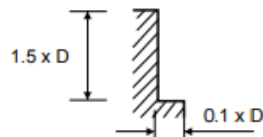


107102, 108102 (4 Flute)



MATERIAL GROUP	HRc		Size (mm)									
			2.0	3.0	4.0	5.0	6.0	8.0	10.0	12.0	14.0	
<b>P</b>	< 20	11	$v_c$ (m/min)	30	30	30	30	30	30	30	30	30
		12	n	4500	3200	2200	1800	1600	1100	900	800	700
			$f_z$	0.003	0.006	0.011	0.017	0.023	0.036	0.044	0.056	0.057
			f (mm/min)	55	80	100	125	145	160	160	180	160
	20-30	11	$v_c$ (m/min)	25	25	25	25	25	25	25	25	25
		12	n	4000	2500	1800	1600	1200	900	800	630	560
			$f_z$	0.003	0.006	0.009	0.014	0.019	0.029	0.038	0.048	0.054
			f (mm/min)	45	60	65	90	90	105	120	120	120
	30-40	13	$v_c$ (m/min)	15	15	15	15	15	15	15	15	15
		14	n	2200	1600	1100	900	800	560	450	400	350
			$f_z$	0.002	0.005	0.01	0.014	0.019	0.029	0.036	0.047	0.054
			f (mm/min)	20	30	45	50	60	65	65	75	75
<b>N</b>	71	$v_c$ (m/min)	75	105	100	100	105	100	95	95	95	
	72	n	12000	11000	8000	6300	5600	4000	3100	2500	2200	
	73	$f_z$	0.005	0.009	0.014	0.019	0.021	0.036	0.048	0.057	0.06	
		f (mm/min)	240	380	440	470	470	580	600	570	530	

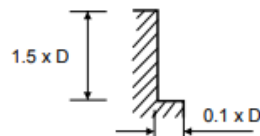


- ▶ The feed rate for long and long reach tools should be reduced by up to 50%
- ▶ The speeds and feeds for TiAlN coated tools can be increased by up to 30%

107102, 108102 (4 Flute)



MATERIAL GROUP	HRc		Size (mm)								
			16.0	18.0	20.0	22.0	25.0	28.0	30.0	32.0	
<b>P</b>	< 20	11	$v_c$ (m/min)	30	30	30	30	30	30	30	30
		12	n	560	500	450	450	400	350	310	310
			$f_z$	0.071	0.08	0.089	0.059	0.06	0.06	0.059	0.09
			f (mm/min)	160	160	160	160	145	125	110	100
	20-30	11	$v_c$ (m/min)	25	25	25	25	25	25	25	20
		12	n	450	400	400	350	310	280	250	220
			$f_z$	0.058	0.066	0.066	0.05	0.048	0.048	0.05	0.049
			f (mm/min)	105	105	105	105	90	80	75	65
	30-40	13	$v_c$ (m/min)	15	15	15	15	15	15	15	15
		14	n	280	250	220	220	180	160	160	140
			$f_z$	0.058	0.065	0.074	0.049	0.046	0.047	0.047	0.054
			f (mm/min)	65	65	65	65	50	45	45	45
<b>N</b>	71	$v_c$ (m/min)	100	100	100	95	95	95	105	100	
	72	n	2000	1800	1600	1400	1200	1100	1100	1000	
	73	$f_z$	0.066	0.074	0.075	0.054	0.058	0.061	0.061	0.06	
		f (mm/min)	100	100	100	95	95	95	105	100	



- ▶ The feed rate for long and long reach tools should be reduced by up to 50%
- ▶ The speeds and feeds for TiAlN coated tools can be increased by up to 30%