

YU-DD10



CARBIDE DREAM DRILLS

CARBIDE DREAM DRILLS

- CARBIDE DREAM DRILLS - INOX (with COOLANT HOLE)
- CARBIDE DREAM DRILLS (with / without COOLANT HOLE)
- CARBIDE DREAM DRILLS MQL (with COOLANT HOLE)
- CARBIDE DREAM DRILLS for HIGH HARDENED STEEL (HRc50~70)

- CARBIDE DREAM DRILLS - INOX (with COOLANT HOLE)
- CARBIDE DREAM DRILLS (with / without COOLANT HOLE)
- CARBIDE DREAM DRILLS MQL (with COOLANT HOLE)
- CARBIDE DREAM DRILLS for HIGH HARDENED STEEL (HRc50~70)



YG YG-1 CO., LTD.

HEAD OFFICE

68, Cheongcheon-Dong, Bupyeong-Gu, Incheon, Korea
PHONE : +82-32-526-0909, FAX : +82-32-526-4373
<http://www.yg1.kr>
E-mail: yg1@yg1.kr

USA OFFICE

730 Corporate Woods Parkway Vernon Hills, IL60061 U.S.A
PHONE : +1-800-765-8665, FAX : +1-866-941-8665
Technical Assistance : 888-868-5988
<http://www.yg1usa.com>



BEST VALUE IN THE WORLD OF CUTTING TOOLS

YG YG-1 CO., LTD.

Features of CARBIDE DREAM DRILLS



CARBIDE DREAM DRILLS **INOX**

with COOLANT HOLES

- ▶ The tool has the special flute shape and geometry for suitable machining of stainless steel.
- ▶ Excellent chip evacuation due to better surface treatment.
- ▶ Point R-thinning makes the superior centering and chip curf.
- ▶ Applied TiAlN coating achieves, the better surface finish of material to be cut and the longer tool life.



P. 4~5
DH463, DH464 (inch)

P. 6~11
DH451, DH452, DH453 (metric)

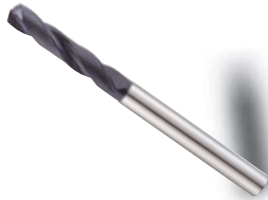
CARBIDE DREAM DRILLS

with / without COOLANT HOLES

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

P. 14~16
DH414, DH416, DH418 (inch)

P. 17~24
DH404, DH406, DH408, DH421 (metric)



CARBIDE DREAM DRILLS MQL TYPE

with COOLANT HOLES

- ▶ Non step drilling up to 10 times of drill diameter
- ▶ Available for processing MQL (Minimum Quantity Lubrication)
- ▶ Excellent positioning — Bush is not necessary
- ▶ Special design — Good chip removal
- ▶ Powerful drilling

P. 28~29
DH510, DH515, DH520 (metric)



CARBIDE DREAM DRILLS for HIGH HARDENED STEEL (HRC50~70)

- ▶ Application : Drilling for High Hardened Steels (Quenched Steels, Tempered Steels (Under HRC 70))
- ▶ Advantage : Special Design
Minimum of cutting load through special thinning
Good chip removal
Powerful Drilling

P. 32~33
DH501 (inch)

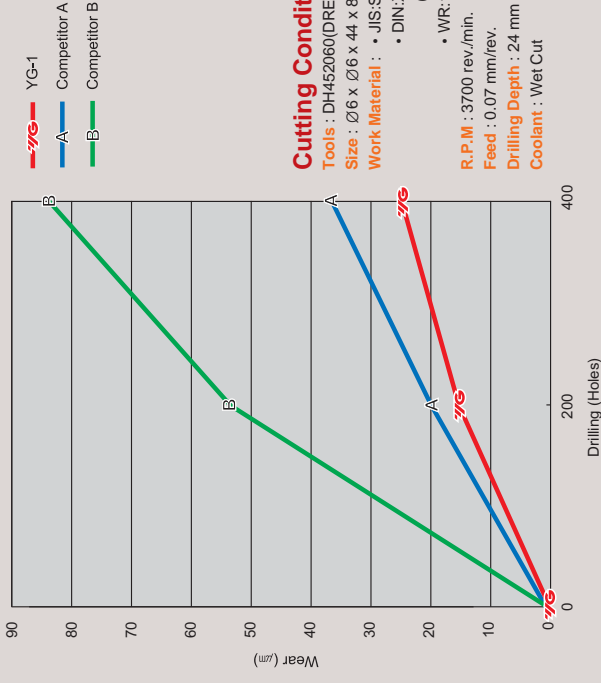
P. 34
DH500 (metric)



2. phone:+82-32-526-0909, fax:+82-32-526-4373, www.yg1.kr
phone:+1-800-765-8665, fax:+1-866-941-8665, www.yg1usa.com

CARBIDE DREAM DRILLS INOX - Test Report

with COOLANT HOLES



Cutting Condition

Tools : DH452060(DREAM DRILL-INOX)
Size : Ø6 x Ø6 x 44 x 82

Work Material : • JIS-SUS304

• DIN:X5CrNi1810

(X4CrNi18-10)

• WR:1.4301

R.P.M : 3700 rev./min.

Feed : 0.07 mm/rev.

Drilling Depth : 24 mm

Coolant : Wet Cut

YG-1 (Total Drilling 400 Holes)



COMPETITOR A (Total Drilling 400 Holes)



COMPETITOR B (Total Drilling 400 Holes)



3. phone:+82-32-526-0909, fax:+82-32-526-4373, www.yg1.kr
phone:+1-800-765-8665, fax:+1-866-941-8665, www.yg1usa.com

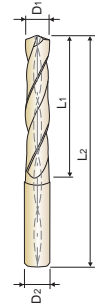


DREAM DRILLS INOX DH463Series SHORT

DREAM DRILLS INOX DH464Series LONG

CARBIDE DREAM DRILLS - INOX with COOLANT HOLES for stainless steel

- ▶ The tool has the special flute shape and geometry for suitable machining of stainless steel.
- ▶ Excellent chip evacuation due to better surface treatment.
- ▶ Point R-thinning makes the superior centering and chip curl.
- ▶ Applied TiAlN coating achieves the better surface finish of material to be cut and the longer tool life.
- ▶ Tolerance : Dia. Tolerance \pm D1. See page 36, Shank Tolerance \pm D2. -.0001 -.0005

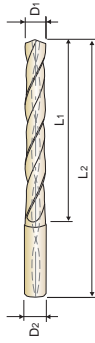


P.12

DREAM DRILLS INOX | 3xD

EDP No.	Diameter		Shank Diameter	Flute Length	Overall Length	EDP No.	Diameter		Shank Diameter	Flute Length	Overall Length	Unit: inch	
	Fractional	Decimal					Fractional	Decimal				D1	D2
DH463008	1/8	.1250	15/64	1.102	2.992	DH463024	3/8	.3705	25/64	1.969	4.174		
DH463011	11/64	.1719	15/64	1.417	3.386	DH463025	25/64	.3906	25/64	1.969	4.174		
DH463012	3/16	.1875	15/64	1.575	3.543	DH463026	13/32	.4062	27/64	2.067	4.567		
DH463013	13/64	.2031	15/64	1.082	3.228	DH463027	27/64	.4219	27/64	2.165	4.567		
DH463014	7/32	.2188	15/64	1.181	3.228	DH463028	7/16	.4375	15/32	2.264	4.803		
DH463015	15/64	.2344	15/64	1.181	3.228	DH463029	29/64	.4531	15/32	2.264	4.803		
DH463016	1/4	.2500	17/64	1.279	3.485	DH463030	15/32	.4688	15/32	2.362	4.803		
DH463206	F	.2570	17/64	1.279	3.485	DH463031	31/64	.4844	1/2	2.461	5.039		
DH463017	17/64	.2656	17/64	1.378	3.485	DH463032	1/2	.5000	1/2	2.559	5.039		
DH463209	I	.2720	0.2720	1.378	3.485	DH463033	33/64	.5156	35/64	2.657	5.276		
DH463018	9/32	.2812	5/16	1.476	3.701	DH463034	17/32	.5312	35/64	2.756	5.276		
DH463019	19/64	.2969	5/16	1.476	3.701	DH463035	35/64	.5469	35/64	2.756	5.276		
DH463020	5/16	.3125	5/16	1.575	3.701	DH463036	9/16	.5625	37/64	2.854	5.512		
DH463021	21/64	.3281	11/32	1.673	3.937	DH463037	37/64	.5781	37/64	2.953	5.512		
DH463217	0	.3320	11/32	1.673	3.937	DH463038	19/32	.5937	5/8	3.051	5.709		
DH463022	11/32	.3438	11/32	1.772	3.937	DH463039	39/64	.6094	5/8	3.051	5.709		
DH463023	23/64	.3594	25/64	1.870	4.174	DH463040	5/8	.6250	5/8	3.150	5.709		
DH463221	U	.3680	25/64	1.870	4.174								

▶ Other shank types are available on your request.



P.12

DREAM DRILLS INOX | 5xD

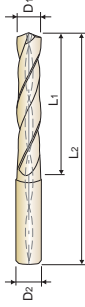
EDP No.	Diameter		Shank Diameter	Flute Length	Overall Length	EDP No.	Diameter		Shank Diameter	Flute Length	Overall Length	Unit: inch	
	Fractional	Decimal					Fractional	Decimal				D1	D2
DH464013	13/64	.2031	15/64	1-3/4	3-15/16	DH464022	11/32	.3438	11/32	2-27/32	5		
DH464014	7/32	.2188	15/64	1-57/64	3-15/16	DH464023	23/64	.3594	25/64	3	5-23/64		
DH464015	15/64	.2344	15/64	1-57/64	3-15/16	DH464024	U	.3680	25/64	3	5-23/64		
DH464016	1/4	.2500	17/64	2-3/64	4-19/64	DH464025	3/8	.3705	25/64	3-5/32	5-23/64		
DH464206	F	.2570	17/64	2-13/64	4-19/64	DH464026	13/32	.4062	27/64	3-5/16	5-7/8		
DH464017	17/64	.2656	17/64	2-13/64	4-19/64	DH464027	27/64	.4219	27/64	3-15/32	5-7/8		
DH464209	I	.2720	0.2720	2-13/64	4-19/64	DH464028	7/16	.4375	15/32	3-5/8	6-7/32		
DH464018	19/64	.2812	5/16	2-23/64	4-41/64	DH464029	29/64	.4531	15/32	3-25/32	6-7/32		
DH464019	19/64	.2812	5/16	2-23/64	4-41/64	DH464030	15/32	.4688	15/32	3-25/32	6-7/32		
DH464020	5/16	.3125	5/16	2-43/64	4-41/64	DH464031	31/64	.4844	1/2	3-15/16	6-37/64		
DH464021	21/64	.3281	11/32	2-43/64	5	DH464032	1/2	.5000	1/2	4-3/32	6-37/64		
DH464217	0	.3320	11/32	2-43/64	5								

▶ Other shank types are available on your request.



CARBIDE DREAM DRILLS - INOX with COOLANT HOLES for stainless steel

- ▶ The tool has the special flute shape and geometry for suitable machining of stainless steel.
- ▶ Excellent chip evacuation due to better surface treatment.
- ▶ Point R-thinning makes the superior centering and chip curl.
- ▶ Applied TiAlN coating achieves, the better surface finish of material to be cut and the longer tool life.



DREAM DRILLS INOX | 3xD

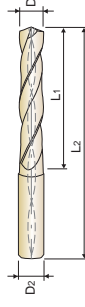
EDP No.	TiAlN	Diameter		Shank Diameter	Flute Length	Overall Length	EDP No.	TiAlN	Diameter		Shank Diameter	Flute Length	Overall Length	Unit: mm	
		Metric	Inch						Metric	Inch				L1	L2
DH451030		3.0	.1181	6	20	62	DH451061		6.1	.2402	8	34	79		
DH451031		3.1	.1220	6	20	62	DH451062		6.2	.2441	8	34	79		
DH451032		3.2	.1260	6	20	62	DH451063		6.3	.2480	8	34	79		
DH451033		3.3	.1299	6	20	62	DH451064		6.4	.2520	8	34	79		
DH451034		3.4	.1339	6	20	62	DH451065		6.5	.2559	8	34	79		
DH451035		3.5	.1378	6	20	62	DH451066		6.6	.2598	8	34	79		
DH451036		3.6	.1417	6	20	62	DH451067		6.7	.2638	8	34	79		
DH451037		3.7	.1457	6	20	62	DH451068		6.8	.2677	8	34	79		
DH451038		3.8	.1496	6	20	66	DH451069		6.9	.2717	8	34	79		
DH451039		3.9	.1535	6	24	66	DH451070		7.0	.2756	8	34	79		
DH451040		4.0	.1575	6	24	66	DH451071		7.1	.2795	8	41	79		
DH451041		4.1	.1614	6	24	66	DH451072		7.2	.2835	8	41	79		
DH451042		4.2	.1654	6	24	66	DH451073		7.3	.2874	8	41	79		
DH451043		4.3	.1693	6	24	66	DH451074		7.4	.2913	8	41	79		
DH451044		4.4	.1732	6	24	66	DH451075		7.5	.2953	8	41	79		
DH451045		4.5	.1772	6	24	66	DH451076		7.6	.2992	8	41	79		
DH451046		4.6	.1811	6	24	66	DH451077		7.7	.3031	8	41	79		
DH451047		4.7	.1850	6	24	66	DH451078		7.8	.3071	8	41	79		
DH451048		4.8	.1890	6	28	66	DH451079		7.9	.3110	8	41	79		
DH451049		4.9	.1929	6	28	66	DH451080		8.0	.3150	8	41	79		
DH451050		5.0	.1969	6	28	66	DH451081		8.1	.3189	10	47	89		
DH451051		5.1	.2008	6	28	66	DH451082		8.2	.3228	10	47	89		
DH451052		5.2	.2047	6	28	66	DH451083		8.3	.3268	10	47	89		
DH451053		5.3	.2087	6	28	66	DH451084		8.4	.3307	10	47	89		
DH451054		5.4	.2126	6	28	66	DH451085		8.5	.3346	10	47	89		
DH451055		5.5	.2165	6	28	66	DH451086		8.6	.3386	10	47	89		
DH451056		5.6	.2205	6	28	66	DH451087		8.7	.3425	10	47	89		
DH451057		5.7	.2244	6	28	66	DH451088		8.8	.3465	10	47	89		
DH451058		5.8	.2283	6	28	66	DH451089		8.9	.3504	10	47	89		
DH451059		5.9	.2323	6	28	66	DH451090		9.0	.3543	10	47	89		
DH451060		6.0	.2362	6	28	66	DH451091		9.1	.3583	10	47	89		

▶ Other shank types are available on your request.



CARBIDE DREAM DRILLS - INOX with COOLANT HOLES for stainless steel

- ▶ The tool has the special flute shape and geometry for suitable machining of stainless steel.
- ▶ Excellent chip evacuation due to better surface treatment.
- ▶ Point R-thinning makes the superior centering and chip curl.
- ▶ Applied TiAlN coating achieves, the better surface finish of material to be cut and the longer tool life.



DREAM DRILLS INOX | 3xD

EDP No.	TiAlN	Diameter		Shank Diameter	Flute Length	Overall Length	EDP No.	TiAlN	Diameter		Shank Diameter	Flute Length	Overall Length	Unit: mm	
		Metric	Inch						Metric	Inch				L1	L2
DH451092		9.2	.3622	10	47	89	DH451115		11.5	.4527	12	55	102		
DH451093		9.3	.3661	10	47	89	DH451116		11.6	.4566	12	55	102		
DH451094		9.4	.3701	10	47	89	DH451117		11.7	.4606	12	55	102		
DH451095		9.5	.3740	10	47	89	DH451118		11.8	.4645	12	55	102		
DH451096		9.6	.3780	10	47	89	DH451119		11.9	.4685	12	55	102		
DH451097		9.7	.3819	10	47	89	DH451120		12.0	.4724	12	55	102		
DH451098		9.8	.3858	10	47	89	DH451125		12.5	.4921	14	60	107		
DH451099		9.9	.3898	10	47	89	DH451130		13.0	.5118	14	60	107		
DH451100		10.0	.3937	10	47	89	DH451135		13.5	.5314	14	60	107		
DH451101		10.1	.3976	12	55	102	DH451140		14.0	.5511	14	60	107		
DH451102		10.2	.4016	12	55	102	DH451145		14.5	.5708	16	65	115		
DH451103		10.3	.4055	12	55	102	DH451150		15.0	.5905	16	65	115		
DH451104		10.4	.4094	12	55	102	DH451155		15.5	.6102	16	65	115		
DH451105		10.5	.4134	12	55	102	DH451160		16.0	.6299	16	65	115		
DH451106		10.6	.4173	12	55	102	DH451165		16.5	.6495	18	73	123		
DH451107		10.7	.4212	12	55	102	DH451170		17.0	.6692	18	73	123		
DH451108		10.8	.4252	12	55	102	DH451175		17.5	.6889	18	73	123		
DH451109		10.9	.4291	12	55	102	DH451180		18.0	.7086	18	73	123		
DH451110		11.0	.4330	12	55	102	DH451185		18.5	.7283	20	79	131		
DH451111		11.1	.4370	12	55	102	DH451190		19.0	.7480	20	79	131		
DH451112		11.2	.4409	12	55	102	DH451195		19.5	.7676	20	79	131		
DH451113		11.3	.4448	12	55	102	DH451200		20.0	.7873	20	79	131		
DH451114		11.4	.4488	12	55	102									



DREAM DRILLS INOX DH452Series **LONG**

DREAM DRILLS INOX DH452Series **LONG**

CARBIDE DREAM DRILLS - INOX with COOLANT HOLES for stainless steel

- ▶ The tool has the special flute shape and geometry for suitable machining of stainless steel.
- ▶ Excellent chip evacuation due to better surface treatment.
- ▶ Point R-thinning makes the superior centering and chip curl.
- ▶ Applied TiAlN coating achieves, the better surface finish of material to be cut and the longer tool life.



DIN 6537

MG

h6

m7

140°

P.12

DREAM DRILLS INOX | 5xD

EDP No.	TiAlN	Diameter		Shank Diameter	Flute Length	Overall Length	EDP No.	TiAlN	Diameter		Shank Diameter	Flute Length	Overall Length	Unit: mm	
		Metric	Inch						Metric	Inch				L1	L2
DH452030		3.0	.1181	6	28	66	DH452061		6.1	.2402	8	53	91		
DH452031		3.1	.1220	6	28	66	DH452062		6.2	.2441	8	53	91		
DH452032		3.2	.1260	6	28	66	DH452063		6.3	.2480	8	53	91		
DH452033		3.3	.1299	6	28	66	DH452064		6.4	.2520	8	53	91		
DH452034		3.4	.1339	6	28	66	DH452065		6.5	.2559	8	53	91		
DH452035		3.5	.1378	6	28	66	DH452066		6.6	.2598	8	53	91		
DH452036		3.6	.1417	6	28	66	DH452067		6.7	.2638	8	53	91		
DH452037		3.7	.1457	6	28	66	DH452068		6.8	.2677	8	53	91		
DH452038		3.8	.1496	6	36	74	DH452069		6.9	.2717	8	53	91		
DH452039		3.9	.1535	6	36	74	DH452070		7.0	.2756	8	53	91		
DH452040		4.0	.1575	6	36	74	DH452071		7.1	.2795	8	53	91		
DH452041		4.1	.1614	6	36	74	DH452072		7.2	.2835	8	53	91		
DH452042		4.2	.1654	6	36	74	DH452073		7.3	.2874	8	53	91		
DH452043		4.3	.1693	6	36	74	DH452074		7.4	.2913	8	53	91		
DH452044		4.4	.1732	6	36	74	DH452075		7.5	.2953	8	53	91		
DH452045		4.5	.1772	6	36	74	DH452076		7.6	.2992	8	53	91		
DH452046		4.6	.1811	6	36	74	DH452077		7.7	.3031	8	53	91		
DH452047		4.7	.1850	6	36	74	DH452078		7.8	.3071	8	53	91		
DH452048		4.8	.1890	6	44	82	DH452079		7.9	.3110	8	53	91		
DH452049		4.9	.1929	6	44	82	DH452080		8.0	.3150	8	53	91		
DH452050		5.0	.1969	6	44	82	DH452081		8.1	.3189	10	61	103		
DH452051		5.1	.2008	6	44	82	DH452082		8.2	.3228	10	61	103		
DH452052		5.2	.2047	6	44	82	DH452083		8.3	.3268	10	61	103		
DH452053		5.3	.2087	6	44	82	DH452084		8.4	.3307	10	61	103		
DH452054		5.4	.2126	6	44	82	DH452085		8.5	.3346	10	61	103		
DH452055		5.5	.2165	6	44	82	DH452086		8.6	.3386	10	61	103		
DH452056		5.6	.2205	6	44	82	DH452087		8.7	.3425	10	61	103		
DH452057		5.7	.2244	6	44	82	DH452088		8.8	.3465	10	61	103		
DH452058		5.8	.2283	6	44	82	DH452089		8.9	.3504	10	61	103		
DH452059		5.9	.2323	6	44	82	DH452090		9.0	.3543	10	61	103		
DH452060		6.0	.2362	6	44	82	DH452091		9.1	.3583	10	61	103		

▶ Other shank types are available on your request.



DIN 6537

MG

h6

m7

140°

P.12

DREAM DRILLS INOX | 5xD

EDP No.	TiAlN	Diameter		Shank Diameter	Flute Length	Overall Length	EDP No.	TiAlN	Diameter		Shank Diameter	Flute Length	Overall Length	Unit: mm	
		Metric	Inch						Metric	Inch				L1	L2
DH452092		9.2	.3622	10	61	103	DH452115		11.5	.4527	12	71	118		
DH452093		9.3	.3661	10	61	103	DH452116		11.6	.4566	12	71	118		
DH452094		9.4	.3701	10	61	103	DH452117		11.7	.4606	12	71	118		
DH452095		9.5	.3740	10	61	103	DH452118		11.8	.4645	12	71	118		
DH452096		9.6	.3780	10	61	103	DH452119		11.9	.4685	12	71	118		
DH452097		9.7	.3819	10	61	103	DH452120		12.0	.4724	12	71	118		
DH452098		9.8	.3858	10	61	103	DH452125		12.5	.4921	14	77	124		
DH452099		9.9	.3898	10	61	103	DH452130		13.0	.5118	14	77	124		
DH452100		10.0	.3937	10	61	103	DH452135		13.5	.5314	14	77	124		
DH452101		10.1	.3976	12	71	118	DH452140		14.0	.5511	14	77	124		
DH452102		10.2	.4016	12	71	118	DH452145		14.5	.5708	16	83	133		
DH452103		10.3	.4055	12	71	118	DH452150		15.0	.5905	16	83	133		
DH452104		10.4	.4094	12	71	118	DH452155		15.5	.6102	16	83	133		
DH452105		10.5	.4134	12	71	118	DH452160		16.0	.6299	16	83	133		
DH452106		10.6	.4173	12	71	118	DH452165		16.5	.6495	18	93	143		
DH452107		10.7	.4212	12	71	118	DH452170		17.0	.6692	18	93	143		
DH452108		10.8	.4252	12	71	118	DH452175		17.5	.6889	18	93	143		
DH452109		10.9	.4291	12	71	118	DH452180		18.0	.7086	18	93	143		
DH452110		11.0	.4330	12	71	118	DH452185		18.5	.7283	20	101	153		
DH452111		11.1	.4370	12	71	118	DH452190		19.0	.7480	20	101	153		
DH452112		11.2	.4409	12	71	118	DH452195		19.5	.7676	20	101	153		
DH452113		11.3	.4448	12	71	118	DH452200		20.0	.7873	20	101	153		
DH452114		11.4	.4488	12	71	118									

▶ Other shank types are available on your request.

with COOLANT HOLES

CARBIDE DREAM DRILLS - INOX with COOLANT HOLES, TITAN COATED

DH463, DH464, DH451, DH452, DH453 Series

WORK MATERIAL	STAINLESS STEELS			STAINLESS STEELS			ALUMINIUM			ALUMINIUM		
	< 800 N/mm ²			> 800 N/mm ²			< 10% SI			> 10% SI		
STRENGTH	DIAMETER		N	S	N	S	N	S	N	S	N	S
Metric(mm)	Fractional	Decimal										
3.0	1/8	.1181	7400	0.002	4700	0.001	23000	0.005	18500	0.004		
4.0	5/32	.1575	5600	0.002	3600	0.001	17500	0.007	13900	0.006		
5.0	13/64	.1969	4400	0.002	2800	0.001	14000	0.008	11000	0.007		
6.0	15/64	.2362	3700	0.002	2400	0.002	11700	0.010	9300	0.010		
8.0	5/16	.3150	2800	0.003	1800	0.002	8800	0.012	7000	0.012		
10.0	25/64	.3937	2200	0.004	1400	0.003	7000	0.016	5600	0.014		
12.0	15/32	.4724	1900	0.005	1200	0.004	5800	0.020	4600	0.016		
14.0	35/64	.5511	1600	0.006	1000	0.005	5000	0.024	4000	0.020		
16.0	5/8	.6299	1400	0.008	900	0.006	4380	0.031	3500	0.024		
18.0	45/64	.7086	1250	0.009	800	0.007	3900	0.039	3100	0.028		
20.0	25/32	.7873	1120	0.009	720	0.007	3500	0.047	2800	0.031		

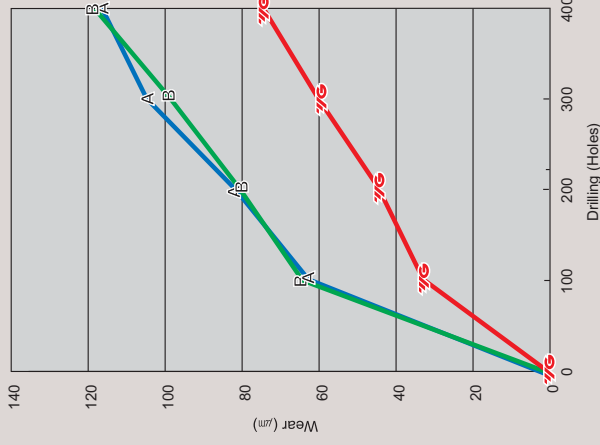
WORK MATERIAL	TITAN TiAlloy			CARBON STEEL ALLOY STEEL			NON FERROUS			
	N	S	S	N	S	S	N	S	S	
STRENGTH	DIAMETER		N	S	N	S	N	S	N	S
Metric(mm)	Fractional	Decimal								
3.0	1/8	.1181	5300	0.001	13000	0.002	16000	0.003		
4.0	5/32	.1575	4000	0.002	10000	0.002	11900	0.004		
5.0	13/64	.1969	3200	0.002	8000	0.002	9500	0.005		
6.0	15/64	.2362	2650	0.002	6600	0.002	8000	0.006		
8.0	5/16	.3150	2000	0.003	5000	0.003	6000	0.007		
10.0	25/64	.3937	1600	0.003	4000	0.004	4800	0.009		
12.0	15/32	.4724	1300	0.004	3300	0.005	4000	0.010		
14.0	35/64	.5511	1100	0.005	2800	0.006	3400	0.012		
16.0	5/8	.6299	1000	0.006	2500	0.008	3000	0.016		
18.0	45/64	.7086	900	0.006	2200	0.009	2650	0.018		
20.0	25/32	.7873	800	0.007	2000	0.009	2400	0.020		

N = RPM
S = Inch per Revolution (inch/rev.)

▶ Recommend to reduce the feed rate as following.

Feed 100% : DH463, DH451 (3xD), DH464, DH452 (5xD)

Feed 85% : DH453 (8xD)



Cutting Condition

Tools : DH408015 (Dream Drill with Coolant Hole)

Size : Ø1.5 x Ø3 x 15 x 55

Work Material : • JIS-SKD61 (HRC30)

• DIN-X40CrMoV51

• WR:1.2344

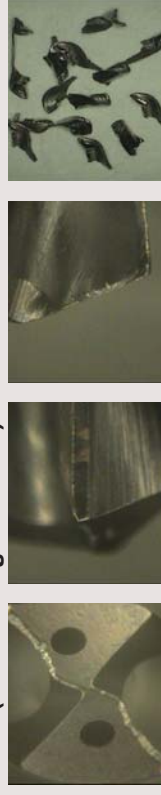
R.P.M. : 14856 rev./min.

Feed : 0.05 mm/rev.

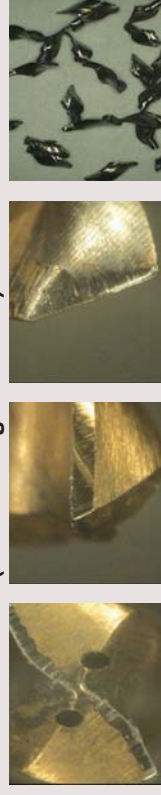
Drilling Depth : 7.5 mm

Coolant : Wet Cut

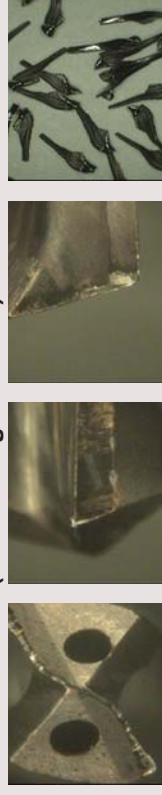
YG-1 (Total Drilling 400 Holes)



COMPETITOR A (Total Drilling 400 Holes)



COMPETITOR B (Total Drilling 400 Holes)





DREAM DRILLS

DH414Series

SHORT



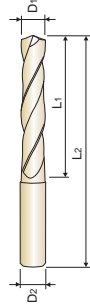
DREAM DRILLS

DH416Series

SHORT

CARBIDE DREAM DRILLS without COOLANT HOLES

- ▶ Application : Drilling into steel in general, cast steel, cast iron, chilled cast iron, non-ferrous heavy metal, non-ferrous light metal, abrasive plastic.
- ▶ Advantage : Self centering
Excellent positioning
Special Design
- ▶ Tolerance : Dia. Tolerance $\varnothing D1$: See page 38, Shank Tolerance $\varnothing D2$: -.0001 -.0005



$$D1 = D2$$



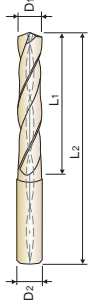
P.25

DREAM DRILLS 13xD

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

CARBIDE DREAM DRILLS with COOLANT HOLES

- ▶ Application : Drilling into steel in general, cast steel, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metal, non-ferrous light metal, abrasive plastic.
- ▶ Advantage : Self centering
Excellent positioning
Special Design
- ▶ Tolerance : Dia. Tolerance $\varnothing D1$: See page 38, Shank Tolerance $\varnothing D2$: -.0001 -.0005



P.25

DREAM DRILLS 13xD

EDP No.	TiAlN	Diameter		Flute Length	Overall Length	EDP No.	Diameter		Flute Length	Overall Length	Unit: inch		
		Fractional	Decimal				Fractional	Decimal			Flute Length	Overall Length	
0081BTf	1/8	.1250	15/64	1-102	2-992	0241BTf	3/8	.3705	25/64	1-969	4-174	L1	L2
0111BTf	11/64	.1719	15/64	1-417	3-366	0251BTf	25/64	.3906	25/64	1-969	4-174		
0121BTf	3/16	.1875	15/64	1-575	3-543	0261BTf	13/32	.4062	27/64	2-067	4-567		
0131BTf	13/64	.2031	15/64	1-082	3-228	0271BTf	27/64	.4219	27/64	2-185	4-567		
0141BTf	7/32	.2188	15/64	1-181	3-228	0281BTf	7/16	.4375	15/32	2-264	4-803		
0151BTf	15/64	.2344	15/64	1-181	3-228	0291BTf	29/64	.4531	15/32	2-264	4-803		
0161BTf	1/4	.2500	17/64	1-279	3-465	0301BTf	15/32	.4688	15/32	2-362	4-803		
2061BTf	F	.2570	17/64	1-279	3-465	0311BTf	31/64	.4844	1/2	2-461	5-039		
0171BTf	17/64	.2656	17/64	1-378	3-465	0321BTf	1/2	.5000	1/2	2-559	5-039		
2091BTf	I	.2720	0-2720	1-378	3-465	0331BTf	33/64	.5156	35/64	2-657	5-276		
0181BTf	9/32	.2812	5/16	1-476	3-701	0341BTf	17/32	.5312	35/64	2-756	5-276		
0191BTf	19/64	.2969	5/16	1-476	3-701	0351BTf	35/64	.5469	35/64	2-756	5-276		
0201BTf	5/16	.3125	5/16	1-575	3-701	0361BTf	9/16	.5625	37/64	2-854	5-512		
0211BTf	21/64	.3281	11/32	1-673	3-937	0371BTf	37/64	.5781	37/64	2-953	5-512		
2171BTf	Q	.3320	11/32	1-673	3-937	0381BTf	19/32	.5937	5/8	3-051	5-709		
0221BTf	11/32	.3438	11/32	1-772	3-937	0391BTf	39/64	.6094	5/8	3-051	5-709		
0231BTf	23/64	.3594	25/64	1-870	4-174	0401BTf	5/8	.6250	5/8	3-150	5-709		
2211BTf	U	.3660	25/64	1-870	4-174								

CARBIDE DREAM DRILLS with COOLANT HOLES

▶ Application : Drilling into steel in general, cast steel, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metal, non-ferrous light metal, abrasive plastic.

- ▶ Advantage : Self centering
- center drilling is not required
- bush is not necessary
- excellent positioning
- special design
- easy chip removal
- powerful drilling

▶ Tolerance : Dia. Tolerance ØD1: See page 38, Shank Tolerance ØD2: -.0001 -.0005



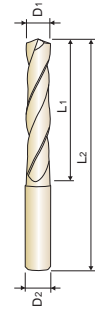
DREAM DRILLS 15xD

EDP No. TiAlN	Diameter Fractional Decimal		EDP No. TiAlN	Diameter Fractional Decimal	Shank Diameter D2	Flute Length L1	Overall Length L2	Unit: inch	
	D1	D2						Flute Length L1	Overall Length L2
0131CTF	13/64	.2031	0221CTF	11/32	11/32	2-27/32	5		
0141CTF	7/32	.2188	0231CTF	23/64	.3594	25/64	3	5-23/64	5
0151CTF	15/64	.2344	2211CTF	U	.3680	25/64	3	5-23/64	5
0161CTF	1/4	.2500	0241CTF	3/8	.3750	25/64	3-5/32	5-23/64	5
2061CTF	F	.2570	0251CTF	25/64	.3906	25/64	3-5/32	5-23/64	5
0171CTF	17/64	.2656	0261CTF	13/32	.4062	27/64	3-5/16	5-7/8	5
2091CTF	I	.2720	0271CTF	27/64	.4219	27/64	3-15/32	5-7/8	5
0181CTF	9/32	.2812	0281CTF	7/16	.4375	15/32	3-5/8	6-7/32	5
0191CTF	19/64	.2969	0291CTF	29/64	.4531	15/32	3-25/32	6-7/32	5
0201CTF	5/16	.3125	0301CTF	15/32	.4688	15/32	3-25/32	6-7/32	5
0211CTF	21/64	.3281	0311CTF	31/64	.4844	1/2	3-15/16	6-37/64	5
2171CTF	0	.3380	0321CTF	1/2	.5000	1/2	4-3/32	6-37/64	5

CARBIDE DREAM DRILLS without COOLANT HOLES

▶ Application : Drilling into general steel, cast steel, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metal, non-ferrous light metal, abrasive plastic.

- ▶ Advantage : Self centering
- center drilling is not required
- bush is not necessary
- excellent positioning
- special design
- easy chip removal
- powerful drilling



DREAM DRILLS 13xD

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



DREAM DRILLS

DH404Series

SHORT



DREAM DRILLS

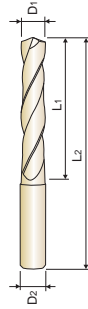
DH406Series

SHORT

CARBIDE DREAM DRILLS without COOLANT HOLES

► Application : Drilling into general steel, cast steel, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metal, non-ferrous light metal, abrasive plastic.

- Advantage : Self centering
- bush is not necessary
- excellent positioning
- no chip removal required
- special design
- powerful drilling



$D1 = D2$

DIN 6539

MG

h6

m7

140°

P.26

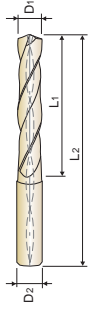
DREAM DRILLS 13xD

EDP No.	TiAIN	Diameter		Flute Length	Overall Length	EDP No.	Diameter		Flute Length	Overall Length	Unit: mm	
		Metric	D1=D2				Metric	D1=D2			L1	L2
DH404084	8.4	.3307	37	79	84	DH404110	11.0	.4331	47	95	L1	L2
DH404085	8.5	.3346	37	79	84	DH404115	11.5	.4528	47	95	L1	L2
DH404086	8.6	.3386	40	84	84	DH404120	12.0	.4724	51	102	L1	L2
DH404087	8.7	.3425	40	84	84	DH404130	13.0	.5118	51	102	L1	L2
DH404088	8.8	.3465	40	84	84	DH404135	13.5	.5314	54	107	L1	L2
DH404089	8.9	.3504	40	84	84	DH404140	14.0	.5511	54	107	L1	L2
DH404090	9.0	.3543	40	84	84	DH404145	14.5	.5708	56	111	L1	L2
DH404091	9.1	.3583	40	84	84	DH404150	15.0	.5905	56	111	L1	L2
DH404092	9.2	.3622	40	84	84	DH404155	15.5	.6102	58	115	L1	L2
DH404093	9.3	.3661	40	84	84	DH404160	16.0	.6299	58	115	L1	L2
DH404094	9.4	.3701	40	84	84	DH404165	16.5	.6495	60	119	L1	L2
DH404095	9.5	.3740	40	84	84	DH404170	17.0	.6692	60	119	L1	L2
DH404096	9.6	.3780	43	89	89	DH404175	17.5	.6889	62	123	L1	L2
DH404097	9.7	.3819	43	89	89	DH404180	18.0	.7086	62	123	L1	L2
DH404098	9.8	.3858	43	89	89	DH404185	18.5	.7283	64	127	L1	L2
DH404099	9.9	.3898	43	89	89	DH404190	19.0	.7480	64	127	L1	L2
DH404100	10.0	.3937	43	89	89	DH404195	19.5	.7676	66	131	L1	L2
DH404102	10.2	.4016	43	89	89	DH404200	20.0	.7873	66	131	L1	L2
DH404105	10.5	.4134	43	89	89							

CARBIDE DREAM DRILLS with COOLANT HOLES

► Application : Drilling into steel in general, cast steel, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metal, non-ferrous light metal, abrasive plastic.

- Advantage : Self centering
- bush is not necessary
- excellent positioning
- no chip removal required
- special design
- powerful drilling



DIN 6537

MG

h6

m7

140°

P.26

DREAM DRILLS 13xD

EDP No.	TiAIN	Diameter		Flute Length	Overall Length	EDP No.	Diameter		Flute Length	Overall Length	Unit: mm		
		Metric	D1				Metric	D1			L1	L2	
DH406030	3.0	.1181	6	20	62	DH406060	6.0	.2362	6	28	66	L1	L2
DH406031	3.1	.1220	6	20	62	DH406061	6.1	.2402	8	34	79	L1	L2
DH406032	3.2	.1260	6	20	62	DH406062	6.2	.2441	8	34	79	L1	L2
DH406033	3.3	.1299	6	20	62	DH406063	6.3	.2480	8	34	79	L1	L2
DH406034	3.4	.1339	6	20	62	DH406064	6.4	.2520	8	34	79	L1	L2
DH406035	3.5	.1378	6	20	62	DH406065	6.5	.2559	8	34	79	L1	L2
DH406036	3.6	.1417	6	20	62	DH406066	6.6	.2598	8	34	79	L1	L2
DH406037	3.7	.1457	6	20	62	DH406067	6.7	.2638	8	34	79	L1	L2
DH406038	3.8	.1496	6	20	62	DH406068	6.8	.2677	8	34	79	L1	L2
DH406039	3.9	.1535	6	24	66	DH406069	6.9	.2717	8	34	79	L1	L2
DH406040	4.0	.1575	6	24	66	DH406070	7.0	.2756	8	34	79	L1	L2
DH406041	4.1	.1614	6	24	66	DH406071	7.1	.2795	8	41	79	L1	L2
DH406042	4.2	.1654	6	24	66	DH406072	7.2	.2835	8	41	79	L1	L2
DH406043	4.3	.1693	6	24	66	DH406073	7.3	.2874	8	41	79	L1	L2
DH406044	4.4	.1732	6	24	66	DH406074	7.4	.2913	8	41	79	L1	L2
DH406045	4.5	.1772	6	24	66	DH406075	7.5	.2953	8	41	79	L1	L2
DH406046	4.6	.1811	6	24	66	DH406076	7.6	.2992	8	41	79	L1	L2
DH406047	4.7	.1850	6	24	66	DH406077	7.7	.3031	8	41	79	L1	L2
DH406048	4.8	.1890	6	28	66	DH406078	7.8	.3071	8	41	79	L1	L2
DH406049	4.9	.1929	6	28	66	DH406079	7.9	.3110	8	41	79	L1	L2
DH406050	5.0	.1969	6	28	66	DH406080	8.0	.3150	8	41	79	L1	L2
DH406051	5.1	.2008	6	28	66	DH406081	8.1	.3189	10	47	89	L1	L2
DH406052	5.2	.2047	6	28	66	DH406082	8.2	.3228	10	47	89	L1	L2
DH406053	5.3	.2087	6	28	66	DH406083	8.3	.3268	10	47	89	L1	L2
DH406054	5.4	.2126	6	28	66	DH406084	8.4	.3307	10	47	89	L1	L2
DH406055	5.5	.2165	6	28	66	DH406085	8.5	.3346	10	47	89	L1	L2
DH406056	5.6	.2205	6	28	66	DH406086	8.6	.3386	10	47	89	L1	L2
DH406057	5.7	.2244	6	28	66	DH406087	8.7	.3425	10	47	89	L1	L2
DH406058	5.8	.2283	6	28	66	DH406088	8.8	.3465	10	47	89	L1	L2
DH406059	5.9	.2323	6	28	66	DH406089	8.9	.3504	10	47	89	L1	L2



DREAM DRILLS

DH406Series

SHORT



DREAM DRILLS

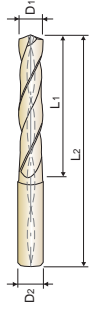
DH408Series

LONG

CARBIDE DREAM DRILLS with COOLANT HOLES

► Application : Drilling into steel in general, cast steel, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metal, non-ferrous light metal, abrasive plastic.

- Advantage : Self centering
- center drilling is not required
- bush is not necessary
- excellent positioning
- no chip removal required
- special design
- good chip removal
- powerful drilling



DIN 6537

MG

h6

m7

140°

P.26

DREAM DRILLS 13xD

EDP No.	TiAIN	Diameter		Shank Diameter	Flute Length		Shank Diameter	Flute Length		Overall Length	Unit : mm	
		Metric	D1		D2	L1		L2	Dz		L1	L2
DH406090	9.0	.3543	10	.47	89	10	.4488	12	55	102		
DH406091	9.1	.3583	10	.47	89	12	.4527	12	55	102		
DH406092	9.2	.3622	10	.47	89	12	.4566	12	55	102		
DH406093	9.3	.3661	10	.47	89	12	.4606	12	55	102		
DH406094	9.4	.3701	10	.47	89	12	.4645	12	55	102		
DH406095	9.5	.3740	10	.47	89	12	.4685	12	55	102		
DH406096	9.6	.3780	10	.47	89	12	.4724	12	55	102		
DH406097	9.7	.3819	10	.47	89	12	.4763	12	55	102		
DH406098	9.8	.3858	10	.47	89	14	.4802	14	60	107		
DH406099	9.9	.3898	10	.47	89	14	.4841	14	60	107		
DH406100	10.0	.3937	10	.47	89	14	.4880	14	60	107		
DH406101	10.1	.3976	12	55	102	16	.4919	16	65	115		
DH406102	10.2	.4016	12	55	102	16	.4958	16	65	115		
DH406103	10.3	.4055	12	55	102	16	.4997	16	65	115		
DH406104	10.4	.4094	12	55	102	16	.5036	16	65	115		
DH406105	10.5	.4134	12	55	102	18	.5075	18	73	123		
DH406106	10.6	.4173	12	55	102	18	.5114	18	73	123		
DH406107	10.7	.4212	12	55	102	18	.5153	18	73	123		
DH406108	10.8	.4252	12	55	102	18	.5192	18	73	123		
DH406109	10.9	.4291	12	55	102	20	.5231	20	79	131		
DH406110	11.0	.4330	12	55	102	20	.5270	20	79	131		
DH406111	11.1	.4370	12	55	102	20	.5309	20	79	131		
DH406112	11.2	.4409	12	55	102	20	.5348	20	79	131		
DH406113	11.3	.4448	12	55	102	20	.5387	20	79	131		

► Other shank types are available on your request.

CARBIDE DREAM DRILLS with COOLANT HOLES

► Application : Drilling into steel in general, cast steel, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metal, non-ferrous light metal, abrasive plastic.

- Advantage : Self centering
- center drilling is not required
- bush is not necessary
- excellent positioning
- no chip removal required
- special design
- good chip removal
- powerful drilling



DIN 6537

MG

h6

m7

140°

P.26

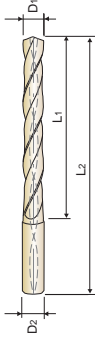
DREAM DRILLS 15xD

EDP No.	TiAIN	Diameter		Shank Diameter	Flute Length		Shank Diameter	Flute Length		Overall Length	Unit : mm	
		Metric	D1		D2	L1		L2	Dz		L1	L2
DH408010	1.0	.0394	3	8	55	3	.1693	6	36	74		
DH408011	1.1	.0433	3	12	55	3	.1732	6	36	74		
DH408012	1.2	.0472	3	12	55	3	.1772	6	36	74		
DH408013	1.3	.0512	3	12	55	3	.1811	6	36	74		
DH408014	1.4	.0551	3	12	55	3	.1850	6	36	74		
DH408015	1.5	.0591	3	16	55	3	.1890	6	44	82		
DH408016	1.6	.0630	3	16	55	3	.1929	6	44	82		
DH408017	1.7	.0669	3	16	55	3	.1969	6	44	82		
DH408018	1.8	.0708	3	16	55	3	.2008	6	44	82		
DH408019	1.9	.0748	3	16	55	3	.2047	6	44	82		
DH408020	2.0	.0787	4	21	57	4	.2087	6	44	82		
DH408021	2.1	.0827	4	21	57	4	.2126	6	44	82		
DH408022	2.2	.0866	4	21	57	4	.2165	6	44	82		
DH408023	2.3	.0906	4	21	57	4	.2205	6	44	82		
DH408024	2.4	.0945	4	21	57	4	.2244	6	44	82		
DH408025	2.5	.0984	4	21	57	4	.2283	6	44	82		
DH408026	2.6	.1024	4	21	57	4	.2323	6	44	82		
DH408027	2.7	.1063	4	21	57	4	.2362	6	44	82		
DH408028	2.8	.1102	4	21	57	4	.2402	8	53	91		
DH408029	2.9	.1142	4	21	57	4	.2441	8	53	91		
DH408030	3.0	.1181	6	28	66	6	.2480	8	53	91		
DH408031	3.1	.1220	6	28	66	6	.2520	8	53	91		
DH408032	3.2	.1260	6	28	66	6	.2559	8	53	91		
DH408033	3.3	.1299	6	28	66	6	.2598	8	53	91		
DH408034	3.4	.1339	6	28	66	6	.2638	8	53	91		
DH408035	3.5	.1378	6	28	66	6	.2677	8	53	91		
DH408036	3.6	.1417	6	28	66	6	.2717	8	53	91		
DH408037	3.7	.1457	6	28	66	6	.2756	8	53	91		
DH408038	3.8	.1496	6	36	74	6	.2795	8	53	91		
DH408039	3.9	.1535	6	36	74	6	.2835	8	53	91		
DH408040	4.0	.1575	6	36	74	6	.2874	8	53	91		
DH408041	4.1	.1614	6	36	74	6	.2913	8	53	91		
DH408042	4.2	.1654	6	36	74	6	.2953	8	53	91		

CARBIDE DREAM DRILLS with COOLANT HOLES

► Application : Drilling into steel in general, cast steel, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metal, non-ferrous light metal, abrasive plastic.

- Advantage : Self centering
- center drilling is not required
- bush is not necessary
- excellent positioning
- no chip removal required
- easy chip removal
- powerful drilling



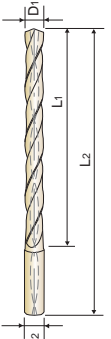
EDP No.	TiAIN	Diameter		Shank Diameter	Flute Length	Overall Length	EDP No.	Diameter		Shank Diameter	Flute Length	Overall Length	Unit: mm	
		Metric	Inch					Metric	Inch				L1	L2
DH408076	7.6	.2992	8	8	53	91	DH408107	10.7	.4212	12	71	118	L1	L2
DH408077	7.7	.3031	8	8	53	91	DH408108	10.8	.4252	12	71	118	L1	L2
DH408078	7.8	.3071	8	8	53	91	DH408109	10.9	.4291	12	71	118	L1	L2
DH408079	7.9	.3110	8	8	53	91	DH408110	11.0	.4330	12	71	118	L1	L2
DH408080	8.0	.3150	8	8	53	91	DH408111	11.1	.4370	12	71	118	L1	L2
DH408081	8.1	.3189	10	10	61	103	DH408112	11.2	.4409	12	71	118	L1	L2
DH408082	8.2	.3228	10	10	61	103	DH408113	11.3	.4448	12	71	118	L1	L2
DH408083	8.3	.3268	10	10	61	103	DH408114	11.4	.4488	12	71	118	L1	L2
DH408084	8.4	.3307	10	10	61	103	DH408115	11.5	.4527	12	71	118	L1	L2
DH408085	8.5	.3346	10	10	61	103	DH408116	11.6	.4566	12	71	118	L1	L2
DH408086	8.6	.3386	10	10	61	103	DH408117	11.7	.4606	12	71	118	L1	L2
DH408087	8.7	.3425	10	10	61	103	DH408118	11.8	.4645	12	71	118	L1	L2
DH408088	8.8	.3465	10	10	61	103	DH408119	11.9	.4685	12	71	118	L1	L2
DH408089	8.9	.3504	10	10	61	103	DH408120	12.0	.4724	12	71	118	L1	L2
DH408090	9.0	.3543	10	10	61	103	DH408125	12.5	.4921	14	77	124	L1	L2
DH408091	9.1	.3583	10	10	61	103	DH408130	13.0	.5118	14	77	124	L1	L2
DH408092	9.2	.3622	10	10	61	103	DH408135	13.5	.5314	14	77	124	L1	L2
DH408093	9.3	.3661	10	10	61	103	DH408140	14.0	.5511	14	77	124	L1	L2
DH408094	9.4	.3701	10	10	61	103	DH408145	14.5	.5708	16	83	133	L1	L2
DH408095	9.5	.3740	10	10	61	103	DH408150	15.0	.5905	16	83	133	L1	L2
DH408096	9.6	.3780	10	10	61	103	DH408155	15.5	.6102	16	83	133	L1	L2
DH408097	9.7	.3819	10	10	61	103	DH408160	16.0	.6299	16	83	133	L1	L2
DH408098	9.8	.3858	10	10	61	103	DH408165	16.5	.6495	18	93	143	L1	L2
DH408099	9.9	.3898	10	10	61	103	DH408170	17.0	.6692	18	93	143	L1	L2
DH408100	10.0	.3937	10	10	61	103	DH408175	17.5	.6889	18	93	143	L1	L2
DH408101	10.1	.3976	12	12	71	118	DH408180	18.0	.7086	18	93	143	L1	L2
DH408102	10.2	.4016	12	12	71	118	DH408185	18.5	.7283	20	101	153	L1	L2
DH408103	10.3	.4055	12	12	71	118	DH408190	19.0	.7480	20	101	153	L1	L2
DH408104	10.4	.4094	12	12	71	118	DH408195	19.5	.7676	20	101	153	L1	L2
DH408105	10.5	.4134	12	12	71	118	DH408200	20.0	.7873	20	101	153	L1	L2
DH408106	10.6	.4173	12	12	71	118								

► Other shank types are available on your request.

CARBIDE DREAM DRILLS with COOLANT HOLES

► Application : Drilling into steel in general, cast steel, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metal, non-ferrous light metal, abrasive plastic.

- Advantage : Self centering
- center drilling is not required
- bush is not necessary
- excellent positioning
- no chip removal required
- easy chip removal
- powerful drilling

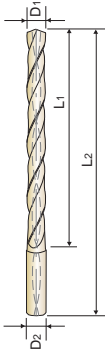


EDP No.	TiAIN	Diameter		Shank Diameter	Flute Length	Overall Length	EDP No.	Diameter		Shank Diameter	Flute Length	Overall Length	Unit: mm	
		Metric	Inch					Metric	Inch				L1	L2
DH421030	3.0	.1181	6	6	34	72	DH421058	5.8	.2283	6	57	95	L1	L2
DH421031	3.1	.1220	6	6	34	72	DH421059	5.9	.2323	6	57	95	L1	L2
DH421032	3.2	.1260	6	6	34	72	DH421060	6.0	.2362	6	57	95	L1	L2
DH421033	3.3	.1299	6	6	34	72	DH421061	6.1	.2402	8	76	114	L1	L2
DH421034	3.4	.1339	6	6	34	72	DH421062	6.2	.2441	8	76	114	L1	L2
DH421035	3.5	.1378	6	6	34	72	DH421063	6.3	.2480	8	76	114	L1	L2
DH421036	3.6	.1417	6	6	34	72	DH421064	6.4	.2520	8	76	114	L1	L2
DH421037	3.7	.1457	6	6	34	72	DH421065	6.5	.2559	8	76	114	L1	L2
DH421038	3.8	.1496	6	6	43	81	DH421066	6.6	.2598	8	76	114	L1	L2
DH421039	3.9	.1535	6	6	43	81	DH421067	6.7	.2638	8	76	114	L1	L2
DH421040	4.0	.1575	6	6	43	81	DH421068	6.8	.2677	8	76	114	L1	L2
DH421041	4.1	.1614	6	6	43	81	DH421069	6.9	.2717	8	76	114	L1	L2
DH421042	4.2	.1654	6	6	43	81	DH421070	7.0	.2756	8	76	114	L1	L2
DH421043	4.3	.1693	6	6	43	81	DH421071	7.1	.2795	8	76	114	L1	L2
DH421044	4.4	.1732	6	6	43	81	DH421072	7.2	.2835	8	76	114	L1	L2
DH421045	4.5	.1772	6	6	43	81	DH421073	7.3	.2874	8	76	114	L1	L2
DH421046	4.6	.1811	6	6	43	81	DH421074	7.4	.2913	8	76	114	L1	L2
DH421047	4.7	.1850	6	6	43	81	DH421075	7.5	.2953	8	76	114	L1	L2
DH421048	4.8	.1890	6	6	57	95	DH421076	7.6	.2992	8	76	114	L1	L2
DH421049	4.9	.1929	6	6	57	95	DH421077	7.7	.3031	8	76	114	L1	L2
DH421050	5.0	.1969	6	6	57	95	DH421078	7.8	.3071	8	76	114	L1	L2
DH421051	5.1	.2008	6	6	57	95	DH421079	7.9	.3110	8	76	114	L1	L2
DH421052	5.2	.2047	6	6	57	95	DH421080	8.0	.3150	8	76	114	L1	L2
DH421053	5.3	.2087	6	6	57	95	DH421081	8.1	.3189	10	95	142	L1	L2
DH421054	5.4	.2126	6	6	57	95	DH421082	8.2	.3228	10	95	142	L1	L2
DH421055	5.5	.2165	6	6	57	95	DH421083	8.3	.3268	10	95	142	L1	L2
DH421056	5.6	.2205	6	6	57	95	DH421084	8.4	.3307	10	95	142	L1	L2
DH421057	5.7	.2244	6	6	57	95	DH421085	8.5	.3346	10	95	142	L1	L2

CARBIDE DREAM DRILLS with COOLANT HOLES

▶ Application : Drilling into steel in general, cast steel, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metal, non-ferrous light metal, abrasive plastic.

- ▶ Advantage : Self centering
- center drilling is not required
- bush is not necessary
- excellent positioning
- good chip removal
- powerful drilling



DIN 6537

MG

h6

m7

140°

DREAM DRILLS 18xD

P.26

EDP No.	TiAIN	Diameter		Shank Diameter	Flute Length		Overall Length	Unit: mm				
		Metric	Inch		D1	D2		L1	L2	Flute Length	Shank Diameter	Overall Length
DH421086		8.6	.3386	10	95	142	DH421106	10.6	.4173	12	114	162
DH421087		8.7	.3425	10	95	142	DH421107	10.7	.4212	12	114	162
DH421088		8.8	.3465	10	95	142	DH421108	10.8	.4252	12	114	162
DH421089		8.9	.3504	10	95	142	DH421109	10.9	.4291	12	114	162
DH421090		9.0	.3543	10	95	142	DH421110	11.0	.4330	12	114	162
DH421091		9.1	.3583	10	95	142	DH421111	11.1	.4370	12	114	162
DH421092		9.2	.3622	10	95	142	DH421112	11.2	.4409	12	114	162
DH421093		9.3	.3661	10	95	142	DH421113	11.3	.4448	12	114	162
DH421094		9.4	.3701	10	95	142	DH421114	11.4	.4488	12	114	162
DH421095		9.5	.3740	10	95	142	DH421115	11.5	.4527	12	114	162
DH421096		9.6	.3780	10	95	142	DH421116	11.6	.4566	12	114	162
DH421097		9.7	.3819	10	95	142	DH421117	11.7	.4606	12	114	162
DH421098		9.8	.3858	10	95	142	DH421118	11.8	.4645	12	114	162
DH421099		9.9	.3898	10	95	142	DH421119	11.9	.4685	12	114	162
DH421100		10.0	.3937	10	95	142	DH421120	12.0	.4724	12	114	162
DH421101		10.1	.3976	12	114	162	DH421125	12.5	.4921	14	133	178
DH421102		10.2	.4016	12	114	162	DH421130	13.0	.5118	14	133	178
DH421103		10.3	.4055	12	114	162	DH421135	13.5	.5314	14	133	178
DH421104		10.4	.4094	12	114	162	DH421140	14.0	.5511	14	133	178
DH421105		10.5	.4134	12	114	162						

▶ Other shank types are available on your request.

CARBIDE DREAM DRILLS with COOLANT HOLES, TiAIN COATED

DH416, DH418 Series

WORK MATERIAL	Cast Iron		Carbon Steels		Alloy Steels		Aluminum		Stainless Steels			
	N	S	N	S	N	S	N	S	N	S		
STRENGTH	<240 BHN		<300 BHN		300 - 400 BHN		Si <10%		Si >10%			
DIAMETER	>240 BHN		<300 BHN		300 - 400 BHN		Si <10%		Si >10%			
1/8-3/16	14870	0.006	9650	0.006	7880	0.005	15910	0.008	13530	0.008	3500	0.002
3/16-5/16	8200	0.008	6010	0.008	5470	0.008	9940	0.010	8450	0.010	2190	0.003
5/16-3/8	6760	0.011	4370	0.011	3980	0.011	7230	0.014	6140	0.014	1590	0.004
3/8-1/2	5310	0.014	3440	0.014	3120	0.014	5680	0.017	4830	0.017	1250	0.005
1/2-9/16	4370	0.016	2830	0.016	2570	0.016	4680	0.020	3980	0.020	1030	0.006
9/16-13/16	3390	0.018	2190	0.018	1990	0.018	3610	0.022	3080	0.022	800	0.007

N = R.P.M
S = Inch per Revolution (inch/rev.)

▶ Recommend to reduce the feed rate as following.

Feed 100% : DH416(3xD)

Feed 85% : DH418(6xD)

CARBIDE DREAM DRILLS, without COOLANT HOLES, TiAIN COATED

DH414 Series

WORK MATERIAL	Cast Iron		Carbon Steels		Alloy Steels		Aluminum		Stainless Steels			
	N	S	N	S	N	S	N	S	N	S		
STRENGTH	<240 BHN		<300 BHN		300 - 400 BHN		Si <10%		Si >10%			
DIAMETER	>240 BHN		<300 BHN		300 - 400 BHN		Si <10%		Si >10%			
1/8-3/16	13120	0.006	8750	0.005	7880	0.005	13530	0.008	11140	0.006	3070	0.002
3/16-5/16	8200	0.008	5470	0.006	4950	0.006	8450	0.010	6960	0.008	1910	0.003
5/16-3/8	5970	0.011	3980	0.009	3560	0.009	6140	0.014	5060	0.011	1400	0.004
3/8-1/2	4690	0.014	3120	0.011	2810	0.011	4830	0.017	3980	0.014	1090	0.005
1/2-9/16	3860	0.016	2570	0.012	2310	0.012	3960	0.020	3270	0.016	910	0.006
9/16-13/16	2980	0.018	1990	0.014	1790	0.014	3080	0.022	2530	0.018	700	0.007

N = R.P.M
S = Inch per Revolution (inch/rev.)

▶ Recommend to reduce the feed rate as following.

Feed 100% : DH414(3xD)

CARBIDE DREAM DRILLS with COOLANT HOLES, TIAN COATED

WORK MATERIAL	NON-ALLOY STEELS			ALLOY STEELS			SOFT GREY CAST IRON			HARD GREY CAST IRON		
	< 700 N/mm ²			< 1000 N/mm ²			< HB240, GG25			< HB300, GG40		
STRENGTH	DIAMETER		N	S	N	S	N	S	N	S	N	S
Metric	Inch											
1.0	.0394	13000	0.002	14800	0.002	26600	0.002	17300	0.002	17300	0.002	0.002
2.0	.0787	13000	0.003	14800	0.003	26600	0.003	17300	0.003	17300	0.003	0.003
3.0	.1181	13000	0.005	11000	0.005	21000	0.005	14000	0.005	14000	0.005	0.005
4.0	.1575	9500	0.006	8400	0.006	16000	0.006	10500	0.006	10500	0.006	0.006
5.0	.1969	7600	0.006	6700	0.006	13000	0.006	8300	0.006	8300	0.006	0.006
6.0	.2362	6400	0.007	5600	0.007	11000	0.007	6900	0.007	6900	0.007	0.007
7.0	.2756	5500	0.007	4800	0.007	9100	0.007	5900	0.007	5900	0.007	0.007
8.0	.3150	4800	0.008	4200	0.008	8000	0.008	5200	0.008	5200	0.008	0.008
9.0	.3543	4200	0.009	3700	0.009	7100	0.009	4600	0.009	4600	0.009	0.009
10.0	.3937	3800	0.010	3350	0.010	6400	0.010	4150	0.010	4150	0.010	0.010
12.0	.4724	3200	0.011	2800	0.011	5300	0.011	3450	0.011	3450	0.011	0.011
14.0	.5511	2750	0.011	2400	0.011	4550	0.011	3000	0.011	3000	0.011	0.011
16.0	.6299	2400	0.012	2100	0.012	4000	0.012	2600	0.012	2600	0.012	0.012
18.0	.7086	2100	0.013	1850	0.013	3550	0.013	2300	0.013	2300	0.013	0.013
20.0	.7873	1900	0.014	1650	0.014	3200	0.014	2100	0.014	2100	0.014	0.014

► Recommend to reduce the feed rate as following.

Feed 100% : DH406(3xD), Feed 85% : DH408(5xD), Feed 70% : DH421(8xD)

N = R.P.M
S = Inch per Revolution (Inch/rev.)

CARBIDE DREAM DRILLS, without COOLANT HOLES, TIAN COATED

WORK MATERIAL	NON-ALLOY STEELS			ALLOY STEELS			SOFT GREY CAST IRON			HARD GREY CAST IRON		
	< 700 N/mm ²			< 1000 N/mm ²			< HB240, GG25			< HB300, GG40		
STRENGTH	DIAMETER		N	S	N	S	N	S	N	S	N	S
Metric	Inch											
1.0	.0394	13000	0.002	11250	0.002	21300	0.002	14200	0.002	14200	0.002	0.002
2.0	.0787	13000	0.002	11250	0.002	21300	0.002	14200	0.002	14200	0.002	0.002
3.0	.1181	13000	0.005	11000	0.005	21000	0.005	14000	0.005	14000	0.005	0.005
4.0	.1575	9500	0.006	8400	0.006	16000	0.006	10500	0.006	10500	0.006	0.006
5.0	.1969	7600	0.006	6700	0.006	13000	0.006	8300	0.006	8300	0.006	0.006
6.0	.2362	6400	0.007	5600	0.007	11000	0.007	6900	0.007	6900	0.007	0.007
7.0	.2756	5500	0.007	4800	0.007	9100	0.007	5900	0.007	5900	0.007	0.007
8.0	.3150	4800	0.008	4200	0.008	8000	0.008	5200	0.008	5200	0.008	0.008
9.0	.3543	4200	0.009	3700	0.009	7100	0.009	4600	0.009	4600	0.009	0.009
10.0	.3937	3800	0.010	3350	0.010	6400	0.010	4150	0.010	4150	0.010	0.010
12.0	.4724	3200	0.011	2800	0.011	5300	0.011	3450	0.011	3450	0.011	0.011
14.0	.5511	2750	0.011	2400	0.011	4550	0.011	3000	0.011	3000	0.011	0.011
16.0	.6299	2400	0.012	2100	0.012	4000	0.012	2600	0.012	2600	0.012	0.012
18.0	.7086	2100	0.013	1850	0.013	3550	0.013	2300	0.013	2300	0.013	0.013
20.0	.7873	1900	0.014	1650	0.014	3200	0.014	2100	0.014	2100	0.014	0.014

► Recommend to reduce the feed rate as following.

Feed 100% : DH404(3xD)

N = R.P.M
S = Inch per Revolution (Inch/rev.)

26 phone:+82-32-526-0909, fax:+82-32-526-4373, www.yg1.kr
phone:+1-800-765-8665, fax:+1-866-941-8665, www.yg1usa.com

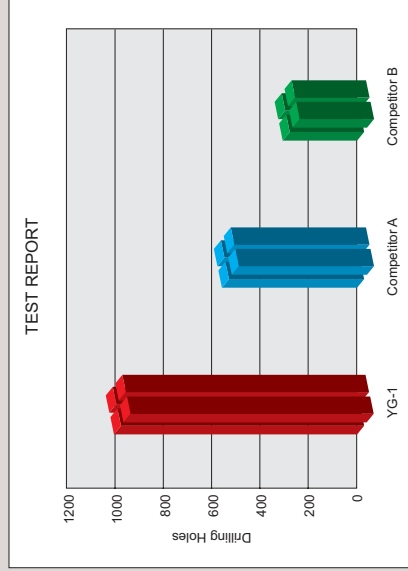
CARBIDE DREAM DRILL MQL TYPE - Test Report

with COOLANT HOLES

FEATURES OF DREAM DRILL MQL TYPE

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

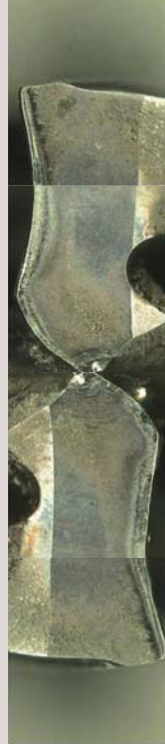
TEST RESULT AGAINST COMPETITOR'S DRILL



Cutting Condition

- (Tool : 6x6x138x193 - 20xD, 6.0mm)
- Work Material : S45C<DIN:1.0050>
- R.P.M : 3528 rev./min.
- Drilling Depth : 80mm
- Feed : .0074 inch/rev.
- Coolant : Oil Mist (MQL Techniques)

YG-1 (After 1,000 holes drilling)



COMPETITOR A (After 546 holes drilling)

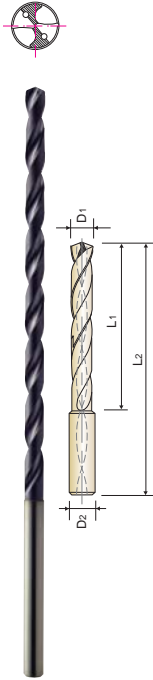


27 phone:+82-32-526-0909, fax:+82-32-526-4373, www.yg1.kr
phone:+1-800-765-8665, fax:+1-866-941-8665, www.yg1usa.com

CARBIDE DREAM DRILL MQL TYPE with COOLANT HOLE

- ▶ Non step drilling up to 10 times of drill diameter
- ▶ Available for processing MQL (Minimum Quantity Lubrication)
- ▶ Excellent positioning – Bush is not necessary

- ▶ Special design – Good chip removal
- ▶ Powerful drilling



P.30

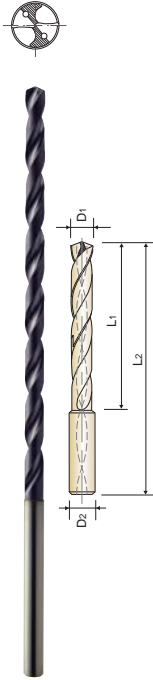
MQL TYPE | 10 × D

EDP No.	Diameter		EDP No.	Diameter		Overall Length	Flute Length		Shank Diameter	Flute Length		Unit:mm	
	Metric	Inch		TiAIN	Metric		Inch	L1		L2	D2	L1	L2
DH510030	3.0	.1181	DH510080	8.0	.3150	90	39	90	8	8	104	161	
DH510033	3.3	.1299	DH510085	8.5	.3346	97	46	97	9	9	111	169	
DH510035	3.5	.1378	DH510090	9.0	.3543	97	46	97	9	9	117	175	
DH510040	4.0	.1575	DH510095	9.5	.3740	103	52	103	10	10	124	182	
DH510042	4.2	.1654	DH510100	10.0	.3937	112	59	112	10	10	130	188	
DH510045	4.5	.1772	DH510105	10.5	.4134	112	59	112	11	11	137	201	
DH510050	5.0	.1969	DH510110	11.0	.4330	118	65	118	11	11	143	207	
DH510055	5.5	.2165	DH510115	11.5	.4527	127	72	127	12	12	150	215	
DH510060	6.0	.2362	DH510120	12.0	.4724	133	78	133	12	12	156	221	
DH510065	6.5	.2559	DH510125	12.5	.4921	141	85	141	13	13	163	229	
DH510068	6.8	.2677	DH510130	13.0	.5118	147	91	147	13	13	169	235	
DH510070	7.0	.2756	DH510135	13.5	.5314	147	91	147	14	14	176	243	
DH510075	7.5	.2953	DH510140	14.0	.5511	155	98	155	14	14	182	249	

CARBIDE DREAM DRILL MQL TYPE with COOLANT HOLE

- ▶ Non step drilling up to 15 times (20 times) of drill diameter
- ▶ Available for processing MQL (Minimum Quantity Lubrication)
- ▶ Excellent positioning – Bush is not necessary

- ▶ Special design – Good chip removal
- ▶ Powerful drilling



P.30

MQL TYPE | 15 × D, 20 × D

15 × D

EDP No.	Diameter		EDP No.	Diameter		Overall Length	Flute Length		Shank Diameter	Flute Length		Unit:mm	
	Metric	Inch		TiAIN	Metric		Inch	L1		L2	D2	L1	L2
DH515030	3.0	.1181	DH515070	7.0	.2756	105	54	105	3	3	105	182	
DH515035	3.5	.1378	DH515080	8.0	.3150	114	63	114	4	4	114	201	
DH515040	4.0	.1575	DH515090	9.0	.3543	123	72	123	4	4	123	220	
DH515045	4.5	.1772	DH515100	10.0	.3937	134	81	134	5	5	134	238	
DH515050	5.0	.1969	DH515110	11.0	.4330	143	90	143	5	5	143	252	
DH515055	5.5	.2165	DH515120	12.0	.4724	154	99	154	6	6	154	261	
DH515060	6.0	.2362				163	108	163	6	6	163		

20 × D

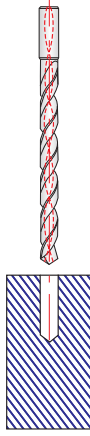
EDP No.	Diameter		EDP No.	Diameter		Overall Length	Flute Length		Shank Diameter	Flute Length		Unit:mm	
	Metric	Inch		TiAIN	Metric		Inch	L1		L2	D2	L1	L2
DH520030	3.0	.1181	DH520060	6.0	.2362	120	69	120	3	3	138	193	
DH520035	3.5	.1378	DH520070	7.0	.2756	132	81	132	4	4	161	217	
DH520040	4.0	.1575	DH520080	8.0	.3150	143	92	143	4	4	184	241	
DH520045	4.5	.1772	DH520090	9.0	.3543	157	104	157	5	5	207	265	
DH520050	5.0	.1969	DH520100	10.0	.3937	168	115	168	5	5	230	288	
DH520055	5.5	.2165	DH520120	12.0	.4724	182	127	182	6	6	276	341	



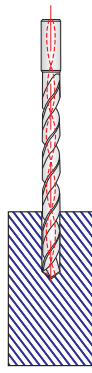
MQL TYPE

CARBIDE DREAM DRILL MQL TYPE, TiAIN COATED

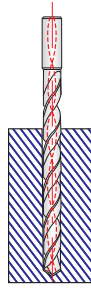
CUTTING CONDITION



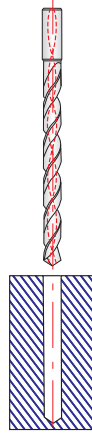
1. Use a YG 3xD Drill to produce a guide hole no larger than .004 over the required drill size. Drill the pilot hole 2xD deep hole.



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.

DH510, DH515, DH520 Series

WORK MATERIAL	CARBON STEELS ALLOY STEELS ~ 1060 N/mm ² 63 ~ 125 m/min		CAST IRON 250 ~ 350 N/mm ² 63 ~ 125 m/min		DUCTILE CAST IRON 400 ~ 500 N/mm ² 60 ~ 80 m/min		DUCTILE CAST IRON		
	N	S	N	S	N	S	N	S	
3.0	.1181	7500	.0023~.0047	7500	.0023~.0047	7500	.0023~.0047	5300	.0023~.0047
4.0	.1575	6400	.0031~.0063	6400	.0031~.0063	5600	.0031~.0063	5000	.0031~.0063
5.0	.1969	5800	.0039~.0078	5800	.0039~.0078	4500	.0039~.0078	4500	.0039~.0078
6.0	.2362	4800	.0047~.0094	4800	.0047~.0094	3800	.0047~.0094	3800	.0047~.0094
8.0	.3150	3600	.0063~.0110	3600	.0063~.0110	2800	.0063~.0110	2800	.0063~.0110
10.0	.3937	2900	.0078~.0137	2900	.0078~.0137	2300	.0078~.0137	2300	.0078~.0137
12.0	.4724	2400	.0094~.0165	2400	.0094~.0165	1900	.0094~.0165	1900	.0094~.0165

▶ Coolant Pressure : Minimum 900 PSI

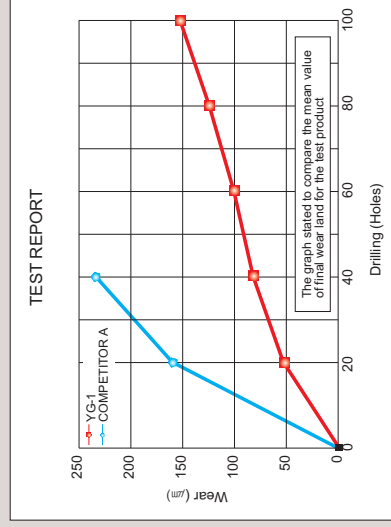
N = R.P.M
S = Inch per Revolution(inch/rev)

CARBIDE DREAM DRILL for HIGH HARDENED STEEL (HRC50~70)

FEATURES OF DREAM DRILL HARDENED STEEL

- 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.

TEST RESULT AGAINST COMPETITOR'S DRILL



Cutting Condition

- (Tool : 10x10x63x111 - 10.0mm)
- Work Material : SKD 11<DIN1.2379> (HRC 60)
- R.P.M : 380 rev./min.
- Drilling Depth : 25mm (2.5D)
- Feed : 0.04 mm/rev.

YG-1 (After 100 holes drilling)



COMPETITOR A (After 40 holes drilling)





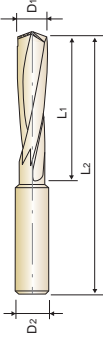
for HIGH HARDENED STEEL DH501 Series

CARBIDE DREAM DRILL for HIGH HARDENED STEEL (HRC50~70)

► Application : Drilling for High Hardened Steels(Quenched Steels, Tempered Steels (Under HRC 70))

► Advantage : Special Design
Minimum of cutting load through special thinning
Good chip removal
Low vibration

► Tolerance : Dia. Tolerance ϕ D1: See page 38, Shank Tolerance ϕ D2: -.0001 - .0005



P.36

for HIGH HARDENED STEEL

EDP No. TiAlN	Diameter		Shank Diameter D2	Flute Length L1	Overall Length L2	EDP No. TiAlN	Diameter		Shank Diameter D2	Flute Length L1	Overall Length L2	Unit: inch	
	Fractional	Decimal					Fractional	Decimal				Overall Length L1	Overall Length L2
DH501001	1/8	.1250	1/8	21/32	2	DH501026	#5	.2055	1/4	1 9/32	2 7/8	L1	L2
DH501002	#30	.1285	3/16	23/32	2	DH501027	#4	.2090	1/4	1 9/32	2 7/8	L1	L2
DH501003	#29	.1360	3/16	13/16	2	DH501028	#3	.2130	1/4	1 13/32	3	L1	L2
DH501004	#28	.1405	3/16	13/16	2	DH501029	#2	.2188	1/4	1 13/32	3	L1	L2
DH501005	9/64	.1406	3/16	13/16	2	DH501030	#2	.2210	1/4	1 13/32	3	L1	L2
DH501006	#27	.1440	3/16	13/16	2	DH501031	#1	.2280	1/4	1 13/32	3	L1	L2
DH501007	#26	.1470	3/16	13/16	2	DH501032	15/64	.2344	1/4	1 13/32	3	L1	L2
DH501008	#25	.1495	3/16	7/8	2 1/16	DH501033	B	.2380	1/4	1 19/32	3 1/8	L1	L2
DH501009	#24	.1520	3/16	7/8	2 1/16	DH501034	C	.2420	1/4	1 19/32	3 1/8	L1	L2
DH501010	#23	.1540	3/16	7/8	2 1/16	DH501035	D	.2460	1/4	1 19/32	3 1/8	L1	L2
DH501011	5/32	.1562	3/16	7/8	2 1/16	DH501036	1/4	.2500	1/4	1 19/32	3 1/8	L1	L2
DH501012	#22	.1570	3/16	7/8	2 1/16	DH501037	F	.2570	3/8	1 19/32	3 1/8	L1	L2
DH501013	#21	.1590	3/16	7/8	2 1/16	DH501038	G	.2610	3/8	1 19/32	3 1/8	L1	L2
DH501014	#20	.1610	3/16	1	2 1/2	DH501039	I	.2656	3/8	1 19/32	3 1/8	L1	L2
DH501015	#19	.1660	3/16	1	2 1/2	DH501040	J	.2720	3/8	1 25/32	3 3/8	L1	L2
DH501016	11/64	.1719	3/16	1 1/8	2 3/4	DH501041	J	.2770	3/8	1 25/32	3 3/8	L1	L2
DH501017	#15	.1800	3/16	1 1/8	2 3/4	DH501042	9/32	.2812	3/8	1 25/32	3 3/8	L1	L2
DH501018	#14	.1820	3/16	1 1/8	2 3/4	DH501043	L	.2900	3/8	1 25/32	3 3/8	L1	L2
DH501019	3/16	.1875	3/16	1 1/8	2 3/4	DH501044	M	.2950	3/8	1 25/32	3 3/8	L1	L2
DH501020	#10	.1935	1/4	9/32	2 7/8	DH501045	19/64	.2969	3/8	1 25/32	3 3/8	L1	L2
DH501021	#9	.1960	1/4	9/32	2 7/8	DH501046	N	.3020	3/8	1 31/32	3 7/8	L1	L2
DH501022	#8	.1990	1/4	9/32	2 7/8	DH501047	5/16	.3125	3/8	1 31/32	3 7/8	L1	L2
DH501023	#7	.2010	1/4	9/32	2 7/8	DH501048	O	.3160	3/8	1 31/32	3 7/8	L1	L2
DH501024	13/64	.2031	1/4	9/32	2 7/8	DH501049	21/64	.3281	3/8	1 31/32	3 7/8	L1	L2
DH501025	#6	.2040	1/4	9/32	2 7/8	DH501050	Q	.3320	3/8	1 31/32	3 7/8	L1	L2



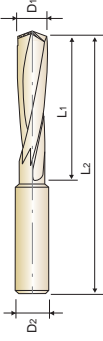
for HIGH HARDENED STEEL DH501 Series

CARBIDE DREAM DRILL for HIGH HARDENED STEEL (HRC50~70)

► Application : Drilling for High Hardened Steels(Quenched Steels, Tempered Steels (Under HRC 70))

► Advantage : Special Design
Minimum of cutting load through special thinning
Good chip removal
Low vibration

► Tolerance : Dia. Tolerance ϕ D1: See page 38, Shank Tolerance ϕ D2: -.0001 - .0005



P.36

for HIGH HARDENED STEEL

EDP No. TiAlN	Diameter		Shank Diameter D2	Flute Length L1	Overall Length L2	EDP No. TiAlN	Diameter		Shank Diameter D2	Flute Length L1	Overall Length L2	Unit: inch	
	Fractional	Decimal					Fractional	Decimal				Overall Length L1	Overall Length L2
DH501051	R	.3390	3/8	2 1/4	4 1/8	DH501068	33/64	.5156	5/8	3 1/16	5	L1	L2
DH501052	11/32	.3438	3/8	2 1/4	4 1/8	DH501069	17/32	.5312	5/8	3 1/16	5	L1	L2
DH501053	23/64	.3594	3/8	2 1/4	4 1/8	DH501070	35/64	.5469	5/8	3 1/16	5	L1	L2
DH501054	U	.3660	3/8	2 1/4	4 1/8	DH501071	9/16	.5625	5/8	3 1/16	5	L1	L2
DH501055	3/8	.3705	3/8	2 1/4	4 1/8	DH501072	37/64	.5781	5/8	3 9/32	5 1/4	L1	L2
DH501056	V	.3770	1/2	2 1/2	4 3/8	DH501073	19/32	.5937	5/8	3 9/32	5 1/4	L1	L2
DH501057	25/64	.3906	1/2	2 1/2	4 3/8	DH501074	39/64	.6094	5/8	3 9/32	5 1/4	L1	L2
DH501058	X	.3970	1/2	2 1/2	4 3/8	DH501075	5/8	.6250	5/8	3 9/32	5 1/4	L1	L2
DH501059	Y	.4040	1/2	2 1/2	4 3/8	DH501076	41/64	.6406	3/4	3 9/32	5 1/4	L1	L2
DH501060	13/32	.4062	1/2	2 1/2	4 3/8	DH501077	21/32	.6563	3/4	3 11/16	5 5/8	L1	L2
DH501061	Z	.4130	1/2	2 1/2	4 3/8	DH501078	43/64	.6719	3/4	3 11/16	5 5/8	L1	L2
DH501062	27/64	.4219	1/2	2 13/16	4 5/8	DH501079	11/16	.6875	3/4	3 11/16	5 5/8	L1	L2
DH501063	7/16	.4375	1/2	2 13/16	4 5/8	DH501080	45/64	.7031	3/4	3 11/16	5 5/8	L1	L2
DH501064	29/64	.4651	1/2	2 13/16	4 5/8	DH501081	23/32	.7188	3/4	3 3/4	6	L1	L2
DH501065	15/32	.4688	1/2	2 13/16	4 5/8	DH501082	47/64	.7344	3/4	3 3/4	6	L1	L2
DH501066	31/64	.4844	1/2	2 13/16	4 5/8	DH501083	3/4	.7500	3/4	3 3/4	6	L1	L2
DH501067	1/2	.5000	1/2	3 1/16	5							L1	L2

CARBIDE DREAM DRILL for HIGH HARDENED STEEL (HRC50~70)

► Application : Drilling for High Hardened Steels(Quenched Steels, Tempered Steels (Under HRC 70))

► Advantage : Special Design
Minimum of cutting load through special thinning
Good chip removal
Powerful Drilling



P.35

for HIGH HARDENED STEEL

EDP No.	Diameter		Shank Diameter		Flute Length		Overall Length		EDP No.		Diameter		Shank Diameter		Flute Length		Overall Length	
	Metric	Inch	Metric	Inch	Metric	Inch	Metric	Inch	Metric	Inch	Metric	Inch	Metric	Inch	Metric	Inch	Metric	Inch
DH500026	2.6	.1024	3	14	3	14	44	44	DH500070	7.0	.2756	8	45	8	45	85	85	
DH500030	3.0	.1181	3	16	3	16	46	46	DH500075	7.5	.2953	8	45	8	45	85	85	
DH500033	3.3	.1299	4	18	4	18	48	48	DH500080	8.0	.3150	8	50	8	50	98	98	
DH500034	3.4	.1339	4	20	4	20	50	50	DH500085	8.5	.3346	10	50	10	50	98	98	
DH500035	3.5	.1378	4	20	4	20	50	50	DH500086	8.6	.3386	10	57	10	57	105	105	
DH500040	4.0	.1575	4	22	4	22	52	52	DH500088	8.8	.3465	10	57	10	57	105	105	
DH500042	4.2	.1654	6	25	6	25	65	65	DH500090	9.0	.3543	10	57	10	57	105	105	
DH500043	4.3	.1693	6	28	6	28	68	68	DH500095	9.5	.3740	10	57	10	57	105	105	
DH500044	4.4	.1732	6	28	6	28	68	68	DH500100	10.0	.3937	10	63	10	63	111	111	
DH500045	4.5	.1772	6	28	6	28	68	68	DH500102	10.2	.4016	12	63	12	63	111	111	
DH500050	5.0	.1969	6	32	6	32	72	72	DH500103	10.3	.4055	12	63	12	63	111	111	
DH500051	5.1	.2008	6	32	6	32	72	72	DH500105	10.5	.4134	12	63	12	63	111	111	
DH500052	5.2	.2047	6	32	6	32	72	72	DH500108	10.8	.4252	12	71	12	71	119	119	
DH500055	5.5	.2165	6	35	6	35	75	75	DH500110	11.0	.4330	12	71	12	71	119	119	
DH500060	6.0	.2362	6	35	6	35	75	75	DH500115	11.5	.4527	12	71	12	71	119	119	
DH500065	6.5	.2559	8	40	8	40	80	80	DH500120	12.0	.4724	12	71	12	71	119	119	
DH500068	6.8	.2677	8	45	8	45	85	85	DH500140	14.0	.5511	14	77	14	77	125	125	
DH500069	6.9	.2717	8	45	8	45	85	85										

Unit: mm

CARBIDE DREAM DRILL for HIGH HARDENED STEEL HRC50~HRC70, TAIN COATED

WORK MATERIAL HARDNESS	HRC 60 ~ 55			HRC 55 ~ 60			HRC 60 ~ 70		
	14 ~ 22 m/min			10 ~ 16 m/min			8 ~ 13 m/min		
Drilling Speed Diameter (inch)	N	S	N	S	N	S	N	S	
5/64	2860	~.0015	2000	~.0015	1900	~.0011	1900	~.0011	
1/8	1900	~.0015	1390	~.0015	1250	~.0015	1250	~.0015	
5/32	1430	~.0015	1000	~.0015	950	~.0015	950	~.0015	
13/64	1150	~.0015	800	~.0015	750	~.0015	750	~.0015	
15/64	960	~.0015	670	~.0015	630	~.0015	630	~.0015	
5/16	720	~.0015	500	~.0015	480	~.0015	480	~.0015	
25/64	570	~.0015	400	~.0015	380	~.0015	380	~.0015	
15/32	480	~.0015	330	~.0015	320	~.0015	320	~.0015	
9/16	435	~.0015	280	~.0015	270	~.0015	270	~.0015	
41/64	380	~.0015	250	~.0015	240	~.0015	240	~.0015	
11/16	325	~.0015	235	~.0015	190	~.0015	190	~.0015	
47/64	310	~.0015	220	~.0015	180	~.0015	180	~.0015	

N = R.P.M
S = Inch per Revolution (inch/rev)

WORK MATERIAL HARDNESS	HRC 60 ~ 55			HRC 55 ~ 60			HRC 60 ~ 70		
	14 ~ 22 m/min			10 ~ 16 m/min			8 ~ 13 m/min		
Drilling Speed Diameter	N	S	N	S	N	S	N	S	
Metric 3.0	1900	~.0015	1330	~.0015	1250	~.0015	1250	~.0015	
Inch 4.0	1430	~.0015	1000	~.0015	950	~.0015	950	~.0015	
Metric 5.0	1150	~.0015	800	~.0015	750	~.0015	750	~.0015	
Inch 6.0	960	~.0015	670	~.0015	630	~.0015	630	~.0015	
Metric 8.0	720	~.0015	500	~.0015	480	~.0015	480	~.0015	
Inch 10.0	570	~.0015	400	~.0015	380	~.0015	380	~.0015	
Metric 12.0	480	~.0015	330	~.0015	320	~.0015	320	~.0015	
Inch 14.0	438	~.0015	282	~.0015	272	~.0015	272	~.0015	

N = R.P.M
S = Inch per Revolution (inch/rev)

1

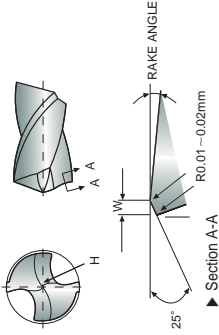
Characteristic of DREAM DRILL

- 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.
- 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 TiAIN coating.
- Self-centering

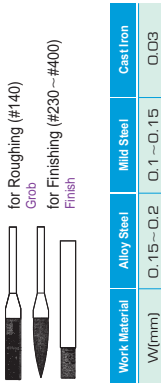
2

Honing Guide of DREAM DRILL

■ Dimension of Honing



■ Scraper

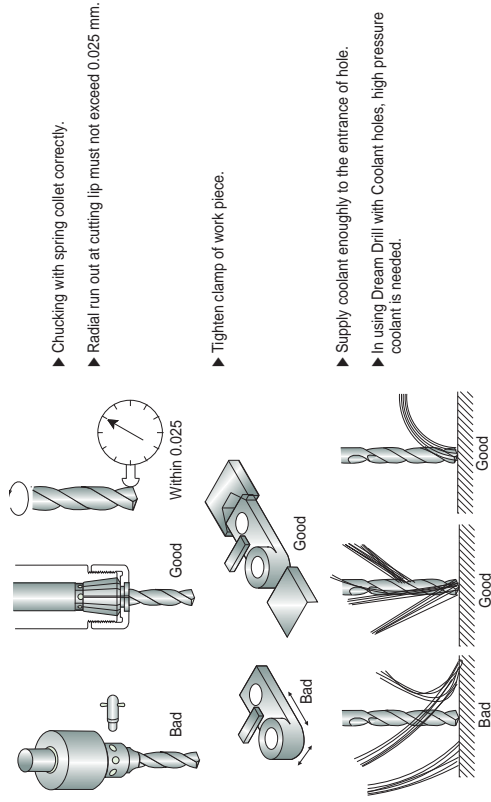


Work Material	Alloy Steel	Mild Steel	Cast Iron
W(mm)	0.15~0.2	0.1~0.15	0.03

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

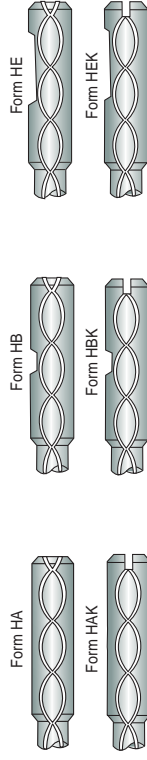
3

Use of DREAM DRILL



4

Shank Type DREAM DRILL with Coolant Holes



▶ Shank Type of stocked products is Form HA.
▶ If you need other Shank Type, we can supply them.

5

Drill Diameter Tolerance Inch

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

6

Drill Diameter Tolerance Metric

Diameter (mm)	Tolerance range in μ m					
	1-3 from to	3-6 over to	6-10 over to	10-18 over to	18-30 over to	μ m=1/1000mm
h6	0 -0.0024	0 -0.0032	0 -0.0036	0 -0.0044	0 -0.0052	0 -0.0062
h7	0 -0.004	0 -0.0048	0 -0.0059	0 -0.0071	0 -0.0083	0 -0.0093
h8	0 -0.0056	0 -0.0071	0 -0.0087	0 -0.0107	0 -0.0130	0 -0.0154
m7	+0.0007 +0.00048	+0.0015 +0.00163	+0.0023 +0.0023	+0.0027 +0.0027	+0.0031 +0.0031	+0.0031 +0.0031

CARBIDE DREAM DRILL

CARBIDE DREAM DRILL