

# Y/G DREAM DRILLS for HIGH HARDENED STEELS

## DH500 SERIES

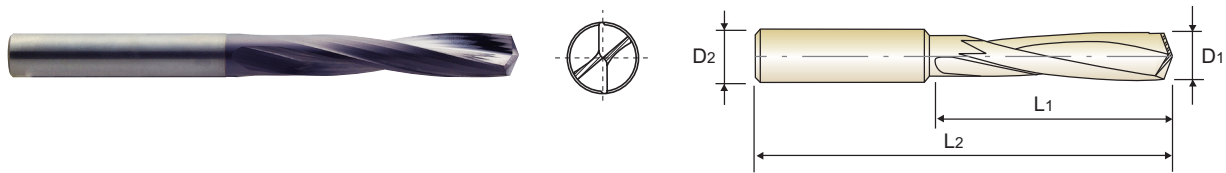
### CARBIDE, DREAM DRILLS for HIGH HARDENED STEELS (HRc50~HRc70) SHORT

- VOLLHARTMETALL DREAM SPIRALBOHRER FÜR HOCHGEHARTETE STAHL
- Forets DREAM DRILLS carbure pour Aciers Trempés (50 HRc ~ 70 HRc)
- PUNTE ELICOIDALI IN MD, DREAM DRILL - ACCIAI HRC 50 - 70

**KURZ  
COURTE  
CORTA**

- ▶ 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

- ▶ Bohren von hoch gehärteten Stählen, Vergütungsstähle, angelassenen Stählen bis HRc 70
- ▶ Spezielle Bohrergometrie für gehärtete Stähle
- ▶ Minimaler Schnedendruck durch spezielle Ausspitzung
- ▶ Gute Spanabfuhr und Hochleistungsbohren



3 × D

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
TiAlN	D1	D2	L1	L2
DH500026	2.6	3	14	44
DH500030	3.0	3	16	46
DH500033	3.3	4	18	48
DH500034	3.4	4	20	50
DH500035	3.5	4	20	50
DH500040	4.0	4	22	52
DH500042	4.2	6	25	65
DH500043	4.3	6	28	68
DH500044	4.4	6	28	68
DH500045	4.5	6	28	68
DH500050	5.0	6	32	72
DH500051	5.1	6	32	72
DH500052	5.2	6	32	72
DH500055	5.5	6	35	75
DH500060	6.0	6	35	75
DH500065	6.5	8	40	80
DH500068	6.8	8	45	85
DH500069	6.9	8	45	85

Unit : mm

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
TiAlN	D1	D2	L1	L2
DH500070	7.0	8	45	85
DH500075	7.5	8	45	85
DH500080	8.0	8	50	98
DH500085	8.5	10	50	98
DH500086	8.6	10	57	105
DH500088	8.8	10	57	105
DH500090	9.0	10	57	105
DH500095	9.5	10	57	105
DH500100	10.0	10	63	111
DH500102	10.2	12	63	111
DH500103	10.3	12	63	111
DH500105	10.5	12	63	111
DH500108	10.8	12	71	119
DH500110	11.0	12	71	119
DH500115	11.5	12	71	119
DH500120	12.0	12	71	119
DH500140	14.0	14	77	125

◎ : Excellent ○ : Good

ISO	P										M				K								
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel		Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron				
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20			
HRc	13	25	28	32	32	10	29	32	38	15	35	15	23	10	10	26	3	25		21			
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230			
Recommended																							
ISO	N										S						H						
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)					Non Metallic Materials		Heat Resistant Super Alloys				Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron		
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	139	3	40	41
HRc											15	30	25	38	34			55	60	70		42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630			400	550
Recommended																		◎	◎	◎			



**DREAM DRILLS**  
for HIGH HARDENED STEELS

**RECOMMENDED CUTTING CONDITIONS**  
**EMPFOHLENE SCHNEIDPARAMETER**

**DH500** SERIES

**DREAM DRILLS for HIGH HARDENED STEELS**

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

ISO	VDI 3323	Material Description	Vc (m/min)	Parameter	Drill Diameter (mm)								
					3.0	4.0	5.0	6.0	8.0	10.0	12.0	14.0	
P	1	Non-alloy steel											
	2												
	3												
	4												
	5												
	6	Low alloy steel											
	7												
	8												
	9												
	10		High alloyed steel, and tool steel										
	11												
M	12	Stainless steel											
	13												
	14												
K	15	Grey cast iron											
	16												
	17	Nodular cast iron											
	18												
	19		Malleable cast iron										
20													
N	21	Aluminum-wrought alloy											
	22												
	23	Aluminum-cast, alloyed											
	24												
	25												
	26												
	27	Copper and Copper Alloys (Bronze / Brass)											
	28												
	29		Non Metallic Materials										
	30												
S	31	Heat Resistant Super Alloys											
	32												
	33												
	34												
	35	Titanium Alloys											
	36												
	37												
H	38	Hardened steel	20	RPM	2120	1590	1270	1060	800	640	530	450	
			FEED	0.01-0.03	0.01-0.04	0.01-0.04	0.01-0.05	0.01-0.05	0.01-0.05	0.01-0.06	0.01-0.06		
	39.1		RPM	1590	1190	950	800	600	480	400	340		
		FEED	0.01-0.03	0.01-0.04	0.01-0.04	0.01-0.05	0.01-0.05	0.01-0.05	0.01-0.06	0.01-0.06			
39.3		12	RPM	1270	950	760	640	480	380	320	270		
	FEED	0.01-0.03	0.01-0.04	0.01-0.04	0.01-0.05	0.01-0.05	0.01-0.05	0.01-0.06	0.01-0.06				
40	Chilled Cast Iron												
41	Hardened Cast Iron												

SELECTION GUIDE



SERIES

DH500

DRILLING DEPTH

3XD

LENGTH

SHORT

SIZE MIN

D2.6

SIZE MAX

D14.0

PAGE

159

SURFACE TREATMENT

TiAIN

# SOLID CARBIDE DREAM DRILLS

for HIGH HARDENED STEELS

For High Hardened Steels (HRc50 to HRc70)



Please visit  
[globalyg1.com/mat](http://globalyg1.com/mat)  
for material search

◎ : Excellent ○ : Good

Recommended cutting conditions : P.160

ISO	VDI 3323	Material Description	Composition / Structure / Heat Treatment	HB	HRc	
P	1	Non-alloy steel	About 0.15% C Annealed	125		
	2		About 0.45% C Annealed	190	13	
	3		About 0.45% C Quenched & Tempered	250	25	
	4		About 0.75% C Annealed	270	28	
	5		About 0.75% C Quenched & Tempered	300	32	
	6	Low alloy steel	Annealed	180	10	
	7		Quenched & Tempered	275	29	
	8		Quenched & Tempered	300	32	
	9		Quenched & Tempered	350	38	
	10		High alloyed steel, and tool steel	Annealed	200	15
	11	Quenched & Tempered		325	35	
M	12	Stainless steel	Ferritic / Martensitic Annealed	200	15	
	13		Martensitic Quenched & Tempered	240	23	
	14		Austenitic	180	10	
K	15	Grey cast iron	Pearlitic / ferritic	180	10	
	16		Pearlitic (Martensitic)	260	26	
	17	Nodular cast iron	Ferritic	160	3	
	18		Pearlitic	250	25	
	19	Malleable cast iron	Ferritic	130		
	20		Pearlitic	230	21	
N	21	Aluminum-wrought alloy	Not Curable	60		
	22		Curable Hardened	100		
	23	Aluminum-cast, alloyed	≤ 12% Si, Not Curable	75		
	24		≤ 12% Si, Curable Hardened	90		
	25		> 12% Si, Not Curable	130		
	26		Copper and Copper Alloys	Cutting Alloys, PB>1%	110	
	27	(Bronze / Brass)	CuZn, CuSnZn (Brass)	90		
	28		CuSn, lead-free copper and electrolytic copper	100		
	29	Non Metallic Materials	Duroplastic, Fiber Reinforced Plastic			
	30		Rubber, Wood, etc.			
S	31	Heat Resistant Super Alloys	Fe Based Annealed	200	15	
	32		Cured	280	30	
	33		Annealed	250	25	
	34		Ni or Co Based Cured	350	38	
	35	Cast	320	34		
	36	Titanium Alloys	Pure Titanium	400 Rm		
	37		Alpha + Beta Alloys Hardened	1050 Rm		
H	38	Hardened steel	Hardened	550	55	◎
	39.1		Hardened	630	60	◎
	39.3		Hardened		70	◎
	40	Chilled Cast Iron	Cast	400	42	
41	Hardened Cast Iron	Hardened	550	55		