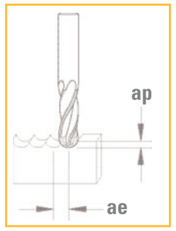
DIXI 7033 - 7034

SCHNITTBEDINGUNGEN



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

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

Vorschub pro Zahn **fz [mm]**

	Zu bearbeitender Werkstoff		VHM Vc [m/min]		TiAlN Vc [m/min]		ap [mm]	ae [mm]	Ø D_1 0.20 - 0.60	Ø D_1 0.60 - 1.00	Ø D_1 1.00 - 1.50	Ø D_1 1.50 - 3.00	Ø D_1 3.00 - 5.00	Ø D_1 5.00 - 7.00	Ø D_1 7.00 - 10.00	Ø D_1 10.00 - 12.00	Ø D_1 12.00 - 20.00
P	Niedrig leg. / unleg. Stahl	< 600 N/mm²	**70**	100	**90**	110	<0.15 x ØD1	<0.3 x ØD1	**0.005** - 0.01	**0.008** - 0.02	**0.016** - 0.05	**0.026** - 0.06	**0.036** - 0.09	**0.05** - 0.13	**0.07** - 0.15	**0.08** - 0.18	**0.11** - 0.22
P	Niedrig leg. / unleg. Stahl	600 – 1500 N/mm²			**70**	90	<0.15 x ØD1	<0.3 x ØD1	**0.004** - 0.01	**0.006** - 0.02	**0.012** - 0.03	**0.020** - 0.05	**0.027** - 0.07	**0.04** - 0.09	**0.05** - 0.10	**0.06** - 0.13	**0.09** - 0.17
P	Bleilegierter Automatenstahl		**70**	100			<0.20 x ØD1	<0.3 x ØD1	**0.007** - 0.02	**0.010** - 0.03	**0.020** - 0.07	**0.033** - 0.09	**0.046** - 0.13	**0.07** - 0.18	**0.09** - 0.21	**0.10** - 0.26	**0.13** - 0.29
P	Hochlegierter Stahl	700 – 1500 N/mm²			**40**	70	<0.10 x ØD1	<0.2 x ØD1	**0.004** - 0.01	**0.006** - 0.02	**0.012** - 0.03	**0.020** - 0.05	**0.027** - 0.07	**0.04** - 0.09	**0.05** - 0.10	**0.06** - 0.13	**0.09** - 0.17
M	Rostfreier Stahl	400 – 700 N/mm²			**70**	90	<0.15 x ØD1	<0.3 x ØD1	**0.004** - 0.01	**0.006** - 0.02	**0.012** - 0.03	**0.020** - 0.05	**0.027** - 0.07	**0.04** - 0.09	**0.05** - 0.10	**0.06** - 0.13	**0.09** - 0.17
M	DUPLEX rostfreier Stahl	> 800 N/mm²			**40**	70	<0.10 x ØD1	<0.2 x ØD1	**0.004** - 0.01	**0.006** - 0.02	**0.012** - 0.03	**0.020** - 0.05	**0.027** - 0.07	**0.04** - 0.09	**0.05** - 0.10	**0.06** - 0.13	**0.09** - 0.17
K	Grauguss / Sphäroguss perlitisch	< 250 HB	**70**	100	**90**	110	<0.15 x ØD1	<0.3 x ØD1	**0.005** - 0.01	**0.008** - 0.02	**0.016** - 0.05	**0.026** - 0.06	**0.036** - 0.09	**0.05** - 0.13	**0.07** - 0.15	**0.08** - 0.18	**0.11** - 0.21
K	Leg. Grauguss / Sphäroguss perlitisch	> 250 HB	**40**	70	**70**	90	<0.10 x ØD1	<0.2 x ØD1	**0.004** - 0.01	**0.006** - 0.02	**0.012** - 0.03	**0.020** - 0.05	**0.027** - 0.07	**0.04** - 0.09	**0.05** - 0.10	**0.06** - 0.13	**0.09** - 0.17
K	Sphäroguss ferritisch / Temperguss		**70**	100	**90**	110	<0.15 x ØD1	<0.3 x ØD1	**0.005** - 0.01	**0.008** - 0.02	**0.016** - 0.05	**0.026** - 0.06	**0.036** - 0.09	**0.05** - 0.13	**0.07** - 0.15	**0.08** - 0.18	**0.11** - 0.21
S	Sonderlegierungen / Warmfester rostfreier Stahl	Inconel Nimonic Hastelloy			**25**	35	<0.10 x ØD1	<0.2 x ØD1	**0.004** - 0.01	**0.006** - 0.02	**0.012** - 0.03	**0.020** - 0.05	**0.027** - 0.07	**0.04** - 0.09	**0.05** - 0.10	**0.06** - 0.13	**0.09** - 0.17
S	Titan, Titanlegierung		**30**	45			<0.10 x ØD1	<0.2 x ØD1	**0.004** - 0.01	**0.006** - 0.02	**0.012** - 0.03	**0.020** - 0.05	**0.027** - 0.07	**0.04** - 0.09	**0.05** - 0.10	**0.06** - 0.13	**0.09** - 0.17
N	Kupfer-Legierung / gut zerspanbar (Messing – Bronze)		**140**	160			<0.15 x ØD1	<0.3 x ØD1	**0.007** - 0.02	**0.010** - 0.03	**0.020** - 0.07	**0.033** - 0.09	**0.046** - 0.13	**0.07** - 0.18	**0.09** - 0.21	**0.10** - 0.26	**0.13** - 0.29
N	Kupfer-Legierung / schwer zerspanbar / Aluminium-Bronze	(CuAlFe) (Ampco)	**120**	140	**170**	190	<0.15 x ØD1	<0.3 x ØD1	**0.004** - 0.01	**0.006** - 0.02	**0.012** - 0.03	**0.020** - 0.05	**0.027** - 0.07	**0.04** - 0.09	**0.05** - 0.10	**0.06** - 0.13	**0.09** - 0.17
N	Aluminium-Knetlegierung	Si < 8%	**180**	260	**230**	340	<0.25 x ØD1	<0.3 x ØD1	**0.007** - 0.02	**0.010** - 0.03	**0.020** - 0.07	**0.033** - 0.09	**0.046** - 0.13	**0.07** - 0.18	**0.09** - 0.21	**0.10** - 0.26	**0.13** - 0.29
N	Aluminium-Gusslegierung	Si > 8%	**140**	160	**210**	230	<0.25 x ØD1	<0.3 x ØD1	**0.007** - 0.02	**0.010** - 0.03	**0.020** - 0.07	**0.033** - 0.09	**0.046** - 0.13	**0.07** - 0.18	**0.09** - 0.21	**0.10** - 0.26	**0.13** - 0.29
N	Kunststoff		**240**	260	**300**	340	<0.30 x ØD1	<0.4 x ØD1	**0.009** - 0.03	**0.014** - 0.05	**0.027** - 0.10	**0.046** - 0.14	**0.064** - 0.20	**0.09** - 0.27	**0.13** - 0.31	**0.15** - 0.39	**0.18** - 0.42
N	Gold, Silber		**140**	160	**200**	220	<0.15 x ØD1	<0.3 x ØD1	**0.007** - 0.02	**0.010** - 0.03	**0.020** - 0.07	**0.033** - 0.09	**0.046** - 0.13	**0.07** - 0.18	**0.09** - 0.21	**0.10** - 0.26	**0.13** - 0.29