DIXI 1151

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

$$Vf\ [mm/min] = n\ [rpm] \times f\ [mm]$$

		VDI 3323		CARBIDE Vc [m/min]	Pecking cycle Q1
P	Unalloyed steel, leaded steel	1 - 5	n [rpm]	**90** - 130	<1×ØD1
P	Low alloyed steel < 800 N/mm²	6 - 9		**80** - 115	<1×ØD1
K	Grey cast iron < 250 HB	15 - 16		**90** - 130	<4×ØD1
K	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
N	Copper alloy good machinability with Pb	26		**90** - 115	<4×ØD1
N	Gold, silver	-	f [mm/rev]	**105** - 130	<1×ØD1
S	Titanium, titanium alloy	36 - 37		**40** - 80	<0.75×ØD1

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 !