# **FULLERT**

## SPEEDS & FEEDS - IMPERIAL UNITS 3410 Fantom End Mill





### 3410 Series Fantom End Mill designed to excel in difficult to machine materials.

	Cast Iron					Hardened Steels > 48 RC					Steels				
	Slotting	Plunge	Rough	Finish	Pocket	Slotting	Plunge	Rough	Finish	Pocket	Slotting	Plunge	Rough	Finish	Pocket
SFM (ft/min)	300	300	400	520	520	150	150	200	300	300	250	250	350	650	650
Axial Depth	< (1xD)	< (1xD)	1.5xD	1xD	< (1xD)	< (1xD)	< (1xD)	1.5xD	1xD	< (1xD)	< (1xD)	< (1xD)	1.5xD	1xD	< (1xD)
Radial Width	full	full	(.35)xD	(.010015)	(.35)xD	full	full	(.35)xD	(.010015)	(.35)xD	full	full	(.35)xD	(.010015)	(.35)xD
1/8"	.0010	.0012	.0010	.0012	.0010	.0007	.0008	.0005	.0010	.0005	.0010	.0012	.0010	.0012	.0010
1/4"	.0018	.0018	.0018	.0018	.0018	.0014	.0014	.0010	.0015	.0010	.0018	.0018	.0018	.0018	.0018
3/8"	.0027	.0027	.0027	.0027	.0027	.0020	.0026	.0020	.0026	.0020	.0027	.0035	.0035	.0035	.0035
1/2"	.0035	.0035	.0035	.0035	.0035	.0026	.0030	.0025	.0030	.0025	.0035	.0039	.0039	.0039	.0039
3/4"	.0043	.0043	.0043	.0043	.0043	.0033	.0033	.0030	.0033	.0030	.0043	.0043	.0043	.0043	.0043
1"	.0050	.0050	.0050	.0050	.0050	.0039	.0039	.0040	.0045	.0040	.0050	.0050	.0050	.0050	.0050

#### IPT (in/tooth)

	Stainless Steels					Super Alloys (Nickel Based, Inconel)					Titanium					
	Slotting	Plunge	Rough	Finish	Pocket	Slotting	Plunge	Rough	Finish	Pocket	Slotting	Plunge	Rough	Finish	Pocket	
SFM (ft/min)	200	200	225	300	300	75	75	90	125	125	100	100	150	275	275	
Axial Depth	< (1xD)	< (1xD)	1.5xD	1xD	< (1xD)	< (1xD)	< (1xD)	1.5xD	1xD	< (1xD)	< (1xD)	< (1xD)	1.5xD	1xD	< (1xD)	
Radial Width	full	full	(.35)xD	(.010015)	(.35)xD	full	full	(.35)xD	(.010015)	(.35)xD	full	full	(.35)xD	(.010015)	(.35)xD	
1/8"	.0004	.0008	.0004	.0008	.0004	.0006	.0007	.0006	.0007	.0006	.0003	.0004	.0003	.0004	.0003	
1/4"	.0010	.0014	.0010	.0014	.0010	.0008	.0010	.0008	.0010	.0008	.0008	.0010	.0008	.0010	.0008	
3/8"	.0012	.0022	.0012	.0022	.0012	.0010	.0015	.0010	.0015	.0010	.0010	.0015	.0010	.0015	.0010	
1/2"	.0015	.0030	.0015	.0030	.0015	.0015	.0020	.0015	.0020	.0015	.0015	.0020	.0015	.0020	.0015	
3/4"	.0030	.0035	.0030	.0035	.0030	.0025	.0030	.0025	.0030	.0025	.0020	.0025	.0020	.0025	.0020	
1"	.0040	.0045	.0040	.0045	.0040	.0035	.0040	.0035	.0040	.0035	.0032	.0035	.0032	.0035	.0032	

IPT (in/tooth)

### 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 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.

Contact Engineering at 800.248.8315 or engineering@fullertontool.com

# **FULLERT** ON

## SPEEDS & FEEDS - METRIC UNITS 3410 Fantom End Mill





### 3410 Series Fantom End Mill designed to excel in difficult to machine materials.

	Cast Iron						Harde	ened Steels >	→ 48 RC		Steels					
	Slotting	Plunge	Rough	Finish	Pocket	Slotting	Plunge	Rough	Finish	Pocket	Slotting	Plunge	Rough	Finish	Pocket	
SMM (m/min)	91	91	121	158	158	45	45	60	91	91	76	76	106	198	198	
Axial Depth	< (1xD)	< (1xD)	1.5xD	1xD	< (1xD)	< (1xD)	< (1xD)	1.5xD	1xD	< (1xD)	< (1xD)	< (1xD)	1.5xD	1xD	< (1xD)	
Radial Width	full	full	(.35)xD	(.010015)	(.35)xD	full	full	(.35)xD	(.010015)	(.35)xD	full	full	(.35)xD	(.010015)	(.35)xD	
3	.0254	.0305	.0254	.0305	.0254	.0178	.0203	.0127	.0254	.0127	.0254	.0305	.0254	.0305	.0254	
6	.0457	.0457	.0457	.0457	.0457	.0356	.0356	.0254	.0381	.0254	.0457	.0457	.0457	.0457	.0457	
10	.0686	.0686	.0686	.0686	.0686	.0508	.0660	.0508	.0660	.0508	.0686	.0889	.0889	.0889	.0889	
12	.0889	.0889	.0889	.0889	.0889	.0660	.0762	.0635	.0762	.0635	.0889	.0991	.0991	.0991	.0991	
20	.1092	.1092	.1092	.1092	.1092	.0838	.0838	.0762	.0838	.0762	.1092	.1092	.1092	.1092	.1092	
25	.1270	.1270	.1270	.1270	.1270	.0991	.0991	.1016	.1143	.1016	.1270	.1270	.1270	.1270	.1270	

#### MMPT (mm/tooth)

	Stainless Steels						Super Alloy	s (Nickel Bas	ed, Inconel)		Titanium					
	Slotting	Plunge	Rough	Finish	Pocket	Slotting	Plunge	Rough	Finish	Pocket	Slotting	Plunge	Rough	Finish	Pocket	
SMM (m/min)	60	60	68	91	91	22	22	27	38	38	30	30	45	83	83	
Axial Depth	< (1xD)	< (1xD)	1.5xD	1xD	< (1xD)	< (1xD)	< (1xD)	1.5xD	1xD	< (1xD)	< (1xD)	< (1xD)	1.5xD	1xD	< (1xD)	
Radial Width	full	full	(.35)xD	(.010015)	(.35)xD	full	full	(.35)xD	(.010015)	(.35)xD	full	full	(.35)xD	(.010015)	(.35)xD	
3	.0102	.0203	.0102	.0203	.0102	.0152	.0178	.0152	.0178	.0152	.0076	.0102	.0076	.0102	.0076	
6	.0254	.0356	.0254	.0356	.0254	.0203	.0254	.0203	.0254	.0203	.0203	.0254	.0203	.0254	.0203	
10	.0305	.0559	.0305	.0559	.0305	.0254	.0381	.0254	.0381	.0254	.0254	.0381	.0254	.0381	.0254	
12	.0381	.0762	.0381	.0762	.0381	.0381	.0508	.0381	.0508	.0381	.0381	.0508	.0381	.0508	.0381	
20	.0762	.0889	.0762	.0889	.0762	.0635	.0762	.0635	.0762	.0635	.0508	.0635	.0508	.0635	.0508	
25	.1016	.1143	.1016	.1143	.1016	.0889	.1016	.0889	.1016	.0889	.0813	.0889	.0813	.0889	.0813	

MMPT (mm/tooth)

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