

CUTTING DATA

167123, 167323, 168123, 168323, 169123, 169323 (4&5 Flute Roughing)										
VDI MATERIAL GROUP		HRc	SLOTTING	Size (mm)						
				6.0	8.0	10.0	12.0	16.0	20.0	
P	1-5	Non-alloy Steel	<25	v _c (m/min)	225	225	225	225	225	225
				n	12000	9000	7200	6000	4500	3600
				f _z	0.032	0.046	0.057	0.064	0.067	0.074
				f (mm/min)	1550	1650	1650	1540	1500	1330
	6-9	Low alloy Steel	25-35	v _c (m/min)	200	205	200	205	205	200
				n	10600	8100	6400	5400	4100	3200
				f _z	0.026	0.036	0.046	0.053	0.051	0.056
				f (mm/min)	1100	1180	1180	1140	1050	900
	10-11	High alloy Steel, Tool Steel	35-45	v _c (m/min)	200	205	200	205	205	200
				n	10600	8100	6400	5400	4100	3200
				f _z	0.026	0.036	0.046	0.053	0.051	0.056
				f (mm/min)	1100	1180	1180	1140	1050	900
K	15-16	Grey Cast Iron	v _c (m/min)	225	225	225	225	225	225	
			n	12000	9000	7200	6000	4500	3600	
			f _z	0.032	0.046	0.057	0.064	0.067	0.074	
			f (mm/min)	1550	1650	1650	1540	1500	1330	
	17-20	Nodular/ Malleable Cast Iron	v _c (m/min)	200	205	200	205	205	200	
			n	10600	8100	6400	5400	4100	3200	
			f _z	0.026	0.036	0.046	0.053	0.051	0.056	
			f (mm/min)	1100	1180	1180	1140	1050	900	

<p>MATERIAL GROUP P1-5</p>	<p>MATERIAL GROUP P6-11, K</p>
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Recommended cutting depths are **maximum** depths, and **speeds and feeds are a starting point** based on these depths.
 All recommendations are based on ideal machining conditions. Adjustments may need to be made according to your set-up.
For long series and long necked tools it may be necessary to reduce feed rate by up to 50%.

v_c - cutting speed (m/min)
 n - RPM (rev/min)
 f_z - feed per tooth (mm)
 f - feed rate (mm/min)
 a_p - axial depth of cut
 a_e - radial depth of cut

CUTTING DATA

167123, 167323, 168123, 168323, 169123, 169323 (4&5 Flute Roughing)										
VDI MATERIAL GROUP		HRc	SIDE CUTTING	Size (mm)						
				6.0	8.0	10.0	12.0	16.0	20.0	
P	1-5	Non-alloy Steel	<25	v_c (m/min)	300	300	300	300	300	300
				n	15800	11900	9500	8000	6000	4800
				f_z	0.041	0.057	0.071	0.08	0.082	0.089
				f (mm/min)	2570	2700	2700	2570	2450	2140
	6-9	Low alloy Steel	25-35	v_c (m/min)	270	270	270	270	270	270
				n	14300	10700	8500	7100	5400	4300
				f_z	0.032	0.046	0.057	0.065	0.065	0.07
				f (mm/min)	1850	1950	1950	1850	1750	1500
	10-11	High alloy Steel, Tool Steel	35-45	v_c (m/min)	270	270	265	270	270	270
				n	14300	10700	8400	77100	5300	4300
				f_z	0.032	0.046	0.057	0.065	0.065	0.07
				f (mm/min)	1850	1950	1950	1850	1750	1500
K	15-16	Grey Cast Iron	v_c (m/min)	300	300	300	300	300	300	
			n	15800	11900	9500	8000	6000	4800	
			f_z	0.041	0.057	0.071	0.08	0.082	0.089	
			f (mm/min)	2570	2700	2700	2570	2450	2140	
	17-20	Nodular/ Malleable Cast Iron	v_c (m/min)	270	270	270	270	270	270	
			n	14300	10700	8500	7100	5400	4300	
			f_z	0.032	0.046	0.057	0.065	0.065	0.07	
			f (mm/min)	1850	1950	1950	1850	1750	1500	

<p>MATERIAL GROUP P1-5</p>	<p>MATERIAL GROUP P6-11, K</p>
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For long series and long necked tools it may be necessary to reduce feed rate by up to 50%.

v_c - cutting speed (m/min)
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