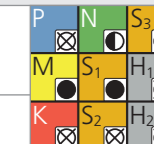
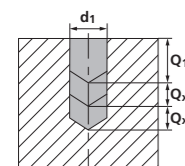
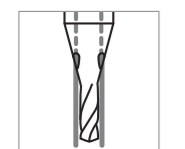


Type IK 8 x d / 12 x d

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



DRILLING WITH INTEGRATED COOLING | CUTTING DATA OVERVIEW



Materials group	Material	Mat. no.	DIN	AISI/ASTM/UNS	v _c [m/min] [SFM]	Q ₁	Q ₂	Q ₃	f [mm/rev] [IPR]							
									1/64"	1/32"	Ød1		1/16"			
									0.2-0.5mm .008"- .020"	0.6-0.8mm .024"- .032"	0.9-1.1mm .035"- .043"	1.2-1.4mm .047"- .055"	1.5-1.7mm .059"- .067"	1.8-2.0mm .071"- .079"		
									f	f	f	f	f	f		
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												
		1.5752	15NiCr13	ASTM 3415 / AISI 3310												
	Low alloyed steel Rm > 900 N/mm²	1.7131	16MnCr5	AISI 5115												
		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												
High alloyed tool steel Rm < 1200 N/mm²	1.3343	HS6-5-2C	AISI M2 / UNS T11302													
	1.3355	HS18-0-1	AISI T1 / UNS T12001													
	Stainless steel ferritic	1.4016	X6Cr17	AISI 430 / UNS S43000	35-50 115 - 164	1xd1-4xd1	1xd1-2xd1	0.015-0.020 .0006-.0008	0.020-0.030 .0008-.0012	0.030-0.040 .0012-.0016	0.040-0.050 .0016-.0020	0.050-0.060 .0020-.0024	0.060-0.070 .0024-.0028			
		1.4105	X6CrMoS17	AISI 430F												
	Stainless steel martensitic	1.4034	X46Cr13	AISI 420C	35-50 115 - 164	1xd1-4xd1	1xd1-2xd1	0.020-0.030 .0008-.0012	0.030-0.040 .0012-.0016	0.050-0.060 .0020-.0024	0.060-0.070 .0024-.0028	0.070-0.080 .0028-.0031	0.080-0.100 .0031-.0039			
		1.4112	X90CrMoV18	AISI 440B												
Stainless steel martensitic - PH	1.4542	X5CrNiCuNb 16-4	AISI 630 / ASTM 17-4 PH	35-50 115 - 164	1xd1-4xd1	1xd1-2xd1	0.015-0.020 .0006-.0008	0.020-0.025 .0008-.0010	0.025-0.035 .0010-.0014	0.040-0.050 .0016-.0020	0.050-0.060 .0020-.0024	0.060-0.070 .0024-.0028				
	1.4545	X5CrNiCuNb 15-5	ASTM 15-5 PH													
Stainless steel austenitic	1.4301	X5CrNi 18-10	AISI 304													
	1.4435	X2CrNiMo 18-14-3	AISI 316L	30-45 98 - 148	1xd1-4xd1	1xd1-2xd1	0.010-0.020 .0004-.0008	0.015-0.025 .0006-.0010	0.025-0.035 .0010-.0014	0.035-0.045 .0014-.0018	0.045-0.055 .0018-.0022	0.055-0.060 .0022-.0024				
	1.4441	X2CrNiMo 18-15-3	AISI 316LM													
	1.4539	X1NiCrMoCu 25-20-5	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	2.004	Cu-OF / CW008A	UNS C10100	40-100 131 - 328	4xd1-8xd1	4xd1	0.040-0.060 .0016-.0024	0.050-0.080 .0020-.0031	0.060-0.100 .0024-.0039	0.080-0.120 .0031-.0047	0.100-0.150 .0039-.0059	0.120-0.180 .0047-.0071			
		2.0065	Cu-ETP / CW004A	UNS C11000												
	Brass lead free	2.0321	CuZn37 CW508L	UNS C27400	40-100 131 - 328	4xd1-8xd1	4xd1	0.040-0.060 .0016-.0024	0.050-0.080 .0020-.0031	0.060-0.100 .0024-.0039	0.080-0.120 .0031-.0047	0.100-0.150 .0039-.0059	0.120-0.180 .0047-.0071			
		2.036	CuZn40 CW509L	UNS C28000												
	Brass, Bronze Rm < 400 N/mm²	2.0401	CuZn39Pb3 / CW614N	UNS C38500												
		2.102	CuSn6	UNS C51900												
Bronze Rm < 600 N/mm²	2.0966	CuAl10Ni5Fe4	UNS C63000													
	2.096	CuAl9Mn2	UNS C63200													
S ₁	Super alloys	2.4856		Inconel 625	15-30 49 - 98	0.5xd1-1xd1	0.5xd1	0.010-0.015 .0004-.0006	0.015-0.020 .0006-.0008	0.020-0.025 .0008-.0010	0.025-0.035 .0010-.0014	0.035-0.040 .0014-.0016	0.045-0.055 .0018-.0022			
		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	40-50 131 - 164	1xd1-4xd1	1xd1-2xd1	0.020-0.030 .0008-.0012	0.030-0.040 .0012-.0016	0.050-0.060 .0020-.0024	0.060-0.070 .0024-.0028	0.070-0.080 .0028-.0031	0.080-0.100 .0031-.0039			
			CrCoMo28	ASTM F1537												
H ₂	Hardened steel ≥ 55 HRC	1.2510	100MnCrMoW4	AISI O1												
		1.2379	X153CrMoV12	AISI D2												