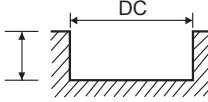
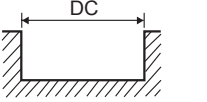


CUTTING DATA

100370 (2 Flute Miniature)													
VDI MATERIAL GROUP	MATERIAL	HRc		Size (mm)									
				0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.2	1.4	1.5
P	1-5 Non-alloy Steel	<25	v_c (m/min)	40	45	55	60	65	70	70	65	65	60
			n	31830	28660	29190	27290	25860	24770	22280	17240	14780	12730
			f_z	0.002	0.002	0.002	0.003	0.003	0.003	0.004	0.005	0.005	0.006
			f (mm/min)	125	115	115	160	155	150	175	170	145	150
	6-9 Low alloy Steel	25-35	v_c (m/min)	40	45	55	60	65	70	70	65	65	60
			n	31830	28660	29190	27290	25860	24770	22280	17240	14780	12730
			f_z	0.002	0.002	0.002	0.003	0.003	0.003	0.004	0.005	0.005	0.006
			f (mm/min)	125	115	115	160	155	150	175	170	145	150
	10-11 High alloy Steel, Tool Steel	35-45	v_c (m/min)	40	45	55	60	65	70	70	65	65	60
			n	31830	28660	29190	27290	25860	24770	22280	17240	14780	12730
			f_z	0.002	0.002	0.002	0.003	0.003	0.003	0.004	0.005	0.005	0.006
			f (mm/min)	125	115	115	160	155	150	175	170	145	150
H	38 Hardened Steel	45-55	v_c (m/min)	30	35	40	45	50	50	50	50	50	45
			n	23870	22290	21230	20470	19890	17690	15910	13260	11370	9550
			f_z	0.001	0.001	0.001	0.002	0.002	0.003	0.003	0.003	0.003	0.004
			f (mm/min)	45	45	40	80	80	105	95	80	70	75

<p>MATERIAL GROUP P</p> <p>< \varnothing 1.0mm: 0.15 x DC $\geq \varnothing$ 1.0mm: 0.25 x DC</p> 	<p>MATERIAL GROUP H</p> <p>< \varnothing 1.0mm: 0.02 x DC $\geq \varnothing$ 1.0mm: 0.05 x DC</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

100370 (2 Flute Short)														
VDI MATERIAL GROUP	MATERIAL	HRc		Size (mm)										
				2.0	3.0	4.0	5.0	6.0	8.0	10.0	12.0	16.0	20.0	
P	1-5	Non-alloy Steel	<25	v_c (m/min)	65	75	85	90	95	95	90	95	100	95
				n	10340	7960	6760	5730	5040	3780	2860	2520	1990	1510
				f_z	0.01	0.015	0.025	0.032	0.039	0.057	0.064	0.064	0.062	0.063
				f (mm/min)	205	240	335	365	390	430	365	320	245	190
	6-9	Low alloy Steel	25-35	v_c (m/min)	45	45	50	55	55	55	55	55	60	60
				n	7160	4770	3980	3500	2920	2190	1750	1460	1190	955
				f_z	0.01	0.016	0.024	0.032	0.041	0.05	0.05	0.048	0.051	0.047
				f (mm/min)	140	150	190	225	240	220	175	140	120	90
	10-11	High alloy Steel, Tool Steel	35-45	v_c (m/min)	45	45	50	55	55	55	55	55	60	60
				n	7160	4770	3980	3500	2920	2190	1750	1460	1190	955
				f_z	0.01	0.016	0.024	0.032	0.041	0.05	0.05	0.048	0.051	0.047
				f (mm/min)	140	150	190	225	240	220	175	140	120	90
M	14	Austenitic Stainless Steel	v_c (m/min)	35	40	45	45	50	45	45	45	50	45	
			n	5570	4240	3580	2860	2650	1790	1430	1190	990	715	
			f_z	0.009	0.016	0.024	0.032	0.039	0.053	0.06	0.059	0.066	0.06	
			f (mm/min)	100	135	170	180	205	190	170	140	130	85	
K	15-20	Cast Iron	v_c (m/min)	65	75	85	90	95	95	90	95	100	95	
			n	10340	7960	6760	5730	5040	3780	2860	2520	1990	1510	
			f_z	0.01	0.015	0.025	0.032	0.039	0.057	0.064	0.064	0.062	0.063	
			f (mm/min)	205	240	335	365	390	430	365	320	245	190	
H	38	Hardened Steel	45-55	v_c (m/min)	30	30	35	35	35	40	40	40	40	40
				n	4770	3180	2780	2230	1850	1590	1270	1060	795	635
				f_z	0.004	0.007	0.009	0.013	0.017	0.023	0.027	0.029	0.028	0.028
				f (mm/min)	40	45	50	55	60	70	70	60	45	35

<p>MATERIAL GROUP P, M, K</p> <p>$< \varnothing 3.0\text{mm}: 0.2 \times DC$ $\geq \varnothing 3.0\text{mm}: 0.5 \times DC$</p>	<p>MATERIAL GROUP H</p> <p>$0.05 \times DC$</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