

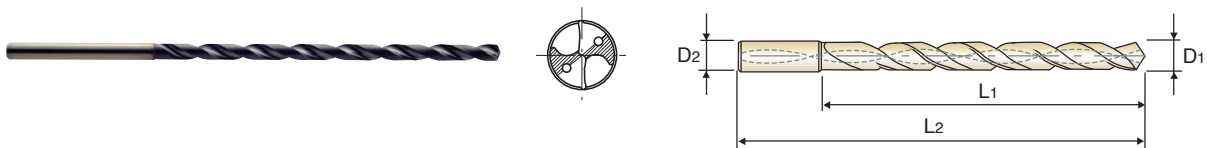
Y/G DREAM DRILLS -MQL TYPE

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 Bohrgeometrie
 - 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

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~								
◎	◎	○			○				○			

◎ : Excellent ○ : Good



DREAM DRILLS -MQL TYPE

**RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDKONDITIONEN**

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

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

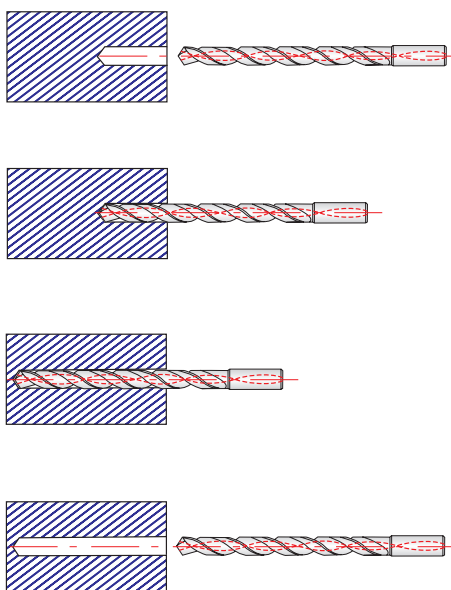
WORK MATERIAL	CARBON STEELS ALLOY STEELS		CAST IRON		DUCTILE CAST IRON	
STRENGTH	~ 1060 N/mm ²		250 ~ 350 N/mm ²		400 ~ 500 N/mm ²	
DRILLING SPEED	63 ~ 125 m/min		63 ~ 125 m/min		60 ~ 80 m/min	
DIAMETER	N	S	N	S	N	S
3.0	7500	0.06~0.12	7500	0.06~0.12	7500	0.06~0.12
4.0	6400	0.08~0.16	6400	0.08~0.16	5600	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%.