

YU-DD18

YU-DD18 AMERICA

BEST VALUE IN THE WORLD OF CUTTING TOOLS



COMPLETE METALWORKING SOLUTIONS

(800) 991-4225
www.ahbinc.com
ISO Certified
customerservice@ahbinc.com

YG-1 CO., LTD.

YG-1 USA

730 Corporate Woods Parkway, Vernon Hills, IL 60061 USA
• Technical Assistance: 888-868-5988

YG-1 HEAD OFFICE

211, Sewolcheon-ro, Bupyeong-gu, Incheon, South Korea
• Phone: +82-32-526-0909
• [Http://www.yg1.kr](http://www.yg1.kr)
• E-mail: yg1@yg1.kr

Note The new address above has currently been updated since Korean new postal standard was valid from 2014. Be noticed that the location of the Headquarters has NOT changed.



Tool specifications are subject to change without prior notice.

YG1YUDD180720004

DREAM DRILLS

YG-1 CO., LTD.



DREAM DRILLS

SOLID CARBIDE DREAM DRILLS

- NEW SIZES** DREAM DRILLS • **GENERAL** with/without Coolant Holes
- NEW SIZES** DREAM DRILLS • **HIGH FEED** with Coolant Holes
- NEW SERIES** DREAM DRILLS • **FLAT BOTTOM** without Coolant Holes
- NEW SIZES** DREAM DRILLS • **INOX** with Coolant Holes
- NEW SIZES** DREAM DRILLS • **ALU** with Coolant Holes
- NEW SIZES** DREAM DRILLS • **MQL** with Coolant Holes(10xD ~ 40xD)
- NEW SIZES** DREAM DRILLS • **HIGH HARDENED STEELS** HRc50-70

DREAM DRILLS

SOLID CARBIDE DREAM DRILLS

SELECTION GUIDE

ITEM	MODEL	DESCRIPTION	SIZE		PAGE
			MIN	MAX	

DREAM DRILLS • GENERAL

TIAIN-COATED SOLID CARBIDE DREAM DRILLS with/without Coolant Holes

DH416 DH711		with Coolant Holes (3xD)	SHORT	1/8	5/8	7
DH418 DH712		with Coolant Holes (5xD)	LONG	13/64	1/2	9
DH406		with Coolant Holes (3xD)	SHORT	3.0	20.0	10
DH408		with Coolant Holes (5xD)	LONG	1.0	20.0	14
DH421		with Coolant Holes (8xD)	EXTRA LONG	3.0	20.0	19
DH414		without Coolant Holes (3xD)	STUB	1/8	5/8	23
DH722		without Coolant Holes (5xD)	LONG	13/64	1/2	24
DH404		without Coolant Holes (3xD)	STUB	3.0	20.0	25
DH423		without Coolant Holes (3xD)	SHORT	3.0	20.0	27
DH424		without Coolant Holes (5xD)	LONG	1.0	20.0	32
RECOMMENDED CUTTING CONDITIONS						37

DREAM DRILLS • HIGH FEED

H-COATED SOLID CARBIDE DREAM DRILLS with Coolant Holes for Faster Drilling in Steels and Cast Iron

DGR493 DGR496		High Feed with Coolant Holes (3xD)	SHORT	13/64 5.0	3/4 20.0	41
DGR495 DGR497		High Feed with Coolant Holes (5xD)	LONG	13/64 5.0	3/4 20.0	45
RECOMMENDED CUTTING CONDITIONS						49

DREAM DRILLS • FLAT BOTTOM

X-COATED SOLID CARBIDE DREAM DRILLS without Coolant Holes in 180° Point Angle for Variety Drilling

DPP447		Flat Bottom without coolant holes (2xD)	SHORT	3.0	20.0	51
RECOMMENDED CUTTING CONDITIONS						54

DREAM DRILLS • INOX

TIAIN-COATED SOLID CARBIDE DREAM DRILLS with Coolant Holes for Drilling Tough Materials; Stainless Steels, Nickel Alloys and Titanium

DH463 DH714		INOX with Coolant Holes (3xD)	STUB	1/8	5/8	57
DH464 DH715		INOX with Coolant Holes (5xD)	LONG	13/64	1/2	59
DH451		INOX with Coolant Holes (3xD)	SHORT	3.0	20.0	60
DH452		INOX with Coolant Holes (5xD)	LONG	1.0	20.0	65
DH453		INOX with Coolant Holes (8xD)	EXTRA LONG	3.0	20.0	70
RECOMMENDED CUTTING CONDITIONS						74

⊙ : Excellent ○ : Good

P			H		M	K	N			S	
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
-HB225	HB225-325	HRc30-45	HRc45-55	HRc55-							

⊙	⊙	⊙			○	○					
⊙	⊙	⊙			○	○					
⊙	⊙	⊙			○	○					
⊙	⊙	⊙			○	○					
⊙	⊙	⊙			○	○					
⊙	⊙	⊙			○	○					
⊙	⊙	⊙			○	○					
⊙	⊙	⊙			○	○					
⊙	⊙	⊙			○	○					
⊙	⊙	⊙			○	○					

⊙	⊙	○				⊙					
⊙	⊙	○				⊙					

⊙	⊙	⊙	○			○	⊙	○	○		
---	---	---	---	--	--	---	---	---	---	--	--

⊙	⊙	○				⊙		○			○
⊙	⊙	○				⊙		○			○
⊙	⊙	○				⊙		○			○
⊙	⊙	○				⊙		○			○
⊙	⊙	○				⊙		○			○

DREAM DRILLS

SOLID CARBIDE DREAM DRILLS

SELECTION GUIDE

ITEM	MODEL	DESCRIPTION	SIZE		PAGE	
			MIN	MAX		
DREAM DRILLS · ALU						
DLC-COATED SOLID CARBIDE DREAM DRILLS with Coolant Holes for Aluminum & Aluminum Alloys						
DGE466 DGE718		ALU with Coolant Holes (5xD)	LONG	13/64	1/2	76
DGE433		ALU with Coolant Holes (5xD)	LONG	3.0	20.0	77
RECOMMENDED CUTTING CONDITIONS					81	

DREAM DRILLS · MQL						
TiAlN-COATED SOLID CARBIDE DREAM DRILLS with Coolant Holes for Deep Hole Drilling						
DH510		MQL with Coolant Holes (10xD)	EXTRA LONG	3.0	14.0	83
DH515		MQL with Coolant Holes (15xD)	EXTRA LONG	3.0	14.0	86
DH520		MQL with Coolant Holes (20xD)	EXTRA LONG	3.0	12.0	89
DHM10 DHM15 DHM20		MQL with Coolant Holes (10xD, 15xD, 20xD)	EXTRA LONG	3.0	12.0	92
DHM25		MQL with Coolant Holes (25xD)	EXTRA LONG	3.0	10.0	93
DHM30		MQL with Coolant Holes (30xD)	EXTRA LONG	3.0	8.0	95
RECOMMENDED CUTTING CONDITIONS					97	

DREAM DRILLS · HIGH HARDENED STEELS						
TiAlN-COATED SOLID CARBIDE DREAM DRILLS for High Hardened Steels (HRc50-HRc70)						
DH501		for High Hardened Steels (HRc50-HRc70)		1/8	3/4	99
DH500		for High Hardened Steels (HRc50-HRc70)		1.0	14.0	101
RECOMMENDED CUTTING CONDITIONS					102	

DREAM DRILLS					
TECHNICAL DATA					103

◎ : Excellent ○ : Good

P		H			M	K	N			S	
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
-HB225	HB225-325	HRc30-45	HRc45-55	HRc55-							

							◎				
							◎				

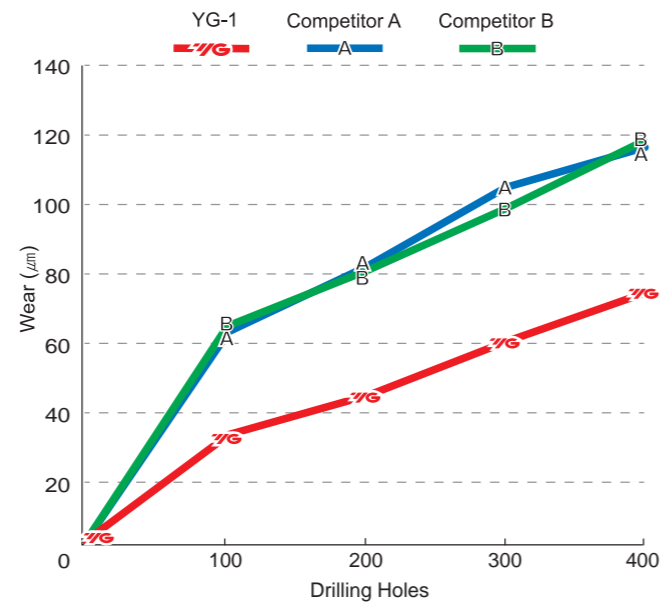
◎	◎	○					○				
◎	◎	○					○				
◎	◎	○					○				
◎	◎	○					○				
◎	◎	○					○				
◎	◎	○					○				

			◎	◎							
			◎	◎							

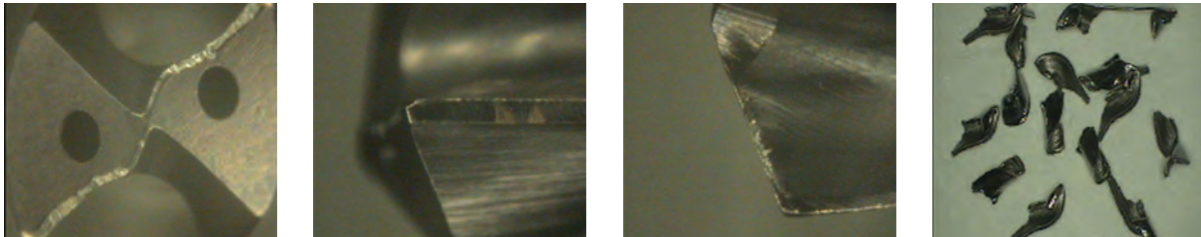
CASE STUDY

► SOLID CARBIDE DREAM DRILLS - General with Coolant Holes

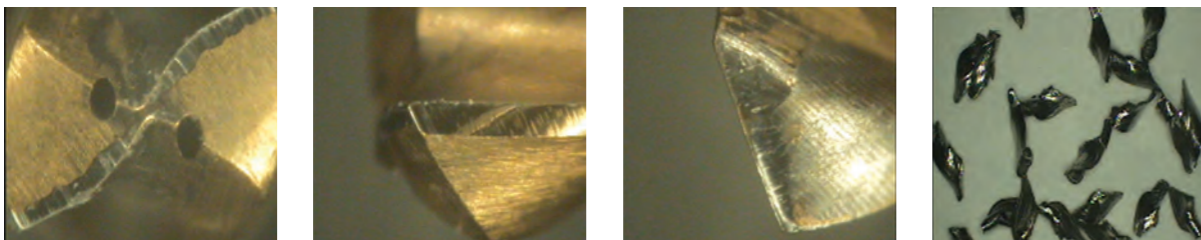
CUTTING CONDITION	
Tool	DH408015 (Dream Drill with Coolant Holes)
Size	Ø1.5 x 3 x 15 x 55
Work Material	<ul style="list-style-type: none"> • JIS : SKD61 (HRc30) • DIN : X40GrMoV51 • WR : 1.2344
RPM	14,856 rev./min.
Feed	.0019 inch/rev.
Drilling Depth	29"
Coolant	Wet Cut



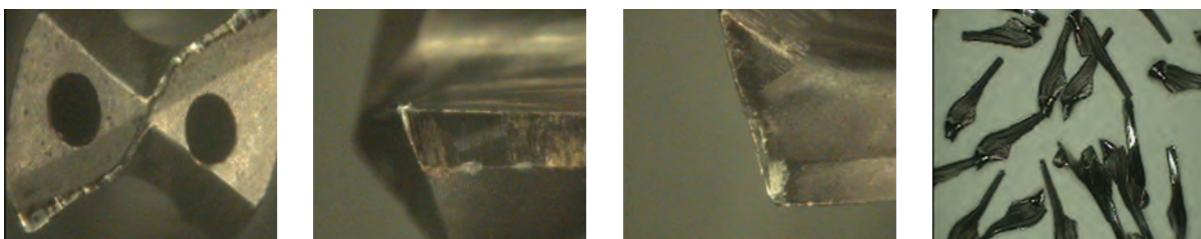
► YG-1 (Total Drilling 400 Holes)



► COMPETITOR A (Total Drilling 400 Holes)



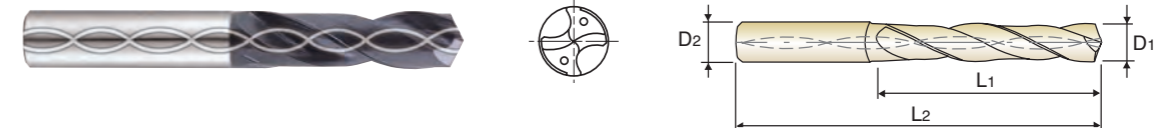
► COMPETITOR B (Total Drilling 400 Holes)



TiAIN-COATED SOLID CARBIDE DREAM DRILLS with Coolant Holes (3XD)

SHORT
DH416 SERIES
DH711 SERIES

- Drilling for Steel, Cast Steel, Cast Iron, Malleable Cast Iron, Non-Ferrous, Abrasive Plastic
- Self centering and chip breaking by R-thinning
- Wave shape and negative land on the cutting edge for low thrust, stable torque and long tool life
- Optimized flute shape for strength of drilling and smooth chip evacuation
- Tolerance : Dia. Tolerance ØD1 : See page 104
Shank Tolerance ØD2: -.0001 -.0005



3 × D

EDP No.	Drill Diameter		Shank Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter		Shank Diameter	Flute Length	Overall Length
	Fractional	Decimal					Fractional	Decimal			
	D1		D2	L1	L2		D1		D2	L1	L2
	TiAIN						TiAIN				
DH711008	1/8	.1250	3/16	1.102	2.992	DH711217	Q	.3320	3/8	1.673	3.937
0081BTF	1/8	.1250	15/64	1.102	2.992	0221BTF	11/32	.3438	11/32	1.772	3.937
DH711011	11/64	.1719	3/16	1.417	3.386	DH711022	11/32	.3438	3/8	1.772	3.937
0111BTF	11/64	.1719	15/64	1.417	3.386	DH711023	23/64	.3594	3/8	1.87	4.174
DH711012	3/16	.1875	3/16	1.575	3.543	0231BTF	23/64	.3594	25/64	1.870	4.174
0121BTF	3/16	.1875	15/64	1.575	3.543	DH711221	U	.3680	3/8	1.87	4.174
0131BTF	13/64	.2031	15/64	1.082	3.228	2211BTF	U	.3680	25/64	1.870	4.174
DH711013	13/64	.2031	1/4	1.082	3.228	DH711024	3/8	.3750	3/8	1.969	4.174
0141BTF	7/32	.2188	15/64	1.181	3.228	0241BTF	3/8	.3750	25/64	1.969	4.174
DH711014	7/32	.2188	1/4	1.181	3.228	0251BTF	25/64	.3906	25/64	1.969	4.174
0151BTF	15/64	.2344	15/64	1.181	3.228	DH711025	25/64	.3906	7/16	1.969	4.174
DH711015	15/64	.2344	1/4	1.181	3.228	0261BTF	13/32	.4062	27/64	2.067	4.567
DH711016	1/4	.2500	1/4	1.279	3.465	DH711026	13/32	.4062	7/16	2.067	4.567
0161BTF	1/4	.2500	17/64	1.279	3.465	0271BTF	27/64	.4219	27/64	2.165	4.567
2061BTF	F	.2570	17/64	1.279	3.465	DH711027	27/64	.4219	7/16	2.165	4.567
DH711206	F	.2570	5/16	1.279	3.465	DH711028	7/16	.4375	7/16	2.264	4.803
0171BTF	17/64	.2656	17/64	1.378	3.465	0281BTF	7/16	.4375	15/32	2.264	4.803
DH711017	17/64	.2656	5/16	1.378	3.465	0291BTF	29/64	.4531	15/32	2.264	4.803
2091BTF	I	.2720	.2720	1.378	3.465	DH711029	29/64	.4531	1/2	2.264	4.803
DH711209	I	.2720	5/16	1.378	3.465	0301BTF	15/32	.4688	15/32	2.362	4.803
0181BTF	9/32	.2812	5/16	1.476	3.701	DH711030	15/32	.4688	1/2	2.362	4.803
0191BTF	19/64	.2969	5/16	1.476	3.701	0311BTF	31/64	.4844	1/2	2.461	5.039
0201BTF	5/16	.3125	5/16	1.575	3.701	0321BTF	1/2	.5000	1/2	2.559	5.039
0211BTF	21/64	.3281	11/32	1.673	3.937	0331BTF	33/64	.5156	35/64	2.657	5.276
DH711021	21/64	.3281	3/8	1.673	3.937	DH711033	33/64	.5156	9/16	2.657	5.276
2171BTF	Q	.3320	11/32	1.673	3.937	0341BTF	17/32	.5312	35/64	2.756	5.276

► Other shank types are available on your request.

► NEXT PAGE

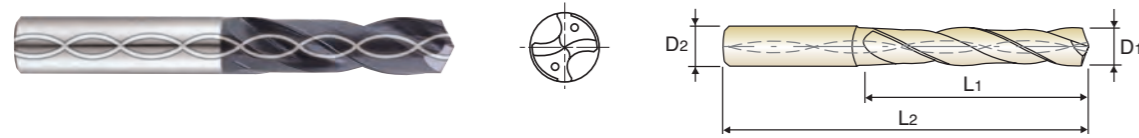
P		H			M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
-HB225	HB225-325	HRc30-45	HRc45-55	HRc55-							
○	○	○			○	○					

TiAlN-COATED SOLID CARBIDE DREAM DRILLS with Coolant Holes (3XD)

SHORT

DH416 SERIES
DH711 SERIES

- ▶ Drilling for Steel, Cast Steel, Cast Iron, Malleable Cast Iron, Non-Ferrous, Abrasive Plastic
- ▶ Self centering and chip breaking by R-thinning
- ▶ Wave shape and negative land on the cutting edge for low thrust, stable torque and long tool life
- ▶ Optimized flute shape for strength of drilling and smooth chip evacuation
- ▶ Tolerance : Dia. Tolerance ØD1 : See page 104
Shank Tolerance ØD2: -.0001 -.0005



3 × D

Unit : inch

EDP No.	Drill Diameter		Shank Diameter	Flute Length	Overall Length
	Fractional	Decimal			
TiAlN	D1		D2	L1	L2
DH711034	17/32	.5312	9/16	2.756	5.276
O351BTF	35/64	.5469	35/64	2.756	5.276
DH711035	35/64	.5469	9/16	2.756	5.276
DH711036	9/16	.5625	9/16	2.854	5.512
O361BTF	9/16	.5625	37/64	2.854	5.512

EDP No.	Drill Diameter		Shank Diameter	Flute Length	Overall Length
	Fractional	Decimal			
TiAlN	D1		D2	L1	L2
O371BTF	37/64	.5781	37/64	2.953	5.512
DH711037	37/64	.5781	5/8	2.953	5.512
O381BTF	19/32	.5937	5/8	3.051	5.709
O391BTF	39/64	.6094	5/8	3.051	5.709
O401BTF	5/8	.6250	5/8	3.150	5.709

▶ Other shank types are available on your request.

◎ : Excellent ○ : Good

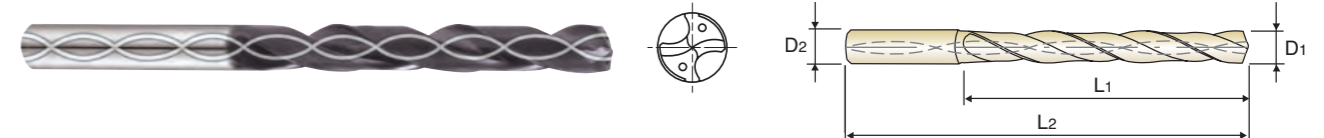
P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	◎			○	○					

TiAlN-COATED SOLID CARBIDE DREAM DRILLS with Coolant Holes (5XD)

LONG

DH418 SERIES
DH712 SERIES

- ▶ Drilling for Steel, Cast Steel, Cast Iron, Malleable Cast Iron, Non-Ferrous, Abrasive Plastic
- ▶ Self centering and chip breaking by R-thinning
- ▶ Wave shape and negative land on the cutting edge for low thrust, stable torque and long tool life
- ▶ Optimized flute shape for strength of drilling and smooth chip evacuation
- ▶ Tolerance : Dia. Tolerance ØD1 : See page 104
Shank Tolerance ØD2: -.0001 -.0005



5 × D

Unit : inch

EDP No.	Drill Diameter		Shank Diameter	Flute Length	Overall Length
	Fractional	Decimal			
TiAlN	D1		D2	L1	L2
O131CTF	13/64	.2031	15/64	1-3/4	3-15/16
DH712013	13/64	.2031	1/4	1-3/4	3-15/16
O141CTF	7/32	.2188	15/64	1-57/64	3-15/16
DH712014	7/32	.2188	1/4	1-57/64	3-15/16
O151CTF	15/64	.2344	15/64	1-57/64	3-15/16
DH712015	15/64	.2344	1/4	1-57/64	3-15/16
DH712016	1/4	.2500	1/4	2-3/64	4-19/64
O161CTF	1/4	.2500	17/64	2-3/64	4-19/64
2061CTF	F	.2570	17/64	2-13/64	4-19/64
DH712206	F	.2570	5/16	2-13/64	4-19/64
O171CTF	17/64	.2656	17/64	2-13/64	4-19/64
DH712017	17/64	.2656	5/16	2-13/64	4-19/64
2091CTF	I	.2720	.2720	2-13/64	4-19/64
DH712209	I	.2720	5/16	2-13/64	4-19/64
O181CTF	9/32	.2812	5/16	2-23/64	4-41/64
O191CTF	19/64	.2969	5/16	2-33/64	4-41/64
O201CTF	5/16	.3125	5/16	2-33/64	4-41/64
O211CTF	21/64	.3281	11/32	2-43/64	5
DH712021	21/64	.3281	3/8	2-43/64	5
2171CTF	Q	.3320	11/32	2-43/64	5
DH712217	Q	.3320	3/8	2-43/64	5
O221CTF	11/32	.3438	11/32	2-27/32	5

EDP No.	Drill Diameter		Shank Diameter	Flute Length	Overall Length
	Fractional	Decimal			
TiAlN	D1		D2	L1	L2
DH712022	11/32	.3438	3/8	2-27/32	5
DH712023	23/64	.3594	3/8	3	5-23/64
O231CTF	23/64	.3594	25/64	3	5-23/64
DH712221	U	.3680	3/8	3	5-23/64
2211CTF	U	.3680	25/64	3	5-23/64
DH712024	3/8	.3750	3/8	3-5/32	5-23/64
O241CTF	3/8	.3750	25/64	3-5/32	5-23/64
O251CTF	25/64	.3906	25/64	3-5/32	5-23/64
DH712025	25/64	.3906	7/16	3-5/32	5-23/64
O261CTF	13/32	.4062	27/64	3-5/16	5-7/8
DH712026	13/32	.4062	7/16	3-5/16	5-7/8
O271CTF	27/64	.4219	27/64	3-15/32	5-7/8
DH712027	27/64	.4219	7/16	3-15/32	5-7/8
DH712028	7/16	.4375	7/16	3-5/8	6-7/32
O281CTF	7/16	.4375	15/32	3-5/8	6-7/32
O291CTF	29/64	.4531	15/32	3-25/32	6-7/32
DH712029	29/64	.4531	1/2	3-25/32	6-7/32
O301CTF	15/32	.4688	15/32	3-25/32	6-7/32
DH712030	15/32	.4688	1/2	3-25/32	6-7/32
O311CTF	31/64	.4844	1/2	3-15/16	6-37/64
O321CTF	1/2	.5000	1/2	4-3/32	6-37/64

▶ Other shank types are available on your request.

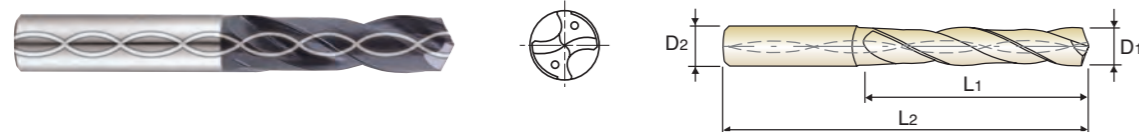
◎ : Excellent ○ : Good

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	◎			○	○					

TiAIN-COATED SOLID CARBIDE DREAM DRILLS with Coolant Holes (3XD)

SHORT DH406 SERIES

- ▶ Drilling for Steel, Cast Steel, Cast Iron, Malleable Cast Iron, Non-Ferrous, Abrasive Plastic
- ▶ Self centering and chip breaking by R-thinning
- ▶ Wave shape and negative land on the cutting edge for low thrust, stable torque and long tool life
- ▶ Optimized flute shape for strength of drilling and smooth chip evacuation



3 × D

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Fractional	Decimal			
TiAIN	D1			D2	L1	L2
DH406030	3.0		.1181	6	20	62
DH406031	3.1		.1220	6	20	62
DH406008F	3.175	1/8	.1250	6	20	62
DH406032	3.2		.1260	6	20	62
DH406033	3.3		.1299	6	20	62
DH406034	3.4		.1339	6	20	62
DH406035	3.5		.1378	6	20	62
DH406009F	3.572	9/64	.1406	6	20	62
DH406036	3.6		.1417	6	20	62
DH406037	3.7		.1457	6	20	62
DH406038	3.8		.1496	6	24	66
DH406039	3.9		.1535	6	24	66
DH406010F	3.969	5/32	.1563	6	24	66
DH406040	4.0		.1575	6	24	66
DH406041	4.1		.1614	6	24	66
DH406042	4.2		.1654	6	24	66
DH406043	4.3		.1693	6	24	66
DH406011F	4.366	11/64	.1719	6	24	66
DH406044	4.4		.1732	6	24	66
DH406045	4.5		.1772	6	24	66
DH406046	4.6		.1811	6	24	66
DH406047	4.7		.1850	6	24	66
DH406012F	4.763	3/16	.1875	6	24	66
DH406048	4.8		.1890	6	28	66
DH406049	4.9		.1929	6	28	66
DH406050	5.0		.1969	6	28	66

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Fractional	Decimal			
TiAIN	D1			D2	L1	L2
DH406051	5.1		.2008	6	28	66
DH406013F	5.159	13/64	.2031	6	28	66
DH406052	5.2		.2047	6	28	66
DH406053	5.3		.2087	6	28	66
DH406054	5.4		.2126	6	28	66
DH406055	5.5		.2165	6	28	66
DH406014F	5.556	7/32	.2188	6	28	66
DH406056	5.6		.2205	6	28	66
DH406057	5.7		.2244	6	28	66
DH406058	5.8		.2283	6	28	66
DH406059	5.9		.2323	6	28	66
DH406015F	5.953	15/64	.2344	6	28	66
DH406060	6.0		.2362	6	28	66
DH406061	6.1		.2402	8	34	79
DH406062	6.2		.2441	8	34	79
DH406063	6.3		.2480	8	34	79
DH406016F	6.350	1/4	.2500	8	34	79
DH406064	6.4		.2520	8	34	79
DH406065	6.5		.2559	8	34	79
DH406006L	6.528	F	.2570	8	34	79
DH406066	6.6		.2598	8	34	79
DH406067	6.7		.2638	8	34	79
DH406017F	6.747	17/64	.2656	8	34	79
DH406068	6.8		.2677	8	34	79
DH406069	6.9		.2717	8	34	79
DH406009L	6.909	I	.2720	8	34	79

Unit : mm

▶ Other shank types are available on your request.

▶ NEXT PAGE

⊙ : Excellent ○ : Good

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
⊙	⊙	⊙			○	○					

TiAIN-COATED SOLID CARBIDE DREAM DRILLS with Coolant Holes (3XD)

SHORT DH406 SERIES

- ▶ Drilling for Steel, Cast Steel, Cast Iron, Malleable Cast Iron, Non-Ferrous, Abrasive Plastic
- ▶ Self centering and chip breaking by R-thinning
- ▶ Wave shape and negative land on the cutting edge for low thrust, stable torque and long tool life
- ▶ Optimized flute shape for strength of drilling and smooth chip evacuation



3 × D

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Fractional	Decimal			
TiAIN	D1			D2	L1	L2
DH406070	7.0		.2756	8	34	79
DH406071	7.1		.2795	8	41	79
DH406018F	7.144	9/32	.2812	8	41	79
DH406072	7.2		.2835	8	41	79
DH406073	7.3		.2874	8	41	79
DH406074	7.4		.2913	8	41	79
DH406075	7.5		.2953	8	41	79
DH406019F	7.541	19/64	.2969	8	41	79
DH406076	7.6		.2992	8	41	79
DH406077	7.7		.3031	8	41	79
DH406078	7.8		.3071	8	41	79
DH406079	7.9		.3110	8	41	79
DH406020F	7.938	5/16	.3125	8	41	79
DH406080	8.0		.3150	8	41	79
DH406081	8.1		.3189	10	47	89
DH406082	8.2		.3228	10	47	89
DH406083	8.3		.3268	10	47	89
DH406021F	8.334	21/64	.3281	10	47	89
DH406084	8.4		.3307	10	47	89
DH406017L	8.433	Q	.3320	10	47	89
DH406085	8.5		.3346	10	47	89
DH406086	8.6		.3386	10	47	89
DH406087	8.7		.3425	10	47	89
DH406022F	8.731	11/32	.3438	10	47	89
DH406088	8.8		.3465	10	47	89
DH406089	8.9		.3504	10	47	89

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Fractional	Decimal			
TiAIN	D1			D2	L1	L2
DH406090	9.0		.3543	10	47	89
DH406091	9.1		.3583	10	47	89
DH406023F	9.128	23/64	.3594	10	47	89
DH406092	9.2		.3622	10	47	89
DH406093	9.3		.3661	10	47	89
DH406021L	9.347	U	.3680	10	47	89
DH406094	9.4		.3701	10	47	89
DH406095	9.5		.3740	10	47	89
DH406024F	9.525	3/8	.3750	10	47	89
DH406096	9.6		.3780	10	47	89
DH406097	9.7		.3819	10	47	89
DH406098	9.8		.3858	10	47	89
DH406099	9.9		.3898	10	47	89
DH406025F	9.922	25/64	.3906	10	47	89
DH406100	10.0		.3937	10	47	89
DH406101	10.1		.3976	12	55	102
DH406102	10.2		.4016	12	55	102
DH406103	10.3		.4055	12	55	102
DH406026F	10.319	13/32	.4062	12	55	102
DH406104	10.4		.4094	12	55	102
DH406105	10.5		.4134	12	55	102
DH406106	10.6		.4173	12	55	102
DH406107	10.7		.4212	12	55	102
DH406027F	10.716	27/64	.4219	12	55	102
DH406108	10.8		.4252	12	55	102
DH406109	10.9		.4291	12	55	102

Unit : mm

▶ Other shank types are available on your request.

▶ NEXT PAGE

⊙ : Excellent ○ : Good

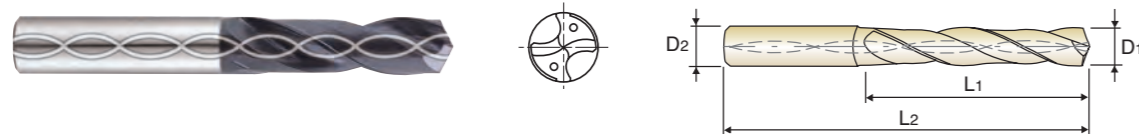
P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
⊙	⊙	⊙			○	○					

TiAIN-COATED SOLID CARBIDE DREAM DRILLS with Coolant Holes (3XD)

SHORT

DH406 SERIES

- ▶ Drilling for Steel, Cast Steel, Cast Iron, Malleable Cast Iron, Non-Ferrous, Abrasive Plastic
- ▶ Self centering and chip breaking by R-thinning
- ▶ Wave shape and negative land on the cutting edge for low thrust, stable torque and long tool life
- ▶ Optimized flute shape for strength of drilling and smooth chip evacuation



3 × D

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Fractional	Decimal			
TiAIN	D1			D2	L1	L2
DH406110	11.0		.4330	12	55	102
DH406111	11.1		.4370	12	55	102
DH406028F	11.113	7/16	.4375	12	55	102
DH406112	11.2		.4409	12	55	102
DH406113	11.3		.4448	12	55	102
DH406114	11.4		.4488	12	55	102
DH406115	11.5		.4527	12	55	102
DH406029F	11.509	29/64	.4531	12	55	102
DH406116	11.6		.4566	12	55	102
DH406117	11.7		.4606	12	55	102
DH406118	11.8		.4645	12	55	102
DH406119	11.9		.4685	12	55	102
DH406030F	11.906	15/32	.4688	12	55	102
DH406120	12.0		.4724	12	55	102
DH406121	12.1		.4764	14	60	107
DH406122	12.2		.4803	14	60	107
DH406123	12.3		.4843	14	60	107
DH406031F	12.303	31/64	.4844	14	60	107
DH406124	12.4		.4882	14	60	107
DH406125	12.5		.4921	14	60	107
DH406126	12.6		.4961	14	60	107
DH406032F	12.7	1/2	.5000	14	60	107
DH406128	12.8		.5039	14	60	107
DH406129	12.9		.5079	14	60	107
DH406130	13.0		.5118	14	60	107
DH406131	13.1		.5157	14	60	107

▶ Other shank types are available on your request.

▶ NEXT PAGE

◎ : Excellent ○ : Good

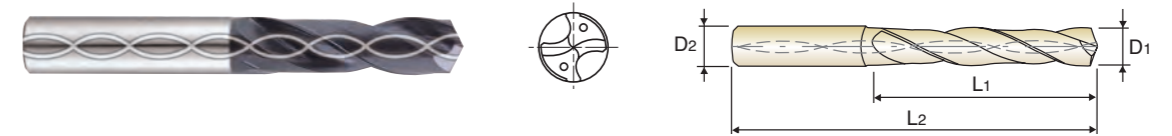
P				H		M	K	N			S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	◎			○	○					

TiAIN-COATED SOLID CARBIDE DREAM DRILLS with Coolant Holes (3XD)

SHORT

DH406 SERIES

- ▶ Drilling for Steel, Cast Steel, Cast Iron, Malleable Cast Iron, Non-Ferrous, Abrasive Plastic
- ▶ Self centering and chip breaking by R-thinning
- ▶ Wave shape and negative land on the cutting edge for low thrust, stable torque and long tool life
- ▶ Optimized flute shape for strength of drilling and smooth chip evacuation



3 × D

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Fractional	Decimal			
TiAIN	D1			D2	L1	L2
DH406157	15.7		.6181	16	65	115
DH406158	15.8		.6220	16	65	115
DH406040F	15.875	5/8	.6250	16	65	115
DH406159	15.9		.6260	16	65	115
DH406160	16.0		.6299	16	65	115
DH406161	16.1		.6339	18	73	123
DH406162	16.2		.6378	18	73	123
DH406163	16.3		.6417	18	73	123
DH406164	16.4		.6457	18	73	123
DH406165	16.5		.6495	18	73	123
DH406166	16.6		.6535	18	73	123
DH406167	16.7		.6575	18	73	123
DH406168	16.8		.6614	18	73	123
DH406169	16.9		.6654	18	73	123
DH406170	17.0		.6692	18	73	123
DH406171	17.1		.6732	18	73	123
DH406172	17.2		.6772	18	73	123
DH406173	17.3		.6811	18	73	123
DH406174	17.4		.6850	18	73	123
DH406044F	17.463	11/16	.6875	18	73	123
DH406175	17.5		.6889	18	73	123
DH406176	17.6		.6929	18	73	123
DH406177	17.7		.6968	18	73	123
DH406178	17.8		.7008	18	73	123

▶ Other shank types are available on your request.

◎ : Excellent ○ : Good

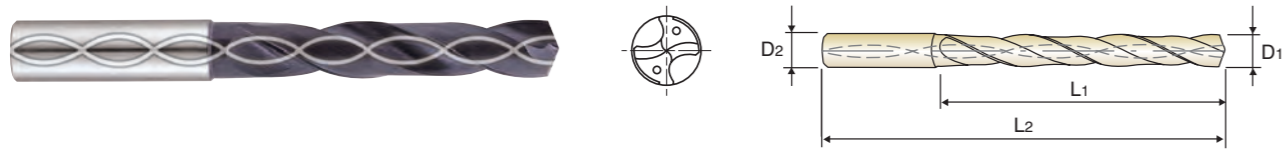
P				H		M	K	N			S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	◎			○	○					

TiAIN-COATED SOLID CARBIDE DREAM DRILLS with Coolant Holes (5XD)

LONG

DH408 SERIES

- ▶ Drilling for Steel, Cast Steel, Cast Iron, Malleable Cast Iron, Non-Ferrous, Abrasive Plastic
- ▶ Self centering and chip breaking by R-thinning
- ▶ Wave shape and negative land on the cutting edge for low thrust, stable torque and long tool life
- ▶ Optimized flute shape for strength of drilling and smooth chip evacuation



5 × D



EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Fractional	Decimal			
TiAIN	D1			D2	L1	L2
DH408010	1.0		.0394	3	8	55
DH408011	1.1		.0433	3	12	55
DH408012	1.2		.0472	3	12	55
DH408013	1.3		.0512	3	12	55
DH408014	1.4		.0551	3	12	55
DH408015	1.5		.0591	3	16	55
DH408004F	1.588	1/16	.0625	3	16	55
DH408016	1.6		.0630	3	16	55
DH408017	1.7		.0669	3	16	55
DH408018	1.8		.0709	3	16	55
DH408019	1.9		.0748	3	16	55
DH408005F	1.984	5/64	.0781	3	16	55
DH408020	2.0		.0787	4	21	57
DH408021	2.1		.0827	4	21	57
DH408022	2.2		.0866	4	21	57
DH408023	2.3		.0906	4	21	57
DH408006F	2.381	3/32	.0938	4	21	57
DH408024	2.4		.0945	4	21	57
DH408025	2.5		.0984	4	21	57
DH408026	2.6		.1024	4	21	57
DH408027	2.7		.1063	4	21	57
DH408007F	2.778	7/64	.1094	4	21	57
DH408028	2.8		.1102	4	21	57
DH408029	2.9		.1142	4	21	57
DH408030	3.0		.1181	6	28	66
DH408031	3.1		.1220	6	28	66

▶ Other shank types are available on your request.

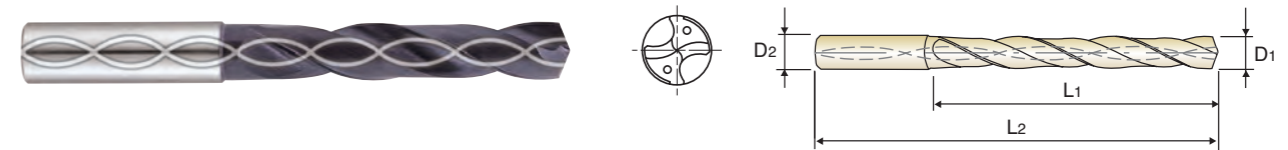
P		H		M	K	N			S		
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
○	○	○			○	○					

TiAIN-COATED SOLID CARBIDE DREAM DRILLS with Coolant Holes (5XD)

LONG

DH408 SERIES

- ▶ Drilling for Steel, Cast Steel, Cast Iron, Malleable Cast Iron, Non-Ferrous, Abrasive Plastic
- ▶ Self centering and chip breaking by R-thinning
- ▶ Wave shape and negative land on the cutting edge for low thrust, stable torque and long tool life
- ▶ Optimized flute shape for strength of drilling and smooth chip evacuation



5 × D



EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Fractional	Decimal			
TiAIN	D1			D2	L1	L2
DH408052	5.2		.2047	6	44	82
DH408053	5.3		.2087	6	44	82
DH408054	5.4		.2126	6	44	82
DH408055	5.5		.2165	6	44	82
DH408014F	5.556	7/32	.2188	6	44	82
DH408056	5.6		.2205	6	44	82
DH408057	5.7		.2244	6	44	82
DH408058	5.8		.2283	6	44	82
DH408059	5.9		.2323	6	44	82
DH408015F	5.953	15/64	.2344	6	44	82
DH408060	6.0		.2362	6	44	82
DH408061	6.1		.2402	8	53	91
DH408062	6.2		.2441	8	53	91
DH408063	6.3		.2480	8	53	91
DH408016F	6.350	1/4	.2500	8	53	91
DH408064	6.4		.2520	8	53	91
DH408065	6.5		.2559	8	53	91
DH408006L	6.528	F	.2570	8	53	91
DH408066	6.6		.2598	8	53	91
DH408067	6.7		.2638	8	53	91
DH408017F	6.747	17/64	.2656	8	53	91
DH408068	6.8		.2677	8	53	91
DH408069	6.9		.2717	8	53	91
DH408009L	6.909	I	.2720	8	53	91
DH408070	7.0		.2756	8	53	91
DH408071	7.1		.2795	8	53	91

▶ Other shank types are available on your request.

P		H		M	K	N			S		
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
○	○	○			○	○					

TiAlN-COATED SOLID CARBIDE DREAM DRILLS with Coolant Holes (5XD)

LONG

DH408 SERIES

- ▶ Drilling for Steel, Cast Steel, Cast Iron, Malleable Cast Iron, Non-Ferrous, Abrasive Plastic
- ▶ Self centering and chip breaking by R-thinning
- ▶ Wave shape and negative land on the cutting edge for low thrust, stable torque and long tool life
- ▶ Optimized flute shape for strength of drilling and smooth chip evacuation



5 × D

EDP No.	Drill Diameter			Shank Diameter D2	Flute Length L1	Overall Length L2
	Metric	Fractional	Decimal			
TiAlN	D1					
DH408023F	9.128	23/64	.3594	10	61	103
DH408092	9.2		.3622	10	61	103
DH408093	9.3		.3661	10	61	103
DH408021L	9.347	U	.3680	10	61	103
DH408094	9.4		.3701	10	61	103
DH408095	9.5		.3740	10	61	103
DH408024F	9.525	3/8	.3750	10	61	103
DH408096	9.6		.3780	10	61	103
DH408097	9.7		.3819	10	61	103
DH408098	9.8		.3858	10	61	103
DH408099	9.9		.3898	10	61	103
DH408025F	9.922	25/64	.3906	10	61	103
DH408100	10.0		.3937	10	61	103
DH408101	10.1		.3976	12	71	118
DH408102	10.2		.4016	12	71	118
DH408103	10.3		.4055	12	71	118
DH408026F	10.319	13/32	.4062	12	71	118
DH408104	10.4		.4094	12	71	118
DH408105	10.5		.4134	12	71	118
DH408106	10.6		.4173	12	71	118
DH408107	10.7		.4212	12	71	118
DH408027F	10.716	27/64	.4219	12	71	118
DH408108	10.8		.4252	12	71	118
DH408109	10.9		.4291	12	71	118
DH408110	11.0		.4330	12	71	118
DH408111	11.1		.4370	12	71	118

▶ Other shank types are available on your request.

▶ NEXT PAGE

◎ : Excellent ○ : Good

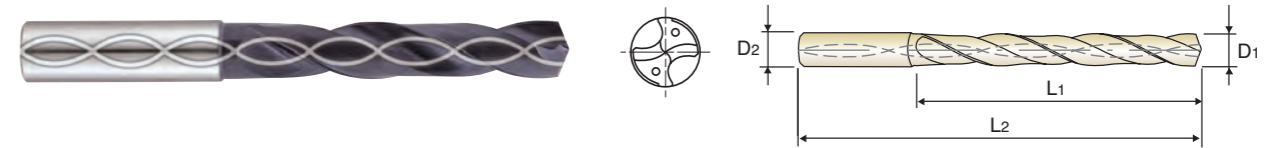
P		H		M	K	N			S		
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	◎			○	○					

TiAlN-COATED SOLID CARBIDE DREAM DRILLS with Coolant Holes (5XD)

LONG

DH408 SERIES

- ▶ Drilling for Steel, Cast Steel, Cast Iron, Malleable Cast Iron, Non-Ferrous, Abrasive Plastic
- ▶ Self centering and chip breaking by R-thinning
- ▶ Wave shape and negative land on the cutting edge for low thrust, stable torque and long tool life
- ▶ Optimized flute shape for strength of drilling and smooth chip evacuation



5 × D

EDP No.	Drill Diameter			Shank Diameter D2	Flute Length L1	Overall Length L2
	Metric	Fractional	Decimal			
TiAlN	D1					
DH408134	13.4		.5276	14	77	124
DH408135	13.5		.5314	14	77	124
DH408136	13.6		.5354	14	77	124
DH408137	13.7		.5394	14	77	124
DH408138	13.8		.5433	14	77	124
DH408139	13.9		.5472	14	77	124
DH408140	14.0		.5512	14	77	124
DH408141	14.1		.5551	16	83	133
DH408142	14.2		.5591	16	83	133
DH408036F	14.288	9/16	.5625	16	83	133
DH408143	14.3		.5630	16	83	133
DH408144	14.4		.5669	16	83	133
DH408145	14.5		.5708	16	83	133
DH408146	14.6		.5748	16	83	133
DH408147	14.7		.5787	16	83	133
DH408148	14.8		.5827	16	83	133
DH408149	14.9		.5866	16	83	133
DH408150	15.0		.5905	16	83	133
DH408151	15.1		.5945	16	83	133
DH408152	15.2		.5984	16	83	133
DH408153	15.3		.6024	16	83	133
DH408154	15.4		.6063	16	83	133
DH408155	15.5		.6102	16	83	133
DH408156	15.6		.6142	16	83	133
DH408157	15.7		.6181	16	83	133
DH408158	15.8		.6220	16	83	133

▶ Other shank types are available on your request.

▶ NEXT PAGE

◎ : Excellent ○ : Good

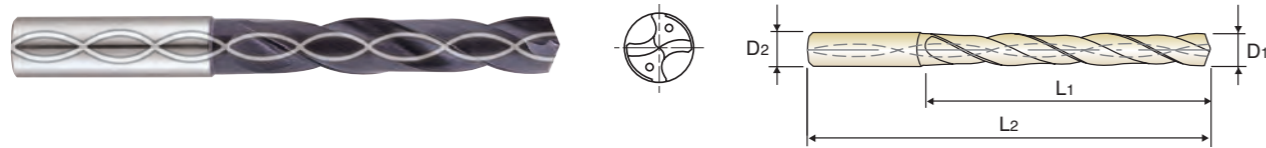
P		H		M	K	N			S		
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	◎			○	○					

TiAlN-COATED SOLID CARBIDE DREAM DRILLS with Coolant Holes (5XD)

LONG

DH408 SERIES

- ▶ Drilling for Steel, Cast Steel, Cast Iron, Malleable Cast Iron, Non-Ferrous, Abrasive Plastic
- ▶ Self centering and chip breaking by R-thinning
- ▶ Wave shape and negative land on the cutting edge for low thrust, stable torque and long tool life
- ▶ Optimized flute shape for strength of drilling and smooth chip evacuation



5 × D

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Fractional	Decimal			
TiAlN	D1			D2	L1	L2
DH408184	18.4		.7244	20	101	153
DH408185	18.5		.7283	20	101	153
DH408186	18.6		.7323	20	101	151
DH408187	18.7		.7362	20	101	153
DH408188	18.8		.7402	20	101	153
DH408189	18.9		.7441	20	101	153
DH408190	19.0		.7480	20	101	153
DH408048F	19.050	3/4	.7500	20	101	153
DH408191	19.1		.7520	20	101	151

▶ Other shank types are available on your request.

Unit : mm

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Fractional	Decimal			
TiAlN	D1			D2	L1	L2
DH408192	19.2		.7559	20	101	151
DH408193	19.3		.7598	20	101	151
DH408194	19.4		.7638	20	101	151
DH408195	19.5		.7676	20	101	153
DH408196	19.6		.7717	20	101	151
DH408197	19.7		.7756	20	101	151
DH408198	19.8		.7795	20	101	153
DH408199	19.9		.7835	20	101	151
DH408200	20.0		.7874	20	101	153

◎ : Excellent ○ : Good

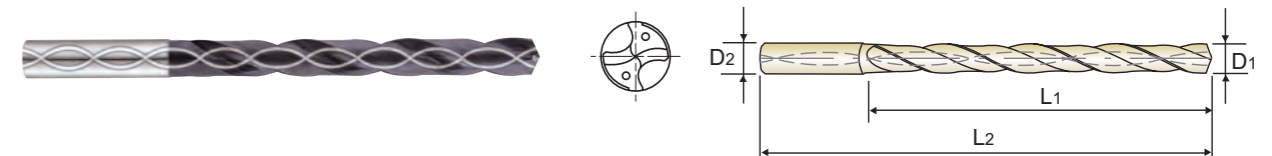
P				H		M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium	
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~								
◎	◎	◎			○	○						

TiAlN-COATED SOLID CARBIDE DREAM DRILLS with Coolant Holes (8XD)

EXTRA LONG

DH421 SERIES

- ▶ Drilling for Steel, Cast Steel, Cast Iron, Malleable Cast Iron, Non-Ferrous, Abrasive Plastic
- ▶ Self centering and chip breaking by R-thinning
- ▶ Wave shape and negative land on the cutting edge for low thrust, stable torque and long tool life
- ▶ Optimized flute shape for strength of drilling and smooth chip evacuation



8 × D

Unit : mm

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Fractional	Decimal			
TiAlN	D1			D2	L1	L2
DH421030	3.0		.1181	6	34	72
DH421031	3.1		.1220	6	34	72
DH421008F	3.175	1/8	.1250	6	34	72
DH421032	3.2		.1260	6	34	72
DH421033	3.3		.1299	6	34	72
DH421034	3.4		.1339	6	34	72
DH421229G	3.450	#29	.1360	6	34	72
DH421035	3.5		.1378	6	34	72
DH421009F	3.572	9/64	.1406	6	34	72
DH421036	3.6		.1417	6	34	72
DH421037	3.7		.1457	6	34	72
DH421038	3.8		.1496	6	43	81
DH421039	3.9		.1535	6	43	81
DH421010F	3.969	5/32	.1563	6	43	81
DH421040	4.0		.1575	6	43	81
DH421221G	4.040	#21	.1590	6	43	81
DH421041	4.1		.1614	6	43	81
DH421042	4.2		.1654	6	43	81
DH421043	4.3		.1693	6	43	81
DH421011F	4.366	11/64	.1719	6	43	81
DH421044	4.4		.1732	6	43	81
DH421045	4.5		.1772	6	43	81
DH421046	4.6		.1811	6	43	81
DH421047	4.7		.1850	6	43	81
DH421012F	4.763	3/16	.1875	6	57	95
DH421048	4.8		.1890	6	57	95

▶ Other shank types are available on your request.

Unit : mm

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Fractional	Decimal			
TiAlN	D1			D2	L1	L2
DH421049	4.9		.1929	6	57	95
DH421050	5.0		.1969	6	57	95
DH421051	5.1		.2008	6	57	95
DH421013F	5.159	13/64	.2031	6	57	95
DH421052	5.2		.2047	6	57	95
DH421053	5.3		.2087	6	57	95
DH421054	5.4		.2126	6	57	95
DH421055	5.5		.2165	6	57	95
DH421014F	5.556	7/32	.2188	6	57	95
DH421056	5.6		.2205	6	57	95
DH421057	5.7		.2244	6	57	95
DH421058	5.8		.2283	6	57	95
DH421059	5.9		.2323	6	57	95
DH421015F	5.953	15/64	.2344	6	57	95
DH421060	6.0		.2362	6	57	95
DH421061	6.1		.2402	8	76	114
DH421062	6.2		.2441	8	76	114
DH421063	6.3		.2480	8	76	114
DH421016F	6.350	1/4	.2500	8	76	114
DH421064	6.4		.2520	8	76	114
DH421065	6.5		.2559	8	76	114
DH42106L	6.528	F	.2570	8	76	114
DH421066	6.6		.2598	8	76	114
DH421067	6.7		.2638	8	76	114
DH421017F	6.747	17/64	.2656	8	76	114
DH421068	6.8		.2677	8	76	114

▶ NEXT PAGE

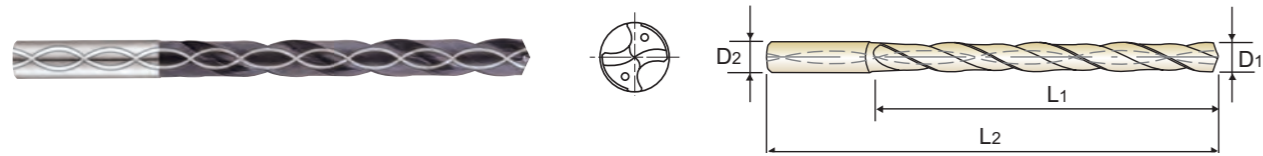
◎ : Excellent ○ : Good

P				H		M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium	
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~								
◎	◎	◎			○	○						

TiAIN-COATED SOLID CARBIDE DREAM DRILLS with Coolant Holes (8XD)

EXTRA LONG DH421 SERIES

- ▶ Drilling for Steel, Cast Steel, Cast Iron, Malleable Cast Iron, Non-Ferrous, Abrasive Plastic
- ▶ Self centering and chip breaking by R-thinning
- ▶ Wave shape and negative land on the cutting edge for low thrust, stable torque and long tool life
- ▶ Optimized flute shape for strength of drilling and smooth chip evacuation



8 × D

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Fractional	Decimal			
TiAIN	D1			D2	L1	L2
DH421069	6.9		.2717	8	76	114
DH421009L	6.909	I	.2720	8	76	114
DH421070	7.0		.2756	8	76	114
DH421071	7.1		.2795	8	76	114
DH421018F	7.144	9/32	.2813	8	76	114
DH421072	7.2		.2835	8	76	114
DH421073	7.3		.2874	8	76	114
DH421074	7.4		.2913	8	76	114
DH421075	7.5		.2953	8	76	114
DH421019F	7.541	19/64	.2969	8	76	114
DH421076	7.6		.2992	8	76	114
DH421077	7.7		.3031	8	76	114
DH421078	7.8		.3071	8	76	114
DH421079	7.9		.3110	8	76	114
DH421020F	7.938	5/16	.3125	8	76	114
DH421080	8.0		.3150	8	76	114
DH421081	8.1		.3189	10	95	142
DH421082	8.2		.3228	10	95	142
DH421083	8.3		.3268	10	95	142
DH421021F	8.334	21/64	.3281	10	95	142
DH421084	8.4		.3307	10	95	142
DH421117L	8.430	Q	.3320	10	95	142
DH421085	8.5		.3346	10	95	142
DH421086	8.6		.3386	10	95	142
DH421087	8.7		.3425	10	95	142
DH421022F	8.731	11/32	.3438	10	95	142

▶ Other shank types are available on your request.

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels	Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium	
~HB225	HB225~325	HRc30~45	HRc45~55 HRc55~								
◎	◎	◎		○	○						

TiAIN-COATED SOLID CARBIDE DREAM DRILLS with Coolant Holes (8XD)

EXTRA LONG DH421 SERIES

- ▶ Drilling for Steel, Cast Steel, Cast Iron, Malleable Cast Iron, Non-Ferrous, Abrasive Plastic
- ▶ Self centering and chip breaking by R-thinning
- ▶ Wave shape and negative land on the cutting edge for low thrust, stable torque and long tool life
- ▶ Optimized flute shape for strength of drilling and smooth chip evacuation



8 × D

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Fractional	Decimal			
TiAIN	D1			D2	L1	L2
DH421108	10.8		.4252	12	114	162
DH421 109	10.9		.4291	12	114	162
DH421110	11.0		.4330	12	114	162
DH421111	11.1		.4370	12	114	162
DH421028F	11.113	7/16	.4375	12	114	162
DH421112	11.2		.4409	12	114	162
DH421113	11.3		.4448	12	114	162
DH421114	11.4		.4488	12	114	162
DH421115	11.5		.4527	12	114	162
DH421029F	11.509	29/64	.4531	12	114	162
DH421116	11.6		.4566	12	114	162
DH421117	11.7		.4606	12	114	162
DH421118	11.8		.4645	12	114	162
DH421119	11.9		.4685	12	114	162
DH421030F	11.906	15/32	.4688	12	114	162
DH421120	12.0		.4724	12	114	162
DH421121	12.1		.4764	14	133	178
DH421122	12.2		.4803	14	133	178
DH421123	12.3		.4843	14	133	178
DH421031F	12.303	31/64	.4844	14	133	178
DH421124	12.4		.4882	14	133	178
DH421125	12.5		.4921	14	133	178
DH421126	12.6		.4961	14	133	178
DH421032F	12.7	1/2	.5000	14	133	178
DH421128	12.8		.5039	14	133	178
DH421129	12.9		.5079	14	133	178

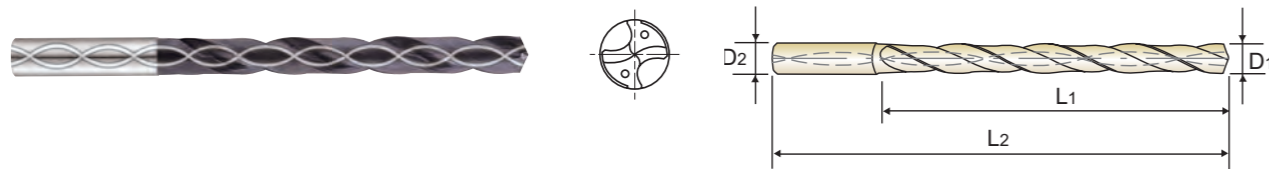
▶ Other shank types are available on your request.

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels	Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium	
~HB225	HB225~325	HRc30~45	HRc45~55 HRc55~								
◎	◎	◎		○	○						

TiAIN-COATED SOLID CARBIDE DREAM DRILLS with Coolant Holes (8XD)

EXTRA LONG DH421 SERIES

- ▶ Drilling for Steel, Cast Steel, Cast Iron, Malleable Cast Iron, Non-Ferrous, Abrasive Plastic
- ▶ Self centering and chip breaking by R-thinning
- ▶ Wave shape and negative land on the cutting edge for low thrust, stable torque and long tool life
- ▶ Optimized flute shape for strength of drilling and smooth chip evacuation



8 × D

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Fractional	Decimal			
TiAIN	D1			D2	L1	L2
DH421154	15.4		.6063	16	152	203
DH421155	15.5		.6102	16	152	203
DH421156	15.6		.6142	16	152	203
DH421157	15.7		.6181	16	152	203
DH421158	15.8		.6220	16	152	203
DH421040F	15.875	5/8	.6250	16	152	203
DH421159	15.9		.6260	16	152	203
DH421160	16.0		.6299	16	152	203
DH421161	16.1		.6339	18	171	222
DH421162	16.2		.6378	18	171	222
DH421163	16.3		.6417	18	171	222
DH421164	16.4		.6457	18	171	222
DH421165	16.5		.6496	18	171	222
DH421166	16.6		.6535	18	171	222
DH421167	16.7		.6575	18	171	222
DH421168	16.8		.6614	18	171	222
DH421169	16.9		.6654	18	171	222
DH421170	17.0		.6693	18	171	222
DH421171	17.1		.6732	18	171	222
DH421172	17.2		.6772	18	171	222
DH421173	17.3		.6811	18	171	222
DH421174	17.4		.6850	18	171	222
DH421175	17.5		.6890	18	171	222
DH421176	17.6		.6929	18	171	222
DH421177	17.7		.6968	18	171	222

▶ Other shank types are available on your request.

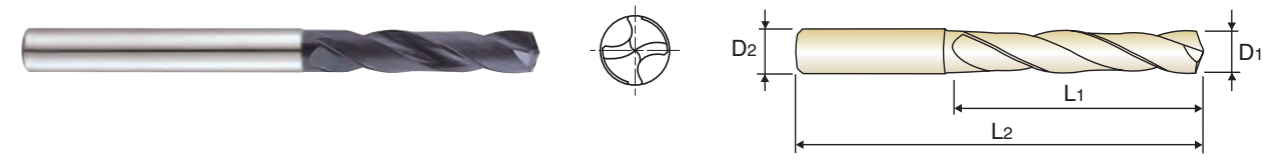
P					H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium	
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~								
⊙	⊙	⊙			○	○						

⊙ : Excellent ○ : Good

TiAIN-COATED SOLID CARBIDE DREAM DRILLS without Coolant Holes (3XD)

STUB DH414 SERIES

- ▶ Drilling for Steel, Cast Steel, Cast Iron, Malleable Cast Iron, Non-Ferrous, Abrasive Plastic
- ▶ Self centering and chip breaking by R-thinning
- ▶ Wave shape and negative land on the cutting edge for low thrust, stable torque and long tool life
- ▶ Optimized flute shape for strength of drilling and smooth chip evacuation
- ▶ Tolerance : Dia. Tolerance ØD1 : See page 104
Shank Tolerance ØD2: -.0001 -.0005



D1=D2

3 × D

EDP No.	Drill Diameter		Flute Length	Overall Length
	Fractional	Decimal		
TiAIN	D1 = D2		L1	L2
0081ATF	1/8	.1250	45/64	1-59/64
0091ATF	9/64	.1406	25/32	2-3/64
0101ATF	5/32	.1562	7/8	2-3/16
0111ATF	11/64	.1719	15/16	2-9/32
0121ATF	3/16	.1875	1	2-7/16
0131ATF	13/64	.2031	1	2-7/16
0141ATF	7/32	.2188	1-1/8	2-5/8
0151ATF	15/64	.2344	1-1/8	2-5/8
0161ATF	1/4	.2500	1-5/8	3-3/16
2061ATF	F	.2570	1-11/16	3-17/64
0171ATF	17/64	.2656	1-11/16	3-17/64
2091ATF	I	.2720	1-11/16	3-17/64
0181ATF	9/32	.2812	1-3/4	3-7/16
0191ATF	19/64	.2969	1-7/8	3-9/16
0201ATF	5/16	.3125	1-7/8	3-9/16
0211ATF	21/64	.3281	2-1/16	3-3/4
2171ATF	Q	.3320	2-1/16	3-3/4

▶ Other shank types are available on your request.

EDP No.	Drill Diameter		Flute Length	Overall Length
	Fractional	Decimal		
TiAIN	D1 = D2		L1	L2
0221ATF	11/32	.3438	2-3/16	3-7/8
0231ATF	23/64	.3594	2-9/32	4
2211ATF	U	.3680	2-9/32	4
0241ATF	3/8	.3750	2-3/8	4-1/8
0251ATF	25/64	.3906	2-3/8	4-1/8
0261ATF	13/32	.4062	2-5/8	4-13/32
0271ATF	27/64	.4219	2-11/16	4-1/2
0281ATF	7/16	.4375	2-13/16	4-5/8
0291ATF	29/64	.4531	2-7/8	4-3/4
0301ATF	15/32	.4688	2-7/8	4-3/4
0311ATF	31/64	.4844	3	5-5/16
0321ATF	1/2	.5000	3-1/16	5-3/8
0331ATF	33/64	.5156	3-11/32	5-11/16
0341ATF	17/32	.5312	3-11/32	5-11/16
0361ATF	9/16	.5625	3-1/2	5-15/16
0371ATF	37/64	.5781	3-37/64	6
0401ATF	5/8	.6250	3-25/32	6-19/64

⊙ : Excellent ○ : Good

P					H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium	
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~								
⊙	⊙	⊙			○	○						

TiAIN-COATED SOLID CARBIDE DREAM DRILLS without Coolant Holes (5XD)

LONG

DH722 SERIES

- ▶ Drilling for Steel, Cast Steel, Cast Iron, Malleable Cast Iron, Non-Ferrous, Abrasive Plastic
- ▶ Self centering and chip breaking by R-thinning
- ▶ Wave shape and negative land on the cutting edge for low thrust, stable torque and long tool life
- ▶ Optimized flute shape for strength of drilling and smooth chip evacuation
- ▶ Tolerance : Dia. Tolerance ØD1 : See page 104
Shank Tolerance ØD2: -.0001 -.0005



5 × D



EDP No.	Drill Diameter		Shank Diameter	Flute Length	Overall Length
	Fractional	Decimal			
TiAIN	D1		D2	L1	L2
DH722013	13/64	.2031	1/4	1-3/4	3-15/16
DH722014	7/32	.2188	1/4	1-57/64	3-15/16
DH722015	15/64	.2344	1/4	1-57/64	3-15/16
DH722016	1/4	.2500	1/4	2-3/64	4-19/64
DH722026	F	.2570	5/16	2-13/64	4-19/64
DH722017	17/64	.2656	5/16	2-13/64	4-19/64
DH722029	I	.2720	5/16	2-13/64	4-19/64
DH722018	9/32	.2812	5/16	2-23/64	4-41/64
DH722019	19/64	.2969	5/16	2-33/64	4-41/64
DH722020	5/16	.3125	5/16	2-33/64	4-41/64
DH722021	21/64	.3281	3/8	2-43/64	5
DH722217	Q	.3320	3/8	2-43/64	5

Unit : inch

EDP No.	Drill Diameter		Shank Diameter	Flute Length	Overall Length
	Fractional	Decimal			
TiAIN	D1		D2	L1	L2
DH722022	11/32	.3438	3/8	2-27/32	5
DH722023	23/64	.3594	3/8	3	5-23/64
DH722221	U	.3680	3/8	3	5-23/64
DH722024	3/8	.3750	3/8	3-5/32	5-23/64
DH722025	25/64	.3906	7/16	3-5/32	5-23/64
DH722026	13/32	.4062	7/16	3-5/16	5-7/8
DH722027	27/64	.4219	7/16	3-15/32	5-7/8
DH722028	7/16	.4375	7/16	3-5/8	6-7/32
DH722029	29/64	.4531	1/2	3-25/32	6-7/32
DH722030	15/32	.4688	1/2	3-25/32	6-7/32
DH722031	31/64	.4844	1/2	3-15/16	6-37/64
DH722032	1/2	.5000	1/2	4-3/32	6-37/64

▶ Other shank types are available on your request.

⊙ : Excellent ○ : Good

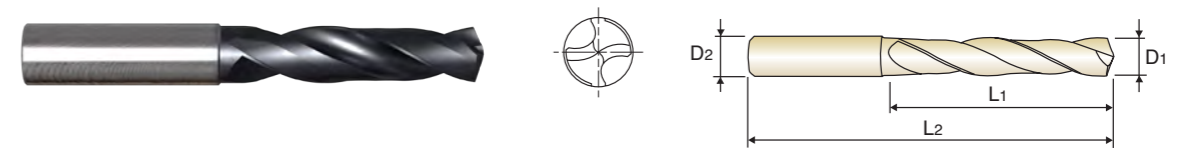
P		H		M	K	N			S		
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
⊙	⊙	⊙			○	○					

TiAIN-COATED SOLID CARBIDE DREAM DRILLS without Coolant Holes (3XD)

STUB

DH404 SERIES

- ▶ Drilling for Steel, Cast Steel, Cast Iron, Malleable Cast Iron, Non-Ferrous, Abrasive Plastic
- ▶ Self centering and chip breaking by R-thinning
- ▶ Wave shape and negative land on the cutting edge for low thrust, stable torque and long tool life
- ▶ Optimized flute shape for strength of drilling and smooth chip evacuation



D1=D2

3 × D



Unit : mm

EDP No.	Drill Diameter		Flute Length	Overall Length
	Metric	Inch		
TiAIN	D1 = D2		L1	L2
DH404030	3.0	.1181	16	46
DH404031	3.1	.1220	18	49
DH404032	3.2	.1260	18	49
DH404033	3.3	.1299	18	49
DH404034	3.4	.1339	20	52
DH404035	3.5	.1378	20	52
DH404036	3.6	.1417	20	52
DH404037	3.7	.1457	20	52
DH404038	3.8	.1496	22	55
DH404039	3.9	.1535	22	55
DH404040	4.0	.1575	22	55
DH404041	4.1	.1614	22	55
DH404042	4.2	.1654	22	55
DH404043	4.3	.1693	24	58
DH404044	4.4	.1732	24	58
DH404045	4.5	.1772	24	58
DH404046	4.6	.1811	24	58
DH404047	4.7	.1850	24	58
DH404048	4.8	.1890	26	62
DH404049	4.9	.1929	26	62
DH404050	5.0	.1969	26	62
DH404051	5.1	.2008	26	62
DH404052	5.2	.2047	26	62
DH404053	5.3	.2087	26	62
DH404054	5.4	.2126	28	66
DH404055	5.5	.2165	28	66

Unit : mm

EDP No.	Drill Diameter		Flute Length	Overall Length
	Metric	Inch		
TiAIN	D1 = D2		L1	L2
DH404056	5.6	.2205	28	66
DH404057	5.7	.2244	28	66
DH404058	5.8	.2283	28	66
DH404059	5.9	.2323	28	66
DH404060	6.0	.2362	28	66
DH404061	6.1	.2402	31	70
DH404062	6.2	.2441	31	70
DH404063	6.3	.2480	31	70
DH404064	6.4	.2520	31	70
DH404065	6.5	.2559	31	70
DH404066	6.6	.2598	31	70
DH404067	6.7	.2638	31	70
DH404068	6.8	.2677	34	74
DH404069	6.9	.2717	34	74
DH404070	7.0	.2756	34	74
DH404071	7.1	.2795	34	74
DH404072	7.2	.2835	34	74
DH404073	7.3	.2874	34	74
DH404074	7.4	.2913	34	74
DH404075	7.5	.2953	34	74
DH404076	7.6	.2992	37	79
DH404077	7.7	.3031	37	79
DH404078	7.8	.3071	37	79
DH404079	7.9	.3110	37	79
DH404080	8.0	.3150	37	79
DH404081	8.1	.3189	37	79

▶ Other shank types are available on your request.

▶ NEXT PAGE

⊙ : Excellent ○ : Good

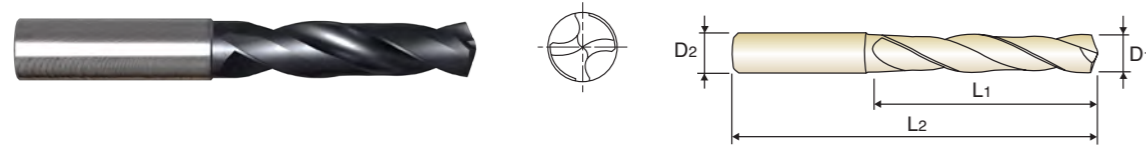
P		H		M	K	N			S		
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
⊙	⊙	⊙			○	○					

TiAIN-COATED SOLID CARBIDE DREAM DRILLS without Coolant Holes (3XD)

STUB

DH404 SERIES

- ▶ Drilling for Steel, Cast Steel, Cast Iron, Malleable Cast Iron, Non-Ferrous, Abrasive Plastic
- ▶ Self centering and chip breaking by R-thinning
- ▶ Wave shape and negative land on the cutting edge for low thrust, stable torque and long tool life
- ▶ Optimized flute shape for strength of drilling and smooth chip evacuation



$D_1 = D_2$

3 × D



Unit : mm

EDP No.	Drill Diameter		Flute Length	Overall Length	EDP No.	Drill Diameter		Flute Length	Overall Length
	Metric	Inch				Metric	Inch		
TiAIN	D1 = D2		L1	L2	TiAIN	D1 = D2		L1	L2
DH404082	8.2	.3228	37	79	DH404105	10.5	.4134	43	89
DH404083	8.3	.3268	37	79	DH404110	11.0	.4331	47	95
DH404084	8.4	.3307	37	79	DH404115	11.5	.4528	47	95
DH404085	8.5	.3346	37	79	DH404120	12.0	.4724	51	102
DH404086	8.6	.3386	40	84	DH404130	13.0	.5118	51	102
DH404087	8.7	.3425	40	84	DH404135	13.5	.5314	54	107
DH404088	8.8	.3465	40	84	DH404140	14.0	.5512	54	107
DH404089	8.9	.3504	40	84	DH404145	14.5	.5708	56	111
DH404090	9.0	.3543	40	84	DH404150	15.0	.5905	56	111
DH404091	9.1	.3583	40	84	DH404155	15.5	.6102	58	115
DH404092	9.2	.3622	40	84	DH404160	16.0	.6299	58	115
DH404093	9.3	.3661	40	84	DH404165	16.5	.6495	60	119
DH404094	9.4	.3701	40	84	DH404170	17.0	.6692	60	119
DH404095	9.5	.3740	40	84	DH404175	17.5	.6889	62	123
DH404096	9.6	.3780	43	89	DH404180	18.0	.7087	62	123
DH404097	9.7	.3819	43	89	DH404185	18.5	.7283	64	127
DH404098	9.8	.3858	43	89	DH404190	19.0	.7480	64	127
DH404099	9.9	.3898	43	89	DH404195	19.5	.7676	66	131
DH404100	10.0	.3937	43	89	DH404200	20.0	.7874	66	131
DH404102	10.2	.4016	43	89					

▶ Other shank types are available on your request.

◎ : Excellent ○ : Good

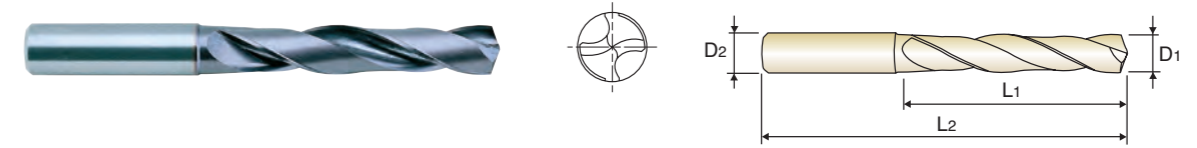
P				H		M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium	
~HB225	HB225~325	HRC30~45	HRC45~55	HRC55~								
◎	◎	◎			○	○						

TiAIN-COATED SOLID CARBIDE DREAM DRILLS without Coolant Holes (3XD)

SHORT

DH423 SERIES

- ▶ Drilling for Steel, Cast Steel, Cast Iron, Malleable Cast Iron, Non-Ferrous, Abrasive Plastic
- ▶ Self centering and chip breaking by R-thinning
- ▶ Wave shape and negative land on the cutting edge for low thrust, stable torque and long tool life
- ▶ Optimized flute shape for strength of drilling and smooth chip evacuation



3 × D



Unit : mm

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Fractional	Decimal					Metric	Fractional	Decimal			
TiAIN	D1			D2	L1	L2	TiAIN	D1			D2	L1	L2
DH423030	3.0		.1181	6	20	62	DH423049	4.9		.1929	6	28	66
DH423031	3.1		.1220	6	20	62	DH423050	5.0		.1969	6	28	66
DH423008F	3.175	1/8	.1250	6	20	62	DH423051	5.1		.2008	6	28	66
DH423032	3.2		.1260	6	20	62	DH423013F	5.159	13/64	.2031	6	28	66
DH423033	3.3		.1299	6	20	62	DH423052	5.2		.2047	6	28	66
DH423034	3.4		.1339	6	20	62	DH423053	5.3		.2087	6	28	66
DH423035	3.5		.1378	6	20	62	DH423054	5.4		.2126	6	28	66
DH423009F	3.572	9/64	.1406	6	20	62	DH423055	5.5		.2165	6	28	66
DH423036	3.6		.1417	6	20	62	DH423014F	5.556	7/32	.2188	6	28	66
DH423037	3.7		.1457	6	20	62	DH423056	5.6		.2205	6	28	66
DH423038	3.8		.1496	6	24	66	DH423057	5.7		.2244	6	28	66
DH423039	3.9		.1535	6	24	66	DH423058	5.8		.2283	6	28	66
DH423010F	3.969	5/32	.1563	6	24	66	DH423059	5.9		.2323	6	28	66
DH423040	4.0		.1575	6	24	66	DH423015F	5.953	15/64	.2344	6	28	66
DH423041	4.1		.1614	6	24	66	DH423060	6.0		.2362	6	28	66
DH423042	4.2		.1654	6	24	66	DH423061	6.1		.2402	8	34	79
DH423043	4.3		.1693	6	24	66	DH423062	6.2		.2441	8	34	79
DH423011F	4.366	11/64	.1719	6	24	66	DH423063	6.3		.2480	8	34	79
DH423044	4.4		.1732	6	24	66	DH423016F	6.350	1/4	.2500	8	34	79
DH423045	4.5		.1772	6	24	66	DH423064	6.4		.2520	8	34	79
DH423046	4.6		.1811	6	24	66	DH423065	6.5		.2559	8	34	79
DH423047	4.7		.1850	6	24	66	DH423006L	6.528	F	.2570	8	34	79
DH423012F	4.763	3/16	.1875	6	24	66	DH423066	6.6		.2598	8	34	79
DH423048	4.8		.1890	6	28	66	DH423067	6.7		.2638	8	34	79

▶ Other shank types are available on your request.

▶ NEXT PAGE

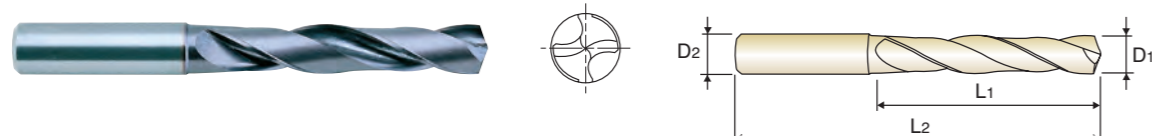
◎ : Excellent ○ : Good

P				H		M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium	
~HB225	HB225~325	HRC30~45	HRC45~55	HRC55~								
◎	◎	◎			○	○						

TiAIN-COATED SOLID CARBIDE DREAM DRILLS without Coolant Holes (3XD)

SHORT DH423 SERIES

- ▶ Drilling for Steel, Cast Steel, Cast Iron, Malleable Cast Iron, Non-Ferrous, Abrasive Plastic
- ▶ Self centering and chip breaking by R-thinning
- ▶ Wave shape and negative land on the cutting edge for low thrust, stable torque and long tool life
- ▶ Optimized flute shape for strength of drilling and smooth chip evacuation



3 × D

Unit : mm

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Fractional	Decimal			
TiAIN	D1			D2	L1	L2
DH423017F	6.747	17/64	.2656	8	34	79
DH423068	6.8		.2677	8	34	79
DH423069	6.9		.2717	8	34	79
DH423009L	6.909	I	.2720	8	34	79
DH423070	7.0		.2756	8	34	79
DH423071	7.1		.2795	8	41	79
DH423018F	7.144	9/32	.2812	8	41	79
DH423072	7.2		.2835	8	41	79
DH423073	7.3		.2874	8	41	79
DH423074	7.4		.2913	8	41	79
DH423075	7.5		.2953	8	41	79
DH423019F	7.541	19/64	.2969	8	41	79
DH423076	7.6		.2992	8	41	79
DH423077	7.7		.3031	8	41	79
DH423078	7.8		.3071	8	41	79
DH423079	7.9		.3110	8	41	79
DH423020F	7.938	5/16	.3125	8	41	79
DH423080	8.0		.3150	8	41	79
DH423081	8.1		.3189	10	47	89
DH423082	8.2		.3228	10	47	89
DH423083	8.3		.3268	10	47	89
DH423021F	8.334	21/64	.3281	10	47	89
DH423084	8.4		.3307	10	47	89
DH423017L	8.433	Q	.3320	10	47	89
DH423085	8.5		.3346	10	47	89
DH423086	8.6		.3386	10	47	89
DH423087	8.7		.3425	10	47	89
DH423022F	8.731	11/32	.3438	10	47	89
DH423088	8.8		.3465	10	47	89
DH423089	8.9		.3504	10	47	89
DH423090	9.0		.3543	10	47	89
DH423091	9.1		.3583	10	47	89
DH423023F	9.128	23/64	.3594	10	47	89
DH423092	9.2		.3622	10	47	89
DH423093	9.3		.3661	10	47	89
DH423021L	9.347	U	.3680	10	47	89
DH423094	9.4		.3701	10	47	89
DH423095	9.5		.3740	10	47	89
DH423024F	9.525	3/8	.3750	10	47	89
DH423096	9.6		.3780	10	47	89
DH423097	9.7		.3819	10	47	89
DH423098	9.8		.3858	10	47	89
DH423099	9.9		.3898	10	47	89
DH423025F	9.922	25/64	.3906	10	47	89
DH423100	10.0		.3937	10	47	89
DH423101	10.1		.3976	12	55	102
DH423102	10.2		.4016	12	55	102
DH423103	10.3		.4055	12	55	102

▶ Other shank types are available on your request.

▶ NEXT PAGE

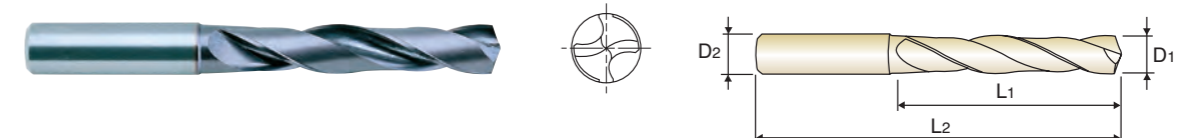
◎ : Excellent ○ : Good

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels	Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium	
~HB225	HB225~325	HRc30~45	HRc45~55 HRc55~								
◎	◎	◎		○	○						

TiAIN-COATED SOLID CARBIDE DREAM DRILLS without Coolant Holes (3XD)

SHORT DH423 SERIES

- ▶ Drilling for Steel, Cast Steel, Cast Iron, Malleable Cast Iron, Non-Ferrous, Abrasive Plastic
- ▶ Self centering and chip breaking by R-thinning
- ▶ Wave shape and negative land on the cutting edge for low thrust, stable torque and long tool life
- ▶ Optimized flute shape for strength of drilling and smooth chip evacuation



3 × D

Unit : mm

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Fractional	Decimal			
TiAIN	D1			D2	L1	L2
DH423026F	10.319	13/32	.4062	12	55	102
DH423104	10.4		.4094	12	55	102
DH423105	10.5		.4134	12	55	102
DH423106	10.6		.4173	12	55	102
DH423107	10.7		.4213	12	55	102
DH423027F	10.716	27/64	.4219	12	55	102
DH423108	10.8		.4252	12	55	102
DH423109	10.9		.4291	12	55	102
DH423110	11.0		.4331	12	55	102
DH423111	11.1		.4370	12	55	102
DH423028F	11.113	7/16	.4375	12	55	102
DH423112	11.2		.4409	12	55	102
DH423113	11.3		.4449	12	55	102
DH423114	11.4		.4488	12	55	102
DH423115	11.5		.4528	12	55	102
DH423029F	11.509	29/64	.4531	12	55	102
DH423116	11.6		.4567	12	55	102
DH423117	11.7		.4606	12	55	102
DH423118	11.8		.4646	12	55	102
DH423119	11.9		.4685	12	55	102
DH423030F	11.906	15/32	.4688	12	55	102
DH423120	12.0		.4724	12	55	102
DH423121	12.1		.4764	14	60	107
DH423122	12.2		.4803	14	60	107
DH423123	12.3		.4843	14	60	107
DH423031F	12.303	31/64	.4844	14	60	107
DH423124	12.4		.4882	14	60	107
DH423125	12.5		.4921	14	60	107
DH423126	12.6		.4961	14	60	107
DH423032F	12.7	1/2	.5000	14	60	107
DH423128	12.8		.5039	14	60	107
DH423129	12.9		.5079	14	60	107
DH423130	13.0		.5118	14	60	107
DH423131	13.1		.5157	14	60	107
DH423132	13.2		.5197	14	60	107
DH423133	13.3		.5236	14	60	107
DH423134	13.4		.5276	14	60	107
DH423135	13.5		.5315	14	60	107
DH423136	13.6		.5354	14	60	107
DH423137	13.7		.5394	14	60	107
DH423138	13.8		.5433	14	60	107
DH423139	13.9		.5472	14	60	107
DH423140	14.0		.5512	14	60	107
DH423141	14.1		.5551	16	65	115
DH423142	14.2		.5591	16	65	115
DH423036F	14.288	9/16	.5625	16	65	115
DH423143	14.3		.5630	16	65	115
DH423144	14.4		.5669	16	65	115

▶ Other shank types are available on your request.

▶ NEXT PAGE

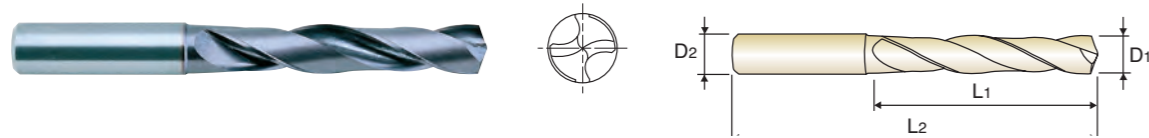
◎ : Excellent ○ : Good

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels	Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium	
~HB225	HB225~325	HRc30~45	HRc45~55 HRc55~								
◎	◎	◎		○	○						

TiAIN-COATED SOLID CARBIDE DREAM DRILLS without Coolant Holes (3XD)

SHORT DH423 SERIES

- ▶ Drilling for Steel, Cast Steel, Cast Iron, Malleable Cast Iron, Non-Ferrous, Abrasive Plastic
- ▶ Self centering and chip breaking by R-thinning
- ▶ Wave shape and negative land on the cutting edge for low thrust, stable torque and long tool life
- ▶ Optimized flute shape for strength of drilling and smooth chip evacuation



3 × D

EDP No.	Drill Diameter			Shank Diameter	Flute Length		Overall Length
	Metric	Fractional	Decimal		L1	L2	
TiAIN	D1			D2	L1	L2	
DH423145	14.5		.5708	16	65	115	
DH423146	14.6		.5748	16	65	115	
DH423147	14.7		.5787	16	65	115	
DH423148	14.8		.5827	16	65	115	
DH423149	14.9		.5866	16	65	115	
DH423150	15.0		.5905	16	65	115	
DH423151	15.1		.5945	16	65	115	
DH423152	15.2		.5984	16	65	115	
DH423153	15.3		.6024	16	65	115	
DH423154	15.4		.6063	16	65	115	
DH423155	15.5		.6102	16	65	115	
DH423156	15.6		.6142	16	65	115	
DH423157	15.7		.6181	16	65	115	
DH423158	15.8		.6220	16	65	115	
DH423040F	15.875	5/8	.6250	16	65	115	
DH423159	15.9		.6260	16	65	115	
DH423160	16.0		.6299	16	65	115	
DH423161	16.1		.6339	18	73	123	
DH423162	16.2		.6378	18	73	123	
DH423163	16.3		.6417	18	73	123	
DH423164	16.4		.6457	18	73	123	
DH423165	16.5		.6495	18	73	123	
DH423166	16.6		.6535	18	73	123	
DH423167	16.7		.6575	18	73	123	

▶ Other shank types are available on your request.

▶ NEXT PAGE

◎ : Excellent ○ : Good

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	◎			○	○					

TiAIN-COATED SOLID CARBIDE DREAM DRILLS without Coolant Holes (3XD)

SHORT DH423 SERIES

- ▶ Drilling for Steel, Cast Steel, Cast Iron, Malleable Cast Iron, Non-Ferrous, Abrasive Plastic
- ▶ Self centering and chip breaking by R-thinning
- ▶ Wave shape and negative land on the cutting edge for low thrust, stable torque and long tool life
- ▶ Optimized flute shape for strength of drilling and smooth chip evacuation



3 × D

EDP No.	Drill Diameter			Shank Diameter	Flute Length		Overall Length
	Metric	Fractional	Decimal		L1	L2	
TiAIN	D1			D2	L1	L2	
DH423048F	19.050	3/4	.7500	20	79	131	
DH423191	19.1		.7520	20	79	131	
DH423192	19.2		.7559	20	79	131	
DH423193	19.3		.7598	20	79	131	
DH423194	19.4		.7638	20	79	131	
DH423195	19.5		.7676	20	79	131	

▶ Other shank types are available on your request.

EDP No.	Drill Diameter			Shank Diameter	Flute Length		Overall Length
	Metric	Fractional	Decimal		L1	L2	
TiAIN	D1			D2	L1	L2	
DH423196	19.6		.7717	20	79	131	
DH423197	19.7		.7756	20	79	131	
DH423198	19.8		.7795	20	79	131	
DH423199	19.9		.7835	20	79	131	
DH423200	20.0		.7874	20	79	131	

◎ : Excellent ○ : Good

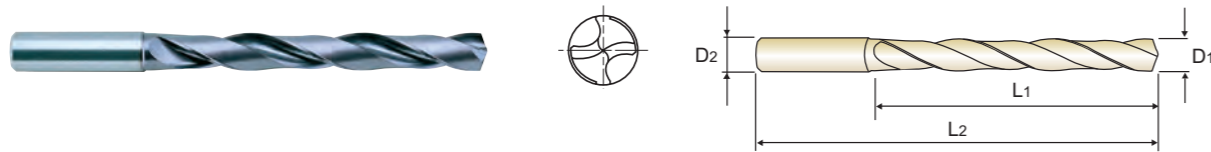
P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	◎			○	○					

TiAIN-COATED SOLID CARBIDE DREAM DRILLS without Coolant Holes (5XD)

LONG

DH424 SERIES

- ▶ Drilling for Steel, Cast Steel, Cast Iron, Malleable Cast Iron, Non-Ferrous, Abrasive Plastic
- ▶ Self centering and chip breaking by R-thinning
- ▶ Wave shape and negative land on the cutting edge for low thrust, stable torque and long tool life
- ▶ Optimized flute shape for strength of drilling and smooth chip evacuation



5 × D



EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Fractional	Decimal			
TiAIN	D1			D2	L1	L2
DH424010	1.0		.0394	3	8	55
DH424011	1.1		.0433	3	12	55
DH424012	1.2		.0472	3	12	55
DH424013	1.3		.0512	3	12	55
DH424014	1.4		.0551	3	12	55
DH424015	1.5		.0591	3	16	55
DH424004F	1.588	1/16	.0625	3	16	55
DH424016	1.6		.0630	3	16	55
DH424017	1.7		.0669	3	16	55
DH424018	1.8		.0709	3	16	55
DH424019	1.9		.0748	3	16	55
DH424005F	1.984	5/64	.0781	3	16	55
DH424020	2.0		.0787	4	21	57
DH424021	2.1		.0827	4	21	57
DH424022	2.2		.0866	4	21	57
DH424023	2.3		.0906	4	21	57
DH424006F	2.381	3/32	.0938	4	21	57
DH424024	2.4		.0945	4	21	57
DH424025	2.5		.0984	4	21	57
DH424026	2.6		.1024	4	21	57
DH424027	2.7		.1063	4	21	57
DH424007F	2.778	7/64	.1094	4	21	57
DH424028	2.8		.1102	4	21	57
DH424029	2.9		.1142	4	21	57
DH424030	3.0		.1181	6	28	66
DH424031	3.1		.1220	6	28	66

▶ Other shank types are available on your request.

P		H		M	K	N			S		
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	◎			○	○					

TiAIN-COATED SOLID CARBIDE DREAM DRILLS without Coolant Holes (5XD)

LONG

DH424 SERIES

- ▶ Drilling for Steel, Cast Steel, Cast Iron, Malleable Cast Iron, Non-Ferrous, Abrasive Plastic
- ▶ Self centering and chip breaking by R-thinning
- ▶ Wave shape and negative land on the cutting edge for low thrust, stable torque and long tool life
- ▶ Optimized flute shape for strength of drilling and smooth chip evacuation



5 × D



EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Fractional	Decimal			
TiAIN	D1			D2	L1	L2
DH424052	5.2		.2047	6	44	82
DH424053	5.3		.2087	6	44	82
DH424054	5.4		.2126	6	44	82
DH424055	5.5		.2165	6	44	82
DH424014F	5.556	7/32	.2188	6	44	82
DH424056	5.6		.2205	6	44	82
DH424057	5.7		.2244	6	44	82
DH424058	5.8		.2283	6	44	82
DH424059	5.9		.2323	6	44	82
DH424015F	5.953	15/64	.2344	6	44	82
DH424060	6.0		.2362	6	44	82
DH424061	6.1		.2402	8	53	91
DH424062	6.2		.2441	8	53	91
DH424063	6.3		.2480	8	53	91
DH424016F	6.350	1/4	.2500	8	53	91
DH424064	6.4		.2520	8	53	91
DH424065	6.5		.2559	8	53	91
DH424006L	6.528	F	.2570	8	53	91
DH424066	6.6		.2598	8	53	91
DH424067	6.7		.2638	8	53	91
DH424017F	6.747	17/64	.2656	8	53	91
DH424068	6.8		.2677	8	53	91
DH424069	6.9		.2717	8	53	91
DH424009L	6.909	I	.2720	8	53	91
DH424070	7.0		.2756	8	53	91
DH424071	7.1		.2795	8	53	91

▶ Other shank types are available on your request.

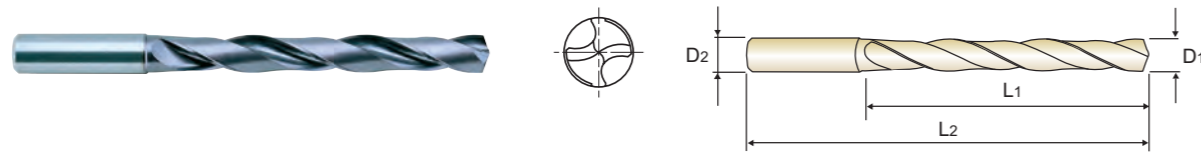
P		H		M	K	N			S		
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	◎			○	○					

TiAIN-COATED SOLID CARBIDE DREAM DRILLS without Coolant Holes (5XD)

LONG

DH424 SERIES

- ▶ Drilling for Steel, Cast Steel, Cast Iron, Malleable Cast Iron, Non-Ferrous, Abrasive Plastic
- ▶ Self centering and chip breaking by R-thinning
- ▶ Wave shape and negative land on the cutting edge for low thrust, stable torque and long tool life
- ▶ Optimized flute shape for strength of drilling and smooth chip evacuation



5 × D

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Fractional	Decimal			
TiAIN	D1			D2	L1	L2
DH424023F	9.128	23/64	.3594	10	61	103
DH424092	9.2		.3622	10	61	103
DH424093	9.3		.3661	10	61	103
DH424021L	9.347	U	.3680	10	61	103
DH424094	9.4		.3701	10	61	103
DH424095	9.5		.3740	10	61	103
DH424024F	9.525	3/8	.3750	10	61	103
DH424096	9.6		.3780	10	61	103
DH424097	9.7		.3819	10	61	103
DH424098	9.8		.3858	10	61	103
DH424099	9.9		.3898	10	61	103
DH424025F	9.922	25/64	.3906	10	61	103
DH424100	10.0		.3937	10	61	103
DH424101	10.1		.3976	12	71	118
DH424102	10.2		.4016	12	71	118
DH424103	10.3		.4055	12	71	118
DH424026F	10.319	13/32	.4062	12	71	118
DH424104	10.4		.4094	12	71	118
DH424105	10.5		.4134	12	71	118
DH424106	10.6		.4173	12	71	118
DH424107	10.7		.4213	12	71	118
DH424027F	10.716	27/64	.4219	12	71	118
DH424108	10.8		.4252	12	71	118
DH424109	10.9		.4291	12	71	118
DH424110	11.0		.4331	12	71	118
DH424111	11.1		.4370	12	71	118

▶ Other shank types are available on your request.

▶ NEXT PAGE

◎ : Excellent ○ : Good

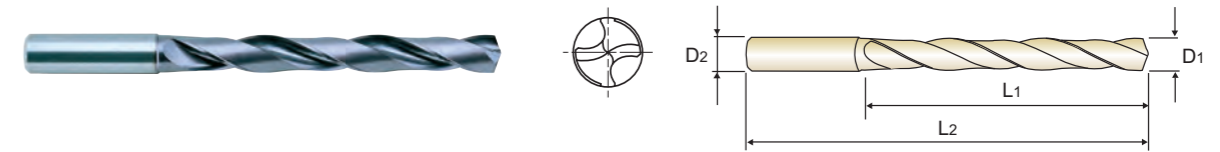
P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels	Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium	
~HB225	HB225~325	HRc30~45	HRc45~55 HRc55~								
◎	◎	◎		○	○						

TiAIN-COATED SOLID CARBIDE DREAM DRILLS without Coolant Holes (5XD)

LONG

DH424 SERIES

- ▶ Drilling for Steel, Cast Steel, Cast Iron, Malleable Cast Iron, Non-Ferrous, Abrasive Plastic
- ▶ Self centering and chip breaking by R-thinning
- ▶ Wave shape and negative land on the cutting edge for low thrust, stable torque and long tool life
- ▶ Optimized flute shape for strength of drilling and smooth chip evacuation



5 × D

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Fractional	Decimal			
TiAIN	D1			D2	L1	L2
DH424134	13.4		.5276	14	77	124
DH424135	13.5		.5315	14	77	124
DH424136	13.6		.5354	14	77	124
DH424137	13.7		.5394	14	77	124
DH424138	13.8		.5433	14	77	124
DH424139	13.9		.5472	14	77	124
DH424140	14.0		.5512	14	77	124
DH424141	14.1		.5551	16	83	133
DH424142	14.2		.5591	16	83	133
DH424036F	14.288	9/16	.5625	16	83	133
DH424143	14.3		.5630	16	83	133
DH424144	14.4		.5669	16	83	133
DH424145	14.5		.5708	16	83	133
DH424146	14.6		.5748	16	83	133
DH424147	14.7		.5787	16	83	133
DH424148	14.8		.5827	16	83	133
DH424149	14.9		.5866	16	83	133
DH424150	15.0		.5905	16	83	133
DH424151	15.1		.5945	16	83	133
DH424152	15.2		.5984	16	83	133
DH424153	15.3		.6024	16	83	133
DH424154	15.4		.6063	16	83	133
DH424155	15.5		.6102	16	83	133
DH424156	15.6		.6142	16	83	133
DH424157	15.7		.6181	16	83	133
DH424158	15.8		.6220	16	83	133

▶ Other shank types are available on your request.

▶ NEXT PAGE

◎ : Excellent ○ : Good

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels	Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium	
~HB225	HB225~325	HRc30~45	HRc45~55 HRc55~								
◎	◎	◎		○	○						

TiAIN-COATED SOLID CARBIDE DREAM DRILLS without Coolant Holes (5XD)

LONG

DH424 SERIES

- ▶ Drilling for Steel, Cast Steel, Cast Iron, Malleable Cast Iron, Non-Ferrous, Abrasive Plastic
- ▶ Self centering and chip breaking by R-thinning
- ▶ Wave shape and negative land on the cutting edge for low thrust, stable torque and long tool life
- ▶ Optimized flute shape for strength of drilling and smooth chip evacuation



5 × D

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Fractional	Decimal			
TiAIN	D1			D2	L1	L2
DH424184	18.4		.7244	20	101	153
DH424185	18.5		.7283	20	101	153
DH424186	18.6		.7323	20	101	153
DH424187	18.7		.7362	20	101	153
DH424188	18.8		.7402	20	101	153
DH424189	18.9		.7441	20	101	153
DH424190	19.0		.7480	20	101	153
DH424048F	19.005	3/4	.7500	20	101	153
DH424191	19.1		.7520	20	101	153

Unit : mm

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Fractional	Decimal			
TiAIN	D1			D2	L1	L2
DH424192	19.2		.7559	20	101	153
DH424193	19.3		.7598	20	101	153
DH424194	19.4		.7638	20	101	153
DH424195	19.5		.7676	20	101	153
DH424196	19.6		.7717	20	101	153
DH424197	19.7		.7756	20	101	153
DH424198	19.8		.7795	20	101	153
DH424199	19.9		.7835	20	101	153
DH424200	20.0		.7874	20	101	153

▶ Other shank types are available on your request.

◎ : Excellent ○ : Good

P				H	M	K	N			S	
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	◎			○	○					

RECOMMENDED CUTTING CONDITIONS

DREAM DRILLS · GENERAL

TiAIN-COATED SOLID CARBIDE DREAM DRILLS General without Coolant Holes

DH414 | DH722 SERIES

WORK MATERIAL	P				K						
	CARBON STEELS		ALLOY STEELS		CAST IRON						
	< HB240, GG25		< HB300, GG40		< HRc24		> HRc24				
STRENGTH	250 ~ 400 ft/min		210 ~ 350 ft/min		400 ~ 650 ft/min		280 ~ 430 ft/min				
DRILLING SPEED(SFM)	RPM		IPR		RPM		IPR				
DIAMETER	Fractional	Metric(mm)	RPM	IPR	RPM	IPR	RPM	IPR			
1/8	3/16	3.175	4.763	7880	.005	7000	.005	13120	.006	8750	.005
3/16	5/16	4.763	7.938	4920	.006	4370	.006	8200	.008	5470	.006
5/16	3/8	7.938	9.525	3560	.009	3190	.009	5970	.011	3980	.009
3/8	1/2	9.525	12.700	2810	.011	2500	.011	4690	.014	3120	.011
1/2	9/16	12.700	14.288	2310	.012	2060	.012	3860	.016	2570	.012
9/16	13/16	14.288	20.638	1790	.014	1590	.014	2980	.018	1990	.014

▶ Recommend to reduce the feed rate as following

- DH414(3xD) : Feed 100%
- DH722(5xD) : Feed 85%

RPM = rev./min.
IPR = inch/rev.

TiAIN-COATED SOLID CARBIDE DREAM DRILLS General with Coolant Holes

DH416 | DH418 | DH711 | DH712 SERIES

WORK MATERIAL	P				K						
	CARBON STEELS		ALLOY STEELS		CAST IRON						
	< HB240, GG25		< HB300, GG40		< HRc24		> HRc24				
STRENGTH	280 ~ 430 ft/min		250 ~ 400 ft/min		480 ~ 730 ft/min		310 ~ 490 ft/min				
DRILLING SPEED(SFM)	RPM		IPR		RPM		IPR				
DIAMETER	Fractional	Metric(mm)	RPM	IPR	RPM	IPR	RPM	IPR			
1/8	3/16	3.175	4.763	8750	.006	7880	.005	14870	.006	9620	.006
3/16	5/16	4.763	7.938	5470	.008	4920	.006	8200	.008	6010	.008
5/16	3/8	7.938	9.525	3980	.011	3580	.009	6760	.011	4370	.011
3/8	1/2	9.525	12.700	3120	.014	2810	.011	5310	.014	3440	.014
1/2	9/16	12.700	14.288	2570	.016	2310	.012	4370	.016	2830	.016
9/16	13/16	14.288	20.638	1990	.018	1790	.014	3380	.018	2190	.018

▶ Recommend to reduce the feed rate as following

- DH416/DH711(3xD) : Feed 100%
- DH418/DH712(5xD) : Feed 85%

RPM = rev./min.
IPR = inch/rev.

TiAlN-COATED 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		RPM	FEED	IPR	RPM	FEED	IPR	RPM	FEED	IPR	RPM	FEED	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%

RPM = rev./min.
 FEED = mm/rev.
 IPR = inch/rev

TiAlN-COATED 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		130 ~ 400 ft/min			115 ~ 340 ft/min			220 ~ 650 ft/min			150 ~ 430 ft/min		
DIAMETER		RPM	FEED	IPR	RPM	FEED	IPR	RPM	FEED	IPR	RPM	FEED	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%

RPM = rev./min.
 FEED = mm/rev.
 IPR = inch/rev

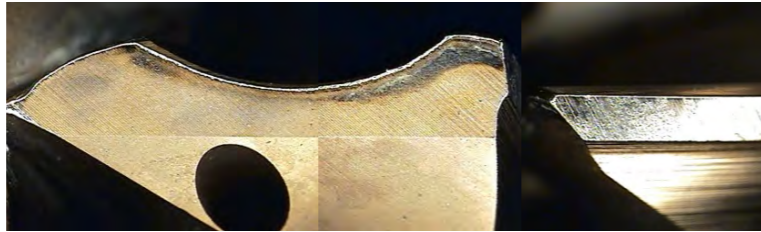
CASE STUDY

Dream Drills-High Feed offers 1.5 to 2 times higher feeding speed compared to conventional 2-flute drills. The unique flute design and exceptional surface finish promise extraordinary chip evacuation.

► SOLID CARBIDE DREAM DRILLS - High Feed with Coolant Holes

CUTTING CONDITION	
Tool	DGR495100 (Dream Drills High Feed)
Size	Ø10 x 10 x 61 x 103
Work Material	<ul style="list-style-type: none"> • AISI : 1045 • JIS : S45C (HRc20) • DIN : C45
RPM	3,200 rev./min.
Feed	.0197 inch/rev.
Drilling Depth	1.97" (5xD)
Drilling Method	Blind Hole
Coolant	Wet Cut
Machine	Machining Center

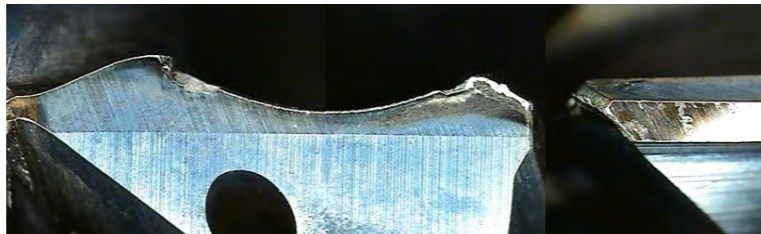
► YG-1 (Total Drilling 330 Holes)



► COMPETITOR A (Total Drilling 330 Holes)



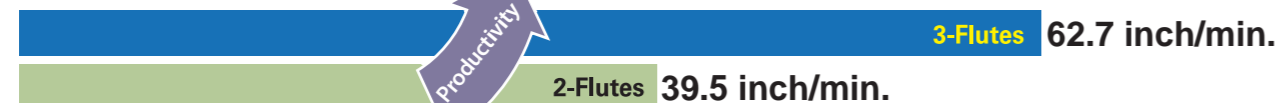
► COMPETITOR B (Total Drilling 330 Holes)



Productivity (Carbon Steel)

Ø 10 5xD

1.6 times UP



H-COATED SOLID CARBIDE DREAM DRILLS High Feed with Coolant Holes (3XD)

SHORT

DGR493 SERIES

DGR496 SERIES

- Drilling for Carbon Steels, Alloy Steels(-HRc35) and Cast Iron
- Higher productivity due to 1.5 to 2 times faster feeding speed than 2-flute drill
- Multi-Layer coating delivers much better productivity and reliability
- Self centering and chip breaking by R-thinning and coolant holes



3 × D

Unit : mm

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Inch	Decimal					Metric	Inch	Decimal			
H-coating	D1			D2	L1	L2	H-coating	D1			D2	L1	L2
DGR493050	5.00		.1969	6	28	66	DGR496017	6.75	17/64	.2656	5/16	34	79
DGR493051	5.10		.2008	6	28	66	DGR493068	6.80		.2677	8	34	79
DGR496013	5.16	13/64	.2031	1/4	28	66	DGR493069	6.90		.2717	8	34	79
DGR493052	5.20		.2047	6	28	66	DGR496209	6.91	I	.2720	5/16	34	79
DGR493053	5.30		.2087	6	28	66	DGR493070	7.00		.2756	8	34	79
DGR493054	5.40		.2126	6	28	66	DGR493071	7.10		.2795	8	41	79
DGR496103	5.41	#3	.2130	1/4	28	66	DGR496018	7.14	9/32	.2813	5/16	41	79
DGR493055	5.50		.2165	6	28	66	DGR493072	7.20		.2835	8	41	79
DGR496014	5.56	7/32	.2188	1/4	28	66	DGR493073	7.30		.2874	8	41	79
DGR493056	5.60		.2205	6	28	66	DGR493074	7.40		.2913	8	41	79
DGR496102	5.61	#2	.2210	1/4	28	66	DGR493075	7.50		.2953	8	41	79
DGR493057	5.70		.2244	6	28	66	DGR496019	7.54	19/64	.2969	5/16	41	79
DGR496101	5.79	#1	.2280	1/4	28	66	DGR493076	7.60		.2992	8	41	79
DGR493058	5.80		.2283	6	28	66	DGR493077	7.70		.3031	8	41	79
DGR493059	5.90		.2323	6	28	66	DGR493078	7.80		.3071	8	41	79
DGR496015	5.95	15/64	.2344	1/4	28	66	DGR493079	7.90		.3110	8	41	79
DGR493060	6.00		.2362	6	28	66	DGR496020	7.94	5/16	.3125	5/16	41	79
DGR493061	6.10		.2402	8	34	79	DGR493080	8.00		.3150	8	41	79
DGR493062	6.20		.2441	8	34	79	DGR493081	8.10		.3189	10	47	89
DGR493063	6.30		.2480	8	34	79	DGR493082	8.20	P	.3228	10	47	89
DGR496016	6.35	1/4	.2500	1/4	34	79	DGR493083	8.30		.3268	10	47	89
DGR493064	6.40		.2520	8	34	79	DGR496021	8.33	21/64	.3281	3/8	47	89
DGR493065	6.50		.2559	8	34	79	DGR493084	8.40		.3307	10	47	89
DGR496206	6.53	F	.2570	5/16	34	79	DGR496217	8.43	Q	.3320	3/8	47	89
DGR493066	6.60		.2598	8	34	79	DGR493085	8.50		.3346	10	47	89
DGR493067	6.70		.2638	8	34	79	DGR493086	8.60		.3386	10	47	89

► NEXT PAGE

P				H		M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium	
-HB225	HB225-325	HRc30-45	HRc45-55	HRc55-								
○	○	○				○						

H-COATED SOLID CARBIDE DREAM DRILLS High Feed with Coolant Holes (3XD)

SHORT
DGR493 SERIES
DGR496 SERIES

- ▶ Drilling for Carbon Steels, Alloy Steels(-HRc35) and Cast Iron
- ▶ Higher productivity due to 1.5 to 2 times faster feeding speed than 2-flute drill
- ▶ Multi-Layer coating delivers much better productivity and reliability
- ▶ Self centering and chip breaking by R-thinning and coolant holes



3 × D

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Inch	Decimal			
H-coating	D1			D2	L1	L2
DGR493087	8.70		.3425	10	47	89
DGR496022	8.73	11/32	.3437	3/8	47	89
DGR493088	8.80		.3465	10	47	89
DGR493089	8.90		.3504	10	47	89
DGR493090	9.00		.3543	10	47	89
DGR493091	9.10		.3583	10	47	89
DGR496023	9.13	23/64	.3594	3/8	47	89
DGR493092	9.20		.3622	10	47	89
DGR493093	9.30		.3661	10	47	89
DGR496221	9.35	U	.3680	3/8	47	89
DGR493094	9.40		.3701	10	47	89
DGR493095	9.50		.3740	10	47	89
DGR496024	9.53	3/8	.3750	3/8	47	89
DGR493096	9.60		.3780	10	47	89
DGR493097	9.70		.3819	10	47	89
DGR493098	9.80	W	.3858	10	47	89
DGR493099	9.90		.3898	10	47	89
DGR496025	9.92	25/64	.3906	7/16	47	89
DGR493100	10.00		.3937	10	47	89
DGR493101	10.10		.3976	12	55	102
DGR493102	10.20		.4016	12	55	102
DGR493103	10.30		.4055	12	55	102
DGR496026	10.32	13/32	.4063	7/16	55	102
DGR493104	10.40		.4094	12	55	102
DGR493105	10.50		.4134	12	55	102
DGR493106	10.60		.4173	12	55	102

Unit : mm

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Inch	Decimal			
H-coating	D1			D2	L1	L2
DGR493107	10.70		.4213	12	55	102
DGR496027	10.72	27/64	.4219	7/16	55	102
DGR493108	10.80		.4252	12	55	102
DGR493109	10.90		.4291	12	55	102
DGR493110	11.00		.4331	12	55	102
DGR493111	11.10		.4370	12	55	102
DGR496028	11.11	7/16	.4375	7/16	55	102
DGR493112	11.20		.4409	12	55	102
DGR493113	11.30		.4449	12	55	102
DGR493114	11.40		.4488	12	55	102
DGR493115	11.50		.4528	12	55	102
DGR496029	11.51	29/64	.4531	1/2	55	102
DGR493116	11.60		.4567	12	55	102
DGR493117	11.70		.4606	12	55	102
DGR493118	11.80		.4646	12	55	102
DGR493119	11.90		.4685	12	55	102
DGR496030	11.91	15/32	.4688	1/2	55	102
DGR493120	12.00		.4724	12	55	102
DGR493121	12.10		.4764	14	60	107
DGR493122	12.20		.4803	14	60	107
DGR493123	12.30		.4843	14	60	107
DGR496031	12.30	31/64	.4844	1/2	60	107
DGR493124	12.40		.4882	14	60	107
DGR493125	12.50		.4921	14	60	107
DGR493126	12.60		.4961	14	60	107
DGR496032	12.70	1/2	.5000	1/2	60	107

▶ NEXT PAGE

⊙ : Excellent ○ : Good

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels	Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium	
-HB225	HB225-325	HRc30-45	HRc45-55 HRc55~		⊙						

H-COATED SOLID CARBIDE DREAM DRILLS High Feed with Coolant Holes (3XD)

SHORT
DGR493 SERIES
DGR496 SERIES

- ▶ Drilling for Carbon Steels, Alloy Steels(-HRc35) and Cast Iron
- ▶ Higher productivity due to 1.5 to 2 times faster feeding speed than 2-flute drill
- ▶ Multi-Layer coating delivers much better productivity and reliability
- ▶ Self centering and chip breaking by R-thinning and coolant holes



3 × D

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Inch	Decimal			
H-coating	D1			D2	L1	L2
DGR493127	12.70		.5000	14	60	107
DGR493128	12.80		.5039	14	60	107
DGR493129	12.90		.5079	14	60	107
DGR493130	13.00		.5118	14	60	107
DGR493131	13.10	33/64	.5156	14	60	107
DGR493132	13.20		.5197	14	60	107
DGR493133	13.30		.5236	14	60	107
DGR493134	13.40		.5276	14	60	107
DGR496034	13.49	17/32	.5312	9/16	60	107
DGR493135	13.50		.5315	14	60	107
DGR493136	13.60		.5354	14	60	107
DGR493137	13.70		.5394	14	60	107
DGR493138	13.80		.5433	14	60	107
DGR496035	13.89	35/64	.5469	9/16	60	107
DGR493139	13.90		.5472	14	60	107
DGR493140	14.00		.5512	14	60	107
DGR493141	14.10		.5551	16	65	115
DGR493142	14.20		.5591	16	65	115
DGR496036	14.29	9/16	.5625	9/16	65	115
DGR493143	14.30		.5630	16	65	115
DGR493144	14.40		.5669	16	65	115
DGR493145	14.50		.5709	16	65	115
DGR493146	14.60		.5748	16	65	115
DGR496037	14.68	37/64	.5781	5/8	65	115
DGR493147	14.70		.5787	16	65	115
DGR493148	14.80		.5827	16	65	115

Unit : mm

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Inch	Decimal			
H-coating	D1			D2	L1	L2
DGR493149	14.90		.5866	16	65	115
DGR493150	15.00		.5906	16	65	115
DGR496038	15.08	19/32	.5938	5/8	65	115
DGR493151	15.10		.5945	16	65	115
DGR493152	15.20		.5984	16	65	115
DGR493153	15.30		.6024	16	65	115
DGR493154	15.40		.6063	16	65	115
DGR496039	15.48	39/64	.6094	5/8	65	115
DGR493155	15.50		.6102	16	65	115
DGR493156	15.60		.6142	16	65	115
DGR493157	15.70		.6181	16	65	115
DGR493158	15.80		.6220	16	65	115
DGR496040	15.88	5/8	.6250	5/8	65	115
DGR493159	15.90		.6260	16	65	115
DGR493160	16.00		.6299	16	65	115
DGR493161	16.10		.6339	18	73	123
DGR496041	16.27	41/64	.6406	11/16	73	123
DGR493165	16.50		.6496	18	73	123
DGR496042	16.67	21/32	.6563	11/16	73	123
DGR493170	17.00		.6693	18	73	123
DGR496043	17.07	43/64	.6719	11/16	73	123
DGR496044	17.46	11/16	.6875	11/16	73	123
DGR493175	17.50		.6890	18	73	123
DGR496045	17.86	45/64	.7031	3/4	73	123
DGR493180	18.00		.7087	18	73	123
DGR496046	18.26	23/32	.7188	3/4	79	131

▶ NEXT PAGE

⊙ : Excellent ○ : Good

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels	Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium	
-HB225	HB225-325	HRc30-45	HRc45-55 HRc55~		⊙						

H-COATED SOLID CARBIDE DREAM DRILLS High Feed with Coolant Holes (3XD)

SHORT
DGR493 SERIES
DGR496 SERIES

- ▶ Drilling for Carbon Steels, Alloy Steels(-HRc35) and Cast Iron
- ▶ Higher productivity due to 1.5 to 2 times faster feeding speed than 2-flute drill
- ▶ Multi-Layer coating delivers much better productivity and reliability
- ▶ Self centering and chip breaking by R-thinning and coolant holes



3 × D

Unit : mm

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Inch	Decimal			
H-coating	D1			D2	L1	L2
DGR493185	18.50		.7283	20	79	131
DGR496047	18.65	47/64	.7344	3/4	79	131
DGR493190	19.00		.7480	20	79	131

Unit : mm

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Inch	Decimal			
H-coating	D1			D2	L1	L2
DGR496048	19.05	3/4	.7500	3/4	79	131
DGR493195	19.50		.7677	20	79	131
DGR493200	20.00		.7874	20	79	131

◎ : Excellent ○ : Good

P				H	M	K	N			S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels	Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
-HB225	HB225-325	HRc30-45	HRc45-55 HRc55~							
◎	◎	○			◎					

H-COATED SOLID CARBIDE DREAM DRILLS High Feed with Coolant Holes (5XD)

LONG
DGR495 SERIES
DGR497 SERIES

- ▶ Drilling for Carbon Steels, Alloy Steels(-HRc35) and Cast Iron
- ▶ Higher productivity due to 1.5 to 2 times faster feeding speed than 2-flute drill
- ▶ Multi-Layer coating delivers much better productivity and reliability
- ▶ Self centering and chip breaking by R-thinning and coolant holes



5 × D

Unit : mm

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Inch	Decimal			
H-coating	D1			D2	L1	L2
DGR495050	5.00		.1969	6	44	82
DGR495051	5.10		.2008	6	44	82
DGR497013	5.16	13/64	.2031	1/4	44	82
DGR495052	5.20		.2047	6	44	82
DGR495053	5.30		.2087	6	44	82
DGR495054	5.40		.2126	6	44	82
DGR497103	5.41	#3	.2130	1/4	44	82
DGR495055	5.50		.2165	6	44	82
DGR497014	5.56	7/32	.2188	1/4	44	82
DGR495056	5.60		.2205	6	44	82
DGR497102	5.61	#2	.2210	1/4	44	82
DGR495057	5.70		.2244	6	44	82
DGR497101	5.79	#1	.2280	1/4	44	82
DGR495058	5.80		.2283	6	44	82
DGR495059	5.90		.2323	6	44	82
DGR497015	5.95	15/64	.2344	1/4	44	82
DGR495060	6.00		.2362	6	44	82
DGR495061	6.10		.2402	8	53	91
DGR495062	6.20		.2441	8	53	91
DGR495063	6.30		.2480	8	53	91
DGR497016	6.35	1/4	.2500	1/4	53	91
DGR495064	6.40		.2520	8	53	91
DGR495065	6.50		.2559	8	53	91
DGR497206	6.53	F	.2570	5/16	53	91
DGR495066	6.60		.2598	8	53	91
DGR495067	6.70		.2638	8	53	91

Unit : mm

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Inch	Decimal			
H-coating	D1			D2	L1	L2
DGR497017	6.75	17/64	.2656	5/16	53	91
DGR495068	6.80		.2677	8	53	91
DGR495069	6.90		.2717	8	53	91
DGR497209	6.91	I	.2720	5/16	53	91
DGR495070	7.00		.2756	8	53	91
DGR495071	7.10		.2795	8	53	91
DGR497018	7.14	9/32	.2813	5/16	53	91
DGR495072	7.20		.2835	8	53	91
DGR495073	7.30		.2874	8	53	91
DGR495074	7.40		.2913	8	53	91
DGR495075	7.50		.2953	8	53	91
DGR497019	7.54	19/64	.2969	5/16	53	91
DGR495076	7.60		.2992	8	53	91
DGR495077	7.70		.3031	8	53	91
DGR495078	7.80		.3071	8	53	91
DGR495079	7.90		.3110	8	53	91
DGR497020	7.94	5/16	.3125	5/16	53	91
DGR495080	8.00		.3150	8	53	91
DGR495081	8.10		.3189	10	61	103
DGR495082	8.20	P	.3228	10	61	103
DGR495083	8.30		.3268	10	61	103
DGR497021	8.33	21/64	.3281	3/8	61	103
DGR495084	8.40		.3307	10	61	103
DGR497217	8.43	Q	.3320	3/8	61	103
DGR495085	8.50		.3346	10	61	103
DGR495086	8.60		.3386	10	61	103

▶ NEXT PAGE

◎ : Excellent ○ : Good

P				H	M	K	N			S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels	Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
-HB225	HB225-325	HRc30-45	HRc45-55 HRc55~							
◎	◎	○			◎					

H-COATED SOLID CARBIDE DREAM DRILLS
High Feed with Coolant Holes (5XD)

LONG
DGR495 SERIES
DGR497 SERIES

- ▶ Drilling for Carbon Steels, Alloy Steels(-HRc35) and Cast Iron
- ▶ Higher productivity due to 1.5 to 2 times faster feeding speed than 2-flute drill
- ▶ Multi-Layer coating delivers much better productivity and reliability
- ▶ Self centering and chip breaking by R-thinning and coolant holes



5 × D

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Inch	Decimal			
H-coating	D1			D2	L1	L2
DGR495087	8.70		.3425	10	61	103
DGR497022	8.73	11/32	.3437	3/8	61	103
DGR495088	8.80		.3465	10	61	103
DGR495089	8.90		.3504	10	61	103
DGR495090	9.00		.3543	10	61	103
DGR495091	9.10		.3583	10	61	103
DGR497023	9.13	23/64	.3594	3/8	61	103
DGR495092	9.20		.3622	10	61	103
DGR495093	9.30		.3661	10	61	103
DGR497221	9.35	U	.3680	3/8	61	103
DGR495094	9.40		.3701	10	61	103
DGR495095	9.50		.3740	10	61	103
DGR497024	9.53	3/8	.3750	3/8	61	103
DGR495096	9.60		.3780	10	61	103
DGR495097	9.70		.3819	10	61	103
DGR495098	9.80	W	.3858	10	61	103
DGR495099	9.90		.3898	10	61	103
DGR497025	9.92	25/64	.3906	7/16	61	103
DGR495100	10.00		.3937	10	61	103
DGR495101	10.10		.3976	12	71	118
DGR495102	10.20		.4016	12	71	118
DGR495103	10.30		.4055	12	71	118

Unit : mm

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Inch	Decimal			
H-coating	D1			D2	L1	L2
DGR497026	10.32	13/32	.4063	7/16	71	118
DGR495104	10.40		.4094	12	71	118
DGR495105	10.50		.4134	12	71	118
DGR495106	10.60		.4173	12	71	118
DGR495107	10.70		.4213	12	71	118
DGR497027	10.72	27/64	.4219	7/16	71	118
DGR495108	10.80		.4252	12	71	118
DGR495109	10.90		.4291	12	71	118
DGR495110	11.00		.4331	12	71	118
DGR495111	11.10		.4370	12	71	118
DGR497028	11.11	7/16	.4375	7/16	71	118
DGR495112	11.20		.4409	12	71	118
DGR495113	11.30		.4449	12	71	118
DGR495114	11.40		.4488	12	71	118
DGR495115	11.50		.4528	12	71	118
DGR497029	11.51	29/64	.4531	1/2	71	118
DGR495116	11.60		.4567	12	71	118
DGR495117	11.70		.4606	12	71	118
DGR495118	11.80		.4646	12	71	118
DGR495119	11.90		.4685	12	71	118
DGR497030	11.91	15/32	.4688	1/2	71	118
DGR495120	12.00		.4724	12	71	118

▶ NEXT PAGE

⊙ : Excellent ○ : Good

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels	Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium	
-HB225	HB225-325	HRc30-45	HRc45-55 HRc55~								
⊙	⊙	○			⊙						

H-COATED SOLID CARBIDE DREAM DRILLS
High Feed with Coolant Holes (5XD)

LONG
DGR495 SERIES
DGR497 SERIES

- ▶ Drilling for Carbon Steels, Alloy Steels(-HRc35) and Cast Iron
- ▶ Higher productivity due to 1.5 to 2 times faster feeding speed than 2-flute drill
- ▶ Multi-Layer coating delivers much better productivity and reliability
- ▶ Self centering and chip breaking by R-thinning and coolant holes



5 × D

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Inch	Decimal			
H-coating	D1			D2	L1	L2
DGR495121	12.10		.4764	14	77	124
DGR495122	12.20		.4803	14	77	124
DGR495123	12.30		.4843	14	77	124
DGR497031	12.30	31/64	.4844	1/2	77	124
DGR495124	12.40		.4882	14	77	124
DGR495125	12.50		.4921	14	77	124
DGR495126	12.60		.4961	14	77	124
DGR497032	12.70	1/2	.5000	1/2	77	124
DGR495127	12.70		.5000	14	77	124
DGR495128	12.80		.5039	14	77	124
DGR495129	12.90		.5079	14	77	124
DGR495130	13.00		.5118	14	77	124
DGR495131	13.10	33/64	.5156	14	77	124
DGR495132	13.20		.5197	14	77	124
DGR495133	13.30		.5236	14	77	124
DGR495134	13.40		.5276	14	77	124
DGR497034	13.49	17/32	.5312	9/16	77	124
DGR495135	13.50		.5315	14	77	124
DGR495136	13.60		.5354	14	77	124
DGR495137	13.70		.5394	14	77	124
DGR495138	13.80		.5433	14	77	124
DGR497035	13.89	35/64	.5469	9/16	77	124

Unit : mm

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Inch	Decimal			
H-coating	D1			D2	L1	L2
DGR495139	13.90		.5472	14	77	124
DGR495140	14.00		.5512	14	77	124
DGR495141	14.10		.5551	16	83	133
DGR495142	14.20		.5591	16	83	133
DGR497036	14.29	9/16	.5625	9/16	83	133
DGR495143	14.30		.5630	16	83	133
DGR495144	14.40		.5669	16	83	133
DGR495145	14.50		.5709	16	83	133
DGR495146	14.60		.5748	16	83	133
DGR497037	14.68	37/64	.5781	5/8	83	133
DGR495147	14.70		.5787	16	83	133
DGR495148	14.80		.5827	16	83	133
DGR495149	14.90		.5866	16	83	133
DGR495150	15.00		.5906	16	83	133
DGR497038	15.08	19/32	.5938	5/8	83	133
DGR495151	15.10		.5945	16	83	133
DGR495152	15.20		.5984	16	83	133
DGR495153	15.30		.6024	16	83	133
DGR495154	15.40		.6063	16	83	133
DGR497039	15.48	39/64	.6094	5/8	83	133
DGR495155	15.50		.6102	16	83	133
DGR495156	15.60		.6142	16	83	133

▶ NEXT PAGE

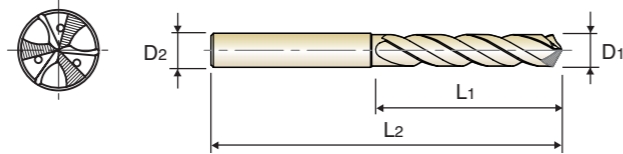
⊙ : Excellent ○ : Good

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels	Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium	
-HB225	HB225-325	HRc30-45	HRc45-55 HRc55~								
⊙	⊙	○			⊙						

H-COATED SOLID CARBIDE DREAM DRILLS High Feed with Coolant Holes (5XD)

- ▶ Drilling for Carbon Steels, Alloy Steels(-HRc35) and Cast Iron
- ▶ Higher productivity due to 1.5 to 2 times faster feeding speed than 2-flute drill
- ▶ Multi-Layer coating delivers much better productivity and reliability
- ▶ Self centering and chip breaking by R-thinning and coolant holes

LONG
DGR495 SERIES
DGR497 SERIES



5 × D

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Inch	Decimal			
H-coating	D1			D2	L1	L2
DGR495157	15.70		.6181	16	83	133
DGR495158	15.80		.6220	16	83	133
DGR497040	15.88	5/8	.6250	5/8	83	133
DGR495159	15.90		.6260	16	83	133
DGR495160	16.00		.6299	16	83	133
DGR495161	16.10		.6339	18	93	143
DGR497041	16.27	41/64	.6406	11/16	93	143
DGR495165	16.50		.6496	18	93	143
DGR497042	16.67	21/32	.6563	11/16	93	143
DGR495170	17.00		.6693	18	93	143
DGR497043	17.07	43/64	.6719	11/16	93	143

Unit : mm

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Inch	Decimal			
H-coating	D1			D2	L1	L2
DGR497044	17.46	11/16	.6875	11/16	93	143
DGR495175	17.50		.6890	18	93	143
DGR497045	17.86	45/64	.7031	3/4	93	143
DGR495180	18.00		.7087	18	93	143
DGR497046	18.26	23/32	.7188	3/4	101	153
DGR495185	18.50		.7283	20	101	153
DGR497047	18.65	47/64	.7344	3/4	101	153
DGR495190	19.00		.7480	20	101	153
DGR497048	19.05	3/4	.7500	3/4	101	153
DGR495195	19.50		.7677	20	101	153
DGR495200	20.00		.7874	20	101	153

◎ : Excellent ○ : Good

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels	Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium	
-HB225	HB225-325	HRc30-45	HRc45-55 HRc55~								
◎	◎	○			◎						

RECOMMENDED CUTTING CONDITIONS

DREAM DRILLS · HIGH FEED

H-COATED SOLID CARBIDE DREAM DRILLS High Feed with Coolant Holes

DGR493 | DGR496 | DGR495 | DGR497 SERIES

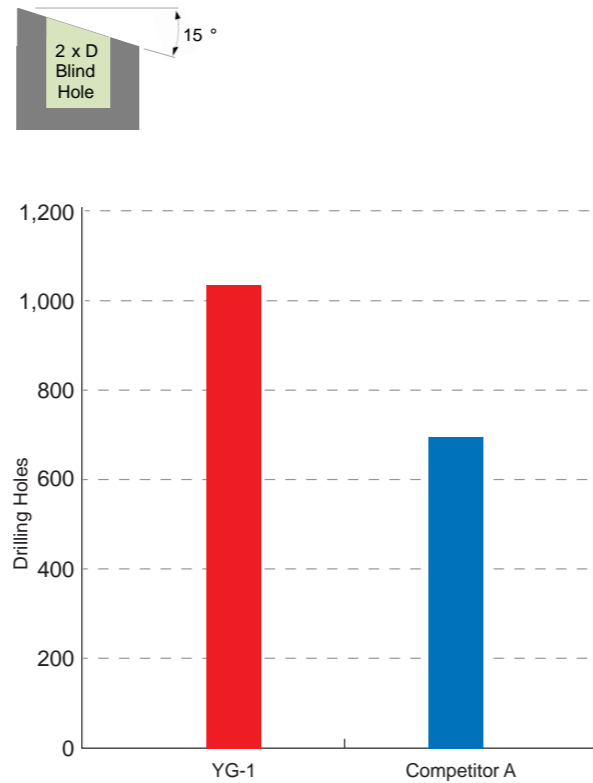
WORK MATERIAL	P						K						
	CARBON STEELS ALLOY STEELS			ALLOY STEELS			CAST IRON			DUCTILE CAST IRON			
HARDNESS	~ HRc20						HRc20 ~ 35						
DRILLING SPEED	329 ft/min						247 ft/min						
DIAMETER	RPM		IPR		RPM		IPR		RPM		IPR		
	Metric(mm)	Decimal	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	
5.0	.1969	6370	.0079	.0098	4780	.0079	.0098	6370	.0091	.0118	5100	.0079	.0098
6.0	.2362	5310	.0094	.0118	3980	.0094	.0118	5310	.0106	.0142	4250	.0094	.0118
7.0	.2756	4550	.0110	.0138	3420	.0110	.0138	4550	.0126	.0165	3640	.0110	.0138
8.0	.3150	3980	.0126	.0157	2990	.0126	.0157	3980	.0142	.0189	3190	.0126	.0157
9.0	.3543	3540	.0142	.0177	2660	.0142	.0177	3540	.0161	.0213	2840	.0142	.0177
10.0	.3937	3190	.0157	.0197	2390	.0157	.0197	3190	.0177	.0236	2550	.0157	.0197
12.0	.4724	2660	.0189	.0236	2000	.0189	.0213	2660	.0213	.0283	2130	.0189	.0236
14.0	.5512	2280	.0220	.0276	1710	.0220	.0248	2280	.0248	.0331	1820	.0220	.0276
16.0	.6299	1990	.0220	.0283	1500	.0220	.0252	1990	.0252	.0315	1600	.0220	.0283
18.0	.7087	1770	.0248	.0319	1330	.0248	.0283	1770	.0283	.0354	1420	.0248	.0319
20.0	.7874	1600	.0276	.0346	1190	.0268	.0319	1600	.0315	.0386	1280	.0276	.0354

RPM = rev./min.
IPR = inch/rev.

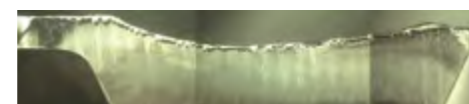
CASE STUDY

► SOLID CARBIDE DREAM DRILLS - Flat Bottom without Coolant Holes

CUTTING CONDITION	
Tool	Dream Drills Flat Bottom
Size	Ø6.0 (.2362 inch)
Work Material	<ul style="list-style-type: none"> • AISI : 1045 • JIS : S45C • DIN : C45 • Hardness : HRc 20 (HB 228)
Cutting Speed	75.4 m/min (244.4 ft/min.)
RPM	4,000 rev/min
Feed	0.1 mm/rev (.0039 in/rev.)
Drilling Depth	12.0 mm (2XD) - Blind Hole / without Pecking
Coolant	External Cooling Water Soluble (9% Emulsion)
Machine	Vertical Machining Center

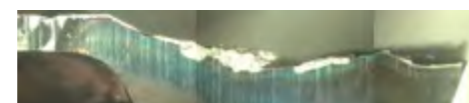


► YG-1



Small Chipping

► COMPETITOR A



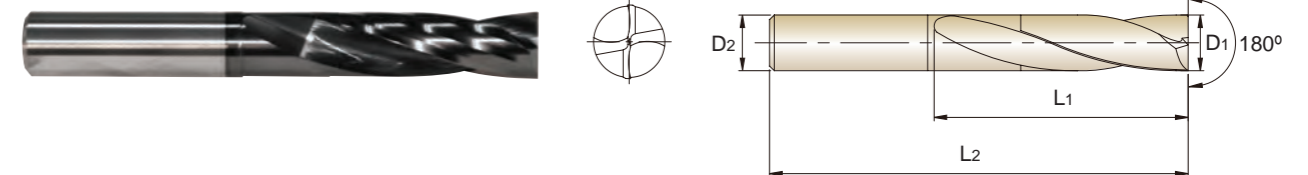
Big Chipping

X-COATED SOLID CARBIDE DREAM DRILLS Flat Bottom without Coolant Holes (2XD)

SHORT

DPP447 SERIES

- Just ONE Drill 180 degree point angle enables drilling of horizontal surface and sloped surface
- Excellent chip evacuation by optimized flute shape
- High strength cutting edge to improve tool life and versatility drilling
- Variety of drilling can be used in a variety of drilling applications



2 x D

X-Coating					X-Coating				
EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
	D1	D2	L1	L2		D1	D2	L1	L2
DPP447030	3.0	6	16	50	DPP447051	5.1	6	24	60
DPP447031	3.1	6	16	50	DPP447052	5.2	6	24	60
DPP447008F	1/8	6	16	50	DPP447053	5.3	6	24	60
DPP447032	3.2	6	16	50	DPP447054	5.4	6	24	60
DPP447033	3.3	6	16	50	DPP447055	5.5	6	24	60
DPP447034	3.4	6	18	50	DPP447014F	7/32	6	24	60
DPP447035	3.5	6	18	50	DPP447056	5.6	6	24	60
DPP447036	3.6	6	18	50	DPP447057	5.7	6	26	60
DPP447037	3.7	6	18	50	DPP447058	5.8	6	26	60
DPP447038	3.8	6	18	50	DPP447059	5.9	6	26	60
DPP447039	3.9	6	18	50	DPP447060	6.0	6	26	60
DPP447010F	5/32	6	18	50	DPP447061	6.1	8	28	70
DPP447040	4.0	6	18	50	DPP447062	6.2	8	28	70
DPP447041	4.1	6	20	60	DPP447063	6.3	8	28	70
DPP447042	4.2	6	20	60	DPP447016F	1/4	8	30	70
DPP447043	4.3	6	20	60	DPP447064	6.4	8	30	70
DPP447044	4.4	6	20	60	DPP447065	6.5	8	30	70
DPP447045	4.5	6	22	60	DPP447066	6.6	8	30	70
DPP447046	4.6	6	22	60	DPP447067	6.7	8	30	70
DPP447047	4.7	6	22	60	DPP447068	6.8	8	30	70
DPP447012F	3/16	6	22	60	DPP447069	6.9	8	30	70
DPP447048	4.8	6	22	60	DPP447070	7.0	8	30	70
DPP447049	4.9	6	22	60	DPP447071	7.1	8	34	70
DPP447050	5.0	6	22	60	DPP447018F	9/32	8	34	70

► Other shank types are available on your request.

► NEXT PAGE

P		H		M	K	N			S	
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels	Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
-HB225	HB225-325	HRc30-45	HRc45-55	HRc55-						
◎	◎	◎	○	○	◎	○	○			

X-COATED SOLID CARBIDE DREAM DRILLS Flat Bottom without Coolant Holes (2XD)

SHORT
DPP447 SERIES

- ▶ Just ONE Drill 180 degree point angle enables drilling of horizontal surface and sloped surface
- ▶ Excellent chip evacuation by optimized flute shape
- ▶ High strength cutting edge to improve tool life and versatility drilling
- ▶ Variety of drilling can be used in a variety of drilling applications



2 × D

Unit : mm

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
X-Coating	D1	D2	L1	L2	X-Coating	D1	D2	L1	L2
DPP447072	7.2	8	34	70	DPP447093	9.3	10	42	80
DPP447073	7.3	8	34	70	DPP447094	9.4	10	42	80
DPP447074	7.4	8	34	70	DPP447095	9.5	10	42	80
DPP447075	7.5	8	34	70	DPP447024F	3/8	10	42	80
DPP447076	7.6	8	34	70	DPP447096	9.6	10	42	80
DPP447077	7.7	8	34	70	DPP447097	9.7	10	45	80
DPP447078	7.8	8	34	70	DPP447098	9.8	10	45	80
DPP447079	7.9	8	34	70	DPP447099	9.9	10	45	80
DPP447020F	5/16	8	34	70	DPP447100	10.0	10	45	80
DPP447080	8.0	8	34	70	DPP447101	10.1	12	46	90
DPP447081	8.1	10	38	80	DPP447102	10.2	12	46	90
DPP447082	8.2	10	38	80	DPP447103	10.3	12	46	90
DPP447083	8.3	10	38	80	DPP447026F	13/32	12	46	90
DPP447021F	21/64	10	38	80	DPP447104	10.4	12	48	90
DPP447084	8.4	10	38	80	DPP447105	10.5	12	48	90
DPP447085	8.5	10	38	80	DPP447106	10.6	12	48	90
DPP447086	8.6	10	38	80	DPP447107	10.7	12	48	90
DPP447087	8.7	10	40	80	DPP447108	10.8	12	48	90
DPP447088	8.8	10	40	80	DPP447109	10.9	12	48	90
DPP447089	8.9	10	40	80	DPP447110	11.0	12	48	90
DPP447090	9.0	10	40	80	DPP447111	11.1	12	50	90
DPP447091	9.1	10	42	80	DPP447028F	7/16	12	50	90
DPP447023F	23/64	10	42	80	DPP447112	11.2	12	50	90
DPP447092	9.2	10	42	80	DPP447113	11.3	12	50	90

▶ Other shank types are available on your request.

▶ NEXT PAGE

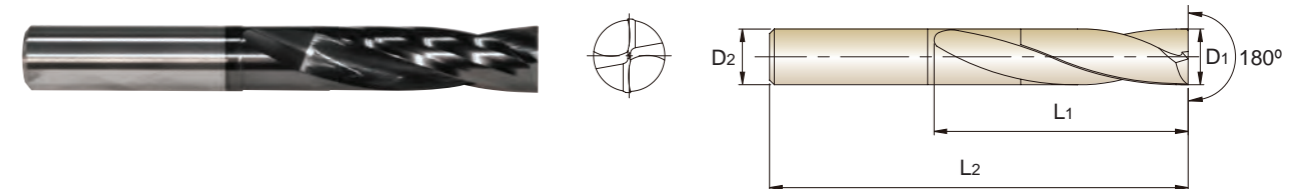
◎ : Excellent ○ : Good

P				H		M	K	N			S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	◎	○	○	○	◎	○	○			

X-COATED SOLID CARBIDE DREAM DRILLS Flat Bottom without Coolant Holes (2XD)

SHORT
DPP447 SERIES

- ▶ Just ONE Drill 180 degree point angle enables drilling of horizontal surface and sloped surface
- ▶ Excellent chip evacuation by optimized flute shape
- ▶ High strength cutting edge to improve tool life and versatility drilling
- ▶ Variety of drilling can be used in a variety of drilling applications



2 × D

Unit : mm

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
X-Coating	D1	D2	L1	L2	X-Coating	D1	D2	L1	L2
DPP447114	11.4	12	50	90	DPP447136	13.6	14	58	100
DPP447115	11.5	12	50	90	DPP447137	13.7	14	58	100
DPP447029F	29/64	12	50	90	DPP447138	13.8	14	58	100
DPP447116	11.6	12	50	90	DPP447139	13.9	14	58	100
DPP447117	11.7	12	52	90	DPP447140	14.0	14	58	100
DPP447118	11.8	12	52	90	DPP447141	14.1	16	62	105
DPP447119	11.9	12	52	90	DPP447142	14.2	16	62	105
DPP447030F	15/32	12	52	90	DPP447036F	9/16	16	62	105
DPP447120	12.0	12	52	90	DPP447143	14.3	16	62	105
DPP447121	12.1	14	54	100	DPP447144	14.4	16	62	105
DPP447122	12.2	14	54	100	DPP447145	14.5	16	62	105
DPP447123	12.3	14	54	100	DPP447146	14.6	16	62	105
DPP447124	12.4	14	54	100	DPP447147	14.7	16	62	105
DPP447125	12.5	14	54	100	DPP447148	14.8	16	62	105
DPP447126	12.6	14	54	100	DPP447149	14.9	16	62	105
DPP447127	12.7	14	56	100	DPP447150	15.0	16	62	105
DPP447128	12.8	14	56	100	DPP447151	15.1	16	64	115
DPP447129	12.9	14	56	100	DPP447152	15.2	16	64	115
DPP447130	13.0	14	56	100	DPP447153	15.3	16	64	115
DPP447131	13.1	14	58	100	DPP447154	15.4	16	64	115
DPP447132	13.2	14	58	100	DPP447155	15.5	16	64	115
DPP447133	13.3	14	58	100	DPP447156	15.6	16	64	115
DPP447134	13.4	14	58	100	DPP447157	15.7	16	64	115
DPP447135	13.5	14	58	100	DPP447158	15.8	16	64	115

▶ Other shank types are available on your request.

▶ NEXT PAGE

◎ : Excellent ○ : Good

P				H		M	K	N			S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	◎	○	○	○	◎	○	○			

X-COATED SOLID CARBIDE DREAM DRILLS Flat Bottom without Coolant Holes (2XD)

SHORT
DPP447 SERIES

- ▶ Just ONE Drill 180 degree point angle enables drilling of horizontal surface and sloped surface
- ▶ Excellent chip evacuation by optimized flute shape
- ▶ High strength cutting edge to improve tool life and versatility drilling
- ▶ Variety of drilling can be used in a variety of drilling applications



2 x D

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
X-Coating	D1	D2	L1	L2
DPP447040F	5/8	16	64	115
DPP447159	15.9	16	64	115
DPP447160	16.0	16	64	115
DPP447165	16.5	18	70	125
DPP447170	17.0	18	70	125
DPP447044F	11/16	18	70	125
DPP447175	17.5	18	70	125

Unit : mm

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
X-Coating	D1	D2	L1	L2
DPP447180	18.0	18	70	125
DPP447185	18.5	20	75	135
DPP447190	19.0	20	75	135
DPP447048F	3/4	20	75	135
DPP447195	19.5	20	75	145
DPP447200	20.0	20	75	145

▶ Other shank types are available on your request.

◎ : Excellent ○ : Good

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels	Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium	
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	◎	○	○	◎	○	○				

RECOMMENDED CUTTING CONDITIONS

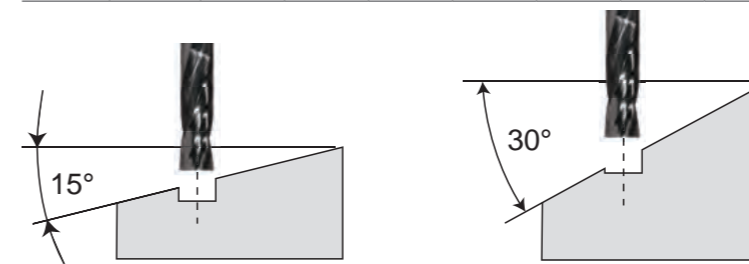
DREAM DRILLS · FLAT BOTTOM

X-COATED SOLID CARBIDE DREAM DRILLS Flat Bottom without Coolant Holes

DPP447 SERIES

WORK MATERIAL	P								M	K	N				
	STRUCTURAL STEELS		CARBON STEELS ALLOY STEELS		PREHARDENED STEELS		HARDENED STEELS		STAINLESS STEELS	CAST IRON	ALUMINUM				
STRENGTH	<HB225				HRc30 ~ 40		HRc40 ~ 50		~ 200 HB						
DRILLING SPEED	80 m/min		70 m/min		38 m/min		25 m/min		30 m/min		68 m/min	165 m/min			
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED			
	Metric(mm)	Decimal													
3.0	.1181	8350	0.05	7250	0.05	3890	0.05	2790	0.03	3180	0.02	7250	0.04	17850	0.06
4.0	.1575	6250	0.07	5410	0.07	2940	0.06	2100	0.04	2380	0.03	5410	0.06	13130	0.08
5.0	.1969	5040	0.08	4360	0.08	2310	0.08	1680	0.05	1910	0.04	4360	0.07	10500	0.10
6.0	.2362	4200	0.10	3630	0.10	1890	0.09	1370	0.06	1590	0.05	3630	0.09	8930	0.12
8.0	.3150	3150	0.14	2730	0.13	1470	0.12	1050	0.08	1190	0.06	2730	0.12	6670	0.16
10.0	.3937	2520	0.17	2160	0.17	1160	0.15	840	0.10	955	0.08	2160	0.15	5360	0.20
12.0	.4724	2100	0.21	1790	0.21	1000	0.18	690	0.12	796	0.10	1790	0.18	4470	0.24
16.0	.6299	1580	0.28	1370	0.28	740	0.24	530	0.16	597	0.12	1370	0.24	3360	0.32
20.0	.7874	1260	0.35	1110	0.34	580	0.31	420	0.20	477	0.15	1110	0.30	2680	0.40

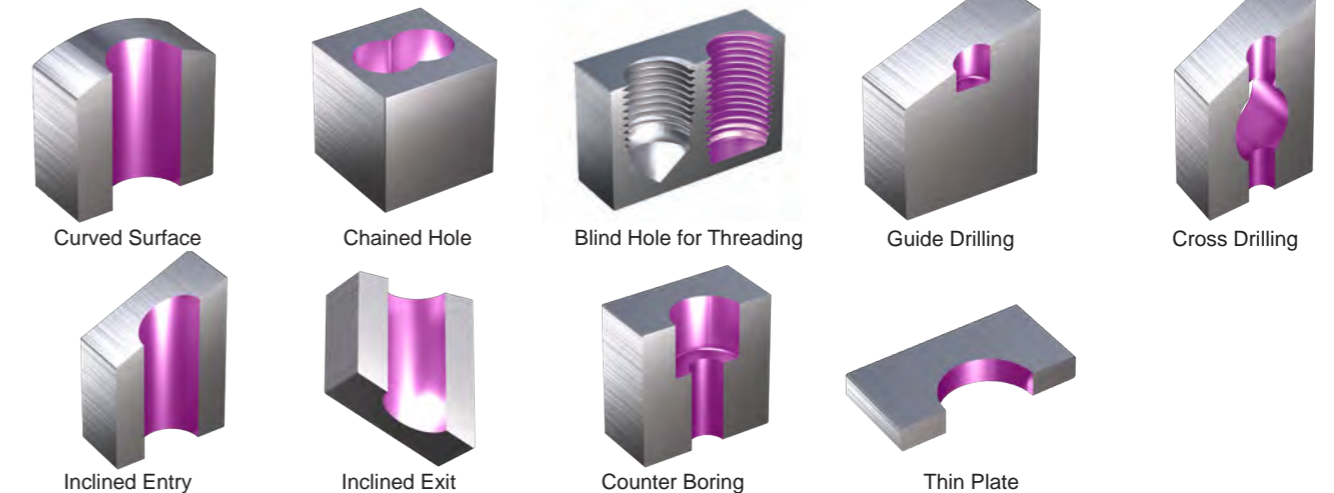
RPM = rev./min.
FEED = mm/rev.



Surface Angle	Cutting Conditions	
	RPM	IPR
0° ~ 15°	100%	100%
15° ~ 30°	100%	50%
30° ~	70%	30%

- ▶ The cutting conditions are for 2xD.
- ▶ The rigid and precise machine and holder are required.
- ▶ The recommended depth of hole is measured from the highest point of the hole on drilling in inclined and angled surfaces.
- ▶ The recommended cutting conditions are those for drilling on flat and horizontal surfaces.
- ▶ Please adjust feed rate according to the above surface angle when drilling on an inclined surface.
 - The recommended feed rate 50% or lower, in case of 15°~30° of the incline angle.
 - The recommended feed rate 30% or lower and RPM 70%, in case of 30° ~ of the incline angle.
- ▶ Please decrease cutting speed as material hardness increases.
- ▶ Only use drilling tool. Side milling, traversing, helical milling are not usable.

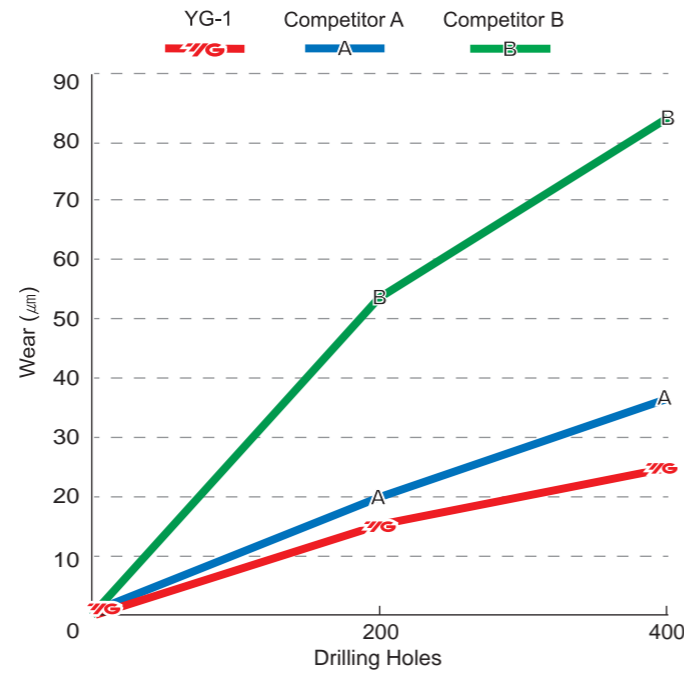
VARIETY OF DRILLING



CASE STUDY

► SOLID CARBIDE DREAM DRILLS - INOX with Coolant Holes

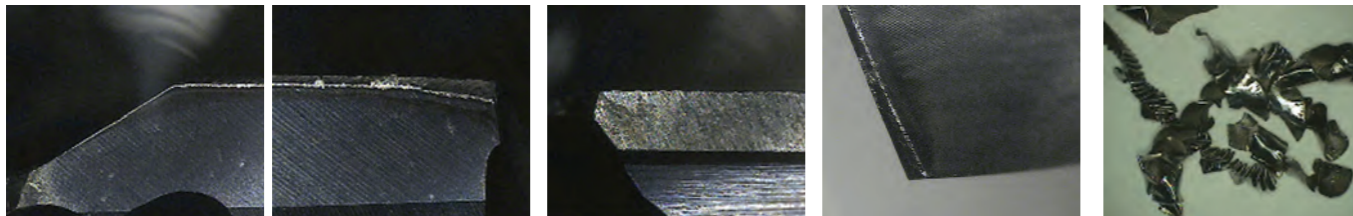
CUTTING CONDITION	
Tool	DH452060 (Dream Drill-Inox)
Size	Ø6x Ø6 x 44 x 82
Work Material	•AISI : 304 •JIS : SUS304 •DIN : X5CrNi1810 (X4CrNi18-10)
RPM	3,700 rev./min.
SFM	229 ft/min.
Feed	.0028 inch/rev.
Drilling Depth	.94"
Coolant	Wet Cut



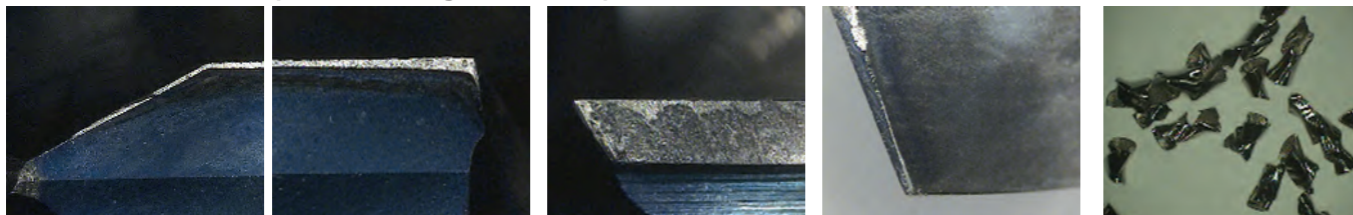
► YG-1 (Total Drilling 400 Holes)



► COMPETITOR A (Total Drilling 400 Holes)



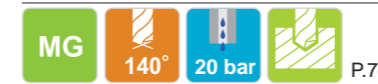
► COMPETITOR B (Total Drilling 400 Holes)



TiAIN-COATED SOLID CARBIDE DREAM DRILLS INOX with Coolant Holes (3XD)

STUB
DH463 SERIES
DH714 SERIES

- Special flute shape and geometry suitable for machining stainless steel
- Excellent chip evacuation from better surface treatment
- Point R-thinning achieves superior centering and chip curling
- TiAIN coating for better surface finishes and longer tool life
- Tolerance : Dia. Tolerance ØD1 : See page 104
Shank Tolerance ØD2: -.0001 -.0005



3 × D

EDP No.	Drill Diameter		Shank Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter		Shank Diameter	Flute Length	Overall Length
	Fractional	Decimal					Fractional	Decimal			
TiAIN	D1		D2	L1	L2	TiAIN	D1		D2	L1	L2
DH714008	1/8	.1250	3/16	1.102	2.992	DH463020	5/16	.3125	5/16	1.575	3.701
DH463008	1/8	.1250	15/64	1.102	2.992	DH463021	21/64	.3281	11/32	1.673	3.937
DH714011	11/64	.1719	3/16	1.417	3.386	DH714021	21/64	.3281	3/8	1.673	3.937
DH463011	11/64	.1719	15/64	1.417	3.386	DH463217	Q	.3320	11/32	1.673	3.937
DH714012	3/16	.1875	3/16	1.575	3.543	DH714217	Q	.3320	3/8	1.673	3.937
DH463012	3/16	.1875	15/64	1.575	3.543	DH463022	11/32	.3438	11/32	1.772	3.937
DH463013	13/64	.2031	15/64	1.082	3.228	DH714022	11/32	.3438	3/8	1.772	3.937
DH714013	13/64	.2031	1/4	1.082	3.228	DH714023	23/64	.3594	3/8	1.870	4.174
DH463014	7/32	.2188	15/64	1.181	3.228	DH463023	23/64	.3594	25/64	1.870	4.174
DH714014	7/32	.2188	1/4	1.181	3.228	DH714221	U	.3680	3/8	1.870	4.174
DH463015	15/64	.2344	15/64	1.181	3.228	DH463221	U	.3680	25/64	1.870	4.174
DH714015	15/64	.2344	1/4	1.181	3.228	DH714024	3/8	.3750	3/8	1.969	4.174
DH714016	1/4	.2500	1/4	1.279	3.465	DH463024	3/8	.3750	25/64	1.969	4.174
DH463016	1/4	.2500	17/64	1.279	3.465	DH463025	25/64	.3906	25/64	1.969	4.174
DH463206	F	.2570	17/64	1.279	3.465	DH714025	25/64	.3906	7/16	1.969	4.174
DH714206	F	.2570	5/16	1.279	3.465	DH463026	13/32	.4062	27/64	2.067	4.567
DH463017	17/64	.2656	17/64	1.378	3.465	DH714026	13/32	.4062	7/16	2.067	4.567
DH714017	17/64	.2656	5/16	1.378	3.465	DH463027	27/64	.4219	27/64	2.165	4.567
DH463209	I	.2720	.2720	1.378	3.465	DH714027	27/64	.4219	7/16	2.165	4.567
DH714209	I	.2720	5/16	1.378	3.465	DH714028	7/16	.4375	7/16	2.264	4.803
DH463018	9/32	.2812	5/16	1.476	3.701	DH463028	7/16	.4375	15/32	2.264	4.803
DH463019	19/64	.2969	5/16	1.476	3.701	DH463029	29/64	.4531	15/32	2.264	4.803

► Other shank types are available on your request.

► NEXT PAGE

P		H			M	K	N			S	
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
-HB225	HB225-325	HRc30-45	HRc45-55	HRc55-							
○	○	○			○		○				○

TiAIN-COATED SOLID CARBIDE DREAM DRILLS
INOX with Coolant Holes (3XD)

STUB
DH463 SERIES
DH714 SERIES

- ▶ Special flute shape and geometry suitable for machining stainless steel
- ▶ Excellent chip evacuation from better surface treatment
- ▶ Point R-thinning achieves superior centering and chip curling
- ▶ TiAIN coating for better surface finishes and longer tool life
- ▶ Tolerance : Dia. Tolerance ØD1 : See page 104
Shank Tolerance ØD2: -.0001 -.0005



3 × D

Unit : inch

EDP No.	Drill Diameter		Shank Diameter	Flute Length	Overall Length
	Fractional	Decimal			
TiAIN	D1		D2	L1	L2
DH714029	29/64	.4531	1/2	2.264	4.803
DH463030	15/32	.4688	15/32	2.362	4.803
DH714030	15/32	.4688	1/2	2.362	4.803
DH463031	31/64	.4844	1/2	2.461	5.039
DH463032	1/2	.5000	1/2	2.559	5.039
DH463033	33/64	.5156	35/64	2.657	5.276
DH714033	33/64	.5156	9/16	2.657	5.276
DH463034	17/32	.5312	35/64	2.756	5.276
DH714034	17/32	.5312	9/16	2.756	5.276

▶ Other shank types are available on your request.

Unit : inch

EDP No.	Drill Diameter		Shank Diameter	Flute Length	Overall Length
	Fractional	Decimal			
TiAIN	D1		D2	L1	L2
DH463035	35/64	.5469	35/64	2.756	5.276
DH714035	35/64	.5469	9/16	2.756	5.276
DH714036	9/16	.5625	9/16	2.854	5.512
DH463036	9/16	.5625	37/64	2.854	5.512
DH463037	37/64	.5781	37/64	2.953	5.512
DH714037	37/64	.5781	5/8	2.953	5.512
DH463038	19/32	.5937	5/8	3.051	5.709
DH463039	39/64	.6094	5/8	3.051	5.709
DH463040	5/8	.6250	5/8	3.150	5.709

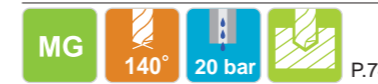
◎ : Excellent ○ : Good

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels	Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium	
-HB225	HB225-325	HRc30-45	HRc45-55	HRc55~							
◎	◎	○		◎		○				○	

TiAIN-COATED SOLID CARBIDE DREAM DRILLS
INOX with Coolant Holes (5XD)

LONG
DH464 SERIES
DH715 SERIES

- ▶ Special flute shape and geometry suitable for machining stainless steel
- ▶ Excellent chip evacuation from better surface treatment
- ▶ Point R-thinning achieves superior centering and chip curling
- ▶ TiAIN coating for better surface finishes and longer tool life
- ▶ Tolerance : Dia. Tolerance ØD1 : See page 104
Shank Tolerance ØD2: -.0001 -.0005



5 × D

Unit : inch

EDP No.	Drill Diameter		Shank Diameter	Flute Length	Overall Length
	Fractional	Decimal			
TiAIN	D1		D2	L1	L2
DH464013	13/64	.2031	15/64	1-3/4	3-15/16
DH715013	13/64	.2031	1/4	1-3/4	3-15/16
DH464014	7/32	.2188	15/64	1-57/64	3-15/16
DH715014	7/32	.2188	1/4	1-57/64	3-15/16
DH464015	15/64	.2344	15/64	1-57/64	3-15/16
DH715015	15/64	.2344	1/4	1-57/64	3-15/16
DH715016	1/4	.2500	1/4	2-3/64	4-19/64
DH464016	1/4	.2500	17/64	2-3/64	4-19/64
DH464206	F	.2570	17/64	2-13/64	4-19/64
DH715206	F	.2570	5/16	2-13/64	4-19/64
DH464017	17/64	.2656	17/64	2-13/64	4-19/64
DH715017	17/64	.2656	5/16	2-13/64	4-19/64
DH464209	I	.2720	.2720	2-13/64	4-19/64
DH715209	I	.2720	5/16	2-13/64	4-19/64
DH464018	9/32	.2812	5/16	2-23/64	4-41/64
DH464019	19/64	.2969	5/16	2-33/64	4-41/64
DH464020	5/16	.3125	5/16	2-33/64	4-41/64
DH464021	21/64	.3281	11/32	2-43/64	5
DH715021	21/64	.3281	3/8	2-43/64	5
DH464217	Q	.3320	11/32	2-43/64	5
DH715217	Q	.3320	3/8	2-43/64	5
DH464022	11/32	.3438	11/32	2-27/32	5

▶ Other shank types are available on your request.

◎ : Excellent ○ : Good

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels	Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium	
-HB225	HB225-325	HRc30-45	HRc45-55	HRc55~							
◎	◎	○		◎		○				○	

TiAlN-COATED SOLID CARBIDE DREAM DRILLS INOX with Coolant Holes (3XD)

SHORT

DH451 SERIES

- ▶ Special flute shape and geometry suitable for machining stainless steel
- ▶ Excellent chip evacuation from better surface treatment
- ▶ Point R-thinning achieves superior centering and chip curling
- ▶ TiAlN coating for better surface finishes and longer tool life



3 × D

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Fractional	Decimal			
TiAlN	D1			D2	L1	L2
DH451030	3.0		.1181	6	20	62
DH451031	3.1		.1220	6	20	62
DH451008F	3.175	1/8	.1250	6	20	62
DH451032	3.2		.1260	6	20	62
DH451033	3.3		.1299	6	20	62
DH451034	3.4		.1339	6	20	62
DH451035	3.5		.1378	6	20	62
DH451009F	3.572	9/64	.1406	6	20	62
DH451036	3.6		.1417	6	20	62
DH451037	3.7		.1457	6	20	62
DH451038	3.8		.1496	6	24	66
DH451039	3.9		.1535	6	24	66
DH451010F	3.969	5/32	.1563	6	24	66
DH451040	4.0		.1575	6	24	66
DH451041	4.1		.1614	6	24	66
DH451042	4.2		.1654	6	24	66
DH451043	4.3		.1693	6	24	66
DH451011F	4.366	11/64	.1719	6	24	66
DH451044	4.4		.1732	6	24	66
DH451045	4.5		.1772	6	24	66
DH451046	4.6		.1811	6	24	66
DH451047	4.7		.1850	6	24	66
DH451012F	4.763	3/16	.1875	6	24	66
DH451048	4.8		.1890	6	28	66

▶ Other shank types are available on your request.

▶ NEXT PAGE

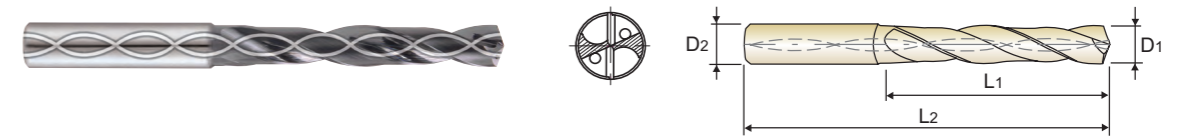
P					H	M	K	N			S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
-HB225	HB225-325	HRc30-45	HRc45-55	HRc55~							
◎	◎	○			◎						○

TiAlN-COATED SOLID CARBIDE DREAM DRILLS INOX with Coolant Holes (3XD)

SHORT

DH451 SERIES

- ▶ Special flute shape and geometry suitable for machining stainless steel
- ▶ Excellent chip evacuation from better surface treatment
- ▶ Point R-thinning achieves superior centering and chip curling
- ▶ TiAlN coating for better surface finishes and longer tool life



3 × D

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Fractional	Decimal			
TiAlN	D1			D2	L1	L2
DH451017F	6.747	17/64	.2656	8	34	79
DH451068	6.8		.2677	8	34	79
DH451069	6.9		.2717	8	34	79
DH451009L	6.909	I	.2720	8	34	79
DH451070	7.0		.2756	8	34	79
DH451071	7.1		.2795	8	41	79
DH451018F	7.144	9/32	.2812	8	41	79
DH451072	7.2		.2835	8	41	79
DH451073	7.3		.2874	8	41	79
DH451074	7.4		.2913	8	41	79
DH451075	7.5		.2953	8	41	79
DH451019F	7.541	19/64	.2969	8	41	79
DH451076	7.6		.2992	8	41	79
DH451077	7.7		.3031	8	41	79
DH451078	7.8		.3071	8	41	79
DH451079	7.9		.3110	8	41	79
DH451020F	7.938	5/16	.3125	8	41	79
DH451080	8.0		.3150	8	41	79
DH451081	8.1		.3189	10	47	89
DH451082	8.2		.3228	10	47	89
DH451083	8.3		.3268	10	47	89
DH451021F	8.334	21/64	.3281	10	47	89
DH451084	8.4		.3307	10	47	89
DH451017L	8.433	Q	.3320	10	47	89

▶ Other shank types are available on your request.

▶ NEXT PAGE

P					H	M	K	N			S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
-HB225	HB225-325	HRc30-45	HRc45-55	HRc55~							
◎	◎	○			◎						○

TiAIN-COATED SOLID CARBIDE DREAM DRILLS INOX with Coolant Holes (3XD)

SHORT

DH451 SERIES

- ▶ Special flute shape and geometry suitable for machining stainless steel
- ▶ Excellent chip evacuation from better surface treatment
- ▶ Point R-thinning achieves superior centering and chip curling
- ▶ TiAIN coating for better surface finishes and longer tool life



3 × D

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Fractional	Decimal			
TiAIN	D1			D2	L1	L2
DH451026F	10.319	13/32	.4062	12	55	102
DH451104	10.4		.4094	12	55	102
DH451105	10.5		.4134	12	55	102
DH451106	10.6		.4173	12	55	102
DH451107	10.7		.4212	12	55	102
DH451027F	10.716	27/64	.4219	12	55	102
DH451108	10.8		.4252	12	55	102
DH451109	10.9		.4291	12	55	102
DH451110	11.0		.4330	12	55	102
DH451111	11.1		.4370	12	55	102
DH451028F	11.113	7/16	.4375	12	55	102
DH451112	11.2		.4409	12	55	102
DH451113	11.3		.4448	12	55	102
DH451114	11.4		.4488	12	55	102
DH451115	11.5		.4527	12	55	102
DH451029F	11.509	29/64	.4531	12	55	102
DH451116	11.6		.4566	12	55	102
DH451117	11.7		.4606	12	55	102
DH451118	11.8		.4645	12	55	102
DH451119	11.9		.4685	12	55	102
DH451030F	11.906	15/32	.4688	12	55	102
DH451120	12.0		.4724	12	55	102
DH451121	12.1		.4764	14	60	107
DH451122	12.2		.4803	14	60	107

Unit : mm

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Fractional	Decimal			
TiAIN	D1			D2	L1	L2
DH451123	12.3		.4843	14	60	107
DH451031F	12.303	31/64	.4844	14	60	107
DH451124	12.4		.4882	14	60	107
DH451125	12.5		.4921	14	60	107
DH451126	12.6		.4961	14	60	107
DH451032F	12.7	1/2	.5000	14	60	107
DH451128	12.8		.5039	14	60	107
DH451129	12.9		.5079	14	60	107
DH451130	13.0		.5118	14	60	107
DH451131	13.1		.5157	14	60	107
DH451132	13.2		.5197	14	60	107
DH451133	13.3		.5236	14	60	107
DH451134	13.4		.5276	14	60	107
DH451135	13.5		.5314	14	60	107
DH451136	13.6		.5354	14	60	107
DH451137	13.7		.5394	14	60	107
DH451138	13.8		.5433	14	60	107
DH451139	13.9		.5472	14	60	107
DH451140	14.0		.5512	14	60	107
DH451141	14.1		.5551	16	65	115
DH451142	14.2		.5591	16	65	115
DH451036F	14.288	9/16	.5625	16	65	115
DH451143	14.3		.5630	16	65	115
DH451144	14.4		.5669	16	65	115

▶ Other shank types are available on your request.

▶ NEXT PAGE

P				H	M	K	N			S	
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
-HB225	HB225-325	HRc30-45	HRc45-55	HRc55-							
○	○	○			○		○				○

○ : Excellent ○ : Good

TiAIN-COATED SOLID CARBIDE DREAM DRILLS INOX with Coolant Holes (3XD)

SHORT

DH451 SERIES

- ▶ Special flute shape and geometry suitable for machining stainless steel
- ▶ Excellent chip evacuation from better surface treatment
- ▶ Point R-thinning achieves superior centering and chip curling
- ▶ TiAIN coating for better surface finishes and longer tool life



3 × D

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Fractional	Decimal			
TiAIN	D1			D2	L1	L2
DH451145	14.5		.5708	16	65	115
DH451146	14.6		.5748	16	65	115
DH451147	14.7		.5787	16	65	115
DH451148	14.8		.5827	16	65	115
DH451149	14.9		.5866	16	65	115
DH451150	15.0		.5905	16	65	115
DH451151	15.1		.5945	16	65	115
DH451152	15.2		.5984	16	65	115
DH451153	15.3		.6024	16	65	115
DH451154	15.4		.6063	16	65	115
DH451155	15.5		.6102	16	65	115
DH451156	15.6		.6142	16	65	115
DH451157	15.7		.6181	16	65	115
DH451158	15.8		.6220	16	65	115
DH451040F	15.875	5/8	.6250	16	65	115
DH451159	15.9		.6260	16	65	115
DH451160	16.0		.6299	16	65	115
DH451161	16.1		.6339	18	73	123
DH451162	16.2		.6378	18	73	123
DH451163	16.3		.6417	18	73	123
DH451164	16.4		.6457	18	73	123
DH451165	16.5		.6495	18	73	123
DH451166	16.6		.6535	18	73	123
DH451167	16.7		.6575	18	73	123

Unit : mm

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Fractional	Decimal			
TiAIN	D1			D2	L1	L2
DH451168	16.8		.6614	18	73	123
DH451169	16.9		.6654	18	73	123
DH451170	17.0		.6692	18	73	123
DH451171	17.1		.6732	18	73	123
DH451172	17.2		.6772	18	73	123
DH451173	17.3		.6811	18	73	123
DH451174	17.4		.6850	18	73	123
DH451044F	17.463	11/16	.6875	18	73	123
DH451175	17.5		.6889	18	73	123
DH451176	17.6		.6929	18	73	123
DH451177	17.7		.6968	18	73	123
DH451178	17.8		.7008	18	73	123
DH451179	17.9		.7047	18	73	123
DH451180	18.0		.7087	18	73	123
DH451181	18.1		.7126	20	79	131
DH451182	18.2		.7165	20	79	131
DH451183	18.3		.7205	20	79	131
DH451184	18.4		.7244	20	79	131
DH451185	18.5		.7283	20	79	131
DH451186	18.6		.7323	20	79	131
DH451187	18.7		.7362	20	79	131
DH451188	18.8		.7402	20	79	131
DH451189	18.9		.7441	20	79	131
DH451190	19.0		.7480	20	79	131

▶ Other shank types are available on your request.

▶ NEXT PAGE

P				H	M	K	N			S	
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
-HB225	HB225-325	HRc30-45	HRc45-55	HRc55-							
○	○	○			○		○				○

○ : Excellent ○ : Good

TiAIN-COATED SOLID CARBIDE DREAM DRILLS INOX with Coolant Holes (3XD)

SHORT

DH451 SERIES

- ▶ Special flute shape and geometry suitable for machining stainless steel
- ▶ Excellent chip evacuation from better surface treatment
- ▶ Point R-thinning achieves superior centering and chip curling
- ▶ TiAIN coating for better surface finishes and longer tool life


3 × D

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Fractional	Decimal			
TiAIN	D1			D2	L1	L2
DH451048F	19.050	3/4	.7500	20	79	131
DH451191	19.1		.7520	20	79	131
DH451192	19.2		.7559	20	79	131
DH451193	19.3		.7598	20	79	131
DH451194	19.4		.7638	20	79	131
DH451195	19.5		.7676	20	79	131

▶ Other shank types are available on your request.

Unit : mm

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Fractional	Decimal			
TiAIN	D1			D2	L1	L2
DH451196	19.6		.7717	20	79	131
DH451197	19.7		.7756	20	79	131
DH451198	19.8		.7795	20	79	131
DH451199	19.9		.7835	20	79	131
DH451200	20.0		.7874	20	79	131

◎ : Excellent ○ : Good

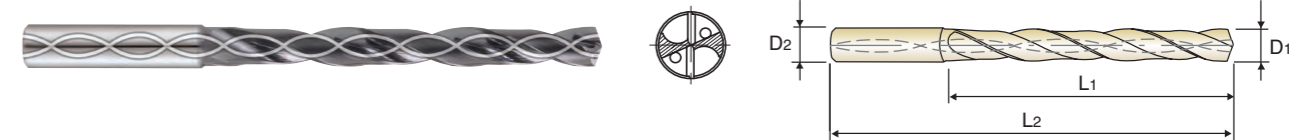
P				H		M	K	N			S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels	Stainless Steels		Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
-HB225	HB225-325	HRc30-45	HRc45-55	HRc55~							
◎	◎	○			◎		○				○

TiAIN-COATED SOLID CARBIDE DREAM DRILLS INOX with Coolant Holes (5XD)

LONG

DH452 SERIES

- ▶ Special flute shape and geometry suitable for machining stainless steel
- ▶ Excellent chip evacuation from better surface treatment
- ▶ Point R-thinning achieves superior centering and chip curling
- ▶ TiAIN coating for better surface finishes and longer tool life


5 × D

Unit : mm

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Fractional	Decimal			
TiAIN	D1			D2	L1	L2
DH452010	1.0		.0394	3	8	55
DH452011	1.1		.0433	3	12	55
DH452012	1.2		.0472	3	12	55
DH452013	1.3		.0512	3	12	55
DH452014	1.4		.0551	3	12	55
DH452015	1.5		.0591	3	16	55
DH452004F	1.588	1/16	.0625	3	16	55
DH452016	1.6		.0630	3	16	55
DH452017	1.7		.0669	3	16	55
DH452018	1.8		.0709	3	16	55
DH452019	1.9		.0748	3	16	55
DH452005F	1.984	5/64	.0781	3	16	55
DH452020	2.0		.0787	4	21	57
DH452021	2.1		.0827	4	21	57
DH452022	2.2		.0866	4	21	57
DH452023	2.3		.0906	4	21	57
DH452006F	2.381	3/32	.0938	4	21	57
DH452024	2.4		.0945	4	21	57
DH452025	2.5		.0984	4	21	57
DH452026	2.6		.1024	4	21	57
DH452027	2.7		.1063	4	21	57
DH452007F	2.778	7/64	.1094	4	21	57
DH452028	2.8		.1102	4	21	57
DH452029	2.9		.1142	4	21	57
DH452030	3.0		.1181	6	28	66
DH452031	3.1		.1220	6	28	66

▶ Other shank types are available on your request.

◎ : Excellent ○ : Good

P				H		M	K	N			S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels	Stainless Steels		Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
-HB225	HB225-325	HRc30-45	HRc45-55	HRc55~							
◎	◎	○			◎		○				○

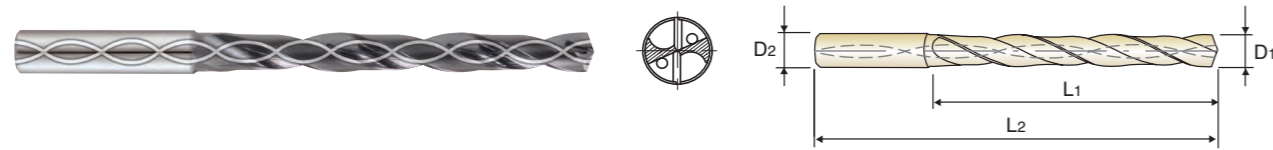
▶ NEXT PAGE

TiAIN-COATED SOLID CARBIDE DREAM DRILLS INOX with Coolant Holes (5XD)

LONG

DH452 SERIES

- ▶ Special flute shape and geometry suitable for machining stainless steel
- ▶ Excellent chip evacuation from better surface treatment
- ▶ Point R-thinning achieves superior centering and chip curling
- ▶ TiAIN coating for better surface finishes and longer tool life



5 × D

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Fractional	Decimal			
TiAIN	D1			D2	L1	L2
DH452052	5.2		.2047	6	44	82
DH452053	5.3		.2087	6	44	82
DH452054	5.4		.2126	6	44	82
DH452055	5.5		.2165	6	44	82
DH452014F	5.556	7/32	.2188	6	44	82
DH452056	5.6		.2205	6	44	82
DH452057	5.7		.2244	6	44	82
DH452058	5.8		.2283	6	44	82
DH452059	5.9		.2323	6	44	82
DH452015F	5.953	15/64	.2344	6	44	82
DH452060	6.0		.2362	6	44	82
DH452061	6.1		.2402	8	53	91
DH452062	6.2		.2441	8	53	91
DH452063	6.3		.2480	8	53	91
DH452016F	6.350	1/4	.2500	8	53	91
DH452064	6.4		.2520	8	53	91
DH452065	6.5		.2559	8	53	91
DH452006L	6.528	F	.2570	8	53	91
DH452066	6.6		.2598	8	53	91
DH452067	6.7		.2638	8	53	91
DH452017F	6.747	17/64	.2656	8	53	91
DH452068	6.8		.2677	8	53	91
DH452069	6.9		.2717	8	53	91
DH452009L	6.909	I	.2720	8	53	91
DH452070	7.0		.2756	8	53	91
DH452071	7.1		.2795	8	53	91

▶ Other shank types are available on your request.

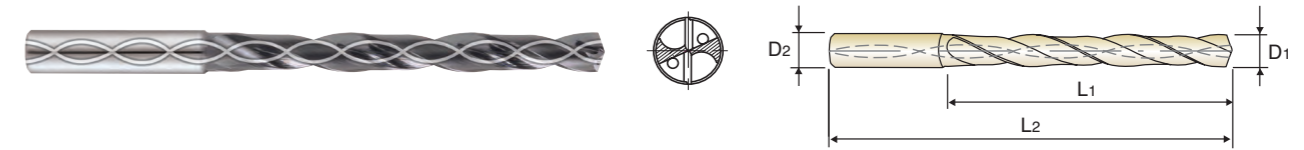
P		H		M	K	N			S	
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels	Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
-HB225	HB225-325	HRc30-45	HRc45-55	HRc55-						
○	○	○		○		○				○

TiAIN-COATED SOLID CARBIDE DREAM DRILLS INOX with Coolant Holes (5XD)

LONG

DH452 SERIES

- ▶ Special flute shape and geometry suitable for machining stainless steel
- ▶ Excellent chip evacuation from better surface treatment
- ▶ Point R-thinning achieves superior centering and chip curling
- ▶ TiAIN coating for better surface finishes and longer tool life



5 × D

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Fractional	Decimal			
TiAIN	D1			D2	L1	L2
DH452023F	9.128	23/64	.3594	10	61	103
DH452092	9.2		.3622	10	61	103
DH452093	9.3		.3661	10	61	103
DH452021L	9.347	U	.3680	10	61	103
DH452094	9.4		.3701	10	61	103
DH452095	9.5		.3740	10	61	103
DH452024F	9.525	3/8	.3750	10	61	103
DH452096	9.6		.3780	10	61	103
DH452097	9.7		.3819	10	61	103
DH452098	9.8		.3858	10	61	103
DH452099	9.9		.3898	10	61	103
DH452025F	9.922	25/64	.3906	10	61	103
DH452100	10.0		.3937	10	61	103
DH452101	10.1		.3976	12	71	118
DH452102	10.2		.4016	12	71	118
DH452103	10.3		.4055	12	71	118
DH452026F	10.319	13/32	.4062	12	71	118
DH452104	10.4		.4094	12	71	118
DH452105	10.5		.4134	12	71	118
DH452106	10.6		.4173	12	71	118
DH452107	10.7		.4212	12	71	118
DH452027F	10.716	27/64	.4219	12	71	118
DH452108	10.8		.4252	12	71	118
DH452109	10.9		.4291	12	71	118
DH452110	11.0		.4330	12	71	118
DH452111	11.1		.4370	12	71	118

▶ Other shank types are available on your request.

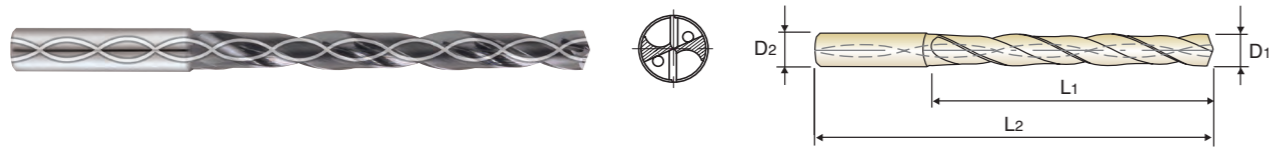
P		H		M	K	N			S	
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels	Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
-HB225	HB225-325	HRc30-45	HRc45-55	HRc55-						
○	○	○		○		○				○

TiAIN-COATED SOLID CARBIDE DREAM DRILLS INOX with Coolant Holes (5XD)

LONG

DH452 SERIES

- ▶ Special flute shape and geometry suitable for machining stainless steel
- ▶ Excellent chip evacuation from better surface treatment
- ▶ Point R-thinning achieves superior centering and chip curling
- ▶ TiAIN coating for better surface finishes and longer tool life



5 × D

EDP No.	Drill Diameter			Shank Diameter D2	Flute Length L1	Overall Length L2
	Metric	Fractional	Decimal			
TiAIN	D1					
DH452134	13.4		.5276	14	77	124
DH452135	13.5		.5314	14	77	124
DH452136	13.6		.5354	14	77	124
DH452137	13.7		.5394	14	77	124
DH452138	13.8		.5433	14	77	124
DH452139	13.9		.5472	14	77	124
DH452140	14.0		.5512	14	77	124
DH452141	14.1		.5551	16	83	133
DH452142	14.2		.5591	16	83	133
DH452036F	14.288	9/16	.5625	16	83	133
DH452143	14.3		.5630	16	83	133
DH452144	14.4		.5669	16	83	133
DH452145	14.5		.5708	16	83	133
DH452146	14.6		.5748	16	83	133
DH452147	14.7		.5787	16	83	133
DH452148	14.8		.5827	16	83	133
DH452149	14.9		.5866	16	83	133
DH452150	15.0		.5905	16	83	133
DH452151	15.1		.5945	16	83	133
DH452152	15.2		.5984	16	83	133
DH452153	15.3		.6024	16	83	133
DH452154	15.4		.6063	16	83	133
DH452155	15.5		.6102	16	83	133
DH452156	15.6		.6142	16	83	133
DH452157	15.7		.6181	16	83	133
DH452158	15.8		.6220	16	83	133

▶ Other shank types are available on your request.

▶ NEXT PAGE

⊙ : Excellent ○ : Good

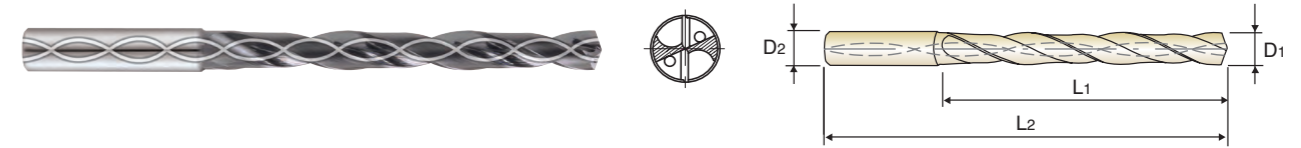
P				H	M	K	N			S	
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
-HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
⊙	⊙	○			⊙		○				○

TiAIN-COATED SOLID CARBIDE DREAM DRILLS INOX with Coolant Holes (5XD)

LONG

DH452 SERIES

- ▶ Special flute shape and geometry suitable for machining stainless steel
- ▶ Excellent chip evacuation from better surface treatment
- ▶ Point R-thinning achieves superior centering and chip curling
- ▶ TiAIN coating for better surface finishes and longer tool life



5 × D

EDP No.	Drill Diameter			Shank Diameter D2	Flute Length L1	Overall Length L2
	Metric	Fractional	Decimal			
TiAIN	D1					
DH452184	18.4		.7244	20	101	153
DH452185	18.5		.7283	20	101	153
DH452186	18.6		.7323	20	101	151
DH452187	18.7		.7362	20	101	153
DH452188	18.8		.7402	20	101	153
DH452189	18.9		.7441	20	101	153
DH452190	19.0		.7480	20	101	153
DH452048F	19.050	3/4	.7500	20	101	153
DH452191	19.1		.7520	20	101	151

▶ Other shank types are available on your request.

EDP No.	Drill Diameter			Shank Diameter D2	Flute Length L1	Overall Length L2
	Metric	Fractional	Decimal			
TiAIN	D1					
DH452192	19.2		.7559	20	101	151
DH452193	19.3		.7598	20	101	151
DH452194	19.4		.7638	20	101	151
DH452195	19.5		.7676	20	101	153
DH452196	19.6		.7717	20	101	151
DH452197	19.7		.7756	20	101	151
DH452198	19.8		.7795	20	101	153
DH452199	19.9		.7835	20	101	151
DH452200	20.0		.7874	20	101	153

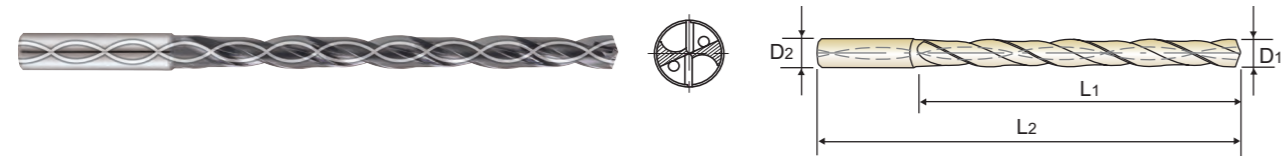
⊙ : Excellent ○ : Good

P				H	M	K	N			S	
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
-HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
⊙	⊙	○			⊙		○				○

TiAIN-COATED SOLID CARBIDE DREAM DRILLS INOX with Coolant Holes (8XD)

EXTRA LONG DH453 SERIES

- ▶ Special flute shape and geometry suitable for machining stainless steel
- ▶ Excellent chip evacuation from better surface treatment
- ▶ Point R-thinning achieves superior centering and chip curling



8 × D

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Fractional	Decimal			
TiAIN	D1			D2	L1	L2
DH453030	3.0		.1181	6	34	72
DH453031	3.1		.1220	6	34	72
DH453008F	3.175	1/8	.1250	6	34	72
DH453032	3.2		.1260	6	34	72
DH453033	3.3		.1299	6	34	72
DH453034	3.4		.1339	6	34	72
DH453229G	3.454	#29	.1360	6	34	72
DH453035	3.5		.1378	6	34	72
DH453009F	3.572	9/64	.1406	6	34	72
DH453036	3.6		.1417	6	34	72
DH453037	3.7		.1457	6	34	72
DH453038	3.8		.1496	6	43	81
DH453039	3.9		.1535	6	43	81
DH453010F	3.969	5/32	.1563	6	43	81
DH453040	4.0		.1575	6	43	81
DH453221G	4.038	#21	.1590	6	43	81
DH453041	4.1		.1614	6	43	81
DH453042	4.2		.1654	6	43	81
DH453043	4.3		.1693	6	43	81
DH453011F	4.366	11/64	.1719	6	43	81
DH453044	4.4		.1732	6	43	81
DH453045	4.5		.1772	6	43	81
DH453046	4.6		.1811	6	43	81
DH453047	4.7		.1850	6	43	81
DH453012F	4.763	3/16	.1875	6	57	95
DH453048	4.8		.1890	6	57	95

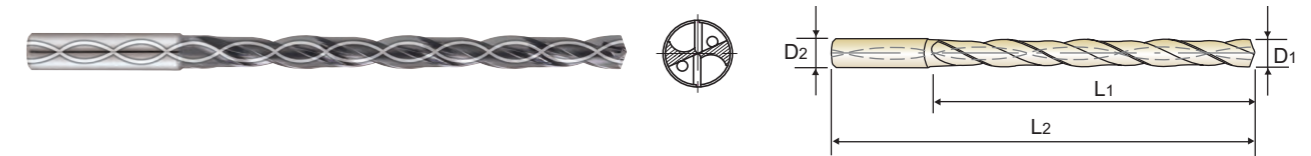
▶ Other shank types are available on your request.

P				H		M	K	N			S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
-HB225	HB225-325	HRc30-45	HRc45-55	HRc55-							
⊙	⊙	○			⊙						○

TiAIN-COATED SOLID CARBIDE DREAM DRILLS INOX with Coolant Holes (8XD)

EXTRA LONG DH453 SERIES

- ▶ Special flute shape and geometry suitable for machining stainless steel
- ▶ Excellent chip evacuation from better surface treatment
- ▶ Point R-thinning achieves superior centering and chip curling
- ▶ TiAIN coating for better surface finishes and longer tool life



8 × D

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Fractional	Decimal			
TiAIN	D1			D2	L1	L2
DH453069	6.9		.2717	8	76	114
DH453009L	6.909	I	.2720	8	76	114
DH453070	7.0		.2756	8	76	114
DH453071	7.1		.2795	8	76	114
DH453018F	7.144	9/32	.2813	8	76	114
DH453072	7.2		.2835	8	76	114
DH453073	7.3		.2874	8	76	114
DH453074	7.4		.2913	8	76	114
DH453075	7.5		.2953	8	76	114
DH453019F	7.541	19/64	.2969	8	76	114
DH453076	7.6		.2992	8	76	114
DH453077	7.7		.3031	8	76	114
DH453078	7.8		.3071	8	76	114
DH453079	7.9		.3110	8	76	114
DH453020F	7.938	5/16	.3125	8	76	114
DH453080	8.0		.3150	8	76	114
DH453081	8.1		.3189	10	95	142
DH453082	8.2		.3228	10	95	142
DH453083	8.3		.3268	10	95	142
DH453021F	8.334	21/64	.3281	10	95	142
DH453084	8.4		.3307	10	95	142
DH453117L	8.432	Q	.3320	10	95	142
DH453085	8.5		.3346	10	95	142
DH453086	8.6		.3386	10	95	142
DH453087	8.7		.3425	10	95	142
DH453022F	8.731	11/32	.3438	10	95	142

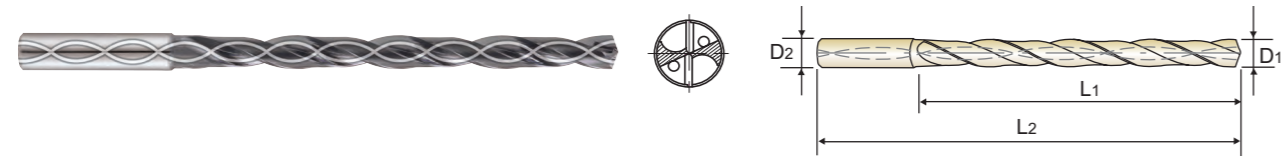
▶ Other shank types are available on your request.

P				H		M	K	N			S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
-HB225	HB225-325	HRc30-45	HRc45-55	HRc55-							
⊙	⊙	○			⊙						○

TiAIN-COATED SOLID CARBIDE DREAM DRILLS INOX with Coolant Holes (8XD)

EXTRA LONG DH453 SERIES

- ▶ Special flute shape and geometry suitable for machining stainless steel
- ▶ Excellent chip evacuation from better surface treatment
- ▶ Point R-thinning achieves superior centering and chip curling
- ▶ TiAIN coating for better surface finishes and longer tool life



8 × D

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Fractional	Decimal			
TiAIN	D1			D2	L1	L2
DH453108	10.8		.4252	12	114	162
DH453109	10.9		.4291	12	114	162
DH453110	11.0		.4330	12	114	162
DH453111	11.1		.4370	12	114	162
DH453028F	11.113	7/16	.4375	12	114	162
DH453112	11.2		.4409	12	114	162
DH453113	11.3		.4448	12	114	162
DH453114	11.4		.4488	12	114	162
DH453115	11.5		.4527	12	114	162
DH453029F	11.509	29/64	.4531	12	114	162
DH453116	11.6		.4566	12	114	162
DH453117	11.7		.4606	12	114	162
DH453118	11.8		.4645	12	114	162
DH453119	11.9		.4685	12	114	162
DH453030F	11.906	15/32	.4688	12	114	162
DH453120	12.0		.4724	12	114	162
DH453121	12.1		.4764	14	133	178
DH453122	12.2		.4803	14	133	178
DH453123	12.3		.4843	14	133	178
DH453031F	12.303	31/64	.4844	14	133	178
DH453124	12.4		.4882	14	133	178
DH453125	12.5		.4921	14	133	178
DH453126	12.6		.4961	14	133	178
DH453032F	12.7	1/2	.5000	14	133	178
DH453128	12.8		.5039	14	133	178
DH453129	12.9		.5079	14	133	178

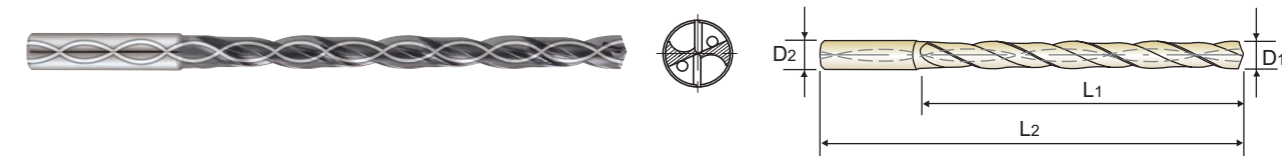
▶ Other shank types are available on your request.

P					H	M	K	N			S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
-HB225	HB225-325	HRc30-45	HRc45-55	HRc55-							
⊙	⊙	○			⊙						○

TiAIN-COATED SOLID CARBIDE DREAM DRILLS INOX with Coolant Holes (8XD)

EXTRA LONG DH453 SERIES

- ▶ Special flute shape and geometry suitable for machining stainless steel
- ▶ Excellent chip evacuation from better surface treatment
- ▶ Point R-thinning achieves superior centering and chip curling
- ▶ TiAIN coating for better surface finishes and longer tool life



8 × D

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Fractional	Decimal			
TiAIN	D1			D2	L1	L2
DH453154	15.4		.6063	16	152	203
DH453155	15.5		.6102	16	152	203
DH453156	15.6		.6142	16	152	203
DH453157	15.7		.6181	16	152	203
DH453158	15.8		.6220	16	152	203
DH453040F	15.875	5/8	.6250	16	152	203
DH453159	15.9		.6260	16	152	203
DH453160	16.0		.6299	16	152	203
DH453161	16.1		.6339	18	171	222
DH453162	16.2		.6378	18	171	222
DH453163	16.3		.6417	18	171	222
DH453164	16.4		.6457	18	171	222
DH453165	16.5		.6496	18	171	222
DH453166	16.6		.6535	18	171	222
DH453167	16.7		.6575	18	171	222
DH453168	16.8		.6614	18	171	222
DH453169	16.9		.6654	18	171	222
DH453170	17.0		.6693	18	171	222
DH453171	17.1		.6732	18	171	222
DH453172	17.2		.6772	18	171	222
DH453173	17.3		.6811	18	171	222
DH453174	17.4		.6850	18	171	222
DH453175	17.5		.6890	18	171	222
DH453176	17.6		.6929	18	171	222
DH453177	17.7		.6968	18	171	222

▶ Other shank types are available on your request.

P					H	M	K	N			S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
-HB225	HB225-325	HRc30-45	HRc45-55	HRc55-							
⊙	⊙	○			⊙						○

TiAIN-COATED SOLID CARBIDE DREAM DRILLS
INOX with Coolant Holes

DH451 | DH463 | DH714 | DH452 | DH464 | DH715 | DH453 SERIES

WORK MATERIAL			P			M						N		
			CARBON STEELS ALLOY STEELS			STAINLESS STEELS			STAINLESS STEELS			ALUMINUM		
STRENGTH						< 800 N/mm ²			> 800 N/mm ²			< 10% Si		
DRILLING SPEED(SFM)			260 ~ 410 ft/min			120 ~ 230 ft/min			60 ~ 140 ft/min			490 ~ 720 ft/min		
DIAMETER			RPM	FEED	IPR	RPM	FEED	IPR	RPM	FEED	IPR	RPM	FEED	IPR
Metric(mm)	Decimal	Fractional												
1.0	.0394		26000	0.02	.001	12000	0.02	.001	6200	0.02	.001	48000	0.04	.002
1.5	.0591		18000	0.03	.001	9000	0.03	.001	5400	0.02	.001	43000	0.05	.002
2.5	.0984		10800	0.05	.002	7000	0.04	.002	4200	0.03	.001	25500	0.08	.003
3.0	.1181	1/8	13000	0.04	.002	7400	0.04	.002	4700	0.02	.001	23000	0.12	.005
4.0	.1575	5/32	10000	0.05	.002	5600	0.05	.002	3600	0.03	.001	17500	0.18	.007
5.0	.1969	13/64	8000	0.05	.002	4400	0.05	.002	2800	0.03	.001	14000	0.20	.008
6.0	.2362	15/64	6600	0.06	.002	3700	0.06	.002	2400	0.04	.002	11700	0.25	.010
8.0	.3150	5/16	5000	0.08	.003	2800	0.08	.003	1800	0.06	.002	8800	0.30	.012
10.0	.3937	25/64	4000	0.10	.004	2200	0.10	.004	1400	0.08	.003	7000	0.40	.016
12.0	.4724	15/32	3300	0.12	.005	1900	0.12	.005	1200	0.10	.004	5800	0.50	.020
14.0	.5512	35/64	2800	0.15	.006	1600	0.15	.006	1000	0.12	.005	5000	0.60	.024
16.0	.6299	5/8	2500	0.20	.008	1400	0.20	.008	900	0.15	.006	4380	0.80	.031
18.0	.7087	45/64	2200	0.22	.009	1250	0.22	.009	800	0.17	.007	3900	1.00	.039
20.0	.7874	25/32	2000	0.24	.009	1120	0.24	.009	720	0.19	.007	3500	1.20	.047

WORK MATERIAL			N						S		
			ALUMINUM			NON FERROUS			TITANIUM TITANIUM ALLOYS		
STRENGTH			< 10% Si								
DRILLING SPEED(SFM)			390 ~ 570 ft/min			390 ~ 490 ft/min			80 ~ 160 ft/min		
DIAMETER			RPM	FEED	IPR	RPM	FEED	IPR	RPM	FEED	IPR
Metric(mm)	Decimal	Fractional									
1.0	.0394		38000	0.03	.001	38000	0.02	.001	8100	0.01	.0004
1.5	.0591		32000	0.04	.002	25500	0.03	.001	7500	0.01	.0004
2.5	.0984		19500	0.06	.002	15500	0.05	.002	4500	0.02	.001
3.0	.1181	1/8	18500	0.10	.004	16000	0.08	.003	5300	0.03	.001
4.0	.1575	5/32	13900	0.15	.006	11900	0.10	.004	4000	0.04	.002
5.0	.1969	13/64	11000	0.18	.007	9500	0.12	.005	3200	0.05	.002
6.0	.2362	15/64	9300	0.25	.010	8000	0.15	.006	2650	0.06	.002
8.0	.3150	5/16	7000	0.30	.012	6000	0.18	.007	2000	0.07	.003
10.0	.3937	25/64	5600	0.35	.014	4800	0.22	.009	1600	0.08	.003
12.0	.4724	15/32	4600	0.40	.016	4000	0.26	.010	1300	0.10	.004
14.0	.5512	35/64	4000	0.50	.020	3400	0.30	.012	1100	0.12	.005
16.0	.6299	5/8	3500	0.60	.024	3000	0.40	.016	1000	0.14	.006
18.0	.7087	45/64	3100	0.70	.028	2650	0.45	.018	900	0.16	.006
20.0	.7874	25/32	2800	0.80	.031	2400	0.50	.020	800	0.18	.007

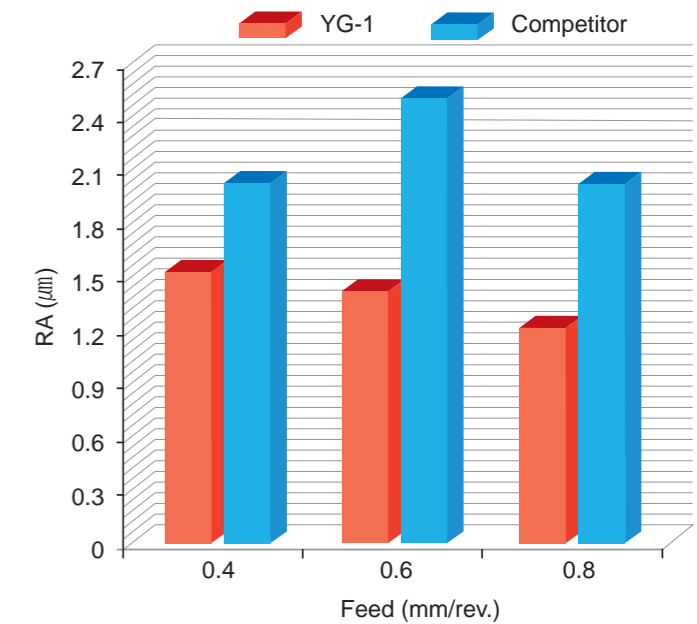
► Recommend to reduce the feed rate as following
 DH463/DH714/DH451(3xD), DH464/DH714/DH452(5xD) : Feed 100%
 DH453(8xD) : Feed 85%

RPM = rev./min.
 FEED = mm/rev.
 IPR = inch/rev

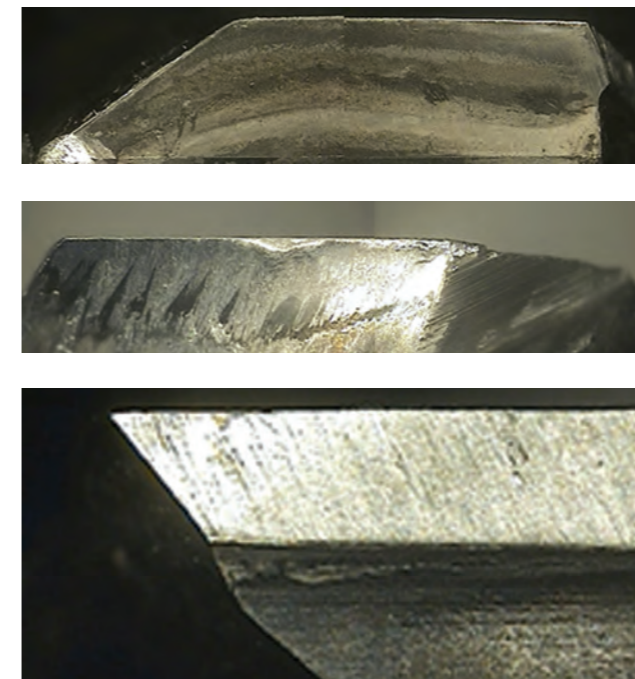
CASE STUDY

► SOLID CARBIDE DREAM DRILLS - ALU with Coolant Holes

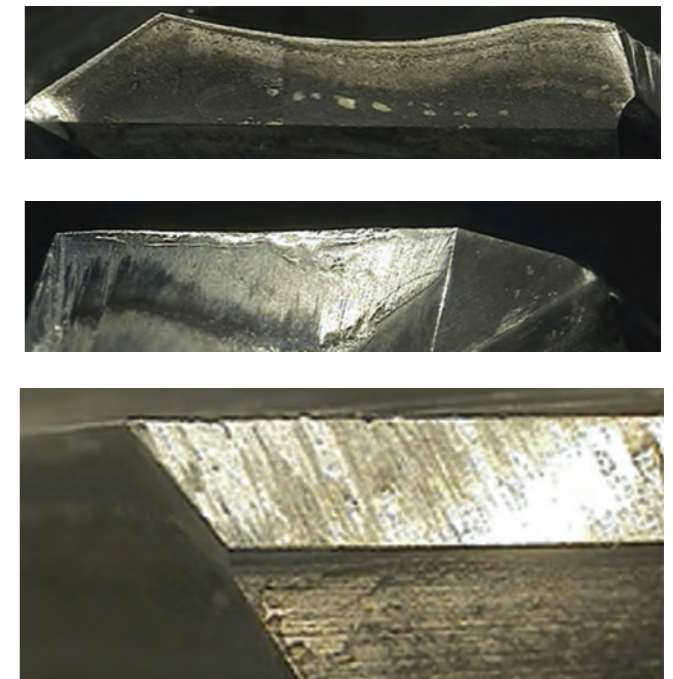
CUTTING CONDITION	
Tool	D5433100 (Dream Drills-Alu)
Size	Ø10.0xØ10x61x103
Work Material	• AISI : 6061 • JIS : A6061 • DIN : AlMgSiCu
RPM	6,367 rev./min.
Feed	.0157 ~ .0315 inch/rev.
SFM	656 ft/min.
Drilling Depth	1.77"
Coolant	Wet cut



► YG-1 (Total Drilling 820 Holes)



► Competitor (Total Drilling 820 Holes)



**DLC-COATED SOLID CARBIDE DREAM DRILLS
ALU with Coolant Holes (5XD)**

- ▶ Optimized thinning for Aluminum & Aluminum Alloys to prevent any clogging from chip welding
- ▶ Wider and deeper flute gullets for maximum chip removal
- ▶ Special geometry and smooth coating reduces built up edge and improves finishes
- ▶ Tolerance : Dia. Tolerance ØD1 : See page 104
Shank Tolerance ØD2: -.0001 -.0005

LONG
DGE466 SERIES
DGE718 SERIES



5 × D



EDP No.	Drill Diameter		Shank Diameter	Flute Length	Overall Length
	Fractional	Decimal			
DLC	D1		D2	L1	L2
DGE466013	13/64	.2031	15/64	1-3/4	3-15/16
DGE718013	13/64	.2031	1/4	1-3/4	3-15/16
DGE466014	7/32	.2188	15/64	1-57/64	3-15/16
DGE718014	7/32	.2188	1/4	1-57/64	3-15/16
DGE466015	15/64	.2344	15/64	1-57/64	3-15/16
DGE718015	15/64	.2344	1/4	1-57/64	3-15/16
DGE718016	1/4	.2500	1/4	2-3/64	4-19/64
DGE466016	1/4	.2500	17/64	2-3/64	4-19/64
DGE466206	F	.2570	17/64	2-13/64	4-19/64
DGE718206	F	.2570	5/16	2-13/64	4-19/64
DGE466017	17/64	.2656	17/64	2-13/64	4-19/64
DGE718017	17/64	.2656	5/16	2-13/64	4-19/64
DGE466209	I	.2720	.272	2-13/64	4-19/64
DGE718209	I	.2720	5/16	2-13/64	4-19/64
DGE466018	9/32	.2812	5/16	2-23/64	4-41/64
DGE466019	19/64	.2969	5/16	2-33/64	4-41/64
DGE466020	5/16	.3125	5/16	2-33/64	4-41/64
DGE466021	21/64	.3281	11/32	2-43/64	5
DGE718021	21/64	.3281	3/8	2-43/64	5
DGE466217	Q	.3320	11/32	2-43/64	5
DGE718217	Q	.3320	3/8	2-43/64	5
DGE466022	11/32	.3438	11/32	2-27/32	5

▶ Other shank types are available on your request.

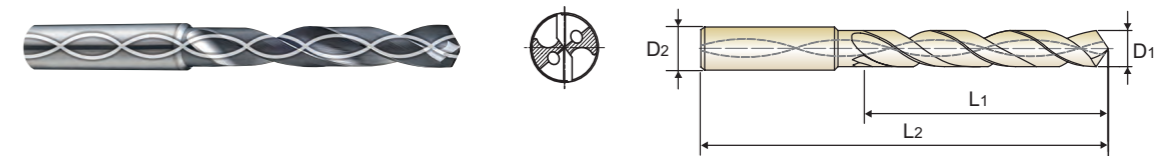
◎ : Excellent ○ : Good

P		H			M	K	N			S	
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
-HB225	HB225-325	HRc30-45	HRc45-55	HRc55-							
						◎					

**DLC-COATED SOLID CARBIDE DREAM DRILLS
ALU with Coolant Holes (5XD)**

- ▶ Optimized thinning for Aluminum & Aluminum Alloys to prevent any clogging from chip welding
- ▶ Wider and deeper flute gullets for maximum chip removal
- ▶ Special geometry and smooth coating reduces built up edge and improves finishes

LONG
DGE433 SERIES



5 × D



EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Fractional	Decimal			
DLC	D1			D2	L1	L2
DGE433030	3.0		.1181	6	28	66
DGE433031	3.1		.1220	6	28	66
DGE433008F	3.175	1/8	.1250	6	28	66
DGE433032	3.2		.1260	6	28	66
DGE433033	3.3		.1299	6	28	66
DGE433034	3.4		.1339	6	28	66
DGE433035	3.5		.1378	6	28	66
DGE433009F	3.572	9/64	.1406	6	28	66
DGE433036	3.6		.1417	6	28	66
DGE433037	3.7		.1457	6	28	66
DGE433038	3.8		.1496	6	36	74
DGE433039	3.9		.1535	6	36	74
DGE433010F	3.969	5/32	.1563	6	36	74
DGE433040	4.0		.1575	6	36	74
DGE433041	4.1		.1614	6	36	74
DGE433042	4.2		.1654	6	36	74
DGE433043	4.3		.1693	6	36	74
DGE433011F	4.366	11/64	.1719	6	36	74
DGE433044	4.4		.1732	6	36	74
DGE433045	4.5		.1772	6	36	74
DGE433046	4.6		.1811	6	36	74
DGE433047	4.7		.1850	6	36	74
DGE433012F	4.763	3/16	.1875	6	36	74
DGE433048	4.8		.1890	6	44	82

▶ Other shank types are available on your request.

◎ : Excellent ○ : Good

P		H			M	K	N			S	
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
-HB225	HB225-325	HRc30-45	HRc45-55	HRc55-							
						◎					

DLC-COATED SOLID CARBIDE DREAM DRILLS ALU with Coolant Holes (5XD)

LONG

DGE433 SERIES

- ▶ Optimized thinning for Aluminum & Aluminum Alloys to prevent any clogging from chip welding
- ▶ Wider and deeper flute gullets for maximum chip removal
- ▶ Special geometry and smooth coating reduces built up edge and improves finishes



5 × D



EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Fractional	Decimal			
DLC	D1			D2	L1	L2
DGE433017F	6.747	17/64	.2656	8	53	91
DGE433068	6.8		.2677	8	53	91
DGE433069	6.9		.2717	8	53	91
DGE433009L	6.909	I	.2720	8	53	91
DGE433070	7.0		.2756	8	53	91
DGE433071	7.1		.2795	8	53	91
DGE433018F	7.144	9/32	.2812	8	53	91
DGE433072	7.2		.2835	8	53	91
DGE433073	7.3		.2874	8	53	91
DGE433074	7.4		.2913	8	53	91
DGE433075	7.5		.2953	8	53	91
DGE433019F	7.541	19/64	.2969	8	53	91
DGE433076	7.6		.2992	8	53	91
DGE433077	7.7		.3031	8	53	91
DGE433078	7.8		.3071	8	53	91
DGE433079	7.9		.3110	8	53	91
DGE433020F	7.938	5/16	.3125	8	53	91
DGE433080	8.0		.3150	8	53	91
DGE433081	8.1		.3189	10	61	103
DGE433082	8.2		.3228	10	61	103
DGE433083	8.3		.3268	10	61	103
DGE433021F	8.334	21/64	.3281	10	61	103
DGE433084	8.4		.3307	10	61	103
DGE433017L	8.433	Q	.3320	10	61	103
DGE433085	8.5		.3346	10	61	103
DGE433086	8.6		.3386	10	61	103

▶ Other shank types are available on your request.

▶ NEXT PAGE

◎ : Excellent ○ : Good

P				H	M	K	N			S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels	Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
-HB225	HB225-325	HRc30-45	HRc45-55	HRc55~						
					◎					

DLC-COATED SOLID CARBIDE DREAM DRILLS ALU with Coolant Holes (5XD)

LONG

DGE433 SERIES

- ▶ Optimized thinning for Aluminum & Aluminum Alloys to prevent any clogging from chip welding
- ▶ Wider and deeper flute gullets for maximum chip removal
- ▶ Special geometry and smooth coating reduces built up edge and improves finishes



5 × D



EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Fractional	Decimal			
DLC	D1			D2	L1	L2
DGE433107	10.7		.4212	12	71	118
DGE433027F	10.716	27/64	.4219	12	71	118
DGE433108	10.8		.4252	12	71	118
DGE433109	10.9		.4291	12	71	118
DGE433110	11.0		.4330	12	71	118
DGE433111	11.1		.4370	12	71	118
DGE433028F	11.113	7/16	.4375	12	71	118
DGE433112	11.2		.4409	12	71	118
DGE433113	11.3		.4448	12	71	118
DGE433114	11.4		.4488	12	71	118
DGE433115	11.5		.4527	12	71	118
DGE433029F	11.509	29/64	.4531	12	71	118
DGE433116	11.6		.4566	12	71	118
DGE433117	11.7		.4606	12	71	118
DGE433118	11.8		.4645	12	71	118
DGE433119	11.9		.4685	12	71	118
DGE433030F	11.906	15/32	.4688	12	71	118
DGE433120	12.0		.4724	12	71	118
DGE433121	12.1		.4764	14	77	124
DGE433122	12.2		.4803	14	77	124
DGE433123	12.3		.4843	14	77	124
DGE433031F	12.303	31/64	.4844	14	77	124
DGE433124	12.4		.4882	14	77	124
DGE433125	12.5		.4921	14	77	124
DGE433126	12.6		.4961	14	77	124
DGE433032F	12.7	1/2	.5000	14	77	124

▶ Other shank types are available on your request.

▶ NEXT PAGE

◎ : Excellent ○ : Good

P				H	M	K	N			S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels	Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
-HB225	HB225-325	HRc30-45	HRc45-55	HRc55~						
										◎

DLC-COATED SOLID CARBIDE DREAM DRILLS ALU with Coolant Holes (5XD)

LONG

DGE433 SERIES

- ▶ Optimized thinning for Aluminum & Aluminum Alloys to prevent any clogging from chip welding
- ▶ Wider and deeper flute gullets for maximum chip removal
- ▶ Special geometry and smooth coating reduces built up edge and improves finishes



5 x D

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Fractional	Decimal			
DLC	D1			D2	L1	L2
DGE433153	15.3		.6024	16	83	133
DGE433154	15.4		.6063	16	83	133
DGE433155	15.5		.6102	16	83	133
DGE433156	15.6		.6142	16	83	133
DGE433157	15.7		.6181	16	83	133
DGE433158	15.8		.6220	16	83	133
DGE433040F	15.875	5/8	.6250	16	83	133
DGE433159	15.9		.6260	16	83	133
DGE433160	16.0		.6299	16	83	133
DGE433161	16.1		.6339	18	93	143
DGE433162	16.2		.6378	18	93	143
DGE433163	16.3		.6417	18	93	143
DGE433164	16.4		.6457	18	93	143
DGE433165	16.5		.6495	18	93	143
DGE433166	16.6		.6535	18	93	143
DGE433167	16.7		.6575	18	93	143
DGE433168	16.8		.6614	18	93	143
DGE433169	16.9		.6654	18	93	143
DGE433170	17.0		.6692	18	93	143
DGE433171	17.1		.6732	18	93	143
DGE433172	17.2		.6772	18	93	143
DGE433173	17.3		.6811	18	93	143
DGE433174	17.4		.6850	18	93	143
DGE433175	17.5		.6889	18	93	143
DGE433176	17.6		.6929	18	93	143

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Fractional	Decimal			
DLC	D1			D2	L1	L2
DGE433177	17.7		.6968	18	93	143
DGE433178	17.8		.7008	18	93	143
DGE433179	17.9		.7047	18	93	143
DGE433180	18.0		.7087	18	93	143
DGE433181	18.1		.7126	20	101	153
DGE433182	18.2		.7165	20	101	153
DGE433183	18.3		.7205	20	101	153
DGE433184	18.4		.7244	20	101	153
DGE433185	18.5		.7283	20	101	153
DGE433186	18.6		.7323	20	101	153
DGE433187	18.7		.7362	20	101	153
DGE433188	18.8		.7402	20	101	153
DGE433189	18.9		.7441	20	101	153
DGE433190	19.0		.7480	20	101	153
DGE433048F	19.050	3/4	.7500	20	101	153
DGE433191	19.1		.7520	20	101	153
DGE433192	19.2		.7559	20	101	153
DGE433193	19.3		.7598	20	101	153
DGE433194	19.4		.7638	20	101	153
DGE433195	19.5		.7676	20	101	153
DGE433196	19.6		.7717	20	101	153
DGE433197	19.7		.7756	20	101	153
DGE433198	19.8		.7795	20	101	153
DGE433199	19.9		.7835	20	101	153
DGE433200	20.0		.7874	20	101	153

▶ Other shank types are available on your request.

◎ : Excellent ○ : Good

P				H		M	K	N			S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
							◎				

RECOMMENDED CUTTING CONDITIONS

DLC-COATED SOLID CARBIDE DREAM DRILLS ALU with Coolant Holes

DGE466 | DGE718 | DGE433 SERIES

WORK MATERIAL	N										
	ALUMINUM ALLOY CASTING ALUMINUM DIE CASTING			WROUGHT ALUMINUM ALLOY							
DRILLING SPEED(SFM)	240 ~ 650 ft/min										
DIAMETER		RPM		FEED	IPR	RPM		FEED	IPR		
Metric(mm)	Decimal										
3.0~6.0	.1181 ~ .2362	8000 ~ 15000		0.2 ~ 0.5	.008	.020	8000 ~ 15000		0.15 ~ 0.3	.006	.012
~10.0	~.3937	6000 ~ 10500		0.3 ~ 1.0	.012	.039	6000 ~ 10500		0.20 ~ 0.4	.008	.016
~14.0	~.5512	4500 ~ 5800		0.3 ~ 1.0	.012	.039	4500 ~ 5800		0.20 ~ 0.4	.008	.016
~20.0	~.7874	3200 ~ 4600		0.3 ~ 1.0	.012	.039	3200 ~ 4600		0.30 ~ 1.0	.012	.039

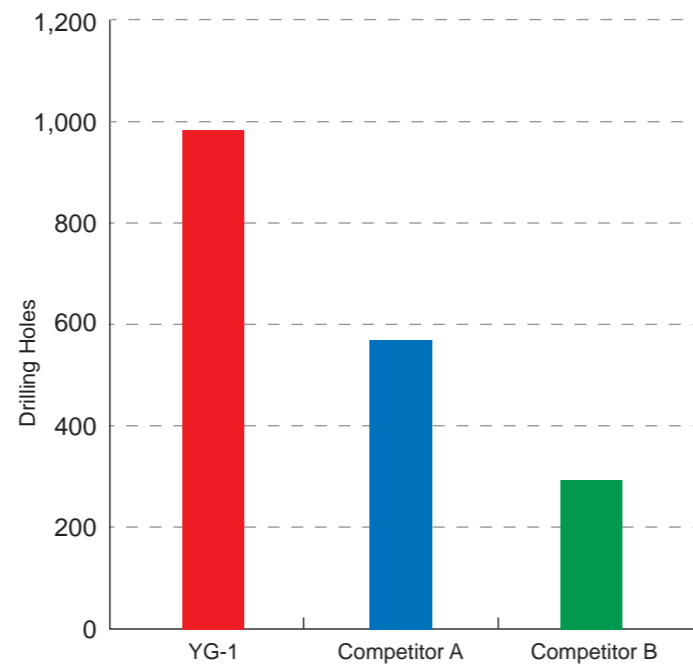
RPM = rev./min.
FEED = mm/rev.
IPR = inch/rev.

CASE STUDY

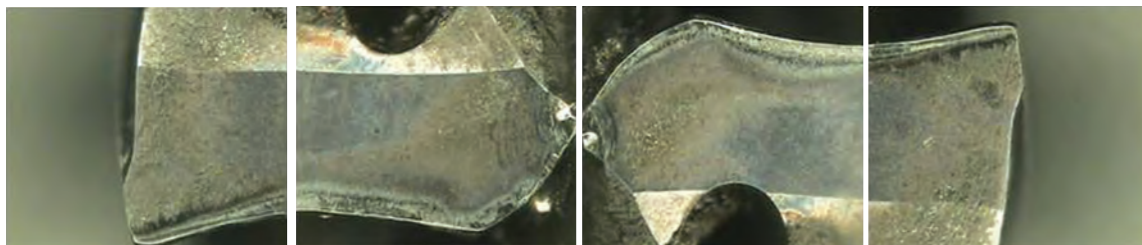
- Flute Shape and Point Shape allowing better chip evacuation in deep hole drilling
- Excellent Coating and Surface Treatment for better performance and chip evacuation

► SOLID CARBIDE DREAM DRILLS - MQL Type with Coolant Holes

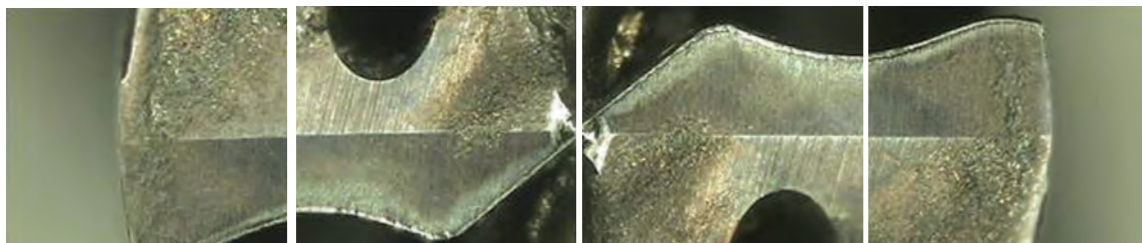
CUTTING CONDITION	
Tool	DH520060 (Dream Drill- Mql Type, 20xD)
Size	Ø6x6x138x193
Work Material	<ul style="list-style-type: none"> • AISI : 1045 • JIS : S45C(HRc25) • DIN : C45
RPM	3,528 rev./min.
SFM	218 ft/min.
Feed	.0075 inch/rev.
Drilling Depth	3.15"
Coolant	Oil Mist (MQL Techniques)



► YG-1 (After Drilling 1,000 Holes)



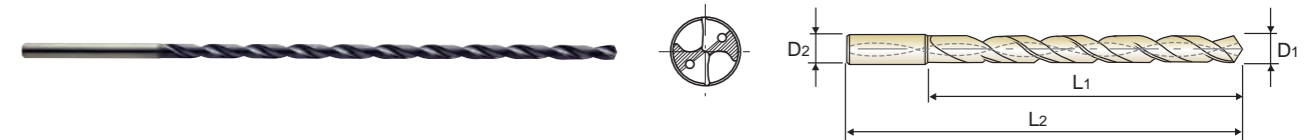
► COMPETITOR A (After Drilling 546 Holes)



TiAlN-COATED SOLID CARBIDE DREAM DRILLS MQL with Coolant Holes (10XD)

EXTRA LONG
DH510 SERIES

- 4-Facet Point for good centering capability
- Optimized special flutes are ideal for removing chips and for productive drilling
- Enhanced chip evacuation by polished flute upgraded TiAlN nano layer full coating
- MQL system compatible (Minimum Quantity Lubrication)



10 × D

EDP No.	Drill Diameter			Shank Diameter D2	Flute Length L1	Overall Length L2
	Metric	Inch	Decimal			
TiAlN	D1					
DH510030	3.0		.1181	3	39	90
DH510031	3.1		.1220	4	46	97
DH510008F	3.175	1/8	.1250	4	46	97
DH510032	3.2		.1260	4	46	97
DH510033	3.3		.1299	4	46	97
DH510034	3.4		.1339	4	46	97
DH510035	3.5		.1378	4	46	97
DH510036	3.6		.1417	4	52	103
DH510037	3.7		.1457	4	52	103
DH510038	3.8		.1496	4	52	103
DH510039	3.9		.1535	4	52	103
DH510040	4.0		.1575	4	52	103
DH510041	4.1		.1614	5	59	112
DH510042	4.2		.1654	5	59	112
DH510043	4.3		.1693	5	59	112
DH510044	4.4		.1732	5	59	112
DH510045	4.5		.1772	5	59	112
DH510046	4.6		.1811	5	65	118
DH510047	4.7		.1850	5	65	118
DH510048	4.8		.1890	5	65	118
DH510049	4.9		.1929	5	65	118
DH510050	5.0		.1969	5	65	118
DH510051	5.1		.2008	6	72	127
DH510052	5.2		.2047	6	72	127
DH510053	5.3		.2087	6	72	127
DH510054	5.4		.2126	6	72	127

EDP No.	Drill Diameter			Shank Diameter D2	Flute Length L1	Overall Length L2
	Metric	Inch	Decimal			
TiAlN	D1					
DH510055	5.5		.2165	6	72	127
DH510056	5.6		.2205	6	78	133
DH510057	5.7		.2244	6	78	133
DH510058	5.8		.2283	6	78	133
DH510059	5.9		.2323	6	78	133
DH510060	6.0		.2362	6	78	133
DH510061	6.1		.2402	7	85	141
DH510062	6.2		.2441	7	85	141
DH510063	6.3		.2480	7	85	141
DH510016F	6.350	1/4	.2500	7	85	141
DH510064	6.4		.2520	7	85	141
DH510065	6.5		.2559	7	85	141
DH510206L	6.528	F	.2570	7	91	147
DH510066	6.6		.2598	7	91	147
DH510067	6.7		.2638	7	91	147
DH510017F	6.746	17/64	.2656	7	91	147
DH510068	6.8		.2677	7	91	147
DH510069	6.9		.2717	7	91	147
DH510209L	6.909	I	.2720	7	91	147
DH510070	7.0		.2756	7	91	147
DH510071	7.1		.2795	8	98	155
DH510018F	7.142	9/32	.2812	8	98	155
DH510072	7.2		.2835	8	98	155
DH510073	7.3		.2874	8	98	155
DH510074	7.4		.2913	8	98	155
DH510075	7.5		.2953	8	98	155

► NEXT PAGE

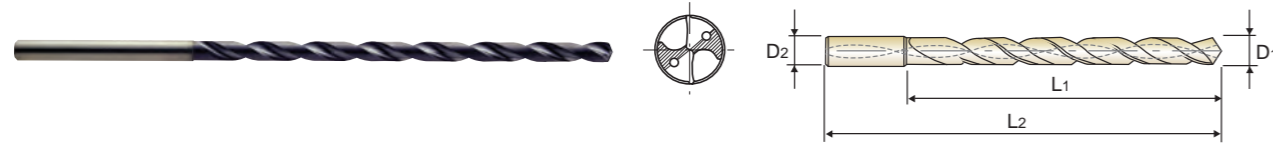
◎ : Excellent ○ : Good

P				H		M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium	
-HB225	HB225-325	HRc30-45	HRc45-55	HRc55-								
◎	◎	○				○						

**TiAIN-COATED SOLID CARBIDE DREAM DRILLS
MQL with Coolant Holes (10XD)**

EXTRA LONG
DH510 SERIES

- ▶ 4-Facet Point for good centering capability
- ▶ Optimized special flutes are ideal for removing chips and for productive drilling
- ▶ Enhanced chip evacuation by polished flute upgraded TiAIN nano layer full coating
- ▶ MQL system compatible (Minimum Quantity Lubrication)



10 × D

EDP No.	Drill Diameter			Shank Diameter D ₂	Flute Length L ₁	Overall Length L ₂
	Metric	Inch	Decimal			
TiAIN	D ₁					
DH510019F	7.541	19/64	.2969	8	104	161
DH510076	7.6		.2992	8	104	161
DH510077	7.7		.3031	8	104	161
DH510078	7.8		.3071	8	104	161
DH510079	7.9		.3110	8	104	161
DH510020F	7.938	5/16	.3125	8	104	161
DH510080	8.0		.3150	8	104	161
DH510081	8.1		.3189	9	111	169
DH510082	8.2		.3228	9	111	169
DH510083	8.3		.3268	9	111	169
DH510021F	8.334	21/64	.3281	9	111	169
DH510084	8.4		.3307	9	111	169
DH510217L	8.433	Q	.3320	9	111	169
DH510085	8.5		.3346	9	111	169
DH510086	8.6		.3386	9	117	175
DH510087	8.7		.3425	9	117	175
DH510022F	8.733	11/32	.3438	9	117	175
DH510088	8.8		.3465	9	117	175
DH510089	8.9		.3504	9	117	175
DH510090	9.0		.3543	9	117	175
DH510091	9.1		.3583	10	124	182
DH510023F	9.129	23/64	.3594	10	124	182
DH510092	9.2		.3622	10	124	182
DH510093	9.3		.3661	10	124	182
DH510221L	9.347	U	.3680	10	124	182
DH510094	9.4		.3701	10	124	182

Unit : mm

EDP No.	Drill Diameter			Shank Diameter D ₂	Flute Length L ₁	Overall Length L ₂
	Metric	Inch	Decimal			
TiAIN	D ₁					
DH510095	9.5		.3740	10	124	182
DH510024F	9.525	3/8	.3750	10	130	188
DH510096	9.6		.3780	10	130	188
DH510097	9.7		.3819	10	130	188
DH510098	9.8		.3858	10	130	188
DH510099	9.9		.3898	10	130	188
DH510025F	9.921	25/64	.3906	10	130	188
DH510100	10.0		.3937	10	130	188
DH510101	10.1		.3976	11	137	201
DH510102	10.2		.4016	11	137	201
DH510103	10.3		.4055	11	137	201
DH510026F	10.318	13/32	.4062	11	137	201
DH510104	10.4		.4094	11	137	201
DH510105	10.5		.4134	11	137	201
DH510106	10.6		.4173	11	143	207
DH510107	10.7		.4213	11	143	207
DH510027F	10.716	27/64	.4219	11	143	207
DH510108	10.8		.4252	11	143	207
DH510109	10.9		.4291	11	143	207
DH510110	11.0		.4331	11	143	207
DH510111	11.1		.4370	12	150	215
DH510028F	11.113	7/16	.4375	12	150	215
DH510112	11.2		.4409	12	150	215
DH510113	11.3		.4449	12	150	215
DH510114	11.4		.4488	12	150	215
DH510115	11.5		.4528	12	150	215

▶ NEXT PAGE

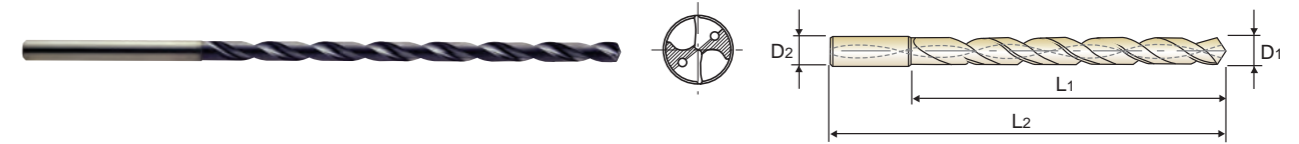
◎ : Excellent ○ : Good

P		H			M	K	N			S	
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
-HB225	HB225-325	HRc30-45	HRc45-55	HRc55-							
◎	◎	○				○					

**TiAIN-COATED SOLID CARBIDE DREAM DRILLS
MQL with Coolant Holes (10XD)**

EXTRA LONG
DH510 SERIES

- ▶ 4-Facet Point for good centering capability
- ▶ Optimized special flutes are ideal for removing chips and for productive drilling
- ▶ Enhanced chip evacuation by polished flute upgraded TiAIN nano layer full coating
- ▶ MQL system compatible (Minimum Quantity Lubrication)



10 × D

EDP No.	Drill Diameter			Shank Diameter D ₂	Flute Length L ₁	Overall Length L ₂
	Metric	Inch	Decimal			
TiAIN	D ₁					
DH510029F	11.509	29/64	.4531	12	156	221
DH510116	11.6		.4567	12	156	221
DH510117	11.7		.4606	12	156	221
DH510118	11.8		.4646	12	156	221
DH510119	11.9		.4685	12	156	221
DH510030F	11.908	15/32	.4688	12	156	221
DH510120	12.0		.4724	12	156	221
DH510121	12.1		.4764	13	163	229
DH510122	12.2		.4803	13	163	229
DH510123	12.3		.4843	13	163	229
DH510031F	12.304	31/64	.4844	13	163	229
DH510124	12.4		.4882	13	163	229
DH510125	12.5		.4921	13	163	229
DH510126	12.6		.4961	13	169	235

Unit : mm

EDP No.	Drill Diameter			Shank Diameter D ₂	Flute Length L ₁	Overall Length L ₂
	Metric	Inch	Decimal			
TiAIN	D ₁					
DH510127	12.7	1/2	.5000	13	169	235
DH510128	12.8		.5039	13	169	235
DH510129	12.9		.5079	13	169	235
DH510130	13.0		.5118	13	169	235
DH510131	13.1		.5157	14	176	243
DH510132	13.2		.5197	14	176	243
DH510133	13.3		.5236	14	176	243
DH510134	13.4		.5276	14	176	243
DH510135	13.5		.5315	14	176	243
DH510136	13.6		.5354	14	182	249
DH510137	13.7		.5394	14	182	249
DH510138	13.8		.5433	14	182	249
DH510139	13.9		.5472	14	182	249
DH510140	14.0		.5512	14	182	249

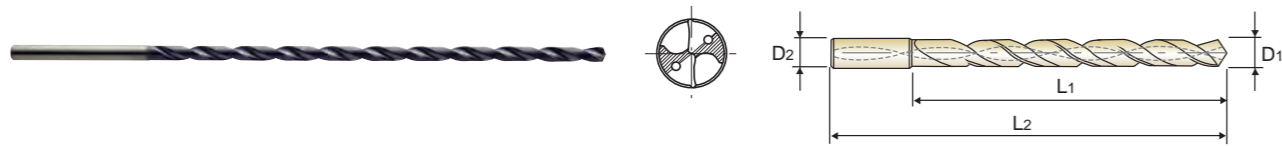
◎ : Excellent ○ : Good

P		H			M	K	N			S	
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
-HB225	HB225-325	HRc30-45	HRc45-55	HRc55-							
◎	◎	○				○					

TiAIN-COATED SOLID CARBIDE DREAM DRILLS MQL with Coolant Holes (15XD)

EXTRA LONG DH515 SERIES

- ▶ 4-Facet Point for good centering capability
- ▶ Optimized special flutes are ideal for removing chips and for productive drilling
- ▶ Enhanced chip evacuation by polished flute upgraded TiAIN nano layer full coating
- ▶ MQL system compatible (Minimum Quantity Lubrication)



15 × D

EDP No.	Drill Diameter			Shank Diameter D2	Flute Length L1	Overall Length L2
	Metric	Inch	Decimal			
TiAIN	D1					
DH515030	3.0		.1181	3	54	105
DH515031	3.1		.1220	4	63	114
DH515008F	3.175	1/8	.1250	4	63	114
DH515032	3.2		.1260	4	63	114
DH515033	3.3		.1299	4	63	114
DH515034	3.4		.1339	4	63	114
DH515035	3.5		.1378	4	63	114
DH515036	3.6		.1417	4	72	123
DH515037	3.7		.1457	4	72	123
DH515038	3.8		.1496	4	72	123
DH515039	3.9		.1535	4	72	123
DH515040	4.0		.1575	4	72	123
DH515041	4.1		.1614	5	81	134
DH515042	4.2		.1654	5	81	134
DH515043	4.3		.1693	5	81	134
DH515044	4.4		.1732	5	81	134
DH515045	4.5		.1772	5	81	134
DH515046	4.6		.1811	5	90	143
DH515047	4.7		.1850	5	90	143
DH515048	4.8		.1890	5	90	143
DH515049	4.9		.1929	5	90	143
DH515050	5.0		.1969	5	90	143
DH515051	5.1		.2008	6	99	154
DH515052	5.2		.2047	6	99	154
DH515053	5.3		.2087	6	99	154
DH515054	5.4		.2126	6	99	154

Unit : mm

EDP No.	Drill Diameter			Shank Diameter D2	Flute Length L1	Overall Length L2
	Metric	Inch	Decimal			
TiAIN	D1					
DH515055	5.5		.2165	6	99	154
DH515056	5.6		.2205	6	108	163
DH515057	5.7		.2244	6	108	163
DH515058	5.8		.2283	6	108	163
DH515059	5.9		.2323	6	108	163
DH515060	6.0		.2362	6	108	163
DH515061	6.1		.2402	7	117	173
DH515062	6.2		.2441	7	117	173
DH515063	6.3		.2480	7	117	173
DH515016F	6.350	1/4	.2500	7	117	173
DH515064	6.4		.2520	7	117	173
DH515065	6.5		.2559	7	117	173
DH515206L	6.528	F	.2570	7	126	182
DH515066	6.6		.2598	7	126	182
DH515067	6.7		.2638	7	126	182
DH515017F	6.746	17/64	.2656	7	126	182
DH515068	6.8		.2677	7	126	182
DH515069	6.9		.2717	7	126	182
DH515209L	6.909	I	.2720	7	126	182
DH515070	7.0		.2756	7	126	182
DH515071	7.1		.2795	8	135	192
DH515018F	7.142	9/32	.2812	8	135	192
DH515072	7.2		.2835	8	135	192
DH515073	7.3		.2874	8	135	192
DH515074	7.4		.2913	8	135	192
DH515075	7.5		.2953	8	135	192

▶ NEXT PAGE

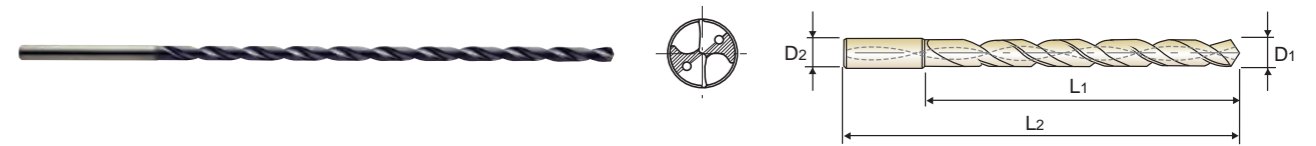
◎ : Excellent ○ : Good

P				H		M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium	
-HB225	HB225-325	HRc30-45	HRc45-55	HRc55-								
◎	◎	○				○						

TiAIN-COATED SOLID CARBIDE DREAM DRILLS MQL with Coolant Holes (15XD)

EXTRA LONG DH515 SERIES

- ▶ 4-Facet Point for good centering capability
- ▶ Optimized special flutes are ideal for removing chips and for productive drilling
- ▶ Enhanced chip evacuation by polished flute upgraded TiAIN nano layer full coating
- ▶ MQL system compatible (Minimum Quantity Lubrication)



15 × D

EDP No.	Drill Diameter			Shank Diameter D2	Flute Length L1	Overall Length L2
	Metric	Inch	Decimal			
TiAIN	D1					
DH515019F	7.541	19/64	.2969	8	144	201
DH515076	7.6		.2992	8	144	201
DH515077	7.7		.3031	8	144	201
DH515078	7.8		.3071	8	144	201
DH515079	7.9		.3110	8	144	201
DH515020F	7.938	5/16	.3125	8	144	201
DH515080	8.0		.3150	8	144	201
DH515081	8.1		.3189	9	153	211
DH515082	8.2		.3228	9	153	211
DH515083	8.3		.3268	9	153	211
DH515021F	8.334	21/64	.3281	9	153	211
DH515084	8.4		.3307	9	153	211
DH515217L	8.433	Q	.3320	9	153	211
DH515085	8.5		.3346	9	153	211
DH515086	8.6		.3386	9	162	220
DH515087	8.7		.3425	9	162	220
DH515022F	8.733	11/32	.3438	9	162	220
DH515088	8.8		.3465	9	162	220
DH515089	8.9		.3504	9	162	220
DH515090	9.0		.3543	9	162	220
DH515091	9.1		.3583	10	171	229
DH515023F	9.129	23/64	.3594	10	171	229
DH515092	9.2		.3622	10	171	229
DH515093	9.3		.3661	10	171	229
DH515221L	9.347	U	.3680	10	171	229
DH515094	9.4		.3701	10	171	229

Unit : mm

EDP No.	Drill Diameter			Shank Diameter D2	Flute Length L1	Overall Length L2
	Metric	Inch	Decimal			
TiAIN	D1					
DH515095	9.5		.3740	10	171	229
DH515024F	9.525	3/8	.3750	10	180	238
DH515096	9.6		.3780	10	180	238
DH515097	9.7		.3819	10	180	238
DH515098	9.8		.3858	10	180	238
DH515099	9.9		.3898	10	180	238
DH515025F	9.921	25/64	.3906	10	180	238
DH515100	10.0		.3937	10	180	238
DH515101	10.1		.3976	11	189	253
DH515102	10.2		.4016	11	189	253
DH515103	10.3		.4055	11	189	253
DH515026F	10.318	13/32	.4062	11	189	253
DH515104	10.4		.4094	11	189	253
DH515105	10.5		.4134	11	189	253
DH515106	10.6		.4173	11	198	262
DH515107	10.7		.4213	11	198	262
DH515027F	10.716	27/64	.4219	11	198	262
DH515108	10.8		.4252	11	198	262
DH515109	10.9		.4291	11	198	262
DH515110	11.0		.4331	11	198	262
DH515111	11.1		.4370	12	207	272
DH515028F	11.113	7/16	.4375	12	207	272
DH515112	11.2		.4409	12	207	272
DH515113	11.3		.4449	12	207	272
DH515114	11.4		.4488	12	207	272
DH515115	11.5		.4527	12	207	272

▶ NEXT PAGE

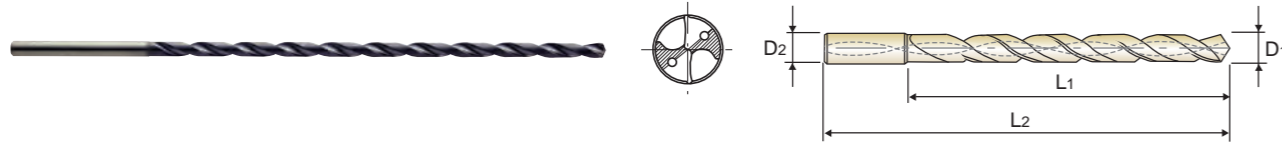
◎ : Excellent ○ : Good

P				H		M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium	
-HB225	HB225-325	HRc30-45	HRc45-55	HRc55-								
◎	◎	○				○						

TiAlN-COATED SOLID CARBIDE DREAM DRILLS
MQL with Coolant Holes (15XD)

EXTRA LONG
DH515 SERIES

- ▶ 4-Facet Point for good centering capability
- ▶ Optimized special flutes are ideal for removing chips and for productive drilling
- ▶ Enhanced chip evacuation by polished flute upgraded TiAlN nano layer full coating
- ▶ MQL system compatible (Minimum Quantity Lubrication)



15 × D

EDP No.	Drill Diameter			Shank Diameter D2	Flute Length L1	Overall Length L2
	Metric	Inch	Decimal			
TiAlN	D1					
DH515029F	11.509	29/64	.4531	12	216	281
DH515116	11.6		.4567	12	216	281
DH515117	11.7		.4606	12	216	281
DH515118	11.8		.4646	12	216	281
DH515119	11.9		.4685	12	216	281
DH515030F	11.908	15/32	.4688	12	216	281
DH515120	12.0		.4724	12	216	281
DH515121	12.1		.4764	13	225	291
DH515122	12.2		.4803	13	225	291
DH515123	12.3		.4843	13	225	291
DH515031F	12.304	31/64	.4844	13	225	291
DH515124	12.4		.4882	13	225	291
DH515125	12.5		.4921	13	225	291
DH515126	12.6		.4961	13	234	300

Unit : mm

EDP No.	Drill Diameter			Shank Diameter D2	Flute Length L1	Overall Length L2
	Metric	Inch	Decimal			
TiAlN	D1					
DH515127	12.7	1/2	.5000	13	234	300
DH515128	12.8		.5039	13	234	300
DH515129	12.9		.5079	13	234	300
DH515130	13.0		.5118	13	234	300
DH515131	13.1		.5157	14	243	310
DH515132	13.2		.5197	14	243	310
DH515133	13.3		.5236	14	243	310
DH515134	13.4		.5276	14	243	310
DH515135	13.5		.5314	14	243	310
DH515136	13.6		.5354	14	252	319
DH515137	13.7		.5394	14	252	319
DH515138	13.8		.5433	14	252	319
DH515139	13.9		.5472	14	252	319
DH515140	14.0		.5512	14	252	319

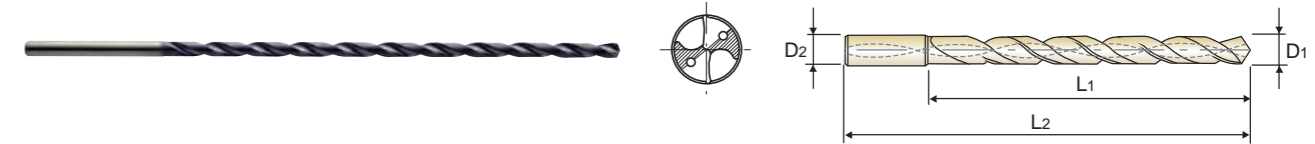
◎ : Excellent ○ : Good

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
-HB225	HB225~325	HRC30~45	HRC45~55	HRC55~							
◎	◎	○				○					

TiAlN-COATED SOLID CARBIDE DREAM DRILLS
MQL with Coolant Holes (20XD)

EXTRA LONG
DH520 SERIES

- ▶ 4-Facet Point for good centering capability
- ▶ Optimized special flutes are ideal for removing chips and for productive drilling
- ▶ Enhanced chip evacuation by polished flute upgraded TiAlN nano layer full coating
- ▶ MQL system compatible (Minimum Quantity Lubrication)



20 × D

Unit : mm

EDP No.	Drill Diameter			Shank Diameter D2	Flute Length L1	Overall Length L2
	Metric	Inch	Decimal			
TiAlN	D1					
DH520030	3.0		.1181	3	69	120
DH520031	3.1		.1220	4	81	132
DH520008F	3.175	1/8	.1250	4	81	132
DH520032	3.2		.1260	4	81	132
DH520033	3.3		.1299	4	81	132
DH520034	3.4		.1339	4	81	132
DH520035	3.5		.1378	4	81	132
DH520036	3.6		.1417	4	92	143
DH520037	3.7		.1457	4	92	143
DH520038	3.8		.1496	4	92	143
DH520039	3.9		.1535	4	92	143
DH520040	4.0		.1575	4	92	143
DH520041	4.1		.1614	5	104	157
DH520042	4.2		.1654	5	104	157
DH520043	4.3		.1693	5	104	157
DH520044	4.4		.1732	5	104	157
DH520045	4.5		.1772	5	104	157
DH520046	4.6		.1811	5	115	168
DH520047	4.7		.1850	5	115	168
DH520048	4.8		.1890	5	115	168
DH520049	4.9		.1929	5	115	168
DH520050	5.0		.1969	5	115	168
DH520051	5.1		.2008	6	127	182
DH520052	5.2		.2047	6	127	182
DH520053	5.3		.2087	6	127	182
DH520054	5.4		.2126	6	127	182

Unit : mm

EDP No.	Drill Diameter			Shank Diameter D2	Flute Length L1	Overall Length L2
	Metric	Inch	Decimal			
TiAlN	D1					
DH520055	5.5		.2165	6	127	182
DH520056	5.6		.2205	6	138	193
DH520057	5.7		.2244	6	138	193
DH520058	5.8		.2283	6	138	193
DH520059	5.9		.2323	6	138	193
DH520060	6.0		.2362	6	138	193
DH520061	6.1		.2402	7	150	206
DH520062	6.2		.2441	7	150	206
DH520063	6.3		.2480	7	150	206
DH520016F	6.350	1/4	.2500	7	150	206
DH520064	6.4		.2520	7	150	206
DH520065	6.5		.2559	7	150	206
DH520206L	6.528	F	.2570	7	161	217
DH520066	6.6		.2598	7	161	217
DH520067	6.7		.2638	7	161	217
DH520017F	6.746	17/64	.2656	7	161	217
DH520068	6.8		.2677	7	161	217
DH520069	6.9		.2717	7	161	217
DH520209L	6.909	I	.2720	7	161	217
DH520070	7.0		.2756	7	161	217
DH520071	7.1		.2795	8	173	230
DH520018F	7.142	9/32	.2812	8	173	230
DH520072	7.2		.2835	8	173	230
DH520073	7.3		.2874	8	173	230
DH520074	7.4		.2913	8	173	230
DH520075	7.5		.2953	8	173	230

▶ NEXT PAGE

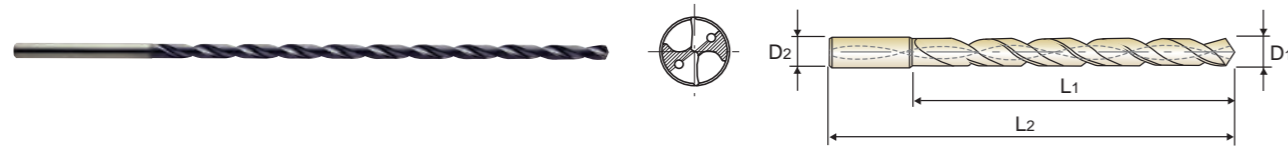
◎ : Excellent ○ : Good

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
-HB225	HB225~325	HRC30~45	HRC45~55	HRC55~							
◎	◎	○				○					

TiAIN-COATED SOLID CARBIDE DREAM DRILLS MQL with Coolant HoleS (20XD)

EXTRA LONG DH520 SERIES

- ▶ 4-Facet Point for good centering capability
- ▶ Optimized special flutes are ideal for removing chips and for productive drilling
- ▶ Enhanced chip evacuation by polished flute upgraded TiAIN nano layer full coating
- ▶ MQL system compatible (Minimum Quantity Lubrication)



20 × D

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Inch	Decimal			
TiAIN	D1			D2	L1	L2
DH520019F	7.541	19/64	.2969	8	184	241
DH520076	7.6		.2992	8	184	241
DH520077	7.7		.3031	8	184	241
DH520078	7.8		.3071	8	184	241
DH520079	7.9		.3110	8	184	241
DH520020F	7.938	5/16	.3125	8	184	241
DH520080	8.0		.3150	8	184	241
DH520081	8.1		.3189	9	196	254
DH520082	8.2		.3228	9	196	254
DH520083	8.3		.3268	9	196	254
DH520021F	8.334	21/64	.3281	9	196	254
DH520084	8.4		.3307	9	196	254
DH520217L	8.433	Q	.3320	9	196	254
DH520085	8.5		.3346	9	196	254
DH520086	8.6		.3386	9	207	265
DH520087	8.7		.3425	9	207	265
DH520022F	8.733	11/32	.3438	9	207	265
DH520088	8.8		.3465	9	207	265
DH520089	8.9		.3504	9	207	265
DH520090	9.0		.3543	9	207	265
DH520091	9.1		.3583	10	219	277
DH520023F	9.129	23/64	.3594	10	219	277
DH520092	9.2		.3622	10	219	277
DH520093	9.3		.3661	10	219	277
DH520221L	9.347	U	.3680	10	219	277
DH520094	9.4		.3701	10	219	277

Unit : mm

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Inch	Decimal			
TiAIN	D1			D2	L1	L2
DH520095	9.5		.3740	10	219	277
DH520024F	9.525	3/8	.3750	10	219	277
DH520096	9.6		.3780	10	230	288
DH520097	9.7		.3819	10	230	288
DH520098	9.8		.3858	10	230	288
DH520099	9.9		.3898	10	230	288
DH520025F	9.921	25/64	.3906	10	230	288
DH520100	10.0		.3937	10	230	288
DH520101	10.1		.3976	11	242	306
DH520102	10.2		.4016	11	242	306
DH520103	10.3		.4055	11	242	306
DH520026F	10.318	13/32	.4062	11	242	306
DH520104	10.4		.4094	11	242	306
DH520105	10.5		.4134	11	242	306
DH520106	10.6		.4173	11	253	317
DH520107	10.7		.4213	11	253	317
DH520027F	10.716	27/64	.4219	11	253	317
DH520108	10.8		.4252	11	253	317
DH520109	10.9		.4291	11	253	317
DH520110	11.0		.4331	11	253	317
DH520111	11.1		.4370	12	265	330
DH520028F	11.113	7/16	.4375	12	265	330
DH520112	11.2		.4409	12	265	330
DH520113	11.3		.4449	12	265	330
DH520114	11.4		.4488	12	265	330
DH520115	11.5		.4527	12	265	330

▶ NEXT PAGE

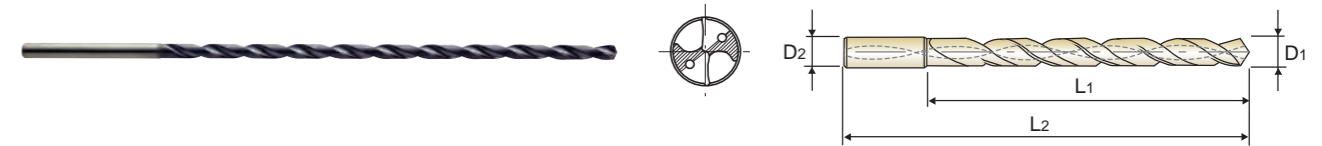
⊙ : Excellent ○ : Good

P				H		M	K	N			S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
-HB225	HB225-325	HRc30-45	HRc45-55	HRc55-							
⊙	⊙	○				○					

TiAIN-COATED SOLID CARBIDE DREAM DRILLS MQL with Coolant Holes (20XD)

EXTRA LONG DH520 SERIES

- ▶ 4-Facet Point for good centering capability
- ▶ Optimized special flutes are ideal for removing chips and for productive drilling
- ▶ Enhanced chip evacuation by polished flute upgraded TiAIN nano layer full coating
- ▶ MQL system compatible (Minimum Quantity Lubrication)



20 × D

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Inch	Decimal			
TiAIN	D1			D2	L1	L2
DH520029F	11.509	29/64	.4531	12	276	341
DH520116	11.6		.4567	12	276	341
DH520117	11.7		.4606	12	276	341
DH520118	11.8		.4646	12	276	341

Unit : mm

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Inch	Decimal			
TiAIN	D1			D2	L1	L2
DH520119	11.9		.4685	12	276	341
DH520030F	11.908	15/32	.4688	12	276	341
DH520120	12.0		.4724	12	276	341

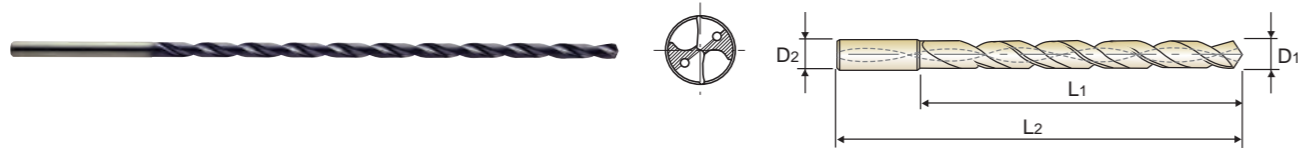
⊙ : Excellent ○ : Good

P				H		M	K	N			S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
-HB225	HB225-325	HRc30-45	HRc45-55	HRc55-							
⊙	⊙	○				○					

TiAIN-COATED SOLID CARBIDE DREAM DRILLS MQL with Coolant Holes (10XD, 15XD, 20XD)

- ▶ 4-Facet Point for good centering capability
- ▶ Optimized special flutes are ideal for removing chips and for productive drilling
- ▶ Enhanced chip evacuation by polished flute upgraded TiAIN nano layer full coating
- ▶ MQL system compatible (Minimum Quantity Lubrication)

EXTRA LONG
DHM10 SERIES
DHM15 SERIES
DHM20 SERIES



10 × D (DHM10) 15 × D (DHM15) 20 × D (DHM20)

EDP No.	Drill Diameter		Shank Diameter	Flute Length	Overall Length
	Metric	Decimal			
TiAIN	D1		D2	L1	L2
DHM10030	3.0	.1181	6	40	80
DHM10033	3.3	.1299	6	47	87
DHM10035	3.5	.1378	6	47	87
DHM10040	4.0	.1575	6	53	93
DHM10042	4.2	.1654	6	60	100
DHM10045	4.5	.1772	6	60	100
DHM10050	5.0	.1969	6	66	106
DHM10055	5.5	.2165	6	73	113
DHM10060	6.0	.2362	6	79	119
DHM10065	6.5	.2559	8	86	126
DHM10068	6.8	.2677	8	92	132
DHM10070	7.0	.2756	8	92	132
DHM10075	7.5	.2953	8	99	139
DHM10080	8.0	.3150	8	105	145
DHM10085	8.5	.3346	10	112	156
DHM10090	9.0	.3543	10	118	162
DHM10095	9.5	.3740	10	126	170
DHM10100	10.0	.3937	10	132	176
DHM10105	10.5	.4134	12	139	188
DHM10110	11.0	.4330	12	145	194
DHM10115	11.5	.4527	12	152	201
DHM10120	12.0	.4724	12	158	207
DHM10125	12.5	.4921	14	165	214
DHM10130	13.0	.5118	14	171	220
DHM10135	13.5	.5314	14	178	227
DHM10140	14.0	.5512	14	184	233

EDP No.	Drill Diameter		Shank Diameter	Flute Length	Overall Length
	Metric	Decimal			
TiAIN	D1		D2	L1	L2
DHM15030	3.0	.1181	6	55	95
DHM15035	3.5	.1378	6	64	104
DHM15040	4.0	.1575	6	73	113
DHM15045	4.5	.1772	6	82	122
DHM15050	5.0	.1969	6	91	131
DHM15055	5.5	.2165	6	100	140
DHM15060	6.0	.2362	6	109	149
DHM15070	7.0	.2756	8	127	167
DHM15080	8.0	.3150	8	145	185
DHM15090	9.0	.3543	10	163	207
DHM15100	10.0	.3937	10	182	226
DHM15110	11.0	.4330	12	200	249
DHM15120	12.0	.4724	12	218	267

EDP No.	Drill Diameter		Shank Diameter	Flute Length	Overall Length
	Metric	Decimal			
TiAIN	D1		D2	L1	L2
DHM20030	3.0	.1181	6	70	110
DHM20035	3.5	.1378	6	82	122
DHM20040	4.0	.1575	6	93	133
DHM20045	4.5	.1772	6	105	145
DHM20050	5.0	.1969	6	116	156
DHM20055	5.5	.2165	6	128	168
DHM20060	6.0	.2362	6	139	179
DHM20070	7.0	.2756	8	162	202
DHM20080	8.0	.3150	8	185	225
DHM20090	9.0	.3543	10	208	252
DHM20100	10.0	.3937	10	232	276
DHM20110	11.0	.4330	12	255	304
DHM20120	12.0	.4724	12	278	327

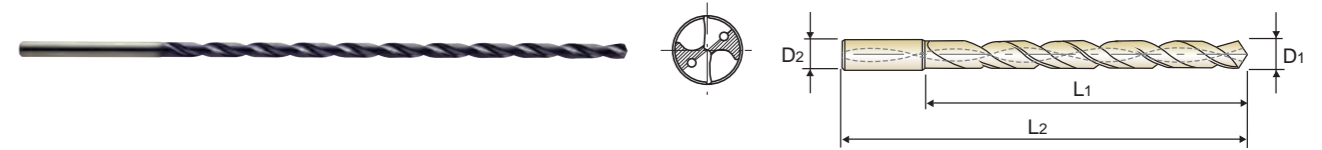
⊙ : Excellent ○ : Good

P		H		M	K	N			S		
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
-HB225	HB225-325	HRc30-45	HRc45-55	HRc55-							
⊙	⊙	○			○						

TiAIN-COATED SOLID CARBIDE DREAM DRILLS MQL with Coolant Holes (25XD)

- ▶ 4-Facet Point for good centering capability
- ▶ Optimized special flutes are ideal for removing chips and for productive drilling
- ▶ Enhanced chip evacuation by polished flute upgraded TiAIN nano layer full coating
- ▶ MQL system compatible (Minimum Quantity Lubrication)

EXTRA LONG
DHM25 SERIES



25 × D

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Inch	Decimal			
TiAIN	D1			D2	L1	L2
DHM25030	3.0		.1181	6	85	125
DHM25031	3.1		.1220	6	99	139
DHM25008F	3.175	1/8	.1250	6	99	139
DHM25032	3.2		.1260	6	99	139
DHM25033	3.3		.1299	6	99	139
DHM25034	3.4		.1339	6	99	139
DHM25035	3.5		.1378	6	99	139
DHM25036	3.6		.1417	6	113	153
DHM25037	3.7		.1457	6	113	153
DHM25038	3.8		.1496	6	113	153
DHM25039	3.9		.1535	6	113	153
DHM25040	4.0		.1575	6	113	153
DHM25041	4.1		.1614	6	127	167
DHM25042	4.2		.1654	6	127	167
DHM25043	4.3		.1693	6	127	167
DHM25044	4.4		.1732	6	127	167
DHM25045	4.5		.1772	6	127	167
DHM25046	4.6		.1811	6	141	181
DHM25047	4.7		.1850	6	141	181
DHM25048	4.8		.1890	6	141	181
DHM25049	4.9		.1929	6	141	181
DHM25050	5.0		.1969	6	141	181
DHM25051	5.1		.2008	6	155	195
DHM25052	5.2		.2047	6	155	195
DHM25053	5.3		.2087	6	155	195
DHM25054	5.4		.2126	6	155	195

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Inch	Decimal			
TiAIN	D1			D2	L1	L2
DHM25055	5.5		.2165	6	155	195
DHM25056	5.6		.2205	6	169	209
DHM25057	5.7		.2244	6	169	209
DHM25058	5.8		.2283	6	169	209
DHM25059	5.9		.2323	6	169	209
DHM25060	6.0		.2362	6	169	209
DHM25061	6.1		.2402	8	183	223
DHM25062	6.2		.2441	8	183	223
DHM25063	6.3		.2480	8	183	223
DHM25016F	6.350	1/4	.2500	8	183	223
DHM25064	6.4		.2520	8	183	223
DHM25065	6.5		.2559	8	183	223
DHM25206L	6.528	F	.2570	8	197	237
DHM25066	6.6		.2598	8	197	237
DHM25067	6.7		.2638	8	197	237
DHM25017F	6.746	17/64	.2656	8	197	237
DHM25068	6.8		.2677	8	197	237
DHM25069	6.9		.2717	8	197	237
DHM25209L	6.909	I	.2720	8	197	237
DHM25070	7.0		.2756	8	197	237
DHM25071	7.1		.2795	8	211	251
DHM25018F	7.142	9/32	.2812	8	211	251
DHM25072	7.2		.2835	8	211	251
DHM25073	7.3		.2874	8	211	251
DHM25074	7.4		.2913	8	211	251
DHM25075	7.5		.2953	8	211	251

▶ NEXT PAGE

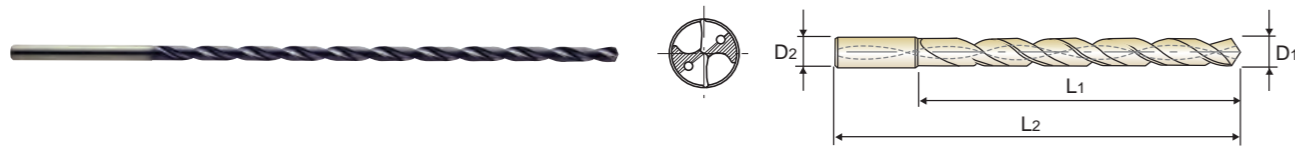
⊙ : Excellent ○ : Good

P		H		M	K	N			S		
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
-HB225	HB225-325	HRc30-45	HRc45-55	HRc55-							
⊙	⊙	○			○						

TiAIN-COATED SOLID CARBIDE DREAM DRILLS MQL with Coolant Holes (25XD)

EXTRA LONG DHM25 SERIES

- ▶ 4-Facet Point for good centering capability
- ▶ Optimized special flutes are ideal for removing chips and for productive drilling
- ▶ Enhanced chip evacuation by polished flute upgraded TiAIN nano layer full coating
- ▶ MQL system compatible (Minimum Quantity Lubrication)



25 × D

EDP No.	Drill Diameter			Shank Diameter	Flute Length		Overall Length
	Metric	Inch	Decimal		L1	L2	
TiAIN	D1			D2	L1	L2	
DHM25019F	7.541	19/64	.2969	8	225	265	
DHM25076	7.6		.2992	8	225	265	
DHM25077	7.7		.3031	8	225	265	
DHM25078	7.8		.3071	8	225	265	
DHM25079	7.9		.3110	8	225	265	
DHM25020F	7.938	5/16	.3125	8	225	265	
DHM25080	8.0		.3150	8	225	265	
DHM25081	8.1		.3189	10	239	283	
DHM25082	8.2		.3228	10	239	283	
DHM25083	8.3		.3268	10	239	283	
DHM25021F	8.334	21/64	.3281	10	239	283	
DHM25084	8.4		.3307	10	239	283	
DHM25217L	8.433	Q	.3320	10	239	283	
DHM25085	8.5		.3346	10	239	283	
DHM25086	8.6		.3386	10	253	297	
DHM25087	8.7		.3425	10	253	297	
DHM25022F	8.733	11/32	.3438	10	253	297	

Unit : mm

EDP No.	Drill Diameter			Shank Diameter	Flute Length		Overall Length
	Metric	Inch	Decimal		L1	L2	
TiAIN	D1			D2	L1	L2	
DHM25088	8.8		.3465	10	253	297	
DHM25089	8.9		.3504	10	253	297	
DHM25090	9.0		.3543	10	253	297	
DHM25091	9.1		.3583	10	268	312	
DHM25023F	9.129	23/64	.3594	10	268	312	
DHM25092	9.2		.3622	10	268	312	
DHM25093	9.3		.3661	10	268	312	
DHM25221L	9.347	U	.3680	10	268	312	
DHM25094	9.4		.3701	10	268	312	
DHM25095	9.5		.3740	10	268	312	
DHM25024F	9.525	3/8	.3750	10	282	326	
DHM25096	9.6		.3780	10	282	326	
DHM25097	9.7		.3819	10	282	326	
DHM25098	9.8		.3858	10	282	326	
DHM25099	9.9		.3898	10	282	326	
DHM25025F	9.921	25/64	.3906	10	282	326	
DHM25100	10.0		.3937	10	282	326	

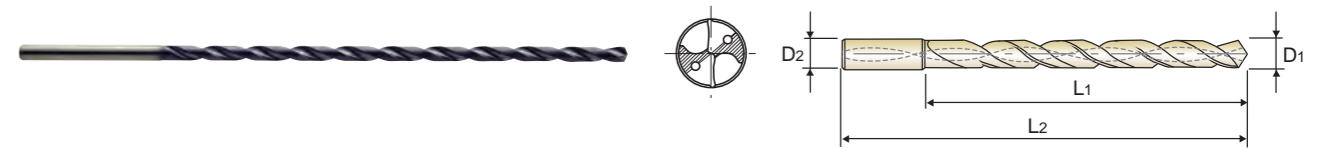
◎ : Excellent ○ : Good

P				H		M	K	N			S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
-HB225	HB225-325	HRc30-45	HRc45-55	HRc55~							
◎	◎	○				○					

TiAIN-COATED SOLID CARBIDE DREAM DRILLS MQL with Coolant Holes (30XD)

EXTRA LONG DHM30 SERIES

- ▶ 4-Facet Point for good centering capability
- ▶ Optimized special flutes are ideal for removing chips and for productive drilling
- ▶ Enhanced chip evacuation by polished flute upgraded TiAIN nano layer full coating
- ▶ MQL system compatible (Minimum Quantity Lubrication)



30 × D

EDP No.	Drill Diameter			Shank Diameter	Flute Length		Overall Length
	Metric	Inch	Decimal		L1	L2	
TiAIN	D1			D2	L1	L2	
DHM30030	3.0		.1181	6	100	140	
DHM30031	3.1		.1220	6	117	157	
DHM30008F	3.175	1/8	.1250	6	117	157	
DHM30032	3.2		.1260	6	117	157	
DHM30033	3.3		.1299	6	117	157	
DHM30034	3.4		.1339	6	117	157	
DHM30035	3.5		.1378	6	117	157	
DHM30036	3.6		.1417	6	133	173	
DHM30037	3.7		.1457	6	133	173	
DHM30038	3.8		.1496	6	133	173	
DHM30039	3.9		.1535	6	133	173	
DHM30040	4.0		.1575	6	133	173	
DHM30041	4.1		.1614	6	150	190	
DHM30042	4.2		.1654	6	150	190	
DHM30043	4.3		.1693	6	150	190	
DHM30044	4.4		.1732	6	150	190	
DHM30045	4.5		.1772	6	150	190	
DHM30046	4.6		.1811	6	166	206	
DHM30047	4.7		.1850	6	166	206	
DHM30048	4.8		.1890	6	166	206	
DHM30049	4.9		.1929	6	166	206	
DHM30050	5.0		.1969	6	166	206	
DHM30051	5.1		.2008	6	183	223	
DHM30052	5.2		.2047	6	183	223	

Unit : mm

EDP No.	Drill Diameter			Shank Diameter	Flute Length		Overall Length
	Metric	Inch	Decimal		L1	L2	
TiAIN	D1			D2	L1	L2	
DHM30053	5.3		.2087	6	183	223	
DHM30054	5.4		.2126	6	183	223	
DHM30055	5.5		.2165	6	183	223	
DHM30056	5.6		.2205	6	199	239	
DHM30057	5.7		.2244	6	199	239	
DHM30058	5.8		.2283	6	199	239	
DHM30059	5.9		.2323	6	199	239	
DHM30060	6.0		.2362	6	199	239	
DHM30061	6.1		.2402	8	216	256	
DHM30062	6.2		.2441	8	216	256	
DHM30063	6.3		.2480	8	216	256	
DHM30016F	6.350	1/4	.2500	8	216	256	
DHM30064	6.4		.2520	8	216	256	
DHM30065	6.5		.2559	8	216	256	
DHM30206L	6.528	F	.2570	8	232	272	
DHM30066	6.6		.2598	8	232	272	
DHM30067	6.7		.2638	8	232	272	
DHM30017F	6.746	17/64	.2656	8	232	272	
DHM30068	6.8		.2677	8	232	272	
DHM30069	6.9		.2717	8	232	272	
DHM30209L	6.909	I	.2720	8	232	272	
DHM30070	7.0		.2756	8	232	272	
DHM30071	7.1		.2795	8	249	289	
DHM30018F	7.142	9/32	.2812	8	249	289	

▶ NEXT PAGE

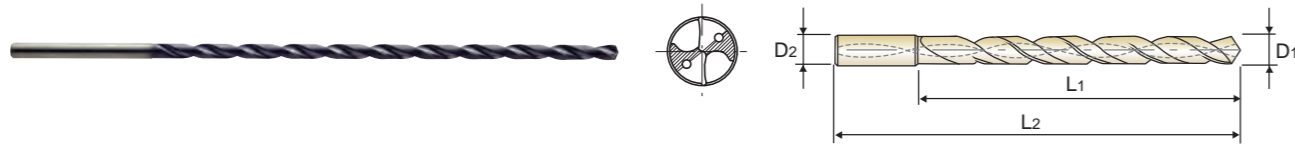
◎ : Excellent ○ : Good

P				H		M	K	N			S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
-HB225	HB225-325	HRc30-45	HRc45-55	HRc55~							
◎	◎	○				○					

TiAlN-COATED SOLID CARBIDE DREAM DRILLS MQL with Coolant Holes (30XD)

EXTRA LONG DHM30 SERIES

- ▶ 4-Facet Point for good centering capability
- ▶ Optimized special flutes are ideal for removing chips and for productive drilling
- ▶ Enhanced chip evacuation by polished flute upgraded TiAlN nano layer full coating
- ▶ MQL system compatible (Minimum Quantity Lubrication)



30 × D

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Inch	Decimal			
TiAlN	D1			D2	L1	L2
DHM30072	7.2		.2835	8	249	289
DHM30073	7.3		.2874	8	249	289
DHM30074	7.4		.2913	8	249	289
DHM30075	7.5		.2953	8	249	289
DHM30019F	7.541	19/64	.2969	8	265	305
DHM30076	7.6		.2992	8	265	305

Unit : mm

EDP No.	Drill Diameter			Shank Diameter	Flute Length	Overall Length
	Metric	Inch	Decimal			
TiAlN	D1			D2	L1	L2
DHM30077	7.7		.3031	8	265	305
DHM30078	7.8		.3071	8	265	305
DHM30079	7.9		.3110	8	265	305
DHM30020F	7.938	5/16	.3125	8	265	305
DHM30080	8.0		.3150	8	265	305

P				H	M	K	N			S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels	Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
-HB225	HB225-325	HRc30-45	HRc45-55							
○	○	○			○					

◎ : Excellent ○ : Good

RECOMMENDED CUTTING CONDITIONS

TiAlN-COATED SOLID CARBIDE DREAM DRILLS MQL with Coolant Holes

DH510 | DH515 | DH520 | DHM10 | DHM15 | DHM20 SERIES

WORK MATERIAL	P					K					
	CARBON STEELS					CAST IRON			DUCTILE CAST IRON		
STRENGTH	~ 1060 N/mm ²					250 ~ 350 N/mm ²			400 ~ 500 N/mm ²		
DRILLING SPEED(SFM)	230 ~ 290 ft/min					230 ~ 290 ft/min			220 ~ 240 ft/min		
DIAMETER	Metric(mm)	Decimal	RPM	FEED	IPR	RPM	FEED	IPR	RPM	FEED	IPR
3	.1181		7500	0.06~0.12	.0024 .0047	7500	0.06~0.12	.0024 .0047	7500	0.06~0.12	.0024 .0047
4	.1575		6400	0.08~0.16	.0031 .0063	6400	0.08~0.16	.0031 .0063	5600	0.08~0.16	.0031 .0063
5	.1969		5800	0.10~0.20	.0039 .0079	5800	0.10~0.20	.0039 .0079	4500	0.10~0.20	.0039 .0079
6	.2362		4800	0.12~0.24	.0047 .0094	4800	0.12~0.24	.0047 .0094	3800	0.12~0.24	.0047 .0094
8	.3150		3600	0.16~0.28	.0063 .0110	3600	0.16~0.28	.0063 .0110	2800	0.16~0.28	.0063 .0110
10	.3937		2900	0.20~0.35	.0079 .0138	2900	0.20~0.35	.0079 .0138	2300	0.20~0.35	.0079 .0138
12	.4724		2400	0.24~0.42	.0094 .0165	2400	0.24~0.42	.0094 .0165	1900	0.24~0.42	.0094 .0165
14	.5512		2050	0.28~0.46	.0110 .0181	2050	0.28~0.46	.0110 .0181	1600	0.28~0.46	.0110 .0181

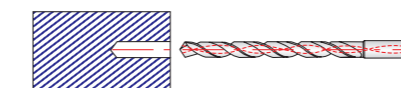
RPM = rev./min.
FEED = mm/rev.
IPR = inch/rev.

DHM25 | DHM30 SERIES

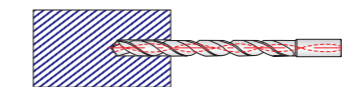
WORK MATERIAL	P					K					
	CARBON STEELS					CAST IRON			DUCTILE CAST IRON		
STRENGTH	~ 1060 N/mm ²					250 ~ 350 N/mm ²			400 ~ 500 N/mm ²		
DRILLING SPEED(SFM)	230 ~ 290 ft/min					230 ~ 290 ft/min			220 ~ 240 ft/min		
DIAMETER	Metric(mm)	Decimal	RPM	FEED	IPR	RPM	FEED	IPR	RPM	FEED	IPR
3	.1181		6400	0.06~0.12	.0024 .0047	6400	0.06~0.12	.0024 .0047	6400	0.06~0.12	.0024 .0047
4	.1575		5500	0.08~0.16	.0031 .0063	5500	0.08~0.16	.0031 .0063	4700	0.08~0.16	.0031 .0063
5	.1969		4900	0.10~0.20	.0039 .0079	4900	0.10~0.20	.0039 .0079	3800	0.10~0.20	.0039 .0079
6	.2362		4200	0.12~0.24	.0047 .0094	4200	0.12~0.24	.0047 .0094	3200	0.12~0.24	.0047 .0094
8	.3150		3000	0.16~0.28	.0063 .0110	3000	0.16~0.28	.0063 .0110	2400	0.16~0.28	.0063 .0110
10	.3937		2500	0.20~0.35	.0079 .0138	2500	0.20~0.35	.0079 .0138	1900	0.20~0.35	.0079 .0138

RPM = rev./min.
FEED = mm/rev.
IPR = inch/rev.

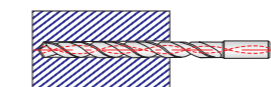
▶ Coolant Pressure : 900 PSI



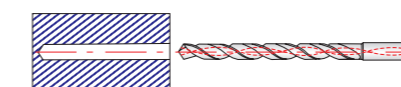
1. Use a YG 3xD Drill to produce a guide hole no larger than .004 over the required drill size. Drill the pilot hole 2xD deep hole.



2. Enter the guide hole at 50 SFM surface and .010 feed rate / per rev.



3. Before hitting the bottom of the guide hole, increase SFM and feed rate for normal drilling.



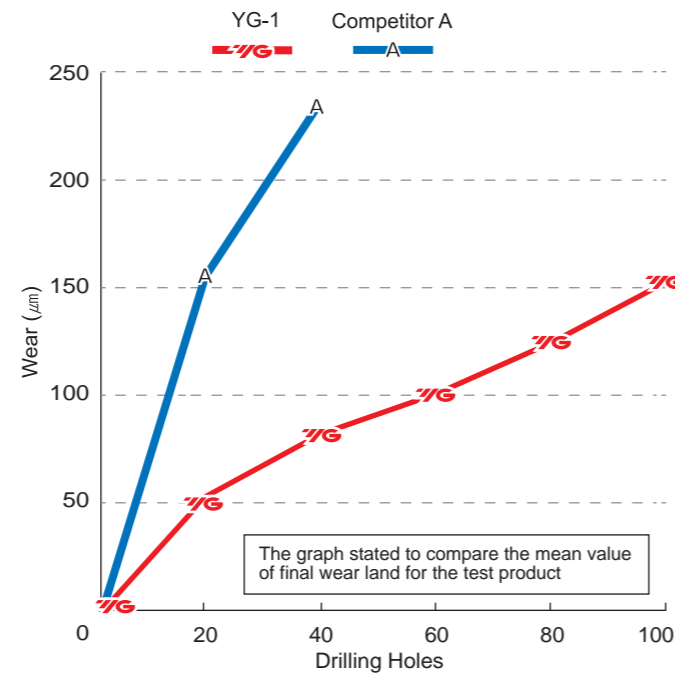
4. After drilling, to withdraw drill, reduce SFM to 50 @ 10 inches per minute.

CASE STUDY

- Low Helix Angle to maximize tools' rigidity.
- Special Point Thinning to improve chip evacuation.
- Excellent Coating and Surface Treatment for improved surface and better chip evacuation.

► SOLID CARBIDE DREAM DRILLS for High Hardened Steels (HRc50~70)

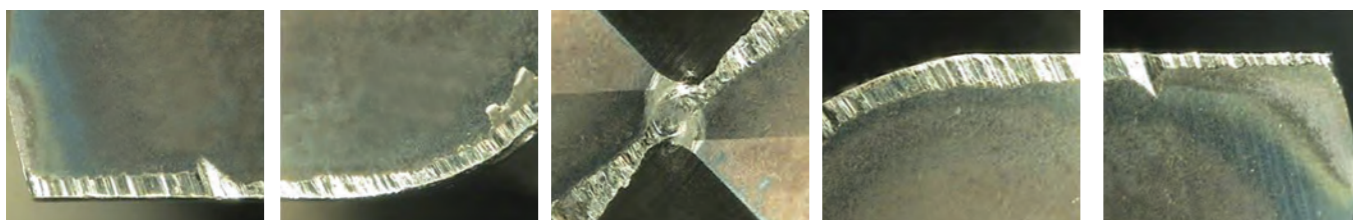
CUTTING CONDITION	
Tool	DH500100 (Dream Drills for High Hardened Steels)
Size	Ø10×10×63×111
Work Material	• AISI : H13 • JIS : SKD11(HRc60) • DIN : X155CrV-Mo12-1
RPM	380 rev./min.
SFM	39 ft/min.
Feed	.0016 inch/rev.
Drilling Depth	.98"(2.5xD)
Coolant	Wet Cut



► YG-1 (After Drilling 100 Holes)



► COMPETITOR A (After Drilling 40 Holes)



TiAlN-COATED SOLID CARBIDE DREAM DRILLS for High Hardened Steels (HRc50~HRc70)

DH501 SERIES

- Drilling for High Hardened Steels; Quenched Steels, Tempered Steels (under HRc 70)
- Special geometry design for Hardened Steels
- Minimum of cutting load through special thinning
- Performing good chip removal and powerful drilling
- Tolerance : Dia. Tolerance ØD1 : See page 104
Shank Tolerance ØD2: -.0001 -.0005



EDP No.	Drill Diameter		Shank Diameter	Flute Length	Overall Length
	Fractional	Decimal			
TiAlN	D1		D2	L1	L2
DH501001	1/8	.1250	1/8	21/32	2
DH501002	#30	.1285	3/16	23/32	2
DH501003	#29	.1360	3/16	13/16	2
DH501004	#28	.1405	3/16	13/16	2
DH501005	9/64	.1406	3/16	13/16	2
DH501006	#27	.1440	3/16	13/16	2
DH501007	#26	.1470	3/16	13/16	2
DH501008	#25	.1495	3/16	7/8	2-1/16
DH501009	#24	.1520	3/16	7/8	2-1/16
DH501010	#23	.1540	3/16	7/8	2-1/16
DH501011	5/32	.1562	3/16	7/8	2-1/16
DH501012	#22	.1570	3/16	7/8	2-1/16
DH501013	#21	.1590	3/16	7/8	2-1/16
DH501014	#20	.1610	3/16	1	2-1/2
DH501015	#19	.1660	3/16	1	2-1/2
DH501016	11/64	.1719	3/16	1-1/8	2-3/4
DH501017	#15	.1800	3/16	1-1/8	2-3/4
DH501018	#14	.1820	3/16	1-1/8	2-3/4
DH501019	3/16	.1875	3/16	1-1/8	2-3/4
DH501020	#10	.1935	1/4	1-9/32	2-7/8
DH501021	#9	.1960	1/4	1-9/32	2-7/8
DH501022	#8	.1990	1/4	1-9/32	2-7/8
DH501023	#7	.2010	1/4	1-9/32	2-7/8
DH501024	13/64	.2031	1/4	1-9/32	2-7/8
DH501025	#6	.2040	1/4	1-9/32	2-7/8
DH501026	#5	.2055	1/4	1-9/32	2-7/8

Unit : inch

EDP No.	Drill Diameter		Shank Diameter	Flute Length	Overall Length
	Fractional	Decimal			
TiAlN	D1		D2	L1	L2
DH501027	#4	.2090	1/4	1-9/32	2-7/8
DH501028	#3	.2130	1/4	1-13/32	3
DH501029	7/32	.2188	1/4	1-13/32	3
DH501030	#2	.2210	1/4	1-13/32	3
DH501031	#1	.2280	1/4	1-13/32	3
DH501032	15/64	.2344	1/4	1-13/32	3
DH501033	B	.2380	1/4	1-19/32	3-1/8
DH501034	C	.2420	1/4	1-19/32	3-1/8
DH501035	D	.2460	1/4	1-19/32	3-1/8
DH501036	1/4	.2500	1/4	1-19/32	3-1/8
DH501037	F	.2570	3/8	1-19/32	3-1/8
DH501038	G	.2610	3/8	1-19/32	3-1/8
DH501039	17/64	.2656	3/8	1-19/32	3-1/8
DH501040	I	.2720	3/8	1-25/32	3-3/8
DH501041	J	.2770	3/8	1-25/32	3-3/8
DH501042	9/32	.2812	3/8	1-25/32	3-3/8
DH501043	L	.2900	3/8	1-25/32	3-3/8
DH501044	M	.2950	3/8	1-25/32	3-3/8
DH501045	19/64	.2969	3/8	1-25/32	3-3/8
DH501046	N	.3020	3/8	1-31/32	3-7/8
DH501047	5/16	.3125	3/8	1-31/32	3-7/8
DH501048	O	.3160	3/8	1-31/32	3-7/8
DH501049	21/64	.3281	3/8	1-31/32	3-7/8
DH501050	Q	.3320	3/8	1-31/32	3-7/8
DH501051	R	.3390	3/8	2-1/4	4-1/8
DH501052	11/32	.3438	3/8	2-1/4	4-1/8

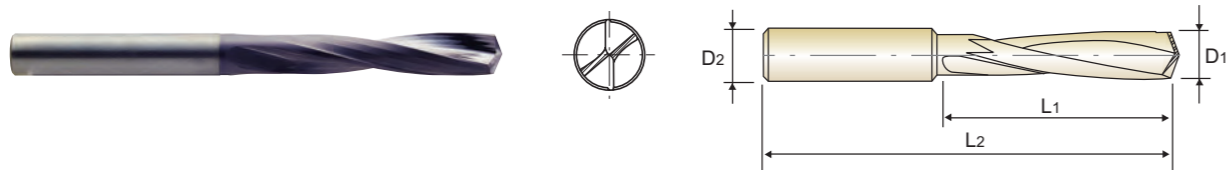
► NEXT PAGE

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
-HB225	HB225-325	HRc30-45	HRc45-55	HRc55-							
			◎	◎							

TiAIN-COATED SOLID CARBIDE DREAM DRILLS for High Hardened Steels (HRc50~HRc70)

DH501 SERIES

- ▶ Drilling for High Hardened Steels; Quenched Steels, Tempered Steels (under HRc 70)
- ▶ Special geometry design for Hardened Steels
- ▶ Minimum of cutting load through special thinning
- ▶ Performing good chip removal and powerful drilling
- ▶ Tolerance : Dia. Tolerance ØD1 : See page 104
Shank Tolerance ØD2: -.0001 -.0005



EDP No.	Drill Diameter		Shank Diameter	Flute Length	Overall Length
	Fractional	Decimal			
TiAIN	D1		D2	L1	L2
DH501053	23/64	.3594	3/8	2-1/4	4-1/8
DH501054	U	.3680	3/8	2-1/4	4-1/8
DH501055	3/8	.3750	3/8	2-1/4	4-1/8
DH501056	V	.3770	1/2	2-1/2	4-3/8
DH501057	25/64	.3906	1/2	2-1/2	4-3/8
DH501058	X	.3970	1/2	2-1/2	4-3/8
DH501059	Y	.4040	1/2	2-1/2	4-3/8
DH501060	13/32	.4062	1/2	2-1/2	4-3/8
DH501061	Z	.4130	1/2	2-1/2	4-3/8
DH501062	27/64	.4219	1/2	2-13/16	4-5/8
DH501063	7/16	.4375	1/2	2-13/16	4-5/8
DH501064	29/64	.4531	1/2	2-13/16	4-5/8
DH501065	15/32	.4688	1/2	2-13/16	4-5/8
DH501066	31/64	.4844	1/2	2-13/16	4-5/8
DH501067	1/2	.5000	1/2	3-1/16	5
DH501068	33/64	.5156	5/8	3-1/16	5

Unit : inch

EDP No.	Drill Diameter		Shank Diameter	Flute Length	Overall Length
	Fractional	Decimal			
TiAIN	D1		D2	L1	L2
DH501069	17/32	.5312	5/8	3-1/16	5
DH501070	35/64	.5469	5/8	3-1/16	5
DH501071	9/16	.5625	5/8	3-1/16	5
DH501072	37/64	.5781	5/8	3-9/32	5-1/4
DH501073	19/32	.5937	5/8	3-9/32	5-1/4
DH501074	39/64	.6094	5/8	3-9/32	5-1/4
DH501075	5/8	.6250	5/8	3-9/32	5-1/4
DH501076	41/64	.6406	3/4	3-9/32	5-1/4
DH501077	21/32	.6563	3/4	3-11/16	5-5/8
DH501078	43/64	.6719	3/4	3-11/16	5-5/8
DH501079	11/16	.6875	3/4	3-11/16	5-5/8
DH501080	45/64	.7031	3/4	3-11/16	5-5/8
DH501081	23/32	.7188	3/4	3-3/4	6
DH501082	47/64	.7344	3/4	3-3/4	6
DH501083	3/4	.7500	3/4	3-3/4	6

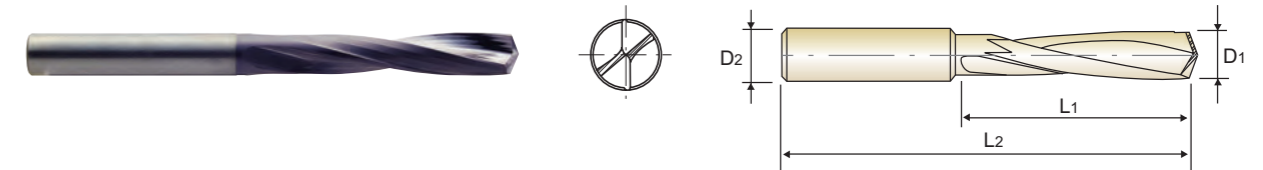
◎ : Excellent ○ : Good

P		H			M	K	N			S	
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
-HB225	HB225-325	HRc30-45	HRc45-55	HRc55~							
			◎	◎							

TiAIN-COATED SOLID CARBIDE DREAM DRILLS for High Hardened Steels (HRc50~HRc70)

DH500 SERIES

- ▶ Drilling for High Hardened Steels; Quenched Steels, Tempered Steels (under HRc 70)
- ▶ Special geometry design for Hardened Steels
- ▶ Minimum of cutting load through special thinning
- ▶ Performing good chip removal and powerful drilling



Unit : mm

EDP No.	Drill Diameter		Shank Diameter	Flute Length	Overall Length
	Metric	Decimal			
TiAIN	D1		D2	L1	L2
DH500010	1.0	.0394	3	6	40
DH500011	1.1	.0433	3	6	40
DH500012	1.2	.0472	3	6	40
DH500013	1.3	.0512	3	8	40
DH500014	1.4	.0551	3	8	40
DH500015	1.5	.0591	3	8	40
DH500016	1.6	.0630	3	10	40
DH500017	1.7	.0669	3	10	40
DH500018	1.8	.0709	3	10	40
DH500019	1.9	.0748	3	10	40
DH500020	2.0	.0787	3	12	42
DH500025	2.5	.0984	3	14	44
DH500026	2.6	.1024	3	16	44
DH500028	2.8	.1102	3	16	46
DH500030	3.0	.1181	3	18	46
DH500033	3.3	.1299	4	18	48
DH500034	3.4	.1339	4	20	50
DH500035	3.5	.1378	4	20	50
DH500038	3.8	.1496	4	22	52
DH500040	4.0	.1575	4	22	52
DH500041	4.1	.1614	6	25	65
DH500042	4.2	.1654	6	25	65
DH500043	4.3	.1693	6	28	68
DH500044	4.4	.1732	6	28	68
DH500045	4.5	.1772	6	28	68
DH500046	4.6	.1811	6	28	68
DH500048	4.8	.1890	6	32	72
DH500049	4.9	.1929	6	32	72
DH500050	5.0	.1969	6	32	72

EDP No.	Drill Diameter		Shank Diameter	Flute Length	Overall Length
	Metric	Decimal			
TiAIN	D1		D2	L1	L2
DH500051	5.1	.2008	6	32	72
DH500052	5.2	.2047	6	32	72
DH500053	5.3	.2087	6	32	72
DH500055	5.5	.2165	6	35	75
DH500060	6.0	.2362	6	35	75
DH500062	6.2	.2441	8	40	80
DH500065	6.5	.2559	8	40	80
DH500068	6.8	.2677	8	45	85
DH500069	6.9	.2717	8	45	85
DH500070	7.0	.2756	8	45	85
DH500075	7.5	.2953	8	45	85
DH500080	8.0	.3150	8	50	98
DH500085	8.5	.3346	10	50	98
DH500086	8.6	.3386	10	57	105
DH500088	8.8	.3465	10	57	105
DH500090	9.0	.3543	10	57	105
DH500093	9.3	.3661	10	57	105
DH500095	9.5	.3740	10	57	105
DH500100	10.0	.3937	10	63	111
DH500102	10.2	.4016	12	63	111
DH500103	10.3	.4055	12	63	111
DH500105	10.5	.4134	12	71	111
DH500108	10.8	.4252	12	71	119
DH500110	11.0	.4331	12	71	119
DH500115	11.5	.4528	12	71	119
DH500120	12.0	.4724	12	71	119
DH500121	12.1	.4764	14	77	125
DH500140	14.0	.5512	14	77	125

◎ : Excellent ○ : Good

P		H			M	K	N			S	
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
-HB225	HB225-325	HRc30-45	HRc45-55	HRc55~							
			◎	◎							

TiAlN-COATED SOLID CARBIDE DREAM DRILLS for High Hardened Steels (HRc50~HRc70)

DH501 SERIES

WORK MATERIAL			P			H					
			HARDENED STEELS			HIGH HARDENED STEELS					
DRILLING SPEED(SFM)			HRc 50-55			HRc 55-60			HRc 60-70		
DIAMETER			45 ~ 72 ft/min			32 ~ 52 ft/min			26 ~ 42 ft/min		
Inch	Metric(mm)	Decimal	RPM	FEED	IPR	RPM	FEED	IPR	RPM	FEED	IPR
1/8	3.175	.1250	1900	0.04	.0015	1330	0.04	.0015	1250	0.04	.0015
5/32	3.969	.1563	1430	0.04	.0015	1000	0.04	.0015	950	0.04	.0015
13/64	5.159	.2031	1150	0.04	.0015	800	0.04	.0015	750	0.04	.0015
15/64	5.953	.2344	960	0.04	.0015	670	0.04	.0015	630	0.04	.0015
5/16	7.938	.3125	720	0.04	.0015	500	0.04	.0015	480	0.04	.0015
25/64	9.922	.3906	570	0.04	.0015	400	0.04	.0015	380	0.04	.0015
15/32	11.906	.4688	480	0.04	.0015	330	0.04	.0015	320	0.04	.0015
9/16	14.288	.5625	435	0.04	.0015	280	0.04	.0015	270	0.04	.0015
41/64	16.272	.6406	380	0.04	.0015	250	0.04	.0015	240	0.04	.0015
11/16	17.463	.6875	325	0.04	.0015	235	0.04	.0015	190	0.04	.0015
47/64	18.653	.7344	310	0.04	.0015	220	0.04	.0015	180	0.04	.0015

RPM = rev./min.
FEED = mm/rev.
IPR = inch/rev.

DH500 SERIES

WORK MATERIAL			P			H					
			HARDENED STEELS			HIGH HARDENED STEEL LS					
DRILLING SPEED(SFM)			HRc 50-55			HRc 55-60			HRc 60-70		
DIAMETER			45 ~ 72 ft/min			32 ~ 52 ft/min			26 ~ 42 ft/min		
Metric(mm)	Inch		RPM	FEED	IPR	RPM	FEED	IPR	RPM	FEED	IPR
2.0	.0787		2900	0.04	.0015	2100	0.04	.0015	1900	0.04	.0015
3.0	.1181		1900	0.04	.0015	1330	0.04	.0015	1250	0.04	.0015
4.0	.1575		1430	0.04	.0015	1000	0.04	.0015	950	0.04	.0015
5.0	.1969		1150	0.04	.0015	800	0.04	.0015	750	0.04	.0015
6.0	.2362		960	0.04	.0015	670	0.04	.0015	630	0.04	.0015
8.0	.3150		720	0.04	.0015	500	0.04	.0015	480	0.04	.0015
10.0	.3937		570	0.04	.0015	400	0.04	.0015	380	0.04	.0015
12.0	.4724		480	0.04	.0015	330	0.04	.0015	320	0.04	.0015
14.0	.5512		438	0.04	.0015	282	0.04	.0015	272	0.04	.0015

RPM = rev./min.
FEED = mm/rev.
IPR = inch/rev.



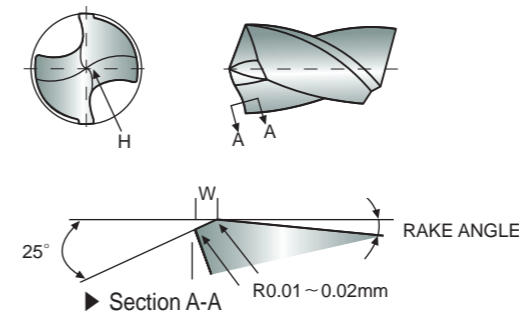
CHARACTERISTIC OF DREAM DRILLS

- YG-1's Dream Drill Series are suitable for high speed and accurate drilling operations by special design and high quality.
- Good performance for Steels, Cast Irons, Tool steels, Alloy steels and Stainless steels, Aluminum and Composite Material.
- Rapid chip evacuation and excellent chip breaking can be achieved by special designed cutting edges on point and chip breakers on leading edges.
- High accuracy and stability.
- Longer tool life with TiAlN coating.
- Self-centering

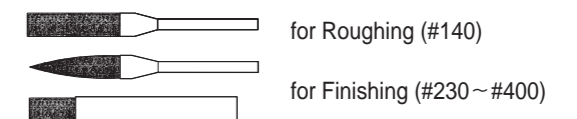


HONING GUIDE OF DREAM DRILLS

Dimension of Honing



Scraper

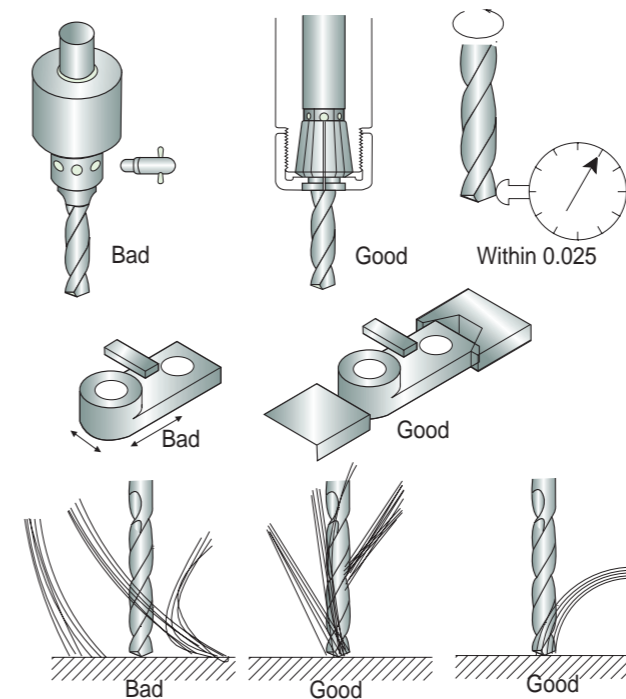


Work Material	Alloy Steels	Mild Steels	Cast Iron
W(mm)	0.15~0.2	0.1~0.15	0.03

▶ The dimension W of stocked products is 0.1~0.15.

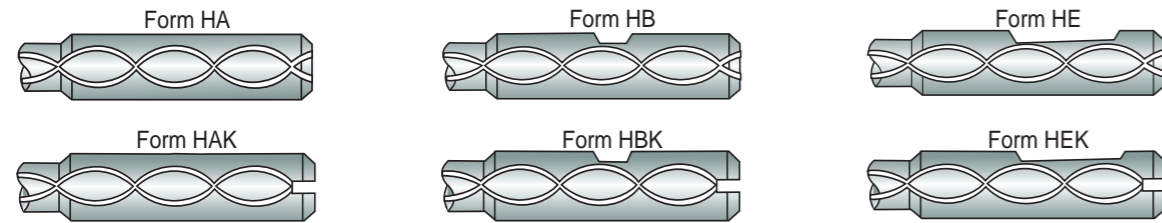


USE OF DREAM DRILLS



- ▶ Chucking with spring collet correctly.
- ▶ Radial run out at cutting lip must not exceed 0.025 mm.
- ▶ Tighten clamp of work piece.
- ▶ Supply coolant enough to the entrance of holes.
- ▶ In using Dream Drill with Coolant holes, high pressure coolant is needed.

SHANK TYPE DREAM DRILLS WITH COOLANT HOLES



▶ If you need other Shank Type, we can supply them.

DRILL DIAMETER TOLERANCE INCH

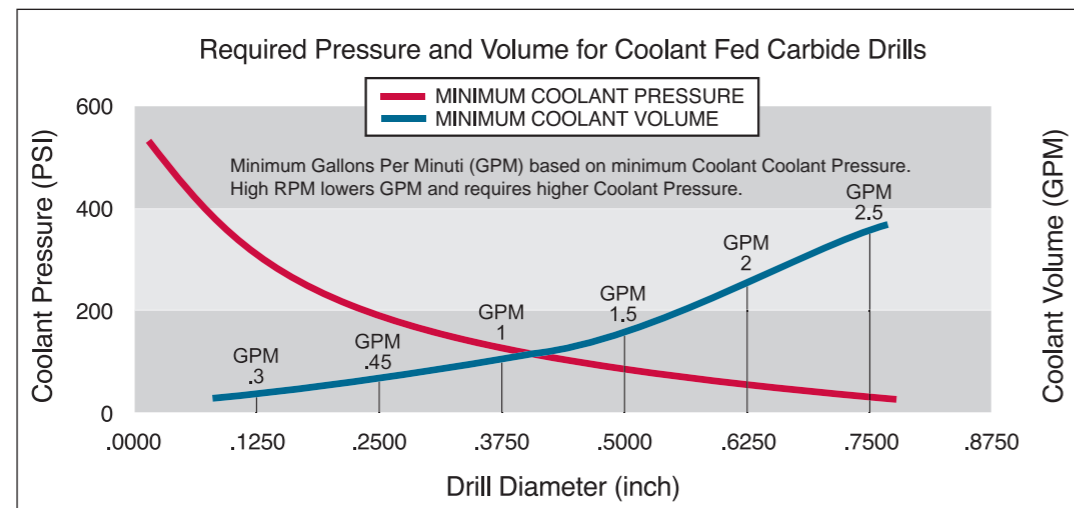
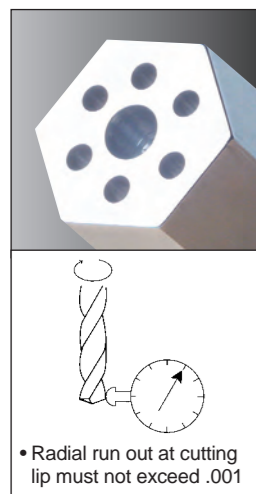
$\mu\text{m} = 1/1000\text{mm}$

up to .118	over .118 up to .236	over .236 up to .394	over .394 up to .709
+0 -.00055	+0 -.00071	+0 -.00087	+0 -.00106

DRILL DIAMETER TOLERANCE METRIC

Diameter (mm)	1 - 3 from to	3 - 6 over to	6 - 10 over to	10 - 18 over to	18 - 30 over to
h6	0 -.00024	0 -.00032	0 -.00036	0 -.00044	0 -.00052
h7	0 -.0004	0 -.00048	0 -.00059	0 -.00071	0 -.00083
h8	0 -.00056	0 -.00071	0 -.00087	0 -.00107	0 -.00130
m7	+.00048 +.00007	+.00063 +.00015	+.00083 +.00023	+.00099 +.00027	+.00114 +.00031

COOLANT RECOMMENDATIONS FOR CARBIDE DREAM DRILLS



MEMO

MEMO

HIGH QUALITY PRODUCTS and ON TIME DELIVERY for WORLD-WIDE CUSTOMERS

Since 1982, YG-1 has been committed to quality, innovation and the unique customer experience. Our performance and experience have granted YG-1 the global impression of one of the leading manufacturers of high quality cutting tool solutions. This global footprint expands over 75 countries, with international logistic centers, pledging to our customers to give the best service available today - and tomorrow.

EUROPE

 BELGIUM	 FINLAND	 ITALY	 PORTUGAL	 SLOVENIA	 THE NETHERLANDS
 CROATIA	 FRANCE	 LITHUANIA	 ROMANIA	 SPAIN	 TURKEY
 CZECH REPUBLIC	 GERMANY	 NORWAY	 RUSSIA	 SWEDEN	 UNITED KINGDOM
 DENMARK	 HUNGARY	 POLAND	 SERBIA	 SWITZERLAND	

ASIA PACIFIC

 AUSTRALIA	 INDONESIA	 KINGDOM OF SAUDI ARABIA	 SINGAPORE	 UNITED ARAB EMIRATES
 CHINA	 IRAN	 MALAYSIA	 SOUTH KOREA	 VIETNAM
 HONG KONG	 ISRAEL	 PAKISTAN	 TAIWAN	
 INDIA	 JAPAN	 PHILIPPINES	 THAILAND	

AMERICAS

 BRAZIL	 CANADA	 COLOMBIA	 MEXICO	 UNITED STATES
--	--	--	--	---

AFRICA

 EGYPT	 SOUTH AFRICA
---	--

 **YG-1 CO., LTD.**

* For the more information on sales network, please contact the head office as below;

YG-1 HEAD OFFICE

211, Sewolcheon-ro, Bupyeong-gu, Incheon, South Korea
Phone : +82-32-526-0909
E-mail : yg1@yg1.kr
www.yg1.kr

YG-1 USA

730 Corporate Woods Parkway, Vernon Hills, IL 60061 U.S.A.
Phone : 800-765-8665
Technical Assistance : 888-868-5988
www.yg1usa.com