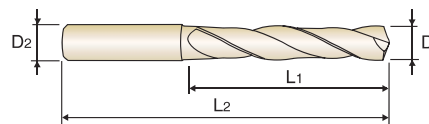




### SOLID CARBIDE DREAM DRILLS-GENERAL (without COOLANT HOLES)

- ▶ Application : Steel, cast steel, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metal, non-ferrous light metal, abrasive plastic
- ▶ Advantage : Self centering - center drilling is not required
- Excellent positioning - bushing is not necessary
- Special Design - reaming is not required
- good chip removal
- powerful drilling
- ▶ Tolerance : Dia. Tolerance ØD1: See page 57, Shank Tolerance ØD2: -.0001 -.0005



### DREAM DRILLS

### D<sub>1</sub>=D<sub>2</sub> 3×D

Unit : Inch

EDP No.	Diameter		Flute Length	Overall Length	EDP No.	Diameter		Flute Length	Overall Length
	Fractional	Decimal				Fractional	Decimal		
TiAlN	D1 = D2		L1	L2	TiAlN	D1 = D2		L1	L2
0081ATF	1/8	.1250	45/64	1-59/64	0221ATF	11/32	.3438	2-3/16	3-7/8
0091ATF	9/64	.1406	25/32	2-3/64	0231ATF	23/64	.3594	2-9/32	4
0101ATF	5/32	.1562	7/8	2-3/16	2211ATF	U	.3680	2-9/32	4
0111ATF	11/64	.1719	15/16	2-9/32	0241ATF	3/8	.3750	2-3/8	4-1/8
0121ATF	3/16	.1875	1	2-7/16	0251ATF	25/64	.3906	2-3/8	4-1/8
0131ATF	13/64	.2031	1	2-7/16	0261ATF	13/32	.4062	2-5/8	4-13/32
0141ATF	7/32	.2188	1-1/8	2-5/8	0271ATF	27/64	.4219	2-11/16	4-1/2
0151ATF	15/64	.2344	1-1/8	2-5/8	0281ATF	7/16	.4375	2-13/16	4-5/8
0161ATF	1/4	.2500	1-5/8	3-3/16	0291ATF	29/64	.4531	2-7/8	4-3/4
2061ATF	F	.2570	1-11/16	3-17/64	0301ATF	15/32	.4688	2-7/8	4-3/4
0171ATF	17/64	.2656	1-11/16	3-17/64	0311ATF	31/64	.4844	3	5-5/16
2091ATF	I	.2720	1-11/16	3-17/64	0321ATF	1/2	.5000	3-1/16	5-3/8
0181ATF	9/32	.2812	1-3/4	3-7/16	0331ATF	33/64	.5156	3-11/32	5-11/16
0191ATF	19/64	.2969	1-7/8	3-9/16	0341ATF	17/32	.5312	3-11/32	5-11/16
0201ATF	5/16	.3125	1-7/8	3-9/16	0361ATF	9/16	.5625	3-1/2	5-15/16
0211ATF	21/64	.3281	2-1/16	3-3/4	0371ATF	37/64	.5781	3-37/64	6
2171ATF	Q	.3320	2-1/16	3-3/4	0401ATF	5/8	.6250	3-25/3	6-19/64

▶ Other shank types are available on your request

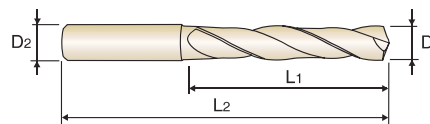
⊙ : Excellent ○ : Good

Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze
~HB225	HB225~325	HRC30~45	HRC45~55	HRC55~							
○	⊙	⊙			○		○				



### SOLID CARBIDE DREAM DRILLS-GENERAL (without COOLANT HOLES)

- ▶ Application : Steel, cast steel, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metal, non-ferrous light metal, abrasive plastic
- ▶ Advantage : Self centering - center drilling is not required
- Excellent positioning - bushing is not necessary
- Special design - reaming is not required
- good chip removal
- powerful drilling



DIN 6539

MG

h6

h7

140°



P.26

### DREAM DRILLS

### D<sub>1</sub>=D<sub>2</sub> 3×D

Unit : mm

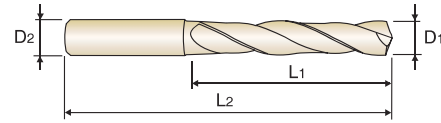
EDP No.	Diameter		Flute Length	Overall Length	EDP No.	Diameter		Flute Length	Overall Length
	Metric	Inch				Metric	Inch		
TiAIN	D1 = D2		L1	L2	TiAIN	D1 = D2		L1	L2
DH404030	3.0	.1181	16	46	DH404061	6.1	.2402	31	70
DH404031	3.1	.1220	18	49	DH404062	6.2	.2441	31	70
DH404032	3.2	.1260	18	49	DH404063	6.3	.2480	31	70
DH404033	3.3	.1299	18	49	DH404064	6.4	.2520	31	70
DH404034	3.4	.1339	20	52	DH404065	6.5	.2559	31	70
DH404035	3.5	.1378	20	52	DH404066	6.6	.2598	31	70
DH404036	3.6	.1417	20	52	DH404067	6.7	.2638	31	70
DH404037	3.7	.1457	20	52	DH404068	6.8	.2677	34	74
DH404038	3.8	.1496	22	55	DH404069	6.9	.2717	34	74
DH404039	3.9	.1535	22	55	DH404070	7.0	.2756	34	74
DH404040	4.0	.1575	22	55	DH404071	7.1	.2795	34	74
DH404041	4.1	.1614	22	55	DH404072	7.2	.2835	34	74
DH404042	4.2	.1654	22	55	DH404073	7.3	.2874	34	74
DH404043	4.3	.1693	24	58	DH404074	7.4	.2913	34	74
DH404044	4.4	.1732	24	58	DH404075	7.5	.2953	34	74
DH404045	4.5	.1772	24	58	DH404076	7.6	.2992	37	79
DH404046	4.6	.1811	24	58	DH404077	7.7	.3031	37	79
DH404047	4.7	.1850	24	58	DH404078	7.8	.3071	37	79
DH404048	4.8	.1890	26	62	DH404079	7.9	.3110	37	79
DH404049	4.9	.1929	26	62	DH404080	8.0	.3150	37	79
DH404050	5.0	.1969	26	62	DH404081	8.1	.3189	37	79
DH404051	5.1	.2008	26	62	DH404082	8.2	.3228	37	79
DH404052	5.2	.2047	26	62	DH404083	8.3	.3268	37	79
DH404053	5.3	.2087	26	62	DH404084	8.4	.3307	37	79
DH404054	5.4	.2126	28	66	DH404085	8.5	.3346	37	79
DH404055	5.5	.2165	28	66	DH404086	8.6	.3386	40	84
DH404056	5.6	.2205	28	66	DH404087	8.7	.3425	40	84
DH404057	5.7	.2244	28	66	DH404088	8.8	.3465	40	84
DH404058	5.8	.2283	28	66	DH404089	8.9	.3504	40	84
DH404059	5.9	.2323	28	66	DH404090	9.0	.3543	40	84
DH404060	6.0	.2362	28	66	DH404091	9.1	.3583	40	84

▶ NEXT PAGE



### SOLID CARBIDE DREAM DRILLS-GENERAL (without COOLANT HOLES)

- ▶ Application : Drilling into general steels, cast steels, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metals, non-ferrous light metals, abrasive plastics
- ▶ Advantage :
  - Self centering - Center drilling is not required
  - Excellent positioning - Bush is not necessary
  - Special design - Reaming is not required
  - Good chip removal
  - Powerful drilling



### DREAM DRILLS

### D<sub>1</sub>=D<sub>2</sub> 3×D

Unit : mm

EDP No.	Diameter		Flute Length	Overall Length	EDP No.	Diameter		Flute Length	Overall Length
	Metric	Inch				Metric	Inch		
TiAIN	D1 = D2		L1	L2	TiAIN	D1 = D2		L1	L2
DH404092	9.2	.3622	40	84	DH404135	13.5	.5314	54	107
DH404093	9.3	.3661	40	84	DH404140	14.0	.5512	54	107
DH404094	9.4	.3701	40	84	DH404145	14.5	.5708	56	111
DH404095	9.5	.3740	40	84	DH404150	15.0	.5905	56	111
DH404096	9.6	.3780	43	89	DH404155	15.5	.6102	58	115
DH404097	9.7	.3819	43	89	DH404160	16.0	.6299	58	115
DH404098	9.8	.3858	43	89	DH404165	16.5	.6495	60	119
DH404099	9.9	.3898	43	89	DH404170	17.0	.6692	60	119
DH404100	10.0	.3937	43	89	DH404175	17.5	.6889	62	123
DH404102	10.2	.4016	43	89	DH404180	18.0	.7087	62	123
DH404105	10.5	.4134	43	89	DH404185	18.5	.7283	64	127
DH404110	11.0	.4331	47	95	DH404190	19.0	.7480	64	127
DH404115	11.5	.4528	47	95	DH404195	19.5	.7676	66	131
DH404120	12.0	.4724	51	102	DH404200	20.0	.7874	66	131
DH404130	13.0	.5118	51	102					

▶ Other shank types are available on your request

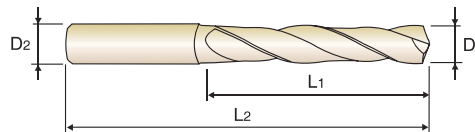
◎ : Excellent ○ : Good

Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze
~HB225	HB225~325	HRC30~45	HRC45~55	HRC55~							
○	◎	◎			○		○				



### SOLID CARBIDE DREAM DRILLS-GENERAL (without COOLANT HOLES)

- ▶ Application : Drilling into general steels, cast steels, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metals, non-ferrous light metals, abrasive plastics
- ▶ Advantage : Self centering - Center drilling is not required  
 Excellent positioning - Bush is not necessary  
 Special design - Reaming is not required  
 - Good chip removal  
 - Powerful drilling



P.26

## DREAM DRILLS | 3x D

Unit : mm

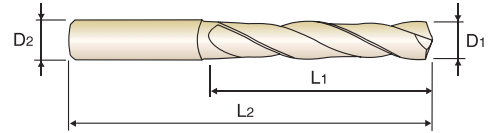
EDP No.	Diameter			Shank Diameter	Flute Length	Overall Length	EDP No.	Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Fractional	Decimal					Metric	Fractional	Decimal			
TAIN	D1			D2	L1	L2	TAIN	D1			D2	L1	L2
DH423030	3.0		.1181	6	20	62	DH423055	5.5		.2165	6	28	66
DH423031	3.1		.1220	6	20	62	DH423014F	5.556	7/32	.2188	6	28	66
DH423008F	3.175	1/8	.1250	6	20	62	DH423056	5.6		.2205	6	28	66
DH423032	3.2		.1260	6	20	62	DH423057	5.7		.2244	6	28	66
DH423033	3.3		.1299	6	20	62	DH423058	5.8		.2283	6	28	66
DH423034	3.4		.1339	6	20	62	DH423059	5.9		.2323	6	28	66
DH423035	3.5		.1378	6	20	62	DH423015F	5.953	15/64	.2344	6	28	66
DH423009F	3.572	9/64	.1406	6	20	62	DH423060	6.0		.2362	6	28	66
DH423036	3.6		.1417	6	20	62	DH423061	6.1		.2402	8	34	79
DH423037	3.7		.1457	6	20	62	DH423062	6.2		.2441	8	34	79
DH423038	3.8		.1496	6	24	66	DH423063	6.3		.2480	8	34	79
DH423039	3.9		.1535	6	24	66	DH423016F	6.350	1/4	.2500	8	34	79
DH423010F	3.969	5/32	.1563	6	24	66	DH423064	6.4		.2520	8	34	79
DH423040	4.0		.1575	6	24	66	DH423065	6.5		.2559	8	34	79
DH423041	4.1		.1614	6	24	66	DH423066	6.6		.2598	8	34	79
DH423042	4.2		.1654	6	24	66	DH423067	6.7		.2638	8	34	79
DH423043	4.3		.1693	6	24	66	DH423017F	6.747	17/64	.2656	8	34	79
DH423011F	4.366	11/64	.1719	6	24	66	DH423068	6.8		.2677	8	34	79
DH423044	4.4		.1732	6	24	66	DH423069	6.9		.2717	8	34	79
DH423045	4.5		.1772	6	24	66	DH423070	7.0		.2756	8	34	79
DH423046	4.6		.1811	6	24	66	DH423071	7.1		.2795	8	41	79
DH423047	4.7		.1850	6	24	66	DH423018F	7.144	9/32	.2812	8	41	79
DH423012F	4.763	3/16	.1875	6	24	66	DH423072	7.2		.2835	8	41	79
DH423048	4.8		.1890	6	28	66	DH423073	7.3		.2874	8	41	79
DH423049	4.9		.1929	6	28	66	DH423074	7.4		.2913	8	41	79
DH423050	5.0		.1969	6	28	66	DH423075	7.5		.2953	8	41	79
DH423051	5.1		.2008	6	28	66	DH423019F	7.541	19/64	.2969	8	41	79
DH423013F	5.159	13/64	.2031	6	28	66	DH423076	7.6		.2992	8	41	79
DH423052	5.2		.2047	6	28	66	DH423077	7.7		.3031	8	41	79
DH423053	5.3		.2087	6	28	66	DH423078	7.8		.3071	8	41	79
DH423054	5.4		.2126	6	28	66	DH423079	7.9		.3110	8	41	79

▶ NEXT PAGE



### SOLID CARBIDE DREAM DRILLS-GENERAL (without COOLANT HOLES)

- ▶ Application : Drilling into general steels, cast steels, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metals, non-ferrous light metals, abrasive plastics
- ▶ Advantage : Self centering - Center drilling is not required  
 Excellent positioning - Bush is not necessary  
 Special design - Reaming is not required  
 - Good chip removal  
 - Powerful drilling



DIN 6537

MG

h6

m7

140°



P.26

# DREAM DRILLS | 3x D

Unit : mm

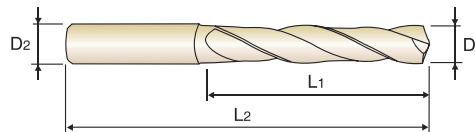
EDP No.	Diameter			Shank Diameter	Flute Length	Overall Length	EDP No.	Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Fractional	Decimal					Metric	Fractional	Decimal			
TAIN	D1			D2	L1	L2	TAIN	D1			D2	L1	L2
DH423020F	7.938	5/16	.3125	8	41	79	DH423104	10.4		.4094	12	55	102
DH423080	8.0		.3150	8	41	79	DH423105	10.5		.4134	12	55	102
DH423081	8.1		.3189	10	47	89	DH423106	10.6		.4173	12	55	102
DH423082	8.2		.3228	10	47	89	DH423107	10.7		.4213	12	55	102
DH423083	8.3		.3268	10	47	89	DH423027F	10.716	27/64	.4219	12	55	102
DH423021F	8.334	21/64	.3281	10	47	89	DH423108	10.8		.4252	12	55	102
DH423084	8.4		.3307	10	47	89	DH423109	10.9		.4291	12	55	102
DH423085	8.5		.3346	10	47	89	DH423110	11.0		.4331	12	55	102
DH423086	8.6		.3386	10	47	89	DH423111	11.1		.4370	12	55	102
DH423087	8.7		.3425	10	47	89	DH423028F	11.113	7/16	.4375	12	55	102
DH423022F	8.731	11/32	.3438	10	47	89	DH423112	11.2		.4409	12	55	102
DH423088	8.8		.3465	10	47	89	DH423113	11.3		.4449	12	55	102
DH423089	8.9		.3504	10	47	89	DH423114	11.4		.4488	12	55	102
DH423090	9.0		.3543	10	47	89	DH423115	11.5		.4528	12	55	102
DH423091	9.1		.3583	10	47	89	DH423029F	11.509	29/64	.4531	12	55	102
DH423023F	9.128	23/64	.3594	10	47	89	DH423116	11.6		.4567	12	55	102
DH423092	9.2		.3622	10	47	89	DH423117	11.7		.4606	12	55	102
DH423093	9.3		.3661	10	47	89	DH423118	11.8		.4646	12	55	102
DH423094	9.4		.3701	10	47	89	DH423119	11.9		.4685	12	55	102
DH423095	9.5		.3740	10	47	89	DH423030F	11.906	15/32	.4688	12	55	102
DH423024F	9.525	3/8	.3750	10	47	89	DH423120	12.0		.4724	12	55	102
DH423096	9.6		.3780	10	47	89	DH423123	12.3		.4843	14	60	107
DH423097	9.7		.3819	10	47	89	DH423031F	12.303	31/64	.4844	14	60	107
DH423098	9.8		.3858	10	47	89	DH423125	12.5		.4921	14	60	107
DH423099	9.9		.3898	10	47	89	DH423032F	12.7	1/2	.5000	14	60	107
DH423025F	9.922	25/64	.3906	10	47	89	DH423128	12.8		.5039	14	60	107
DH423100	10.0		.3937	10	47	89	DH423130	13.0		.5118	14	60	107
DH423101	10.1		.3976	12	55	102	DH423135	13.5		.5315	14	60	107
DH423102	10.2		.4016	12	55	102	DH423138	13.8		.5433	14	60	107
DH423103	10.3		.4055	12	55	102	DH423140	14.0		.5512	14	60	107
DH423026F	10.319	13/32	.4062	12	55	102	DH423036F	14.288	9/16	.5625	16	65	115

▶ NEXT PAGE



### SOLID CARBIDE DREAM DRILLS-GENERAL (without COOLANT HOLES)

- ▶ Application : Drilling into general steels, cast steels, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metals, non-ferrous light metals, abrasive plastics
- ▶ Advantage : Self centering - Center drilling is not required  
 Excellent positioning - Bush is not necessary  
 Special design - Reaming is not required  
 - Good chip removal  
 - Powerful drilling



DIN 6537

MG

h6

m7

140°



P.26

## DREAM DRILLS | 3×D

Unit : mm

EDP No.	Diameter			Shank Diameter	Flute Length	Overall Length	EDP No.	Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Fractional	Decimal					Metric	Fractional	Decimal			
TAIIN	D1			D2	L1	L2	TAIIN	D1			D2	L1	L2
DH423145	14.5		.5708	16	65	115	DH423044F	17.463	11/16	.6875	18	73	123
DH423148	14.8		.5827	16	65	115	DH423175	17.5		.6889	18	73	123
DH423150	15.0		.5905	16	65	115	DH423178	17.8		.7008	18	73	123
DH423155	15.5		.6102	16	65	115	DH423180	18.0		.7087	18	73	123
DH423158	15.8		.6220	16	65	115	DH423185	18.5		.7283	20	79	131
DH423040F	15.875	5/8	.6250	16	65	115	DH423190	19.0		.7480	20	79	131
DH423160	16.0		.6299	16	65	115	DH423048F	19.05	3/4	.7500	20	79	131
DH423165	16.5		.6495	18	73	123	DH423195	19.5		.7676	20	79	131
DH423168	16.8		.6614	18	73	123	DH423198	19.8		.7795	20	79	131
DH423170	17.0		.6692	18	73	123	DH423200	20.0		.7874	20	79	131

▶ 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
~HB225	HB225~325	HRC30~45	HRC45~55	HRC55~							
○	◎	◎			○		○				



## SOLID CARBIDE DREAM DRILLS-GENERAL (without COOLANT HOLES)

### DH414, DH722 Series

WORK MATERIAL				K				P			
				CAST IRON		CAST IRON		CARBON STEELS		ALLOY STEELS	
STRENGTH				< HRC24		> HRC24		< HRC30		HRC30 - 42	
DRILLING SPEED(SFM)				400 ~ 650 ft/min		280 ~ 430 ft/min		250 ~ 400 ft/min		210 ~ 350 ft/min	
DIAMETER				N		IPR		N		IPR	
Fractional		Metric(mm)									
1/8	3/16	3.175	4.763	13120	.006	8750	.005	7880	.005	7000	.005
3/16	5/16	4.763	7.938	8200	.008	5470	.006	4920	.006	4370	.006
5/16	3/8	7.938	9.525	5970	.011	3980	.009	3560	.009	3190	.009
3/8	1/2	9.525	12.700	4690	.014	3120	.011	2810	.011	2500	.011
1/2	9/16	12.700	14.288	3860	.016	2570	.012	2310	.012	2060	.012
9/16	13/16	14.288	20.638	2980	.018	1990	.014	1790	.014	1590	.014

► Recommend to reduce the feed rate as following

DH414(3xD) : Feed 100%

DH722(5xD) : Feed 85%

N = R.P.M

IPR = feed rate(inch/rev.)

## SOLID CARBIDE DREAM DRILLS-GENERAL (with COOLANT HOLES)

### DH416, DH418, DH711, DH712 Series

WORK MATERIAL				K				P			
				CAST IRON		CAST IRON		CARBON STEELS		ALLOY STEELS	
STRENGTH				< HRC24		> HRC24		< HB240, GG25		< HB300, GG40	
DRILLING SPEED(SFM)				480 ~ 730 ft/min		310 ~ 490 ft/min		280 ~ 430 ft/min		250 ~ 400 ft/min	
DIAMETER				N		IPR		N		IPR	
Fractional		Metric(mm)									
1/8	3/16	3.175	4.763	14870	.006	9620	.006	8750	.006	7880	.005
3/16	5/16	4.763	7.938	8200	.008	6010	.008	5470	.008	4920	.006
5/16	3/8	7.938	9.525	6760	.011	4370	.011	3980	.011	3580	.009
3/8	1/2	9.525	12.700	5310	.014	3440	.014	3120	.014	2810	.011
1/2	9/16	12.700	14.288	4370	.016	2830	.016	2570	.016	2310	.012
9/16	13/16	14.288	20.638	3380	.018	2190	.018	1990	.018	1790	.014

► Recommend to reduce the feed rate as following

DH416/DH711(3xD) : Feed 100%

DH418/DH712(5xD) : Feed 85%

N = R.P.M

IPR= feed rate (Inch/rev.)



## SOLID CARBIDE DREAM DRILLS-GENERAL (without COOLANT HOLES)

### DH404, DH423, DH424 Series

WORK MATERIAL		P						K					
		NON-ALLOY STEELS			ALLOY STEELS			SOFT GREY CAST IRON			HARD GREY CAST IRON		
STRENGTH		< HRC 20			> HRC 20			< 240 BHN			< 300 BHN		
DRILLING SPEED(SFM)		130 ~ 400 ft/min			115 ~ 340 ft/min			220 ~ 650 ft/min			150 ~ 430 ft/min		
DIAMETER		N	S	IPR	N	S	IPR	N	S	IPR	N	S	IPR
Metric(mm)	Decimal												
1.0	.0394	13000	0.04	.002	11250	0.04	.002	21300	0.04	.002	14200	0.04	.002
2.0	.0787	13000	0.06	.002	11250	0.06	.002	21300	0.06	.002	14200	0.06	.002
3.0	.1181	13000	0.13	.005	11000	0.13	.005	21000	0.13	.005	14000	0.13	.005
4.0	.1575	9500	0.14	.006	8400	0.14	.006	16000	0.14	.006	10500	0.14	.006
5.0	.1969	7600	0.15	.006	6700	0.15	.006	13000	0.15	.006	8300	0.15	.006
6.0	.2362	6400	0.17	.007	5600	0.17	.007	11000	0.17	.007	6900	0.17	.007
7.0	.2756	5500	0.19	.007	4800	0.19	.007	9100	0.19	.007	5900	0.19	.007
8.0	.3150	4800	0.21	.008	4200	0.21	.008	8000	0.21	.008	5200	0.21	.008
9.0	.3543	4200	0.23	.009	3700	0.23	.009	7100	0.23	.009	4600	0.23	.009
10.0	.3937	3800	0.25	.010	3350	0.25	.010	6400	0.25	.010	4150	0.25	.010
12.0	.4724	3200	0.27	.011	2800	0.27	.011	5300	0.27	.011	3450	0.27	.011
14.0	.5512	2750	0.29	.011	2400	0.29	.011	4550	0.29	.011	3000	0.29	.011
16.0	.6299	2400	0.31	.012	2100	0.31	.012	4000	0.31	.012	2600	0.31	.012
18.0	.7087	2100	0.33	.013	1850	0.33	.013	3550	0.33	.013	2300	0.33	.013
20.0	.7874	1900	0.35	.014	1650	0.35	.014	3200	0.35	.014	2100	0.35	.014

► Recommend to reduce the feed rate as following  
 DH404(3xD), DH423(3xD) : Feed 100%  
 DH424(5xD) : Feed 85%

N = R.P.M  
 S= feed rate (mm/rev.)  
 IPR= feed rate (Inch/rev.)

## SOLID CARBIDE DREAM DRILLS-GENERAL (with COOLANT HOLES)

### DH406, DH408, DH421 Series

WORK MATERIAL		P						K					
		NON-ALLOY STEELS			ALLOY STEELS			SOFT GREY CAST IRON			HARD GREY CAST IRON		
STRENGTH		< HRC 20			> HRC 20			< 240 BHN			< 300 BHN		
DRILLING SPEED		160 ~ 490 ft/min			150 ~ 440 ft/min			270 ~ 820 ft/min			170 ~ 530 ft/min		
DIAMETER		N	S	IPR	N	S	IPR	N	S	IPR	N	S	IPR
Metric(mm)	Decimal												
1.0	.0394	16250	0.05	.002	14800	0.05	.002	26600	0.05	.002	17300	0.05	.002
2.0	.0787	16250	0.07	.003	14800	0.07	.003	26600	0.07	.003	17300	0.07	.003
3.0	.1181	16000	0.16	.006	14500	0.16	.006	26000	0.16	.006	17000	0.16	.006
4.0	.1575	12000	0.17	.007	11000	0.17	.007	20000	0.17	.007	13000	0.17	.007
5.0	.1969	9550	0.18	.007	8600	0.18	.007	16000	0.18	.007	10000	0.18	.007
6.0	.2362	8000	0.20	.008	7200	0.20	.008	13000	0.20	.008	8500	0.20	.008
7.0	.2756	6800	0.22	.009	6100	0.22	.009	11500	0.22	.009	7300	0.22	.009
8.0	.3150	6000	0.24	.009	5400	0.24	.009	9900	0.24	.009	6400	0.24	.009
9.0	.3543	5300	0.27	.011	4800	0.27	.011	8800	0.27	.011	5700	0.27	.011
10.0	.3937	4800	0.30	.012	4300	0.30	.012	8000	0.30	.012	5100	0.30	.012
12.0	.4724	4000	0.33	.013	3600	0.33	.013	6600	0.33	.013	4250	0.33	.013
14.0	.5512	3400	0.36	.014	3050	0.36	.014	5700	0.36	.014	3650	0.36	.014
16.0	.6299	3000	0.39	.015	2700	0.39	.015	5000	0.39	.015	3200	0.39	.015
18.0	.7087	2650	0.42	.017	2400	0.42	.017	4400	0.42	.017	2850	0.42	.017
20.0	.7874	2400	0.45	.018	2150	0.45	.018	4000	0.45	.018	2550	0.45	.018

► Recommend to reduce the feed rate as following  
 DH406(3xD) : Feed 100%, DH408(5xD) : Feed 85%  
 DH421(8xD) : Feed 70%

N = R.P.M  
 S= feed rate (mm/rev.)  
 IPR= feed rate (Inch/rev.)