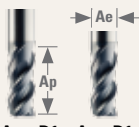










Turning													
Hardness BRINELL	Coolant	Series M51 / 51MCR Metric			Vc (m/min)	Diameter (inch)							
			Ap x D1	Ae x D1		6	8	10	12	16	20		
S ≤ 300	E	NICKEL, COBALT AND IRON BASED SUPERALLOYS Inconel 601, 617, 625, Incoly 800, Monel 400		≤ 1	≤ 0.1	32	RPM	1696	1272	1018	848	636	509
						(26-38)	Fz	0.03400	0.05700	0.07100	0.08500	0.10000	0.11000
						Feed (mm/min)	346	435	434	433	382	336	
				≤ 2	≤ 0.05	40	RPM	2100	1575	1260	1050	788	630
						(32-48)	Fz	0.04600	0.07700	0.09700	0.12000	0.14000	0.15000
						Feed (mm/min)	580	728	733	756	662	567	
S ≤ 300	E	NICKEL, COBALT AND IRON BASED SUPERALLOYS (DIFFICULT) Inconel 718, 750X, Incoly 925, Waspaloy, Hastelloy, Rene		≤ 1	≤ 0.1	24	RPM	1293	969	776	646	485	388
						(20-29)	Fz	0.02300	0.03900	0.04900	0.05900	0.06800	0.07700
						Feed (mm/min)	178	227	228	229	198	179	
				≤ 2	≤ 0.05	30	RPM	1616	1212	969	808	606	485
						(24-37)	Fz	0.03200	0.05400	0.06800	0.08100	0.09500	0.11000
						Feed (mm/min)	310	393	396	393	345	320	
S ≤ 350	E	TITANIUM BASE ALLOY Pure Titanium, Ti6Al4V, Ti6Al2Sn4Zr2Mo, Ti4Al4Mo2Sn0.5Si		≤ 1	≤ 0.1	85	RPM	4524	3393	2714	2262	1696	1357
						(68-102)	Fz	0.02300	0.03900	0.04900	0.05900	0.06800	0.07700
						Feed (mm/min)	624	794	798	801	692	627	
				≤ 2	≤ 0.05	108	RPM	5736	4302	3441	2868	2151	1721
						(87-130)	Fz	0.03200	0.05400	0.06800	0.08100	0.09500	0.11000
						Feed (mm/min)	1101	1394	1404	1394	1226	1136	
S ≤ 450	E	TITANIUM BASE ALLOY (DIFFICULT) Ti10Al2Fe3Al, Ti5Al5V5Mo3Cr, Ti7Al4Mo, Ti3Al8V6Cr4Zr4Mo, Ti6Al6V6Sn, Ti15V3 Cr3Sn3Al		≤ 1	≤ 0.1	47	RPM	2504	1878	1503	1252	939	751
						(38-57)	Fz	0.02300	0.03900	0.04900	0.05900	0.06800	0.07700
						Feed (mm/min)	346	440	442	443	383	347	
				≤ 2	≤ 0.05	61	RPM	3231	2424	1939	1616	1212	969
						(49-73)	Fz	0.03200	0.05400	0.06800	0.08100	0.09500	0.11000
						Feed (mm/min)	620	785	791	785	691	640	

*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