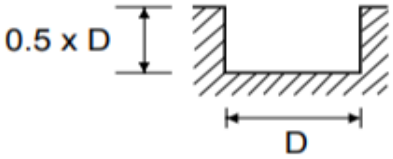
Flute Centre Cutting with Flatted Shank Uncoated (100102, 101102,102102)

MATERIAL GROUP	HRc		SIZE (MM)												
			2	3	4	5	6	8	10	12	14	16	18	20	22	25
P	≤20	Vc (M/MIN)	30	30	30	30	30	30	30	30	30	30	30	30	30	30
		n	4500	3200	2200	1800	1600	1100	900	800	700	560	500	450	450	400
		Fz	0.003	0.007	0.013	0.019	0.025	0.041	0.05	0.063	0.064	0.08	0.09	0.1	0.1	0.1
		F(MM/MIN)	30	45	55	70	80	90	90	100	90	90	90	90	90	80
	20 - 30	Vc (M/MIN)	25	25	25	25	25	25	25	25	25	25	25	25	25	25
		n	4000	2500	1800	1600	1200	900	800	630	560	450	400	400	350	310
		Fz	0.004	0.008	0.013	0.019	0.025	0.039	0.05	0.063	0.071	0.078	0.088	0.088	0.1	0.097
		F(MM/MIN)	30	40	45	60	60	70	80	80	80	70	70	70	70	60
	30 -40	Vc (M/MIN)	15	15	15	15	15	15	15	15	15	15	15	15	15	15
		n	2200	1600	1100	900	800	560	450	400	350	280	250	220	220	180
		Fz	0.003	0.006	0.014	0.019	0.025	0.04	0.05	0.063	0.071	0.08	0.09	0.102	0.097	0.94
		F(MM/MIN)	15	20	30	35	40	45	45	50	50	45	45	45	45	35
N		Vc (M/MIN)	75	105	100	100	105	100	95	95	95	100	100	100	95	95
		n	12000	11000	8000	6300	5600	4000	3100	2500	2200	2000	1800	1600	1400	1200
		Fz	0.007	0.011	0.018	0.025	0.028	0.049	0.065	0.076	0.08	0.088	0.097	0.1	0.107	0.117
		F(MM/MIN)	160	250	290	310	310	390	400	380	350	350	350	320	300	280

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



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

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

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.