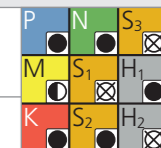
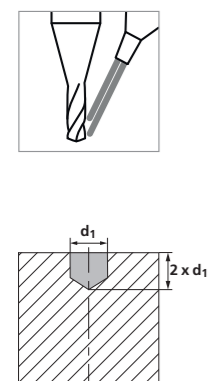


CrazyDrill Pilot - 2 x d - 90° coutersink

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]	f [mm/rev] [IPR]															
						Ød1															
						1/64" 0.4 mm .016" f	1/32" 0.8 mm .032" f	1.0 mm .039" f	1/16" 1.5 mm .059" f	2.0 mm .079" f	3/32" 2.5 mm .098" f	1/8" 3.0 mm .118" f	5/32" 4.0 mm .158" f	3/16" - 7/32" 5.0 mm .197" f	1/4" 6.0 mm .236" f						
P	Unalloyed carbon steel Rm < 800 N/mm ²	1.0301	C10	AISI 1010	32 – 64 105 – 210																
		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	32 – 64 105 – 210																
		1.3505	100Cr6	AISI 52100																	
		1.7225	42CrMo4	AISI 4140																	
		1.2842	90MnCrV8	AISI O2																	
		1.2379	X153CrMoV12	AISI D2		24 – 48 79 – 158															
		1.2436	X210CrW12	AISI D4/D6																	
1.3343	HS6-5-2C	AISI M2 / UNS T11302																			
M	Stainless steel ferritic	1.4016	X6Cr17	AISI 430 / UNS S43000	20 – 40 66 – 131																
		1.4105	X6CrMoS17	AISI 430F																	
		1.4034	X46Cr13	AISI 420C		24 – 48 79 – 158															
	1.4112	X90CrMoV18	AISI 440B																		
	1.4542	X5CrNiCuNb 16-4	AISI 630 / ASTM 17-4 PH	16 – 32 53 – 105																	
	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	40 – 80 131 – 263																
		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	80 – 160 263 – 525																
		3.4365	AlZnMgCu1.5	ASTM 7075																	
	Aluminium alloy cast	3.2163	GD-AlSi9Cu3	ASTM A380	64 – 120 210 – 394																
		3.2381	GD-AlSi10Mg	UNS A03590																	
	Copper	2.004	Cu-OF / CW008A	UNS C10100	40 – 80 131 – 263																
		2.0065	Cu-ETP / CW004A	UNS C11000																	
	Brass lead free	2.0321	CuZn37 CW508L	UNS C27400	40 – 80 131 – 263																
		2.036	CuZn40 CW509L	UNS C28000																	
	Brass, Bronze Rm < 400 N/mm ²	2.0401	CuZn39Pb3 / CW614N	UNS C38500	56 – 120 184 – 394																
		2.102	CuSn6	UNS C51900																	
Bronze Rm < 600 N/mm ²	2.0966	CuAl10Ni5Fe4	UNS C63000	32 – 56 105 – 184																	
	2.096	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	10 – 32 32 – 105																
		3.7065	Gr.4	ASTM B348 / F68																	
S ₂	Titanium alloys	3.7165	TiAl6V4	ASTM B348 / F136	10 – 44 32 – 144																
		9.9367	TiAl6Nb7	ASTM F1295																	
S ₃	CrCo alloys	2.4964	CoCr20W15Ni	Haynes 25																	
			CrCoMo28	ASTM F1537																	
H ₁	Hardened steel < 55 HRC	1.2510	100MnCrMoW4	AISI O1	16 – 32 53 – 105																
		1.2379	X153CrMoV12	AISI D2																	