

M525 Application Guide – Speed & Feed (inch)

ISO Code	Work Material	Type of Cut	Axial DOC	Radial DOC	No. of Flutes	Speed (SFM)	Feed (Inches per Tooth)									
							1/8	3/16	1/4	5/16	3/8	7/16	1/2	5/8	3/4	1
K	Cast Iron Gray ASTM-A48 Class 20, 25, 30, 35 & 40	Slotting	.5 x D	1 x D	5	300	.0006	.0009	.0012	.0015	.0018	.0021	.0024	.0030	.0036	.0048
		Peripheral - Rough	1.25 x D	.3 x D	5	375	.0008	.0012	.0016	.0020	.0025	.0029	.0033	.0041	.0049	.0065
		Finish	2 x D	.015 x D	5	375	.0008	.0012	.0017	.0021	.0025	.0029	.0033	.0042	.0050	.0067
	Cast Iron Malleable	Slotting	.5 x D	1 x D	5	275	.0005	.0008	.0010	.0013	.0015	.0018	.0020	.0025	.0030	.0040
		Peripheral - Rough	1.25 x D	.3 x D	5	350	.0007	.0010	.0014	.0017	.0020	.0024	.0027	.0034	.0041	.0055
		Peripheral - HEM*	3 x D	.05 x D	5	390	.0020	.0030	.0040	.0050	.0060	.0070	.0081	.0101	.0121	.0161
P	Low Carbon Steels ≤ 38 Rc 1018, 1020, 12L14, 5120, 8620	Slotting	.5 x D	1 x D	5	325	.0007	.0011	.0014	.0018	.0021	.0025	.0028	.0035	.0042	.0056
		Peripheral - Rough	1.25 x D	.3 x D	5	400	.0010	.0014	.0019	.0024	.0029	.0033	.0038	.0048	.0057	.0076
		Peripheral - HEM*	3 x D	.07 x D	5	450	.0028	.0042	.0056	.0070	.0084	.0098	.0112	.0140	.0168	.0224
		Finish	2 x D	.015 x D	5	400	.0010	.0015	.0019	.0024	.0029	.0034	.0039	.0049	.0058	.0078
	Medium Carbon Steels ≤ 48 HRC 1045, 4140, 4340, 5140	Slotting	.5 x D	1 x D	5	300	.0006	.0010	.0013	.0016	.0019	.0022	.0026	.0032	.0038	.0051
		Peripheral - Rough	1.25 x D	.3 x D	5	375	.0009	.0013	.0017	.0022	.0026	.0031	.0035	.0044	.0052	.0070
		Peripheral - HEM*	3 x D	.05 x D	5	415	.0026	.0039	.0052	.0065	.0077	.0090	.0103	.0129	.0155	.0207
		Finish	2 x D	.015 x D	5	375	.0009	.0013	.0018	.0022	.0027	.0031	.0036	.0044	.0053	.0071
	Tool and Die Steels ≤ 48 Rc A2, D2, O1, S7, P20, H13	Slotting	.5 x D	1 x D	5	275	.0005	.0008	.0011	.0014	.0016	.0019	.0022	.0027	.0032	.0043
		Peripheral - Rough	1.25 x D	.3 x D	5	350	.0007	.0011	.0015	.0018	.0022	.0026	.0029	.0037	.0044	.0059
		Peripheral - HEM*	3 x D	.05 x D	5	390	.0022	.0032	.0043	.0054	.0065	.0076	.0087	.0108	.0130	.0173
		Finish	2 x D	.015 x D	5	350	.0007	.0011	.0015	.0019	.0022	.0026	.0030	.0037	.0045	.0060
M	Martensitic & Ferritic Stainless Steels 410, 416, 440	Slotting	.5 x D	1 x D	5	300	.0006	.0010	.0013	.0016	.0019	.0022	.0026	.0032	.0038	.0051
		Peripheral - Rough	1.25 x D	.3 x D	5	375	.0009	.0013	.0017	.0022	.0026	.0031	.0035	.0044	.0052	.0070
		Peripheral - HEM*	3 x D	.05 x D	5	415	.0026	.0039	.0052	.0065	.0077	.0090	.0103	.0129	.0155	.0207
		Finish	2 x D	.015 x D	5	375	.0009	.0013	.0018	.0022	.0027	.0031	.0036	.0044	.0053	.0071
	Austenitic Stainless Steels, FeNi Alloys 303, 304, 316, Invar, Kovar	Slotting	.5 x D	1 x D	5	275	.0006	.0009	.0012	.0015	.0018	.0021	.0024	.0030	.0036	.0048
		Peripheral - Rough	1.25 x D	.3 x D	5	350	.0008	.0012	.0016	.0020	.0025	.0029	.0033	.0041	.0049	.0065
		Peripheral - HEM*	3 x D	.05 x D	5	390	.0025	.0037	.0049	.0062	.0074	.0086	.0099	.0123	.0148	.0198
		Finish	2 x D	.015 x D	5	350	.0008	.0012	.0017	.0021	.0025	.0029	.0033	.0042	.0050	.0067
	Precipitation Hardening Stainless Steels 17-4, 15-5	Slotting	.5 x D	1 x D	5	250	.0005	.0008	.0010	.0013	.0015	.0018	.0020	.0025	.0030	.0040
		Peripheral - Rough	1.25 x D	.3 x D	5	325	.0007	.0010	.0014	.0017	.0020	.0024	.0027	.0034	.0041	.0055
		Peripheral - HEM*	3 x D	.05 x D	5	360	.0020	.0030	.0040	.0049	.0059	.0069	.0079	.0099	.0119	.0158
		Finish	1.5 x D	.015 x D	5	325	.0007	.0010	.0014	.0017	.0021	.0024	.0028	.0035	.0042	.0056
S	Titanium Alloys 6Al-4V, 6-2-4	Slotting	.5 x D	1 x D	5	250	.0005	.0007	.0009	.0012	.0014	.0016	.0018	.0023	.0028	.0037
		Peripheral - Rough	1 x D	.3 x D	5	300	.0006	.0009	.0013	.0016	.0019	.0022	.0025	.0031	.0038	.0050
		Peripheral - HEM*	3 x D	.05 x D	5	330	.0018	.0027	.0036	.0046	.0055	.0064	.0073	.0091	.0109	.0146
		Finish	1.5 x D	.015 x D	5	300	.0006	.0010	.0013	.0016	.0019	.0022	.0026	.0032	.0038	.0051
	Difficult-to-Machine Titanium Alloys 10-2-3	Slotting	.25 x D	1 x D	5	200	.0003	.0005	.0007	.0009	.0010	.0012	.0014	.0017	.0020	.0027
		Peripheral - Rough	1 x D	.25 x D	5	250	.0005	.0007	.0010	.0012	.0015	.0017	.0020	.0025	.0029	.0039
	Precipitation Hardening Stainless Steels M 13-8	Peripheral - HEM*	3 x D	.05 x D	5	275	.0015	.0022	.0030	.0037	.0045	.0052	.0059	.0074	.0089	.0119
		Finish	1.5 x D	.01 x D	5	250	.0006	.0009	.0012	.0014	.0017	.0020	.0023	.0029	.0035	.0046

D = Tool Diameter *HEM = High-efficiency machining (chip thinning calculations have already been applied to HEM parameters shown).

≈ Approximately Equals < Less Than
 ≤ Less Than or Equal To > Greater Than
 ≥ Greater Than or Equal To = Equals
 × Multiply

Common Machining Formulas

$$RPM = \frac{SFM \times 3.82}{D}$$

$$SFM = RPM \times D \times .262$$

$$IPM = RPM \times IPT \times Z$$

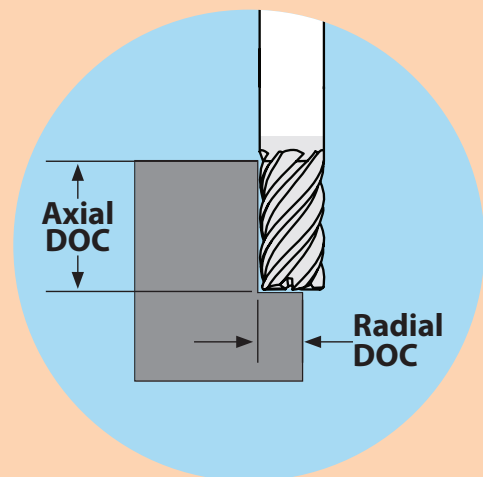
$$MRR = RDOC \times ADOC \times IPM$$

$$RPM = \frac{M/min \times 318.3}{D}$$

$$M/min = RPM \times D \times .00314$$

$$MMPM = RPM \times MMPT \times Z$$

$$MRR = RDOC \times ADOC \times MMPM$$



M525 Application Guide – Speed & Feed (metric)

ISO Code	Work Material	Type of Cut	Axial DOC	Radial DOC	No. of Flutes	Speed (M/min)	Feed (MM per Tooth)						
							6.0	8.0	10.0	12.0	16.0	20.0	25.0
K	Cast Iron Gray ASTM-A48 Class 20, 25, 30, 35 & 40	Slotting	.5 x D	1 x D	5	91	.0288	.0384	.0478	.0576	.0766	.0956	.1200
		Peripheral - Rough	1.25 x D	.3 x D	5	114	.0393	.0524	.0652	.0786	.1045	.1304	.1636
		Finish	2 x D	.015 x D	5	114	.0400	.0533	.0664	.0800	.1063	.1327	.1666
	Cast Iron Malleable	Slotting	.5 x D	1 x D	5	84	.0240	.0320	.0398	.0480	.0638	.0797	.1000
		Peripheral - Rough	1.25 x D	.3 x D	5	107	.0327	.0436	.0543	.0655	.0871	.1087	.1364
		Peripheral - HEM*	3 x D	.05 x D	5	119	.0966	.1288	.1604	.1932	.2570	.3207	.4025
		Finish	2 x D	.015 x D	5	107	.0333	.0444	.0553	.0666	.0886	.1106	.1388
		Slotting	.5 x D	1 x D	5	99	.0336	.0448	.0558	.0672	.0894	.1115	.1400
P	Low Carbon Steels ≤ 38 Rc 1018, 1020, 12L14, 5120, 8620	Peripheral - Rough	1.25 x D	.3 x D	5	122	.0458	.0611	.0761	.0916	.1219	.1521	.1909
		Peripheral - HEM*	3 x D	.07 x D	5	137	.1344	.1792	.2231	.2688	.3575	.4463	.5601
		Finish	2 x	.015 x D	5	122	.0466	.0622	.0774	.0933	.1241	.1549	.1943
		Slotting	.5 x D	1 x D	5	91	.0307	.0410	.0510	.0614	.0817	.1020	.1280
	Medium Carbon Steels ≤ 48 HRC 1045, 4140, 4340, 5140	Peripheral - Rough	1.25 x D	.3 x D	5	114	.0419	.0559	.0695	.0838	.1114	.1391	.1746
		Peripheral - HEM*	3 x D	.05 x D	5	126	.1239	.1652	.2057	.2478	.3296	.4114	.5163
		Finish	2 x D	.015 x D	5	114	.0426	.0569	.0708	.0853	.1134	.1416	.1777
	Tool and Die Steels ≤ 48 Rc A2, D2, O1, S7, P20, H13	Slotting	.5 x D	1 x D	5	84	.0259	.0346	.0430	.0518	.0689	.0860	.1080
		Peripheral - Rough	1.25 x D	.3 x D	5	107	.0353	.0471	.0587	.0707	.0940	.1174	.1473
		Peripheral - HEM*	3 x D	.05 x D	5	119	.1040	.1386	.1726	.2079	.2765	.3452	.4332
		Finish	2 x D	.015 x D	5	107	.0360	.0480	.0597	.0720	.0957	.1195	.1499
	M	Martensitic & Ferritic Stainless Steels 410, 416, 440	Slotting	.5 x D	1 x D	5	91	.0307	.0410	.0510	.0614	.0817	.1020
Peripheral - Rough			1.25 x D	.3 x D	5	114	.0419	.0559	.0695	.0838	.1114	.1391	.1746
Peripheral - HEM*			3 x D	.05 x D	5	126	.1239	.1652	.2057	.2478	.3296	.4114	.5163
Finish			2 x D	.015 x D	5	114	.0426	.0569	.0708	.0853	.1134	.1416	.1777
Austenitic Stainless Steels, FeNi Alloys 303, 304, 316, Invar, Kovar		Slotting	.5 x D	1 x D	5	84	.0288	.0384	.0478	.0576	.0766	.0956	.1200
		Peripheral - Rough	1.25 x D	.3 x D	5	107	.0393	.0524	.0652	.0786	.1045	.1304	.1636
		Peripheral - HEM*	3 x D	.05 x D	5	119	.1185	.1580	.1967	.2370	.3152	.3934	.4937
		Finish	2 x D	.015 x D	5	107	.0400	.0533	.0664	.0800	.1063	.1327	.1666
Precipitation Hardening Stainless Steels 17-4, 15-5		Slotting	.5 x D	1 x D	5	76	.0240	.0320	.0398	.0480	.0638	.0797	.1000
		Peripheral - Rough	1.25 x D	.3 x D	5	99	.0327	.0436	.0543	.0655	.0871	.1087	.1364
		Peripheral - HEM*	3 x D	.05 x D	5	110	.0950	.1267	.1577	.1900	.2527	.3154	.3958
		Finish	1.5 x D	.015 x D	5	99	.0333	.0444	.0553	.0666	.0886	.1106	.1388
S	Titanium Alloys 6Al-4V, 6-2-4	Slotting	.5 x D	1 x D	5	76	.0221	.0294	.0366	.0442	.0587	.0733	.0920
		Peripheral - Rough	1 x D	.3 x D	5	91	.0301	.0401	.0500	.0602	.0801	.1000	.1255
		Peripheral - HEM*	3 x D	.05 x D	5	101	.0875	.1167	.1452	.1750	.2327	.2905	.3646
		Finish	1.5 x D	.015 x D	5	91	.0307	.0409	.0509	.0613	.0815	.1018	.1277
	Difficult-to-Machine Titanium Alloys 10-2-3 Precipitation Hardening Stainless Steels M 13-8	Slotting	.25 x D	1 x D	5	61	.0163	.0218	.0271	.0326	.0434	.0542	.0680
		Peripheral - Rough	1 x D	.25 x D	5	76	.0236	.0314	.0391	.0471	.0627	.0782	.0981
		Peripheral - HEM*	3 x D	.05 x D	5	84	.0712	.0950	.1183	.1425	.1895	.2365	.2968
		Finish	1.5 x D	.01 x D	5	76	.0277	.0369	.0459	.0554	.0736	.0919	.1153

D = Tool Diameter *HEM = High-efficiency machining (chip thinning calculations have already been applied to HEM parameters shown).

- D** Tool Diameter
- Z** Number of Flutes
- RPM** Revolutions per Minute
- SFM** Surface Feet per Minute
- M/min** Surface Meters per Minute
- IPM** Inches per Minute
- MMPM** Millimeters per Minute
- IPT** Inch per Tooth
- MMPT** Millimeters per Tooth
- MRR** Metal Removal Rate
- RDOC** Radial Depth of Cut
- ADOC** Axial Depth of Cut

Technical Resources

Information on tips and adjustments for the following milling operations can be found in our Technical Resources section beginning on page 125.

- HEM slotting
- Face milling
- Helical entry ramping
- Straight line ramping
- Long tool projection adjustments
- Ball nose milling adjustments
- Other helpful tips and calculations

M527 Application Guide – Speed & Feed (inch)

ISO Code	Work Material	Type of Cut	Axial DOC	Radial DOC	No. of Flutes	Speed (SFM)	Feed (Inch per Tooth)				
							3/8	1/2	5/8	3/4	1
K	Cast Iron Gray	Slotting	.5 x D	1 x D	7	300	.0013	.0018	.0022	.0027	.0035
		Peripheral - Rough	1.25 x D	.3 x D	7	375	.0018	.0023	.0029	.0035	.0047
		Finish	2 x D	.015 x D	7	450	.0018	.0024	.0030	.0036	.0048
	Cast Iron	Slotting	.5 x D	1 x D	7	275	.0011	.0014	.0018	.0021	.0029
		Peripheral - Rough	1.25 x D	.3 x D	7	350	.0015	.0019	.0024	.0029	.0039
		Peripheral - HEM*	3 x D	.05 x D	7	390	.0043	.0057	.0071	.0085	.0114
	Finish	2 x D	.015 x D	7	350	.0015	.0020	.0025	.0030	.0040	
P	Low Carbon Steels ≤ 38 Rc 1018, 1020, 12L14, 5120, 8620	Slotting	.5 x D	1 x D	7	325	.0015	.0020	.0025	.0030	.0040
		Peripheral - Rough	1.25 x D	.3 x D	7	400	.0020	.0027	.0034	.0041	.0055
		Peripheral - HEM*	3 x D	.05 x D	7	450	.0066	.0088	.0109	.0131	.0175
		Finish	2 x	.015 x D	7	400	.0021	.0028	.0035	.0042	.0056
	Medium Carbon Steels ≤ 48 HRC 1045, 4140, 4340, 5140	Slotting	.5 x D	1 x D	7	300	.0014	.0018	.0023	.0027	.0037
		Peripheral - Rough	1.25 x D	.3 x D	7	375	.0019	.0025	.0031	.0037	.0050
		Peripheral - HEM*	3 x D	.05 x D	7	415	.0064	.0086	.0107	.0129	.0172
		Finish	2 x D	.015 x D	7	375	.0019	.0025	.0032	.0038	.0051
	Tool and Die Steels ≤ 48 Rc A2, D2, O1, S7, P20, H13	Slotting	.5 x D	1 x D	7	275	.0012	.0015	.0019	.0023	.0031
		Peripheral - Rough	1.25 x D	.3 x D	7	350	.0016	.0021	.0026	.0032	.0042
		Peripheral - HEM*	3 x D	.05 x D	7	390	.0055	.0074	.0092	.0110	.0147
		Finish	2 x D	.015 x D	7	350	.0016	.0021	.0027	.0032	.0043
M	Martensitic & Ferritic Stainless Steels 410, 416, 440	Slotting	.5 x D	1 x D	7	300	.0014	.0018	.0023	.0027	.0037
		Peripheral - Rough	1.25 x D	.3 x D	7	375	.0019	.0025	.0031	.0037	.0050
		Peripheral - HEM*	3 x D	.05 x D	7	415	.0064	.0086	.0107	.0129	.0172
		Finish	2 x D	.015 x D	7	375	.0019	.0025	.0032	.0038	.0051
	Austenitic Stainless Steels, FeNi Alloys 303, 304, 316, Invar, Kovar	Slotting	.5 x D	1 x D	7	275	.0013	.0017	.0021	.0026	.0034
		Peripheral - Rough	1.25 x D	.3 x D	7	350	.0018	.0023	.0029	.0035	.0047
		Peripheral - HEM*	3 x D	.05 x D	7	390	.0063	.0083	.0104	.0125	.0167
		Finish	2 x D	.015 x D	7	350	.0018	.0024	.0030	.0036	.0048
	Precipitation Hardening Stainless Steels 17-4, 15-5	Slotting	.5 x D	1 x D	7	250	.0011	.0014	.0018	.0021	.0029
		Peripheral - Rough	1.25 x D	.3 x D	7	325	.0015	.0019	.0024	.0029	.0039
		Peripheral - HEM*	3 x D	.05 x D	7	360	.0050	.0067	.0083	.0100	.0133
		Finish	1.5 x D	.015 x D	7	325	.0015	.0020	.0025	.0030	.0040
S	Titanium Alloys 6Al-4V, 6-2-4	Slotting	.5 x D	1 x D	7	250	.0010	.0013	.0016	.0020	.0026
		Peripheral - Rough	1 x D	.3 x D	7	300	.0013	.0018	.0022	.0027	.0036
		Peripheral - HEM*	3 x D	.05 x D	7	330	.0047	.0063	.0079	.0095	.0126
		Finish	1.5 x D	.015 x D	7	300	.0014	.0018	.0023	.0027	.0036
	Difficult-to-Machine Titanium Alloys 10-2-3 Precipitation Hardening Stainless Steel M 13-8	Slotting	.25 x D	1 x D	7	200	.0007	.0010	.0012	.0015	.0019
		Peripheral - Rough	1 x D	.25 x D	7	250	.0011	.0014	.0018	.0021	.0028
		Peripheral - HEM*	3 x D	.05 x D	7	275	.0037	.0049	.0061	.0073	.0098
		Finish	1.5 x D	.01 x D	7	250	.0012	.0016	.0021	.0025	.0033

D = Tool Diameter *HEM = High-efficiency machining (chip thinning calculations have already been applied to HEM parameters shown).

≈ Approximately Equals < Less Than
 ≤ Less Than or Equal To > Greater Than
 ≥ Greater Than or Equal To = Equals
 x Multiply

Common Machining Formulas

$$RPM = \frac{SFM \times 3.82}{D}$$

$$SFM = RPM \times D \times .262$$

$$IPM = RPM \times IPT \times Z$$

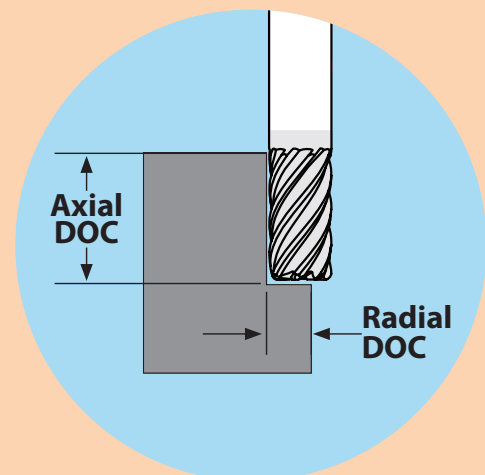
$$MRR = RDOC \times ADOC \times IPM$$

$$RPM = \frac{M/min \times 318.3}{D}$$

$$M/min = RPM \times D \times .00314$$

$$MMPM = RPM \times MMPT \times Z$$

$$MRR = RDOC \times ADOC \times MMPM$$



M527 Application Guide – Speed & Feed (metric)

ISO Code	Work Material	Type of Cut	Axial DOC	Radial DOC	No. of Flutes	Speed (M/min)	Feed (MM per Tooth)				
							10.0	12.0	16.0	20.0	25.0
K	Cast Iron Gray	Slotting	.5 x D	1 x D	7	91	.0353	.0425	.0566	.0706	.0886
		Peripheral - Rough	1.25 x D	.3 x D	7	114	.0467	.0563	.0749	.0935	.1173
		Finish	2 x D	.015 x D	7	137	.0476	.0573	.0762	.0951	.1194
	Cast Iron	Slotting	.5 x D	1 x D	7	84	.0285	.0343	.0456	.0569	.0714
		Peripheral - Rough	1.25 x D	.3 x D	7	107	.0388	.0468	.0622	.0776	.0974
		Peripheral - HEM*	3 x D	.05 x D	7	119	.1133	.1365	.1816	.2266	.2844
	Finish	2 x D	.015 x D	7	107	.0395	.0476	.0633	.0790	.0992	
P	Low Carbon Steels ≤ 38 Rc 1018, 1020, 12L14, 5120, 8620	Slotting	.5 x D	1 x D	7	99	.0398	.0480	.0638	.0797	.1000
		Peripheral - Rough	1.25 x D	.3 x D	7	122	.0543	.0655	.0871	.1087	.1364
		Peripheral - HEM*	3 x D	.05 x D	7	137	.1743	.2100	.2793	.3486	.4375
		Finish	2 x	.015 x D	7	122	.0553	.0666	.0886	.1106	.1388
	Medium Carbon Steels ≤ 48 HRC 1045, 4140, 4340, 5140	Slotting	.5 x D	1 x D	7	91	.0364	.0439	.0584	.0729	.0914
		Peripheral - Rough	1.25 x D	.3 x D	7	114	.0497	.0599	.0796	.0994	.1247
		Peripheral - HEM*	3 x D	.05 x D	7	126	.1708	.2058	.2737	.3417	.4288
		Finish	2 x D	.015 x D	7	114	.0506	.0609	.0810	.1011	.1269
	Tool and Die Steels ≤ 48 Rc A2, D2, O1, S7, P20, H13	Slotting	.5 x D	1 x D	7	84	.0307	.0370	.0493	.0615	.0772
		Peripheral - Rough	1.25 x D	.3 x D	7	107	.0419	.0505	.0672	.0838	.1052
		Peripheral - HEM*	3 x D	.05 x D	7	119	.1464	.1764	.2346	.2929	.3675
		Finish	2 x D	.015 x D	7	107	.0427	.0514	.0684	.0853	.1071
M	Martensitic & Ferritic Stainless Steels 410, 416, 440	Slotting	.5 x D	1 x D	7	91	.0364	.0439	.0584	.0729	.0914
		Peripheral - Rough	1.25 x D	.3 x D	7	114	.0497	.0599	.0796	.0994	.1247
		Peripheral - HEM*	3 x D	.05 x D	7	126	.1708	.2058	.2737	.3417	.4288
		Finish	2 x D	.015 x D	7	114	.0506	.0609	.0810	.1011	.1269
	Austenitic Stainless Steels, FeNi Alloys 303, 304, 316, Invar, Kovar	Slotting	.5 x D	1 x D	7	84	.0341	.0411	.0547	.0683	.0857
		Peripheral - Rough	1.25 x D	.3 x D	7	107	.0466	.0561	.0746	.0931	.1169
		Peripheral - HEM*	3 x D	.05 x D	7	119	.1660	.2000	.2660	.3320	.4166
		Finish	2 x D	.015 x D	7	107	.0474	.0571	.0760	.0948	.1190
	Precipitation Hardening Stainless Steels 17-4, 15-5	Slotting	.5 x D	1 x D	7	76	.0285	.0343	.0456	.0569	.0714
		Peripheral - Rough	1.25 x D	.3 x D	7	99	.0388	.0468	.0622	.0776	.0974
		Peripheral - HEM*	3 x D	.05 x D	7	110	.1328	.1600	.2128	.2656	.3333
		Finish	1.5 x D	.015 x D	7	99	.0395	.0476	.0633	.0790	.0992
S	Titanium Alloys 6Al-4V, 6-2-4	Slotting	.5 x D	1 x D	7	76	.0262	.0315	.0420	.0524	.0657
		Peripheral - Rough	1 x D	.3 x D	7	91	.0357	.0430	.0572	.0714	.0896
		Peripheral - HEM*	3 x D	.05 x D	7	101	.1257	.1515	.2015	.2515	.3156
		Finish	1.5 x D	.015 x D	7	91	.0363	.0438	.0582	.0727	.0912
	Difficult-to-Machine Titanium Alloys 10-2-3 Precipitation Hardening Stainless Steels M 13-8	Slotting	.25 x D	1 x D	7	61	.0193	.0233	.0310	.0387	.0486
		Peripheral - Rough	1 x D	.25 x D	7	76	.0279	.0336	.0447	.0558	.0701
		Peripheral - HEM*	3 x D	.05 x D	7	84	.0975	.1175	.1563	.1950	.2448
		Finish	1.5 x D	.01 x D	7	76	.0328	.0395	.0526	.0656	.0824

D = Tool Diameter *HEM = High-efficiency machining (chip thinning calculations have already been applied to HEM parameters shown)

- D** Tool Diameter
- Z** Number of Flutes
- RPM** Revolutions per Minute
- SFM** Surface Feet per Minute
- M/min** Surface Meters per Minute
- IPM** Inches per Minute
- MMPM** Millimeters per Minute
- IPT** Inch per Tooth
- MMPT** Millimeters per Tooth
- MRR** Metal Removal Rate
- RDOC** Radial Depth of Cut
- ADOC** Axial Depth of Cut

Technical Resources

Information on tips and adjustments for the following milling operations can be found in our Technical Resources section beginning on page 125.

- HEM slotting
- Face milling
- Helical entry ramping
- Straight line ramping
- Long tool projection adjustments
- Ball nose milling adjustments
- Other helpful tips and calculations