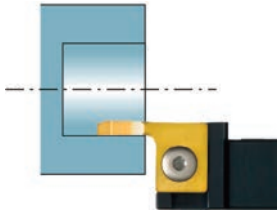





ID Tooling

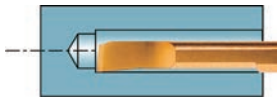
Product Lines	V02
Recommended Cutting Conditions	V04
General Information	V05
LBM.. series	V06
STICK DUO series	V09
MBL.. series	V23
ERGH.. series	V26
CP.. series	V28
CC.. series	V30
TP.. series	V34
TC.. series	V40
ID Grooving	
GTG.. series	V44
Internal Thread	
TMN.. series	V46
Boring bar adaptors	V48




Product Lines




ID Tooling







Insert	LBM →V8		
	LBMA	DS-LBMB	CH-LBM
Holder	 →V6	 →V7	 →V7
Min. Bore Dia.	φ1.0		

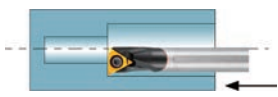



Insert	SHFS, SHFB, SBFS, SBFB →V13,V18		
	HY-NBH-OH	HY-NBH	NBH
Holder	 →V9 STICK DUO SPLASH with Coolant through	 →V11 STICK DUO HYPER	 →V14
Min. Bore Dia.	φ2.0		

	Holder	Insert	HY-NBH-OH	HY-NBH	NBH
			STICK DUO HYPER	STICK DUO HYPER	STICK DUO
"S" chip breaker  Sharp cutting edge	High Precision Insert	Best fit	Best fit	2nd OPT.	
	SBFS-S	2nd OPT.	2nd OPT.	Best fit	
"F" chip breaker  Evacuates chips BACKWARD	SHFB-F High Precision Insert	Best fit	Best fit	2nd OPT.	
	SBFB-F	2nd OPT.	2nd OPT.	Best fit	
"H" Flat type  Mirror finish edge	SHFS-H High Precision Insert	Best fit	Best fit	2nd OPT.	
	SBFS-H	2nd OPT.	2nd OPT.	Best fit	
Back turning	SBB	2nd OPT.	2nd OPT.	Best fit	
Grooving	SBG	2nd OPT.	2nd OPT.	Best fit	
Threading	SBT	2nd OPT.	2nd OPT.	Best fit	

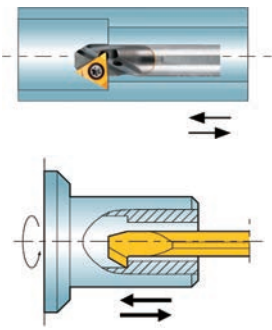


Insert	MBL →V25		ERGP →V27	
	C-MBR (Carbide shank)	S-MBR (Steel shank)	C-SEXR (Carbide shank)	S-SEXR (Steel shank)
Holder	 →V23 Coolant through	 →V23 Coolant through	 →V26 Coolant through	 →V26 Coolant through
Min. Bore Dia.	φ5.0		φ6.0	



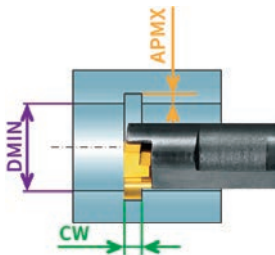
Insert	CC/CP →V29,V31		TC/TP →V37,V43	
	C-SCLC/P (Carbide shank)	S-SCLC/P (Steel shank)	C-STUC/P (Carbide shank)	S-STUC/P (Steel shank)
Holder	 →V28,V30 Coolant through	 →V28,V30 Coolant through	 →V34,V40 Coolant through	 →V34,V40 Coolant through
Min. Bore Dia.	φ7.0		φ8.0	



ID Back Turning



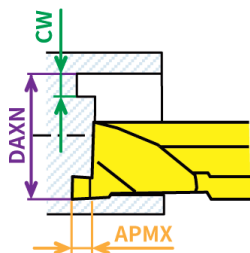
Insert	SBB →V20	TC/TP →V37,V43	MBL →V25
	NBH	C-STZP/C (Carbide shank)	C-MSBR (Carbide shank)
Holder	 →V14	 →V36,V42	 →V25
Min. Bore Dia.	φ3.0	φ10.0	φ5.7 / φ7.7


ID Grooving



Insert	SBG →V21	GTG →V45
	NBH	S-BG / BG
Holder	 →V14	 →V44
CW : Blade width	0.5 - 2.0mm	0.5 - 2.0mm
APMX : Depth of cut	-2.0mm	-3.0mm
DMIN : Min. Bore Dia.	3/4/5/6/8mm	10/12/14/16/20/25mm



ID Face Grooving



Insert	SFG →V22
	NBH
Holder	 →V14
CW : Blade width	1.0 - 3.0mm
APMX : Depth of cut	-3.0mm
DAXN : Min. Bore Dia.	6/8 mm

Internal Thread



Insert	SBT →V22	TMN →V47
	NBH	TGC / HN
Holder	 →V14	 →V46
Thread Angle	60°	60°
Pitch	0.5 - 1.75mm	0.4 - 0.75mm
CDX	0.6 - 1.8mm	0.7 - 1.0mm

Recommended Cutting Conditions

ID Turning

Min.Bore Dia. ≤ φ6 (LBM / STICK DUO)

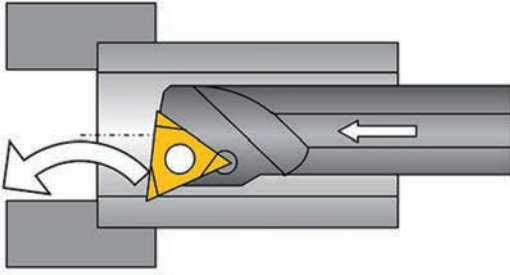
Work Material		High Temperature Alloys	Titanium Alloys	Cobalt Chrome Alloys	Stainless Steels		Alloy Steels	Carbon Steels
					Hard to cut	Free cutting		
Common Name			Ti-6Al-4V	ASTM F-75	SUS304 SUS316 17-4PH	SUS303 SUS430F	SCr420 SCM435	S10C S45C
Grade	1st choice	DM4 / DT4					VM1 / TM4	
	2nd choice	VM1 / ZM3					ZM3	
Cutting Speed (m/min)		20 50 70			30 60 90			
Feed Rate (mm/rev)		0.01 0.03 0.05						
Depth Of Cut (DOC)		0.05 0.08 0.1						

Min.Bore Dia. > φ6

Work Material		High Temperature Alloys	Titanium Alloys	Cobalt Chrome Alloys	Stainless Steels		Alloy Steels	Carbon Steels	
					Hard to cut	Free cutting			
Common Name			Ti-6Al-4V	ASTM F-75	SUS304	SUS316 17-4PH	SUS303 SUS430F	SCr420 SCM435	S10C S45C
Grade	1st choice	DM4 / DT4			ST4 DM4	DM4 DT4	TM4	QM3	
	2nd choice	TM4			QM3 / TM4		QM3	TM4 / DT4	
Cutting Speed (m/min)		45 70 100			40 70 100	45 90 180	45 90 150		
Feed Rate (mm/rev)		0.02 0.06 0.12							
Depth Of Cut (DOC)		0.1 0.5 2.0							

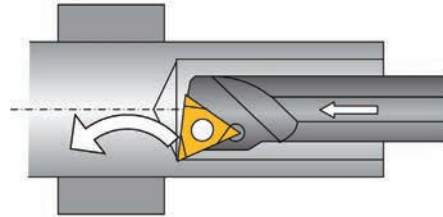
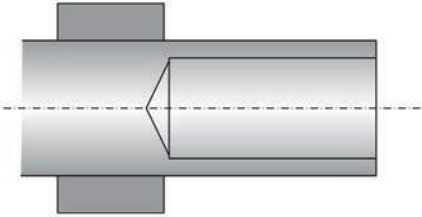
General Information

Through hole

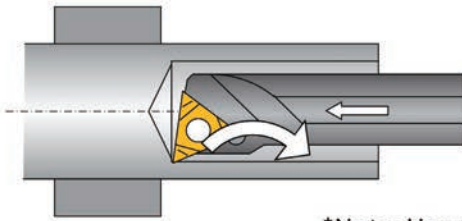


For chip control : chips can be evacuated forward

Blind hole



Typical inserts direct chip flow forward. Then packed chips damage and break cutting edge

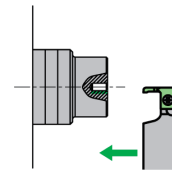
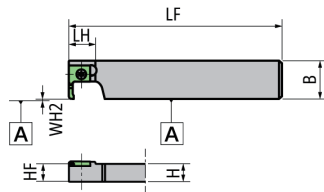


F05, F1, and FG chipbreakers will direct chips backwards and eliminate chipping on inserts

*Note: Use right-hand inserts with F05, F1 and FG chipbreaker for right-hand boring bars

LBM.. series/Toolholders

LBMA



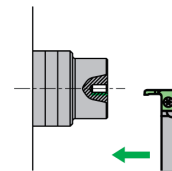
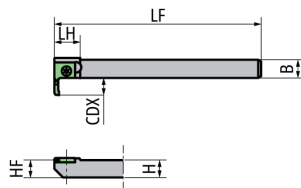
● Diagram shows right-hand tool

EDP	Item Number	Stock	Hand	B mm	H mm	HF mm	LF mm	LH mm	WF mm	WF2 mm	Insert Gage
5383476	LBMAR08	●	R	21.5	8	8	120	15	0	0	LBM..
5359849	LBMAR10	●	R	21.5	10	10	120	15	0	0	LBM..
5362199	LBMAR12	●	R	21.5	12	12	120	15	0	0	LBM..
5378278	LBMAR16	●	R	21.5	16	16	120	15	0	0	LBM..

Spare Parts

Item Number	Clamp screw	Wrench (for Clamp screw)
LBMAR08	LRIS-4*10	LLR-25S
LBMAR10	LRIS-4*10PW	CLR-15S
LBMAR12	LRIS-4*10PW	CLR-15S
LBMAR16	LRIS-4*12PW	CLR-15S

LBMA-F



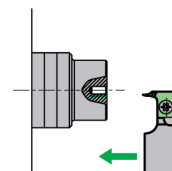
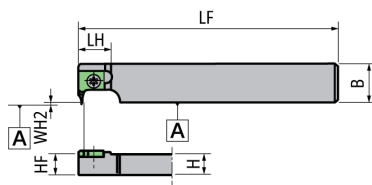
● Diagram shows right-hand tool

EDP	Item Number	Stock	Hand	B mm	CDX mm	H mm	HF mm	LF mm	LH mm	WF mm	WF2 mm	Insert Gage
5359831	LBMAR10-F	●	R	10	10	10	10	120	15	10	10	LBM.. LBM..S

Spare Parts

Item Number	Clamp screw	Wrench (for Clamp screw)
LBMAR10-F	LRIS-4*12PW	CLR-15S

LBMA-S



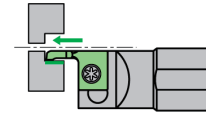
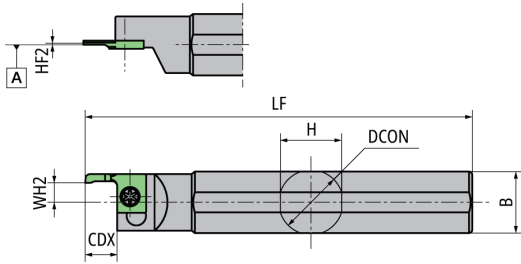
● Diagram shows right-hand tool

EDP	Item Number	Stock	Hand	B mm	H mm	HF mm	LF mm	LH mm	WF mm	WF2 mm	Insert Gage
5571435	LBMAR10SGX	●	R	18	10	10	85	15	0	0	LBMD..S
5486311	LBMAR10S	●	R	18	10	10	120	15	0	0	LBMD..S
5486329	LBMAR12S	●	R	18	12	12	120	15	0	0	LBMD..S

Spare Parts

Item Number	Clamp screw	Wrench (for Clamp screw)
LBMAR10SGX	LRIS-4*10PW	CLR-15S
LBMAR10S	LRIS-4*10PW	CLR-15S
LBMAR12S	LRIS-4*12PW	CLR-15S

DS-LBMB DS Toolholders



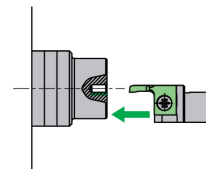
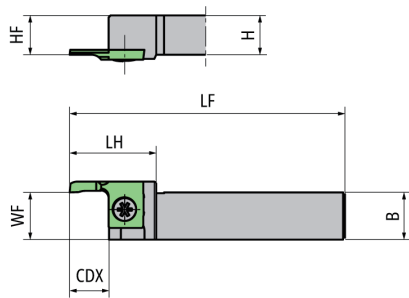
● Diagram shows left-hand tool

EDP	Item Number	Stock	Hand	B mm	CDX mm	DCON mm	H mm	HF2 mm	LF mm	WF mm	WF2 mm	Insert Gage	
5359856	DS-LBMBL14F	●	L	13	10	14	13	0	80	6.35	6.35	LBM..	LBMD..S
5359914	DS-LBMBL15H	●	L	15	10	15.875	15	0	100	6.35	6.35	LBM..	LBMD..S
5359906	DS-LBMBL16X	●	L	15	10	16	15	0	95	6.35	6.35	LBM..	LBMD..S
5359898	DS-LBMBL19	●	L	18	10	19.05	18	0	120	6.35	6.35	LBM..	LBMD..S
5359880	DS-LBMBL20	●	L	19	10	20	19	0	120	6.35	6.35	LBM..	LBMD..S
5359872	DS-LBMBL22	●	L	21	10	22	21	0	120	6.35	6.35	LBM..	LBMD..S
5393905	DS-LBMBL25	●	L	24	10	25.4	24	0	150	6.35	6.35	LBM..	LBMD..S
5483441	DS-LBMBL25-MET	●	L	24	10	25	24	0	120	6.35	6.35	LBM..	LBMD..S

Spare Parts

Item Number	Clamp screw	Wrench (for Clamp screw)
DS-LBMBL14F	LRIS-4*10PW	CLR-15S
DS-LBMBL15H	LRIS-4*10PW	CLR-15S
DS-LBMBL16X	LRIS-4*10PW	CLR-15S
DS-LBMBL19	LRIS-4*10PW	CLR-15S
DS-LBMBL20	LRIS-4*10PW	CLR-15S
DS-LBMBL22	LRIS-4*10PW	CLR-15S
DS-LBMBL25	LRIS-4*10PW	CLR-15S
DS-LBMBL25-MET	LRIS-4*10PW	CLR-15S

CH-LBM for horizontal gang style tool post



● Diagram shows left-hand tool

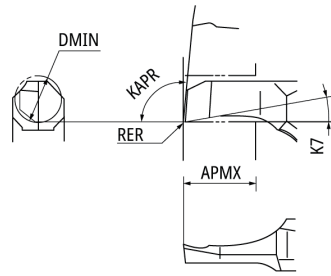
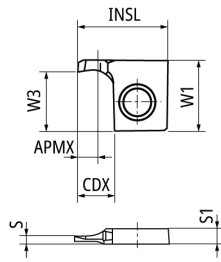
EDP	Item Number	Stock	Hand	B mm	CDX mm	H mm	HF mm	LF mm	LH mm	WF mm	Insert Gage	
5659164	CH-LBML1012H	●	L	12	10	10	10	100	22	12.35	LBM..	LBMD..S
5659172	CH-LBML1212H	●	L	12	10	12	12	100	22	12.35	LBM..	LBMD..S

Spare Parts

Item Number	Clamp screw	Wrench (for Clamp screw)
CH-LBML1012H	LRIS-4*10PW	CLR-15S
CH-LBML1212H	LRIS-4*10PW	CLR-15S

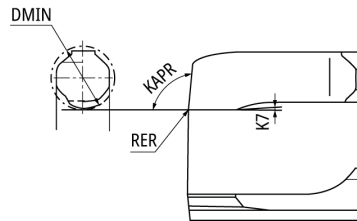
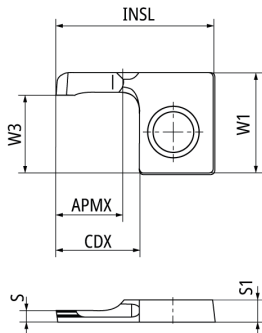
LBM.. series/Inserts Carbide

LBMD-S Short type



Item Number	Hand	Chip-breaker	DMIN	APMX	CDX	INSL	K7	KAPR	RE	S	S1	W1	W3	Carbide PVD		
														VM1	ZM3	
LBMD1020FLPB05S	M	L	Yes	1	2	6	15	10	95	0.05	1.25	2.5	12	10	●	●
LBMD1020FLVBS	M	L	Yes	1	2	6	15	10	95	0	1.25	2.5	12	10	●	●
LBMD1430FLPB05S	M	L	Yes	1.4	3	6	15	10	95	0.05	1.25	2.5	12	10	●	●
LBMD1430FLVBS	M	L	Yes	1.4	3	6	15	10	95	0	1.25	2.5	12	10	●	●
LBMD1730FLPB05S	M	L	Yes	1.7	3	6	15	10	95	0.05	1.25	2.5	12	10	●	●
LBMD1730FLVBS	M	L	Yes	1.7	3	6	15	10	95	0	1.25	2.5	12	10	●	●
LBMD2035FLPB05S	M	L	Yes	2	3.5	6	15	10	95	0.05	1.25	2.5	12	10	●	●
LBMD2035FLVBS	M	L	Yes	2	3.5	6	15	10	95	0	1.25	2.5	12	10	●	●
LBMD2335FLPB05S	M	L	Yes	2.3	3.5	6	15	10	95	0.05	1.25	2.5	12	10	●	●
LBMD2335FLVBS	M	L	Yes	2.3	3.5	6	15	10	95	0	1.25	2.5	12	10	●	●

LBM Long type

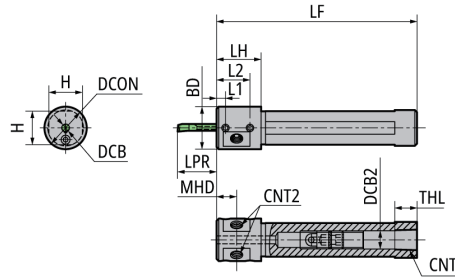


Item Number	Hand	Chip-breaker	DMIN	APMX	CDX	INSL	K7	KAPR	RE	S	S1	W1	W3	Carbide PVD		
														VM1	ZM3	
LBMD1020FLPB05	M	L	Yes	1	2	9.9	18.9	10	95	0.05	1.25	2.5	12	10	●	●
LBMD1020FLVB	M	L	Yes	1	2	9.9	18.9	10	95	0	1.25	2.5	12	10	●	●
LBMD2060FLPB05	M	L	Yes	2	6	9.9	18.9	10	95	0.05	1.25	2.5	12	10	●	●
LBMD2060FLVB	M	L	Yes	2	6	9.9	18.9	10	95	0	1.25	2.5	12	10	●	●
LBME2060FLP05	M	L	No	2	6	9.9	18.9	2	105	0.05	1.25	2.5	12	10	●	●
LBME2060FLPB05	M	L	Yes	2	6	9.9	18.9	2	105	0.05	1.25	2.5	12	10	●	●
LBME2060FLV	M	L	No	2	6	9.9	18.9	2	105	0	1.25	2.5	12	10	●	●
LBME2060FLVB	M	L	Yes	2	6	9.9	18.9	2	105	0	1.25	2.5	12	10	●	●
LBM3080FLPB05	M	L	Yes	3	8	9.9	18.9	2	90	0.05	1.25	2.5	12	9.6	●	●
LBM3080FLVB	M	L	Yes	3	8	9.9	18.9	2	90	0	1.25	2.5	12	9.6	●	●
LBMC3080FLP05	M	L	No	3	8	9.9	18.9	2	95	0.05	1.25	2.5	12	9.6	●	●
LBMC3080FLPB05	M	L	Yes	3	8	9.9	18.9	2	95	0.05	1.25	2.5	12	9.6	●	●
LBMC3080FLV	M	L	No	3	8	9.9	18.9	2	95	0	1.25	2.5	12	9.6	●	●
LBMC3080FLVB	M	L	Yes	3	8	9.9	18.9	2	95	0	1.25	2.5	12	9.6	●	●

STICK DUO SPLASH

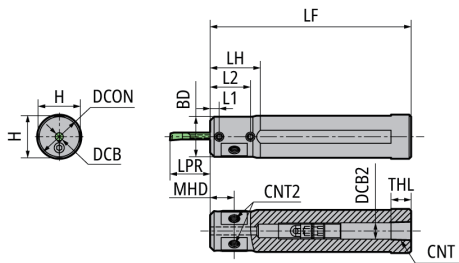
SHF.. series/Sleeve (Adjustable overhang/ Internal coolant system)

HY-NBH-OH Shank diameter $\Phi 16$



EDP	Item Number	Stock	Hand	BD mm	CNT	CNT2	DCB mm	DCB2 mm	DCON mm	H mm	LF mm	LH mm	LPR mm	L1 mm	L2 mm	MHD mm	THL mm	Applicable insert bar	
5893011	HY-NBH02016G-OH	●	N	19	Rc1/8	M6×P1.0	2	8.2	16	15	90	19	5-18	4	15	9.5	10	SBF../SHF..	SSP..
5893029	HY-NBH02516G-OH	●	N	19	Rc1/8	M6×P1.0	2.5	8.2	16	15	90	19	6.3-19.5	4	15	9.5	10	SBF../SHF..	SBT../SSP..
5893037	HY-NBH03016G-OH	●	N	19	Rc1/8	M6×P1.0	3	8.2	16	15	90	19	7.5-21	4	15	9.5	10	SBF../SHF../SBB..	SBG../SBT../SSP..
5893045	HY-NBH03516G-OH	●	N	19	Rc1/8	M6×P1.0	3.5	8.2	16	15	90	19	8.8-24.5	4	15	9.5	10	SBF../SHF..	SBT../SSP..
5893052	HY-NBH04016G-OH	●	N	19	Rc1/8	M6×P1.0	4	8.2	16	15	90	24	10-28	4	20	12	10	SBF../SHF../SBB..	SBG../SBT../SSP..
5893060	HY-NBH05016G-OH	●	N	19	Rc1/8	M6×P1.0	5	8.2	16	15	90	24	12.5-35	4	20	12	10	SBF../SHF..	SBG../SBT../SSP..

HY-NBH-OH Shank diameter $\Phi 19.05 - \Phi 25.4$

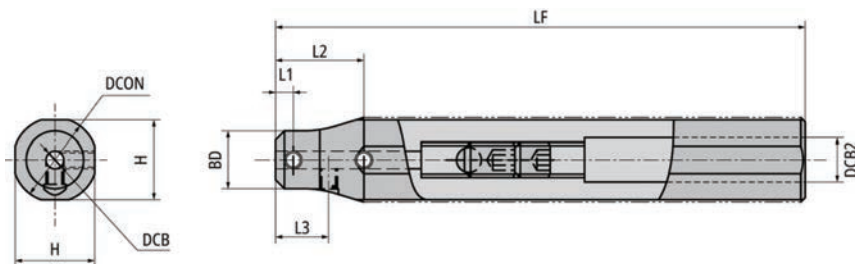


EDP	Item Number	Stock	Hand	BD mm	CNT	CNT2	DCB mm	DCB2 mm	DCON mm	H mm	LF mm	LH mm	LPR mm	L1 mm	L2 mm	MHD mm	THL mm	Applicable insert bar	
5893078	HY-NBH02019J-OH	●	N	19.05	Rc1/8	M6×P1.0	2	8.2	19.05	18	110	-	5-18	4	15	9.5	10	SBF../SHF..	SSP..
5893086	HY-NBH02519J-OH	●	N	19.05	Rc1/8	M6×P1.0	2.5	8.2	19.05	18	110	-	6.3-19.5	4	15	9.5	10	SBF../SHF..	SBT../SSP..
5893094	HY-NBH03019J-OH	●	N	19.05	Rc1/8	M6×P1.0	3	8.2	19.05	18	110	-	7.5-21	4	15	9.5	10	SBF../SHF../SBB..	SBG../SBT../SSP..
5893102	HY-NBH03519J-OH	●	N	19.05	Rc1/8	M6×P1.0	3.5	8.2	19.05	18	110	-	8.8-24.5	4	15	9.5	10	SBF../SHF..	SBT../SSP..
5893136	HY-NBH04019J-OH	●	N	19.05	Rc1/8	M6×P1.0	4	8.2	19.05	18	110	-	10-28	4	20	12	10	SBF../SHF../SBB..	SBG../SBT../SSP..
5893144	HY-NBH05019J-OH	●	N	19.05	Rc1/8	M6×P1.0	5	8.2	19.05	18	110	-	12.5-35	4	20	12	10	SBF../SHF..	SBG../SBT../SSP..
5967922	HY-NBH06019J-OH	●	N	19.05	Rc1/8	M6×P1.0	6	8.2	19.05	18	110	-	15-42	4	20	12	10	SBF../SHF..	SBG../SFG../SBT../SSP..
5893151	HY-NBH02020J-OH	●	N	20	Rc1/8	M6×P1.0	2	8.2	20	19	110	-	5-18	4	15	9.5	10	SBF../SHF..	SSP..
5893169	HY-NBH02520J-OH	●	N	20	Rc1/8	M6×P1.0	2.5	8.2	20	19	110	-	6.3-19.5	4	15	9.5	10	SBF../SHF..	SBT../SSP..
5893177	HY-NBH03020J-OH	●	N	20	Rc1/8	M6×P1.0	3	8.2	20	19	110	-	7.5-21	4	15	9.5	10	SBF../SHF../SBB..	SBG../SBT../SSP..
5893185	HY-NBH03520J-OH	●	N	20	Rc1/8	M6×P1.0	3.5	8.2	20	19	110	-	8.8-24.5	4	15	9.5	10	SBF../SHF..	SBT../SSP..
5893193	HY-NBH04020J-OH	●	N	20	Rc1/8	M6×P1.0	4	8.2	20	19	110	-	10-28	4	20	12	10	SBF../SHF../SBB..	SBG../SBT../SSP..
5893201	HY-NBH05020J-OH	●	N	20	Rc1/8	M6×P1.0	5	8.2	20	19	110	-	12.5-35	4	20	12	10	SBF../SHF..	SBG../SBT../SSP..
5967930	HY-NBH06020J-OH	●	N	20	Rc1/8	M6×P1.0	6	8.2	20	19	110	-	15-42	4	20	12	10	SBF../SHF..	SBG../SFG../SBT../SSP..
5893219	HY-NBH02022X-OH	●	N	20	Rc1/8	M6×P1.0	2	8.2	22	21	120	25	5-18	4	15	9.5	10	SBF../SHF..	SSP..
5893227	HY-NBH02522X-OH	●	N	20	Rc1/8	M6×P1.0	2.5	8.2	22	21	120	25	6.3-19.5	4	15	9.5	10	SBF../SHF..	SBT../SSP..
5893235	HY-NBH03022X-OH	●	N	20	Rc1/8	M6×P1.0	3	8.2	22	21	120	25	7.5-21	4	15	9.5	10	SBF../SHF../SBB..	SBG../SBT../SSP..
5893243	HY-NBH03522X-OH	●	N	20	Rc1/8	M6×P1.0	3.5	8.2	22	21	120	25	8.8-24.5	4	15	9.5	10	SBF../SHF..	SBT../SSP..
5893250	HY-NBH04022X-OH	●	N	20	Rc1/8	M6×P1.0	4	8.2	22	21	120	25	10-28	4	20	12	10	SBF../SHF../SBB..	SBG../SBT../SSP..
5893268	HY-NBH05022X-OH	●	N	20	Rc1/8	M6×P1.0	5	8.2	22	21	120	25	12.5-35	4	20	12	10	SBF../SHF..	SBG../SBT../SSP..
5967948	HY-NBH06022X-OH	●	N	20	Rc1/8	M6×P1.0	6	8.2	22	21	120	25	15-42	4	20	12	10	SBF../SHF..	SBG../SFG../SBT../SSP..
5893276	HY-NBH02025.0K-OH	●	N	20	Rc1/8	M6×P1.0	2	8.2	25	24	125	25	5-18	4	15	9.5	10	SBF../SHF..	SSP..
5893284	HY-NBH02525.0K-OH	●	N	20	Rc1/8	M6×P1.0	2.5	8.2	25	24	125	25	6.3-19.5	4	15	9.5	10	SBF../SHF..	SBT../SSP..
5893292	HY-NBH03025.0K-OH	●	N	20	Rc1/8	M6×P1.0	3	8.2	25	24	125	25	7.5-21	4	15	9.5	10	SBF../SHF../SBB..	SBG../SBT../SSP..
5893300	HY-NBH03525.0K-OH	●	N	20	Rc1/8	M6×P1.0	3.5	8.2	25	24	125	25	8.8-24.5	4	15	9.5	10	SBF../SHF..	SBT../SSP..
5893318	HY-NBH04025.0K-OH	●	N	20	Rc1/8	M6×P1.0	4	8.2	25	24	125	25	10-28	4	20	12	10	SBF../SHF../SBB..	SBG../SBT../SSP..
5893326	HY-NBH05025.0K-OH	●	N	20	Rc1/8	M6×P1.0	5	8.2	25	24	125	25	12.5-35	4	20	12	10	SBF../SHF..	SBG../SBT../SSP..
5967955	HY-NBH06025.0K-OH	●	N	20	Rc1/8	M6×P1.0	6	8.2	25	24	125	25	15-42	4	20	12	10	SBF../SHF..	SBG../SFG../SBT../SSP..
5893334	HY-NBH02025.4K-OH	●	N	20	Rc1/8	M6×P1.0	2	8.2	25.4	24	125	25	5-18	4	15	9.5	10	SBF../SHF..	SSP..
5893367	HY-NBH02525.4K-OH	●	N	20	Rc1/8	M6×P1.0	2.5	8.2	25.4	24	125	25	6.3-19.5	4	15	9.5	10	SBF../SHF..	SBT../SSP..
5893375	HY-NBH03025.4K-OH	●	N	20	Rc1/8	M6×P1.0	3	8.2	25.4	24	125	25	7.5-21	4	15	9.5	10	SBF../SHF../SBB..	SBG../SBT../SSP..
5893383	HY-NBH03525.4K-OH	●	N	20	Rc1/8	M6×P1.0	3.5	8.2	25.4	24	125	25	8.8-24.5	4	15	9.5	10	SBF../SHF..	SBT../SSP..
5893391	HY-NBH04025.4K-OH	●	N	20	Rc1/8	M6×P1.0	4	8.2	25.4	24	125	25	10-28	4	20	12	10	SBF../SHF../SBB..	SBG../SBT../SSP..
5893409	HY-NBH05025.4K-OH	●	N	20	Rc1/8	M6×P1.0	5	8.2	25.4	24	125	25	12.5-35	4	20	12	10	SBF../SHF..	SBG../SBT../SSP..
5967963	HY-NBH06025.4K-OH	●	N	20	Rc1/8	M6×P1.0	6	8.2	25.4	24	125	25	15-42	4	20	12	10	SBF../SHF..	SBG../SFG../SBT../SSP..

STICK DUO HYPER

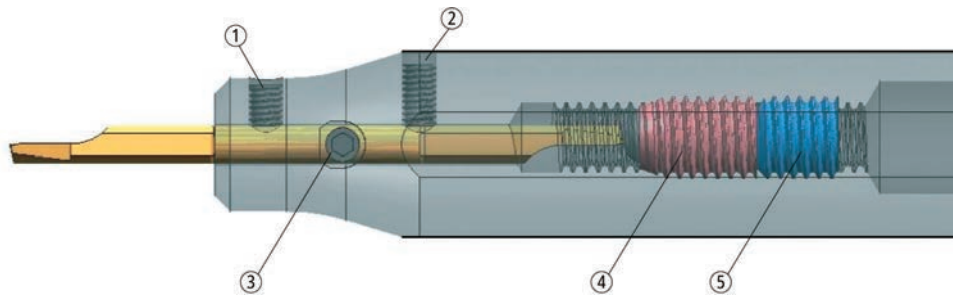
SHF.. series/Sleeve (Adjustable overhang)

HY-NBH



EDP	Item Number	Stock	Hand	BD mm	DCB mm	DCB2 mm	DCON mm	H mm	LF mm	L1 mm	L2 mm	L3 mm	Applicable insert bar
5709894	HY-NBH02016H	●	N	11	2	10	16	15	100	4	15	9.5	SBF../SHF.. SSP..
5709902	HY-NBH02516H	●	N	11.5	2.5	10	16	15	100	4	15	9.5	SBF../SHF.. SBT../SSP..
5709910	HY-NBH03016H	●	N	12	3	10	16	15	100	4	15	9.5	SBF../SHF../SBB.. SBG../SBT../SSP..
5709936	HY-NBH03516H	●	N	12.5	3.5	10	16	15	100	4	20	12	SBF../SHF.. SBT../SSP..
5709944	HY-NBH04016H	●	N	13	4	10	16	15	100	4	20	12	SBF../SHF../SBB.. SBG../SBT../SSP..
5709951	HY-NBH05016H	●	N	14	5	10	16	15	100	4	20	12	SBF../SHF.. SBG../SBT../SSP..
5709969	HY-NBH02019K	●	N	11	2	10	19.05	18	125	4	15	9.5	SBF../SHF.. SSP..
5709977	HY-NBH02519K	●	N	11.5	2.5	10	19.05	18	125	4	15	9.5	SBF../SHF.. SBT../SSP..
5709985	HY-NBH03019K	●	N	12	3	10	19.05	18	125	4	15	9.5	SBF../SHF../SBB.. SBG../SBT../SSP..
5709993	HY-NBH03519K	●	N	12.5	3.5	10	19.05	18	125	4	20	12	SBF../SHF.. SBT../SSP..
5710009	HY-NBH04019K	●	N	13	4	10	19.05	18	125	4	20	12	SBF../SHF../SBB.. SBG../SBT../SSP..
5710017	HY-NBH05019K	●	N	14	5	10	19.05	18	125	4	20	12	SBF../SHF.. SBG../SBT../SSP..
5712708	HY-NBH02020K	●	N	11	2	10	20	19	125	4	15	9.5	SBF../SHF.. SSP..
5712716	HY-NBH02520K	●	N	11.5	2.5	10	20	19	125	4	15	9.5	SBF../SHF.. SBT../SSP..
5712724	HY-NBH03020K	●	N	12	3	10	20	19	125	4	15	9.5	SBF../SHF../SBB.. SBG../SBT../SSP..
5712740	HY-NBH03520K	●	N	12.5	3.5	10	20	19	125	4	20	12	SBF../SHF.. SBT../SSP..
5712757	HY-NBH04020K	●	N	13	4	10	20	19	125	4	20	12	SBF../SHF../SBB.. SBG../SBT../SSP..
5712765	HY-NBH05020K	●	N	14	5	10	20	19	125	4	20	12	SBF../SHF.. SBG../SBT../SSP..
5712773	HY-NBH02022K	●	N	11	2	10	22	21	125	4	15	9.5	SBF../SHF.. SSP..
5712799	HY-NBH02522K	●	N	11.5	2.5	10	22	21	125	4	15	9.5	SBF../SHF.. SBT../SSP..
5712831	HY-NBH03022K	●	N	12	3	10	22	21	125	4	15	9.5	SBF../SHF../SBB.. SBG../SBT../SSP..
5712856	HY-NBH03522K	●	N	12.5	3.5	10	22	21	125	4	20	12	SBF../SHF.. SBT../SSP..
5712872	HY-NBH04022K	●	N	13	4	10	22	21	125	4	20	12	SBF../SHF../SBB.. SBG../SBT../SSP..
5712914	HY-NBH05022K	●	N	14	5	10	22	21	125	4	20	12	SBF../SHF.. SBG../SBT../SSP..
5712732	HY-NBH02025K-MET	●	N	11	2	10	25	24	125	4	15	9.5	SBF../SHF.. SSP..
5712823	HY-NBH02525K-MET	●	N	11.5	2.5	10	25	24	125	4	15	9.5	SBF../SHF.. SBT../SSP..
5712849	HY-NBH03025K-MET	●	N	12	3	10	25	24	125	4	15	9.5	SBF../SHF../SBB.. SBG../SBT../SSP..
5712864	HY-NBH03525K-MET	●	N	12.5	3.5	10	25	24	125	4	20	12	SBF../SHF.. SBT../SSP..
5712898	HY-NBH04025K-MET	●	N	13	4	10	25	24	125	4	20	12	SBF../SHF../SBB.. SBG../SBT../SSP..
5712922	HY-NBH05025K-MET	●	N	14	5	10	25	24	125	4	20	12	SBF../SHF.. SBG../SBT../SSP..
5713003	HY-NBH02025K	●	N	11	2	10	25.4	24	125	4	15	9.5	SBF../SHF.. SSP..
5713029	HY-NBH02525K	●	N	11.5	2.5	10	25.4	24	125	4	15	9.5	SBF../SHF.. SBT../SSP..
5713045	HY-NBH03025K	●	N	12	3	10	25.4	24	125	4	15	9.5	SBF../SHF../SBB.. SBG../SBT../SSP..
5713060	HY-NBH03525K	●	N	12.5	3.5	10	25.4	24	125	4	20	12	SBF../SHF.. SBT../SSP..
5713086	HY-NBH04025K	●	N	13	4	10	25.4	24	125	4	20	12	SBF../SHF../SBB.. SBG../SBT../SSP..
5713102	HY-NBH05025K	●	N	14	5	10	25.4	24	125	4	20	12	SBF../SHF.. SBG../SBT../SSP..

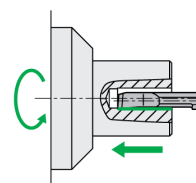
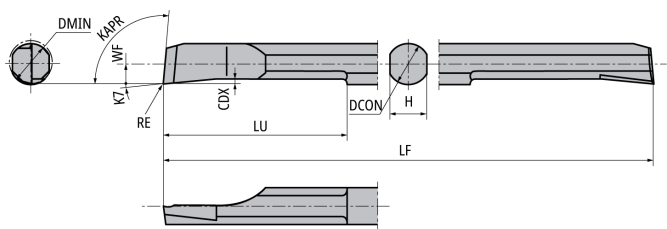
Spare Parts



Item Number	Clamp Screw			Overhang Adjustment		Wrench	
	①	②	③	④	⑤	①②③	④⑤
HY-NBH02016H	SS04045FS	SS0406F	SS0404F	SS0812R	SS0808F	LW-2	LW-4*104
HY-NBH02516H	SS04045FS	SS0406F	SS0404F	SS0812R	SS0808F	LW-2	LW-4*104
HY-NBH03016H	SS04045FS	SS0406F	SS0404F	SS0812R	SS0808F	LW-2	LW-4*104
HY-NBH03516H	SS04045FS	SS0404F	SS0404F	SS0812R	SS0808F	LW-2	LW-4*104
HY-NBH04016H	SS04045FS	SS0404F	SS0404F	SS0812R	SS0808F	LW-2	LW-4*104
HY-NBH05016H	SS04045FS	SS0404F	SS0404F	SS0812R	SS0808F	LW-2	LW-4*104
HY-NBH02019K	SS04045FS	SS0406F	SS0404F	SS0812R	SS0808F	LW-2	LW-4*104
HY-NBH02519K	SS04045FS	SS0406F	SS0404F	SS0812R	SS0808F	LW-2	LW-4*104
HY-NBH03019K	SS04045FS	SS0406F	SS0404F	SS0812R	SS0808F	LW-2	LW-4*104
HY-NBH03519K	SS04045FS	SS0406F	SS0404F	SS0812R	SS0808F	LW-2	LW-4*104
HY-NBH04019K	SS04045FS	SS0406F	SS0404F	SS0812R	SS0808F	LW-2	LW-4*104
HY-NBH05019K	SS04045FS	SS0406F	SS0404F	SS0812R	SS0808F	LW-2	LW-4*104
HY-NBH02020K	SS04045FS	SS0406F	SS0404F	SS0812R	SS0808F	LW-2	LW-4*104
HY-NBH02520K	SS04045FS	SS0406F	SS0404F	SS0812R	SS0808F	LW-2	LW-4*104
HY-NBH03020K	SS04045FS	SS0406F	SS0404F	SS0812R	SS0808F	LW-2	LW-4*104
HY-NBH03520K	SS04045FS	SS0406F	SS0404F	SS0812R	SS0808F	LW-2	LW-4*104
HY-NBH04020K	SS04045FS	SS0406F	SS0404F	SS0812R	SS0808F	LW-2	LW-4*104
HY-NBH05020K	SS04045FS	SS0406F	SS0404F	SS0812R	SS0808F	LW-2	LW-4*104
HY-NBH02022K	SS04045FS	SS0406F	SS0404F	SS0812R	SS0808F	LW-2	LW-4*104
HY-NBH02522K	SS04045FS	SS0406F	SS0404F	SS0812R	SS0808F	LW-2	LW-4*104
HY-NBH03022K	SS04045FS	SS0406F	SS0404F	SS0812R	SS0808F	LW-2	LW-4*104
HY-NBH03522K	SS04045FS	SS0406F	SS0404F	SS0812R	SS0808F	LW-2	LW-4*104
HY-NBH04022K	SS04045FS	SS0406F	SS0404F	SS0812R	SS0808F	LW-2	LW-4*104
HY-NBH05022K	SS04045FS	SS0406F	SS0404F	SS0812R	SS0808F	LW-2	LW-4*104
HY-NBH02025K-MET	SS04045FS	SS0406F	SS0404F	SS0812R	SS0808F	LW-2	LW-4*104
HY-NBH02525K-MET	SS04045FS	SS0406F	SS0404F	SS0812R	SS0808F	LW-2	LW-4*104
HY-NBH03025K-MET	SS04045FS	SS0406F	SS0404F	SS0812R	SS0808F	LW-2	LW-4*104
HY-NBH03525K-MET	SS04045FS	SS0406F	SS0404F	SS0812R	SS0808F	LW-2	LW-4*104
HY-NBH04025K-MET	SS04045FS	SS0406F	SS0404F	SS0812R	SS0808F	LW-2	LW-4*104
HY-NBH05025K-MET	SS04045FS	SS0406F	SS0404F	SS0812R	SS0808F	LW-2	LW-4*104
HY-NBH02025K	SS04045FS	SS0406F	SS0404F	SS0812R	SS0808F	LW-2	LW-4*104
HY-NBH02525K	SS04045FS	SS0406F	SS0404F	SS0812R	SS0808F	LW-2	LW-4*104
HY-NBH03025K	SS04045FS	SS0406F	SS0404F	SS0812R	SS0808F	LW-2	LW-4*104
HY-NBH03525K	SS04045FS	SS0406F	SS0404F	SS0812R	SS0808F	LW-2	LW-4*104
HY-NBH04025K	SS04045FS	SS0406F	SS0404F	SS0812R	SS0808F	LW-2	LW-4*104
HY-NBH05025K	SS04045FS	SS0406F	SS0404F	SS0812R	SS0808F	LW-2	LW-4*104

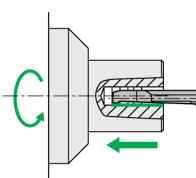
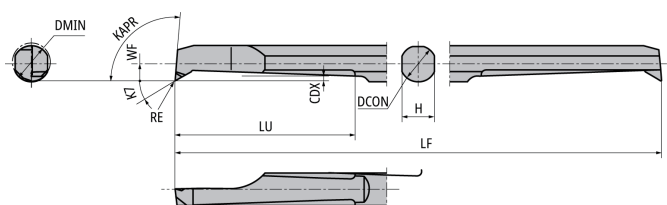
SHF.. series/Insert bar Carbide

SHFS-S Sharp cutting edge



Item Number	Hand	Chip-breaker	DMIN	CDX	DCON	H	K7	KAPR	LF	LU	RE	WF	Carbide PVD TM4
			mm	mm	mm	mm	°	°	mm	mm	mm	mm	
SHFS020R005S	R	Yes	2.2	0.25	2	1.8	5	95	50	10	0.05	0.9	●
SHFS025R005S	R	Yes	2.7	0.3	2.5	2.3	5	95	50	12.5	0.05	1.15	●
SHFS025R015S	R	Yes	2.7	0.3	2.5	2.3	5	95	50	12.5	0.15	1.15	●
SHFS030R005S	R	Yes	3.2	0.4	3	2.7	5	95	50	15	0.05	1.4	●
SHFS030R015S	R	Yes	3.2	0.4	3	2.7	5	95	50	15	0.15	1.4	●
SHFS035R005S	R	Yes	3.7	0.4	3.5	3.2	5	95	60	17.5	0.05	1.65	●
SHFS035R015S	R	Yes	3.7	0.4	3.5	3.2	5	95	60	17.5	0.15	1.65	●
SHFS040R005S	R	Yes	4.2	0.45	4	3.6	5	95	60	20	0.05	1.9	●
SHFS040R015S	R	Yes	4.2	0.45	4	3.6	5	95	60	20	0.15	1.9	●
SHFS050R005S	R	Yes	5.2	0.5	5	4.5	5	95	70	25	0.05	2.4	●
SHFS050R015S	R	Yes	5.2	0.5	5	4.5	5	95	70	25	0.15	2.4	●

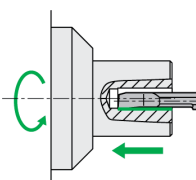
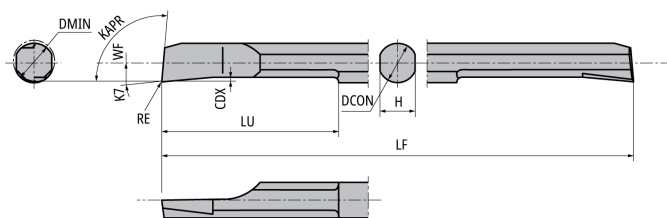
SHFB-F Evacuates chips BACKWARD



Item Number	Hand	Chip-breaker	DMIN	CDX	DCON	H	K7	KAPR	LF	LU	RE	WF	Carbide PVD TM4
			mm	mm	mm	mm	°	°	mm	mm	mm	mm	
SHFB020R005F	R	Yes	2.2	0.25	2	1.8	30	95	50	8	0.05	0.95	●
SHFB025R005F	R	Yes	2.7	0.3	2.5	2.3	30	95	50	12.5	0.05	1.2	●
SHFB025R015F	R	Yes	2.7	0.3	2.5	2.3	30	95	50	12.5	0.15	1.2	●
SHFB030R005F	R	Yes	3.2	0.45	3	2.7	30	95	50	15	0.05	1.4	●
SHFB030R015F	R	Yes	3.2	0.45	3	2.7	30	95	50	15	0.15	1.4	●
SHFB035R005F	R	Yes	3.7	0.5	3.5	3.2	30	95	60	17.5	0.05	1.65	●
SHFB035R015F	R	Yes	3.7	0.5	3.5	3.2	30	95	60	17.5	0.15	1.65	●
SHFB040R005F	R	Yes	4.2	0.5	4	3.6	30	95	60	20	0.05	1.9	●
SHFB040R015F	R	Yes	4.2	0.5	4	3.6	30	95	60	20	0.15	1.9	●
SHFB050R005F	R	Yes	5.2	0.7	5	4.5	30	95	70	25	0.05	2.4	●
SHFB050R015F	R	Yes	5.2	0.7	5	4.5	30	95	70	25	0.15	2.4	●

ID Tooling V

SHFS-H Mirror finish edge

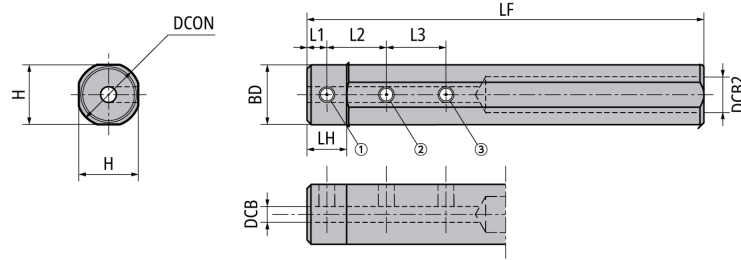


Item Number	Hand	Chip-breaker	DMIN	CDX	DCON	H	K7	KAPR	LF	LU	RE	WF	Carbide PVD TM4
			mm	mm	mm	mm	°	°	mm	mm	mm	mm	
SHFS020R005H	M R	Yes	2.2	0.25	2	1.8	5	95	50	10	0.05	0.9	●
SHFS025R005H	M R	Yes	2.7	0.3	2.5	2.3	5	95	50	12.5	0.05	1.15	●
SHFS025R015H	M R	Yes	2.7	0.3	2.5	2.3	5	95	50	12.5	0.15	1.15	●
SHFS030R005H	M R	Yes	3.2	0.4	3	2.7	5	95	50	15	0.05	1.4	●
SHFS030R015H	M R	Yes	3.2	0.4	3	2.7	5	95	50	15	0.15	1.4	●
SHFS035R005H	M R	Yes	3.7	0.4	3.5	3.2	5	95	60	17.5	0.05	1.65	●
SHFS035R015H	M R	Yes	3.7	0.4	3.5	3.2	5	95	60	17.5	0.15	1.65	●
SHFS040R005H	M R	Yes	4.2	0.45	4	3.6	5	95	60	20	0.05	1.9	●
SHFS040R015H	M R	Yes	4.2	0.45	4	3.6	5	95	60	20	0.15	1.9	●
SHFS050R005H	M R	Yes	5.2	0.5	5	4.5	5	95	70	25	0.05	2.4	●
SHFS050R015H	M R	Yes	5.2	0.5	5	4.5	5	95	70	25	0.15	2.4	●

STICK DUO

SB.. series/Sleeve

■ NBH Shank diameter $\Phi 15.875 - \Phi 19.05$



EDP	Item Number	Stock	Hand	BD mm	DCB mm	DCB2 mm	DCON mm	H mm	LF mm	LH mm	L1 mm	L2 mm	L3 mm	Insert	Gage
5631403	NBH02015H	●	N	15	2	9	15.875	15	100	10	5	10	-	SBF./SHF.	SSP.
5702915	NBH02515H	●	N	15	2.5	9	15.875	15	100	10	5	10	-	SBF./SHF.	SBT./SSP.
5631411	NBH03015H	●	N	15	3	9	15.875	15	100	10	5	10	10	SBF./SHF./SBB.	SBG./SBT./SSP.
5586110	NBH03515H	●	N	15	3.5	9	15.875	15	100	10	5	10	10	SBF./SHF.	SBT./SSP.
5586128	NBH04015H	●	N	15	4	9	15.875	15	100	10	5	15	15	SBF./SHF./SBB.	SBG./SBT./SSP.
5585997	NBH04515H	●	N	15	4.5	9	15.875	15	100	10	5	15	15	-	-
5585989	NBH05015H	●	N	15	5	9	15.875	15	100	10	5	15	15	SBF./SHF.	SBG./SBT./SSP.
5585971	NBH06015H	●	N	15	6	9	15.875	15	100	10	5	20	20	SBF./SHF.	SBG./SFG./SBT./SSP.
5585963	NBH08015H	●	N	15	8	9	15.875	15	100	10	5	20	20	SBF./SHF.	SBG./SFG./SSP.
5631429	NBH02016H	●	N	15	2	9	16	15	100	10	5	10	-	SBF./SHF.	SSP.
5702899	NBH02516H	●	N	15	2.5	9	16	15	100	10	5	10	-	SBF./SHF.	SBT./SSP.
5631437	NBH03016H	●	N	15	3	9	16	15	100	10	5	10	10	SBF./SHF./SBB.	SBG./SBT./SSP.
5586102	NBH03516H	●	N	15	3.5	9	16	15	100	10	5	10	10	SBF./SHF.	SBT./SSP.
5586094	NBH04016H	●	N	15	4	9	16	15	100	10	5	15	15	SBF./SHF./SBB.	SBG./SBT./SSP.
5586086	NBH04516H	●	N	15	4.5	9	16	15	100	10	5	15	15	-	-
5586078	NBH05016H	●	N	15	5	9	16	15	100	10	5	15	15	SBF./SHF.	SBG./SBT./SSP.
5586060	NBH06016H	●	N	15	6	9	16	15	100	10	5	20	20	SBF./SHF.	SBG./SFG./SBT./SSP.
5774195	NBH07016H	●	N	15	7	9	16	15	100	10	5	20	20	SBF./SHF.	-
5586052	NBH08016H	●	N	15	8	9	16	15	100	10	5	20	20	SBF./SHF.	SBG./SFG./SSP.
5631445	NBH02019K	●	N	18	2	11	19.05	18	125	10	5	10	-	SBF./SHF.	SSP.
5702907	NBH02519K	●	N	18	2.5	11	19.05	18	125	10	5	10	-	SBF./SHF.	SBT./SSP.
5631452	NBH03019K	●	N	18	3	11	19.05	18	125	10	5	10	10	SBF./SHF./SBB.	SBG./SBT./SSP.
5586045	NBH03519K	●	N	18	3.5	11	19.05	18	125	10	5	10	10	SBF./SHF.	SBT./SSP.
5586037	NBH04019K	●	N	18	4	11	19.05	18	125	10	5	15	15	SBF./SHF./SBB.	SBG./SBT./SSP.
5586029	NBH04519K	●	N	18	4.5	11	19.05	18	125	10	5	15	15	-	-
5586011	NBH05019K	●	N	18	5	11	19.05	18	125	10	5	15	15	SBF./SHF.	SBG./SBT./SSP.
5586003	NBH06019K	●	N	18	6	11	19.05	18	125	10	5	20	20	SBF./SHF.	SBG./SFG./SBT./SSP.
5774203	NBH07019K	●	N	18	7	11	19.05	18	125	10	5	20	20	SBF./SHF.	-
5586227	NBH08019K	●	N	18	8	11	19.05	18	125	10	5	20	20	SBF./SHF.	SBG./SFG./SSP.
5586219	NBH10019K	●	N	18	10	11	19.05	18	125	10	5	20	20	-	-

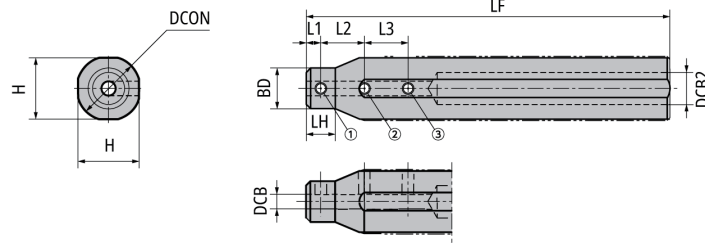
V ID Tooling

Spare Parts

Item Number	Clamp screw			Wrench (for Clamp screw)
	①	②	③	①②
NBH02015H	SS0406F	SS0406F	-	LW-2
NBH02515H	SS0406F	SS0406F	-	LW-2
NBH03015H	SS0404F	SS0404F	SS0404F	LW-2
NBH03515H	SS0404F	SS0404F	SS0404F	LW-2
NBH04015H	SS0404F	SS0404F	SS0404F	LW-2
NBH04515H	SS0404F	SS0404F	SS0404F	LW-2
NBH05015H	SS0404F	SS0404F	SS0404F	LW-2
NBH06015H	SS0404F	SS0404F	SS0404F	LW-2
NBH08015H	SS0403F	SS0403F	SS0403F	LW-2
NBH02016H	SS0406F	SS0406F	-	LW-2
NBH02516H	SS0406F	SS0406F	-	LW-2
NBH03016H	SS0404F	SS0404F	SS0404F	LW-2
NBH03516H	SS0404F	SS0404F	SS0404F	LW-2
NBH04016H	SS0404F	SS0404F	SS0404F	LW-2
NBH04516H	SS0404F	SS0404F	SS0404F	LW-2
NBH05016H	SS0404F	SS0404F	SS0404F	LW-2
NBH06016H	SS0404F	SS0404F	SS0404F	LW-2
NBH07016H	SS0403F	SS0404F	SS0404F	LW-2
NBH08016H	SS0403F	SS0403F	SS0403F	LW-2
NBH02019K	SS0408F	SS0408F	-	LW-2
NBH02519K	SS0408F	SS0408F	-	LW-2
NBH03019K	SS0406F	SS0406F	SS0406F	LW-2
NBH03519K	SS0406F	SS0406F	SS0406F	LW-2
NBH04019K	SS0406F	SS0406F	SS0406F	LW-2
NBH04519K	SS0406F	SS0406F	SS0406F	LW-2
NBH05019K	SS0406F	SS0406F	SS0406F	LW-2
NBH06019K	SS0406F	SS0406F	SS0406F	LW-2
NBH07019K	SS0404F	SS0404F	SS0404F	LW-2
NBH08019K	SS0404F	SS0404F	SS0404F	LW-2
NBH10019K	SS0403F	SS0404F	SS0404F	LW-2

STICK DUO | SB.. series/Sleeve

NBH Shank diameter $\Phi 20 - \Phi 32$



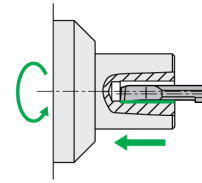
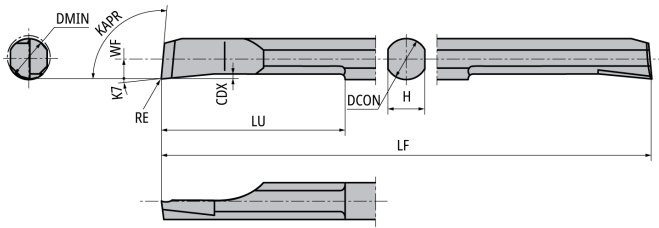
EDP	Item Number	Stock	Hand	BD mm	DCB mm	DCB2 mm	DCON mm	H mm	LF mm	LH mm	L1 mm	L2 mm	L3 mm	Insert	Gage
5631460	NBH02020K	●	N	11	2	11	20	19	125	10	5	10	-	SBF./SHF.	SSP.
5702881	NBH02520K	●	N	11	2.5	11	20	19	125	10	5	10	-	SBF./SHF.	SBT./SSP.
5631478	NBH03020K	●	N	12	3	11	20	19	125	10	5	10	10	SBF./SHF./SBB.	SBG./SBT./SSP.
5586201	NBH03520K	●	N	12	3.5	11	20	19	125	10	5	10	10	SBF./SHF.	SBT./SSP.
5586185	NBH04020K	●	N	13	4	11	20	19	125	10	5	15	15	SBF./SHF./SBB.	SBG./SBT./SSP.
5586177	NBH04520K	●	N	13	4.5	11	20	19	125	10	5	15	15	-	-
5586169	NBH05020K	●	N	14	5	11	20	19	125	10	5	15	15	SBF./SHF.	SBG./SBT./SSP.
5586151	NBH06020K	●	N	15	6	11	20	19	125	10	5	20	20	SBF./SHF.	SBG./SFG./SBT./SSP.
5774211	NBH07020K	●	N	16	7	11	20	19	125	10	5	20	20	SBF./SHF.	-
5586144	NBH08020K	●	N	17	8	11	20	19	125	10	5	20	20	SBF./SHF.	SBG./SFG./SSP.
5586136	NBH10020K	●	N	19	10	11	20	19	125	10	5	20	20	-	-
5914742	NBH12020K	●	N	19	12	14	20	19	125	10	5	25	25	-	-
5631486	NBH02022K	●	N	11	2	11	22	21	125	10	5	10	-	SBF./SHF.	SSP.
5702873	NBH02522K	●	N	11	2.5	11	22	21	125	10	5	10	-	SBF./SHF.	SBT./SSP.
5631494	NBH03022K	●	N	12	3	11	22	21	125	10	5	10	10	SBF./SHF./SBB.	SBG./SBT./SSP.
5586326	NBH03522K	●	N	12	3.5	11	22	21	125	10	5	10	10	SBF./SHF.	SBT./SSP.
5586318	NBH04022K	●	N	13	4	11	22	21	125	10	5	15	15	SBF./SHF./SBB.	SBG./SBT./SSP.
5586300	NBH04522K	●	N	13	4.5	11	22	21	125	10	5	15	15	-	-
5586292	NBH05022K	●	N	14	5	11	22	21	125	10	5	15	15	SBF./SHF.	SBG./SBT./SSP.
5586284	NBH06022K	●	N	15	6	11	22	21	125	10	5	20	20	SBF./SHF.	SBG./SFG./SBT./SSP.
5774229	NBH07022K	●	N	16	7	11	22	21	125	10	5	20	20	SBF./SHF.	-
5586276	NBH08022K	●	N	17	8	11	22	21	125	10	5	20	20	SBF./SHF.	SBG./SFG./SSP.
5586268	NBH10022K	●	N	19	10	11	22	21	125	10	5	20	20	-	-
5631502	NBH12022K	●	N	21	12	14	22	21	125	10	5	25	25	-	-
5631510	NBH02023K	●	N	11	2	11	23	21	125	10	5	10	-	SBF./SHF.	SSP.
5702857	NBH02523K	●	N	11	2.5	11	23	21	125	10	5	10	-	SBF./SHF.	SBT./SSP.
5631528	NBH03023K	●	N	12	3	11	23	21	125	10	5	10	10	SBF./SHF./SBB.	SBG./SBT./SSP.
5586250	NBH03523K	●	N	12	3.5	11	23	21	125	10	5	10	10	SBF./SHF.	SBT./SSP.
5651336	NBH04023K	●	N	13	4	11	23	21	125	10	5	15	15	SBF./SHF./SBB.	SBG./SBT./SSP.
5586243	NBH04523K	●	N	13	4.5	11	23	21	125	10	5	15	15	-	-
5631536	NBH05023K	●	N	14	5	11	23	21	125	10	5	15	15	SBF./SHF.	SBG./SBT./SSP.
5631544	NBH06023K	●	N	15	6	11	23	21	125	10	5	20	20	SBF./SHF.	SBG./SFG./SBT./SSP.
5631551	NBH08023K	●	N	17	8	11	23	21	125	10	5	20	20	SBF./SHF.	SBG./SFG./SSP.
5631569	NBH10023K	●	N	19	10	11	23	21	125	10	5	20	20	-	-
5631577	NBH12023K	●	N	21	12	14	23	21	125	10	5	25	25	-	-
5631585	NBH02025K-MET	●	N	11	2	11	25	24	125	10	5	10	-	SBF./SHF.	SSP.
5704283	NBH02525K-MET	●	N	11	2.5	11	25	24	125	10	5	10	-	SBF./SHF.	SBT./SSP.
5631593	NBH03025K-MET	●	N	12	3	11	25	24	125	10	5	10	10	SBF./SHF./SBB.	SBG./SBT./SSP.
5631601	NBH03525K-MET	●	N	12	3.5	11	25	24	125	10	5	10	10	SBF./SHF.	SBT./SSP.
5651328	NBH04025K-MET	●	N	13	4	11	25	24	125	10	5	15	15	SBF./SHF./SBB.	SBG./SBT./SSP.
5631619	NBH04525K-MET	●	N	13	4.5	11	25	24	125	10	5	15	15	-	-
5631627	NBH05025K-MET	●	N	14	5	11	25	24	125	10	5	15	15	SBF./SHF.	SBG./SBT./SSP.
5631635	NBH06025K-MET	●	N	15	6	11	25	24	125	10	5	20	20	SBF./SHF.	SBG./SFG./SBT./SSP.
5774252	NBH07025K-MET	●	N	16	7	11	25	24	125	10	5	20	20	SBF./SHF.	-
5631643	NBH08025K-MET	●	N	17	8	11	25	24	125	10	5	20	20	SBF./SHF.	SBG./SFG./SSP.
5631650	NBH10025K-MET	●	N	19	10	11	25	24	125	10	5	20	20	-	-
5631668	NBH12025K-MET	●	N	21	12	14	25	24	125	10	5	25	25	-	-
5631676	NBH02025K	●	N	11	2	11	25.4	24	125	10	5	10	-	SBF./SHF.	SSP.
5702865	NBH02525K	●	N	11	2.5	11	25.4	24	125	10	5	10	-	SBF./SHF.	SBT./SSP.
5631684	NBH03025K	●	N	12	3	11	25.4	24	125	10	5	10	10	SBF./SHF./SBB.	SBG./SBT./SSP.
5586235	NBH03525K	●	N	12	3.5	11	25.4	24	125	10	5	10	10	SBF./SHF.	SBT./SSP.
5586383	NBH04025K	●	N	13	4	11	25.4	24	125	10	5	15	15	SBF./SHF./SBB.	SBG./SBT./SSP.
5586375	NBH04525K	●	N	13	4.5	11	25.4	24	125	10	5	15	15	-	-
5586367	NBH05025K	●	N	14	5	11	25.4	24	125	10	5	15	15	SBF./SHF.	SBG./SBT./SSP.
5586359	NBH06025K	●	N	15	6	11	25.4	24	125	10	5	20	20	SBF./SHF.	SBG./SFG./SBT./SSP.
5774260	NBH07025K	●	N	16	7	11	25.4	24	125	10	5	20	20	SBF./SHF.	-
5586342	NBH08025K	●	N	17	8	11	25.4	24	125	10	5	20	20	SBF./SHF.	SBG./SFG./SSP.
5586334	NBH10025K	●	N	19	10	11	25.4	24	125	10	5	20	20	-	-
5631692	NBH12025K	●	N	21	12	14	25.4	24	125	10	5	25	25	-	-
5939475	NBH04532K	●	N	13	4.5	11	32	30	125	10	5	15	15	-	-
5939483	NBH05032K	●	N	14	5	11	32	30	125	10	5	15	15	SBF./SHF.	SBG./SBT./SSP.
5939491	NBH06032K	●	N	15	6	11	32	30	125	10	5	20	20	SBF./SHF.	SBG./SFG./SBT./SSP.
5939509	NBH07032K	●	N	16	7	11	32	30	125	10	5	20	20	SBF./SHF.	-
5939525	NBH08032K	●	N	17	8	11	32	30	125	10	5	20	20	SBF./SHF.	SBG./SFG./SSP.
5939533	NBH10032K	●	N	19	10	11	32	30	125	10	5	20	20	-	-
5939467	NBH12032K	●	N	21	12	14	32	30	125	10	5	25	25	-	-
5939459	NBH14032K	●	N	23	14	16	32	30	125	10	5	25	25	-	-
5939442	NBH16032K	●	N	25	16	18	32	30	125	10	5	25	25	-	-

Spare Parts

Item Number	Clamp screw			Wrench (for Clamp screw)
	①	②	③	①②
NBH02020K	SS0404F	SS0404F	-	LW-2
NBH02520K	SS0404F	SS0404F	-	LW-2
NBH03020K	SS0404F	SS0404F	SS0406F	LW-2
NBH03520K	SS0404F	SS0404F	SS0406F	LW-2
NBH04020K	SS0404F	SS0406F	SS0406F	LW-2
NBH04520K	SS0404F	SS0406F	SS0406F	LW-2
NBH05020K	SS0404F	SS0406F	SS0406F	LW-2
NBH06020K	SS0404F	SS0406F	SS0406F	LW-2
NBH07020K	SS0404F	SS0406F	SS0406F	LW-2
NBH08020K	SS0404F	SS0404F	SS0404F	LW-2
NBH10020K	SS0404F	SS0404F	SS0404F	LW-2
NBH12020K	SS0403F	SS0403F	SS0403F	LW-2
NBH02022K	SS0404F	SS0406F	-	LW-2
NBH02522K	SS0404F	SS0406F	-	LW-2
NBH03022K	SS0404F	SS0406F	SS0408F	LW-2
NBH03522K	SS0404F	SS0406F	SS0406F	LW-2
NBH04022K	SS0404F	SS0406F	SS0406F	LW-2
NBH04522K	SS0404F	SS0406F	SS0406F	LW-2
NBH05022K	SS0404F	SS0406F	SS0406F	LW-2
NBH06022K	SS0404F	SS0406F	SS0406F	LW-2
NBH07022K	SS0404F	SS0406F	SS0406F	LW-2
NBH08022K	SS0404F	SS0406F	SS0406F	LW-2
NBH10022K	SS0404F	SS0404F	SS0404F	LW-2
NBH12022K	SS0404F	SS0404F	SS0404F	LW-2
NBH02023K	SS0404F	SS0406F	-	LW-2
NBH02523K	SS0404F	SS0406F	-	LW-2
NBH03023K	SS0404F	SS0406F	SS0408F	LW-2
NBH03523K	SS0404F	SS0406F	SS0406F	LW-2
NBH04023K	SS0404F	SS0406F	SS0406F	LW-2
NBH04523K	SS0404F	SS0406F	SS0406F	LW-2
NBH05023K	SS0404F	SS0406F	SS0406F	LW-2
NBH06023K	SS0404F	SS0406F	SS0406F	LW-2
NBH08023K	SS0404F	SS0406F	SS0406F	LW-2
NBH10023K	SS0404F	SS0404F	SS0404F	LW-2
NBH12023K	SS0404F	SS0404F	SS0404F	LW-2
NBH02025K-MET	SS0404F	SS0406F	-	LW-2
NBH02525K-MET	SS0404F	SS0406F	-	LW-2
NBH03025K-MET	SS0404F	SS0406F	SS0408F	LW-2
NBH03525K-MET	SS0404F	SS0406F	SS0408F	LW-2
NBH04025K-MET	SS0404F	SS0408F	SS0408F	LW-2
NBH04525K-MET	SS0404F	SS0408F	SS0408F	LW-2
NBH05025K-MET	SS0404F	SS0408F	SS0408F	LW-2
NBH06025K-MET	SS0404F	SS0408F	SS0408F	LW-2
NBH07025K-MET	SS0404F	SS0408F	SS0408F	LW-2
NBH08025K-MET	SS0404F	SS0406F	SS0406F	LW-2
NBH10025K-MET	SS0404F	SS0406F	SS0406F	LW-2
NBH12025K-MET	SS0404F	SS0404F	SS0404F	LW-2
NBH02025K	SS0404F	SS0406F	-	LW-2
NBH02525K	SS0404F	SS0406F	-	LW-2
NBH03025K	SS0404F	SS0406F	SS0408F	LW-2
NBH03525K	SS0404F	SS0406F	SS0408F	LW-2
NBH04025K	SS0404F	SS0408F	SS0408F	LW-2
NBH04525K	SS0404F	SS0408F	SS0408F	LW-2
NBH05025K	SS0404F	SS0408F	SS0408F	LW-2
NBH06025K	SS0404F	SS0408F	SS0408F	LW-2
NBH07025K	SS0404F	SS0408F	SS0408F	LW-2
NBH08025K	SS0404F	SS0406F	SS0406F	LW-2
NBH10025K	SS0404F	SS0406F	SS0406F	LW-2
NBH12025K	SS0404F	SS0404F	SS0404F	LW-2
NBH04532K	SS0404F	SS0408F	SS0408F	LW-2
NBH05032K	SS0404F	SS0408F	SS0408F	LW-2
NBH06032K	SS0404F	SS0408F	SS0408F	LW-2
NBH07032K	SS0404F	SS0408F	SS0408F	LW-2
NBH08032K	SS0404F	SS0408F	SS0408F	LW-2
NBH10032K	SS0404F	SS0408F	SS0408F	LW-2
NBH12032K	SS0404F	SS0406F	SS0406F	LW-2
NBH14032K	SS0504	SS0506	SS0506	LW-2
NBH16032K	SS0504	SS0506	SS0506	LW-2

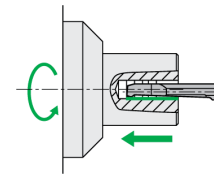
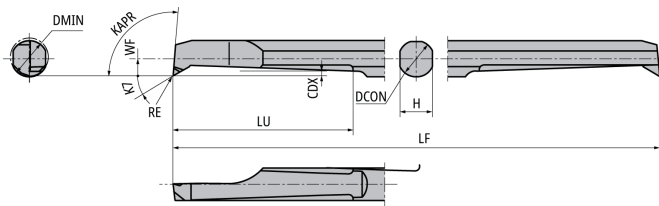
SB.. series/Insert bar Carbide

SBFS-S Sharp cutting edge



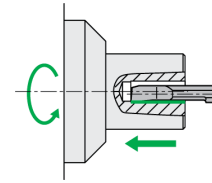
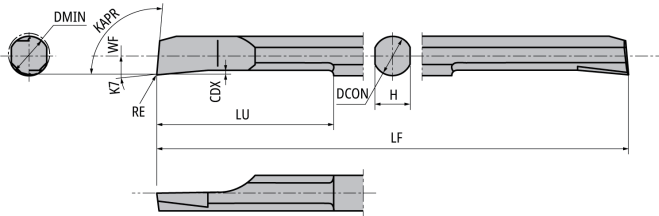
Item Number	Hand	Chip-breaker	DMIN	CDX	DCON	H	K7	KAPR	LF	LU	RE	WF	Carbide PVD	
			mm	mm	mm	mm	°	°	mm	mm	mm	mm	DT4	ZM3
SBFS020R005S	R	Yes	2.2	0.25	2	1.8	5	95	50	10	0.05	0.9	●	●
SBFS025R005S	R	Yes	2.7	0.3	2.5	2.3	5	95	50	12.5	0.05	1.15	●	●
SBFS025R015S	R	Yes	2.7	0.3	2.5	2.3	5	95	50	12.5	0.15	1.15	●	●
SBFS030R005S	R	Yes	3.2	0.4	3	2.7	5	95	50	15	0.05	1.4	●	●
SBFS030R015S	R	Yes	3.2	0.4	3	2.7	5	95	50	15	0.15	1.4	●	●
SBFS035R005S	R	Yes	3.7	0.4	3.5	3.2	5	95	60	17.5	0.05	1.65	●	●
SBFS035R015S	R	Yes	3.7	0.4	3.5	3.2	5	95	60	17.5	0.15	1.65	●	●
SBFS040R005S	R	Yes	4.2	0.45	4	3.6	5	95	60	20	0.05	1.9	●	●
SBFS040R015S	R	Yes	4.2	0.45	4	3.6	5	95	60	20	0.15	1.9	●	●
SBFS050R005S	R	Yes	5.2	0.5	5	4.5	5	95	70	25	0.05	2.4	●	●
SBFS050R015S	R	Yes	5.2	0.5	5	4.5	5	95	70	25	0.15	2.4	●	●
SBFS060R005S	R	Yes	6.2	0.6	6	5.4	5	95	80	30	0.05	2.9	●	●
SBFS060R015S	R	Yes	6.2	0.6	6	5.4	5	95	80	30	0.15	2.9	●	●

SBFB-F Evacuates chips BACKWARD



Item Number	Hand	Chip-breaker	DMIN	CDX	DCON	H	K7	KAPR	LF	LU	RE	WF	Carbide PVD	
			mm	mm	mm	mm	°	°	mm	mm	mm	mm	DT4	ZM3
SBFB020R005F	R	Yes	2.2	0.25	2	1.8	30	95	50	8	0.05	0.95	●	●
SBFB025R005F	R	Yes	2.7	0.3	2.5	2.3	30	95	50	12.5	0.05	1.2	●	●
SBFB025R015F	R	Yes	2.7	0.3	2.5	2.3	30	95	50	12.5	0.15	1.2	●	●
SBFB030R005F	R	Yes	3.2	0.45	3	2.7	30	95	50	15	0.05	1.4	●	●
SBFB030R015F	R	Yes	3.2	0.45	3	2.7	30	95	50	15	0.15	1.4	●	●
SBFB035R005F	R	Yes	3.7	0.5	3.5	3.2	30	95	60	17.5	0.05	1.65	●	●
SBFB035R015F	R	Yes	3.7	0.5	3.5	3.2	30	95	60	17.5	0.15	1.65	●	●
SBFB040R005F	R	Yes	4.2	0.5	4	3.6	30	95	60	20	0.05	1.9	●	●
SBFB040R015F	R	Yes	4.2	0.5	4	3.6	30	95	60	20	0.15	1.9	●	●
SBFB050R005F	R	Yes	5.2	0.7	5	4.5	30	95	70	25	0.05	2.4	●	●
SBFB050R015F	R	Yes	5.2	0.7	5	4.5	30	95	70	25	0.15	2.4	●	●
SBFB060R005F	R	Yes	6.2	0.9	6	5.4	30	95	80	30	0.05	2.9	●	●
SBFB060R015F	R	Yes	6.2	0.9	6	5.4	30	95	80	30	0.15	2.9	●	●

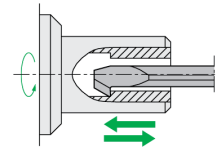
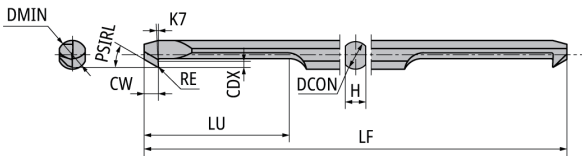
SBFS-H Mirror finish edge



Item Number	Hand	Chip-breaker	DMIN	CDX	DCON	H	K7	KAPR	LF	LU	RE	WF	Carbide PVD	
													DT4	ZM3
SBFS020R005H	M R	Yes	2.2	0.25	2	1.8	5	95	50	10	0.05	0.9	●	●
SBFS025R005H	M R	Yes	2.7	0.3	2.5	2.3	5	95	50	12.5	0.05	1.15	●	●
SBFS025R015H	M R	Yes	2.7	0.3	2.5	2.3	5	95	50	12.5	0.15	1.15	●	●
SBFS030R005H	M R	Yes	3.2	0.4	3	2.7	5	95	50	15	0.05	1.4	●	●
SBFS030R015H	M R	Yes	3.2	0.4	3	2.7	5	95	50	15	0.15	1.4	●	●
SBFS035R005H	M R	Yes	3.7	0.4	3.5	3.2	5	95	60	17.5	0.05	1.65	●	●
SBFS035R015H	M R	Yes	3.7	0.4	3.5	3.2	5	95	60	17.5	0.15	1.65	●	●
SBFS040R005H	M R	Yes	4.2	0.45	4	3.6	5	95	60	20	0.05	1.9	●	●
SBFS040R015H	M R	Yes	4.2	0.45	4	3.6	5	95	60	20	0.15	1.9	●	●
SBFS050R005H	M R	Yes	5.2	0.5	5	4.5	5	95	70	25	0.05	2.4	●	●
SBFS050R015H	M R	Yes	5.2	0.5	5	4.5	5	95	70	25	0.15	2.4	●	●
SBFS060R005H	M R	Yes	6.2	0.6	6	5.4	5	95	80	30	0.05	2.9	●	●
SBFS060R015H	M R	Yes	6.2	0.6	6	5.4	5	95	80	30	0.15	2.9	●	●
SBFS080R005H	M R	Yes	8.2	0.8	8	7.3	5	95	80	30	0.05	3.9	●	●
SBFS080R015H	M R	Yes	8.2	0.8	8	7.3	5	95	80	30	0.15	3.9	●	●

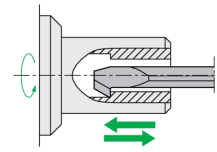
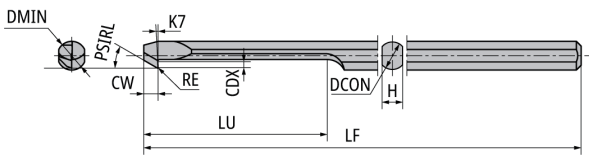
SB.. series/Insert bar Carbide for ID Back Turning

SBB-S Short type / Two-sided



Item Number	Hand	Chip-breaker	DMIN	CDX	CW	DCON	H	K7	LF	LU	PSIRL	RE	WF	Carbide PVD
			mm	mm	mm	mm	mm	°	mm	mm	°	mm	mm	ZM3
SBB030RB005-S	R	Yes	3	0.5	1.5	3	2.7	3	50	15	30	0.05	1.3	●
SBB030RB010-S	R	Yes	3	0.5	1.5	3	2.7	3	50	15	30	0.1	1.3	●
SBB040RB005-S	R	Yes	4	0.8	1.5	4	3.6	3	60	18	30	0.05	1.8	●
SBB040RB015-S	R	Yes	4	0.8	1.5	4	3.6	3	60	18	30	0.15	1.8	●

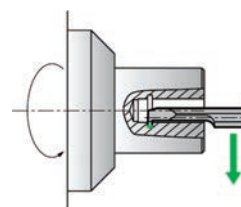
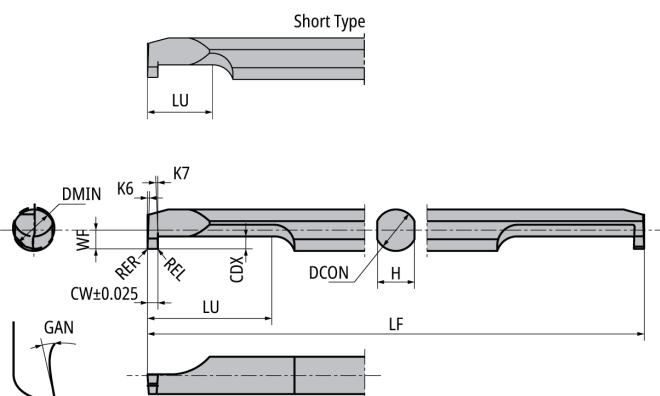
SBB Long type / Single-sided



Item Number	Hand	Chip-breaker	DMIN	CDX	CW	DCON	H	K7	LF	LU	PSIRL	RE	WF	Carbide PVD
			mm	mm	mm	mm	mm	°	mm	mm	°	mm	mm	ZM3
SBB030RB005	R	Yes	3	0.5	1.5	3	2.7	3	50	19	30	0.05	1.3	●
SBB030RB010	R	Yes	3	0.5	1.5	3	2.7	3	50	19	30	0.1	1.3	●
SBB040RB005	R	Yes	4	0.8	1.5	4	3.6	3	60	24	30	0.05	1.8	●
SBB040RB015	R	Yes	4	0.8	1.5	4	3.6	3	60	24	30	0.15	1.8	●

SB.. series/Insert bar Carbide for ID Grooving

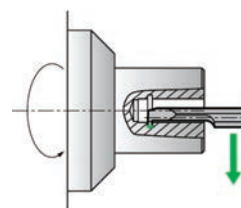
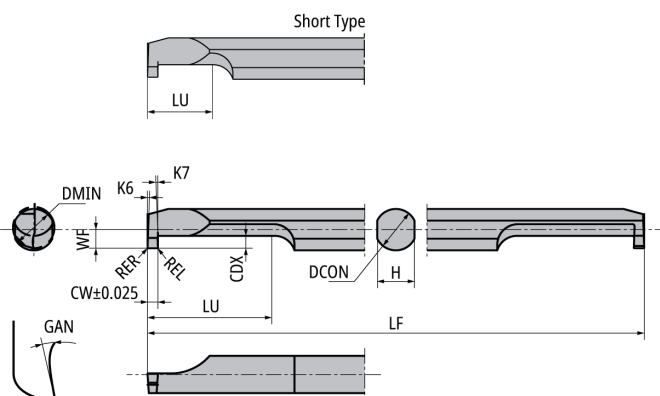
SBG-S Short type / Two-sided



● Diagram shows right-hand tool

Item Number	Hand	Chip-breaker	DMIN	APMX	CDX	CW	DCON	GAN	K6	K7	LF	LU	REL	RER	WF	Carbide PVD ZM3
			mm	mm	mm	mm	mm	mm	°	°	°	mm	mm	mm	mm	
SBG030050RB-S	R	Yes	3	0.8	1	0.5	3	8	2	2	50	4.5	0.05	0.05	1.3	●
SBG030075RB-S	R	Yes	3	0.8	1	0.75	3	8	2	2	50	4.5	0.05	0.05	1.3	●
SBG030100RB-S	R	Yes	3	0.8	1	1	3	8	2	2	50	4.5	0.05	0.05	1.3	●
SBG030150RB-S	R	Yes	3	0.8	1	1.5	3	8	2	2	50	4.5	0.05	0.05	1.3	●
SBG040050RB-S	R	Yes	4	1	1.2	0.5	4	8	2	2	60	6	0.05	0.05	1.8	●
SBG040075RB-S	R	Yes	4	1	1.2	0.75	4	8	2	2	60	6	0.05	0.05	1.8	●
SBG040100RB-S	R	Yes	4	1	1.2	1	4	8	2	2	60	6	0.05	0.05	1.8	●
SBG040150RB-S	R	Yes	4	1	1.2	1.5	4	8	2	2	60	6	0.05	0.05	1.8	●
SBG050050RB-S	R	Yes	5	1.2	1.4	0.5	5	8	2	2	70	7.5	0.05	0.05	2.3	●
SBG050100RB-S	R	Yes	5	1.2	1.4	1	5	8	2	2	70	7.5	0.05	0.05	2.3	●
SBG050150RB-S	R	Yes	5	1.2	1.4	1.5	5	8	2	2	70	7.5	0.05	0.05	2.3	●
SBG050200RB-S	R	Yes	5	1.2	1.4	2	5	8	2	2	70	7.5	0.05	0.05	2.3	●
SBG060100RB-S	R	Yes	6	1.8	2	1	6	8	2	2	80	7.5	0.05	0.05	2.8	●
SBG060150RB-S	R	Yes	6	1.8	2	1.5	6	8	2	2	80	7.5	0.05	0.05	2.8	●
SBG060200RB-S	R	Yes	6	1.8	2	2	6	8	2	2	80	7.5	0.05	0.05	2.8	●
SBG080100RB-S	R	Yes	8	2.2	2.4	1	8	8	2	2	80	8.5	0.05	0.05	3.8	●
SBG080150RB-S	R	Yes	8	2.2	2.4	1.5	8	8	2	2	80	8.5	0.05	0.05	3.8	●
SBG080200RB-S	R	Yes	8	2.2	2.4	2	8	8	2	2	80	8.5	0.05	0.05	3.8	●

SBG Long type / Two-sided



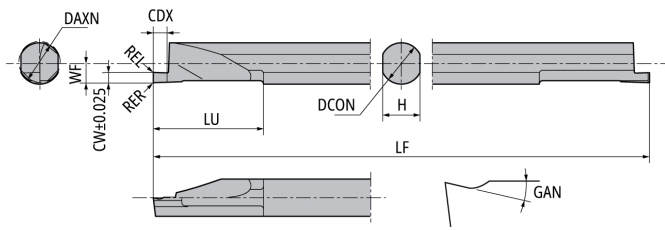
● Diagram shows right-hand tool

Item Number	Hand	Chip-breaker	DMIN	APMX	CDX	CW	DCON	GAN	K6	K7	LF	LU	REL	RER	WF	Carbide PVD ZM3
			mm	mm	mm	mm	mm	mm	°	°	°	mm	mm	mm	mm	
SBG030050RB	R	Yes	3	0.8	1	0.5	3	8	2	2	50	9	0.05	0.05	1.3	●
SBG030075RB	R	Yes	3	0.8	1	0.75	3	8	2	2	50	9	0.05	0.05	1.3	●
SBG030100RB	R	Yes	3	0.8	1	1	3	8	2	2	50	9	0.05	0.05	1.3	●
SBG040050RB	R	Yes	4	1	1.2	0.5	4	8	2	2	60	12	0.05	0.05	1.8	●
SBG040075RB	R	Yes	4	1	1.2	0.75	4	8	2	2	60	12	0.05	0.05	1.8	●
SBG040100RB	R	Yes	4	1	1.2	1	4	8	2	2	60	12	0.05	0.05	1.8	●
SBG050050RB	R	Yes	5	1.2	1.4	0.5	5	8	2	2	70	20	0.05	0.05	2.3	●
SBG050100RB	R	Yes	5	1.2	1.4	1	5	8	2	2	70	20	0.05	0.05	2.3	●
SBG050150RB	R	Yes	5	1.2	1.4	1.5	5	8	2	2	70	20	0.05	0.05	2.3	●
SBG060100RB	R	Yes	6	1.8	2	1	6	8	2	2	80	20	0.05	0.05	2.8	●
SBG060150RB	R	Yes	6	1.8	2	1.5	6	8	2	2	80	20	0.05	0.05	2.8	●
SBG060200RB	R	Yes	6	1.8	2	2	6	8	2	2	80	20	0.05	0.05	2.8	●
SBG080100RB	R	Yes	8	2.2	2.4	1	8	8	2	2	80	20	0.05	0.05	3.8	●
SBG080150RB	R	Yes	8	2.2	2.4	1.5	8	8	2	2	80	20	0.05	0.05	3.8	●
SBG080200RB	R	Yes	8	2.2	2.4	2	8	8	2	2	80	20	0.05	0.05	3.8	●

ID Tooling V

SB.. series/Insert bar Carbide for ID Face Grooving

SFG

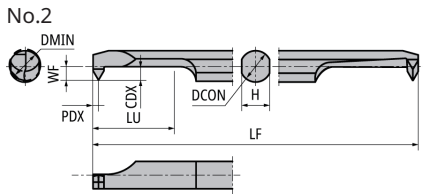
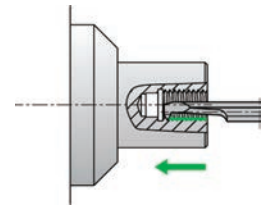
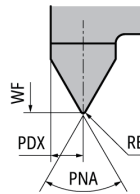
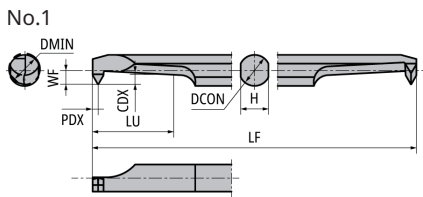


● Diagram shows right-hand tool

Item Number	Hand	Chip-breaker	DAXN	APMX	CDX	CW	DCON	GAN	H	LF	LU	REL	RER	WF	Carbide PVD TM4
			mm	mm	mm	mm	mm	°	mm	mm	mm	mm	mm	mm	
SFG060R100B	R	Yes	6	1.5	1.7	1	6	14	5.4	80	16	0.05	0.05	2.8	●
SFG060R150B	R	Yes	6	2	2.2	1.5	6	14	5.4	80	16	0.05	0.05	2.8	●
SFG060R200B	R	Yes	6	3	3.2	2	6	14	5.4	80	16	0.05	0.05	2.8	●
SFG080R100B	R	Yes	8	1.5	1.7	1	8	14	7.3	80	16	0.05	0.05	3.8	●
SFG080R150B	R	Yes	8	2	2.2	1.5	8	14	7.3	80	16	0.05	0.05	3.8	●
SFG080R200B	R	Yes	8	3	3.2	2	8	14	7.3	80	16	0.05	0.05	3.8	●
SFG080R300B	R	Yes	8	3	3.2	3	8	14	7.3	80	16	0.05	0.05	3.8	●

SB.. series/Insert bar Carbide for Internal Thread

SBT



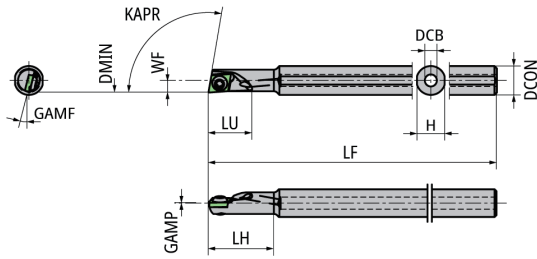
● Diagram shows right-hand tool

● No.1: Eccentric tapered shape

Figure	Item Number	Hand	Chip-breaker	DMIN	Pitch	CDX	DCON	H	LF	LU	PDX	PNA	RE	WF	Carbide PVD ZM3
				mm	mm	mm	mm	mm	mm	mm	mm	mm	°	mm	
1	SBT025M3R	R	No	2.5	0.5	0.6	2.5	2.3	50	5.4	0.4	60	0.05MAX Flat	1.1	●
1	SBT030M4R	R	No	3	0.5-0.8	0.8	3	2.7	50	7.5	0.5	60	0.05MAX Flat	1.3	●
1	SBT030M4RB	R	Yes	3	0.5-0.8	0.8	3	2.7	50	7.5	0.5	60	0.05MAX Flat	1.3	●
1	SBT035M5RB	R	Yes	3.5	0.5-1	1	3.5	3.2	60	8.5	0.55	60	0.05MAX Flat	1.55	●
1	SBT040M6RB	R	Yes	4	0.75-1.25	1.2	4	3.6	60	10.5	0.7	60	0.05	1.8	●
2	SBT050M8RB	R	Yes	5	0.75-1.5	1.5	5	4.5	70	15.8	0.8	60	0.05	2.3	●
2	SBT060M10RB	R	Yes	6	0.75-1.75	1.8	6	5.4	80	18.4	0.95	60	0.05	2.8	●

MBL.. series/Toolholder

S-MBR-OH Mogul Bar / Coolant through / Steel shank



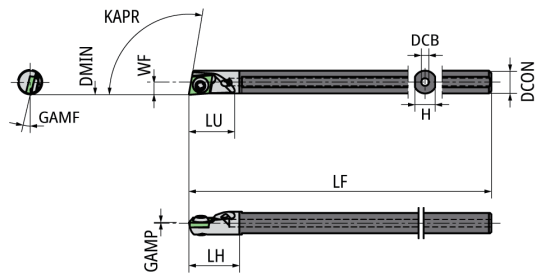
- Diagram shows right-hand tool
- Use a left-handed insert
- For F1 chipbreaker, right-hand inserts fit to right-hand toolholder
- F1 chipbreaker evacuates chips BACKWARD

EDP	Item Number	Stock	Hand	DMIN mm	DCB mm	DCON mm	GAMF °	GMAP °	H mm	KAPR °	LF mm	LH mm	LU mm	RE mm	WF mm	Insert Gage
5789888	S06F-MBRD05-OH	●	R	5	2.5	6	13	0	5.7	100	80	13.5	9	0.15	2.5	MBL..

Spare Parts

Item Number	Clamp screw	Wrench (for Clamp screw)
S06F-MBRD05-OH	LR-S-2*3.5	CLR-13S

C045-MBR-OH Mogul Bar / Coolant through / Carbide shank



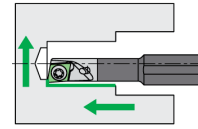
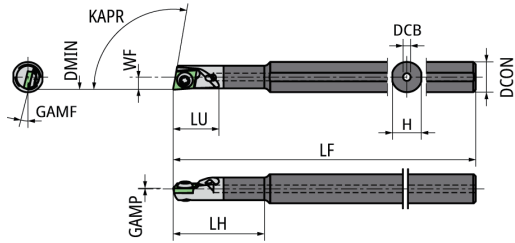
- Diagram shows right-hand tool
- Use a left-handed insert
- For F1 chipbreaker, right-hand inserts fit to right-hand toolholder
- F1 chipbreaker evacuates chips BACKWARD

EDP	Item Number	Stock	Hand	DMIN mm	DCB mm	DCON mm	GAMF °	GMAP °	H mm	KAPR °	LF mm	LU mm	RE mm	WF mm	Insert Gage
5789896	C045F-MBRD05-OH	●	R	5	1.5	4.5	13	0	4	100	80	9	0.15	2.5	MBL..

Spare Parts

Item Number	Clamp screw	Wrench (for Clamp screw)
C045F-MBRD05-OH	LR-S-2*3.5	CLR-13S

C06-MBR-OH Mogul Bar / Coolant through / Carbide shank



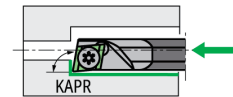
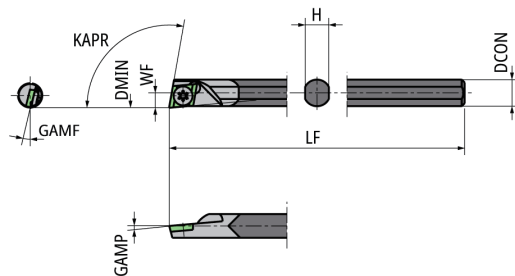
- Diagram shows right-hand tool
- Use a left-handed insert
- For F1 chipbreaker, right-hand inserts fit to right-hand toolholder
- F1 chipbreaker evacuates chips BACKWARD

EDP	Item Number	Stock	Hand	DMIN mm	DCB mm	DCON mm	GAMF °	GMAP °	H mm	KAPR °	LF mm	LH mm	LU mm	RE mm	WF mm	Insert Gage
5789904	C06F-MBRD05-OH	● ●	R	5	1.5	6	13	0	5.7	100	80	18	9	0.15	2.5	MBL..

Spare Parts

Item Number	Clamp screw	Wrench (for Clamp screw)
C06F-MBRD05-OH	LR-S-2*3.5	CLR-13S

C045-MBR Carbide shank



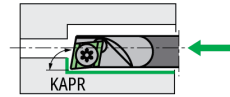
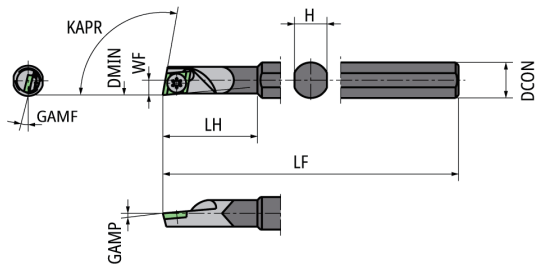
- Diagram shows right-hand tool
- Use a left-handed insert
- For F1 chipbreaker, right-hand inserts fit to right-hand toolholder
- F1 chipbreaker evacuates chips BACKWARD

EDP	Item Number	Stock	Hand	DMIN mm	DCON mm	GAMF °	GMAP °	H mm	KAPR °	LF mm	RE mm	WF mm	Insert Gage
5610175	C045F-MBR	●	R	5	4.5	13	5	4	100	80	0.15	2.5	MBL..

Spare Parts

Item Number	Clamp screw	Wrench (for Clamp screw)
C045F-MBR	LR-S-2*3.5	CLR-13S

C06-MBR Carbide shank



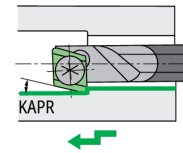
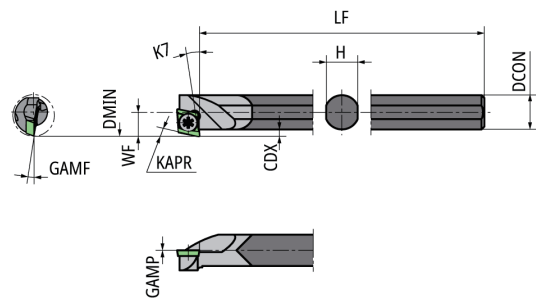
- Diagram shows right-hand tool
- Use a left-handed insert
- For F1 chipbreaker, right-hand inserts fit to right-hand toolholder
- F1 chipbreaker evacuates chips BACKWARD

EDP	Item Number	Stock	Hand	DMIN mm	DCON mm	GAMF °	GMAP °	H mm	KAPR °	LF mm	LH mm	RE mm	WF mm	Insert Gage
5162706	C06F-MBR	●	R	5	6	13	5	5.5	100	80	18	0.15	2.5	MBL..

Spare Parts

Item Number	Clamp screw	Wrench (for Clamp screw)
C06F-MBR	LR-S-2*3,5	CLR-13S

C-MSBR Carbide shank for ID Back Turning



- Diagram shows right-hand tool
- Use a left-handed insert
- For F1 chipbreaker, right-hand inserts fit to right-hand toolholder
- F1 chipbreaker evacuates chips BACKWARD

EDP	Item Number	Stock	Hand	DMIN mm	CDX mm	DCON mm	GAMF °	GMAP °	H mm	KAPR °	LF mm	RE mm	WF mm	Insert Gage
5161054	C04J-MSBR	●	R	5.7	1	4	10	0	3.5	13	110	0.15	3.2	MBL..
5161047	C06J-MSBR	●	R	7.7	1	6	4	0	5.5	13	110	0.15	4.2	MBL..

Spare Parts

Item Number	Clamp screw	Wrench (for Clamp screw)
C04J-MSBR	LR-S-2*3,5	CLR-13S
C06J-MSBR	LR-S-2*3,5	CLR-13S

MBL.. series/Inserts Carbide

MBL

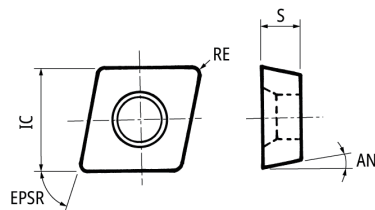
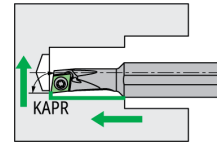
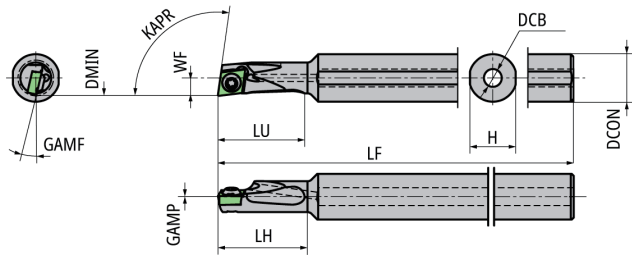


Figure	Item Number	Hand	Chip-breaker	AN °	EPSR °	IC mm	RE mm	S mm	Carbide PVD			
									QM3	ST4	TM4	ZM3
1	MBL005FL	L	Yes	9	75	3.6	0.05	1	●	●	●	●
1	MBL015FL	L	Yes	9	75	3.6	0.15	1	●	●	●	●
2	MBL005FRF1	R	Yes	9	75	3.6	0.05	1	●	●	●	●
2	MBL015FRF1	R	Yes	9	75	3.6	0.15	1	●	●	●	●

ERGH.. series/Toolholder

S-SEXR-OH Mogul Bar / Coolant through / Steel shank



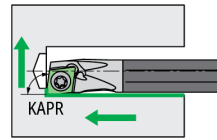
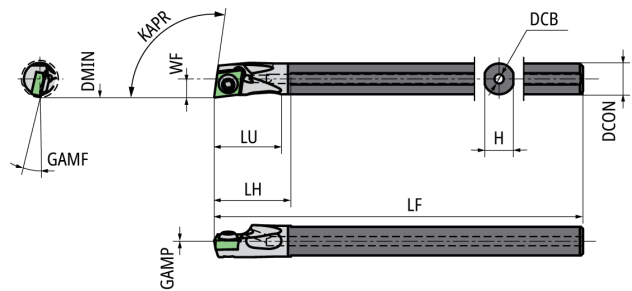
- Diagram shows right-hand tool
- Use a left-handed insert
- For F1 chipbreaker, right-hand inserts fit to right-hand toolholder
- F1 chipbreaker evacuates chips BACKWARD

EDP	Item Number	Stock	Hand	DMIN mm	DCB mm	DCON mm	GAMF °	GMAP °	H mm	KAPR °	LF mm	LH mm	LU mm	RE mm	WF mm	Insert Gage	
5789912	S08G-SEXRRT3D06-OH		●	R	6	3	8	13	0	7.7	98	90	15	15	0.2	3	ERGHT301..

Spare Parts

Item Number	Clamp screw	Wrench (for Clamp screw)
S08G-SEXRRT3D06-OH	LR-S-2*3.7	CLR-13S

C05-SEXR-OH Mogul Bar / Coolant through / Carbide shank



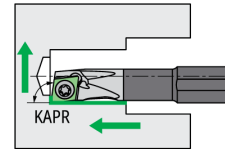
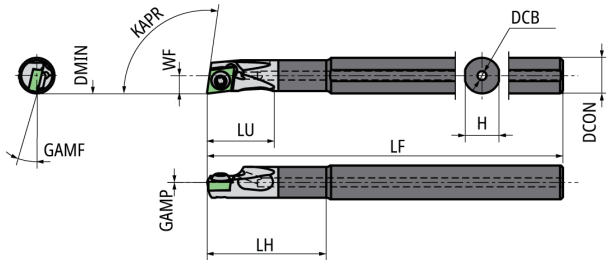
- Diagram shows right-hand tool
- Use a left-handed insert
- For F1 chipbreaker, right-hand inserts fit to right-hand toolholder
- F1 chipbreaker evacuates chips BACKWARD

EDP	Item Number	Stock	Hand	DMIN mm	DCB mm	DCON mm	GAMF °	GMAP °	H mm	KAPR °	LF mm	LU mm	RE mm	WF mm	Insert Gage	
5789920	C05G-SEXRRT3D06-OH		●	R	6	1.5	5	13	0	4	98	90	11	0.2	3	ERGHT301..

Spare Parts

Item Number	Clamp screw	Wrench (for Clamp screw)
C05G-SEXRRT3D06-OH	LR-S-2*3.7	CLR-13S

C06-SEXR-OH Mogul Bar / Coolant through / Carbide shank



- Diagram shows right-hand tool
- Use a left-handed insert
- For F1 chipbreaker, right-hand inserts fit to right-hand toolholder
- F1 chipbreaker evacuates chips BACKWARD

EDP	Item Number	Stock	Hand	DMIN mm	DCB mm	DCON mm	GAMF °	GMAP °	H mm	KAPR °	LF mm	LH mm	LU mm	RE mm	WF mm	Insert Gage
5789938	C06G-SEXRRT3D06-OH	●	R	6	1.5	6	13	0	5.7	98	90	20	11	0.2	3	ERGHT301..
5800487	C06G-SEXRRT3D06-OH	●	L	6	1.5	6	13	0	5.7	98	90	20	11	0.2	3	ERGHT301..

Spare Parts

Item Number	Clamp screw	Wrench (for Clamp screw)
C06G-SEXRRT3D06-OH	LR-S-2*3.7	CLR-13S
C06G-SEXRRT3D06-OH	LR-S-2*3.7	CLR-13S

ERGH.. series/Inserts Carbide

ERGH

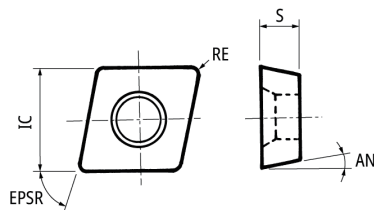
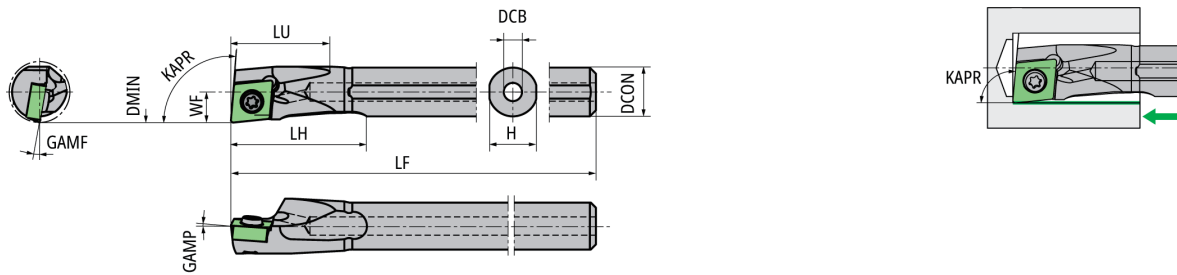


Figure	Item Number	Hand	Chip-breaker	AN °	EPSR °	IC mm	RE mm	S mm	Carbide PVD			
									QM3	ST4	TM4	ZM3
1	ERGHT30102FRA2	R	Yes	9	75	3.97	0.2	1.59			●	●
1	ERGHT30104FRA2	R	Yes	9	75	3.97	0.4	1.59			●	
1	ERGHT30102FLA2	L	Yes	9	75	3.97	0.2	1.59			●	●
1	ERGHT30104FLA2	L	Yes	9	75	3.97	0.4	1.59			●	●
2	ERGHT30101FRF1	R	Yes	9	75	3.97	0.1	1.59	●	●	●	
2	ERGHT30102FRF1	R	Yes	9	75	3.97	0.2	1.59	●	●	●	
2	ERGHT30104FRF1	R	Yes	9	75	3.97	0.4	1.59	●	●	●	

CP.. series/Toolholder

S-SCLP-OH Mogul Bar / Coolant through / Steel shank



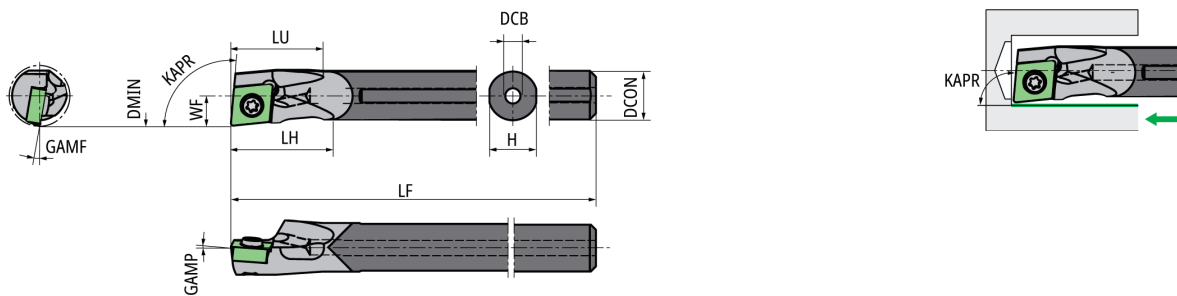
- Diagram shows right-hand tool
- Use a left-handed insert
- For F1 chipbreaker, right-hand inserts fit to right-hand toolholder
- F1 chipbreaker evacuates chips BACKWARD

EDP	Item Number	Stock	Hand	DMIN mm	DCB mm	DCON mm	GAMF mm	GMAP °	H mm	KAPR °	LF mm	LH mm	LU mm	RE mm	WF mm	Insert Gage
5770029	S06F-SCLPR04D07-OH	●	R	7	2.5	6	9	5	5.75	95	80	17	12	0.2	3.5	CP.0401..
5770037	S07G-SCLPR04D08-OH	●	R	8	3	7	7	5	6.75	95	90	19.5	13.5	0.2	4	CP.0401..
5770045	S08H-SCLPR06D10-OH	●	R	10	3	8	10	5	7.7	95	100	22	16	0.4	5	CP.0602..

Spare Parts

Item Number	Clamp screw	Wrench (for Clamp screw)
S06F-SCLPR04D07-OH	LR-S-2*3,7	CLR-13S
S07G-SCLPR04D08-OH	LR-S-2*3,7	CLR-13S
S08H-SCLPR06D10-OH	LR-S-2.5*6	CLR-15S

C-SCLP-OH Mogul Bar / Coolant through / Carbide shank



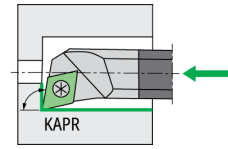
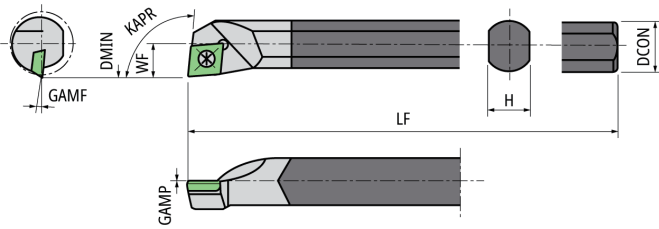
- Diagram shows right-hand tool
- Use a left-handed insert
- For F1 chipbreaker, right-hand inserts fit to right-hand toolholder
- F1 chipbreaker evacuates chips BACKWARD

EDP	Item Number	Stock	Hand	DMIN mm	DCB mm	DCON mm	GAMF mm	GMAP °	H mm	KAPR °	LF mm	LH mm	LU mm	RE mm	WF mm	Insert Gage
5770136	C06H-SCLPR04D07-OH	●	R	7	2	6	9	5	5.75	95	100	11.5	12	0.2	3.5	CP.0401..
5770151	C07J-SCLPR04D08-OH	●	R	8	2	7	7	5	6.75	95	110	13	13.5	0.2	4	CP.0401..
5770169	C08K-SCLPR06D10-OH	●	R	10	2.5	8	10	5	7.7	95	125	16.5	15	0.4	5	CP.0602..
5800495	C06H-SCLPL04D07-OH	●	L	7	2	6	9	5	5.75	95	100	11.5	12	0.2	3.5	CP.0401..
5800503	C08K-SCLPL06D10-OH	●	L	10	2.5	8	10	5	7.7	95	125	16.5	15	0.4	5	CP.0602..

Spare Parts

Item Number	Clamp screw	Wrench (for Clamp screw)
C06H-SCLPR04D07-OH	LR-S-2*3,7	CLR-13S
C07J-SCLPR04D08-OH	LR-S-2*3,7	CLR-13S
C08K-SCLPR06D10-OH	LR-S-2.5*6	CLR-15S
C06H-SCLPL04D07-OH	LR-S-2*3,7	CLR-13S
C08K-SCLPL06D10-OH	LR-S-2.5*6	CLR-15S

C-SCLP-N Carbide shank



- Diagram shows right-hand tool
- Use a left-handed insert
- For F1 chipbreaker, right-hand inserts fit to right-hand toolholder
- F1 chipbreaker evacuates chips BACKWARD

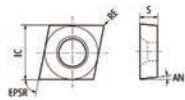
EDP	Item Number	Stock	Hand	DMIN mm	DCON mm	GAMF °	GMAP °	H mm	KAPR °	LF mm	RE mm	WF mm	Insert Gage
5853288	C06j-SCLPR-04-N	●	R	8	6	6	0	5.2	95	110	0.4	4	CP..0401..
5853296	C08K-SCLPR-06-N	●	R	10	8	10	0	7	95	125	0.4	5	CP..0602..
5853304	C10M-SCLPR-08-N	●	R	12	10	6	0	9	95	150	0.4	6	CP..0802..

Spare Parts

Item Number	Clamp screw	Wrench (for Clamp screw)
C06j-SCLPR-04-N	LR-S-2*4.4	CLR-13S
C08K-SCLPR-06-N	LR-S-2.5*5.5	CLR-15S
C10M-SCLPR-08-N	LR-S-3*6.2	RLR-20S

CP.. series/Inserts Carbide

CP..

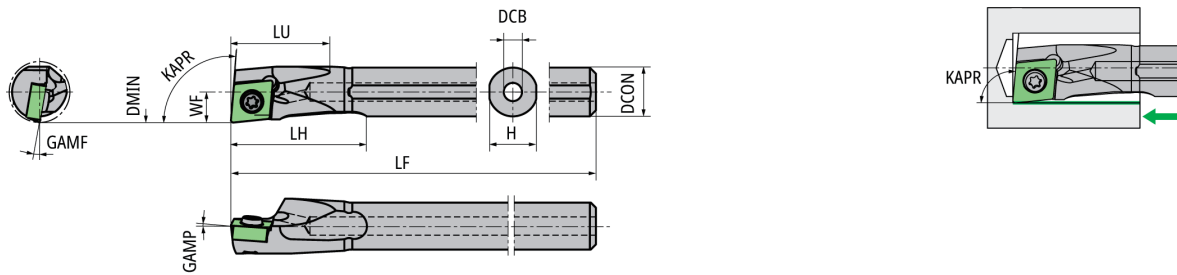


Material	Steel	Stainless Steel	Cast Iron	Non-Ferrous Material	Heat Resistant Alloy	Hardened Material	Others (non-metallic)
Steel	○	●	●	●	●	●	●
Stainless Steel	●	○	○	○	○	○	○
Cast Iron	○	○	○	○	○	○	○
Non-Ferrous Material	○	○	○	○	○	○	○
Heat Resistant Alloy	○	○	○	○	○	○	○
Hardened Material	○	○	○	○	○	○	○
Others (non-metallic)	○	○	○	○	○	○	○

Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	BS mm	Carbide												
									PVD ST4	PVD DM4	PVD DT4	PVD QM3	PVD TM4	PVD VM1	PVD ZM3	CVD CP1	CVD CP7	Uncoated KM1			
	CPGH060202FNAM5	Up-sharp edge	80	6.35	2.38	11	0.2	-													
	CPGH080202FNAM5	Up-sharp edge	80	6.35	2.38	11	0.2	-													
	CPGH040101FRF1	Up-sharp edge	80	4.76	1.59	11	0.1	-	●												
	CPGH040102FRF1	Up-sharp edge	80	4.76	1.59	11	0.2	-	●												
	CPGH040104FRF1	Up-sharp edge	80	4.76	1.59	11	0.4	-	●												
	CPGH060202FRF1	Up-sharp edge	80	6.35	2.38	11	0.2	-	●												
	CPGH060204FRF1	Up-sharp edge	80	6.35	2.38	11	0.4	-	●												
	CPGH040101LS	Up-sharp edge	80	4.76	1.59	11	0.1	-													
	CPGH040102LS	Up-sharp edge	80	4.76	1.59	11	0.2	-													
	CPGH040104LS	Up-sharp edge	80	4.76	1.59	11	0.4	-													
	CPGH060202LS	Up-sharp edge	80	6.35	2.38	11	0.2	-													
	CPGH060204LS	Up-sharp edge	80	6.35	2.38	11	0.4	-													
	CPGH060202FLA	Up-sharp edge	80	6.35	2.38	11	0.2	-													
	CPGH060204FLA	Up-sharp edge	80	6.35	2.38	11	0.4	-													
	CPGH080202FLA	Up-sharp edge	80	6.35	2.38	11	0.2	-													
	CPGH080204FLA	Up-sharp edge	80	6.35	2.38	11	0.4	-													
	CPGH040102FLA1	Up-sharp edge	80	4.76	1.59	11	0.2	-													
	CPGH040104FLA1	Up-sharp edge	80	4.76	1.59	11	0.4	-													

CC.. series/Toolholder

S-SCLC-OH Mogul Bar / Coolant through / Steel shank



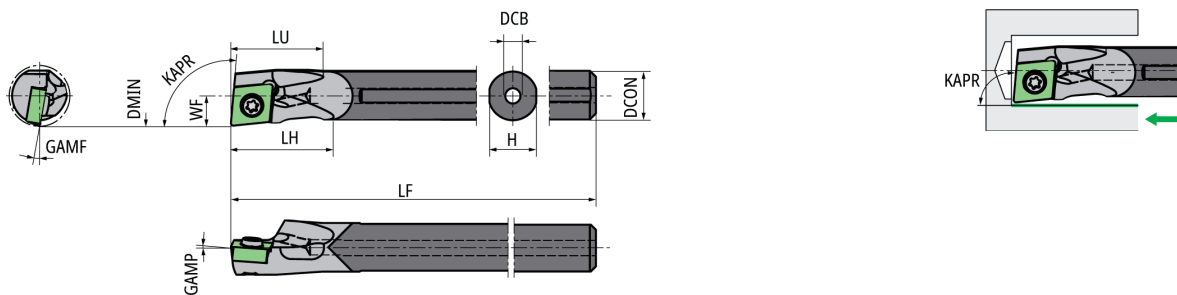
- Diagram shows right-hand tool
- Use a left-handed insert
- For F1 chipbreaker, right-hand inserts fit to right-hand toolholder
- F1 chipbreaker evacuates chips BACKWARD

EDP	Item Number	Stock	Hand	DMIN mm	DCB mm	DCON mm	GAMF °	GMAP °	H mm	KAPR °	LF mm	LH mm	LU mm	RE mm	WF mm	Insert Gage
5770052	S08H-SCLCR06D10-OH	●	R	10	3	8	13	0	7.7	95	100	22	16	0.4	5	CC..0602..
5770060	S10K-SCLCR06D12-OH	●	R	12	3.5	10	11	0	9.6	95	125	27.5	20	0.4	6	CC..0602..
5770078	S12M-SCLCR06D14-OH	●	R	14	4	12	9	0	11.5	95	150	32.5	23	0.4	7	CC..0602..
5770086	S16Q-SCLCR09D18-OH	●	R	18	5	16	10	0	15.4	95	180	42.5	30	0.4	9	CC..09T3..

Spare Parts

Item Number	Clamp screw	Wrench (for Clamp screw)
S08H-SCLCR06D10-OH	LRIS-2.5*5	CLR-15S
S10K-SCLCR06D12-OH	LRIS-2.5*5	CLR-15S
S12M-SCLCR06D14-OH	LRIS-2.5*5	CLR-15S
S16Q-SCLCR09D18-OH	LRIS-4*8	LLR-25S-20*65

C-SCLC-OH Mogul Bar / Coolant through / Carbide shank



- Diagram shows right-hand tool
- Use a left-handed insert
- For F1 chipbreaker, right-hand inserts fit to right-hand toolholder
- F1 chipbreaker evacuates chips BACKWARD

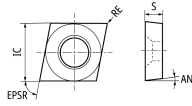
EDP	Item Number	Stock	Hand	DMIN mm	DCB mm	DCON mm	GAMF °	GMAP °	H mm	KAPR °	LF mm	LH mm	LU mm	RE mm	WF mm	Insert Gage
5770185	C08K-SCLCR06D10-OH	●	R	10	2.5	8	13	0	7.7	95	125	16.5	15	0.4	5	CC..0602..
5770193	C10M-SCLCR06D12-OH	●	R	12	2.5	10	11	0	9.6	95	150	20	19.5	0.4	6	CC..0602..
5770201	C12M-SCLCR06D14-OH	●	R	14	3	12	9	0	11.5	95	150	23.5	22.5	0.4	7	CC..0602..
5800511	C10M-SCLCL06D12-OH	●	L	12	2.5	10	11	0	9.6	95	150	20	19.5	0.4	6	CC..0602..

Spare Parts

Item Number	Clamp screw	Wrench (for Clamp screw)
C08K-SCLCR06D10-OH	LRIS-2.5*5	CLR-15S
C10M-SCLCR06D12-OH	LRIS-2.5*5	CLR-15S
C12M-SCLCR06D14-OH	LRIS-2.5*5	CLR-15S
C10M-SCLCL06D12-OH	LRIS-2.5*5	CLR-15S

CC.. series/Inserts Carbide

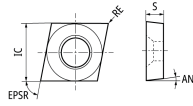
CC..



Material	Steel	Stainless Steel	Cast Iron	Non-Ferrous Material	Heat Resistant Alloy	Hardened Material	Others (non-metallic)
Steel	○	●	●	●	●	●	●
Stainless Steel	●	○	○	○	●	○	●
Cast Iron	●	○	○	○	○	○	●
Non-Ferrous Material	○	○	○	○	○	○	●
Heat Resistant Alloy	●	○	○	○	○	○	○
Hardened Material	○	○	○	○	○	○	○
Others (non-metallic)	○	○	○	○	○	○	●

Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	BS mm	Carbide											Uncoated KM1			
									PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	CVD	CVD				
									ST4	DM4	DT4	QM3	TM4	VM1	ZM3	CP1	CP7						
	CCGT09T300YL	Up-sharp edge	80	9.525	3.97	7	0.03	-			●		●										
	CCGT09T301MYL	Up-sharp edge	80	9.525	3.97	7	0.08	-	●	●	●	●	●										
	CCGT09T302MYL	Up-sharp edge	80	9.525	3.97	7	0.18	-	●	●	●	●	●										
	CCGT09T304MYL	Up-sharp edge	80	9.525	3.97	7	0.38	-	●	●	●	●	●										
	CCGT09T308MYL	Up-sharp edge	80	9.525	3.97	7	0.78	-	●	●	●	●	●										
	CCGT060201MCL	Up-sharp edge	80	6.35	2.38	7	0.08	-	●	●	●	●	●										
	CCGT060202MCL	Up-sharp edge	80	6.35	2.38	7	0.18	-	●	●	●	●	●										
	CCGT09T300CL	Up-sharp edge	80	9.525	3.97	7	0.03	-			●		●										
	CCGT09T301MCL	Up-sharp edge	80	9.525	3.97	7	0.08	-	●	●	●	●	●										
	CCGT09T302MCL	Up-sharp edge	80	9.525	3.97	7	0.18	-	●	●	●	●	●										
	CCGT09T304MCL	Up-sharp edge	80	9.525	3.97	7	0.38	-	●	●	●	●	●										
	CCGT060200FNAM3	Up-sharp edge	80	6.35	2.38	7	0.03	-			●		●	●									
	CCGT060201MFNAM3	Up-sharp edge	80	6.35	2.38	7	0.08	-	●		●	●	●										
	CCGT060202FNAM3	Up-sharp edge	80	6.35	2.38	7	0.2	-			●		●	●		●	●						
	CCGT060202MFNAM3	Up-sharp edge	80	6.35	2.38	7	0.18	-	●		●	●	●										
	CCGT060204FNAM3	Up-sharp edge	80	6.35	2.38	7	0.4	-			●		●	●			●						
	CCGT060204MFNAM3	Up-sharp edge	80	6.35	2.38	7	0.38	-	●		●	●	●										
	CCGT09T300FNAM3	Up-sharp edge	80	9.525	3.97	7	0.03	-			●		●	●		●							
	CCGT09T301MFNAM3	Up-sharp edge	80	9.525	3.97	7	0.08	-	●		●	●	●	●		●	●						
	CCGT09T302FNAM3	Up-sharp edge	80	9.525	3.97	7	0.2	-			●		●	●		●							
	CCGT09T302MFNAM3	Up-sharp edge	80	9.525	3.97	7	0.18	-	●		●	●	●	●		●	●						
	CCGT09T304FNAM3	Up-sharp edge	80	9.525	3.97	7	0.4	-			●		●	●		●							
	CCGT09T304MFNAM3	Up-sharp edge	80	9.525	3.97	7	0.38	-	●		●	●	●	●		●	●						
	CCMT060202FNAM3	Up-sharp edge	80	6.35	2.38	7	0.2	-			●		●										
	CCMT060204FNAM3	Up-sharp edge	80	6.35	2.38	7	0.4	-			●		●										
CCMT09T302FNAM3	Up-sharp edge	80	9.525	3.97	7	0.2	-			●		●											
CCMT09T304FNAM3	Up-sharp edge	80	9.525	3.97	7	0.4	-			●		●											
CCMT09T308FNAM3	Up-sharp edge	80	9.525	3.97	7	0.8	-			●		●											
	CCGT060200AZ7	Up-sharp edge	80	6.35	2.38	7	0.03	-					●										
	CCGT060201MAZ7	Up-sharp edge	80	6.35	2.38	7	0.08	-					●										
	CCGT060202MAZ7	Up-sharp edge	80	6.35	2.38	7	0.18	-					●										
	CCGT09T300AZ7	Up-sharp edge	80	9.525	3.97	7	0.03	-			●	●	●	●		●							
	CCGT09T301MAZ7	Up-sharp edge	80	9.525	3.97	7	0.08	-			●	●	●	●		●	●						
	CCGT09T302MAZ7	Up-sharp edge	80	9.525	3.97	7	0.18	-			●	●	●	●		●	●						
	CCGT09T304MAZ7	Up-sharp edge	80	9.525	3.97	7	0.38	-			●	●	●	●		●	●						
	CCMT060202E002AZ8	E002	80	6.35	2.38	7	0.2	-														●	
	CCMT060204E004AZ8	E004	80	6.35	2.38	7	0.4	-														●	
	CCMT060208E004AZ8	E004	80	6.35	2.38	7	0.8	-														●	
	CCMT09T302E002AZ8	E002	80	6.35	2.38	7	0.2	-														●	
	CCMT09T304E004AZ8	E004	80	6.35	2.38	7	0.4	-														●	
CCMT09T308E004AZ8	E004	80	6.35	2.38	7	0.8	-														●		
	CCGT060200RS	Up-sharp edge	80	6.35	2.38	7	0.03	-			●				●	●							
	CCGT060201MRS	Up-sharp edge	80	6.35	2.38	7	0.08	-			●	●											
	CCGT060202MRS	Up-sharp edge	80	6.35	2.38	7	0.18	-			●	●											
	CCGT09T300RS	Up-sharp edge	80	9.525	3.97	7	0.03	-			●		●	●		●	●						
	CCGT09T301MRS	Up-sharp edge	80	9.525	3.97	7	0.08	-			●	●	●	●		●	●						
	CCGT09T301RS	Up-sharp edge	80	9.525	3.97	7	0.1	-					●			●	●						
	CCGT09T302MRS	Up-sharp edge	80	9.525	3.97	7	0.18	-			●	●	●	●		●	●						
	CCGT09T302RS	Up-sharp edge	80	9.525	3.97	7	0.2	-					●			●	●						
	CCGT09T304MRS	Up-sharp edge	80	9.525	3.97	7	0.38	-			●	●	●	●		●	●						
CCGT09T304RS	Up-sharp edge	80	9.525	3.97	7	0.4	-					●											

ID Tooling V

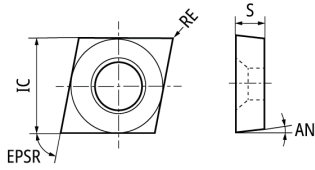


Steel	○	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless Steel	●	○	○	○	●	○	●	○	●	○	●	○	●	○	●	○	●	○	●	○
Cast Iron																			●	●
Non-Ferrous Material													○	○						●
Heat Resistant Alloy																			●	○
Hardened Material													○	○	○					
Others (non-metallic)																				●

Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	BS mm	Carbide											Uncoated KM1		
									PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD		PVD	
									ST4	DM4	DT4	QM3	TM4	VM1	ZM3	CP1	CP7					
	CCGT060200RU	Up-sharp edge	80	6.35	2.38	7	0.03	-				●								●		
	CCGT060201RU	Up-sharp edge	80	6.35	2.38	7	0.1	-				●									●	
	CCGT060202RU	Up-sharp edge	80	6.35	2.38	7	0.2	-				●									●	
	CCGT09T300RU1	Up-sharp edge	80	9.525	3.97	7	0.03	-				●			●						●	
	CCGT09T301RU1	Up-sharp edge	80	9.525	3.97	7	0.1	-				●			●						●	
	CCGT09T302RU1	Up-sharp edge	80	9.525	3.97	7	0.2	-				●			●						●	
	CCGT09T304RU1	Up-sharp edge	80	9.525	3.97	7	0.4	-				●			●						●	
	CCGT060201LU	Up-sharp edge	80	6.35	2.38	7	0.1	-													●	
	CCGT060202LU	Up-sharp edge	80	6.35	2.38	7	0.2	-													●	
	CCGT09T300LU1	Up-sharp edge	80	9.525	3.97	7	0.03	-													●	
	CCGT09T301LU1	Up-sharp edge	80	9.525	3.97	7	0.1	-													●	
	CCGT09T302LU1	Up-sharp edge	80	9.525	3.97	7	0.2	-													●	
	CCGT09T304LU1	Up-sharp edge	80	9.525	3.97	7	0.4	-													●	
		CCET09T3005RKHG	Up-sharp edge	80	9.525	3.97	7	0.05	-						●		●					
CCET09T3008RKHG		Up-sharp edge	80	9.525	3.97	7	0.08	-						●		●						
CCET09T3018RKHG		Up-sharp edge	80	9.525	3.97	7	0.18	-						●		●						
CCET09T302RKHG		Up-sharp edge	80	9.525	3.97	7	0.2	-						●		●						
	CCGT060201FRF1	Up-sharp edge	80	6.35	2.38	7	0.1	-			●			●		●						
	CCGT060202FRF1	Up-sharp edge	80	6.35	2.38	7	0.2	-			●			●		●						
	CCGT060204FRF1	Up-sharp edge	80	6.35	2.38	7	0.4	-			●			●		●						
	CCGT09T302FRF1	Up-sharp edge	80	6.35	2.38	7	0.2	-			●			●		●						
	CCGT09T304FRF1	Up-sharp edge	80	6.35	2.38	7	0.4	-			●			●		●						
	CCGW060200FN	Up-sharp edge	80	6.35	2.38	7	0.03	-												●		
	CCGW060200H	Up-sharp edge	80	6.35	2.38	7	0.03	-													●	
	CCGW060201FN	Up-sharp edge	80	6.35	2.38	7	0.1	-												●		
	CCGW060201H	Up-sharp edge	80	6.35	2.38	7	0.1	-													●	
	CCGW060202H	Up-sharp edge	80	6.35	2.38	7	0.2	-														●
	CCGW09T300FN	Up-sharp edge	80	9.525	3.97	7	0.03	-													●	
	CCGW09T300H	Up-sharp edge	80	9.525	3.97	7	0.03	-														●
	CCGW09T301FN	Up-sharp edge	80	9.525	3.97	7	0.1	-													●	
	CCGW09T301H	Up-sharp edge	80	9.525	3.97	7	0.1	-													●	
	CCGW09T302H	Up-sharp edge	80	9.525	3.97	7	0.2	-														●
CCGW09T302MP	Up-sharp edge	80	9.525	3.97	7	0.18	-						●								●	

CC.. series/Inserts CBN

CCGW

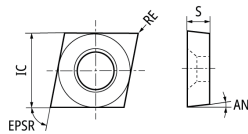


Steel	
Stainless Steel	
Cast Iron	● ● ● ● ○ ○
Non-Ferrous Material	
Heat Resistant Alloy	
Hardened Material	● ● ● ● ● ●
Others (non-metallic)	

Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	D2 mm	Length of edge mm	No. of edge	S1 mm	CBN										
												B16 PVD	B22	B23	B30	B36	B6K PVD	B40	B52	B5K PVD		
	CCGW060202PDFNX	Up-sharp edge	80	6.35	2.38	7	0.2	-	2.3	2	-					●					●	
	CCGW060202PDS01015	S01015	80	6.35	2.38	7	0.2	-	2.3	2	-						●			●	●	
	CCGW060202PDS01325	S01325	80	6.35	2.38	7	0.2	-	2.3	2	-						●				●	
	CCGW060202PDS01535	S01535	80	6.35	2.38	7	0.2	-	2.3	2	-						●				●	
	CCGW060204PDFNX	Up-sharp edge	80	6.35	2.38	7	0.4	-	2.3	2	-					●						
	CCGW060204PDS01015	S01015	80	6.35	2.38	7	0.4	-	2.3	2	-						●			●	●	
	CCGW060204PDS01325	S01325	80	6.35	2.38	7	0.4	-	2.3	2	-						●				●	
	CCGW060204PDS01535	S01535	80	6.35	2.38	7	0.4	-	2.3	2	-						●				●	
	CCGW060208PDFNX	Up-sharp edge	80	6.35	2.38	7	0.8	-	2.2	2	-											●
	CCGW060208PDS01015	S01015	80	6.35	2.38	7	0.8	-	2.2	2	-							●		●	●	
	CCGW060208PDS01325	S01325	80	6.35	2.38	7	0.8	-	2.2	2	-							●		●	●	
	CCGW060208PDS01535	S01535	80	6.35	2.38	7	0.8	-	2.2	2	-							●		●	●	
	CCGW060208PDT01520	T01520	80	6.35	2.38	7	0.8	-	2.2	2	-							●				●
	CCGW09T302PDFNX	Up-sharp edge	80	9.525	3.97	7	0.2	-	2.3	2	-						●					●
	CCGW09T302PDS01015	S01015	80	9.525	3.97	7	0.2	-	2.3	2	-							●		●	●	
	CCGW09T302PDS01325	S01325	80	9.525	3.97	7	0.2	-	2.3	2	-							●		●	●	
	CCGW09T302PDS01535	S01535	80	9.525	3.97	7	0.2	-	2.3	2	-							●		●	●	
	CCGW09T304PDFNX	Up-sharp edge	80	9.525	3.97	7	0.4	-	2.3	2	-						●					●
	CCGW09T304PDS01015	S01015	80	9.525	3.97	7	0.4	-	2.3	2	-							●		●	●	
	CCGW09T304PDS01325	S01325	80	9.525	3.97	7	0.4	-	2.3	2	-							●		●	●	
	CCGW09T304PDS01535	S01535	80	9.525	3.97	7	0.4	-	2.3	2	-							●		●	●	
	CCGW09T308PDFNX	Up-sharp edge	80	9.525	3.97	7	0.8	-	2.2	2	-						●					●
	CCGW09T308PDS01015	S01015	80	9.525	3.97	7	0.8	-	2.2	2	-							●		●	●	
	CCGW09T308PDS01535	S01535	80	9.525	3.97	7	0.8	-	2.2	2	-							●		●	●	
CCGW09T308PTS01325	S01325	80	9.525	3.97	7	0.8	-	2.2	2	-							●		●	●		
CCGW09T312PDFNX	Up-sharp edge	80	9.525	3.97	7	1.2	-	2.7	2	-											●	
CCGW09T312PDS01015	S01015	80	9.525	3.97	7	1.2	-	2.7	2	-											●	
CCGW09T312PTS01325	S01325	80	9.525	3.97	7	1.2	-	2.7	2	-											●	

CC.. series/Inserts PCD

CCM.

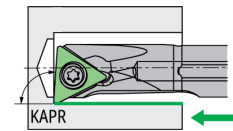
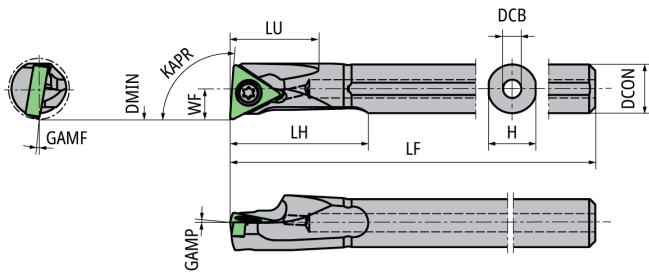


Steel	
Stainless Steel	
Cast Iron	
Non-Ferrous Material	● ● ● ●
Heat Resistant Alloy	
Hardened Material	
Others (non-metallic)	●

Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	No. of edge	PCD		Diamond Coating
									PD1	PD2	UC1
	CCMT060201PBF	Up-sharp edge	80	6.35	2.38	7	0.1	1			●
	CCMT060202PBF	Up-sharp edge	80	6.35	2.38	7	0.2	1			●
	CCMT060204PBF	Up-sharp edge	80	6.35	2.38	7	0.4	1			●
	CCMT09T301PBF	Up-sharp edge	80	9.525	3.97	7	0.1	1			●
	CCMT09T302PBF	Up-sharp edge	80	9.525	3.97	7	0.2	1			●
	CCMT09T304PBF	Up-sharp edge	80	9.525	3.97	7	0.4	1			●
	CCMT09T302PF	Up-sharp edge	80	9.525	3.97	7	0.2	1			●
	CCMT09T304PF	Up-sharp edge	80	9.525	3.97	7	0.4	1			●
	CCMW09T301	Up-sharp edge	80	9.525	3.97	7	0.1	1	●		
	CCMW09T302	Up-sharp edge	80	9.525	3.97	7	0.2	1	●		
	CCMW09T304	Up-sharp edge	80	9.525	3.97	7	0.4	1	●		
	CCMW09T308	Up-sharp edge	80	9.525	3.97	7	0.8	1	●		

TP.. series/Toolholder

S-STUP-OH Mogul Bar / Coolant through / Steel shank



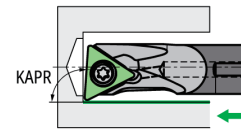
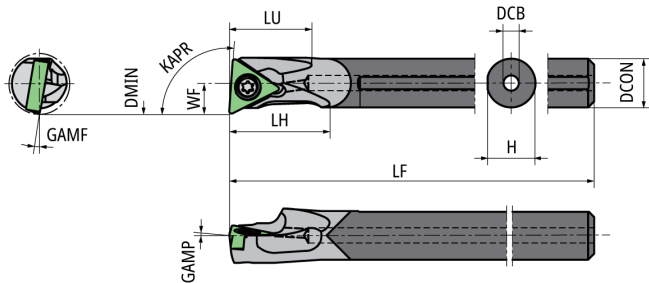
- Diagram shows right-hand tool
- Use a left-handed insert
- For F1/FG chipbreaker, right-hand inserts fit to right-hand toolholder
- F1/FG chipbreaker evacuates chips BACKWARD

EDP	Item Number	Stock	Hand	DMIN mm	DCB mm	DCON mm	GAMF °	GMAP °	H mm	KAPR °	LF mm	LH mm	LU mm	RE mm	WF mm	Insert Gage
5769989	S08H-STUPR09D10-OH	●	R	10	3	8	10	5	7.7	93	100	22.5	14.5	0.4	5	TP.0902..
5769997	S10K-STUPR11D12-OH	●	R	12	3.5	10	7.5	5	9.6	93	125	27.5	18.5	0.4	6	TP.1103..
5770003	S12M-STUPR11D14-OH	●	R	14	4	12	5	5	11.5	93	150	32.5	22	0.4	7	TP.1103..
5770011	S16Q-STUPR11D18-OH	●	R	18	5	16	3	5	15.4	93	180	42.5	28.5	0.4	9	TP.1103..
5886817	S20Q-STUPR11D22-OH	●	R	22	5	20	3	5	19.4	93	180	46	38	0.4	11	TP.1103..

Spare Parts

Item Number	Clamp screw	Wrench (for Clamp screw)
S08H-STUPR09D10-OH	LR-S-2.5*4.8	CLR-15S
S10K-STUPR11D12-OH	LR-S-3*5.8	RLR-20S
S12M-STUPR11D14-OH	LR-S-3*5.8	RLR-20S
S16Q-STUPR11D18-OH	LR-S-3*5.8	RLR-20S
S20Q-STUPR11D22-OH	LR-S-3*5.8	RLR-20S

C-STUP-OH Mogul Bar / Coolant through / Carbide shank



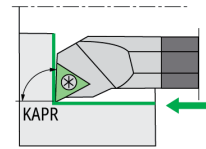
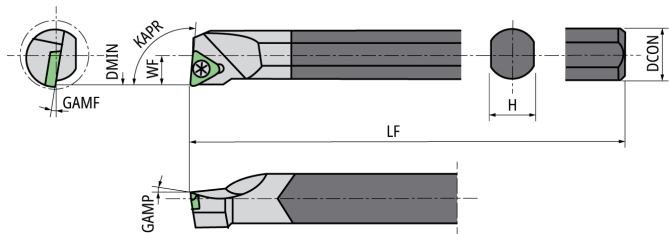
- Diagram shows right-hand tool
- Use a left-handed insert
- For F1/FG chipbreaker, right-hand inserts fit to right-hand toolholder
- F1/FG chipbreaker evacuates chips BACKWARD

EDP	Item Number	Stock	Hand	DMIN mm	DCB mm	DCON mm	GAMF °	GMAP °	H mm	KAPR °	LF mm	LH mm	LU mm	RE mm	WF mm	Insert Gage
5770102	C08K-STUPR09D10-OH	●	R	10	2.5	8	10	5	7.7	93	125	16.5	14.5	0.4	5	TP.0902..
5770110	C10M-STUPR11D12-OH	●	R	12	2.5	10	7.5	5	9.6	93	150	20	17.5	0.4	6	TP.1103..
5770128	C12M-STUPR11D14-OH	●	R	14	3	12	5	5	11.5	93	150	23	21.5	0.4	7	TP.1103..
5821814	C16Q-STUPR11D18-OH	●	R	18	4	16	3	5	15.4	93	180	29	28	0.4	9	TP.1103..
5800537	C08K-STUPL09D10-OH	●	L	10	2.5	8	10	5	7.7	93	125	16.5	14.5	0.4	5	TP.0902..
5800545	C10M-STUPL11D12-OH	●	L	12	2.5	10	7.5	5	9.6	93	150	20	17.5	0.4	6	TP.1103..

Spare Parts

Item Number	Clamp screw	Wrench (for Clamp screw)
C08K-STUPR09D10-OH	LR-S-2.5*4.8	CLR-15S
C10M-STUPR11D12-OH	LR-S-3*5.8	RLR-20S
C12M-STUPR11D14-OH	LR-S-3*5.8	RLR-20S
C16Q-STUPR11D18-OH	LR-S-3*5.8	RLR-20S
C08K-STUPL09D10-OH	LR-S-2.5*4.8	CLR-15S
C10M-STUPL11D12-OH	LR-S-3*5.8	RLR-20S

C-STUP-N Carbide shank



- Diagram shows right-hand tool
- Use a left-handed insert
- For F1/FG chipbreaker, right-hand inserts fit to right-hand toolholder
- F1/FG chipbreaker evacuates chips BACKWARD

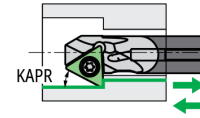
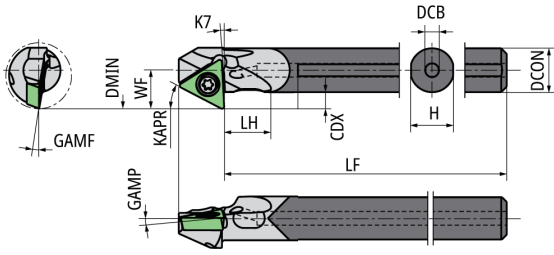
EDP	Item Number	Stock	Hand	DMIN mm	DCON mm	GAMF °	GMAP °	H mm	KAPR °	LF mm	RE mm	WF mm	Insert Gage
5853262	C08K-STUPR-08-N	●	R	10	8	10	5	7	93	125	0.4	5	TP..0802..
5853270	C10M-STUPR-09-N	●	R	12	10	7	5	9	93	150	0.4	6	TP..0902..

Spare Parts

Item Number	Clamp screw	Wrench (for Clamp screw)
C08K-STUPR-08-N	LR-S-2*5,5	CLR-13S
C10M-STUPR-09-N	LR-S-2.5*6	CLR-15S

TP.. series/Toolholder for ID Back Turning

C-STZP-OH Mogul Bar / Coolant through / Carbide shank



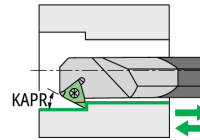
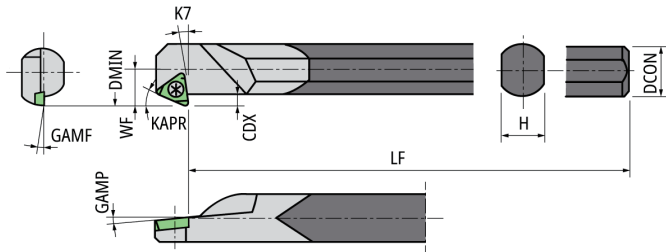
- Diagram shows right-hand tool
- Use right-hand inserts for machining backward
- Use left-hand inserts for machining forward

EDP	Item Number	Stock	Hand	DMIN mm	CDX mm	DCB mm	DCON mm	GAMF °	GMAP °	H mm	KAPR °	LF mm	LH mm	RE mm	WF mm	Insert Gage
5842869	C08K-STZPR09D12-OH	●	R	12	3	2.5	8	10	5	7.7	27	125	8.5	0.4	7	TP..0902..
5842877	C10M-STZPR09D14-OH	●	R	14	3	2.5	10	7	5	9.6	27	150	12	0.4	8	TP..0902..
5842885	C12M-STZPR11D175-OH	●	R	17.5	4.5	3	12	5	5	11.5	27	150	14.5	0.4	10.5	TP..1103..

Spare Parts

Item Number	Clamp screw	Wrench (for Clamp screw)
C08K-STZPR09D12-OH	LR-S-2.5*4.8	CLR-15S
C10M-STZPR09D14-OH	LR-S-2.5*4.8	CLR-15S
C12M-STZPR11D175-OH	LR-S-3*5.8	RLR-20S

B-STZP-N Carbide shank



- Diagram shows right-hand tool
- Use right-hand inserts for machining backward
- Use left-hand inserts for machining forward

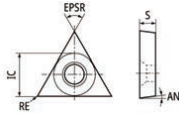
EDP	Item Number	Stock	Hand	DMIN mm	CDX mm	DCON mm	GAMF °	GMAP °	H mm	KAPR °	LF mm	RE mm	WF mm	Insert Gage
5852801	B12Q-STZPR-09-N	●	R	16	3	12	5	5	11	27	180	0.2	9	TP..0902..

Spare Parts

Item Number	Clamp screw	Wrench (for Clamp screw)
B12Q-STZPR-09-N	LR-S-2.5*6.8	CLR-15S

TP.. series/Inserts Carbide

TPGH

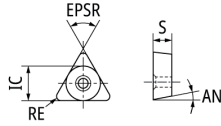


Steel	○	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Stainless Steel	●	○	○	○	●	○	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Cast Iron																					●
Non-Ferrous Material														○		○					●
Heat Resistant Alloy																					●
Hardened Material																					●
Others (non-metallic)																					●

Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	BS mm	Carbide											Uncoated KM1		
									PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD			
									ST4	DM4	DT4	QM3	TM4	VM1	ZM3	CP1	CP7					
	TPGH090202RFG	Up-sharp edge	60	5.56	2.38	11	0.2	-	●				●	●								
	TPGH090204RFG	Up-sharp edge	60	5.56	2.38	11	0.4	-	●				●	●								
	TPGH110302RFG	Up-sharp edge	60	6.35	3.18	11	0.2	-	●				●	●								
	TPGH110304RFG	Up-sharp edge	60	6.35	3.18	11	0.4	-	●				●	●								
	TPGH080202FRF1	Up-sharp edge	60	4.76	2.38	11	0.2	-						●	●	●						
	TPGH080204FRF1	Up-sharp edge	60	4.76	2.38	11	0.4	-						●	●	●						
	TPGH090201FRF1	Up-sharp edge	60	5.56	2.38	11	0.1	-	●				●	●								
	TPGH090202FRF1	Up-sharp edge	60	5.56	2.38	11	0.2	-	●				●	●	●	●						
	TPGH090204FRF1	Up-sharp edge	60	5.56	2.38	11	0.4	-	●				●	●	●	●						
	TPGH090208FRF1	Up-sharp edge	60	5.56	2.38	11	0.8	-	●				●	●	●	●						
	TPGH110302FRF1	Up-sharp edge	60	6.35	3.18	11	0.2	-	●				●	●	●	●						
	TPGH110304FRF1	Up-sharp edge	60	6.35	3.18	11	0.4	-	●				●	●	●	●						
	TPGH110308FRF1	Up-sharp edge	60	6.35	3.18	11	0.8	-	●				●	●	●	●						
		TPGH090202FLK	Up-sharp edge	60	5.56	2.38	11	0.2	-						●							
TPGH090204FLK		Up-sharp edge	60	5.56	2.38	11	0.4	-						●								
TPGH090208FLK		Up-sharp edge	60	5.56	2.38	11	0.8	-						●								
	TPGH090202FLB2	Up-sharp edge	60	5.56	2.38	11	0.2	-						●		●						
	TPGH090204FLB2	Up-sharp edge	60	5.56	2.38	11	0.4	-						●		●						
	TPGH090208FLB2	Up-sharp edge	60	5.56	2.38	11	0.8	-						●		●						
	TPGH080202FLB3	Up-sharp edge	60	4.76	2.38	11	0.2	-						●		●						
	TPGH080204FLB3	Up-sharp edge	60	4.76	2.38	11	0.4	-						●		●						

TP.. series/Inserts CBN

TPGW



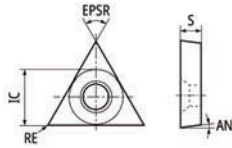
Steel
Stainless Steel
Cast Iron
Non-Ferrous Material
Heat Resistant Alloy
Hardened Material
Others (non-metallic)

Shape	Item Number (ISO)	CECC	EPSR	IC	S	AN	RE	D2	Length of edge	No. of edge	S1 mm	CBN																				
			°	mm	mm	°	mm	mm				B16 PVD	B22	B23	B30	B36	B6K PVD	B40	B52	B5K PVD												
	TPGW090202PTS01015	S01015	60	5.56	2.38	11	0.2	-	2.2	3	-																					
	TPGW090202PTS01325	S01325	60	5.56	2.38	11	0.2	-	2.2	3	-																					
	TPGW090202PTS01535	S01535	60	5.56	2.38	11	0.2	-	2.2	3	-																					
	TPGW090204PTS01015	S01015	60	5.56	2.38	11	0.4	-	2	3	-																					
	TPGW090204PTS01325	S01325	60	5.56	2.38	11	0.4	-	2	3	-																					
	TPGW090204PTS01535	S01535	60	5.56	2.38	11	0.4	-	2	3	-																					
	TPGW090208PTS01015	S01015	60	5.56	2.38	11	0.8	-	1.7	3	-																					
	TPGW090208PTS01325	S01325	60	5.56	2.38	11	0.8	-	1.7	3	-																					
	TPGW090208PTS01535	S01535	60	5.56	2.38	11	0.8	-	1.7	3	-																					
	TPGW110302PTS01015	S01015	60	6.35	3.18	11	0.2	-	2.2	3	-																					
	TPGW110302PTS01325	S01325	60	6.35	3.18	11	0.2	-	2.2	3	-																					
	TPGW110302PTS01535	S01535	60	6.35	3.18	11	0.2	-	2.2	3	-																					
	TPGW110302PTT01020	T01020	60	6.35	3.18	11	0.2	-	2.2	3	-																					
	TPGW110304PTS01015	S01015	60	6.35	3.18	11	0.4	-	2	3	-																					
	TPGW110304PTS01325	S01325	60	6.35	3.18	11	0.4	-	2	3	-																					
	TPGW110304PTS01535	S01535	60	6.35	3.18	11	0.4	-	2	3	-																					
	TPGW110304PTT01020	T01020	60	6.35	3.18	11	0.4	-	2	3	-																					
	TPGW110304PTT01515	T01515	60	6.35	3.18	11	0.4	-	2	3	-																					
	TPGW110308PTS01015	S01015	60	6.35	3.18	11	0.8	-	1.7	3	-																					
	TPGW110308PTS01325	S01325	60	6.35	3.18	11	0.8	-	1.7	3	-																					
	TPGW110308PTS01535	S01535	60	6.35	3.18	11	0.8	-	1.7	3	-																					
	TPGW110308PTT01020	T01020	60	6.35	3.18	11	0.8	-	1.7	3	-																					
	TPGW110308PTT01515	T01515	60	6.35	3.18	11	0.8	-	1.7	3	-																					
	TPGW110312PTS01015	S01015	60	6.35	3.18	11	1.2	-	2.3	3	-																					
	TPGW110312PTS01325	S01325	60	6.35	3.18	11	1.2	-	2.3	3	-																					
	TPGW110312PTS01535	S01535	60	6.35	3.18	11	1.2	-	2.3	3	-																					
	TPGW110312PTT01020	T01020	60	6.35	3.18	11	1.2	-	2.3	3	-																					
TPGW110312PTT01515	T01515	60	6.35	3.18	11	1.2	-	2.3	3	-																						

ID Tooling

TP.. series/Inserts PCD / Diamond Coating

TPM.

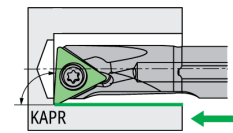
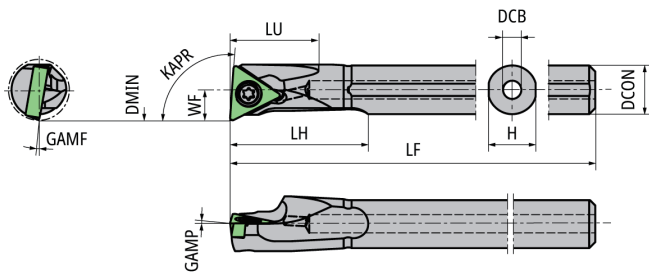


Steel			
Stainless Steel			
Cast Iron			
Non-Ferrous Material	●	●	●
Heat Resistant Alloy			
Hardened Material			
Others (non-metallic)			●

Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	No. of edge	PCD		Diamond Coating
									PD1	PD2	UC1
	TPMH110302FRF1	Up-sharp edge	60	6.35	3.18	11	0.2	3			●
	TPMH110304FRF1	Up-sharp edge	60	6.35	3.18	11	0.4	3			●
	TPMT090201PBF	Up-sharp edge	60	5.56	2.38	11	0.1	1		●	
	TPMT090202PBF	Up-sharp edge	60	5.56	2.38	11	0.2	1		●	
	TPMT090204PBF	Up-sharp edge	60	5.56	2.38	11	0.4	1		●	
	TPMT110301PBF	Up-sharp edge	60	6.35	3.18	11	0.1	1		●	
	TPMT110302PBF	Up-sharp edge	60	6.35	3.18	11	0.2	1		●	
	TPMT110304PBF	Up-sharp edge	60	6.35	3.18	11	0.4	1		●	
	TPMT090202PF	Up-sharp edge	60	5.56	2.38	11	0.2	1		●	
	TPMT090204PF	Up-sharp edge	60	5.56	2.38	11	0.4	1		●	
	TPMT110302PF	Up-sharp edge	60	6.35	3.18	11	0.2	1		●	
	TPMT110304PF	Up-sharp edge	60	6.35	3.18	11	0.4	1		●	

TC.. series/Toolholder

S-STUC-OH Mogul Bar / Coolant through / Steel shank



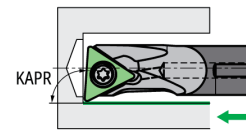
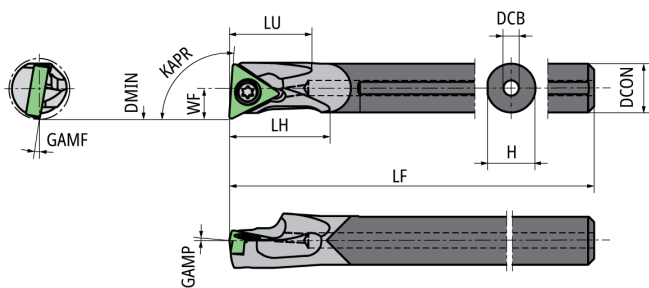
- Diagram shows right-hand tool
- Use a left-handed insert
- For F05 chipbreaker, right-hand inserts fit to right-hand toolholder
- F05 chipbreaker evacuates chips BACKWARD

EDP	Item Number	Stock	Hand	DMIN mm	DCB mm	DCON mm	GAMF °	GMAP °	H mm	KAPR °	LF mm	LH mm	LU mm	RE mm	WF mm	Insert Gage
5769971	S07G-STUCR06D08-OH	●	R	8	2.5	7	11	0	6.75	93	90	19.5	12.5	0.2	4	TC..0601..

Spare Parts

Item Number	Clamp screw	Wrench (for Clamp screw)
S07G-STUCR06D08-OH	LR-S-2*4.4	CLR-13S

C-STUC-OH Mogul Bar / Coolant through / Carbide shank



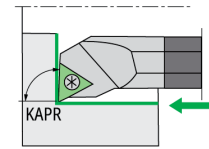
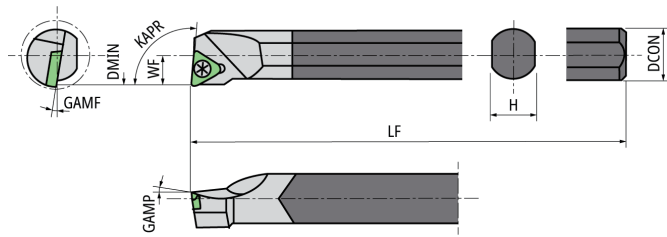
- Diagram shows right-hand tool
- Use a left-handed insert
- For F05 chipbreaker, right-hand inserts fit to right-hand toolholder
- F05 chipbreaker evacuates chips BACKWARD

EDP	Item Number	Stock	Hand	DMIN mm	DCB mm	DCON mm	GAMF °	GMAP °	H mm	KAPR °	LF mm	LH mm	LU mm	RE mm	WF mm	Insert Gage
5770094	C07J-STUCR06D08-OH	●	R	8	2	7	11	0	6.75	93	110	13	12.5	0.2	4	TC..0601..
5800529	C07J-STUCL06D08-OH	●	L	8	2	7	11	0	6.75	93	110	13	12.5	0.2	4	TC..0601..

Spare Parts

Item Number	Clamp screw	Wrench (for Clamp screw)
C07J-STUCR06D08-OH	LR-S-2*4.4	CLR-13S
C07J-STUCL06D08-OH	LR-S-2*4.4	CLR-13S

C-STUC-N Carbide shank



- Diagram shows right-hand tool
- Use a left-handed insert
- For F05 chipbreaker, right-hand inserts fit to right-hand toolholder
- F05 chipbreaker evacuates chips BACKWARD

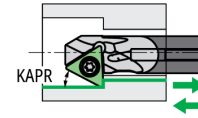
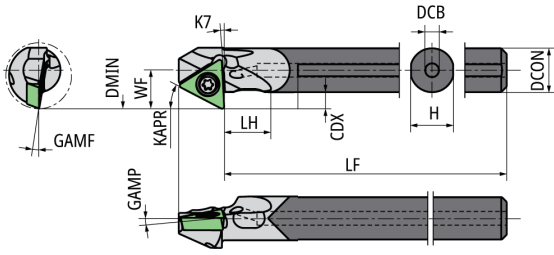
EDP	Item Number	Stock	Hand	DMIN mm	DCON mm	GAMF °	GMAP °	H mm	KAPR °	LF mm	RE mm	WF mm	Insert Gage
5853247	C06J-STUCR-06-N	●	R	8	6	10	0	5.2	93	110	0.2	4	TC..0601..

Spare Parts

Item Number	Clamp screw	Wrench (for Clamp screw)
C06J-STUCR-06-N	LR-S-2*4.4	CLR-13S

TC.. series/Toolholder for ID Back Turning

C-STZC-OH Mogul Bar / Coolant through / Carbide shank



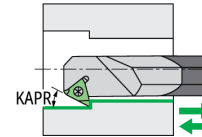
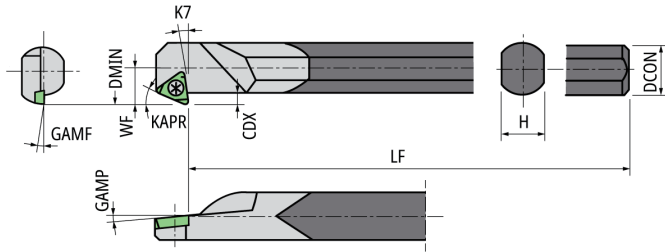
- Diagram shows right-hand tool
- Use right-hand inserts for machining backward
- Use left-hand inserts for machining forward

EDP	Item Number	Stock	Hand	DMIN mm	CDX mm	DCB mm	DCON mm	GAMF °	GMAP °	H mm	KAPR °	LF mm	LH mm	RE mm	WF mm	Insert Gage
5842851	C06H-STZCR06D10-OH	●	R	10	2.5	2	6	10	0	5.8	27	100	6	0.2	5.5	TC..0601..

Spare Parts

Item Number	Clamp screw	Wrench (for Clamp screw)
C06H-STZCR06D10-OH	LR-S-2*4.4	CLR-13S

B-STZC-N Carbide shank



- Diagram shows right-hand tool
- Use right-hand inserts for machining backward
- Use left-hand inserts for machining forward

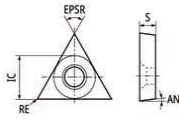
EDP	Item Number	Stock	Hand	DMIN mm	CDX mm	DCON mm	GAMF °	GMAP °	H mm	KAPR °	LF mm	RE mm	WF mm	Insert Gage
5852819	B06J-STZCR-06-N	●	R	10	2.5	6	10	0	5.2	27	110	0.2	5.5	TC..0601..

Spare Parts

Item Number	Clamp screw	Wrench (for Clamp screw)
B06J-STZCR-06-N	LR-S-2*4.4	CLR-13S

TC.. series/Inserts Carbide

TCG.

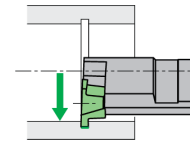
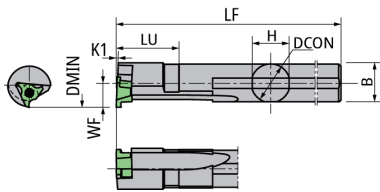


Steel	○	●	●	●	●	●	●	●	●
Stainless Steel	●	○	○	○	●	○	●	●	●
Cast Iron									●
Non-Ferrous Material						○	○		●
Heat Resistant Alloy		●	○	○					
Hardened Material		○	○	○					
Others (non-metallic)									●

Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	BS mm	Carbide										Uncoated KM1		
									PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	CVD	CVD			
									ST4	DM4	DT4	QM3	TM4	VM1	ZM3	CP1	CP7				
	TCGH060101FRF05	Up-sharp edge	60	3.97	1.59	7	0.1	-	●				●	●							
	TCGH060102FLF05	Up-sharp edge	60	3.97	1.59	7	0.2	-						●			●				
	TCGH060102FRF05	Up-sharp edge	60	3.97	1.59	7	0.2	-	●				●	●			●				
	TCGH060104FRF05	Up-sharp edge	60	3.97	1.59	7	0.4	-	●				●	●			●				
	TCGH060102FLK	Up-sharp edge	60	3.97	1.59	7	0.2	-						●							
	TCGH060104FLK	Up-sharp edge	60	3.97	1.59	7	0.4	-						●							
	TCGH060102FLB1	Up-sharp edge	60	3.97	1.59	7	0.2	-						●			●				
	TCGH060104FLB1	Up-sharp edge	60	3.97	1.59	7	0.4	-						●			●				

GTG.. series/Toolholders for ID Grooving

S-BG Mogul Bar / Steel shank



● Diagram shows right-hand tool

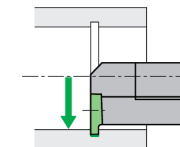
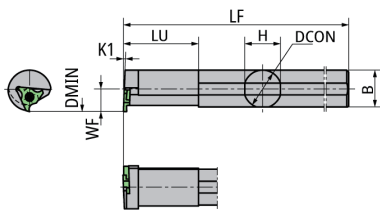
NOTE: Use a left-handed insert.

EDP	Item Number	Stock	Hand	DMIN mm	APMX mm	B mm	CW mm	DCON mm	H mm	K1 °	LF mm	LU mm	WF mm	Insert Gage
5854500	S08H-BGR10D10	●	R	10	1	7.85	0.5-2	8	7.7	2	120	20	5	GTG10..
5854518	S10K-BGR10D12	●	R	12	1	9.8	0.5-2	10	9.6	2	120	25	6	GTG10..

Spare Parts

Item Number	Clamp screw	Wrench (for Clamp screw)
S08H-BGR10D10	LR-S-2.5*6.8	CLR-15S
S10K-BGR10D12	LR-S-2.5*6.8	CLR-15S

BG Steel shank



● Diagram shows right-hand tool

NOTE: Use a left-handed insert.

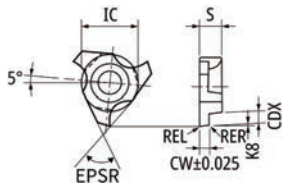
EDP	Item Number	Stock	Hand	DMIN mm	APMX mm	B mm	CW mm	DCON mm	H mm	K1 °	LF mm	LU mm	WF mm	Insert Gage
5711585	BGR08-00S	●	R	10	1	7.5	0.5-2	8	7	2	125	20	5	GTG10..
5711593	BGR08-10S	●	R	10	1	7.5	1.5-2	8	7	2	125	20	5	GTG10..
5711601	BGR10-00S	●	R	12	1	9.5	0.5-2	10	9	2	150	25	6	GTG10..
5711619	BGR10-10S	●	R	12	1	9.5	1.5-2	10	9	2	150	25	6	GTG10..
5711627	BGR12-00S	●	R	14	2	11.5	1-2	12	11	2	180	30	7	GTG14..
5711635	BGR12-12S	●	R	14	2	11.5	1.75-2	12	11	2	180	30	7	GTG14..
5711643	BGR14-00S	●	R	16	2	13.5	1-2	14	13	2	180	35	8	GTG14..
5711650	BGR14-12S	●	R	16	2	13.5	1.75-2	14	13	2	180	35	8	GTG14..
5536362	BGR16	●	R	20	3	15.5	1.5-2	16	15	2	200	40	10	GTG20..
5435433	BGR20	●	R	25	3	19.5	1.5-2	20	19	2	200	40	12	GTG20..

Spare Parts

Item Number	Clamp screw	Wrench (for Clamp screw)
BGR08-00S	LR-S-2.5*6.8	CLR-15S
BGR08-10S	LR-S-2.5*6.8	CLR-15S
BGR10-00S	LR-S-2.5*6.8	CLR-15S
BGR10-10S	LR-S-2.5*6.8	CLR-15S
BGR12-00S	LR-S-3*7.8	RLR-20S
BGR12-12S	LR-S-3*7.8	RLR-20S
BGR14-00S	LR-S-3*7.8	RLR-20S
BGR14-12S	LR-S-3*7.8	RLR-20S
BGR16	LR-S-3*7.8	RLR-20S
BGR20	LR-S-3*7.8	RLR-20S

GTG.. series/Inserts Carbide

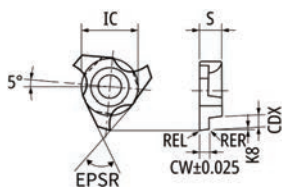
GTG..005



● Diagram shows left-hand tool

Item Number	Hand	Chip-breaker	APMX	CDX	CW	EPSR	IC	K8	REL	RER	S	Carbide PVD		
			mm	mm	mm	°	mm	°	mm	mm	mm	QM3	TM4	ZM3
GTG10050FL005	L	Yes	1	1.2	0.5	60	5.56	2	0.05	0.05	3.18	●		
GTG10075FL005	L	Yes	1	1.2	0.75	60	5.56	2	0.05	0.05	3.18	●		
GTG10100FL005	L	Yes	1	1.2	1	60	5.56	2	0.05	0.05	3.18	●		
GTG10150FL005	L	Yes	1	1.2	1.5	60	5.56	2	0.05	0.05	3.18	●		
GTG10200FL005	L	Yes	1	1.2	2	60	5.56	2	0.05	0.05	3.18	●		

GTG..



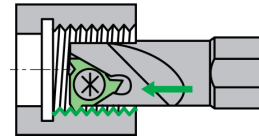
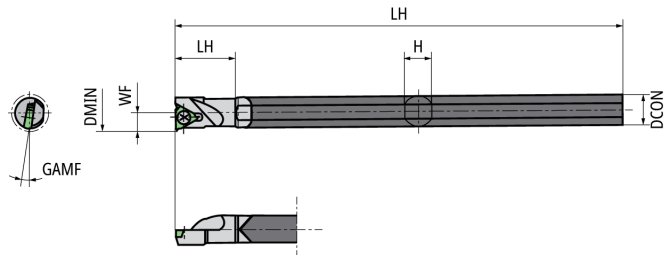
● Diagram shows left-hand tool

Item Number	Hand	Chip-breaker	APMX	CDX	CW	EPSR	IC	K8	REL	RER	S	Carbide PVD		
			mm	mm	mm	°	mm	°	mm	mm	mm	QM3	TM4	ZM3
GTG10050FL00	L	Yes	1	1.2	0.5	60	5.56	2	0.05	0.05	3.18			●
GTG10065FL00	L	Yes	1	1.2	0.65	60	5.56	2	0.05	0.05	3.18			●
GTG10075FL00	L	Yes	1	1.2	0.75	60	5.56	2	0.05	0.05	3.18			●
GTG10100FL00	L	Yes	1	1.2	1	60	5.56	2	0.05	0.05	3.18			●
GTG10150FL00	L	Yes	1	1.2	1.5	60	5.56	2	0.05	0.05	3.18			●
GTG10200FL01	L	Yes	1	1.2	2	60	5.56	2	0.1	0.1	3.18			●
GTG14100FL00	L	Yes	2	2.2	1	60	7.94	2	0.05	0.05	3.18			●
GTG14150FL00	L	Yes	2	2.2	1.5	60	7.94	2	0.05	0.05	3.18			●
GTG14200FL01	L	Yes	2	2.2	2	60	7.94	2	0.1	0.1	3.18			●
GTG20150FL	L	Yes	3	3.2	1.5	60	9.525	2	0.2	0.2	3.18	●		
GTG20200FL	L	Yes	3	3.2	2	60	9.525	2	0.2	0.2	3.18	●		

ID Tooling V

Internal Thread TMN.. series/Toolholder

TGC Carbide shank



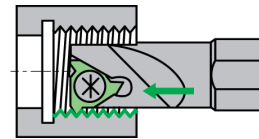
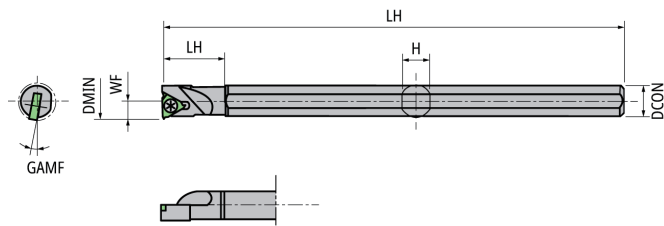
● Diagram shows right-hand tool

EDP	Item Number	Stock	Hand	DMIN mm	DCON mm	GAMF °	H mm	LF mm	LH mm	WF mm	Insert Gage
5455092	TGC10T06H161R	●	R	8	6	10	5.5	100	13	3.8	TMN06..
5455084	TGC10T08K162R	●	R	10	8	10	7	125	17	4.7	TMN08..
5455076	TGC10T10M163R	●	R	12	10	10	9	150	20	6	TMN09..

Spare Parts

Item Number	Clamp screw	Wrench (for Clamp screw)
TGC10T06H161R	LR-S-2*4.4	CLR-13S
TGC10T08K162R	LR-S-2*5.5	CLR-13S
TGC10T10M163R	LRIS-2.2*6	CLR-13S

HN Steel shank



● Diagram shows right-hand tool

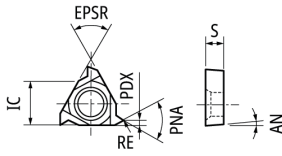
EDP	Item Number	Stock	Hand	DMIN mm	DCON mm	GAMF °	H mm	LF mm	LH mm	WF mm	Insert Gage
5845177	HN59Z-0028	●	R	8	6	10	5.5	100	13	3.8	TMN06..
5845193	HN59Z-0029	●	R	10	8	10	7	125	17	4.7	TMN08..
5845185	HN59Z-0030	●	R	12	10	10	9	150	20	6	TMN09..

Spare Parts

Item Number	Clamp screw	Wrench (for Clamp screw)
HN59Z-0028	LR-S-2*4.4	CLR-13S
HN59Z-0029	LR-S-2*5.5	CLR-13S
HN59Z-0030	LRIS-2.2*6	CLR-13S

TMN.. series/Inserts Carbide

TMN

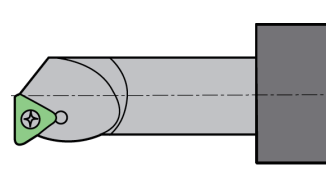
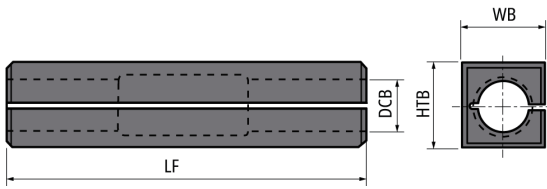


● Diagram shows right-hand tool

Item Number	Hand	Chip-breaker	AN	EPSR	IC	PNA	RE	S	Pitch	Carbide
			°	°	mm	°	mm	mm	mm	PVD ZM3
TMN06FR03	R	Yes	7	60	3.97	60	0.03	1.59	0.4-0.75	●
TMN08FR03	R	Yes	7	60	4.76	60	0.03	2.38	0.4-0.75	●
TMN09FR03	R	Yes	7	60	5.56	60	0.03	2.38	0.4-0.75	●

Boring bar adaptors

S..-H



EDP	Item Number	Stock	DCB mm	HTB mm	LF mm	WB mm
5764204	S06-H	●	6	20	60	20
5580717	S08-H	●	8	20	60	20
5632286	S10-H	●	10	20	60	20
5758198	S12-H	●	12	25	70	25