

CUTTING DATA

120323, 121323 (2 Flute, Corner Radius)													
VDI MATERIAL GROUP		HRc		Size (mm)									
				2.0	3.0	4.0	5.0	6.0	8.0	10.0	12.0		
P	1-5	Non-alloy Steel	<25	v_c (m/min)	50	55	65	70	70	70	70	70	
				n	7960	5835	5170	4455	3715	2785	2225	1855	
				f_z	0.008	0.015	0.025	0.031	0.039	0.057	0.064	0.064	
					f (mm/min)	150	175	260	275	290	315	285	240
	6-9	Low alloy Steel	25-35	v_c (m/min)	50	55	65	70	70	70	70	70	70
				n	7960	5835	5170	4455	3715	2785	2225	1855	
f_z				0.008	0.015	0.025	0.031	0.039	0.057	0.064	0.064		
				f (mm/min)	150	175	260	275	290	315	285	240	
M	12-13	Ferritic/ Martensitic Stainless Steel	v_c (m/min)	25	30	35	35	35	35	35	35	35	
			n	3980	3180	2785	2225	1855	1390	1115	925		
			f_z	0.009	0.016	0.025	0.031	0.04	0.053	0.059	0.058		
			f (mm/min)	70	100	140	140	150	150	130	105		
K	15-20	Cast Iron	v_c (m/min)	60	55	60	55	55	55	60	55		
			n	9550	5835	4775	3500	2920	2185	1910	1460		
			f_z	0.012	0.018	0.024	0.03	0.043	0.063	0.077	0.102		
			f (mm/min)	230	210	230	210	250	275	295	300		
N	21-24	Aluminium/ Aluminium Alloys	v_c (m/min)	140	145	140	145	145	145	145	145	140	
			n	22280	15385	11140	9230	7690	5770	4615	3715		
			f_z	0.01	0.015	0.021	0.025	0.032	0.043	0.053	0.065		
					f (mm/min)	445	460	465	460	490	495	490	480
	26-27	Copper/ Copper Alloys	v_c (m/min)	105	105	110	105	105	110	105	105	105	
			n	16710	11140	8755	6685	5570	4375	3340	2785		
f_z			0.01	0.015	0.019	0.025	0.033	0.043	0.055	0.066			
f (mm/min)	335	335	330	335	365	375	370	365					

MATERIAL GROUPS P, M

<math>\phi < 3.0\text{mm}</math>: 0.2 x DC
>math>\phi > 3.0\text{mm}</math>: 0.5 x DC

MATERIAL GROUPS K, N

1.0 x DC

► The feed rate for long, long reach and uncoated tools should be reduced by up to 50%

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