

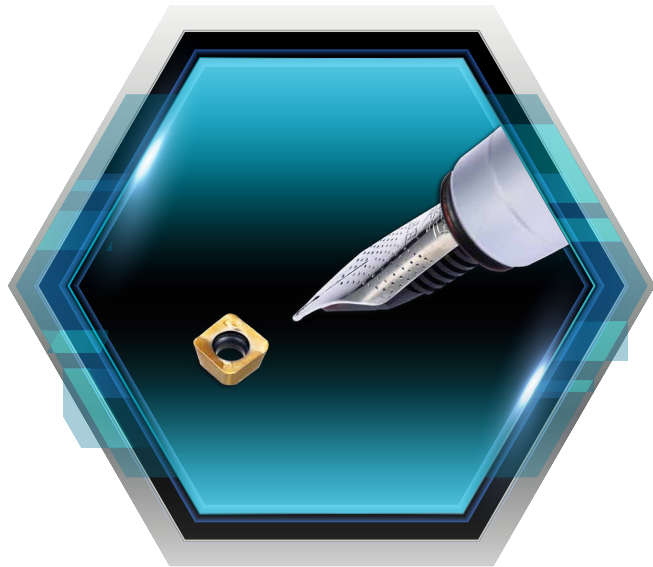
NPN

New Product News



CHASEFEED

SBMT 06 Small Inserts and Cutters for High Feed Machining



KEY POINT

TaeguTec's CHASE-FEED line now includes the smaller SBMT 06 inserts and cutters for high feed machining.

With the addition of the SBMT 06 small insert to the existing 09 and 13 size inserts, the CHASE-FEED line has been expanded.

The SBMT 06 insert is suited for low depth of cut operations — less than 1 mm — while the finer pitch cutters, with more teeth, improve productivity. In addition, the smaller insert has a large 3 mm thickness and high helix cutting edge, which enhances rigidity and results in excellent performance.

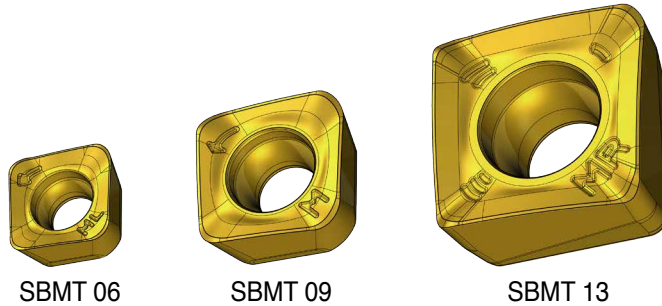
The SBMT 06 insert line includes cutters in end mill, modular and face mill types; end mills and modular types are available in the 16-32 mm range while face mills come in a 32-63 mm diameter range. All SBMT 06 line tool holders are coolant capable due to their built-in through hole design.

The SBMT 06 inserts are available in 2 geometries: 'M' for general purpose, 'ML' for difficult-to-cut materials such as stainless steel, heat resistant alloy and unstable conditions.

Features

- High feed, high positive design 4-corner insert
- Single-sided positive insert with lower cutting force
- High helix geometry for smooth cutting
- Superior rigidity
- Higher productivity
- Good performance in the machining of difficult-to-cut materials

Cutters lineup by diameters



SBMT 06

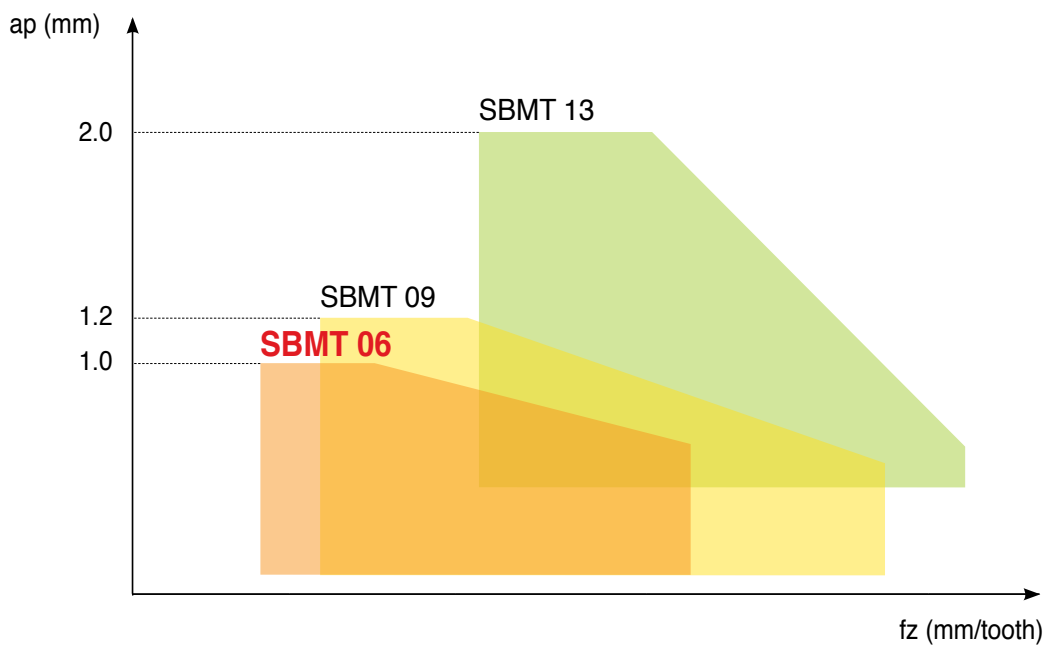
SBMT 09

SBMT 13

(mm)

	Ø16	Ø20	Ø25	Ø32	Ø40
new SBMT 06	2z	4z	5z	5z	6z
SBMT 09			3z	4z	5z
SBMT 13				2z	3z

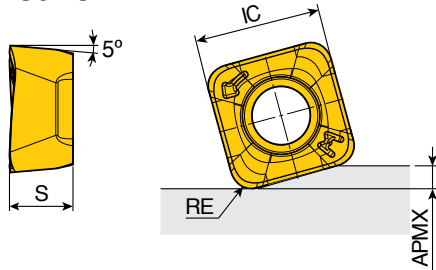
Application range by insert sizes



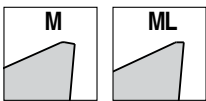
SBMT 06





High feed inserts



Size	Dimension (mm)			
	IC	S	APMX	RE
06	6.3	3.16	1.0	1.0



Insert	Designation	Recommended machining conditions		Coated		
		ap (mm)	Feed (mm/tooth)	TT9080	TT8080	TT3540
	SBMT 060310R-M	0.1-1.0	1.5-0.2	●	●	
	SBMT 060310R-ML	0.1-1.0	1.2-0.1	●	●	○

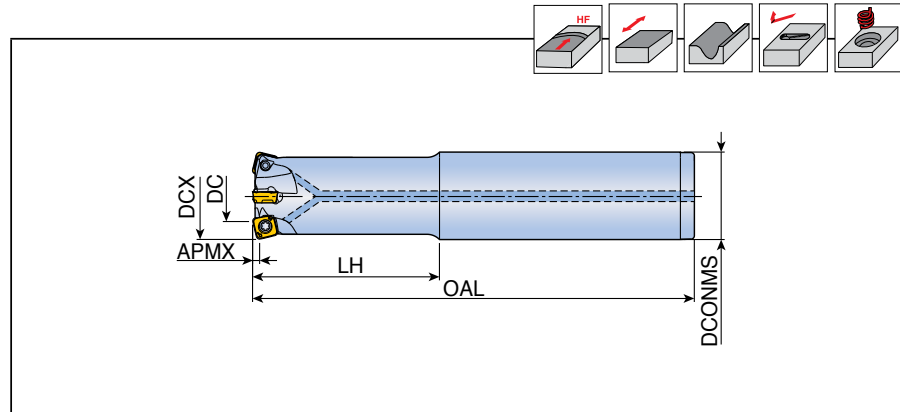
- M: for general purpose
- ML: for stainless steel, difficult-to-cut materials

- : Standard items
- : Tailor-made items (produced upon request only)

TESB-06



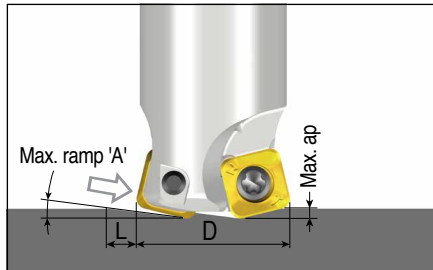
High feed end mills



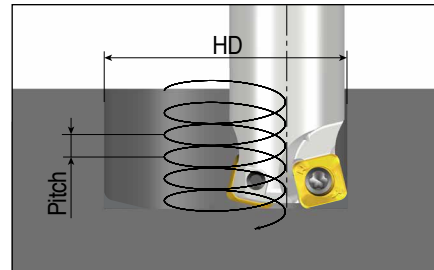
Designation	⊙	Dimension (mm)						Coolant hole	Insert
		DCX	DC	DCONMS	OAL	LH	APMX		
TESB 216-16-06-L150	2	16	5.9	16	150	40	1.0	●	SBMT 0603...
217-16-06-L200	2	17	6.8	16	200	20	1.0	●	
320-20-06-L160	3	20	9.8	20	160	50	1.0	●	
420-20-06-L130	4	20	9.8	20	130	50	1.0	●	
321-20-06-L200	3	21	10.7	20	200	20	1.0	●	
425-25-06-L180	4	25	14.8	25	180	60	1.0	●	
525-25-06-L140	5	25	14.8	25	140	60	1.0	●	
532-32-06-L200	5	32	21.8	32	200	80	1.0	●	

Ramping Data

Straight ramping



Helical ramping



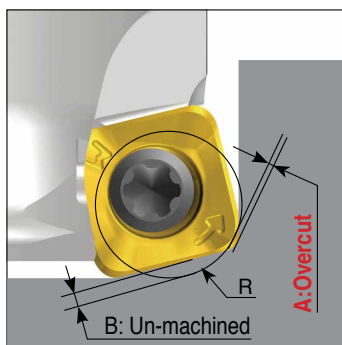
SBMT 06

(mm)

Cutter dia.(D)	Straight ramp down			Helical ramp down		
	Max. ramp (A°)	Max. ap	Min. length (L)	Min. dia.(HD)	Max. dia.(HD)	Max. pitch/rev.
Ø16	2.2	1.0	25.5	22.8		0.7
					32	1.0
Ø17	2.4	1.0	23.4	24.8		0.9
					34	1.0
Ø20	3.2	1.0	17.9	30.8		1.0
					40	1.0
Ø21	3.1	1.0	18.5	32.8		1.0
					42	1.0
Ø25	2.4	1.0	23.4	40.8		1.0
					50	1.0
Ø32	1.8	1.0	31.8	54.8		1.0
					64	1.0
Ø40	1.3	1.0	42.5	70.8		1.0
					80	1.0
Ø50	1.0	1.0	57.3	90.8		1.0
					100	1.0
Ø63	0.7	1.0	76.4	116.8		1.0
					126	1.0

Programming technical data

(mm)



	R Program	A Over cut	B Un-machined
SBMT 06	1.8	0.00	0.81
	2.0	0.00	0.77
	2.2	0.01	0.73

: Recommended program 'R'

Recommended Cutting Conditions

Machining data

Cutting Speed: Vc(m/min)

ISO	Material	Condition	Tensile strength (N/mm ²)	Hardness HB	Material No.	Coated			
						TT9080	TT8080		
P	Non-alloy steel, cast steel, free cutting steel	< 0.25%C	Annealed	420	125	1	220-370	170-250	
		>= 0.25%C	Annealed	650	190	2	180-310	130-220	
		< 0.55%C	Quenched and tempered	850	250	3	115-195	90-170	
		>= 0.55%C	Annealed	750	220	4	130-210	100-190	
			Quenched and tempered	1000	300	5	115-175	70-160	
	Low alloy steel and cast steel (less than 5% of alloying elements)	Annealed		600	200	6	175-265	150-220	
				930	275	7	130-215	110-190	
		Quenched and tempered		1000	300	8	105-185	80-160	
				1200	350	9	95-160	70-120	
	High alloy steel, cast steel and tool steel	Annealed		680	200	10	85-155	70-110	
Quenched and tempered			1100	325	11	75-135	60-100		
M	Stainless steel and cast steel	Ferritic / martensitic		680	200	12	115-270	90-200	
		Martensitic		820	240	13	100-230	70-160	
		Austenitic		600	180	14	120-275	100-210	
K	Gray cast iron (GG)	Ferritic			160	15	130-300		
		Pearlitic			250	16	120-280		
	Cast iron nodular (GGG)	Ferritic			180	17	110-220		
		Pearlitic			260	18	100-200		
	Malleable cast iron	Ferritic			130	19	150-250		
		Pearlitic			230	20	100-250		
N	Aluminum - wrought alloy	Not cureable			60	21			
		Cured			100	22			
	Aluminum-cast, alloyed	<=12% Si	Not cureable			75	23		
			Cured			90	24		
		>12% Si	High temp.			130	25		
	Copper alloys	>1% Pb	Free cutting			110	26		
			Brass			90	27		
			Electrolitic copper			100	28		
	Non-metallic	Duroplastics, fiber plastics					29		
		Hard rubber					30		
S	High temp. alloys	Fe based	Annealed			200	31	40-80	30-65
			Cured			280	32	30-60	20-45
		Ni or Co based	Annealed			250	33	35-70	25-50
			Cured			350	34	30-60	20-40
			Cast			320	35	35-65	20-45
	Titanium, Ti alloys			Rm 400		36	90-130	60-100	
	Alpha+beta alloys cured		Rm 1050		37	35-70	25-55		
H	Hardened steel	Hardened			55HRC	38	40-75		
		Hardened			60HRC	39	30-55		
	Chilled cast iron	Cast			400	40	70-105		
	Cast iron nodular	Hardened			55HRC	41	50-65		

■ Steel
 ■ Stainless steel
 ■ Cast iron
 ■ Nonferrous
 ■ High temp. alloys
 ■ Hardened steel