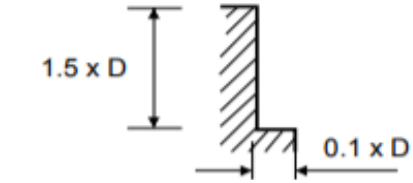
HSS-E 3 FLUTE COATED (103121, 104121, 105121, 128121, 129121)

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	450
		Fz	0.003	0.006	0.011	0.018	0.023	0.036	0.044	0.056	0.057	0.071	0.08	0.089	0.089	0.092
		F(MM/MIN)	40	60	75	95	110	120	120	135	120	120	120	120	120	110
	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	0.003	0.006	0.008	0.014	0.018	0.03	0.038	0.048	0.054	0.059	0.067	0.067	0.076	0.07
		F(MM/MIN)	35	45	50	65	65	80	90	90	90	80	80	80	80	65
	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	0.002	0.004	0.009	0.013	0.019	0.03	0.037	0.046	0.052	0.06	0.067	0.076	0.076	0.065
		F(MM/MIN)	15	20	30	35	45	50	50	55	55	50	50	50	50	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	0.005	0.008	0.014	0.019	0.021	0.037	0.048	0.057	0.061	0.067	0.074	0.075	0.081	0.089
		F(MM/MIN)	180	280	330	350	350	440	450	430	400	400	400	360	340	320

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