

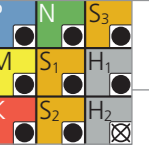
NEW

Typ N - Schichten

$v_c$  [m/min]  
 $f_z$  [mm]

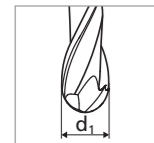
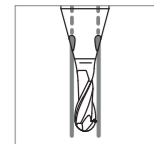
ANWENDUNGSEMPFEHLUNG

● Sehr gut geeignet | ● Gut geeignet | ○ bedingt geeignet | ☒ Nicht empfohlen



FRÄSEN MIT INTEGRIERTER KÜHLUNG | SCHNITTDATENÜBERSICHT

Neigung 15°  
  
■  $a_p = 0.1 \times d$ ,  
■  $a_e = 0.05 - 0.1 \times d$ ,  
 $n_{max} = 60'000$  rpm



Werkstoffgruppe	Werkstoff	Wr.Nr.	DIN	AISI/ASTM/UNS	1.0 mm		1.2 mm		1.5 mm 1/16"		1.8 mm		Ød1 2.0 mm		2.5 mm 3/32"		3.0 mm 1/8"		4.0 mm 5/32"		5.0 mm 3/16"		6.0 mm–8.0 mm 7/32–1/4"		
					$v_c$	$f_z$	$v_c$	$f_z$	$v_c$	$f_z$	$v_c$	$f_z$	$v_c$	$f_z$	$v_c$	$f_z$	$v_c$	$f_z$	$v_c$	$f_z$	$v_c$	$f_z$	$v_c$	$f_z$	
P	Stähle unlegiert Rm < 800 N/mm²	1.0301	C10	AISI 1010	140	0.015	140	0.017	200	0.024	200	0.026	220	0.034	220	0.036	240	0.035	260	0.044	260	0.044	260	0.047	
		1.0401	C15	AISI 1015																					
		1.1191	C45E/CK45	AISI 1045																					
		1.0044	S275JR	AISI 1020																					
		1.0715	11SMn30	AISI 1215																					
		1.5752	15NiCr13	ASTM 3415 / AISI 3310																					
	Stähle niedriglegiert Rm > 900 N/mm²	1.7131	16MnCr5	AISI 5115	140	0.014	140	0.016	200	0.022	200	0.024	220	0.032	220	0.034	240	0.033	260	0.042	260	0.042	260	0.045	
		1.3505	100Cr6	AISI 52100																					
		1.7225	42CrMo4	AISI 4140																					
		1.2842	90MnCrV8	AISI O2																					
		1.2379	X153CrMoV12	AISI D2																					
		1.2436	X210CrW12	AISI D4/D6																					
Werkzeugstähle hochlegiert Rm < 1200 N/mm²	1.3343	HS6-5-2C	AISI M2 / UNS T11302	140	0.011	140	0.013	200	0.020	200	0.022	220	0.030	220	0.032	240	0.031	260	0.039	260	0.037	260	0.041		
	1.2842	90MnCrV8	AISI O2																						
	1.3355	HS18-0-1	AISI T1 / UNS T12001																						
	1.4016	X6Cr17	AISI 430 / UNS S43000																						
	1.4105	X6CrMoS17	AISI 430F																						
	1.4034	X46Cr13	AISI 420C																						
M	Rostfreie Stähle- ferritisch	1.4112	X90CrMoV18	AISI 440B	140	0.015	140	0.017	200	0.022	200	0.024	220	0.032	220	0.034	240	0.032	260	0.040	260	0.040	260	0.043	
		1.4542	X5CrNiCuNb16-4	AISI 630 / ASTM 17-4 PH																					
		1.4545	X5CrNiCuNb15-5	ASTM 15-5 PH																					
	Rostfreie Stähle- martensitisch – PH	1.4301	X5CrNi18-10	AISI 304	140	0.015	140	0.017	200	0.022	200	0.024	220	0.032	220	0.034	240	0.032	260	0.040	260	0.040	260	0.043	
		1.4435	X2CrNiMo18-14-3	AISI 316L																					
		1.4441	X2CrNiMo18-15-3	AISI 316LM																					
		1.4539	X1NiCrMoCu25-20-5	AISI 904L																					
		1.4301	X5CrNi18-10	AISI 304																					
Rostfreie Stähle- austenitisch	1.4435	X2CrNiMo18-14-3	AISI 316L	140	0.012	140	0.014	200	0.016	200	0.018	220	0.030	220	0.032	240	0.030	260	0.039	260	0.039	260	0.041		
	1.4441	X2CrNiMo18-15-3	AISI 316LM																						
	1.4539	X1NiCrMoCu25-20-5	AISI 904L																						
	0.6020	GG20	ASTM 30																						
	0.6030	GG30	ASTM 40B																						
K	Gusseisen	0.7040	GGG40	ASTM 60-40-18	120	0.011	120	0.022	140	0.024	140	0.026	160	0.028	160	0.036	180	0.037	200	0.046	200	0.046	200	0.049	
		0.7060	GGG60	ASTM 80-60-03																					
		3.2315	AlMgSi1	ASTM 6351																					
		3.4365	AlZnMgCu1.5	ASTM 7075																					
N	Aluminium Knetlegierungen	3.2163	GD-AlSi9Cu3	ASTM A380	140	0.018	140	0.020	200	0.026	200	0.028	220	0.036	220	0.040	240	0.051	260	0.048	260	0.053	260	0.051	
		3.2381	GD-AlSi10Mg	UNS A03590																					
	Aluminium Druckgusslegierungen	2.0040	Cu-OF / CW008A	UNS C10100	140	0.020	140	0.022	200	0.026	200	0.028	220	0.036	220	0.040	240	0.051	260	0.048	260	0.053	260	0.051	
		2.0065	Cu-ETP / CW004A	UNS C11000																					
	Kupfer	2.0321	CuZn37 CW508L	UNS C27400	140	0.020	140	0.022	200	0.026	200	0.028	220	0.036	220	0.040	240	0.051	260	0.048	260	0.053	260	0.051	
		2.0360	CuZn40 CW509L	UNS C28000																					
	Messing bleifrei	2.0401	CuZn39Pb3 / CW614N	UNS C38500	140	0.020	140	0.022	200	0.026	200	0.028	220	0.036	220	0.040	240	0.051	260	0.048	260	0.053	260	0.051	
		2.1020	CuSn6	UNS C51900																					
	Messing, Bronze Rm < 400 N/mm²	2.0966	CuAl10Ni5Fe4	UNS C63000	140	0.018	140	0.020	200	0.026	200	0.028	220	0.036	220	0.040	240	0.051	260	0.048	260	0.053	260	0.051	
		2.0960	CuAl9Mn2	UNS C63200																					
	S1	Hitzebeständige Stähle	2.4856		Inconel 625	120	0.007	120	0.008	130	0.009	130	0.010	140	0.010	140	0.012	150	0.013	170	0.018	170	0.018	170	0.019
			2.4668		Inconel 718																				
2.4617			NiMo28	Hastelloy B-2																					
2.4665			NiCr22Fe18Mo	Hastelloy X																					
S2	Titan rein	3.7035	Gr.2	ASTM B348 / F67	120	0.016	120	0.018	130	0.020	130	0.022	140	0.028	140	0.030	150	0.030	170	0.037	170	0.039	170	0.039	
		3.7065	Gr.4	ASTM B348 / F68																					
S3	Titan Legierungen	3.7165	TiAl6V4	ASTM B348 / F136	120	0.016	120	0.018	130	0.020	130	0.022	140	0.028	140	0.030	150	0.030	170	0.037	170	0.039	170	0.039	
		9.9367	TiAl6Nb7	ASTM F1295																					
H1	Stähle gehärtet < 55 HRC	2.4964	CoCr20W15Ni	Haynes 25	140	0.007	140	0.008	180	0.009	180	0.010	200	0.010	200	0.012	220	0.013	240	0.018	240	0.018	240	0.019	
			CrCoMo28	ASTM F1537																					
H2	Stähle gehärtet ≥ 55 HRC	1.2510	100MnCrMoW4	AISI O1	100	0.010	100	0.012	140	0.014	140	0.018	180	0.020	180	0.026	200	0.026	240	0.028	240	0.035	240	0.030	
		1.2379	X153CrMoV12	AISI D2																					