

Speed & Feed Guide

Series 1103, 1104

Atomic | 3 & 4 FL | Chamfer | Micro

Profiling				Inches Per Tooth (IPT)							
				Cutting Diameter							
Material			Hardness	SFM	0.015	0.031	0.047	0.062	0.078	0.093	0.125
P	Steel	Free Machining & Low Carbon: 10XX, 11XX, 12XX, A36	≤ 28 Rc	400	0.00007	0.00015	0.00023	0.00027	0.00034	0.00040	0.00054
	Steel	Medium/High Carbon Steels, Alloy Steels: 13XX, 41XX, 43XX, 86XX	28 - 38 Rc	300	0.00007	0.00015	0.00023	0.00027	0.00034	0.00040	0.00054
	Die Steels	A2, H13, L6, P20, S7	28 - 44 Rc	200	0.00007	0.00015	0.00023	0.00027	0.00034	0.00040	0.00054
M	Stainless Steels	Easy to Machine, 430F, 301, 303, 410, 416 Annealed, 420F, 430, 430F	≤ 28 Rc	400	0.00007	0.00015	0.00023	0.00027	0.00034	0.00040	0.00054
	Stainless Steels	Moderately Difficult to Machine, Nitronic 50, 301, 303, 304, 304L, 316, 316L, 321, 347	≤ 28 Rc	200	0.00007	0.00015	0.00023	0.00027	0.00034	0.00040	0.00054
	Stainless Steels	Difficult to Machine, 302B, 304B, 309, 310, 316, 316Ti, PH13-8Mo	> 28 Rc	150	0.00007	0.00015	0.00023	0.00027	0.00034	0.00040	0.00054
S	Super Alloys	High Temp, Nimonic, Inconel, Monel, Hastelloy	≤ 42 Rc	70	0.00004	0.00008	0.00015	0.00023	0.00027	0.00034	0.00040
	Super Alloys	Titanium: Ti 3Al-2.5V, Ti 6Al-4V Ti 10V-2Fe-3Al	≤ 42 Rc	150	0.00004	0.00008	0.00015	0.00023	0.00027	0.00034	0.00040
H	Hardened Steels	Tool Steel, Die Steel: S7, H13, A2	45-55 Rc	100	0.00010	0.00030	0.00050	0.00140	0.00180	0.00210	0.00300
K	Cast Iron	Gray: SAE J431, ASTM A48	160-200 HB	400	0.00007	0.00015	0.00023	0.00027	0.00034	0.00040	0.00054
	Cast Iron	Ductile & Malleable, ASTM A536, ASTM 897, ASTM A47, ASTM A220	200-250 HB	250	0.00007	0.00015	0.00023	0.00027	0.00034	0.00040	0.00054
N	Non-Ferrous	Aluminum, Brass, Bronze, Copper, Plastics, Graphite	-	100	0.00004	0.00008	0.00015	0.00023	0.00027	0.00034	0.00040

Slotting				Inches Per Tooth (IPT)							
				Cutting Diameter							
Material			Hardness	SFM	0.015	0.031	0.047	0.062	0.078	0.093	0.125
P	Steel	Free Machining & Low Carbon: 10XX, 11XX, 12XX, A36	≤ 28 Rc	400	0.0001	0.0001	0.0002	0.0002	0.0003	0.0004	0.0005
	Steel	Medium/High Carbon Steels, Alloy Steels: 13XX, 41XX, 43XX, 86XX	28-38 Rc	300	0.0001	0.0001	0.0002	0.0002	0.0003	0.0003	0.0004
	Die Steels	A2, H13, L6, P20, S7	28-44 Rc	200	0.0001	0.0001	0.0002	0.0002	0.0002	0.0003	0.0004
M	Stainless Steels	Easy to Machine, 430F, 301, 303, 410, 416 Annealed, 420F, 430, 430F	≤ 28 Rc	400	0.0001	0.0001	0.0002	0.0002	0.0003	0.0004	0.0005
	Stainless Steels	Moderately Difficult to Machine, Nitronic 50, 301, 303, 304, 304L, 316, 316L, 321, 347	≤ 28 Rc	200	0.0001	0.0001	0.0002	0.0002	0.0003	0.0003	0.0004
	Stainless Steels	Difficult to Machine, 302B, 304B, 309, 310, 316, 316Ti, PH13-8Mo	> 28 Rc	150	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0003
S	Super Alloys	High Temp, Nimonic, Inconel, Monel, Hastelloy	≤ 42 Rc	70	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0003
	Super Alloys	Titanium: Ti 3Al-2.5V, Ti 6Al-4V Ti 10V-2Fe-3Al	≤ 42 Rc	150	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002	0.0003
H	Hardened Steels	Tool Steel, Die Steel: S7, H13, A2	35-45 Rc	100	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002
K	Cast Iron	Gray: SAE J431, ASTM A48	160-200 HB	400	0.0001	0.0001	0.0002	0.0002	0.0003	0.0004	0.0005
	Cast Iron	Ductile & Malleable, ASTM A536, ASTM 897, ASTM A47, ASTM A220	200-250 HB	250	0.0001	0.0001	0.0002	0.0002	0.0003	0.0003	0.0004
N	Non-Ferrous	Aluminum, Brass, Bronze, Copper, Plastics, Graphite	-	750	0.0002	0.0003	0.0005	0.0006	0.0007	0.0008	0.0011