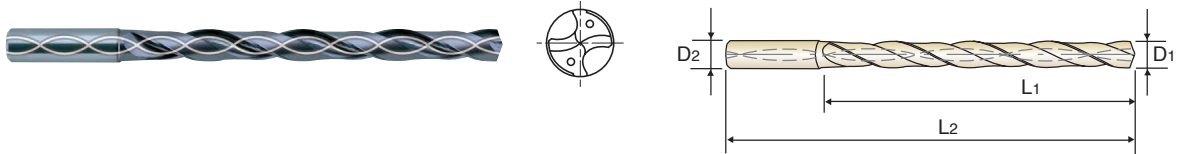




CARBIDE, DREAM DRILLS with COOLANT HOLES **EXTRA LONG**
VOLLHARTMETALL DREAM SPIRALBOHRER mit KÜHLKANAL **ÜBERLANG**



8 × D

Unit : mm

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
TiAIN	D1	D2	L1	L2	TiAIN	D1	D2	L1	L2
DH421030	3.0	6	34	72	DH421055	5.5	6	57	95
DH421031	3.1	6	34	72	DH421056	5.6	6	57	95
DH421032	3.2	6	34	72	DH421057	5.7	6	57	95
DH421033	3.3	6	34	72	DH421058	5.8	6	57	95
DH421034	3.4	6	34	72	DH421059	5.9	6	57	95
DH421035	3.5	6	34	72	DH421060	6.0	6	57	95
DH421036	3.6	6	34	72	DH421061	6.1	8	76	114
DH421037	3.7	6	34	72	DH421062	6.2	8	76	114
DH421038	3.8	6	43	81	DH421063	6.3	8	76	114
DH421039	3.9	6	43	81	DH421064	6.4	8	76	114
DH421040	4.0	6	43	81	DH421065	6.5	8	76	114
DH421041	4.1	6	43	81	DH421066	6.6	8	76	114
DH421042	4.2	6	43	81	DH421067	6.7	8	76	114
DH421043	4.3	6	43	81	DH421068	6.8	8	76	114
DH421044	4.4	6	43	81	DH421069	6.9	8	76	114
DH421045	4.5	6	43	81	DH421070	7.0	8	76	114
DH421046	4.6	6	43	81	DH421071	7.1	8	76	114
DH421047	4.7	6	43	81	DH421072	7.2	8	76	114
DH421048	4.8	6	57	95	DH421073	7.3	8	76	114
DH421049	4.9	6	57	95	DH421074	7.4	8	76	114
DH421050	5.0	6	57	95	DH421075	7.5	8	76	114
DH421051	5.1	6	57	95	DH421076	7.6	8	76	114
DH421052	5.2	6	57	95	DH421077	7.7	8	76	114
DH421053	5.3	6	57	95	DH421078	7.8	8	76	114
DH421054	5.4	6	57	95	DH421079	7.9	8	76	114

► Other shank types are available on your request.

◎ : Excellent ○ : Good

Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze	CFRP
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~								
○	◎	◎			○		○					

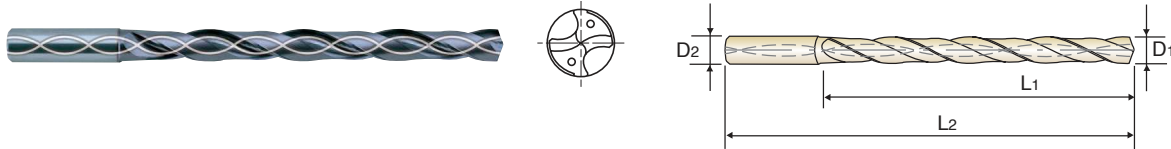


**DREAM DRILLS
-GENERAL**

DH421 SERIES

CARBIDE, DREAM DRILLS with COOLANT HOLES
VOLLHARTMETALL DREAM SPIRALBOHRER mit KÜHLKANAL

**EXTRA LONG
ÜBERLANG**



8 × D

Unit : mm

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
TiAlN	D1	D2	L1	L2	TiAlN	D1	D2	L1	L2
DH421080	8.0	8	76	114	DH421103	10.3	12	114	162
DH421081	8.1	10	95	142	DH421104	10.4	12	114	162
DH421082	8.2	10	95	142	DH421105	10.5	12	114	162
DH421083	8.3	10	95	142	DH421106	10.6	12	114	162
DH421084	8.4	10	95	142	DH421107	10.7	12	114	162
DH421085	8.5	10	95	142	DH421108	10.8	12	114	162
DH421086	8.6	10	95	142	DH421109	10.9	12	114	162
DH421087	8.7	10	95	142	DH421110	11.0	12	114	162
DH421088	8.8	10	95	142	DH421111	11.1	12	114	162
DH421089	8.9	10	95	142	DH421112	11.2	12	114	162
DH421090	9.0	10	95	142	DH421113	11.3	12	114	162
DH421091	9.1	10	95	142	DH421114	11.4	12	114	162
DH421092	9.2	10	95	142	DH421115	11.5	12	114	162
DH421093	9.3	10	95	142	DH421116	11.6	12	114	162
DH421094	9.4	10	95	142	DH421117	11.7	12	114	162
DH421095	9.5	10	95	142	DH421118	11.8	12	114	162
DH421096	9.6	10	95	142	DH421119	11.9	12	114	162
DH421097	9.7	10	95	142	DH421120	12.0	12	114	162
DH421098	9.8	10	95	142	DH421125	12.5	14	133	178
DH421099	9.9	10	95	142	DH421130	13.0	14	133	178
DH421100	10.0	10	95	142	DH421135	13.5	14	133	178
DH421101	10.1	12	114	162	DH421140	14.0	14	133	178
DH421102	10.2	12	114	162					

► Other shank types are available on your request.

◎ : Excellent ○ : Good

Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze	CFRP
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~								
○	◎	◎			○		○					

**CARBIDE, DREAM DRILLS, TiAIN COATED
VOLLHARTMETALL DREAM BOHRER, TiAIN-BESCHICHTET****DH404, DH423, DH424 SERIES**

WORK MATERIAL	NON-ALLOY STEELS		ALLOY STEELS		SOFT GREY CAST IRON		HARD GREY CAST IRON	
STRENGTH	< 700 N/mm ²		< 1000 N/mm ²		< HB240, GG25		< HB300, GG40	
DRILLING SPEED	Ø1.0 ~ Ø2.9 : 40 ~ 80 m/min Ø3.0 ~ : 100 ~ 120 m/min		Ø1.0 ~ Ø2.9 : 35 ~ 70 m/min Ø3.0 ~ : 85 ~ 105 m/min		Ø1.0 ~ Ø2.9 : 60 ~ 130 m/min Ø3.0 ~ : 180 ~ 200 m/min		Ø1.0 ~ Ø2.9 : 40 ~ 90 m/min Ø3.0 ~ : 110 ~ 130 m/min	
DIAMETER	N	S	N	S	N	S	N	S
1.0	13000	0.04	11250	0.04	21300	0.04	14200	0.04
2.0	13000	0.06	11250	0.06	21300	0.06	14200	0.06
3.0	13000	0.13	11000	0.13	21000	0.13	14000	0.13
4.0	9500	0.14	8400	0.14	16000	0.14	10500	0.14
5.0	7600	0.15	6700	0.15	13000	0.15	8300	0.15
6.0	6400	0.17	5600	0.17	11000	0.17	6900	0.17
7.0	5500	0.19	4800	0.19	9100	0.19	5900	0.19
8.0	4800	0.21	4200	0.21	8000	0.21	5200	0.21
9.0	4200	0.23	3700	0.23	7100	0.23	4600	0.23
10.0	3800	0.25	3350	0.25	6400	0.25	4150	0.25
12.0	3200	0.27	2800	0.27	5300	0.27	3450	0.27
14.0	2750	0.29	2400	0.29	4550	0.29	3000	0.29
16.0	2400	0.31	2100	0.31	4000	0.31	2600	0.31
18.0	2100	0.33	1850	0.33	3550	0.33	2300	0.33
20.0	1900	0.35	1650	0.35	3200	0.35	2100	0.35

► Recommend to reduce the feed rate as following

Feed 100% : DH404(3×D), DH423(3×D)**Feed 85%** : DH424(5×D)

N = R.P.M

S = Feed per Revolution (mm/rev.)

**CARBIDE, DREAM DRILLS with COOLANT HOLES DIN6537, TiAIN COATED
VOLLHARTMETALL DREAM BOHRER mit KÜHLKANAL DIN6537, TiAIN-BESCHICHTET****DH406, DH408, DH421 SERIES**

WORK MATERIAL	NON-ALLOY STEELS		ALLOY STEELS		SOFT GREY CAST IRON		HARD GREY CAST IRON	
STRENGTH	< 700 N/mm ²		< 1000 N/mm ²		< HB240, GG25		< HB300, GG40	
DRILLING SPEED	Ø1.0 ~ Ø2.9 : 50 ~ 100 m/min Ø3.0 ~ : 130 ~ 150 m/min		Ø1.0 ~ Ø2.9 : 40 ~ 90 m/min Ø3.0 ~ : 115 ~ 135 m/min		Ø1.0 ~ Ø2.9 : 80 ~ 160 m/min Ø3.0 ~ : 230 ~ 250 m/min		Ø1.0 ~ Ø2.9 : 50 ~ 100 m/min Ø3.0 ~ : 140 ~ 160 m/min	
DIAMETER	N	S	N	S	N	S	N	S
1.0	16250	0.05	14800	0.05	26600	0.05	17300	0.05
2.0	16250	0.07	14800	0.07	26600	0.07	17300	0.07
3.0	16000	0.16	14500	0.16	26000	0.16	17000	0.16
4.0	12000	0.17	11000	0.17	20000	0.17	13000	0.17
5.0	9550	0.18	8600	0.18	16000	0.18	10000	0.18
6.0	8000	0.20	7200	0.20	13000	0.20	8500	0.20
7.0	6800	0.22	6100	0.22	11500	0.22	7300	0.22
8.0	6000	0.24	5400	0.24	9900	0.24	6400	0.24
9.0	5300	0.27	4800	0.27	8800	0.27	5700	0.27
10.0	4800	0.30	4300	0.30	8000	0.30	5100	0.30
12.0	4000	0.33	3600	0.33	6600	0.33	4250	0.33
14.0	3400	0.36	3050	0.36	5700	0.36	3650	0.36
16.0	3000	0.39	2700	0.39	5000	0.39	3200	0.39
18.0	2650	0.42	2400	0.42	4400	0.42	2850	0.42
20.0	2400	0.45	2150	0.45	4000	0.45	2550	0.45

► Recommend to reduce the feed rate as following

Feed 100% : DH406(3×D)**Feed 85%** : DH408(5×D)**Feed 70%** : DH421(8×D)

N = R.P.M

S = Feed per Revolution (mm/rev.)