3300, 2003 JIT GENERAL PURPOSE - IMPERIAL

FULLERTON®

SPEEDS / FEEDS

3300 Series 3-Flute End Mill is offered in an extensive variety of configurations.

Not Recommended for Composites, Plastics, Graphite, or Hardened Steels > 48 RC. High Si Aluminum Recommended in Unique Situations. 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 analyizing the rigidity of the process. Then cautiously progress incrementally to achieve optimum performance.

	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	.0015	.0010	.0015	.0010	.0008	.0010	.0008	.0010	.0008	.0007	.0009	.0007	.0009	.0007
1/4"	.0030	.0035	.0030	.0035	.0030	.0015	.0020	.0015	.0020	.0015	.0014	.0020	.0014	.0020	.0014
3/8"	.0045	.0050	.0045	.0050	.0045	.0025	.0030	.0025	.0030	.0025	.0022	.0026	.0022	.0026	.0022
1/2"	.0065	.0070	.0065	.0070	.0065	.0030	.0035	.0030	.0035	.0030	.0025	.0034	.0025	.0034	.0025
3/4"	.0085	.0090	.0085	.0090	.0085	.0035	.0040	.0035	.0040	.0035	.0028	.0045	.0028	.0045	.0028
1"	.0100	.0110	.0100	.0110	.0100	.0040	.0045	.0040	.0045	.0040	.0035	.0050	.0035	.0050	.0035

	Steels (230-350) SFM (ft/min)					Stainless Steels (130-260) SFM (ft/min)					Super Alloys (Nickel Based, Inconel) (80-120) 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"	.0007	.0009	.0007	.0009	.0007	.0006	.0008	.0006	.0008	.0006	.0004	.0005	.0004	.0005	.0004
1/4"	.0015	.0020	.0015	.0020	.0015	.0014	.0017	.0014	.0017	.0014	.0008	.0009	.0008	.0009	.0008
3/8"	.0023	.0026	.0023	.0026	.0023	.0022	.0022	.0022	.0022	.0022	.0011	.0011	.0011	.0011	.0011
1/2"	.0026	.0034	.0026	.0034	.0026	.0023	.0029	.0023	.0029	.0023	.0014	.0015	.0014	.0015	.0014
3/4"	.0030	.0045	.0030	.0045	.0030	.0025	.0040	.0025	.0040	.0025	.0020	.0021	.0020	.0021	.0020
1"	.0040	.0050	.0040	.0050	.0040	.0030	.0045	.0030	.0045	.0030	.0023	.0025	.0023	.0025	.0023

	Titanium (120-200) SFM (ft/min)				
	Slotting	Plunge Ramp	Rough Profile	HEM	Finish
Axial Depth	< (1xD)	< (1xD)	1.5xD	1xD	< (1xD)
Radial Width	full	full	(.3-.5)xD	(.1-.15)xD	(.010-.015)
1/8"	.0004	.0006	.0004	.0006	.0004
1/4"	.0008	.0012	.0008	.0012	.0008
3/8"	.0012	.0016	.0012	.0016	.0012
1/2"	.0016	.0022	.0016	.0022	.0016
3/4"	.0020	.0029	.0020	.0029	.0020
1"	.0028	.0035	.0028	.0035	.0028

IPT (in/tooth)

3300, 2003 JIT GENERAL PURPOSE - METRIC

3300 Series 3-Flute End Mill is offered in an extensive variety of configurations.

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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	.0381	.0254	.0381	.0254	.0203	.0254	.0203	.0254	.0203	.0178	.0229	.0178	.0229	.0178
6	.0762	.0889	.0762	.0889	.0762	.0381	.0508	.0381	.0508	.0381	.0356	.0508	.0356	.0508	.0356
10	.1143	.1270	.1143	.1270	.1143	.0635	.0762	.0635	.0762	.0635	.0559	.0660	.0559	.0660	.0559
12	.1651	.1778	.1651	.1778	.1651	.0762	.0889	.0762	.0889	.0762	.0635	.0864	.0635	.0864	.0635
20	.2159	.2286	.2159	.2286	.2159	.0889	.1016	.0889	.1016	.0889	.0711	.1143	.0711	.1143	.0711
25	.2540	.2794	.2540	.2794	.2540	.1016	.1143	.1016	.1143	.1016	.0889	.1270	.0889	.1270	.0889

	Steels (70-106) SMM (m/min)					Stainless Steels (39-85) SMM (m/min)					Super Alloys (Nickel Based, Inconel) (24-36) 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	.0178	.0229	.0178	.0229	.0178	.0152	.0203	.0152	.0203	.0152	.0102	.0127	.0102	.0127	.0102
6	.0381	.0508	.0381	.0508	.0381	.0356	.0432	.0356	.0432	.0356	.0203	.0229	.0203	.0229	.0203
10	.0584	.0660	.0584	.0660	.0584	.0559	.0559	.0559	.0559	.0559	.0279	.0279	.0279	.0279	.0279
12	.0660	.0864	.0660	.0864	.0660	.0584	.0737	.0584	.0737	.0584	.0356	.0381	.0356	.0381	.0356
20	.0762	.1143	.0762	.1143	.0762	.0635	.1016	.0635	.1016	.0635	.0508	.0533	.0508	.0533	.0508
25	.1016	.1270	.1016	.1270	.1016	.0762	.1143	.0762	.1143	.0762	.0584	.0635	.0584	.0635	.0584

	Titanium (36-60) SMM (m/min)				
	Slotting	Plunge Ramp	Rough Profile	HEM	Finish
Axial Depth	< (1xD)	< (1xD)	1.5xD	1xD	< (1xD)
Radial Width	full	full	(.3-.5)xD	(.1-.15)xD	(.25-.40)
3	.0102	.0152	.0102	.0152	.0102
6	.0203	.0305	.0203	.0305	.0203
10	.0305	.0406	.0305	.0406	.0305
12	.0406	.0559	.0406	.0559	.0406
20	.0508	.0737	.0508	.0737	.0508
25	.0711	.0889	.0711	.0889	.0711

MMPT (mm/tooth)