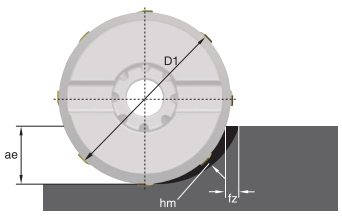
Cutting Data

for M6800 Milling Cutters

ANSI ISO 513	Cutting Data for M6800 Milling Cutters					COATED									UNCOATED		
	Cutter		Carbide Insert			TN6405			TN6425			TN6430			THR-S		
						feed per tooth *(inch)											
	M6800M M6800LX		BDGT-11, BDGT-17-AL			-	-	-	-	-	-	-	-	-	.002	**.006**	.012
			BDMT-11, BDMT-17-MS			-	-	-	.003	**.004**	.006	.003	**.004**	.006	-	-	-
			BDMT-11, BDMT-17-ML			.003	**.005**	.008	-	-	-	.003	**.005**	.008	-	-	-
	Work Material		Condition	Hardness HB	Mat. Gr.	vc *(sfm)											
P	Carbon steel, Unalloyed steel, cast steel and free cutting steel	< 0.25% C	annealed	125	1	-	-	-	720	**590**	460	920	**750**	590	-	-	-
		≥ 0.25% C	annealed	190	2	-	-	-	660	**520**	410	820	**670**	520	-	-	-
		< 0.55% C	heat-treated	250	3	-	-	-	610	**490**	390	770	**640**	510	-	-	-
		≥ 0.55% C	annealed	220	4	-	-	-	540	**440**	340	690	**560**	440	-	-	-
			heat-treated	300	5	-	-	-	390	**330**	250	510	**410**	330	-	-	-
	Low alloy steel and cast steel		annealed	200	6	-	-	-	510	**410**	330	660	**520**	410	-	-	-
			heat-treated	275	7	-	-	-	330	**280**	210	430	**340**	280	-	-	-
			heat-treated	300	8	-	-	-	440	**360**	280	560	**460**	360	-	-	-
			heat-treated	350	9	-	-	-	330	**260**	210	410	**330**	260	-	-	-
	High alloy steel, cast steel & tool steel		annealed	200	10	-	-	-	280	**230**	180	360	**300**	230	-	-	-
			heat-treated	325	11	-	-	-	180	**150**	110	230	**180**	150	-	-	-
	400 series stainless		FE / MA	200	12	-	-	-	520	**430**	330	660	**540**	430	-	-	-
			MA	240	13.1	-	-	-	410	**330**	260	520	**430**	340	-	-	-
			MA / PH	330	13.2	-	-	-	300	**250**	200	380	**330**	260	-	-	-
M	300 Series		AU	180	14.1	-	-	-	660	**460**	300	-	-	-	-	-	-
	Stainless		DU	230	14.2	-	-	-	510	**360**	260	-	-	-	-	-	-
	Duplex		S-AU	200	14.3	-	-	-	360	**280**	180	-	-	-	-	-	-
	Stainless		AU-PH	330	14.4	-	-	-	330	**230**	150	-	-	-	-	-	-
K	Grey cast iron		ferrit./pearl.	180	15	820	**590**	390	-	-	-	590	**460**	330	-	-	-
			pearlitic	260	16	620	**460**	330	-	-	-	440	**360**	280	-	-	-
	Nodular cast iron		ferritic	160	17	690	**490**	330	-	-	-	490	**380**	280	-	-	-
			pearlitic	250	18	520	**290**	160	-	-	-	380	**230**	130	-	-	-
	Malleable cast iron		ferritic	130	19	690	**430**	260	-	-	-	490	**330**	210	-	-	-
			pearlitic	230	20	560	**330**	200	-	-	-	410	**260**	160	-	-	-
N	Wrought		Non AG	60	21	-	-	-	-	-	-	-	-	-	2620	**1310**	660
			AG	100	22	-	-	-	-	-	-	-	-	-	1310	**660**	330
	Cast aluminum alloys		Non Ag	75	23	-	-	-	-	-	-	-	-	-	2620	**1310**	660
		Si ≤ 12%	AG	90	24	-	-	-	-	-	-	-	-	-	1440	**720**	330
		Si ≥ 12%		130	25	-	-	-	-	-	-	-	-	-	1050	**560**	260
S	High Temp		G	200	31	150	**110**	-	130	**100**	-	-	-	-	-	-	-
	Alloy FE		AG	280	32	110	**100**	-	100	**80**	-	-	-	-	-	-	-
	High Temp		G	250	33	100	**70**	-	80	**70**	-	-	-	-	-	-	-
	Alloy		AG	350	34	80	**70**	-	-	**70**	-	-	-	-	-	-	-
	Ni / Co		GO	320	35	80	**70**	-	-	**70**	-	-	-	-	-	-	-
	Titanium alloys				36	230	**200**	-	210	**180**	-	-	-	-	-	-	-
	TiAL6V4		AG		37	230	**200**	-	210	**180**	-	-	-	-	-	-	-



$$hm = fz \cdot \sqrt{\frac{ae}{D1}}$$

$$fz = hm \cdot \sqrt{\frac{D1}{ae}}$$

First choice starting speed (vc) are in bold type. Use corresponding feed (fz).

fz and vc are valid for ae ≥ 0.4 D1.

For smaller ae, fz and vc should be multiplied by the following factors:

ae / D1	0.02	0.05	0.1	0.2	0.4
fz - Factor	3.5	3	2	1.5	1
fc - Factor	1.6	1.5	1.4	1.3	1.1