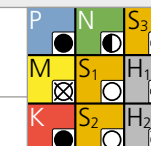
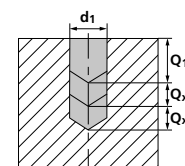
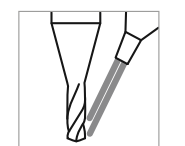


CrazyDrill Steel 4 x d

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



DRILLING WITH EXTERNAL 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]													
					Mid	High				Ød ₁													
										1/64" f	1/32" f	1.0 mm .039" f	1.25 mm .049" f	1/16" f	2.0 mm .079" f	3/32" f	1/8" f	5/32" f	3/16" - 7/32" f	1/4" f			
P	Unalloyed carbon steel Rm < 800 N/mm ²	1.0301	C10	AISI 1010	80 262	120 394	4xd1	-															
		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/mm ²	1.7131	16MnCr5	AISI 5115	60 197	80 262	4xd1	-															
		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/mm ²	1.3343	HS6-5-2C	AISI M2 / UNS T11302	40 131	60 197	4xd1	-																
	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																				
	1.4112	X90CrMoV18	AISI 440B																				
M	Stainless steel ferritic	1.4542	X5CrNiCuNb 16-4	AISI 630 / ASTM 17-4 PH																			
		1.4545	X5CrNiCuNb 15-5	ASTM 15-5 PH																			
		1.4301	X5CrNi 18-10	AISI 304																			
	Stainless steel austenitic	1.4435	X2CrNiMo 18-14-3	AISI 316L																			
		1.4441	X2CrNiMo 18-15-3	AISI 316LM																			
		1.4539	X1NiCrMoCu 25-20-5	AISI 904L																			
K	Cast iron	0.6020	GG20	ASTM 30	100 328	150 492	4xd1	-															
		0.6030	GG30	ASTM 40B																			
		0.7040	GGG40	ASTM 60-40-18																			
		0.7060	GGG60	ASTM 80-60-03																			
		3.2315	AlMgSi1	ASTM 6351																			
N	Aluminium alloy wrought	3.4365	AlZnMgCu1.5	ASTM 7075	150 492	220 722	4xd1	-															
		3.2163	GD-AlSi9Cu3	ASTM A380																			
	Aluminium alloy cast	3.2381	GD-AlSi10Mg	UNS A03590	150 492	200 656	4xd1	-															
		2.004	Cu-OF / CW008A	UNS C10100																			
	Copper	2.0065	Cu-ETP / CW004A	UNS C11000	80 262	120 394	1.5xd1	1xd1															
		2.0321	CuZn37 CW508L	UNS C27400																			
	Brass lead free	2.036	CuZn40 CW509L	UNS C28000	100 328	150 492	1.5xd1	1xd1															
		2.0401	CuZn39Pb3 / CW614N	UNS C38500																			
	Brass, Bronze Rm < 400 N/mm ²	2.102	CuSn6	UNS C51900	70 230	100 328	1.5xd1	1xd1															
		2.0966	CuAl10Ni5Fe4	UNS C63000																			
	Bronze Rm < 600 N/mm ²	2.096	CuAl9Mn2	UNS C63200	70 230	100 328	4xd1	-															
		2.4856		Inconel 625																			
S ₁	Super alloys	2.4668		Inconel 718	20 66	40 131	1xd1	0.25xd1															
		2.4617	NiMo28	Hastelloy B-2																			
		2.4665	NiCr22Fe18Mo	Hastelloy X																			
		3.7035	Gr.2	ASTM B348 / F67																			
S ₂	Titanium pure	3.7065	Gr.4	ASTM B348 / F68	20 66	40 131	1xd1	0.25xd1															
		3.7165	TiAl6V4	ASTM B348 / F136																			
S ₃	Titanium alloys	9.9367	TiAl6Nb7	ASTM F1295	20 66	20 66	1xd1	0.3xd1															
		2.4964	CoCr20W15Ni CrCoMo28	Haynes 25 ASTM F1537																			
H ₁ H ₂	Hardened steel ≥ 55 HRC	1.2510	100MnCrMoW4	AISI O1	15 49	30 98	4xd1	-															
		1.2379	X153CrMoV12	AISI D2																			