	1.4	1	24	12	12	85	19.5	12	0.2/12.2	-	3
JCTER/L1212X1.4T12	1.4	1	24	12	12	120	19.5	12	0.2/12.2	-	3
JCTER/L1414-1.4T12	1.4	1	24	14	14	125	19.5	14	0.2/14.2	-	3
JCTER/L1616X1.4T16	1.4	1	32	16	16	120	24	16	0.2/16.2	-	3
JCTER/L1010X2T10	2	2	20	10	10	120	19	10	0.1/10.1	2	3
JCTER/L1212F2T12	2	2	24	12	12	85	19	12	0.1/12.1	2	3
JCTER/L1212X2T12	2	2	24	12	12	120	19	12	0.1/12.1	2	3
JCTER/L1414-2T12	2	2	24	14	14	125	19	14	0.1/14.1	-	3
JCTER/L1616X2T16	2	2	32	16	16	120	24	16	0.1/16.1	-	3
JCTER/L1212F3T12	3	3	24	12	12	85	19	12	0.3/12.3	2	3
JCTER/L1212X3T12	3	3	24	12	12	120	19	12	0.3/12.3	2	3
JCTER/L1616X3T16	3	3	32	16	16	120	24	16	0.3/16.3	-	3
JCTER/L2020H3T16	3	3	32	20	20	100	24	20	0.3/20.3	-	3

(1) 上記中の "WF2" 値は同表の溝幅 "CW" インサートを取付けた際の寸法です。

CUTDIA: 最大突切り径

トルク*: 推奨締付けトルク (N・m)

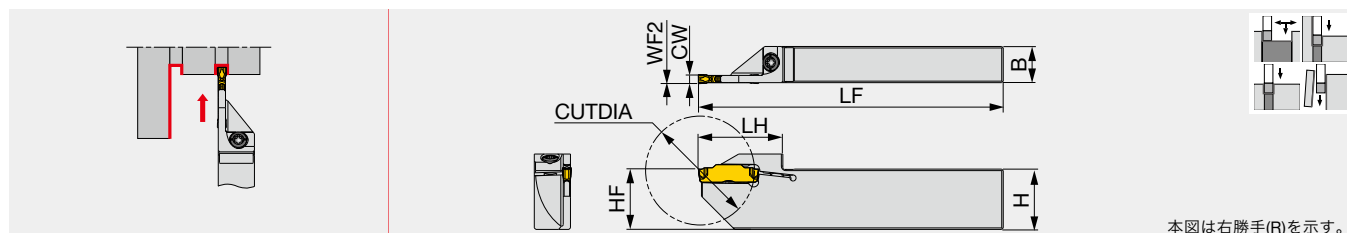
部品

形番	締付けねじ	締付けねじ 1	クランプピン	スパナ	スパナ 1	O リング
QC12-JTTER/L...	-	SSM3.5x0.35	PIN-SL-TC	-	P-2F	ORSS-0454.5X1.0NBR70
JCTER/L...	CSHB-4-A	-	-	T-15F	-	-

参照ページ: QC12-JTTER/L-CHP, JCTER/L: インサート → [G182 - G189](#)
シャンク, 関連部品 → [G095 - G096](#), 標準切削条件 → [G190](#)

JCTER/L2012

自動盤用外径溝入れ、突切りバイト



形番	CW	シートサイズ	CUTDIA	H	B	LF	LH	HF	WF2 ⁽¹⁾	トルク*
JCTER/L2012H2T18	2	2	36	20	12	100	25	20	0.1/12.1	3
JCTER/L2012H3T21	3	3	42	20	12	100	28	20	0.1/12.1	3

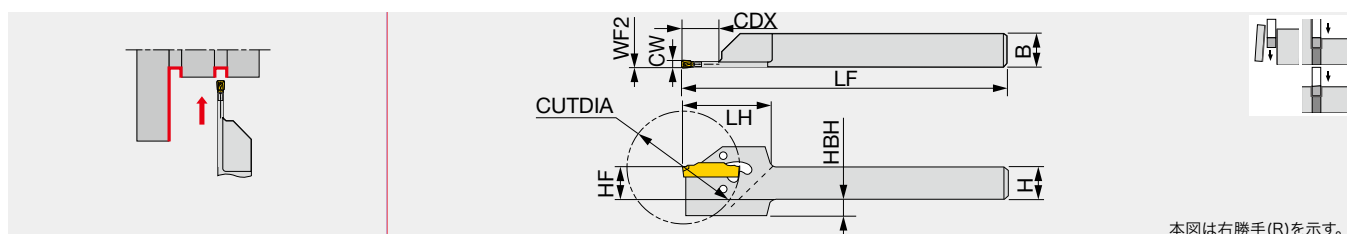
(1) 上記中の "WF2" 値は同表の溝幅 "CW" インサートを取り付けた際の寸法です。

CUTDIA: 最大突切り径

トルク*: 推奨締付けトルク(N・m)

CGER/L

自動盤用外径深溝入れ、突切りバイト



形番	CW	シートサイズ	CUTDIA ⁽¹⁾	CDX	H	B	LF	LH	HF	WF2 ⁽²⁾	HBH
CGER/L2020-1.4T14	1.4	1	29/29	9.7	20	20	125	31	20	0.2/20.2	-
CGER/L1212-2T17	2	2	35/35	11.8	12	12	150	31	12	0.1/12.1	6
CGER/L1616-2T17	2	2	35/35	11.8	16	16	150	31	16	0.1/16.1	2
CGER/L2020-2T17	2	2	35/35	9.8	20	20	125	31	20	0.1/20.1	-
CGER/L1212-3T19	3	3	38/40	12	12	12	150	31	12	0.3/12.3	6
CGER/L1616-3T19	3	3	38/45	14.9	16	16	150	31	16	0.3/16.3	2
CGER/L2020-3T19	3	3	38/45	13.2	20	20	125	31	20	0.3/20.3	-
CGER/L2020-4T19	4	4	38/55	20.3	20	20	125	33	20	0.4/20.4	-

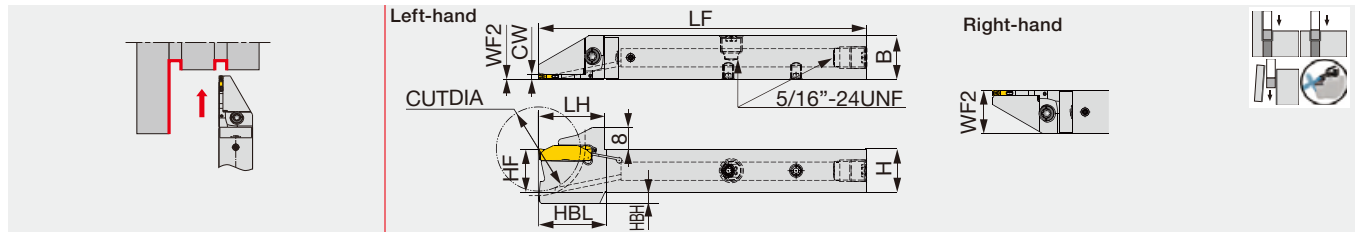
(1) DG*/SG* 最大突切り径CUTDIAは、使用インサートにより異なります。(2) "WF2" の値は、同表の溝幅 "CW" のインサートを取り付けた際の寸法です。

CRWスパナは付属品でないため、別途購入をお願いします。インサートはCRWスパナで上あごを広げてクランプします。

部品

形番	締付けねじ	スパナ	スパナ (オプション)
JCTER/L2012...	CSHB-4-A	T-15F	-
CGER/L2020-1.4T14	-	-	CRW23
CGER/L****-2T17 - 4T19	-	-	CRW33

External grooving and parting-off toolholder, high pressure coolant compatible



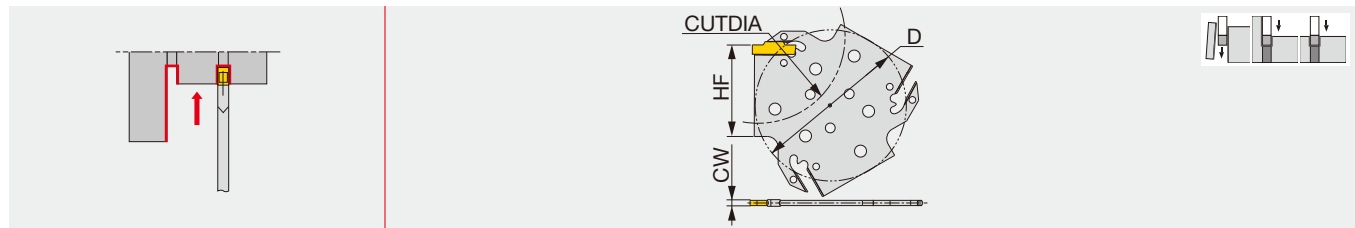
Designation	CW	Seat size	CUTDIA	H	B	LF	LH	HBL	HF	WF2 ⁽¹⁾	HBH	Torque*
JCTER/L1212X2T12-CHP	2	2	25	12	12	120	24.7	24.7	12	0/12	5	3.0
JCTER/L1616X2T12-CHP	2	2	25	16	16	120	24.7	24.5	16	0/16	1	3.0
JCTER/L1616X2T16-CHP	2	2	32	16	16	120	24.7	24.7	16	0/16	4	3.0
JCTER/L2020X2T16-CHP	2	2	32	20	20	120	24.7	-	20	0/20	0	3.0

(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



CHGP

Parting-off and external grooving blade



Designation	CW	Seat size	CUTDIA	HF	D
CHGP52-2T	2	2	52	27	48.3
CHGP52-3T	3	3	52	27	48.3
CHGP82-3T	3	3	82	42	69.3
CHGP82-4T	4	4	82	42	69.3

.When depth is deeper than insert length - 1.5mm, 1 corner type is recommended

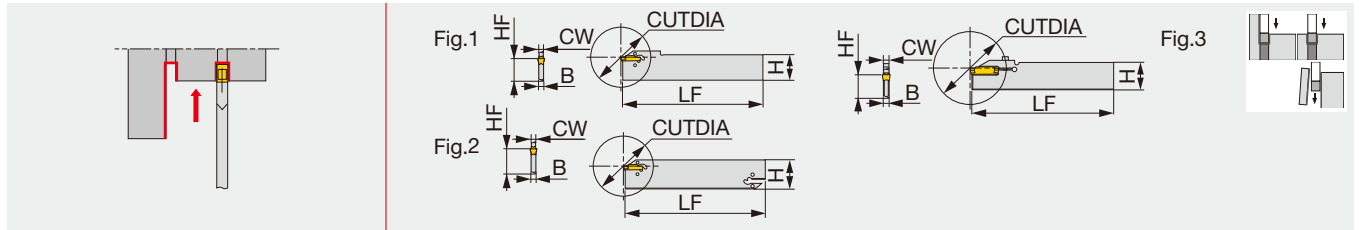
SPARE PARTS

Designation	Clamping screw	Wrench	Coolant plug	Wrench	DirectJet plug	Wrench	Wrench (Option)
JCTER/L...	CSHB-4-A	T-15F	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2	-
CHGP...	-	-	-	-	-	-	CRW33

Reference pages: JCTER/L-CHP, CHGP: Inserts → **G182 - G189**, Toolblock → **G192**
Standard cutting conditions → **G190**

CGP

External deep grooving and parting blade



Designation	CW	Seat size	CUTDIA	H	B	LF	HF	Fig.	Torque*
CGP26-1.4S	1.4	1	26	26	1	150	21.4	1	-
CGP32-1.4D	1.4	1	26	32	1	150	24.8	2	-
CGP26-2S	2	2	40	26	1.8	150	21.4	1	-
CGP32-2D	2	2	50	32	1.8	150	24.8	2	-
CGP26-3S	3	3	50	26	2.4	150	21.4	1	-
CGP32-3D	3	3	100	32	2.4	150	24.8	2	-
CGP26-4S	4	4	80	26	3.2	150	21.4	1	-
CGP32-4D	4	4	100	32	3.2	150	24.9	2	-
CGP45-4D	4	4	120	45	3.2	150	38.1	2	-
CGP32-5D	5	5	120	32	4	150	24.9	2	-
CGP32-6D	6	6	120	32	5.2	150	24.9	2	-
CGP32-8S-CL	8	8	80	32	6.2	150	24.9	3	3

When depth is deeper than (insert length - 1.5mm), 1 corner type is recommended.

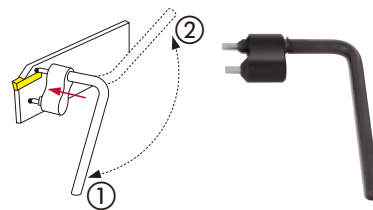
Wrench (CRW...) is not included. Please order it separately.

*Torque: Recommended clamping torque (N·m)

Caution

Newly developed clamp

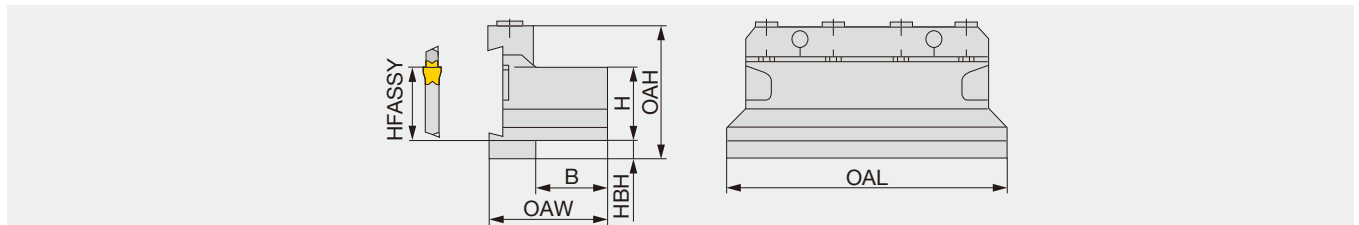
.Insert is clamped by the elastic deformation of upper jaw
.Low clamping stress increases the stability and tool life



unclamp : ① → ②
clamp : ② → ①

CTBU

Tool blocks for CGP blade



Designation	H	B	OAL	HFASSY	HBH	OAH	OAW	Blade (Optional)
CTBU20-26	20	21	86	20	9	43	38	CGP26...
CTBU25-26	25	23	110	25	5	45	43	CGP26...
CTBU20-32	20	19	100	20	13	50	38	CGP32...
CTBU25-32	25	23	110	25	8	50	42	CGP32...
CTBU32-32	32	29	110	32	5	54	48	CGP32...

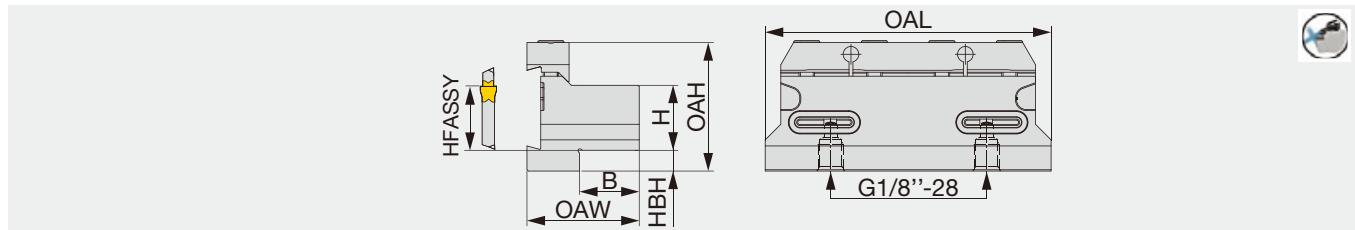
SPARE PARTS

Designation	Clamp	Clamping screw	Wrench	Wrench (Optional)
CGP**-1.4*	-	-	-	CRW23
CGP**-2/3/4/5/6	-	-	-	CRW33
CGP32-8S-CL	-	CM4X0.7X20-M0-A	P-3	-
CTBU20-26	CT-86	CM6X30-S	P-5	-
CTBU25-26	CT-105	CM6X30-S	P-5	-
CTBU20-32	CT-100	CM6X30-S	P-5	-
CTBU25-32, CTBU32-32	CT-110	CM6X30-S	P-5	-

Reference pages: CGP: Inserts → **G182 - G189**, Standard cutting conditions → **G190**

CTBU-CHP

Tool block for CGP-CHP blade with high pressure internal coolant capacity



Designation	H	B	OAL	HFASSY	HBH	OAH	OAW	Blade (Optional)
CTBU25-32-CHP	25	23	110	25	8	50	43.2	CGP32-"D-CHP

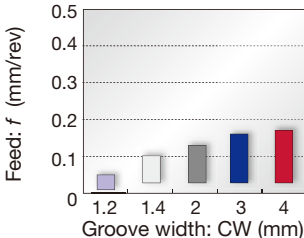
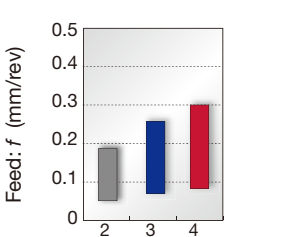
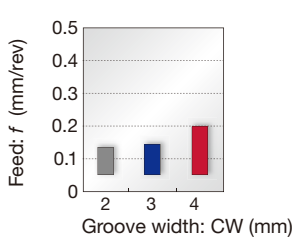
Applicable for 14 MPa coolant

SPARE PARTS					
Designation	Clamping screw	Clamp	Wrench	O-ring	
CTBU25-32-CHP	12.9-SRM6X16DIN912	110-CT	5-P	OR14X2.5NN	

TUNG

CHIPBREAKER GUIDE

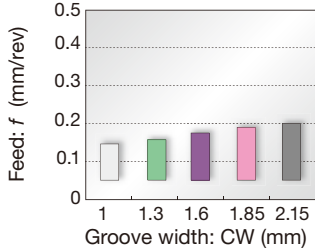
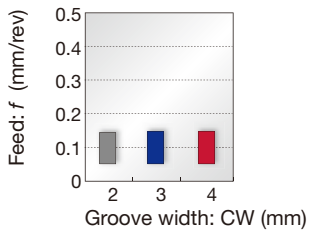
External grooving and parting

DGS type (2 corners) SGS type (1 corner)  G184, G187	For Swiss lathes Unique-designed edge and chipbreaker Handed insert available CW = 1.2 - 4 mm	Standard feed  Feed: f (mm/rev) Groove width: CW (mm)
DGM type (2 corners) SGM type (1 corner)  G185, G186	High fracture resistance Smooth chip evacuation Well-designed edge with high strength Handed insert available CW = 2 - 4 mm	Standard feed  Feed: f (mm/rev) Groove width: CW (mm)
DGL type (2 corners)  G189	1st choice for mild steel Chipbreaker with excellent chip control at low feed Suitable for mild steel that often has difficulties in chip control CW = 2 - 4 mm	Standard feed  Feed: f (mm/rev) Groove width: CW (mm)

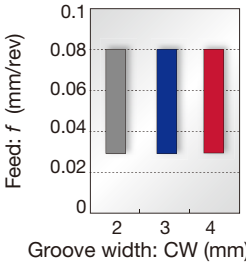
Please see page G*** for the product details.

Reference pages: CTBU-CHP: Blade → **F231**

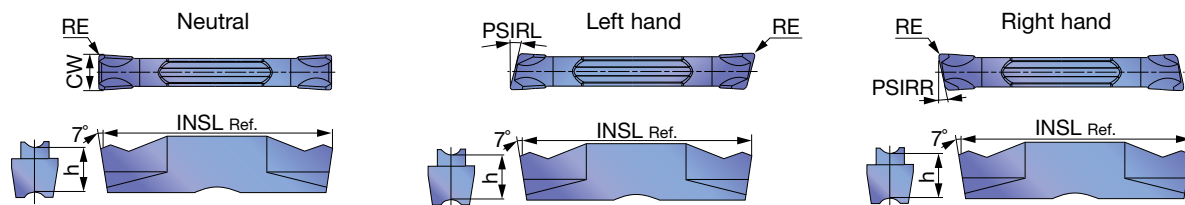
External grooving

DGE type (2 corners)  G188	For shallow grooves with high accuracy Excellent chip control CW = 1 - 2.15 mm ■ Standard feed  
DGG type (2 corners)  G188	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 - 4 mm ■ Standard feed  

External grooving of hardened steels

SGN-CBN type (1 corner)  G189	For hardened steel cutting Optimum cutting edge shape for grooving of hardened steels Close tolerance width for finishing (W = ±0.025 mm) CW = 2 - 4 mm ■ Standard feed  
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Please see page G*** for the product details.

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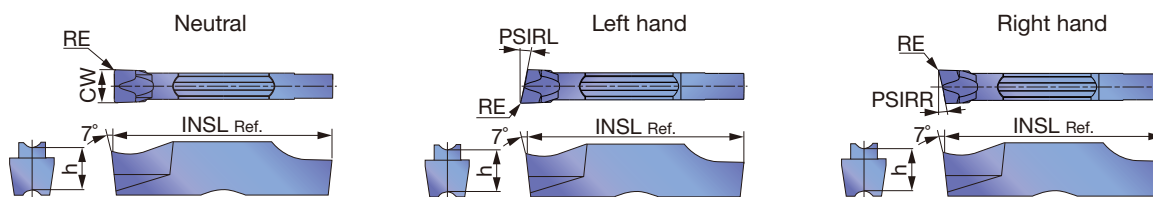
Designation	Seat size	HAND	CW±0.05	RE	Coated						Cermet		Uncoated		INSL	h	PSIRL	PSIRR
					T9225	AH7025	AH725	AH8005	AH905	GH130	AH6235	NS9530		KS05F				
DGM2-020	2	N	2	0.2	●	●	●	●		●	●	●	●		20	5	0°	0°
DGM2-020-6R	2	R	2	0.2		●	●								20	5	0°	6°
DGM2-020-6L	2	L	2	0.2		●	●								20	5	6°	0°
DGM2-020-8R	2	R	2	0.2		●	●				●				20	5	0°	8°
DGM2-020-8L	2	L	2	0.2		●	●				●				20	5	8°	0°
DGM2-020-15R	2	R	2	0.2		●	●				●				20	5	0°	15°
DGM2-020-15L	2	L	2	0.2		●	●				●				20	5	15°	0°
DGM2-002-15R	2	R	2	0.02			●				●				19.35	5	0°	15°
DGM2-002-15L	2	L	2	0.02			●				●				19.35	5	15°	0°
DGM2.39-020	2	N	2.39	0.2		●		●				●			20	5	0°	0°
DGM3-020	3	N	3	0.2	●	●	●	●	●	●	●	●	●		20	5	0°	0°
DGM3-020-6R	3	R	3	0.2		●	●				●				20	5	0°	6°
DGM3-020-6L	3	L	3	0.2		●	●				●				20	5	6°	0°
DGM3-002-6R	3	R	3	0.02			●				●				19.45	5	0°	6°
DGM3-002-6L	3	L	3	0.02			●				●				19.45	5	6°	0°
DGM3-020-15R	3	R	3	0.2		●	●				●				20	5	0°	15°
DGM3-020-15L	3	L	3	0.2		●	●				●				20	5	15°	0°
DGM3.18-020	3	N	3.18	0.2		●		●				●			20	5	0°	0°
DGM4-030	4	N	4	0.3	●	●	●	●	●	●	●	●	●		20	5	0°	0°
DGM4-030-4R	4	R	4	0.3		●	●				●				20	5	0°	4°
DGM4-030-4L	4	L	4	0.3		●	●				●				20	5	4°	0°
DGM4-030-15R	4	R	4	0.3		●	●				●				20	5	0°	15°
DGM4-030-15L	4	L	4	0.3		●	●				●				20	5	15°	0°
DGM4.76-040	5	N	4.76	0.4		●		●				●			25	5.5	0°	0°
DGM5-030	5	N	5	0.3	●	●	●	●	●	●	●	●	●		25	5.5	0°	0°
DGM5-030-4R	5	R	5	0.3		●	●				●				25	5.5	0°	4°
DGM6-030	6	N	6	0.3	●	●	●	●	●	●	●	●	●		25	5.5	0°	0°
DGM6.35-040	6	N	6.35	0.4		●		●				●			25	5.5	0°	0°
DGM8-040	8	N	8	0.4	●	●	●	●			●	●			30	6.7	0°	0°

● : Line up



Designation	Seat size	HAND	CW±0.05	RE	Coated					Uncoated								
					AH7025	AH725	AH8005	GH130	AH6235	KS05F								
SGM2-020	2	N	2	0.2	●	●	●	●	●	●					20	5	0°	0°
SGM2-020-6R	2	R	2	0.2	●	●		●							20	5	0°	6°
SGM2-020-6L	2	L	2	0.2	●	●		●							20	5	6°	0°
SGM3-020	3	N	3	0.2	●	●	●	●	●	●					20	5	0°	0°
SGM3-020-6R	3	R	3	0.2	●	●		●							20	5	0°	6°
SGM3-020-6L	3	L	3	0.2	●	●		●							20	5	6°	0°
SGM3-020-15R	3	R	3	0.2	●	●		●							20	5	0°	15°
SGM3-020-15L	3	L	3	0.2	●	●		●							20	5	15°	0°
SGM4-030	4	N	4	0.3	●	●	●	●	●	●					20	5	0°	0°
SGM4-030-4R	4	R	4	0.3	●	●		●							20	5	0°	4°
SGM4-030-4L	4	L	4	0.3	●	●		●							20	5	4°	0°
SGM5-030	5	N	5	0.3	●	●	●	●	●	●					25	5.5	0°	0°
SGM6-030	6	N	6	0.3	●	●	●	●	●	●					25	5.5	0°	0°
SGM8-040	8	N	8	0.4	●		●		●	●					30	6.7	0°	0°

● : Line up

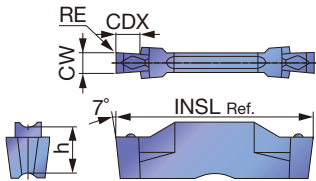
[illegible]

Designation	Seat size	HAND	CW±0.05	RE	Hard materials					Soft materials		INSL	h	PSIRL	PSIRR
					Coated					Uncoated					
					AH7025	AH725	AH8005	GH130	AH6235	KS05F					
SGS2-020	2	N	2	0.2	●	●	●	●	●	●					
SGS2-020-6R	2	R	2	0.2	●	●		●							
SGS2-020-6L	2	L	2	0.2	●	●		●							
SGS2-020-15R	2	R	2	0.2	●	●		●							
SGS2-020-15L	2	L	2	0.2	●	●		●							
SGS3-020	3	N	3	0.2	●	●	●	●	●	●					
SGS3-020-6R	3	R	3	0.2	●	●		●							
SGS3-020-6L	3	L	3	0.2	●	●		●							
SGS3-002-6R	3	R	3	0.02		●		●							
SGS3-002-6L	3	L	3	0.02		●		●							
SGS3-020-15R	3	R	3	0.2	●	●		●							
SGS3-020-15L	3	L	3	0.2	●	●		●							
SGS3-002-15R	3	R	3	0.02		●		●							
SGS3-002-15L	3	L	3	0.02		●		●							
SGS4-030	4	N	4	0.3	●	●	●	●	●	●					
SGS5-030	5	N	5	0.3	●	●	●	●	●	●					
SGS6-030	6	N	6	0.3	●	●	●	●	●	●					
SGS8-040	8	N	8	0.4	●		●		●						

● : Line up

DGE

External grooving (for high precision)



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

★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.02	RE	Coated			Cermet			CDX	INSL	h
				AH7025	AH725	GH130	NS9530					
DGE100-000	2	1	0		●	●	●			2.5	20	5
DGE130-000	2	1.3	0		●	●	●			2.5	20	5
DGE160-010	2	1.6	0.1	●	●	●	●			2.5	20	5
DGE185-010	2	1.85	0.1	●	●	●	●			3.5	20	5
DGE215-015	2	2.15	0.15	●	●	●	●			3.5	20	5

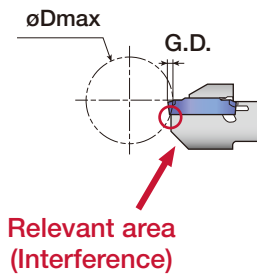
●: Line up

Caution

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

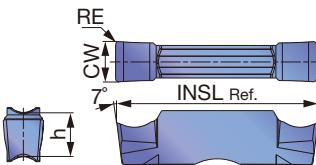
G.D = Groove depth

Designation	Max. groove depth (mm)	øDmax (mm)				
		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	∞	18.6	11.5	8.8	7
DGE215-015						



DGG

External grooving (for high precision)



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

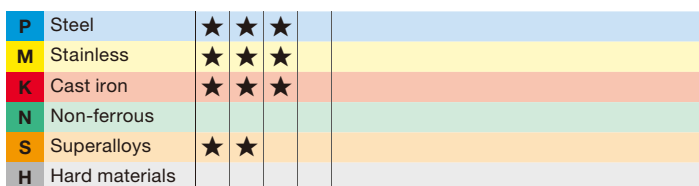
★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.02	RE	Coated		Cermet		Uncoated		INSL	h
				AH7025		NS9530		KS05F			
DGG200-020	2	2	0.2	●		●		●		20	5
DGG300-020	3	3	0.2	●		●		●		20	5
DGG400-040	4	4	0.4	●		●		●		20	5
DGG500-040	5	5	0.4	●		●		●		25	5.5
DGG600-040	6	6	0.4	●		●		●		25	5.5

●: Line up

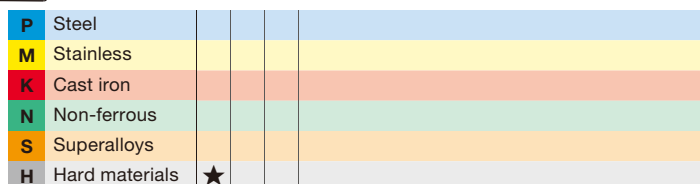
Reference pages: Toolholders → **G177 - G181**, Standard cutting conditions → **G190**

External grooving and parting



● : Line up

External grooving



●: Line up

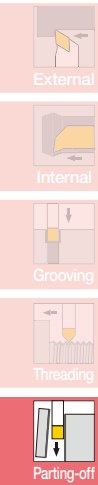
■ Edge preparations

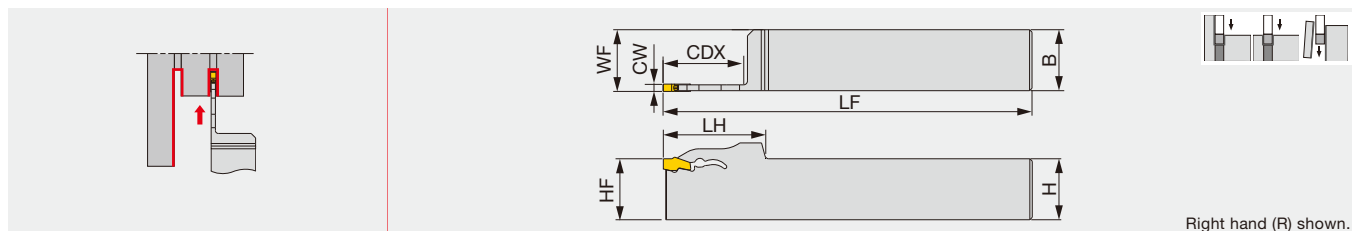


STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Hardness	Priority	Grade	Cutting speed V _c (m/min)
P	Steel S45C, SCM435, etc. C45, 34CrMo4, etc.	< 300 HB	First choice	AH7025, AH725	50 - 180
		< 300 HB	Wear resistance	T9225, AH8005	80 - 300
		< 300 HB	Impact resistance	AH6235, GH130	50 - 120
		< 300 HB	Surface quality	NS9530	80 - 220
M	Stainless steel SUS303, SUS304, etc. X10CrNiS18-9, X5CrNi18-9, etc.	< 200 HB	First choice	AH7025, AH725	50 - 120
		< 200 HB	Wear resistance	AH8005	50 - 120
		< 200 HB	Impact resistance	AH6235, GH130	50 - 120
K	Grey cast iron FC250, etc. 250, etc.	-	First choice	T515	150 - 700
		-	Impact resistance	AH8005, AH7025, AH6235, GH130	50 - 180
	Ductile cast iron FCD450, etc. 450-10S, etc.	-	First choice	T515	150 - 300
		-	Impact resistance	AH8005, AH7025, AH6235, GH130	50 - 120
N	Aluminium alloys Si < 12%	-	First choice	TH10	100 - 500
		-	First choice	KS05F	100 - 600
S	Superalloys Inconel718, etc.	< HRC 40	First choice	AH8005	20 - 60
		< HRC 40	Impact resistance	AH7025, AH725, AH6235	20 - 40
	Titanium alloys Ti-6Al-4V, etc.	< HRC 40	First choice	KS05F	20 - 100
		< HRC 40	Impact resistance	AH7025, AH725	20 - 80
H	Hardened steel SCM435, SUJ2, etc. 34CrMo4, B1, etc.	> HRC 50	First choice	BX360	80 - 150

Please see page **G182**, **G183** for feed: f (mm/rev).

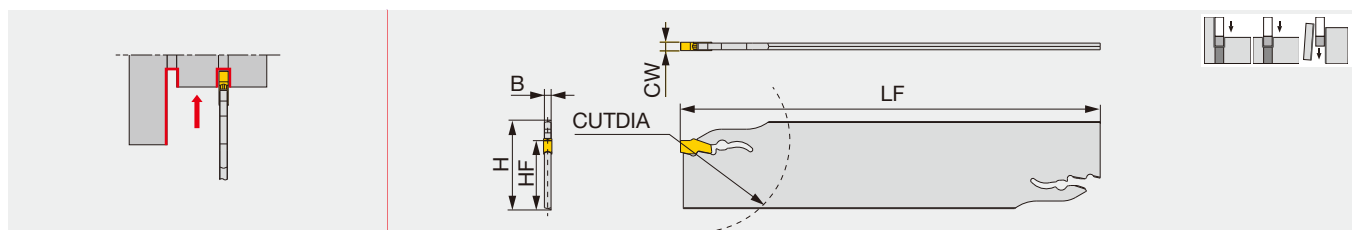




Designation	CW	CDX	Seat size	H	B	LF	LH	HF	WF
QSER/L2020-2T26	2	26	2	20	20	125	36	20	20.1
QSER/L2020-2T33	2	33	2	20	20	125	42	20	20.1
QSER/L2020-3T26	3	26	3	20	20	125	36	20	20.3
QSER/L2020-3T33	3	33	3	20	20	125	42	20	20.3
QSER/L2020-4T33	4	33	4	20	20	125	42	20	20.4

QSP

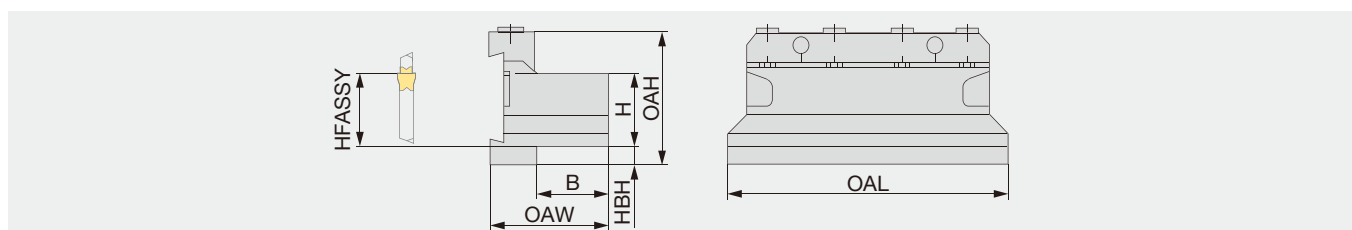
Blades for external deep grooving and parting



Designation	CW	CUTDIA	Seat size	H	B	LF	HF
QSP26-2D	2	50	2	26	1.8	150	21.4
QSP32-2D	2	66	2	32	1.8	150	24.8
QSP26-3D	3	75	3	26	2.4	150	21.4
QSP32-3D	3	120	3	32	2.4	150	24.8
QSP26-4D	4	80	4	26	3.2	150	21.4
QSP32-4D	4	120	4	32	3.2	150	24.9
QSP32-5D	5	120	5	32	4	150	24.9

CTBU

Tool block for QSP blades

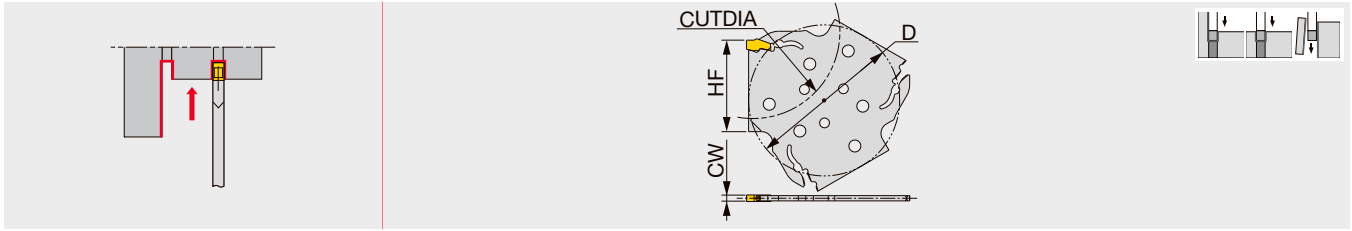


Designation	H	B	OAL	HFASSY	HBH	OAH	OAW	Blade (Optional)
CTBU20-26	20	21	86	20	9	43	38	QSP26...
CTBU20-32	20	19	100	20	13	50	38	QSP32...

SPARE PARTS

Designation	Clamp	Clamping screw	Wrench
QSER/L..., QSP...	-	-	QL-39
CTBU20-26	CT-86	CM6X30-S	P-5
CTBU25-26	CT-105	CM6X30-S	P-5
CTBU20-32	CT-100	CM6X30-S	P-5
CTBU25-32	CT-110	CM6X30-S	P-5
CTBU32-32	CT-110	CM6X30-S	P-5

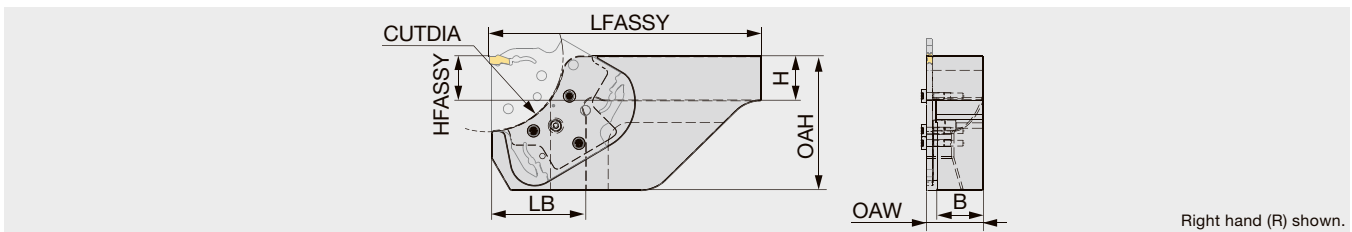
Parting-off and external grooving blade



Designation	CW	Seat size	CUTDIA	HF	D
QSG52-2T	2	2	52	27	48.3
QSG82-2T	2	2	82	42	69.3
QSG52-3T	3	3	52	27	48.3
QSG82-3T	3	3	82	42	69.3
QSG52-4T	4	4	52	27	69.3
QSG82-4T	4	4	82	42	69.3

CHTBR/L

Tool block for QSG blade

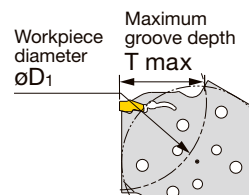


Designation	CUTDIA	H	B	LFASSY	HFASSY	OAH	OAW	LB
CHTBR/L2020-52	52	20	20.5	100	20	50	26.5	37
CHTBR/L2020-82	82	20	20.5	140	20	75	26.5	53

The blade clamping screw heads protrude out for as much as 3.1 mm over the insert cutting edge point. Maintain the clearance from the chucking device to avoid interference.

SPARE PARTS

Designation	Clamping screw	Grip	Torx bit	Wrench
QSG...	-	-	-	QL-39
CHTBR/L...	SR ISO 14580 M4X10	SW6-SD	BLDT20/S7	-



Maximum groove depth (T max) as function of workpiece diameter (øD1)

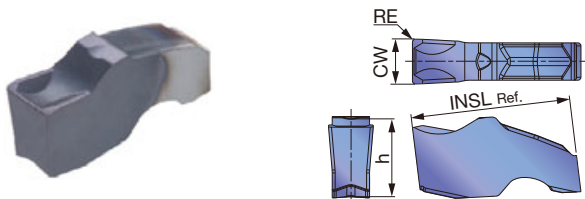
Designation	øD1																	
CHTBR/L****-D52	53	54	55	56	58	60	62	65	68	72	78	84	92	102	115	133	159	198
CHTBR/L****-D82	104	108	112	116	121	127	134	142	151	162	176	192	212	237	270	313	375	468
T max	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4

Designation	øD1										
CHTBR/L****-D82	83	84	84	85	86	87	89	90	92	94	96
T max	34	33	32	31	30	29	28	27	26	25	24

■ INSERTS

QGM

External deep grooving and parting



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

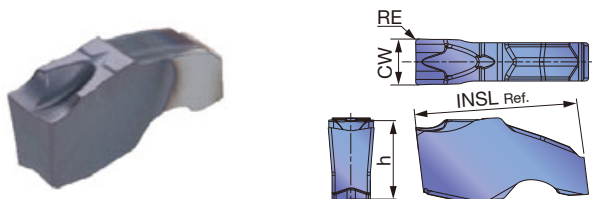
★ : First choice

[illegible]

●: Line up

QGS

External deep grooving and parting



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

★ : First choice

[illegible]

●: Line up

STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Hardness	Grade	Cutting speed Vc (m/min)
P	Steels C45, 34CrMo4, etc.	< 300 HB	AH7025	50 - 180
M	Stainless steel X10CrNiS18-9, etc.	< 200 HB	AH7025	50 - 120
K	Gray cast iron GG25, 250, etc.	-	AH7025	50 - 180
	Ductile cast irons GGG45, 450-10S, etc.	-	AH7025	50 - 120
S	Superalloys Inconel718, etc.	< HRC 40	AH7025	20 - 60
	Titanium alloys Ti-6Al-4V, etc.	< HRC 40	AH7025	20 - 80



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Turning Grooving

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06IRA60	60° angle threading insert	E010
08IRA55	55° angle threading insert	E015
08IRA60	60° angle threading insert	E010
10ER/L□□□B	Positive insert for back turning	B162, G091
10ER/L300	Positive insert for back turning	B162, G091
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11ERA55	55° angle threading insert	E015
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11IR/L□□ISO	ISO metric threading insert	E017
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11IR□□ISO-B	ISO metric threading insert	E019
11IR□□ISO-M	ISO metric threading insert	E019
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11IR□□UN	Unified threading insert	E021
11IR□□W	Whitworth threading insert	E023
11IR10MJ	MJ threading insert	E028
11IRA55	55° angle threading insert	E015
11IRA60-B	60° angle threading insert	E011
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15GR/L...	Internal grooving insert	F162, G145
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16ER□□ISO-M	ISO metric threading insert	E019
16ER□□NPT	NPT threading insert	E025
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16ER□□NPTF	NPTF threading insert	E026
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