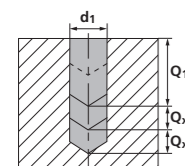
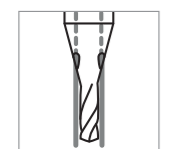


# Titanium - 50 x d

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

P	N	S <sub>3</sub>
M	S <sub>1</sub>	H <sub>1</sub>
K	S <sub>2</sub>	H <sub>2</sub>

## DRILLING WITH INTEGRATED COOLING | CUTTING DATA OVERVIEW



Materials group	Material	Mat. no.	DIN	AISI/ASTM/UNS	v <sub>c</sub>		Q <sub>1</sub>	f [mm/rev]   [IPR]									
					[m/min]   [SFM]			Ød1									
					Ød1 ≤ 0.4   .016"	Ød1 > 0.4   .016"		0.3 mm   .012"	0.4 mm   .016"	0.6 mm   .024"	0.8 mm   .032"	1.0-1.2 mm   .039"-.047"	f		Q <sub>x</sub>		f
P	Unalloyed carbon steel Rm < 800 N/mm <sup>2</sup>	1.0301	C10	AISI 1010				Recommended: CrazyDrill Flex Steel 50 x d1									
		1.0401	C15	AISI 1015				Recommended: CrazyDrill Flex Steel 50 x d1									
		1.1191	C45E/CK45	AISI 1045				Recommended: CrazyDrill Flex Steel 50 x d1									
		1.0044	S275JR	AISI 1020				Recommended: CrazyDrill Flex Steel 50 x d1									
		1.0715	11SMn30	AISI 1215				Recommended: CrazyDrill Flex Steel 50 x d1									
	Low alloyed steel Rm > 900 N/mm <sup>2</sup>	1.5752	15NiCr13	ASTM 3415 / AISI 3310				Recommended: CrazyDrill Flex Steel 50 x d1									
		1.7131	16MnCr5	AISI 5115				Recommended: CrazyDrill Flex Steel 50 x d1									
		1.3505	100Cr6	AISI 52100				Recommended: CrazyDrill Flex Steel 50 x d1									
		1.7225	42CrMo4	AISI 4140				Recommended: CrazyDrill Flex Steel 50 x d1									
		1.2842	90MnCrV8	AISI O2				Recommended: CrazyDrill Flex Steel 50 x d1									
	High alloyed tool steel Rm < 1200 N/mm <sup>2</sup>	1.2379	X153CrMoV12	AISI D2				Recommended: CrazyDrill Flex Steel 50 x d1									
		1.2436	X210CrW12	AISI D4/D6				Recommended: CrazyDrill Flex Steel 50 x d1									
		1.3343	HS6-5-2C	AISI M2 / UNS T11302				Recommended: CrazyDrill Flex Steel 50 x d1									
		1.3355	HS18-0-1	AISI T1 / UNS T12001				Recommended: CrazyDrill Flex Steel 50 x d1									
		M	Stainless steel ferritic	1.4016	X6Cr17	AISI 430 / UNS S43000				Recommended: CrazyDrill Flex SST-Inox 50 x d1							
1.4105	X6CrMoS17			AISI 430F				Recommended: CrazyDrill Flex SST-Inox 50 x d1									
1.4034	X46Cr13			AISI 420C				Recommended: CrazyDrill Flex SST-Inox 50 x d1									
Stainless steel martensitic	1.4112		X90CrMoV18	AISI 440B				Recommended: CrazyDrill Flex SST-Inox 50 x d1									
	1.4542		X5CrNiCuNb 16-4	AISI 630 / ASTM 17-4 PH				Recommended: CrazyDrill Flex SST-Inox 50 x d1									
Stainless steel martensitic - PH	1.4545		X5CrNiCuNb 15-5	ASTM 15-5 PH				Recommended: CrazyDrill Flex SST-Inox 50 x d1									
	1.4301		X5CrNi 18-10	AISI 304				Recommended: CrazyDrill Flex SST-Inox 50 x d1									
Stainless steel austenitic	1.4435		X2CrNiMo 18-14-3	AISI 316L				Recommended: CrazyDrill Flex SST-Inox 50 x d1									
	1.4441		X2CrNiMo 18-15-3	AISI 316LM				Recommended: CrazyDrill Flex SST-Inox 50 x d1									
	1.4539	X1NiCrMoCu 25-20-5	AISI 904L				Recommended: CrazyDrill Flex SST-Inox 50 x d1										
	K	Cast iron	0.6020	GG20	ASTM 30				Recommended: CrazyDrill Flex Steel 50 x d1								
0.6030			GG30	ASTM 40B				Recommended: CrazyDrill Flex Steel 50 x d1									
0.7040			GGG40	ASTM 60-40-18				Recommended: CrazyDrill Flex Steel 50 x d1									
0.7060			GGG60	ASTM 80-60-03				Recommended: CrazyDrill Flex Steel 50 x d1									
N			Aluminium alloy wrought	3.2315	AlMgSi1	ASTM 6351				Recommended: CrazyDrill Flex Steel 50 x d1							
	3.4365	AlZnMgCu1.5		ASTM 7075				Recommended: CrazyDrill Flex Steel 50 x d1									
	Aluminium alloy cast	3.2163	GD-AlSi9Cu3	ASTM A380				Recommended: CrazyDrill Flex Steel 50 x d1									
		3.2381	GD-AlSi10Mg	UNS A03590				Recommended: CrazyDrill Flex Steel 50 x d1									
	Copper	2.004	Cu-OF / CW008A	UNS C10100	5 - 20   16 - 66	20 - 40   66 - 131	7xd1	0.040 .0016	0.3xd1	0.060 .0024	0.375xd1	0.120 .0047	0.3xd1	0.180 .00071	0.3xd1	0.200 .0079	0.4xd1
		2.0065	Cu-ETP / CW004A	UNS C11000				Recommended: CrazyDrill Flex SST-Inox 50 x d1									
	Brass lead free	2.0321	CuZn37 CW508L	UNS C27400				Recommended: CrazyDrill Flex SST-Inox 50 x d1									
		2.036	CuZn40 CW509L	UNS C28000				Recommended: CrazyDrill Flex SST-Inox 50 x d1									
	Brass, Bronze Rm < 400 N/mm <sup>2</sup>	2.0401	CuZn39Pb3 / CW614N	UNS C38500				Recommended: CrazyDrill Flex Steel 50 x d1									
		2.102	CuSn6	UNS C51900				Recommended: CrazyDrill Flex Steel 50 x d1									
Bronze Rm < 600 N/mm <sup>2</sup>	2.0966	CuAl10Ni5Fe4	UNS C63000				Recommended: CrazyDrill Flex Steel 50 x d1										
	2.096	CuAl9Mn2	UNS C63200				Recommended: CrazyDrill Flex Steel 50 x d1										
S <sub>1</sub>	Super alloys	2.4856		Inconel 625				Recommended: CrazyDrill Flex SST-Inox 50 x d1									
		2.4668		Inconel 718				Recommended: CrazyDrill Flex SST-Inox 50 x d1									
		2.4617	NiMo28	Hastelloy B-2				Recommended: CrazyDrill Flex SST-Inox 50 x d1									
		2.4665	NiCr22Fe18Mo	Hastelloy X				Recommended: CrazyDrill Flex SST-Inox 50 x d1									
S <sub>2</sub>	Titanium pure	3.7035	Gr.2	ASTM B348 / F67	5 - 20   16 - 66	20 - 30   66 - 98	3xd1	0.006 .00024	0.25xd1	0.008 .00031	0.25xd1	0.012 .00047	0.25xd1	0.016 .00063	0.4xd1	0.024 .00094	0.3xd1
		3.7065	Gr.4	ASTM B348 / F68				Recommended: CrazyDrill Flex SST-Inox 50 x d1									
S <sub>3</sub>	Titanium alloys	3.7165	TiAl6V4	ASTM B348 / F136	5 - 20   16 - 66	20 - 40   66 - 131	3xd1	0.009 .00035	0.3xd1	0.016 .00063	0.375xd1	0.024 .00094	0.3xd1	0.032 .00126	0.3xd1	0.040 .00157	0.4xd1
		9.9367	TiAl6Nb7	ASTM F1295				Recommended: CrazyDrill Flex SST-Inox 50 x d1									
H <sub>1</sub>	Hardened steel < 55 HRC	2.4964	CoCr20W15Ni	Haynes 25				Recommended: CrazyDrill Flex SST-Inox 50 x d1									
			CrCoMo28	ASTM F1537				Recommended: CrazyDrill Flex SST-Inox 50 x d1									
H <sub>2</sub>	Hardened steel ≥ 55 HRC	1.2510	100MnCrMoW4	AISI O1				Recommended: CrazyDrill Flex SST-Inox 50 x d1									
		1.2379	X153CrMoV12	AISI D2				Recommended: CrazyDrill Flex SST-Inox 50 x d1									