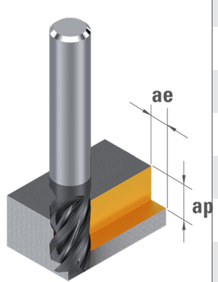
DIXI 7582

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

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

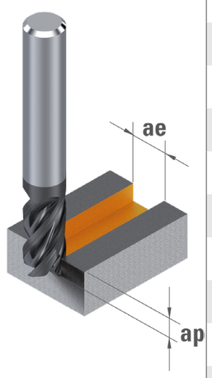
ROUTING

		VDI 3323		CARBIDE Vc [m/min]	TiAlN Vc[m/min]	DICUT Vc[m/min]	DIAMANT Vc [m/min]	ae (mm)	ap (mm)
P	Unalloyed steel, leaded steel	1 - 5			**150**			<0.3×ØD1	<1×L1
	Low alloyed steel < 800 N/mm²	6 - 9			**125**			<0.25×ØD1	<1×L1
K	Grey cast iron < 250 HB	15 - 16		**170**	**180**			<0.4×ØD1	<1×L1
	Ductile, malleable, nodular cast iron > 250 HB	17 - 20		**105**	**130**			<0.3×ØD1	<1×L1
N	Wrought aluminium alloy < 12% Si	21 - 22		**175**			**245**	<0.4×ØD1	<1×L1
	Cast aluminium alloy >12% Si	23 - 25		**150**			**200**	<0.4×ØD1	<1×L1
	Copper alloy good machinability with Pb	26		**110**		**130**	**150**	<0.4×ØD1	<1×L1
	Copper alloy with difficult machinability	27 - 28		**95**	**115**	**115**	**130**	<0.3×ØD1	<1×L1
	Graphite	-					**200**	<0.3×ØD1	<1×L1
	Gold, Silber	-		**165**			**230**	<0.3×ØD1	<1×L1
S	Titan, Titanlegierung	36 - 37		**60**	**70**			<0.3×ØD1	<1×L1

Feed per tooth fz [mm]

Ø D_1 1.00 - 3.00	Ø D_1 4.00 - 6.00	Ø D_1 8.00 - 12.00	Ø D_1 16.00 - 20.00
0.012 - 0.036	0.048 - 0.070	0.090 - 0.120	0.130 - 0.140
0.011 - 0.033	0.044 - 0.065	0.080 - 0.110	0.120 - 0.130
0.014 - 0.042	0.056 - 0.085	0.100 - 0.130	0.160 - 0.170
0.012 - 0.036	0.048 - 0.070	0.090 - 0.120	0.130 - 0.140
0.019 - 0.057	0.076 - 0.115	0.140 - 0.180	0.210 - 0.230
0.017 - 0.051	0.068 - 0.100	0.120 - 0.160	0.190 - 0.200
0.017 - 0.051	0.068 - 0.100	0.120 - 0.160	0.190 - 0.200
0.014 - 0.042	0.056 - 0.085	0.100 - 0.130	0.160 - 0.170
0.013 - 0.038	0.050 - 0.075	0.090 - 0.120	0.140 - 0.150
0.012 - 0.036	0.048 - 0.070	0.090 - 0.120	0.130 - 0.140
0.014 - 0.042	0.056 - 0.085	0.100 - 0.130	0.160 - 0.170

SLOTTING

		VDI 3323		CARBIDE Vc[m/min]	TiAlN Vc[m/min]	DICUT Vc[m/min]	DIAMANT Vc[m/min]	ae (mm)	ap (mm)
P	Unalloyed steel, leaded steel	1 - 5			**115**			<1×ØD1	<0.25×ØD1
	Low alloyed steel < 800 N/mm²	6 - 9			**95**			<1×ØD1	<0.2×ØD1
K	Grey cast iron < 250 HB	15 - 16		**100**	**135**			<1×ØD1	<0.5×ØD1
	Ductile, malleable, nodular cast iron > 250 HB	17 - 20		**85**	**95**			<1×ØD1	<0.25×ØD1
N	Wrought aluminium alloy < 12% Si	21 - 22		**130**			**180**	<1×ØD1	<1×ØD1
	Cast aluminium alloy >12% Si	23 - 25		**115**			**160**	<1×ØD1	<1×ØD1
	Copper alloy good machinability with Pb	26		**85**		**100**	**120**	<1×ØD1	<1×ØD1
	Copper alloy with difficult machinability	27 - 28		**70**	**85**	**85**	**100**	<1×ØD1	<0.25×ØD1
	Graphite	-					**160**	<1×ØD1	<0.25×ØD1
	Gold, Silber	-		**125**			**175**	<1×ØD1	<0.25×ØD1
S	Titan, Titanlegierung	36 - 37		**55**	**60**			<1×ØD1	<0.25×ØD1

Feed per tooth fz [mm]

Ø D_1 1.00 - 3.00	Ø D_1 4.00 - 6.00	Ø D_1 8.00 - 12.00	Ø D_1 16.00 - 20.00
0.007 - 0.022	0.028 - 0.040	0.055 - 0.070	0.080 - 0.085
0.007 - 0.020	0.026 - 0.040	0.050 - 0.065	0.070 - 0.080
0.008 - 0.025	0.034 - 0.050	0.060 - 0.080	0.095 - 0.100
0.007 - 0.022	0.028 - 0.040	0.055 - 0.070	0.080 - 0.085
0.011 - 0.034	0.046 - 0.070	0.085 - 0.110	0.125 - 0.140
0.010 - 0.031	0.040 - 0.060	0.070 - 0.095	0.115 - 0.120
0.010 - 0.031	0.040 - 0.060	0.070 - 0.095	0.115 - 0.120
0.008 - 0.025	0.034 - 0.050	0.060 - 0.080	0.095 - 0.100
0.008 - 0.023	0.030 - 0.045	0.055 - 0.070	0.085 - 0.090
0.007 - 0.022	0.028 - 0.040	0.055 - 0.070	0.080 - 0.085
0.008 - 0.025	0.034 - 0.050	0.060 - 0.080	0.095 - 0.100

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 !