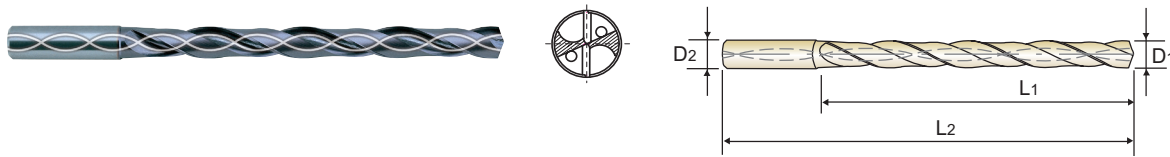


**CARBIDE, DREAM DRILLS - INOX with COOLANT HOLES** *EXTRA LONG*

🇩🇪 VOLLHARTMETALL DREAM SPIRALBOHRER - INOX mit KÜHLKANAL *ÜBERLANG*  
🇫🇷 Forets DREAM DRILLS carbure pour INOX, avec arrosage central, série extra-longue *EXTRA-LONGUE*  
🇮🇹 PUNTE ELICOIDALI IN MD, DREAM DRILLS - INOX (con fori di refrigerazione) *EXTRA LUNGA*

- ▶ 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

- ▶ Spezielle Nutenform und Geometrie für die Bearbeitung von rostfreiem Stahl
- ▶ Hervorragende Spanabfuhr durch bessere Oberflächenbehandlung
- ▶ Vorzügliche Zentrierung und Spanbruch durch die R-Ausspitzung
- ▶ TiAlN-Beschichtung für bessere Oberflächengüte der Bohrung und längere Standzeit



DIN 6537
CARBIDE
30°
h6
m7
140°
20 bar

P.129-130

8 × D

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
	D1	D2	L1	L2
TiAlN				
DH453030	3.0	6	34	72
DH453031	3.1	6	34	72
DH453032	3.2	6	34	72
DH453033	3.3	6	34	72
DH453034	3.4	6	34	72
DH453035	3.5	6	34	72
DH453036	3.6	6	34	72
DH453037	3.7	6	34	72
DH453038	3.8	6	43	81
DH453039	3.9	6	43	81
DH453040	4.0	6	43	81
DH453041	4.1	6	43	81
DH453042	4.2	6	43	81
DH453043	4.3	6	43	81
DH453044	4.4	6	43	81
DH453045	4.5	6	43	81
DH453046	4.6	6	43	81
DH453047	4.7	6	43	81
DH453048	4.8	6	57	95
DH453049	4.9	6	57	95
DH453050	5.0	6	57	95
DH453051	5.1	6	57	95
DH453052	5.2	6	57	95
DH453053	5.3	6	57	95

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
	D1	D2	L1	L2
TiAlN				
DH453054	5.4	6	57	95
DH453055	5.5	6	57	95
DH453056	5.6	6	57	95
DH453057	5.7	6	57	95
DH453058	5.8	6	57	95
DH453059	5.9	6	57	95
DH453060	6.0	6	57	95
DH453061	6.1	8	76	114
DH453062	6.2	8	76	114
DH453063	6.3	8	76	114
DH453064	6.4	8	76	114
DH453065	6.5	8	76	114
DH453066	6.6	8	76	114
DH453067	6.7	8	76	114
DH453068	6.8	8	76	114
DH453069	6.9	8	76	114
DH453070	7.0	8	76	114
DH453071	7.1	8	76	114
DH453072	7.2	8	76	114
DH453073	7.3	8	76	114
DH453074	7.4	8	76	114
DH453075	7.5	8	76	114
DH453076	7.6	8	76	114
DH453077	7.7	8	76	114

Unit : mm

▶ Other shank types are available on your request.

▶ NEXT PAGE

◎ : 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	
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323																				
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		
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323																					
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HB	60	100	75	90	130	110	90	100			15	30	25	38	34			55	60	42	55
Recommended	◎	◎	○	○	○	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎



**CARBIDE, DREAM DRILLS - INOX with COOLANT HOLES**

**EXTRA LONG**

● **VOLLHARTMETALL DREAM SPIRALBOHRER - INOX mit KÜHLKANAL**

**ÜBERLANG**

● **Forets DREAM DRILLS carbure pour INOX, avec arrosage central, série extra-longue**

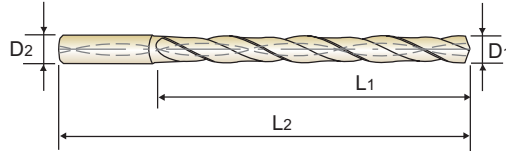
**EXTRA-LONGUE**

● **PUNTE ELICOIDALI IN MD, DREAM DRILLS - INOX (con fori di refrigerazione)**

**EXTRA LUNGA**

- Special flute shape and geometry suitable for machining stainless steel
- Excellent chip evacuation from better surface treatment
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- TiAlN coating for better surface finishes and longer tool life

- Spezielle Nutenform und Geometrie für die Bearbeitung von rostfreiem Stahl
- Hervorragende Spanabfuhr durch bessere Oberflächenbehandlung
- Vorzügliche Zentrierung und Spanbruch durch die R-Ausspitzung
- TiAlN-Beschichtung für bessere Oberflächengüte der Bohrung und längere Standzeit



P.129-130

**8 x D**

Unit : mm

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
TiAlN	D1	D2	L1	L2
DH453078	7.8	8	76	114
DH453079	7.9	8	76	114
DH453080	8.0	8	76	114
DH453081	8.1	10	95	142
DH453082	8.2	10	95	142
DH453083	8.3	10	95	142
DH453084	8.4	10	95	142
DH453085	8.5	10	95	142
DH453086	8.6	10	95	142
DH453087	8.7	10	95	142
DH453088	8.8	10	95	142
DH453089	8.9	10	95	142
DH453090	9.0	10	95	142
DH453091	9.1	10	95	142
DH453092	9.2	10	95	142
DH453093	9.3	10	95	142
DH453094	9.4	10	95	142
DH453095	9.5	10	95	142
DH453096	9.6	10	95	142
DH453097	9.7	10	95	142
DH453098	9.8	10	95	142
DH453099	9.9	10	95	142
DH453100	10.0	10	95	142
DH453101	10.1	12	114	162

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
TiAlN	D1	D2	L1	L2
DH453102	10.2	12	114	162
DH453103	10.3	12	114	162
DH453104	10.4	12	114	162
DH453105	10.5	12	114	162
DH453106	10.6	12	114	162
DH453107	10.7	12	114	162
DH453108	10.8	12	114	162
DH453109	10.9	12	114	162
DH453110	11.0	12	114	162
DH453111	11.1	12	114	162
DH453112	11.2	12	114	162
DH453113	11.3	12	114	162
DH453114	11.4	12	114	162
DH453115	11.5	12	114	162
DH453116	11.6	12	114	162
DH453117	11.7	12	114	162
DH453118	11.8	12	114	162
DH453119	11.9	12	114	162
DH453120	12.0	12	114	162
DH453125	12.5	14	133	178
DH453130	13.0	14	133	178
DH453135	13.5	14	133	178
DH453140	14.0	14	133	178

► Other shank types are available on your request.

◎ : 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	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					
Material Description	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallics		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											15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	◎	◎	○	○	○												○				



RECOMMENDED CUTTING CONDITIONS  
EMPHOHLENE SCHNEIDPARAMETER

DH451, DH452, DH453 SERIES with COOLANT HOLES

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

ISO	VDI 3323	Material Description	Vc (m/min)	Parameter	Drill Diameter (mm)		Vc (m/min)	Parameter	Drill Diameter (mm)						
					1.0	2.0			3.0	4.0	5.0	6.0			
P	1	Non-alloy steel	70	RPM	22280	11140	100	RPM	10610	7960	6370	5310			
	2			FEED	0.02-0.04	0.04-0.06		FEED	0.04-0.10	0.06-0.12	0.12-0.18	0.14-0.20			
	3			RPM	22280	11140		RPM	10610	7960	6370	5310			
	4			FEED	0.02-0.04	0.04-0.06		FEED	0.04-0.10	0.06-0.12	0.12-0.18	0.14-0.20			
	5	Low alloy steel	70	RPM	22280	11140	100	RPM	10610	7960	6370	5310			
	6			FEED	0.02-0.04	0.04-0.06		FEED	0.04-0.10	0.06-0.12	0.12-0.18	0.14-0.20			
	7			RPM	15920	7960		RPM	7430	5570	4460	3710			
	8			FEED	0.02-0.04	0.04-0.06		FEED	0.04-0.10	0.06-0.12	0.12-0.18	0.14-0.20			
	9			High alloyed steel, and tool steel	70	RPM		22280	11140	100	RPM	10610	7960	6370	5310
	10					FEED		0.02-0.04	0.04-0.06		FEED	0.04-0.10	0.06-0.12	0.12-0.18	0.14-0.20
	11														
M	12	Stainless steel	40	RPM	12730	6370	50	RPM	5310	3980	3180	2650			
	13		FEED	0.02-0.04	0.02-0.04	FEED	0.03-0.05	0.05-0.09	0.07-0.11	0.09-0.13					
	14		RPM	7960	3980	40	RPM	4240	3180	2550	2120				
K	15	Grey cast iron	45	FEED	0.02-0.04	0.02-0.04	60	FEED	0.03-0.05	0.05-0.09	0.07-0.11	0.09-0.13			
	16			RPM	14320	7160	RPM	6370	4770	3820	3180				
	17	Nodular cast iron	45	FEED	0.02-0.04	0.02-0.04	60	FEED	0.04-0.06	0.06-0.10	0.08-0.12	0.10-0.14			
	18			RPM	14320	7160	RPM	6370	4770	3820	3180				
	19			Malleable cast iron	45	FEED	0.02-0.04	0.02-0.04	60	FEED	0.04-0.06	0.06-0.10	0.08-0.12	0.10-0.14	
	20					RPM	14320	7160	RPM	6370	4770	3820	3180		
N	21	Aluminum-wrought alloy	130	RPM	41380	20690	180	RPM	19100	14320	11460	9550			
	22			FEED	0.04-0.10	0.08-0.14		FEED	0.14-0.20	0.19-0.25	0.20-0.26	0.22-0.28			
	23	Aluminum-cast, alloyed	110	RPM	41380	20690	180	RPM	19100	14320	11460	9550			
	24			FEED	0.04-0.10	0.08-0.14		FEED	0.14-0.20	0.19-0.25	0.20-0.26	0.22-0.28			
	25			RPM	35010	17510		160	RPM	16980	12730	10190	8490		
	26			FEED	0.04-0.10	0.08-0.14		FEED	0.14-0.20	0.19-0.25	0.20-0.26	0.22-0.28			
	27	Copper and Copper Alloys (Bronze / Brass)	110	RPM	35010	17510	160	RPM	16980	12730	10190	8490			
	28			FEED	0.04-0.10	0.08-0.14		FEED	0.14-0.20	0.19-0.25	0.20-0.26	0.22-0.28			
	29	Non Metallic Materials	90	RPM	28650	14320	130	RPM	13790	10350	8280	6900			
	30			FEED	0.04-0.08	0.06-0.10		FEED	0.12-0.18	0.16-0.22	0.17-0.23	0.19-0.25			
S	31	Heat Resistant Super Alloys	25	RPM	7960	3980	40	RPM	4240	3180	2550	2120			
	32			FEED	0.01-0.03	0.01-0.03		FEED	0.02-0.04	0.04-0.08	0.06-0.10	0.08-0.12			
	33			Titanium Alloys	25	RPM		7960	3980	40	RPM	4240	3180	2550	2120
	34					FEED		0.01-0.03	0.01-0.03		FEED	0.02-0.04	0.04-0.08	0.06-0.10	0.08-0.12
	35	Hardened steel	25	RPM	7960	3980	40	RPM	4240	3180	2550	2120			
	36			FEED	0.01-0.03	0.01-0.03		FEED	0.02-0.04	0.04-0.08	0.06-0.10	0.08-0.12			
	37			Chilled Cast Iron	25	RPM		7960	3980	40	RPM	4240	3180	2550	2120
38	FEED	0.01-0.03	0.01-0.03			FEED	0.02-0.04	0.04-0.08	0.06-0.10		0.08-0.12				
H	39	Hardened Cast Iron	25	RPM	7960	3980	40	RPM	4240	3180	2550	2120			
	40			FEED	0.01-0.03	0.01-0.03		FEED	0.02-0.04	0.04-0.08	0.06-0.10	0.08-0.12			
41															

► Recommend to reduce the feed rate as following

► NEXT PAGE

Feed 100% : DH451(3xD), DH452(5xD) Feed 85% : DH453(8xD)



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

**DH451, DH452, DH453 SERIES**

**with COOLANT HOLES**

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

ISO	VDI 3323	Material Description	Vc (m/min)	Parameter	Drill Diameter (mm)						
					8.0	10.0	12.0	14.0	16.0	18.0	20.0
P	1	Non-alloy steel									
	2		100	RPM FEED	3980 0.16-0.22	3180 0.20-0.26	2650 0.18-0.28	2270 0.20-0.30	1990 0.22-0.32	1770 0.26-0.36	1590 0.28-0.38
	3		100	RPM FEED	3980 0.16-0.22	3180 0.20-0.26	2650 0.18-0.28	2270 0.20-0.30	1990 0.22-0.32	1770 0.26-0.36	1590 0.28-0.38
	4										
	5										
	6	Low alloy steel	100	RPM FEED	3980 0.16-0.22	3180 0.20-0.26	2650 0.18-0.28	2270 0.20-0.30	1990 0.22-0.32	1770 0.26-0.36	1590 0.28-0.38
	7		70	RPM FEED	2790 0.16-0.22	2230 0.20-0.26	1860 0.18-0.28	1590 0.20-0.30	1390 0.22-0.32	1240 0.26-0.36	1110 0.28-0.38
	8										
	9										
	10	High alloyed steel, and tool steel									
	11										
M	12	Stainless steel	50	RPM FEED	1990 0.09-0.13	1590 0.10-0.15	1330 0.11-0.16	1140 0.12-0.17	990 0.13-0.18	880 0.14-0.19	800 0.15-0.20
	13		40	RPM FEED	1590 0.09-0.13	1270 0.10-0.15	1060 0.11-0.16	910 0.12-0.17	800 0.13-0.18	710 0.14-0.19	640 0.15-0.20
	14		60	RPM FEED	2390 0.10-0.14	1910 0.11-0.16	1590 0.12-0.17	1360 0.13-0.18	1190 0.14-0.19	1060 0.15-0.20	950 0.16-0.21
K	15	Grey cast iron									
	16										
	17	Nodular cast iron									
	18										
19	Malleable cast iron										
20											
N	21	Aluminum-wrought alloy	180	RPM FEED	7160 0.24-0.30	5730 0.29-0.35	4770 0.29-0.35	4090 0.30-0.40	3580 0.30-0.40	3180 0.33-0.43	2860 0.35-0.45
	22		180	RPM FEED	7160 0.24-0.30	5730 0.29-0.35	4770 0.29-0.35	4090 0.30-0.40	3580 0.30-0.40	3180 0.33-0.43	2860 0.35-0.45
	23	Aluminum-cast, alloyed	160	RPM FEED	6370 0.24-0.30	5090 0.29-0.35	4240 0.29-0.35	3640 0.30-0.40	3180 0.30-0.40	2830 0.33-0.43	2550 0.35-0.45
	24		160	RPM FEED	6370 0.24-0.30	5090 0.29-0.35	4240 0.29-0.35	3640 0.30-0.40	3180 0.30-0.40	2830 0.33-0.43	2550 0.35-0.45
	25		130	RPM FEED	5170 0.22-0.28	4140 0.24-0.30	3450 0.24-0.30	2960 0.25-0.35	2590 0.25-0.35	2300 0.28-0.38	2070 0.30-0.40
	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		40	RPM FEED	1590 0.08-0.12	1270 0.09-0.14	1060 0.10-0.15	910 0.11-0.16	800 0.12-0.17	710 0.13-0.18	640 0.14-0.19
H	38	Hardened steel									
	39										
	40	Chilled Cast Iron									
41	Hardened Cast Iron										

► Recommend to reduce the feed rate as following

**Feed 100%** : DH451(3xD), DH452(5xD) **Feed 85%** : DH453(8xD)

SELECTION GUIDE



SERIES

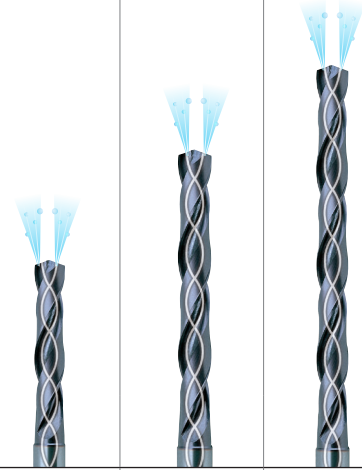
	DH451	DH452	DH453
DRILLING DEPTH	3XD	5XD	8XD
LENGTH	SHORT	LONG	EXTRA LONG
SIZE MIN	D3.0	D1.0	D3.0
SIZE MAX	D20.0	D20.0	D14.0
PAGE	121	124	127

SURFACE TREATMENT

TiAIN

# SOLID CARBIDE DREAM DRILLS INOX

For Tough Materials like Stainless Steels, Nickel Alloys and Titanium



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

◎ : Excellent ○ : Good

Recommended cutting conditions : P.129

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		Hardened	630	60			
	40	Chilled Cast Iron	Cast	400	42			
41	Hardened Cast Iron	Hardened	550	55				