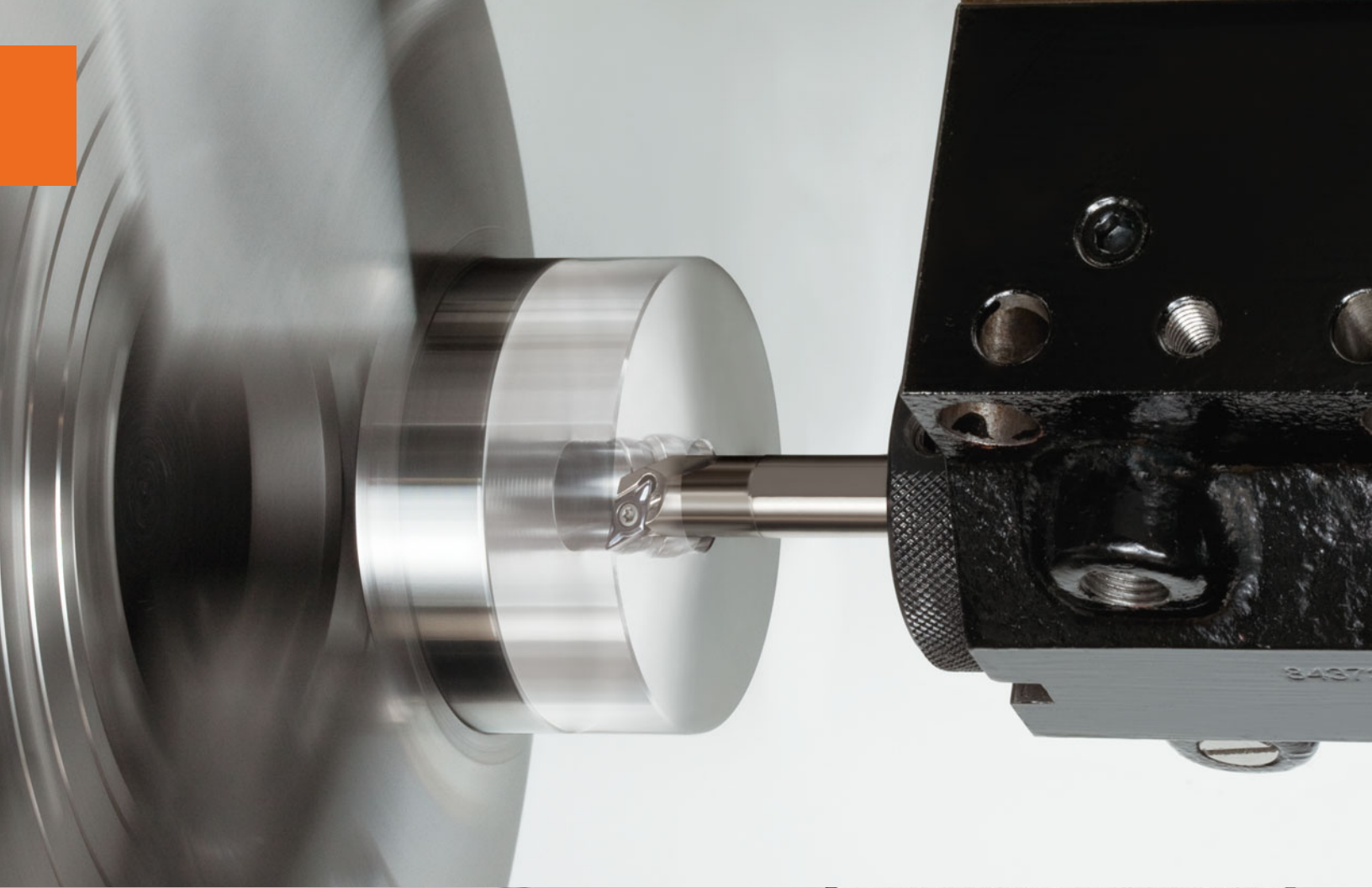


New chipbreaker for improved chip control in small part machining







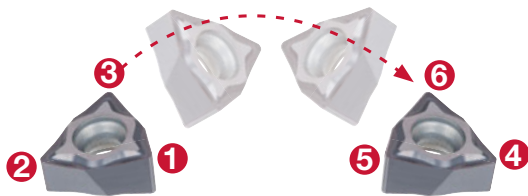
Improved chip control with new chipbreaker
and AH8000 grade series

Economical double-sided positive insert

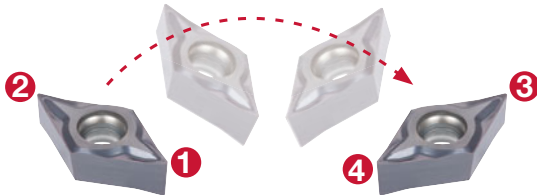
Innovative geometry and seat interface ensures stability and high performance

Inserts

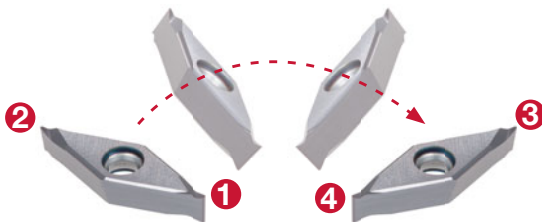
WXGU 22... 6 positive cutting edges



DXGU 22... 4 positive cutting edges

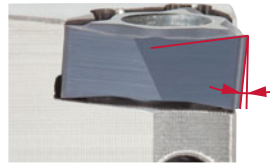


VXGU 73... 4 positive cutting edges

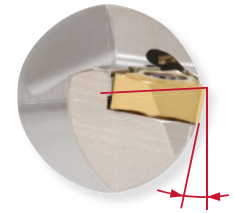


High rake angle

External turning



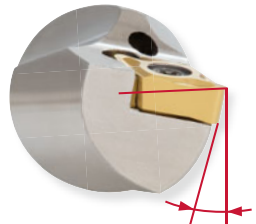
Internal turning



External turning



Internal turning

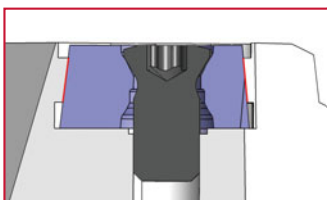


External turning



Toolholders

Dovetail clamping ensures secure insert retention



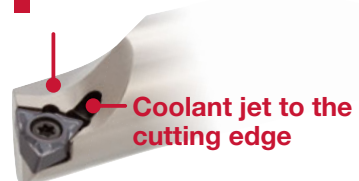
External turning

The JP holder screw is accessible from either side



Internal turning

Optimal design for smooth chip flow



Square shank holder lineup for general lathes

Square shank sizes 3/4 and 1" are available for OD turning

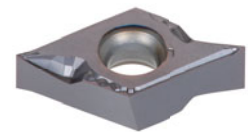
MINI^oTURN
TURNING^o
ISO^oTURN


Light cutting chipbreaker

New JS chipbreaker - features and benefits

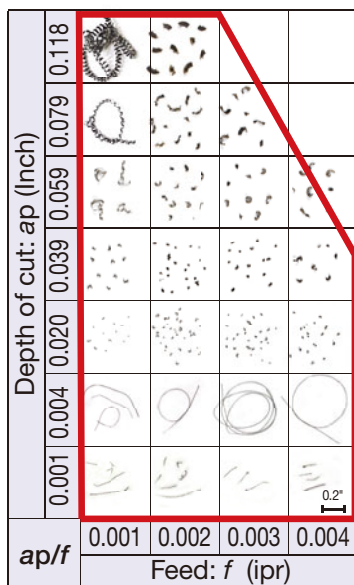
- Provides excellent chip control in a wide range of applications
- A large inclination angle on the cutting edge ensures free cutting
- Excellent cutting edge integrity for smooth surface finishing

Note: Due to chipbreaker profile, max ap for face turning is 0.039"

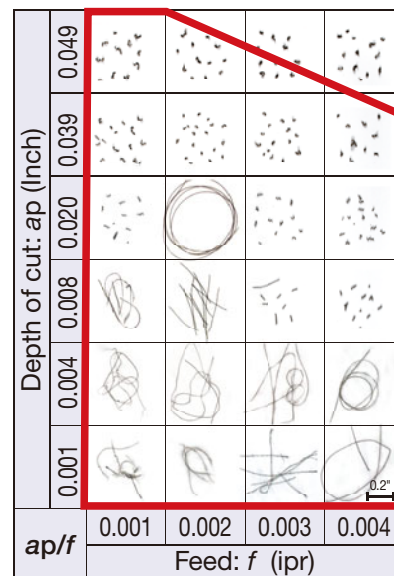


DXGU 22...-JS

CHIP CONTROL

P


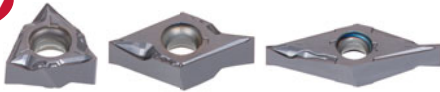
Workpiece : 1045
 Insert : DXGU 220.5 MFL **JS** SH725
 Toolholder : JSDJ2XR082X-CHP
 Cutting speed : $V_c = 328$ sfm
 Coolant : Wet

M


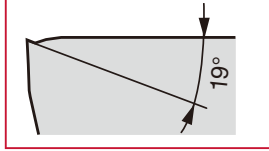
Workpiece : 316L
 Insert : DXGU 220.5 MFL **JS** SH725
 Toolholder : JSDJ2XR082X-CHP
 Cutting speed : $V_c = 164$ sfm
 Coolant : Wet

JS chipbreaker

New



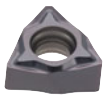
WXGU 22... DXGU 22... VXGU 73...



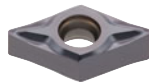
P M

- First choice chipbreaker for medium to finish cutting
- Excellent chip control
- High positive rake for light tool pressure

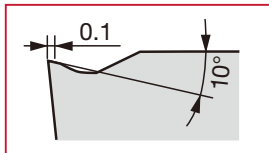
TS / JTS / TSW chipbreaker



WXGU 22...



DXGU 22...



P M K

- First choice chipbreaker for medium to finish cutting
- Excellent chip control
- Ideal for small part machining

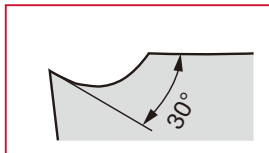
SS / JSS chipbreaker



WXGU 22...



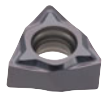
DXGU 22...



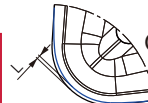
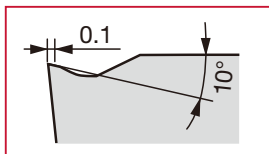
M P

- General purpose chipbreaker with excellent chip control
- Recommended for stainless steel machining

TSW chipbreaker (Wiper)



WXGU 22...

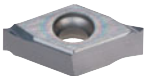


Offset: $L = 0.002''$

P M K

Built-in wiper for better surface finish at high feed rates

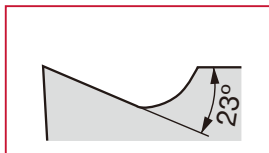
JRP chipbreaker



DXGU 22...



VXGU 73...



Sharp cutting edge and ground chipbreaker with excellent chip control

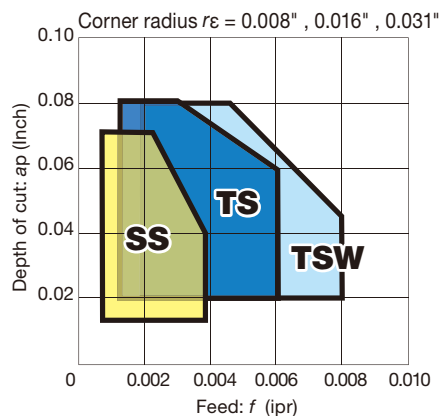
Chipbreakers for general purpose machining

WXGU 22... - TS/SS/TSW

DXGU 22... - TS/SS

Strong cutting edge for semi-finishing and finishing operations at medium to low feed rates

■ Application area



Chipbreakers for small part machining

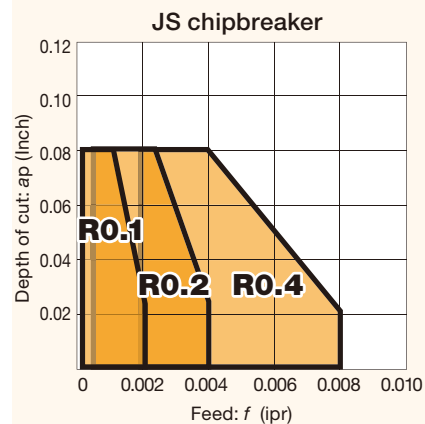
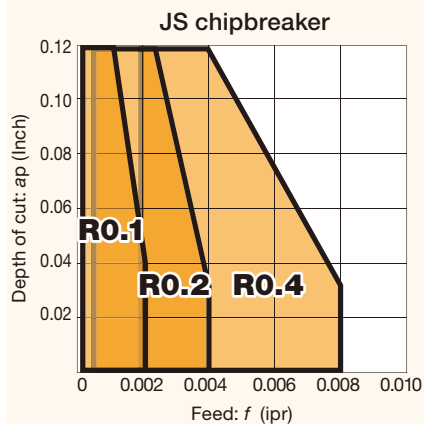
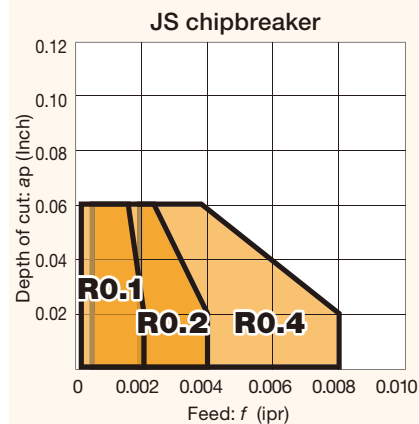
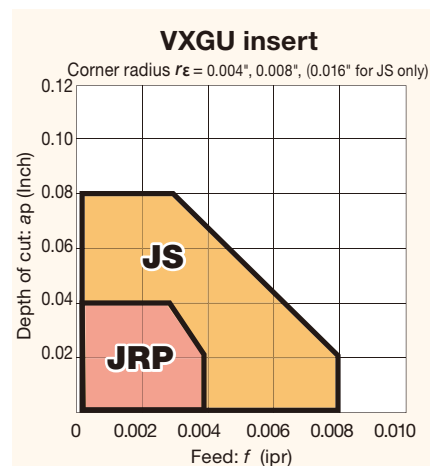
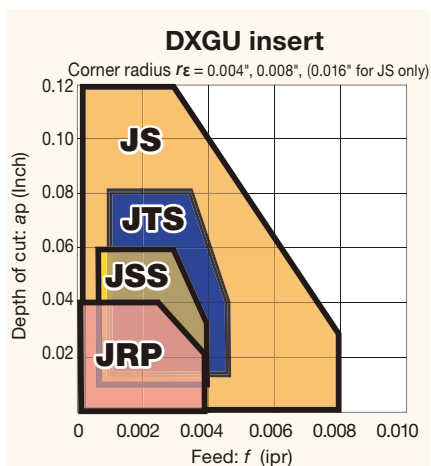
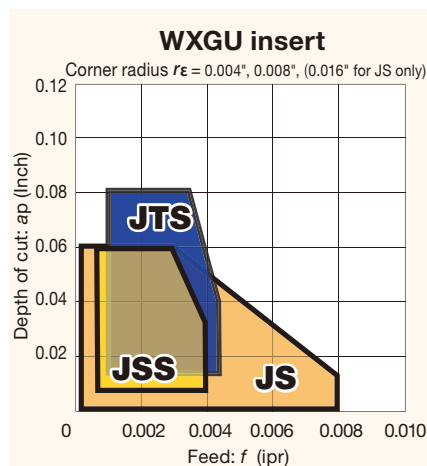
WXGU 22... - JTS/JSS/JS

DXGU 22... - JRP/JTS/JSS/JS

VXGU 73... - JRP/JS

Extra sharp cutting edge used at low feeds for finishing operations.
An excellent solution to reduce vibration and improve chip control

■ Application areas





Jets of coolant are supplied through the holder to facilitate
Improved chip control and reduced machine downtime



Eliminates chip re-cutting



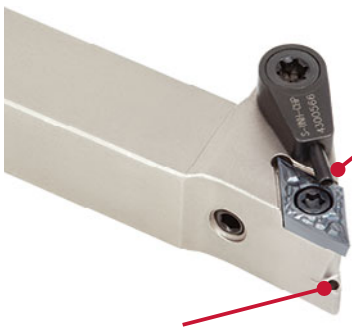
External coolant supply
 (at normal pressure)

High pressure coolant
 (>7MPa)

Coolant supply both over and under the insert improves tool life and efficiency

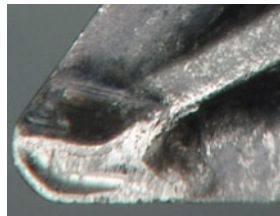
● Coolant jet over the insert

Ensures stable chip control

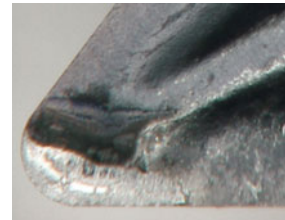


Coolant jet is directed close to the cutting point

Reduces crater and notch wear



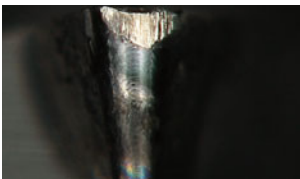
External coolant supply
 (at normal pressure)



High pressure coolant
 (>7MPa)

Coolant jet under the insert

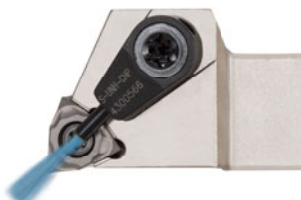
Reduces flank wear



External coolant supply
 (at normal pressure)



High pressure coolant
 (>7MPa)

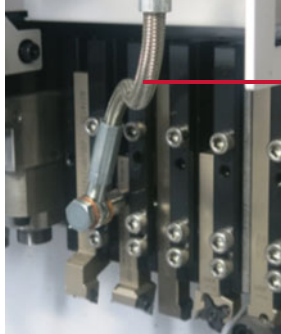


Nozzle extends to ensure optimal coolant delivery

DIRECTTUNGJET system

Tubeless design streamlines tool setup Through-coolant supply enables high productivity

External coolant tube

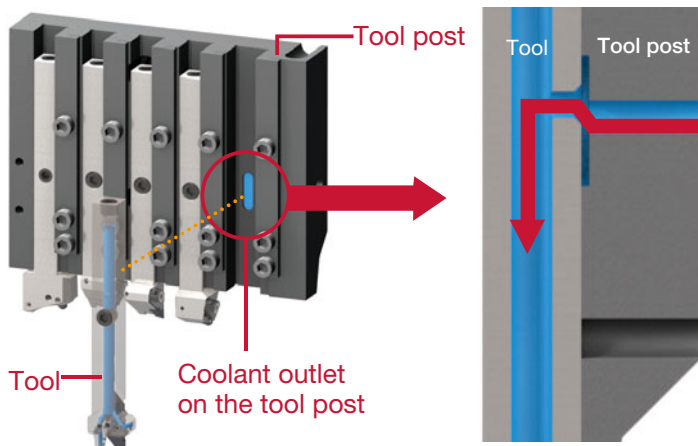


DirectTungJet system



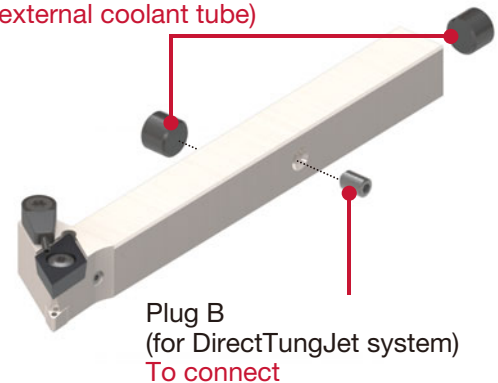
No need for coolant tube setup.
Eliminates chip entanglement on tubes and streamlines tool replacements.

Coolant is supplied from the tool post directly to the tools



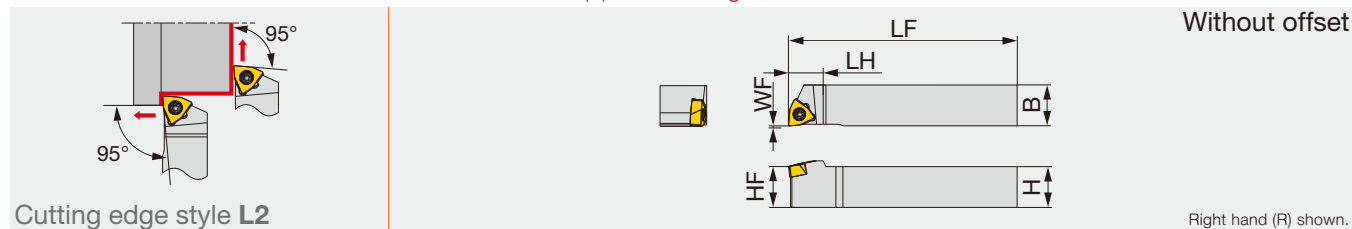
Use a non-coolant-through tool when coolant supply is not needed through the tool.

Plug A
(for connecting an
external coolant tube)



JSWL2XR/L

Screw-on toolholder without offset with 95° approach angle, for WXGU inserts



Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JSWL2XR/L062	0.375	0.375	4.750	0.500	0.375	0	0.008	WXGU0403**/L/R...	0.66
JSWL2XR/L082	0.500	0.500	4.750	0.500	0.500	0	0.008	WXGU0403**/L/R...	0.66
JSWL2XR/L102	0.625	0.625	4.750	0.500	0.625	0	0.008	WXGU0403**/L/R...	0.66

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

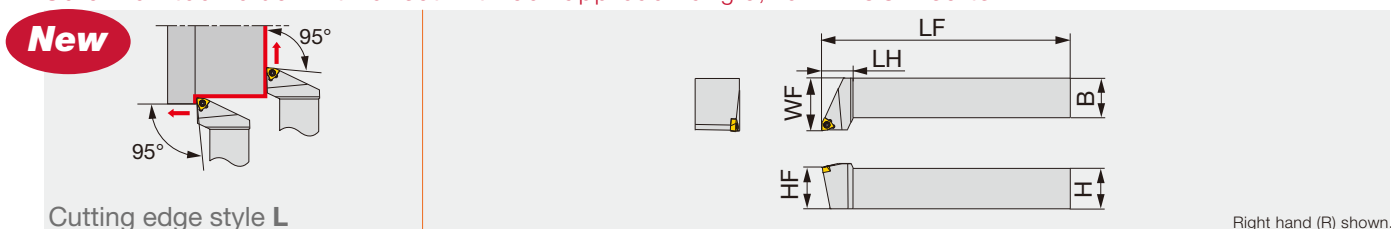
*Torque: Recommended torque lbs-ft (N-m) for clamping **RE: The holder measurements are true with this insert radius
 Note: Use the right-hand toolholder (R) for the left-hand insert (L). Use the left-hand toolholder (L) for the right-hand insert (R)

SPARE PARTS

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

JSWLXR/L

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



Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JSWLXR/122	0.750	0.750	4.500	0.625	0.750	1.000	0.008	WXGU0403**/L/R...	0.66
JSWLXR/162	1.000	1.000	6.000	0.750	1.000	1.250	0.008	WXGU0403**/L/R...	0.66

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

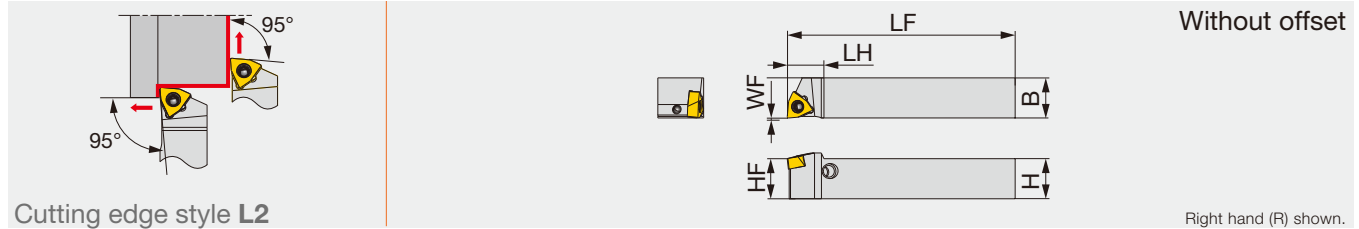
*Torque: Recommended torque lbs-ft (N-m) for clamping **RE: The holder measurements are true with this insert radius
 Note: Use the right-hand toolholder (R) for the left-hand insert (L). Use the left-hand toolholder (L) for the right-hand insert (R)

SPARE PARTS

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

JPWL2XR/L

Lever lock type toolholder without offset with 95° approach angle, for WXGU inserts



Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JPWL2XR/L062	0.375	0.375	4.750	0.500	0.375	0	0.008	WXGU0403**L/R...	0.66
JPWL2XR/L082	0.500	0.500	4.750	0.500	0.500	0	0.008	WXGU0403**L/R...	0.66
JPWL2XR/L102	0.625	0.625	4.750	0.500	0.625	0	0.008	WXGU0403**L/R...	0.66

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

*Torque: Recommended torque lbs-ft (N-m) for clamping **RE: The holder measurements are true with this insert radius

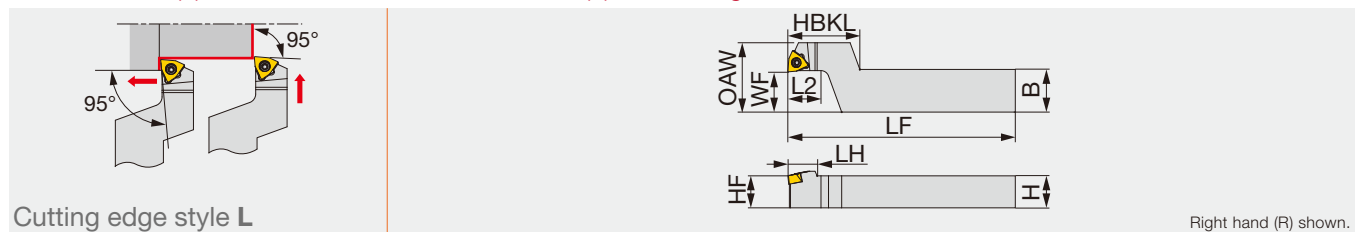
Note: Use the right-hand toolholder (R) for the left-hand insert (L). Use the left-hand toolholder (L) for the right-hand insert (R)

SPARE PARTS

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

JSWLXR-F

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



Inch	H	B	LF	L2	HBLK	LH	HF	WF	OAW	RE**	Insert	Torque*
JSWLXR082-F10	0.500	0.625	4.750	0.500	1.125	0.750	0.500	0.625	1	0.008	WXGU0403**L...	0.66
JSWLXR102-F10	0.625	0.750	4.750	0.500	1.125	0.750	0.625	0.625	1	0.008	WXGU0403**L...	0.66

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

*Torque: Recommended torque lbs-ft (N-m) for clamping **RE: The holder measurements are true with this insert radius

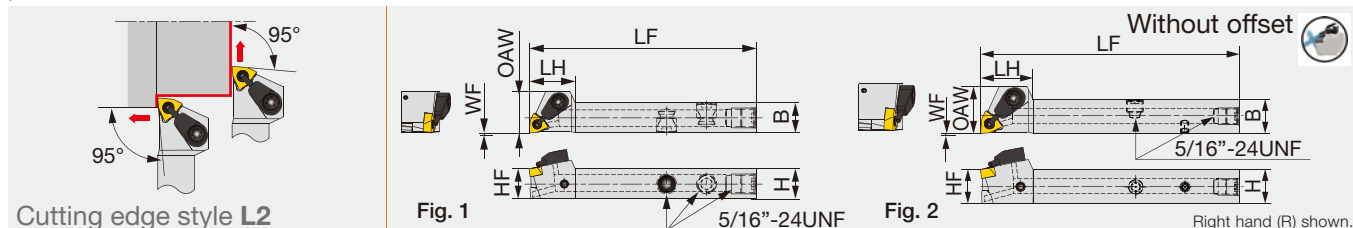
Note: Use the right-hand toolholder (R) for the left-hand insert (L)

SPARE PARTS

Designation	Clamping screw	Wrench
JSWLXR**-F10	SR34-514	T-7F

JSWL2XR/L-CHP

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



Inch	H	B	LF	LH	HF	WF	OAW	RE**	Insert	Torque*	Fig.
JSWL2XR/L082-CHP	0.500	0.500	3.344	0.750	0.500	0	0.650	0.008	WXGU0403**L/R...	0.66	1
JSWL2XR082X-CHP	0.500	0.500	4.750	0.728	0.500	0	0.650	0.008	WXGU0403**L	0.66	2
JSWL2XR102X-CHP	0.625	0.625	4.750	0.728	0.625	0	0.650	0.008	WXGU0403**L	0.66	2

Metric	H	B	LF	LH	HF	WF	OAW	RE**	Insert	Torque*	Fig.
JSWL2XR/L1212F04-CHP	12	12	85	18	12	0	16.5	0.2	WXGU0403**L/R...	0.9	1
JSWL2XR1212X04-CHP	12	12	120	18.5	12	0	16.5	0.2	WXGU0403**L	0.9	2
JSWL2XR1616X04-CHP	16	16	120	18.5	16	0	16.5	0.2	WXGU0403**L	0.9	2

*Torque: Recommended torque lbs-ft (N-m) for clamping **RE: The holder measurements are true with this insert radius

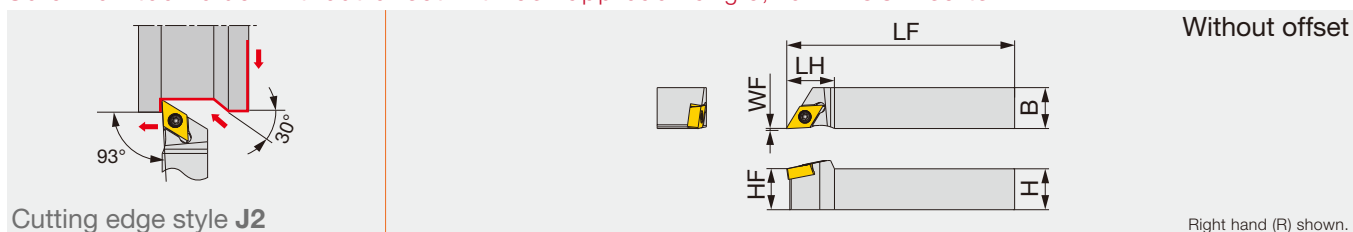
Note: Use the right-hand toolholder (R) for the left-hand insert (L). Use the left-hand toolholder (L) for the right-hand insert (R)

SPARE PARTS

Designation	Clamping screw	Coolant unit	Wrench
JSWL2XR**-CHP	SR34-514	S-CU-CHP	T-7F

JSDJ2XR/L

Screw-on toolholder without offset with 93° approach angle, for DXGU inserts



Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JSDJ2XR/L062	0.375	0.375	4.750	0.625	0.375	0	0.008	DXGU0703**L/R...	0.66
JSDJ2XR/L082	0.500	0.500	4.750	0.625	0.500	0	0.008	DXGU0703**L/R...	0.66
JSDJ2XR/L102	0.625	0.625	4.750	0.625	0.625	0	0.008	DXGU0703**L/R...	0.66

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

*Torque: Recommended torque lbs-ft (N-m) for clamping **RE: The holder measurements are true with this insert radius

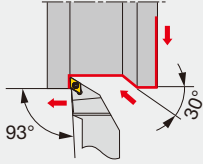
Note: Use the right-hand toolholder (R) for the left-hand insert (L). Use the left-hand toolholder (L) for the right-hand insert (R)

SPARE PARTS

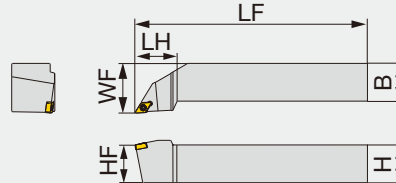
Designation	Clamping screw	Wrench
JSDJ2XR/L...	SR34-514	T-7F

JSDJXR/L

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

New

Cutting edge style J



Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JSDJXR/122	0.750	0.750	4.500	1.125	0.750	1.000	0.008	DXGU0703**L/R...	0.66
JSDJXR/162	1.000	1.000	6.000	1.125	1.000	1.250	0.008	DXGU0703**L/R...	0.66
Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JSDJXR/L2020K07	20	20	125	27	20	25	0.4	DXGU0703**L/R...	0.9
JSDJXR/L2525M07	25	25	150	27	25	32	0.4	DXGU0703**L/R...	0.9

*Torque: Recommended torque lbs-ft (N-m) for clamping **RE: The holder measurements are true with this insert radius

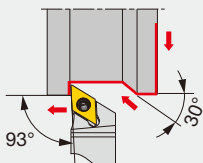
Note: Use the right-hand toolholder (R) for the left-hand insert (L). Use the left-hand toolholder (L) for the right-hand insert (R)

SPARE PARTS

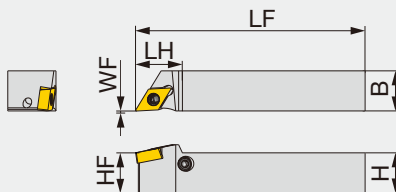
Designation	Clamping screw	Wrench
JSDJXR/L...	SR34-514	T-7F

JPDJ2XR/L

Lever lock type toolholder without offset with 93° approach angle, for DXGU inserts



Cutting edge style J2



Without offset

Right hand (R) shown.

Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JPDJ2XR/L062	0.375	0.375	4.750	0.625	0.375	0	0.008	DXGU0703**L/R...	0.66
JPDJ2XR/L082	0.500	0.500	4.750	0.625	0.500	0	0.008	DXGU0703**L/R...	0.66
JPDJ2XR/L102	0.625	0.625	4.750	0.625	0.625	0	0.008	DXGU0703**L/R...	0.66
Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JPDJ2XR/L1010X07	10	10	120	14	10	0	0.2	DXGU0703**L/R...	0.9
JPDJ2XR/L1212F07	12	12	85	14	12	0	0.2	DXGU0703**L/R...	0.9
JPDJ2XR/L1212X07	12	12	120	14	12	0	0.2	DXGU0703**L/R...	0.9
JPDJ2XR/L1616X07	16	16	120	18	16	0	0.2	DXGU0703**L/R...	0.9

*Torque: Recommended torque lbs-ft (N-m) for clamping **RE: The holder measurements are true with this insert radius

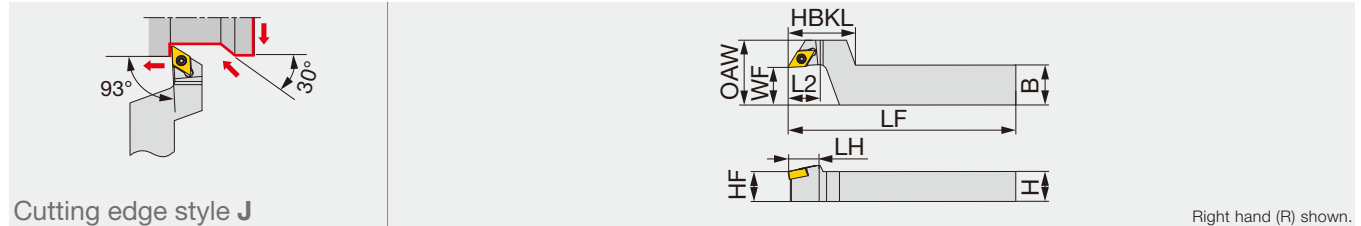
Note: Use the right-hand toolholder (R) for the left-hand insert (L). Use the left-hand toolholder (L) for the right-hand insert (R)

SPARE PARTS

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

JSDJXR-F

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



Inch	H	B	LF	L2	HBKL	LH	HF	WF	OAW	RE**	Insert	Torque*
JSDJXR082-F10	0.500	0.625	4.750	0.500	1.125	0.625	0.500	0.625	1	0.008	DXGU0703**L...	0.66
JSDJXR102-F10	0.625	0.750	4.750	0.500	1.125	0.625	0.625	0.625	1	0.008	DXGU0703**L...	0.66
Metric	H	B	LF	L2	HBKL	LH	HF	WF	OAW	RE**	Insert	Torque*
JSDJXR1016X07-F15	10	16	120	12	27	14	10	15	26	0.2	DXGU0703**L...	0.9
JSDJXR1216F07-F15	12	16	85	12	27	14	12	15	26	0.2	DXGU0703**L...	0.9
JSDJXR1216X07-F15	12	16	120	12	27	14	12	15	26	0.2	DXGU0703**L...	0.9
JSDJXR1620X07-F15	16	20	120	12	27	14	16	15	26	0.2	DXGU0703**L...	0.9

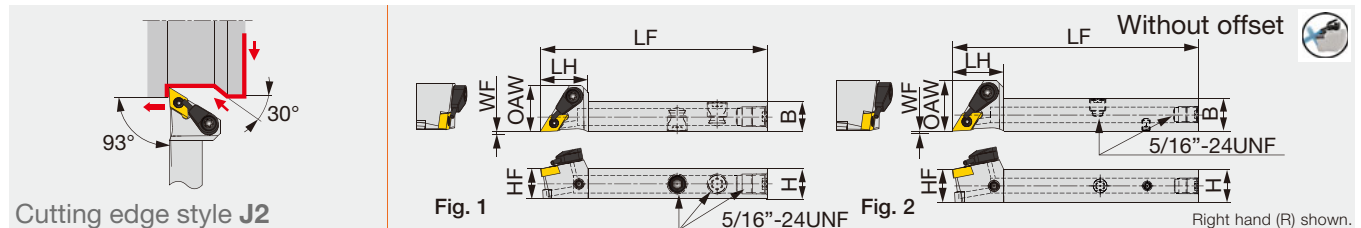
*Torque: Recommended torque lbs-ft (N-m) for clamping **RE: The holder measurements are true with this insert radius
Note: Use the right-hand toolholder (R) for the left-hand insert (L)

SPARE PARTS

Designation	Clamping screw	Wrench
JSDJXR**F10	SR34-514	T-7F

JSDJ2XR/L-CHP

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



Inch	H	B	LF	LH	HF	W	OAW	RE**	Insert	Torque*	Fig.
JSDJ2XR/L082-CHP	0.500	0.500	3.344	0.750	0.500	0	0.730	0.008	DXGU0703**L/R...	0.66	1
JSDJ2XR082X-CHP	0.500	0.500	4.750	0.748	0.500	0	0.728	0.008	DXGU0703**L	0.66	2
JSDJ2XR102X-CHP	0.625	0.625	4.750	0.748	0.625	0	0.728	0.008	DXGU0703**L	0.66	2
Metric	H	B	LF	LH	HF	W	OAW	RE**	Insert	Torque*	Fig.
JSDJ2XR/L1212F07-CHP	12	12	85	19	12	0	18.5	0.2	DXGU0703**L/R...	0.9	1
JSDJ2XR1212X07-CHP	12	12	120	19	12	0	18.5	0.2	DXGU0703**L	0.9	2
JSDJ2XR1616X07-CHP	16	16	120	19	16	0	18.5	0.2	DXGU0703**L	0.9	2

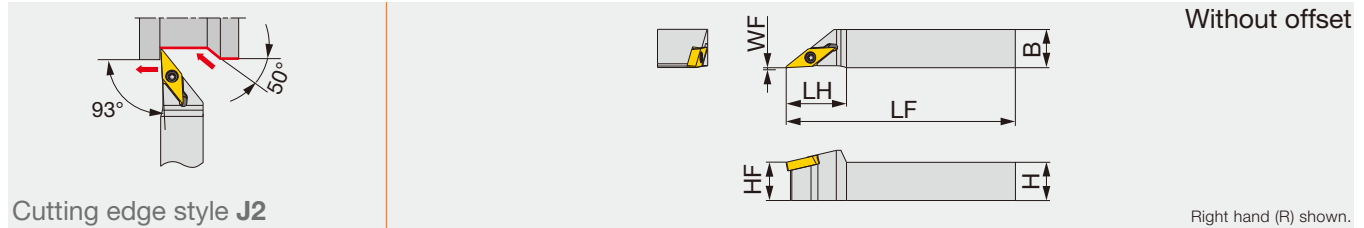
*Torque: Recommended torque lbs-ft (N-m) for clamping **RE: The holder measurements are true with this insert radius
Note: Use the right-hand tool holder (R) for the left-hand insert (L). Use the left-hand tool holder (L) for the right-hand insert (R).

SPARE PARTS

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

JSVJ2XR/L

Screw-on toolholder without offset with 93° approach angle, for VXGU inserts



Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JSVJ2XR/L067	0.375	0.375	4.750	0.669	0.375	0	0.008	VXGU09T2**L/R...	0.66
JSVJ2XR/L087	0.500	0.500	4.750	0.748	0.500	0	0.008	VXGU09T2**L/R...	0.66
JSVJ2XR/L107	0.625	0.625	4.750	0.748	0.625	0	0.008	VXGU09T2**L/R...	0.66

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

*Torque: Recommended torque lbs-ft (N-m) for clamping **RE: The holder measurements are true with this insert radius

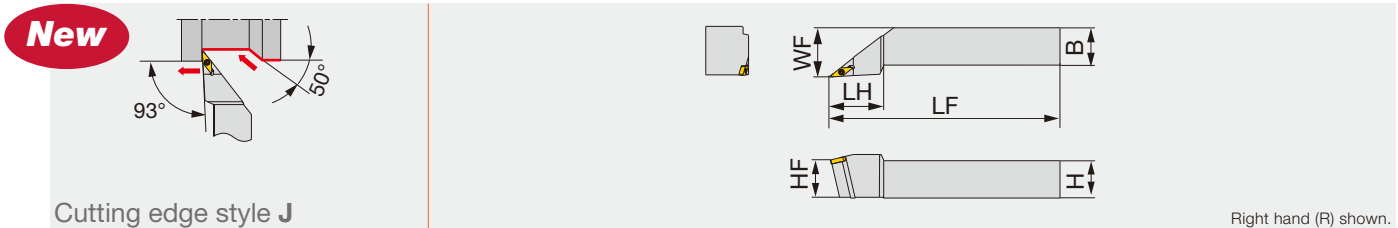
Note: Use the right-hand toolholder (R) for the left-hand insert (L). Use the left-hand toolholder (L) for the right-hand insert (R)

SPARE PARTS

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

JSVJXR/L

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



Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JSVJXR/127	0.750	0.750	4.500	1.500	0.750	1.000	0.008	VXGU09T2**L/R...	0.66
JSVJXR/167	1.000	1.000	6.000	1.500	1.000	1.250	0.008	VXGU09T2**L/R...	0.66

Metric	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JSVJXR/L2020K09	20	20	125	35	20	25	0.4	VXGU09T2**L/R...	0.9
JSVJXR/L2525M09	25	25	150	35	25	32	0.4	VXGU09T2**L/R...	0.9

*Torque: Recommended torque lbs-ft (N-m) for clamping **RE: The holder measurements are true with this insert radius

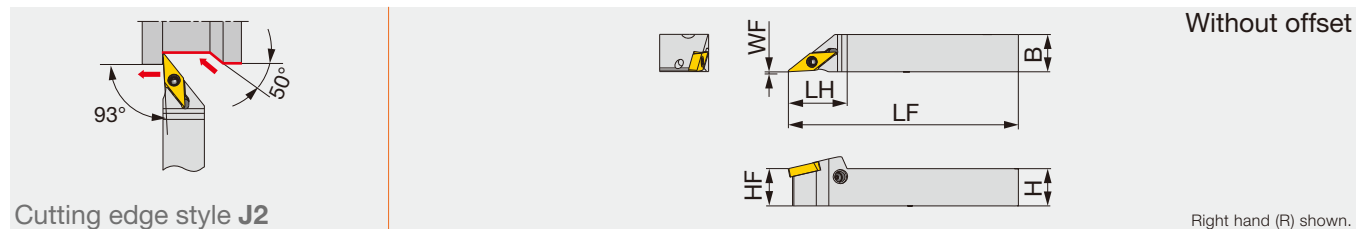
Note: Use the right-hand toolholder (R) for the left-hand insert (L). Use the left-hand toolholder (L) for the right-hand insert (R)

SPARE PARTS

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

JPVJ2XR/L

Lever lock type toolholder without offset with 93° approach angle, for VXGU inserts



Cutting edge style J2

Inch	H	B	LF	LH	HF	WF	RE**	Insert	Torque*
JPVJ2XR/L067	0.375	0.375	4.750	0.669	0.375	0	0.008	VXGU09T2**L/R...	0.66
JPVJ2XR/L087	0.500	0.500	4.750	0.748	0.500	0	0.008	VXGU09T2**L/R...	0.66
JPVJ2XR/L107	0.625	0.625	4.750	0.748	0.625	0	0.008	VXGU09T2**L/R...	0.66

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

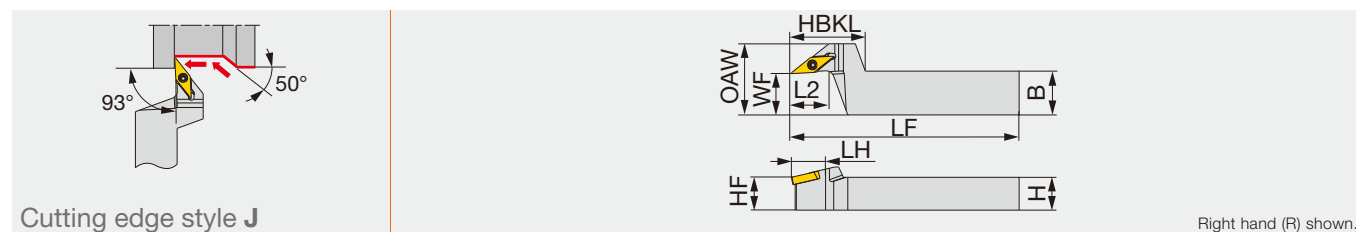
*Torque: Recommended torque lbs-ft (N-m) for clamping **RE: The holder measurements are true with this insert radius
Note: Use the right-hand toolholder (R) for the left-hand insert (L). Use the left-hand toolholder (L) for the right-hand insert (R)

SPARE PARTS

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

JSVJXR-F

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



Cutting edge style J

Inch	H	B	LF	L2	HBKL	LH	HF	WF	OAW	RE**	Insert	Torque*
JSVJXR087-F10	0.500	0.625	4.750	0.500	1.125	0.750	0.500	0.625	1	0.008	VXGU09T2**L...	0.66
JSVJXR107-F10	0.625	0.750	4.750	0.500	1.125	0.750	0.500	0.625	1	0.008	VXGU09T2**L...	0.66

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

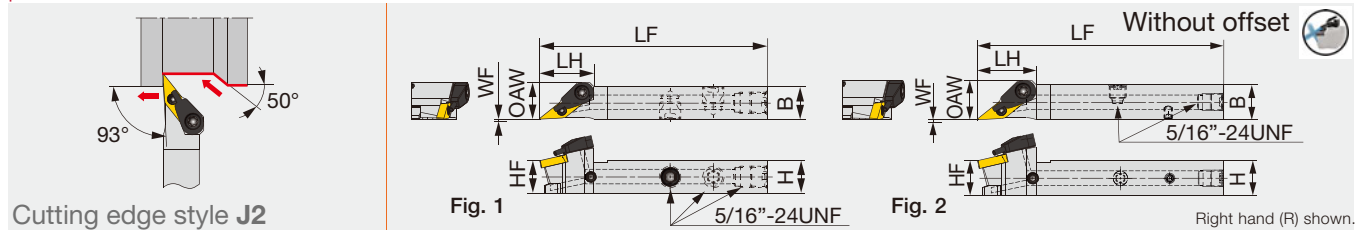
*Torque: Recommended torque lbs-ft (N-m) for clamping **RE: The holder measurements are true with this insert radius
Note: Use the right-hand toolholder (R) for the left-hand insert (L)

SPARE PARTS

Designation	Clamping screw	Wrench
JSVJXR**-F10	SR34-508	T-7F

JSVJ2XR/L-CHP

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



Inch	H	B	LF	LH	HF	WF	OAW	RE**	Insert	Torque*	Fig.
JSVJ2XR/L087-CHP	0.500	0.500	4.750	0.748	0.500	0	0.020	0.008	VXGU09T2**L/R...	0.66	1
JSVJ2XR087X-CHP	0.500	0.500	4.750	0.768	0.500	0	0.528	0.008	VXGU09T2**L	0.66	2
JSVJ2XR107X-CHP	0.625	0.625	4.750	0.768	0.625	0	0.625	0.008	VXGU09T2**L	0.66	2

Metric	H	B	LF	LH	HF	WF	OAW	RE**	Insert	Torque*	Fig.
JSVJ2XR/L1212F09-CHP	12	12	85	20	12	0	13.5	0.2	VXGU09T2**L/R...	0.9	1
JSVJ2XR1212X09-CHP	12	12	120	19.5	12	0	13.4	0.2	VXGU09T2**L	0.9	2
JSVJ2XR1616X09-CHP	16	16	120	19.5	16	0	16	0.2	VXGU09T2**L	0.9	2

*Torque: Recommended torque lbs-ft (N·m) for clamping **RE: The holder measurements are true with this insert radius

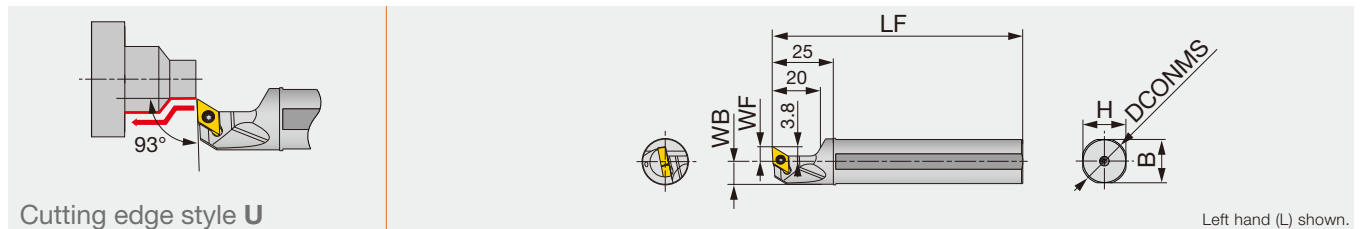
Note: Use the right-hand toolholder (R) for the left-hand insert (L). Use the left-hand toolholder (L) for the right-hand insert (R)

SPARE PARTS

Designation	Clamping screw	Coolant unit	Wrench
JSVJ2XR**-CHP	SR34-508	S-CU-CHP	T-7F

JS-SDUXL

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



Inch	DCONMS	WF	LF	H	B	WB	RE**	Insert	Torque*
JS159F-SDUXL07	0.625	0.236	3.346	0.591	0.591	0.303	0.008	DXGU0703**L...	0.66
JS19G-SDUXL07	0.750	0.236	3.543	0.709	0.709	0.366	0.008	DXGU0703**L...	0.66
JS19X-SDUXL07	0.750	0.236	4.724	0.709	0.709	0.366	0.008	DXGU0703**L...	0.66
JS254X-SDUXL07	1.000	0.394	4.724	0.945	0.945	0.492	0.008	DXGU0703**L...	0.66

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

*Torque: Recommended torque lbs-ft (N·m) for clamping **RE: The holder measurements are true with this insert radius

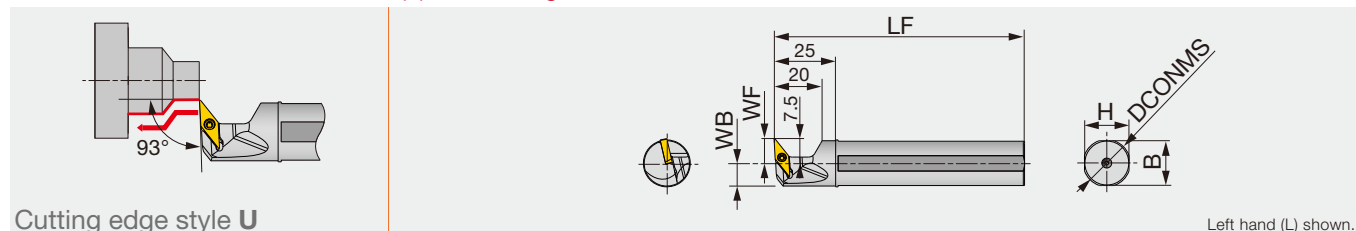
Note: Use the left-hand toolholder (L) for the left-hand insert (L)

SPARE PARTS

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

JS-SVUXL

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



Left hand (L) shown.

Inch	DCONMS	WF	LF	H	B	WB	RE**	Insert	Torque*
JS159F-SVUXL09	0.625	0.394	3.346	0.591	0.591	0.303	0.008	VXGU09T2**L...	0.66
JS19G-SVUXL09	0.750	0.394	3.543	0.709	0.709	0.362	0.008	VXGU09T2**L...	0.66
JS19X-SVUXL09	0.750	0.394	4.724	0.709	0.709	0.362	0.008	VXGU09T2**L...	0.66
JS254X-SVUXL09	1.000	0.394	4.724	0.945	0.945	0.488	0.008	VXGU09T2**L...	0.66

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

*Torque: Recommended torque lbs-ft (N·m) for clamping **RE: The holder measurements are true with this insert radius
Note: Use the left-hand toolholder (L) for the left-hand insert (L)

SPARE PARTS

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

CUTTING PERFORMANCE

● Excellent chatter stability

MINIFORCE
TUNGALOY

Depth of cut: ap (Inch)	0.08	OK	OK	OK	OK
	0.06	OK	OK	OK	OK
	0.04	OK	OK	OK	OK
	0.02	OK	OK	OK	OK
ap/f	0.002	0.004	0.006	0.008	
	Feed: f (ipr)				

=

ISO positive insert

Depth of cut: ap (Inch)	0.08	OK	OK	OK	OK
	0.06	OK	OK	OK	OK
	0.04	OK	OK	OK	OK
	0.02	OK	OK	OK	OK
ap/f	0.002	0.004	0.006	0.008	
	Feed: f (ipr)				

Workpiece : 1045
 Insert : WXGU 221 L TS AH725
 Toolholder : A06-SWLXR/L2-D08
 Cutting speed : $V_c = 492$ sfm
 Overhang length : 1.417" (L/D = 3)
 Coolant : Wet (internal supply)

CHIP CONTROL

P

Depth of cut: ap (Inch)	0.08				
	0.06				
	0.04				
	0.02				
ap/f	0.002	0.004	0.006	0.008	
	Feed: f (ipr)				

Workpiece : 1045
 Insert : WXGU 221 L TS AH725
 Toolholder : A06-SWLXR/L2-D08
 Cutting speed : $V_c = 492$ sfm
 Boring depth : $H = 1.417$ " (L/D = 3)
 Coolant : Wet (internal supply)

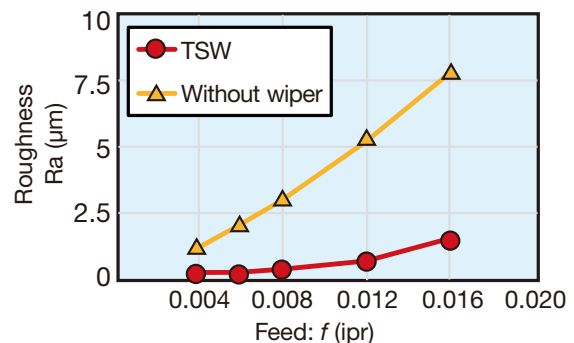
M

Depth of cut: ap (Inch)	0.06				
	0.04				
	0.02				
	0.01				
ap/f	0.002	0.003	0.004	0.006	
	Feed: f (ipr)				

Workpiece : 304
 Insert : WXGU 221 L SS AH725
 Toolholder : E06-SWLXR/L2-D08
 Cutting speed : $V_c = 492$ sfm
 Boring depth : $H = 2.362$ " (L/D = 5)
 Coolant : Wet (internal supply)

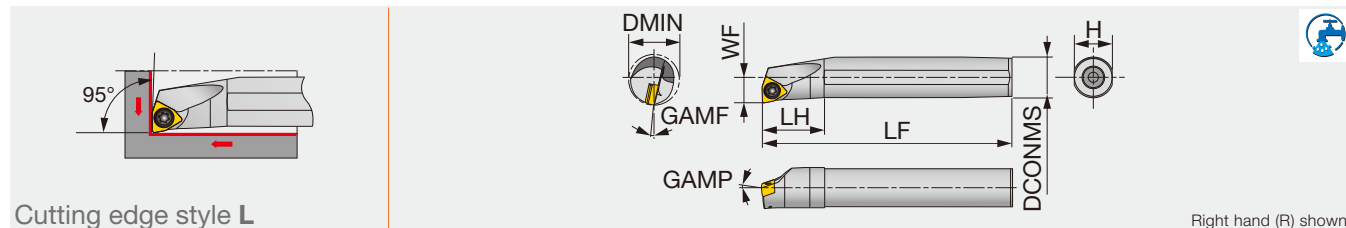
WIPER PERFORMANCE

Workpiece : 1045
 Insert : WXGU 221 L TSW
 CCMT 32.51-**(Without wiper)
 Toolholder : E08-SWLXR/L2-D11
 Cutting speed : $V_c = 492$ sfm
 Depth of cut : $a_p = 0.020$ "
 Hole depth : $H = 1.890$ " (L/D = 3)
 Coolant : Wet (internal supply)



A/E-SWLXR/L

For trigon insert with 6 edges



Inch	Material	DMIN	DCONMS	WF	LF	LH	H	GAMP	GAMF	RE**	Insert	Torque*
A06-SWLXR/L2-D08	STEEL	0.500	0.375	0.281	5.000	0.750	0.350	-10°	-14°	0.016	WXGU0403**/L/R...	0.66
A08-SWLXR/L2-D11	STEEL	0.688	0.500	0.406	5.000	1.000	0.475	-10°	-10°	0.016	WXGU0403**/L/R...	0.66
A10-SWLXR/L2-D14	STEEL	0.875	0.625	0.531	7.000	1.250	0.600	-10°	-8°	0.016	WXGU0403**/L/R...	0.66
A12-SWLXR/L2-D16	STEEL	1.000	0.750	0.593	7.000	1.438	0.725	-10°	-7°	0.016	WXGU0403**/L/R...	0.66
A16-SWLXR/L2-D20	STEEL	1.250	1.000	0.625	7.000	1.438	0.938	-10°	-7°	0.016	WXGU0403**/L/R...	0.66
E06-SWLXR/L2-D08	CARBIDE	0.500	0.375	0.281	5.000	1.000	0.350	-10°	-14°	0.016	WXGU0403**/L/R...	0.66
E08-SWLXR/L2-D11	CARBIDE	0.688	0.500	0.406	5.000	1.063	0.475	-10°	-10°	0.016	WXGU0403**/L/R...	0.66
E10-SWLXR/L2-D14	CARBIDE	0.875	0.625	0.531	7.000	1.250	0.600	-10°	-8°	0.016	WXGU0403**/L/R...	0.66
E12-SWLXR/L2-D16	CARBIDE	1.000	0.750	0.593	7.000	1.438	0.725	-10°	-7°	0.016	WXGU0403**/L/R...	0.66
E16-SWLXR/L2-D20	CARBIDE	1.250	1.000	0.625	10.000	1.812	0.938	-10°	-7°	0.016	WXGU0403**/L/R...	0.66

Metric	Material	DMIN	DCONMS	WF	LF	LH	H	GAMP	GAMF	RE**	Insert	Torque*
A10K-SWLXR/L04-D120	STEEL	12	10	6	125	20	9	-10°	-16°	0.4	WXGU0403**/L/R...	0.9
A12M-SWLXR/L04-D140	STEEL	14	12	7	150	24	11	-10°	-14°	0.4	WXGU0403**/L/R...	0.9
A16Q-SWLXR/L04-D180	STEEL	18	16	9	180	32	15	-10°	-11°	0.4	WXGU0403**/L/R...	0.9
A20R-SWLXR/L04-D220	STEEL	22	20	11	200	36	18	-10°	-10°	0.4	WXGU0403**/L/R...	0.9
E10M-SWLXR/L04-D120	CARBIDE	12	10	6	150	25	9	-10°	-16°	0.4	WXGU0403**/L/R...	0.9
E12Q-SWLXR/L04-D140	CARBIDE	14	12	7	180	27	11	-10°	-14°	0.4	WXGU0403**/L/R...	0.9
E16R-SWLXR/L04-D180	CARBIDE	18	16	9	200	32	15	-10°	-11°	0.4	WXGU0403**/L/R...	0.9
E20S-SWLXR/L04-D220	CARBIDE	22	20	11	250	36	18	-10°	-10°	0.4	WXGU0403**/L/R...	0.9

*Torque: Recommended torque (N·m) for clamping **RE: The holder measurements are true with this insert radius
 Note: Use the right hand toolholder (R) for the left hand insert (L). Use the left hand toolholder (L) for the right hand insert (R)

SPARE PARTS

Designation	Clamping screw	Wrench
A/E**-SWLXR/L...	SR34-514	T-7F

- 1 Use the right hand toolholder (R) for the left hand insert (L)
- 2 Use the left hand toolholder (L) for the right hand insert (R)



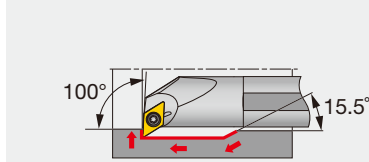
1 Right hand toolholder with left hand insert shown



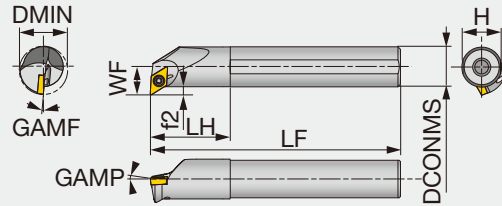
2 Left hand toolholder with right hand insert shown

A/E-SDXXR/L

For 55° rhombic insert with 4 edges



Cutting edge style X



Right hand (R) shown.

Inch	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A06-SDXXR/L2-D10	STEEL	0.625	0.375	0.406	5.000	0.750	0.350	0.213	-14°	-12°	0.016	DXGU0703**/L/R...	0.66
A08-SDXXR/L2-D11	STEEL	0.688	0.500	0.406	5.000	1.000	0.475	0.151	-13.5°	-11°	0.016	DXGU0703**/L/R...	0.66
A10-SDXXR/L2-D14	STEEL	0.875	0.625	0.531	7.000	1.250	0.600	0.213	-13°	-9°	0.016	DXGU0703**/L/R...	0.66
A12-SDXXR/L2-D16	STEEL	1.000	0.750	0.593	7.000	1.438	0.725	0.213	-13°	-8°	0.016	DXGU0703**/L/R...	0.66
A16-SDXXR/L2-D20	STEEL	1.250	1.000	0.625	7.000	1.438	0.938	0.120	-13°	-8°	0.016	DXGU0703**/L/R...	0.66
E06-SDXXR/L2-D10	CARBIDE	0.625	0.375	0.406	5.000	1.000	0.350	0.213	-14°	-12°	0.016	DXGU0703**/L/R...	0.66
E08-SDXXR/L2-D11	CARBIDE	0.688	0.500	0.406	5.000	1.063	0.475	0.151	-13.5°	-11°	0.016	DXGU0703**/L/R...	0.66
E10-SDXXR/L2-D14	CARBIDE	0.875	0.625	0.531	7.000	1.250	0.600	0.213	-13°	-9°	0.016	DXGU0703**/L/R...	0.66
E12-SDXXR/L2-D16	CARBIDE	1.000	0.750	0.593	7.000	1.438	0.725	0.213	-13°	-8°	0.016	DXGU0703**/L/R...	0.66
E16-SDXXR2-D20	CARBIDE	1.250	1.000	0.625	10.000	1.812	0.938	0.120	-13°	-8°	0.016	DXGU0703**/L/R...	0.66
Metric	Material	DMIN	DCONMS	WF	LF	LH	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A10K-SDXXR/L07-D130	STEEL	13	10	7.6	125	20	9	2.6	-14°	-16°	0.4	DXGU0703**/L/R...	0.9
A12M-SDXXR/L07-D160	STEEL	16	12	8.6	150	24	11	2.6	-14°	-14°	0.4	DXGU0703**/L/R...	0.9
A16Q-SDXXR/L07-D200	STEEL	20	16	10.6	180	32	15	2.6	-13°	-13°	0.4	DXGU0703**/L/R...	0.9
A20R-SDXXR/L07-D240	STEEL	24	20	12.6	200	36	18	2.6	-13°	-12°	0.4	DXGU0703**/L/R...	0.9
E10M-SDXXR/L07-D130	CARBIDE	13	10	7.6	150	25	9	2.6	-14°	-16°	0.4	DXGU0703**/L/R...	0.9
E12Q-SDXXR/L07-D160	CARBIDE	16	12	8.6	180	27	11	2.6	-14°	-14°	0.4	DXGU0703**/L/R...	0.9
E16R-SDXXR/L07-D200	CARBIDE	20	16	10.6	200	32	15	2.6	-13°	-13°	0.4	DXGU0703**/L/R...	0.9
E20S-SDXXR/L07-D240	CARBIDE	24	20	12.6	250	36	18	2.6	-13°	-12°	0.4	DXGU0703**/L/R...	0.9

*Torque: Recommended torque lbs-ft (N-m) for clamping **RE: The holder measurements are true with this insert radius

Note: Use the right hand toolholder (R) for the left hand insert (L). Use the left hand toolholder (L) for the right hand insert (R)

SPARE PARTS

Designation	Clamping screw	Wrench
A/E**-SDXXR/L...	SR34-514	T-7F

- Use the right hand toolholder (R) for the left hand insert (L)
- Use the left hand toolholder (L) for the right hand insert (R)



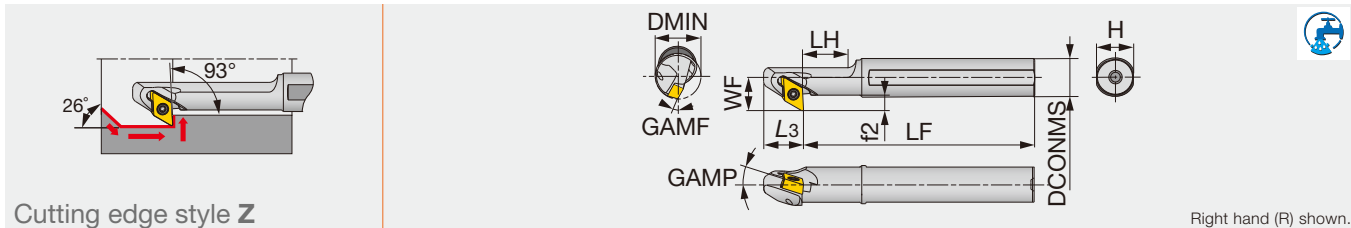
① Right hand toolholder with left hand insert shown



② Left hand toolholder with right hand insert shown

A/E-SDZXR/L

For 55° rhombic insert with 4 edges



Inch	Material	DMIN	DCONMS	WF	LF	LH	L3	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A08-SDZXR/L2-D10	STEEL	0.625	0.500	0.438	5.000	1.125	0.500	0.475	0.188	-10°	-14°	0.016	DXGU0703**R/L...	0.9
A10-SDZXR/L2-D11	STEEL	0.688	0.625	0.500	7.000	1.250	0.500	0.600	0.188	-10°	-12.5°	0.016	DXGU0703**R/L...	0.9
A12-SDZXR/L2-D14	STEEL	0.875	0.750	0.563	7.000	1.375	0.500	0.725	0.188	-10°	-10.5°	0.016	DXGU0703**R/L...	0.9

Metric	Material	DMIN	DCONMS	WF	LF	LH	L3	H	f2	GAMP	GAMF	RE**	Insert	Torque*
A12M-SDZXR/L07-D140	STEEL	14	12	10.5	150	30	13	11	4.5	-10°	-14°	0.4	DXGU0703**R/L...	0.9
A16Q-SDZXR/L07-D160	STEEL	16	16	12.5	180	35	13	15	4.5	-10°	-12.5°	0.4	DXGU0703**R/L...	0.9
A20R-SDZXR/L07-D200	STEEL	20	20	14.5	200	40	13	18	4.5	-10°	-10.5°	0.4	DXGU0703**R/L...	0.9
E12Q-SDZXR/L07-D180	CARBIDE	18	12	10.5	180	-	13	11	4.5	-11°	-11°	0.4	DXGU0703**R/L...	0.9
E16R-SDZXR/L07-D220	CARBIDE	22	16	12.5	200	-	13	15	4.5	-11°	-9°	0.4	DXGU0703**R/L...	0.9

*Torque: Recommended torque lbs-ft (N-m) for clamping **RE: The holder measurements are true with this insert radius
Note: Use the right hand toolholder (R) for the right hand insert (R). Use the left hand toolholder (L) for the left hand insert (L)

SPARE PARTS

Designation	Clamping screw	Wrench
A/E**-SDZXR/L...	SR34-514	T-7F

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

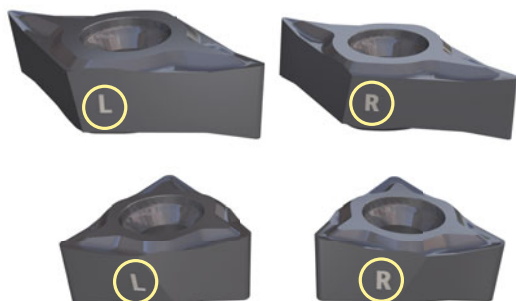


① Right hand toolholder with right hand insert shown



② Left hand toolholder with left hand insert shown

MARKING



Insert hand is identified on the flank side

100



**Trigon, 80°
with hole**

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

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* Corner radius has minus tolerance.

- : Line up
- : New

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

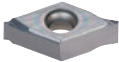
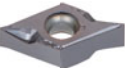
TurnLine - Insert

POSITIVE TYPE
DOUBLE-SIDED



Rhombic, 55°
with hole

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

Application	Chipbreaker	Designation		Corner radius	Coated											
		Inch	Metric		AH725	SH725										
Finishing (Sharp edge)		JRP	DXGU 220 MFRE JRP	DXGU070301MFRE-JRP	<0.004 ^{**}	●										
			DXGU 220 MFLE JRP	DXGU070301MFLE-JRP	<0.004 ^{**}	●										
			DXGU 220.5 MFRE JRP	DXGU070302MFRE-JRP	<0.008 ^{**}	●										
			DXGU 220.5 MFLE JRP	DXGU070302MFLE-JRP	<0.008 ^{**}	●										
Finishing to medium cutting (Sharp edge)		JS	DXGU 220 MFR JS	DXGU070301MFR-JS	<0.004 ^{**}	●										
			DXGU 220 MFL JS	DXGU070301MFL-JS	<0.004 ^{**}	●										
			DXGU 220.5 MFR JS	DXGU070302MFR-JS	<0.008 ^{**}	●										
			DXGU 220.5 MFL JS	DXGU070302MFL-JS	<0.008 ^{**}	●										
			DXGU 221 MFR JS	DXGU070304MFR-JS	<0.016 ^{**}	●										
Finishing to medium cutting (Sharp edge)		JTS	DXGU 220 MFR JTS	DXGU070301MFR-JTS	<0.004 ^{**}	●										
			DXGU 220 MFL JTS	DXGU070301MFL-JTS	<0.004 ^{**}	●										
			DXGU 220.5 MFR JTS	DXGU070302MFR-JTS	<0.008 ^{**}	●										
			DXGU 220.5 MFL JTS	DXGU070302MFL-JTS	<0.008 ^{**}	●										
Finishing to medium cutting		JTS	DXGU 220 MR JTS	DXGU070301MR-JTS	<0.004 ^{**}	●										
			DXGU 220 ML JTS	DXGU070301ML-JTS	<0.004 ^{**}	●										
			DXGU 220.5 MR JTS	DXGU070302MR-JTS	<0.008 ^{**}	●										
			DXGU 220.5 ML JTS	DXGU070302ML-JTS	<0.008 ^{**}	●										
Finishing (Low cutting force) (Sharp edge)		JSS	DXGU 220 MFR JSS	DXGU070301MFR-JSS	<0.004 ^{**}	●										
			DXGU 220 MFL JSS	DXGU070301MFL-JSS	<0.004 ^{**}	●										
			DXGU 220.5 MFR JSS	DXGU070302MFR-JSS	<0.008 ^{**}	●										
			DXGU 220.5 MFL JSS	DXGU070302MFL-JSS	<0.008 ^{**}	●										

* Corner radius has minus tolerance.

● : Line up
 ● : New

TurnLine - Insert

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

POSITIVE TYPE



Rhombic, 55°
with hole

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

Application	Chipbreaker	Designation		Corner radius	Coated		Coated cermet		Cermet		Carbide	
		Inch	Metric		AH725	AH8015	GT9530		NS9530		KS05F	
Finishing (Low cutting force)		JSS	DXGU 220 MR JSS	DXGU070301MR-JSS	<0.004**	●						
			DXGU 220 ML JSS	DXGU070301ML-JSS	<0.004**	●						
			DXGU 220.5 MR JSS	DXGU070302MR-JSS	<0.008**	●						
			DXGU 220.5 ML JSS	DXGU070302ML-JSS	<0.008**	●						
Finishing to medium cutting		TS	DXGU 220.5 R TS	DXGU070302R-TS	0.008**	● ●	●		●		●	
			DXGU 220.5 L TS	DXGU070302L-TS	0.008**	● ●	●		●		●	
			DXGU 221 R TS	DXGU070304R-TS	0.016**	● ●	●		●		●	
			DXGU 221 L TS	DXGU070304L-TS	0.016**	● ●	●		●		●	
			DXGU 222 R TS	DXGU070308R-TS	0.032**	● ●	●		●		●	
			DXGU 222 L TS	DXGU070308L-TS	0.032**	● ●	●		●		●	
Finishing (Low cutting force)		SS	DXGU 220.5 R SS	DXGU070302R-SS	0.008**	● ●	●		●		●	
			DXGU 220.5 L SS	DXGU070302L-SS	0.008**	● ●	●		●		●	
			DXGU 221 R SS	DXGU070304R-SS	0.016**	● ●	●		●		●	
			DXGU 221 L SS	DXGU070304L-SS	0.016**	● ●	●		●		●	

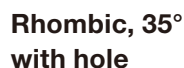
* Corner radius has minus tolerance.

● : Line up
● : New

100

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

DOUBLE-SIDED

[illegible][illegible]

* Corner radius has minus tolerance.

● : Line up
● : New

STANDARD CUTTING CONDITIONS

FOR EXTERNAL TURNING

Applications	ISO	Workpiece material	Priority	Chip-breaker	Grade	Cutting speed Vc (sfm)	Depth of cut ap (Inch)	Feed f (ipr)
For swiss type automatic lathes	P	Low carbon steels Carbon steels (1045, etc.)	First choice	JS	SH725	164 - 590	0.004 - 0.118	0.001 - 0.004
		Low alloy steels Alloy steels (4140, etc.)	With high sharpness	JSS	SH725	164 - 590	0.004 - 0.059	0.001 - 0.004
	M	Stainless steels (Austenitic) (304, etc.)	First choice	JS	SH725	164 - 590	0.004 - 0.049	0.001 - 0.004
		Stainless steels (Martensitic and ferritic) (430, etc.) Stainless steels (Precipitation hardened) (174, etc.)	With high sharpness	JSS	SH725	164 - 590	0.004 - 0.059	0.001 - 0.004
For small size CNC lathes	P	Low carbon steels Carbon steels (1045, etc.) Low alloy steels Alloy steels (4140, etc.)	First choice	SS	AH725	164 - 590	0.006 - 0.059	0.002 - 0.008
				TS	AH725	164 - 590	0.012 - 0.079	0.003 - 0.012
			For improved surface finish	SS	NS9530	164 - 656	0.006 - 0.059	0.002 - 0.008
				TS	NS9530	164 - 656	0.012 - 0.079	0.003 - 0.012
			For wear resistance	SS	GT9530	164 - 820	0.006 - 0.059	0.002 - 0.008
				TS	GT9530	164 - 820	0.012 - 0.079	0.003 - 0.012
	M	Stainless steels (Austenitic) (304, etc.) Stainless steels (Martensitic and ferritic) (430, etc.) Stainless steels (Precipitation hardened) (174, etc.)	First choice	SS	AH725	164 - 492	0.006 - 0.059	0.002 - 0.008
			For impact resistance	TS	AH725	164 - 492	0.012 - 0.079	0.003 - 0.012

STANDARD CUTTING CONDITIONS

FOR INTERNAL TURNING

ISO	Workpiece material	Grade			Cutting speed Vc (sfm)	Depth of cut ap (Inch)	Feed f (ipr)
		First choice	For surface finish	For wear resistance (High speed)			
P	Low carbon steel (1025, etc.)	AH725	-	-	164 - 180	0.012 - 0.079	0.003 - 0.012
		-	-	AH8015	164 - 656	0.012 - 0.079	0.003 - 0.012
		-	NS9530	-	262 - 820	0.012 - 0.079	0.003 - 0.012
		-	GT9530	-	262 - 984	0.012 - 0.079	0.003 - 0.012
	Carbon steel (1045, 1055, etc.)	AH725	-	-	164 - 591	0.012 - 0.079	0.003 - 0.012
		-	-	AH8015	164 - 656	0.012 - 0.079	0.003 - 0.012
		-	NS9530	-	262 - 820	0.012 - 0.079	0.003 - 0.012
		-	GT9530	-	262 - 984	0.012 - 0.079	0.003 - 0.012
	Low alloy steel (4140, etc.)	AH725	-	-	164 - 591	0.012 - 0.079	0.003 - 0.012
		-	-	AH8015	164 - 656	0.012 - 0.079	0.003 - 0.012
		-	NS9530	-	262 - 820	0.012 - 0.079	0.003 - 0.012
		-	GT9530	-	262 - 984	0.012 - 0.079	0.003 - 0.012
	Alloy steel (5120, etc.)	AH725	-	-	164 - 591	0.012 - 0.079	0.003 - 0.012
		-	-	AH8015	164 - 656	0.012 - 0.079	0.003 - 0.012
		-	NS9530	-	262 - 820	0.012 - 0.079	0.003 - 0.012
		-	GT9530	-	262 - 984	0.012 - 0.079	0.003 - 0.012
M	Stainless steel (Austenitic) (304, etc.)	AH8015	-	-	164 - 492	0.012 - 0.079	0.003 - 0.012
	Stainless steel (Martensitic and ferritic) (430, etc.)	AH8015	-	-	164 - 492	0.012 - 0.079	0.003 - 0.012
	Stainless steel (Precipitation hardening) (174, etc.)	AH8015	-	-	164 - 492	0.012 - 0.079	0.003 - 0.012
K	Grey cast iron (No.250B, etc.)	AH725	-	-	164 - 591	0.012 - 0.079	0.003 - 0.012
		-	-	AH8015	164 - 656	0.012 - 0.079	0.003 - 0.012
		-	NS9530	-	262 - 820	0.012 - 0.079	0.003 - 0.012
		-	GT9530	-	262 - 984	0.012 - 0.079	0.003 - 0.012
	Ductile cast iron (80-55-60, etc.)	AH725	-	-	164 - 591	0.012 - 0.079	0.003 - 0.012
		-	-	AH8015	164 - 656	0.012 - 0.079	0.003 - 0.012
		-	NS9530	-	262 - 820	0.012 - 0.079	0.003 - 0.012
N	Non ferrous Metal (Aluminum alloy, etc.)	KS05F	-	-	328 - 984	0.012 - 0.079	0.003 - 0.012
	Non ferrous Metal (Cu Alloy, etc.)	KS05F	-	-	328 - 984	0.012 - 0.079	0.003 - 0.012
S	Heat-resistant alloys Titanium alloys, etc.	AH8015	-	-	66 - 262	0.012 - 0.079	0.003 - 0.012
	Heat-resistant alloys (Nickel-base alloys)	AH8015	-	-	66 - 262	0.012 - 0.079	0.003 - 0.012

GRADES

AH725
PREMIUMTEC
TUNGALOY

- Versatile PVD coated grade suitable for a wide range of work materials
- Demonstrates a balanced resistance to wear and fracture

New**AH8015**
PREMIUMTEC
TUNGALOY

- PVD coated grade with a balanced resistance to wear and fracture
- First choice for stainless steel and heat-resistant superalloys

SH725

- PVD coated grade most suited for sharp cutting edges
- Suitable for machining of small and precision parts

GT9530
PREMIUMTEC
TUNGALOY

- Coated cermet grade with PremiumTec treatment for exceptional wear resistance
- Provides remarkable performance in high-speed finishing of steel

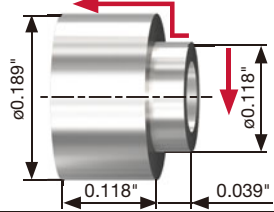
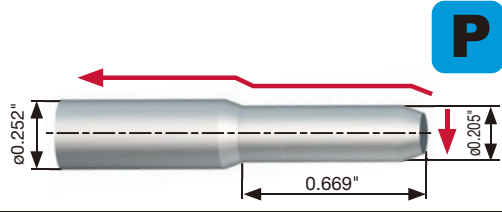
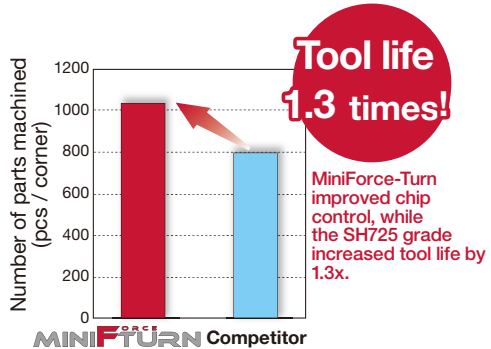
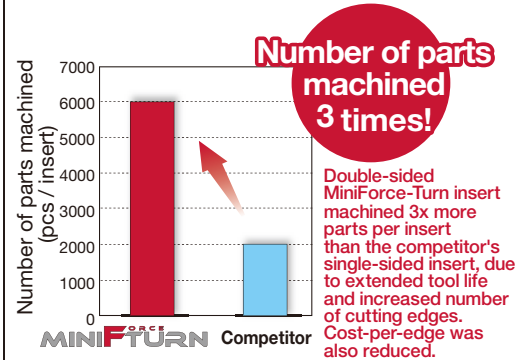
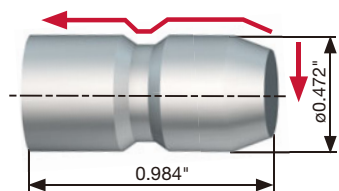
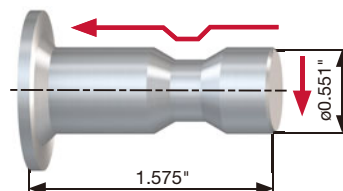
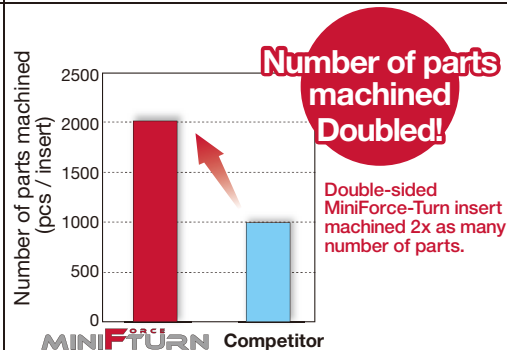
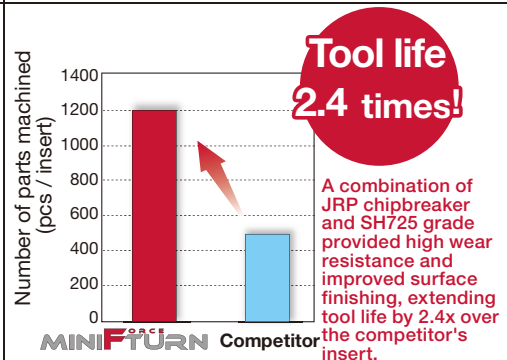
NS9530
PREMIUMTEC
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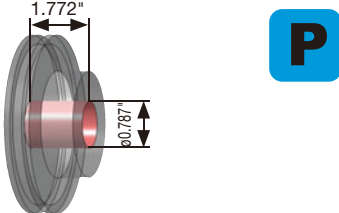
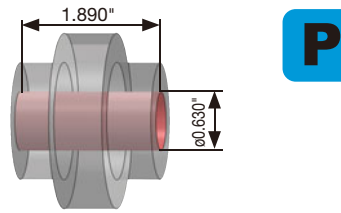
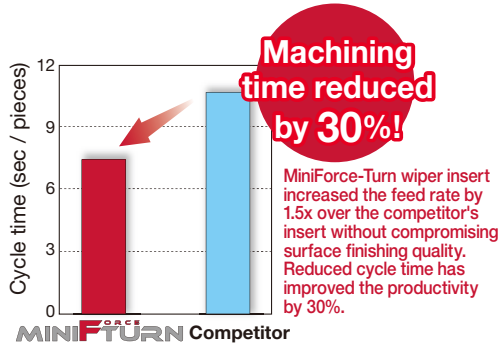
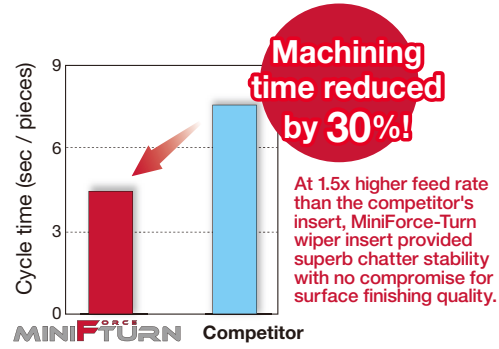
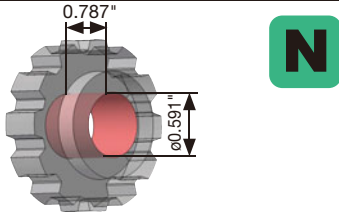
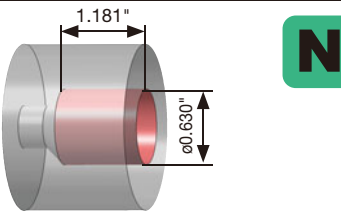
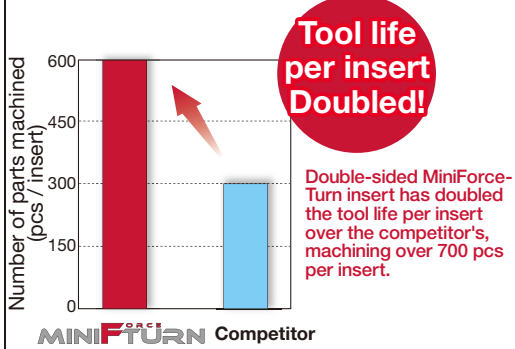
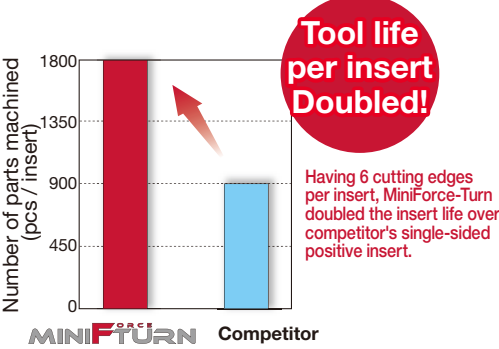
- General-purpose cermet grade with incredible fracture and wear resistance
- Ensures long tool life and excellent surface finishing of steel

KS05F

- Sub-micron grain cemented carbide with balanced wear and impact resistance
- Homogeneous fine-grained structure provides excellent resistance to wear, fracture, and built-up edge

External turning

Workpiece		Shaft	Shaft
Toolholder		JSDJ2XR082	JSWL2XR1212X04
Insert		DXGU 220 MFL JS	WXGU 220.5 L TS
Grade		SH725	AH725
Workpiece material		316	1045
			
Cutting conditions	Cutting speed : Vc (sfm)	200	217 - 262
	Feed : f (ipt)	0.001	0.006
	Depth of cut : ap (Inch)	0.005	0.024
	Machining	External	External
	Coolant	Wet	Wet
Results		 Number of parts machined (pcs / corner) Tool life 1.3 times! MiniForce-Turn improved chip control, while the SH725 grade increased tool life by 1.3x.	 Number of parts machined (pcs / insert) Number of parts machined 3 times! Double-sided MiniForce-Turn insert machined 3x more parts per insert than the competitor's single-sided insert, due to extended tool life and increased number of cutting edges. Cost-per-edge was also reduced.
Workpiece		Shaft	Shaft
Toolholder		JSDJ2XR082	JSVJ2XR087X-CHP
Insert		DXGU 220 ML JSS	VXGU 73.50.5 MFLE JRP
Grade		AH725	SH725
Workpiece material		Alloy steels	Low carbon steel (cold drawn)
			
Cutting conditions	Cutting speed : Vc (sfm)	217 - 262	558
	Feed : f (ipt)	0.006	0.001
	Depth of cut : ap (Inch)	0.024	0.008
	Machining	External	External
	Coolant	Wet	Wet
Results		 Number of parts machined (pcs / insert) Number of parts machined Doubled! Double-sided MiniForce-Turn insert machined 2x as many number of parts.	 Number of parts machined (pcs / insert) Tool life 2.4 times! A combination of JRP chipbreaker and SH725 grade provided high wear resistance and improved surface finishing, extending tool life by 2.4x over the competitor's insert.

Workpiece		Machine Parts	Machine Parts
Toolholder		A08-SWLXR2-D11	E06-SWLXR2-D08
Insert		WXGU 221 L TSW	WXGU 221 L TSW
Grade		AH725	GT9530
Workpiece material		1045	4137
			
Cutting conditions	Cutting speed : Vc (sfm)	525	656
	Feed : f (ipt)	0.004 → 0.006	0.004 → 0.006
	Depth of cut : ap (Inch)	0.020	0.008
	Machining	Internal Turning (continuous cutting)	Internal Turning (continuous cutting)
	Coolant	Wet	Wet
Results			
		MINIFORCE-TURN Competitor	MINIFORCE-TURN Competitor
Workpiece		Machine Parts	Machine Parts
Toolholder		A06-SWLXR2-D08	A06-SDXXR2-D10
Insert		WXGU 220.5 L SS	DXGU 221 L TS
Grade		KS05F	KS05F
Workpiece material		C83600 / Bronze casting	5056 (Al - Mg)
			
Cutting conditions	Cutting speed : Vc (sfm)	230	656
	Feed : f (ipt)	0.004	0.004
	Depth of cut : ap (Inch)	0.039	0.039
	Machining	Internal Turning (continuous cutting)	Internal Turning (continuous cutting)
	Coolant	Wet	Wet
Results			
		MINIFORCE-TURN Competitor	MINIFORCE-TURN Competitor

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