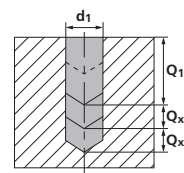
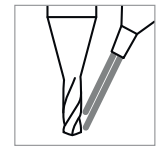


CrazyDrill Flex Steel 30 x d - coated

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

P	N	S ₃
M	S ₁	H ₁
K	S ₂	H ₂

DRILLING WITH EXTERNAL COOLING | CUTTING DATA OVERVIEW



Materials group	Material	Mat. no.	DIN	AISI/ASTM/UNS	v _c		Q ₁	Q _x	f [mm/rev] [IPR]					
					[m/min] [SFM]				Ød1	Ød1	Ød1	Ød1	Ød1	Ød1
					Ød1 ≤ 0.4 .016"	Ød1 > 0.4 .016"			0.2 mm .008"	0.3 mm .012"	0.4 mm .016"	0.6 mm .024"	0.8 mm .032"	1.0 - 1.2 mm .039" - .047"
P	Unalloyed carbon steel Rm < 800 N/mm²	1.0301	C10	AISI 1010	5 - 40 16 - 131	40 - 60 131 - 197	7xd1	0.5xd1	0.005 .0002	0.010 .0004	0.015 .0006	0.030 .0012	0.040 .0016	0.060 .0024
		1.0401	C15	AISI 1015										
		1.1191	C45E/CK45	AISI 1045										
		1.0044	S275JR	AISI 1020										
	Low alloyed steel Rm > 900 N/mm²	1.0715	11SMn30	AISI 1215	5 - 25 16 - 82	25 - 50 82 - 164	7xd1	0.5xd1	0.003 - 0.005 .00012 - .00020	0.008 - 0.010 .0003 - .0004	0.012 - 0.015 .0005 - .0006	0.020 - 0.025 .0008 - .0010	0.035 .0014	0.050 .0020
		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	5 - 20 16 - 66	20 - 35 66 - 115	7xd1	1xd1	0.004 .00016	0.008 .0003	0.010 .0004	0.015 .0006	0.025 .0010	0.040 .0016
		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	5 - 40 16 - 131	50 - 100 164 - 328	7xd1	1xd1	0.005 .0002	0.010 .0004	0.015 .0006	0.020 .0008	0.035 .0014	0.050 .0020
		1.4105	X6CrMoS17	AISI 430F										
	Stainless steel martensitic	1.4034	X46Cr13	AISI 420C										
		1.4112	X90CrMoV18	AISI 440B										
	Stainless steel martensitic - PH	1.4542	X5CrNiCuNb 16-4	AISI 630 / ASTM 17-4 PH										
		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										
1.4441		X2CrNiMo 18-15-3	AISI 316LM											
1.4539	X1NiCrMoCu 25-20-5	AISI 904L	Recommended: CrazyDrill Flex SST-Inox 30 x d1											
K	Cast iron	0.6020	GG20	ASTM 30	5 - 40 16 - 131	40 - 80 131 - 262	7xd1	1xd1	0.005 .0002	0.010 .0004	0.015 .0006	0.020 .0008	0.035 .0014	0.050 .0020
		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	5 - 40 16 - 131	60 - 120 197 - 394	7xd1	1xd1	0.015 .0006	0.040 .0016	0.050 .0020	0.080 .0031	0.100 .0039	0.120 .0047
		3.4365	AlZnMgCu1.5	ASTM 7075										
	Aluminium alloy cast	3.2163	GD-AlSi9Cu3	ASTM A380	5 - 40 16 - 131	50 - 80 164 - 262	7xd1	1xd1	0.015 .0006	0.040 .0016	0.050 .0020	0.080 .0031	0.100 .0039	0.120 .0047
		3.2381	GD-AlSi10Mg	UNS A03590										
	Copper	2.004	Cu-OF / CW008A	UNS C10100	Recommended: CrazyDrill Flex Titanium 30 x d1									
		2.0065	Cu-ETP / CW004A	UNS C11000	Recommended: CrazyDrill Flex SST-Inox 30 x d1									
	Brass lead free	2.0321	CuZn37 CW508L	UNS C27400	Recommended: CrazyDrill Flex SST-Inox 30 x d1									
		2.036	CuZn40 CW509L	UNS C28000	Recommended: CrazyDrill Flex SST-Inox 30 x d1									
	Brass, Bronze Rm < 400 N/mm²	2.0401	CuZn39Pb3 / CW614N	UNS C38500	5 - 40 16 - 131	60 - 100 197 - 328 40 - 60 131 - 197	7xd1	1xd1	0.010 .0004	0.030 .0012	0.040 .0016	0.060 .0024	0.080 .0031	0.100 .0039
		2.102	CuSn6	UNS C51900										
Bronze Rm < 600 N/mm²	2.0966	CuAl10Ni5Fe4	UNS C63000	5 - 20 16 - 66	20 - 40 66 - 131	2.5xd1	0.5xd1	0.004 .00016	0.006 .0002	0.010 .0004	0.015 .0006	0.025 .0010	0.040 .0016	
	2.096	CuAl9Mn2	UNS C63200											
S ₁	Super alloys	2.4856		Inconel 625	Recommended: CrazyDrill Flex SST-Inox 30 x d1									
		2.4668		Inconel 718	Recommended: CrazyDrill Flex SST-Inox 30 x d1									
		2.4617	NiMo28	Hastelloy B-2	Recommended: CrazyDrill Flex SST-Inox 30 x d1									
		2.4665	NiCr22Fe18Mo	Hastelloy X	Recommended: CrazyDrill Flex SST-Inox 30 x d1									
S ₂	Titanium pure	3.7035	Gr.2	ASTM B348 / F67	Recommended: CrazyDrill Flex Titanium 30 x d1									
		3.7065	Gr.4	ASTM B348 / F68	Recommended: CrazyDrill Flex Titanium 30 x d1									
S ₃	Titanium alloys	3.7165	TiAl6V4	ASTM B348 / F136	Recommended: CrazyDrill Flex Titanium 30 x d1									
		9.9367	TiAl6Nb7	ASTM F1295	Recommended: CrazyDrill Flex Titanium 30 x d1									
H ₁	Hardened steel < 55 HRC	1.2510	100MnCrMoW4	AISI O1	Recommended: CrazyDrill Flex SST-Inox 30 x d1									
		2.4964	CoCr20W15Ni	Haynes 25	Recommended: CrazyDrill Flex SST-Inox 30 x d1									
H ₂	Hardened steel ≥ 55 HRC	2.4964	CrCoMo28	ASTM F1537	Recommended: CrazyDrill Flex SST-Inox 30 x d1									
		1.2379	X153CrMoV12	AISI D2	Recommended: CrazyDrill Flex SST-Inox 30 x d1									