Hardness BRINELL	Coolant	Series 51 / 51CR Fractonal		Ap x D1	Ae x D1	Vc (SFM)		Diameter (inch) 1/4	3/8	1/2	5/8	3/4	1
S ≤ 300	E	NICKEL, COBALT AND IRON BASED SUPERALLOYS Inconel 601, 617, 625, Incoly 800, Monel 400	Profile	≤ 1	≤ 0.1	105	RPM	1604	1070	802	642	535	401
						(84-126)	Fz	0.00140	0.00270	0.00360	0.00390	0.00430	0.00500
							Feed (IPM)	13	17	17	15	14	12
			HSC	≤ 2	≤ 0.05	130	RPM	1986	1324	993	795	662	497
						(104-156)	Fz	0.00160	0.00360	0.00480	0.00530	0.00580	0.00670
							Feed (IPM)	19	29	29	25	23	20
S ≤ 300	E	NICKEL, COBALT AND IRON BASED SUPERALLOYS (DIFFICULT) Inconel 718, 750X, Incoly 925, Waspaloy, Hastelloy, Rene	Profile	≤ 1	≤ 0.1	80	RPM	1222	815	611	489	407	306
						(64-96)	Fz	0.00100	0.00180	0.00250	0.00270	0.00290	0.00340
							Feed (IPM)	7	9	9	8	7	6
			HSC	≤ 2	≤ 0.05	100	RPM	1528	1019	764	611	509	382
						(80-120)	Fz	0.00130	0.00250	0.00340	0.00370	0.00410	0.00470
							Feed (IPM)	12	15	16	14	13	11
S ≤ 350	E	TITANIUM BASE ALLOY Pure Ttanium, Ti6Al4V, Ti6Al2Sn4Zr2Mo, Ti4Al4Mo2Sn0.5Si	Profile	≤ 1	≤ 0.1	280	RPM	4278	2852	2139	1711	1426	1070
						(224-336)	Fz	0.00100	0.00180	0.00250	0.00270	0.00290	0.00340
							Feed (IPM)	26	31	32	28	25	22
			HSC	≤ 2	≤ 0.05	355	RPM	5424	3616	2712	2170	1808	1356
						(284-426)	Fz	0.00130	0.00250	0.00340	0.00370	0.00410	0.00470
							Feed (IPM)	42	54	55	48	44	38
S ≤ 450	E	TITANIUM BASE ALLOY (DIFFICULT) Ti10Al2Fe3Al, Ti5Al5V5Mo3Cr, Ti7Al4Mo, Ti3Al8V6Cr4Zr4Mo, Ti6Al6V6Sn, Ti15V3 Cr3Sn3Al	Profile	≤ 1	≤ 0.1	155	RPM	2368	1579	1184	947	789	592
						(124-186)	Fz	0.00100	0.00180	0.00250	0.00270	0.00290	0.00340
							Feed (IPM)	14	17	18	15	14	12
			HSC	≤ 2	≤ 0.05	200	RPM	3056	2037	1528	1222	1019	764
						(160-240)	Fz	0.00130	0.00250	0.00340	0.00370	0.00410	0.00470
							Feed (IPM)	24	31	31	27	25	22

*Maximum recommended depth shown
*Finish cuts typically require reduced Feed and Cutting Speeds; also the Radial Width of Cut recommended is not more than 2% x D1
*Reduce Speed & Feed for materials harder than listed
*Above recommendations are based on ideal conditions; For smaller taper machining centers or less rigid conditions please adjust parameters accordingly
*A - Air, E - Emulsion, M - Mist, HSC - High Speed Cutting