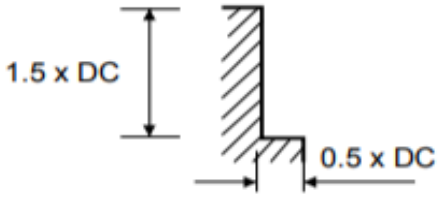
Multiflute Sabre Rougher (121240, 191140, 190140)

MATERIAL GROUP	HRc		SIZE (MM)									
			6	8	10	12	14	16	18	20	22	25
P	≤20	Vc (M/MIN)	40	50	45	45	45	50	50	50	45	45
		n	2200	1900	1500	1200	1050	950	890	760	650	600
		Fz	0.02	0.03	0.053	0.069	0.063	0.069	0.062	0.072	0.085	0.088
		F(MM/MIN)	180	230	315	330	330	330	330	330	330	315
	20 - 30	Vc (M/MIN)	30	35	35	35	35	35	35	35	30	35
		n	1600	1400	1050	900	760	660	610	530	470	420
		Fz	0.018	0.029	0.46	0.064	0.061	0.07	0.063	0.072	0.082	0.087
		F(MM/MIN)	115	160	195	230	230	230	230	230	230	220
	30 -40	Vc (M/MIN)	25	25	30	30	30	30	30	30	30	30
		n	1300	1050	890	740	630	550	490	440	400	360
		Fz	0.02	0.03	0.045	0.061	0.057	0.065	0.061	0.068	0.075	0.083
		F(MM/MIN)	105	125	160	180	180	180	180	180	180	180
M		Vc (M/MIN)	27	30	32	32	32	32	32	32	32	32
		n	1450	1200	950	800	690	600	550	480	430	390
		Fz	0.019	0.029	0.045	0.064	0.059	0.068	0.062	0.071	0.079	0.085
		F(MM/MIN)	110	140	170	205	205	205	205	205	205	200
K		Vc (M/MIN)	40	50	45	45	45	50	50	50	45	45
		n	2200	1900	1500	1200	1050	950	890	760	650	600
		Fz	0.02	0.03	0.053	0.069	0.063	0.069	0.062	0.072	0.085	0.088
		F(MM/MIN)	180	230	315	330	330	330	330	330	330	315
S		Vc (M/MIN)	12	12	15	15	15	15	15	15	15	15
		n	635	475	475	395	340	300	265	240	215	190
		Fz	0.018	0.028	0.042	0.061	0.055	0.066	0.06	0.069	0.077	0.082
		F(MM/MIN)	35	40	80	95	75	80	65	65	80	80



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