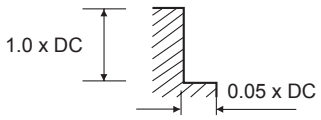
CUTTING DATA

109370 (4 Flute Short Length)

VDI MATERIAL GROUP		MATERIAL	HRc		Size (mm)									
					2.0	**3.0**	**4.0**	**5.0**	**6.0**	**8.0**	**10.0**	**12.0**	**14.0**	**16.0**
P	1-5	Non-alloy Steel	**<25**	v_c (m/min)	80	95	105	110	115	120	115	115	120	125
				n	12730	10080	8350	7000	6100	4775	3660	3050	2730	2490
				f_z	0.006	0.009	0.019	0.024	0.03	0.042	0.047	0.047	0.047	0.047
				f (mm/min)	305	360	635	670	730	800	690	570	510	470
	6-9	Low alloy Steel	**25-35**	v_c (m/min)	55	60	65	65	70	70	70	70	75	75
				n	8750	6360	5170	4140	3710	2785	2230	1855	1705	1490
				f_z	0.006	0.009	0.019	0.024	0.031	0.038	0.037	0.037	0.037	0.037
				f (mm/min)	210	230	390	395	460	420	330	275	250	220
	10-11	High alloy Steel, Tool Steel	**35-45**	v_c (m/min)	55	60	65	65	70	70	70	70	75	75
				n	8750	6360	5170	4140	3710	2785	2230	1855	1705	1490
				f_z	0.006	0.009	0.019	0.024	0.031	0.038	0.037	0.037	0.037	0.037
				f (mm/min)	210	230	390	395	460	420	330	275	250	220
M	14	Austenitic Stainless Steel		v_c (m/min)	45	50	55	55	60	60	60	55	60	60
				n	7160	5300	4370	3500	3180	2385	1910	1460	1365	1195
				f_z	0.005	0.009	0.018	0.024	0.029	0.041	0.045	0.044	0.045	0.046
				f (mm/min)	140	190	315	335	370	390	345	255	245	220
K	15-20	Cast Iron		v_c (m/min)	80	95	105	110	115	120	115	115	120	125
				n	12730	10080	8350	7000	6100	4775	3660	3050	2730	2490
				f_z	0.006	0.009	0.019	0.024	0.03	0.042	0.047	0.047	0.047	0.047
				f (mm/min)	305	360	635	670	730	800	690	570	510	470
H	38	Hardened Steel	**45-55**	v_c (m/min)	35	35	40	40	40	45	50	50	50	50
				n	5570	3710	3180	2545	2120	1790	1590	1325	1140	995
				f_z	0.005	0.004	0.005	0008	0.01	0.017	0.016	0.017	0.017	0.016
				f (mm/min)	45	60	65	80	85	120	100	90	80	65



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