



3 FLUTE • 60° GENERAL MACHINING APPLICATION IN STAINLESS STEELS



Additional coatings available upon request

- Extra High Helix keeps a cutting edge in the material throughout the machining process
- Produces outstanding surface finishes
- Requires minimum horsepower

SERIES: EMG60

DIA D ₁	SHK D ₂	LOC L ₂	OAL L ₁	PART NAME	BRIGHT EDP	ALTiN EDP
1/8	1/8	1/2	1-1/2	EMG60-404	10256	50256
3/16	3/16	5/8	2	EMG60-606	10797	50797
1/4	1/4	3/4	2-1/2	EMG60-808	14238	54238
5/16	5/16	13/16	2-1/2	EMG60-1010	14240	54240
3/8	3/8	1	2-1/2	EMG60-1212	14242	54242
7/16	7/16	1	3	EMG60-1414	14246	54246
1/2	1/2	1	3	EMG60-1616	14248	54248
9/16	9/16	1-1/4	3-1/2	EMG60-1818	14250	54250
5/8	5/8	1-1/4	3-1/2	EMG60-2020	14252	54252
3/4	3/4	1-1/2	4	EMG60-2424	14254	54254
1	1	1-1/2	4	EMG60-3232	14256	54256

Speed & Feed: page 149



Melin Product Portfolio



- Easy to Use
- Easy to find and select the BEST tool for the application at hand
- Easy to see the features and benefits of the design and the various styles available
- Ideal for effective tool selections

Call your local distributors, our customer service team, or visit our website to order your copy today!

SPEED & FEED INFORMATION

SERIES: EMG35, EMG60, GMG

MATERIAL	CONDITION	STARTING SFM	STARTING SFM	CUTTING DIAMETER							
		EMG35 / EMG60	GMG	1/8"	3/16"	1/4"	3/8"	1/2"	5/8"	3/4"	1"
STAINLESS STEELS	ISO-M	3 Flutes	5 Flutes	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		225	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		275	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		300	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		120	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		95	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		110	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		300	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		290	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		315	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		300	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		425	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		475	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 For 5553, decrease SFM and IPM by 25%	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		225	0.0006	0.0009	0.0012	0.0018	0.0024	0.0030	0.0037	0.0049

Note: All technical data provided are suggested starting points. They may be increase or decreased depending on machine condition, depth of cut, finish required, coolant, etc. Call our TECHNICAL SERVICE Team with questions

SPEED & FEED INFORMATION

SERIES: EMG35, EMG60, GMG (METRIC)

MATERIAL	CONDITION	STARTING M/MIN	STARTING M/MIN	CUTTING DIAMETER - METRIC							
		EMG35 / EMG60	GMG	4mm	6mm	8mm	10mm	12mm	14mm	16mm	20mm
STAINLESS STEELS	ISO-M	3 Flutes	5 Flutes	CHIP PER TOOTH							
Precipitation 13-8, 15-5, 17-4PH	Slotting @ ≤ .5 x D	53		0.0127	0.0229	0.0279	0.0356	0.0483	0.0559	0.0610	0.0737
	Profiling @ 2 x D Axial / ≤ .15 D Radial		68	0.0178	0.0330	0.0406	0.0483	0.0660	0.0762	0.0838	0.1016
Austenitic 302, 303, 304L, 316L	Slotting @ ≤ .5 x D	68		0.0152	0.0279	0.0356	0.0432	0.0584	0.0660	0.0737	0.0889
	Profiling @ 2 x D Axial / ≤ .15 D Radial		83	0.0203	0.0381	0.0483	0.0610	0.0813	0.0914	0.1016	0.1219
Martensitic 403, 410, 416	Slotting @ ≤ .5 x D	61		0.0152	0.0305	0.0381	0.0457	0.0635	0.0711	0.0787	0.0940
	Profiling @ 2 x D Axial / ≤ .15 D Radial		91	0.0229	0.0406	0.0508	0.0635	0.0864	0.0965	0.1092	0.1295
HIGH TEMP ALLOYS	ISO-S										
Cobalt Base Stellite, Haynes 25, 188, X-40, L-605	Slotting @ .5 x D	26		0.0076	0.0102	0.0127	0.0178	0.0254	0.0305	0.0330	0.0381
	Profiling @ 2 x D Axial / ≤ .15 D Radial		36	0.0076	0.0152	0.0152	0.0152	0.0305	0.0356	0.0381	0.0483
Nickel Base Inconel 600, 625, 718, Nickel 200, 270, Invar, Monel 400, 405, K-Monel, PermaNickel 300, Inconel 600	Slotting @ .5 x D	18		0.0102	0.0152	0.0178	0.0229	0.0406	0.0406	0.0406	0.0635
	Profiling @ 2 x D Axial / ≤ .15 D Radial		30	0.0102	0.0152	0.0203	0.0254	0.0432	0.0043	0.0432	0.0533
Iron Base Incoloy 800-802, Multimet N-155, Timken 16-26-6	Slotting @ ≤ .5 x D	21		0.0102	0.0203	0.0254	0.0330	0.0457	0.0508	0.0559	0.0686
	Profiling @ 2 x D Axial / ≤ .15 D Radial		34	0.0102	0.0229	0.0305	0.0381	0.0508	0.0559	0.0635	0.0762
STEELS	ISO-P										
High Strength Steels 4140, 4340, 52100	Slotting @ ≤ .5 x D	69		0.0152	0.0305	0.0381	0.0457	0.0635	0.0711	0.0787	0.0940
	Profiling @ 2 x D Axial / ≤ .15 D Radial		91	0.0229	0.0406	0.0508	0.0635	0.0864	0.0991	0.1092	0.1295
High Alloy Steels - Mold & Die A-2, P20, 01, 02, D2, H-13	Slotting @ ≤ .5 x D	61		0.0127	0.0254	0.0305	0.0381	0.0533	0.0584	0.0660	0.0787
	Profiling @ 2 x D Axial / ≤ .15 D Radial		88	0.0178	0.0356	0.0432	0.0533	0.0711	0.0813	0.0914	0.1092
Medium Alloy Steels 200, 250, 300	Slotting @ ≤ .5 x D	76		0.0127	0.0279	0.0381	0.0483	0.0610	0.0660	0.0864	0.0991
	Profiling @ 2 x D Axial / ≤ .15 D Radial		96	0.0127	0.0356	0.0457	0.0584	0.0737	0.0864	0.0991	0.1245
Low Alloy Steels-Maraging 10XX, 11XX, 13XX	Slotting @ ≤ .5 x D	81		0.0178	0.0330	0.0406	0.0508	0.0686	0.0762	0.0864	0.1041
	Profiling @ 2 x D Axial / ≤ .15 D Radial		91	0.0254	0.0457	0.0584	0.0711	0.0940	0.1067	0.1194	0.1422
CAST IRONS	ISO-K										
Ductile Iron Ductile Cast Iron	Slotting @ ≤ .5 x D	91		0.0127	0.0229	0.0305	0.0356	0.0483	0.0533	0.0610	0.0737
	Profiling @ 2 x D Axial / ≤ .15 D Radial		130	0.0178	0.0330	0.0381	0.0483	0.0660	0.0737	0.0838	0.1016
Cast Iron Grey Cast Iron	Slotting @ ≤ .5 x D	114		0.0152	0.0279	0.0356	0.0432	0.0584	0.0660	0.0737	0.0889
	Profiling @ 2 x D Axial / ≤ .15 D Radial		145	0.0203	0.0381	0.0483	0.0610	0.0813	0.0914	0.1016	0.1219
TITANIUM	ISO-S										
Titanium Alloys 6AL-4V, ASTM 1, 2, 3, 6AL-2S For 5553, decrease SFM and IPM by 25%	Slotting @ ≤ .5 x D	46		0.0127	0.0203	0.0254	0.0330	0.0432	0.0508	0.0559	0.0686
	Profiling @ 2 x D Axial / ≤ .15 D Radial		69	0.0152	0.0305	0.0381	0.0457	0.0610	0.0686	0.0762	0.0940

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