

SELECTION GUIDE



SERIES	DH500
DRILLING DEPTH	3XD
LENGTH	SHORT
SIZE MIN	D2.6
SIZE MAX	D14.0
PAGE	A151
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.A151

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 (Bronze / Brass)	Cutting Alloys, PB>1%	110		
	27		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		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		

## DREAM DRILLS for HIGH HARDENED STEELS

DH500 SERIES

### CARBIDE, DREAM DRILLS for HIGH HARDENED STEELS (HRC50 ~ HRC70)

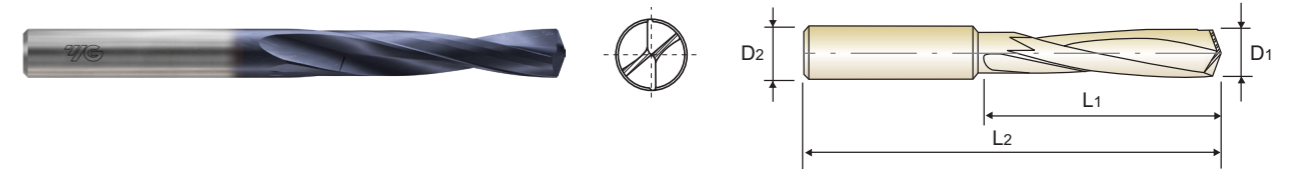
SHORT

- VOLLHARTMETALL DREAM SPIRALBOHRER FÜR HOCHGEHARTETE STAHL
- Forets DREAM DRILLS carbure pour Aciers Trempés (50 HRc ~ 70 HRc)
- PUNTE ELICOIDALI IN MD, DREAM DRILL - ACCIAI HRC50 - 70

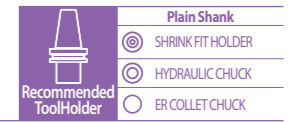
KURZ  
COURTE  
CORTA

- ▶ Drilling for High Hardened Steels; Quenched Steels, Tempered Steels (under HRc70)
- ▶ 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 HRc70
- ▶ Spezielle Bohrergeometrie für gehärtete Stähle
- ▶ Minimaler Schneiddruck durch spezielle Ausspitzung
- ▶ Gute Spanabfuhr und Hochleistungsbohren



3 x D



EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
TiAIN	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

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
TiAIN	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

### Recommended cutting conditions

#### EMPFOHLENE SCHNEIDPARAMETER

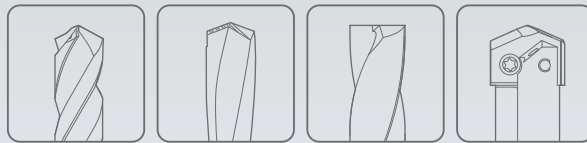
ISO	VDI 3323	Material Description	Vc	Parameter	Drill Diameter (mm)											
					2.5	3.0	4.0	5.0	6.0	8.0	10.0	12.0	14.0			
H	38	Hardened steel	20	RPM	2550	2120	1590	1270	1060	800	640	530	450			
	FEED			0.01-0.03	0.01-0.03	0.01-0.04	0.01-0.04	0.01-0.05	0.01-0.05	0.01-0.05	0.01-0.06	0.01-0.06				
	15			RPM	1910	1590	1190	950	800	600	480	400	340			
39.1	FEED	0.01-0.03	0.01-0.03	0.01-0.04	0.01-0.04	0.01-0.05	0.01-0.05	0.01-0.05	0.01-0.05	0.01-0.06	0.01-0.06					
39.3	12	RPM	1530	1270	950	760	640	480	380	320	270					
		FEED	0.01-0.03	0.01-0.03	0.01-0.04	0.01-0.04	0.01-0.05	0.01-0.05	0.01-0.05	0.01-0.05	0.01-0.06	0.01-0.06				

◎ : Excellent ○ : Good

ISO	P										M				K							
Material Description	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																						
HB	125	190	250	270	300	180	275	300	350	200	15	35	15	23	10	26	3	25	130	230		
Recommended																						
ISO	N									S						H						
Material Description	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	40	41	
HRc																						
HB	60	100	75	90	130	110	90	100			15	30	25	38	34	400Rm	1050Rm	550	600	70	42	55
Recommended																						



Global Cutting Tool Leader **YG-1**



# HOLEMAKING