

MELIN TOOL SPEED & FEED INFORMATION

SERIES: MPMG



4 Flute, Performance End Mill - Square & Radius
Series: MPMG

MATERIAL	CONDITION	STARTING SFM MPMG	CUTTING DIAMETER							
			1/8"	3/16"	1/4"	3/8"	1/2"	5/8"	3/4"	1"
STAINLESS STEELS ISO-M										
CHIP PER TOOTH										
Precipitation 13-8, 15-5, 17-4PH	Slotting @ ≤ .5 x D	175	0.0005	0.0007	0.0009	0.0014	0.0019	0.0024	0.0029	0.0039
	Profiling @ 2 x D Axial / ≤ .15 D Radial		0.0007	0.0010	0.0013	0.0019	0.0026	0.0033	0.0040	0.0054
Austenitic 302, 303, 304L, 316L	Slotting @ ≤ .5 x D	225	0.0006	0.0008	0.0011	0.0017	0.0023	0.0029	0.0035	0.0047
	Profiling @ 2 x D Axial / ≤ .15 D Radial		0.0008	0.0011	0.0015	0.0024	0.0032	0.0040	0.0048	0.0064
Martensitic 403, 410, 416	Slotting @ ≤ .5 x D	200	0.0006	0.0009	0.0012	0.0018	0.0025	0.0031	0.0037	0.0050
	Profiling @ 2 x D Axial / ≤ .15 D Radial		0.0009	0.0013	0.0016	0.0025	0.0034	0.0043	0.0051	0.0069
HIGH TEMP ALLOYS ISO-S										
Cobalt Base Stellite, Haynes 25, 188, X-40, L-605	Slotting @ .5 x D	85	0.0003	0.0003	0.0004	0.0007	0.0010	0.0013	0.0015	0.0021
	Profiling @ 2 x D Axial / ≤ .15 D Radial		0.0003	0.0003	0.0006	0.0006	0.0012	0.0015	0.0019	0.0025
Nickel Base Inconel 600, 625, 718, Nickel 200, 270, Invar, Monel 400, 405, K-Monel, PermaNickel 300, Inconel 600	Slotting @ .5 x D	60	0.0004	0.0002	0.0006	0.0009	0.0016	0.0015	0.0025	0.0025
	Profiling @ 2 x D Axial / ≤ .15 D Radial		0.0004	0.0003	0.0006	0.0010	0.0017	0.0017	0.0021	0.0021
Iron Base Incoloy 800-802, Multimet N-155, Timken 16-26-6	Slotting @ ≤ .5 x D	70	0.0004	0.0004	0.0008	0.0013	0.0018	0.0022	0.0027	0.0036
	Profiling @ 2 x D Axial / ≤ .15 D Radial		0.0004	0.0004	0.0009	0.0015	0.0020	0.0025	0.0030	0.0041
STEELS ISO-P										
High Strength Steels 4140, 4340, 52100	Slotting @ ≤ .5 x D	225	0.0006	0.0008	0.0012	0.0018	0.0025	0.0031	0.0037	0.0050
	Profiling @ 2 x D Axial / ≤ .15 D Radial		0.0009	0.0012	0.0016	0.0025	0.0034	0.0043	0.0051	0.0069
High Alloy Steels - Mold & Die A-2, P20, 01, 02, D2, H-13	Slotting @ ≤ .5 x D	200	0.0005	0.0007	0.0010	0.0015	0.0021	0.0026	0.0031	0.0042
	Profiling @ 2 x D Axial / ≤ .15 D Radial		0.0007	0.001	0.0014	0.0021	0.0028	0.0036	0.0043	0.0058
Medium Alloy Steels 200, 250, 300	Slotting @ ≤ .5 x D	250	0.0005	0.0004	0.0011	0.0019	0.0024	0.0034	0.0039	0.0049
	Profiling @ 2 x D Axial / ≤ .15 D Radial		0.0005	0.0004	0.0014	0.0023	0.0029	0.0039	0.0049	0.0059
Low Alloy Steels-Maraging 10XX, 11XX, 13XX	Slotting @ ≤ .5 x D	265	0.0007	0.0009	0.0013	0.0020	0.0027	0.0034	0.0041	0.0055
	Profiling @ 2 x D Axial / ≤ .15 D Radial		0.0010	0.0014	0.0018	0.0028	0.0037	0.0047	0.0056	0.0075
CAST IRONS ISO-K										
Ductile Iron Ductile Cast Iron	Slotting @ ≤ .5 x D	300	0.0005	0.0007	0.0009	0.0014	0.0019	0.0024	0.0029	0.0039
	Profiling @ 2 x D Axial / ≤ .15 D Radial		0.0007	0.0009	0.0013	0.0019	0.0026	0.0033	0.0040	0.0054
Cast Iron Grey Cast Iron	Slotting @ ≤ .5 x D	375	0.0006	0.0009	0.0011	0.0017	0.0023	0.0029	0.0035	0.0047
	Profiling @ 2 x D Axial / ≤ .15 D Radial		0.0008	0.0011	0.0015	0.0024	0.0032	0.004	0.0048	0.0064
TITANIUM ISO-S										
Titanium Alloys 6AL-4V, ASTM 1, 2, 3, 6AL-2S	Slotting @ ≤ .5 x D	150	0.0005	0.0006	0.0008	0.0013	0.0017	0.0022	0.0027	0.0036
	Profiling @ 2 x D Axial / ≤ .15 D Radial		0.0006	0.0009	0.0012	0.0018	0.0024	0.0030	0.0037	0.0049

For 5553, decrease SFM and IPM by 25%



SPEEDS & FEEDS

Note: All listed technical data provided are suggested starting points. They may be increased or decreased depending on machine condition, depth of cut, finish required, coolant, etc.

Additional Info: Our TECHNICAL SERVICE Team is available to answer any questions. You can contact one of our expert application specialists at 216-362-4200 or techsupport@melintool.com

Warning: Tools may shatter. Appropriate safeguards required.