



ENGRAVING

		VDI 3323		CARBIDE Vc [m/min]	ap (mm)
P	Unalloyed steel, leaded steel	1 - 5		20 - 35'000	<0.05
N	Wrought aluminium alloy < 12% Si	21 - 22		20 - 35'000	<0.05
	Copper alloy good machinability with Pb	26		20 - 35'000	<0.05
	Copper alloy with difficult machinability	27 - 28		20 - 35'000	<0.05
	Gold, silver	-		20 - 35'000	<0.05

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

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

Feed rate Vf [mm/min]

Ø D ₁ 0.05 - 0.10	
50 - 200	
50 - 250	
50 - 250	
50 - 250	
50 - 250	

CHAMFERING

		VDI 3323		CARBIDE Vc [m/min]	ap (mm)
P	Unalloyed steel, leaded steel	1 - 5		20 - 35'000	<0.10
N	Wrought aluminium alloy < 12% Si	21 - 22		20 - 35'000	<0.15
	Copper alloy good machinability with Pb	26		20 - 35'000	<0.10
	Copper alloy with difficult machinability	27 - 28		20 - 35'000	<0.10
	Gold, silver	-		20 - 35'000	<0.10

Feed rate Vf [mm/min]

Ø D ₁ 0.05 - 0.10	
80 - 250	
80 - 250	
80 - 250	
80 - 250	
80 - 250	

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 !