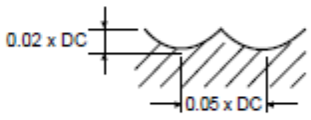
112350, 104350, 105350 (2 Flute B/N)

MATERIAL GROUP		HARDNESS HRc		Size (mm)								
				0.1-0.3	0.4	0.5	0.6	0.8	1.0	1.2	1.5	2.0
P	13 14	30-40	v_c (m/min)	30-45	65	80	95	125	155	190	235	310
			n	59710	51750	50955	50425	49760	49360	50425	49890	49360
			f_z	0.013	0.019	0.024	0.029	0.039	0.048	0.051	0.054	0.057
			f (mm/min)	1550	1965	2445	2925	3880	4735	5140	5385	5625
H	15 16	40-50	v_c (m/min)	30-45	65	80	95	125	155	180	225	300
			n	59710	51750	50955	50425	49760	49360	47770	47770	47770
			f_z	0.012	0.017	0.021	0.025	0.033	0.042	0.045	0.047	0.05
			f (mm/min)	1400	1760	2140	2520	3280	4145	4295	4490	4775
	15 16	50-55	v_c (m/min)	30-40	55	70	85	115	140	160	205	250
			n	55700	43790	44585	45115	45780	44585	42460	43520	39805
			f_z	0.012	0.017	0.021	0.024	0.033	0.042	0.045	0.047	0.05
			f (mm/min)	1330	1485	1870	2165	3020	3745	3820	4090	3980
	15 16	55-60	v_c (m/min)	25-40	50	65	75	100	125	145	175	220
			n	51750	39805	41400	39805	39805	39805	38480	37155	35030
			f_z	0.011	0.015	0.019	0.023	0.03	0.038	0.039	0.042	0.045
			f (mm/min)	1100	1190	1570	1830	2385	3025	3000	3120	3150
	15 16	60-65	v_c (m/min)	20-35	45	55	65	90	110	130	155	200
			n	47750	35825	35030	34500	35820	35030	34500	32905	31845
			f_z	0.011	0.015	0.019	0.023	0.03	0.037	0.04	0.041	0.044
			f (mm/min)	1050	1075	1330	1585	2150	2590	2760	2695	2800
	15 16	65-70	v_c (m/min)	20-30	40	50	60	80	110	115	140	180
			n	39800	31845	31845	31845	31845	35030	30520	29720	28660
			f_z	0.01	0.014	0.017	0.022	0.029	0.033	0.038	0.039	0.04
			f (mm/min)	795	890	1080	1400	1845	2310	2320	2315	2290



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

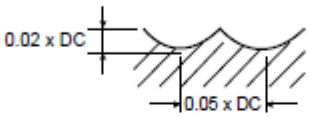
To calculate RPM from cutting speed: $n = \frac{v_c * 1000}{\pi * \varnothing}$

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

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.

112350, 104350, 105350 (2 Flute B/N)

MATERIAL GROUP		HARDNESS HRc		Size (mm)								
				3.0	4.0	5.0	6.0	8.0	10.0	12.0	16.0	20.0
P	13 14	30-40	v_c (m/min)	310	315	290	260	280	290	260	280	280
			n	32905	25080	18470	13800	11145	9235	6900	5570	4455
			f_z	0.091	0.12	0.156	0.174	0.189	0.199	0.212	0.238	0.264
			f (mm/min)	5985	6015	5760	4800	4210	3675	2925	2650	2350
H	15 16	40-50	v_c (m/min)	300	300	280	255	270	280	250	270	270
			n	31845	23885	17830	13535	10745	8915	6635	5370	4295
			f_z	0.083	0.111	0.138	0.153	0.164	0.174	0.187	0.206	0.227
			f (mm/min)	5285	5300	4920	4140	3525	3100	2480	2210	1950
	15 16	50-55	v_c (m/min)	250	250	235	205	225	235	210	225	225
			n	26535	19900	14965	10880	8955	7480	5570	4475	3580
			f_z	0.075	0.1	0.125	0.141	0.15	0.16	0.17	0.189	0.208
			f (mm/min)	3980	3980	3740	3065	2685	2395	1895	1690	1490
	15 16	55-60	v_c (m/min)	220	220	210	190	200	205	190	200	200
			n	23355	17515	13375	10085	7960	6525	5040	3980	3185
			f_z	0.067	0.09	0.113	0.125	0.134	0.144	0.155	0.169	0.188
			f (mm/min)	3130	3150	3020	2520	2130	1880	1560	1345	1195
	15 16	60-65	v_c (m/min)	200	200	180	165	175	180	165	175	175
			n	21230	15920	11465	8755	6965	5730	4375	3480	2785
			f_z	0.067	0.088	0.111	0.122	0.132	0.142	0.142	0.143	0.143
			f (mm/min)	2845	2800	2545	2135	1835	1625	1240	995	795
	15 16	65-70	v_c (m/min)	180	180	165	150	165	165	150	160	160
			n	19105	14330	10510	7960	6565	5255	3980	3185	2545
			f_z	0.061	0.079	0.1	0.109	0.119	0.13	0.131	0.133	0.129
			f (mm/min)	2330	2260	2100	1735	1560	1365	1040	845	655



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: $n = \frac{v_c * 1000}{\pi * \varnothing}$

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

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.