



MATERIAL GROUP	HARDNESS HRC		Size (mm)									
			2.0	3.0	4.0	5.0	6.0	8.0	10.0	12.0	16.0	
P	13 14	< 35	v_c (m/min)	113	125	135	144	149	151	158	155	158
			n	18000	13240	10720	9180	7900	6000	5040	4120	3100
			f_z	0.007	0.011	0.016	0.023	0.032	0.045	0.054	0.051	0.058
			f (mm/min)	280	280	340	420	500	540	540	420	360
H	15 16	35-45	v_c (m/min)	73	81	86	91	95	96	103	205	106
			n	11560	8560	6820	5800	5040	3800	3280	2780	2100
			f_z	0.005	0.008	0.012	0.017	0.025	0.033	0.038	0.041	0.04
			f (mm/min)	120	140	170	200	250	250	250	230	170
	15 16	45-55	v_c (m/min)	45	50	54	60	62	63	63	62	65
			n	7200	5280	4300	3800	3280	2520	2020	1680	1280
			f_z	0.005	0.007	0.009	0.013	0.018	0.024	0.03	0.03	0.031
			f (mm/min)	70	70	80	100	120	120	120	100	80
K	31 32 33 34		v_c (m/min)	113	125	135	144	149	151	158	155	158
			n	18000	13240	10720	9180	7900	6000	5040	4120	3100
			f_z	0.007	0.011	0.016	0.023	0.032	0.045	0.054	0.051	0.058
			f (mm/min)	280	280	340	420	500	540	540	420	360
< HRc45												
> HRc45												

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_e - radial depth of cut

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

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

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.