3410 FANTOM - IMPERIAL





3410 Series Fantom End Mill designed to excel in difficult to machine materials. Not Recommended for High Si Aluminum (>10%), Low Si Aluminum (<10%), Composites, Plastics, Brass & Copper, or Graphite. 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 SPM can be increased by approximately 25%. All speed and feed recommendations should be considered only as a starting point. Start with conservative speeds and feed while analyzing the rigidity of the process. Then cautiously progress incrementally to achieve optimum performance.

S				Cast Iron				Harde	ened Steels >	48 RC		Steels					
		Slotting	Plunge/ Ramp	Rough/ Profile	HEM	Finish	Slotting	Plunge/ Ramp	Rough/ Profile	HEM	Finish	Slotting	Plunge/ Ramp	Rough/ Profile	HEM	Finish	
	SFM (ft/min)	300	300	400	520	520	150	150	200	300	300	250	250	350	650	650	
	Axial Depth	< (1xD)	full	< (2xD)	< (2xD)	< (2xD)	< (1xD)	full	< (2xD)	< (2xD)	< (2xD)	< (1xD)	full	< (2xD)	< (2xD)	< (2xD)	
	Radial Width	full	full	(.253)xD	(.125)xD	(.0508)xD	full	full	(.253)xD	(.125)xD	(.0508)xD	full	full	(.253)xD	(.125)xD	(.0508)xD	
	1/8"	.0010	.0012	.0010	.0010	.0012	.0007	.0008	.0005	.0005	.0010	.0010	.0012	.0010	.0010	.0012	
1.1	1/4"	.0018	.0018	.0018	.0018	.0018	.0014	.0014	.0010	.0010	.0015	.0018	.0018	.0018	.0018	.0018	
	3/8"	.0027	.0027	.0027	.0027	.0027	.0020	.0026	.0020	.0020	.0026	.0027	.0035	.0035	.0035	.0035	
	1/2"	.0035	.0035	.0035	.0035	.0035	.0026	.0030	.0025	.0025	.0030	.0035	.0039	.0039	.0039	.0039	
	3/4"	.0043	.0043	.0043	.0043	.0043	.0033	.0033	.0030	.0030	.0033	.0043	.0043	.0043	.0043	.0043	
	1"	.0050	.0050	.0050	.0050	.0050	.0039	.0039	.0040	.0040	.0045	.0050	.0050	.0050	.0050	.0050	
		Stainless Steels															
S			SI	tainless Stee	ls			Super Alloy	s (Nickel Bas	ed, Inconel)				Titanium			
DS		Slotting	Si Plunge/ Ramp	tainless Stee Rough/ Profile	ls HEM	Finish	Slotting	Super Alloy Plunge/ Ramp	s (Nickel Bas Rough/ Profile	ed, Inconel) HEM	Finish	Slotting	Plunge/ Ramp	Titanium Rough/ Profile	HEM	Finish	
DS	SFM (ft/min)	Slotting 200	Plunge/			Finish 300	Slotting 75	Plunge/	` Rough/		Finish 125	Slotting 100		Rough/	НЕМ 275	Finish 275	
E D S	SFM (ft/min) Axial Depth		Plunge/ Ramp	Rough/ Profile	HEM			Plunge/ Ramp	Rough/ Profile	НЕМ			Ramp	Rough/ Profile			
	.,,,	200	Plunge/ Ramp 200	Rough/ Profile 225	HEM 300	300 < (2xD)	75	Plunge/ Ramp 75	Rough/ Profile 90	HEM 125	125	100	Ramp 100	Rough/ Profile 150	275	275	
EEDS	Axial Depth	200 < (1xD)	Plunge/ Ramp 200 full	Rough/ Profile 225 < (2xD)	HEM 300 < (2xD)	300 < (2xD)	75 < (1xD)	Plunge/ Ramp 75 full	Rough/ Profile 90 < (2xD)	HEM 125 < (2xD)	125 < (2xD)	100 < (1xD)	Ramp 100 full	Rough/ Profile 150 < (2xD)	275 < (2xD)	275 < (2xD)	
	Axial Depth Radial Width	200 < (1xD) full	Plunge/ Ramp 200 full full	Rough/ Profile 225 < (2xD) (.253)xD	HEM 300 < (2xD) (.125)xD	300 < (2xD) (.0508)xD	75 < (1xD) full	Plunge/ Ramp 75 full full	Rough/ Profile 90 < (2xD) (.253)xD	HEM 125 < (2xD) (.125)xD	125 < (2xD) (.0508)xD	100 < (1xD) full	Ramp 100 full full	Rough/ Profile 150 < (2xD) (.253)xD	275 < (2xD) (.125)xD	275 < (2xD) (.0508)xD	
ш	Axial Depth Radial Width 1/8"	200 < (1xD) full .0004	Plunge/ Ramp 200 full full .0008	Rough/ Profile 225 < (2xD) (.253)xD .0004	HEM 300 < (2xD) (.125)xD .0004	300 < (2xD) (.0508)xD .0008	75 < (1xD) full .0006	Plunge/ Ramp 75 full full .0007	Rough/ Profile 90 < (2xD) (.253)xD .0006	HEM 125 < (2xD) (.125)xD .0006	125 < (2xD) (.0508)xD .0007	100 < (1xD) full .0003	Ramp 100 full full .0004	Rough/ Profile 150 < (2xD) (.253)xD .0003	275 < (2xD) (.125)xD .0003	275 < (2xD) (.0508)xD .0004	
ш	Axial Depth Radial Width 1/8" 1/4"	200 < (1xD) full .0004 .0010	Plunge/ Ramp 200 full full .0008 .0014	Rough/ Profile 225 < (2xD) (.253)xD .0004 .0010	HEM 300 < (2xD) (.125)xD .0004 .0010	300 < (2xD) (.0508)xD .0008 .0014	75 < (1xD) full .0006 .0008	Plunge/ Ramp 75 full full .0007 .0010	Rough/ Profile 90 < (2xD) (.253)xD .0006 .0008	HEM 125 < (2xD) (.125)xD .0006 .0008	125 < (2xD) (.0508)xD .0007 .0010	100 < (1xD) full .0003 .0008	Ramp 100 full full .0004 .0010	Rough/ Profile 150 < (2xD) (.253)xD .0003 .0008	275 < (2xD) (.125)xD .0003 .0008	275 < (2xD) (.0508)xD .0004 .0010	
РП	Axial Depth Radial Width 1/8" 1/4" 3/8"	200 < (1xD) full .0004 .0010 .0012	Plunge/ Ramp 200 full full .0008 .0014 .0022	Rough/ Profile 225 < (2xD) (.253)xD .0004 .0010 .0012	HEM 300 < (2xD) (.125)xD .0004 .0010 .0012	300 < (2xD) (.0508)xD .0008 .0014 .0022	75 < (1xD) full .0006 .0008 .0010	Plunge/ Ramp 75 full full .0007 .0010 .0015	Rough/ Profile 90 < (2xD) (.253)xD .0006 .0008 .0010	HEM 125 < (2xD) (.125)xD .0006 .0008 .0010	125 < (2xD) (.0508)xD .0007 .0010 .0015	100 < (1xD) full .0003 .0008 .0010	Ramp 100 Full .0004 .0010 .0015	Rough/ Profile 150 < (2xD) (.253)xD .0003 .0008 .0010	275 < (2xD) (.125)xD .0003 .0008 .0010	275 < (2xD) (.0508)xD .0004 .0010 .0015	

0 LL

800.248.8315 **fullertontool**.com

3410 FANTOM - METRIC





3410 Series Fantom End Mill designed to excel in difficult to machine materials. Not Recommended for High Si Aluminum (>10%), Low Si Aluminum (<10%), Composites, Plastics, Brass & Copper, or Graphite. 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 SPM can be increased by approximately 25%. All speed and feed recommendations should be considered only as a starting point. Start with conservative speeds and feed while analyzitant be rigidity of the process. Then cautiously progress incrementally to achieve optimum performance.

	Cast Iron						Harde	ened Steels >	48 RC		Steels					
	Slotting	Plunge/ Ramp	Rough/ Profile	HEM	Finish	Slotting	Plunge/ Ramp	Rough/ Profile	HEM	Finish	Slotting	Plunge/ Ramp	Rough/ Profile	HEM	Finish	
SMM (m/min)	91	91	121	158	158	45	45	60	91	91	76	76	106	198	198	
Axial Depth	< (1xD)	full	< (2xD)	< (2xD)	< (2xD)	< (1xD)	full	< (2xD)	< (2xD)	< (2xD)	< (1xD)	full	< (2xD)	< (2xD)	< (2xD)	
Radial Width	full	full	(.253)xD	(.125)xD	(.0508)xD	full	full	(.253)xD	(.125)xD	(.0508)xD	full	full	(.253)xD	(.125)xD	(.0508)x	
3	.0254	.0305	.0254	.0254	.0305	.0178	.0203	.0127	.0127	.0254	.0254	.0305	.0254	.0254	.0305	
6	.0457	.0457	.0457	.0457	.0457	.0356	.0356	.0254	.0254	.0381	.0457	.0457	.0457	.0457	.0457	
10	.0686	.0686	.0686	.0686	.0686	.0508	.0660	.0508	.0508	.0660	.0686	.0889	.0889	.0889	.0889	
12	.0889	.0889	.0889	.0889	.0889	.0660	.0762	.0635	.0635	.0762	.0889	.0991	.0991	.0991	.0991	
20	.1092	.1092	.1092	.1092	.1092	.0838	.0838	.0762	.0762	.0838	.1092	.1092	.1092	.1092	.1092	
25	.1270	.1270	.1270	.1270	.1270	.0991	.0991	.1016	.1016	.1143	.1270	.1270	.1270	.1270	.1270	
	Stainless Steels						Super Alloy	vs (Nickel Bas	ed, Inconel)		Titanium					
	Slotting	Plunge/ Ramp	Rough/ Profile	НЕМ	Finish	Slotting	Plunge/ Ramp	Rough/ Profile	HEM	Finish	Slotting	Plunge/ Ramp	Rough/ Profile	HEM	Finish	
SMM (m/min)	60	60	68	91	91	22	22	27	38	38	30	30	45	83	83	
Axial Depth	< (1xD)	full	< (2xD)	< (2xD)	< (2xD)	< (1xD)	full	< (2xD)	< (2xD)	< (2xD)	< (1xD)	full	< (2xD)	< (2xD)	< (2xD)	
Radial Width	full	full	(.253)xD	(.125)xD	(.0508)xD	full	full	(.253)xD	(.125)xD	(.0508)xD	full	full	(.253)xD	(.125)xD	(.0508)xI	
3	.0102	.0203	.0102	.0102	.0203	.0152	.0178	.0152	.0152	.0178	.0076	.0102	.0076	.0076	.0102	
6	.0254	.0356	.0254	.0254	.0356	.0203	.0254	.0203	.0203	.0254	.0203	.0254	.0203	.0203	.0254	
10	.0305	.0559	.0305	.0305	.0559	.0254	.0381	.0254	.0254	.0381	.0254	.0381	.0254	.0254	.0381	
12	.0381	.0762	.0381	.0381	.0762	.0381	.0508	.0381	.0381	.0508	.0381	.0508	.0381	.0381	.0508	
20	.0762	.0889	.0762	.0762	.0889	.0635	.0762	.0635	.0635	.0762	.0508	.0635	.0508	.0508	.0635	
25	1010	1142	4044	4044	44.45	0000	4044			4044	0040	0000				
25	.1016	.1143	.1016	.1016	.1143	.0889	.1016	.0889	.0889	.1016	.0813	.0889	.0813	.0813	.0889	

0

800.248.8315 **fullertontool**.com