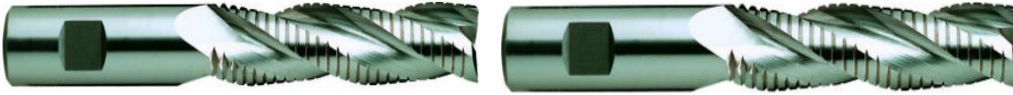
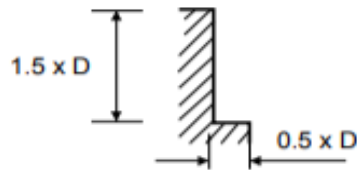


MULTI FLUTE ROUGHING ENDMILLS UNCOATED (137102,139102)



MATERIAL GROUP	HRc		SIZE (MM)								
			6	8	10	12	14	16	18	20	22
P	≤20	Vc (M/MIN)	30	30	30	30	30	30	30	30	30
		n	1600	1100	900	800	700	560	500	450	450
		Fz	0.01	0.014	0.026	0.034	0.039	0.049	0.055	0.061	0.06
		F(MM/MIN)	50	60	95	110	110	110	110	110	135
	20 - 30	Vc (M/MIN)	25	25	25	25	25	25	25	25	25
		n	1200	900	800	630	560	450	400	400	350
		Fz	0.013	0.014	0.028	0.036	0.04	0.05	0.056	0.056	0.063
		F(MM/MIN)	45	50	90	90	90	90	90	90	350
	30 - 40	Vc (M/MIN)	15	15	15	15	15	15	15	15	15
		n	800	560	450	400	350	280	250	220	220
		Fz	0.01	0.013	0.028	0.034	0.039	0.049	0.055	0.063	0.064
		F(MM/MIN)	25	30	50	55	55	55	55	55	70
N	Vc (M/MIN)	85	80	80	80	80	80	80	80	80	
	n	4500	3100	2500	2000	1800	1600	1400	1200	1100	
	Fz	0.012	0.015	0.028	0.04	0.047	0.056	0.068	0.083	0.069	
	F(MM/MIN)	160	185	280	320	340	360	380	400	380	

Key	
Vc	Cutting speed (m/min)
n	RPM (rev/min)
Fz	Feed rate (mm/tooth)
f	Feed rate (mm/rev)
HRc	Hardness of metal



All recommendations are based on ideal machining conditions. Adjuster
The recommendations for speeds, feeds and other parameters presented
should be considered only as good starting points.

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

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

25	28	30
30	30	30
400	350	310
0.068	0.074	0.084
135	130	130
25	25	25
310	280	250
0.071	0.075	0.084
310	280	250
15	15	15
180	160	160
0.078	0.088	0.088
70	70	70
80	80	85
1000	900	900
0.072	0.091	0.093
360	410	420

nts may need to be made according to your set-up.
) in this chart are nominal recommendations and