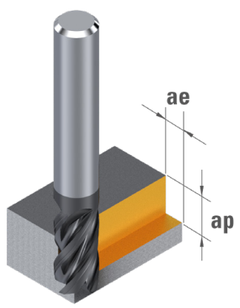
ROUTING

		VDI 3323	CARBIDE Vc [m/min]	TiAlN Vc [m/min]	ae (mm)	ap (mm)
P	Unalloyed steel, leaded steel	1 - 5		**100**	<0.3×ØD1	<1×ØD1
P	Low alloyed steel < 800 N/mm2	6 - 9		**80**	<0.2×ØD1	<1×ØD1
P	High-alloy steel > 800 N/mm2, stainless steel ferr.- marten.	10 - 13		**55**	<0.2×ØD1	<1×ØD1
M	Austenitic stainless steel < 700 N/mm2	14.1-14.2		**80**	<0.2×ØD1	<1×ØD1
M	Nickel-free stainless steel / DUPLEX > 700 N/mm2	14.3-14.4		**55**	<0.1×ØD1	<1×ØD1
K	Grey cast iron < 250 HB	15 - 16	**110**	**125**	<0.4×ØD1	<1×ØD1
K	Ductile, malleable, nodular cast iron > 250 HB	17 - 20	**75**	**115**	<0.3×ØD1	<1×ØD1
N	Wrought aluminium alloy < 12% Si	21 - 22	**320**		<0.4×ØD1	<1×ØD1
N	Cast aluminium alloy >12% Si	23 - 25	**260**		<0.4×ØD1	<1×ØD1
N	Copper alloy good machinability with Pb	26	**160**		<0.1×ØD1	<1×ØD1
N	Copper alloy with difficult machinability	27 - 28	**140**		<0.3×ØD1	<1×ØD1
N	Gold, silver	29 - 30	**210**		<0.5×ØD1	<1×ØD1
N	Plastic, wood	-	**180**		<0.4×ØD1	<1×ØD1
S	Refractory alloy, Fe, Ni, Co base	31- 35	**15**	**30**	<0.1×ØD1	<1×ØD1
S	Titane, alliage de titane	36 - 37	**60**	**70**	<0.3×ØD1	<1×ØD1



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

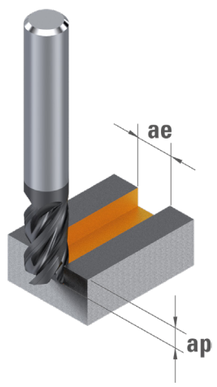
$$Vf\ [mm/min] = n\ [rpm] \times fz\ [mm] \times Z$$

Feed per tooth fz [mm]

Ø D_1 0.04 - 0.15	Ø D_1 0.20 - 0.50	Ø D_1 0.55 - 0.95	Ø D_1 1.00 - 1.50	Ø D_1 1.55 - 1.95	Ø D_1 2.00 - 3.00	Ø D_1 3.50 - 4.00	Ø D_1 4.50 - 5.50
0.0003 - 0.0011	0.002 - 0.004	0.004 - 0.008	0.008 - 0.012	0.012 - 0.016	0.016 - 0.025	0.028 - 0.032	0.036 - 0.044
0.0002 - 0.0009	0.001 - 0.004	0.004 - 0.007	0.007 - 0.011	0.011 - 0.014	0.014 - 0.020	0.025 - 0.028	0.032 - 0.039
0.0002 - 0.0008	0.001 - 0.003	0.003 - 0.006	0.006 - 0.009	0.009 - 0.012	0.012 - 0.020	0.021 - 0.024	0.027 - 0.033
0.0002 - 0.0008	0.001 - 0.003	0.003 - 0.006	0.006 - 0.009	0.009 - 0.012	0.012 - 0.020	0.021 - 0.024	0.027 - 0.033
0.0002 - 0.0007	0.001 - 0.003	0.003 - 0.005	0.005 - 0.008	0.008 - 0.010	0.010 - 0.015	0.018 - 0.020	0.023 - 0.028
0.0004 - 0.0016	0.002 - 0.006	0.007 - 0.011	0.012 - 0.018	0.019 - 0.023	0.024 - 0.035	0.042 - 0.048	0.054 - 0.066
0.0003 - 0.0014	0.002 - 0.005	0.006 - 0.010	0.010 - 0.015	0.016 - 0.020	0.020 - 0.030	0.035 - 0.040	0.045 - 0.055
0.0005 - 0.0020	0.003 - 0.008	0.008 - 0.014	0.015 - 0.023	0.023 - 0.029	0.030 - 0.045	0.053 - 0.060	0.068 - 0.083
0.0004 - 0.0018	0.003 - 0.007	0.007 - 0.012	0.013 - 0.020	0.020 - 0.025	0.026 - 0.040	0.046 - 0.052	0.058 - 0.072
0.0005 - 0.0020	0.003 - 0.008	0.008 - 0.014	0.015 - 0.023	0.023 - 0.029	0.030 - 0.045	0.053 - 0.060	0.068 - 0.083
0.0004 - 0.0016	0.002 - 0.006	0.007 - 0.011	0.012 - 0.018	0.019 - 0.023	0.024 - 0.035	0.042 - 0.048	0.054 - 0.066
0.0005 - 0.0020	0.003 - 0.008	0.008 - 0.014	0.015 - 0.023	0.023 - 0.029	0.030 - 0.045	0.053 - 0.060	0.068 - 0.083
0.0003 - 0.0014	0.002 - 0.005	0.006 - 0.010	0.010 - 0.015	0.016 - 0.020	0.020 - 0.030	0.035 - 0.040	0.045 - 0.055
0.0001 - 0.0005	0.001 - 0.002	0.002 - 0.004	0.004 - 0.006	0.006 - 0.008	0.008 - 0.010	0.014 - 0.016	0.018 - 0.022
0.0003 - 0.0014	0.002 - 0.005	0.006 - 0.010	0.010 - 0.015	0.016 - 0.020	0.020 - 0.030	0.035 - 0.040	0.045 - 0.055

SLOTTING

		VDI 3323	CARBIDE Vc [m/min]	TiAlN Vc [m/min]	ae (mm)	ap (mm)
P	Unalloyed steel, leaded steel	1 - 5		**70**	1×ØD1	<0.8×ØD1
P	Low alloyed steel < 800 N/mm2	6 - 9		**55**	1×ØD1	<0.8×ØD1
P	High-alloy steel > 800 N/mm2, stainless steel ferr.- marten.	10 - 13		**40**	1×ØD1	<0.6×ØD1
M	Austenitic stainless steel < 700 N/mm2	14.1-14.2		**55**	1×ØD1	<0.6×ØD1
M	Nickel-free stainless steel / DUPLEX > 700 N/mm2	14.3-14.4		**40**	1×ØD1	<0.6×ØD1
K	Grey cast iron < 250 HB	15 - 16	**75**	**90**	1×ØD1	<0.8×ØD1
K	Ductile, malleable, nodular cast iron > 250 HB	17 - 20	**55**	**80**	1×ØD1	<0.8×ØD1
N	Wrought aluminium alloy < 12% Si	21 - 22	**225**		1×ØD1	<1.0×ØD1
N	Cast aluminium alloy >12% Si	23 - 25	**185**		1×ØD1	<0.8×ØD1
N	Copper alloy good machinability with Pb	26	**110**		1×ØD1	<0.8×ØD1
N	Copper alloy with difficult machinability	27 - 28	**95**		1×ØD1	<0.8×ØD1
N	Gold, silver	29 - 30	**150**		1×ØD1	<1.0×ØD1
N	Plastic, wood	-	**125**		1×ØD1	<1.0×ØD1
S	Refractory alloy, Fe, Ni, Co base	31- 35	**10**	**20**	1×ØD1	<0.3×ØD1
S	Titane, alliage de titane	36 - 37	**40**	**50**	1×ØD1	<0.8×ØD1



DIXI 7250-3D / DIXI 7240-3D / DIXI 7240-5D ⇒ (ap & ae) -25 %
DIXI 7240-8D / DIXI 7240-10D ⇒ (ap & ae) -50 %
DIXI 7240-12D / DIXI 7240-15D ⇒ (ap & ae) -75 %

Feed per tooth fz [mm]

Ø D_1 0.04 - 0.15	Ø D_1 0.20 - 0.50	Ø D_1 0.55 - 0.95	Ø D_1 1.00 - 1.50	Ø D_1 1.55 - 1.95	Ø D_1 2.00 - 3.00	Ø D_1 3.50 - 4.00	Ø D_1 4.50 - 5.50
0.0002 - 0.0010	0.002 - 0.003	0.003 - 0.006	0.006 - 0.009	0.009 - 0.012	0.012 - 0.020	0.021 - 0.024	0.027 - 0.033
0.0002 - 0.0010	0.001 - 0.003	0.003 - 0.005	0.005 - 0.008	0.008 - 0.011	0.011 - 0.015	0.019 - 0.021	0.024 - 0.029
0.0002 - 0.0010	0.001 - 0.002	0.002 - 0.005	0.005 - 0.007	0.007 - 0.009	0.009 - 0.015	0.016 - 0.018	0.020 - 0.025
0.0002 - 0.0010	0.001 - 0.002	0.002 - 0.005	0.005 - 0.007	0.007 - 0.009	0.009 - 0.015	0.016 - 0.018	0.020 - 0.025
0.0002 - 0.0010	0.001 - 0.002	0.002 - 0.004	0.004 - 0.006	0.006 - 0.008	0.008 - 0.010	0.014 - 0.015	0.017 - 0.021
0.0003 - 0.0010	0.002 - 0.005	0.005 - 0.008	0.009 - 0.014	0.014 - 0.017	0.018 - 0.025	0.032 - 0.036	0.041 - 0.050
0.0002 - 0.0010	0.002 - 0.004	0.005 - 0.008	0.008 - 0.011	0.012 - 0.015	0.015 - 0.025	0.026 - 0.030	0.034 - 0.041
0.0004 - 0.0020	0.002 - 0.006	0.006 - 0.011	0.011 - 0.017	0.017 - 0.022	0.023 - 0.035	0.040 - 0.045	0.051 - 0.062
0.0003 - 0.0010	0.002 - 0.005	0.005 - 0.009	0.01 0- 0.015	0.015 - 0.019	0.020 - 0.030	0.035 - 0.039	0.044 - 0.054
0.0004 - 0.0020	0.002 - 0.006	0.006 - 0.011	0.011 - 0.017	0.017 - 0.022	0.023 - 0.035	0.040 - 0.045	0.051 - 0.062
0.0003 - 0.0010	0.002 - 0.005	0.005 - 0.008	0.009 - 0.014	0.014 - 0.017	0.018 - 0.025	0.032 - 0.036	0.041 - 0.050
0.0004 - 0.0020	0.002 - 0.006	0.006 - 0.011	0.011 - 0.017	0.017 - 0.022	0.023 - 0.035	0.040 - 0.045	0.051 - 0.062
0.0002 - 0.0010	0.002 - 0.004	0.005 - 0.008	0.008 - 0.011	0.012 - 0.015	0.015 - 0.025	0.026 - 0.030	0.034 - 0.041
0.0001 - 0.0004	0.001 - 0.002	0.002 - 0.003	0.003 - 0.005	0.005 - 0.006	0.006 - 0.010	0.011 - 0.012	0.014 - 0.017
0.0002 - 0.0010	0.002 - 0.004	0.005 - 0.008	0.008 - 0.011	0.012 - 0.015	0.015 - 0.025	0.026 - 0.030	0.034 - 0.041

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 !