

AC1030U

Rev.7

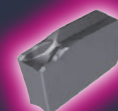
Perfect for precision turning of small products



New SEC-MINI Tool Holders SBT series / PBT series
Back Turning
Inserts Expanded **3 items**

New SEC-Grooving Tools SSH type
Threading/Facing
Inserts Expanded **13 items**

New SEC-Cut-off Tool Holders STF type / WCF type
Cut-off (General-purpose)
Inserts Expanded **4 items**



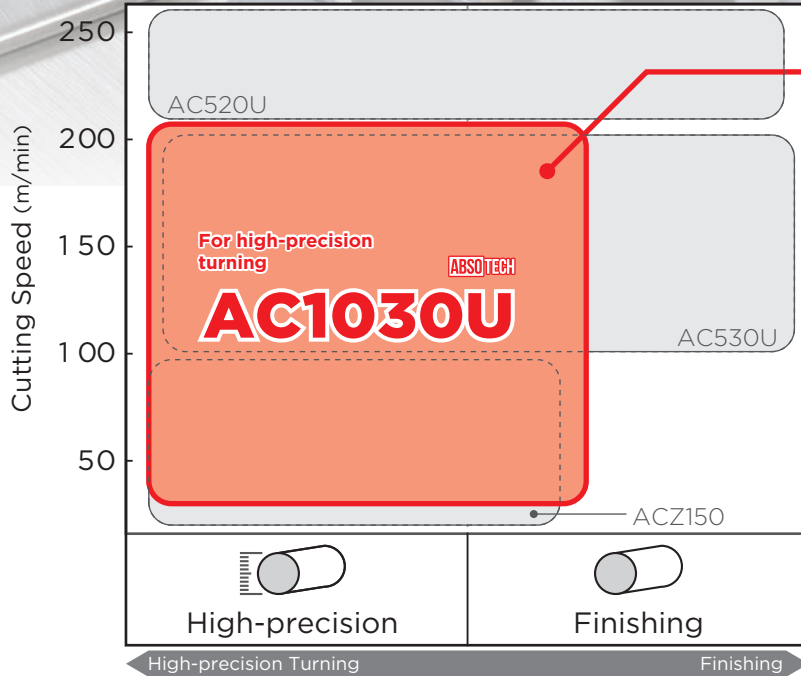
Small Lathe/Autolathe Tool Series

Sumi Small



AC1030U

Application Range



AC1030U

ABSOTECH

Employs ABSOTECH™ PVD coating and a dedicated tough carbide substrate. High-quality cutting edge suppresses adhesion and micro-chipping, realising excellent machined surface quality.

Features of AC1030U

Outstanding wear and chipping resistance

New Composite Coating (stacked layers):

- Smooth layer that suppresses coating chipping → **Improved machined surface quality**
- High-hardness/high-heat resistance layer → **Wear resistance improved**
- High adhesion technology → **Improved peel-off resistance**

Carbide Substrate:

- Tough carbide substrate → **Improved chipping resistance**

Grade	Cutting edge after cutting	Wear resistance
AC1030U		No coating chipping/ Wear resistance: Good
Conventional Grade		Some coating chipping/ Wear resistance: OK
Competitor's Product A		No coating chipping/ Wear resistance: Low

Outstanding machined surface quality

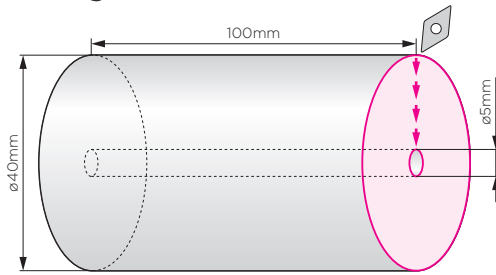
High-quality Ground Inserts

Significantly improved cutting edge grinding quality

Grade	Surface Finish	Surface Quality
AC1030U	 Rz2.0µm	No tearing, good surface roughness
Conventional Grade	 Rz4.1µm	Obvious tearing
Competitor's Product B	 Rz4.3µm	Surface blemish

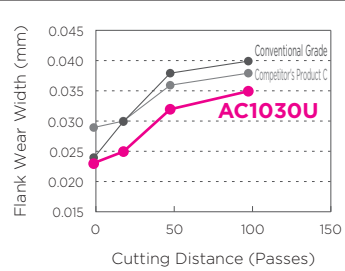
AC1030U

Cutting Performance

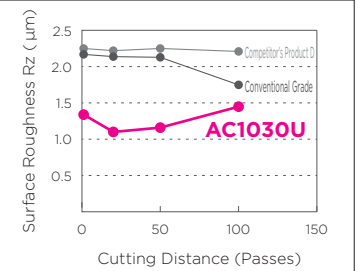


Work Material: SUS304 Insert: DCGT11T302R-FY
Cutting Conditions: $v_c = 100\text{m/min}$ $f = 0.05\text{mm/rev}$ $a_p = 0.10\text{mm}$ Wet (Oil-based)

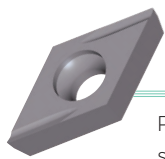
Wear Resistance



Machined Surface Roughness



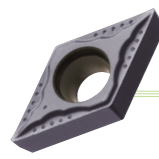
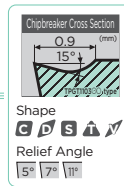
Recommended Chipbreakers (Positive Inserts)



FX type

Ground E Class G Class

Parallel chipbreaker with sharp edge supports a wide range of depths of cut

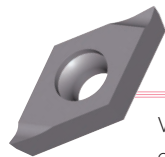


1st recommendation for small product machining

SI type

3D G Class

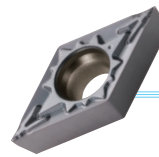
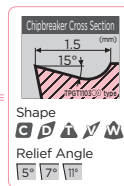
Excellent chip control performance over a wide range of cutting conditions



FY type

Ground E Class G Class

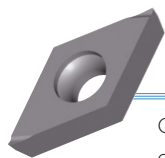
Wide chipbreaker with sharp edge has excellent cutting edge sharpness



FF type

3D G Class

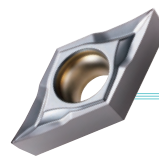
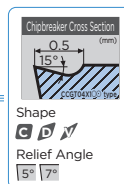
Outstanding chip control in fine finishing



FYS type

Ground E Class G Class

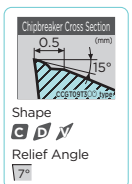
Chipbreaker for fine cutting controls chips at low depths of cut



SL type

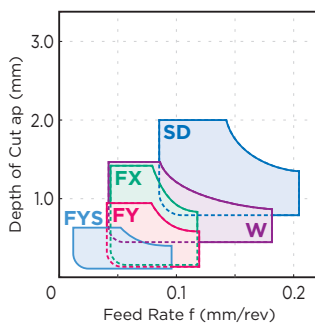
3D G Class

Excellent cutting edge sharpness over a wide range of cutting conditions
Emphasis on high machined surface quality

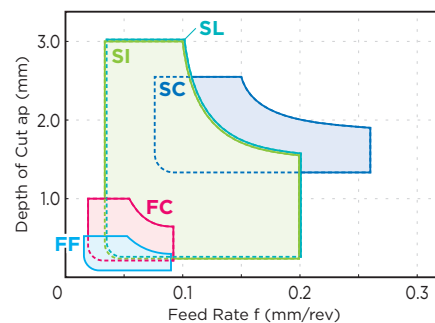


Chipbreaker Application Range

Ground Type



3D Chipbreaker

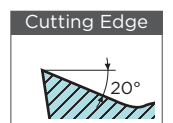
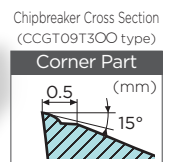


SL type Sharper Edge

Protrusion suppresses cutting force while controlling chips



Sharp cutting edge shape realises smooth engagement and exhibits good cutting performance even in vibrating cutting



Recommended Cutting Conditions

Work Material Grade	P Free-Cutting Steel		P Carbon Steel		M Stainless Steel		N Brass	
	v_c (m/min)	f (mm/rev)	v_c (m/min)	f (mm/rev)	v_c (m/min)	f (mm/rev)	v_c (m/min)	f (mm/rev)
AC1030U	50 - 200	0.02 - 0.15	50 - 200	0.02 - 0.10	50 - 150	0.02 - 0.10	70 - 300	0.05 - 0.20

AC1030U

Positive 80° Diamond type / E-class

Shape	Relief Angle	Cat. No.	Stock	Dimensions (mm)			
			AC1030U	Inscribed Circle	Thickness	Hole Dia.	Corner Radius
	7°	CCET 0602003R-FX	●	6.35	2.38	2.8	0.03
		0602003L-FX	●				0.03
		060201R-FX	●				0.1
		060201L-FX	●				0.1
		060202R-FX	●				0.2
		060202L-FX	●				0.2
		060204R-FX	●				0.4
		060204L-FX	●				0.4
	7°	CCET 09T3003R-FX	●	9.525	3.97	4.4	0.03
		09T3003L-FX	●				0.03
		09T301R-FX	●				0.1
		09T301L-FX	●				0.1
		09T302R-FX	●				0.2
		09T302L-FX	●				0.2
		09T304R-FX	●				0.4
		09T304L-FX	●				0.4
	7°	CCET 03X1003R-FYS	●	3.5	1.4	1.8	0.03
		03X1003L-FYS	●				0.03
		03X101R-FYS	●				0.1
		03X101L-FYS	●				0.1
		03X102R-FYS	●				0.2
		03X102L-FYS	●				0.2
		03X104R-FYS	●				0.4
		03X104L-FYS	●				0.4
	7°	CCET 04X1003R-FYS	●	4.3	1.8	2.3	0.03
		04X1003L-FYS	●				0.03
		04X101R-FYS	●				0.1
		04X101L-FYS	●				0.1
		04X102R-FYS	●				0.2
		04X102L-FYS	●				0.2
		04X104R-FYS	●				0.4
		04X104L-FYS	●				0.4
	7°	CCET 03X1003R-FY	●	3.5	1.4	1.8	0.03
		03X1003L-FY	●				0.03
		03X101R-FY	●				0.1
		03X101L-FY	●				0.1
		03X102R-FY	●				0.2
		03X102L-FY	●				0.2
		03X104R-FY	●				0.4
		03X104L-FY	●				0.4
		CCET 04X1003R-FY	●	4.3	1.8	2.3	0.03
		04X1003L-FY	●				0.03
		04X101R-FY	●				0.1
		04X101L-FY	●				0.1
		04X102R-FY	●				0.2
		04X102L-FY	●				0.2
		04X104R-FY	●				0.4
		04X104L-FY	●				0.4
	7°	CCET 0602003R-FY	●	6.35	2.38	2.8	0.03
		0602003L-FY	●				0.03
		060201R-FY	●				0.1
		060201L-FY	●				0.1
		060202R-FY	●				0.2
		060202L-FY	●				0.2
		060204R-FY	●				0.4
		060204L-FY	●				0.4
		CCET 09T3003R-FY	●	9.525	3.97	4.4	0.03
		09T3003L-FY	●				0.03
		09T301R-FY	●				0.1
		09T301L-FY	●				0.1
		09T302R-FY	●				0.2
		09T302L-FY	●				0.2
		09T304R-FY	●				0.4
		09T304L-FY	●				0.4

Positive 80° Diamond type / G-class

Shape	Relief Angle	Cat. No.	Stock	Dimensions (mm)			
			AC1030U	Inscribed Circle	Thickness	Hole Dia.	Corner Radius
	7°	CCGT 060201MN-FF	●	6.35	2.38	2.8	<0.1
		060202MN-FF	●				<0.2
	7°	060204MN-FF	●				<0.4
		09T301MN-FF	●	9.525	3.97	4.4	<0.1
	7°	09T302MN-FF	●				<0.2
		09T304MN-FF	●				<0.4
	7°	CCGT 060201MN-FC	●	6.35	2.38	2.8	<0.1
		060202MN-FC	●				<0.2
		060204MN-FC	●				<0.4
		CCGT 09T301MN-FC	●				<0.1
	7°	09T302MN-FC	●	9.525	3.97	4.4	<0.2
		09T304MN-FC	●				<0.4
	7°	CCGT 0602003R-FX	●	6.35	2.38	2.8	0.03
		0602003L-FX	●				0.03
		060201R-FX	●				0.1
		060201L-FX	●				0.1
		060202R-FX	●				0.2
		060202L-FX	●				0.2
		060204R-FX	●				0.4
		060204L-FX	●				0.4
	7°	CCGT 09T3003R-FX	●				0.03
		09T3003L-FX	●				0.03
		09T301R-FX	●				0.1
		09T301L-FX	●				0.1
		09T302R-FX	●				0.2
		09T302L-FX	●				0.2
		09T304R-FX	●				0.4
		09T304L-FX	●				0.4
	7°	CCGT 03X1003R-FYS	●	3.5	1.4	1.8	0.03
		03X1003L-FYS	●				0.03
		03X101R-FYS	●				0.1
		03X101L-FYS	●				0.1
		03X102R-FYS	●				0.2
		03X102L-FYS	●				0.2
		03X104R-FYS	●				0.4
		03X104L-FYS	●				0.4
	7°	CCGT 04X1003R-FYS	●				0.03
		04X1003L-FYS	●				0.03
		04X101R-FYS	●				0.1
		04X101L-FYS	●				0.1
		04X102R-FYS	●				0.2
		04X102L-FYS	●				0.2
		04X104R-FYS	●				0.4
		04X104L-FYS	●				0.4
	7°	CCGT 03X101R-FY	●	3.5	1.4	1.8	0.1
		03X101L-FY	●				0.1
		03X102R-FY	●				0.2
		03X102L-FY	●				0.2
		03X104R-FY	●				0.4
		03X104L-FY	●				0.4
	7°	CCGT 04X1003R-FYS	●				0.03
		04X1003L-FYS	●				0.03
		04X101R-FYS	●				0.1
		04X101L-FYS	●				0.1
		04X102R-FYS	●				0.2
		04X102L-FYS	●				0.2
		04X104R-FYS	●				0.4
		04X104L-FYS	●				0.4
	7°	CCGT 060201MN-SI	●	6.35	2.38	2.8	<0.1
		060202MN-SI	●				<0.2
		060204MN-SI	●				<0.4
	7°	CCGT 09T301MN-SI	●				<0.1
		09T302MN-SI	●				<0.2
		09T304MN-SI	●				<0.4
	7°	CCGT 060201MN-SL	●	6.35	2.38	2.8	<0.1
		060202MN-SL	●				<0.2
		09T301MN-SL	●				<0.1
		09T302MN-SL	●				<0.2
		09T304MN-SL	●				<0.4
	7°	CCGT 0602003N-SC	●				0.03
		CCGT 060201MN-SC	●				<0.1
		060202MN-SC	●				<0.2
		CCGT 09T3003N-SC	●				0.03
		CCGT 09T301MN-SC	●				<0.1
		09T302MN-SC	●				<0.2

A "<" next to the corner radius RE indicates a negative tolerance.

● mark: Standard stocked item

AC1030U

Positive 55° Diamond type / E-class

Shape	Relief Angle	Cat. No.	Stock	Dimensions (mm)			
			AC1030U	Inscribed Circle	Thickness	Hole Dia.	Corner Radius
	7°	DCET 0702003R-FX	●	6.35	2.38	2.8	0.03
		0702003L-FX	●				0.03
		0702008R-FX	●				0.08
		0702008L-FX	●				0.08
		070201R-FX	●				0.1
		070201L-FX	●				0.1
		0702018R-FX	●				0.18
		0702018L-FX	●				0.18
		070204R-FX	●				0.4
		070204L-FX	●				0.4
		DCET 11T3003R-FX	●	9.525	3.97	4.4	0.03
		11T3003L-FX	●				0.03
		11T3008R-FX	●				0.08
		11T3008L-FX	●				0.08
		11T301R-FX	●				0.1
		11T301L-FX	●				0.1
		11T3018R-FX	●				0.18
		11T3018L-FX	●				0.18
		11T304R-FX	●				0.4
		11T304L-FX	●				0.4
	7°	DCET 0702003R-FYS	●	6.35	2.38	2.8	0.03
		0702003L-FYS	●				0.03
		070201R-FYS	●				0.1
		070201L-FYS	●				0.1
		070202R-FYS	●				0.2
		070202L-FYS	●				0.2
		070204R-FYS	●				0.4
		070204L-FYS	●				0.4
		DCET 11T3003R-FYS	●	9.525	3.97	4.4	0.03
		11T3003L-FYS	●				0.03
		11T301R-FYS	●				0.1
		11T301L-FYS	●				0.1
		11T302R-FYS	●				0.2
		11T302L-FYS	●				0.2
		11T304R-FYS	●				0.4
		11T304L-FYS	●				0.4
	7°	DCET 0702003R-FY	●	6.35	2.38	2.8	0.03
		0702003L-FY	●				0.03
		0702008R-FY	●				0.08
		0702008L-FY	●				0.08
		070201R-FY	●				0.1
		070201L-FY	●				0.1
		0702018R-FY	●				0.18
		0702018L-FY	●				0.18
		070204R-FY	●				0.4
		070204L-FY	●				0.4
		DCET 11T3003R-FY	●	9.525	3.97	4.4	0.03
		11T3003L-FY	●				0.03
		11T3008R-FY	●				0.08
		11T3008L-FY	●				0.08
		11T301R-FY	●				0.1
		11T301L-FY	●				0.1
		11T3018R-FY	●				0.18
		11T3018L-FY	●				0.18
		11T304R-FY	●				0.4
		11T304L-FY	●				0.4

Positive 55° Diamond type / G-class

Shape	Relief Angle	Cat. No.	Stock	Dimensions (mm)			
			AC1030U	Inscribed Circle	Thickness	Hole Dia.	Corner Radius
	7°	DCGT 070201MN-FF	●	6.35	2.38	2.8	<0.1
		070202MN-FF	●				<0.2
		070204MN-FF	●				<0.4
	7°	DCGT 11T301MN-FF	●	9.525	3.97	4.4	<0.1
		11T302MN-FF	●				<0.2
		11T304MN-FF	●				<0.4
	7°	DCGT 070201MN-FC	●	6.35	2.38	2.8	<0.1
		070202MN-FC	●				<0.2
		070204MN-FC	●				<0.4
	7°	DCGT 11T301MN-FC	●	9.525	3.97	4.4	<0.1
		11T302MN-FC	●				<0.2
		11T304MN-FC	●				<0.4
	7°	DCGT 0702003R-FX	●	6.35	2.38	2.8	0.03
		0702003L-FX	●				0.03
		070201R-FX	●				0.1
		070201L-FX	●				0.1
		070202R-FX	●				0.2
		070202L-FX	●				0.2
		DCGT 11T3003R-FX	●	9.525	3.97	4.4	0.03
		11T3003L-FX	●				0.03
		11T301R-FX	●				0.1
		11T301L-FX	●				0.1
		11T302R-FX	●				0.2
		11T302L-FX	●				0.2
		11T304R-FX	●				0.4
		11T304L-FX	●				0.4
	7°	DCGT 0702003R-FYS	●	6.35	2.38	2.8	0.03
		0702003L-FYS	●				0.03
		070201R-FYS	●				0.1
		070201L-FYS	●				0.1
		070202R-FYS	●				0.2
		070202L-FYS	●				0.2
		070204R-FYS	●				0.4
		070204L-FYS	●				0.4
		DCGT 11T3003R-FYS	●	9.525	3.97	4.4	0.03
		11T3003L-FYS	●				0.03
		11T301R-FYS	●				0.1
		11T301L-FYS	●				0.1
		11T302R-FYS	●				0.2
		11T302L-FYS	●				0.2
		11T304R-FYS	●				0.4
		11T304L-FYS	●				0.4
	7°	DCGT 0702003R-FY	●	6.35	2.38	2.8	0.03
		0702003L-FY	●				0.03
		070201R-FY	●				0.1
		070201L-FY	●				0.1
		070202R-FY	●				0.2
		070202L-FY	●				0.2
		070204R-FY	●				0.4
		070204L-FY	●				0.4
		DCGT 11T3003R-FY	●	9.525	3.97	4.4	0.03
		11T3003L-FY	●				0.03
		11T301R-FY	●				0.1
		11T301L-FY	●				0.1
		11T302R-FY	●				0.2
		11T302L-FY	●				0.2
		11T304R-FY	●				0.4
		11T304L-FY	●				0.4
	7°	DCGT 070201MN-SI	●	6.35	2.38	2.8	<0.1
		070202MN-SI	●				<0.2
		070204MN-SI	●				<0.4
	7°	DCGT 11T301MN-SI	●	9.525	3.97	4.4	<0.1
		11T302MN-SI	●				<0.2
		11T304MN-SI	●				<0.4
	7°	DCGT 070201MN-SL	●	6.35	2.38	2.8	<0.1
		070202MN-SL	●				<0.2
		070204MN-SL	●				<0.4
	7°	DCGT 11T301MN-SL	●	9.525	3.97	4.4	<0.1
		11T302MN-SL	●				<0.2
		11T304MN-SL	●				<0.4
	7°	DCGT 0702003N-SC	●	6.35	2.38	2.8	0.03
		DCGT 070201MN-SC	●				<0.1
		070202MN-SC	●	6.35	2.38	2.8	<0.2
		DCGT 11T3003N-SC	●				0.03
		DCGT 11T301MN-SC	●				<0.1
		11T302MN-SC	●				<0.2
		11T304MN-SC	●				<0.4
		11T308MN-SC	●				<0.8

A "<" next to the corner radius RE indicates a negative tolerance.

● mark: Standard stocked item

AC1030U

 Positive Square type / G-class

Shape	Relief Angle	Cat. No.	Stock	Dimensions (mm)			
			AC1030U	Inscribed Circle	Thickness	Hole Dia.	Corner Radius
 FX	7°	SCGT 09T302R-FX	●	9.525	3.97	4.4	0.2
		09T302L-FX	●				0.2
		09T304R-FX	●				0.4
		09T304L-FX	●				0.4
		SCGT 120404R-FX	●				0.4
 SC	7°	120404L-FX	●	12.7	4.76	5.5	0.4
		SCGT 070201MN-SC	●				<0.1
		070202MN-SC	●				<0.2
		SCGT 09T301MN-SC	●				<0.1
		09T302MN-SC	●				<0.2

 Positive Triangular type / G-class

Shape	Relief Angle	Cat. No.	Stock	Dimensions (mm)			
			AC1030U	Inscribed Circle	Thickness	Hole Dia.	Corner Radius
 FX	5°	TBGT 060102R-FX	●	3.97	1.59	2.2	0.2
		060102L-FX	●				0.2
		060104R-FX	●				0.4
		060104L-FX	●				0.4
 FY	5°	TBGT 060101R-FY	●	3.97	1.59	2.2	0.1
		060101L-FY	●				0.1
		060102R-FY	●				0.2
		060102L-FY	●				0.2
		060104R-FY	●				0.4
		060104L-FY	●				0.4
 W	5°	TBGT 060102R-W	●	3.97	1.59	2.2	0.2
		060102L-W	●				0.2
		060104R-W	●				0.4
		060104L-W	●				0.4
 FF	7°	TCGT 110201MN-FF	●	6.35	2.38	2.8	<0.1
		110202MN-FF	●				<0.2
		110204MN-FF	●				<0.4
 FX	7°	TCGT 090201R-FX	●	5.56	2.38	2.5	0.1
		090201L-FX	●				0.1
		090202R-FX	●				0.2
		090202L-FX	●				0.2
		TCGT 110201R-FX	●	6.35	2.38	2.8	0.1
		110201L-FX	●				0.1
		110202R-FX	●				0.2
		110202L-FX	●				0.2
 FY	7°	TCGT 090201R-FY	●	5.56	2.38	2.5	0.1
		090201L-FY	●				0.1
		090202R-FY	●				0.2
		090202L-FY	●				0.2
		TCGT 110201R-FY	●	6.35	2.38	2.8	0.1
		110201L-FY	●				0.1
		110202R-FY	●				0.2
		110202L-FY	●				0.2
 SI	7°	TCGT 110201MN-SI	●	6.35	2.38	2.8	<0.1
		110202MN-SI	●				<0.2
		110204MN-SI	●				<0.4
 SC	7°	TCGT 080201MN-SC	●	4.76	2.38	2.3	<0.1
		080202MN-SC	●				<0.2
		TCGT 090201MN-SC	●	5.56	2.38	2.5	<0.1
		090202MN-SC	●				<0.2
		TCGT 110201MN-SC	●	6.35	2.38	2.8	<0.1
		110202MN-SC	●				<0.2
 FF	11°	TPGT 080201MN-FF	●	4.76	2.38	2.4	<0.1
		080202MN-FF	●				<0.2
		080204MN-FF	●				<0.4
 FC	11°	TPGT 110302MN-FC	●	6.35	3.18	3.4	<0.2
		110304MN-FC	●				<0.4

 Positive Triangular type / G-class (continued)

Shape	Relief Angle	Cat. No.	Stock	Dimensions (mm)			
			AC1030U	Inscribed Circle	Thickness	Hole Dia.	Corner Radius
 FX	11°	TPGT 080202R-FX	●	4.76	2.38	2.4	0.2
		080202L-FX	●				0.2
		080204R-FX	●				0.4
		080204L-FX	●				0.4
		TPGT 110302R-FX	●				0.2
		110302L-FX	●				0.2
		110304R-FX	●	6.35	3.18	3.4	0.4
		110304L-FX	●				0.4
		110308R-FX	●				0.8
		110308L-FX	●				0.8
		TPGT 160304R-FX	●	9.525	3.18	4.4	0.4
		160304L-FX	●				0.4
		160308R-FX	●				0.8
		160308L-FX	●				0.8
		TPGT 0802003R-FY	●	4.76	2.38	2.4	0.03
		0802003L-FY	●				0.03
		080201R-FY	●				0.1
		080201L-FY	●				0.1
		080202R-FY	●				0.2
		080202L-FY	●				0.2
		080204R-FY	●				0.4
		080204L-FY	●				0.4
		TPGT 090201R-FY	●				0.1
		090201L-FY	●				0.1
		090202R-FY	●				0.2
		090202L-FY	●				0.2
 FY	11°	090204R-FY	●	5.56	2.38	2.3	0.4
		090204L-FY	●				0.4
		TPGT 1103003R-FY	●				0.03
		1103003L-FY	●				0.03
		110301R-FY	●	6.35	3.18	3.4	0.1
		110301L-FY	●				0.1
		110302R-FY	●				0.2
		110302L-FY	●				0.2
		110304R-FY	●				0.4
		110304L-FY	●				0.4
		110308R-FY	●	9.525	3.18	4.4	0.8
		110308L-FY	●				0.8
		TPGT 160302R-FY	●				0.2
		160302L-FY	●				0.2
		160304R-FY	●				0.4
		160304L-FY	●				0.4
		160308R-FY	●				0.8
		160308L-FY	●				0.8
 W	11°	TPGT 080202R-W	●	4.76	2.38	2.4	0.2
		080202L-W	●				0.2
		080204R-W	●				0.4
		080204L-W	●				0.4
 SD	11°	TPGT 110302R-SD	●	6.35	3.18	3.4	0.2
		110302L-SD	●				0.2
		110304R-SD	●				0.4
		110304L-SD	●				0.4
		110308R-SD	●				0.8
		110308L-SD	●				0.8
 SI	11°	TPGT 080201MN-SI	●	4.76	2.38	2.4	<0.1
		080202MN-SI	●				<0.2
		080204MN-SI	●				<0.4
		080204MN-SI	●				<0.4

A "<" next to the corner radius RE indicates a negative tolerance.

● mark: Standard stocked item

AC1030U

Positive 35° Diamond type / E-class

Shape	Relief Angle	Cat. No.	Stock	Dimensions (mm)			
			AC1030U	Inscribed Circle	Thickness	Hole Dia.	Corner Radius
	5°	VBET 1103003R-FYS	●	6.35	3.18	2.8	0.03
		1103003L-FYS	●				0.03
		110301R-FYS	●				0.1
		110301L-FYS	●				0.1
		110302R-FYS	●				0.2
		110302L-FYS	●				0.2
		110304R-FYS	●				0.4
		110304L-FYS	●				0.4
		110308R-FYS	●				0.8
		110308L-FYS	●				0.8
	7°	VCET 1103008R-FX	●	6.35	3.18	2.8	0.08
		1103008L-FX	●				0.08
		110301R-FX	●				0.1
		110301L-FX	●				0.1
		1103018R-FX	●				0.18
		1103018L-FX	●				0.18
	7°	VCET 1103008R-FY	●	6.35	3.18	2.8	0.08
		1103008L-FY	●				0.08
		110301R-FY	●				0.1
		110301L-FY	●				0.1
		1103018R-FY	●				0.18
		1103018L-FY	●				0.18
	11°	VPET 0802008R-FX	●	4.76	2.38	2.4	0.08
		0802008L-FX	●				0.08
		0802015R-FX	●				0.15
		0802015L-FX	●				0.15
		0802018R-FX	●				0.18
		0802018L-FX	●				0.18
		VPET 1103003R-FX	●	6.35	3.18	2.8	0.03
		1103003L-FX	●				0.03
		110301R-FX	●				0.1
		110301L-FX	●				0.1
	11°	VPET 0802008R-FY	●	4.76	2.38	2.4	0.08
		0802008L-FY	●				0.08
		0802015R-FY	●				0.15
		0802015L-FY	●				0.15
		0802018R-FY	●				0.18
		0802018L-FY	●				0.18
		VPET 1103003R-FY	●	6.35	3.18	2.8	0.03
		1103003L-FY	●				0.03
		110301R-FY	●				0.1
		110301L-FY	●				0.1

Positive 35° Diamond type / G-class

Shape	Relief Angle	Cat. No.	Stock	Dimensions (mm)			
			AC1030U	Inscribed Circle	Thickness	Hole Dia.	Corner Radius
	5°	VBGT 110301R-FX	●	6.35	3.18	2.8	0.1
		110301L-FX	●				0.1
		110302R-FX	●				0.2
		110302L-FX	●				0.2
		110304R-FX	●				0.4
		110304L-FX	●				0.4
	5°	VBGT 1103003R-FYS	●	6.35	3.18	2.8	0.03
		1103003L-FYS	●				0.03
		110301R-FYS	●				0.1
		110301L-FYS	●				0.1
		110302R-FYS	●				0.2
		110302L-FYS	●				0.2
		110304R-FYS	●				0.4
		110304L-FYS	●				0.4
		110308R-FYS	●				0.8
		110308L-FYS	●				0.8
	5°	VBGT 110301R-FY	●	6.35	3.18	2.8	0.1
		110301L-FY	●				0.1
		110302R-FY	●				0.2
		110302L-FY	●				0.2
		110304R-FY	●				0.4
		110304L-FY	●				0.4
	5°	VBGT 110301MN-SI	●	6.35	3.18	2.8	<0.1
		110302MN-SI	●				<0.2
		110304MN-SI	●				<0.4
		110308MN-SI	●	9.525	4.76	4.4	<0.8
		VBGT 160401MN-SI	●				<0.1
		160402MN-SI	●				<0.2
	7°	160404MN-SI	●	9.525	4.76	4.4	<0.4
		160408MN-SI	●				<0.8
		VCCT 110301MN-FF	●	6.35	3.18	2.8	<0.1
		110302MN-FF	●				<0.2
		110304MN-FF	●				<0.4
		VCCT 080204MN-FC	●	4.76	2.38	2.3	<0.4
	7°	VCCT 110301MN-FC	●	6.35	3.18	2.8	<0.1
		110302MN-FC	●				<0.2
		110304MN-FC	●				<0.4
	7°	VCCT 110301R-FX	●	6.35	3.18	2.8	0.1
		110301L-FX	●				0.1
		110302R-FX	●				0.2
		110302L-FX	●				0.2
		110304R-FX	●				0.4
		110304L-FX	●				0.4
	7°	VCCT 110301R-FY	●	6.35	3.18	2.8	0.1
		110301L-FY	●				0.1
		110302R-FY	●				0.2
		110302L-FY	●				0.2
		110304R-FY	●				0.4
		110304L-FY	●				0.4
	7°	VCCT 110301MN-SI	●	6.35	3.18	2.8	<0.1
		110302MN-SI	●				<0.2
		110304MN-SI	●				<0.4
		110308MN-SI	●	9.525	4.76	4.4	<0.8
		VCCT 160401MN-SI	●				<0.1
		160402MN-SI	●				<0.2
	7°	160404MN-SI	●	9.525	4.76	4.4	<0.4
		160408MN-SI	●				<0.8
		VCCT 110301MN-SL	●	6.35	3.18	2.8	<0.1
		110302MN-SL	●				<0.2
		110304MN-SL	●				<0.4
	11°	VPGT 110301MN-FF	●	6.35	3.18	2.8	<0.1
		110302MN-FF	●				<0.2
		VPGT 110301MN-SI	●				<0.1
		110302MN-SI	●				<0.2
		VPGT 110301MN-SI	●				<0.1
		110302MN-SI	●				<0.2

A "<" next to the corner radius RE indicates a negative tolerance.

● mark: Standard stocked item

AC1030U

 Positive Trigon type / G-class

Shape	Relief Angle	Cat. No.	Stock	Dimensions (mm)			
			AC1030U	Inscribed Circle	Thickness	Hole Dia.	Corner Radius
	5°	WBG060102R-FX	●	3.97	1.59	2.2	0.2
		060102L-FX	●				0.2
		060104R-FX	●				0.4
		060104L-FX	●	4.76	2.38	2.4	0.4
		WBG080202R-FX	●				0.2
		080202L-FX	●				0.2
FX	5°	080204R-FX	●	3.97	1.59	2.2	0.4
		080204L-FX	●				0.4
		WBG060102R-FY	●				0.2
		060102L-FY	●				0.2
FY	5°	060104R-FY	●				0.4
		060104L-FY	●				0.4

 Negative 55° Diamond type / G-class

Shape	Cat. No.	Stock	Dimensions (mm)			
		AC1030U	Inscribed Circle	Thickness	Hole Dia.	Corner Radius
	DNGG150402R-FY	●	12.7	4.76	5.16	0.2
	150402L-FY	●				0.2
	150404R-FY	●				0.4
	150404L-FY	●				0.4
	150408R-FY	●				0.8
	150408L-FY	●				0.8
FY	DNGG150402R-FX	●	12.7	4.76	5.16	0.2
	150402L-FX	●				0.2
	150404R-FX	●				0.4
	150404L-FX	●				0.4
	150408R-FX	●				0.8
	150408L-FX	●				0.8

 Negative Triangular type / G-class

Shape	Cat. No.	Stock	Dimensions (mm)			
		AC1030U	Inscribed Circle	Thickness	Hole Dia.	Corner Radius
	TNGG160402R-FY	●	9.525	4.76	3.81	0.2
	TNGG160402L-FY	●				0.2
	TNGG160404R-FY	●				0.4
	TNGG160404L-FY	●				0.4
	TNGG160408R-FY	●				0.8
	TNGG160408L-FY	●				0.8
FY	TNGG160402R-FX	●	9.525	4.76	3.81	0.2
	TNGG160402L-FX	●				0.2
	TNGG160404R-FX	●				0.4
	TNGG160404L-FX	●				0.4
	TNGG160408R-FX	●				0.8
	TNGG160408L-FX	●				0.8

 Negative 35° Diamond type / G-class

Shape	Cat. No.	Stock	Dimensions (mm)			
		AC1030U	Inscribed Circle	Thickness	Hole Dia.	Corner Radius
	VNGG160402R-FY	●	9.525	4.76	3.81	0.2
	VNGG160402L-FY	●				0.2
	VNGG160404R-FY	●				0.4
	VNGG160404L-FY	●				0.4
	VNGG160408R-FY	●				0.8
	VNGG160408L-FY	●				0.8
FY	VNGG160402R-FX	●	9.525	4.76	3.81	0.2
	VNGG160402L-FX	●				0.2
	VNGG160404R-FX	●				0.4
	VNGG160404L-FX	●				0.4
	VNGG160408R-FX	●				0.8
	VNGG160408L-FX	●				0.8

AC1030U

For SEC-Wide-Cut Holders SGW type

KGV Type

Dimensions (mm)

Cat. No.	AC1030U	Width of Cut CW	Overall Length L	Effective Length	
KGV R400	●	4.0	21.0	6.3	
KGV R500	●	5.0	21.0	6.3	
KGV R600	●	6.0	21.0	6.3	

For SEC-MINI Tool Holders SBT type / PBT type

BT Type

Dimensions (mm)

Cat. No.	AC1030U	Overall Length L	Maximum Depth of Cut CDX	Width of Cut CW	Corner Radius RE	Applicable Holder
BT R3505	●	15	3.5	2.5	0.05	SBT35R○○○○ PBT35R○○○○
BT R3508	●	15	3.5	2.5	0.08	
BT R3515	●	15	3.5	2.5	0.15	PBT55R○○○○
BT R5505	●	19	5.5	3.7	0.05	
BT R5508	●	19	5.5	3.7	0.08	
BT R5515	●	19	5.5	3.7	0.15	
BT R8005	●	24	8.0	5.2	0.05	PBT80R○○○○
BT R8008	●	24	8.0	5.2	0.08	
BT R8015	●	24	8.0	5.2	0.15	

Technical drawing of the BT Type tool holder. The drawing shows a side view and a top view. The side view includes dimensions: 0.5, 15°, 60°, CDX, and L. The top view includes dimensions: 3.8, 4.0, and 6.8. The drawing is labeled with RE, CW, CDX, L, and 3°.

For SEC-MINI Boring Bars CKB type

KBMX type (For Very Small Diameter L type Holders)

Dimensions (mm)

Cat. No.	AC1030U	Min. Bore Dia. DMIN	Cutting Edge Position WF3	Offset E3	Corner Radius RE	Overall Length L	Depth of Cut CDX	
KBMX L0206-05R	●	2.0	0.5	0.25	0.05	23.5	6	
KBMX L0206-20R	●	2.0	0.5	0.25	0.20	23.5	6	
KBMX L0311-05R	●	3.0	0.5	0.30	0.05	28.5	11	
KBMX L0311-20R	●	3.0	0.5	0.30	0.20	28.5	11	
KBMX L0411-05R	●	4.0	0.5	0.50	0.05	28.5	11	
KBMX L0411-20R	●	4.0	0.5	0.50	0.20	28.5	11	
KBMX L0420-05R	●	4.0	0.5	0.50	0.05	37.5	20	
KBMX L0420-20R	●	4.0	0.5	0.50	0.20	37.5	20	
KBMX L0511-05R	●	5.0	0.5	0.50	0.05	28.5	11	
KBMX L0511-20R	●	5.0	0.5	0.50	0.20	28.5	11	
KBMX L0520-05R	●	5.0	0.5	0.50	0.05	37.5	20	
KBMX L0520-20R	●	5.0	0.5	0.50	0.20	37.5	20	

* Figure shows left-handed insert with a right-handed cutting edge

KBMX type (Internal Boring)

Dimensions (mm)

Cat. No.	AC1030U	Min. Bore Dia. DMIN	Cutting Edge Position WF3	Offset E3	Corner Radius RE	Overall Length L	Depth of Cut CDX	
KBMX R0103-05	●	1.0	4.00	0.20	0.05	20.5	3	
KBMX R0103-20	●	1.0	4.00	0.20	0.20	20.5	3	
KBMX R01506-05	●	1.5	4.05	0.25	0.05	23.5	6	
KBMX R01506-20	●	1.5	4.05	0.25	0.20	23.5	6	
KBMX R0206-05	●	2.0	4.05	0.25	0.05	23.5	6	
KBMX R0206-20	●	2.0	4.05	0.25	0.20	23.5	6	
KBMX R0311-05	●	3.0	4.10	0.30	0.05	28.5	11	
KBMX R0311-20	●	3.0	4.10	0.30	0.20	28.5	11	
KBMX R0411-05	●	4.0	4.30	0.50	0.05	28.5	11	
KBMX R0411-20	●	4.0	4.30	0.50	0.20	28.5	11	
KBMX R0420-05	●	4.0	4.30	0.50	0.05	37.5	20	
KBMX R0420-20	●	4.0	4.30	0.50	0.20	37.5	20	
KBMX R0511-05	●	5.0	4.50	0.70	0.05	28.5	11	
KBMX R0511-20	●	5.0	4.50	0.70	0.20	28.5	11	
KBMX R0520-05	●	5.0	4.50	0.70	0.05	37.5	20	
KBMX R0520-20	●	5.0	4.50	0.70	0.20	37.5	20	

SEC-MINI Boring Bars CKB type (Continued)**KBMZ type (Internal Back Turning)**

Dimensions (mm)

Cat. No.	AC1030U	Min. Bore Dia.	Cutting Edge Position	Offset	Corner Radius	Overall Length	Maximum Depth of Cut	Depth of Cut	
		DMIN	WF3	E3	RE	L	CDX	CDX2	
KBMZ R0411-05	●	4.0	5.10	1.3	0.05	28.5	11	9	
KBMZ R0411-20	●				0.20				
KBMZ R0511-05	●	5.0	5.10	1.3	0.05	28.5	11	9	
KBMZ R0511-20	●				0.20				

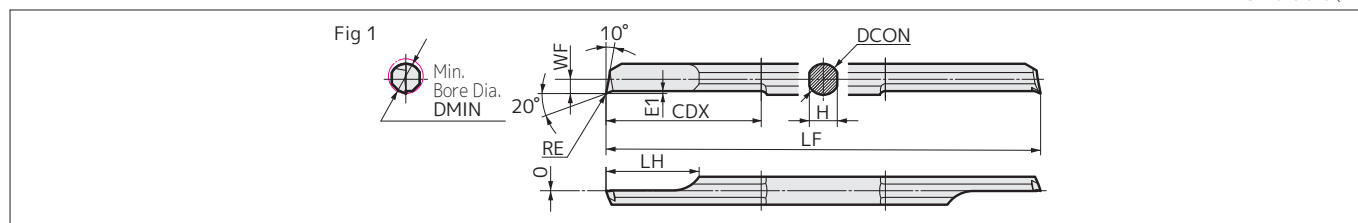
KBMG type (Internal Grooving)

Dimensions (mm)

Cat. No.	AC1030U	Min. Bore Dia.	Cutting Edge Position	Offset	Width of Cut	Corner Radius	Overall Length	Maximum Depth of Cut	
		DMIN	WF3	E3	CW	RE	L	CDX	
KBMG R0411-05	●	4.0	4.90	1.1	1.00	0.05	28.5	11	
KBMG R0411-10	●				2.00	0.10			
KBMG R0511-05	●	5.0	5.10	1.3	1.00	0.05	28.5	11	
KBMG R0511-10	●				2.00	0.10			

Solid Carbide Bars BXBR series

Dimensions (mm)

**Bar (No Chipbreaker)**

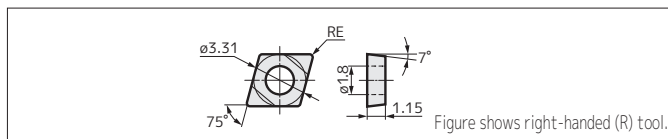
Cat. No.	AC1030U	*Min. Bore Dia.	Diameter	Height	Overall Length	Cutting Edge Distance	Head	Maximum Boring Depth	Offset	Corner Radius	Applicable Sleeve
		DMIN	DCON	H	LF	WF	LH	CDX	E1	RE	
BXBR 02005R	●	2.0	2.0	1.8	50	0.80	6.0	10.0	0.20	0.05	HBX 2016
BXBR 02015R	●	2.0	2.0	1.8	50	0.80	6.0	10.0	0.20	0.15	HBX 2016
BXBR 02020R	●	2.0	2.0	1.8	50	0.80	6.0	10.0	0.20	0.20	HBX 2016
BXBR 02505R	●	2.5	2.5	2.2	50	1.05	7.5	12.5	0.20	0.05	HBX 2516
BXBR 02515R	●	2.5	2.5	2.2	50	1.05	7.5	12.5	0.20	0.15	HBX 2516
BXBR 02520R	●	2.5	2.5	2.2	50	1.05	7.5	12.5	0.20	0.20	HBX 2516
BXBR 03005R	●	3.0	3.0	2.7	50	1.30	9.0	15.0	0.25	0.05	HBX 3016
BXBR 03015R	●	3.0	3.0	2.7	50	1.30	9.0	15.0	0.25	0.15	HBX 3016
BXBR 03020R	●	3.0	3.0	2.7	50	1.30	9.0	15.0	0.25	0.20	HBX 3016
BXBR 03505R	●	3.5	3.5	3.1	60	1.55	10.5	17.5	0.25	0.05	HBX 3516
BXBR 03515R	●	3.5	3.5	3.1	60	1.55	10.5	17.5	0.25	0.15	HBX 3516
BXBR 03520R	●	3.5	3.5	3.1	60	1.55	10.5	17.5	0.25	0.20	HBX 3516
BXBR 04005R	●	4.0	4.0	3.6	60	1.80	12.0	20.0	0.35	0.05	HBX 4016
BXBR 04015R	●	4.0	4.0	3.6	60	1.80	12.0	20.0	0.35	0.15	HBX 4016
BXBR 04020R	●	4.0	4.0	3.6	60	1.80	12.0	20.0	0.35	0.20	HBX 4016
BXBR 04505R	●	4.5	4.5	4.1	70	2.05	13.5	22.5	0.35	0.05	HBX 4516
BXBR 04515R	●	4.5	4.5	4.1	70	2.05	13.5	22.5	0.35	0.15	HBX 4516
BXBR 04520R	●	4.5	4.5	4.1	70	2.05	13.5	22.5	0.35	0.20	HBX 4516
BXBR 05005R	●	5.0	5.0	4.5	70	2.30	15.0	25.0	0.40	0.05	HBX 5016
BXBR 05015R	●	5.0	5.0	4.5	70	2.30	15.0	25.0	0.40	0.15	HBX 5016
BXBR 05020R	●	5.0	5.0	4.5	70	2.30	15.0	25.0	0.40	0.20	HBX 5016

* Boring depth CDX or less.

AC1030U

For Small Diameter Boring Bars SEXC type

Dimensions (mm)



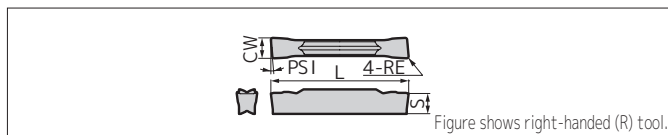
Insert

Cat. No.	AC1030U		Corner Radius
	R	L	RE
ECEM 03X1005 R/L-FYF	●	●	0.05
ECEM 03X101 R/L-FYF	●	●	0.1
ECEM 03X1015 R/L-FYF	●	●	0.15
ECEM 03X102 R/ L-FYF	●	●	0.2

Part Number Suffix: FYF: Sharp Edged (with Chipbreaker)

For SEC-Grooving Tools GND type

Dimensions (mm)



Cut-off (Handed Edge / Low cutting force type)

Cat. No.	AC1030U	Lead Angle PSI	Width of Cut CW		Corner Radius RE	Overall Length L	Thickness S	Pcs/Pack
			Width of Cut	Tolerance				
GCM R20003-CF-10	●	10°	2.0	±0.08	0.03	22.4	3.6	5
GCM L20003-CF-10	●	10°	2.0	±0.08	0.03	22.4	3.6	
GCM R30003-CF-10	●	10°	3.0	±0.08	0.03	22.4	3.8	
GCM L30003-CF-10	●	10°	3.0	±0.08	0.03	22.4	3.8	
GCM R20003-CF-15	●	15°	2.0	±0.08	0.03	22.4	3.6	
GCM L20003-CF-15	●	15°	2.0	±0.08	0.03	22.4	3.6	
GCM R30003-CF-15	●	15°	3.0	±0.08	0.03	22.4	3.8	
GCM L30003-CF-15	●	15°	3.0	±0.08	0.03	22.4	3.8	

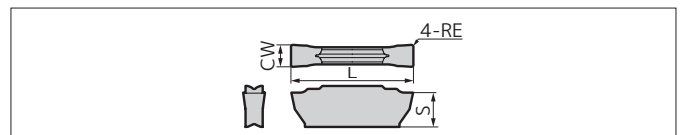
GCMR: Right-handed, GCML: Left-handed

Select holders and inserts with matching width of cut (CW).

Not usable with GNDXL type / GNDIS type holders.

For SEC-Grooving Tools GNDIS type

Dimensions (mm)



Grooving / Traverse Cutting (Low-feed type)

Cat. No.	AC1030U	Width of Cut CW		Corner Radius RE	Overall Length L	Thickness S	Pcs/Pack
		Width of Cut	Tolerance				
GXM N2002S-ML	●	2.0	±0.03	0.2	11.1	3.1	5
GXM N3002S-ML	●	3.0	±0.03	0.2	11.1	3.1	

Grooving / Cut-off (Low cutting force type)

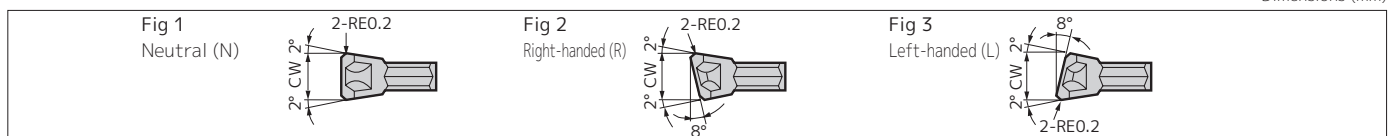
Cat. No.	AC1030U	Width of Cut CW		Corner Radius RE	Overall Length L	Thickness S	Pcs/Pack
		Width of Cut	Tolerance				
GXM N150005S-GF	●	1.5	±0.03	0.05	11.1	3.1	5
GXM N2002S-GF	●	2.0	±0.03	0.2	11.1	3.1	
GXM N3002S-GF	●	3.0	±0.03	0.2	11.1	3.1	

Select holders and inserts with matching width of cut (CW).

GCM/GCG inserts are not mutually compatible.

For SEC-Cut-off Tool Holders SumiGrip Jr. STF type / SumiGrip WCF type

Dimensions (mm)



General-purpose/Low feed

Appearance	Cat. No.	AC1030U	Width of Cut CW	Applicable Holder	Fig
WCF NO-GG General-purpose	WCF N2-GG	●	2.0	STFH 00-2, STFS R/L00000-2, WCFH 00-2, WCFS R/L00000-2	1
	WCF N3-GG	●	3.0	STFH 00-3, STFS R/L00000-3, WCFH 00-3, WCFS R/L00000-3, WCFS R/L00-3	1
	WCF N4-GG	●	4.0	STFH 00-4, STFS R/L00000-4, WCFH 00-4, WCFS R/L00-4	1
	WCF N5-GG	●	5.0	STFH 00-5, STFS R/L00000-5, WCFH 00-5, WCFS R/L00-5	1
WCF NO-GF Exotic Alloy Low Feed	WCF N2-GF	●	2.0	STFH 00-2, STFS R/L00000-2, WCFH 00-2, WCFS R/L00000-2	1
	WCF N3-GF	●	3.0	STFH 00-3, STFS R/L00000-3, WCFH 00-3, WCFS R/L00000-3, WCFS R/L00-3	1
	WCF N4-GF	●	4.0	STFH 00-4, STFS R/L00000-4, WCFH 00-4, WCFS R/L00-4	1
	WCF N5-GF	●	5.0	STFH 00-5, STFS R/L00000-5, WCFH 00-5, WCFS R/L00-5	1
WCF □O-CF Exotic Alloy Low Feed (Handed)	WCF R3-CF	●	3.0	STFH 00-3, STFS R/L00000-3, WCFH 00-3, WCFS R/L00000-3, WCFS R/L00-3	2
	WCF L3-CF	●	3.0		3
	WCF R4-CF	●	4.0	STFH 00-4, STFS R/L00000-4, WCFH 00-4, WCFS R/L00-4	2
	WCF L4-CF	●	4.0		3

Grooving/Radius Grooving/Profiling/Chamfering (For E08□-SSHMN○○○-08 / E12□-SSHMN○○○-08) Dimensions (mm)

Min. Bore Dia. DMIN dimension for 08 size: 8mm, 09 size: 9mm, 10 size: 10mm.

Dimensions (mm)

Min. Bore Dia. DMIN dimension for 08 size: 8mm. 09 size: 9mm. 10 size: 10mm.

SEC-Grooving Tools SSH series (continued)**Grooving/Radius Grooving/Profiling** (For E12□-SSHMN○○○-14 / E16□-SSHMN○○○-14)

Dimensions (mm)

Applications	Cat. No.	AC1030U		Width of Cut	Maximum Groove Depth	Corner Radius	Cutting Edge Distance	Cutting Edge Distance	Thickness	Cutting Edge Distance	Applicable Holder	Fig	
		R	L										
Grooving (Size 14)	SSHG R/L 1407400	●	●	0.74	1.2	—	5.3	9.0	5.5	0.2	E12□-SSHMN○○○-14 E16□-SSHMN○○○-14	1	Fig 1 (Grooving - Size 14)
	SSHG R/L 1408400	●	●	0.84	1.3	—	5.3	9.0	5.5	0.2		1	
	SSHG R/L 1409400	●	●	0.94	1.5	—	5.3	9.0	5.5	0.2		1	Fig 2 (Grooving - Size 14)
	SSHG R/L 1410000	●	●	1.00	1.6	—	5.3	9.0	5.5	0.2		1	
	SSHG R/L 1410010	●	●	1.00	1.6	0.10	5.3	9.0	5.5	0.2		2	Fig 3 (Radius Grooving/Profiling - Size 14)
	SSHG R/L 1411900	●	●	1.19	4.0	—	5.3	9.0	5.2	—		1	
	SSHG R/L 1413900	●	●	1.39	4.0	—	5.3	9.0	5.1	—		1	Fig 1 (Grooving - Size 14)
	SSHG R/L 1415000	●	●	1.50	4.0	—	5.3	9.0	5.1	—		1	
	SSHG R/L 1415010	●	●	1.50	4.0	0.10	5.3	9.0	5.1	—		2	Fig 2 (Grooving - Size 14)
	SSHG R/L 1416900	●	●	1.69	4.0	—	5.3	9.0	5.1	—		1	
	SSHG R/L 1420000	●	●	2.00	4.0	—	5.3	9.0	5.1	—		1	Fig 3 (Radius Grooving/Profiling - Size 14)
	SSHG R/L 1420010	●	●	2.00	4.0	0.10	5.3	9.0	5.1	—		2	
	SSHG R/L 1420020	●	●	2.00	4.0	0.20	5.3	9.0	5.1	—		2	Fig 1 (Grooving - Size 14)
	SSHG R/L 1425000	●	●	2.50	4.0	—	5.3	9.0	5.1	—		1	
	SSHG R/L 1425010	●	●	2.50	4.0	0.10	5.3	9.0	5.1	—		2	Fig 2 (Grooving - Size 14)
	SSHG R/L 1425020	●	●	2.50	4.0	0.20	5.3	9.0	5.1	—		2	
	SSHG R/L 1430000	●	●	3.00	4.0	—	5.3	9.0	5.1	—		1	Fig 3 (Radius Grooving/Profiling - Size 14)
	SSHG R/L 1430010	●	●	3.00	4.0	0.10	5.3	9.0	5.1	—		2	
	SSHG R/L 1430020	●	●	3.00	4.0	0.20	5.3	9.0	5.1	—		2	Fig 1 (Grooving - Size 14)
Radius Grooving/ Profiling (Size 14)	SSHR R/L 14100	●	●	1.00	1.6	0.50	5.3	9.0	5.2	—		3	
	SSHR R/L 14120	●	●	1.20	4.0	0.60	5.3	9.0	5.2	—		3	Fig 2 (Grooving - Size 14)
	SSHR R/L 14150	●	●	1.50	4.0	0.75	5.3	9.0	5.1	—		3	
	SSHR R/L 14180	●	●	1.80	4.0	0.90	5.3	9.0	5.1	—		3	Fig 3 (Radius Grooving/Profiling - Size 14)
	SSHR R/L 14200	●	●	2.00	4.0	1.00	5.3	9.0	5.1	—		3	
	SSHR R/L 14220	●	●	2.20	4.0	1.10	5.3	9.0	5.1	—		3	Fig 1 (Grooving - Size 14)
	SSHR R/L 14250	●	●	2.50	4.0	1.25	5.3	9.0	5.1	—		3	
	SSHR R/L 14300	●	●	3.00	4.0	1.50	5.3	9.0	5.1	—		3	Fig 2 (Grooving - Size 14)
												3	

Min. Bore Dia. DMIN dimension for 14 size: 14mm. Not usable with SSHF type holders.

Threading (For E12□-SSHMN○○○-14 / E16□-SSHMN○○○-14)

Dimensions (mm)

Applications	Cat. No.	AC1030U		Pitch (mm)	Flat CF	Cutting Edge Distance	Cutting Edge Distance	Included Angle	Thickness	Applicable Holder	Fig	
		R	L									
Threading (Size 14)	SSHT R 146005	●	—	0.50 - 0.75	0.04	4.8	9.0	60	5.5	E12□-SSHMN○○○-14 E16□-SSHMN○○○-14	1	Fig 1 (Threading Size 14)
	SSHT R 146010	●	—	1.00 - 1.25	0.09	4.7	9.0	60	5.5		1	
	SSHT R 146015	●	—	1.50 - 1.75	0.14	4.5	9.0	60	5.5		1	Fig 2 (Threading Size 14)
	SSHT R 146020	●	—	2.00	0.20	4.2	9.0	60	5.5		1	
	SSHT R 146025	●	—	2.50	0.25	4.2	9.0	60	5.5		1	Fig 3 (Threading Size 14)
											1	

Min. Bore Dia. DMIN dimension for 14 size: 14mm. Not usable with SSHF type holders.

Face Grooving (For E16□-SSHFRO○○○-14)

Dimensions (mm)

Applications	Cat. No.	AC1030U		Width of Cut	Maximum Groove Depth	Corner Radius	Cutting Edge Distance	Cutting Edge Distance	Thickness	Applicable Holder	Fig	
		R	L									
Threading (Size 14)	SSHFI R1410000	●	—	1.0	1.5	(C0.05)	8.3	9.0	5.5	E16□-SSHFRO○○○-14	1	Fig 1 (Grooving - Size 14)
	SSHFI R1415020	●	—	1.5	2.5	0.20	8.3	9.0	5.5		1	
	SSHFI R1420020	●	—	2.0	3.0	0.20	8.3	9.0	4.9		1	Fig 2 (Grooving - Size 14)
	SSHFI R1425020	●	—	2.5	3.0	0.20	8.3	9.0	4.9		1	
	SSHFI R1430020	●	—	3.0	3.0	0.20	8.3	9.0	4.9		1	Fig 3 (Grooving - Size 14)
											1	

Min. Bore Dia. DMIN dimension for 14 size: 14mm. We recommend use with SSHF holders for facing.

For SEC-Small Diameter Cut-off Tool Holders SCT type

Insert Mounting Status and Dimensions (Figures show insert with chipbreaker)

Holder Feed Direction	For Right-handed Holders (SCTR)			For Left-handed Holders (SCTL)		
Insert Cat. No.	CTROOR	CTRON	CTROL	CTLOOR	CTLOON	CTLOOL
Holder Mounting Status						
Insert Shape and Dimensions						

Inserts (For Right-handed Holders)

Dimensions (mm)

Cat. No.	AC1030U			Max. Cut-off Dia.	Width of Cut CW	Corner Radius RE	Overall Length L	Thickness S	Chipbreaker	Applicable Holder				
	R	N	L											
CTR 050505 R/N/L	●	●	●	5	0.5	0.05	19	7	Yes	SCT R1010 SCT R1212 SCT R1616				
CTR 050500 R/N/L	●	●		5	0.5	0								
CTR 121005 R/N/L	●	●	●	12	1.0	0.05	19	7	Yes					
CTR 121505 R/N/L	●	●	●	12	1.5									
CTR 122005 R/N/L	●	●		12	2.0	0								
CTR 121000 R/N/L	●	●		12	1.0									
CTR 121500 R/N/L	●	●		12	1.5									
CTR 122000 R/N/L	●	●		12	2.0									
CTR 161005 R/N/L				16	1.0	0.05				23.1	8.3	Yes	SCT R1010-16 SCT R1212-16 SCT R1616-16	
CTR 161505 R/N/L	●	●		16	1.5									
CTR 162005 R/N/L	●	●	●	16	2.0	0								
CTR 161000 R/N/L				16	1.0									
CTR 161500 R/N/L	●	●		16	1.5									
CTR 162000 R/N/L	●	●	●	16	2.0									
CTR 050500 R/N/L-NB				5	0.5	0	19	7	No					SCT R1010 SCT R1212 SCT R1616
CTR 121000 R/N/L-NB	●			12	1.0	0	19	7	No					
CTR 121500 R/N/L-NB	●			12	1.5									
CTR 122000 R/N/L-NB	●			12	2.0									
CTR 161000 R/N/L-NB				16	1.0	0	23.1	8.3	No	SCT R1010-16 SCT R1212-16 SCT R1616-16				
CTR 161500 R/N/L-NB				16	1.5									
CTR 162000 R/N/L-NB	●			16	2.0									

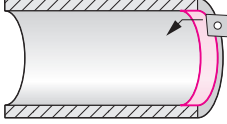
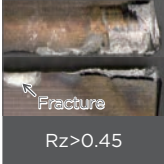
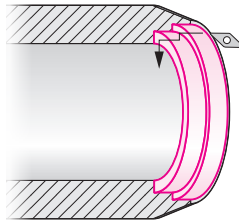
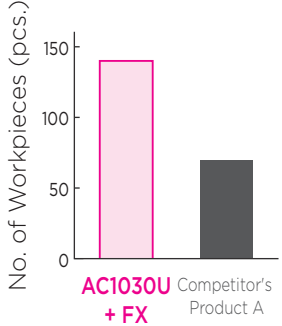
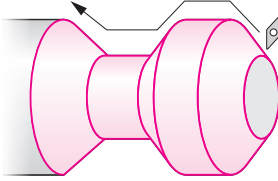
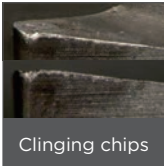
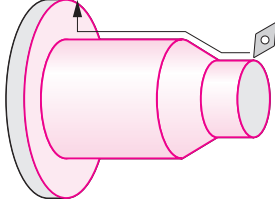
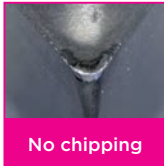
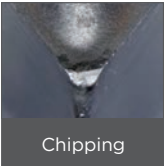
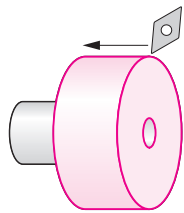
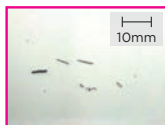
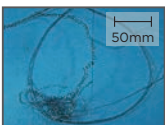
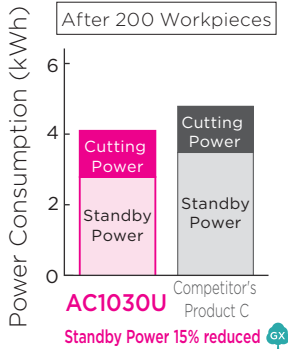
Inserts (For Left-handed Holders)

Dimensions (mm)

Cat. No.	AC1030U			Max. Cut-off Dia.	Width of Cut CW	Corner Radius RE	Overall Length L	Thickness S	Chipbreaker	Applicable Holder			
	R	N	L										
CTL 050505 R/N/L	●	●		5	0.5	0.05	19	7	Yes	SCT L1010 SCT L1212 SCT L1616			
CTL 050500 R/N/L	●	●		5	0.5	0							
CTL 121005 R/N/L	●	●	●	12	1.0	0.05	19	7	Yes				
CTL 121505 R/N/L	●	●	●	12	1.5								
CTL 122005 R/N/L	●	●		12	2.0	0							
CTL 121000 R/N/L	●	●		12	1.0								
CTL 121500 R/N/L	●	●		12	1.5								
CTL 122000 R/N/L	●	●		12	2.0								
CTL 161005 R/N/L				16	1.0	0.05				23.1	8.3	Yes	
CTL 161505 R/N/L	●	●		16	1.5								
CTL 162005 R/N/L	●	●	●	16	2.0	0							
CTL 161000 R/N/L				16	1.0								
CTL 161500 R/N/L	●	●		16	1.5								
CTL 162000 R/N/L	●	●		16	2.0								
CTL 050500 R/N/L-NB				5	0.5	0	19	7	No				SCT L1010 SCT L1212 SCT L1616
CTL 121000 R/N/L-NB				12	1.0	0	19	7	No				
CTL 121500 R/N/L-NB				12	1.5								
CTL 122000 R/N/L-NB				12	2.0								
CTL 161000 R/N/L-NB				16	1.0	0	23.1	8.3	No	SCT L1010-16 SCT L1212-16 SCT L1616-16			
CTL 161500 R/N/L-NB				16	1.5								
CTL 162000 R/N/L-NB				16	2.0								

AC1030U

Application Examples

STKM12C-EC Pipe P Improved cutting edge quality provides good surface roughness and suppresses wear and abnormal damage   AC1030U + FX (1,700 pcs)  Conventional Tool (1,650 pcs) Tool: CCGT060201L-FX (AC1030U) Cutting Conditions: $vc = 196\text{m/min}$ $f = 0.04\text{mm/rev}$ $ap = 0.4\text{mm}$ Wet	S45C Shaft Stator P Suppresses chipping to achieve 2x longer tool life   AC1030U + FX Competitor's Product A Tool: VCGT110302R-FX (AC1030U) Cutting Conditions: $vc = 195\text{m/min}$ $f = 0.12\text{mm/rev}$ $ap = 0.175\text{--}0.250\text{mm}$ Wet
SUS304 Body Valve M Suppresses adhesion wear for 1.5x longer tool life Improved chip control stability   AC1030U + FY (1,500 pcs)  Competitor's Product B (1,000 pcs) Tool: VCGT110301R-FY (AC1030U) Cutting Conditions: $vc = 131.5\text{m/min}$ $f = 0.025\text{mm/rev}$ $ap = 0.2\text{mm}$ Wet	Stainless Steel Nozzle Component M Stable machining without chipping is possible   AC1030U + SI (2,400 pcs)  Conventional Tool (1,200 pcs) Tool: DCGT070202MN-SI (AC1030U) Cutting Conditions: $vc = 200\text{m/min}$ $f = 0.06\text{--}0.08\text{mm/rev}$ $ap = 0.1\text{mm}$ Wet (Oil-based)
S45C Sleeve Component P Excellent, stable machined surface quality  Tool: DCGT11T302MN-SL (AC1030U) Cutting Conditions: $vc = 90\text{m/min}$ $f = 0.05\text{mm/rev}$ $ap = 0.10\text{mm}$ Wet (Oil-based)	SCM415 Valve Component P Drastically improved chip control, productivity 20% improved   AC1030U + FF Competitor's Product C  Competitor's Product C  AC1030U Standby Power 15% reduced Gx *Estimate based on electric power measurement results during production at Sumitomo facilities Tool: DCGT11T302MN-FF (AC1030U) Cutting Conditions: $vc = 80\text{m/min}$ $f = 0.050\text{mm/rev}$ $ap = 0.075\text{mm}$ Wet (Oil-based)



- Very hot or lengthy chips may be discharged while the machine is in operation. Therefore, machine guards, safety goggles or other protective covers must be used. Fire safety precautions must also be considered.

< SAFETY NOTES >

- Please handle with care as this product has sharp edges.
- Improper cutting conditions or mis-handling of the tool may result in breakages or projectiles. Therefore, please use the tool within its recommended conditions.

- When using non-water soluble cutting oil, precautions against fire must be taken and please ensure that a fire extinguisher is placed near the machine.



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