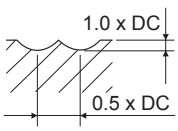
CUTTING DATA

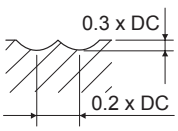
134323 (4 Flute Ball Nose)

VDI MATERIAL GROUP			HRc		Size (mm)											
					3.0	**4.0**	**5.0**	**6.0**	**8.0**	**10.0**	**12.0**	**14.0**	**16.0**	**18.0**	**20.0**	**25.0**
P	1-5	Non-alloy Steel	**<25**	v_c (m/min)	135	135	135	135	135	135	135	135	135	135	135	135
				n	14324	10740	8590	7460	5370	4290	3580	3070	2680	2380	2140	1710
				f_z	0.025	0.025	0.03	0.038	0.06	0.06	0.07	0.075	0.075	0.08	0.09	0.099
				f (mm/min)	1430	1070	1030	1140	1280	1030	1000	920	800	760	770	680
	6-9	Low alloy Steel	**25-35**	v_c (m/min)	135	135	135	135	135	135	135	135	135	135	135	135
				n	14324	10740	8590	7460	5370	4290	3580	3070	2680	2380	2140	1710
				f_z	0.025	0.025	0.03	0.038	0.06	0.06	0.07	0.075	0.075	0.08	0.09	0.099
				f (mm/min)	1430	1070	1030	1140	1280	1030	1000	920	800	760	770	680
M	12-13	Ferritic/ Martensitic Stainless Steel		v_c (m/min)	70	70	70	70	70	70	70	70	70	70	70	70
				n	7420	5570	4450	3710	2780	2220	1850	1590	1390	1230	1110	890
				f_z	0.015	0.015	0.025	0.03	0.04	0.045	0.05	0.054	0.054	0.059	0.059	0.059
				f (mm/min)	440	330	440	440	440	400	370	340	300	290	260	210
	14	Austenitic Stainless Steel		v_c (m/min)	75	75	75	75	75	75	75	75	75	75	75	75
				n	8220	6160	4930	4110	3080	2460	2050	1700	1540	1370	1230	980
				f_z	0.02	0.02	0.025	0.041	0.045	0.05	0.055	0.06	0.06	0.064	0.065	0.069
				f (mm/min)	650	490	490	670	550	490	450	400	370	350	320	270
K	15-20	Cast Iron		v_c (m/min)	135	135	135	135	135	135	135	135	135	135	135	135
				n	14324	10740	8590	7460	5370	4290	3580	3070	2680	2380	2140	1710
				f_z	0.025	0.025	0.03	0.038	0.06	0.06	0.07	0.075	0.075	0.08	0.09	0.099
				f (mm/min)	1430	1070	1030	1140	1280	1030	1000	920	800	760	770	680
S	31-35	HRSA Fe & Ni/Co Based		v_c (m/min)	30	30	30	30	30	30	30	30	30	30	30	30
				n	3180	2380	1910	1590	1190	950	790	680	590	530	470	380
				f_z	0.011	0.011	0.01	0.016	0.025	0.026	0.038	0.04	0.047	0.052	0.053	0.053
				f (mm/min)	140	100	80	100	120	100	120	115	110	110	100	80
	36-37	Titanium/ Titanium Alloys		v_c (m/min)	55	55	55	55	55	55	55	55	55	55	55	55
				n	5830	4370	3500	2910	2180	1750	1450	1250	1090	970	870	700
				f_z	0.012	0.012	0.015	0.02	0.03	0.03	0.04	0.042	0.044	0.049	0.06	0.068
				f (mm/min)	280	210	210	230	260	210	230	210	190	190	210	190

MATERIAL GROUPS P, M, K, S36-37



MATERIAL GROUP S31-35



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