



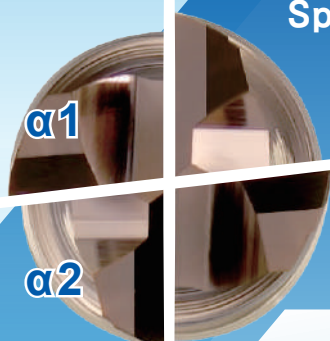
MEMS

FOR STAINLESS! ALL-NEW

STAINLESS STEEL END MILLS

For stainless steel and general steel ($\leq 40^{\circ}$ HRC) machining.

M520 ULTRA CARBIDE END MILLS For STAINLESS- Unequal Flute Spacing Angle



$\alpha 1 \neq \alpha 2$ Unequal Flute
Spacing Angle



Helix Angle 38°

Chattering is decreased dramatically with unequal flute spacing, increase processing stability.

Circular flute design for better chip disposal, reduces chip packing, release stress and improving rigidity of the tool.

The new ALTISIN coating has both hardness and toughness, which is more suitable for processing in harsh environments. The low friction can also reduce the cutting resistance.

Roughing

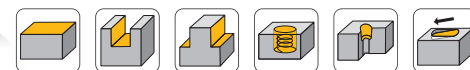
Semi Finishing

Finishing

MEMS Carbide End Mills Size

CMTéc

Diameter	Cutting Length	O.A.L.	Shank Dia.	Flutes	Coated Order No.
3.0	8	50	4	4	MEMSM40300S
4.0	10	50	4	4	MEMSM40400S
3.0	8	50	6	4	MEMS40300S
4.0	10	50	6	4	MEMS40400S
4.0	12	50	6	4	MEMS40400120CS
5.0	13	50	6	4	MEMS40500S
6.0	15	50	6	4	MEMS40600S
6.0	18	50	6	4	MEMS40600180CS
8.0	20	60	8	4	MEMS40800S
8.0	24	60	8	4	MEMS40800240CS
10.0	25	75	10	4	MEMS41000S
10.0	30	75	10	4	MEMS41000300CS
12.0	30	75	12	4	MEMS41200S
12.0	36	75	12	4	MEMS41200360CS
14.0	30	75	14	4	MEMS4140014S
15.0	35	100	16	4	MEMS41500S
16.0	35	100	16	4	MEMS41600S



MEMS

Cutting Condition Table

Material	Carbon Steels		Alloy Steels		Alloy Steels		Stainless Steels	
Material Code	S35C,S45C,S50C		SCM,SKT,SKD		SCM,SKT,SKD		SUS304	
Hardness	HRC<20		HRC20~30		HRC30~45		—	
Vc	110m/min		90m/min		75m/min		70m/min	
Diameter	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)
3mm	11,670	1,100	9,550	840	7,960	620	7,430	610
4mm	8,750	1,200	7,160	980	5,970	680	5,570	710
5mm	7,000	1,300	5,730	1,050	4,770	720	4,450	770
6mm	5,830	1,600	4,770	1,200	3,980	890	3,710	830
8mm	4,370	1,550	3,580	1,100	2,980	810	2,780	810
10mm	3,500	1,450	2,860	1,050	2,380	720	2,220	710
12mm	2,910	1,400	2,380	1,000	1,990	720	1,850	675
16mm	2,180	1,200	1,790	940	1,490	630	1,390	550
20mm	1,750	980	1,430	750	1,190	590	1,110	510
25mm	1,400	880	1,140	670	955	530	890	480
Cutting Amount (mm)	$A_p \leq 1.5D$ $A_e \leq 0.2D$ 				$A_p \leq 1.5D$ $A_e \leq 0.1D$ 		$A_p \leq 1.5D$ $A_e \leq 0.1D$ 	

Material	Carbon Steels		Alloy Steels		Alloy Steels		Stainless Steels	
Material Code	S35C,S45C,S50C		SCM,SKT,SKD		SCM,SKT,SKD		SUS304	
Hardness	HRC<20		HRC20~30		HRC30~45		—	
Vc	95m/min		75m/min		70m/min		60m/min	
Diameter	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)	S (rpm)	F (mm/min)
3mm	10,080	730	7,960	680	7,430	520	6,360	460
4mm	7,560	730	5,970	770	5,570	520	4,770	510
5mm	6,050	730	4,770	750	4,450	540	3,820	540
6mm	5,040	740	3,980	630	3,710	570	3,180	570
8mm	3,780	600	2,980	550	2,780	550	2,380	520
10mm	3,020	580	2,380	540	2,220	480	1,910	470
12mm	2,520	560	1,990	470	1,850	460	1,590	440
16mm	1,890	550	1,490	430	1,390	370	1,190	370
20mm	1,510	470	1,190	380	1,110	350	955	330
25mm	1,210	450	950	360	890	310	760	280
Cutting Amount (mm)	$A_p \leq 1D$ 				$A_p \leq 0.5D$ 		$A_p \leq 0.5D$ 	



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