

# Speed & Feed Guide

## Series 2006

Alpha 6 | 6FL | Radius

Profiling			SFM based on RDOC					IPT *(BASELINE)							
			Cutting Diameter Engaged					Cutting Diameter							
Material			Hardness	5%	10%	20%	30%	50%	*1/8	*1/4	3/8	1/2	5/8	3/4	1
P	Steel	Free Machining & Low Carbon: 10XX, 11XX, 12XX, A36	≤ 28 Rc	600	550	500	450	400	0.0011	0.0022	0.0035	0.0042	0.0059	0.0680	0.0900
	Steel	Medium/High Carbon Steels, Alloy Steels: 13XX, 41XX, 43XX, 86XX	28-38 Rc	600	550	500	450	400	0.0011	0.0022	0.0035	0.0042	0.0059	0.0680	0.0900
	Die Steels	A2, H13, L6, P20, S7	28-44 Rc	550	500	450	400	375	0.0011	0.0020	0.0033	0.0040	0.0055	0.0650	0.0850
M	Stainless Steels	Ferritic	≤ 28 Rc	360	370	300	280	260	0.0007	0.0014	0.0024	0.0030	0.0040	0.5200	0.0680
	Stainless Steels	Martensitic	≤ 28 Rc	360	370	300	280	260	0.0004	0.0008	0.0016	0.0018	0.0024	0.0300	0.0400
	Stainless Steels	Difficult to Machine, 302B, 304B, 309, 310, 316, 316Ti, PH13-8Mo	> 28 Rc	320	300	280	260	240	0.0003	0.0006	0.0010	0.0015	0.0018	0.0240	0.0300
S	Super Alloys	High Temp, Nimonic, Inconel, Monel, Hastelloy	≤ 42 Rc	550	525	500	450	425	0.0010	0.0020	0.0033	0.0040	0.0055	0.0700	0.0100
	Super Alloys	Titanium: Ti 3Al-2.5V, Ti 6Al-4V Ti 10V-2Fe-3Al	≤ 42 Rc	550	525	500	450	425	0.0010	0.0020	0.0033	0.0040	0.0055	0.0700	0.0100
H	Hardened Steels	Tool Steel, Die Steel: S7, H13, A2	40-50 Rc	550	525	500	450	425	0.0010	0.0020	0.0033	0.0040	0.0055	0.0700	0.0100
	Hardened Steels	Tool Steel, Die Steel: D2, CPM-10V	50-55 Rc	165	165	130	115	100	0.0004	0.0008	0.0016	0.0018	0.0024	0.0300	0.0400
	Hardened Steels	Tool Steel, Die Steel: D2, CPM-10V	> 55 Rc	400	375	350	300	250	0.0004	0.0008	0.0016	0.0018	0.0024	0.0300	0.0400
K	Cast-Iron	Gray: SAE J431, ASTM A48	≤ 240 HB	1625	1295	900	700	350	0.0012	0.0024	0.0039	0.0047	0.0060	0.0078	0.0100
	Cast-Iron	Ductile & Malleable, ASTM A536, ASTM 897, ASTM A47, ASTM A220 ASTM A602	> 240 HB	675	540	550	400	260	0.0012	0.0024	0.0039	0.0047	0.0060	0.0078	0.0100

Slotting			SFM			IPT *(BASELINE)							
			SFM based on RDOC			Cutting Diameter							
Material			Hardness	25%	50%	100%*	*1/8	*1/4	3/8	1/2	5/8	3/4	1
P	Steel	Free Machining & Low Carbon: 10XX, 11XX, 12XX, A36	≤ 28 Rc	480	480	400	0.0005	0.0011	0.0017	0.0021	0.0029	0.0380	0.0480
	Steel	Medium/High Carbon Steels, Alloy Steels: 13XX, 41XX, 43XX, 86XX	28-38 Rc	480	480	400	0.0005	0.0011	0.0017	0.0021	0.0029	0.0380	0.0480
	Die Steels	A2, H13, L6, P20, S7	28-44 Rc	420	420	380	0.0005	0.0010	0.0016	0.0020	0.0027	0.0360	0.0460
M	Stainless Steels	Ferritic	≤ 28 Rc	420	420	400	0.0005	0.0010	0.0016	0.0020	0.0027	0.0035	0.0045
	Stainless Steels	Martensitic	≤ 28 Rc	420	420	400	0.0005	0.0010	0.0016	0.0020	0.0027	0.0035	0.0045
	Stainless Steels	Difficult to Machine, 302B, 304B, 309, 310, 316, 316Ti, PH13-8Mo	> 28 Rc	400	400	380	0.0005	0.0010	0.0016	0.0009	0.0027	0.0035	0.0045
S	Super Alloys	High Temp, Nimonic, Inconel, Monel, Hastelloy	≤ 42 Rc	120	120	95	0.0002	0.0004	0.0008	0.0009	0.0012	0.0016	0.0020
	Super Alloys	Titanium: Ti 3Al-2.5V, Ti 6Al-4V Ti 10V-2Fe-3Al	≤ 42 Rc	200	200	175	0.0002	0.0004	0.0008	0.0009	0.0012	0.0016	0.0020
H	Hardened Steels	Tool Steel, Die Steel: S7, H13, A2	40-50 Rc	350	350	300	0.003	0.0006	0.0012	0.0015	0.0020	0.0024	0.0030
	Hardened Steels	Tool Steel, Die Steel: D2, CPM-10V	50-55 Rc	180	180	150	0.0002	0.0004	0.0008	0.0009	0.0012	0.0016	0.0020
	Hardened Materials	Tool Steel, Die Steel: D2, CPM-10V	> 55 Rc	150	150	100	0.0002	0.0003	0.0005	0.0007	0.0009	0.0011	0.0014
K	Cast Iron	Gray: SAE J431, ASTM A48	≤ 240 HB	375	350	325	0.0004	0.00012	0.0020	0.0024	0.0031	0.0040	0.0050
	Cast Iron	Ductile & Malleable, ASTM A536, ASTM 897, ASTM A47, ASTM A220	> 240 HB	275	260	250	0.0004	0.00012	0.0020	0.0024	0.0031	0.0040	0.0050