



**DREAM DRILLS - MQL TYPE**

**DHM15** SERIES

**DHM10** SERIES

**DHM20** SERIES

**CARBIDE, DREAM DRILL MQL TYPE END MILL SHANK with COOLANT HOLE**

**EXTRA LONG**

● **VOLLHARTMETALL DREAM SPIRALBOHRER MQL - TYPE MIT KÜHLKANAL**

**ÜBERLANG**

● **Forets DREAM DRILLS carbure Type MQL avec arrosage central, série extra-longue**

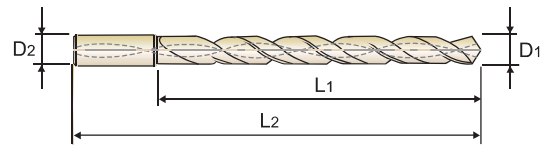
**EXTRA-LONGUE**

● **PUNTE MD, DREAM DRILLS MQL GAMBO RINFORZATO (con fori di refrigerazione)**

**EXTRA LUNGA**

- ▶ 4-Facet Point for good centering capability
- ▶ Optimized special flutes are ideal for removing chips and for productive drilling
- ▶ Enhanced chip evacuation by polished flute upgraded TiAlN nano layer full coating
- ▶ MQL system compatible (Minimum Quantity Lubrication)

- ▶ 4-Facetten-Spitze für gute Zentrierfähigkeit
- ▶ Optimierte Spezialnuten für die ideale Spanabfuhr und zum produktiven Bohren
- ▶ Verbesserte Spanabfuhr durch hochglanzpolierte TiAlN-Nano-Vollbeschichtung
- ▶ MMS geeignet



CARBIDE
30°
h6
h7
140°
20 bar
45 bar
P.154-155

10 × D (DHM10)
15 × D (DHM15)
20 × D (DHM20)

**DHM10**

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
TiAlN	D1	D2	L1	L2
DHM10030	3.0	6	40	80
DHM10033	3.3	6	47	87
DHM10035	3.5	6	47	87
DHM10040	4.0	6	53	93
DHM10042	4.2	6	60	100
DHM10045	4.5	6	60	100
DHM10050	5.0	6	66	106
DHM10055	5.5	6	73	113
DHM10060	6.0	6	79	119
DHM10065	6.5	8	86	126
DHM10068	6.8	8	92	132
DHM10070	7.0	8	92	132
DHM10075	7.5	8	99	139
DHM10080	8.0	8	105	145
DHM10085	8.5	10	112	156
DHM10090	9.0	10	118	162
DHM10095	9.5	10	126	170
DHM10100	10.0	10	132	176
DHM10105	10.5	12	139	188
DHM10110	11.0	12	145	194
DHM10115	11.5	12	152	201
DHM10120	12.0	12	158	207
DHM10125	12.5	14	165	214
DHM10130	13.0	14	171	220
DHM10135	13.5	14	178	227
DHM10140	14.0	14	184	233

**DHM15**

Unit : mm

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
TiAlN	D1	D2	L1	L2
DHM15030	3.0	6	55	95
DHM15035	3.5	6	64	104
DHM15040	4.0	6	73	113
DHM15045	4.5	6	82	122
DHM15050	5.0	6	91	131
DHM15055	5.5	6	100	140
DHM15060	6.0	6	109	149
DHM15070	7.0	8	127	167
DHM15080	8.0	8	145	185
DHM15090	9.0	10	163	207
DHM15100	10.0	10	182	226
DHM15110	11.0	12	200	249
DHM15120	12.0	12	218	267

**DHM20**

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
TiAlN	D1	D2	L1	L2
DHM20030	3.0	6	70	110
DHM20035	3.5	6	82	122
DHM20040	4.0	6	93	133
DHM20045	4.5	6	105	145
DHM20050	5.0	6	116	156
DHM20055	5.5	6	128	168
DHM20060	6.0	6	139	179
DHM20070	7.0	8	162	202
DHM20080	8.0	8	185	225
DHM20090	9.0	10	208	252
DHM20100	10.0	10	232	276
DHM20110	11.0	12	255	304
DHM20120	12.0	12	278	327

◎ : 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	36	10	29	32	38	42	15	35	15	23	10	26	3	25	10	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	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																					



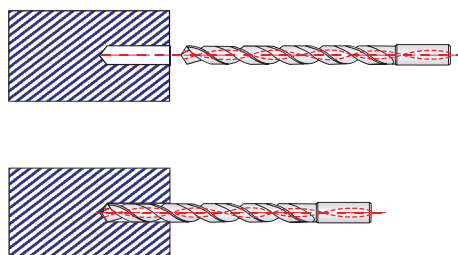
**DREAM DRILLS  
- MQL TYPE**

**RECOMMENDED CUTTING CONDITIONS  
EMPFOLHENE SCHNEIDPARAMETER**

**DH510, DH515, DH520, DHM10, DHM15, DHM20, DHM25, DHM30 SERIES with COOLANT HOLES**

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

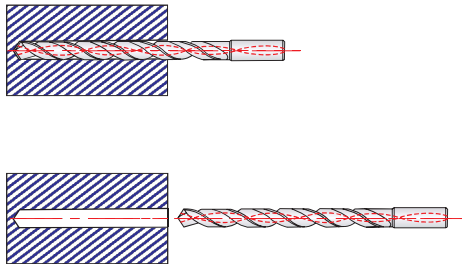
ISO	VDI 3323	Material Description	Vc(m/min)		Parameter	Drill Diameter (mm)				
			10xD ~ 20xD	25xD ~ 30xD		3.0	4.0	5.0	6.0	
<b>P</b>	1	Non-alloy steel	120	100	RPM(10xD-20xD) RPM(25xD-30xD) FEED	12730 10610 0.08-0.12	9550 7960 0.10-0.14	7640 6370 0.12-0.18	6370 5310 0.14-0.20	
	2		100	80	RPM(10xD-20xD) RPM(25xD-30xD) FEED	10610 8490 0.08-0.12	7960 6370 0.10-0.14	6370 5090 0.12-0.18	5310 4240 0.14-0.20	
	3		80	65	RPM(10xD-20xD) RPM(25xD-30xD) FEED	8490 6900 0.06-0.10	6370 5170 0.08-0.12	5090 4140 0.10-0.16	4240 3450 0.12-0.18	
	4									
	5									
	6	Low alloy steel	100	100	RPM(10xD-20xD) RPM(25xD-30xD) FEED	10610 10610 0.08-0.12	7960 7960 0.10-0.14	6370 6370 0.12-0.18	5310 5310 0.14-0.20	
	7		70	60	RPM(10xD-20xD) RPM(25xD-30xD) FEED	7430 6370 0.06-0.10	5570 4770 0.08-0.12	4460 3820 0.10-0.16	3710 3180 0.12-0.18	
	8		55	50	RPM(10xD-20xD) RPM(25xD-30xD) FEED	5840 5310 0.06-0.10	4380 3980 0.08-0.12	3500 3180 0.10-0.16	2920 2650 0.12-0.18	
	9									
	10		High alloyed steel, and tool steel	60	50	RPM(10xD-20xD) RPM(25xD-30xD) FEED	6370 5310 0.05-0.09	4770 3980 0.07-0.11	3820 3180 0.08-0.14	3180 2650 0.10-0.16
	11	50		45	RPM(10xD-20xD) RPM(25xD-30xD) FEED	5310 4770 0.04-0.08	3980 3580 0.06-0.10	3180 2860 0.07-0.13	2650 2390 0.08-0.14	
<b>M</b>	12	Stainless steel								
	13									
	14									
<b>K</b>	15	Grey cast iron	90	75	RPM(10xD-20xD) RPM(25xD-30xD) FEED	9550 7960 0.10-0.14	7160 5970 0.12-0.16	5730 4770 0.17-0.23	4770 3980 0.19-0.25	
	16		70	60	RPM(10xD-20xD) RPM(25xD-30xD) FEED	7430 6370 0.10-0.14	5570 4770 0.12-0.16	4460 3820 0.17-0.23	3710 3180 0.19-0.25	
	17	Nodular cast iron	100	80	RPM(10xD-20xD) RPM(25xD-30xD) FEED	10610 8490 0.10-0.14	7960 6370 0.12-0.16	6370 5090 0.17-0.23	5310 4240 0.19-0.25	
	18		70	60	RPM(10xD-20xD) RPM(25xD-30xD) FEED	7430 6370 0.08-0.12	5570 4770 0.10-0.14	4460 3820 0.12-0.18	3710 3180 0.14-0.20	
	19	Malleable cast iron	80	65	RPM(10xD-20xD) RPM(25xD-30xD) FEED	8490 6900 0.10-0.14	6370 5170 0.12-0.16	5090 4140 0.17-0.23	4240 3450 0.19-0.25	
	20		70	55	RPM(10xD-20xD) RPM(25xD-30xD) FEED	7430 5840 0.08-0.12	5570 4380 0.10-0.14	4460 3500 0.12-0.18	3710 2920 0.14-0.20	



1. Guide Drilling should be done as Diameter+0.1mm between 3xD and 5xD depth.
2. For Main Drilling, proceed with low RPM at Guide Drilling segment.  
(RPM 300, FEED 400mm/min)
3. Just before the end of Guide Drilling segment, reduce feed to zero and increase the RPM according to Recommended Cutting Condition chart (See above).

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

VDI 3323	Parameter	Drill Diameter (mm)			
		8.0	10.0	12.0	14.0
1	RPM(10xD-20xD)	4770	3820	3180	2730
	RPM(25xD-30xD)	3980	3180	2650	2270
	FEED	0.18-0.24	0.20-0.26	0.22-0.26	0.25-0.31
2	RPM(10xD-20xD)	3980	3180	2650	2270
	RPM(25xD-30xD)	3180	2550	2120	1820
	FEED	0.18-0.24	0.20-0.26	0.22-0.26	0.25-0.31
3	RPM(10xD-20xD)	3180	2550	2120	1820
	RPM(25xD-30xD)	2590	2070	1720	1480
	FEED	0.14-0.20	0.16-0.22	0.18-0.24	0.20-0.26
4					
5					
6	RPM(10xD-20xD)	3980	3180	2650	2270
	RPM(25xD-30xD)	3980	3180	2650	2270
	FEED	0.18-0.24	0.20-0.26	0.22-0.26	0.25-0.31
7	RPM(10xD-20xD)	2790	2230	1860	1590
	RPM(25xD-30xD)	2390	1910	1590	1360
	FEED	0.14-0.20	0.16-0.22	0.18-0.24	0.20-0.26
8	RPM(10xD-20xD)	2190	1750	1460	1250
	RPM(25xD-30xD)	1990	1590	1330	1140
	FEED	0.14-0.20	0.16-0.22	0.18-0.24	0.20-0.26
9					
10	RPM(10xD-20xD)	2390	1910	1590	1360
	RPM(25xD-30xD)	1990	1590	1330	1140
	FEED	0.12-0.18	0.14-0.20	0.16-0.22	0.18-0.24
11	RPM(10xD-20xD)	1990	1590	1330	1140
	RPM(25xD-30xD)	1790	1430	1190	1020
	FEED	0.10-0.16	0.12-0.18	0.13-0.19	0.15-0.21
12					
13					
14					
15	RPM(10xD-20xD)	3580	2860	2390	2050
	RPM(25xD-30xD)	2980	2390	1990	1710
	FEED	0.22-0.28	0.24-0.30	0.28-0.34	0.30-0.36
16	RPM(10xD-20xD)	2790	2230	1860	1590
	RPM(25xD-30xD)	2390	1910	1590	1360
	FEED	0.22-0.28	0.24-0.30	0.28-0.34	0.30-0.36
17	RPM(10xD-20xD)	3980	3180	2650	2270
	RPM(25xD-30xD)	3180	2550	2120	1820
	FEED	0.22-0.28	0.24-0.30	0.28-0.34	0.30-0.36
18	RPM(10xD-20xD)	2790	2230	1860	1590
	RPM(25xD-30xD)	2390	1910	1590	1360
	FEED	0.18-0.24	0.20-0.26	0.22-0.26	0.25-0.31
19	RPM(10xD-20xD)	3180	2550	2120	1820
	RPM(25xD-30xD)	2590	2070	1720	1480
	FEED	0.22-0.28	0.24-0.30	0.28-0.34	0.30-0.36
20	RPM(10xD-20xD)	2790	2230	1860	1590
	RPM(25xD-30xD)	2190	1750	1460	1250
	FEED	0.18-0.24	0.20-0.26	0.22-0.26	0.25-0.31



4. After then, proceed main drilling by increasing feed without step drilling.
5. When coming out from Guide Drilling start point after drilling, RPM should be reduced as 300 and feed should be 1000 mm/min.
6. When coming out from Guide Drilling segment to the outside, the feed should be decreased as 50%.