SOLID CARBIDE DREAM DRILLS for HIGH HARDENED STEELS
- High Hardened Steels, HRc50~HRc70

◎ : Excellent ○ : Good

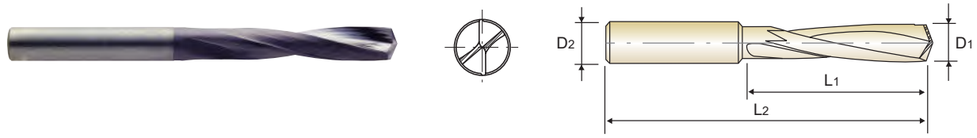
ITEM	MODEL	DESCRIPTION	SIZE MIN	SIZE MAX	PAGE	P: Carbon Steels ~HB225	P: Alloy Steels HB225~325	P: Prehardened Steels HRc30~45	P: Hardened Steels HRc45~55	H: Hardened Steels HRc55~	M: Stainless Steels	K: Cast Iron	N: Aluminum	N: Copper	N: Bronze	N: CFRP	S: Titanium
INCH																	
DH501		CARBIDE, DREAM DRILLS for HIGH HARDENED STEELS (HRc50~70)	D1/8	D3/4	**164**				◎	◎							
METRIC																	
DH500		CARBIDE, DREAM DRILLS for HIGH HARDENED STEELS (HRc50~70)	D1.0	D14.0	**166**				◎	◎							
		RECOMMENDED CUTTING CONDITIONS			**167**												

DREAM DRILLS for HIGH HARDENED STEELS

DH501 SERIES

CARBIDE, DREAM DRILLS for HIGH HARDENED STEELS (HRC50~70)

- ▶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 135
  Shank Tolerance ØD2: -.0001 -.0005



MG 15° h6 140° P.167

Unit : inch

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

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

◎ : 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 for HIGH HARDENED STEELS

DH501 SERIES

CARBIDE, DREAM DRILLS for HIGH HARDENED STEELS (HRC50~70)

▶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 135
Shank Tolerance ØD2: -.0001 -.0005

MG 15° h6 140° P.167

Unit : inch

EDP No.	Drill Diameter		Shank Diameter	Flute Length	Overall Length
	Fractional	Decimal			
TiAlN	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

EDP No.	Drill Diameter		Shank Diameter	Flute Length	Overall Length
	Fractional	Decimal			
TiAlN	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

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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 for HIGH HARDENED STEELS

DH500 SERIES

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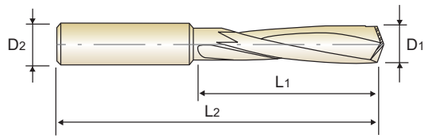

MG | 15° | h6 | h7 | 140° | P.167

Unit : mm

EDP No.	Drill Diameter		Shank Diameter	Flute Length	Overall Length
	Metric	Decimal			
TiAlN	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			
TiAlN	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

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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 for HIGH HARDENED STEELS

RECOMMENDED CUTTING CONDITIONS

CARBIDE, DREAM DRILLS for HIGH HARDENED STEELS (HRc50~70), TiAlN-COATED

DH501 SERIES

WORK MATERIAL			P			H					
			HARDENED STEELS			HIGH HARDENED STEELS					
			HRc 50~55			HRc 55~60			HRc 60~70		
DRILLING SPEED(SFM)			45 ~ 72 ft/min			32 ~ 52 ft/min			26 ~ 42 ft/min		
DIAMETER			RPM	FEED	IPR	RPM	FEED	IPR	RPM	FEED	IPR
Inch	Metric(mm)	Decimal									
5/64	1.984	.0781	2860	0.04	.0015	2000	0.04	.0015	1900	0.04	.0015
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 STEE LS					
		HRc 50~55			HRc 55~60			HRc 60~70		
DRILLING SPEED(SFM)		45 ~ 72 ft/min			32 ~ 52 ft/min			26 ~ 42 ft/min		
DIAMETER		RPM	FEED	IPR	RPM	FEED	IPR	RPM	FEED	IPR
Metric(mm)	Inch									
1.0	.0394	5600	0.04	.0015	4000	0.04	.0015	3700	0.04	.0015
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.