

NEW

Type N - Semi-finishing

v_c [m/min]
 f_z [mm]

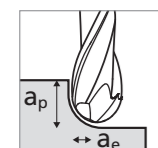
RECOMMENDATION FOR USE
● Excellent | ● Good | ○ Acceptable | ☒ Not recommended



MILLING WITH INTEGRATED COOLING | CUTTING DATA OVERVIEW

Possibility 1

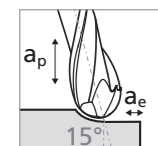
Inclination 0°



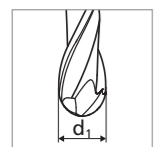
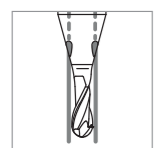
■ $a_p = 0.5 \times d$
■ $a_e = 0.2 \times d$

Possibility 2

Inclination 15°



■ $a_p = 0.5 \times d$
■ $a_e = 0.2 \times d$



Materials group	Material	Mat. no.	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	Unalloyed carbon steel Rm < 800 N/mm²	1.0301	C10	AISI 1010																						
		1.0401	C15	AISI 1015																						
		1.1191	C45E/CK45	AISI 1045																						
		1.0044	S275JR	AISI 1020																						
		1.0715	11SMn30	AISI 1215																						
	Low alloyed steel Rm > 900 N/mm²	1.5752	15NiCr13	ASTM 3415 / AISI 3310																						
		1.7131	16MnCr5	AISI 5115																						
		1.3505	100Cr6	AISI 52100																						
		1.7225	42CrMo4	AISI 4140																						
		1.2842	90MnCrV8	AISI O2																						
High alloyed tool steel Rm < 1200 N/mm²	1.2379	X153CrMoV12	AISI D2																							
	1.2436	X210CrW12	AISI D4/D6																							
	1.3343	HS6-5-2C	AISI M2 / UNS T11302																							
	1.3355	HS18-0-1	AISI T1 / UNS T12001																							
M	Stainless steel ferritic	1.4016	X6Cr17	AISI 430 / UNS S43000																						
		1.4105	X6CrMoS17	AISI 430F																						
		1.4034	X46Cr13	AISI 420C																						
	Stainless steel martensitic	1.4112	X90CrMoV18	AISI 440B																						
		1.4542	X5CrNiCuNb16-4	AISI 630 / ASTM 17-4 PH																						
	Stainless steel martensitic – PH	1.4545	X5CrNiCuNb15-5	ASTM 15-5 PH																						
		1.4301	X5CrNi18-10	AISI 304																						
Stainless steel austenitic	1.4435	X2CrNiMo18-14-3	AISI 316L																							
	1.4441	X2CrNiMo18-15-3	AISI 316LM																							
	1.4539	X1NiCrMoCu25-20-5	AISI 904L																							
K	Cast iron	0.6020	GG20	ASTM 30																						
		0.6030	GG30	ASTM 40B																						
		0.7040	GGG40	ASTM 60-40-18																						
		0.7060	GGG60	ASTM 80-60-03																						
N	Aluminium alloy wrought	3.2315	AlMgSi1	ASTM 6351																						
		3.4365	AlZnMgCu1.5	ASTM 7075																						
	Aluminium alloy cast	3.2163	GD-AlSi9Cu3	ASTM A380																						
		3.2381	GD-AlSi10Mg	UNS A03590																						
	Copper	2.0040	Cu-OF / CW008A	UNS C10100																						
		2.0065	Cu-ETP / CW004A	UNS C11000																						
	Brass lead free	2.0321	CuZn37 CW508L	UNS C27400																						
		2.0360	CuZn40 CW509L	UNS C28000																						
	Brass, Bronze Rm < 400 N/mm²	2.0401	CuZn39Pb3 / CW614N	UNS C38500																						
		2.1020	CuSn6	UNS C51900																						
Bronze Rm < 600 N/mm²	2.0966	CuAl10Ni5Fe4	UNS C63000																							
	2.0960	CuAl9Mn2	UNS C63200																							
S ₁	Super alloys	2.4856		Inconel 625																						
		2.4668		Inconel 718																						
		2.4617	NiMo28	Hastelloy B-2																						
		2.4665	NiCr22Fe18Mo	Hastelloy X																						
S ₂	Titanium pure	3.7035	Gr.2	ASTM B348 / F67																						
		3.7065	Gr.4	ASTM B348 / F68																						
S ₃	Titanium alloys	3.7165	TiAl6V4	ASTM B348 / F136																						
		9.9367	TiAl6Nb7	ASTM F1295																						
H ₁	Hardened steel < 55 HRC	2.4964	CoCr20W15Ni	Haynes 25																						
			CrCoMo28	ASTM F1537																						
H ₂	Hardened steel ≥ 55 HRC	1.2510	100MnCrMoW4	AISI O1																						
		1.2379	X153CrMoV12	AISI D2																						