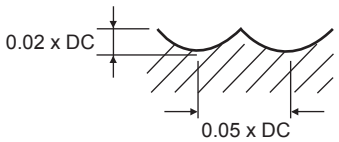
CUTTING DATA

101950 (4 Flute B/N centre match)

VDI MATERIAL GROUP		MATERIAL	HRc		Size (mm)								
					3.0	**4.0**	**5.0**	**6.0**	**8.0**	**10.0**	**12.0**	**16.0**	**20.0**
P	10-11	High alloy Steel, Tool Steel	**35-45**	v_c (m/min)	340	340	340	340	340	340	340	340	340
				n	36090	27070	21655	18045	13535	10825	9020	6765	5410
				f_z	0.071	0.08	0.09	0.101	0.116	0.128	0.144	0.144	0.145
				f (mm/min)	10250	8660	7795	7290	6280	5540	5195	3895	3140
H	38	Hardened Steel	**40-50**	v_c (m/min)	285	285	285	285	285	285	285	285	285
				n	30255	22690	18150	15125	11345	9075	7560	5670	4535
				f_z	0.06	0.07	0.081	0.092	0.103	0.111	0.125	0.126	0.129
				f (mm/min)	7260	6350	5880	5565	4670	4030	3780	2855	2340
		Hardened Steel	**50-55**	v_c (m/min)	230	230	230	230	230	230	230	230	230
				n	24415	18310	14650	12205	9155	7325	6100	4575	3660
				f_z	0.05	0.06	0.071	0.082	0.093	0.104	0.115	0.119	0.119
				f (mm/min)	4880	4395	4160	4000	3405	3045	2805	2175	1740
	39	Hardened Steel	**55-65**	v_c (m/min)	210	210	210	210	210	210	210	210	210
				n	22290	16720	13375	11145	8360	6685	5570	4180	3340
				f_z	0.045	0.055	0.067	0.077	0.089	0.095	0.096	0.096	0.097
				f (mm/min)	4010	3675	3585	3430	2975	2540	2140	1605	1295
		Hardened Steel	**65-70**	v_c (m/min)	145	145	145	145	145	145	145	145	145
				n	15390	11545	9235	7695	5770	4615	3845	2885	2305
				f_z	0.04	0.05	0.062	0.072	0.082	0.094	0.096	0.096	0.097
				f (mm/min)	2460	2305	2290	2215	1890	1735	1475	1105	895
	40	Chilled Cast Iron		v_c (m/min)	340	340	340	340	340	340	340	340	340
				n	36090	27070	21655	18045	13535	10825	9020	6765	5410
				f_z	0.071	0.08	0.09	0.101	0.116	0.128	0.144	0.144	0.145
				f (mm/min)	10250	8660	7795	7290	6280	5540	5195	3895	3140
	41	Hardened Cast Iron		v_c (m/min)	285	285	285	285	285	285	285	285	285
				n	30255	22690	18150	15125	11345	9075	7560	5670	4535
				f_z	0.06	0.07	0.081	0.092	0.103	0.111	0.125	0.126	0.129
				f (mm/min)	7260	6350	5880	5565	4670	4030	3780	2855	2340



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