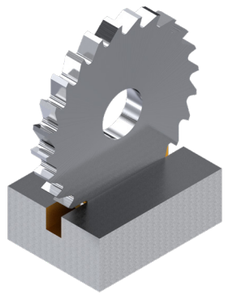
DIXI 1537

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

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

		VDI 3323		CARBIDE Vc [m/min]	CUTINOX Vc [m/min]
P	Unalloyed steel, leaded steel	1 - 5		150	175
P	Low alloyed steel < 800 N/mm²	6 - 9		125	145
P	High-alloy steel > 800 N/mm², stainless steel ferr.- marten.	10 - 13		100	125
M	Austenitic stainless steel < 700 N/mm²	14.1-14.2		140	165
M	Nickel-free stainless steel/DUPLEX >700 N/mm²	14.3-14.4		100	125
K	Grey cast iron < 250 HB	15 - 16		280	300
K	Ductile, malleable, nodular cast iron > 250 HB	17 - 20		180	200
N	Wrought aluminium alloy < 12% Si	21 - 22		300	325
N	Cast aluminium alloy >12% Si	23 - 25		250	275
N	Copper alloy good machinability with Pb	26		300	325
N	Copper alloy with difficult machinability	27 - 28		220	240
N	Plastic, wood	29 - 30		150	175
N	Gold, silver	-		220	240
S	Refractory alloy, Fe, Ni, Co base	31- 35		40	65
S	Titanium, titanium alloy	36 - 37		90	115

Feed per tooth fz [mm]

Ø D_1 50.00 - 63.00	Ø D_1 63.00 - 80.00	Ø D_1 80.00 - 100.00
0.0045 - 0.0070	0.005 - 0.008	0.005 - 0.008
0.0041 - 0.0062	0.004 - 0.007	0.004 - 0.007
0.0036 - 0.0056	0.004 - 0.006	0.004 - 0.006
0.0036 - 0.0056	0.004 - 0.006	0.004 - 0.006
0.0032 - 0.0048	0.003 - 0.005	0.003 - 0.006
0.0054 - 0.0084	0.006 - 0.009	0.006 - 0.010
0.0045 - 0.0070	0.005 - 0.008	0.005 - 0.008
0.0068 - 0.0104	0.007 - 0.011	0.007 - 0.012
0.0059 - 0.0090	0.006 - 0.010	0.006 - 0.010
0.0068 - 0.0104	0.007 - 0.011	0.007 - 0.012
0.0054 - 0.0084	0.006 - 0.009	0.006 - 0.010
0.0068 - 0.0104	0.007 - 0.011	0.007 - 0.012
0.0059 - 0.0090	0.006 - 0.010	0.006 - 0.010
0.0023 - 0.0034	0.002 - 0.004	0.002 - 0.004
0.0045 - 0.0070	0.005 - 0.008	0.005 - 0.008

Values based on use of cutting oil. 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 !