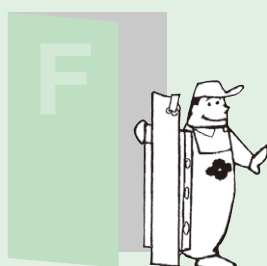


Cut-Off Tools

F33 to F46

F



F

Cut-Off Tools

Grooving

Cut-Off

Threading

Cut-Off Tools

	SEC-Cut-Off Tool Series Selection Guide	F34
	Introduction of SumiGrip	F35
SumiGrip Jr.	STFH Type	F36
	STFS Type	F37
SumiGrip	WCFH Type	F38
	WCFS Type	F39
SEC-Small Diameter Cut-off Tools	SCT Type	F40
SEC-Grooving / Cut-Off Tools	GNDM Type	F42
	GNDL Type	F44
	 GNDM Type / GNDML Type (Small Tool)	F46

Stock Indications and Symbols

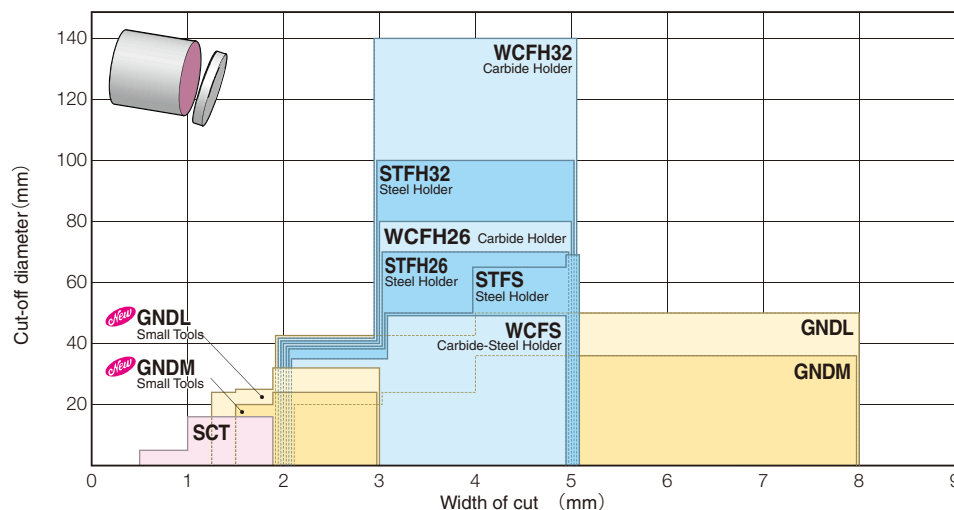
- mark: Standard stocked item
- mark: To be replaced by a new item featured on the same page
- ▲ mark: To be replaced by new item
(Please confirm stock availability)

- * mark: Semi-standard stock (Please confirm stock availability)
- mark: Stock or planned stock (Please confirm stock availability)
- No mark: Made-to-order item
- mark: We cannot produce

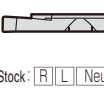
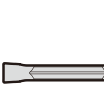
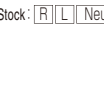
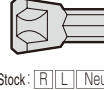
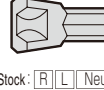
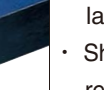
F33

SEC-Cut-off Tool Series SELECTION GUIDE

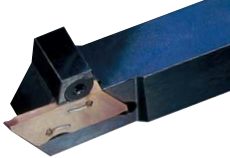
Cut-Off



Range of Tool Application (For Solid Workpieces)

Application	Series	Shape	Insert Shape (): No. of corners	Cut-off diameter (mm)					Characteristics
				25	50	75	100	100	
Small Tools	SCT		 (2) Stock: [R] [L] [Neutral]	16.0					• Sharp cutting edge with ground inserts • Screw can be tighten from both sides • 2-cornered type
	GNDM/ GNDL Small Tools		 (2) Stock: [R] [L] [Neutral]	32.0					
	GNDM/ GNDL		 (2) Stock: [R] [L] [Neutral]	50.0					
Small to Medium Dia.	STFH/ STFS (SumiGrip Jr.)		 (1) Stock: [R] [L] [Neutral]	100.0					• High-rigidity design and outstanding chip control • 2-cornered unground inserts available in widths starting from 1.25mm • High-rigidity body, rigid clamping • Outstanding chip control • Unground 2-cornered inserts
	WCFH/ WCFH (SumiGrip)		 (1) Stock: [R] [L] [Neutral]	140.0					
Medium to Large Dia.	STFH/ STFS (SumiGrip Jr.)		 (1) Stock: [R] [L] [Neutral]	5.0					• Large diameter machining up to ø100mm • Economical steel shank • 1-cornered self-grip type
	WCFH/ WCFH (SumiGrip)		 (1) Stock: [R] [L] [Neutral]	5.0					

Cut-off Tool Series

SEC-Small Diameter Cut-off Tools SCT Type		• Our first recommendation for small lathes • Sharp cutting edge reduces cutting resistance and minimizes nip formation	
SEC-Cut-off Tools GND Type (GNDM Type / GNDL Type)		• Our first recommendation for small to medium diameters • High rigidity body and rigid clamping enable stable cut-off operations	
SEC-Cut-off Tools SumiGrip Jr. (Steel Shank) SumiGrip (Carbide Shank)		• Our first recommendation for medium to large diameters • Blade type is available for cut-off diameters of up to ø140mm	

SEC-Cut-Off Tools

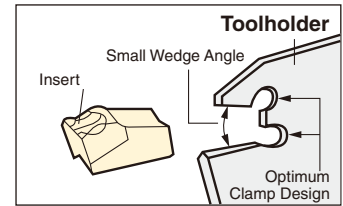


■ Characteristics

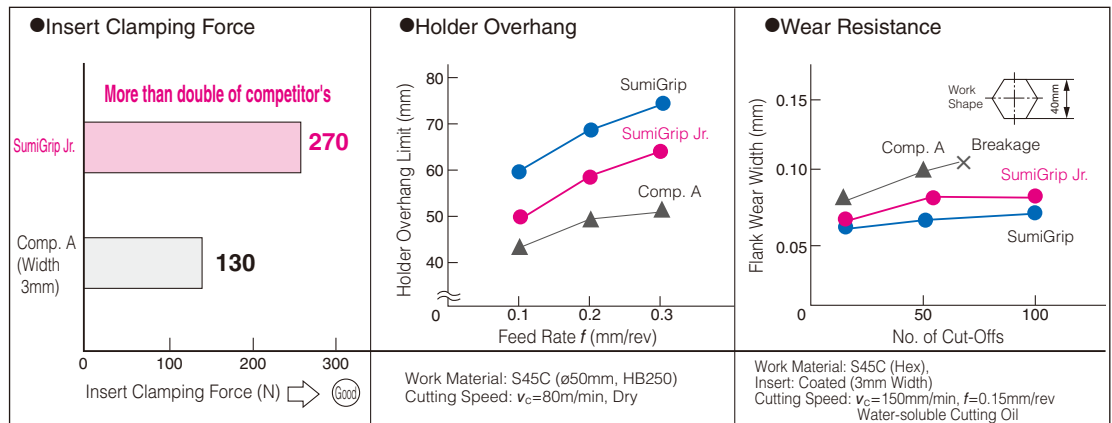
- Carbide and steel holders (SumiGrip Jr.) are available.
- Applicable to interrupted cutting.
- For cut-off, grooving and chamfering etc.

■ Types

- ① Tool block type
- ② Shank type



■ Performance

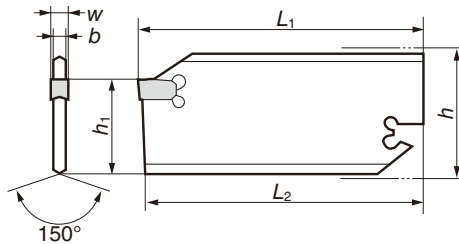
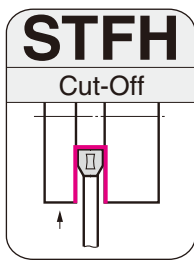


■ Tool Block Type Selection Guide

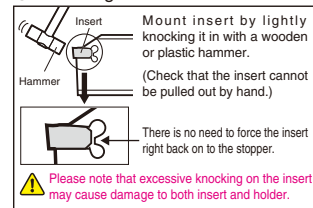
Tool block (one unit)	● SBN Type	A General-Purpose Lathe etc. Tool block Spacer (Clamp from above) B Turret Type Tool Post Tool block Wedge (Clamp from the side)
Tool block (2 piece unit)	Applicable when the tool post of the machine is like A shown on the right.	
Applicable whether the tool post of the machine is like A or B shown on the right. Large clamp design enable long holder overhangs with wide clamping area.		

STFH Type

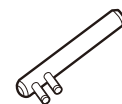
Cut-off Tools (Steel Holder/Tool Block Type)



● Mounting Inserts



■ Spare Parts



■ Holders

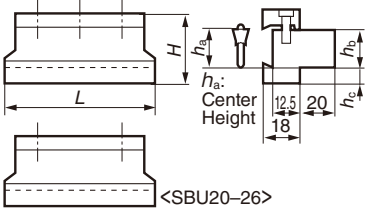
Cat. No.	Stock	Dimensions (mm)							Max. Cut-off Diameter	Applicable Insert	Applicable Tool Block	Spanner
		<i>h</i>	<i>b</i>	<i>L</i> ₁	<i>h</i> ₁	<i>L</i> ₂	<i>w</i>					
STFH 26-2	●	26	1.6	109	21.4	108	2		40	WCF□2□	SBN 20-26 SBU 20-26	SL-4
STFH 26-3	●	26	2.4	109	21.4	108	3		70	WCF□3□		
STFH 26-4	●	26	3.4	109	21.4	108	4		70	WCF□4□		
STFH 26-5	●	26	4.3	109	21.4	108	5		70	WCF□5□		
STFH 32-2	●	32	1.6	149	25.0	148	2		40	WCF□2□	SBN 20-32 SBN 25-32 SBU 20-32 SBU 25-32	
STFH 32-3	●	32	2.4	149	25.0	148	3		100	WCF□3□		
STFH 32-4	●	32	3.4	149	25.0	148	4		100	WCF□4□		
STFH 32-5	●	32	4.3	149	25.0	148	5		100	WCF□5□		

* Shape of STFH32-2 is slightly different from the above figure.

■ Tool Block (Integrated Unit) ■ Spare Parts

<SBN20-26>									
Cat. No.	Stock	Dimensions (mm)					Clamp	Double Screw	Spanner
		ha	hb	hc	H	L			
SBN 20-26	●	20	20	10.0	45	80	BWS30	WB8-20	LH040
SBN 20-32	●	20	20	13.5	50	100			
SBN 25-32	●	25	25	8.5	50	110			

■ Tool Block (Separable Unit) ■ Spare Parts

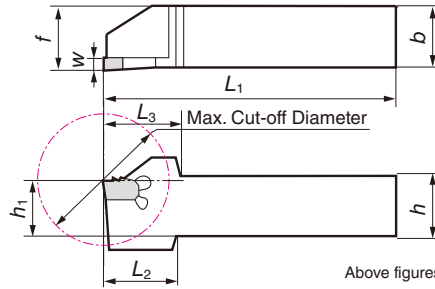
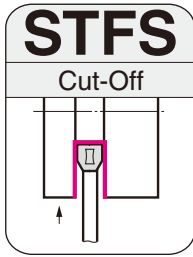
							 BCS15			
							 BCS20			
							 BCS25			
Cat. No.	Stock	Dimensions (mm)					Clamp	Cap Screw	Spanner	
		h_a	h_b	h_c	H	L				
SBU 20-26	●	20	20	10.0	45	80	BCS15	BX0622	LH050	
SBU 20-32	●	20	20	13.5	50	100	BCS20			
SBU 25-32	●	25	25	8.5	50	110	BCS25			

■ Inserts (Inserts are same as those for the carbide holder SumiGrip Series.)

Neutral (N)	WCF□□ General Steel			WCF□2T Small Dia. Low Force			WCF□□A Exotic Metal, Low Feed			WCF□□B (Cast Iron, Non Ferrous Metal)			Applicable Holder	
Right Hand (R)	Cat. No.	Coated Carbide AC830P	W	Cat. No.	Coated Carbide AC225	Cermet T1500A	T1200A	Carbide A30	G10E	W	Cat. No.	Carbide G10E	W	STFH 26-2 STFH 32-2
	WCF N2T	●	2	WCF N2A	●	—	—	—	—	2	—	—	—	
	WCF R2T	●	2	—	—	—	—	—	—	—	—	—	—	
	WCF L2T	●	2	—	—	—	—	—	—	—	—	—	—	
	WCF N3	●	3	WCF N3A	●	●	▲	●	●	3	WCF N3B	●	3	STFH 26-3 STFH 32-3
	WCF R3	●	3	WCF R3A	●			●		3	WCF R3B	●	3	
	WCF L3	●	3	WCF L3A	●					3	WCF L3B	●	3	
Left Hand (L)	WCF N4	●	4	WCF N4A	●	●				4	WCF N4B	●	4	STFH 26-4 STFH 32-4
	WCF R4	●	4	WCF R4A	●					4	WCF R4B	●	4	
	WCF L4	●	4	WCF L4A	●					4	WCF L4B		4	
	WCF N5	●	5	WCF N5A	●					5	WCF N5B	●	5	STFH 26-5 STFH 32-5
	WCF R5	●	5	WCF R5A						5	WCF R5B		5	
	WCF L5	●	5	WCF L5A						5	WCF L5B	●	5	

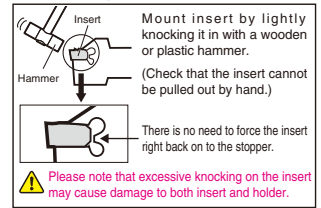
WCF □□ B type is similar in shape with WCF □□ type but with smaller edge treatment.

Cut-Off (Steel Holder/Shank Type)

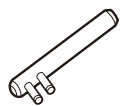


Above figures show right hand tools.

● Mounting Inserts



■ Spare Parts



■ Holders

Cat. No.	Stock		Dimensions (mm)									Max. Cut-off Diameter	Applicable Insert	Spanner
	R	L	<i>h</i>	<i>b</i>	<i>L</i> ₁	<i>f</i>	<i>h</i> ₁	<i>L</i> ₂	<i>L</i> ₃	<i>w</i>				
STFS R/L1010-2	●	●	10	10	86	10	10	17	17	2	28	WCF□2□	SL-4	
STFS R/L1212-2	●	●	12	12	110	12	12	18	18	2	30			
STFS R/L1616-2	●	●	16	16	110	16	16	—	19	2	32			
STFS R/L2020-2	●	●	20	20	125	20	20	—	24	2	40			
STFS R/L1616-3	●	●	16	16	110	16	16	20	22	3	35	WCF□3□		
STFS R/L2012-3	●	●	20	12	110	12	20	—	24	3	40			
STFS R/L2020-3	●	●	20	20	125	20	20	—	30	3	50			
STFS R/L2525-3	●	●	25	25	150	25	25	—	30	3	50			
STFS R/L2020-4	●	●	20	20	125	20	20	—	33	4	55	WCF□4□		
STFS R/L2525-4	●	●	25	25	150	25	25	—	38	4	65			
STFS R/L2020-5	●	●	20	20	125	20	20	—	35	5	60	WCF□5□		
STFS R/L2525-5	●	●	25	25	150	25	25	—	40	5	70			

■ Recommended Cutting Conditions

Grade	Cutting Speed v_c (m/min) Feed Rate f (mm/rev)	P General Steel	P Soft Steel	P Die Steel	M Stainless Steel	K Cast Iron
ACE-Coat AC830P	v_c f	100 to 230 0.10 to 0.30	120 to 250 0.08 to 0.15	60 to 150 0.08 to 0.15	80 to 200 0.08 to 0.25	—
For WCF □ 2T	v_c f	50 to 230 0.03 to 0.10	50 to 250 0.02 to 0.10	50 to 150 0.03 to 0.10	50 to 200 0.03 to 0.10	—
ACE-Coat AC225*	v_c f	80 to 200 0.08 to 0.25	100 to 230 0.04 to 0.20	60 to 150 0.04 to 0.20	60 to 180 0.05 to 0.20	—
Cermet T1500A T1200A	v_c f	80 to 200 0.03 to 0.15	100 to 230 0.05 to 0.20	60 to 150 0.03 to 0.08	60 to 180 0.03 to 0.10	—
Carbide A30 (*Cast Iron: G10E)	v_c f	50 to 120 0.05 to 0.20	70 to 150 0.04 to 0.15	50 to 120 0.04 to 0.15	70 to 150 0.04 to 0.15	*50 to 120 *0.06 to 0.20

* AC225: CVD coated carbide grade for low-speed, low feed-rate cutting.

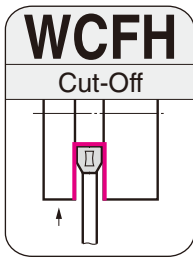
■ Inserts (Inserts are same as those for the carbide holder SumiGrip Series.)

Neutral (N) 2-R0.2 2° W 2°	WCF□○ General Steel			WCF□2T Small Dia. Low Force			WCF□○A Exotic Metal, Low Feed			WCF□○B Cast Iron, Non Ferrous Metal			Applicable Holder
	Cat. No.	Coated Carbide AC830P	w	Cat. No.	Coated Carbide AC225	Cermet T1500A T1200A	Carbide A30 G10E	w	Cat. No.	Carbide G10E	w		
Right Hand (R) 2-R0.2 2° W 2°	WCF N2T	●	2	WCF N2A	●	—	—	2	—	—	—	—	STFS R/L1010-2, STFS R/L2020-2, STFS R/L1212-2, STFS R/L1616-2
2° W 2°	WCF R2T	●	2	—	—	—	—	—	—	—	—	—	
2° W 2°	WCF L2T	●	2	—	—	—	—	—	—	—	—	—	
Left Hand (L) 2-R0.2 2° W 2°	WCF N3	●	3	WCF N3A	●	●	▲	3	WCF N3B	●	3	—	STFS R/L1616-3, STFS R/L2525-3, STFS R/L2020-3, STFS R/L2012-3
2° W 2°	WCF R3	●	3	WCF R3A	●	—	—	3	WCF R3B	●	3	—	
2° W 2°	WCF L3	●	3	WCF L3A	●	—	—	3	WCF L3B	●	3	—	
WCF □ 2T : $f_g=0.15$	WCF N4	●	4	WCF N4A	●	●	—	4	WCF N4B	●	4	—	STFS R/L2020-4, STFS R/L2525-4
	WCF R4	●	4	WCF R4A	●	—	—	4	WCF R4B	●	4	—	
	WCF L4	●	4	WCF L4A	●	—	—	4	WCF L4B	●	4	—	
	WCF N5	●	5	WCF N5A	●	—	—	5	WCF N5B	●	5	—	STFS R/L2020-5, STFS R/L2525-5
	WCF R5	●	5	WCF R5A	—	—	—	5	WCF R5B	●	5	—	
	WCF L5	●	5	WCF L5A	—	—	—	5	WCF L5B	●	5	—	

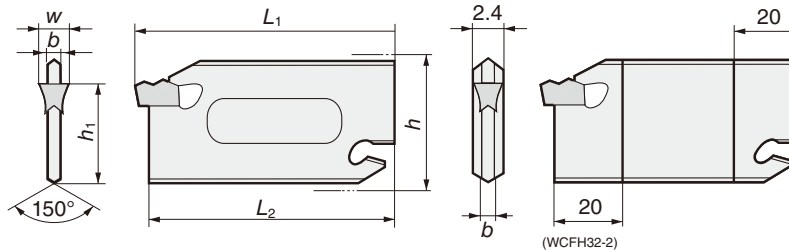
WCF □ ○ B type is similar in shape with WCF □ ○ type but with smaller edge treatment.

▲ mark : To be replaced by new item (Please confirm stock availability)

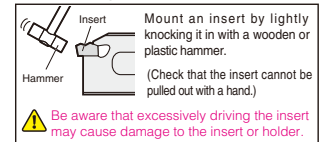
Cut-Off (Tool Block Type)



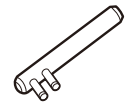
Holders



● Mounting Inserts



Spare Parts

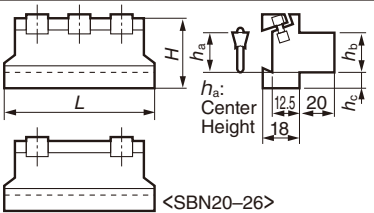


Above figures show right hand tools.

Cat. No.	Stock	Dimensions (mm)							Max. Cut-off Diameter	Applicable Insert	Applicable Tool Block	Spanner
		h	b	L ₁	h ₁	L ₂	w					
WCFH 26-2	●	26	1.7	110	21.4	109.0	2		40	WCF□2○	SBN 20-26 SBU 20-26	SL-2
WCFH 26-3	●	26	2.4	110	21.4	108.5	3		80	WCF□3○		SL-1
WCFH 26-4	●	26	3.4	110	21.4	108.5	4		80	WCF□4○		
WCFH 26-5	●	26	4.3	110	21.4	108.5	5		80	WCF□5○		
WCFH 32-2	●	32	1.7	150	25.0	149.0	2		40	WCF□2○	SBN 20-32 SBN 25-32 SBU 20-32 SBU 25-32	SL-2
WCFH 32-3	●	32	2.4	150	25.0	148.5	3		140	WCF□3○		SL-1
WCFH 32-4	●	32	3.4	150	25.0	148.5	4		140	WCF□4○		
WCFH 32-5	●	32	4.3	150	25.0	148.5	5		140	WCF□5○		

Tool Block (Integrated Unit)

Spare Parts

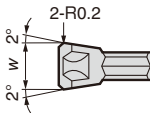
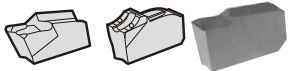
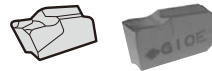
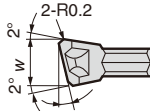
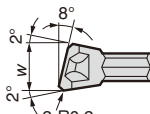
 <SBN20-26>												
Cat. No.	Stock	Dimensions (mm)					Clamp	Double Screw	Spanner			
		ha	hb	hc	H	L						
SBN 20-26	●	20	20	10.0	45	80	BWS30	WB8-20	LH040			
SBN 20-32	●	20	20	13.5	50	100						
SBN 25-32	●	25	25	8.5	50	110						

Tool Block (Separable Unit)

Spare Parts

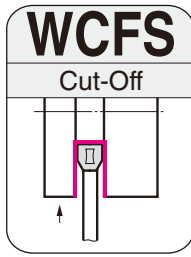
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BCS15		BCS20		BCS25						
Cat. No.	Stock	Dimensions (mm)					Clamp	Cap Screw	Spanner	
		ha	hb	hc	H	L				
SBU 20-26	●	20	20	10.0	45	80	BCS15	BX0622	LH050	
SBU 20-32	●	20	20	13.5	50	100	BCS20			
SBU 25-32	●	25	25	8.5	50	110	BCS25			

Inserts (Inserts are same as those for the steel SumiGrip Jr. holder.)

Neutral (N) 	WCF□○ General Steel			WCF□2T Small Dia. Low Force			WCF□○A Exotic Metal, Low Feed			WCF□○B Cast Iron, Non Ferrous Metal			Applicable Holder
													
	Cat. No.	Coated Carbide	W	Cat. No.	Coated Carbide	Cermet	Carbide	W	Cat. No.	Carbide	W		
		AC830P			AC225	T1500A	T1200A	A30	G10E	G10E			
Right Hand (R) 	WCF N2T	●	2	WCF N2A	●	—	—	2	—	—	—	WCFH 26-2 WCFH 32-2	
	WCF R2T	●	2	—	—	—	—	—	—	—	—		
	WCF L2T	●	2	—	—	—	—	—	—	—	—		
Left Hand (L) 	WCF N3	●	3	WCF N3A	●	●	▲	3	WCF N3B	●	3	WCFH 26-3 WCFH 32-3	
	WCF R3	●	3	WCF R3A	●			3	WCF R3B	●	3		
	WCF L3	●	3	WCF L3A	●			3	WCF L3B	●	3		
WCF□ 2T : r_E=0.15	WCF N4	●	4	WCF N4A	●	●		4	WCF N4B	●	4	WCFH 26-4 WCFH 32-4	
	WCF R4	●	4	WCF R4A	●			4	WCF R4B	●	4		
	WCF L4	●	4	WCF L4A	●			4	WCF L4B	●	4		
	WCF N5	●	5	WCF N5A	●			5	WCF N5B	●	5	WCFH 26-5 WCFH 32-5	
	WCF R5	●	5	WCF R5A				5	WCF R5B		5		
	WCF L5	●	5	WCF L5A				5	WCF L5B	●	5		

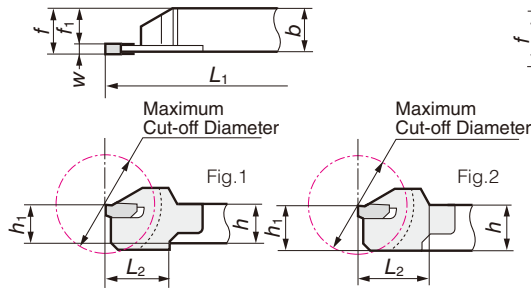
WCF□○B type is similar in shape with WCF□○ type but with smaller edge treatment.

Cut-Off (Shank Type)

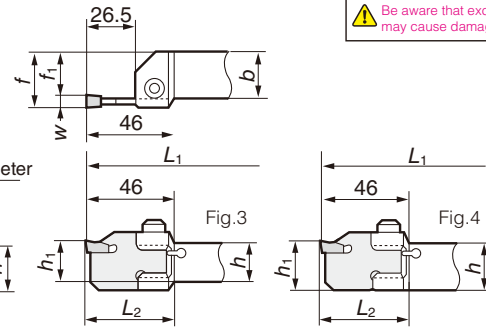


Holders

Brazen Type

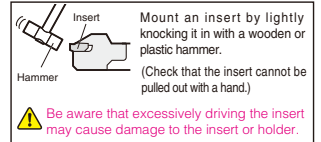


Clamp Type

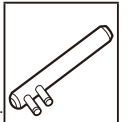


Above figures show right hand tools.

Mounting Inserts



Spare Parts



Series	Cat. No.	Stock		Dimensions (mm)								Max. Cut-off Diameter	Applicable Blade	Applicable Insert	Fig.	Spanner
		R	L	h	b	L ₁	f	f ₁	h ₁	L ₂	w					
Brazed Type	WCFS R/L1010-2	●	●	10	10	86	10	8	10	10	2	28	—	WCF□2○	1	SL-2
	WCFS R/L1212-2	●	●	12	12	110	12	10	12	18	2	30	—	WCF□2○	1	
	WCFS R/L1616-2	●	●	16	16	100	16	14	16	25	2	35	—	WCF□2○	2	SL-1
	WCFS R/L1616-3	●	●	16	16	100	16	13	16	25	3	35	—	WCF□3○	2	
Clamp Type	WCFS R/L20-3	●	●	20	20	125	23	20	20	46	3	50	WCFH17-3	WCF□3○	3	SL-1
	WCFS R/L20-4	●	●	20	20	125	24	20	20	46	4	50	WCFH17-4	WCF□4○	3	
	WCFS R/L20-5	●	●	20	20	125	25	20	20	46	5	50	WCFH17-5	WCF□5○	3	
	WCFS R/L25-3	●	●	25	25	150	28	25	25	46	3	50	WCFH17-3	WCF□3○	4	
	WCFS R/L25-4	●	●	25	25	150	29	25	25	46	4	50	WCFH17-4	WCF□4○	4	
	WCFS R/L25-5	●	●	25	25	150	30	25	25	46	5	50	WCFH17-5	WCF□5○	4	

Blade is included with the holder.

Blades

Cat. No.	Stock	Dimensions (mm)		Applicable Holder
		w	B	
WCFH 17-3	●	3	2.4	WCFS R/L20-3,25-3
WCFH 17-4	●	4	3.4	WCFS R/L20-4,25-4
WCFH 17-5	●	5	4.3	WCFS R/L20-5,25-5

Spare Parts

		Applicable Holder
Cap Screw	Spanner	
BX0622	LH050	All Clamp Types

Inserts (Inserts are same as those for the steel SumiGrip Jr. holder.)

Neutral (N)	WCF□○ General Steel			WCF□2T Small Dia. Low Force			WCF□○A Exotic Metal, Low Feed			WCF□○B Cast Iron, Non Ferrous Metal			Applicable Holder
	Cat. No.	Coated Carbide	w	Cat. No.	Coated Carbide	w	Cat. No.	Coated Carbide	w	Cat. No.	Coated Carbide	w	
Right Hand (R)	WCF N2T	●	2	WCF N2A	●	2	WCF N3A	●	3	WCF N3B	●	3	WCFS R/L1010-2 WCFS R/L1212-2 WCFS R/L1616-2
	WCF R2T	●	2	—	—	—	WCF R3A	●	3	WCF R3B	●	3	
	WCF L2T	●	2	—	—	—	WCF L3A	●	3	WCF L3B	●	3	
Left Hand (L)	WCF N3	●	3	WCF N3A	●	3	WCF N4A	●	4	WCF N4B	●	4	WCFS R/L1616-3 WCFS R/L20-3 WCFS R/L25-3
	WCF R3	●	3	WCF R3A	●	3	WCF R4A	●	4	WCF R4B	●	4	
	WCF L3	●	3	WCF L3A	●	3	WCF L4A	●	4	WCF L4B	●	4	
WCF□ 2T : r _E =0.15	WCF N4	●	4	WCF N4A	●	4	WCF N5A	●	5	WCF N5B	●	5	WCFS R/L20-4 WCFS R/L25-4
	WCF R4	●	4	WCF R4A	●	4	WCF R5A	●	5	WCF R5B	●	5	
	WCF L4	●	4	WCF L4A	●	4	WCF L5A	●	5	WCF L5B	●	5	

WCF□○B type is similar in shape with WCF□○ type but with smaller edge treatment.

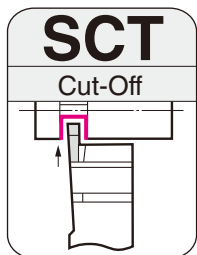


Fig.1

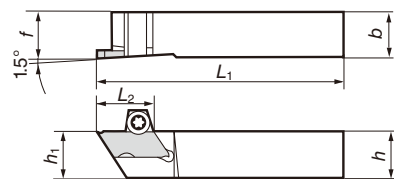
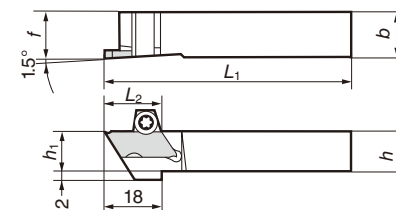


Fig.2



Above figures show right hand tools.

■ Holders (Right Hand)

Cat. No.	Stock	Dimensions (mm)						Applicable Insert	Fig.	Screw	Spanner
		<i>h</i>	<i>b</i>	<i>L</i> ₁	<i>f</i>	<i>h</i> ₁	<i>L</i> ₂				
SCT R1010	●	10	10	120	10	10	15	CT R05○○○○○(-NB) CT R12○○○○○(-NB)	1	BFTX0410T8L	TRX08
SCT R1212	●	12	12	120	12	12	15				
SCT R1616	●	16	16	120	16	16	15				
SCT R1010-16	●	10	10	120	10	10	18	CT R16○○○○○(-NB)	2		
SCT R1212-16	●	12	12	120	12	12	18		1		
SCT R1616-16	●	16	16	120	16	16	18				

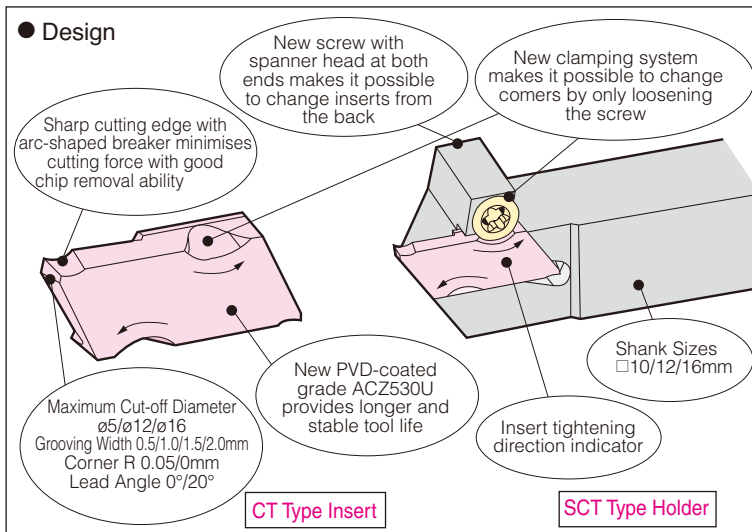
■ Holders (Left Hand)

SCT L1010	●	10	10	120	10	10	15	CT L05○○○○○(-NB) CT L12○○○○○(-NB)	1	BFTX0410T8R	TRX08
SCT L1212	●	12	12	120	12	12	15				
SCT L1616	●	16	16	120	16	16	15				
SCT L1010-16	●	10	10	120	10	10	18	CT L16○○○○○(-NB)	2		
SCT L1212-16	●	12	12	120	12	12	18		1		
SCT L1616-16	●	16	16	120	16	16	18				

■ Characteristics

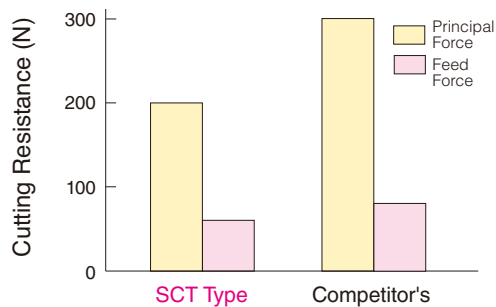
- **New clamping system**
New clamping system makes it possible to change corners by only loosening the screw from the back.
- **High quality surface finish**
Excellent chip removal with good surface finish even at the centre of the end face.
- **Stable and long tool life**
PVD-coated grade AC530U provides stability and longer tool life.

● Design



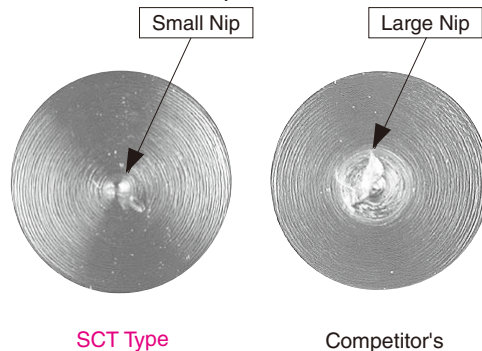
■ Comparison Test

● Wear Resistance



Work Material: S45C (ø10mm) Grooving Width: 1.5mm
 $v_c=60\text{m/min}$ $f=0.06\text{mm/rev}$ Wet

● Surface Finish Comparison



Work Material: SUS430 (ø8mm) Grooving Width: 1.0mm (handed)
 $v_c=45\text{m/min}$ $f=0.02\text{mm/rev}$ Wet

■ Insert and Holder Variations (Figures below show inserts with chipbreaker)

Holder Style	SCTR			SCTL		
Insert	CTROOR	CTROON	CTROOL	CTLOOR	CTLOON	CTLOOL
Orientation						
Insert Shape and Dimensions						

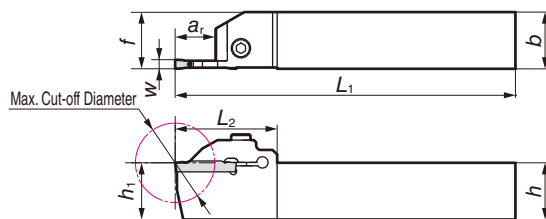
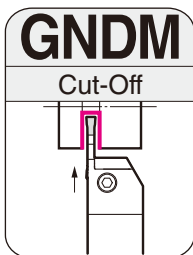
■ Inserts (For Right-handed Holders)

Cat. No.	Coated Carbide			Max. Cut-off Diameter (mm)	Dimensions (mm)				Chipbreaker	Applicable Toolholder				
	AC530U				w	r _ε	ℓ	s						
	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								
CTR 121005 R/N/L	●	●	●	12	1.0									
CTR 121505 R/N/L	●	●	●	12	1.5									
CTR 122005 R/N/L	●	●		12	2.0	0	23.1	8.3		No	SCT R1010-16 SCT R1212-16 SCT R1616-16			
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	23.1	8.3			No	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									
CTR 161000 R/N/L				16	1.0									
CTR 161500 R/N/L	●	●		16	1.5	0	19	7				No	SCT R1010 SCT R1212 SCT R1616	
CTR 162000 R/N/L	●	●	●	16	2.0									
CTR 050500 R/N/L-NB				5	0.5									
CTR 121000 R/N/L-NB	●			12	1.0									
CTR 121500 R/N/L-NB	●			12	1.5	0	23.1	8.3	No				SCT R1010-16 SCT R1212-16 SCT R1616-16	
CTR 122000 R/N/L-NB	●			12	2.0									
CTR 161000 R/N/L-NB				16	1.0									
CTR 161500 R/N/L-NB				16	1.5									
CTR 162000 R/N/L-NB	●			16	2.0									

■ Inserts (For Left-handed Holders)

Cat. No.	Coated Carbide			Max. Cut-off Diameter (mm)	Dimensions (mm)				Chipbreaker	Applicable Toolholder
	AC530U				w	r _ε	ℓ	s		
	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					
CTL 121005 R/N/L	●	●	●	12	1.0					
CTL 121505 R/N/L	●	●	●	12	1.5					
CTL 122005 R/N/L	●	●		12	2.0					
CTL 121000 R/N/L	●	●		12	1.0					
CTL 121500 R/N/L	●	●		12	1.5					
CTL 122000 R/N/L	●	●		12	2.0	0	23.1	8.3		SCT L1010-16 SCT L1212-16 SCT L1616-16
CTL 161005 R/N/L				16	1.0					
CTL 161505 R/N/L	●	●		16	1.5					
CTL 162005 R/N/L	●	●	●	16	2.0					
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					
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					
CTL 161500 R/N/L-NB				16	1.5					
CTL 162000 R/N/L-NB				16	2.0					
							23.1	8.3		SCT L1010-16 SCT L1212-16 SCT L1616-16

GNDM Type



Above figures show right hand tools.

■ Holders

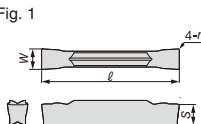
■ Spare Parts

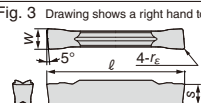
Cap Screw		Spanner	
BX0520		LH040	
BX0620		LH050	

Cat. No.	Stock		Dimensions (mm)							Grooving Width (mm)	Max. Cut-off Dia. (mm)	Applicable Insert
	R	L	h	b	L ₁	f	h ₁	L ₂	a _r	w		
GNDM R/L2020K-210	●	●	20	20	125	20	20	33.6	10	2.0	20	GCM □20○○-□□
GNDM R/L2020K-312	●	●	20	20	125	20	20	36.6	12	3.0	24	GCM □30○○-□□
GNDM R/L2020K-418	●	●	20	20	125	20	20	45.0	18	4.0	36	GCM □40○○-□□
GNDM R/L2020K-518	●	●	20	20	125	20	20	45.0	18	5.0	36	GCM N50○○-□□
GNDM R/L2020K-618	●	●	20	20	125	20	20	45.0	18	6.0	36	GCM N60○○-□□
GNDM R/L2525M-210	●	●	25	25	150	25	25	33.6	10	2.0	20	GCM □20○○-□□
GNDM R/L2525M-312	●	●	25	25	150	25	25	36.6	12	3.0	24	GCM □30○○-□□
GNDM R/L2525M-418	●	●	25	25	150	25	25	45.0	18	4.0	36	GCM □40○○-□□
GNDM R/L2525M-518	●	●	25	25	150	25	25	45.0	18	5.0	36	GCM N50○○-□□
GNDM R/L2525M-618	●	●	25	25	150	25	25	45.0	18	6.0	36	GCM N60○○-□□
GNDM R/L3225P-312			32	25	170	25	32	36.6	12	3.0	24	GCM □30○○-□□
GNDM R/L3225P-418			32	25	170	25	32	45.0	18	4.0	36	GCM □40○○-□□
GNDM R/L3225P-518			32	25	170	25	32	45.0	18	5.0	36	GCM N50○○-□□
GNDM R/L3225P-618			32	25	170	25	32	45.0	18	6.0	36	GCM N60○○-□□
GNDM R/L3225P-718			32	25	170	25	32	50.0	18	7.0	36	GCM N70○○-□□
GNDM R/L3225P-818			32	25	170	25	32	50.0	18	8.0	36	GCM N80○○-□□
GNDM R/L3232P-312	●	●	32	32	170	32	32	36.6	12	3.0	24	GCM □30○○-□□
GNDM R/L3232P-418	●	●	32	32	170	32	32	45.0	18	4.0	36	GCM □40○○-□□
GNDM R/L3232P-518	●	●	32	32	170	32	32	45.0	18	5.0	36	GCM N50○○-□□
GNDM R/L3232P-618	●	●	32	32	170	32	32	45.0	18	6.0	36	GCM N60○○-□□
GNDM R/L3232P-718	●	●	32	32	170	32	32	50.0	18	7.0	36	GCM N70○○-□□
GNDM R/L3232P-818	●	●	32	32	170	32	32	50.0	18	8.0	36	GCM N80○○-□□

Select holders and inserts with the same grooving widths (w). The maximum cut-off diameter indicated above is for inserts where $r_e = 0.2$ mm.

■ For GNDM

Application	Shape	Appearance	Cat. No.	Coated Carbide				Dimensions (mm)					Pcs./Pack	Fig.	
				AC830P	AC425K	AC520U	AC530U	w		r _ε	ℓ	s			
								Cutting width	Tolerance						
Grooving / Cut-Off	Fig. 1 	GG Type 	GCM N2002-GG	●		●	●	2.0	±0.03	0.2	21.1	3.6	5	1	
			GCM N3002-GG	●		●	●	3.0	±0.03	0.2	21.1	3.8			
			GCM N4002-GG	●		●	●	4.0	±0.03	0.2	26.4	4.0			
			GCM N5002-GG	●		●	●	5.0	±0.03	0.2	26.4	4.1			
			GCM N6002-GG	●		●	●	6.0	±0.03	0.2	26.4	4.5			
			GCM N3004-GG	●		●	●	3.0	±0.03	0.4	21.1	3.8	5	1	
			GCM N4004-GG	●		●	●	4.0	±0.03	0.4	26.4	4.0			
			GCM N5004-GG	●		●	●	5.0	±0.03	0.4	26.4	4.1			
			GCM N6004-GG	●		●	●	6.0	±0.03	0.4	26.4	4.5			
			GCM N7004-GG	●		●	●	7.0	±0.04	0.4	28.75	5.5			
			GCM N8004-GG	●		●	●	8.0	±0.04	0.4	28.75	6.0			
		GL Type 	GCM N2002-GL	●		●	●	2.0	±0.03	0.2	21.1	3.6	5	1	
			GCM N3002-GL	●		●	●	3.0	±0.03	0.2	21.1	3.8			
			GCM N4002-GL	●		●	●	4.0	±0.03	0.2	26.4	4.0			
			GCM N5002-GL	●		●	●	5.0	±0.03	0.2	26.4	4.1			
			GCM N6002-GL	●		●	●	6.0	±0.03	0.2	26.4	4.5			
			GCM N7004-GL	●		●	●	7.0	±0.04	0.4	28.75	5.5	5	1	
			GCM N8004-GL	●		●	●	8.0	±0.04	0.4	28.75	6.0			
		GF Type 	GCM N2002-GF	●	—	—	●	●	2.0	±0.03	0.2	21.1	3.6	5	1
			GCM N3002-GF	●		●	●	3.0	±0.03	0.2	21.1	3.8			
			GCM N4002-GF	●		●	●	4.0	±0.03	0.2	26.4	4.0			
			GCM N5002-GF	●		●	●	5.0	±0.03	0.2	26.4	4.1			
			GCM N6002-GF	●		●	●	6.0	±0.03	0.2	26.4	4.5			

Application	Shape	Appearance	Cat. No.	Coated Carbide				Dimensions (mm)					Pcs./Pack	Fig.		
				AC830P	AC425K	AC520U	AC530U	w		r _ε	ℓ	s				
								R	L						Cutting width	Tolerance
Cut-Off	Fig. 3 Drawing shows a right hand tool. 	CG Type 	GCM R/L2002-CG-05	●	●			●	●	2.0	±0.03	0.2	21.1	3.6	5	3
			GCM R/L3002-CG-05	●	●			●	●	3.0	±0.03	0.2	21.3	3.8		
			GCM R/L4002-CG-05	●	●			●	●	4.0	±0.03	0.2	26.7	4.0		

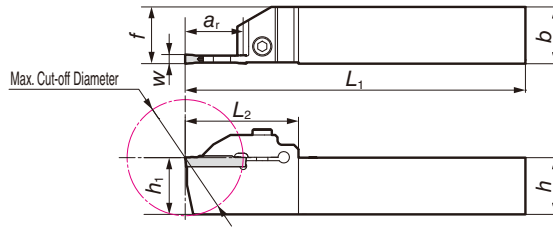
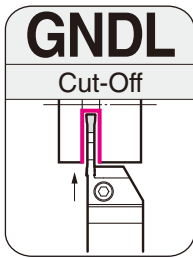
Select holders and inserts with the same grooving widths (w).

■ Recommended Cutting Conditions (GNDM)

Work Material	P Carbon Steel / Alloy Steel			M Stainless Steel			K Cast Iron			S Exotic Alloy	
Grade	AC830P	AC520U	AC530U	AC830P	AC520U	AC530U	AC425K	AC520U	AC530U	AC520U	AC530U
Cutting Speed v_c (m/min)	80 to 200	80 to 200	50 to 200	70 to 150	70 to 150	50 to 150	80 to 200	60 to 200	50 to 200	20 to 80	20 to 60

Grooving / Cut-Off	Breaker	Feed Rate f (mm/rev)			
		GG	GL	GF	CG
Grooving Widths w (mm)	2.0	0.05 to 0.25	0.03 to 0.15	0.03 to 0.12	0.05 to 0.20
	3.0	0.10 to 0.30	0.05 to 0.18	0.05 to 0.15	0.08 to 0.25
	4.0	0.15 to 0.35	0.08 to 0.22	0.05 to 0.18	0.10 to 0.30
	5.0	0.20 to 0.40	0.10 to 0.25	0.08 to 0.20	—
	6.0	0.20 to 0.45	0.12 to 0.30	0.10 to 0.25	—
	7.0	0.20 to 0.50	0.15 to 0.35	—	—
	8.0	0.20 to 0.55	0.18 to 0.40	—	—

GNDL Type



Above figures show right hand tools.

■ Holders

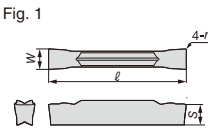
Cat. No.	Stock		Dimensions (mm)							Grooving Width (mm)	Max. Cut-off Dia. (mm)	Applicable Insert	Cap Screw	Recommended Tightening Torque (N·m)	Spanner
	R	L	h	b	L ₁	f	h ₁	L ₂	a _r	w					
GNDL R/L2020K-220	●	●	20	20	125	20	20	44.5	20	2.0	40	GCM □20○○-□□	BX0520	5.0	LH040
GNDL R/L2020K-320	●	●	20	20	125	20	20	44.5	20	3.0	40	GCM □30○○-□□			
GNDL R/L2020K-425	●	●	20	20	125	20	20	50.0	25	4.0	50	GCM □40○○-□□			
GNDL R/L2020K-525	●	●	20	20	125	20	20	50.0	25	5.0	50	GCM N50○○-□□			
GNDL R/L2020K-625	●	●	20	20	125	20	20	50.0	25	6.0	50	GCM N60○○-□□			
GNDL R/L2525M-220	●	●	25	25	150	25	25	44.5	20	2.0	40	GCM □20○○-□□			
GNDL R/L2525M-320	●	●	25	25	150	25	25	44.5	20	3.0	40	GCM □30○○-□□			
GNDL R/L2525M-425	●	●	25	25	150	25	25	50.0	25	4.0	50	GCM □40○○-□□			
GNDL R/L2525M-525	●	●	25	25	150	25	25	50.0	25	5.0	50	GCM N50○○-□□			
GNDL R/L2525M-625	●	●	25	25	150	25	25	50.0	25	6.0	50	GCM N60○○-□□			
GNDL R/L3225P-320			32	25	170	25	32	44.5	20	3.0	40	GCM □30○○-□□	BX0620	6.0	LH050
GNDL R/L3225P-425			32	25	170	25	32	50.0	25	4.0	50	GCM □40○○-□□			
GNDL R/L3225P-525			32	25	170	25	32	50.0	25	5.0	50	GCM N50○○-□□			
GNDL R/L3225P-625			32	25	170	25	32	50.0	25	6.0	50	GCM N60○○-□□			
GNDL R/L3225P-725			32	25	170	25	32	50.0	25	7.0	50	GCM N70○○-□□			
GNDL R/L3225P-825			32	25	170	25	32	50.0	25	8.0	50	GCM N80○○-□□			
GNDL R/L3232P-320	●	●	32	32	170	32	32	44.5	20	3.0	40	GCM □30○○-□□			
GNDL R/L3232P-425	●	●	32	32	170	32	32	50.0	25	4.0	50	GCM □40○○-□□			
GNDL R/L3232P-525	●	●	32	32	170	32	32	50.0	25	5.0	50	GCM N50○○-□□			
GNDL R/L3232P-625	●	●	32	32	170	32	32	50.0	25	6.0	50	GCM N60○○-□□			
GNDL R/L3232P-725	●	●	32	32	170	32	32	50.0	25	7.0	50	GCM N70○○-□□			
GNDL R/L3232P-825	●	●	32	32	170	32	32	50.0	25	8.0	50	GCM N80○○-□□			

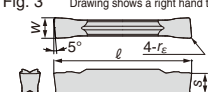
Select holders and inserts with the same grooving widths (w). The maximum cut-off diameter indicated above is for inserts where $r_e = 0.2$ mm.

■ Spare Parts



■ For GNDL

Application	Shape	Appearance	Cat. No.	Coated Carbide				Dimensions (mm)					Pcs./Pack	Fig.	
				AC830P	AC425K	AC520U	AC530U	w		r _ε	ℓ	s			
								Cutting width	Tolerance						
Grooving / Cut-Off	Fig. 1 	GG Type 	GCM N2002-GG	●		●	●	2.0	±0.03	0.2	21.1	3.6	5	1	
			GCM N3002-GG	●		●	●	3.0	±0.03	0.2	21.1	3.8			
			GCM N4002-GG	●		●	●	4.0	±0.03	0.2	26.4	4.0			
			GCM N5002-GG	●		●	●	5.0	±0.03	0.2	26.4	4.1			
			GCM N6002-GG	●		●	●	6.0	±0.03	0.2	26.4	4.5			
			GCM N3004-GG	●		●	●	3.0	±0.03	0.4	21.1	3.8	5	1	
			GCM N4004-GG	●		●	●	4.0	±0.03	0.4	26.4	4.0			
			GCM N5004-GG	●		●	●	5.0	±0.03	0.4	26.4	4.1			
			GCM N6004-GG	●		●	●	6.0	±0.03	0.4	26.4	4.5			
			GCM N7004-GG	●		●	●	7.0	±0.04	0.4	28.75	5.5			
		General Purpose Type	GCM N8004-GG	●		●	●	8.0	±0.04	0.4	28.75	6.0			
		GL Type 	GCM N2002-GL	●		●	●	2.0	±0.03	0.2	21.1	3.6	5	1	
			GCM N3002-GL	●		●	●	3.0	±0.03	0.2	21.1	3.8			
			GCM N4002-GL	●		●	●	4.0	±0.03	0.2	26.4	4.0			
			GCM N5002-GL	●		●	●	5.0	±0.03	0.2	26.4	4.1			
			GCM N6002-GL	●		●	●	6.0	±0.03	0.2	26.4	4.5			
			Low Feed Type	GCM N7004-GL	●		●	●	7.0	±0.04	0.4	28.75	5.5		
			GCM N8004-GL	●		●	●	8.0	±0.04	0.4	28.75	6.0			
			GF Type 	GCM N2002-GF	NEW	—	—	—	●	2.0	±0.03	0.2	21.1	3.6	5
		GCM N3002-GF		NEW	●		●	●	3.0	±0.03	0.2	21.1	3.8		
		GCM N4002-GF		NEW	●		●	●	4.0	±0.03	0.2	26.4	4.0		
		GCM N5002-GF		NEW	●		●	●	5.0	±0.03	0.2	26.4	4.1		
		GCM N6002-GF		NEW	●		●	●	6.0	±0.03	0.2	26.4	4.5		
		Low cutting force Type													

Application	Shape	Appearance	Cat. No.	Coated Carbide				Dimensions (mm)					Pcs./Pack	Fig.		
				AC830P	AC425K	AC520U	AC530U	w		r _ε	ℓ	s				
								R	L						R	L
Cut-Off	Fig. 3 Drawing shows a right hand tool. 	CG Type 	GCM R/L2002-CG-05	●	●			●	●	2.0	±0.03	0.2	21.1	3.6	5	3
			GCM R/L3002-CG-05	●	●			●	●	3.0	±0.03	0.2	21.3	3.8		
			GCM R/L4002-CG-05	●	●			●	●	4.0	±0.03	0.2	26.7	4.0		

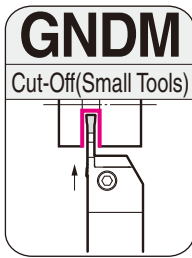
Select holders and inserts with the same grooving widths (w).

■ Recommended Cutting Conditions (GNDL)

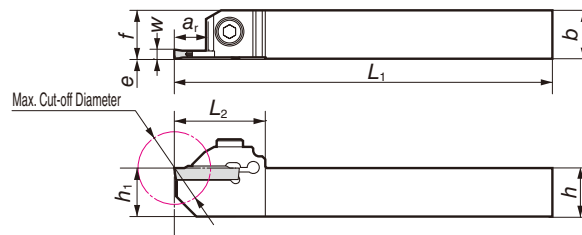
Work Material	P Carbon Steel / Alloy Steel			M Stainless Steel			K Cast Iron			S Exotic Alloy	
Grade	AC830P	AC520U	AC530U	AC830P	AC520U	AC530U	AC425K	AC520U	AC530U	AC520U	AC530U
Cutting Speed v_c (m/min)	80 to 200	80 to 200	50 to 200	70 to 150	70 to 150	50 to 150	80 to 200	60 to 200	50 to 200	20 to 80	20 to 60

Grooving / Cut-Off	Breaker	Feed Rate f (mm/rev)			
		GG	GL	GF	CG
	2.0	0.05 to 0.25	0.03 to 0.15	0.03 to 0.12	0.05 to 0.20
	3.0	0.10 to 0.30	0.05 to 0.18	0.05 to 0.15	0.08 to 0.25
	4.0	0.15 to 0.35	0.08 to 0.22	0.05 to 0.18	0.10 to 0.30
	5.0	0.20 to 0.40	0.10 to 0.25	0.08 to 0.20	—
	6.0	0.20 to 0.45	0.12 to 0.30	0.10 to 0.25	—
	7.0	0.20 to 0.50	0.15 to 0.35	—	—
	8.0	0.20 to 0.55	0.18 to 0.40	—	—

GNDM/GNDL Type (Zero Off-set)

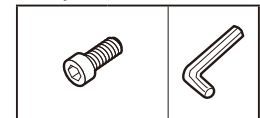


New



Above figures show right hand tools.

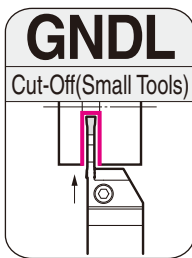
Spare Parts



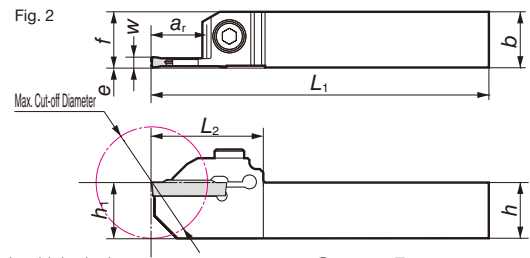
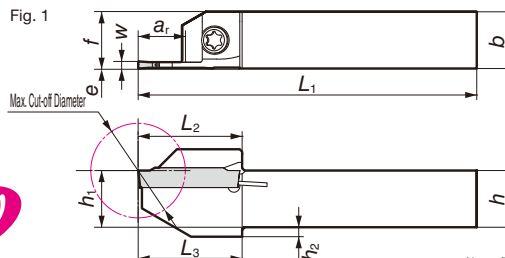
Holders

Cat. No.	Stock		Dimensions (mm)							Grooving Width (mm)	Max. Cut-off Dia. (mm)	Applicable Insert	Cap Screw	Recommended Tightening Torque (N·m)	Spanner
	R	L	h	b	L ₁	f	h ₁	L ₂	e	W					
GNDM R/L1616JX-1.510	●	●	16	16	120	(16)	16	26	0	1.5	20	GCM N150005-GF	BX0515	4.0	LH040
GNDM R/L1616JX-212	●	●	16	16	120	(16)	16	30	0	2.0	24	GCM □20○○-□□			
GNDM R/L1616JX-312	●	●	16	16	120	(16)	16	30	0	3.0	24	GCM □30○○-□□			

Select holders and inserts with the same grooving widths (w).

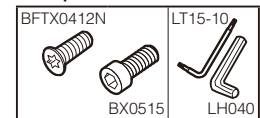


New



Above figures show right hand tools.

Spare Parts

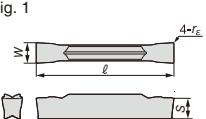


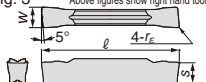
Holders

Cat. No.	Stock		Dimensions (mm)										Grooving Width (mm)	Max. Cut-off Dia. (mm)	Fig.	Applicable Insert	Insert Screw/	Recommended Tightening Torque (N·m)	Spanner
	R	L	h	b	L ₁	f	h ₁	h ₂	L ₂	L ₃	e	W							
GNDL R/L1010JX-1.2510	●	●	10	10	120	(10)	10	2.0	18	18.3	0	1.25	20	1	GCM N125005-GF	BFTX0412N	3.0	LT15-10	
GNDL R/L1010JX-1.510	●	●	10	10	120	(10)	10	2.0	18	18.3	0	1.50	20		GCM N150005-GF				
GNDL R/L1010JX-210	●	●	10	10	120	(10)	10	2.0	22	22.3	0	2.00	20		GCM □20○○-□□				
GNDL R/L1010JX-310	●	●	10	10	120	(10)	10	2.0	22	22.3	0	3.00	20		GCM □30○○-□□				
GNDL R/L1212JX-1.2512	●	●	12	12	120	(12)	12	2.0	19	19.3	0	1.25	24	1	GCM N125005-GF	BFTX0412N	3.0	LT15-10	
GNDL R/L1212JX-1.512	●	●	12	12	120	(12)	12	2.0	19	19.3	0	1.50	24		GCM N150005-GF				
GNDL R/L1212JX-212.5	●	●	12	12	120	(12)	12	2.0	22	22.3	0	2.00	25		GCM □20○○-□□				
GNDL R/L1212JX-312.5	●	●	12	12	120	(12)	12	2.0	22	22.3	0	3.00	25		GCM □30○○-□□				
GNDL R/L1616JX-1.512.5	●	●	16	16	120	(16)	16	—	28	—	0	1.50	25	2	GCM N150005-GF	BX0515	4.0	LH040	
GNDL R/L1616JX-216	●	●	16	16	120	(16)	16	—	32	—	0	2.00	32		GCM □20○○-□□				
GNDL R/L1616JX-316	●	●	16	16	120	(16)	16	—	32	—	0	3.00	32		GCM □30○○-□□				

Select holders and inserts with the same grooving widths (w).

GNDM (Small Tools) / GNDL (Small Tools) Inserts

Application	Shape	Type	Cat. No.	Coated Carbide				Dimensions (mm)					Pcs./ Pack.	Fig.
				AC830P	AC425K	AC520U	AC530U	w		r _ε	ℓ	s		
								Cutting width	Tolerance					
Grooving / Cut-Off	Fig. 1 	General Purpose Type	GCM N2002-GG	●		●	●	2.0	±0.03	0.2	21.1	3.6	5	1
			GCM N3002-GG	●		●	●	3.0	±0.03	0.2	21.1	3.8		
			GCM N3004-GG	●		●	●	3.0	±0.03	0.4	21.1	3.8		
		Low cutting force Type	GCM N2002-GL	●		●	●	2.0	±0.03	0.2	21.1	3.6	5	1
			GCM N3002-GL	●		●	●	3.0	±0.03	0.2	21.1	3.8		
		Low cutting force Type	GCM N125005-GF <i>New</i>	—	—	—	●	1.25	±0.03	0.05	17.4	3.2	5	1
			GCM N150005-GF <i>New</i>	—	—	—	●	1.5	±0.03	0.05	17.4	3.7		
			GCM N2002-GF <i>New</i>	—	—	—	●	2.0	±0.03	0.2	21.1	3.6		
GCM N3002-GF <i>New</i>	●			●	●	3.0	±0.03	0.2	21.1	3.8				

Application	Shape	Type	Cat. No.	Coated Carbide				Dimensions (mm)					Pcs./ Pack.	Fig.				
				AC830P		AC425K		AC520U		AC530U		w			r _ε	ℓ	s	
				R	L	R	L	R	L	R	L	Cutting width						Tolerance
Cut-Off	Fig. 3 	General Purpose Type	GCM R/L2002-CG-05	●	●			●	●	●	●	2.0	±0.03	0.2	21.1	3.6	5	3
			GCM R/L3002-CG-05	●	●			●	●	●	●	3.0	±0.03	0.2	21.3	3.8		

Select holders and inserts with the same grooving widths (w).

Recommended Cutting Conditions F45