

Series 4001

Aperture | 4D | 2 FL | Solid

Material			Hardness	Inches Per Tooth (IPT)												
				Cutting Diameter												
				3/64	1/16	1/8	5/32	3/16	1/4	5/16	3/8	1/2	9/16	5/8	3/4	
P	Steel	Free Machining & Low Carbon: 10XX, 11XX, 12XX, A36	≤ 28 Rc	SFM	405	400	390	380	370	360	350	340	320	300	275	265
				IPR	.001-.002	.002-.003	.003-.005	.004-.006	.005-.007	.0055-.0080	.006-.009	.007-.010	.008-.011	.009-.014	.010-.014	.011-.015
	Steel	Medium/High Carbon Steels, Alloy Steels: 13XX, 41XX, 43XX, 86XX	28-38 Rc	SFM	350	340	330	320	310	300	290	280	270	265	260	260
				IPR	.001-.002	.002-.003	.003-.005	.004-.006	.005-.007	.0055-.0080	.006-.009	.007-.010	.008-.011	.009-.014	.010-.014	.011-.015
	Die Steels	A2, H13, L6, P20, S7	28-44 Rc	SFM	210	200	200	190	190	185	185	180	180	175	175	170
				IPR	.0004-.0008	.0008-.0012	.0014-.0030	.0024-.0040	.003-.005	.0035-.0060	.006-.009	.007-.010	.008-.011	.009-.014	.010-.014	.011-.015
M	Stainless Steels	Easy to Machine, 430F, 301, 303, 410, 416 Annealed, 420F, 430, 430F	≤ 28 Rc	SFM	360	355	350	340	330	320	310	300	275	250	225	200
				IPR	.001-.002	.002-.003	.003-.005	.004-.006	.005-.007	.0055-.0080	.006-.009	.007-.010	.008-.011	.009-.014	.010-.014	.011-.015
	Stainless Steels	Moderately Difficult to Machine, Nitronic 50, Nitronic 60, 301, 303 304, 304L Incoloy 27-7MO, 316 316L, 321, 347	≤ 28 Rc	SFM	150	145	140	135	130	125	120	115	110	105	100	95
				IPR	.001-.002	.002-.003	.003-.005	.004-.006	.005-.007	.0055-.0080	.006-.009	.007-.010	.008-.011	.009-.014	.010-.014	.011-.015
	Stainless Steels	Difficult to Machine, 302B, 304B, 309, 310, 316, 316B, 316L, 316Ti, 317, 317L, 321, PH13-8Mo, Nitronics	> 28 Rc	SFM	160	150	140	130	120	110	110	105	105	100	100	95
				IPR	.0004-.0012	.001-.002	.0020-.0033	.0024-.0035	.0030-.0043	.0031-.0050	.003-.006	.005-.009	.007-.009	.008-.010	.009-.011	.009-.013
S	Super Alloys	High Temp, Nimonic, Inconel, Monel, Hastelloy	≤ 42 Rc	SFM	100	90	85	80	75	70	65	60	55	50	45	40
				IPR	.0004-.0012	.001-.002	.0014-.0033	.0016-.0035	.002-.004	.0023-.0043	.003-.005	.004-.006	.005-.007	.005-.007	.005-.007	.006-.008
	Super Alloys	Titanium: Ti 3Al-2.5V, Ti 6Al-4V Ti 10V-2Fe-3Al	≤ 42 Rc	SFM	150	140	130	125	120	115	110	105	100	100	90	90
				IPR	.0004-.0012	.001-.002	.003-.004	.004-.006	.005-.007	.0055-.0080	.006-.009	.007-.010	.008-.011	.008-.010	.010-.014	.011-.015
K	Cast Iron	Gray: SAE J431, ASTM A48	160-200 HB	SFM	500	490	480	470	460	430	410	400	390	370	360	350
				IPR	.001-.002	.002-.003	.003-.005	.004-.006	.005-.007	.0055-.0080	.006-.009	.007-.010	.008-.011	.009-.014	.010-.014	.011-.015
	Cast Iron	Ductile & Malleable, ASTM A536, ASTM 897, ASTM A47, ASTM A220	200-250 HB	SFM	300	290	280	270	260	250	240	230	220	210	200	190
				IPR	.001-.002	.002-.003	.003-.005	.004-.006	.005-.007	.0055-.0080	.006-.009	.007-.010	.008-.011	.009-.014	.010-.014	.011-.015