

Hardness BRINELL	Series 66, 66CR Fractional					Vc (SFM)	Diameter (inch)						
		Ap x D1	Ae x D1	3/16	1/4		3/8	1/2	5/8	3/4	1		
				RPM	Fz		Feed (IPM)	Fz	Feed (IPM)	Fz	Feed (IPM)	Fz	Feed (IPM)
≤ 185	STAINLESS STEEL (DIFFICULT) 304, 304L, 316, 316L	 Profile	1	≤ 0.05	385	RPM	7844	5883	3922	2941	2353	1961	1471
					(308-462)	Fz	0.0005	0.0007	0.0014	0.0018	0.0020	0.0022	0.0026
					Feed	(IPM)	27	29	38	48	42	47	42
		 Finish	2	≤ 0.02	462	RPM	9412	7059	4706	3530	2824	2353	1765
					(370-554)	Fz	0.0004	0.0006	0.0011	0.0014	0.0016	0.0018	0.0021
					Feed	(IPM)	26	28	37	46	41	46	40
≤ 325	STAINLESS STEEL (PH) 13-8 PH, 15-5PH, 17-4 PH, Custom 450	 Profile	1	≤ 0.05	355	RPM	7233	5424	3616	2712	2170	1808	1356
					(284-426)	Fz	0.0005	0.0007	0.0014	0.0018	0.0020	0.0022	0.0026
					Feed	(IPM)	25	27	35	44	39	44	39
		 Finish	2	≤ 0.02	426	RPM	8679	6509	4340	3255	2604	2170	1627
					(341-511)	Fz	0.0004	0.0006	0.0011	0.0014	0.0016	0.0018	0.0021
					Feed	(IPM)	24	26	34	42	37	42	37
≤ 300	SUPER ALLOYS (NICKEL, COBALT, IRON BASED) Inconel 601, 617, 625, Incoloy 800, Monel 400	 Profile	1	≤ 0.05	105	RPM	2139	1604	1070	802	642	535	401
					(84-126)	Fz	0.0005	0.0007	0.0014	0.0018	0.0020	0.0022	0.0026
					Feed	(IPM)	7.5	7.9	10.5	13.0	11.6	12.9	11.5
		 Finish	2	≤ 0.02	126	RPM	2567	1925	1284	963	770	642	481
					(101-151)	Fz	0.0004	0.0006	0.0011	0.0014	0.0016	0.0018	0.0021
					Feed	(IPM)	7.2	7.5	10.1	12.5	11.1	12.4	11.0
> 300	SUPER ALLOYS (NICKEL, COBALT, IRON BASED – DIFFICULT) Inconel 718, 750X, Incoloy 925, Waspaloy, Hastelloy, Rene	 Profile	1	≤ 0.05	85	RPM	1732	1299	866	649	520	433	325
					(68-102)	Fz	0.0003	0.0005	0.0009	0.0012	0.0014	0.0015	0.0017
					Feed	(IPM)	3.9	4.5	5.6	7.0	6.4	7.1	6.1
		 Finish	2	≤ 0.02	102	RPM	2078	1559	1039	779	623	520	390
					(82-122)	Fz	0.0002	0.0004	0.0007	0.0010	0.0011	0.0012	0.0014
					Feed	(IPM)	2.9	4.3	5.4	6.7	6.1	6.9	5.8
≤ 350	TITANIUM ALLOYS Pure Titanium, Ti6Al4V, Ti6Al2Sn4Zr2Mo, Ti4Al4Mo2Sn0.5Si	 Profile	1	≤ 0.05	390	RPM	7946	5959	3973	2980	2384	1986	1490
					(312-468)	Fz	0.0005	0.0008	0.0015	0.0021	0.0023	0.0025	0.0029
					Feed	(IPM)	28	33	42	56	49	55	48
		 Finish	2	≤ 0.02	468	RPM	9535	7151	4767	3576	2860	2384	1788
					(374-562)	Fz	0.0004	0.0006	0.0012	0.0017	0.0018	0.0020	0.0023
					Feed	(IPM)	27	32	40	54	47	52	46
> 350 ≤ 450	TITANIUM ALLOYS (DIFFICULT) Ti10Al2Fe3Al, Ti5Al5V5Mo3Cr, Ti7Al4Mo, Ti3Al8V6Cr4Zr4Mo, Ti6Al6V6Sn, Ti15V3	 Profile	1	≤ 0.05	140	RPM	2852	2139	1426	1070	856	713	535
					(112-168)	Fz	0.0005	0.0008	0.0015	0.0021	0.0023	0.0025	0.0029
					Feed	(IPM)	10	12	15	20	18	20	17
		 Finish	2	≤ 0.02	168	RPM	3423	2567	1711	1284	1027	856	642
					(134-202)	Fz	0.0004	0.0006	0.0012	0.0017	0.0018	0.0020	0.0023
					Feed	(IPM)	10	12	14	19	17	19	16

\*Maximum recommended depth shown

\*Reduce speed and feed recommendations for materials harder than listed

\*Above recommendations are based on ideal conditions. Adjust parameters accordingly for smaller taper machining centers or less rigid conditions

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