



MATERIAL GROUP	HRC		Size (mm)											
			2.0	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)	55	60	65	65	70	70	75	70	80	75	75
			n	8820	6170	5000	4270	3680	2800	2350	1920	1620	1180	955
			f_z	0.008	0.009	0.014	0.021	0.029	0.041	0.049	0.047	0.049	0.049	0.047
			f (mm/min)	200	230	280	360	430	460	460	360	320	230	180
	13 14	30-45	v_c (m/min)	30	35	35	40	40	40	45	45	45	45	45
			n	5040	3570	2840	2420	2100	1580	1370	1160	890	680	570
			f_z	0.004	0.007	0.01	0.014	0.021	0.028	0.033	0.034	0.035	0.033	0.033
			f (mm/min)	80	100	115	140	180	180	180	160	125	90	75
H	15 16	45-55	v_c (m/min)	20	20	20	25	25	25	25	25	30	25	25
			n	3150	2200	1790	1580	1370	1050	840	700	560	420	320
			f_z	0.004	0.008	0.008	0.011	0.016	0.021	0.027	0.025	0.027	0.027	0.025
			f (mm/min)	45	55	60	70	90	90	90	70	60	45	30
	15 16	55-65	v_c (m/min)	-	20	20	20	20	20	20	20	20	20	20
			n	-	1890	1470	1260	1160	840	670	560	440	340	255
			f_z	-	0.004	0.008	0.008	0.011	0.015	0.019	0.018	0.02	0.018	0.018
			f (mm/min)	-	30	35	40	50	50	50	40	35	25	20

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

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

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

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.