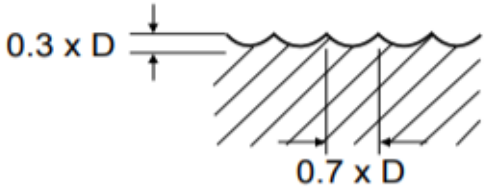
2 FLUTE BALL NOSE COATED (112121, 114121)

MATERIAL GROUP	HRc		SIZE (MM								
			3	4	6	8	10	12	16	20	25
P	≤20	Vc (M/MIN)	30	30	30	30	30	30	30	30	30
		n	3400	2400	1700	1200	1000	800	600	500	400
		Fz	0.01	0.017	0.026	0.044	0.06	0.066	0.083	0.085	0.088
		F(MM/MIN)	70	80	90	105	120	105	100	85	70
	20 - 30	Vc (M/MIN)	20	20	20	20	20	15	20	20	15
		n	2000	1400	1000	700	560	450	350	300	220
		Fz	0.008	0.013	0.026	0.036	0.054	0.061	0.079	0.083	0.091
		F(MM/MIN)	30	35	45	50	60	55	55	50	40
	30 -40	Vc (M/MIN)	15	15	15	15	15	15	15	15	15
		n	1400	1000	700	500	400	320	250	200	160
		Fz	0.007	0.013	0.018	0.03	0.044	0.055	0.07	0.088	0.094
		F(MM/MIN)	20	25	25	30	35	35	35	35	30
N		Vc (M/MIN)	105	100	105	100	100	95	100	100	100
		n	11000	8000	5600	4000	3200	2500	2000	1600	1300
		Fz	0.01	0.016	0.025	0.044	0.056	0.068	0.075	0.088	0.096
		F(MM/MIN)	230	260	280	350	360	340	300	280	250

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