



DIXI 1152

		VDI 3323		CARBIDE Vc [m/min]	Pecking cycle Q1
P	Unalloyed steel, leaded steel	1 - 5		90 - 130	<1×ØD1
	Low alloyed steel < 800 N/mm²	6 - 9		80 - 115	<1×ØD1
K	Grey cast iron < 250 HB	15 - 16		90 - 130	<4×ØD1
	Ductile, malleable, nodular cast iron > 250 HB	17 - 20		40 - 65	<1×ØD1
N	Cast aluminium alloy >12% Si	23 - 25		130 - 195	<4×ØD1
	Copper alloy good machinability with Pb	26		90 - 115	<4×ØD1
	Gold, silver	-		105 - 130	<1×ØD1
S	Titanium, titanium alloy	36 - 37		40 - 80	<0.75×ØD1

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

$$V_f \text{ [mm/min]} = n \text{ [rpm]} \times f \text{ [mm]}$$

Feed per revolution f [mm]							
Ø D ₁ 0.15 - 0.50	Ø D ₁ 0.50 - 1.00	Ø D ₁ 1.00 - 1.50	Ø D ₁ 1.50 - 3.00	Ø D ₁ 3.00 - 6.00	Ø D ₁ 6.00 - 10.00	Ø D ₁ 10.00 - 14.00	
0.0014 - 0.008	0.005 - 0.016	0.010 - 0.022	0.014 - 0.045	0.020 - 0.080	0.040 - 0.120	0.050 - 0.140	
0.0012 - 0.007	0.004 - 0.014	0.008 - 0.020	0.012 - 0.040	0.020 - 0.070	0.030 - 0.110	0.050 - 0.130	
0.0016 - 0.009	0.005 - 0.018	0.010 - 0.028	0.016 - 0.055	0.025 - 0.095	0.040 - 0.140	0.060 - 0.170	
0.0014 - 0.008	0.005 - 0.016	0.010 - 0.022	0.014 - 0.045	0.020 - 0.080	0.040 - 0.120	0.050 - 0.140	
0.0018 - 0.010	0.006 - 0.020	0.012 - 0.030	0.018 - 0.060	0.025 - 0.100	0.050 - 0.160	0.070 - 0.180	
0.0020 - 0.011	0.007 - 0.022	0.014 - 0.034	0.020 - 0.070	0.030 - 0.115	0.050 - 0.180	0.080 - 0.210	
0.0014 - 0.008	0.005 - 0.016	0.010 - 0.022	0.014 - 0.045	0.020 - 0.080	0.040 - 0.120	0.050 - 0.140	
0.0014 - 0.008	0.005 - 0.016	0.010 - 0.022	0.014 - 0.045	0.020 - 0.080	0.040 - 0.120	0.050 - 0.140	

Values based on cutting oil use. 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 !