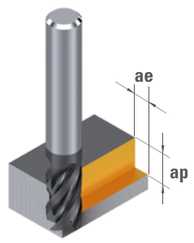
Routing

		VDI 3323		DIXMILL Vc [m/min]	ap [mm]	ae [mm]
P	Unalloyed steel	1 - 4		**280** - 320	< 2 × D_1	0.05 × D_1
		5		**180** - 220	< 2 × D_1	0.05 × D_1
	Low alloyed steel - Rm < 800 N/mm²	6 - 7		**280** - 320	< 2 × D_1	0.05 × D_1
		8 - 9		**180** - 220	< 2 × D_1	0.05 × D_1
	High alloyed steel - Rm 700-1500 N/mm²	10 - 11		**90** - 120	< 2 × D_1	0.05 × D_1
	Martensitic stainless steel	12 - 13		**200** - 225	< 2 × D_1	0.05 × D_1
M	Austenitic stainless steel	14.1 - 14.2		**140** - 160	< 2 × D_1	0.05 × D_1
	DUPLEX stainless steel	14.3 - 14.4		**125** - 140	< 2 × D_1	0.05 × D_1
S	Special alloys / Heat resistant stainless steel	31-35		**30** - 40	< 2 × D_1	0.05 × D_1
	Titanium, titanium alloys	36 - 37		**110** - 120	< 2 × D_1	0.05 × D_1

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

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

Feed per tooth fz [mm]

Ø D_1 6.00	Ø D_1 8.00	Ø D_1 10.00	Ø D_1 12.00	Ø D_1 16.00	Ø D_1 20.00	Ø D_1 25.00
0.068	0.116	0.144	0.173	0.202	0.225	0.232
0.050	0.085	0.106	0.128	0.149	0.167	0.174
0.068	0.116	0.144	0.173	0.202	0.225	0.232
0.050	0.085	0.106	0.128	0.149	0.167	0.174
0.041	0.071	0.088	0.105	0.123	0.137	0.144
0.049	0.084	0.104	0.125	0.146	0.162	0.168
0.041	0.071	0.088	0.105	0.123	0.137	0.143
0.041	0.071	0.088	0.105	0.123	0.137	0.142
0.033	0.055	0.070	0.082	0.097	0.112	0.115
0.033	0.055	0.070	0.083	0.097	0.113	0.117