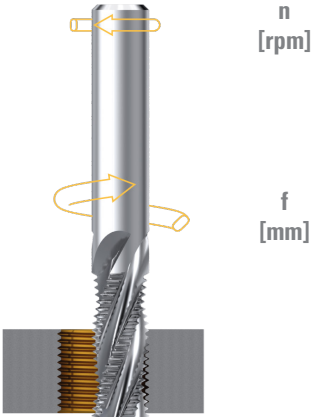


		VDI 3323		CARBIDE Vc [m/min]	TiAlN Vc [m/min]
P	Unalloyed steel, leaded steel	1 - 5		85	100
	Low alloyed steel < 800 N/mm²	6 - 9			80
	High-alloy steel > 800 N/mm², stainless steel ferr.- marten.	10 - 13			50
M	Austenitic stainless steel < 700 N/mm²	14.1-14.2			80
	Nickel-free stainless steel/DUPLEX >700 N/mm²	14.3-14.4			50
K	Grey cast iron < 250 HB	15 - 16		85	100
	Ductile, malleable, nodular cast iron > 250 HB	17 - 20		55	80
N	Wrought aluminium alloy < 12% Si	21 - 22		220	285
	Cast aluminium alloy >12% Si	23 - 25		150	220
	Copper alloy good machinability with Pb	26		150	210
	Copper alloy with difficult machinability	27 - 28		130	180
	Plastic, wood	29 - 30		250	320
	Gold, silver	-		150	210
	Titanium, titanium alloy	36 - 37		40	50

$n \text{ [rpm]} = \frac{Vc \text{ [m/min]} \times 1000}{\pi \times D_1 \text{ [mm]}}$

Feed per tooth fz [mm]						
Ø D ₁ 0.90 - 2.00	Ø D ₁ 2.00 - 3.00	Ø D ₁ 3.00 - 4.00	Ø D ₁ 4.00 - 6.00	Ø D ₁ 6.00 - 10.00	Ø D ₁ 10.00 - 16.00	
0.005 - 0.012	0.012 - 0.018	0.018 - 0.024	0.024 - 0.035	0.035 - 0.060	0.060 - 0.100	
0.005 - 0.011	0.011 - 0.0165	0.017 - 0.022	0.022 - 0.035	0.035 - 0.060	0.060 - 0.090	
0.005 - 0.010	0.010 - 0.015	0.015 - 0.02	0.020 - 0.030	0.030 - 0.050	0.050 - 0.080	
0.005 - 0.010	0.010 - 0.015	0.015 - 0.02	0.020 - 0.030	0.030 - 0.050	0.050 - 0.080	
0.004 - 0.009	0.009 - 0.014	0.014 - 0.018	0.018 - 0.025	0.025 - 0.050	0.050 - 0.070	
0.006 - 0.014	0.014 - 0.021	0.021 - 0.028	0.028 - 0.040	0.040 - 0.070	0.070 - 0.110	
0.005 - 0.012	0.012 - 0.018	0.018 - 0.024	0.024 - 0.035	0.035 - 0.060	0.060 - 0.100	
0.007 - 0.015	0.015 - 0.023	0.023 - 0.03	0.030 - 0.045	0.045 - 0.080	0.080 - 0.120	
0.008 - 0.017	0.017 - 0.026	0.026 - 0.034	0.034 - 0.050	0.050 - 0.090	0.090 - 0.140	
0.006 - 0.014	0.014 - 0.021	0.021 - 0.028	0.028 - 0.040	0.040 - 0.070	0.070 - 0.110	
0.009 - 0.020	0.020 - 0.030	0.030 - 0.04	0.040 - 0.060	0.060 - 0.100	0.100 - 0.160	
0.005 - 0.012	0.012 - 0.018	0.018 - 0.024	0.024 - 0.035	0.035 - 0.060	0.060 - 0.100	
0.005 - 0.012	0.012 - 0.018	0.018 - 0.024	0.024 - 0.035	0.035 - 0.060	0.060 - 0.100	
0.007 - 0.010	0.010 - 0.013	0.013 - 0.029	0.030 - 0.034	0.034 - 0.055	0.055 - 0.070	

Values based on use of cutting oil and oil in emulsion.The cutting parameters are very strongly influenced by external parameters, such as tool and workpiece stability, etc.
The cutting conditions must be adapted to the operating conditions !