

Speeds and Feeds



Carbide Roughing End Mills (TiAlN Coated) P/N 03-0670 thru 03-0674									
Side Milling									
ISO	Material Description	Depth of Cut (ap)	Width of Cut (ae)	Parameter	Diameter (inch)				
				Number of Flutes	0.375	0.500	0.625	0.750	1.000
P	Carbon Steels Alloy Steels Tool Steels < HRc 30		SFM	905	1045	980	1020	1125	
			RPM	9219	7984	5990	5195	4298	
			IPT	.0025	.0030	.0032	.0029	.0033	
			IPM	92.19	95.81	95.84	90.40	85.09	
	Carbon Steels Alloy Steels Tool Steels HRc 30 - HRc 45		SFM	745	785	785	865	840	
			RPM	7589	5997	4798	4406	3209	
			IPT	.0011	.0013	.0012	.0011	.0013	
			IPM	33.39	31.19	28.79	29.08	25.03	
M	Stainless steel	<p>A: $\text{Ø}1/4\sim3/8 = 0.15D$ $\text{Ø}1/2\sim5/8 = 0.10D$ $\text{Ø}3/4\sim1" = 0.05D$</p>	SFM	500	550	540	530	565	
			RPM	5093	4202	3300	2699	2158	
			IPT	.0011	.0013	.0013	.0010	.0013	
			IPM	22.41	21.85	21.45	16.20	16.83	
S	Heat Resistant Super Alloys		SFM	130	155	130	135	155	
			RPM	1324	1184	795	688	592	
			IPT	.0014	.0016	.0011	.0010	.0012	
	Titanium Alloys		SFM	165	205	170	180	205	
			RPM	1681	1566	1039	917	783	
			IPT	.0015	.0016	.0011	.0010	.0011	
IPM	10.08	10.02	5.71	5.50	5.17				

*The feed rates may need to be reduced by as much as 50% due to long flute length.

Speeds and Feeds



Carbide Roughing End Mills (TiAlN Coated) P/N 03-0670 thru 03-0674									
Slot Milling									
ISO	Material Description	Depth of Cut (ap)	Width of Cut (ae)	Parameter	Diameter (inch)				
				Number of Flutes	0.375	0.500	0.625	0.750	1.000
P	Carbon Steels Alloy Steels Tool Steels < HRC 30			SFM	905	1045	980	1020	1125
				RPM	9219	7984	5990	5195	4298
				IPT	.0033	.0030	.0039	.0044	.0039
				IPM	121.69	95.81	116.80	137.15	100.56
	Carbon Steels Alloy Steels Tool Steels HRC 30 - HRC 45			SFM	745	785	785	865	840
				RPM	7589	5997	4798	4406	3209
				IPT	.0015	.0013	.0016	.0016	.0015
				IPM	45.53	31.19	38.38	42.30	28.88
M	Stainless steel	A: $\varnothing 1/4 \sim 3/8 = 0.25D$ $\varnothing 1/2 \sim 5/8 = 0.15D$ $\varnothing 3/4 \sim 1" = 0.10D$ 		SFM	500	550	540	530	565
				RPM	5093	4202	3300	2699	2158
				IPT	.0015	.0013	.0017	.0015	.0015
				IPM	30.56	21.85	28.05	24.30	19.42
S	Heat Resistant Super Alloys			SFM	130	155	130	135	155
				RPM	1324	1184	795	688	592
				IPT	.0019	.0016	.0013	.0014	.0014
				IPM	10.06	7.58	5.16	5.78	4.97
	Titanium Alloys			SFM	165	205	170	180	205
				RPM	1681	1566	1039	917	783
				IPT	.0020	.0016	.0014	.0015	.0013
				IPM	13.45	10.02	7.27	8.25	6.11

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