



High functioning, High operating system

DIRECT^T_{UNG}JET system



L20



D25

Cincom

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)



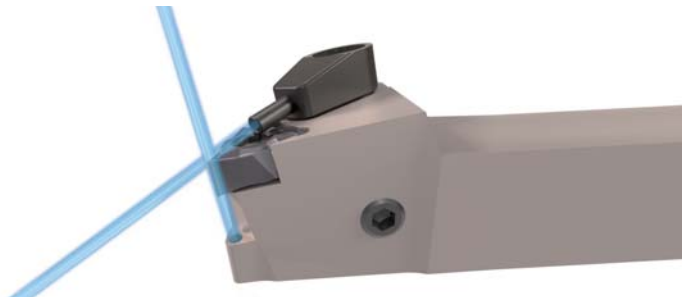
High pressure coolant
($>7\text{MPa}$)



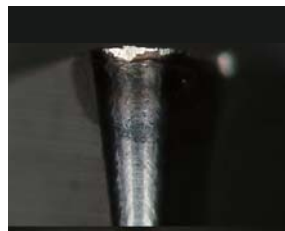
Coolant jets from two outlets ensure high cutting efficiency and extended tool life

● Directly to the cutting edge

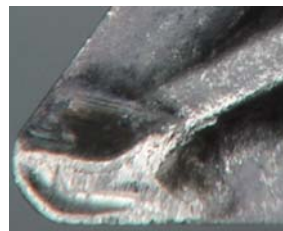
Reliable chip control
Reduces crater and notch wears



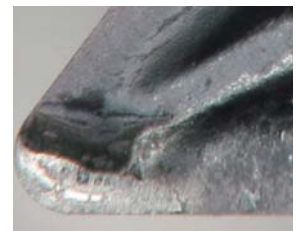
Excessive wear with external coolant supply (at normal pressure)



High pressure coolant
($>7\text{MPa}$)



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



High pressure coolant
($>7\text{MPa}$)

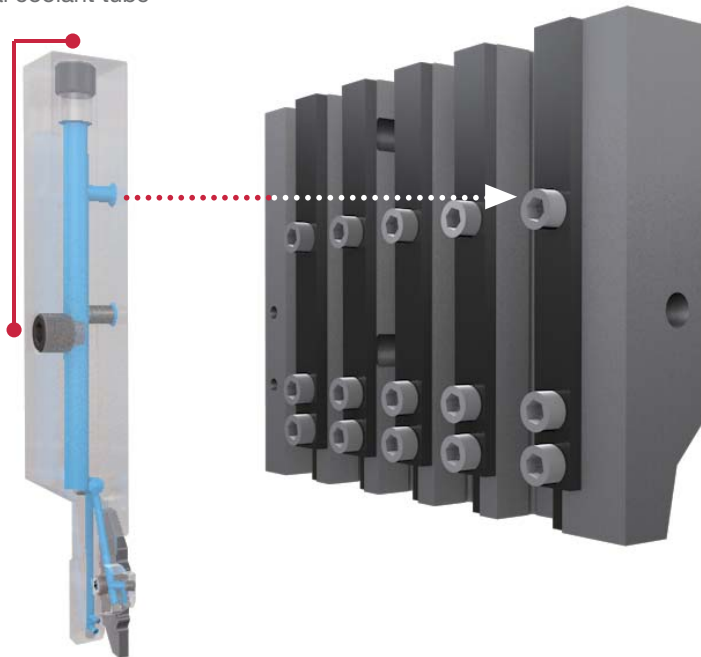
DIRECT^{TUNG}JET system

TUNGALOY

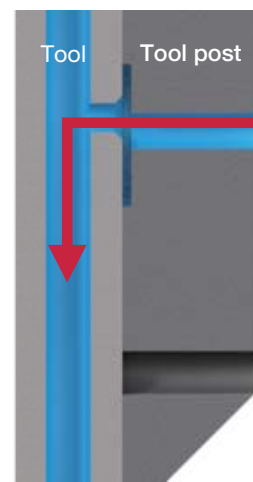
Tube-free design streamlines tool setup
Through-coolant supply enables high productivity

Coolant is supplied from the tool post directly to the tools

Optional connection with
external coolant tube



Detailed view of the coolant
flow after connection



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

L20



D25



TUNG^{TURN}JET



Machines for DirectTungJet system

Improvement of chip evacuation with TungTurn-Jet

M Stainless steel: External turning (SUS304)



J-SERIES

Material : SUS304
 Holder : JSDJ2CR1212X11-CHP
 Insert : DCGT11T302FN-JS SH725
 Cutting speed : $V_c = 80$ m/min
 Feed rate : $f = 0.03$ mm/rev
 Depth of cut : $a_p = 1.5$ mm
 Coolant type : Oil

TUNGTURNJET Through-coolant supply (at 7 MPa)	TUNGTURNJET Through-coolant supply (at 1.5 MPa)	External coolant at normal pressure
		

S Titanium alloy : Grooving (Ti-6Al-4V)



TETRAMCUT

Material : Ti-6Al-4V
 Holder : STCR1212X18-CHP
 Insert : TCP18R200F-010 SH725
 Cutting speed : $V_c = 100$ m/min
 Feed rate : $f = 0.05$ mm/rev
 Groove width : 2 mm
 Groove depth : 2.5 mm
 Coolant type : Oil

TUNGTURNJET Through-coolant supply (at 7 MPa)	TUNGTURNJET Through-coolant supply (at 1.5 MPa)	External coolant at normal pressure
		

M Stainless steel: Parting -off (SUS304)



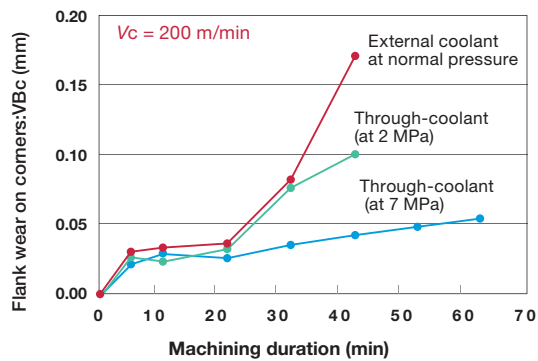
DUOJET

Material : SUS304
 Holder : JSXXL1212X09-CHP
 Insert : JXPG16L20F SH725
 Rotation : $V_c = 100$ m/min
 Feed rate : $f = 0.03$ mm/rev
 Coolant type : Oil

TUNGTURNJET Through-coolant supply (at 7 MPa)	TUNGTURNJET Through-coolant supply (at 1.5 MPa)	External coolant at normal pressure
		

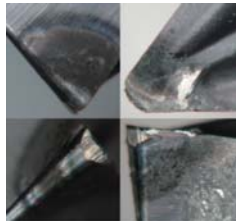
Tool wear reduction with TungTurn-Jet

M Stainless steel: External turning (SUS304)



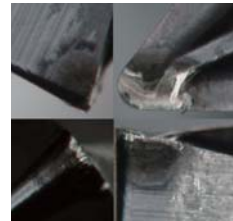
After machining for 40 min.

External coolant at normal pressure



TUNGTURN

Through-coolant (at 2 MPa)



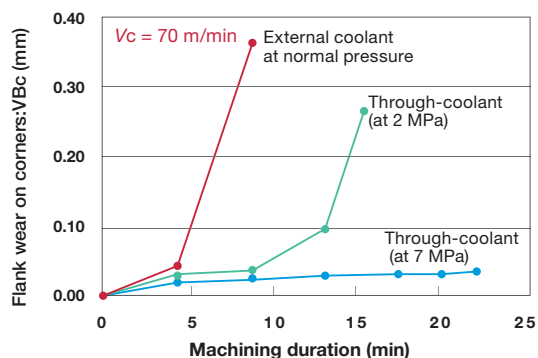
TUNGTURN

Through-coolant (at 7 MPa)



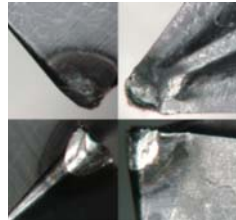
Material : SUS304
Holder : JSDJ2CR1212X11-CHP
Insert : DCGT11T302FN-JS SH725
Cutting speed : $V_c = 200$ m/min
Feed rate : $f = 0.1$ mm/rev
Depth of cut : $a_p = 0.5$ mm
Coolant type : Oil

S Titanium alloy: External turning (Ti-6Al-4V)



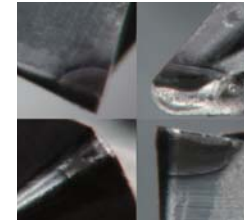
After machining for 10 min.

External coolant at normal pressure



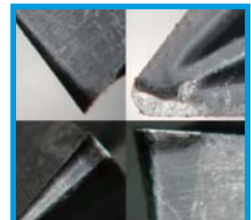
TUNGTURN

Through-coolant (at 2 MPa)



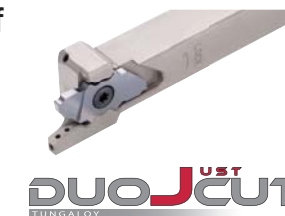
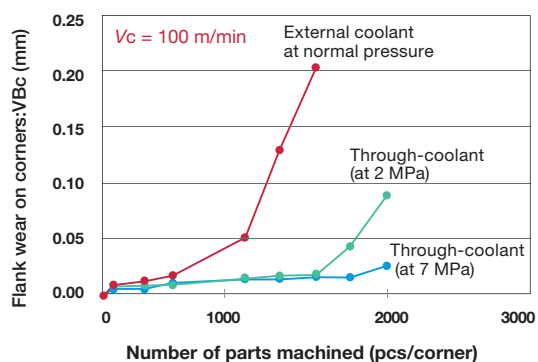
TUNGTURN

Through-coolant (at 7 MPa)



Material : Ti-6Al-4V
Holder : JSDJ2CR1212X11-CHP
Insert : DCGT11T302FN-JS SH725
Cutting speed : $V_c = 70$ m/min
Feed rate : $f = 0.1$ mm/rev
Depth of cut : $a_p = 0.5$ mm
Coolant type : Oil

M Stainless steel: Parting -off (SUS304)



External coolant at normal pressure
After 1,500 parts machined



TUNGTURN

Through-coolant (at 2 MPa)
After 2,000 parts machined



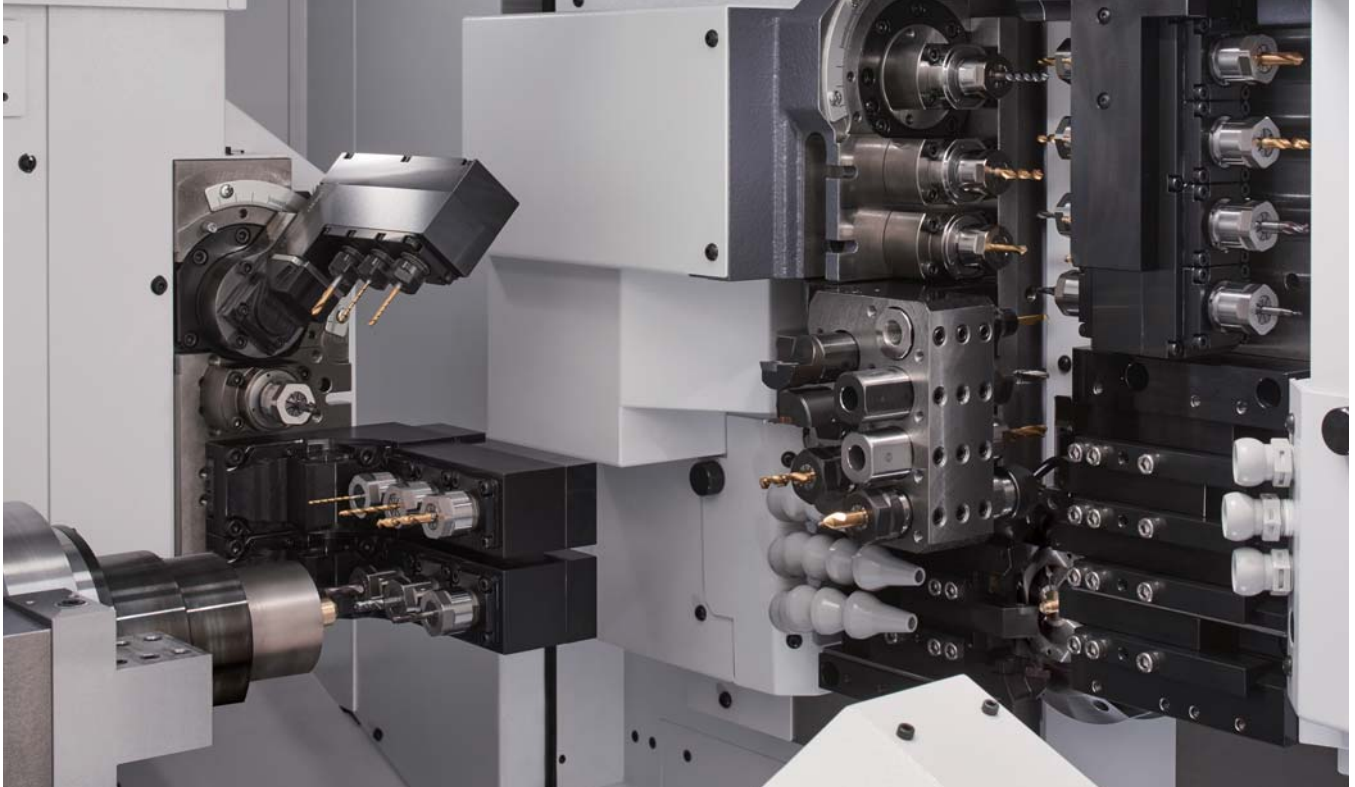
TUNGTURN

Through-coolant (at 7 MPa)
After 2,000 parts machined



Material : SUS304
Holder : JSXXL1212X09-CHP
Insert : JXPG16L20F SH725
Cutting speed : $V_c = 100$ m/min-1
Feed rate : $f = 0.03$ mm/rev
Coolant type : Oil

Double gang tool posts and B-axis Optimized tool setup for maximum productivity



Sliding Headstock Automatic CNC Lathe
with convertible guide bushing

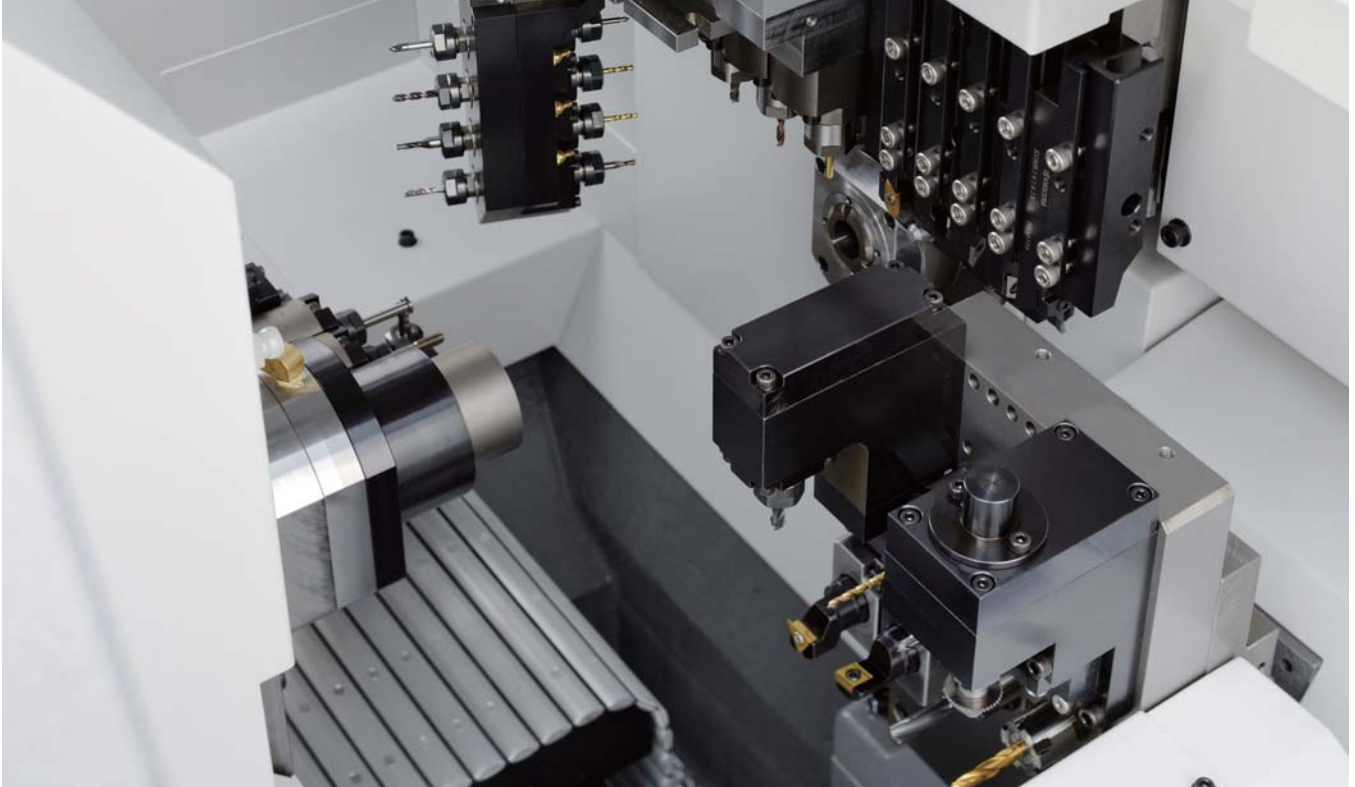
D25

Machine model	D25 VII	D25 VIII
Num. of axes/paths	9 axes, 3 path control systems	10 axes, 3 path control systems
Maximum diameter machineable (mm)	ø25	ø25
Maximum length machineable (mm)	250 (GB) 2.5xD	250 (GB) 2.5xD
Spindle speed (min ⁻¹)	10,000	10,000
Tool positions	59	43
Motor, spindle drive (kW)	3.7/5.5	3.7/5.5
Mountable tool sizes (mm)	□ 16 / □ 20	□ 16 / □ 20
Sleeve diameter (mm)	ø25.4	ø25.4

- Incorporates double gang tool posts to minimize non-machining intervals.
- A maximum of 59 tools can be mounted on the multiple tool posts, enabling seamless machining.
- Three live tool posts minimizes total machining time.
- B-axis can be utilized to machine either front or back of the workpiece.
- Simultaneous 5-axis control abilities allow for contour-profiling, enhancing the flexibility of the automatic CNC lathe capability.



Enhanced Tool Modularity



Sliding Headstock
Automatic CNC Lathe with
convertible guide bushing

L20

Machine model	L20 VIII	L20 IX	L20X	L20 XII
Num. of axes/paths	5 axes, 2 path control systems	6 axes, 2 path control systems	6 axes, 2 path control systems	7 axes, 2 path control systems
Maximum diameter machineable (mm)	ø20 (ø25optional)	ø20 (ø25optional)	ø20 (ø25optional)	ø20 (ø25optional)
Maximum length machineable (mm)	200(GB) 2.5xD(GBL)	200(GB) 2.5xD(GBL)	200(GB) 2.5xD(GBL)	200(GB) 2.5xD(GBL)
Spindle speed (min ⁻¹)	10,000	10,000	10,000	10,000
Tool positions	37	33	44	40
Motor, spindle drive (kW)	2.2/3.7	2.2/3.7	2.2/3.7	2.2/3.7
Mountable tool sizes (mm)	□ 12 (□ 13, □ 16)	□ 12 (□ 13, □ 16)	□ 12 (□ 13, □ 16)	□ 12 (□ 13, □ 16)
Sleeve diameter (mm)	ø25(GS107, 210) ø19.05	ø25(GS107, 210) ø19.05	ø25(GS107, 210) ø19.05	ø25(GS107, 210) ø19.05

- 4 types of the L20 model are available, ranging from the cost-efficient 5-axis machine to the high-end type incorporating B-axis and Y-axis opposing tool post
- A convertible model : May be run with or without the guide bushing.

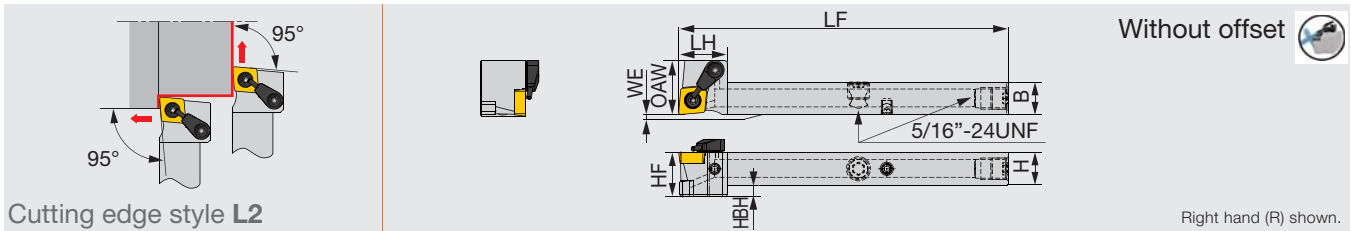


● For Turning / Facing



JSCL2CR/L-CHP

Screw-on toolholder without offset, 95° approach angle for positive 80° rhombic inserts, high pressure coolant compatible



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

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

***: To be replaced with the new design

SPARE PARTS

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

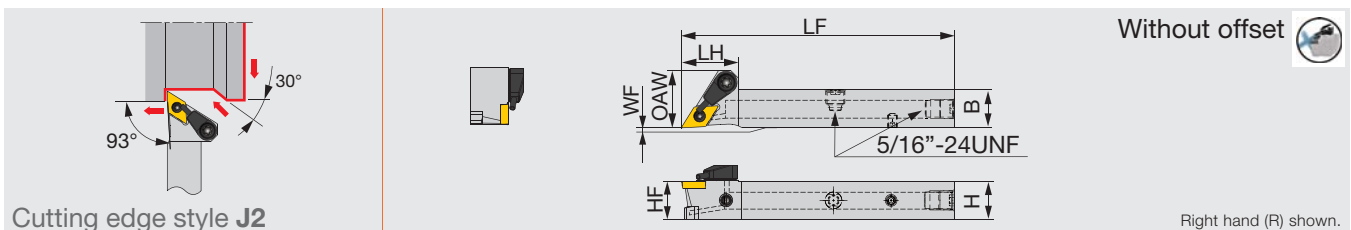
See page 34 for the proper tool overhang and plug settings.

● For External Turning



JSDJ2CR/L-CHP

Screw-on toolholder without offset, 93° approach angle for positive 55° rhombic inserts, high pressure coolant compatible



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

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

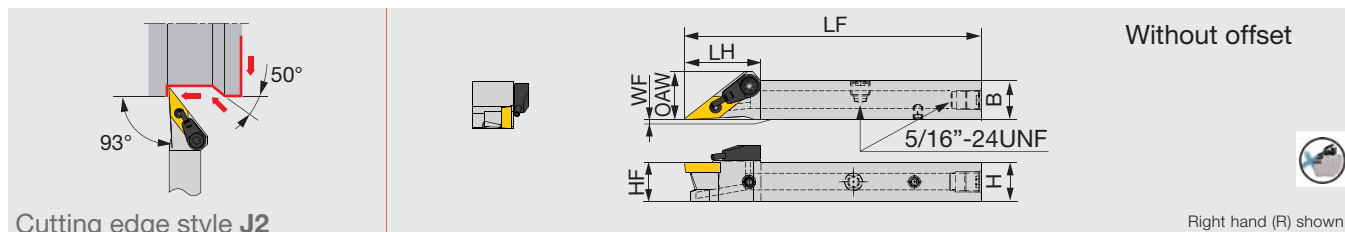
SPARE PARTS

Designation	Clamping screw	Coolant unit	Wrench
JSDJ2CR**11-CHP	CSTB-4SD	S-CU-CHP	T-8F

See page 34 for the proper tool overhang and plug settings.

JSVJ2BR/L-CHP

Screw-on toolholder without offset, 93° approach angle for positive 35° rhombic inserts, high pressure coolant compatible



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

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

SPARE PARTS

Designation	Clamping screw	Coolant unit	Wrench
JSVJ2B**11-CHP	CSTB-2.5	S-CU-CHP	T-8F

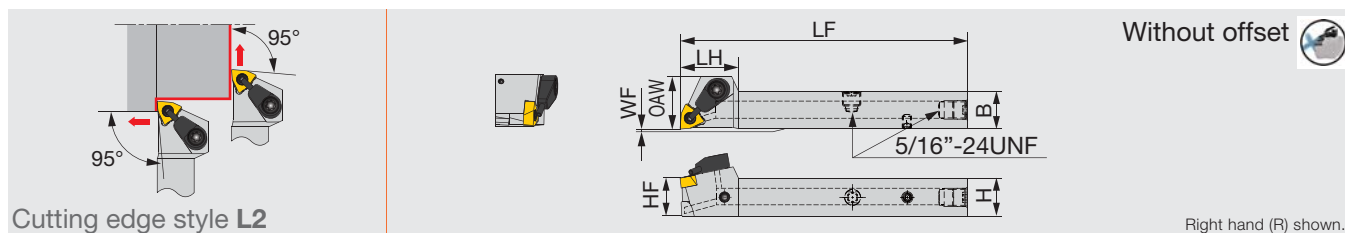
See page 34 for the proper tool overhang and plug settings.

● For Turning / Facing

JSWL2XR/L-CHP

MINI FORCE
TUNGALOY

Screw-on toolholder without offset, 95° approach angle, for WXGU inserts, high pressure coolant compatible



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

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

Note: 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
JSWL2XR**04-CHP	SR34-514	S-CU-CHP	T-7F

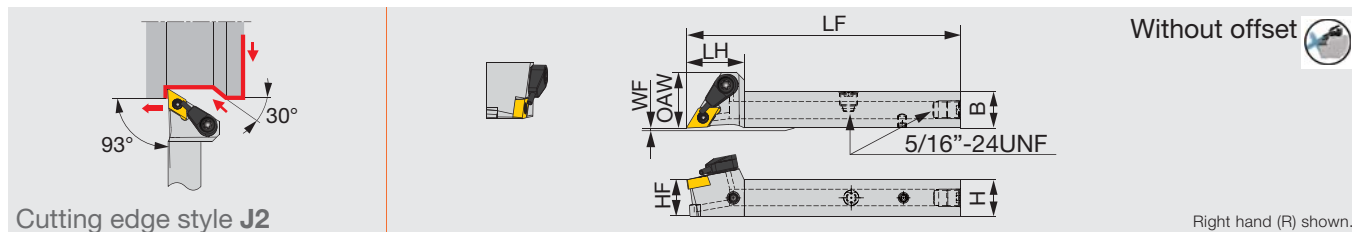
See page 34 for the proper tool overhang and plug settings.

● For External Turning

JSDJ2XR/L-CHP

MINI FORCE
TUNGALOY

Screw-on toolholder without offset, 93° approach angle, for DXGU inserts, high pressure coolant compatible



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

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

Note: Right-hand toolholders (R) are used with left-hand inserts (L). Left-hand toolholders (L) are used with right-hand inserts (R).

SPARE PARTS

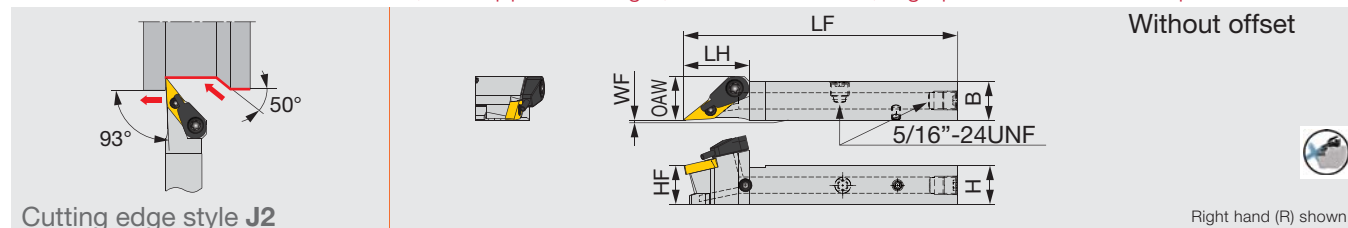
Designation	Clamping screw	Coolant unit	Wrench
JSDJ2XR**07-CHP	SR34-514	S-CU-CHP	T-7F

See page 34 for the proper tool overhang and plug settings.

JSVJ2XR/L-CHP



Screw-on toolholder without offset, 93° approach angle, for VXGU inserts, high pressure coolant compatible



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

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

Note: 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
JSVJ2XR**F09-CHP	SR34-508	S-CU-CHP	T-7F

See page 34 for the proper tool overhang and plug settings.

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

**Trigon, 80°
with hole**

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

* Corner radius has minus tolerance.

● : Line-up

 Rhombic, 55°
with hole

[illegible]

* Corner radius has minus tolerance.

● : Line-up

TurnLine - Inserts

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

POSITIVE TYPE



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

[illegible][illegible]

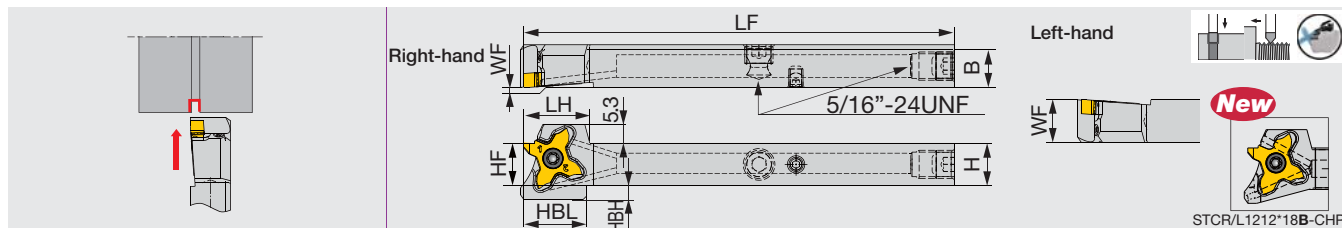
* Corner radius has minus tolerance.

● : Line-up

● For Grooving and Threading

STCR/L-18

External grooving and threading toolholder, high pressure coolant compatible



Designation	H	B	LF	LH	HBL	HF	WF	HBH	Insert	Torque*
STCR/L1212X18-CHP***	12	12	120	18.5	17.5	12	0/12	4	TC**18	1.2
STCR/L1212X18B-CHP	12	12	120	18.5	17.5	12	0/12	4	TC**18	1.2
STCR/L1616X18-CHP	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

***: To be replaced with the new design

SPARE PARTS



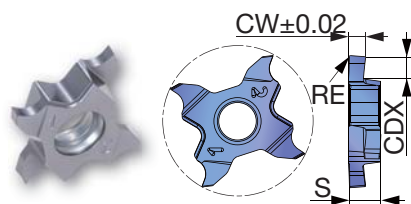
Designation	Clamping screw	Wrench
STCL**18-CHP	CSTC-4L100DR	T-1008/5
STCR**18-CHP	CSTC-4L100DL	T-1008/5

Groove width range : 0.33 ~ 3.0 mm
Threading pitch range: 0.8 ~ 3.0 mm

See page 34 for the proper tool overhang and plug settings.

INSERTS

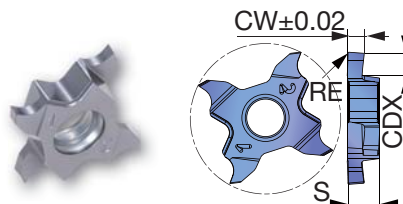
TCP18R/L (lightly honed edge)



Designation	Grade AH725		CW	Dimensions (mm)		
	R	L		RE	CDX	S
TCP18R/L033-005	●	●	0.33	0.05	0.8	4
TCP18R/L043-005	●	●	0.43	0.05	1.2	4
TCP18R/L050-005	●	●	0.5	0.05	1.2	4
TCP18R/L075-005	●	●	0.75	0.05	2	4
TCP18R/L095-005	●	●	0.95	0.05	2	4
TCP18R/L100-010	●	●	1	0.1	2	4
TCP18R/L120-010	●	●	1.2	0.1	2	4
TCP18R/L125-010	●	●	1.25	0.1	2	4
TCP18R/L140-010-35	●	●	1.4	0.1	3.5*	4
TCP18R/L145-010	●	●	1.45	0.1	2.5	4
TCP18R/L145-010-35	●	●	1.45	0.1	3.5*	4
TCP18R/L150-010	●	●	1.5	0.1	2.5	4
TCP18R/L150-010-35	●	●	1.5	0.1	3.5*	4
TCP18R/L175-010	●	●	1.75	0.1	2.5	4
TCP18R/L175-010-35	●	●	1.75	0.1	3.5*	4
TCP18R/L200-010	●	●	2	0.1	2.5	4
TCP18R/L200-010-35	●	●	2	0.1	3.5*	4
TCP18R/L250-010	●	●	2.5	0.1	2.5	4
TCP18R/L250-010-35	●	●	2.5	0.1	3.5*	4
TCP18R/L300-010	●	●	3	0.1	2.5	4
TCP18R/L300-010-35	●	●	3	0.1	3.5*	4

● : Line up

TCP18R/L-F (sharp edge)

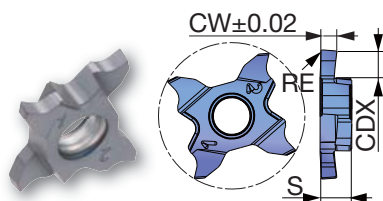


Designation	Grade SH725		CW	Dimensions (mm)		
	R	L		RE	CDX	S
TCP18R/L033F-005	●	●	0.33	0.05	0.8	4
TCP18R/L043F-005	●	●	0.43	0.05	1.2	4
TCP18R/L050F-005	●	●	0.5	0.05	1.2	4
TCP18R/L075F-005	●	●	0.75	0.05	2	4
TCP18R/L095F-005	●	●	0.95	0.05	2	4
TCP18R/L100F-005	●	●	1	0.05	2	4
TCP18R/L100F-010	●	●	1	0.1	2	4
TCP18R/L120F-005	●	●	1.2	0.05	2	4
TCP18R/L120F-010	●	●	1.2	0.1	2	4
TCP18R/L125F-005	●	●	1.25	0.05	2	4
TCP18R/L125F-010	●	●	1.25	0.1	2	4
TCP18R/L140F-010-35	●	●	1.4	0.1	3.5*	4
TCP18R/L145F-005-35	●	●	1.45	0.05	3.5*	4
TCP18R/L145F-010	●	●	1.45	0.1	2.5	4
TCP18R/L145F-010-35	●	●	1.45	0.1	3.5*	4
TCP18R/L150F-005-35	●	●	1.5	0.05	3.5*	4
TCP18R/L150F-010	●	●	1.5	0.1	2.5	4
TCP18R/L150F-010-35	●	●	1.5	0.1	3.5*	4
TCP18R/L175F-005-35	●	●	1.75	0.05	3.5*	4
TCP18R/L175F-010	●	●	1.75	0.1	2.5	4
TCP18R/L175F-010-35	●	●	1.75	0.1	3.5*	4
TCP18R/L200F-005-35	●	●	2	0.05	3.5*	4
TCP18R/L200F-010-35	●	●	2	0.1	2.5	4
TCP18R/L200F-010-35	●	●	2	0.1	3.5*	4
TCP18R/L250F-010	●	●	2.5	0.1	2.5	4
TCP18R/L250F-010-35	●	●	2.5	0.1	3.5*	4
TCP18R/L300F-010	●	●	3	0.1	2.5	4
TCP18R/L300F-010-35	●	●	3	0.1	3.5*	4

● : Line up

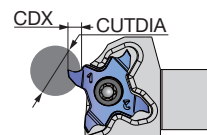
INSERTS

TCG18R/L (honed edge)



Designation	Grade AH7025		CW	Dimensions (mm)		
	R	L		RE	CDX	S
TCG18R/L100-010	●	●	1	0.1	2	4
TCG18R/L120-010	●	●	1.2	0.1	2	4
TCG18R/L125-010	●	●	1.25	0.1	2	4
TCG18R/L125-020	●	●	1.25	0.2	2	4
TCG18R/L130-020	●	●	1.3	0.2	2	4
TCG18R/L140-010	●	●	1.4	0.1	3.5*	4
TCG18R/L140-020	●	●	1.4	0.2	3.5*	4
TCG18R/L145-010	●	●	1.45	0.1	3.5*	4
TCG18R/L145-020	●	●	1.45	0.2	3.5*	4
TCG18R/L150-010	●	●	1.5	0.1	3.5*	4
TCG18R/L150-020	●	●	1.5	0.2	3.5*	4
TCG18R/L160-020	●	●	1.6	0.2	3.5*	4
TCG18R/L170-020	●	●	1.7	0.2	3.5*	4
TCG18R/L175-010	●	●	1.75	0.1	3.5*	4
TCG18R/L175-020	●	●	1.75	0.2	3.5*	4
TCG18R/L185-020	●	●	1.85	0.2	3.5*	4
TCG18R/L195-020	●	●	1.95	0.2	3.5*	4
TCG18R/L200-010	●	●	2	0.1	3.5*	4
TCG18R/L200-020	●	●	2	0.2	3.5*	4
TCG18R/L225-020	●	●	2.25	0.2	3.5*	4
TCG18R/L230-020	●	●	2.3	0.2	3.5*	4
TCG18R/L250-010	●	●	2.5	0.1	3.5*	4
TCG18R/L250-020	●	●	2.5	0.2	3.5*	4
TCG18R/L250-030	●	●	2.5	0.3	3.5*	4
TCG18R/L265-030	●	●	2.65	0.3	3.5*	4
TCG18R/L280-030	●	●	2.8	0.3	3.5*	4
TCG18R/L300-010	●	●	3	0.1	3.5*	4
TCG18R/L300-020	●	●	3	0.2	3.5*	4
TCG18R/L300-030	●	●	3	0.3	3.5*	4

● : Line up

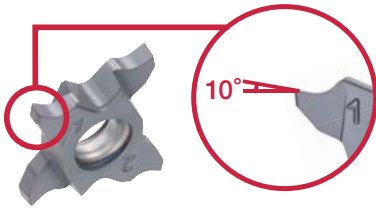


Groove depth CDX(mm)	Max. diameter CUTDIA (mm)
3.1	∞
3.2	650
3.3	250
3.4	150
3.5	80

***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.

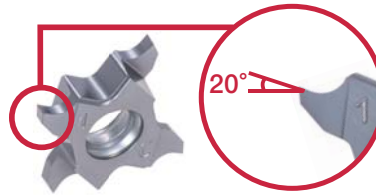
Grooving

TCG type (Honed edge)



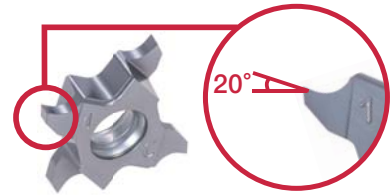
- Optimized rake angle and edge preparation enhances fracture resistance, allowing for smooth cutting
- AH7025 grade features a superior combination of wear and fracture resistances

TCP type (Lightly honed edge)



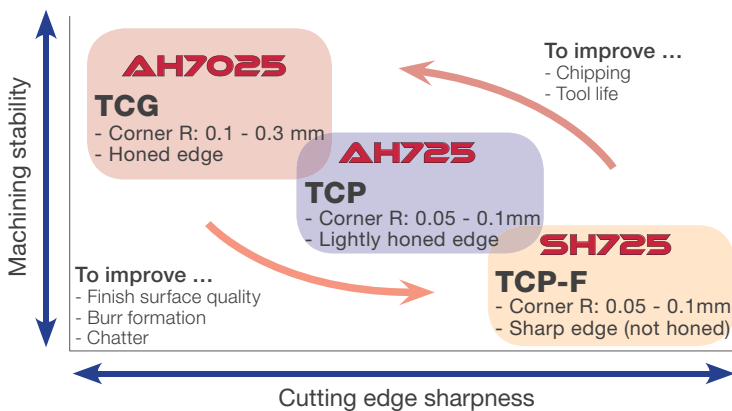
- A large rake angle ensures smooth cutting for excellent surface finish
- Inserts in grade AH725 features a tough edge preparation for high resistance to fracture

TCP-F type (Sharp edge)



- High quality surface finish and precision thanks to the sharp cutting edge
- A quality level equivalent to that with cermet is achievable
- An extremely hard coating layer on grade SH725 provides sharp cutting edges, making it perfect for small part grooving

New selection system



- Choose the best of all three insert types according to the machining requirements
- A variety of widths and corner radii are available in all three insert types

STANDARD CUTTING CONDITIONS

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

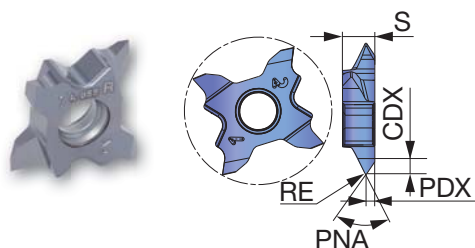
ISO	Workpiece materials	Priority	Grades	Cutting speed Vc (m/min)	Feed f (mm/rev)
P	Low carbon steel (S15C / C15, S20C / C20, etc.)	First choice	SH725	80 - 180	0.03 - 0.1
		Toughness	AH725	80 - 180	0.03 - 0.1
	Carbon steels, Alloy steel (S55C / C55, SCM440 / 42CrMoS4, etc.)	First choice	SH725	80 - 180	0.03 - 0.1
		Toughness	AH725	80 - 180	0.03 - 0.1
M	Prehardened steel (NAK80, PX5, etc.)	First choice	SH725	80 - 180	0.03 - 0.1
		Toughness	AH725	80 - 180	0.03 - 0.1
	Stainless steel (SUS304 / X5CrNi18-9, X5CrNiMo17-12-2, etc.)	First choice	SH725	50 - 120	0.03 - 0.1
		Toughness	AH725	50 - 120	0.03 - 0.1
K	Grey cast iron (FC250 / GG25 / 250, FC300 / GG30 / 300, etc.)	First choice	AH725	50 - 180	0.03 - 0.1
		Sharpness	SH725	50 - 180	0.03 - 0.1
	Ductile cast iron (FCD400 / 400-15, FCD600 / 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	20 - 80	0.03 - 0.1
		Toughness	AH725	20 - 80	0.03 - 0.1
	Superalloys (Inconel718, etc.)	First choice	SH725	20 - 80	0.03 - 0.1
		Toughness	AH725	20 - 80	0.03 - 0.1

TCG18R/L (honed edge)

ISO	Workpiece materials	Grades	Cutting speed Vc (m/min)	Feed f (mm/rev)
P	Low carbon steel (S15C / C15, S20C / C20, etc.)	AH7025	180 - 80	0.12 - 0.03
	Carbon steels, Alloy steel (S55C / C55, SCM440 / 42CrMoS4, etc.)	AH7025	180 - 80	0.12 - 0.03
	Prehardened steel (NAK80, PX5, etc.)	AH7025	180 - 80	0.12 - 0.03
M	Stainless steel (SUS304 / X5CrNi18-9, X5CrNiMo17-12-2, etc.)	AH7025	120 - 50	0.12 - 0.03
K	Grey cast iron (FC250 / GG25 / 250, FC300 / GG30 / 300, etc.)	AH7025	180 - 50	0.12 - 0.03
	Ductile cast iron (FCD400 / 400-15, FCD600 / 600-3, etc.)	AH7025	180 - 50	0.12 - 0.03
S	Titanium alloys (Ti-6Al-4V, etc.)	AH7025	80 - 20	0.12 - 0.03
	Superalloys (Inconel718, etc.)	AH7025	80 - 20	0.12 - 0.03

INSERTS

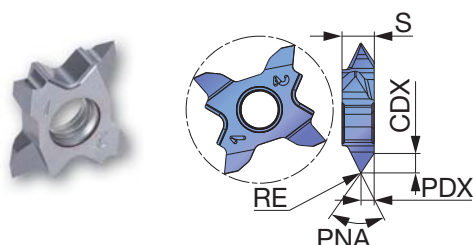
TCT18FR (for threading /sharp edge)



Designation	Grade SH725		pitch min	pitch max	Dimensions (mm)				
	R	L			PDX	CDX	RE	PNA	S
TCT18FR-60A-005	●		0.4	1	0.6	0.99	0.05	60°	4
TCT18FR-60A-010	●		1	2	1	1.63	0.1	60°	4

● : Line up

TCT18R/L (for threading / lightly honed edge)



Designation	Grade AH725		pitch min	pitch max	Dimensions (mm)				
	R	L			PDX	CDX	RE	PNA	S
TCT18R/L-60N-010	●	●	0.8	3	1.6	2.67	0.1	60°	4
TCT18R/L-60N-020	●	●	1.5	3	1.6	2.57	0.2	60°	4

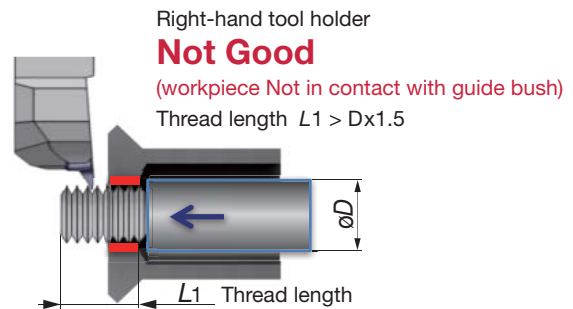
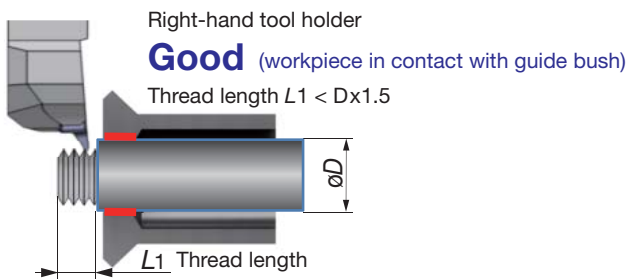
● : Line up

STANDARD CUTTING CONDITIONS

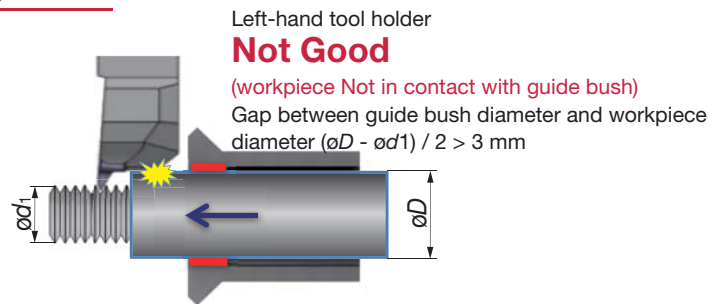
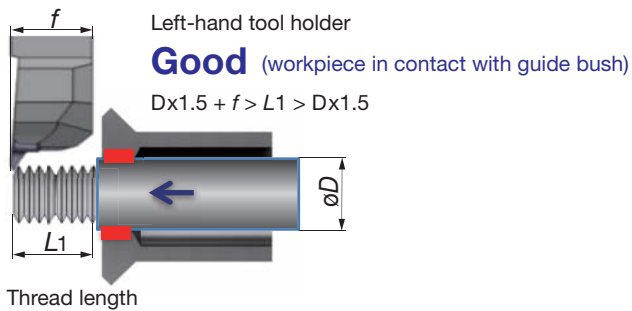
TCT18R/L (for threading / lightly honed edge) / TCT18FR (for threading / sharp edge)

ISO	Workpiece materials	Priority	Grades	Cutting speed Vc (m/min)	Pitch (mm)	TPI
P	Low carbon steel (S15C / C15, S20C / 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 / C55, SCM440 / 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 / X5CrNi18-9, X5CrNiMo17-12-2, 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 / GG25 / 250, FC300 / GG30 / 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 / 400-15, FCD600 / 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

Cautions when machining in guide bushing



Threading operation following back-turning

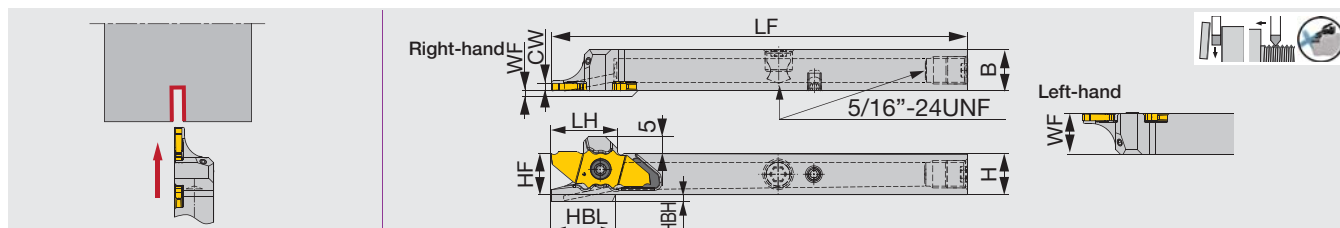


● For Parting-off and Threading



JSXXR/L

Parting and threading toolholder, high pressure coolant compatible



Designation	CW	H	B	WF	LF*	HF	HBH	LH*	HBL	Insert	Torque*
JSXXR/L1212X09-CHP	1 - 2	12	12	0.2/11.8	≤ 120	12	2	≤ 19.4	18.8	JX**06...,12...,16...	1.2
JSXXR/L1616X09-CHP***	1 - 2	16	16	0.2/15.8	≤ 120	16	2.5	≤ 19.4	18.7	JX**06...,12...,16...	1.2
New JSXXR/L1616X09B-CHP	1 - 2	16	16	0.2/15.8	≤ 120	16	0	≤ 19.4	18.7	JX**06...,12...,16...	1.2

*LF and LH measurements are based on the JXPG16xx insert. For JXPG12xx inserts, the measurements will be shorter by 2 mm; for JXPG06, shorter by 4 mm.

** Recommended clamping torque

Note: Always use a right-hand insert (JXxxRxxx) with the right-hand toolholder (JSXXRxxx); a left-hand insert (JXPGxxLxxx) with the left-hand toolholder (JSXXLxxx).

***: To be replaced with the new design

SPARE PARTS

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

Parting-off widths : 1.0 mm and 1.5 mm (for a max parting diameter of ø6 mm)
: 1.5 mm and 2.0 mm (for max parting diameters of ø12 mm and ø16 mm)
Threading pitch range : 0.2 ~ 1.5 mm

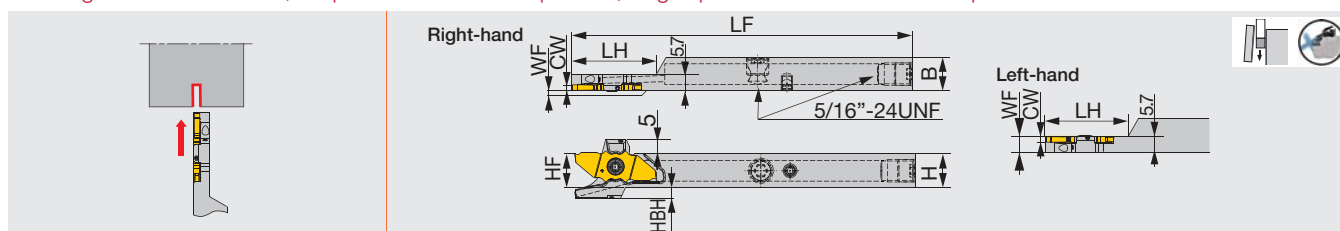
See page 34 for the proper tool overhang and plug settings.

● For Parting-off



JSXXR/L-S

Parting-off tool holder, capable with sub spindle, high-pressure coolant compatible



Designation	CW	H	B	WF	LF*	HF	HBH	LH	Insert	Torque*
JSXXR/L1212X09-S-CHP***	1-2	12	12	0.2/5.5	≤ 120	12	4	26	JXPG06,12,16	1.2
New JSXXR/L1212X09B-S-CHP	1-2	12	12	0.2/5.5	≤ 120	12	2	26	JXPG06,12,16	1.2
New JSXXR/L1616X09-S-CHP***	1-2	16	16	0.2/5.5	≤ 120	16	1.5	30	JXPG06,12,16	1.2
JSXXR/L1616X09B-S-CHP	1-2	16	16	0.2/5.5	≤ 120	16	0	30	JXPG06,12,16	1.2

*LF, HBKL, and HBL measurements are based on the JXPG16xx insert. For JXPG12xx inserts, the measurements will be shorter by 2 mm; for JXPG06, shorter by 4 mm.

** Recommended clamping torque

Note: Always use a right-hand insert (JXPGxxRxxx) with the right-hand toolholder (JSXXRxxx); a left-hand insert (JXPGxxLxxx) with the left-hand toolholder (JSXXLxxx).

***: To be replaced with the new design

SPARE PARTS

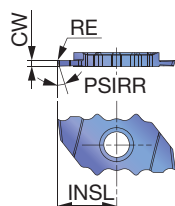
Designation	Clamping screw	Wrench
JSXXR**09-S-CHP	CSTC-4L055DL	T-1008/5
JSXXL**09-S-CHP	CSTC-4L055DR	T-1008/5

Parting-off widths : 1.0 mm and 1.5 mm (for a max parting diameter of ø6 mm)
: 1.5 mm and 2.0 mm (for max parting diameters of ø12 mm and ø16 mm)

See page 34 for the proper tool overhang and plug settings.

INSERTS

JXPG06R/L-F (sharp edge)

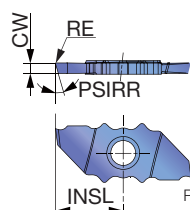


Right hand (R) shown.

Designation	CW±0.025	RE	SH725		CUTDIA	INSL	PSIRR/L
			R	L			
JXPG06R/L10F	1	0.05	●	●	6	10.5	0°
JXPG06R/L15F	1.5	0.05	●	●	6	10.5	0°
JXPG06R/L10F-15	1	0.05	●	●	6	10.5	15°
JXPG06R/L15F-15	1.5	0.05	●	●	6	10.5	15°

● : Line up
CUTDIA, parting off dia

JXPG12R/L-F (sharp edge)

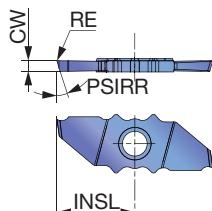


Right hand (R) shown.

Designation	CW±0.025	RE	SH725		CUTDIA	INSL	PSIRR/L
			R	L			
JXPG12R/L15F	1.5	0.05	●	●	12	12.5	0°
JXPG12R/L20F	2	0.05	●	●	12	12.5	0°
JXPG12R/L15F-15	1.5	0.05	●	●	12	12.5	15°
JXPG12R/L20F-15	2	0.05	●	●	12	12.5	15°

● : Line up
CUTDIA, parting off dia

JXPG16R/L-F (sharp edge)



Right hand (R) shown.

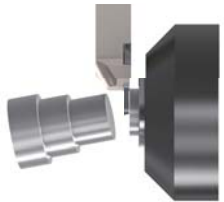
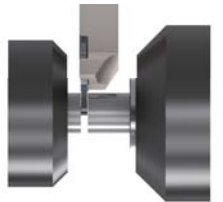
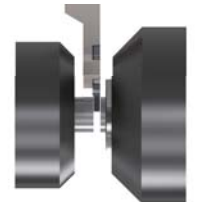
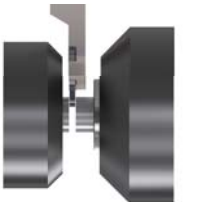
Designation	CW±0.025	RE	SH725		CUTDIA	INSL	PSIRR/L
			R	L			
JXPG16R/L15F	1.5	0.05	●	●	16	14.5	0°
JXPG16R/L20F	2	0.05	●	●	16	14.5	0°
JXPG16R/L15F-15	1.5	0.05	●	●	16	14.5	15°
JXPG16R/L20F-15	2	0.05	●	●	16	14.5	15°

● : Line up
CUTDIA, parting off dia

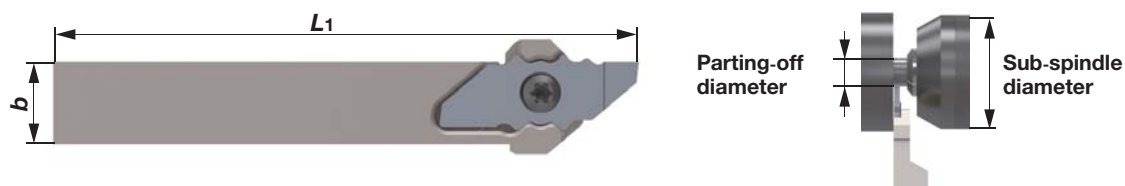
STANDARD CUTTING CONDITIONS

ISO	Workpiece materials	Grades	Cutting speed V _c (m/min)	Feed f (mm/rev)
P	Low carbon steels (C15, C20, etc.)	SH725	50 - 200	0.01 - 0.05
	Carbon steels, Alloy steels (C55, 42CrMoS4, etc.)	SH725	50 - 200	0.01 - 0.05
	Free cutting steels (SUH22, SUH23, etc.)	SH725	50 - 200	0.01 - 0.05
M	Stainless steels (X5CrNi18-9, X5CrNiMo17-12-2, 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

HOW TO SELECT TOOLS

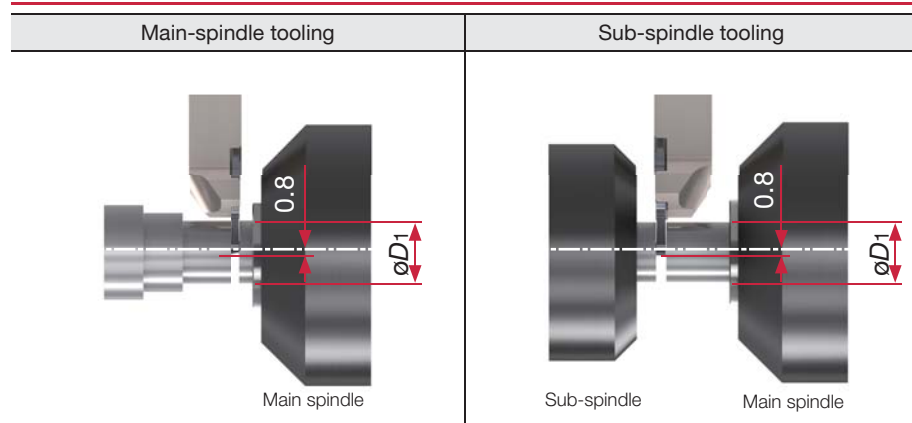
Application	Large-diameter machining of workpiece with rigidity		Small-diameter machining of workpiece with short overhang	
	Main-spindle tooling	Sub-spindle tooling	Sub-spindle tooling	
			Workpiece with long overhang at the side of sub-spindle for the process after parting-off	Short workpiece with 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.	Max parting-off dia.	Shank size b	Tool length L ₁	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
ø50	~ ø6	12	116	JXPG06*	JSXXR/L1212X09-S
ø50	~ ø12	12	118	JXPG12*	JSXXR/L1212X09-S
ø50	~ ø16	12	85	JXPG16*	JSXXR/L1212F09-S
ø50	~ ø16	12	120	JXPG16*	JSXXR/L1212X09-S

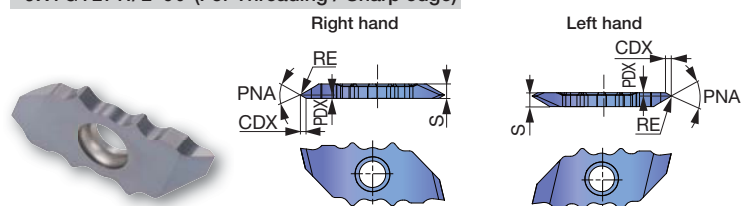
MAX. PARTING-OFF DIA. & DEPTH



The cutting edge reaches 0.8 mm beyond the center line in parting-off.
 ϕD_1 = Max. parting-off dia.

INSERTS

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



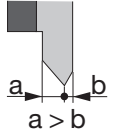
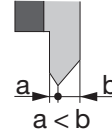
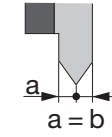
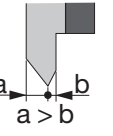
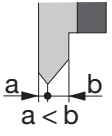
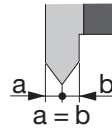
Designation	Grade SH725		Pitch	Dimensions (mm)				
	R	L		PPX	CDX	RE	S	PNA
JXTG12FR/L-60A-000	●	●	0.2 - 0.4	0.25	0.4	0.05 max Flat	2.5	60°
JXTG12FR/L-60B-000	●	●	0.2 - 0.4	2.25	0.4	0.05 max Flat	2.5	60°
JXTG12FR/L-60A-005	●	●	0.4 - 1	0.6	0.99	0.05	2.5	60°
JXTG12FR/L-60B-005	●	●	0.4 - 1	1.9	0.99	0.05	2.5	60°
JXTG12FR/L-60N-010	●	●	1 - 1.5	1.25	2.07	0.1	2.5	60°

● : Line-up

STANDARD CUTTING CONDITIONS

ISO	Workpiece materials	Grades	Cutting speed Vc (m/min)	Feed f (mm/rev)
P	Low carbon steels (C15, C20, etc.)	SH725	50 - 200	0.01 - 0.05
	Carbon steels, Alloy steels (C55, 42CrMoS4, etc.)	SH725	50 - 200	0.01 - 0.05
	Free cutting steels (SUH22, SUH23, etc.)	SH725	50 - 200	0.01 - 0.05
M	Stainless steels (X5CrNi18-9, X5CrNiMo17-12-2, 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

Edge orientation and description of threading inserts

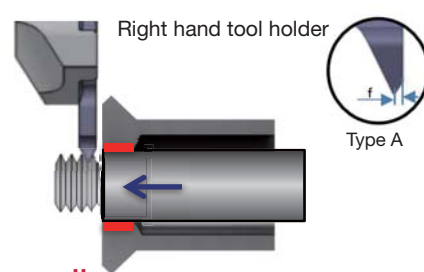
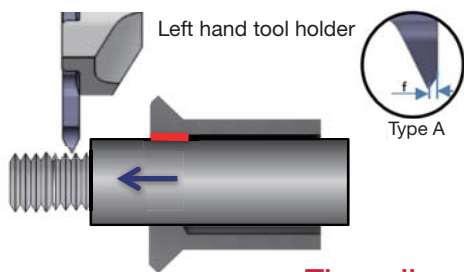
	Type A	Type B	Type N
Right hand			
Left hand			

JXTG 12 F R - 60 A - 005

Insert shape Insert size Direction Thread angle Edge orientation Corner radius

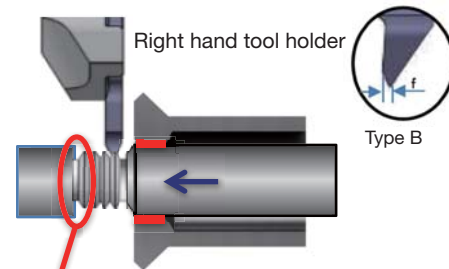
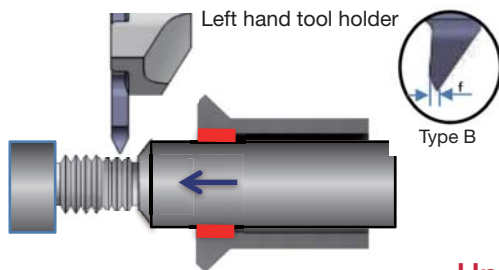
F: sharp edge

When to use Type A and Type B insert



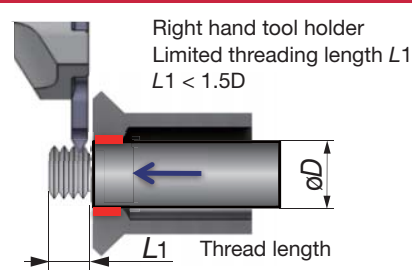
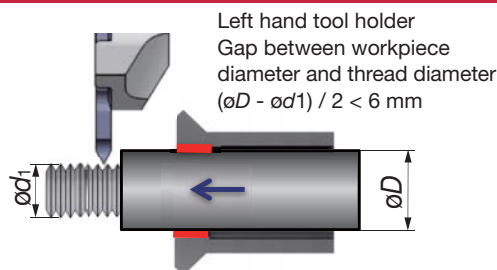
Threading close to the wall

Threading operation following back-turning

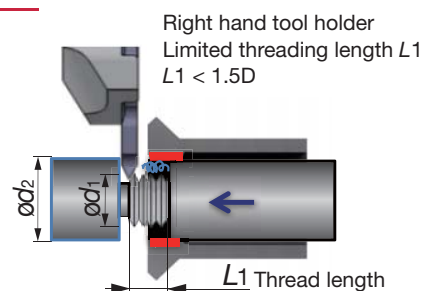
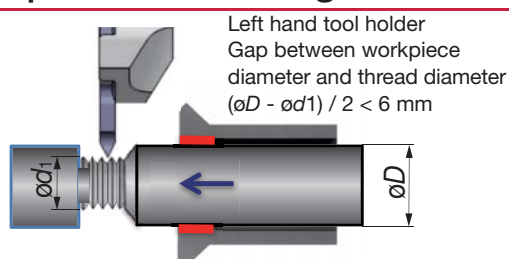


Undercutting needed in previous process

Threading workpiece in main spindle

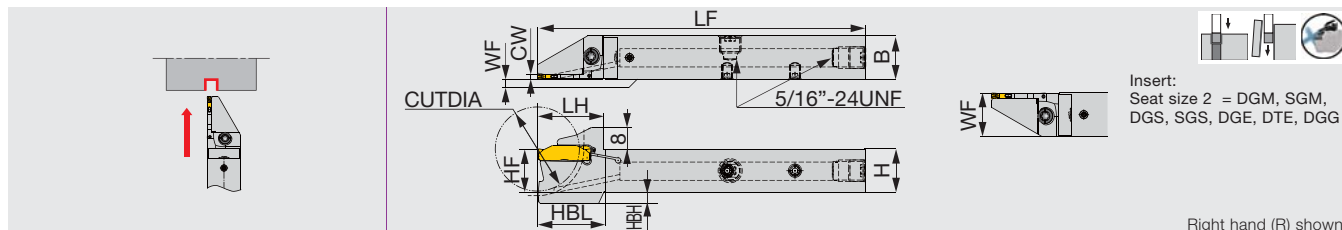


Threading operation following back-turning



JCTER/L

External grooving and parting-off toolholder, high pressure coolant compatible



Designation	CW	Seat size	CUTDA	H	B	LF	LH	HBL	HF	WF ⁽¹⁾	HBH	Torque*
JCTER/L1212X2T12-CHP	2	2	25	12	12	120	24.5	25.4	12	0/12	5	3.0
JCTER/L1616X2T12-CHP	2	2	25	16	16	120	24.5	25.4	16	0/16	1	3.0
JCTER/L1616X2T16-CHP	2	2	32	16	16	120	24.5	25.4	16	0/16	4	3.0
JCTER/L2020X2T16-CHP	2	2	32	20	20	120	24.5	25.4	20	0/20	0	3.0

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

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

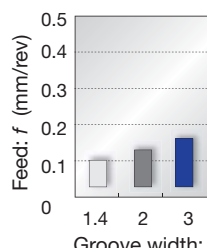
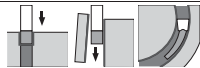
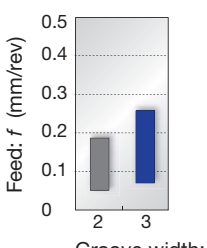
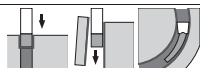
SPARE PARTS

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

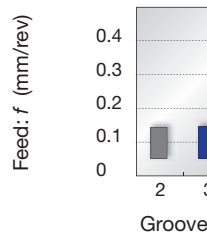
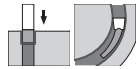
Parting-off width: 2.0 mm

See page 34 for the proper tool overhang and plug settings.

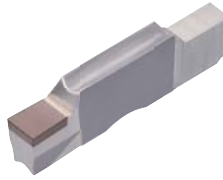
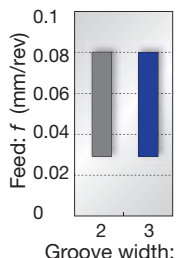
External grooving and parting

DGS type (2 corners) SGS type (1 corner) 	For swiss lathes Unique-designed edge and chipbreaker Handed insert available CW = 1.4 - 6 mm	■ Standard feed 	
DGM type (2 corners) SGM type (1 corner) 	For high fracture resistance Smooth chip evacuation Well-designed edge with high strength Handed insert available CW = 2 - 8 mm	■ Standard feed 	

External and face grooving

DGG type (2 corners) 	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 	
--	---	---	---

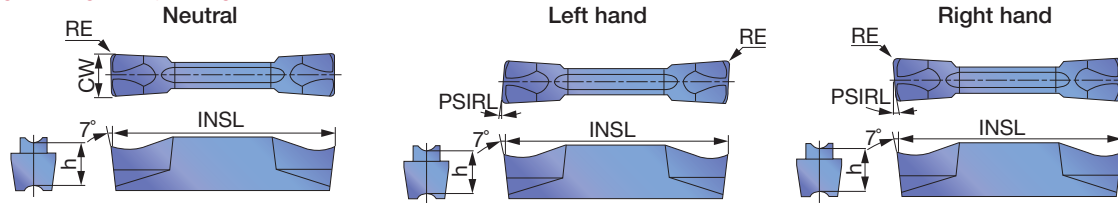
External grooving of hardened steels

SGN-CBN type (1 corner) 	For hardened steel cutting Optimum cutting edge shape for grooving of hardened steels High tolerance width for finishing ($W = \pm 0.025$ mm) CW = 2 - 4 mm	■ Standard feed 	
---	--	---	---

INSERTS

DGS

External grooving and parting off, 2 corner

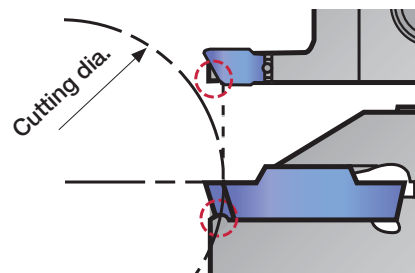


Designation	Insert seat size	CW±0.05	RE	Coated								Cermet		
				T9125		AH7025		AH725		GH130		NS9530		INSL
				R	L	R	L	R	L	R	L	R	L	
DGS1.4-016	1	1.4	0.16			●		●		●				16
DGS2-020	2	2	0.2	●		●		●		●		●		20
DGS2-020-6R/L	2	2	0.2			●		●	●	●	●			19.95
DGS2-002-6R/L	2	2	0.02					●	●	●	●			19.8
DGS2-020-15R/L	2	2	0.2			●		●	●	●	●			19.95
DGS2-002-15R/L	2	2	0.02					●	●	●	●			19.8
DGS3-020	3	3	0.2	●		●		●		●		●		20
DGS3-020-6R/L	3	3	0.2			●		●	●	●	●			19.9
DGS3-002-6R/L	3	3	0.02					●	●	●	●			19.6
DGS3-020-15R/L	3	3	0.2			●		●	●	●	●			19.9
DGS3-002-15R/L	3	3	0.02					●	●	●	●			19.45

● : Line up

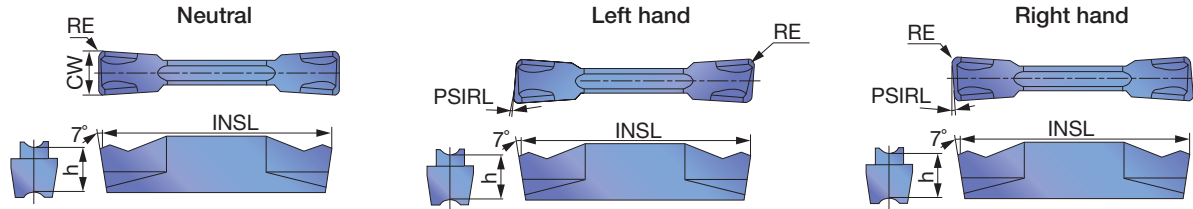
Caution

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



DGM

External grooving and parting off, 2 corner

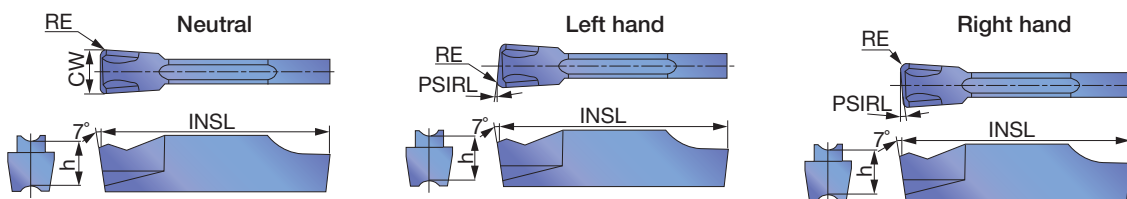


Designation	Insert seat size	CW±0.05	RE	Coated										Cermet		INSL	h	PSIRR/L
				T9125		AH7025		AH725		AH905		GH130		NS9530				
				R	L	R	L	R	L	R	L	R	L	R	L			
DGM2-020	2	2	0.2	●		●		●				●		●		20	5	0°
DGM2-020-6R/L	2	2	0.2			●		●	●			●	●			19.8	5	6°
DGM2-020-8R/L	2	2	0.2			●		●	●			●	●			19.8	5	8°
DGM2-020-15R/L	2	2	0.2			●		●	●			●	●			19.8	5	15°
DGM2-002-15R/L	2	2	0.02					●	●			●	●			19.35	5	15°
DGM3-020	3	3	0.2	●		●		●		●		●		●		20	5	0°
DGM3-020-6R/L	3	3	0.2			●		●	●			●	●			19.9	5	6°
DGM3-002-6R/L	3	3	0.02					●	●			●	●			19.45	5	6°
DGM3-020-15R/L	3	3	0.2					●	●			●	●			19.9	5	15°

● : Line up

SGM

External deep grooving and parting off, 1 corner

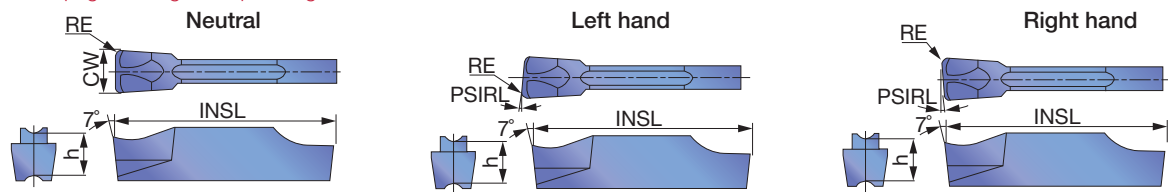


Designation	Insert seat size	CW±0.05	RE	Coated				INSL	h	PSIRR/L
				AH725		GH130				
				R	L	R	L			
SGM2-020	2	2	0.2	●		●		20	5	0°
SGM2-020-6R/L	2	2	0.2	●	●	●	●	19.8	5	6°
SGM3-020	3	3	0.2	●		●		20	5	0°
SGM3-020-6R/L	3	3	0.2	●	●	●	●	19.6	5	6°
SGM3-020-15R/L	3	3	0.2	●	●	●	●	19.6	5	15°

● : Line up

SGS

External deep grooving and parting off, 1 corner

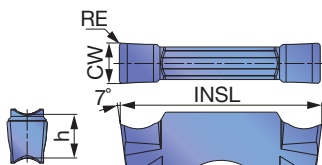


Designation	Insert seat size	CW±0.05	RE	Coated				INSL	h	PSIRR/L
				AH725		GH130				
				R	L	R	L			
SGS2-020	2	2	0.2	●		●		20	5	0°
SGS2-020-6R/L	2	2	0.2	●	●	●	●	19.8	5	6°
SGS2-020-15R/L	2	2	0.2	●	●	●	●	19.8	5	15°
SGS3-020	3	3	0.2		●		●	20	5	0°
SGS3-020-6R/L	3	3	0.2	●	●	●	●	19.64	5	6°
SGS3-002-6R/L	3	3	0.02	●	●	●	●	19.8	5	6°
SGS3-020-15R/L	3	3	0.2	●	●	●	●	19.64	5	15°
SGS3-002-15R/L	3	3	0.02	●	●	●	●	19.8	5	15°

● : Line up

DGG

External and face grooving (for high-precision machining)

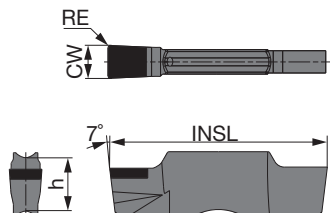


Designation	Insert seat size	CW ± 0.02	RE	Coated	Uncoated	INSL	h
				NS9530	KS05F		
DGG200-020	2	2	0.2	●	●	20	5
DGG300-020	3	3	0.2	●	●	20	5

● : Line up

SGN

External grooving of hardened steels

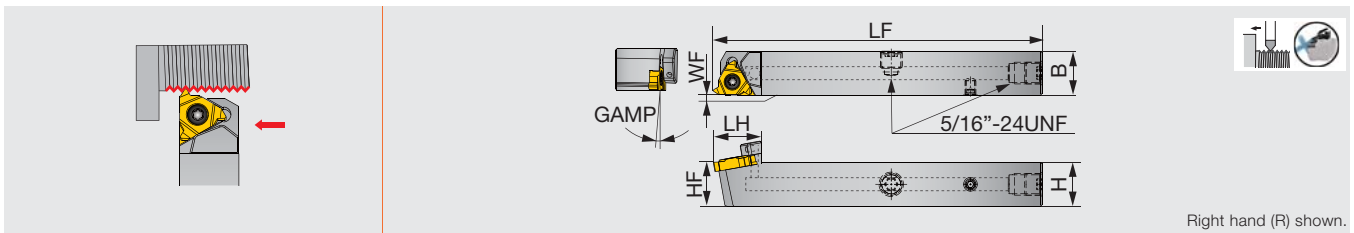


Designation	Insert seat size	CW ± 0.025	RE	CBN	INSL	h
				BX360		
SGN200-020	2	2	0.2	●	20	5
SGN300-020	3	3	0.2	●	20	5
SGN400-020	4	4	0.2	●	20	5

● : Line up

STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Hardness	Priority	Grade	Cutting speed Vc (m/min)
P	Steels C45, 34CrMo4, etc.	< 300 HB	First choice	AH7025, AH725	50 - 180
		< 300 HB	Priority for wear resistance	T9125	80 - 200
		< 300 HB	Priority for impact resistance	GH130	50 - 120
		< 300 HB	Priority for surface finish	NS9530	80 - 220
M	Stainless steels X10CrNiS18-9, etc.	< 200 HB	First choice	AH7025, AH725	50 - 120
		< 200 HB	Priority for impact resistance	GH130	50 - 120
K	Grey cast irons GG25, 250, etc.	-	First choice	GH130	50 - 180
	Ductile cast irons GGG45, 450-10S, etc.	-	First choice	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	AH7025	20 - 60
		< HRC 40	Priority for wear resistance	AH905	20 - 80
	Titanium alloys Ti-6Al-4V, etc.	< HRC 40	First choice	AH905	20 - 80
		< HRC 40	Priority for impact resistance	AH7025, AH725	20 - 80
		< HRC 40	Priority for surface finish	KS05F	20 - 60
H	Hardened steels 34CrMo4, etc.	> HRC 50	First choice	BX360	80 - 150



Designation	H	B	LF	LH	HF	WF	GAMP	Insert
JSE2R1212X16-CHP	12	12	120	19	12	0	1°	16ER...
JSE2R1616X16-CHP	16	16	120	19	16	0	1°	16ER...

SPARE PARTS

Designation	Clamping screw	Wrench	Coolant plug	Wrench	DirectJet plug	Wrench
JSE2R**16-CHP	CSTB-3.5	T-15F	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2

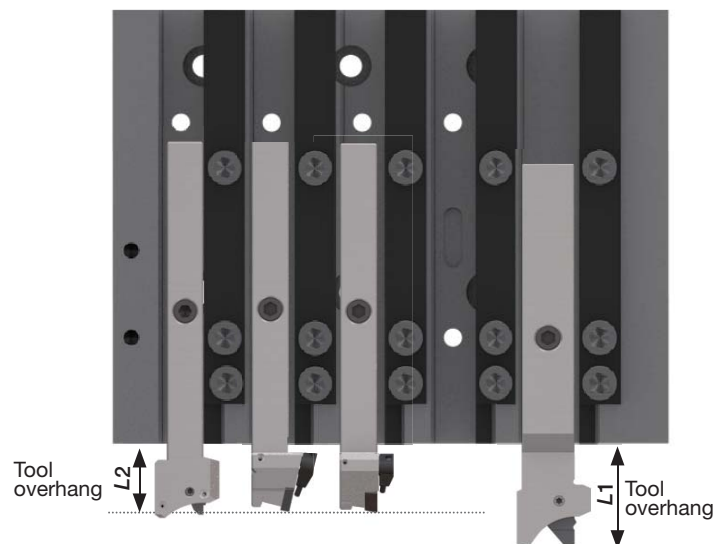
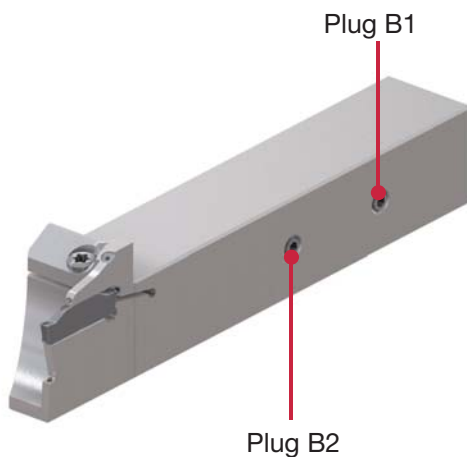
See page 34 for the proper tool overhang and plug settings.

Tool settings on the tool post

- When using through-coolant, always set the tool to a proper overhang as specified in the table below.
- Remove the plug as specified below for proper through-coolant usage.

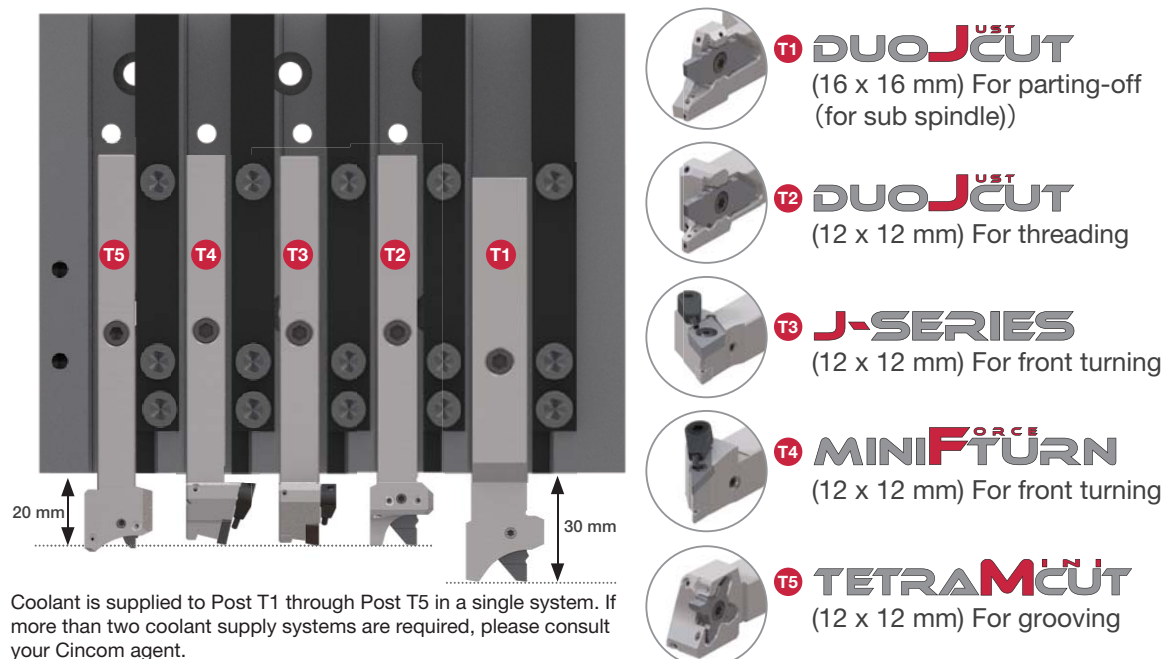
Machine model	Grooving tool		Other stationary tools	
	Overhang L1 (mm)	Coolant plug to remove	Overhang L2 (mm)	Coolant plug to remove
L20	30 (for 16 x 16 mm shank)	B1	20 (for 12 x 12 mm shank)	*1
D25	25 (for 20 x 20 mm shank)	B1	25 (for 16 x 16 mm shank, JSXX and JCTE styles)	B1
			25 (for 16 x 16 mm shank, other styles than above)	*1

* Only one coolant inlet on the toolholder

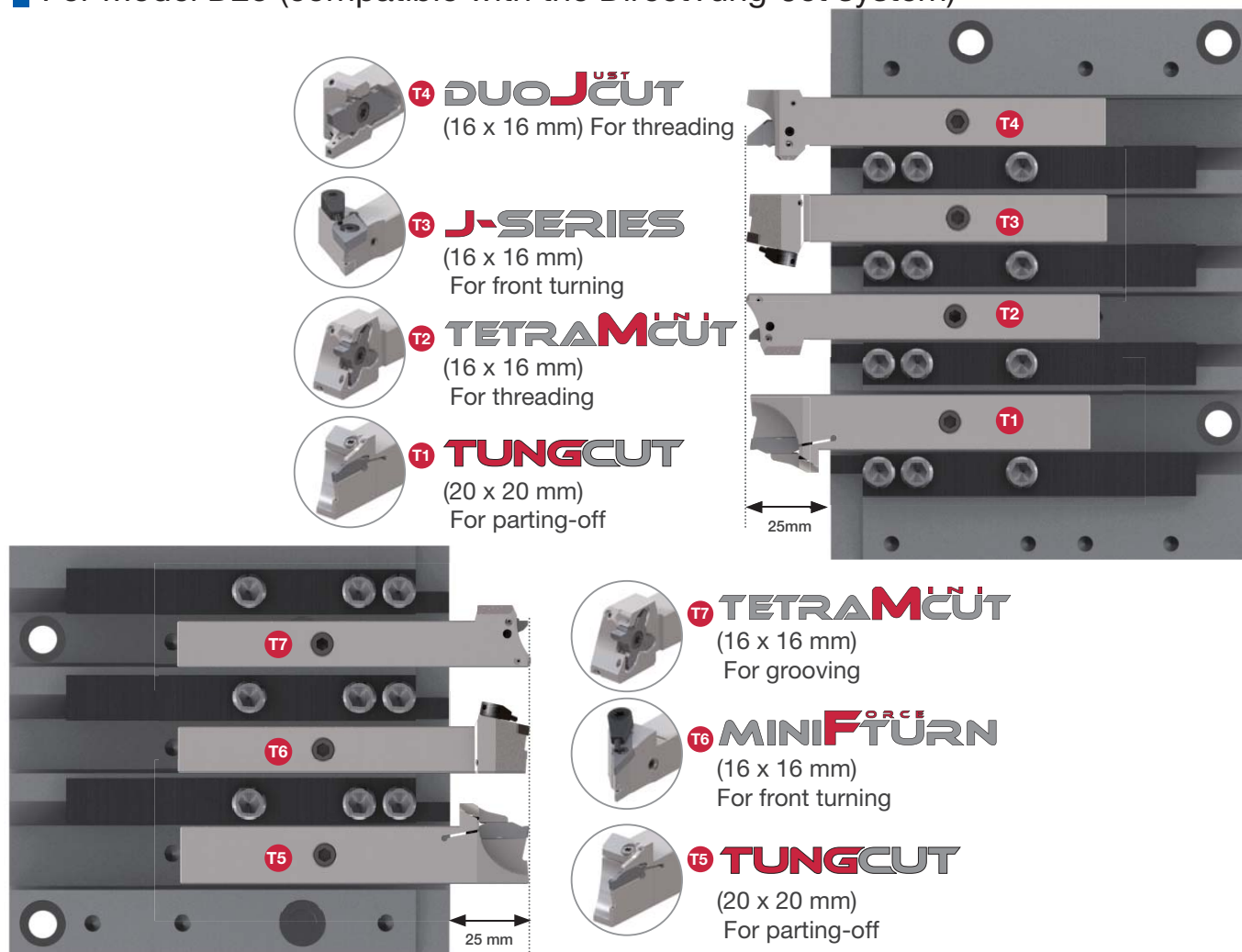


Tooling Examples

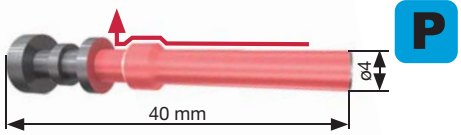
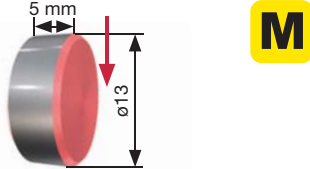
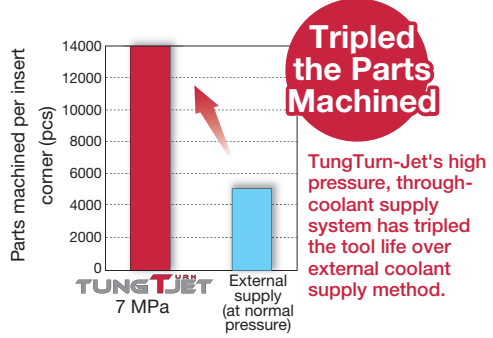
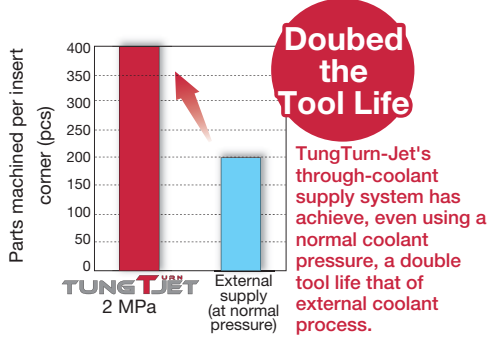
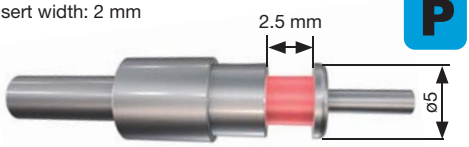
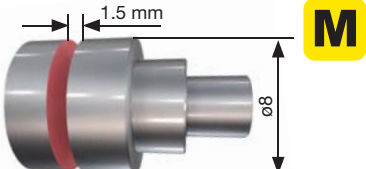
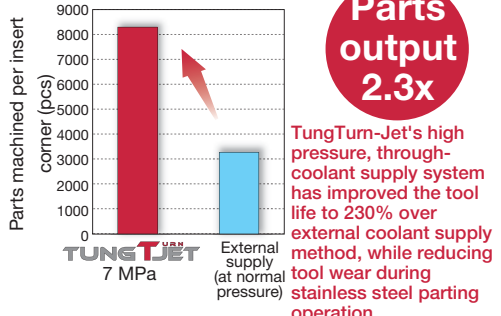
For Model L20 (compatible with the DirectTung-Jet system)



For Model D25 (compatible with the DirectTung-Jet system)



Practical examples

Workpiece type		Shaft	Valve part
Toolholder		JSDJ2CR1212X11-CHP	JSDJ2CR1212X11-CHP
Insert		DCGT11T301FN-JS	DCMT11T304-PSS
Grade		SH730	AH905
Workpiece material		S45C	SUH660
			
Cutting conditions	Cutting speed : V_c (m/min)	100	50
	Feed : f (mm/rev)	0.02	0.05
	Depth of cut : a_p (mm)	2	0.15
	Machining	External turning	Face turning
	Coolant	Oil	Oil
Results		 Tripled the Parts Machined TungTurn-Jet's high pressure, through-coolant supply system has tripled the tool life over external coolant supply method.	 Doubled the Tool Life TungTurn-Jet's through-coolant supply system has achieved, even using a normal coolant pressure, a double tool life that of external coolant process.
Workpiece type		Shaft	Injection part
Toolholder		STCR1212X18-CHP	JSXXR1212X09-CHP
Insert		TCP18R200F-010	JXPG16R15F
Grade		SH725	SH725
Workpiece material		S15C	SUS304
			
Cutting conditions	Cutting speed : V_c (m/min)	95	120
	Feed : f (mm/rev)	0.03	0.08
	Depth of cut : a_p (mm)	2.5	Part-off diameter: $\phi 8$ mm
	Machining	External grooving	Parting off
	Coolant	Oil	Oil
Results		  No chip packing in the workpiece Thanks to its high pressure coolant jet system, TungTurn-Jet has improved the chip evacuation, eliminating the post-work chip cleaning process.	 Parts output 2.3x TungTurn-Jet's high pressure, through-coolant supply system has improved the tool life to 230% over external coolant supply method, while reducing tool wear during stainless steel parting operation.

Tungaloy Corporation (Head office)

11-1 Yoshima-Kogyodanchi
Iwaki-city, Fukushima, 970-1144 Japan
Phone: +81-246-36-8501
Fax: +81-246-36-8542
www.tungaloy.co.jp

Tungaloy America, Inc.

3726 N Ventura Drive
Arlington Heights, IL 60004, U.S.A.
Phone: +1-888-554-8394
Fax: +1-888-554-8392
www.tungaloyamerica.com

Tungaloy Canada

432 Elgin St. Unit 3
Brantford, Ontario N3S 7P7, Canada
Phone: +1-519-758-5779
Fax: +1-519-758-5791
www.tungaloy.com/ca

Tungaloy de Mexico S.A.

C Los Arellano 113,
Parque Industrial Siglo XXI
Aguascalientes, AGS, Mexico 20290
Phone: +52-449-929-5410
Fax: +52-449-929-5411
www.tungaloy.com/mx

Tungaloy do Brasil Ltda.

Avd. Independencia N4158 Residencial Flora
13280-000 Vinhedo, São Paulo, Brasil
Phone: +55-19-38262757
Fax: +55-19-38262757
www.tungaloy.com/br

Tungaloy Germany GmbH

An der Alten Ziegelei 1
D-40789 Monheim, Germany
Phone: +49-2173-90420-0
Fax: +49-2173-90420-19
www.tungaloy.de

Tungaloy France S.A.S.

ZA Courtaboeuf - Le Rio
1 rue de la Terre de feu
F-91952 Courtaboeuf Cedex, France
Phone: +33-1-6486-4300
Fax: +33-1-6907-7817
www.tungaloy.fr

Tungaloy Italia S.r.l.

Via E. Andolfato 10
I-20126 Milano, Italy
Phone: +39-02-252012-1
Fax: +39-02-252012-65
www.tungaloy.it

Tungaloy Czech s.r.o.

Turanka 115
CZ-627 00 Brno, Czech Republic
Phone: +420-532 123 391
Fax: +420-532 123 392
www.tungaloy.cz

Tungaloy Ibérica S.L.

C/Miquel Servet, 43B, Nau 7
Pol. Ind. Bufalvent
ES-08243 Manresa (BCN), Spain
Phone: +34 93 113 1360
Fax: +34 93 876 2798
www.tungaloy.es

Tungaloy Scandinavia AB

Bultgatan 38
442 40 Kungälv, Sweden
Phone: +46-462119200
www.tungaloy.se

Tungaloy Rus, LLC

115432, Moscow, Andropov Avenue, 18,
building 7, 11th floor (office 3). Metro station
"Technopark". Business center «I-Land».
Phone: +7-499-683-01-80/81
www.tungaloy.com/ru

Tungaloy East LLC

620075, Russian Federation, Sverdlovsk
Region, Ekaterinburg, Mamina-Sibiryaka str.,
bldg. 101, room 202
Phone: +7-343-286-48-23/24
Fax: +7-912-284-91-69
www.tungaloy.com/rue

Tungaloy Polska Sp. z o.o.

ul. Genewska 24
03-963 Warszawa, Poland
Phone: +48-22-617-0890
Fax: +48-22-617-0890
www.tungaloy.com/pl

Tungaloy U.K. Ltd

The Technology Centre,
Wolverhampton Science Park
Glaisher Drive, Wolverhampton
West Midlands WV10 9RU, UK
Phone: +44 121 4000 231
Fax: +44 121 270 9694
www.tungaloy.com/uk
salesinfo@tungaloyuk.co.uk

Tungaloy Hungary Kft

Erzsébet királyné útja 125
H-1142 Budapest, Hungary
Phone: +36 1 781-6846
Fax: +36 1 781-6866
www.tungaloy.com/hu
info@tungaloytools.hu

Tungaloy Turkey

Dudullu, OSB 4. Cad No:4
34776 Umraniye Istanbul, TURKEY
Phone: +90 216 540 04 67
Fax: +90 216 540 04 87
www.tungaloy.com.tr
info@tungaloy.com.tr

Tungaloy Benelux b.v.

Tjalk 70
NL-2411 NZ Bodegraven, Netherlands
Phone: +31 172 630 420
Fax: +31 172 630 429
www.tungaloy-benelux.com

Tungaloy Croatia

Ulica bana Josipa Jelačića 87,
10430 Samobor
Phone: +385 1 3326 604
Fax: +385 1 3327 683
www.tungaloy.hr

Tungaloy Cutting Tool (Shanghai) Co., Ltd.

Rm No 401 No.88 Zhabei
Jiangchang No.3 Rd
Shanghai 200436, China
Phone: +86-21-3632-1880
Fax: +86-21-3621-1918
www.tungaloy.com/cn

Tungaloy Cutting Tool (Thailand) Co., Ltd.

Interlink tower 4th Fl.
1858/5-7 Bangna-Trad Road
km.5 Bangna, Bangkok 10260
Thailand
Phone: +66-2-751-5711
Fax: +66-2-751-5715
www.tungaloy.co.th

Tungaloy Singapore (Pte.), Ltd.

62 Ubi Road 1, #06-11 Oxley BizHub 2
Singapore 408734
Phone: +65-6391-1833
Fax: +65-6299-4557
www.tungaloy.com/sg

Tungaloy Vietnam

LE 04-38, Lexington Residence
67 Mai Chi Tho, Dist. 2,
Ho Chi Minh City, Vietnam
Phone: +84-8-37406660
Fax: +84-8-37406662
www.tungaloy.com/sg

Tungaloy India Pvt. Ltd.

Indiabulls Finance Centre,
Unit # 902-A, 9th Floor,
Tower 1, Senapati Bapat Marg,
Elphinstone Road (West),
Mumbai - 400013, India
Phone: +91-22-6124-8804
Fax: +91-22-6124-8899
www.tungaloy.com/in

Tungaloy Korea Co., Ltd

#1312, Byucksan Digital Valley 5-cha
Beotkkot-ro 244, Geumcheon-gu
153-788 Seoul, Korea
Phone: +82-2-2621-6161
Fax: +82-2-6393-8952
www.tungaloy.com/kr

Tungaloy Malaysia Sdn Bhd

50 K-2, Kelana Mall, Jalan SS6/14
Kelana Jaya, 47301
Petaling Jaya, Selangor Darul Ehsan
Malaysia
Phone: +603-7805-3222
Fax: +603-7804-8563
www.tungaloy.com/my

Tungaloy Australia Pty Ltd

PO Box 2232, Rowville,
Victoria 3178, Australia
Phone: +61-3-9755-8147
Fax: +61-3-9755-6070
www.tungaloy.com.au

PT. Tungaloy Indonesia

Kompleks Grand Wisata Block AA-10 No.3-5
Cibitung
Bekasi 17510, Indonesia
Phone: +62-21-8261-5808
Fax: +62-21-8261-5809
www.tungaloy.com/id



www.tungaloy.com

follow us at:

facebook.com/tungaloyjapan

twitter.com/tungaloyjapan

To see this product in action visit:

Tung-TV

www.youtube.com/tungaloycorporation

Distributed by:



DOWNLOAD
Dr. Carbide App



Available on the
App Store



GET IT ON
Google play

FIND US ON THE CLOUD!
machiningcloud.com



AS9100 Certified
78006
2015.11.04
ISO14001 Certified
EC97J1123
1997.11.26

Produced from Recycled paper

Dec. 2017 (TJ)