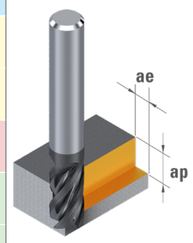
$$n\ [rpm] = \frac{Vc\ [m/min] \times 1000}{\pi \times D_1\ [mm]}$$

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

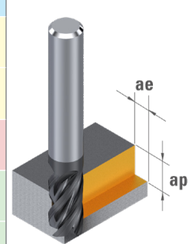
ROUTING / ROUGHING

		VDI 3323		Ø D_1 0.30 - 1.50		Ø D_1 1.60 - 4.50		Ø D_1 4.60 - 12.00	
				CARBIDE Vc [m/min]	C-TOP Vc [m/min]	CARBIDE Vc [m/min]	C-TOP Vc [m/min]	CARBIDE Vc [m/min]	C-TOP Vc [m/min]
P	Unalloyed steel, leaded steel	1 - 5			**30** - 50		**50** - 150		**120** - 280
P	Low alloyed steel < 800 N/mm²	6 - 9			**25** - 50		**50** - 125		**90** - 230
P	High-alloy steel > 800 N/mm², stainless steel ferr.- marten.	10 - 13			**25** - 35		**50** - 85		**90** - 130
M	Austenitic stainless steel < 700 N/mm²	14.1-14.2			**25** - 50		**50** - 150		**100** - 230
M	Nickel-free stainless steel / DUPLEX > 700 N/mm²	14.3-14.4			**20** - 45		**50** - 115		**75** - 180
K	Ductile, malleable, nodular cast iron > 250 HB	17 - 20		**15** - 35	**30** - 50	**40** - 90	**50** - 150	**60** - 140	**110** - 250
N	Copper alloy good machinability with Pb	26		**20** - 40	**30** - 50	**50** - 105	**50** - 150	**80** - 165	**150** - 300
N	Copper alloy with difficult machinability	27 - 28		**15** - 35	**30** - 50	**40** - 90	**50** - 150	**60** - 140	**130** - 280
N	Gold, silver	-		**20** - 45	**30** - 50	**50** - 110	**50** - 150	**75** - 170	**160** - 320
S	Refractory alloy, Fe, Ni, Co base	31 - 35			**15** - 30		**40** - 80		**60** - 120
S	Titanium, titanium alloy	36 - 37		**15** - 30	**30** - 45	**35** - 80	**50** - 110	**55** - 120	**120** - 170

Feed per tooth fz [mm]

Ø D_1 0.30 - 0.50		Ø D_1 0.50 - 0.80		Ø D_1 0.80 - 1.60		Ø D_1 1.60 - 3.00		Ø D_1 3.00 - 5.00		Ø D_1 *5.00 - 12.00	
fz	ae ap (mm)	fz	ae ap (mm)	fz	ae ap (mm)	fz	ae ap (mm)	fz	ae ap (mm)	fz	ae ap (mm)
0.0001 - 0.0002	< 0.30 × Ø < 2.00 × Ø	0.0002 - 0.0004	< 0.40 × Ø < 2.00 × Ø	0.0006 - 0.002	< 0.90 × Ø < 2.00 × Ø	0.002 - 0.006	< 0.90 × Ø < 2.00 × Ø	0.004 - 0.010	< 0.90 × Ø < 2.00 × Ø	0.007 - 0.020	< 0.30 × Ø < 2.00 × Ø
0.0001 - 0.0003	< 0.25 × Ø < 2.00 × Ø	0.0003 - 0.0005	< 0.40 × Ø < 2.00 × Ø	0.0005 - 0.002	< 0.90 × Ø < 2.00 × Ø	0.002 - 0.006	< 0.90 × Ø < 2.00 × Ø	0.004 - 0.008	< 0.90 × Ø < 2.00 × Ø	0.006 - 0.018	< 0.25 × Ø < 2.00 × Ø
0.0001 - 0.0003	< 0.25 × Ø < 2.00 × Ø	0.0003 - 0.0005	< 0.40 × Ø < 2.00 × Ø	0.0005 - 0.002	< 0.90 × Ø < 2.00 × Ø	0.001 - 0.005	< 0.90 × Ø < 2.00 × Ø	0.004 - 0.008	< 0.90 × Ø < 2.00 × Ø	0.006 - 0.018	< 0.25 × Ø < 2.00 × Ø
0.0001 - 0.0003	< 0.25 × Ø < 2.00 × Ø	0.0003 - 0.0005	< 0.40 × Ø < 2.00 × Ø	0.0005 - 0.002	< 0.90 × Ø < 2.00 × Ø	0.001 - 0.005	< 0.90 × Ø < 2.00 × Ø	0.004 - 0.008	< 0.90 × Ø < 2.00 × Ø	0.006 - 0.018	< 0.25 × Ø < 2.00 × Ø
0.0001 - 0.0002	< 0.20 × Ø < 2.00 × Ø	0.0002 - 0.0005	< 0.40 × Ø < 2.00 × Ø	0.0004 - 0.02	< 0.90 × Ø < 2.00 × Ø	0.001 - 0.005	< 0.90 × Ø < 2.00 × Ø	0.003 - 0.008	< 0.90 × Ø < 2.00 × Ø	0.006 - 0.016	< 0.20 × Ø < 2.00 × Ø
0.0002 - 0.0003	< 0.30 × Ø < 2.00 × Ø	0.0003 - 0.0007	< 0.40 × Ø < 2.00 × Ø	0.0006 - 0.002	< 0.90 × Ø < 2.00 × Ø	0.002 - 0.007	< 0.90 × Ø < 2.00 × Ø	0.005 - 0.010	< 0.90 × Ø < 2.00 × Ø	0.008 - 0.022	< 0.30 × Ø < 2.00 × Ø
0.0002 - 0.0005	< 0.30 × Ø < 2.00 × Ø	0.0004 - 0.009	< 0.40 × Ø < 2.00 × Ø	0.0008 - 0.003	< 0.90 × Ø < 2.00 × Ø	0.003 - 0.009	< 0.90 × Ø < 2.00 × Ø	0.006 - 0.014	< 0.90 × Ø < 2.00 × Ø	0.011 - 0.030	< 0.30 × Ø < 2.00 × Ø
0.0002 - 0.0004	< 0.30 × Ø < 2.00 × Ø	0.0004 - 0.007	< 0.40 × Ø < 2.00 × Ø	0.0007 - 0.002	< 0.90 × Ø < 2.00 × Ø	0.002 - 0.008	< 0.90 × Ø < 2.00 × Ø	0.005 - 0.012	< 0.90 × Ø < 2.00 × Ø	0.008 - 0.024	< 0.30 × Ø < 2.00 × Ø
0.0002 - 0.0003	< 0.30 × Ø < 2.00 × Ø	0.0003 - 0.007	< 0.40 × Ø < 2.00 × Ø	0.0006 - 0.002	< 0.90 × Ø < 2.00 × Ø	0.002 - 0.007	< 0.90 × Ø < 2.00 × Ø	0.005 - 0.010	< 0.90 × Ø < 2.00 × Ø	0.008 - 0.022	< 0.30 × Ø < 2.00 × Ø
0.0001 - 0.0002	< 0.15 × Ø < 2.00 × Ø	0.0001 - 0.0003	< 0.40 × Ø < 2.00 × Ø	0.0003 - 0.001	< 0.90 × Ø < 2.00 × Ø	0.001 - 0.003	< 0.90 × Ø < 2.00 × Ø	0.002 - 0.004	< 0.90 × Ø < 2.00 × Ø	0.004 - 0.010	< 0.15 × Ø < 2.00 × Ø
0.0002 - 0.0004	< 0.30 × Ø < 2.00 × Ø	0.0004 - 0.0007	< 0.40 × Ø < 2.00 × Ø	0.0007 - 0.002	< 0.90 × Ø < 2.00 × Ø	0.002 - 0.008	< 0.90 × Ø < 2.00 × Ø	0.005 - 0.010	< 0.90 × Ø < 2.00 × Ø	0.008 - 0.024	< 0.30 × Ø < 2.00 × Ø

ROUTING / FINISHING

		VDI 3323		Ø D_1 0.30 - 1.50		Ø D_1 1.60 - 4.50		Ø D_1 4.60 - 12.00	
				CARBIDE Vc [m/min]	C-TOP Vc [m/min]	CARBIDE Vc [m/min]	C-TOP Vc [m/min]	CARBIDE Vc [m/min]	C-TOP Vc [m/min]
P	Unalloyed steel, leaded steel	1 - 5			**30** - 50		**50** - 150		**150** - 350
P	Low alloyed steel < 800 N/mm²	6 - 9			**30** - 50		**50** - 150		**110** - 290
P	High-alloy steel > 800 N/mm², stainless steel ferr.- marten.	10 - 13			**30** - 40		**50** - 105		**110** - 160
M	Austenitic stainless steel < 700 N/mm²	14.1-14.2			**30** - 50		**50** - 150		**130** - 290
M	Nickel-free stainless steel / DUPLEX > 700 N/mm²	14.3-14.4			**25** - 50		**50** - 150		**90** - 230
K	Ductile, malleable, nodular cast iron > 250 HB	17 - 20		**20** - 45	**30** - 50	**50** - 150	**50** - 150	**80** - 180	**140** - 310
N	Copper alloy good machinability with Pb	26		**25** - 50	**30** - 50	**50** - 150	**50** - 150	**100** - 210	**190** - 380
N	Copper alloy with difficult machinability	27 - 28		**20** - 45	**30** - 50	**50** - 150	**50** - 150	**80** - 180	**160** - 350
N	Gold, silver	-		**25** - 50	**30** - 50	**50** - 150	**50** - 150	**90** - 210	**200** - 400
S	Refractory alloy, Fe, Ni, Co base	31 - 35			**20** - 40		**50** - 135		**80** - 150
S	Titanium, titanium alloy	36 - 37		**20** - 40	**30** - 50	**45** - 150	**50** - 110	**70** - 150	**150** - 210

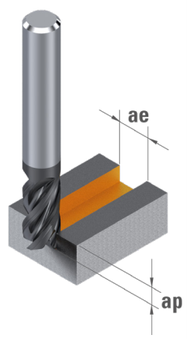
Ø D_1 0.30 - 0.50		Ø D_1 0.50 - 0.80		Ø D_1 0.80 - 1.60		Ø D_1 1.60 - 3.00		Ø D_1 3.00 - 5.00		Ø D_1 *5.00 - 12.00	
fz	ae ap (mm)	fz	ae ap (mm)	fz	ae ap (mm)	fz	ae ap (mm)	fz	ae ap (mm)	fz	ae ap (mm)
0.0004 - 0.0007	< 0.20 × Ø < 2.00 × Ø	0.0007 - 0.002	< 0.20 × Ø < 2.00 × Ø	0.002 - 0.006	< 0.20 × Ø < 2.00 × Ø	0.005 - 0.013	< 0.20 × Ø < 2.00 × Ø	0.011 - 0.022	< 0.20 × Ø < 2.00 × Ø	0.016 - 0.046	< 0.20 × Ø < 2.00 × Ø
0.0003 - 0.0006	< 0.15 × Ø < 2.00 × Ø	0.0008 - 0.003	< 0.15 × Ø < 2.00 × Ø	0.002 - 0.006	< 0.15 × Ø < 2.00 × Ø	0.005 - 0.012	< 0.15 × Ø < 2.00 × Ø	0.010 - 0.019	< 0.15 × Ø < 2.00 × Ø	0.014 - 0.042	< 0.15 × Ø < 2.00 × Ø
0.0003 - 0.0006	< 0.15 × Ø < 2.00 × Ø	0.0007 - 0.002	< 0.15 × Ø < 2.00 × Ø	0.002 - 0.005	< 0.15 × Ø < 2.00 × Ø	0.004 - 0.011	< 0.15 × Ø < 2.00 × Ø	0.009 - 0.018	< 0.15 × Ø < 2.00 × Ø	0.014 - 0.040	< 0.15 × Ø < 2.00 × Ø
0.0003 - 0.0006	< 0.15 × Ø < 2.00 × Ø	0.0007 - 0.002	< 0.15 × Ø < 2.00 × Ø	0.002 - 0.005	< 0.15 × Ø < 2.00 × Ø	0.004 - 0.011	< 0.15 × Ø < 2.00 × Ø	0.009 - 0.018	< 0.15 × Ø < 2.00 × Ø	0.014 - 0.040	< 0.15 × Ø < 2.00 × Ø
0.0003 - 0.0006	< 0.10 × Ø < 2.00 × Ø	0.0007 - 0.002	< 0.10 × Ø < 2.00 × Ø	0.002 - 0.005	< 0.10 × Ø < 2.00 × Ø	0.004 - 0.010	< 0.10 × Ø < 2.00 × Ø	0.009 - 0.017	< 0.10 × Ø < 2.00 × Ø	0.013 - 0.036	< 0.10 × Ø < 2.00 × Ø
0.0004 - 0.0008	< 0.20 × Ø < 2.00 × Ø	0.0009 - 0.003	< 0.20 × Ø < 2.00 × Ø	0.002 - 0.007	< 0.20 × Ø < 2.00 × Ø	0.006 - 0.014	< 0.20 × Ø < 2.00 × Ø	0.012 - 0.024	< 0.20 × Ø < 2.00 × Ø	0.018 - 0.050	< 0.20 × Ø < 2.00 × Ø
0.0006 - 0.0012	< 0.20 × Ø < 2.00 × Ø	0.0014 - 0.005	< 0.20 × Ø < 2.00 × Ø	0.003 - 0.010	< 0.20 × Ø < 2.00 × Ø	0.009 - 0.022	< 0.20 × Ø < 2.00 × Ø	0.018 - 0.037	< 0.20 × Ø < 2.00 × Ø	0.027 - 0.078	< 0.20 × Ø < 2.00 × Ø
0.0005 - 0.0010	< 0.20 × Ø < 2.00 × Ø	0.0012 - 0.004	< 0.20 × Ø < 2.00 × Ø	0.003 - 0.009	< 0.20 × Ø < 2.00 × Ø	0.007 - 0.018	< 0.20 × Ø < 2.00 × Ø	0.015 - 0.030	< 0.20 × Ø < 2.00 × Ø	0.022 - 0.064	< 0.20 × Ø < 2.00 × Ø
0.0005 - 0.0009	< 0.20 × Ø < 2.00 × Ø	0.0011 - 0.004	< 0.20 × Ø < 2.00 × Ø	0.002 - 0.008	< 0.20 × Ø < 2.00 × Ø	0.007 - 0.017	< 0.20 × Ø < 2.00 × Ø	0.014 - 0.028	< 0.20 × Ø < 2.00 × Ø	0.021 - 0.060	< 0.20 × Ø < 2.00 × Ø
0.0002 - 0.0004	< 0.08 × Ø < 2.00 × Ø	0.0004 - 0.001	< 0.08 × Ø < 2.00 × Ø	0.001 - 0.003	< 0.08 × Ø < 2.00 × Ø	0.003 - 0.006	< 0.08 × Ø < 2.00 × Ø	0.005 - 0.011	< 0.08 × Ø < 2.00 × Ø	0.008 - 0.024	< 0.08 × Ø < 2.00 × Ø
0.0004 - 0.0009	< 0.20 × Ø < 2.00 × Ø	0.001 - 0.004	< 0.20 × Ø < 2.00 × Ø	0.002 - 0.007	< 0.20 × Ø < 2.00 × Ø	0.006 - 0.016	< 0.20 × Ø < 2.00 × Ø	0.013 - 0.026	< 0.20 × Ø < 2.00 × Ø	0.019 - 0.056	< 0.20 × Ø < 2.00 × Ø

*D1 > 5.00mm --> Increase the cutting parameters if your spindle and workpiece support allow it.

SLOTTING

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

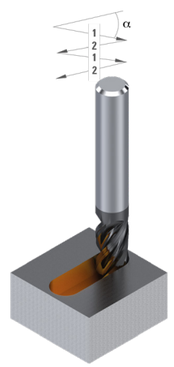
$$Vf\ [mm/min] = n\ [rpm] \times fz\ [mm] \times Z$$

		VDI 3323		Ø D_1 0.30 - 1.50		Ø D_1 1.60 - 4.50		Ø D_1 4.60 - 12.00	
				CARBIDE Vc [m/min]	C-TOP Vc [m/min]	CARBIDE Vc [m/min]	C-TOP Vc [m/min]	CARBIDE Vc [m/min]	C-TOP Vc [m/min]
P	Unalloyed steel, leaded steel	1 - 5			**25** - 50		**50** - 150		**100** - 240
P	Low alloyed steel < 800 N/mm²	6 - 9			**20** - 50		**50** - 125		**75** - 195
P	High-alloy steel > 800 N/mm², stainless steel ferr.- marten.	10 - 13			**20** - 30		**50** - 70		**75** - 110
M	Austenitic stainless steel < 700 N/mm²	14.1-14.2			**20** - 50		**50** - 125		**85** - 195
M	Nickel-free stainless steel / DUPLEX > 700 N/mm²	14.3-14.4			**15** - 40		**40** - 100		**65** - 155
K	Ductile, malleable, nodular cast iron > 250 HB	17 - 20		**15** - 30	**25** - 50	**35** - 80	**50** - 140	**50** - 120	**95** - 215
N	Copper alloy good machinability with Pb	26		**20** - 35	**30** - 50	**45** - 90	**50** - 150	**70** - 140	**130** - 255
N	Copper alloy with difficult machinability	27 - 28		**15** - 35	**30** - 50	**35** - 80	**50** - 150	**50** - 120	**110** - 240
N	Gold, silver	-		**15** - 30	**30** - 50	**40** - 95	**50** - 150	**65** - 145	**135** - 270
S	Refractory alloy, Fe, Ni, Co base	31 - 35			**15** - 25		**30** - 65		**50** - 100
S	Titanium, titanium alloy	36 - 37		**10** - 25	**25** - 35	**30** - 65	**50** - 95	**45** - 100	**100** - 145

Feed per tooth fz [mm]

Ø D_1 0.30 - 0.50		Ø D_1 0.50 - 0.80		Ø D_1 0.80 - 1.60		Ø D_1 1.60 - 3.00		Ø D_1 3.00 - 5.00		Ø D_1 *5.00 - 12.00	
fz	ap (mm)	fz	ap (mm)	fz	ap (mm)	fz	ap (mm)	fz	ap (mm)	fz	ap (mm)
0.0002 - 0.0004	< 0.50 × Ø	0.0007 - 0.0008	< 1.00 × Ø	0.0007 - 0.002	< 2.00 × Ø	0.002 - 0.006	< 2.00 × Ø	0.005 - 0.010	< 2.00 × Ø	0.009 - 0.020	< 1.00 × Ø
0.0002 - 0.0004	< 0.50 × Ø	0.0007 - 0.0008	< 1.00 × Ø	0.0006 - 0.002	< 2.00 × Ø	0.002 - 0.006	< 2.00 × Ø	0.005 - 0.010	< 2.00 × Ø	0.008 - 0.018	< 1.00 × Ø
0.0002 - 0.0004	< 0.50 × Ø	0.0007 - 0.0006	< 1.00 × Ø	0.0006 - 0.002	< 2.00 × Ø	0.001 - 0.005	< 2.00 × Ø	0.004 - 0.008	< 2.00 × Ø	0.007 - 0.018	< 1.00 × Ø
0.0002 - 0.0004	< 0.50 × Ø	0.0007 - 0.0006	< 1.00 × Ø	0.0006 - 0.002	< 2.00 × Ø	0.001 - 0.005	< 2.00 × Ø	0.004 - 0.008	< 2.00 × Ø	0.007 - 0.018	< 1.00 × Ø
0.0002 - 0.0004	< 0.25 × Ø	0.0004 - 0.0006	< 0.50 × Ø	0.0005 - 0.002	< 1.00 × Ø	0.001 - 0.005	< 1.00 × Ø	0.004 - 0.008	< 1.00 × Ø	0.007 - 0.016	< 0.25 × Ø
0.0002 - 0.0004	< 0.50 × Ø	0.0007 - 0.0008	< 1.00 × Ø	0.0007 - 0.003	< 2.00 × Ø	0.002 - 0.007	< 2.00 × Ø	0.006 - 0.012	< 2.00 × Ø	0.010 - 0.022	< 1.00 × Ø
0.0003 - 0.0006	< 0.50 × Ø	0.0007 - 0.0012	< 1.00 × Ø	0.001 - 0.003	< 2.00 × Ø	0.003 - 0.009	< 2.00 × Ø	0.008 - 0.016	< 2.00 × Ø	0.013 - 0.030	< 1.00 × Ø
0.0003 - 0.0006	< 0.50 × Ø	0.0007 - 0.0010	< 1.00 × Ø	0.0008 - 0.003	< 2.00 × Ø	0.002 - 0.008	< 2.00 × Ø	0.006 - 0.012	< 2.00 × Ø	0.011 - 0.024	< 1.00 × Ø
0.0002 - 0.0004	< 0.50 × Ø	0.0007 - 0.0008	< 1.00 × Ø	0.0007 - 0.003	< 2.00 × Ø	0.003 - 0.009	< 2.00 × Ø	0.006 - 0.012	< 2.00 × Ø	0.010 - 0.022	< 1.00 × Ø
0.0001 - 0.0002	< 0.50 × Ø	0.0002 - 0.0004	< 0.25 × Ø	0.0003 - 0.001	< 0.50 × Ø	0.001 - 0.003	< 1.00 × Ø	0.003 - 0.006	< 1.00 × Ø	0.004 - 0.010	< 0.25 × Ø
0.0003 - 0.0006	< 0.25 × Ø	0.0007 - 0.0010	< 1.00 × Ø	0.0008 - 0.003	< 2.00 × Ø	0.002 - 0.008	< 2.00 × Ø	0.006 - 0.012	< 2.00 × Ø	0.011 - 0.024	< 1.00 × Ø

RAMPING

		VDI 3323		Ø D_1 0.30 - 1.50		Ø D_1 1.60 - 4.50		Ø D_1 4.60 - 12.00	
				CARBIDE Vc [m/min]	C-TOP Vc [m/min]	CARBIDE Vc [m/min]	C-TOP Vc [m/min]	CARBIDE Vc [m/min]	C-TOP Vc [m/min]
P	Unalloyed steel, leaded steel	1 - 5			**25** - 50		**50** - 125		**100** - 190
P	Low alloyed steel < 800 N/mm²	6 - 9			**20** - 40		**50** - 100		**75** - 155
P	High-alloy steel > 800 N/mm², stainless steel ferr.- marten.	10 - 13			**20** - 25		**50** - 60		**75** - 90
M	Austenitic stainless steel < 700 N/mm²	14.1-14.2			**20** - 40		**50** - 100		**85** - 155
M	Nickel-free stainless steel / DUPLEX > 700 N/mm²	14.3-14.4			**15** - 30		**40** - 80		**65** - 120
K	Ductile, malleable, nodular cast iron > 250 HB	17 - 20		**15** - 30	**25** - 45	**35** - 80	**50** - 110	**50** - 120	**95** - 170
N	Copper alloy good machinability with Pb	26		**20** - 35	**30** - 50	**45** - 90	**50** - 135	**70** - 140	**130** - 205
N	Copper alloy with difficult machinability	27 - 28		**15** - 35	**30** - 50	**35** - 80	**50** - 125	**50** - 120	**110** - 190
N	Gold, silver	-		**15** - 30	**30** - 50	**40** - 95	**50** - 145	**65** - 145	**135** - 220
S	Refractory alloy, Fe, Ni, Co base	31 - 35			**15** - 20		**30** - 50		**50** - 80
S	Titanium, titanium alloy	36 - 37		**10** - 25	**25** - 35	**30** - 65	**50** - 75	**45** - 100	**100** - 115

Feed per tooth fz [mm]

Ø D_1 0.30 - 0.50		Ø D_1 0.50 - 0.80		Ø D_1 0.80 - 1.60		Ø D_1 1.60 - 3.00		Ø D_1 3.00 - 5.00		Ø D_1 *5.00 - 12.00	
fz	α(°)	fz	α(°)	fz	α(°)	fz	α(°)	fz	α(°)	fz	α(°)
0.0002 - 0.0004	< 7.5°	0.0004 - 0.0008	< 10°	0.0007 - 0.002	< 10°	0.002 - 0.005	< 10°	0.004 - 0.008	< 10°	0.007 - 0.020	< 7.5°
0.0002 - 0.0004	< 7.5°	0.0003 - 0.0008	< 10°	0.0006 - 0.002	< 10°	0.002 - 0.005	< 10°	0.004 - 0.008	< 10°	0.006 - 0.018	< 7.5°
0.0002 - 0.0004	< 7.5°	0.0003 - 0.0007	< 10°	0.0006 - 0.002	< 10°	0.002 - 0.004	< 10°	0.004 - 0.008	< 10°	0.006 - 0.018	< 7.5°
0.0002 - 0.0004	< 7.5°	0.0003 - 0.0007	< 10°	0.0006 - 0.002	< 10°	0.002 - 0.004	< 10°	0.004 - 0.008	< 10°	0.006 - 0.018	< 7.5°
0.0002 - 0.0004	< 3.5°	0.0003 - 0.0007	< 5°	0.0006 - 0.002	< 5°	0.001 - 0.004	< 5°	0.003 - 0.006	< 5°	0.006 - 0.016	< 3.5°
0.0002 - 0.0004	< 10°	0.0004 - 0.0009	< 12.5°	0.0008 - 0.002	< 12.5°	0.002 - 0.006	< 12.5°	0.005 - 0.010	< 12.5°	0.008 - 0.022	< 10°
0.0003 - 0.0006	< 10°	0.0005 - 0.0013	< 12.5°	0.0011 - 0.003	< 12.5°	0.003 - 0.008	< 12.5°	0.006 - 0.012	< 12.5°	0.011 - 0.030	< 10°
0.0003 - 0.0006	< 10°	0.0004 - 0.0010	< 12.5°	0.0008 - 0.003	< 12.5°	0.002 - 0.006	< 12.5°	0.005 - 0.010	< 12.5°	0.008 - 0.024	< 10°
0.0002 - 0.0004	< 10°	0.0004 - 0.0009	< 12.5°	0.0008 - 0.002	< 12.5°	0.002 - 0.006	< 12.5°	0.005 - 0.010	< 12.5°	0.008 - 0.022	< 10°
0.0001 - 0.0002	< 2°	0.0002 - 0.0004	< 2.5°	0.0004 - 0.001	< 2.5°	0.001 - 0.003	< 2.5°	0.002 - 0.004	< 2.5°	0.004 - 0.010	< 2°
0.0003 - 0.0006	< 3.5°	0.0004 - 0.0010	< 5°	0.0008 - 0.003	< 5°	0.002 - 0.006	< 5°	0.005 - 0.010	< 5°	0.008 - 0.024	< 3.5°

*D1 > 5.00mm --> Increase the cutting parameters if your spindle and workpiece support allow it.