

106350, 109350 (2 Flute B/N Rib Processing)

MATERIAL GROUP	HARDNESS HRC		Size (mm)							
			0.1	0.2	0.3	0.4	0.5	0.6	0.8	
P	13 14	30-45	a_p (mm)	0.01	0.01	0.013	0.022	0.017	0.02	0.04
			v_c (m/min)	15	31	46	61	65	65	66
			n	47770	49360	48830	48560	41400	34500	26270
			f_z	0.007	0.013	0.021	0.031	0.035	0.041	0.058
			f (mm/min)	665	1280	2050	3010	2895	2825	3045
H	15 15	45-55	a_p (mm)	0.009	0.009	0.011	0.018	0.014	0.017	0.032
			v_c (m/min)	15	31	46	51	52	53	53
			n	47770	49360	48830	40600	33120	28130	21095
			f_z	0.006	0.012	0.018	0.02	0.031	0.036	0.05
			f (mm/min)	570	1185	1755	1620	2050	2025	2110
	16 16	55-65	a_p (mm)	0.008	0.008	0.01	0.017	0.013	0.015	0.03
			v_c (m/min)	15	31	45	60	52	52	53
			n	47770	49360	47770	47770	33120	27600	21100
			f_z	0.005	0.01	0.017	0.018	0.027	0.03	0.044
			f (mm/min)	475	985	1620	1720	1785	1655	1855
N	61 62 63 64	a_p (mm)	0.016	0.016	0.012	0.034	0.026	0.03	0.06	
		v_c (m/min)	15	31	46	62	78	86	102	
		n	47770	49360	48830	49360	49680	45640	40600	
		f_z	0.009	0.019	0.03	0.044	0.05	0.059	0.08	
		f (mm/min)	860	1875	2930	4340	4965	5385	6495	



► The data shown is based on medial length tools. Please adjust machining conditions according to length.

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

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

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

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.

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MATERIAL GROUP	HARDNESS HRC		Size (mm)						
			1.0	1.2	1.5	2.0	3.0	4.0	
P	13 14	30-45	a_p (mm)	0.044	0.028	0.039	0.087	0.15	0.2
			v_c (m/min)	66	62	59	61	65	66
			n	21010	16450	12520	9710	6900	5250
			f_z	0.07	0.083	0.105	0.14	0.244	0.318
			f (mm/min)	2940	2730	2630	2720	3365	3340
H	15 16	45-55	a_p (mm)	0.036	0.023	0.032	0.075	0.12	0.16
			v_c (m/min)	51	49	50	52	52	52
			n	16240	13000	10615	8280	5520	4140
			f_z	0.061	0.078	0.095	0.12	0.223	0.29
			f (mm/min)	1980	2025	2015	1985	2460	2400
	15 16	55-65	a_p (mm)	0.033	0.021	0.029	0.069	0.084	0.15
			v_c (m/min)	51	49	50	52	52	51
			n	16240	13000	10610	8280	5520	4060
			f_z	0.057	0.07	0.084	0.1	0.21	0.265
			f (mm/min)	1850	1820	1780	1655	2315	2150
N	61 62 63 64	a_p (mm)	0.066	0.042	0.059	0.138	0.228	0.3	
		v_c (m/min)	115	126	107	115	136	120	
		n	36620	33435	22715	18310	14435	9550	
		f_z	0.09	0.102	0.133	0.177	0.314	0.39	
		f (mm/min)	6590	6820	6040	6480	9065	7450	



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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

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.