DIXI 1133

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

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

		VDI 3323		CARBIDE Vc [m/min]	DICUT Vc [m/min]	Pecking cycle Q1	Feed per revolution f [mm] Ø D_1 0.50 - 0.70	Ø D_1 0.70 - 1.00	Ø D_1 1.00 - 1.50	Ø D_1 1.50 - 2.00	Ø D_1 2.00 - 3.00	Ø D_1 3.00 - 4.00	Ø D_1 4.00 - 6.00
P	Unalloyed steel, leaded steel	1 - 5		**40** - 60	**70** - 100	<1.5×ØD1	0.0035 - 0.009	0.004 - 0.014	0.008 - 0.020	0.010 - 0.026	0.014 - 0.040	0.018 - 0.048	0.020 - 0.066
P	Low alloyed steel < 800 N/mm²	6 - 9			**50** - 70	<0.8×ØD1	0.0032 - 0.008	0.004 - 0.012	0.006 - 0.018	0.010 - 0.024	0.012 - 0.036	0.016 - 0.044	0.018 - 0.060
P	High-alloy steel > 800 N/mm², stainless steel ferr.- marten.	10 - 13			**40** - 60	<0.5×ØD1	0.0028 - 0.007	0.004 - 0.010	0.006 - 0.016	0.008 - 0.020	0.012 - 0.032	0.014 - 0.038	0.016 - 0.052
M	Austenitic stainless steel < 700 N/mm²	14.1 - 14.2			**45** - 60	<0.3×ØD1	0.0030 - 0.008	0.004 - 0.012	0.006 - 0.016	0.008 - 0.022	0.012 - 0.034	0.016 - 0.040	0.018 - 0.056
M	Nickel-free stainless steel / DUPLEX > 700 N/mm²	14.3 - 14.4			**30** - 50	<0.3×ØD1	0.0026 - 0.007	0.004 - 0.010	0.006 - 0.014	0.008 - 0.020	0.010 - 0.030	0.014 - 0.036	0.016 - 0.050
K	Grey cast iron < 250 HB	15 - 16		**50** - 80	**60** - 90	<2×ØD1	0.0042 - 0.011	0.006 - 0.016	0.008 - 0.024	0.012 - 0.032	0.016 - 0.046	0.022 - 0.058	0.024 - 0.080
K	Ductile, malleable, nodular cast iron > 250 HB	17 - 20		**30** - 50	**30** - 50	<1×ØD1	0.0035 - 0.009	0.004 - 0.014	0.008 - 0.020	0.010 - 0.026	0.014 - 0.040	0.018 - 0.048	0.020 - 0.066
N	Wrought aluminium alloy < 12% Si	21 - 22		**80** - 130		<2×ØD1	0.0060 - 0.015	0.008 - 0.022	0.012 - 0.034	0.018 - 0.044	0.024 - 0.066	0.030 - 0.082	0.034 - 0.112
N	Cast aluminium alloy >12% Si	23 - 25		**70** - 110		<3×ØD1	0.0046 - 0.012	0.006 - 0.016	0.010 - 0.026	0.014 - 0.034	0.018 - 0.050	0.024 - 0.062	0.028 - 0.086
N	Copper alloy good machinability with Pb	26		**80** - 100		<4×ØD1	0.0060 - 0.0015	0.008 - 0.020	0.012 - 0.034	0.018 - 0.044	0.024 - 0.066	0.030 - 0.082	0.034 - 0.112
N	Copper alloy with difficult machinability	27 - 28		**40** - 70		<2×ØD1	0.0042 - 0.011	0.006 - 0.016	0.008 - 0.024	0.012 - 0.032	0.016 - 0.046	0.022 - 0.058	0.024 - 0.080
N	Gold, silver	-		**50** - 80		<0.5×ØD1	0.0035 - 0.009	0.004- 0.014	0.008 - 0.020	0.010 - 0.026	0.014 - 0.040	0.018 - 0.048	0.020 - 0.066
S	Refractory alloy, Fe, Ni, Co base	36 - 37		**30** - 50		<0.3×ØD1	0.0035 - 0.009	0.004- 0.014	0.008 - 0.020	0.010 - 0.026	0.014 - 0.040	0.018 - 0.048	0.020 - 0.066

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 !