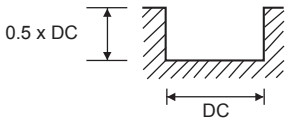
CUTTING DATA

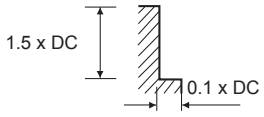
Clarkson

128128, 129128 (3 Flute Throwaway)

VDI MATERIAL GROUP			HRc	SLOTTING	Size (mm)								
					1.0	2.0	3.0	4.0	5.0	6.0	8.0	10.0	12.0
P	1-5	Non-alloy Steel	<25	v_c (m/min)	30	36	38	45	49	52	54	54	54
				n	9550	5730	4000	3580	3120	2750	2150	1720	1430
				f_z	0.002	0.004	0.007	0.009	0.012	0.021	0.029	0.044	0.052
				f (mm/min)	57	70	85	95	110	170	185	225	220
	6-9	Low alloy Steel	25-35	v_c (m/min)	20	23	25	29	32	33	35	35	35
				n	6360	3660	2650	2300	2030	1750	1390	1115	925
				f_z	0.001	0.003	0.005	0.009	0.012	0.021	0.028	0.039	0.047
				f (mm/min)	15	30	40	60	70	110	115	125	130
M	12-13	Ferritic/ Martensitic Stainless Steel		v_c (m/min)	12	16	22	25	27	27	28	29	30
				n	3820	2545	2335	1990	1720	1430	1110	920	795
				f_z	0.003	0.005	0.008	0.012	0.014	0.023	0.031	0.044	0.052
				f (mm/min)	30	35	55	70	70	95	100	120	120
K	15-20	Cast Iron		v_c (m/min)	30	36	38	45	49	52	54	54	54
				n	9550	5730	4000	3580	3120	2750	2150	1720	1430
				f_z	0.002	0.004	0.007	0.009	0.012	0.021	0.029	0.044	0.052
				f (mm/min)	57	70	85	95	110	170	185	225	220



VDI MATERIAL GROUP			HRc	SIDE CUTTING	Size (mm)							
					1.5	2.0	3.0	4.0	5.0	6.0	8.0	10.0
P	1-5	Non-alloy Steel	<25	v_c (m/min)	39	41	43	53	55	59	60	60
				n	8280	6525	4565	4220	3500	3130	2385	1910
				f_z	0.003	0.004	0.008	0.011	0.014	0.023	0.033	0.043
				f (mm/min)	75	75	110	135	145	215	235	245
	6-9	Low alloy Steel	25-35	v_c (m/min)	25	29	31	35	38	41	44	44
				n	5300	4615	3290	2785	2420	2175	1750	1400
				f_z	0.003	0.004	0.007	0.01	0.014	0.025	0.036	0.05
				f (mm/min)	45	55	65	80	100	160	185	210
M	12-13	Ferritic/ Martensitic Stainless Steel		v_c (m/min)	17	20	27	32	35	36	37	37
				n	3600	3180	2865	2545	2225	1910	1470	1175
				f_z	0.004	0.006	0.01	0.013	0.015	0.022	0.036	0.047
				f (mm/min)	40	55	85	95	100	125	155	165
K	15-20	Cast Iron		v_c (m/min)	39	41	43	53	55	59	60	60
				n	8280	6525	4565	4220	3500	3130	2385	1910
				f_z	0.003	0.004	0.007	0.01	0.015	0.025	0.033	0.043
				f (mm/min)	75	75	110	135	145	215	235	245



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