Speed & Feed Guide

Series 1034

AT4 | 4 FL | Square End Radius

Material		Slotting	Side Milling	High Speed Milling
		Aa: 1.25xD	Aa: Loc Ar: 20%D	Aa: Loc Ar: 10%D
		SFM	SFM	SFM
P1	Carbon Steels (1018, 1050)	460 - 675	552 - 810	1050 - 1410
P2	Alloy Steels (4140, 8620)	430 - 615	520 - 740	900 - 1030
P3	Tool Steels (P20, S7, D2)	320 - 480	385 - 570	540 - 810
M1	Stainless Steels (303, 304)	260 - 350	360 - 420	470 - 600
M2	PH Stainless (17-4, 15-5)	200 - 280	250 - 310	320 - 430
K1	Cast Iron (A48, A319)	500 - 605	600 - 675	680 - 800
K2	Ductile Cast Iron (A536, CGI)	420 - 460	475 - 570	580 - 650
S1	Titanium (6AI4V, 5-38)	150 - 205	200 - 250	240 - 310
N1	Aluminum Alloy (6061, 7075)	1500 - 1600	1800 - 2100	2450 - 2710
N2	Cast Aluminum (A356, A319)	1100 - 1150	1250 - 1450	1500 - 1800

Inch Per Tooth									
Diameter	1/8	3/16	1/4	5/16	3/8	1/2	5/8	3/4	1
Ar < 0.5D	0.0007	0.0011	0.0019	0.002	0.0025	0.0032	0.0041	0.0045	0.0052
Ar > 0.5D	0.0005	0.0009	0.0013	0.0015	0.0021	0.0023	0.0033	0.0035	0.0042

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Part Entry Guidelines

Material		Part Entry - Drilling								
		Inch Per Tooth								
		1/8	3/16	1/4	5/16	3/8	1/2	5/8	3/4	1
P1	Carbon Steels (1018, 1050)	0.0004	0.0006	0.0008	0.0011	0.0015	0.0017	0.0020	0.0022	0.0030
P2	Alloy Steels (4140, 8620)	0.0003	0.0005	0.0006	0.0008	0.0011	0.0013	0.0015	0.0017	0.0023
P3	Tool Steels (P20, S7, D2)	0.0002	0.0003	0.0004	0.0006	0.0008	0.0009	0.0010	0.0011	0.0015
K1	Cast Iron (A48, A319)	0.0004	0.0006	0.0008	0.0011	0.0015	0.0017	0.0020	0.0022	0.0030
N1	Aluminum Alloy (6061, 7075)	0.0005	0.0007	0.0010	0.0013	0.0018	0.0020	0.0024	0.0026	0.0036
N2	Cast Aluminum (A356, A319)	0.0004	0.0005	0.0007	0.0010	0.0014	0.0015	0.0018	0.0020	0.0027

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Material		Ramp Angle	Part Entry - Ramping & Helical Interpolation								
			Inch Per Tooth								
			1/8	3/16	1/4	5/16	3/8	1/2	5/8	3/4	1
P1	Carbon Steels (1018, 1050)	45 °	0.0004	0.0006	0.0008	0.0011	0.0015	0.0017	0.0020	0.0022	0.0030
P2	Alloy Steels (4140, 8620)	30 °	0.0004	0.0005	0.0007	0.0010	0.0014	0.0015	0.0018	0.0020	0.0027
P3	Tool Steels (P20, S7, D2)	30 °	0.0003	0.0005	0.0006	0.0008	0.0011	0.0013	0.0015	0.0017	0.0023
M1	Stainless Steels (303, 304)	8 °	0.0002	0.0003	0.0004	0.0006	0.0008	0.0009	0.0010	0.0011	0.0015
M2	PH Stainless (17-4, 15-5)	5 °	0.0002	0.0003	0.0004	0.0006	0.0008	0.0009	0.0010	0.0011	0.0015
K1	Cast Iron (A48, A319)	45 °	0.0004	0.0007	0.0009	0.0012	0.0017	0.0019	0.0022	0.0024	0.0033
K2	Ductile Cast Iron (A536, CGI)	20 °	0.0004	0.0006	0.0008	0.0011	0.0015	0.0017	0.0020	0.0022	0.0030
S1	Titanium (6Al4V, 5-38)	10 °	0.00024	0.00036	0.00048	0.00066	0.0009	0.00102	0.0012	0.00132	0.0018
N1	Aluminum Alloy (6061, 7075)	30 °	0.0004	0.0006	0.0008	0.0011	0.0015	0.0017	0.0020	0.0022	0.0030
N2	Cast Aluminum (A356, A319)	30 °	0.0004	0.0005	0.0007	0.0010	0.0014	0.0015	0.0018	0.0020	0.0027