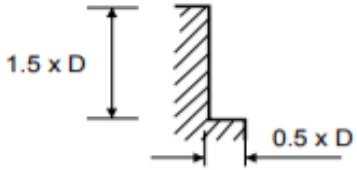
MULTI FLUTE ROUGHING ENDMILLS COATED (122121,121121,119121,118121)

MATERIAL GROUP	HRc		SIZE (MM)											
			6	8	10	12	14	16	18	20	22	25	28	30
P	≤20	Vc (M/MIN)	30	30	30	30	30	30	30	30	30	30	30	30
		n	1600	1100	900	800	700	560	500	450	450	400	350	310
		Fz	0.013	0.023	0.033	0.044	0.05	0.063	0.07	0.078	0.076	0.085	0.076	0.086
		F(MM/MIN)	60	75	120	140	140	140	140	140	170	170	160	160
	20 - 30	Vc (M/MIN)	25	25	25	25	25	25	25	25	25	25	25	25
		n	1200	900	800	630	560	450	400	400	350	310	280	250
		Fz	0.015	0.024	0.034	0.044	0.049	0.061	0.069	0.069	0.08	0.09	0.077	0.087
		F(MM/MIN)	55	65	110	110	110	110	110	110	140	140	130	130
	30 -40	Vc (M/MIN)	15	15	15	15	15	15	15	15	15	15	15	15
		n	800	560	450	400	350	280	250	220	220	180	160	160
		Fz	0.013	0.021	0.033	0.044	0.05	0.063	0.07	0.08	0.077	0.094	0.089	0.089
		F(MM/MIN)	30	35	60	70	70	70	70	70	85	85	85	85
N		Vc (M/MIN)	85	80	80	75	80	80	80	75	75	80	80	85
		n	4500	3100	2500	200	1800	1600	1400	1200	1100	1000	900	900
		Fz	0.015	0.025	0.035	0.05	0.058	0.07	0.084	0.104	0.085	0.09	0.094	0.098
		F(MM/MIN)	200	230	350	400	420	450	470	500	470	450	510	530

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. 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.

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

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