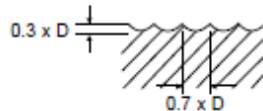




MATERIAL GROUP	HRc		Size (mm)												
			2.0	3.0	4.0	5.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0	
P	11 12	< 30	v_c (m/min)	45	45	45	45	45	45	45	45	45	45	45	45
			n	7280	4900	3640	2940	2380	1780	1400	1220	1050	910	810	700
			f_z	0.007	0.011	0.014	0.019	0.022	0.027	0.035	0.037	0.043	0.049	0.056	0.064
			f (mm/min)	195	210	210	225	210	195	195	180	180	180	180	180
	13 14	30-40	v_c (m/min)	40	40	35	35	40	40	40	40	40	40	40	40
			n	6160	4060	2940	2380	2000	1540	1220	1020	870	755	670	600
			f_z	0.004	0.006	0.009	0.011	0.013	0.016	0.02	0.025	0.029	0.033	0.037	0.042
			f (mm/min)	100	100	100	100	100	100	100	100	100	100	100	100
K	31 32 33	v_c (m/min)	65	65	65	65	65	65	65	65	65	65	65	65	
		n	10220	6860	5040	4060	33360	2520	2000	1680	1400	1290	1135	1020	
		f_z	0.008	0.012	0.021	0.03	0.039	0.066	0.084	0.1	0.122	0.133	0.151	0.151	
		f (mm/min)	320	335	420	490	530	670	670	670	685	685	685	615	
N	71 72 73	v_c (m/min)	190	190	190	195	190	195	190	190	185	190	190	185	
		n	30100	20020	15260	12320	10165	7700	6020	5040	4200	3780	3360	2940	
		f_z	0.005	0.007	0.01	0.014	0.017	0.026	0.033	0.046	0.055	0.053	0.06	0.068	
		f (mm/min)	590	590	590	700	700	800	800	925	925	800	800	800	



► 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_w - radial depth of cut

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

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

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.