

TurnLine

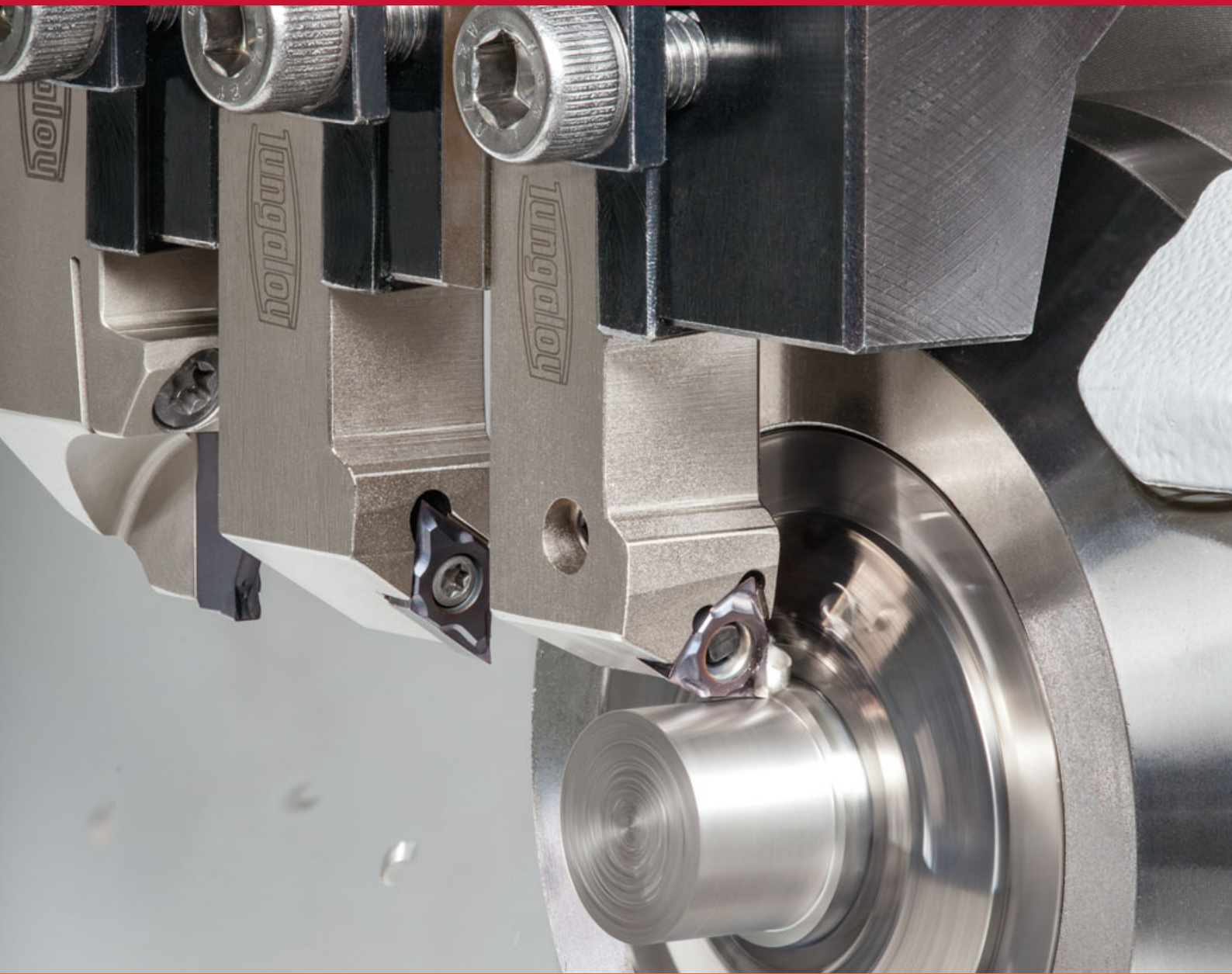
MINI^{FORCE}TURN

www.tungaloy.com

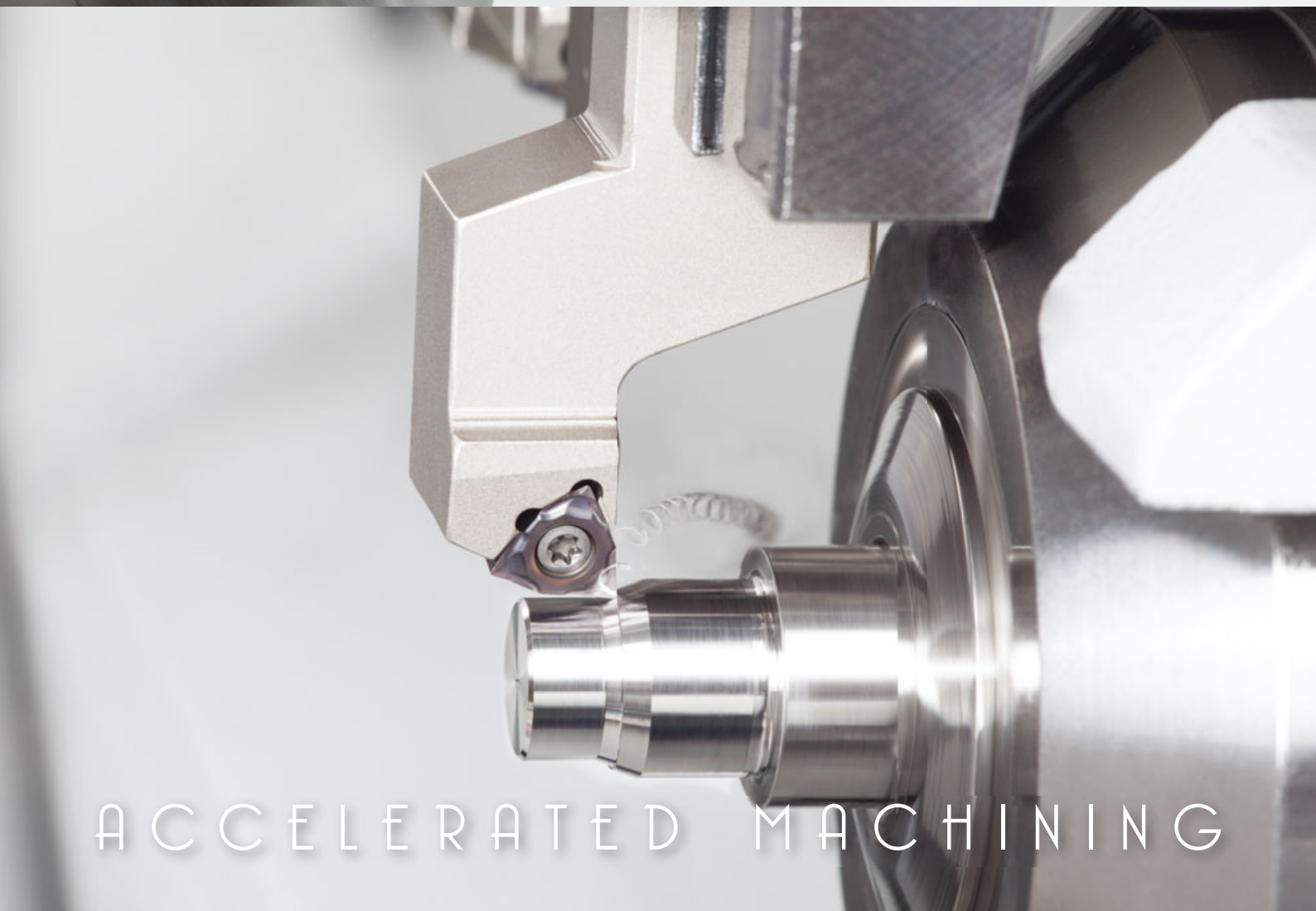
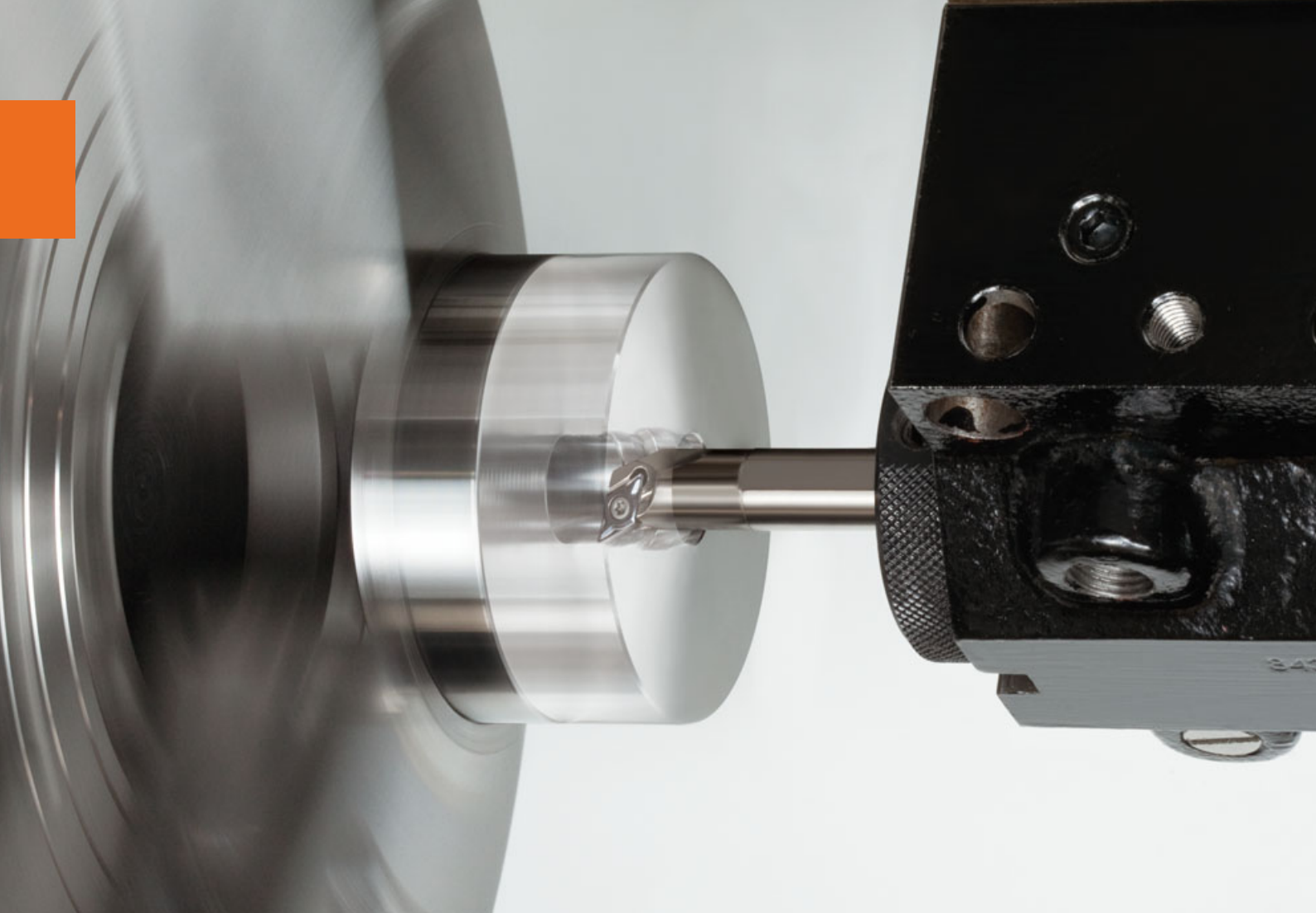
Tungaloy Report No. 417-G

MINI^{FORCE}-TURN

Innovative insert provides superior economic advantages!



Member IMC Group
Tungaloy



ACCELERATED MACHINING



VXGU insert, new tooling,
new chipbreaker, and new grades are newly
added!

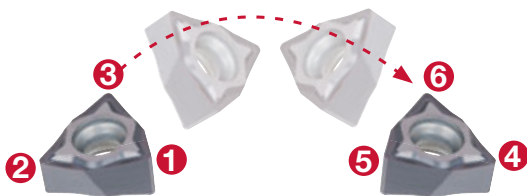


Economical double sided inserts with positive cutting edge

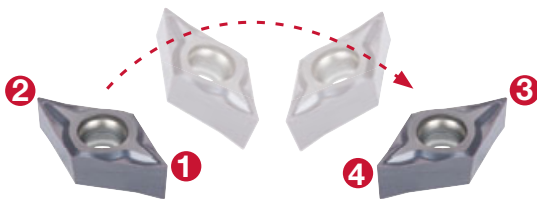
Innovative multi-cornered insert clamped into a unique pocket ensures insert stability resulting in superior machining performance.

Inserts

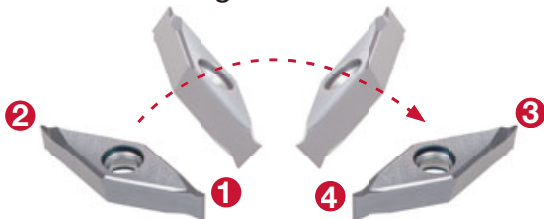
WXGU0403.. Inserts with 6 positive cutting edges



DXGU0703.. Inserts with 4 positive cutting edges

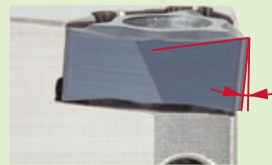


VXGU09T2.. Inserts with 4 positive cutting edges

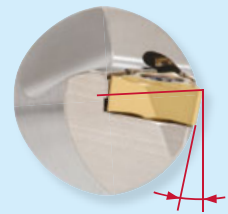


High rake angle

External turning



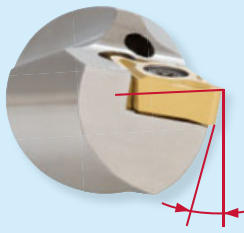
Internal turning



External turning



Internal turning

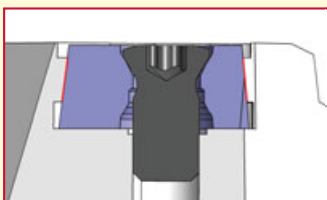


External turning



Toolholders

Dovetail structure ensures secure insert clamping.



External turning

JP-type screw accessible from both sides



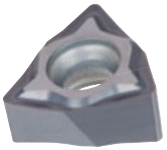
Internal turning

Unique design for optimal chip evacuation

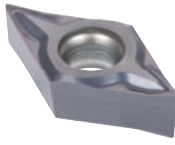


Uniquely designed chipbreakers

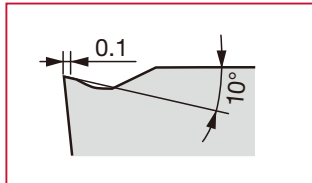
TS / JTS / TSW chipbreaker

P M K


WXGU0403..

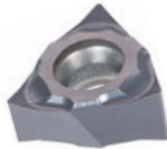


DXGU0703..



Excellent chip control,
recommended for steel and
stainless steel machining.

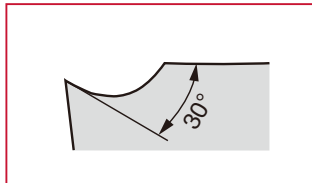
SS / JSS chipbreaker

M P


WXGU0403..

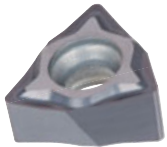


DXGU0703..

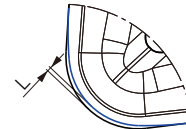
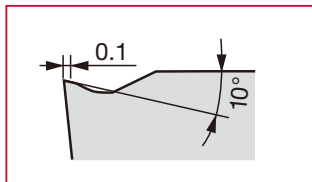


Generates low cutting forces,
recommended for steel and
stainless steel machining.

TSW chipbreaker (Wiper)

P M K


WXGU0403..



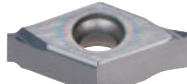
Off set: $L = -0.05 \text{ mm}$

Excellent surface finishing and high
efficiency for high feed machining.

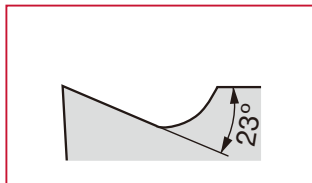
JRP chipbreaker



VXGU09T2..



DXGU0703..



Sharp cutting edge and ground
chipbreaker with excellent chip
control.

Chipbreakers for general purposes

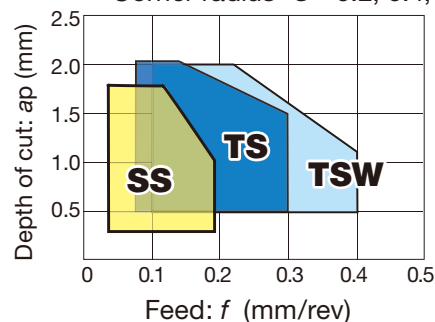
WXGU0403.. - **TS / SS / TSW**

DXGU0703.. - **TS / SS**

Reinforced cutting edge used at medium
to low feeds in semi-finishing and finishing
operations.

Application area

Corner radius $r_\epsilon = 0.2, 0.4, 0.8$



Chipbreakers for small parts machining

WXGU0403.. - **JTS / JSS**

DXGU0703.. - **JTS / JSS**

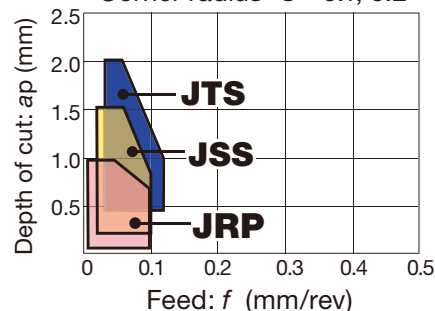
VXGU09T2.. - **JRP**

Extra sharp cutting edge used at low feeds
for finishing operations.

An excellent solution to reduce vibration.

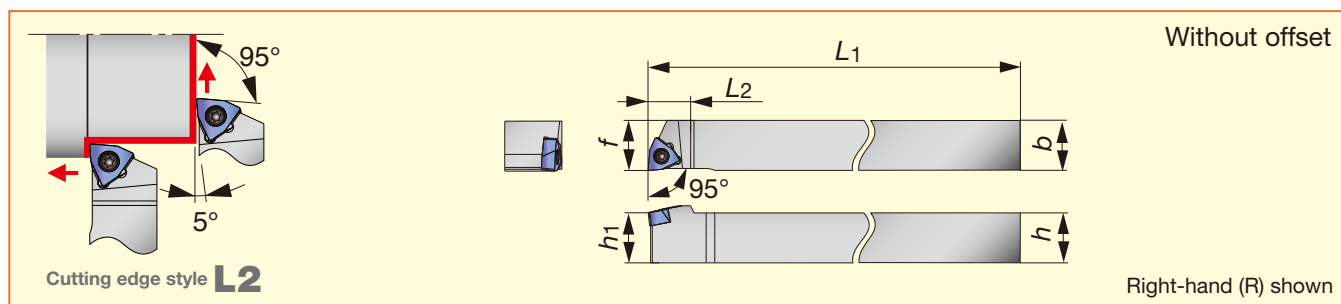
Application area

Corner radius $r_\epsilon = 0.1, 0.2$



External toolholders

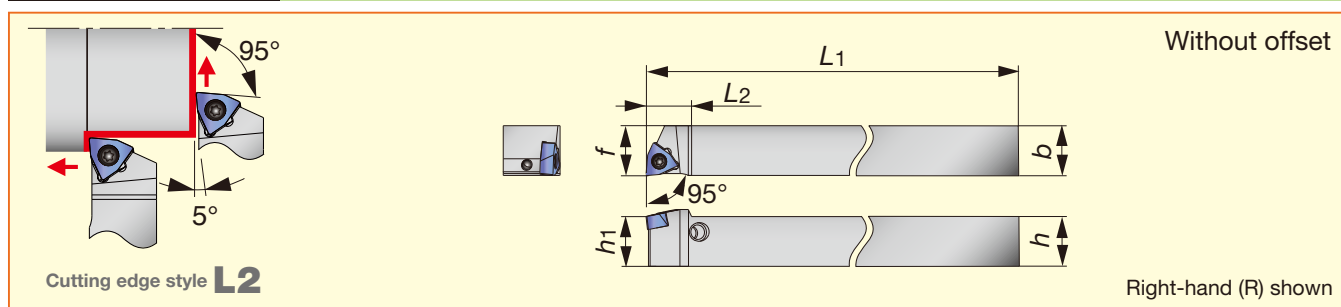
JSWL2XR/L External turning and facing JS type (Positive rake, screw-on system)



Cat. No.	Stock		Dimensions (mm)						Std. corner radius r_{ϵ}	Insert	Parts		Torque (N·m)
	R	L	h	b	L_1	L_2	h_1	f			Clamping screw	Wrench	
JSWL2XR/L1010X04	●	●	10	10	120	11	10	10	0.2	WXGU0403**L/R	SR34-514	T-7F	0.9
JSWL2XR/L1212F04	●	●	12	12	85	11	12	12	0.2	WXGU0403**L/R	SR34-514	T-7F	0.9
JSWL2XR/L1212X04	●	●	12	12	120	11	12	12	0.2	WXGU0403**L/R	SR34-514	T-7F	0.9
JSWL2XR/L1616X04	●	●	16	16	120	13	16	16	0.2	WXGU0403**L/R	SR34-514	T-7F	0.9
JSWL2XR/L2020H04	●	●	20	20	100	13	20	20	0.2	WXGU0403**L/R	SR34-514	T-7F	0.9

- ① Right-hand toolholders (R) are used with left-hand inserts (L)
 ② Left-hand toolholders (L) are used with right-hand inserts (R)

JPWL2XR/L External turning and facing JP type (Positive rake, side-clamping system)

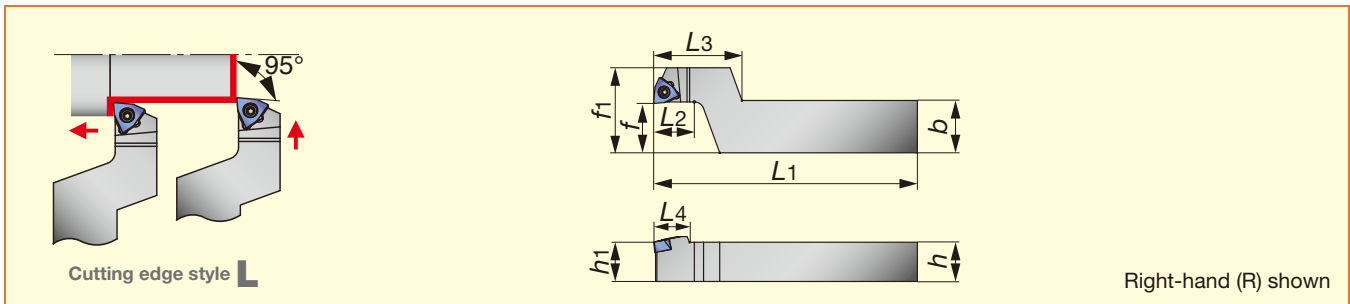


Cat. No.	Stock		Dimensions (mm)							Std. corner radius r_{ϵ}	Insert	Parts				Torque (N·m)
	R	L	h	b	L_1	L_2	h_1	f	Lever			Pin	Clamping screw	Wrench		
JPWL2XR/L1010X04	●	●	10	10	120	11	10	10	0.2	WXGU0403**L/R	SLLV-2	SL-PI-2	SR10400611	HW 2.0/5 RED	0.9	
JPWL2XR/L1212F04	●	●	12	12	85	11	12	12	0.2	WXGU0403**L/R	SLLV-2	SL-PI-2	SR10400611	HW 2.0/5 RED	0.9	
JPWL2XR/L1212X04	●	●	12	12	120	11	12	12	0.2	WXGU0403**L/R	SLLV-2	SL-PI-2	SR10400611	HW 2.0/5 RED	0.9	
JPWL2XR/L1616X04	●	●	16	16	120	13	16	16	0.2	WXGU0403**L/R	SLLV-2	SL-PI-2	SR10400611	HW 2.0/5 RED	0.9	

- ① Right-hand toolholders (R) are used with left-hand inserts (L)
 ② Left-hand toolholders (L) are used with right-hand inserts (R)

● : Line up

JSWLXR-F External turning and facing Stepped-head type (Positive rake, screw-on system)

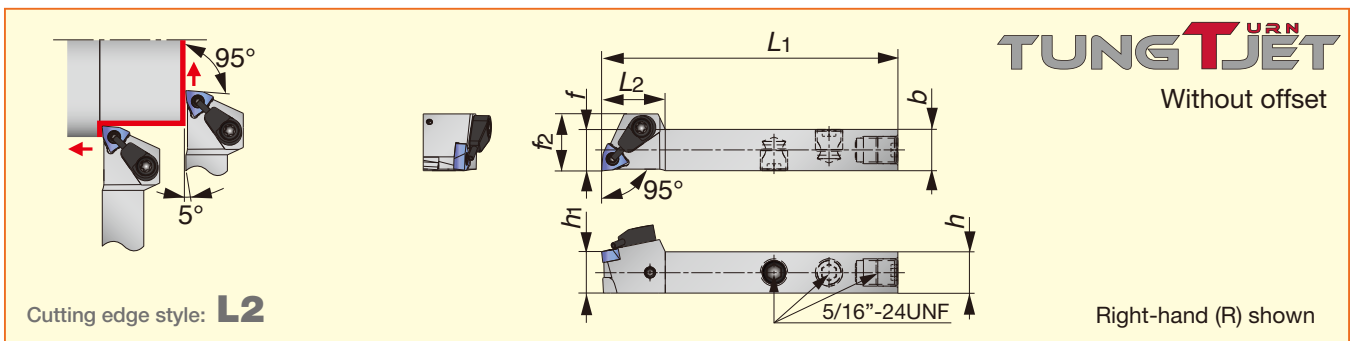


Cat. No.	Stock		Dimensions (mm)									Std. corner radius r _e	Insert	Parts		Torque (N·m)
	R	L	h	b	L ₁	L ₂	L ₃	L ₄	h ₁	f	f ₁			Clamping screw	Wrench	
JSWLXR1016X04-F15	●		10	16	120	12	27	11	10	15	26	0.2	WXGU0403**L	SR34-514	T-7F	0.9
JSWLXR1216F04-F15	●		12	16	85	12	27	11	12	15	26	0.2	WXGU0403**L	SR34-514	T-7F	0.9
JSWLXR1216X04-F15	●		12	16	120	12	27	11	12	15	26	0.2	WXGU0403**L	SR34-514	T-7F	0.9
JSWLXR1620X04-F15	●		16	20	120	12	27	11	16	15	26	0.2	WXGU0403**L	SR34-514	T-7F	0.9

① Right-hand toolholders (R) are used with left-hand inserts (L)

Works with high-pressure coolant

JSWL2XR/L-CHP External turning and facing CHP type (Positive rake, screw-on system)



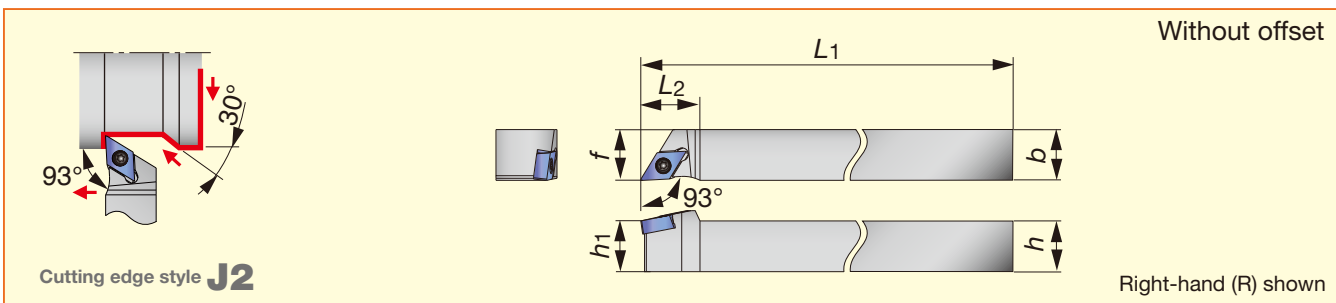
Cat. No	Stock		Dimensions (mm)							Std. corner radius r _ε	Insert	Parts		Torque (N·m)
	R	L	h	b	L ₁	L ₂	h ₁	f	f ₂			Clamping screw	Wrench	
JSWL2XR/L1212F04-CHP	●	●	12	12	85	18	12	12	16.5	0.2	WXGU0403**/L/R	SR34-514	T-7F	0.9

① Right-hand toolholders (R) are used with left-hand inserts (L)

② Left-hand toolholders (L) are used with right-hand inserts (R)

● : Line up

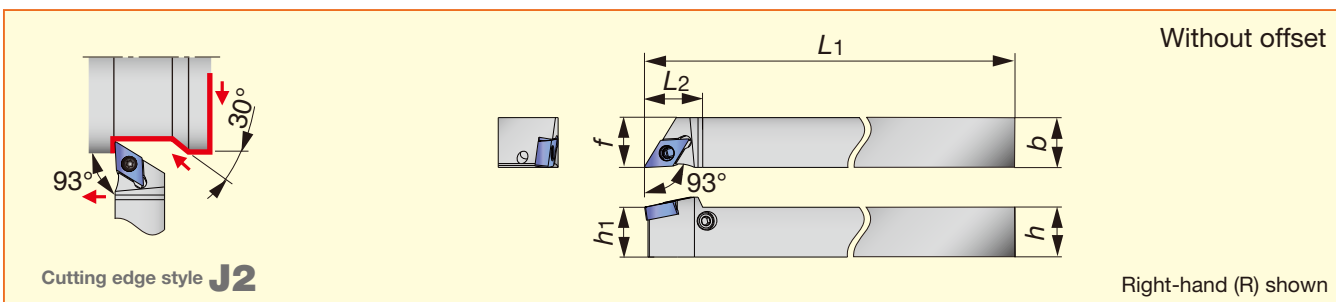
JSDJ2XR/L External turning and profiling JS type (Positive rake, screw-on system)



Cat. No.	Stock		Dimensions (mm)						Std. corner radius r_E	Insert	Parts		Torque (N·m)
	R	L	h	b	L_1	L_2	h_1	f			Clamping screw	Wrench	
JSDJ2XR/L1010X07	●	●	10	10	120	14	10	10	0.2	DXGU0703**L/R	SR34-514	T-7F	0.9
JSDJ2XR/L1212F07	●	●	12	12	85	14	12	12	0.2	DXGU0703**L/R	SR34-514	T-7F	0.9
JSDJ2XR/L1212X07	●	●	12	12	120	14	12	12	0.2	DXGU0703**L/R	SR34-514	T-7F	0.9
JSDJ2XR/L1616X07	●	●	16	16	120	18	16	16	0.2	DXGU0703**L/R	SR34-514	T-7F	0.9
JSDJ2XR/L2020H07	●	●	20	20	100	18	20	20	0.2	DXGU0703**L/R	SR34-514	T-7F	0.9

- ① Right-hand toolholders (R) are used with left-hand inserts (L)
 ② Left-hand toolholders (L) are used with right-hand inserts (R)

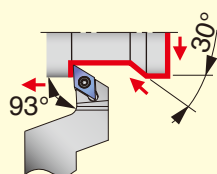
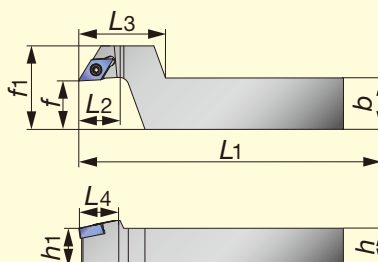
JPDJ2XR/L External turning and profiling JP type (Positive rake, side-clamping system)



Cat. No.	Stock		Dimensions (mm)						Std. corner radius r_E	Insert	Parts				Torque (N·m)
	R	L	h	b	L_1	L_2	h_1	f			Lever	Pin	Clamping screw	Wrench	
JPDJ2XR/L1010X07	●	●	10	10	120	14	10	10	0.2	DXGU0703**L/R	SLLV-2	SL-PI-2	SR10400611	HW 2.0/5 RED	0.9
JPDJ2XR/L1212F07	●	●	12	12	85	14	12	12	0.2	DXGU0703**L/R	SLLV-2	SL-PI-2	SR10400611	HW 2.0/5 RED	0.9
JPDJ2XR/L1212X07	●	●	12	12	120	14	12	12	0.2	DXGU0703**L/R	SLLV-2	SL-PI-2	SR10400611	HW 2.0/5 RED	0.9
JPDJ2XR/L1616X07	●	●	16	16	120	18	16	16	0.2	DXGU0703**L/R	SLLV-2	SL-PI-2	SR10400611	HW 2.0/5 RED	0.9

- ① Right-hand toolholders (R) are used with left-hand inserts (L)
 ② Left-hand toolholders (L) are used with right-hand inserts (R)

● : Line up

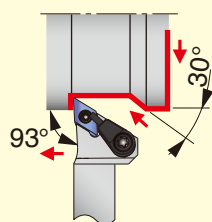
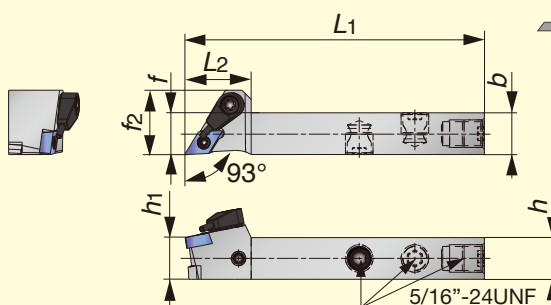
JSDJXR-F External turning and profiling Stepped-head type (Positive rake, screw-on system)Cutting edge style **J**

Right-hand (R) shown

Cat. No.	Stock		Dimensions (mm)									Std. corner radius r_{ϵ}	Insert	Parts		Torque (N·m)
	R	L	h	b	L_1	L_2	L_3	L_4	h_1	f	f_1			Clamping screw	Wrench	
JSDJXR1016X07-F15	●		10	16	120	12	27	14	10	15	26	0.2	DXGU0703**L	SR34-514	T-7F	0.9
JSDJXR1216F07-F15	●		12	16	85	12	27	14	12	15	26	0.2	DXGU0703**L	SR34-514	T-7F	0.9
JSDJXR1216X07-F15	●		12	16	120	12	27	14	12	15	26	0.2	DXGU0703**L	SR34-514	T-7F	0.9
JSDJXR1620X07-F15	●		16	20	120	12	27	14	16	15	26	0.2	DXGU0703**L	SR34-514	T-7F	0.9

① Right-hand toolholders (R) are used with left-hand inserts (L)

Works with high-pressure coolant

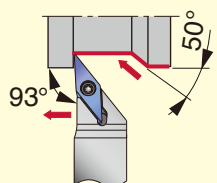
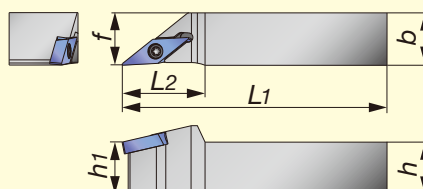
JSDJ2XR/L-CHP External turning and profiling CHP type (Positive rake, screw-on system)Cutting edge style: **J2**

Right-hand (R) shown

Cat. No	Stock		Dimensions (mm)							Std. corner radius r_{ϵ}	Insert	Parts		Torque (N·m)
	R	L	h	b	L_1	L_2	h_1	f	f_2			Clamping screw	Wrench	
JSDJ2XR/L1212F07-CHP	●	●	12	12	85	19	12	12	18.5	0.2	DXGU0703**L/R	SR34-514	T-7F	0.9

① Right-hand toolholders (R) are used with left-hand inserts (L)

② Left-hand toolholders (L) are used with right-hand inserts (R)

JSVJ2XR/L External turning and profiling JS type (Positive rake, screw-on system)Cutting edge style **J2**

Right-hand (R) shown

Cat. No.	Stock		Dimensions (mm)						Std. corner radius r_{ϵ}	Insert	Parts		Torque (N·m)
	R	L	h	b	L_1	L_2	h_1	f			Clamping screw	Wrench	
JSVJ2XR/L1010X09	●	●	10	10	120	17	10	10	0.2	VXGU09T2**L/R	SR34-508	T-7F	0.9
JSVJ2XR/L1212F09	●	●	12	12	85	19	12	12	0.2	VXGU09T2**L/R	SR34-508	T-7F	0.9
JSVJ2XR/L1212X09	●	●	12	12	120	19	12	12	0.2	VXGU09T2**L/R	SR34-508	T-7F	0.9
JSVJ2XR/L1616X09	●	●	16	16	120	19	16	16	0.2	VXGU09T2**L/R	SR34-508	T-7F	0.9
JSVJ2XR/L2020H09	●	●	20	20	100	19	20	20	0.2	VXGU09T2**L/R	SR34-508	T-7F	0.9

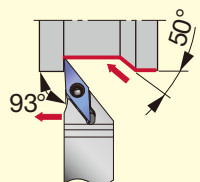
① Right-hand toolholders (R) are used with left-hand inserts (L)

② Left-hand toolholders (L) are used with right-hand inserts (R)

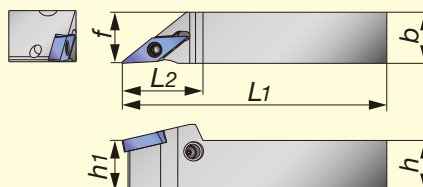
● : Line up

JPVJ2XR/L External turning and profiling JP type (Positive rake, side-clamping system)

Without offset



Cutting edge style **J2**

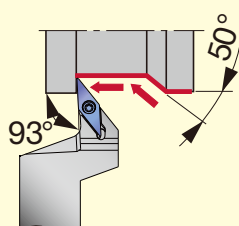


Cat. No.	Stock		Dimensions (mm)							Std. corner radius r_ϵ	Insert	Parts				Torque (N·m)
	R	L	h	b	L ₁	L ₂	h ₁	f				Lever	Pin	Clamping screw	Wrench	
JPVJ2XR/L1010X09	●	●	10	10	120	19	10	10	0.2		VXGU09T2**L/R	SLLV-1	SL-PI-2	SR 10400611	HW 2.0/5 RED	0.9
JPVJ2XR/L1212F09	●	●	12	12	85	19	12	12	0.2		VXGU09T2**L/R	SLLV-1	SL-PI-2	SR 10400611	HW 2.0/5 RED	0.9
JPVJ2XR/L1212X09	●	●	12	12	120	19	12	12	0.2		VXGU09T2**L/R	SLLV-1	SL-PI-2	SR 10400611	HW 2.0/5 RED	0.9
JPVJ2XR/L1616X09	●	●	16	16	120	19	16	16	0.2		VXGU09T2**L/R	SLLV-1	SL-PI-2	SR 10400611	HW 2.0/5 RED	0.9

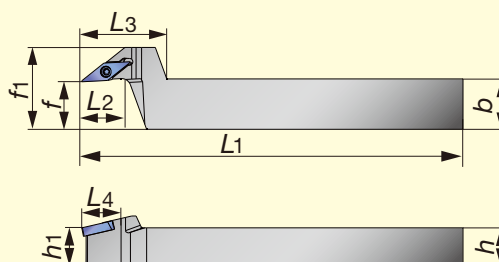
① Right-hand toolholders (R) are used with left-hand inserts (L)

② Left-hand toolholders (L) are used with right-hand inserts (R)

JSVJXR-F External turning and profiling Stepped-head type (Positive rake, screw-on system)



Cutting edge style **J**



Right-hand (R) shown

Cat. No.	Stock		Dimensions (mm)										Std. corner radius r _ε	Insert	Parts		Torque (N·m)
	R	L	h	b	L ₁	L ₂	L ₃	L ₄	h ₁	f	f ₁	Clamping screw			Wrench		
JSVJXR1016X09-F15	●		10	16	120	12	27	19	10	15	26	0.2	VXGU09T2**L	SR34-508	T-7F	0.9	
JSVJXR1216F09-F15	●		12	16	85	12	27	19	12	15	26	0.2	VXGU09T2**L	SR34-508	T-7F	0.9	
JSVJXR1216X09-F15	●		12	16	120	12	27	19	12	15	26	0.2	VXGU09T2**L	SR34-508	T-7F	0.9	
JSVJXR1620X09-F15	●		16	20	120	12	27	19	16	15	26	0.2	VXGU09T2**L	SR34-508	T-7F	0.9	

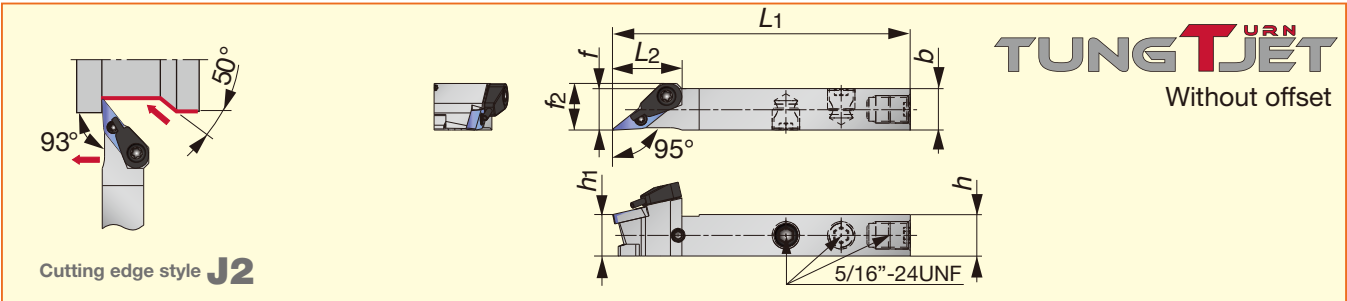
① Right-hand toolholders (R) are used with left-hand inserts (L)

● : Line up

Works with high-pressure coolant

JSVJ2XR/L-CHP External turning and profiling

CHP type (Positive rake, screw-on system)

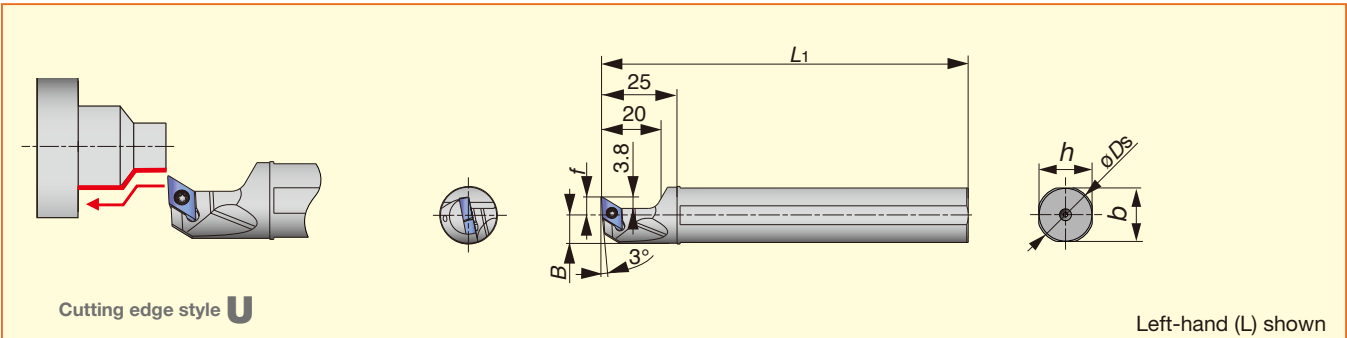


Cat. No	Stock		Dimensions (mm)							Std. corner radius r_{ϵ}	Insert	Parts		Torque (N·m)
	R	L	h	b	L ₁	L ₂	h ₁	f	f ₂			Clamping screw	Wrench	
JSVJ2XR/L1212F09-CHP	●	●	12	12	85	20.0	12	12	13.5	0.2	VXGU09T2**L/R	SR34-508	T-7F	0.9

- ① Right-hand toolholders (R) are used with left-hand inserts (L)
 ② Left-hand toolholders (L) are used with right-hand inserts (R)

JS-SDUXL External turning and profiling

JS type (Positive rake, screw-on system)



Cat. No.	Stock	Dimensions (mm)					Std. corner radius r_{ϵ}	Insert	Parts		Torque (N·m)
		ϕD_s	f	L ₁	h/b	B			Clamping screw	Wrench	
JS14H-SDUXL07	●	14	6	100	13	6.75	0.2	DXGU0703**L	SR34-514	T-7F	0.9
JS159F-SDUXL07	●	15.875	6	85	15	7.687	0.2	DXGU0703**L	SR34-514	T-7F	0.9
JS16F-SDUXL07	●	16	6	85	15	7.75	0.2	DXGU0703**L	SR34-514	T-7F	0.9
JS19G-SDUXL07	●	19.05	6	90	18	9.275	0.2	DXGU0703**L	SR34-514	T-7F	0.9
JS19X-SDUXL07	●	19.05	6	120	18	9.275	0.2	DXGU0703**L	SR34-514	T-7F	0.9
JS20G-SDUXL07	●	20	6	90	19	9.75	0.2	DXGU0703**L	SR34-514	T-7F	0.9
JS20X-SDUXL07	●	20	6	120	19	9.75	0.2	DXGU0703**L	SR34-514	T-7F	0.9
JS22X-SDUXL07	●	22.0	10	120	21	10.75	0.2	DXGU0703**L	SR34-514	T-7F	0.9
JS25H-SDUXL07	●	25.0	10	100	24	12.25	0.2	DXGU0703**L	SR34-514	T-7F	0.9
JS254X-SDUXL07	●	25.4	10	120	24	12.45	0.2	DXGU0703**L	SR34-514	T-7F	0.9

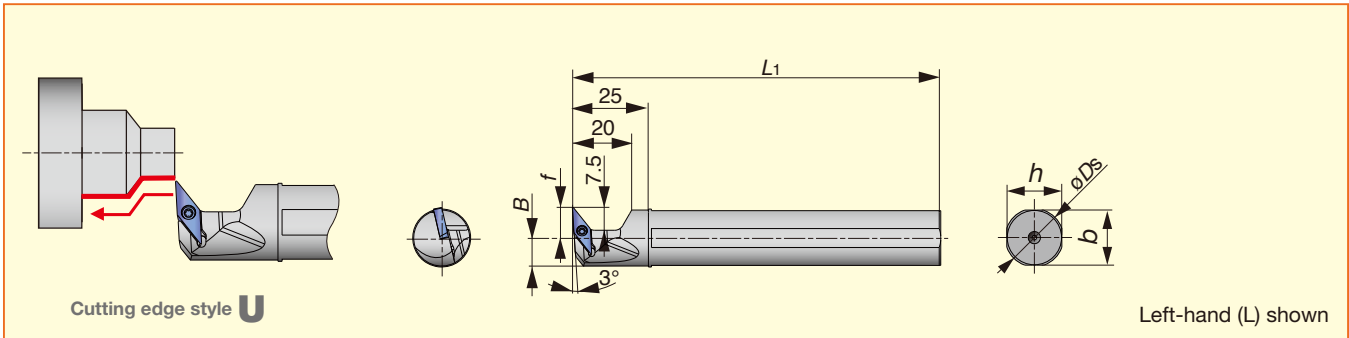
- ① Left-hand toolholders (L) are used with left-hand inserts (L)

● : Line up

JS-SVUXL

External turning and profiling

JS type (Positive rake, screw-on system)



Cat. No.	Stock	Dimensions (mm)					Std. corner radius r_E	Insert	Parts		Torque (N·m)
		ϕD_s	f	L_1	h/b	B			Clamping screw	Wrench	
JS159F-SVUXL09	●	15.875	10	85	15	7.7	0.2	VXGU09T2**L	SR34-508	T-7F	0.9
JS16F-SVUXL09	●	16	10	85	15	7.7	0.2	VXGU09T2**L	SR34-508	T-7F	0.9
JS19G-SVUXL09	●	19.05	10	90	18	9.2	0.2	VXGU09T2**L	SR34-508	T-7F	0.9
JS19X-SVUXL09	●	19.05	10	120	18	9.2	0.2	VXGU09T2**L	SR34-508	T-7F	0.9
JS20G-SVUXL09	●	20	10	90	19	9.7	0.2	VXGU09T2**L	SR34-508	T-7F	0.9
JS20X-SVUXL09	●	20	10	120	19	9.7	0.2	VXGU09T2**L	SR34-508	T-7F	0.9
JS22X-SVUXL09	●	22	10	120	21	10.7	0.2	VXGU09T2**L	SR34-508	T-7F	0.9
JS25H-SVUXL09	●	25	10	100	24	12.2	0.2	VXGU09T2**L	SR34-508	T-7F	0.9
JS254X-SVUXL09	●	25.4	10	120	24	12.4	0.2	VXGU09T2**L	SR34-508	T-7F	0.9

① Left-hand toolholders (L) are used with left-hand inserts (L)

● : Line up

Parts for CHP-type toolholders

Toolholder Cat. No	Applicable inserts	Screw	Wrench	Coolant unit
				
JSDJ2XR/L1212F07-CHP	DXGU0703□□L/R	SR34-514	T-7F	S-CU-CHP
JSWL2XR/L1212F04-CHP	WXGU0403□□L/R	SR34-514	T-7F	S-CU-CHP
JSVJ2XR/L1212F09-CHP	VXGU09T2□□L/R	SR34-514	T-7F	S-CU-CHP

Cutting performance

- Unique design which prevents vibration

DOMTURN

Depth of cut: ap (mm)	2.0	OK	OK	OK	OK
	1.5	OK	OK	OK	OK
	1.0	OK	OK	OK	OK
	0.5	OK	OK	OK	OK
ap/f		0.05	0.10	0.15	0.20
		Feed: f (mm/rev)			

Workpiece : S45C / C45
 Insert : WXGU040304L-TS AH725
 Toolholder : A12M-SWLXR04-D140
 Cutting speed : Vc = 150 m/min
 Overhang length : 36 mm (L/D = 3)
 Coolant : Wet (internal supply)

ISO positive insert

Depth of cut: ap (mm)	2.0	OK	OK	OK	OK
	1.5	OK	OK	OK	OK
	1.0	OK	OK	OK	OK
	0.5	OK	OK	OK	OK
ap/f		0.05	0.10	0.15	0.20
		Feed: f (mm/rev)			

Chip control

P

Depth of cut: ap (mm)	2.0				
	1.5				
	1.0				
	0.5				
ap/f		0.05	0.10	0.15	0.20
		Feed: f (mm/rev)			

Workpiece : S45C / C45
 Insert : WXGU040304L-TS AH725
 Toolholder : A12M-SWLXR04-D140
 Cutting speed : Vc = 150 m/min
 Boring depth : H = 36 mm (L/D = 3)
 Coolant : Wet (internal supply)

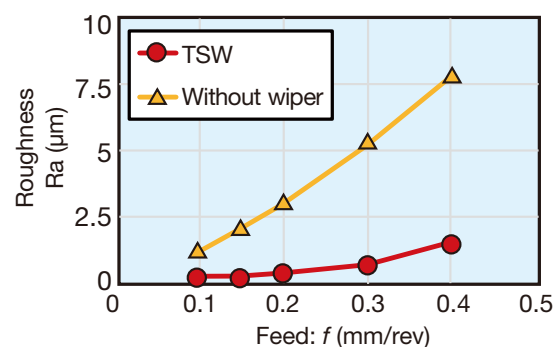
M

Depth of cut: ap (mm)	1.50				
	1.00				
	0.50				
	0.25				
ap/f		0.05	0.075	0.10	0.15
		Feed: f (mm/rev)			

Workpiece : SUS304 / X5CrNi18-9
 Insert : WXGU040304L-SS AH725
 Toolholder : E12Q-SWLXR04-D140
 Cutting speed : Vc = 150 m/min
 Boring depth : H = 60 mm (L/D = 5)
 Coolant : Wet (internal supply)

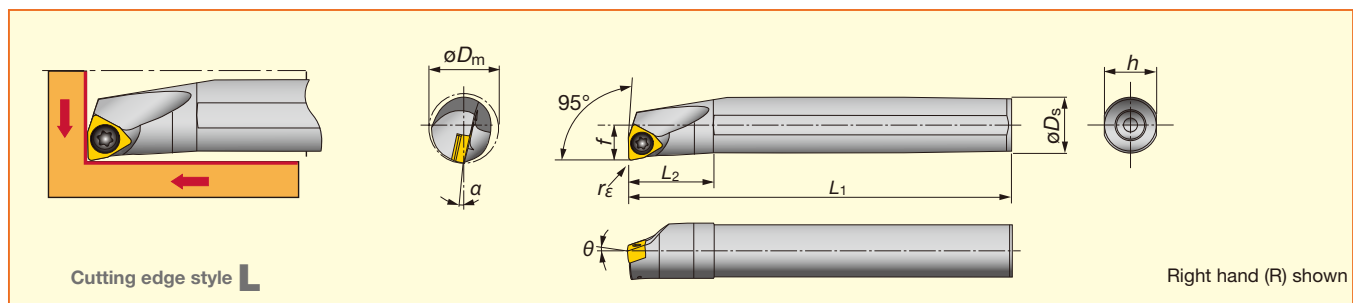
Wiper performance

Workpiece : S45C / C45
 Insert : WXGU040304L-TSW
 CCMT09T304-**(Without wiper)
 Toolholder : E16R-SWLXR04-D180
 Cutting speed : Vc = 150 m/min
 Depth of cut : ap = 0.5 mm
 Hole depth : H = 48 mm (L/D = 3)
 Coolant : Wet (internal supply)



Internal toolholders

SWLXR/L Boring & internal facing S-type (Positive rake, screw-on system)



Steel shank

Cat. No	Stock		Min. bore dia.		Dimensions (mm)							Std. corner radius r_ϵ	Insert	Parts		Torque (N·m)
	R	L	ϕD_m	ϕD_s	f	L_1	L_2	h	f_2	θ	α			Clamping screw	Wrench	
A10K-SWLXR/L04-D120	●	●	12	10	6	125	20	9	-	-10°	-16°	0.4	WXGU0403** L/R	SR34-514	T-7F	0.9
A12M-SWLXR/L04-D140	●	●	14	12	7	150	24	11	-	-10°	-14°	0.4	WXGU0403** L/R	SR34-514	T-7F	0.9
A16Q-SWLXR/L04-D180	●	●	18	16	9	180	32	15	-	-10°	-11°	0.4	WXGU0403** L/R	SR34-514	T-7F	0.9
A20R-SWLXR/L04-D220	●	●	22	20	11	200	36	18	-	-10°	-10°	0.4	WXGU0403** L/R	SR34-514	T-7F	0.9

Carbide shank

Cat. No	Stock		Min. bore dia.		Dimensions (mm)							Std. corner radius r_ϵ	Insert	Parts		Torque (N·m)
	R	L	ϕD_m	ϕD_s	f	L_1	L_2	h	f_2	θ	α			Clamping screw	Wrench	
E10M-SWLXR/L04-D120	●	●	12	10	6	150	25	9	-	-10°	-16°	0.4	WXGU0403** L/R	SR34-514	T-7F	0.9
E12Q-SWLXR/L04-D140	●	●	14	12	7	180	27	11	-	-10°	-14°	0.4	WXGU0403** L/R	SR34-514	T-7F	0.9
E16R-SWLXR/L04-D180	●	●	18	16	9	200	32	15	-	-10°	-11°	0.4	WXGU0403** L/R	SR34-514	T-7F	0.9
E20S-SWLXR/L04-D220	●	●	22	20	11	250	36	18	-	-10°	-10°	0.4	WXGU0403** L/R	SR34-514	T-7F	0.9

- ① Right hand toolholders (R) are used with left hand inserts (L)
 ② Left hand toolholders (L) are used with right hand inserts (R)



① Right hand toolholder with left hand insert shown

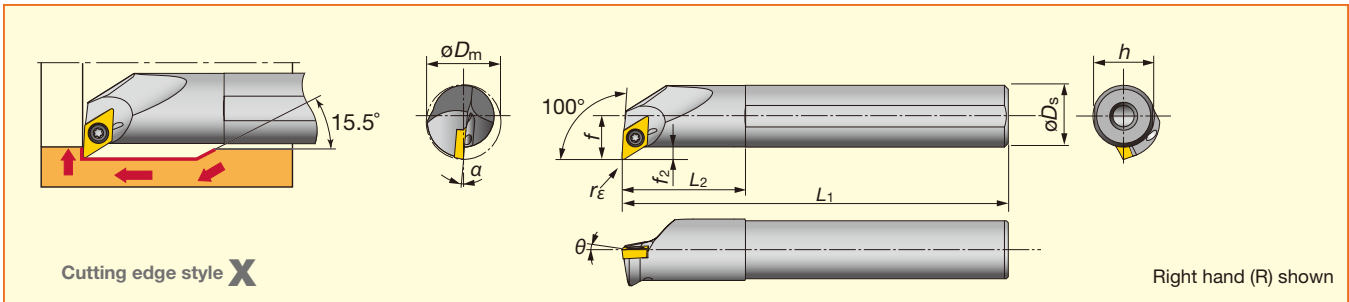


② Left hand toolholder with right hand insert shown

● : Line up

SDXXR/L**Boring & internal profiling**

S-type (Positive rake, screw-on system)

**Steel shank**

Cat. No	Stock		Min bore dia.		Dimensions (mm)							Std. corner radius r_ϵ	Insert	Parts		Torque (N·m)
	R	L	ϕD_m	ϕD_s	f	L_1	L_2	h	f_2	θ	α			Clamping screw	Wrench	
A10K-SDXXR/L07-D130	●	●	13	10	7.6	125	20	9	2.6	-14°	-16°	0.4	DXGU0703** L/R	SR34-514	T-7F	0.9
A12M-SDXXR/L07-D160	●	●	16	12	8.6	150	24	11	2.6	-14°	-14°	0.4	DXGU0703** L/R	SR34-514	T-7F	0.9
A16Q-SDXXR/L07-D200	●	●	20	16	10.6	180	32	15	2.6	-13°	-13°	0.4	DXGU0703** L/R	SR34-514	T-7F	0.9
A20R-SDXXR/L07-D240	●	●	24	20	12.6	200	36	18	2.6	-13°	-12°	0.4	DXGU0703** L/R	SR34-514	T-7F	0.9

Carbide shank

Cat. No	Stock		Min bore dia.		Dimensions (mm)							Std. corner radius r_ϵ	Insert	Parts		Torque (N·m)
	R	L	ϕD_m	ϕD_s	f	L_1	L_2	h	f_2	θ	α			Clamping screw	Wrench	
E10M-SDXXR/L07-D130	●	●	13	10	7.6	150	25	9	2.6	-14°	-16°	0.4	DXGU0703** L/R	SR34-514	T-7F	0.9
E12Q-SDXXR/L07-D160	●	●	16	12	8.6	180	27	11	2.6	-14°	-14°	0.4	DXGU0703** L/R	SR34-514	T-7F	0.9
E16R-SDXXR/L07-D200	●	●	20	16	10.6	200	32	15	2.6	-13°	-13°	0.4	DXGU0703** L/R	SR34-514	T-7F	0.9
E20S-SDXXR/L07-D240	●	●	24	20	12.6	250	36	18	2.6	-13°	-12°	0.4	DXGU0703** L/R	SR34-514	T-7F	0.9

- ① Right hand toolholders (R) are used with left hand inserts (L)
 ② Left hand toolholders (L) are used with right hand inserts (R)



① Right hand toolholder with left hand insert shown



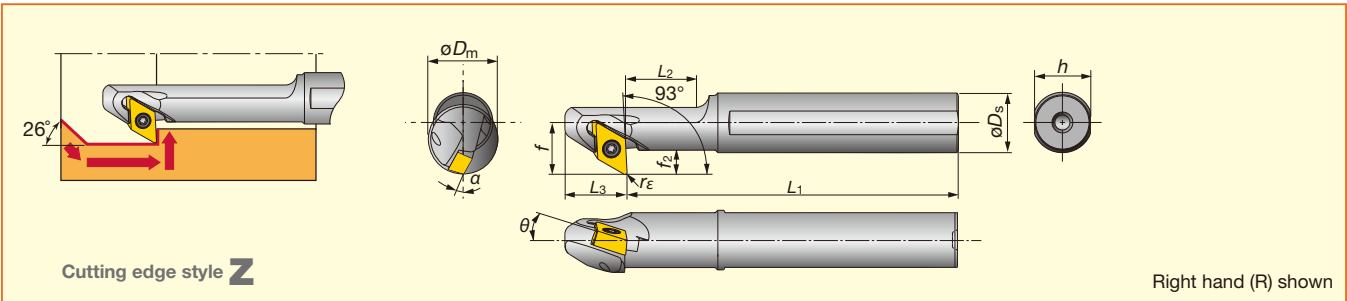
② Left hand toolholder with right hand insert shown

● : Line up

SDZXR/L

Back boring

S-type (Positive rake, screw-on system)



Steel shank

Cat. No	Stock		Min. bore dia. ϕD_m	ϕD_s	f	Dimensions (mm)							Std. corner radius r_ϵ	Insert	Parts		Torque (N·m)
	R	L				L_1	L_2	L_3	h	f_2	θ	α			Clamping screw	Wrench	
A12M-SDZXR/L07-D140	●	●	14	12	11	150	30	13	11	4.5	-10°	-14°	0.4	DXGU0703** R/L	SR34-514	T-7F	0.9
A16Q-SDZXR/L07-D160	●	●	16	16	13	180	35	13	15	4.5	-10°	-12.5°	0.4	DXGU0703** R/L	SR34-514	T-7F	0.9
A20R-SDZXR/L07-D200	●	●	20	20	15	200	40	13	18	4.5	-10°	-10.5°	0.4	DXGU0703** R/L	SR34-514	T-7F	0.9

Carbide shank

Cat. No	Stock		Min. bore dia. ϕD_m	ϕD_s	f	Dimensions (mm)							Std. corner radius r_ϵ	Insert	Parts		Torque (N·m)
	R	L				L_1	L_2	L_3	h	f_2	θ	α			Clamping screw	Wrench	
E12Q-SDZXR/L07-D180	●	●	18	12	11	180	-	13	11	4.5	-11°	-11°	0.4	DXGU0703** R/L	SR34-514	T-7F	0.9
E16R-SDZXR/L07-D220	●	●	22	16	13	200	-	13	15	4.5	-11°	-9°	0.4	DXGU0703** R/L	SR34-514	T-7F	0.9

- ① Right hand toolholders (R) are used with right hand inserts (R)
 ② Left hand toolholders (L) are used with left hand inserts (L)

● : Line up

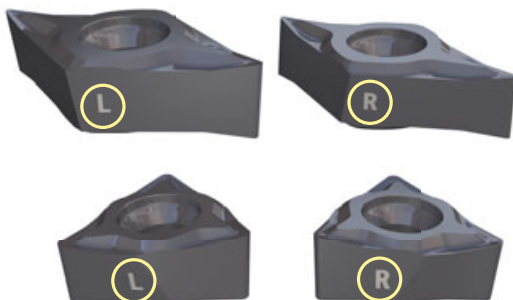


① Right hand toolholder with right hand insert shown



② Left hand toolholder with left hand insert shown

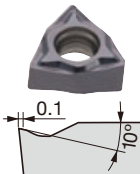
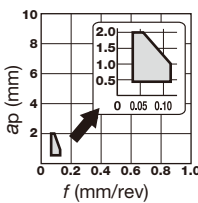
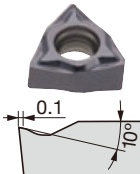
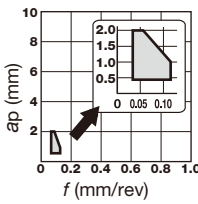
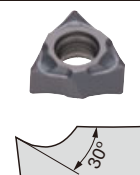
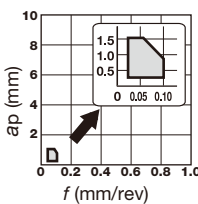
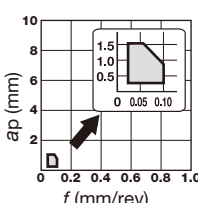
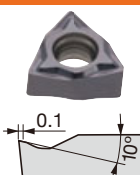
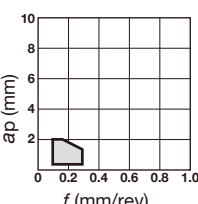
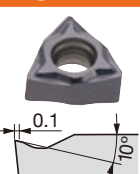
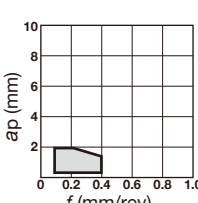
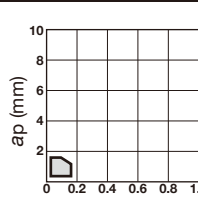
Marking



Insert hand is marked by "R" or "L"

Inserts

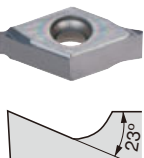
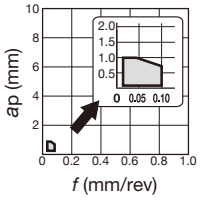
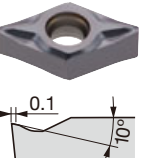
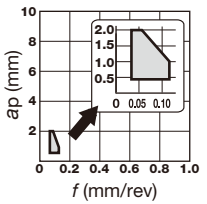
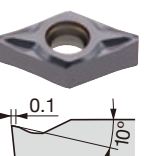
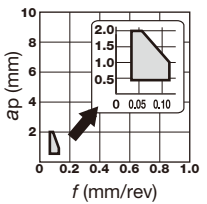
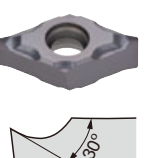
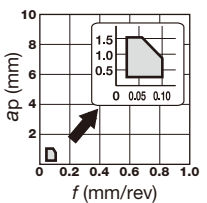
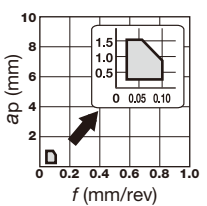
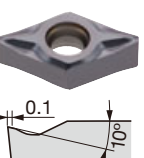
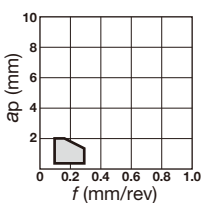
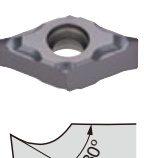
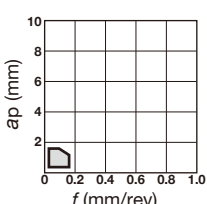
80° Trigon

Application	Chipbreaker	$f - a_p$	Cat. No.	Grades					Dimensions (mm)			
	Appearance (Cross section)			Coated		Coated cermet	Cermet	Carbide	I.C. dia.	Thick- ness	Hole dia.	Corner radius
				AH725	SH725	GT9530	NS9530	KS05F				
Finishing to medium cutting (For swiss type automatic lathes, sharp edge)	JTS 		WXGU040301MFR-JTS		●				6.35	3.18	2.7	< 0.1*
	WXGU040301MFL-JTS			●				6.35	3.18	2.7	< 0.1*	
	WXGU040302MFR-JTS			●				6.35	3.18	2.7	< 0.2*	
	WXGU040302MFL-JTS			●				6.35	3.18	2.7	< 0.2*	
Finishing to medium cutting (For swiss type automatic lathes)	JTS 		WXGU040301MR-JTS	●					6.35	3.18	2.7	< 0.1*
	WXGU040301ML-JTS		●					6.35	3.18	2.7	< 0.1*	
	WXGU040302MR-JTS		●					6.35	3.18	2.7	< 0.2*	
	WXGU040302ML-JTS		●					6.35	3.18	2.7	< 0.2*	
Finishing (Low cutting force) (For swiss type automatic lathes, sharp edge)	JSS 		WXGU040301MFR-JSS		●				6.35	3.18	2.7	< 0.1*
	WXGU040301MFL-JSS			●				6.35	3.18	2.7	< 0.1*	
	WXGU040302MFR-JSS			●				6.35	3.18	2.7	< 0.2*	
	WXGU040302MFL-JSS			●				6.35	3.18	2.7	< 0.2*	
Finishing (Low cutting force) (For swiss type automatic lathes)	JSS 		WXGU040301MR-JSS	●					6.35	3.18	2.7	< 0.1*
	WXGU040301ML-JSS		●					6.35	3.18	2.7	< 0.1*	
	WXGU040302MR-JSS		●					6.35	3.18	2.7	< 0.2*	
	WXGU040302ML-JSS		●					6.35	3.18	2.7	< 0.2*	
Finishing to medium cutting	TS 		WXGU040302R-TS	●		●	●	●	6.35	3.18	2.7	0.2
	WXGU040302L-TS		●		●	●	●	6.35	3.18	2.7	0.2	
	WXGU040304R-TS		●		●	●	●	6.35	3.18	2.7	0.4	
	WXGU040304L-TS		●		●	●	●	6.35	3.18	2.7	0.4	
	WXGU040308R-TS		●		●	●	●	6.35	3.18	2.7	0.8	
	WXGU040308L-TS		●		●	●	●	6.35	3.18	2.7	0.8	
Finishing (Wiper)	TSW 		WXGU040304R-TSW	●		●	●		6.35	3.18	2.7	0.4
	WXGU040304L-TSW		●		●	●		6.35	3.18	2.7	0.4	
	WXGU040308R-TSW		●		●	●		6.35	3.18	2.7	0.8	
	WXGU040308L-TSW		●		●	●		6.35	3.18	2.7	0.8	
Finishing (Low cutting force)	SS 		WXGU040302R-SS	●		●	●	●	6.35	3.18	2.7	0.2
	WXGU040302L-SS		●		●	●	●	6.35	3.18	2.7	0.2	
	WXGU040304R-SS		●		●	●	●	6.35	3.18	2.7	0.4	
	WXGU040304L-SS		●		●	●	●	6.35	3.18	2.7	0.4	

* JTS and TSS have minus tolerance of corner radius.

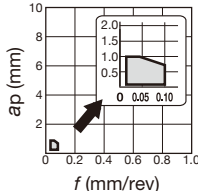
● : Line up

55° Rhombic

Application	Chipbreaker	$f - a_p$	Cat. No.	Grades					Dimensions (mm)			
	Appearance (Cross section)			Coated		Coated cermet	Cermet	Carbide	I.C. dia. ϕd	Thick- ness s	Hole dia. ϕd_1	Corner radius r_E
				AH725	SH725	GT9530	NS9530	KS05F				
Finishing (For swiss type automatic lathes, sharp edge)	JRP 		DXGU070301MFRE-JRP		●				6.35	3.18	2.7	< 0.1*
			DXGU070301MFLE-JRP		●				6.35	3.18	2.7	< 0.1*
			DXGU070302MFRE-JRP		●				6.35	3.18	2.7	< 0.2*
			DXGU070302MFLE-JRP		●				6.35	3.18	2.7	< 0.2*
Finishing to medium cutting (For swiss type automatic lathes, sharp edge)	JTS 		DXGU070301MFR-JTS		●				6.35	3.18	2.7	< 0.1*
			DXGU070301MFL-JTS		●				6.35	3.18	2.7	< 0.1*
			DXGU070302MFR-JTS		●				6.35	3.18	2.7	< 0.2*
			DXGU070302MFL-JTS		●				6.35	3.18	2.7	< 0.2*
Finishing to medium cutting (For swiss type automatic lathes)	JTS 		DXGU070301MR-JTS	●					6.35	3.18	2.7	< 0.1*
			DXGU070301ML-JTS	●					6.35	3.18	2.7	< 0.1*
			DXGU070302MR-JTS	●					6.35	3.18	2.7	< 0.2*
			DXGU070302ML-JTS	●					6.35	3.18	2.7	< 0.2*
Finishing (Low cutting force) (For swiss type automatic lathes, sharp edge)	JSS 		DXGU070301MFR-JSS		●				6.35	3.18	2.7	< 0.1*
			DXGU070301MFL-JSS		●				6.35	3.18	2.7	< 0.1*
			DXGU070302MFR-JSS		●				6.35	3.18	2.7	< 0.2*
			DXGU070302MFL-JSS		●				6.35	3.18	2.7	< 0.2*
Finishing (Low cutting force) (For swiss type automatic lathes)	JSS 		DXGU070301MR-JSS	●					6.35	3.18	2.7	< 0.1*
			DXGU070301ML-JSS	●					6.35	3.18	2.7	< 0.1*
			DXGU070302MR-JSS	●					6.35	3.18	2.7	< 0.2*
			DXGU070302ML-JSS	●					6.35	3.18	2.7	< 0.2*
Finishing to medium cutting	TS 		DXGU070302R-TS	●		●	●	●	6.35	3.18	2.7	0.2
			DXGU070302L-TS	●		●	●	●	6.35	3.18	2.7	0.2
			DXGU070304R-TS	●		●	●	●	6.35	3.18	2.7	0.4
			DXGU070304L-TS	●		●	●	●	6.35	3.18	2.7	0.4
			DXGU070308R-TS	●		●	●	●	6.35	3.18	2.7	0.8
			DXGU070308L-TS	●		●	●	●	6.35	3.18	2.7	0.8
Finishing (Low cutting force)	SS 		DXGU070302R-SS	●		●	●	●	6.35	3.18	2.7	0.2
			DXGU070302L-SS	●		●	●	●	6.35	3.18	2.7	0.2
			DXGU070304R-SS	●		●	●	●	6.35	3.18	2.7	0.4
			DXGU070304L-SS	●		●	●	●	6.35	3.18	2.7	0.4

* JTS and TSS have minus tolerance of corner radius.

● : Line up

Application	Chipbreaker	$f - a_p$	Cat. No.	Grades					Dimensions (mm)				
	Appearance (Cross section)			Coated		Coated cermet	Cermet	Carbide	I.C. dia. ϕd	Thick- ness s	Hole dia. ϕd_1	Corner radius r_E	
				AH725	SH725	GT9530	NS9530	KS05F					
Finishing (For swiss type automatic lathes, sharp edge)	JRP 		VXGU09T201MFRE-JRP		●				5.56	2.78	2.5	<0.1*	
			VXGU09T201MFLE-JRP		●				5.56	2.78	2.5	<0.1*	
			VXGU09T202MFRE-JRP		●				5.56	2.78	2.5	<0.2*	
			VXGU09T202MFLE-JRP		●				5.56	2.78	2.5	<0.2*	

* JTS and TSS have minus tolerance of corner radius.

● : Line up

Standard cutting conditions

For external turning

Applications	ISO	Workpiece materials	Priority	Chip- breaker	Grades	Cutting speed V_c (m/min)	Depth of cut a_p (mm)	Feed f (mm/rev)
For swiss type automatic lathes	P	Low carbon steels (SS400 / E275A etc.)	With high sharpness	JSS	SH725	50 - 180	0.1 - 1.5	0.03 - 0.10
		Carbon steels (S45C / C45 etc.) Low alloy steels (SCM415 etc.) Alloy steels (SCM440 / 42CrMo4 etc.)	First choice	JTS	AH725	50 - 180	0.1 - 2.0	0.03 - 0.10
	M	Stainless steels (Austenitic) (SUS304 / X5CrNi18-9 etc.)	First choice	JSS	SH725	50 - 180	0.1 - 1.5	0.03 - 0.10
		Stainless steels (Martensitic and ferritic) (SUS430 / X6Cr17 etc.) Stainless steels (Precipitation hardened) (SUS630 / X5CrNiCuNb16-4 etc.)	For impact resistance	JTS	AH725	50 - 180	0.1 - 2.0	0.03 - 0.10
For small size CNC lathes	P	Low carbon steels (SS400 / E275A etc.) Carbon steels (S45C / C45 etc.) Low alloy steels (SCM415 etc.) Alloy steels (SCM440 / 42CrMo4 etc.)	First choice	SS	AH725	50 - 180	0.15 - 1.5	0.05 - 0.2
				TS	AH725	50 - 180	0.3 - 2.0	0.08 - 0.3
			For improved surface finish	SS	NS9530	80 - 200	0.15 - 1.5	0.05 - 0.2
				TS	NS9530	80 - 200	0.3 - 2.0	0.08 - 0.3
			For wear resistance	SS	GT9530	80 - 250	0.15 - 1.5	0.05 - 0.2
				TS	GT9530	80 - 250	0.3 - 2.0	0.08 - 0.3
	M	Stainless steels (Austenitic) (SUS304 / X5CrNi18-9 etc.) Stainless steels (Martensitic and ferritic) (SUS430 / X6Cr17 etc.) Stainless steels (Precipitation hardened) (SUS630 / X5CrNiCuNb16-4 etc.)	First choice	SS	AH725	50 - 150	0.15 - 1.5	0.05 - 0.2
			For impact resistance	TS	AH725	50 - 150	0.3 - 2.0	0.08 - 0.3

For internal turning

ISO	Workpiece materials	Grades			Cutting speed Vc (m/min)	Depth of cut ap (mm)	Feed f (mm/rev)
		First Choice	For surface finish	For wear resistance (High speed)			
P	Low carbon steels SS400, SM490, S25C etc.	AH725	-	-	50 - 180	0.3 - 2.0	0.08 - 0.3
		-	NS9530	-	80 - 250	0.3 - 2.0	0.08 - 0.3
		-	-	GT9530	80 - 300	0.3 - 2.0	0.08 - 0.3
	Carbon steels S45C, S55C / C45, C55 etc.	AH725	-	-	50 - 180	0.3 - 2.0	0.08 - 0.3
		-	NS9530	-	80 - 250	0.3 - 2.0	0.08 - 0.3
		-	-	GT9530	80 - 300	0.3 - 2.0	0.08 - 0.3
	Low alloy steels SCM415 etc.	AH725	-	-	50 - 180	0.3 - 2.0	0.08 - 0.3
		-	NS9530	-	80 - 250	0.3 - 2.0	0.08 - 0.3
		-	-	GT9530	80 - 300	0.3 - 2.0	0.08 - 0.3
	Alloy steels SCM440, SCr420 / 42CrMo4, 20Cr4 etc.	AH725	-	-	50 - 180	0.3 - 2.0	0.08 - 0.3
		-	NS9530	-	80 - 250	0.3 - 2.0	0.08 - 0.3
		-	-	GT9530	80 - 300	0.3 - 2.0	0.08 - 0.3
M	Stainless steels (Austenitic) SUS304, SUS316 / X5CrNi18-9, X5CrNiMo17-12-2 etc.	AH725	-	-	50 - 150	0.3 - 2.0	0.08 - 0.3
	Stainless steels (Martensitic and ferritic) SUS430, SUS416 / X6Cr17, X20Cr13 etc.	AH725	-	-	50 - 150	0.3 - 2.0	0.08 - 0.3
	Stainless steels (Precipitation hardening) SUS630 / X5CrNiCuNb16-4 etc.	AH725	-	-	50 - 150	0.3 - 2.0	0.08 - 0.3
K	Grey cast irons FC250 / GG25 etc.	AH725	-	-	50 - 180	0.3 - 2.0	0.08 - 0.3
		-	NS9530	-	80 - 250	0.3 - 2.0	0.08 - 0.3
		-	-	GT9530	80 - 300	0.3 - 2.0	0.08 - 0.3
	Ductile cast irons FCD700 / GGG70 etc.	AH725	-	-	50 - 120	0.3 - 2.0	0.08 - 0.3
		-	NS9530	-	80 - 150	0.3 - 2.0	0.08 - 0.3
		-	-	GT9530	80 - 180	0.3 - 2.0	0.08 - 0.3
N	Non ferrous Metals Aluminum alloy etc.	KS05F	-	-	100 - 300	0.3 - 2.0	0.08 - 0.3
	Non ferrous Metals Cu Alloy etc.	KS05F	-	-	100 - 300	0.3 - 2.0	0.08 - 0.3

Grades

AH725

PREMIUMTEC
TUNGALOY

- Versatile PVD coated grade suitable for a wide range of work materials.
- Demonstrates excellent balance of wear and fracture resistance.

SH725


- Ideal PVD coated grade for sharp cutting edge.
- Suitable for machining of small and precise parts.

GT9530

PREMIUMTEC
TUNGALOY

- Coated cermet grade with premium coating demonstrates exceptional wear resistance.
- Provides remarkable performance in finishing of steels during high speed machining.

NS9530

PREMIUMTEC
TUNGALOY

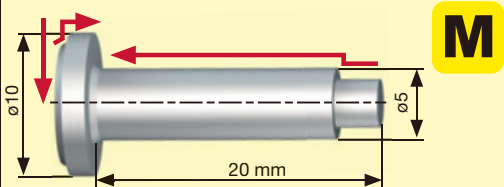
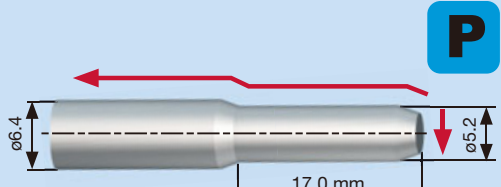
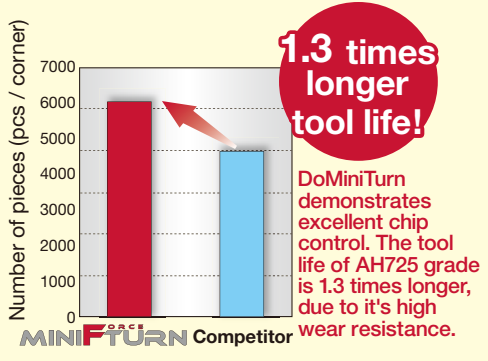
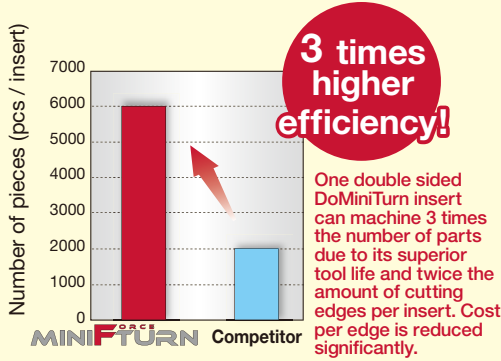
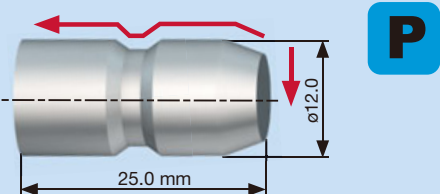
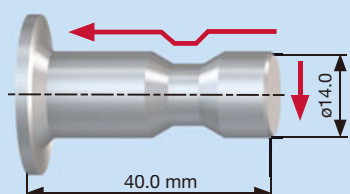
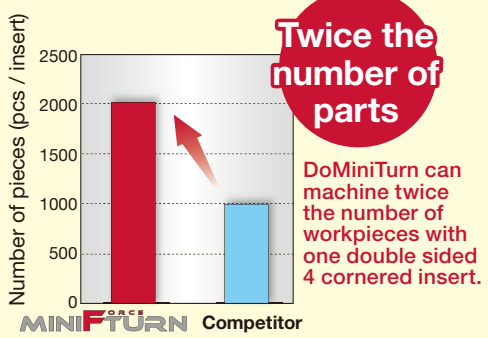
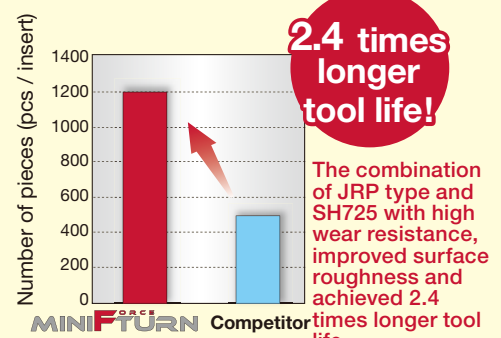
- Versatile cermet grade with incredible fracture and wear resistance.
- Provides long tool life and excellent surface finish in steel finishing applications.

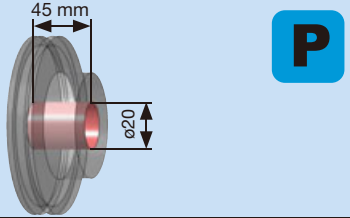
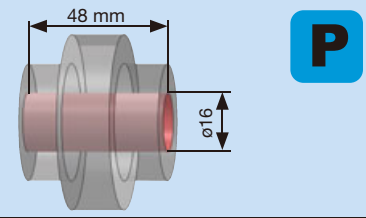
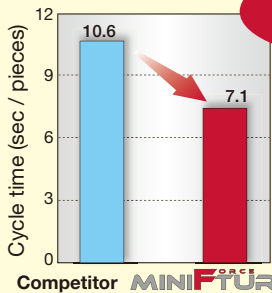
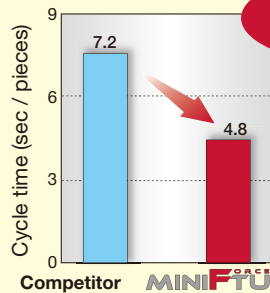
KS05F

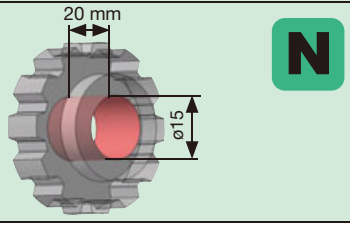
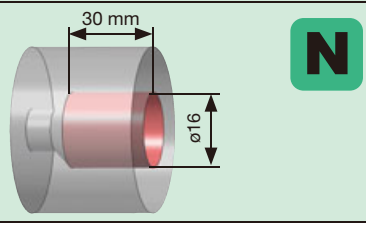
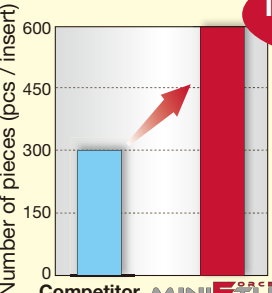
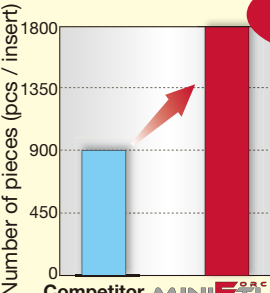

- Micro-grain cemented carbide in which wear resistance and impact resistance are balanced.
- The homogeneous fine-grained structure contribute to the excellent resistance of wear, fracture, and chip welding!

Practical examples

External turning

Workpiece type		Shaft	Shaft
Toolholder		JSDJ2XR1212X07	JSWL2XR1212X04
Insert		DXGU070301ML-JSS	WXGU040302ML-TS
Grade		AH725	AH725
Workpiece material		SUS304 / X5CrNi18-9	S45C / C45
			
Cutting conditions	Cutting speed: V_c (m/min)	110 - 150 (External), 10 - 100 (Facing)	66 - 80
	Feed : f (mm/rev)	0.04 (External), 0.05 (Facing)	0.15
	Depth of cut : a_p (mm)	0.4 (External, facing)	0.6
	Machining	External • Facing	External
	Coolant	Wet	Wet
Results			
Workpiece type		Shaft	Shaft
Toolholder		JSDJ2XR1212X07	JSVJ2XR1212X09
Insert		DXGU070301ML-JSS	VXGU090202MFLE-JRP
Grade		AH725	SH725
Workpiece material		Alloy steels	Low carbon steel (cold drawn)
			
Cutting conditions	Cutting speed: V_c (m/min)	66 - 80	170
	Feed : f (mm/rev)	0.15	0.03
	Depth of cut : a_p (mm)	0.6	0.2
	Machining	External	External
	Coolant	Wet	Wet
Results			

Workpiece type		Machine Parts	Machine Parts
Toolholder		A16Q-SWLXR04-D180	E12Q-SWLXR04-D140
Insert		WXGU040304L-TSW	WXGU040304L-TSW
Grade		AH725	GT9530
Workpiece material		S45C / C45	SCM435 / 34CrMo4
			
Cutting conditions	Cutting speed: V_c (m/min)	160	200
	Feed : f (mm/rev)	0.10 → 0.15	0.10 → 0.15
	Depth of cut : a_p (mm)	0.5	0.2
	Machining	Internal Turning (continuous cutting)	Internal Turning (continuous cutting)
	Coolant	Wet	Wet
Results		 Machining time reduced 30%! DoMiniTurn demonstrated surface finish equal to conventional type even with 1.5 times more efficient machining. Also, DoMiniTurn contributed to cycle time reduction, which increased productivity by 30%.	 Machining time reduced 30%! DoMiniTurn wiper insert offered surface finish as fine as conventional type without chattering even with 1.5 higher feed rate.

Workpiece type		Machine Parts	Machine Parts
Toolholder		A10K-SWLXR04-D120	A12M-SDXXR04-D140
Insert		WXGU040302L-SS	DXGU070304L-TS
Grade		KS05F	KS05F
Workpiece material		CAC406 / Bronze casting	A5056 (Al - Mg)
			
Cutting conditions	Cutting speed: V_c (m/min)	70	200
	Feed : f (mm/rev)	0.1	0.1
	Depth of cut : a_p (mm)	1.0	1.0
	Machining	Internal Turning (continuous cutting)	Internal Turning (continuous cutting)
	Coolant	Wet	Wet
Results		 Tool life improved 200%! DoMiniTurn machined 720 pcs per insert with 6 corners available, which is double the current item.	 Tool life improved 200%! DoMiniTurn achieved the same tool life as competitor's with 3 cornered positive-type. 6 corners, which is double the conventional, allowed DoMiniTurn to increase twice the number of workpieces processed per insert.

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.co.jp/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.co.jp/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

36-D Harkovsky Lane
308009 Belgorod, Russia
Phone: +7 4722 24 00 07
Fax: +7 4722 24 00 08
www.tungaloy.co.jp/ru

Tungaloy East LLC

Stachek str., h.4, office 2, Ekaterinburg,
620017, Russia
Phone: +7-343-389-13-22
Fax: +7-343-278-94-35
www.tungaloy.co.jp/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.co.jp/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.co.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.co.jp/hu
info@tungaloytools.hu

Tungaloy Turkey

Dudullu OSB 4. Cad No:4
34776 Ümraniye 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

Josipa Kozarca 4
10432 Bregana, Croatia
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.co.jp/tcts

Tungaloy Cutting Tool (Thailand) Co., Ltd.

Interlink tower 4th Fl.
1858/5-7 Bangna-Trad Road
km.5 Bangna, 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.co.jp/tspl

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.co.jp/tspl

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.co.jp/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.co.jp/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.co.jp/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.co.jp/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



AS9100 Certified
78006
2015.11.04
ISO14001 Certified
EC97J1123
1997.11.26

Produced from Recycled paper

Jun. 2017 (TJ)