

METRIC

Series M155



	Material Classification	Hardness	Vc (m/min)	DC • mm					
				3	4	5	6	7	
S	Titanium Alloys		30	RPM	3231	2424	1939	1616	1385
	Pure Titanium, Ti6Al4V, Ti6Al2Sn4Zr2Mo, Ti4Al4Mo2Sn0.5Si, Ti-6Al4V	≤ 350 Bhn or ≤ 38 HRc	(24-37)	Fr	0.0440	0.0587	0.0734	0.0880	0.1027
				Feed (mm/min)	142	142	142	142	142
N	Aluminum Alloys		137	RPM	14541	10906	8725	7271	6232
	2017, 2024, 356, 6061, 7075	≤ 150 Bhn or ≤ 7 HRc	(110-165)	Fr	0.1310	0.1747	0.2183	0.2620	0.3057
				Feed (mm/min)	1905	1905	1905	1905	1905
	Copper Alloys		107	RPM	11310	8482	6786	5655	4847
	Alum Bronze, C110, Muntz Brass	≤ 140 Bhn or ≤ 3 HRc	(85-128)	Fr	0.1303	0.1737	0.2171	0.2605	0.3039
				Feed (mm/min)	1473	1473	1473	1473	1473
Plastics		175	RPM	18580	13935	11148	9290	7963	
Polycarbonate, PVC		(140-210)	Fr	0.1504	0.2005	0.2506	0.3007	0.3509	
			Feed (mm/min)	2794	2794	2794	2794	2794	

Bhn (Brinell)

HRc (Rockwell C)

HRb (Rockwell B)

$$\text{rpm} = (\text{Vc} \times 1000) / (\text{DC} \times 3.14)$$

$$\text{mm/min} = \text{Fr} \times \text{rpm} \quad (\text{Fr} \times \text{maximum available rpm when recommendation exceeds machine limit})$$

reduce speed and feed for materials harder than listed

refer to the KYOCERA SGS Tool Wizard® for complete technical information (www.kyocera-sgstool.com)