
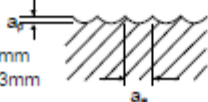
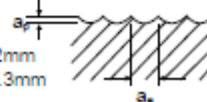
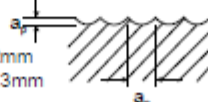


114320 (2 Flute Long Reach, Ball Nose) 

MATERIAL GROUP	HARDNESS HRC	NORMAL SPEED	Size (mm)										
			2.0	3.0	4.0	5.0	6.0	8.0	10.0	12.0	16.0	20.0	
P	13 14	< 30-40	v_c (m/min)	80	75	85	90	105	115	130	140	150	165
			n	9250	8000	6720	5840	5500	4600	4070	3700	3000	2600
			f_z	0.014	0.023	0.031	0.039	0.055	0.08	0.101	0.12	0.142	0.16
			f (mm/min)	280	370	420	480	600	740	820	890	850	830
H	15 16	45-65	v_c (m/min)	25	35	40	45	50	50	50	55	55	55
			n	3870	3620	3360	2940	2550	2000	1650	1400	1100	890
			f_z	0.012	0.017	0.021	0.024	0.029	0.044	0.055	0.07	0.089	0.112
			f (mm/min)	90	120	140	140	150	175	180	195	195	200
K	31 32 33 34		v_c (m/min)	80	100	105	115	130	145	160	175	190	205
			n	12600	10500	8400	7310	6800	5700	5100	4700	3800	3300
			f_z	0.017	0.026	0.035	0.045	0.06	0.09	0.12	0.149	0.182	0.202
			f (mm/min)	420	540	590	660	820	1030	1220	1400	1380	1330

<p>< HRc45</p> <p>a_p: $\phi 1.0\text{mm} - 6.0\text{mm} = 0.2\text{mm}$ a_p: $\phi 8.0\text{mm} - 20.0\text{mm} = 0.3\text{mm}$ a_e: $0.2 \times D$</p> 	<p>> HRc45</p> <p>a_p: $\phi 1.0\text{mm} - 6.0\text{mm} = 0.2\text{mm}$ a_p: $\phi 8.0\text{mm} - 20.0\text{mm} = 0.3\text{mm}$ a_e: $0.1 \times D$</p> 
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MATERIAL GROUP	HARDNESS HRC	HIGH SPEED	Size (mm)										
			2.0	3.0	4.0	5.0	6.0	8.0	10.0	12.0	16.0	20.0	
P	13 14	< 30-40	v_c (m/min)	105	160	210	265	315	335	350	370	380	400
			n	16800	16800	16800	16800	16800	13400	11200	9800	7600	6400
			f_z	0.036	0.048	0.07	0.086	0.095	0.119	0.138	0.158	0.181	0.199
			f (mm/min)	1200	1600	2350	2880	3200	3200	3100	3100	2750	2550
H	15 16	45-65	v_c (m/min)	105	130	135	150	160	170	175	185	190	200
			n	16800	13600	10930	9600	8400	6700	5600	4900	3800	3200
			f_z	0.022	0.031	0.043	0.05	0.06	0.075	0.086	0.095	0.105	0.116
			f (mm/min)	750	830	930	960	1000	1000	960	930	800	740
K	31 32 33 34		v_c (m/min)	105	160	210	265	315	335	350	370	380	400
			n	16800	16800	16800	16800	16800	13400	11200	9800	7600	6400
			f_z	0.036	0.048	0.07	0.086	0.095	0.119	0.138	0.158	0.181	0.199
			f (mm/min)	1200	1600	2350	2880	3200	3200	3100	3100	2750	2550

<p>a_p: $\phi 1.0\text{mm} - 6.0\text{mm} = 0.2\text{mm}$ a_p: $\phi 8.0\text{mm} - 20.0\text{mm} = 0.3\text{mm}$ a_e: $0.05 \times D$</p> 	
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