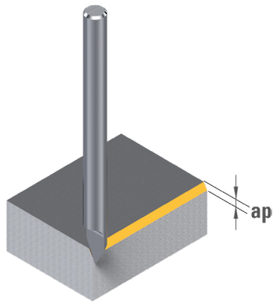
$$n\ [rpm] = \frac{Vc\ [m/min] \times 1000}{\pi \times D_1\ [mm]}$$

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

CHAMFERING

		VDI 3323	CARBIDE Vc [m/min]	TiAlN Vc [m/min]	ae (mm)	ap (mm)
P	Unalloyed steel, leaded steel	1 - 5	**85**	**120**	<0.5×ØD1	<0.5×ØD1
	Low alloyed steel < 800 N/mm²	6 - 9		**105**	<0.5×ØD1	<0.5×ØD1
	High-alloy steel > 800 N/mm², stainless steel ferr.- marten.	10 - 13		**95**	<0.5×ØD1	<0.5×ØD1
M	Austenitic stainless steel < 700 N/mm²	14.1-14.2		**80**	<0.5×ØD1	<0.5×ØD1
	Nickel-free stainless steel/DUPLEX >700 N/mm²	14.3-14.4		**55**	<0.25×ØD1	<0.25×ØD1
K	Grey cast iron < 250 HB	15 - 16	**85**	**100**	<0.5×ØD1	<0.5×ØD1
	Ductile, malleable, nodular cast iron > 250 HB	17 - 20	**55**	**80**	<0.5×ØD1	<0.5×ØD1
N	Wrought aluminium alloy < 12% Si	21 - 22	**220**		<0.75×ØD1	<0.75×ØD1
	Cast aluminium alloy >12% Si	23 - 25	**150**		<0.75×ØD1	<0.75×ØD1
	Copper alloy good machinability with Pb	26	**150**		<0.75×ØD1	<0.75×ØD1
	Copper alloy with difficult machinability	27 - 28	**130**		<0.5×ØD1	<0.5×ØD1
	Plastic, wood	29 - 30	**250**		<0.75×ØD1	<0.75×ØD1
	Gold, silver	-	**150**		<0.5×ØD1	<0.5×ØD1
S	Refractory alloy, Fe, Ni, Co base	31- 35		**35**	<0.25×ØD1	<0.25×ØD1
	Titanium, titanium alloy	36 - 37	**40**	**70**	<0.5×ØD1	<0.5×ØD1



Feed per tooth fz [mm]

Ø D_1 0.20 - 0.30	Ø D_1 0.40 - 0.70	Ø D_1 0.80 - 1.00	Ø D_1 1.20 - 3.00	Ø D_1 4.00 - 5.00	Ø D_1 6.00 - 8.00	Ø D_1 10.00 - 12.00	Ø D_1 16.00 - 20.00
0.002 - 0.003	0.004 - 0.007	0.008 - 0.010	0.012 - 0.030	0.040 - 0.050	0.060 - 0.080	0.090 - 0.100	0.120 - 0.160
0.001 - 0.003	0.004 - 0.006	0.007 - 0.009	0.011 - 0.027	0.036 - 0.045	0.054 - 0.070	0.080 - 0.090	0.100 - 0.150
0.001 - 0.002	0.003 - 0.006	0.006 - 0.008	0.010 - 0.024	0.032 - 0.040	0.048 - 0.065	0.070 - 0.080	0.090 - 0.130
0.001 - 0.002	0.003 - 0.006	0.006 - 0.008	0.010 - 0.024	0.032 - 0.040	0.048 - 0.065	0.070 - 0.080	0.090 - 0.130
0.001 - 0.002	0.003 - 0.005	0.006 - 0.007	0.008 - 0.021	0.028 - 0.035	0.042 - 0.055	0.060 - 0.070	0.080 - 0.110
0.002 - 0.004	0.005 - 0.008	0.010 - 0.012	0.014 - 0.036	0.048 - 0.060	0.072 - 0.095	0.110 - 0.120	0.140 - 0.190
0.002 - 0.003	0.004 - 0.007	0.008 - 0.010	0.012 - 0.030	0.040 - 0.050	0.060 - 0.080	0.090 - 0.100	0.120 - 0.160
0.002 - 0.005	0.006 - 0.011	0.012 - 0.015	0.018 - 0.045	0.060 - 0.075	0.090 - 0.120	0.140 - 0.140	0.170 - 0.240
0.002 - 0.004	0.005 - 0.009	0.010 - 0.013	0.016 - 0.039	0.052 - 0.065	0.078 - 0.105	0.120 - 0.120	0.150 - 0.210
0.002 - 0.005	0.006 - 0.011	0.012 - 0.015	0.018 - 0.045	0.060 - 0.075	0.090 - 0.120	0.140 - 0.140	0.170 - 0.240
0.002 - 0.004	0.005 - 0.008	0.010 - 0.012	0.014 - 0.036	0.048 - 0.060	0.072 - 0.095	0.110 - 0.120	0.170 - 0.240
0.002 - 0.005	0.006 - 0.011	0.012 - 0.015	0.018 - 0.045	0.060 - 0.075	0.090 - 0.120	0.140 - 0.140	0.150 - 0.210
0.002 - 0.003	0.004 - 0.007	0.008 - 0.010	0.012 - 0.030	0.040 - 0.050	0.060 - 0.080	0.090 - 0.100	0.090 - 0.100
0.001 - 0.002	0.002 - 0.004	0.004 - 0.005	0.006 - 0.015	0.020 - 0.025	0.030 - 0.040	0.050 - 0.050	0.050 - 0.050
0.002 - 0.003	0.004 - 0.007	0.008 - 0.010	0.012 - 0.030	0.040 - 0.050	0.060 - 0.080	0.090 - 0.100	0.090 - 0.100

Values based on use of cutting oil and 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 !