

1200 DRILL MILL - IMPERIAL



1200 Series 4-Flute Drill Mill - 90°

The parameters listed for tool series that are stocked uncoated are based on running an uncoated tool. If a coating is applied to the tools, the SFM can be increased by approximately 25%. All speed and feed recommendations should be considered only as a starting point. Start with conservative speeds and feeds while analyzing the rigidity of the process. Then cautiously progress incrementally to achieve optimum performance.

FULLERTON®
SPEEDS / FEEDS

	Low Si Aluminum (<10%) (1100-1500) SFM (ft/min)					Brass & Copper (400-600) SFM (ft/min)					Cast Iron (250-400) SFM (ft/min)				
	Slotting	Plunge Ramp	Rough Profile	HEM	Finish	Slotting	Plunge Ramp	Rough Profile	HEM	Finish	Slotting	Plunge Ramp	Rough Profile	HEM	Finish
Axial Depth	< (1xD)	< (1xD)	1.5xD	1xD	< (1xD)	< (1xD)	< (1xD)	1.5xD	1xD	< (1xD)	< (1xD)	< (1xD)	1.5xD	1xD	< (1xD)
Radial Width	full	full	(.3-.5)xD	(.1-.15)xD	(.010-.015)	full	full	(.3-.5)xD	(.1-.15)xD	(.010-.015)	full	full	(.3-.5)xD	(.1-.15)xD	(.010-.015)
1/8"	.0010	.0012	.0010	.0012	.0010	.0009	.0011	.0007	.0011	.0007	.0010	.0012	.0008	.0012	.0008
1/4"	.0030	.0034	.0030	.0034	.0030	.0013	.0014	.0009	.0015	.0009	.0014	.0015	.0010	.0015	.0010
3/8"	.0045	.0048	.0045	.0048	.0045	.0021	.0020	.0012	.0021	.0012	.0022	.0022	.0013	.0022	.0013
1/2"	.0060	.0063	.0060	.0063	.0060	.0025	.0028	.0025	.0028	.0025	.0025	.0030	.0025	.0030	.0025
3/4"	.0080	.0085	.0080	.0085	.0080	.0030	.0035	.0028	.0035	.0028	.0028	.0035	.0030	.0035	.0030
1"	.0100	.0114	.0100	.0114	.0100	.0040	.0045	.0035	.0040	.0035	.0035	.0045	.0040	.0045	.0040

	Hardened Steels > 48 RC (80-130) SFM (ft/min)					Steels (230-350) SFM (ft/min)					Stainless Steels (130-260) SFM (ft/min)				
	Slotting	Plunge Ramp	Rough Profile	HEM	Finish	Slotting	Plunge Ramp	Rough Profile	HEM	Finish	Slotting	Plunge Ramp	Rough Profile	HEM	Finish
Axial Depth	< (1xD)	< (1xD)	1.5xD	1xD	< (1xD)	< (1xD)	< (1xD)	1.5xD	1xD	< (1xD)	< (1xD)	< (1xD)	1.5xD	1xD	< (1xD)
Radial Width	full	full	(.3-.5)xD	(.1-.15)xD	(.010-.015)	full	full	(.3-.5)xD	(.1-.15)xD	(.010-.015)	full	full	(.3-.5)xD	(.1-.15)xD	(.010-.015)
1/8"	.0008	.0009	.0008	.0009	.0008	.0006	.0008	.0006	.0008	.0006	.0006	.0008	.0006	.0008	.0006
1/4"	.0015	.0016	.0015	.0016	.0015	.0014	.0014	.0014	.0014	.0014	.0014	.0014	.0014	.0014	.0014
3/8"	.0020	.0022	.0020	.0022	.0020	.0022	.0022	.0022	.0022	.0022	.0022	.0022	.0022	.0022	.0022
1/2"	.0025	.0025	.0025	.0025	.0025	.0025	.0025	.0025	.0025	.0025	.0023	.0023	.0023	.0023	.0023
3/4"	.0028	.0030	.0028	.0030	.0028	.0028	.0028	.0028	.0028	.0028	.0025	.0025	.0025	.0025	.0025
1"	.0030	.0035	.0030	.0035	.0030	.0035	.0035	.0035	.0035	.0035	.0027	.0027	.0027	.0027	.0027

DRILL MILL USES

Recommended For	Included Angle
	90°
Chamfering	Yes
Side Milling	Yes
Drilling	Non-Ferrous Only
Spotting	Limited



CHAMFERING

Use general milling speeds and feeds. Use tool diameter at top of part to determine chip load. (i.e.; if using 1/4" diameter, 90° point and depth is 1/8", calculate the chip load based on 1/8" diameter.) For finer finishes and improved aesthetics, increase SFM and reduce feed rate.



SIDE MILLING

Use general milling speeds and feeds. All the benefits of our 3200 series end mills with additional reduction in machine carousel requirements. Designed for all tool room applications limiting tool changes and increasing productivity.

Contact Engineering at 800.248.8315 or engineering@fullertontool.com

1200 DRILL MILL - METRIC



1200 Series 4-Flute Drill Mill - 90°

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FULLERTON
SPEEDS / FEEDS

	Low Si Aluminum (<10%) (335-457) SMM (m/min)					Brass & Copper (121-182) SMM (m/min)					Cast Iron (76-121)SMM (m/min)				
	Slotting	Plunge Ramp	Rough Profile	HEM	Finish	Slotting	Plunge Ramp	Rough Profile	HEM	Finish	Slotting	Plunge Ramp	Rough Profile	HEM	Finish
Axial Depth	< (1xD)	< (1xD)	1.5xD	1xD	< (1xD)	< (1xD)	< (1xD)	1.5xD	1xD	< (1xD)	< (1xD)	< (1xD)	1.5xD	1xD	< (1xD)
Radial Width	full	full	(.3-.5)xD	(.1-.15)xD	(.25-.40)	full	full	(.3-.5)xD	(.1-.15)xD	(.25-.40)	full	full	(.3-.5)xD	(.1-.15)xD	(.25-.40)
3	.0254	.0305	.0254	.0305	.0254	.0229	.0279	.0178	.0279	.0178	.0254	.0305	.0203	.0305	.0203
6	.0762	.0864	.0762	.0864	.0762	.0330	.0356	.0229	.0381	.0229	.0356	.0381	.0254	.0381	.0254
10	.1143	.1219	.1143	.1219	.1143	.0533	.0508	.0305	.0533	.0305	.0559	.0559	.0330	.0559	.0330
12	.1524	.1600	.1524	.1600	.1524	.0635	.0711	.0635	.0711	.0635	.0635	.0762	.0635	.0762	.0635
20	.2032	.2159	.2032	.2159	.2032	.0762	.0889	.0711	.0889	.0711	.0711	.0889	.0762	.0889	.0762
25	.2540	.2896	.2540	.2896	.2540	.1016	.1143	.0889	.1016	.0889	.0889	.1143	.1016	.1143	.1016
	Hardened Steels > 48 RC (24-39) SMM (m/min)					Steels (70-106) SMM (m/min)					Stainless Steels (39-85) SMM (m/min)				
	Slotting	Plunge Ramp	Rough Profile	HEM	Finish	Slotting	Plunge Ramp	Rough Profile	HEM	Finish	Slotting	Plunge Ramp	Rough Profile	HEM	Finish
Axial Depth	< (1xD)	< (1xD)	1.5xD	1xD	< (1xD)	< (1xD)	< (1xD)	1.5xD	1xD	< (1xD)	< (1xD)	< (1xD)	1.5xD	1xD	< (1xD)
Radial Width	full	full	(.3-.5)xD	(.1-.15)xD	(.25-.40)	full	full	(.3-.5)xD	(.1-.15)xD	(.25-.40)	full	full	(.3-.5)xD	(.1-.15)xD	(.25-.40)
3	.0203	.0229	.0203	.0229	.0203	.0152	.0203	.0152	.0203	.0152	.0152	.0203	.0152	.0203	.0152
6	.0381	.0406	.0381	.0406	.0381	.0356	.0356	.0356	.0356	.0356	.0356	.0356	.0356	.0356	.0356
10	.0508	.0559	.0508	.0559	.0508	.0559	.0559	.0559	.0559	.0559	.0559	.0559	.0559	.0559	.0559
12	.0635	.0635	.0635	.0635	.0635	.0635	.0635	.0635	.0635	.0635	.0584	.0584	.0584	.0584	.0584
20	.0711	.0762	.0711	.0762	.0711	.0711	.0711	.0711	.0711	.0711	.0635	.0635	.0635	.0635	.0635
25	.0762	.0889	.0762	.0889	.0762	.0889	.0889	.0889	.0889	.0889	.0686	.0686	.0686	.0686	.0686

DRILL MILL USES

Recommended For	Included Angle
	90°
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Spotting	Limited



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