DREAM DRILLS - MQL TYPE

DHM25 SERIES
DHM30 SERIES

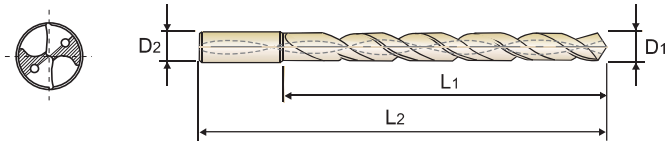
CARBIDE, DREAM DRILL MQL TYPE END MILL SHANK with COOLANT HOLE

EXTRA LONG
ÜBERLANG
EXTRA-LONGUE
EXTRA LUNGA

VOLLHARTMETALL DREAM SPIRALBOHRER MQL - TYPE MIT KÜHLKANAL
Forets DREAM DRILLS carbure Type MQL avec arrosage central, attachement type fraise, série extra-longue
PUNTE MD, DREAM DRILLS MQL GAMBO RINFORZATO (con fori di ferigerazione)

- ▶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° | 45 bar

P.154-155

25 × D (DHM25) | 30 × D (DHM30)

Unit : mm

DHM25

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
TiAlN	D_1	D_2	L_1	L_2
DHM25030	3.0	6.0	85	125
DHM25035	3.5	6.0	99	139
DHM25040	4.0	6.0	113	153
DHM25045	4.5	6.0	127	167
DHM25050	5.0	6.0	141	181
DHM25055	5.5	6.0	155	195
DHM25060	6.0	6.0	169	209
DHM25070	7.0	8.0	197	237
DHM25080	8.0	8.0	225	265
DHM25090	9.0	10.0	253	297
DHM25100	10.0	10.0	282	326

DHM30

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
TiAlN	D_1	D_2	L_1	L_2
DHM30030	3.0	6.0	100	140
DHM30035	3.5	6.0	117	157
DHM30040	4.0	6.0	133	173
DHM30045	4.5	6.0	150	190
DHM30050	5.0	6.0	166	206
DHM30055	5.5	6.0	183	223
DHM30060	6.0	6.0	199	239
DHM30070	7.0	8.0	232	272
DHM30080	8.0	8.0	265	305

◎ : 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	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 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	400 Rm	1050 Rm	550	630	400	550
Recommended																					

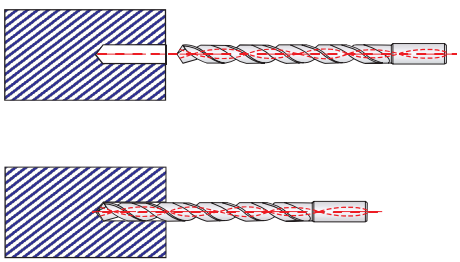
DREAM DRILLS - MQL TYPE

RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE 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) 10xD ~ 20xD	Vc(m/min) 25xD ~ 30xD	Parameter	Drill Diameter (mm) 3.0	4.0	5.0	6.0
P	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
M	12	Stainless steel							
	13								
	14								
K	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



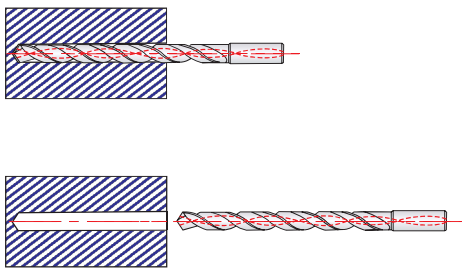
1. Guide Drilling should be done as Diameter+0.1mm between 3xD and 5xD depth.
2. For Main Drilling, proceed with low RPM at Guide Drilling segment.
   (RPM 300, FEED 400mm/min)
3. Just before the end of Guide Drilling segment, reduce feed to zero and increase the RPM according to Recommended Cutting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

DREAM DRILLS - MQL TYPE

RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDPARAMETER

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

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