

CARBIDE



Being the best through innovation



DREAM DRILLS -MQL TYPE









DREAM DRILLS - MQL TYPE

- WITH COOLANT HOLES
Minimum Quantity Lubrication. Drilling Deep Holes, $10 \times D \sim 30 \times D$
- Mit Kühlkanälen
Minimalmengenschmierung. Tiefloch $10 \times D$, $15 \times D$, $20 \times D$, $25 \times D$ und $30 \times D$

SELECTION GUIDE

SOLID CARBIDE DREAM DRILLS - MQL TYPE (with Coolant Holes)

Minimum Quantity Lubrication. Drilling Deep Holes, 10 × D ~ 30 × D

ITEM	MODEL	DESCRIPTION	SIZE		PAGE
			MIN	MAX	
10XD DH510		CARBIDE, DREAM DRILLS MQL TYPE with COOLANT HOLES <i>EXTRA LONG ÜBERLANG</i> VOLLHARTMETALL DREAM SPIRALBOHRER MQL - TYPE mit KÜHLKANAL	D3.0	D14.0	102
15XD DH515		CARBIDE, DREAM DRILLS MQL TYPE with COOLANT HOLES <i>EXTRA LONG ÜBERLANG</i> VOLLHARTMETALL DREAM SPIRALBOHRER MQL - TYPE mit KÜHLKANAL	D3.0	D12.0	103
20XD DH520		CARBIDE, DREAM DRILLS MQL TYPE with COOLANT HOLES <i>EXTRA LONG ÜBERLANG</i> VOLLHARTMETALL DREAM SPIRALBOHRER MQL - TYPE mit KÜHLKANAL	D3.0	D12.0	103
10XD DHM10		CARBIDE, DREAM DRILLS MQL TYPE END MILL SHANK with COOLANT HOLES <i>EXTRA LONG ÜBERLANG</i> VOLLHARTMETALL DREAM SPIRALBOHRER MQL - TYPE mit KÜHLKANAL in GERADZÄHLIGER SCHAFTAUSFÜHRUNG	D3.0	D14.0	104
15XD DHM15		CARBIDE, DREAM DRILLS MQL TYPE END MILL SHANK with COOLANT HOLES <i>EXTRA LONG ÜBERLANG</i> VOLLHARTMETALL DREAM SPIRALBOHRER MQL - TYPE mit KÜHLKANAL in GERADZÄHLIGER SCHAFTAUSFÜHRUNG	D3.0	D12.0	104
20XD DHM20		CARBIDE, DREAM DRILLS MQL TYPE END MILL SHANK with COOLANT HOLES <i>EXTRA LONG ÜBERLANG</i> VOLLHARTMETALL DREAM SPIRALBOHRER MQL - TYPE mit KÜHLKANAL in GERADZÄHLIGER SCHAFTAUSFÜHRUNG	D3.0	D12.0	104
25XD DHM25		CARBIDE, DREAM DRILLS MQL TYPE END MILL SHANK with COOLANT HOLES <i>EXTRA LONG ÜBERLANG</i> VOLLHARTMETALL DREAM SPIRALBOHRER MQL - TYPE mit KÜHLKANAL in GERADZÄHLIGER SCHAFTAUSFÜHRUNG	D3.0	D10.0	105
30XD DHM30		CARBIDE, DREAM DRILLS MQL TYPE END MILL SHANK with COOLANT HOLES <i>EXTRA LONG ÜBERLANG</i> VOLLHARTMETALL DREAM SPIRALBOHRER MQL - TYPE mit KÜHLKANAL in GERADZÄHLIGER SCHAFTAUSFÜHRUNG	D3.0	D8.0	105
RECOMMENDED CUTTING CONDITIONS EMPFOHLENE SCHNEIDKONDITIONEN					106

SOLID CARBIDE DREAM DRILLS-MQL TYPE

◎ : Excellent
○ : Good

Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze	CFRP
			HRc45~55	HRc55~								
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~								
◎	◎	○			○				○			
◎	◎	○			○				○			
◎	◎	○			○				○			
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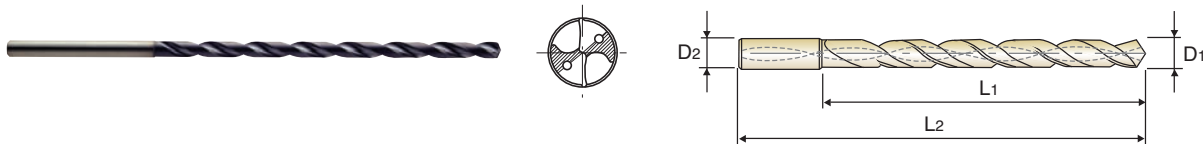
Y/G DREAM DRILLS -MQL TYPE

DH510 SERIES

CARBIDE, DREAM DRILLS MQL TYPE with COOLANT HOLES EXTRA LONG
VOLLHARTMETALL DREAM SPIRALBOHRER MQL - TYPE mit KÜHLKANAL in GERADZÄHLIGER SCHAFTAUSFÜHRUNG ÜBERLANG

- ▶ **Application** : Drilling steels in general, cast steels, cast iron, non-ferrous heavy metals, non-ferrous light metals.
- ▶ **Advantage** : Non step drilling up to 10 times of drill diameter. Available for processing MQL (Minimum Quantity Lubrication).
 Excellent positioning
 - Bush is not necessary.
 Special design
 - Good chip removal
 Powerful drilling

- ▶ **Verwendung** : Zum wirtschaftlichen Bohren von Stahl allgemein, Hart- und Temperguß, Nichteisen Leichtmetallen.
- ▶ **Vorteile** : Bohren bis zu 10 x D ohne abzusetzen, Geeignet für MQL (minimale Kühlschmierung)
 Selbstzentrierend
 - Keine vorherige Zentrierung notwendig
 Kein Verlaufen
 - Keine Bohrbuchse notwendig
 Spezielle Bohrergeometrie
 - Gute Spanabfuhr
 Hochleistungsbohren



10 × D

					Unit : mm				
EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
TiAlN	D1	D2	L1	L2	TiAlN	D1	D2	L1	L2
DH510030	3.0	3	39	90	DH510080	8.0	8	104	161
DH510033	3.3	4	46	97	DH510085	8.5	9	111	169
DH510035	3.5	4	46	97	DH510090	9.0	9	117	175
DH510040	4.0	4	52	103	DH510095	9.5	10	124	182
DH510042	4.2	5	59	112	DH510100	10.0	10	130	188
DH510045	4.5	5	59	112	DH510105	10.5	11	137	201
DH510050	5.0	5	65	118	DH510110	11.0	11	143	207
DH510055	5.5	6	72	127	DH510115	11.5	12	150	215
DH510060	6.0	6	78	133	DH510120	12.0	12	156	221
DH510065	6.5	7	85	141	DH510125	12.5	13	163	229
DH510068	6.8	7	91	147	DH510130	13.0	13	169	235
DH510070	7.0	7	91	147	DH510135	13.5	14	176	243
DH510075	7.5	8	98	155	DH510140	14.0	14	182	249

◎ : Excellent ○ : Good

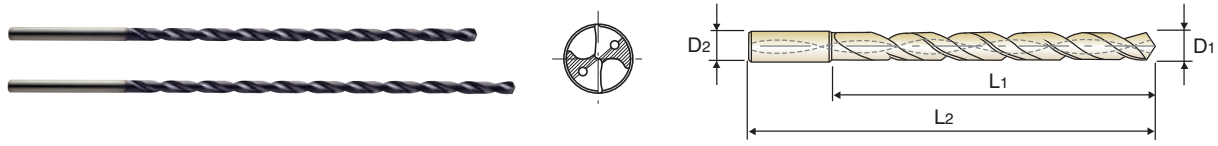
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze	CFRP
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~								
◎	◎	○			○				○			



CARBIDE, DREAM DRILLS MQL TYPE with COOLANT HOLES EXTRA LONG
VOLLHARTMETALL DREAM SPIRALBOHRER MQL - TYPE mit KÜHLKANAL in GERADZÄHLIGER SCHAFTAUSFÜHRUNG ÜBERLANG

- ▶ **Application** : Drilling steels in general, cast steels, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metals, non-ferrous light metals, abrasive plastics.
- ▶ **Advantage** : Non step drilling up to 15 times (20 times) of drill diameter.
 Available for processing MQL(Minimum Quantity Lubrication).
 Excellent positioning
 - Bush is not necessary.
 Special design
 - Good chip removal
 Powerful drilling

- ▶ **Verwendung** : Zum wirtschaftlichen Bohren von Stahl allgemein, Stahlguß, Hart-und Temperguß, Nichteisen Leichtmetallen, abrasiven Kunststoffen.
- ▶ **Vorteile** : Bohren bis zu 15 x D(20 x D) ohne abzusetzen, Geeignet für MQL (minimale Kühlschmierung) Selbstzentrierend
 - Keine vorherige Zentrierung notwendig
 Kein Verlaufen
 - Keine Bohrbuchse notwendig
 Spezielle Bohrergeometrie
 - Gute Spanabfuhr
 Hochleistungsbohren



MG
N 30°
h6
h7
140°
P.106
15 × D (DH515)
20 × D (DH520)

					Unit : mm				
EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
TiAlN	D1	D2	L1	L2	TiAlN	D1	D2	L1	L2
DH515030	3.0	3	54	105	DH520030	3.0	3	69	120
DH515035	3.5	4	63	114	DH520035	3.5	4	81	132
DH515040	4.0	4	72	123	DH520040	4.0	4	92	143
DH515045	4.5	5	81	134	DH520045	4.5	5	104	157
DH515050	5.0	5	90	143	DH520050	5.0	5	115	168
DH515055	5.5	6	99	154	DH520055	5.5	6	127	182
DH515060	6.0	6	108	163	DH520060	6.0	6	138	193
DH515070	7.0	7	126	182	DH520070	7.0	7	161	217
DH515080	8.0	8	144	201	DH520080	8.0	8	184	241
DH515090	9.0	9	162	220	DH520090	9.0	9	207	265
DH515100	10.0	10	180	238	DH520100	10.0	10	230	288
DH515110	11.0	11	198	262	DH520120	12.0	12	276	341
DH515120	12.0	12	216	281					

Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze	CFRP
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~								
◎	◎	○			○				○			

- HSS
- I-DREAM DRILLS
- DREAM DRILLS -GENERAL
- DREAM DRILLS -INOX
- DREAM DRILLS -ALU
- DREAM DRILLS -CFRP
- DREAM DRILLS -MQL TYPE
- DREAM DRILLS for HARDENED STEELS
- GENERAL CARBIDE DRILLS
- NC-SPOTTING DRILLS
- CENTER DRILLS
- MULTI-1 DRILLS
- HPD DRILLS
- GOLD-P DRILLS
- STRAIGHT SHANK DRILLS
- TAPER SHANK DRILLS
- NC-SPOTTING DRILLS
- CENTER DRILLS
- SPADE DRILLS
- TECHNICAL DATA

**YG DREAM DRILLS
-MQL TYPE**

DHM15 SERIES

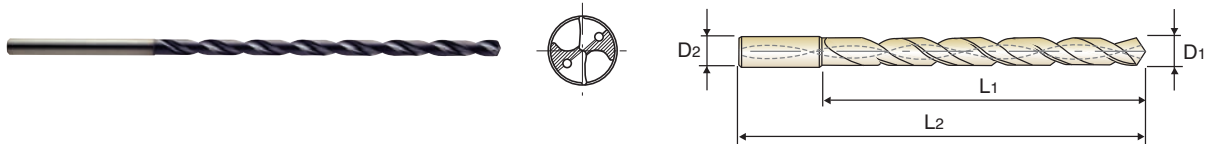
DHM10 SERIES

DHM20 SERIES

**CARBIDE, DREAM DRILL MQL TYPE END MILL SHANK with COOLANT HOLE EXTRA LONG
VOLLHARTMETALL DREAM SPIRALBOHRER MQL - TYPE mit KÜHLKANAL ÜBERLANG**

- **Application** : Drilling steels in general, cast steels, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metals, non-ferrous light metals, abrasive plastics.
- **Advantage** : Non step drilling up to 10 times of drill diameter. Available for processing MQL (Minimum Quantity Lubrication).
 Excellent positioning
 - Bush is not necessary.
 Special design
 - Good chip removal
 Powerful drilling

- **Verwendung** : Zum wirtschaftlichen Bohren von Stahl allgemein, Stahlguß, Hart- und Temperguß, Nichteisen Leichtmetallen, abrasiven Kunststoffen.
- **Vorteile** : Bohren bis zu 10 x D ohne abzusetzen, Geeignet für MQL (minimale Kühlschmierung) Selbstzentrierend
 - Keine vorherige Zentrierung notwendig
 Kein Verlaufen
 - Keine Bohrbuchse notwendig
 Spezielle Bohrergeometrie
 - Gute Spanabfuhr
 Hochleistungsbohren



10 × D (DHM10)	15 × D (DHM15)	20 × D (DHM15)
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Unit : mm

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
TiAlN	D1	D2	L1	L2	TiAlN	D1	D2	L1	L2
DHM10030	3.0	6	40	80	DHM15030	3.0	6	55	95
DHM10033	3.3	6	47	87	DHM15035	3.5	6	64	104
DHM10035	3.5	6	47	87	DHM15040	4.0	6	73	113
DHM10040	4.0	6	53	93	DHM15045	4.5	6	82	122
DHM10042	4.2	6	60	100	DHM15050	5.0	6	91	131
DHM10045	4.5	6	60	100	DHM15055	5.5	6	100	140
DHM10050	5.0	6	66	106	DHM15060	6.0	6	109	149
DHM10055	5.5	6	73	113	DHM15070	7.0	8	127	167
DHM10060	6.0	6	79	119	DHM15080	8.0	8	145	185
DHM10065	6.5	8	86	126	DHM15090	8.0	10	163	207
DHM10068	6.8	8	92	132	DHM15100	10.0	10	182	226
DHM10075	7.5	8	99	139	DHM15110	11.0	12	200	249
DHM10080	8.0	8	105	145	DHM15120	12.0	12	218	267
DHM10085	8.5	10	112	156	EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
DHM10090	9.0	10	118	162	TiAlN	D1	D2	L1	L2
DHM10095	9.5	10	126	170	DHM20030	3.0	6	70	110
DHM10100	10.0	10	132	176	DHM20035	3.5	6	82	122
DHM10105	10.5	12	139	188	DHM20040	4.0	6	93	133
DHM10110	11.0	12	145	194	DHM20045	4.5	6	105	145
DHM10115	11.5	12	152	201	DHM20050	5.0	6	116	156
DHM10120	12.0	12	158	207	DHM20055	5.5	6	128	168
DHM10125	12.5	14	165	214	DHM20060	6.0	6	139	179
DHM10130	13.0	14	171	220	DHM20070	7.0	8	162	202
DHM10135	13.5	14	178	227	DHM20080	8.0	8	185	225
DHM10140	14.0	14	184	233	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

Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels	Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze	CFRP
~HB225	HB225~325	HRc30~45	HRc45~55 HRc55~								
⊙	⊙	○		○				○			

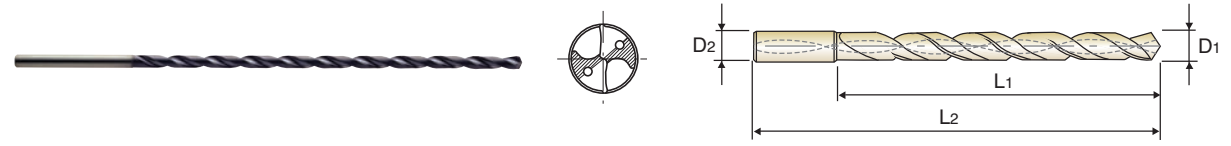
YG DREAM DRILLS -MQL TYPE

DHM25 SERIES
DHM30 SERIES

CARBIDE, DREAM DRILL MQL TYPE END MILL SHANK with COOLANT HOLE EXTRA LONG
VOLLHARTMETALL DREAM SPIRALBOHRER MQL - TYPE mit KÜHLKANAL ÜBERLANG

- ▶ **Application** : Drilling steels in general, cast steels, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metals, non-ferrous light metals, abrasive plastics.
- ▶ **Advantage** : Non step drilling up to 15 times (20 times) of drill diameter.
Available for processing MQL(Minimum Quantity Lubrication).
Excellent positioning
- Bush is not necessary.
Special design
- Good chip removal
Powerful drilling

- ▶ **Verwendung** : Zum wirtschaftlichen Bohren von Stahl allgemein, Stahlguß, Hart-und Temperguß, Nichteisen Leichtmetallen, abrasiven Kunststoffen.
- ▶ **Vorteile** : Bohren bis zu 15 x D(20 x D) ohne abzusetzen, Geeignet für MQL (minimale Kühlschmierung) Selbstzentrierend
- Keine vorherige Zentrierung notwendig
Kein Verlaufen
- Keine Bohrbuchse notwendig
Spezielle Bohrergeometrie
- Gute Spanabfuhr
Hochleistungsbohren



MG N 30° h6 h7 140° P.106

25 x D (DHM25) 30 x D (DHM30)

					Unit : mm				
EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
TiAlN	D1	D2	L1	L2	TiAlN	D1	D2	L1	L2
DHM25030	3.0	6.0	85	125	DHM30030	3.0	6.0	100	140
DHM25035	3.5	6.0	99	139	DHM30035	3.5	6.0	117	157
DHM25040	4.0	6.0	113	153	DHM30040	4.0	6.0	133	173
DHM25045	4.5	6.0	127	167	DHM30045	4.5	6.0	150	190
DHM25050	5.0	6.0	141	181	DHM30050	5.0	6.0	166	206
DHM25055	5.5	6.0	155	195	DHM30055	5.5	6.0	183	223
DHM25060	6.0	6.0	169	209	DHM30060	6.0	6.0	199	239
DHM25070	7.0	8.0	197	237	DHM30070	7.0	8.0	232	272
DHM25080	8.0	8.0	225	265	DHM30080	8.0	8.0	265	305
DHM25090	9.0	10.0	253	297					
DHM25100	10.0	10.0	282	326					

◎ : Excellent ○ : Good

Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze	CFRP
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~								
◎	◎	○			○				○			

- HSS
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- TECHNICAL DATA

YG DREAM DRILLS -MQL TYPE

**RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDKONDITIONEN**

**CARBIDE, DREAM DRILL MQL TYPE END MILL SHANK WITH COOLANT HOLE, TiAlN COATED
VOLLHARTMETALL DREAM BOHRER MQL-TYPE, TiAlN-BESCHICHTET**

DH510, DH515, DH520, DHM10, DHM15, DHM20 SERIES

WORK MATERIAL	CARBON STEELS ALLOY STEELS		CAST IRON		DUCTILE CAST IRON	
STRENGTH	~ 1060 N/mm ²		250 ~ 350 N/mm ²		400 ~ 500 N/mm ²	
DRILLING SPEED	63 ~ 125 m/min		63 ~ 125 m/min		60 ~ 80 m/min	
DIAMETER	N	S	N	S	N	S
3.0	7500	0.06~0.12	7500	0.06~0.12	7500	0.06~0.12
4.0	6400	0.08~0.16	6400	0.08~0.16	5600	0.08~0.16
5.0	5800	0.10~0.20	5800	0.10~0.20	4500	0.10~0.20
6.0	4800	0.12~0.24	4800	0.12~0.24	3800	0.12~0.24
8.0	3600	0.16~0.28	3600	0.16~0.28	2800	0.16~0.28
10.0	2900	0.20~0.35	2900	0.20~0.35	2300	0.20~0.35
12.0	2400	0.24~0.42	2400	0.24~0.42	1900	0.24~0.42
14.0	2050	0.28~0.46	2050	0.28~0.46	1600	0.28~0.46

N = R.P.M
S = Feed per Revolution (mm/rev.)

DHM25, DHM30 SERIES

WORK MATERIAL	CARBON STEELS ALLOY STEELS		CAST IRON		DUCTILE CAST IRON	
STRENGTH	~ 1060 N/mm ²		250 ~ 350 N/mm ²		400 ~ 500 N/mm ²	
DRILLING SPEED	50 ~ 110 m/min		50 ~ 110 m/min		40 ~ 70 m/min	
DIAMETER	N	S	N	S	N	S
3.0	6400	0.06~0.12	6400	0.06~0.12	6400	0.06~0.12
4.0	5500	0.08~0.16	5500	0.08~0.16	4700	0.08~0.16
5.0	4900	0.10~0.20	4900	0.10~0.20	3800	0.10~0.20
6.0	4200	0.12~0.24	4200	0.12~0.24	3200	0.12~0.24
8.0	3000	0.16~0.28	3000	0.16~0.28	2400	0.16~0.28
10.0	2500	0.20~0.35	2500	0.20~0.35	1900	0.20~0.35

N = R.P.M
S = Feed per Revolution (mm/rev.)

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).
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%.