

Roughers Regular Length — Typhoon



This fine pitch rougher is designed for milling harder metals and has updated geometry in the design of this tool for higher feed rates with no vibration or chatter and chipbreakers to eliminate birdnesting.



Speeds & Feeds > P. A16

Cutting Dia. (in.)	Shank Dia. (in.)	Flute Length (in.)	Overall Length (in.)	No. of Flutes	Code No.	Price \$
Inch						
1/4	1/4	3/4	2-1/2	3	104800	40.51
5/16	5/16	3/4	2-1/2	3	104802	46.51
3/8	3/8	7/8	2-1/2	3	104804	56.34
1/2	1/2	1	3	4	104806	76.17
5/8	5/8	1-1/4	3-1/2	4	104810	121.35
3/4	3/4	1-5/8	4	4	104812	174.24
1	1	1-3/4	4	5	104814	292.66

Speeds & Feeds — Typhoon Modified AlTiN Carbide Roughing End Mills



Hardness		Up to 30HRC	30 to 38 HRC	38 to 45 HRC	45 to 55 HRC	55 to 65 HRC	
Work Material		Non-Alloyed Steels Alloy Steels Cast Iron	Alloys Steels Heat Resistant Steels	Alloys Steels Heat Resistant Steels	Hardened Steels	Hardened Steels	
Depth of Cut		<p>Ad = 1.5D Rd = 0.3D</p>			<p>Ad = 1.0D Rd = 0.05D</p>		
		1000 SFM	800 SFM	550 SFM	225 SFM	160 SFM	
Dia. (in)	Strength	Up to 1000N/mm ²		1000 to 1200N/mm ²	1200 to 1400N/mm ²	1400 to 2000N/mm ²	2000N/mm ² ~
	(mm)	Speed	Feed	Speed	Feed	Speed	Feed
		RPM	in/min	RPM	in/min	RPM	in/min
1/4	6	15,600	91.35	12,400	33.10	8,400	22.45
5/16	8	11,600	91.35	9,200	33.10	6,300	22.45
3/8	10	9,200	91.35	7,600	33.10	5,100	22.45
1/2	12	8000	94.50	6,000	31.50	4,200	22.45
5/8	16	6000	94.50	4,800	29.90	3,300	20.05
3/4	20	5200	91.35	4,400	28.35	2,700	16.55
1	25	4800	85.05	3,600	22.05	2,400	14.15

4-Flute Variable Helix Carbide End Mill — Typhoon

- Helix changes along flutes
- Increased stability during cutting action
- Substantial increase in speed
- Small corner radius for added strength and smoother cutting action

- AlTiN coated for improved tool life and increased production output
- Made from premium sub-micron grain carbide



Speeds & Feeds > P. A17

Cutting Dia. (in.)	Shank Dia. (in.)	Flute Length (in.)	Overall Length (in.)	Corner Radius	With Radius Code No.	Price \$	Without Radius Code No.	Price \$	Weld on Flat Without Radius Code No.	Price \$
1/8	1/8	1/2	1-1/2	0.010-0.015	153000	14.12	153250	12.56	-	-
3/16	3/16	3/8	1-1/2	0.010-0.015	153001	17.73	-	-	-	-
3/16	3/16	5/8	2	0.015-0.020	153002	17.73	153252	15.83	-	-
1/4	1/4	1/2	2	0.015-0.020	153004	21.83	153254	21.83	-	-
1/4	1/4	3/4	2-1/2	0.015-0.020	153006	24.19	153256	21.36	-	-
1/4	1/4	1-1/8	3	0.015-0.020	153008	35.84	153258	35.84	-	-
5/16	5/16	1/2	2	0.015-0.020	153010	29.82	153260	26.02	-	-
5/16	5/16	13/16	2-1/2	0.015-0.020	153012	32.78	153262	30.44	-	-
5/16	5/16	1-1/8	3	0.015-0.020	153014	45.70	153264	45.70	-	-
3/8	3/8	5/8	2	0.015-0.020	153016	35.20	153266	30.74	153500	30.74
3/8	3/8	1	2-1/2	0.015-0.020	153018	38.28	153268	35.92	153502	35.92
3/8	3/8	1-1/8	3	0.015-0.020	153020	50.37	153270	50.37	153504	50.37
7/16	7/16	1	2-3/4	0.015-0.020	153022	46.28	153272	43.20	153506	43.20
1/2	1/2	5/8	2-1/2	0.025-0.030	153024	58.50	153274	50.29	153508	50.29
1/2	1/2	1	3	0.025-0.030	153026	65.29	153276	53.73	153510	53.73
1/2	1/2	1-1/4	3	0.025-0.030	153027	65.29	153277	53.73	153512	53.73
1/2	1/2	2	4	0.025-0.030	153028	77.16	153278	72.70	153514	72.70
5/8	5/8	3/4	3	0.030-0.035	153030	101.13	153280	96.32	153516	96.32
5/8	5/8	1-1/4	3-1/2	0.030-0.035	153032	103.94	153282	99.14	-	-
5/8	5/8	2-1/4	5	0.030-0.035	153034	155.53	153284	155.53	153518	155.53
3/4	3/4	1	3	0.030-0.035	153036	145.89	153286	138.48	153520	138.48
3/4	3/4	1-1/2	4	0.030-0.035	153038	149.06	153288	141.52	-	-
3/4	3/4	2-1/4	5	0.030-0.035	153040	206.75	153290	189.94	153522	189.94
1	1	1-1/2	4	0.030-0.035	153042	254.48	153292	211.41	153526	211.41
1	1	2-1/4	5	0.030-0.035	153041	313.10	153293	283.00	153524	283.00
1-1/4	1-1/4	2-1/4	5	0.030-0.035	153043	734.15	153294	587.27	-	-