



MATERIAL GROUP	HRc		Size (mm)										
			3.0	4.0	5.0	6.0	8.0	10.0	12.0	16.0	20.0	25.0	
P	11 12	< 30	v_c (m/min)	83	86	94	105	118	132	144	158	172	171
			n	88500	68800	6000	5580	4690	4190	3830	3140	2730	2180
			f_z	0.019	0.026	0.033	0.043	0.068	0.089	0.112	0.137	0.15	0.15
			f (mm/min)	500	545	600	770	960	1125	1290	1290	1230	980
	13 14	30-40	v_c (m/min)	62	69	75	86	95	105	116	124	135	135
			n	6580	5500	4770	4540	3770	3350	3080	2480	2150	1720
K	31 32 33		v_c (m/min)	51	50	50	49	48	50	51	50	51	50
			n	5420	3960	3190	2620	1920	1580	1350	1000	810	640
			f_z	0.012	0.021	0.03	0.039	0.068	0.082	0.096	0.133	0.158	0.151
			f (mm/min)	195	250	290	310	390	390	390	400	360	290
	71 72 73		v_c (m/min)	149	149	146	149	153	149	149	149	143	142
			n	15770	11850	9310	7920	6080	4730	3960	2960	2270	1810
		f_z	0.007	0.01	0.015	0.017	0.026	0.033	0.046	0.053	0.069	0.07	
		f (mm/min)	350	350	410	410	470	470	545	470	470	380	
STEEL													
$a_p : \varnothing 3.0\text{mm} - \varnothing 6.0\text{mm} = 0.2 \times D$ $a_p : \varnothing 8.0\text{mm} - \varnothing 25.0\text{mm} = 0.3 \times D$			CAST IRON, ALUMINIUM 										
			$0.3 \times D$ $0.7 \times D$										

► The feed rate for long and long reach tools should be reduced by up to 50%

v_c - cutting speed (m/min)
 n - RPM (rev/min)
 f_z - feed rate (mm/tooth)
 f - feed rate (mm/rev)
 z - No. of teeth
 a_p - axial depth of cut
 a_r - radial depth of cut

$$\text{To calculate RPM from cutting speed: } n = \frac{v_c \times 1000}{\pi \times \varnothing}$$

$$\text{To calculate cutting speed from RPM: } v_c = \frac{n \times \pi \times \varnothing}{1000}$$

All recommendations are based on ideal machining conditions. Adjustments may need to be made according to your set-up. The recommendations for speeds, feeds and other parameters presented in this chart are nominal recommendations and should be considered only as good starting points.