CUTTING DATA

158116 (Woodruff Cutter)

VDI MATERIAL GROUP			HRc		Size (mm)							
					10.5	**13.5**	**16.5**	**19.5**	**22.5**	**28.5**	**32.5**	**45.5**
P	1-5	Non-alloy Steel	**<25**	v_c (m/min)	20	20	20	20	20	20	20	20
				n	600	470	380	320	280	220	190	130
				f_z	0.01	0.01	0.025	0.035	0.04	0.05	0.06	0.07
				f (mm/min)	48	38	76	90	112	110	137	127
	6-9	Low alloy Steel	**25-35**	v_c (m/min)	15	15	15	15	15	15	15	15
				n	480	370	300	260	220	180	155	110
				f_z	0.01	0.01	0.025	0.035	0.04	0.05	0.06	0.07
				f (mm/min)	480	370	300	260	220	180	155	110
	10-11	High alloy Steel, Tool Steel	**35-45**	v_c (m/min)	10	10	10	10	10	10	10	10
				n	300	230	190	160	140	110	90	70
				f_z	0.01	0.01	0.025	0.035	0.04	0.05	0.06	0.07
				f (mm/min)	24	18	38	45	56	55	65	69
N	21-24	Aluminium/ Aluminium Alloys		v_c (m/min)	100	100	100	100	100	100	90	100
				n	3000	2300	1900	1600	1400	1100	900	700
				f_z	0.01	0.01	0.025	0.035	0.04	0.05	0.06	0.07
				f (mm/min)	240	184	380	448	560	550	648	686

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