FULLERTON

SPEEDS & FEEDS - IMPERIAL UNITS
3400 Harmon-i-Cut End Mill

HARMONICUT

3400 Series Harmon-i-cut End Mill is designed to maximize tool life and optimize metal removal rates.

	Cast Iron					Hardened Steels > 48RC					Steels				
	Slotting	Plunge	Rough	Finish	Pocket	Slotting	Plunge	Rough	Finish	Pocket	Slotting	Plunge	Rough	Finish	Pocket
SFM (ft/min)	250	250	250	525	525	100	100	150	300	300	200	200	300	600	600
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	(.010-.015)	(.3-.5)xD	full	full	(.3-.5)xD	(.010-.015)	(.3-.5)xD	full	full	(.3-.5)xD	(.010-.015)	(.3-.5)xD
1/8"	.0005	.0007	.0005	.0007	.0005	.0002	.0006	.0002	.0006	.0002	.0002	.0007	.0002	.0007	.0002
1/4"	.0010	.0012	.0010	.0012	.0010	.0008	.0012	.0008	.0012	.0008	.0010	.0014	.0010	.0014	.0010
3/8"	.0020	.0020	.0020	.0020	.0020	.0012	.0018	.0012	.0018	.0012	.0020	.0021	.0020	.0021	.0020
1/2"	.0025	.0028	.0025	.0028	.0025	.0020	.0025	.0020	.0025	.0020	.0025	.0028	.0025	.0028	.0025
3/4"	.0030	.0035	.0030	.0035	.0030	.0025	.0035	.0025	.0035	.0025	.0030	.0035	.0030	.0035	.0030
1"	.0035	.0045	.0035	.0045	.0035	.0035	.0040	.0035	.0040	.0035	.0035	.0040	.0035	.0040	.0035

IPT (in/tooth)

	Stainless Steels					Super Alloys (Nickell based, Inconel)					Titanium				
	Slotting	Plunge	Rough	Finish	Pocket	Slotting	Plunge	Rough	Finish	Pocket	Slotting	Plunge	Rough	Finish	Pocket
SFM (ft/min)	200	200	250	300	300	75	75	75	125	125	100	100	125	200	200
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	(.010-.015)	(.3-.5)xD	full	full	(.3-.5)xD	(.010-.015)	(.3-.5)xD	full	full	(.3-.5)xD	(.010-.015)	(.3-.5)xD
1/8"	.0002	.0007	.0002	.0007	.0002	.0002	.0003	.0002	.0003	.0002	.0002	.0004	.0002	.0004	.0002
1/4"	.0008	.0014	.0008	.0014	.0008	.0010	.0010	.0010	.0010	.0010	.0012	.0015	.0012	.0015	.0012
3/8"	.0019	.0021	.0019	.0021	.0019	.0013	.0015	.0013	.0015	.0013	.0020	.0025	.0020	.0025	.0020
1/2"	.0025	.0028	.0025	.0028	.0025	.0016	.0020	.0016	.0020	.0016	.0025	.0035	.0025	.0035	.0025
3/4"	.0029	.0035	.0029	.0035	.0029	.0022	.0025	.0022	.0025	.0022	.0032	.0045	.0032	.0045	.0032
1"	.0033	.0040	.0033	.0040	.0033	.0024	.0030	.0024	.0030	.0024	.0040	.0050	.0040	.0050	.0040

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

FULLERTON

SPEEDS & FEEDS - METRIC UNITS
3400 Harmon-i-Cut End Mill

HARMONICUT

3400 Series Harmon-i-cut End Mill is designed to maximize tool life and optimize metal removal rates.

	Cast Iron					Hardened Steels > 48 RC					Steels				
	Slotting	Plunge	Rough	Finish	Pocket	Slotting	Plunge	Rough	Finish	Pocket	Slotting	Plunge	Rough	Finish	Pocket
SMM (m/min)	76	76	76	160	160	30	30	45	91	91	60	60	91	182	182
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	(.010-.015)	(.3-.5)xD	full	full	(.3-.5)xD	(.010-.015)	(.3-.5)xD	full	full	(.3-.5)xD	(.010-.015)	(.3-.5)xD
3	.0127	.0178	.0127	.0178	.0127	.0051	.0152	.0051	.0152	.0051	.0051	.0178	.0051	.0178	.0051
6	.0254	.0305	.0254	.0305	.0254	.0203	.0305	.0203	.0305	.0203	.0254	.0356	.0254	.0356	.0254
10	.0508	.0508	.0508	.0508	.0508	.0305	.0457	.0305	.0457	.0305	.0508	.0533	.0508	.0533	.0508
12	.0635	.0711	.0635	.0711	.0635	.0508	.0635	.0508	.0635	.0508	.0635	.0711	.0635	.0711	.0635
20	.0762	.0889	.0762	.0889	.0762	.0635	.0889	.0635	.0889	.0635	.0762	.0889	.0762	.0889	.0762
25	.0889	.1143	.0889	.1143	.0889	.0889	.1016	.0889	.1016	.0889	.0889	.1016	.0889	.1016	.0889

MMPT (mm/tooth)

	Stainless Steels					Super Alloys (Nickel based, Inconel)					Titanium				
	Slotting	Plunge	Rough	Finish	Pocket	Slotting	Plunge	Rough	Finish	Pocket	Slotting	Plunge	Rough	Finish	Pocket
SMM (m/min)	60	60	76	91	91	22	22	22	38	38	30	30	38	60	60
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	(.010-.015)	(.3-.5)xD	full	full	(.3-.5)xD	(.010-.015)	(.3-.5)xD	full	full	(.3-.5)xD	(.010-.015)	(.3-.5)xD
3	.0051	.0178	.0051	.0178	.0051	.0051	.0076	.0051	.0076	.0051	.0051	.0102	.0051	.0102	.0051
6	.0203	.0356	.0203	.0356	.0203	.0254	.0254	.0254	.0254	.0254	.0305	.0381	.0305	.0381	.0305
10	.0483	.0533	.0483	.0533	.0483	.0330	.0381	.0330	.0381	.0330	.0508	.0635	.0508	.0635	.0508
12	.0635	.0711	.0635	.0711	.0635	.0406	.0508	.0406	.0508	.0406	.0635	.0889	.0635	.0889	.0635
20	.0737	.0889	.0737	.0889	.0737	.0559	.0635	.0559	.0635	.0559	.0813	.1143	.0813	.1143	.0813

MMPT (mm/tooth)

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