

## SLOTING

Material	Hardness	Cutting depth. ( $a_p$ )	Cutting width ( $a_w$ )	SFM	Feed Rate Inch per Tooth - IPT d1 End Mill Diameter						
					1/8	1/4	5/16	3/8	1/2	5/8	3/4
Struct./free-cutting steels, unall. heat-treat./case hard. steels	up to 28 HRc	1 x D	1xd	890	.0005	.0010	.0013	.0019	.0025	.0031	.0038
Free-cutting steels, unalloyed case hard. steels, nitr. steels	28 - 38 HRc	1 x D	1xd	750	.0005	.0010	.0013	.0019	.0025	.0031	.0038
Alloyed heat-treatable, tool and high speed steels	28 - 44 HRc	1 x D	1xd	590	.0004	.0009	.0011	.0017	.0023	.0028	.0034
Stainless steel - easy to machine / sulphured	up to 20 HRc	1 x D	1xd	390	.0004	.0009	.0011	.0017	.0023	.0028	.0034
Stainless steel - moderately difficult to machine	20 - 30 HRc	1 x D	1xd	260	.0004	.0008	.0010	.0015	.0020	.0025	.0030
Titanium, Titanium alloys	up to 44 HRc	1 x D	1xd	200	.0004	.0008	.0010	.0015	.0020	.0025	.0030
Cast iron, grey cast iron, spher. graphite/malleable cast iron	over 240 HB 30	1 x D	1xd	490	.0005	.0010	.0013	.0019	.0025	.0031	.0038
Aluminum, Al-wrought alloys, Al-alloys	up to 7% Si	1 x D	1xd	1640	.0007	.0014	.0017	.0024	.0033	.0041	.0049
Aluminum-cast alloys	over 7% Si	1 x D	1xd	1120	.0006	.0011	.0014	.0021	.0028	.0034	.0041

## HIGH-VOLUME ROUGHING

Material	Hardness	Cutting depth. ( $a_p$ )	Cutting width ( $a_w$ )	SFM	Feed Rate Inch per Tooth - IPT d1 End Mill Diameter						
					1/8	1/4	5/16	3/8	1/2	5/8	3/4
Struct./free-cutting steels, unall. heat-treat./case hard. steels	up to 28 HRc	1.5 x D	0.40 x D	1150	.0007	.0013	.0016	.0024	.0031	.0039	.0047
Free-cutting steels, unalloyed case hard. steels, nitr. steels	28 - 38 HRc	1.5 x D	0.40 x D	950	.0007	.0013	.0016	.0024	.0031	.0039	.0047
Alloyed heat-treatable, tool and high speed steels	28 - 44 HRc	1.5 x D	0.33 x D	850	.0006	.0011	.0014	.0022	.0029	.0037	.0044
Stainless steel - easy to machine / sulphured	up to 20 HRc	1.5 x D	0.33 x D	525	.0006	.0011	.0014	.0022	.0029	.0037	.0044
Stainless steel - moderately difficult to machine	20 - 30 HRc	1.5 x D	0.25 x D	390	.0006	.0012	.0015	.0023	.0030	.0038	.0045
Titanium, Titanium alloys	up to 44 HRc	1.5 x D	0.33 x D	360	.0005	.0010	.0013	.0020	.0026	.0032	.0039
Cast iron, grey cast iron, spher. graphite/malleable cast iron	over 240 HB 30	1.5 x D	0.40 x D	620	.0007	.0013	.0016	.0024	.0031	.0039	.0047
Aluminum, Al-wrought alloys, Al-alloys	up to 7% Si	1.5 x D	0.40 x D	1976	.0009	.0017	.0021	.0030	.0041	.0051	.0061
Aluminum-cast alloys	over 7% Si	1.5 x D	0.40 x D	1440	.0007	.0014	.0018	.0026	.0035	.0043	.0052

## HIGH-SPEED FINISHING

Material	Hardness	Cutting depth. ( $a_p$ )	Cutting width ( $a_w$ )	SFM	Feed Rate Inch per Tooth - IPT d1 End Mill Diameter						
					1/8	1/4	5/16	3/8	1/2	5/8	3/4
Struct./free-cutting steels, unall. heat-treat./case hard. steels	up to 28 HRc	2 x D	0.02 x D	1776	.0006	.0012	.0014	.0021	.0028	.0034	.0041
Free-cutting steels, unalloyed case hard. steels, nitr. steels	28 - 38 HRc	2 x D	0.02 x D	1500	.0006	.0012	.0014	.0021	.0028	.0034	.0041
Alloyed heat-treatable, tool and high speed steels	28 - 44 HRc	2 x D	0.02 x D	1150	.0005	.0010	.0012	.0019	.0025	.0031	.0037
Stainless steel - easy to machine / sulphured	up to 20 HRc	2 x D	0.02 x D	720	.0005	.0010	.0012	.0019	.0025	.0031	.0037
Stainless steel - moderately difficult to machine	20 - 30 HRc	2 x D	0.02 x D	525	.0005	.0009	.0011	.0017	.0022	.0027	.0033
Titanium, Titanium alloys	up to 44 HRc	2 x D	0.02 x D	430	.0005	.0009	.0011	.0017	.0022	.0027	.0033
Cast iron, grey cast iron, spher. graphite/malleable cast iron	over 240 HB 30	2 x D	0.02 x D	980	.0006	.0012	.0014	.0021	.0028	.0034	.0041
Aluminum, Al-wrought alloys, Al-alloys	up to 7% Si	2 x D	0.02 x D	3280	.0008	.0015	.0019	.0027	.0036	.0045	.0054
Aluminum-cast alloys	over 7% Si	2 x D	0.02 x D	2230	.0006	.0013	.0016	.0023	.0030	.0038	.0045