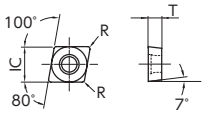
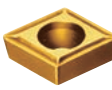
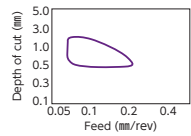
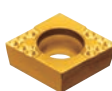
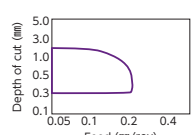

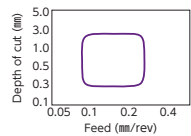
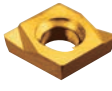
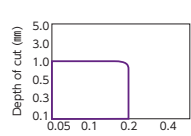
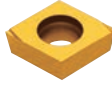
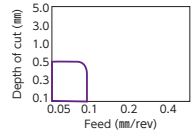


<80 degree Rhombic Positive type>

Item Number	IC	T	Relief angle
CC_0602	6.35	2.38	7°
CC_09T3	9.525	3.97	7°

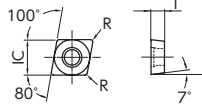
Shape	ISO Item Number	Inch Item Number	R	Carbide										Chip Control Range	For applicable holder, see pages:			
				PVD Coated						CVD Coated								
				ST4	ZM3	QM3	VM1	TM4	DT4	DM4	CP1	CP7	KM1					
				Steel	P	●	●	●	●	●	●	●	●	●	●	●	●	● : 1st Choice ● : 2nd choice
Stainless Steel	M	●	●	●	●	●	●	●	●	●	●	●	●	●	●			
Cast Iron	K	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
Non-Ferrous Material	N	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
Heat Resistant Alloy	S	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
Hardened Material	H	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
 AM3	CCGT 060200 FN AM3		0.03				●	●										
	060202 FN AM3		0.2		●		●											
	060204 FN AM3		0.4		●													
	060201M FN AM3		*0.08	●		●		●	●									
	060202M FN AM3		*0.18	●		●		●	●									
	060204M FN AM3		*0.38	●		●		●	●									
	CCGT 09T300 FN AM3		0.03				●	●	●									
	09T302 FN AM3		0.2				●	●	●									
	09T304 FN AM3		0.4				●	●	●									
	09T301M FN AM3		*0.08	●	●	●	●	●	●									
	09T302M FN AM3		*0.18	●	●	●	●	●	●									
	09T304M FN AM3		*0.38	●	●	●	●	●	●									
 AZ7	CCGT 060200 AZ7		0.03			●												G23 K28
	060201M AZ7		*0.08			●												
	060202M AZ7		*0.18			●												
	CCGT 09T300 AZ7		0.03		●	●	●	●	●									
	09T301M AZ7		*0.08		●	●	●	●	●									
	09T302M AZ7		*0.18		●	●	●	●	●									
09T304M AZ7		*0.38		●	●	●	●	●										
 AZ8	CCMT 060202 ENA AZ8		0.2									●						
	060204 ENB AZ8		0.4									●						
	060208 ENB AZ8		0.8									●						
	CCMT 09T302 ENA AZ8		0.2									●						
	09T304 ENB AZ8		0.4									●						
	09T308 ENB AZ8		0.8									●						
 F1 R-hand shown	CCGT 060201 F _{R/L} F1		0.1	R		R		R										
	060202 F _{R/L} F1		0.2	R		R		R										
	060204 F _{R/L} F1		0.4	R		R		R										
	CCGT 09T302 F _{R/L} F1		0.2	R		R		R										
	09T304 F _{R/L} F1		0.4	R		R		R										
 KHG	CCET 0602005 F _{R/L} KHG		0.05				●											
	0602008 F _{R/L} KHG		0.08				●											
	0602018 F _{R/L} KHG		0.18				●											
	060202 F _{R/L} KHG		0.2				●											
	CCET 09T3005 F _{R/L} KHG		0.05				●	R										
	09T3008 F _{R/L} KHG		0.08				●	R										
	09T3018 F _{R/L} KHG		0.18				●	R										
	09T302 F _{R/L} KHG		0.2				●	R										

*Inserts having 01M, 02M or 04M as the R code can be used for machining when the component drawing specifies that the radius is less than R=0.1, R=0.2 or R=0.4 respectively.

● : Standard stock ● : New standard stock ■ : Scheduled to be produced by order ★ : Standard stock (Specified)

Item Number	IC	T	Relief angle
CC_0602	6.35	2.38	7°
CC_09T3	9.525	3.97	7°

<80 degree Rhombic Positive type>



Material	P	M	K	N	S	H
Steel	●	●	●	●	●	●
Stainless Steel	●	●	●	●	●	●
Cast Iron	●	●	●	●	●	●
Non-Ferrous Material	●	●	●	●	●	●
Heat Resistant Alloy	●	●	●	●	●	●
Hardened Material	●	●	●	●	●	●

● : 1st Choice
● : 2nd choice

Shape	ISO Item Number	Inch Item Number	R	Carbide										Chip Control Range	For applicable holder, see pages:		
				PVD Coated						CVD Coated							
				ST4	ZM3	QM3	VM1	TM4	DT4	DM4	CP1	CP7	KM1				
	CCGT 060200	R/4 S	0.03	●	●	●	●	●	●	●	●						
	060201	R/4 S	0.1	●	●	●	●	●	●	●	●						
	060202	R/4 S	0.2	●	●	●	●	●	●	●	●						
	060201M	R/4 S	*0.08		R				R								
	060202M	R/4 S	*0.18		R				R								
	CCGT 09T300	R/4 S	0.03	R	●		R	R									
	09T301	R/4 S	0.1	●	R	●											
	09T302	R/4 S	0.2	R	R	●											
	09T304	R/4 S	0.4	R													
	09T301M	R/4 S	*0.08		R		R	R									
09T302M	R/4 S	*0.18		R		R	R										
09T304M	R/4 S	*0.38		R		R	R	R									
	CCGT 060200	R/4 U	0.03		R				R								
	060201	R/4 U	0.1	●				R									
	060202	R/4 U	0.2	●				R									
	CCGT 09T300	R/4 U1	0.03	●				R	R								
	09T301	R/4 U1	0.1	●				R	R								
	09T302	R/4 U1	0.2	●				R	R								
	CCGT 060201M	CL	*0.08	●	●	●	●	●	●	●	●					G23 K28	
	060202M	CL	*0.18	●	●	●	●	●	●	●	●						
	09T300	CL	0.03					●	●								
	09T301M	CL	*0.08	●	●	●	●	●	●	●	●						
	09T302M	CL	*0.18	●	●	●	●	●	●	●	●						
	CCGT 09T300	YL	0.03					●	●								
	09T301M	YL	0.08	●	●	●	●	●	●	●							
	09T302M	YL	0.18	●	●	●	●	●	●	●							
	09T304M	YL	0.38	●	●	●	●	●	●	●							
	09T308M	YL	0.78	●	●	●	●	●	●	●							
	CCGW 060200	FN	0.03	●													
	060201	FN	0.1	●													
	060200	H (M)	0.03									●					
	060201	H (M)	0.1									●					
	060202	H (M)	0.2									●					
	CCGW 09T300	FN	0.03	●													
	09T301	FN	0.1	●													
	09T300	H (M)	0.03									●					
	09T301	H (M)	0.1									●					
	09T302	H (M)	0.2									●					
	09T302M	P (M)	*0.18							●							
	09T30	V (M)	0.0					●									
09T301	P (M)	0.1					●										
09T302	P (M)	0.2					●										

* Inserts having 01M, 02M or 04M as the R code can be used for machining when the component drawing specifies that the radius is less than R=0.1, R=0.2 or R=0.4 respectively.
 ● : Standard stock ● : New standard stock ■ : Scheduled to be produced by order ★ : Standard stock (Specified)
 ※2 The specifications of CL chipbreaker are slightly different from the above dimensions, but it has no problem for machining.

Tool List

STICK DUO - Sleeves for ID machining -

NBH Shank diameter ϕ 15.875 ~ 19.05

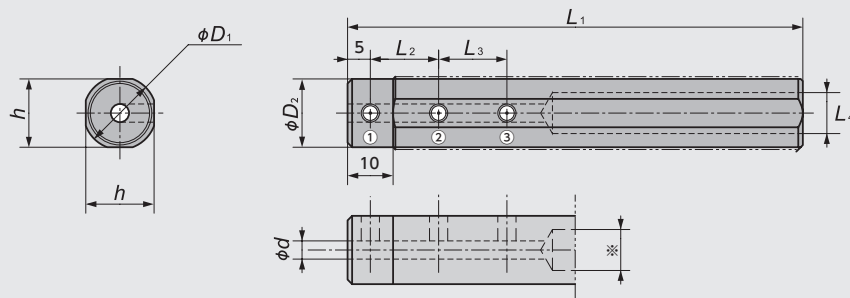


Figure-1

NBH Shank diameter ϕ 20.0 ~ 32.0

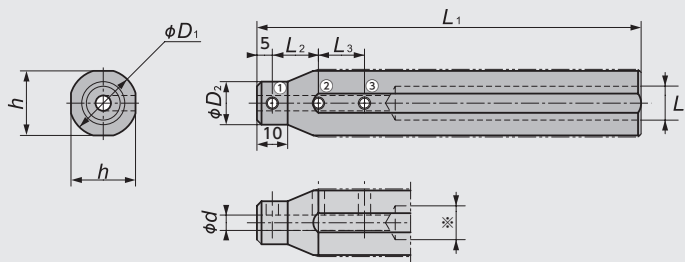


Figure-2

Figure	Code No.	Item Number	Stock	Dimensions (mm)								Clamp Screw			Wrench
				ϕd	ϕD_1	ϕD_2	h	L_1	L_2	L_3	L_4	①	②	③	
1	5631403	NBH02015H	●	2.0	15.875	15	15	100	10	—	9.0	SS0406F	SS0406F	—	LW-2
	5702915	02515H	●	2.5											
	5631411	03015H	●	3.0											
	5586110	03515H	●	3.5					15	15					
	5586128	04015H	●	4.0											
	5585997	04515H	●	4.5											
	5585989	05015H	●	5.0					20	20					
	5585971	06015H	●	6.0											
	5585963	08015H	●	8.0					SS0403F	SS0403F	SS0403F				
	5631429	NBH02016H	●	2.0	16	15	15	100	10	—	9.0	SS0406F	SS0406F	—	
	5702899	02516H	●	2.5											
	5631437	03016H	●	3.0											
	5586102	03516H	●	3.5					15	15					
	5586094	04016H	●	4.0											
	5586086	04516H	●	4.5											
5586078	05016H	●	5.0	20					20						
5586060	06016H	●	6.0												
5774195	07016H	●	7.0	SS0403F					SS0403F	SS0403F					
5586052	08016H	●	8.0												
5631445	NBH02019K	●	2.0	19.05	18	18	125	10	—	11.0	SS0408F	SS0408F	—		
5702907	02519K	●	2.5												
5631452	03019K	●	3.0												
5586045	03519K	●	3.5					15	15						
5586037	04019K	●	4.0												
5586029	04519K	●	4.5												
5586011	05019K	●	5.0					20	20						
5586003	06019K	●	6.0												
5774203	07019K	●	7.0					SS0404F	SS0404F	SS0404F					
5586227	08019K	●	8.0												
5586219	10019K	●	10.0					SS0403F							

Figure	Code No.	Item Number	Stock	Dimensions (mm)								Clamp Screw			Wrench
				ϕd	ϕD_1	ϕD_2	h	L_1	L_2	L_3	L_4	①	②	③	
2	5631460	NBH02020K	●	2.0	20	11	19	125	15	15	11.0	SS0404F	SS0404F	SS0406F	LW-2
	5702881	02520K	●	2.5											
	5631478	03020K	●	3.0											
	5586201	03520K	●	3.5											
	5586185	04020K	●	4.0											
	5586177	04520K	●	4.5											
	5586169	05020K	●	5.0											
	5586151	06020K	●	6.0											
	5774211	07020K	●	7.0											
	5586144	08020K	●	8.0											
	5586136	10020K	●	10.0											
	5914742	12020K	●	12.0											
	5631486	NBH02022K	●	2.0	22	11	21	125	15	15	11.0	SS0404F	SS0406F	SS0406F	LW-2
	5702873	02522K	●	2.5											
	5631494	03022K	●	3.0											
	5586326	03522K	●	3.5											
	5586318	04022K	●	4.0											
	5586300	04522K	●	4.5											
	5586292	05022K	●	5.0											
	5586284	06022K	●	6.0											
	5774229	07022K	●	7.0											
	5586276	08022K	●	8.0											
	5586268	10022K	●	10.0											
	5631502	12022K	●	12.0											
	5631510	NBH02023K	●	2.0	23	11	21	125	15	15	11.0	SS0404F	SS0406F	SS0406F	LW-2
	5702857	02523K	●	2.5											
	5631528	03023K	●	3.0											
	5586250	03523K	●	3.5											
	5651336	04023K	●	4.0											
	5586243	04523K	●	4.5											
	5631536	05023K	●	5.0											
	5631544	06023K	●	6.0											
	5631551	08023K	●	8.0											
	5631569	10023K	●	10.0											
	5631577	12023K	●	12.0											
	5631585	NBH02025K-MET	●	2.0	25	11	24	125	15	15	11.0	SS0404F	SS0408F	SS0408F	LW-2
	5704283	02525K-MET	●	2.5											
	5631593	03025K-MET	●	3.0											
	5631601	03525K-MET	●	3.5											
	5651328	04025K-MET	●	4.0											
	5631619	04525K-MET	●	4.5											
	5631627	05025K-MET	●	5.0											
	5631635	06025K-MET	●	6.0											
	5774252	07025K-MET	●	7.0											
	5631643	08025K-MET	●	8.0											
	5631650	10025K-MET	●	10.0											
	5631668	12025K-MET	●	12.0											
	5631676	NBH02025K	●	2.0	25.4	11	24	125	15	15	11.0	SS0404F	SS0408F	SS0408F	LW-2
	5702865	02525K	●	2.5											
	5631684	03025K	●	3.0											
	5586235	03525K	●	3.5											
	5586383	04025K	●	4.0											
	5586375	04525K	●	4.5											
	5586367	05025K	●	5.0											
	5586359	06025K	●	6.0											
	5774260	07025K	●	7.0											
	5586342	08025K	●	8.0											
	5586334	10025K	●	10.0											
	5631692	12025K	●	12.0											
	5939475	NBH04532K	●	4.5	32.0	13	30	125	20.0	20.0	11.0	SS0404F	SS0408F	SS0408F	LW-2
	5939483	05032K	●	5.0											
	5939491	06032K	●	6.0											
	5939509	07032K	●	7.0											
	5939525	08032K	●	8.0											
	5939533	10032K	●	10.0											
	5939467	12032K	●	12.0											
	5939459	14032K	●	14.0											
	5939442	16032K	●	16.0											
											18.0				

- New Products
- Tool Materials / Selection Guide
- Micrograin Carbide, BIDEIMS, PCD, CBN and Ceramics
- Insert Item List
- General Turning Toolholders
- Unique Swiss Tooling
- Grooving / Side Turning
- Threading
- Shaper
- ID Tooling
- Application Introduction
- Endmills
- Rotating Tools
- Information
- Index

Tool List

Bars for STICK DUO

SBFS-S Chips can be evacuated forward

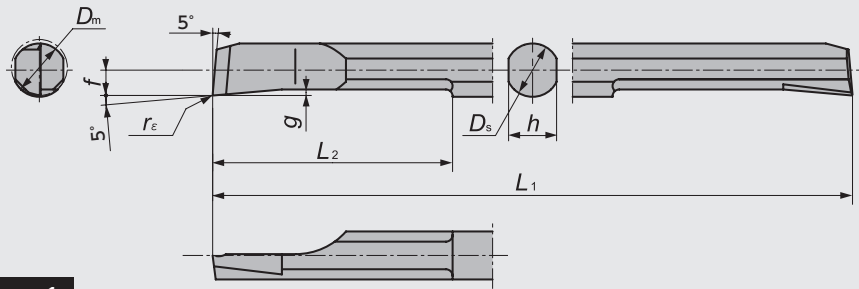
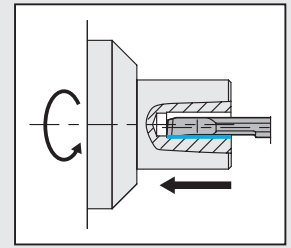
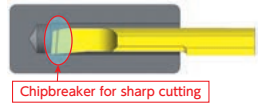


Figure-1



S.FS-S type



Chipbreaker for sharp cutting

SBFB-F Evacuate chips backward

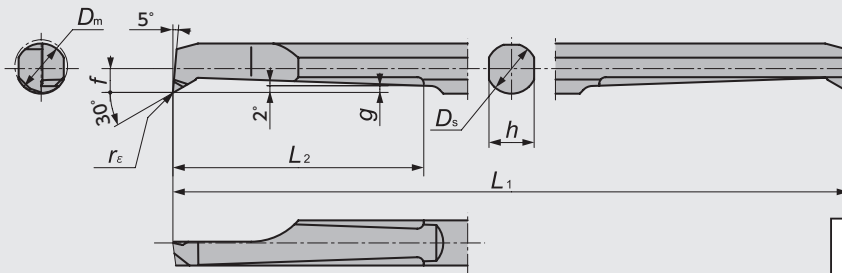
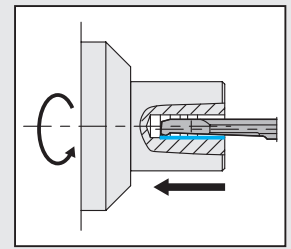
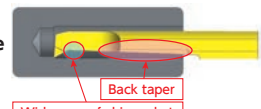


Figure-2



S.FB-F type



Back taper
Wide area of chip pocket

SBFS-H Flat type (without chipbreaker)

Mirror finish

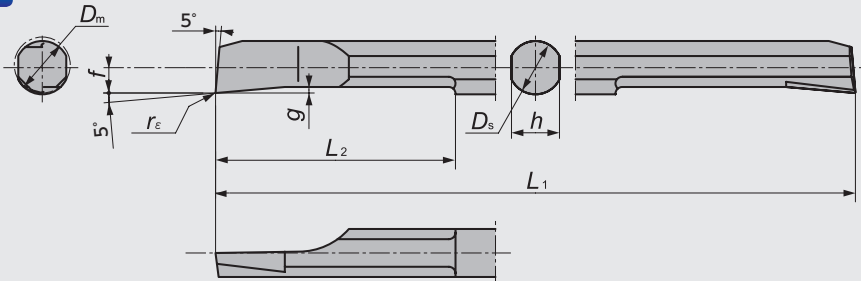
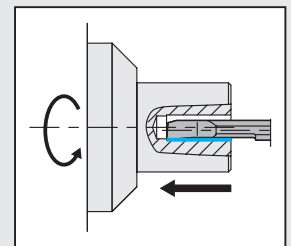


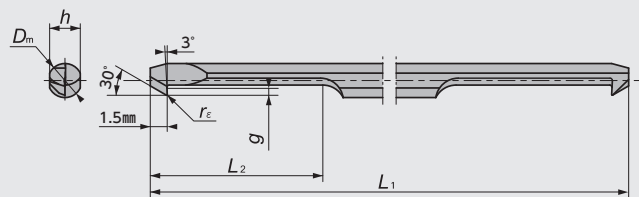
Figure-3



SBB Series (ID Back Turning)

SBB (Minimum Bore Diameter 3.0mm)

Short type
two-sided



Long type
single-sided

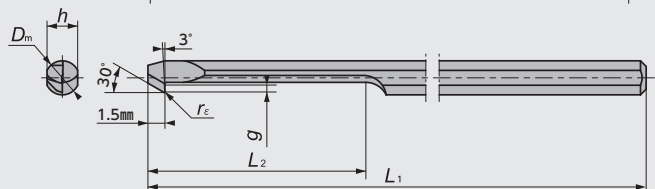


Figure-4

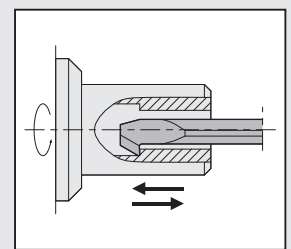

















Figure	Item Number	Min Bore Dia. (mm) D_m	Chip-breaker	Dimensions (mm)							PVD Coated Carbide			
				D_s	L_1	L_2	f	h	g	r_ϵ	DT4	Stock	ZM3	Stock
1	SBFS020R005S	2.2	Yes	2	50	10	0.9	1.8	0.25	0.05	5882907	●	5654975	●
	025R005S	2.7		2.5	50	12.5	1.15	2.3	0.30	0.05	5882881	●	5685995	●
	025R015S									0.15	5882873	●	5685987	●
	030R005S	3.2		3	50	15	1.4	2.7	0.40	0.05	5882865	●	5640891	●
	030R015S									0.15	5882857	●	5649165	●
	035R005S	3.7		3.5	60	17.5	1.65	3.2	0.40	0.05	5882840	●	5685888	●
	035R015S									0.15	5882832	●	5685979	●
	040R005S	4.2		4	60	20	1.9	3.6	0.45	0.05	5882824	●	5640867	●
	040R015S									0.15	5882816	●	5649140	●
	050R005S	5.2		5	70	25	2.4	4.5	0.50	0.05	5882808	●	5654983	●
	050R015S									0.15	5882790	●	5654991	●
	060R005S	6.2		6	80	30	2.9	5.4	0.60	0.05	5882782	●	5704861	●
060R015S	0.15		5882766							●	5704853	●		
2	SBFB020R005F	2.2	Yes	2	50	8	0.95	1.8	0.25	0.05	5882758	●	5658026	●
	025R005F	2.7		2.5	50	12.5	1.2	2.3	0.30	0.05	5882741	●	5685920	●
	025R015F									0.15	5882733	●	5685912	●
	030R005F	3.2		3	50	15	1.4	2.7	0.45	0.05	5882725	●	5640883	●
	030R015F									0.15	5882717	●	5649173	●
	035R005F	3.7		3.5	60	17.5	1.65	3.2	0.50	0.05	5882709	●	5685904	●
	035R015F									0.15	5882691	●	5685896	●
	040R005F	4.2		4	60	20	1.9	3.6	0.50	0.05	5882683	●	5640875	●
	040R015F									0.15	5882675	●	5649157	●
	050R005F	5.2		5	70	25	2.4	4.5	0.70	0.05	5882667	●	5655006	●
	050R015F									0.15	5882659	●	5655014	●
	060R005F	6.2		6	80	30	2.9	5.4	0.90	0.05	5882634	●	5704796	●
060R015F	0.15		5882626							●	5704812	●		
3	SBFS020R005H 	2.2	No	2	50	10	0.9	1.8	0.25	0.05			5674866	●
	025R005H 	2.7		2.5	50	12.5	1.15	2.3	0.30	0.05			5685961	●
	025R015H 									0.15			5685953	●
	030R005H 	3.2		3	50	15	1.4	2.7	0.40	0.05			5674874	●
	030R015H 									0.15			5674882	●
	035R005H 	3.7		3.5	60	17.5	1.65	3.2	0.40	0.05			5685946	●
	035R015H 									0.15			5685938	●
	040R005H 	4.2		4	60	20	1.9	3.6	0.45	0.05			5674890	●
	040R015H 									0.15			5674908	●
	050R005H 	5.2		5	70	25	2.4	4.5	0.50	0.05			5674924	●
	050R015H 									0.15			5674940	●
	060R005H 	6.2		6	80	30	2.9	5.4	0.60	0.05			5705207	●
060R015H 	0.15										5705199	●		
080R005H 	8.2	8	80	30	3.9	7.3	0.80	0.05			5705850	●		
080R015H 								0.15			5705843	●		
4 Short Type	SBB030RB005-S	3.0	Yes	3	50	15	1.3	2.7	0.50	0.05			5917067	●
	030RB010-S									0.1			5917042	●
	040RB005-S	4.0		4	60	18	1.8	3.6	0.80	0.05			5917414	●
	040RB015-S									0.15			5917372	●
4 Long Type	SBB030RB005	3.0	Yes	3	50	19	1.3	2.7	0.50	0.05			5917059	●
	030RB010									0.1			5917034	●
	040RB005	4.0		4	60	24	1.8	3.6	0.80	0.05			5917380	●
	040RB015									0.15			5917364	●

※Caution: Due to the tolerance, it might not fit into the holder which is made by other company.

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