

YU-DD15



SOLID CARBIDE

DREAM DRILLS

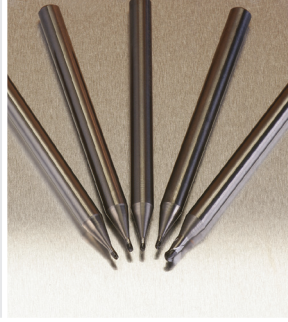
- CARBIDE DREAM DRILLS - GENERAL
(with/without COOLANT HOLES)
- CARBIDE DREAM DRILLS - INOX
(with COOLANT HOLES)
- CARBIDE DREAM DRILLS - ALU
(with COOLANT HOLES)
- CARBIDE DREAM DRILLS - MQL(10 × D ~ 30 × D)
(with COOLANT HOLES)
- CARBIDE DREAM DRILLS
for HIGH HARDENED STEELS(HRc50~70)



BEST VALUE IN THE WORLD OF CUTTING TOOLS

YG-1 CO., LTD.

CBN Ball End Mill



V7 Mill



X5070 End Mill



D-Power End Mill



Multi-1 Drill



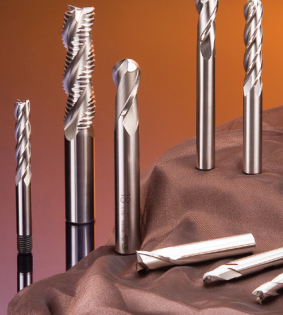
Dream Drill



Tank-Power End Mill



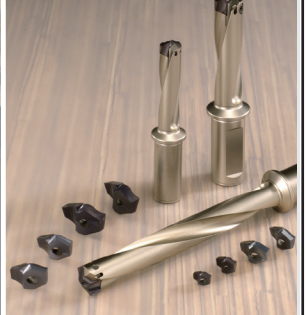
HSS End Mill



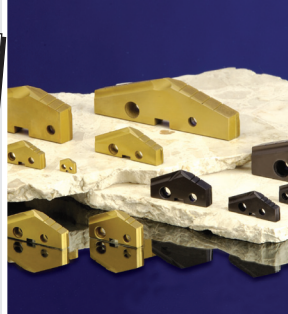
X-mill



i-Dream Drill



Spade Drill Inserts



Combo Tap

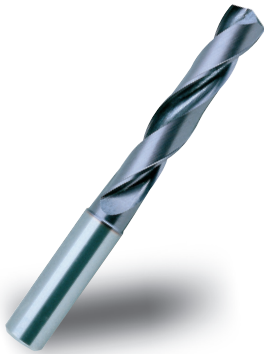


Features of SOLID CARBIDE DREAM DRILLS

SOLID CARBIDE DREAM DRILLS

with / without COOLANT HOLES (3XD, 5XD, 8XD)

- ▶ Application : Steel, cast steel, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metal, non-ferrous light metal, abrasive plastic
- ▶ Advantage : Self centering - center drilling is not required
Excellent positioning - bushing is not necessary
Special Design - reaming is not required
- good chip removal
- powerful drilling



DH414, DH722, DH404, DH423, DH424
(without coolant holes)

P. 6~15

DH416, DH711, DH418, DH712, DH406
DH408, DH421 (with coolant holes)

P. 16~26

SOLID CARBIDE DREAM DRILLS **INOX**

with COOLANT HOLES (3XD, 5XD, 8XD)

- ▶ The tool has the special flute shape and geometry for suitable machining of stainless steel
- ▶ Excellent chip evacuation due to better surface treatment
- ▶ Point R-thinning makes the superior centering and chip curl
- ▶ TiAlN coating achieves the better surface finishes and longer tool life



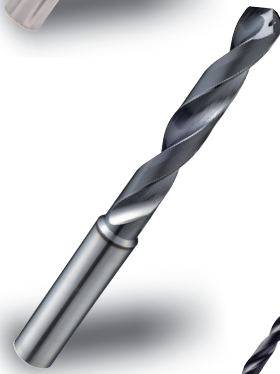
DH463, DH714, DH464, DH451,
DH715, DH452, DH453

P. 28~37

SOLID CARBIDE DREAM DRILLS **ALU**

with COOLANT HOLES (5XD)

- ▶ Wider and deeper flute gullets for maximum chip removal
- ▶ Special geometry and smooth coating reduces built up edge and improves finishes



DGE466, DGE718, DGE433

P. 40~43

SOLID CARBIDE DREAM DRILLS MQL TYPE

with COOLANT HOLES (10XD, 15XD, 20XD, 25XD, 30XD)

- ▶ Non step drilling up to 10(15~30) times of drill diameter
- ▶ Available for processing MQL (Minimum Quantity Lubrication)
- ▶ Excellent positioning – Bush is not necessary
- ▶ Special design – Good chip removal
- ▶ Powerful drilling



DH510, DH515, DH520

P. 46~47

DHM10, DHM15, DHM20, DHM25, DHM30

P. 48~49

SOLID CARBIDE DREAM DRILLS for HIGH HARDENED STEELS (HRc50~70)

- ▶ Application : Drilling for High Hardened Steels [Quenched Steels, Tempered Steels (Under HRc 70)]
- ▶ Advantage : Special Design
Minimum of cutting load through special thinning
Good chip removal
Powerful Drilling



DH501, DH500

P. 52~54

SOLID CARBIDE DREAM DRILLS APPLICATION TABLE

⊙ : Excellent
○ : Good

| Item | Length | Unit | Size | | Page | Carbon Steels | Alloy Steels | Prehardened Steels | Hardened Steels | | Cast Iron | Aluminum | Stainless Steels | Titanium | Mild Steels |
|------|--------|------|------|------|------|---------------|--------------|--------------------|-----------------|--------|-----------|----------|------------------|----------|-------------|
| | | | Min. | Max. | | ~HB225 | HB225~325 | HRC30~45 | HRC45~55 | HRC55~ | | | | | |

SOLID CARBIDE DREAM DRILLS-GENERAL (without COOLANT HOLES)

| | | | | | | | | | | | | | | | |
|--------------|------------|--------|-------|------|------|---|---|---|--|--|---|--|---|--|--|
| DH414 | STUB (3xD) | inch | 1/8 | 5/8 | p.6 | ○ | ⊙ | ⊙ | | | ○ | | ○ | | |
| DH722 | LONG (5xD) | | 13/64 | 1/2 | p.7 | ○ | ⊙ | ⊙ | | | ○ | | ○ | | |
| DH404 | STUB (3xD) | metric | 3.0 | 20.0 | p.8 | ○ | ⊙ | ⊙ | | | ○ | | ○ | | |
| DH423 | STUB (3xD) | | 3.0 | 20.0 | p.10 | ○ | ⊙ | ⊙ | | | ○ | | ○ | | |
| DH424 | LONG (5xD) | | 1.0 | 20.0 | p.13 | ○ | ⊙ | ⊙ | | | ○ | | ○ | | |

SOLID CARBIDE DREAM DRILLS-GENERAL (with COOLANT HOLES)

| | | | | | | | | | | | | | | | |
|------------------------------|------------------|--------|-------|------|------|---|---|---|--|--|---|--|---|--|--|
| DH416 DH711 | STUB (3xD) | inch | 1/8 | 5/8 | p.16 | ○ | ⊙ | ⊙ | | | ○ | | ○ | | |
| DH418 DH712 | LONG (5xD) | | 13/64 | 1/2 | p.17 | ○ | ⊙ | ⊙ | | | ○ | | ○ | | |
| DH406 | STUB (3xD) | metric | 3.0 | 20.0 | p.18 | ○ | ⊙ | ⊙ | | | ○ | | ○ | | |
| DH408 | LONG (5xD) | | 1.0 | 20.0 | p.20 | ○ | ⊙ | ⊙ | | | ○ | | ○ | | |
| DH421 | EXTRA LONG (8xD) | | 3.0 | 14.0 | p.23 | ○ | ⊙ | ⊙ | | | ○ | | ○ | | |

SOLID CARBIDE DREAM DRILLS-INOX (with COOLANT HOLES)

| | | | | | | | | | | | | | | | |
|------------------------------|------------------|--------|-------|------|------|---|---|---|--|--|--|---|---|---|---|
| DH463 DH714 | STUB (3xD) | inch | 1/8 | 5/8 | p.28 | ⊙ | ⊙ | ○ | | | | ○ | ⊙ | ○ | ○ |
| DH464 DH715 | LONG (5xD) | | 13/64 | 1/2 | p.29 | ⊙ | ⊙ | ○ | | | | ○ | ⊙ | ○ | ○ |
| DH451 | STUB (3xD) | metric | 3.0 | 20.0 | p.30 | ⊙ | ⊙ | ○ | | | | ○ | ⊙ | ○ | ○ |
| DH452 | LONG (5xD) | | 1.0 | 20.0 | p.33 | ⊙ | ⊙ | ○ | | | | ○ | ⊙ | ○ | ○ |
| DH453 | EXTRA LONG (8xD) | | 3.0 | 14.0 | p.36 | ⊙ | ⊙ | ○ | | | | ○ | ⊙ | ○ | ○ |

SOLID CARBIDE DREAM DRILLS-ALU (with COOLANT HOLES)

| | | | | | | | | | | | | | | | |
|--------------------------------|------------|--------|-------|------|------|--|--|--|--|--|--|---|--|--|--|
| DGE466 DGE718 | LONG (5xD) | inch | 13/64 | 1/2 | p.40 | | | | | | | ⊙ | | | |
| DGE433 | LONG (5xD) | metric | 3.0 | 20.0 | p.41 | | | | | | | ⊙ | | | |

SOLID CARBIDE DREAM DRILLS-MQL TYPE (with COOLANT HOLES)

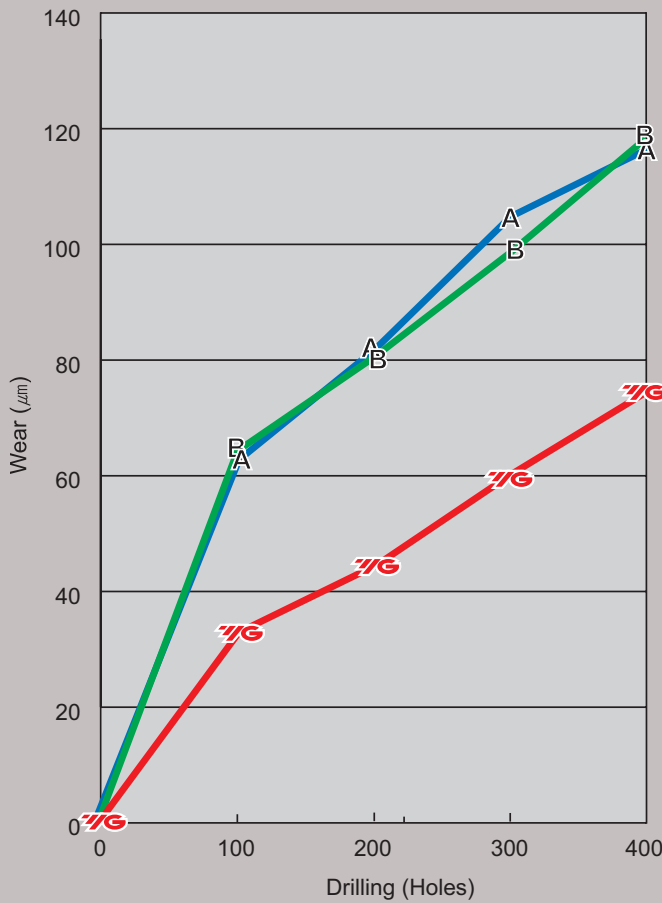
| | | | | | | | | | | | | | | | | |
|------------------------------|-------------------|--------|-----|------|--------------|---|---|---|--|--|--|---|--|--|---|---|
| DH510 DHM10 | EXTRA LONG (10xD) | metric | 3.0 | 14.0 | p.46 p.48 | ⊙ | ⊙ | ○ | | | | ○ | | | ○ | |
| DH515 DHM15 | EXTRA LONG (15xD) | | 3.0 | 12.0 | p.47 p.48 | ⊙ | ⊙ | ○ | | | | ○ | | | | ○ |
| DH520 DHM20 | EXTRA LONG (20xD) | | 3.0 | 12.0 | p.47 p.48 | ⊙ | ⊙ | ○ | | | | ○ | | | | ○ |
| DHM25 | EXTRA LONG (25xD) | | 3.0 | 10.0 | p.49 | ⊙ | ⊙ | ○ | | | | ○ | | | | ○ |
| DHM30 | EXTRA LONG (30xD) | | 3.0 | 8.0 | p.49 | ⊙ | ⊙ | ○ | | | | ○ | | | | ○ |

SOLID CARBIDE DREAM DRILLS for HIGH HARDENED STEEL

| | | | | | | | | | | | | | | | |
|--------------|---|--------|-----|------|------|--|--|--|--|---|---|--|--|--|--|
| DH501 | - | inch | 1/8 | 3/4 | p.52 | | | | | ⊙ | ⊙ | | | | |
| DH500 | - | metric | 1.0 | 14.0 | p.54 | | | | | ⊙ | ⊙ | | | | |

SOLID CARBIDE DREAM DRILLS - **Test Report**

with COOLANT HOLES



— YG-1 YG-1
— A Competitor A
— B Competitor B

Cutting Condition

Tools : DH408015 (Dream Drill with Coolant Holes)

Size : Ø 1.5 x Ø 3 x 15 x 55

Work Material : • JIS:SKD61 (HRc30)

• DIN:X40GrMoV51

• WR:1.2344

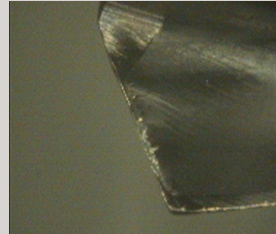
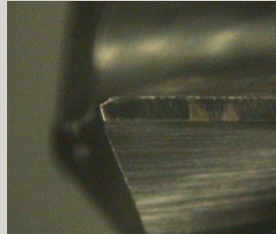
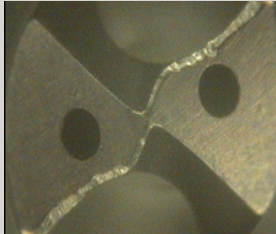
R.P.M : 14856 rev./min.

Feed : .0019 inch/rev.

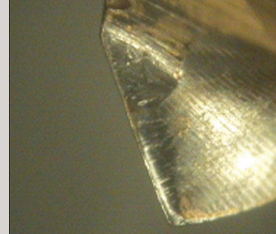
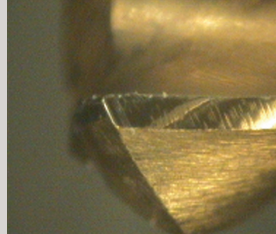
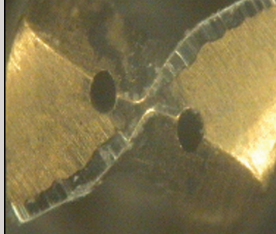
Drilling Depth : 29"

Coolant : Wet Cut

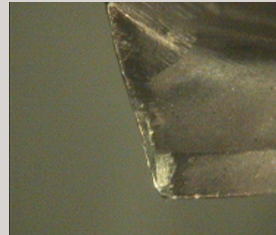
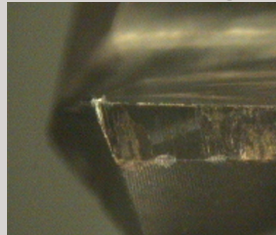
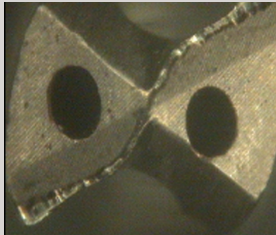
YG-1 (Total Drilling 400 Holes)



COMPETITOR A (Total Drilling 400 Holes)



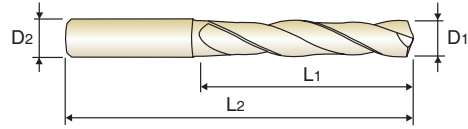
COMPETITOR B (Total Drilling 400 Holes)





SOLID CARBIDE DREAM DRILLS-GENERAL (without COOLANT HOLES)

- ▶ Application : Steel, cast steel, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metal, non-ferrous light metal, abrasive plastic
- ▶ Advantage : Self centering - center drilling is not required
 Excellent positioning - bushing is not necessary
 Special Design - reaming is not required
 - good chip removal
 - powerful drilling
- ▶ Tolerance : Dia. Tolerance ØD1: See page 57, Shank Tolerance ØD2: -.0001 -.0005



DREAM DRILLS | D₁=D₂ **3 × D**

Unit : Inch

| EDP No. | Diameter | | Flute Length | Overall Length | EDP No. | Diameter | | Flute Length | Overall Length |
|---------|------------|---------|--------------|----------------|---------|------------|---------|--------------|----------------|
| | Fractional | Decimal | | | | Fractional | Decimal | | |
| TiAlN | D1 = D2 | | L1 | L2 | TiAlN | D1 = D2 | | L1 | L2 |
| 0081ATF | 1/8 | .1250 | 45/64 | 1-59/64 | 0221ATF | 11/32 | .3438 | 2-3/16 | 3-7/8 |
| 0091ATF | 9/64 | .1406 | 25/32 | 2-3/64 | 0231ATF | 23/64 | .3594 | 2-9/32 | 4 |
| 0101ATF | 5/32 | .1562 | 7/8 | 2-3/16 | 2211ATF | U | .3680 | 2-9/32 | 4 |
| 0111ATF | 11/64 | .1719 | 15/16 | 2-9/32 | 0241ATF | 3/8 | .3750 | 2-3/8 | 4-1/8 |
| 0121ATF | 3/16 | .1875 | 1 | 2-7/16 | 0251ATF | 25/64 | .3906 | 2-3/8 | 4-1/8 |
| 0131ATF | 13/64 | .2031 | 1 | 2-7/16 | 0261ATF | 13/32 | .4062 | 2-5/8 | 4-13/32 |
| 0141ATF | 7/32 | .2188 | 1-1/8 | 2-5/8 | 0271ATF | 27/64 | .4219 | 2-11/16 | 4-1/2 |
| 0151ATF | 15/64 | .2344 | 1-1/8 | 2-5/8 | 0281ATF | 7/16 | .4375 | 2-13/16 | 4-5/8 |
| 0161ATF | 1/4 | .2500 | 1-5/8 | 3-3/16 | 0291ATF | 29/64 | .4531 | 2-7/8 | 4-3/4 |
| 2061ATF | F | .2570 | 1-11/16 | 3-17/64 | 0301ATF | 15/32 | .4688 | 2-7/8 | 4-3/4 |
| 0171ATF | 17/64 | .2656 | 1-11/16 | 3-17/64 | 0311ATF | 31/64 | .4844 | 3 | 5-5/16 |
| 2091ATF | I | .2720 | 1-11/16 | 3-17/64 | 0321ATF | 1/2 | .5000 | 3-1/16 | 5-3/8 |
| 0181ATF | 9/32 | .2812 | 1-3/4 | 3-7/16 | 0331ATF | 33/64 | .5156 | 3-11/32 | 5-11/16 |
| 0191ATF | 19/64 | .2969 | 1-7/8 | 3-9/16 | 0341ATF | 17/32 | .5312 | 3-11/32 | 5-11/16 |
| 0201ATF | 5/16 | .3125 | 1-7/8 | 3-9/16 | 0361ATF | 9/16 | .5625 | 3-1/2 | 5-15/16 |
| 0211ATF | 21/64 | .3281 | 2-1/16 | 3-3/4 | 0371ATF | 37/64 | .5781 | 3-37/64 | 6 |
| 2171ATF | Q | .3320 | 2-1/16 | 3-3/4 | 0401ATF | 5/8 | .6250 | 3-25/3 | 6-19/64 |

▶ Other shank types are available on your request

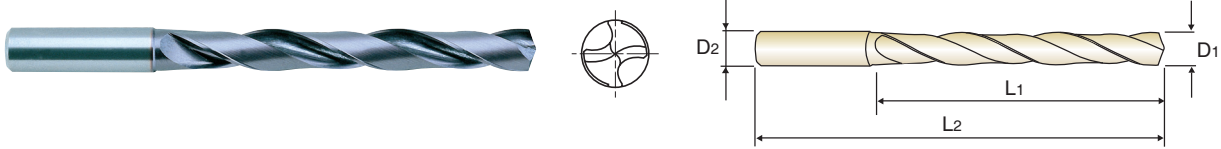
◎ : Excellent ○ : Good

| Carbon Steels | Alloy Steels | Prehardened Steels | Hardened Steels | | Cast Iron | Aluminum | Stainless Steels | Titanium | Mild Steels | Copper | Bronze |
|---------------|--------------|--------------------|-----------------|--------|-----------|----------|------------------|----------|-------------|--------|--------|
| ~HB225 | HB225~325 | HRC30~45 | HRC45~55 | HRC55~ | | | | | | | |
| ○ | ◎ | ◎ | | | ○ | | ○ | | | | |



SOLID CARBIDE DREAM DRILLS-GENERAL (without COOLANT HOLES)

- ▶ Application : Steel, cast steel, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metal, non-ferrous light metal, abrasive plastic
- ▶ Advantage : Self centering - center drilling is not required
 Excellent positioning - bushing is not necessary
 Special Design - reaming is not required
 - good chip removal
 - powerful drilling
- ▶ Tolerance : Dia. Tolerance ØD1: See page 57, Shank Tolerance ØD2: -.0001 -.0005



DREAM DRILLS | 5 × D

Unit : Inch

| EDP No. | Diameter | | Shank Diameter | Flute Length | Overall Length | EDP No. | Diameter | | Shank Diameter | Flute Length | Overall Length |
|----------|------------|---------|----------------|--------------|----------------|----------|------------|---------|----------------|--------------|----------------|
| | Fractional | Decimal | | | | | Fractional | Decimal | | | |
| | D1 | | D2 | L1 | L2 | TiAIN | D1 | | D2 | L1 | L2 |
| DH722013 | 13/64 | .2031 | 1/4 | 1-3/4 | 3-15/16 | DH722022 | 11/32 | .3438 | 3/8 | 2-27/32 | 5 |
| DH722014 | 7/32 | .2188 | 1/4 | 1-57/64 | 3-15/16 | DH722023 | 23/64 | .3594 | 3/8 | 3 | 5-23/64 |
| DH722015 | 15/64 | .2344 | 1/4 | 1-57/64 | 3-15/16 | DH722221 | U | .3680 | 3/8 | 3 | 5-23/64 |
| DH722016 | 1/4 | .2500 | 1/4 | 2-3/64 | 4-19/64 | DH722024 | 3/8 | .3750 | 3/8 | 3-5/32 | 5-23/64 |
| DH722206 | F | .2570 | 5/16 | 2-13/64 | 4-19/64 | DH722025 | 25/64 | .3906 | 7/16 | 3-5/32 | 5-23/64 |
| DH722017 | 17/64 | .2656 | 5/16 | 2-13/64 | 4-19/64 | DH722026 | 13/32 | .4062 | 7/16 | 3-5/16 | 5-7/8 |
| DH722209 | I | .2720 | 5/16 | 2-13/64 | 4-19/64 | DH722027 | 27/64 | .4219 | 7/16 | 3-15/32 | 5-7/8 |
| DH722018 | 9/32 | .2812 | 5/16 | 2-23/64 | 4-41/64 | DH722028 | 7/16 | .4375 | 7/16 | 3-5/8 | 6-7/32 |
| DH722019 | 19/64 | .2969 | 5/16 | 2-33/64 | 4-41/64 | DH722029 | 29/64 | .4531 | 1/2 | 3-25/32 | 6-7/32 |
| DH722020 | 5/16 | .3125 | 5/16 | 2-33/64 | 4-41/64 | DH722030 | 15/32 | .4688 | 1/2 | 3-25/32 | 6-7/32 |
| DH722021 | 21/64 | .3281 | 3/8 | 2-43/64 | 5 | DH722031 | 31/64 | .4844 | 1/2 | 3-15/16 | 6-37/64 |
| DH722217 | Q | .3320 | 3/8 | 2-43/64 | 5 | DH722032 | 1/2 | .5000 | 1/2 | 4-3/32 | 6-37/64 |

▶ Other shank types are available on your request

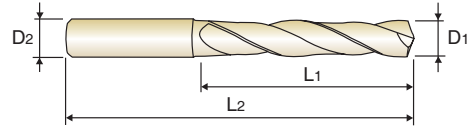
◎ : Excellent ○ : Good

| Carbon Steels | Alloy Steels | Prehardened Steels | Hardened Steels | | Cast Iron | Aluminum | Stainless Steels | Titanium | Mild Steels | Copper | Bronze |
|---------------|--------------|--------------------|-----------------|--------|-----------|----------|------------------|----------|-------------|--------|--------|
| ~HB225 | HB225~325 | HRC30~45 | HRC45~55 | HRC55~ | | | | | | | |
| ○ | ◎ | ◎ | | | ○ | | ○ | | | | |



SOLID CARBIDE DREAM DRILLS-GENERAL (without COOLANT HOLES)

- ▶ Application : Steel, cast steel, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metal, non-ferrous light metal, abrasive plastic
- ▶ Advantage : Self centering - center drilling is not required
- Excellent positioning - bushing is not necessary
- Special design - reaming is not required
- good chip removal
- powerful drilling



DIN 6539
MG
h6
h7
140°
P.26

DREAM DRILLS | $D_1=D_2$ **3 × D**

Unit : mm

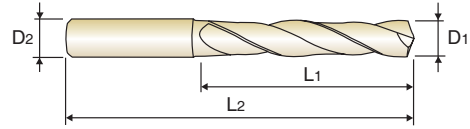
| EDP No. | Diameter | | Flute Length | Overall Length | EDP No. | Diameter | | Flute Length | Overall Length |
|----------|----------|-------|--------------|----------------|----------|----------|-------|--------------|----------------|
| | Metric | Inch | | | | Metric | Inch | | |
| TiAIN | D1 = D2 | | L1 | L2 | TiAIN | D1 = D2 | | L1 | L2 |
| DH404030 | 3.0 | .1181 | 16 | 46 | DH404061 | 6.1 | .2402 | 31 | 70 |
| DH404031 | 3.1 | .1220 | 18 | 49 | DH404062 | 6.2 | .2441 | 31 | 70 |
| DH404032 | 3.2 | .1260 | 18 | 49 | DH404063 | 6.3 | .2480 | 31 | 70 |
| DH404033 | 3.3 | .1299 | 18 | 49 | DH404064 | 6.4 | .2520 | 31 | 70 |
| DH404034 | 3.4 | .1339 | 20 | 52 | DH404065 | 6.5 | .2559 | 31 | 70 |
| DH404035 | 3.5 | .1378 | 20 | 52 | DH404066 | 6.6 | .2598 | 31 | 70 |
| DH404036 | 3.6 | .1417 | 20 | 52 | DH404067 | 6.7 | .2638 | 31 | 70 |
| DH404037 | 3.7 | .1457 | 20 | 52 | DH404068 | 6.8 | .2677 | 34 | 74 |
| DH404038 | 3.8 | .1496 | 22 | 55 | DH404069 | 6.9 | .2717 | 34 | 74 |
| DH404039 | 3.9 | .1535 | 22 | 55 | DH404070 | 7.0 | .2756 | 34 | 74 |
| DH404040 | 4.0 | .1575 | 22 | 55 | DH404071 | 7.1 | .2795 | 34 | 74 |
| DH404041 | 4.1 | .1614 | 22 | 55 | DH404072 | 7.2 | .2835 | 34 | 74 |
| DH404042 | 4.2 | .1654 | 22 | 55 | DH404073 | 7.3 | .2874 | 34 | 74 |
| DH404043 | 4.3 | .1693 | 24 | 58 | DH404074 | 7.4 | .2913 | 34 | 74 |
| DH404044 | 4.4 | .1732 | 24 | 58 | DH404075 | 7.5 | .2953 | 34 | 74 |
| DH404045 | 4.5 | .1772 | 24 | 58 | DH404076 | 7.6 | .2992 | 37 | 79 |
| DH404046 | 4.6 | .1811 | 24 | 58 | DH404077 | 7.7 | .3031 | 37 | 79 |
| DH404047 | 4.7 | .1850 | 24 | 58 | DH404078 | 7.8 | .3071 | 37 | 79 |
| DH404048 | 4.8 | .1890 | 26 | 62 | DH404079 | 7.9 | .3110 | 37 | 79 |
| DH404049 | 4.9 | .1929 | 26 | 62 | DH404080 | 8.0 | .3150 | 37 | 79 |
| DH404050 | 5.0 | .1969 | 26 | 62 | DH404081 | 8.1 | .3189 | 37 | 79 |
| DH404051 | 5.1 | .2008 | 26 | 62 | DH404082 | 8.2 | .3228 | 37 | 79 |
| DH404052 | 5.2 | .2047 | 26 | 62 | DH404083 | 8.3 | .3268 | 37 | 79 |
| DH404053 | 5.3 | .2087 | 26 | 62 | DH404084 | 8.4 | .3307 | 37 | 79 |
| DH404054 | 5.4 | .2126 | 28 | 66 | DH404085 | 8.5 | .3346 | 37 | 79 |
| DH404055 | 5.5 | .2165 | 28 | 66 | DH404086 | 8.6 | .3386 | 40 | 84 |
| DH404056 | 5.6 | .2205 | 28 | 66 | DH404087 | 8.7 | .3425 | 40 | 84 |
| DH404057 | 5.7 | .2244 | 28 | 66 | DH404088 | 8.8 | .3465 | 40 | 84 |
| DH404058 | 5.8 | .2283 | 28 | 66 | DH404089 | 8.9 | .3504 | 40 | 84 |
| DH404059 | 5.9 | .2323 | 28 | 66 | DH404090 | 9.0 | .3543 | 40 | 84 |
| DH404060 | 6.0 | .2362 | 28 | 66 | DH404091 | 9.1 | .3583 | 40 | 84 |

▶ NEXT PAGE



SOLID CARBIDE DREAM DRILLS-GENERAL (without COOLANT HOLES)

- ▶ Application : Drilling into general steels, cast steels, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metals, non-ferrous light metals, abrasive plastics
- ▶ Advantage : Self centering - Center drilling is not required
 Excellent positioning - Bush is not necessary
 Special design - Reaming is not required
 - Good chip removal
 - Powerful drilling



P.26

DREAM DRILLS

$D_1=D_2$ **3 × D**

Unit : mm

| EDP No. | Diameter | | Flute Length | Overall Length | EDP No. | Diameter | | Flute Length | Overall Length |
|----------|----------|-------|--------------|----------------|----------|----------|-------|--------------|----------------|
| | Metric | Inch | | | | Metric | Inch | | |
| TiAIN | D1 = D2 | | L1 | L2 | TiAIN | D1 = D2 | | L1 | L2 |
| DH404092 | 9.2 | .3622 | 40 | 84 | DH404135 | 13.5 | .5314 | 54 | 107 |
| DH404093 | 9.3 | .3661 | 40 | 84 | DH404140 | 14.0 | .5512 | 54 | 107 |
| DH404094 | 9.4 | .3701 | 40 | 84 | DH404145 | 14.5 | .5708 | 56 | 111 |
| DH404095 | 9.5 | .3740 | 40 | 84 | DH404150 | 15.0 | .5905 | 56 | 111 |
| DH404096 | 9.6 | .3780 | 43 | 89 | DH404155 | 15.5 | .6102 | 58 | 115 |
| DH404097 | 9.7 | .3819 | 43 | 89 | DH404160 | 16.0 | .6299 | 58 | 115 |
| DH404098 | 9.8 | .3858 | 43 | 89 | DH404165 | 16.5 | .6495 | 60 | 119 |
| DH404099 | 9.9 | .3898 | 43 | 89 | DH404170 | 17.0 | .6692 | 60 | 119 |
| DH404100 | 10.0 | .3937 | 43 | 89 | DH404175 | 17.5 | .6889 | 62 | 123 |
| DH404102 | 10.2 | .4016 | 43 | 89 | DH404180 | 18.0 | .7087 | 62 | 123 |
| DH404105 | 10.5 | .4134 | 43 | 89 | DH404185 | 18.5 | .7283 | 64 | 127 |
| DH404110 | 11.0 | .4331 | 47 | 95 | DH404190 | 19.0 | .7480 | 64 | 127 |
| DH404115 | 11.5 | .4528 | 47 | 95 | DH404195 | 19.5 | .7676 | 66 | 131 |
| DH404120 | 12.0 | .4724 | 51 | 102 | DH404200 | 20.0 | .7874 | 66 | 131 |
| DH404130 | 13.0 | .5118 | 51 | 102 | | | | | |

▶ Other shank types are available on your request

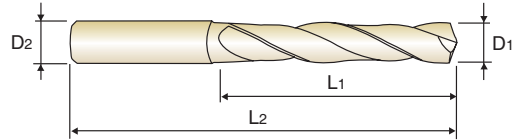
◎ : Excellent ○ : Good

| Carbon Steels | Alloy Steels | Prehardened Steels | Hardened Steels | | Cast Iron | Aluminum | Stainless Steels | Titanium | Mild Steels | Copper | Bronze |
|---------------|--------------|--------------------|-----------------|--------|-----------|----------|------------------|----------|-------------|--------|--------|
| ~HB225 | HB225~325 | HRC30~45 | HRC45~55 | HRC55~ | | | | | | | |
| ○ | ◎ | ◎ | | | ○ | | ○ | | | | |



SOLID CARBIDE DREAM DRILLS-GENERAL (without COOLANT HOLES)

- ▶ Application : Drilling into general steels, cast steels, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metals, non-ferrous light metals, abrasive plastics
- ▶ Advantage : Self centering - Center drilling is not required
 Excellent positioning - Bush is not necessary
 Special design - Reaming is not required
 - Good chip removal
 - Powerful drilling



P.26

DREAM DRILLS | 3x D

Unit : mm

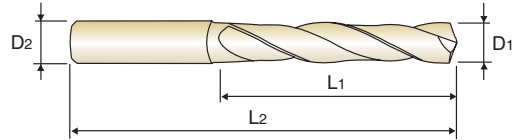
| EDP No. | Diameter | | | Shank Diameter | Flute Length | Overall Length | EDP No. | Diameter | | | Shank Diameter | Flute Length | Overall Length |
|-----------|----------|------------|---------|----------------|--------------|----------------|-----------|----------|------------|---------|----------------|--------------|----------------|
| | Metric | Fractional | Decimal | | | | | Metric | Fractional | Decimal | | | |
| TiAlN | D1 | | | D2 | L1 | L2 | TiAlN | D1 | | | D2 | L1 | L2 |
| DH423030 | 3.0 | | .1181 | 6 | 20 | 62 | DH423055 | 5.5 | | .2165 | 6 | 28 | 66 |
| DH423031 | 3.1 | | .1220 | 6 | 20 | 62 | DH423014F | 5.556 | 7/32 | .2188 | 6 | 28 | 66 |
| DH423008F | 3.175 | 1/8 | .1250 | 6 | 20 | 62 | DH423056 | 5.6 | | .2205 | 6 | 28 | 66 |
| DH423032 | 3.2 | | .1260 | 6 | 20 | 62 | DH423057 | 5.7 | | .2244 | 6 | 28 | 66 |
| DH423033 | 3.3 | | .1299 | 6 | 20 | 62 | DH423058 | 5.8 | | .2283 | 6 | 28 | 66 |
| DH423034 | 3.4 | | .1339 | 6 | 20 | 62 | DH423059 | 5.9 | | .2323 | 6 | 28 | 66 |
| DH423035 | 3.5 | | .1378 | 6 | 20 | 62 | DH423015F | 5.953 | 15/64 | .2344 | 6 | 28 | 66 |
| DH423009F | 3.572 | 9/64 | .1406 | 6 | 20 | 62 | DH423060 | 6.0 | | .2362 | 6 | 28 | 66 |
| DH423036 | 3.6 | | .1417 | 6 | 20 | 62 | DH423061 | 6.1 | | .2402 | 8 | 34 | 79 |
| DH423037 | 3.7 | | .1457 | 6 | 20 | 62 | DH423062 | 6.2 | | .2441 | 8 | 34 | 79 |
| DH423038 | 3.8 | | .1496 | 6 | 24 | 66 | DH423063 | 6.3 | | .2480 | 8 | 34 | 79 |
| DH423039 | 3.9 | | .1535 | 6 | 24 | 66 | DH423016F | 6.350 | 1/4 | .2500 | 8 | 34 | 79 |
| DH423010F | 3.969 | 5/32 | .1563 | 6 | 24 | 66 | DH423064 | 6.4 | | .2520 | 8 | 34 | 79 |
| DH423040 | 4.0 | | .1575 | 6 | 24 | 66 | DH423065 | 6.5 | | .2559 | 8 | 34 | 79 |
| DH423041 | 4.1 | | .1614 | 6 | 24 | 66 | DH423066 | 6.6 | | .2598 | 8 | 34 | 79 |
| DH423042 | 4.2 | | .1654 | 6 | 24 | 66 | DH423067 | 6.7 | | .2638 | 8 | 34 | 79 |
| DH423043 | 4.3 | | .1693 | 6 | 24 | 66 | DH423017F | 6.747 | 17/64 | .2656 | 8 | 34 | 79 |
| DH423011F | 4.366 | 11/64 | .1719 | 6 | 24 | 66 | DH423068 | 6.8 | | .2677 | 8 | 34 | 79 |
| DH423044 | 4.4 | | .1732 | 6 | 24 | 66 | DH423069 | 6.9 | | .2717 | 8 | 34 | 79 |
| DH423045 | 4.5 | | .1772 | 6 | 24 | 66 | DH423070 | 7.0 | | .2756 | 8 | 34 | 79 |
| DH423046 | 4.6 | | .1811 | 6 | 24 | 66 | DH423071 | 7.1 | | .2795 | 8 | 41 | 79 |
| DH423047 | 4.7 | | .1850 | 6 | 24 | 66 | DH423018F | 7.144 | 9/32 | .2812 | 8 | 41 | 79 |
| DH423012F | 4.763 | 3/16 | .1875 | 6 | 24 | 66 | DH423072 | 7.2 | | .2835 | 8 | 41 | 79 |
| DH423048 | 4.8 | | .1890 | 6 | 28 | 66 | DH423073 | 7.3 | | .2874 | 8 | 41 | 79 |
| DH423049 | 4.9 | | .1929 | 6 | 28 | 66 | DH423074 | 7.4 | | .2913 | 8 | 41 | 79 |
| DH423050 | 5.0 | | .1969 | 6 | 28 | 66 | DH423075 | 7.5 | | .2953 | 8 | 41 | 79 |
| DH423051 | 5.1 | | .2008 | 6 | 28 | 66 | DH423019F | 7.541 | 19/64 | .2969 | 8 | 41 | 79 |
| DH423013F | 5.159 | 13/64 | .2031 | 6 | 28 | 66 | DH423076 | 7.6 | | .2992 | 8 | 41 | 79 |
| DH423052 | 5.2 | | .2047 | 6 | 28 | 66 | DH423077 | 7.7 | | .3031 | 8 | 41 | 79 |
| DH423053 | 5.3 | | .2087 | 6 | 28 | 66 | DH423078 | 7.8 | | .3071 | 8 | 41 | 79 |
| DH423054 | 5.4 | | .2126 | 6 | 28 | 66 | DH423079 | 7.9 | | .3110 | 8 | 41 | 79 |

▶ NEXT PAGE



SOLID CARBIDE DREAM DRILLS-GENERAL (without COOLANT HOLES)

- ▶ Application : Drilling into general steels, cast steels, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metals, non-ferrous light metals, abrasive plastics
- ▶ Advantage : Self centering - Center drilling is not required
 Excellent positioning - Bush is not necessary
 Special design - Reaming is not required
 - Good chip removal
 - Powerful drilling



DIN 6537

MG

h6

m7

140°



P.26

DREAM DRILLS | 3×D

Unit : mm

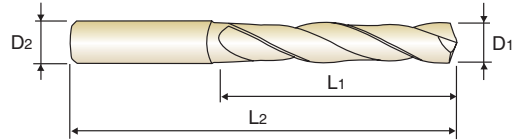
| EDP No. | Diameter | | | Shank Diameter | Flute Length | Overall Length | EDP No. | Diameter | | | Shank Diameter | Flute Length | Overall Length |
|-----------|----------|------------|---------|----------------|--------------|----------------|-----------|----------|------------|---------|----------------|--------------|----------------|
| | Metric | Fractional | Decimal | | | | | Metric | Fractional | Decimal | | | |
| TiAlN | D1 | | | D2 | L1 | L2 | TiAlN | D1 | | | D2 | L1 | L2 |
| DH423020F | 7.938 | 5/16 | .3125 | 8 | 41 | 79 | DH423104 | 10.4 | | .4094 | 12 | 55 | 102 |
| DH423080 | 8.0 | | .3150 | 8 | 41 | 79 | DH423105 | 10.5 | | .4134 | 12 | 55 | 102 |
| DH423081 | 8.1 | | .3189 | 10 | 47 | 89 | DH423106 | 10.6 | | .4173 | 12 | 55 | 102 |
| DH423082 | 8.2 | | .3228 | 10 | 47 | 89 | DH423107 | 10.7 | | .4213 | 12 | 55 | 102 |
| DH423083 | 8.3 | | .3268 | 10 | 47 | 89 | DH423027F | 10.716 | 27/64 | .4219 | 12 | 55 | 102 |
| DH423021F | 8.334 | 21/64 | .3281 | 10 | 47 | 89 | DH423108 | 10.8 | | .4252 | 12 | 55 | 102 |
| DH423084 | 8.4 | | .3307 | 10 | 47 | 89 | DH423109 | 10.9 | | .4291 | 12 | 55 | 102 |
| DH423085 | 8.5 | | .3346 | 10 | 47 | 89 | DH423110 | 11.0 | | .4331 | 12 | 55 | 102 |
| DH423086 | 8.6 | | .3386 | 10 | 47 | 89 | DH423111 | 11.1 | | .4370 | 12 | 55 | 102 |
| DH423087 | 8.7 | | .3425 | 10 | 47 | 89 | DH423028F | 11.113 | 7/16 | .4375 | 12 | 55 | 102 |
| DH423022F | 8.731 | 11/32 | .3438 | 10 | 47 | 89 | DH423112 | 11.2 | | .4409 | 12 | 55 | 102 |
| DH423088 | 8.8 | | .3465 | 10 | 47 | 89 | DH423113 | 11.3 | | .4449 | 12 | 55 | 102 |
| DH423089 | 8.9 | | .3504 | 10 | 47 | 89 | DH423114 | 11.4 | | .4488 | 12 | 55 | 102 |
| DH423090 | 9.0 | | .3543 | 10 | 47 | 89 | DH423115 | 11.5 | | .4528 | 12 | 55 | 102 |
| DH423091 | 9.1 | | .3583 | 10 | 47 | 89 | DH423029F | 11.509 | 29/64 | .4531 | 12 | 55 | 102 |
| DH423023F | 9.128 | 23/64 | .3594 | 10 | 47 | 89 | DH423116 | 11.6 | | .4567 | 12 | 55 | 102 |
| DH423092 | 9.2 | | .3622 | 10 | 47 | 89 | DH423117 | 11.7 | | .4606 | 12 | 55 | 102 |
| DH423093 | 9.3 | | .3661 | 10 | 47 | 89 | DH423118 | 11.8 | | .4646 | 12 | 55 | 102 |
| DH423094 | 9.4 | | .3701 | 10 | 47 | 89 | DH423119 | 11.9 | | .4685 | 12 | 55 | 102 |
| DH423095 | 9.5 | | .3740 | 10 | 47 | 89 | DH423030F | 11.906 | 15/32 | .4688 | 12 | 55 | 102 |
| DH423024F | 9.525 | 3/8 | .3750 | 10 | 47 | 89 | DH423120 | 12.0 | | .4724 | 12 | 55 | 102 |
| DH423096 | 9.6 | | .3780 | 10 | 47 | 89 | DH423123 | 12.3 | | .4843 | 14 | 60 | 107 |
| DH423097 | 9.7 | | .3819 | 10 | 47 | 89 | DH423031F | 12.303 | 31/64 | .4844 | 14 | 60 | 107 |
| DH423098 | 9.8 | | .3858 | 10 | 47 | 89 | DH423125 | 12.5 | | .4921 | 14 | 60 | 107 |
| DH423099 | 9.9 | | .3898 | 10 | 47 | 89 | DH423032F | 12.7 | 1/2 | .5000 | 14 | 60 | 107 |
| DH423025F | 9.922 | 25/64 | .3906 | 10 | 47 | 89 | DH423128 | 12.8 | | .5039 | 14 | 60 | 107 |
| DH423100 | 10.0 | | .3937 | 10 | 47 | 89 | DH423130 | 13.0 | | .5118 | 14 | 60 | 107 |
| DH423101 | 10.1 | | .3976 | 12 | 55 | 102 | DH423135 | 13.5 | | .5315 | 14 | 60 | 107 |
| DH423102 | 10.2 | | .4016 | 12 | 55 | 102 | DH423138 | 13.8 | | .5433 | 14 | 60 | 107 |
| DH423103 | 10.3 | | .4055 | 12 | 55 | 102 | DH423140 | 14.0 | | .5512 | 14 | 60 | 107 |
| DH423026F | 10.319 | 13/32 | .4062 | 12 | 55 | 102 | DH423036F | 14.288 | 9/16 | .5625 | 16 | 65 | 115 |

▶ NEXT PAGE



SOLID CARBIDE DREAM DRILLS-GENERAL (without COOLANT HOLES)

- ▶ Application : Drilling into general steels, cast steels, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metals, non-ferrous light metals, abrasive plastics
- ▶ Advantage : Self centering - Center drilling is not required
 Excellent positioning - Bush is not necessary
 Special design - Reaming is not required
 - Good chip removal
 - Powerful drilling



P.26

DREAM DRILLS | 3×D

Unit : mm

| EDP No. | Diameter | | | Shank Diameter | Flute Length | Overall Length | EDP No. | Diameter | | | Shank Diameter | Flute Length | Overall Length |
|-----------|----------|------------|---------|----------------|--------------|----------------|-----------|----------|------------|---------|----------------|--------------|----------------|
| | Metric | Fractional | Decimal | | | | | Metric | Fractional | Decimal | | | |
| TiAlN | D1 | | | D2 | L1 | L2 | TiAlN | D1 | | | D2 | L1 | L2 |
| DH423145 | 14.5 | | .5708 | 16 | 65 | 115 | DH423044F | 17.463 | 11/16 | .6875 | 18 | 73 | 123 |
| DH423148 | 14.8 | | .5827 | 16 | 65 | 115 | DH423175 | 17.5 | | .6889 | 18 | 73 | 123 |
| DH423150 | 15.0 | | .5905 | 16 | 65 | 115 | DH423178 | 17.8 | | .7008 | 18 | 73 | 123 |
| DH423155 | 15.5 | | .6102 | 16 | 65 | 115 | DH423180 | 18.0 | | .7087 | 18 | 73 | 123 |
| DH423158 | 15.8 | | .6220 | 16 | 65 | 115 | DH423185 | 18.5 | | .7283 | 20 | 79 | 131 |
| DH423040F | 15.875 | 5/8 | .6250 | 16 | 65 | 115 | DH423190 | 19.0 | | .7480 | 20 | 79 | 131 |
| DH423160 | 16.0 | | .6299 | 16 | 65 | 115 | DH423048F | 19.05 | 3/4 | .7500 | 20 | 79 | 131 |
| DH423165 | 16.5 | | .6495 | 18 | 73 | 123 | DH423195 | 19.5 | | .7676 | 20 | 79 | 131 |
| DH423168 | 16.8 | | .6614 | 18 | 73 | 123 | DH423198 | 19.8 | | .7795 | 20 | 79 | 131 |
| DH423170 | 17.0 | | .6692 | 18 | 73 | 123 | DH423200 | 20.0 | | .7874 | 20 | 79 | 131 |

▶ Other shank types are available on your request

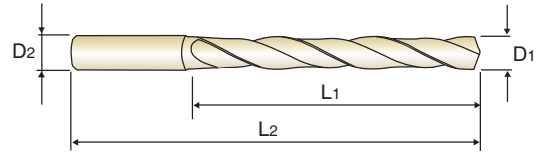
◎ : Excellent ○ : Good

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



SOLID CARBIDE DREAM DRILLS-GENERAL (without COOLANT HOLES)

- ▶ Application : Drilling into general steels, cast steels, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metals, non-ferrous light metals, abrasive plastics
- ▶ Advantage : Self centering - Center drilling is not required
 Excellent positioning - Bush is not necessary
 Special design - Reaming is not required
 - Good chip removal
 - Powerful drilling



P.26

DREAM DRILLS | 5 × D

Unit : mm

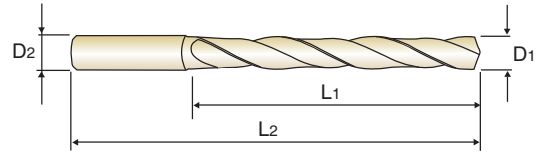
| EDP No. | Diameter | | | Shank Diameter | Flute Length | Overall Length | EDP No. | Diameter | | | Shank Diameter | Flute Length | Overall Length |
|-----------|----------|------------|---------|----------------|--------------|----------------|-----------|----------|------------|---------|----------------|--------------|----------------|
| | Metric | Fractional | Decimal | | | | | Metric | Fractional | Decimal | | | |
| TiAlN | D1 | | | D2 | L1 | L2 | TiAlN | D1 | | | D2 | L1 | L2 |
| DH424010 | 1.0 | | .0394 | 3 | 8 | 55 | DH424009F | 3.572 | 9/64 | .1406 | 6 | 28 | 66 |
| DH424011 | 1.1 | | .0433 | 3 | 12 | 55 | DH424036 | 3.6 | | .1417 | 6 | 28 | 66 |
| DH424012 | 1.2 | | .0472 | 3 | 12 | 55 | DH424037 | 3.7 | | .1457 | 6 | 28 | 66 |
| DH424013 | 1.3 | | .0512 | 3 | 12 | 55 | DH424038 | 3.8 | | .1496 | 6 | 36 | 74 |
| DH424014 | 1.4 | | .0551 | 3 | 12 | 55 | DH424039 | 3.9 | | .1535 | 6 | 36 | 74 |
| DH424015 | 1.5 | | .0591 | 3 | 16 | 55 | DH424010F | 3.969 | 5/32 | .1563 | 6 | 36 | 74 |
| DH424004F | 1.588 | 1/16 | .0625 | 3 | 16 | 55 | DH424040 | 4.0 | | .1575 | 6 | 36 | 74 |
| DH424016 | 1.6 | | .0630 | 3 | 16 | 55 | DH424041 | 4.1 | | .1614 | 6 | 36 | 74 |
| DH424017 | 1.7 | | .0669 | 3 | 16 | 55 | DH424042 | 4.2 | | .1654 | 6 | 36 | 74 |
| DH424018 | 1.8 | | .0709 | 3 | 16 | 55 | DH424043 | 4.3 | | .1693 | 6 | 36 | 74 |
| DH424019 | 1.9 | | .0748 | 3 | 16 | 55 | DH424011F | 4.366 | 11/64 | .1719 | 6 | 36 | 74 |
| DH424005F | 1.984 | 5/64 | .0781 | 3 | 16 | 55 | DH424044 | 4.4 | | .1732 | 6 | 36 | 74 |
| DH424020 | 2.0 | | .0787 | 4 | 21 | 57 | DH424045 | 4.5 | | .1772 | 6 | 36 | 74 |
| DH424021 | 2.1 | | .0827 | 4 | 21 | 57 | DH424046 | 4.6 | | .1811 | 6 | 36 | 74 |
| DH424022 | 2.2 | | .0866 | 4 | 21 | 57 | DH424047 | 4.7 | | .1850 | 6 | 36 | 74 |
| DH424023 | 2.3 | | .0906 | 4 | 21 | 57 | DH424012F | 4.763 | 3/16 | .1875 | 6 | 36 | 74 |
| DH424006F | 2.381 | 3/32 | .0938 | 4 | 21 | 57 | DH424048 | 4.8 | | .1890 | 6 | 44 | 82 |
| DH424024 | 2.4 | | .0945 | 4 | 21 | 57 | DH424049 | 4.9 | | .1929 | 6 | 44 | 82 |
| DH424025 | 2.5 | | .0984 | 4 | 21 | 57 | DH424050 | 5.0 | | .1969 | 6 | 44 | 82 |
| DH424026 | 2.6 | | .1024 | 4 | 21 | 57 | DH424051 | 5.1 | | .2008 | 6 | 44 | 82 |
| DH424027 | 2.7 | | .1063 | 4 | 21 | 57 | DH424013F | 5.159 | 13/64 | .2031 | 6 | 44 | 82 |
| DH424007F | 2.778 | 7/64 | .1094 | 4 | 21 | 57 | DH424052 | 5.2 | | .2047 | 6 | 44 | 82 |
| DH424028 | 2.8 | | .1102 | 4 | 21 | 57 | DH424053 | 5.3 | | .2087 | 6 | 44 | 82 |
| DH424029 | 2.9 | | .1142 | 4 | 21 | 57 | DH424054 | 5.4 | | .2126 | 6 | 44 | 82 |
| DH424030 | 3.0 | | .1181 | 6 | 28 | 66 | DH424055 | 5.5 | | .2165 | 6 | 44 | 82 |
| DH424031 | 3.1 | | .1220 | 6 | 28 | 66 | DH424014F | 5.556 | 7/32 | .2188 | 6 | 44 | 82 |
| DH424008F | 3.175 | 1/8 | .1250 | 6 | 28 | 66 | DH424056 | 5.6 | | .2205 | 6 | 44 | 82 |
| DH424032 | 3.2 | | .1260 | 6 | 28 | 66 | DH424057 | 5.7 | | .2244 | 6 | 44 | 82 |
| DH424033 | 3.3 | | .1299 | 6 | 28 | 66 | DH424058 | 5.8 | | .2283 | 6 | 44 | 82 |
| DH424034 | 3.4 | | .1339 | 6 | 28 | 66 | DH424059 | 5.9 | | .2323 | 6 | 44 | 82 |
| DH424035 | 3.5 | | .1378 | 6 | 28 | 66 | DH424015F | 5.953 | 15/64 | .2344 | 6 | 44 | 82 |

▶ NEXT PAGE



SOLID CARBIDE DREAM DRILLS-GENERAL (without COOLANT HOLES)

- ▶ Application : Drilling into general steels, cast steels, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metals, non-ferrous light metals, abrasive plastics
- ▶ Advantage : Self centering - Center drilling is not required
 Excellent positioning - Bush is not necessary
 Special design - Reaming is not required
 - Good chip removal
 - Powerful drilling



DIN 6537

MG

h6

m7

140°



P.26

DREAM DRILLS | 5 × D

Unit : mm

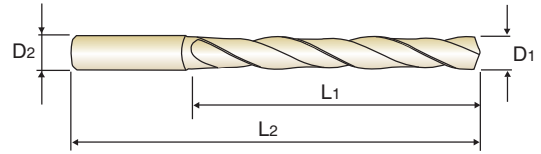
| EDP No. | Diameter | | | Shank Diameter | Flute Length | Overall Length | EDP No. | Diameter | | | Shank Diameter | Flute Length | Overall Length |
|-----------|----------|------------|---------|----------------|--------------|----------------|-----------|----------|------------|---------|----------------|--------------|----------------|
| | Metric | Fractional | Decimal | | | | | Metric | Fractional | Decimal | | | |
| TiAlN | D1 | | | D2 | L1 | L2 | TiAlN | D1 | | | D2 | L1 | L2 |
| DH424060 | 6.0 | | .2362 | 6 | 44 | 82 | DH424085 | 8.5 | | .3346 | 10 | 61 | 103 |
| DH424061 | 6.1 | | .2402 | 8 | 53 | 91 | DH424086 | 8.6 | | .3386 | 10 | 61 | 103 |
| DH424062 | 6.2 | | .2441 | 8 | 53 | 91 | DH424087 | 8.7 | | .3425 | 10 | 61 | 103 |
| DH424063 | 6.3 | | .2480 | 8 | 53 | 91 | DH424022F | 8.731 | 11/32 | .3438 | 10 | 61 | 103 |
| DH424016F | 6.35 | 1/4 | .2500 | 8 | 53 | 91 | DH424088 | 8.8 | | .3465 | 10 | 61 | 103 |
| DH424064 | 6.4 | | .2520 | 8 | 53 | 91 | DH424089 | 8.9 | | .3504 | 10 | 61 | 103 |
| DH424065 | 6.5 | | .2559 | 8 | 53 | 91 | DH424090 | 9.0 | | .3543 | 10 | 61 | 103 |
| DH424066 | 6.6 | | .2598 | 8 | 53 | 91 | DH424091 | 9.1 | | .3583 | 10 | 61 | 103 |
| DH424067 | 6.7 | | .2638 | 8 | 53 | 91 | DH424023F | 9.128 | 23/64 | .3594 | 10 | 61 | 103 |
| DH424017F | 6.747 | 17/64 | .2656 | 8 | 53 | 91 | DH424092 | 9.2 | | .3622 | 10 | 61 | 103 |
| DH424068 | 6.8 | | .2677 | 8 | 53 | 91 | DH424093 | 9.3 | | .3661 | 10 | 61 | 103 |
| DH424069 | 6.9 | | .2717 | 8 | 53 | 91 | DH424094 | 9.4 | | .3701 | 10 | 61 | 103 |
| DH424070 | 7.0 | | .2756 | 8 | 53 | 91 | DH424095 | 9.5 | | .3740 | 10 | 61 | 103 |
| DH424071 | 7.1 | | .2795 | 8 | 53 | 91 | DH424024F | 9.525 | 3/8 | .3750 | 10 | 61 | 103 |
| DH424018F | 7.144 | 9/32 | .2812 | 8 | 53 | 91 | DH424096 | 9.6 | | .3780 | 10 | 61 | 103 |
| DH424072 | 7.2 | | .2835 | 8 | 53 | 91 | DH424097 | 9.7 | | .3819 | 10 | 61 | 103 |
| DH424073 | 7.3 | | .2874 | 8 | 53 | 91 | DH424098 | 9.8 | | .3858 | 10 | 61 | 103 |
| DH424074 | 7.4 | | .2913 | 8 | 53 | 91 | DH424099 | 9.9 | | .3898 | 10 | 61 | 103 |
| DH424075 | 7.5 | | .2953 | 8 | 53 | 91 | DH424025F | 9.922 | 25/64 | .3906 | 10 | 61 | 103 |
| DH424019F | 7.541 | 19/64 | .2969 | 8 | 53 | 91 | DH424100 | 10.0 | | .3937 | 10 | 61 | 103 |
| DH424076 | 7.6 | | .2992 | 8 | 53 | 91 | DH424101 | 10.1 | | .3976 | 12 | 71 | 118 |
| DH424077 | 7.7 | | .3031 | 8 | 53 | 91 | DH424102 | 10.2 | | .4016 | 12 | 71 | 118 |
| DH424078 | 7.8 | | .3071 | 8 | 53 | 91 | DH424103 | 10.3 | | .4055 | 12 | 71 | 118 |
| DH424079 | 7.9 | | .3110 | 8 | 53 | 91 | DH424026F | 10.319 | 13/32 | .4062 | 12 | 71 | 118 |
| DH424020F | 7.938 | 5/16 | .3125 | 8 | 53 | 91 | DH424104 | 10.4 | | .4094 | 12 | 71 | 118 |
| DH424080 | 8.0 | | .3150 | 8 | 53 | 91 | DH424105 | 10.5 | | .4134 | 12 | 71 | 118 |
| DH424081 | 8.1 | | .3189 | 10 | 61 | 103 | DH424106 | 10.6 | | .4173 | 12 | 71 | 118 |
| DH424082 | 8.2 | | .3228 | 10 | 61 | 103 | DH424107 | 10.7 | | .4213 | 12 | 71 | 118 |
| DH424083 | 8.3 | | .3268 | 10 | 61 | 103 | DH424027F | 10.716 | 27/64 | .4219 | 12 | 71 | 118 |
| DH424021F | 8.334 | 21/64 | .3281 | 10 | 61 | 103 | DH424108 | 10.8 | | .4252 | 12 | 71 | 118 |
| DH424084 | 8.4 | | .3307 | 10 | 61 | 103 | DH424109 | 10.9 | | .4291 | 12 | 71 | 118 |

▶ NEXT PAGE



SOLID CARBIDE DREAM DRILLS-GENERAL (without COOLANT HOLES)

- ▶ Application : Drilling into general steels, cast steels, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metals, non-ferrous light metals, abrasive plastics
- ▶ Advantage : Self centering - Center drilling is not required
 Excellent positioning - Bush is not necessary
 Special design - Reaming is not required
 - Good chip removal
 - Powerful drilling



P.26

DREAM DRILLS | 5 × D

Unit : mm

| EDP No. | Diameter | | | Shank Diameter | Flute Length | Overall Length | EDP No. | Diameter | | | Shank Diameter | Flute Length | Overall Length |
|-----------|----------|------------|---------|----------------|--------------|----------------|-----------|----------|------------|---------|----------------|--------------|----------------|
| | Metric | Fractional | Decimal | | | | | Metric | Fractional | Decimal | | | |
| TiAlN | D1 | | | D2 | L1 | L2 | TiAlN | D1 | | | D2 | L1 | L2 |
| DH424110 | 11.0 | | .4331 | 12 | 71 | 118 | DH424140 | 14.0 | | .5512 | 14 | 77 | 124 |
| DH424111 | 11.1 | | .4370 | 12 | 71 | 118 | DH424036F | 14.288 | 9/16 | .5625 | 16 | 83 | 133 |
| DH424028F | 11.113 | 7/16 | .4375 | 12 | 71 | 118 | DH424145 | 14.5 | | .5708 | 16 | 83 | 133 |
| DH424112 | 11.2 | | .4409 | 12 | 71 | 118 | DH424148 | 14.8 | | .5827 | 16 | 83 | 133 |
| DH424113 | 11.3 | | .4449 | 12 | 71 | 118 | DH424150 | 15.0 | | .5905 | 16 | 83 | 133 |
| DH424114 | 11.4 | | .4488 | 12 | 71 | 118 | DH424155 | 15.5 | | .6102 | 16 | 83 | 133 |
| DH424115 | 11.5 | | .4528 | 12 | 71 | 118 | DH424158 | 15.8 | | .6220 | 16 | 83 | 133 |
| DH424029F | 11.509 | 29/64 | .4531 | 12 | 71 | 118 | DH424040F | 15.875 | 5/8 | .6250 | 16 | 83 | 133 |
| DH424116 | 11.6 | | .4567 | 12 | 71 | 118 | DH424160 | 16.0 | | .6299 | 16 | 83 | 133 |
| DH424117 | 11.7 | | .4606 | 12 | 71 | 118 | DH424165 | 16.5 | | .6495 | 18 | 93 | 143 |
| DH424118 | 11.8 | | .4646 | 12 | 71 | 118 | DH424168 | 16.8 | | .6614 | 18 | 93 | 143 |
| DH424119 | 11.9 | | .4685 | 12 | 71 | 118 | DH424170 | 17.0 | | .6692 | 18 | 93 | 143 |
| DH424030F | 11.906 | 15/32 | .4688 | 12 | 71 | 118 | DH424175 | 17.5 | | .6889 | 18 | 93 | 143 |
| DH424120 | 12.0 | | .4724 | 12 | 71 | 118 | DH424178 | 17.8 | | .7008 | 18 | 93 | 143 |
| DH424123 | 12.3 | | .4843 | 14 | 77 | 124 | DH424180 | 18.0 | | .7087 | 18 | 93 | 143 |
| DH424031F | 12.303 | 31/64 | .4844 | 14 | 77 | 124 | DH424185 | 18.5 | | .7283 | 20 | 101 | 153 |
| DH424125 | 12.5 | | .4921 | 14 | 77 | 124 | DH424190 | 19.0 | | .7480 | 20 | 101 | 153 |
| DH424032F | 12.7 | 1/2 | .5000 | 14 | 77 | 124 | DH424048F | 19.05 | 3/4 | .7500 | 20 | 101 | 153 |
| DH424128 | 12.8 | | .5039 | 14 | 77 | 124 | DH424195 | 19.5 | | .7676 | 20 | 101 | 153 |
| DH424130 | 13.0 | | .5118 | 14 | 77 | 124 | DH424198 | 19.8 | | .7795 | 20 | 101 | 153 |
| DH424135 | 13.5 | | .5315 | 14 | 77 | 124 | DH424200 | 20.0 | | .7874 | 20 | 101 | 153 |
| DH424138 | 13.8 | | .5433 | 14 | 77 | 124 | | | | | | | |

▶ Other shank types are available on your request

◎ : Excellent ○ : Good

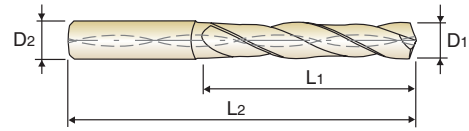
| Carbon Steels | Alloy Steels | Prehardened Steels | Hardened Steels | | Cast Iron | Aluminum | Stainless Steels | Titanium | Mild Steels | Copper | Bronze |
|---------------|--------------|--------------------|-----------------|--------|-----------|----------|------------------|----------|-------------|--------|--------|
| ~HB225 | HB225~325 | HRC30~45 | HRC45~55 | HRC55~ | | | | | | | |
| ○ | ◎ | ◎ | | | ○ | | ○ | | | | |



*** NEW SIZE**

SOLID CARBIDE DREAM DRILLS-GENERAL (with COOLANT HOLES)

- ▶ Application : Steel, cast steel, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metal, non-ferrous light metal, abrasive plastic
- ▶ Advantage : Self centering - center drilling is not required
 Excellent positioning - bushing is not necessary
 Special Design - reaming is not required
 - good chip removal
 - powerful drilling
- ▶ Tolerance : Dia. Tolerance ØD1: See page 57, Shank Tolerance ØD2: -.0001 -.0005



DREAM DRILLS | 3 × D

Unit : Inch

| EDP No. | Diameter | | Shank Diameter | Flute Length | Overall Length | EDP No. | Diameter | | Shank Diameter | Flute Length | Overall Length |
|------------|------------|---------|----------------|--------------|----------------|----------|------------|---------|----------------|--------------|----------------|
| | Fractional | Decimal | | | | | Fractional | Decimal | | | |
| | D1 | | D2 | L1 | L2 | | D1 | | D2 | L1 | L2 |
| | TiAlN | | | | | | TiAlN | | | | |
| * DH711008 | 1/8 | .1250 | 3/16 | 1.102 | 2.992 | DH711221 | U | .3680 | 3/8 | 1.87 | 4.174 |
| 0081BTF | 1/8 | .1250 | 15/64 | 1.102 | 2.992 | 2211BTF | U | .3680 | 25/64 | 1.870 | 4.174 |
| * DH711011 | 11/64 | .1719 | 3/16 | 1.417 | 3.386 | DH711024 | 3/8 | .3750 | 3/8 | 1.969 | 4.174 |
| 0111BTF | 11/64 | .1719 | 15/64 | 1.417 | 3.386 | 0241BTF | 3/8 | .3750 | 25/64 | 1.969 | 4.174 |
| * DH711012 | 3/16 | .1875 | 3/16 | 1.575 | 3.543 | 0251BTF | 25/64 | .3906 | 25/64 | 1.969 | 4.174 |
| 0121BTF | 3/16 | .1875 | 15/64 | 1.575 | 3.543 | DH711025 | 25/64 | .3906 | 7/16 | 1.969 | 4.174 |
| 0131BTF | 13/64 | .2031 | 15/64 | 1.082 | 3.228 | 0261BTF | 13/32 | .4062 | 27/64 | 2.067 | 4.567 |
| * DH711013 | 13/64 | .2031 | 1/4 | 1.082 | 3.228 | DH711026 | 13/32 | .4062 | 7/16 | 2.067 | 4.567 |
| 0141BTF | 7/32 | .2188 | 15/64 | 1.181 | 3.228 | 0271BTF | 27/64 | .4219 | 27/64 | 2.165 | 4.567 |
| * DH711014 | 7/32 | .2188 | 1/4 | 1.181 | 3.228 | DH711027 | 27/64 | .4219 | 7/16 | 2.165 | 4.567 |
| 0151BTF | 15/64 | .2344 | 15/64 | 1.181 | 3.228 | DH711028 | 7/16 | .4375 | 7/16 | 2.264 | 4.803 |
| * DH711015 | 15/64 | .2344 | 1/4 | 1.181 | 3.228 | 0281BTF | 7/16 | .4375 | 15/32 | 2.264 | 4.803 |
| * DH711016 | 1/4 | .2500 | 1/4 | 1.279 | 3.465 | 0291BTF | 29/64 | .4531 | 15/32 | 2.264 | 4.803 |
| 0161BTF | 1/4 | .2500 | 17/64 | 1.279 | 3.465 | DH711029 | 29/64 | .4531 | 1/2 | 2.264 | 4.803 |
| 2061BTF | F | .2570 | 17/64 | 1.279 | 3.465 | 0301BTF | 15/32 | .4688 | 15/32 | 2.362 | 4.803 |
| * DH711206 | F | .2570 | 5/16 | 1.279 | 3.465 | DH711030 | 15/32 | .4688 | 1/2 | 2.362 | 4.803 |
| 0171BTF | 17/64 | .2656 | 17/64 | 1.378 | 3.465 | 0311BTF | 31/64 | .4844 | 1/2 | 2.461 | 5.039 |
| * DH711017 | 17/64 | .2656 | 5/16 | 1.378 | 3.465 | 0321BTF | 1/2 | .5000 | 1/2 | 2.559 | 5.039 |
| 2091BTF | I | .2720 | .2720 | 1.378 | 3.465 | 0331BTF | 33/64 | .5156 | 35/64 | 2.657 | 5.276 |
| * DH711209 | I | .2720 | 5/16 | 1.378 | 3.465 | DH711033 | 33/64 | .5156 | 9/16 | 2.657 | 5.276 |
| 0181BTF | 9/32 | .2812 | 5/16 | 1.476 | 3.701 | 0341BTF | 17/32 | .5312 | 35/64 | 2.756 | 5.276 |
| 0191BTF | 19/64 | .2969 | 5/16 | 1.476 | 3.701 | DH711034 | 17/32 | .5312 | 9/16 | 2.756 | 5.276 |
| 0201BTF | 5/16 | .3125 | 5/16 | 1.575 | 3.701 | 0351BTF | 35/64 | .5469 | 35/64 | 2.756 | 5.276 |
| 0211BTF | 21/64 | .3281 | 11/32 | 1.673 | 3.937 | DH711035 | 35/64 | .5469 | 9/16 | 2.756 | 5.276 |
| * DH711021 | 21/64 | .3281 | 3/8 | 1.673 | 3.937 | DH711036 | 9/16 | .5625 | 9/16 | 2.854 | 5.512 |
| 2171BTF | Q | .3320 | 11/32 | 1.673 | 3.937 | 0361BTF | 9/16 | .5625 | 37/64 | 2.854 | 5.512 |
| * DH711217 | Q | .3320 | 3/8 | 1.673 | 3.937 | 0371BTF | 37/64 | .5781 | 37/64 | 2.953 | 5.512 |
| 0221BTF | 11/32 | .3438 | 11/32 | 1.772 | 3.937 | DH711037 | 37/64 | .5781 | 5/8 | 2.953 | 5.512 |
| * DH711022 | 11/32 | .3438 | 3/8 | 1.772 | 3.937 | 0381BTF | 19/32 | .5937 | 5/8 | 3.051 | 5.709 |
| * DH711023 | 23/64 | .3594 | 3/8 | 1.87 | 4.174 | 0391BTF | 39/64 | .6094 | 5/8 | 3.051 | 5.709 |
| 0231BTF | 23/64 | .3594 | 25/64 | 1.870 | 4.174 | 0401BTF | 5/8 | .6250 | 5/8 | 3.150 | 5.709 |

▶ Other shank types are available on your request

◎ : Excellent ○ : Good

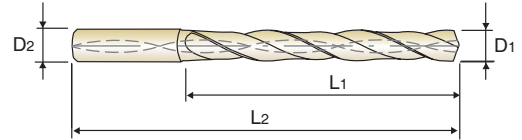
| Carbon Steels | Alloy Steels | Prehardened Steels | Hardened Steels | | Cast Iron | Aluminum | Stainless Steels | Titanium | Mild Steels | Copper | Bronze |
|---------------|--------------|--------------------|-----------------|--------|-----------|----------|------------------|----------|-------------|--------|--------|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



* NEW SIZE

SOLID CARBIDE DREAM DRILLS-GENERAL (with COOLANT HOLES)

- ▶ Application : Steel, cast steel, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metal, non-ferrous light metal, abrasive plastic
- ▶ Advantage : Self centering - center drilling is not required
 Excellent positioning - bushing is not necessary
 Special Design - reaming is not required
 - good chip removal
 - powerful drilling
- ▶ Tolerance : Dia. Tolerance ØD1: See page 57, Shank Tolerance ØD2: -.0001 -.0005



DREAM DRILLS | 5 × D

Unit : Inch

| EDP No. | Diameter | | Shank Diameter | Flute Length | Overall Length | EDP No. | Diameter | | Shank Diameter | Flute Length | Overall Length |
|------------|------------|---------|----------------|--------------|----------------|----------|------------|---------|----------------|--------------|----------------|
| | Fractional | Decimal | | | | | Fractional | Decimal | | | |
| TiAlN | D1 | | D2 | L1 | L2 | TiAlN | D1 | | D2 | L1 | L2 |
| 0131CTF | 13/64 | .2031 | 15/64 | 1-3/4 | 3-15/16 | DH712022 | 11/32 | .3438 | 3/8 | 2-27/32 | 5 |
| * DH712013 | 13/64 | .2031 | 1/4 | 1-3/4 | 3-15/16 | DH712023 | 23/64 | .3594 | 3/8 | 3 | 5-23/64 |
| 0141CTF | 7/32 | .2188 | 15/64 | 1-57/64 | 3-15/16 | 0231CTF | 23/64 | .3594 | 25/64 | 3 | 5-23/64 |
| * DH712014 | 7/32 | .2188 | 1/4 | 1-57/64 | 3-15/16 | DH712221 | U | .3680 | 3/8 | 3 | 5-23/64 |
| 0151CTF | 15/64 | .2344 | 15/64 | 1-57/64 | 3-15/16 | 2211CTF | U | .3680 | 25/64 | 3 | 5-23/64 |
| * DH712015 | 15/64 | .2344 | 1/4 | 1-57/64 | 3-15/16 | DH712024 | 3/8 | .3750 | 3/8 | 3-5/32 | 5-23/64 |
| * DH712016 | 1/4 | .2500 | 1/4 | 2-3/64 | 4-19/64 | 0241CTF | 3/8 | .3750 | 25/64 | 3-5/32 | 5-23/64 |
| 0161CTF | 1/4 | .2500 | 17/64 | 2-3/64 | 4-19/64 | 0251CTF | 25/64 | .3906 | 25/64 | 3-5/32 | 5-23/64 |
| 2061CTF | F | .2570 | 17/64 | 2-13/64 | 4-19/64 | DH712025 | 25/64 | .3906 | 7/16 | 3-5/32 | 5-23/64 |
| * DH712206 | F | .2570 | 5/16 | 2-13/64 | 4-19/64 | 0261CTF | 13/32 | .4062 | 27/64 | 3-5/16 | 5-7/8 |
| 0171CTF | 17/64 | .2656 | 17/64 | 2-13/64 | 4-19/64 | DH712026 | 13/32 | .4062 | 7/16 | 3-5/16 | 5-7/8 |
| * DH712017 | 17/64 | .2656 | 5/16 | 2-13/64 | 4-19/64 | 0271CTF | 27/64 | .4219 | 27/64 | 3-15/32 | 5-7/8 |
| 2091CTF | I | .2720 | .2720 | 2-13/64 | 4-19/64 | DH712027 | 27/64 | .4219 | 7/16 | 3-15/32 | 5-7/8 |
| * DH712209 | I | .2720 | 5/16 | 2-13/64 | 4-19/64 | DH712028 | 7/16 | .4375 | 7/16 | 3-5/8 | 6-7/32 |
| 0181CTF | 9/32 | .2812 | 5/16 | 2-23/64 | 4-41/64 | 0281CTF | 7/16 | .4375 | 15/32 | 3-5/8 | 6-7/32 |
| 0191CTF | 19/64 | .2969 | 5/16 | 2-33/64 | 4-41/64 | 0291CTF | 29/64 | .4531 | 15/32 | 3-25/32 | 6-7/32 |
| 0201CTF | 5/16 | .3125 | 5/16 | 2-33/64 | 4-41/64 | DH712029 | 29/64 | .4531 | 1/2 | 3-25/32 | 6-7/32 |
| 0211CTF | 21/64 | .3281 | 11/32 | 2-43/64 | 5 | 0301CTF | 15/32 | .4688 | 15/32 | 3-25/32 | 6-7/32 |
| * DH712021 | 21/64 | .3281 | 3/8 | 2-43/64 | 5 | DH712030 | 15/32 | .4688 | 1/2 | 3-25/32 | 6-7/32 |
| 2171CTF | Q | .3320 | 11/32 | 2-43/64 | 5 | 0311CTF | 31/64 | .4844 | 1/2 | 3-15/16 | 6-37/64 |
| * DH712217 | Q | .3320 | 3/8 | 2-43/64 | 5 | 0321CTF | 1/2 | .5000 | 1/2 | 4-3/32 | 6-37/64 |
| 0221CTF | 11/32 | .3438 | 11/32 | 2-27/32 | 5 | | | | | | |

▶ Other shank types are available on your request

◎ : Excellent ○ : Good

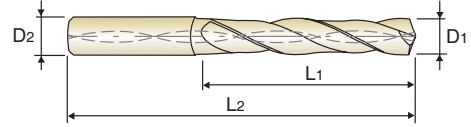
| Carbon Steels | Alloy Steels | Prehardened Steels | Hardened Steels | | Cast Iron | Aluminum | Stainless Steels | Titanium | Mild Steels | Copper | Bronze |
|---------------|--------------|--------------------|-----------------|--------|-----------|----------|------------------|----------|-------------|--------|--------|
| ~HB225 | HB225~325 | HRC30~45 | HRC45~55 | HRC55~ | | | | | | | |
| ○ | ◎ | ◎ | | | ○ | | ○ | | | | |



*** NEW SIZE**

SOLID CARBIDE DREAM DRILLS-GENERAL (with COOLANT HOLES)

- Application : Steel, cast steel, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metal, non-ferrous light metal, abrasive plastic
- Advantage : Self centering - center drilling is not required
 Excellent positioning - bushing is not necessary
 Special Design - reaming is not required
 - good chip removal
 - powerful drilling



DIN 6537

MG

h6

m7

140°



P.26

DREAM DRILLS | 3 × D

Unit : mm

| EDP No. | Diameter | | | Shank Diameter | Flute Length | Overall Length | EDP No. | Diameter | | | Shank Diameter | Flute Length | Overall Length |
|-------------|----------|------------|---------|----------------|--------------|----------------|-----------|----------|------------|---------|----------------|--------------|----------------|
| | Metric | Fractional | Decimal | | | | | Metric | Fractional | Decimal | | | |
| TiAlN | D1 | | | D2 | L1 | L2 | TiAlN | D1 | | | D2 | L1 | L2 |
| DH406030 | 3.0 | | .1181 | 6 | 20 | 62 | DH406015F | 5.953 | 15/64 | .2344 | 6 | 28 | 66 |
| DH406031 | 3.1 | | .1220 | 6 | 20 | 62 | DH406060 | 6.0 | | .2362 | 6 | 28 | 66 |
| * DH406008F | 3.175 | 1/8 | .1250 | 6 | 20 | 62 | DH406061 | 6.1 | | .2402 | 8 | 34 | 79 |
| DH406032 | 3.2 | | .1260 | 6 | 20 | 62 | DH406062 | 6.2 | | .2441 | 8 | 34 | 79 |
| DH406033 | 3.3 | | .1299 | 6 | 20 | 62 | DH406063 | 6.3 | | .2480 | 8 | 34 | 79 |
| DH406034 | 3.4 | | .1339 | 6 | 20 | 62 | DH406016F | 6.35 | 1/4 | .2500 | 8 | 34 | 79 |
| DH406035 | 3.5 | | .1378 | 6 | 20 | 62 | DH406064 | 6.4 | | .2520 | 8 | 34 | 79 |
| * DH406009F | 3.572 | 9/64 | .1406 | 6 | 20 | 62 | DH406065 | 6.5 | | .2559 | 8 | 34 | 79 |
| DH406036 | 3.6 | | .1417 | 6 | 20 | 62 | DH406066 | 6.6 | | .2598 | 8 | 34 | 79 |
| DH406037 | 3.7 | | .1457 | 6 | 20 | 62 | DH406067 | 6.7 | | .2638 | 8 | 34 | 79 |
| DH406038 | 3.8 | | .1496 | 6 | 24 | 66 | DH406017F | 6.747 | 17/64 | .2656 | 8 | 34 | 79 |
| DH406039 | 3.9 | | .1535 | 6 | 24 | 66 | DH406068 | 6.8 | | .2677 | 8 | 34 | 79 |
| * DH406010F | 3.969 | 5/32 | .1563 | 6 | 24 | 66 | DH406069 | 6.9 | | .2717 | 8 | 34 | 79 |
| DH406040 | 4.0 | | .1575 | 6 | 24 | 66 | DH406070 | 7.0 | | .2756 | 8 | 34 | 79 |
| DH406041 | 4.1 | | .1614 | 6 | 24 | 66 | DH406071 | 7.1 | | .2795 | 8 | 41 | 79 |
| DH406042 | 4.2 | | .1654 | 6 | 24 | 66 | DH406018F | 7.144 | 9/32 | .2812 | 8 | 41 | 79 |
| DH406043 | 4.3 | | .1693 | 6 | 24 | 66 | DH406072 | 7.2 | | .2835 | 8 | 41 | 79 |
| * DH406011F | 4.366 | 11/64 | .1719 | 6 | 24 | 66 | DH406073 | 7.3 | | .2874 | 8 | 41 | 79 |
| DH406044 | 4.4 | | .1732 | 6 | 24 | 66 | DH406074 | 7.4 | | .2913 | 8 | 41 | 79 |
| DH406045 | 4.5 | | .1772 | 6 | 24 | 66 | DH406075 | 7.5 | | .2953 | 8 | 41 | 79 |
| DH406046 | 4.6 | | .1811 | 6 | 24 | 66 | DH406019F | 7.541 | 19/64 | .2969 | 8 | 41 | 79 |
| DH406047 | 4.7 | | .1850 | 6 | 24 | 66 | DH406076 | 7.6 | | .2992 | 8 | 41 | 79 |
| * DH406012F | 4.763 | 3/16 | .1875 | 6 | 24 | 66 | DH406077 | 7.7 | | .3031 | 8 | 41 | 79 |
| DH406048 | 4.8 | | .1890 | 6 | 28 | 66 | DH406078 | 7.8 | | .3071 | 8 | 41 | 79 |
| DH406049 | 4.9 | | .1929 | 6 | 28 | 66 | DH406079 | 7.9 | | .3110 | 8 | 41 | 79 |
| DH406050 | 5.0 | | .1969 | 6 | 28 | 66 | DH406020F | 7.938 | 5/16 | .3125 | 8 | 41 | 79 |
| DH406051 | 5.1 | | .2008 | 6 | 28 | 66 | DH406080 | 8.0 | | .3150 | 8 | 41 | 79 |
| * DH406013F | 5.159 | 13/64 | .2031 | 6 | 28 | 66 | DH406081 | 8.1 | | .3189 | 10 | 47 | 89 |
| DH406052 | 5.2 | | .2047 | 6 | 28 | 66 | DH406082 | 8.2 | | .3228 | 10 | 47 | 89 |
| DH406053 | 5.3 | | .2087 | 6 | 28 | 66 | DH406083 | 8.3 | | .3268 | 10 | 47 | 89 |
| DH406054 | 5.4 | | .2126 | 6 | 28 | 66 | DH406021F | 8.334 | 21/64 | .3281 | 10 | 47 | 89 |
| DH406055 | 5.5 | | .2165 | 6 | 28 | 66 | DH406084 | 8.4 | | .3307 | 10 | 47 | 89 |
| * DH406014F | 5.556 | 7/32 | .2188 | 6 | 28 | 66 | DH406085 | 8.5 | | .3346 | 10 | 47 | 89 |
| DH406056 | 5.6 | | .2205 | 6 | 28 | 66 | DH406086 | 8.6 | | .3386 | 10 | 47 | 89 |
| DH406057 | 5.7 | | .2244 | 6 | 28 | 66 | DH406087 | 8.7 | | .3425 | 10 | 47 | 89 |
| DH406058 | 5.8 | | .2283 | 6 | 28 | 66 | DH406022F | 8.731 | 11/32 | .3438 | 10 | 47 | 89 |
| DH406059 | 5.9 | | .2323 | 6 | 28 | 66 | DH406088 | 8.8 | | .3465 | 10 | 47 | 89 |

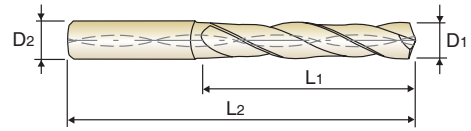
► NEXT PAGE



* NEW SIZE

SOLID CARBIDE DREAM DRILLS-GENERAL (with COOLANT HOLES)

- ▶ Application : Steel, cast steel, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metal, non-ferrous light metal, abrasive plastic
- ▶ Advantage : Self centering - center drilling is not required
 Excellent positioning - bushing is not necessary
 Special Design - reaming is not required
 - good chip removal
 - powerful drilling



DIN 6537
MG
h6
m7
140°
P.26

DREAM DRILLS | 3×D

| EDP No. | Diameter | | | Shank Diameter | Flute Length | Overall Length | EDP No. | Diameter | | | Shank Diameter | Flute Length | Overall Length |
|-------------|----------|------------|---------|----------------|--------------|----------------|-----------|----------|------------|---------|----------------|--------------|----------------|
| | Metric | Fractional | Decimal | | | | | Metric | Fractional | Decimal | | | |
| TiAlN | D1 | | | D2 | L1 | L2 | TiAlN | D1 | | | D2 | L1 | L2 |
| DH406089 | 8.9 | | .3504 | 10 | 47 | 89 | DH406114 | 11.4 | | .4488 | 12 | 55 | 102 |
| DH406090 | 9.0 | | .3543 | 10 | 47 | 89 | DH406115 | 11.5 | | .4527 | 12 | 55 | 102 |
| DH406091 | 9.1 | | .3583 | 10 | 47 | 89 | DH406029F | 11.509 | 29/64 | .4531 | 12 | 55 | 102 |
| * DH406023F | 9.128 | 23/64 | .3594 | 10 | 47 | 89 | DH406116 | 11.6 | | .4566 | 12 | 55 | 102 |
| DH406092 | 9.2 | | .3622 | 10 | 47 | 89 | DH406117 | 11.7 | | .4606 | 12 | 55 | 102 |
| DH406093 | 9.3 | | .3661 | 10 | 47 | 89 | DH406118 | 11.8 | | .4645 | 12 | 55 | 102 |
| DH406094 | 9.4 | | .3701 | 10 | 47 | 89 | DH406119 | 11.9 | | .4685 | 12 | 55 | 102 |
| DH406095 | 9.5 | | .3740 | 10 | 47 | 89 | DH406030F | 11.906 | 15/32 | .4688 | 12 | 55 | 102 |
| * DH406024F | 9.525 | 3/8 | .3750 | 10 | 47 | 89 | DH406120 | 12.0 | | .4724 | 12 | 55 | 102 |
| DH406096 | 9.6 | | .3780 | 10 | 47 | 89 | DH406031F | 12.303 | 31/64 | .4844 | 14 | 60 | 107 |
| DH406097 | 9.7 | | .3819 | 10 | 47 | 89 | DH406125 | 12.5 | | .4921 | 14 | 60 | 107 |
| DH406098 | 9.8 | | .3858 | 10 | 47 | 89 | DH406032F | 12.7 | 1/2 | .5000 | 14 | 60 | 107 |
| DH406099 | 9.9 | | .3898 | 10 | 47 | 89 | DH406130 | 13.0 | | .5118 | 14 | 60 | 107 |
| * DH406025F | 9.922 | 25/64 | .3906 | 10 | 47 | 89 | DH406135 | 13.5 | | .5314 | 14 | 60 | 107 |
| DH406100 | 10.0 | | .3937 | 10 | 47 | 89 | DH406140 | 14.0 | | .5512 | 14 | 60 | 107 |
| DH406101 | 10.1 | | .3976 | 12 | 55 | 102 | DH406036F | 14.288 | 9/16 | .5625 | 16 | 65 | 115 |
| DH406102 | 10.2 | | .4016 | 12 | 55 | 102 | DH406145 | 14.5 | | .5708 | 16 | 65 | 115 |
| DH406103 | 10.3 | | .4055 | 12 | 55 | 102 | DH406150 | 15.0 | | .5905 | 16 | 65 | 115 |
| * DH406026F | 10.319 | 13/32 | .4062 | 12 | 55 | 102 | DH406155 | 15.5 | | .6102 | 16 | 65 | 115 |
| DH406104 | 10.4 | | .4094 | 12 | 55 | 102 | DH406040F | 15.875 | 5/8 | .6250 | 16 | 65 | 115 |
| DH406105 | 10.5 | | .4134 | 12 | 55 | 102 | DH406160 | 16.0 | | .6299 | 16 | 65 | 115 |
| DH406106 | 10.6 | | .4173 | 12 | 55 | 102 | DH406165 | 16.5 | | .6495 | 18 | 73 | 123 |
| DH406107 | 10.7 | | .4212 | 12 | 55 | 102 | DH406170 | 17.0 | | .6692 | 18 | 73 | 123 |
| * DH406027F | 10.716 | 27/64 | .4219 | 12 | 55 | 102 | DH406044F | 17.463 | 11/16 | .6875 | 18 | 73 | 123 |
| DH406108 | 10.8 | | .4252 | 12 | 55 | 102 | DH406175 | 17.5 | | .6889 | 18 | 73 | 123 |
| DH406109 | 10.9 | | .4291 | 12 | 55 | 102 | DH406180 | 18.0 | | .7087 | 18 | 73 | 123 |
| DH406110 | 11.0 | | .4330 | 12 | 55 | 102 | DH406185 | 18.5 | | .7283 | 20 | 79 | 131 |
| DH406111 | 11.1 | | .4370 | 12 | 55 | 102 | DH406190 | 19.0 | | .7480 | 20 | 79 | 131 |
| * DH406028F | 11.113 | 7/16 | .4375 | 12 | 55 | 102 | DH406048F | 19.05 | 3/4 | .7500 | 20 | 79 | 131 |
| DH406112 | 11.2 | | .4409 | 12 | 55 | 102 | DH406195 | 19.5 | | .7676 | 20 | 79 | 131 |
| DH406113 | 11.3 | | .4448 | 12 | 55 | 102 | DH406200 | 20.0 | | .7874 | 20 | 79 | 131 |

▶ Other shank types are available on your request

◎ : Excellent ○ : Good

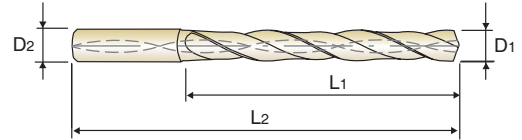
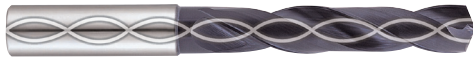
| Carbon Steels | Alloy Steels | Prehardened Steels | Hardened Steels | | Cast Iron | Aluminum | Stainless Steels | Titanium | Mild Steels | Copper | Bronze |
|---------------|--------------|--------------------|-----------------|--------|-----------|----------|------------------|----------|-------------|--------|--------|
| ~HB225 | HB225~325 | HRC30~45 | HRC45~55 | HRC55~ | | | | | | | |
| ○ | ◎ | ◎ | | | ○ | | ○ | | | | |



*** NEW SIZE**

SOLID CARBIDE DREAM DRILLS-GENERAL (with COOLANT HOLES)

- Application : Steel, cast steel, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metal, non-ferrous light metal, abrasive plastic
- Advantage : Self centering - center drilling is not required
 Excellent positioning - bushing is not necessary
 Special Design - reaming is not required
 - good chip removal
 - powerful drilling



DIN 6537
MG
h6
m7
140°
P.26

DREAM DRILLS | 5 × D

Unit : mm

| EDP No. | Diameter | | | Shank Diameter | Flute Length | Overall Length | EDP No. | Diameter | | | Shank Diameter | Flute Length | Overall Length |
|-------------|----------|------------|---------|----------------|--------------|----------------|-----------|----------|------------|---------|----------------|--------------|----------------|
| | Metric | Fractional | Decimal | | | | | Metric | Fractional | Decimal | | | |
| TiAlN | D1 | | | D2 | L1 | L2 | TiAlN | D1 | | | D2 | L1 | L2 |
| DH408010 | 1.0 | | .0394 | 3 | 8 | 55 | DH408009F | 3.572 | 9/64 | .1406 | 6 | 28 | 66 |
| DH408011 | 1.1 | | .0433 | 3 | 12 | 55 | DH408036 | 3.6 | | .1417 | 6 | 28 | 66 |
| DH408012 | 1.2 | | .0472 | 3 | 12 | 55 | DH408037 | 3.7 | | .1457 | 6 | 28 | 66 |
| DH408013 | 1.3 | | .0512 | 3 | 12 | 55 | DH408038 | 3.8 | | .1496 | 6 | 36 | 74 |
| DH408014 | 1.4 | | .0551 | 3 | 12 | 55 | DH408039 | 3.9 | | .1535 | 6 | 36 | 74 |
| DH408015 | 1.5 | | .0591 | 3 | 16 | 55 | DH408010F | 3.969 | 5/32 | .1563 | 6 | 36 | 74 |
| * DH408004F | 1.588 | 1/16 | .0625 | 3 | 16 | 55 | DH408040 | 4.0 | | .1575 | 6 | 36 | 74 |
| DH408016 | 1.6 | | .0630 | 3 | 16 | 55 | DH408041 | 4.1 | | .1614 | 6 | 36 | 74 |
| DH408017 | 1.7 | | .0669 | 3 | 16 | 55 | DH408042 | 4.2 | | .1654 | 6 | 36 | 74 |
| DH408018 | 1.8 | | .0709 | 3 | 16 | 55 | DH408043 | 4.3 | | .1693 | 6 | 36 | 74 |
| DH408019 | 1.9 | | .0748 | 3 | 16 | 55 | DH408011F | 4.366 | 11/64 | .1719 | 6 | 36 | 74 |
| * DH408005F | 1.984 | 5/64 | .0781 | 3 | 16 | 55 | DH408044 | 4.4 | | .1732 | 6 | 36 | 74 |
| DH408020 | 2.0 | | .0787 | 4 | 21 | 57 | DH408045 | 4.5 | | .1772 | 6 | 36 | 74 |
| DH408021 | 2.1 | | .0827 | 4 | 21 | 57 | DH408046 | 4.6 | | .1811 | 6 | 36 | 74 |
| DH408022 | 2.2 | | .0866 | 4 | 21 | 57 | DH408047 | 4.7 | | .1850 | 6 | 36 | 74 |
| DH408023 | 2.3 | | .0906 | 4 | 21 | 57 | DH408012F | 4.763 | 3/16 | .1875 | 6 | 36 | 74 |
| * DH408006F | 2.381 | 3/32 | .0938 | 4 | 21 | 57 | DH408048 | 4.8 | | .1890 | 6 | 44 | 82 |
| DH408024 | 2.4 | | .0945 | 4 | 21 | 57 | DH408049 | 4.9 | | .1929 | 6 | 44 | 82 |
| DH408025 | 2.5 | | .0984 | 4 | 21 | 57 | DH408050 | 5.0 | | .1969 | 6 | 44 | 82 |
| DH408026 | 2.6 | | .1024 | 4 | 21 | 57 | DH408051 | 5.1 | | .2008 | 6 | 44 | 82 |
| DH408027 | 2.7 | | .1063 | 4 | 21 | 57 | DH408013F | 5.159 | 13/64 | .2031 | 6 | 44 | 82 |
| * DH408007F | 2.778 | 7/64 | .1094 | 4 | 21 | 57 | DH408052 | 5.2 | | .2047 | 6 | 44 | 82 |
| DH408028 | 2.8 | | .1102 | 4 | 21 | 57 | DH408053 | 5.3 | | .2087 | 6 | 44 | 82 |
| DH408029 | 2.9 | | .1142 | 4 | 21 | 57 | DH408054 | 5.4 | | .2126 | 6 | 44 | 82 |
| DH408030 | 3.0 | | .1181 | 6 | 28 | 66 | DH408055 | 5.5 | | .2165 | 6 | 44 | 82 |
| DH408031 | 3.1 | | .1220 | 6 | 28 | 66 | DH408014F | 5.556 | 7/32 | .2188 | 6 | 44 | 82 |
| * DH408008F | 3.175 | 1/8 | .1250 | 6 | 28 | 66 | DH408056 | 5.6 | | .2205 | 6 | 44 | 82 |
| DH408032 | 3.2 | | .1260 | 6 | 28 | 66 | DH408057 | 5.7 | | .2244 | 6 | 44 | 82 |
| DH408033 | 3.3 | | .1299 | 6 | 28 | 66 | DH408058 | 5.8 | | .2283 | 6 | 44 | 82 |
| DH408034 | 3.4 | | .1339 | 6 | 28 | 66 | DH408059 | 5.9 | | .2323 | 6 | 44 | 82 |
| DH408035 | 3.5 | | .1378 | 6 | 28 | 66 | DH408015F | 5.953 | 15/64 | .2344 | 6 | 44 | 82 |

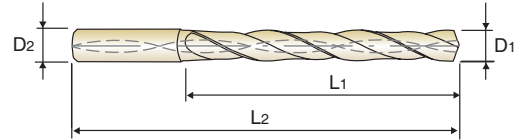
► NEXT PAGE



* NEW SIZE

SOLID CARBIDE DREAM DRILLS-GENERAL (with COOLANT HOLES)

- ▶ Application : Steel, cast steel, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metal, non-ferrous light metal, abrasive plastic
- ▶ Advantage : Self centering - center drilling is not required
 Excellent positioning - bushing is not necessary
 Special Design - reaming is not required
 - good chip removal
 - powerful drilling



DIN 6537
MG
h6
m7
140°
P.26

DREAM DRILLS | 5 × D

Unit : mm

| EDP No. | Diameter | | | Shank Diameter | Flute Length | Overall Length | EDP No. | Diameter | | | Shank Diameter | Flute Length | Overall Length |
|-------------|----------|------------|---------|----------------|--------------|----------------|-----------|----------|------------|---------|----------------|--------------|----------------|
| | Metric | Fractional | Decimal | | | | | Metric | Fractional | Decimal | | | |
| TiAIN | D1 | | | D2 | L1 | L2 | TiAIN | D1 | | | D2 | L1 | L2 |
| DH408060 | 6.0 | | .2362 | 6 | 44 | 82 | DH408085 | 8.5 | | .3346 | 10 | 61 | 103 |
| DH408061 | 6.1 | | .2402 | 8 | 53 | 91 | DH408086 | 8.6 | | .3386 | 10 | 61 | 103 |
| DH408062 | 6.2 | | .2441 | 8 | 53 | 91 | DH408087 | 8.7 | | .3425 | 10 | 61 | 103 |
| DH408063 | 6.3 | | .2480 | 8 | 53 | 91 | DH408022F | 8.731 | 11/32 | .3438 | 10 | 61 | 103 |
| * DH408016F | 6.35 | 1/4 | .2500 | 8 | 53 | 91 | DH408088 | 8.8 | | .3465 | 10 | 61 | 103 |
| DH408064 | 6.4 | | .2520 | 8 | 53 | 91 | DH408089 | 8.9 | | .3504 | 10 | 61 | 103 |
| DH408065 | 6.5 | | .2559 | 8 | 53 | 91 | DH408090 | 9.0 | | .3543 | 10 | 61 | 103 |
| DH408066 | 6.6 | | .2598 | 8 | 53 | 91 | DH408091 | 9.1 | | .3583 | 10 | 61 | 103 |
| DH408067 | 6.7 | | .2638 | 8 | 53 | 91 | DH408023F | 9.128 | 23/64 | .3594 | 10 | 61 | 103 |
| * DH408017F | 6.747 | 17/64 | .2656 | 8 | 53 | 91 | DH408092 | 9.2 | | .3622 | 10 | 61 | 103 |
| DH408068 | 6.8 | | .2677 | 8 | 53 | 91 | DH408093 | 9.3 | | .3661 | 10 | 61 | 103 |
| DH408069 | 6.9 | | .2717 | 8 | 53 | 91 | DH408094 | 9.4 | | .3701 | 10 | 61 | 103 |
| DH408070 | 7.0 | | .2756 | 8 | 53 | 91 | DH408095 | 9.5 | | .3740 | 10 | 61 | 103 |
| DH408071 | 7.1 | | .2795 | 8 | 53 | 91 | DH408024F | 9.525 | 3/8 | .3750 | 10 | 61 | 103 |
| * DH408018F | 7.144 | 9/32 | .2812 | 8 | 53 | 91 | DH408096 | 9.6 | | .3780 | 10 | 61 | 103 |
| DH408072 | 7.2 | | .2835 | 8 | 53 | 91 | DH408097 | 9.7 | | .3819 | 10 | 61 | 103 |
| DH408073 | 7.3 | | .2874 | 8 | 53 | 91 | DH408098 | 9.8 | | .3858 | 10 | 61 | 103 |
| DH408074 | 7.4 | | .2913 | 8 | 53 | 91 | DH408099 | 9.9 | | .3898 | 10 | 61 | 103 |
| DH408075 | 7.5 | | .2953 | 8 | 53 | 91 | DH408025F | 9.922 | 25/64 | .3906 | 10 | 61 | 103 |
| * DH408019F | 7.541 | 19/64 | .2969 | 8 | 53 | 91 | DH408100 | 10.0 | | .3937 | 10 | 61 | 103 |
| DH408076 | 7.6 | | .2992 | 8 | 53 | 91 | DH408101 | 10.1 | | .3976 | 12 | 71 | 118 |
| DH408077 | 7.7 | | .3031 | 8 | 53 | 91 | DH408102 | 10.2 | | .4016 | 12 | 71 | 118 |
| DH408078 | 7.8 | | .3071 | 8 | 53 | 91 | DH408103 | 10.3 | | .4055 | 12 | 71 | 118 |
| DH408079 | 7.9 | | .3110 | 8 | 53 | 91 | DH408026F | 10.319 | 13/32 | .4062 | 12 | 71 | 118 |
| * DH408020F | 7.938 | 5/16 | .3125 | 8 | 53 | 91 | DH408104 | 10.4 | | .4094 | 12 | 71 | 118 |
| DH408080 | 8.0 | | .3150 | 8 | 53 | 91 | DH408105 | 10.5 | | .4134 | 12 | 71 | 118 |
| DH408081 | 8.1 | | .3189 | 10 | 61 | 103 | DH408106 | 10.6 | | .4173 | 12 | 71 | 118 |
| DH408082 | 8.2 | | .3228 | 10 | 61 | 103 | DH408107 | 10.7 | | .4212 | 12 | 71 | 118 |
| DH408083 | 8.3 | | .3268 | 10 | 61 | 103 | DH408027F | 10.716 | 27/64 | .4219 | 12 | 71 | 118 |
| * DH408021F | 8.334 | 21/64 | .3281 | 10 | 61 | 103 | DH408108 | 10.8 | | .4252 | 12 | 71 | 118 |
| DH408084 | 8.4 | | .3307 | 10 | 61 | 103 | DH408109 | 10.9 | | .4291 | 12 | 71 | 118 |

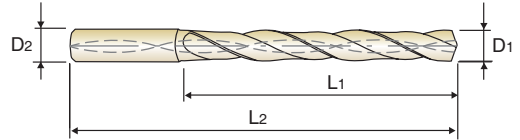
▶ NEXT PAGE



*** NEW SIZE**

SOLID CARBIDE DREAM DRILLS-GENERAL (with COOLANT HOLES)

- ▶ Application : Steel, cast steel, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metal, non-ferrous light metal, abrasive plastic
- ▶ Advantage : Self centering - center drilling is not required
 Excellent positioning - bushing is not necessary
 Special Design - reaming is not required
 - good chip removal
 - powerful drilling



DIN 6537
MG
h6
m7
140°
P.26

DREAM DRILLS | 5 × D

Unit : mm

| EDP No. | Diameter | | | Shank Diameter | Flute Length | Overall Length | EDP No. | Diameter | | | Shank Diameter | Flute Length | Overall Length |
|-------------|----------|------------|---------|----------------|--------------|----------------|-----------|----------|------------|---------|----------------|--------------|----------------|
| | Metric | Fractional | Decimal | | | | | Metric | Fractional | Decimal | | | |
| TiAIN | D1 | | | D2 | L1 | L2 | TiAIN | D1 | | | D2 | L1 | L2 |
| DH408110 | 11.0 | | .4330 | 12 | 71 | 118 | DH408135 | 13.5 | | .5314 | 14 | 77 | 124 |
| DH408111 | 11.1 | | .4370 | 12 | 71 | 118 | DH408140 | 14.0 | | .5512 | 14 | 77 | 124 |
| * DH408028F | 11.113 | 7/16 | .4375 | 12 | 71 | 118 | DH408036F | 14.288 | 9/16 | .5625 | 16 | 83 | 133 |
| DH408112 | 11.2 | | .4409 | 12 | 71 | 118 | DH408145 | 14.5 | | .5708 | 16 | 83 | 133 |
| DH408113 | 11.3 | | .4448 | 12 | 71 | 118 | DH408150 | 15.0 | | .5905 | 16 | 83 | 133 |
| DH408114 | 11.4 | | .4488 | 12 | 71 | 118 | DH408155 | 15.5 | | .6102 | 16 | 83 | 133 |
| DH408115 | 11.5 | | .4527 | 12 | 71 | 118 | DH408040F | 15.875 | 5/8 | .6250 | 16 | 83 | 133 |
| * DH408029F | 11.509 | 29/64 | .4531 | 12 | 71 | 118 | DH408160 | 16.0 | | .6299 | 16 | 83 | 133 |
| DH408116 | 11.6 | | .4566 | 12 | 71 | 118 | DH408165 | 16.5 | | .6495 | 18 | 93 | 143 |
| DH408117 | 11.7 | | .4606 | 12 | 71 | 118 | DH408170 | 17.0 | | .6692 | 18 | 93 | 143 |
| DH408118 | 11.8 | | .4645 | 12 | 71 | 118 | DH408175 | 17.5 | | .6889 | 18 | 93 | 143 |
| DH408119 | 11.9 | | .4685 | 12 | 71 | 118 | DH408180 | 18.0 | | .7087 | 18 | 93 | 143 |
| * DH408030F | 11.906 | 15/32 | .4688 | 12 | 71 | 118 | DH408185 | 18.5 | | .7283 | 20 | 101 | 153 |
| DH408120 | 12.0 | | .4724 | 12 | 71 | 118 | DH408190 | 19.0 | | .7480 | 20 | 101 | 153 |
| * DH408031F | 12.303 | 31/64 | .4844 | 14 | 77 | 124 | DH408048F | 19.05 | 3/4 | .7500 | 20 | 101 | 153 |
| DH408125 | 12.5 | | .4921 | 14 | 77 | 124 | DH408195 | 19.5 | | .7676 | 20 | 101 | 153 |
| * DH408032F | 12.7 | 1/2 | .5000 | 14 | 77 | 124 | DH408200 | 20.0 | | .7874 | 20 | 101 | 153 |
| DH408130 | 13.0 | | .5118 | 14 | 77 | 124 | | | | | | | |

▶ Other shank types are available on your request

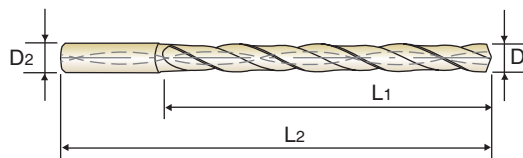
◎ : Excellent ○ : Good

| Carbon Steels | Alloy Steels | Prehardened Steels | Hardened Steels | | Cast Iron | Aluminum | Stainless Steels | Titanium | Mild Steels | Copper | Bronze |
|---------------|--------------|--------------------|-----------------|--------|-----------|----------|------------------|----------|-------------|--------|--------|
| ~HB225 | HB225~325 | HRC30~45 | HRC45~55 | HRC55~ | | | | | | | |
| ○ | ◎ | ◎ | | | ○ | | ○ | | | | |



SOLID CARBIDE DREAM DRILLS-GENERAL (with COOLANT HOLES)

- ▶ Application : Steel, cast steel, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metal, non-ferrous light metal, abrasive plastic
- ▶ Advantage : Self centering - center drilling is not required
- Excellent positioning - bushing is not necessary
- Special Design - reaming is not required
- good chip removal
- powerful drilling



DIN 6537

MG

h6

m7

140°



P.26

DREAM DRILLS | 8 × D

Unit : mm

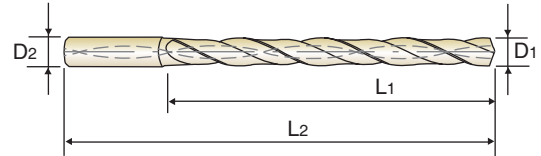
| EDP No. | Diameter | | | Shank Diameter | Flute Length | Overall Length | EDP No. | Diameter | | | Shank Diameter | Flute Length | Overall Length |
|-----------|----------|------------|---------|----------------|--------------|----------------|-----------|----------|------------|---------|----------------|--------------|----------------|
| | Metric | Fractional | Decimal | | | | | Metric | Fractional | Decimal | | | |
| TiAlN | D1 | | | D2 | L1 | L2 | TiAlN | D1 | | | D2 | L1 | L2 |
| DH421030 | 3.0 | | .1181 | 6 | 34 | 72 | DH421014F | 5.556 | 7/32 | .2188 | 6 | 57 | 95 |
| DH421031 | 3.1 | | .1220 | 6 | 34 | 72 | DH421056 | 5.6 | | .2205 | 6 | 57 | 95 |
| DH421008F | 3.175 | 1/8 | .1250 | 6 | 34 | 72 | DH421057 | 5.7 | | .2244 | 6 | 57 | 95 |
| DH421032 | 3.2 | | .1260 | 6 | 34 | 72 | DH421058 | 5.8 | | .2283 | 6 | 57 | 95 |
| DH421033 | 3.3 | | .1299 | 6 | 34 | 72 | DH421059 | 5.9 | | .2323 | 6 | 57 | 95 |
| DH421034 | 3.4 | | .1339 | 6 | 34 | 72 | DH421015F | 5.953 | 15/64 | .2344 | 6 | 57 | 95 |
| DH421229G | 3.450 | #29 | .1360 | 6 | 34 | 72 | DH421060 | 6.0 | | .2362 | 6 | 57 | 95 |
| DH421035 | 3.5 | | .1378 | 6 | 34 | 72 | DH421061 | 6.1 | | .2402 | 8 | 76 | 114 |
| DH421009F | 3.572 | 9/64 | .1406 | 6 | 34 | 72 | DH421062 | 6.2 | | .2441 | 8 | 76 | 114 |
| DH421036 | 3.6 | | .1417 | 6 | 34 | 72 | DH421063 | 6.3 | | .2480 | 8 | 76 | 114 |
| DH421037 | 3.7 | | .1457 | 6 | 34 | 72 | DH421016F | 6.350 | 1/4 | .2500 | 8 | 76 | 114 |
| DH421038 | 3.8 | | .1496 | 6 | 43 | 81 | DH421064 | 6.4 | | .2520 | 8 | 76 | 114 |
| DH421039 | 3.9 | | .1535 | 6 | 43 | 81 | DH421065 | 6.5 | | .2559 | 8 | 76 | 114 |
| DH421010F | 3.969 | 5/32 | .1563 | 6 | 43 | 81 | DH421106L | 6.53 | F | .2570 | 8 | 76 | 114 |
| DH421040 | 4.0 | | .1575 | 6 | 43 | 81 | DH421066 | 6.6 | | .2598 | 8 | 76 | 114 |
| DH421221G | 4.040 | #21 | .1590 | 6 | 43 | 81 | DH421067 | 6.7 | | .2638 | 8 | 76 | 114 |
| DH421041 | 4.1 | | .1614 | 6 | 43 | 81 | DH421017F | 6.747 | 17/64 | .2656 | 8 | 76 | 114 |
| DH421042 | 4.2 | | .1654 | 6 | 43 | 81 | DH421068 | 6.8 | | .2677 | 8 | 76 | 114 |
| DH421043 | 4.3 | | .1693 | 6 | 43 | 81 | DH421069 | 6.9 | | .2717 | 8 | 76 | 114 |
| DH421011F | 4.366 | 11/64 | .1719 | 6 | 43 | 81 | DH421070 | 7.0 | | .2756 | 8 | 76 | 114 |
| DH421044 | 4.4 | | .1732 | 6 | 43 | 81 | DH421071 | 7.1 | | .2795 | 8 | 76 | 114 |
| DH421045 | 4.5 | | .1772 | 6 | 43 | 81 | DH421018F | 7.144 | 9/32 | .2813 | 8 | 76 | 114 |
| DH421046 | 4.6 | | .1811 | 6 | 43 | 81 | DH421072 | 7.2 | | .2835 | 8 | 76 | 114 |
| DH421047 | 4.7 | | .1850 | 6 | 43 | 81 | DH421073 | 7.3 | | .2874 | 8 | 76 | 114 |
| DH421012F | 4.763 | 3/16 | .1875 | 6 | 57 | 95 | DH421074 | 7.4 | | .2913 | 8 | 76 | 114 |
| DH421048 | 4.8 | | .1890 | 6 | 57 | 95 | DH421075 | 7.5 | | .2953 | 8 | 76 | 114 |
| DH421049 | 4.9 | | .1929 | 6 | 57 | 95 | DH421019F | 7.541 | 19/64 | .2969 | 8 | 76 | 114 |
| DH421050 | 5.0 | | .1969 | 6 | 57 | 95 | DH421076 | 7.6 | | .2992 | 8 | 76 | 114 |
| DH421051 | 5.1 | | .2008 | 6 | 57 | 95 | DH421077 | 7.7 | | .3031 | 8 | 76 | 114 |
| DH421013F | 5.159 | 13/64 | .2031 | 6 | 57 | 95 | DH421078 | 7.8 | | .3071 | 8 | 76 | 114 |
| DH421052 | 5.2 | | .2047 | 6 | 57 | 95 | DH421079 | 7.9 | | .3110 | 8 | 76 | 114 |
| DH421053 | 5.3 | | .2087 | 6 | 57 | 95 | DH421020F | 7.938 | 5/16 | .3125 | 8 | 76 | 114 |
| DH421054 | 5.4 | | .2126 | 6 | 57 | 95 | DH421080 | 8.0 | | .3150 | 8 | 76 | 114 |
| DH421055 | 5.5 | | .2165 | 6 | 57 | 95 | DH421081 | 8.1 | | .3189 | 10 | 95 | 142 |

▶ NEXT PAGE



SOLID CARBIDE DREAM DRILLS-GENERAL (with COOLANT HOLES)

- Application : Steel, cast steel, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metal, non-ferrous light metal, abrasive plastic
- Advantage : Self centering - center drilling is not required
- Excellent positioning - bushing is not necessary
- Special Design - reaming is not required
- good chip removal
- powerful drilling



DIN 6537

MG

h6

m7

140°



P.26

DREAM DRILLS | 8 × D

Unit : mm

| EDP No. | Diameter | | | Shank Diameter | Flute Length | Overall Length | EDP No. | Diameter | | | Shank Diameter | Flute Length | Overall Length |
|-----------|----------|------------|---------|----------------|--------------|----------------|-----------|----------|------------|---------|----------------|--------------|----------------|
| | Metric | Fractional | Decimal | | | | | Metric | Fractional | Decimal | | | |
| TiAlN | D1 | | | D2 | L1 | L2 | TiAlN | D1 | | | D2 | L1 | L2 |
| DH421082 | 8.2 | | .3228 | 10 | 95 | 142 | DH421026F | 10.319 | 13/32 | .4063 | 12 | 114 | 162 |
| DH421083 | 8.3 | | .3268 | 10 | 95 | 142 | DH421104 | 10.4 | | .4094 | 12 | 114 | 162 |
| DH421021F | 8.334 | 21/64 | .3281 | 10 | 95 | 142 | DH421105 | 10.5 | | .4134 | 12 | 114 | 162 |
| DH421084 | 8.4 | | .3307 | 10 | 95 | 142 | DH421106 | 10.6 | | .4173 | 12 | 114 | 162 |
| DH421117L | 8.430 | Q | .3320 | 10 | 95 | 142 | DH421107 | 10.7 | | .4212 | 12 | 114 | 162 |
| DH421085 | 8.5 | | .3346 | 10 | 95 | 142 | DH421027F | 10.716 | 27/64 | .4219 | 12 | 114 | 162 |
| DH421086 | 8.6 | | .3386 | 10 | 95 | 142 | DH421108 | 10.8 | | .4252 | 12 | 114 | 162 |
| DH421087 | 8.7 | | .3425 | 10 | 95 | 142 | DH421109 | 10.9 | | .4291 | 12 | 114 | 162 |
| DH421022F | 8.731 | 11/32 | .3438 | 10 | 95 | 142 | DH421110 | 11.0 | | .4330 | 12 | 114 | 162 |
| DH421088 | 8.8 | | .3465 | 10 | 95 | 142 | DH421111 | 11.1 | | .4370 | 12 | 114 | 162 |
| DH421089 | 8.9 | | .3504 | 10 | 95 | 142 | DH421028F | 11.113 | 7/16 | .4375 | 12 | 114 | 162 |
| DH421090 | 9.0 | | .3543 | 10 | 95 | 142 | DH421112 | 11.2 | | .4409 | 12 | 114 | 162 |
| DH421091 | 9.1 | | .3583 | 10 | 95 | 142 | DH421113 | 11.3 | | .4448 | 12 | 114 | 162 |
| DH421023F | 9.128 | 23/64 | .3594 | 10 | 95 | 142 | DH421114 | 11.4 | | .4488 | 12 | 114 | 162 |
| DH421092 | 9.2 | | .3622 | 10 | 95 | 142 | DH421115 | 11.5 | | .4527 | 12 | 114 | 162 |
| DH421093 | 9.3 | | .3661 | 10 | 95 | 142 | DH421116 | 11.6 | | .4566 | 12 | 114 | 162 |
| DH421121L | 9.350 | U | .3680 | 10 | 95 | 142 | DH421117 | 11.7 | | .4606 | 12 | 114 | 162 |
| DH421094 | 9.4 | | .3701 | 10 | 95 | 142 | DH421118 | 11.8 | | .4645 | 12 | 114 | 162 |
| DH421095 | 9.5 | | .3740 | 10 | 95 | 142 | DH421119 | 11.9 | | .4685 | 12 | 114 | 162 |
| DH421024F | 9.525 | 3/8 | .3750 | 10 | 95 | 142 | DH421030F | 11.906 | 15/32 | .4688 | 12 | 114 | 162 |
| DH421096 | 9.6 | | .3780 | 10 | 95 | 142 | DH421120 | 12.0 | | .4724 | 12 | 114 | 162 |
| DH421097 | 9.7 | | .3819 | 10 | 95 | 142 | DH421031F | 12.303 | 31/64 | .4844 | 14 | 133 | 178 |
| DH421098 | 9.8 | | .3858 | 10 | 95 | 142 | DH421125 | 12.5 | | .4921 | 14 | 133 | 178 |
| DH421099 | 9.9 | | .3898 | 10 | 95 | 142 | DH421032F | 12.700 | 1/2 | .5000 | 14 | 133 | 178 |
| DH421025F | 9.922 | 25/64 | .3906 | 10 | 95 | 142 | DH421130 | 13.0 | | .5118 | 14 | 133 | 178 |
| DH421100 | 10.0 | | .3937 | 10 | 95 | 142 | DH421033F | 13.097 | 33/64 | .5156 | 14 | 133 | 178 |
| DH421101 | 10.1 | | .3976 | 12 | 114 | 162 | DH421135 | 13.5 | | .5314 | 14 | 133 | 178 |
| DH421102 | 10.2 | | .4016 | 12 | 114 | 162 | DH421140 | 14.0 | | .5512 | 14 | 133 | 178 |
| DH421103 | 10.3 | | .4055 | 12 | 114 | 162 | | | | | | | |

► Other shank types are available on your request

◎ : Excellent ○ : Good

| Carbon Steels | Alloy Steels | Prehardened Steels | Hardened Steels | | Cast Iron | Aluminum | Stainless Steels | Titanium | Mild Steels | Copper | Bronze |
|---------------|--------------|--------------------|-----------------|--------|-----------|----------|------------------|----------|-------------|--------|--------|
| ~HB225 | HB225~325 | HRC30~45 | HRC45~55 | HRC55~ | | | | | | | |
| ○ | ◎ | ◎ | | | ○ | | ○ | | | | |



SOLID CARBIDE DREAM DRILLS-GENERAL (without COOLANT HOLES)

DH414, DH722 Series

| WORK MATERIAL | | | | K | | | | P | | | |
|---------------------|------------|--------|--------|------------------|------|------------------|------|------------------|------|------------------|------|
| | | | | CAST IRON | | CAST IRON | | CARBON STEELS | | ALLOY STEELS | |
| STRENGTH | | | | < HRC24 | | > HRC24 | | < HRC30 | | HRC30 - 42 | |
| DRILLING SPEED(SFM) | | | | 400 ~ 650 ft/min | | 280 ~ 430 ft/min | | 250 ~ 400 ft/min | | 210 ~ 350 ft/min | |
| DIAMETER | | | | N | IPR | N | IPR | N | IPR | N | IPR |
| Fractional | Metric(mm) | | | | | | | | | | |
| 1/8 | 3/16 | 3.175 | 4.763 | 13120 | .006 | 8750 | .005 | 7880 | .005 | 7000 | .005 |
| 3/16 | 5/16 | 4.763 | 7.938 | 8200 | .008 | 5470 | .006 | 4920 | .006 | 4370 | .006 |
| 5/16 | 3/8 | 7.938 | 9.525 | 5970 | .011 | 3980 | .009 | 3560 | .009 | 3190 | .009 |
| 3/8 | 1/2 | 9.525 | 12.700 | 4690 | .014 | 3120 | .011 | 2810 | .011 | 2500 | .011 |
| 1/2 | 9/16 | 12.700 | 14.288 | 3860 | .016 | 2570 | .012 | 2310 | .012 | 2060 | .012 |
| 9/16 | 13/16 | 14.288 | 20.638 | 2980 | .018 | 1990 | .014 | 1790 | .014 | 1590 | .014 |

- Recommend to reduce the feed rate as following
 DH414(3xD) : Feed 100%
 DH722(5xD) : Feed 85%

N = R.P.M
 IPR = feed rate(inch/rev.)

SOLID CARBIDE DREAM DRILLS-GENERAL (with COOLANT HOLES)

DH416, DH418, DH711, DH712 Series

| WORK MATERIAL | | | | K | | | | P | | | |
|---------------------|------------|--------|--------|------------------|------|------------------|------|------------------|------|------------------|------|
| | | | | CAST IRON | | CAST IRON | | CARBON STEELS | | ALLOY STEELS | |
| STRENGTH | | | | < HRC24 | | > HRC24 | | < HB240, GG25 | | < HB300, GG40 | |
| DRILLING SPEED(SFM) | | | | 480 ~ 730 ft/min | | 310 ~ 490 ft/min | | 280 ~ 430 ft/min | | 250 ~ 400 ft/min | |
| DIAMETER | | | | N | IPR | N | IPR | N | IPR | N | IPR |
| Fractional | Metric(mm) | | | | | | | | | | |
| 1/8 | 3/16 | 3.175 | 4.763 | 14870 | .006 | 9620 | .006 | 8750 | .006 | 7880 | .005 |
| 3/16 | 5/16 | 4.763 | 7.938 | 8200 | .008 | 6010 | .008 | 5470 | .008 | 4920 | .006 |
| 5/16 | 3/8 | 7.938 | 9.525 | 6760 | .011 | 4370 | .011 | 3980 | .011 | 3580 | .009 |
| 3/8 | 1/2 | 9.525 | 12.700 | 5310 | .014 | 3440 | .014 | 3120 | .014 | 2810 | .011 |
| 1/2 | 9/16 | 12.700 | 14.288 | 4370 | .016 | 2830 | .016 | 2570 | .016 | 2310 | .012 |
| 9/16 | 13/16 | 14.288 | 20.638 | 3380 | .018 | 2190 | .018 | 1990 | .018 | 1790 | .014 |

- Recommend to reduce the feed rate as following
 DH416/DH711(3xD) : Feed 100%
 DH418/DH712(5xD) : Feed 85%

N = R.P.M
 IPR= feed rate (Inch/rev.)



SOLID CARBIDE DREAM DRILLS-GENERAL (without COOLANT HOLES)

DH404, DH423, DH424 Series

| WORK MATERIAL | | P | | | | | | K | | | | | |
|---------------------|---------|------------------|------|------|------------------|------|------|---------------------|------|------|---------------------|------|------|
| | | NON-ALLOY STEELS | | | ALLOY STEELS | | | SOFT GREY CAST IRON | | | HARD GREY CAST IRON | | |
| STRENGTH | | < HRC 20 | | | > HRC 20 | | | < 240 BHN | | | < 300 BHN | | |
| DRILLING SPEED(SFM) | | 130 ~ 400 ft/min | | | 115 ~ 340 ft/min | | | 220 ~ 650 ft/min | | | 150 ~ 430 ft/min | | |
| DIAMETER | | N | S | IPR | N | S | IPR | N | S | IPR | N | S | IPR |
| Metric(mm) | Decimal | | | | | | | | | | | | |
| 1.0 | .0394 | 13000 | 0.04 | .002 | 11250 | 0.04 | .002 | 21300 | 0.04 | .002 | 14200 | 0.04 | .002 |
| 2.0 | .0787 | 13000 | 0.06 | .002 | 11250 | 0.06 | .002 | 21300 | 0.06 | .002 | 14200 | 0.06 | .002 |
| 3.0 | .1181 | 13000 | 0.13 | .005 | 11000 | 0.13 | .005 | 21000 | 0.13 | .005 | 14000 | 0.13 | .005 |
| 4.0 | .1575 | 9500 | 0.14 | .006 | 8400 | 0.14 | .006 | 16000 | 0.14 | .006 | 10500 | 0.14 | .006 |
| 5.0 | .1969 | 7600 | 0.15 | .006 | 6700 | 0.15 | .006 | 13000 | 0.15 | .006 | 8300 | 0.15 | .006 |
| 6.0 | .2362 | 6400 | 0.17 | .007 | 5600 | 0.17 | .007 | 11000 | 0.17 | .007 | 6900 | 0.17 | .007 |
| 7.0 | .2756 | 5500 | 0.19 | .007 | 4800 | 0.19 | .007 | 9100 | 0.19 | .007 | 5900 | 0.19 | .007 |
| 8.0 | .3150 | 4800 | 0.21 | .008 | 4200 | 0.21 | .008 | 8000 | 0.21 | .008 | 5200 | 0.21 | .008 |
| 9.0 | .3543 | 4200 | 0.23 | .009 | 3700 | 0.23 | .009 | 7100 | 0.23 | .009 | 4600 | 0.23 | .009 |
| 10.0 | .3937 | 3800 | 0.25 | .010 | 3350 | 0.25 | .010 | 6400 | 0.25 | .010 | 4150 | 0.25 | .010 |
| 12.0 | .4724 | 3200 | 0.27 | .011 | 2800 | 0.27 | .011 | 5300 | 0.27 | .011 | 3450 | 0.27 | .011 |
| 14.0 | .5512 | 2750 | 0.29 | .011 | 2400 | 0.29 | .011 | 4550 | 0.29 | .011 | 3000 | 0.29 | .011 |
| 16.0 | .6299 | 2400 | 0.31 | .012 | 2100 | 0.31 | .012 | 4000 | 0.31 | .012 | 2600 | 0.31 | .012 |
| 18.0 | .7087 | 2100 | 0.33 | .013 | 1850 | 0.33 | .013 | 3550 | 0.33 | .013 | 2300 | 0.33 | .013 |
| 20.0 | .7874 | 1900 | 0.35 | .014 | 1650 | 0.35 | .014 | 3200 | 0.35 | .014 | 2100 | 0.35 | .014 |

► Recommend to reduce the feed rate as following
 DH404(3xD), DH423(3xD) : Feed 100%
 DH424(5xD) : Feed 85%

N = R.P.M
 S= feed rate (mm/rev.)
 IPR= feed rate (Inch/rev.)

SOLID CARBIDE DREAM DRILLS-GENERAL (with COOLANT HOLES)

DH406, DH408, DH421 Series

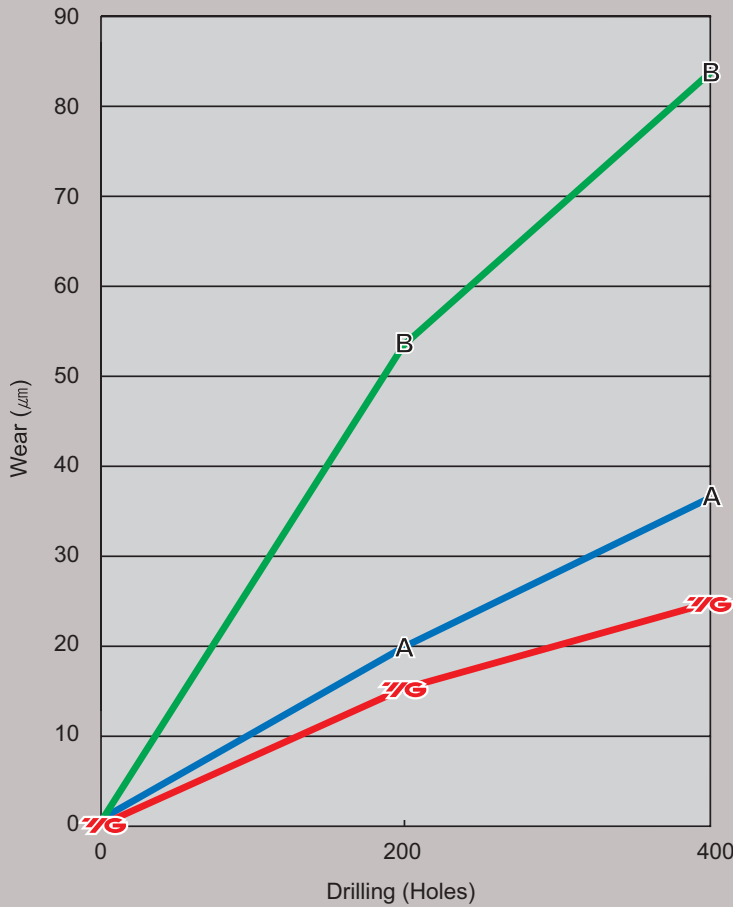
| WORK MATERIAL | | P | | | | | | K | | | | | |
|----------------|---------|------------------|------|------|------------------|------|------|---------------------|------|------|---------------------|------|------|
| | | NON-ALLOY STEELS | | | ALLOY STEELS | | | SOFT GREY CAST IRON | | | HARD GREY CAST IRON | | |
| STRENGTH | | < HRC 20 | | | > HRC 20 | | | < 240 BHN | | | < 300 BHN | | |
| DRILLING SPEED | | 160 ~ 490 ft/min | | | 150 ~ 440 ft/min | | | 270 ~ 820 ft/min | | | 170 ~ 530 ft/min | | |
| DIAMETER | | N | S | IPR | N | S | IPR | N | S | IPR | N | S | IPR |
| Metric(mm) | Decimal | | | | | | | | | | | | |
| 1.0 | .0394 | 16250 | 0.05 | .002 | 14800 | 0.05 | .002 | 26600 | 0.05 | .002 | 17300 | 0.05 | .002 |
| 2.0 | .0787 | 16250 | 0.07 | .003 | 14800 | 0.07 | .003 | 26600 | 0.07 | .003 | 17300 | 0.07 | .003 |
| 3.0 | .1181 | 16000 | 0.16 | .006 | 14500 | 0.16 | .006 | 26000 | 0.16 | .006 | 17000 | 0.16 | .006 |
| 4.0 | .1575 | 12000 | 0.17 | .007 | 11000 | 0.17 | .007 | 20000 | 0.17 | .007 | 13000 | 0.17 | .007 |
| 5.0 | .1969 | 9550 | 0.18 | .007 | 8600 | 0.18 | .007 | 16000 | 0.18 | .007 | 10000 | 0.18 | .007 |
| 6.0 | .2362 | 8000 | 0.20 | .008 | 7200 | 0.20 | .008 | 13000 | 0.20 | .008 | 8500 | 0.20 | .008 |
| 7.0 | .2756 | 6800 | 0.22 | .009 | 6100 | 0.22 | .009 | 11500 | 0.22 | .009 | 7300 | 0.22 | .009 |
| 8.0 | .3150 | 6000 | 0.24 | .009 | 5400 | 0.24 | .009 | 9900 | 0.24 | .009 | 6400 | 0.24 | .009 |
| 9.0 | .3543 | 5300 | 0.27 | .011 | 4800 | 0.27 | .011 | 8800 | 0.27 | .011 | 5700 | 0.27 | .011 |
| 10.0 | .3937 | 4800 | 0.30 | .012 | 4300 | 0.30 | .012 | 8000 | 0.30 | .012 | 5100 | 0.30 | .012 |
| 12.0 | .4724 | 4000 | 0.33 | .013 | 3600 | 0.33 | .013 | 6600 | 0.33 | .013 | 4250 | 0.33 | .013 |
| 14.0 | .5512 | 3400 | 0.36 | .014 | 3050 | 0.36 | .014 | 5700 | 0.36 | .014 | 3650 | 0.36 | .014 |
| 16.0 | .6299 | 3000 | 0.39 | .015 | 2700 | 0.39 | .015 | 5000 | 0.39 | .015 | 3200 | 0.39 | .015 |
| 18.0 | .7087 | 2650 | 0.42 | .017 | 2400 | 0.42 | .017 | 4400 | 0.42 | .017 | 2850 | 0.42 | .017 |
| 20.0 | .7874 | 2400 | 0.45 | .018 | 2150 | 0.45 | .018 | 4000 | 0.45 | .018 | 2550 | 0.45 | .018 |

► Recommend to reduce the feed rate as following
 DH406(3xD) : Feed 100%, DH408(5xD) : Feed 85%
 DH421(8xD) : Feed 70%

N = R.P.M
 S= feed rate (mm/rev.)
 IPR= feed rate (Inch/rev.)

SOLID CARBIDE DREAM DRILLS INOX - **Test Report**

with COOLANT HOLES



 YG-1
 Competitor A
 Competitor B

Cutting Condition

Tools : DH452060(DREAM DRILL-INOX)

Size : Ø6 x Ø6 x 44 x 82

Work Material : • JIS:SUS304
 • DIN:X5CrNi1810
 (X4CrNi18-10)
 • WR:1.4301

R.P.M : 3700 rev./min.

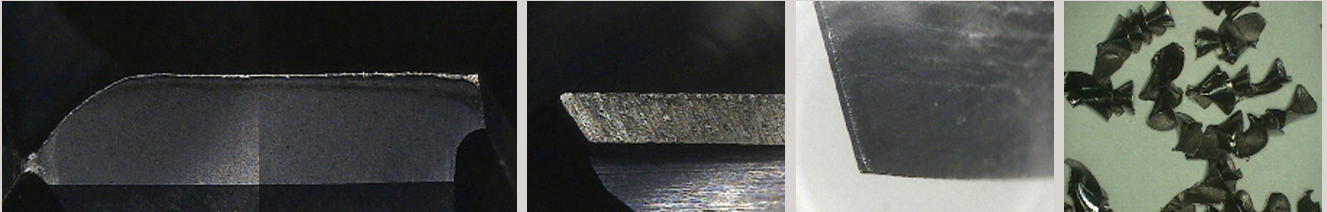
SFM : 229 ft/min.

Feed : .0028 inch/rev.

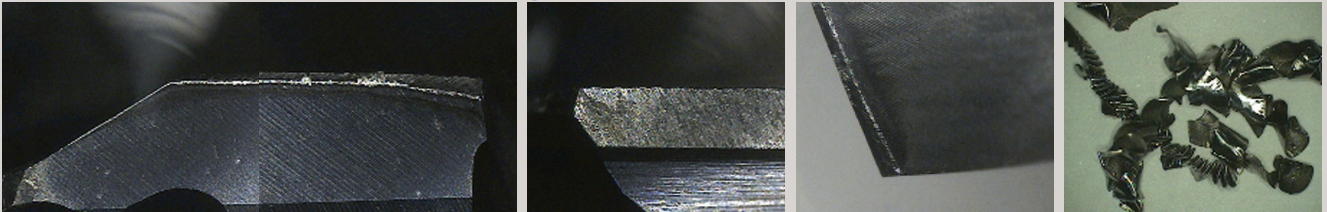
Drilling Depth : .94"

Coolant : Wet Cut

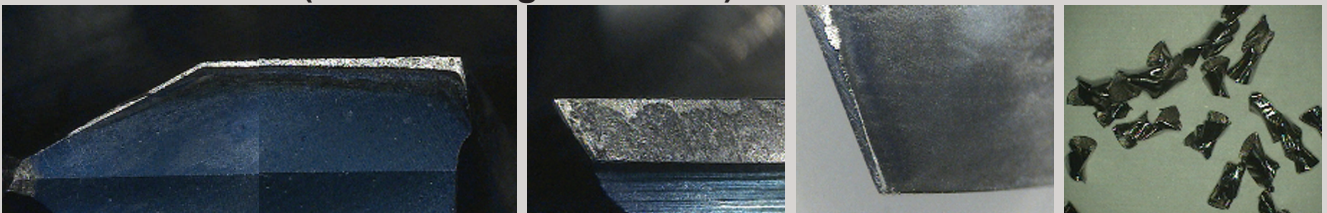
YG-1 (Total Drilling 400 Holes)



COMPETITOR A (Total Drilling 400 Holes)



COMPETITOR B (Total Drilling 400 Holes)



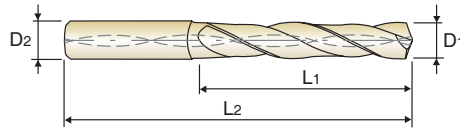


*** NEW SIZE**

SOLID CARBIDE DREAM DRILLS INOX with COOLANT HOLES

- ▶ The tool has the special flute shape and geometry for suitable machining of stainless steel
- ▶ Excellent chip evacuation due to better surface treatment
- ▶ Point R-thinning makes the superior centering and chip curl
- ▶ TiAlN coating achieves the better surface finishes and longer tool life
- ▶ Tolerance : Dia. Tolerance ØD1: See page 57, Shank Tolerance ØD2: -.0001 -.0005

▶ FOR STAINLESS STEEL



DREAM DRILLS INOX | 3 × D

Unit : Inch

| EDP No. | Diameter | | Shank Diameter | Flute Length | Overall Length | EDP No. | Diameter | | Shank Diameter | Flute Length | Overall Length |
|------------|------------|---------|----------------|--------------|----------------|----------|------------|---------|----------------|--------------|----------------|
| | Fractional | Decimal | | | | | Fractional | Decimal | | | |
| | D1 | | D2 | L1 | L2 | | D1 | | D2 | L1 | L2 |
| | TiAlN | | | | | | TiAlN | | | | |
| * DH714008 | 1/8 | .1250 | 3/16 | 1.102 | 2.992 | DH714221 | U | .3680 | 3/8 | 1.87 | 4.174 |
| DH463008 | 1/8 | .1250 | 15/64 | 1.102 | 2.992 | DH463221 | U | .3680 | 25/64 | 1.870 | 4.174 |
| * DH714011 | 11/64 | .1719 | 3/16 | 1.417 | 3.386 | DH714024 | 3/8 | .3750 | 3/8 | 1.969 | 4.174 |
| DH463011 | 11/64 | .1719 | 15/64 | 1.417 | 3.386 | DH463024 | 3/8 | .3750 | 25/64 | 1.969 | 4.174 |
| * DH714012 | 3/16 | .1875 | 3/16 | 1.575 | 3.543 | DH463025 | 25/64 | .3906 | 25/64 | 1.969 | 4.174 |
| DH463012 | 3/16 | .1875 | 15/64 | 1.575 | 3.543 | DH714025 | 25/64 | .3906 | 7/16 | 1.969 | 4.174 |
| DH463013 | 13/64 | .2031 | 15/64 | 1.082 | 3.228 | DH463026 | 13/32 | .4062 | 27/64 | 2.067 | 4.567 |
| * DH714013 | 13/64 | .2031 | 1/4 | 1.082 | 3.228 | DH714026 | 13/32 | .4062 | 7/16 | 2.067 | 4.567 |
| DH463014 | 7/32 | .2188 | 15/64 | 1.181 | 3.228 | DH463027 | 27/64 | .4219 | 27/64 | 2.165 | 4.567 |
| * DH714014 | 7/32 | .2188 | 1/4 | 1.181 | 3.228 | DH714027 | 27/64 | .4219 | 7/16 | 2.165 | 4.567 |
| DH463015 | 15/64 | .2344 | 15/64 | 1.181 | 3.228 | DH714028 | 7/16 | .4375 | 7/16 | 2.264 | 4.803 |
| * DH714015 | 15/64 | .2344 | 1/4 | 1.181 | 3.228 | DH463028 | 7/16 | .4375 | 15/32 | 2.264 | 4.803 |
| * DH714016 | 1/4 | .2500 | 1/4 | 1.279 | 3.465 | DH463029 | 29/64 | .4531 | 15/32 | 2.264 | 4.803 |
| DH463016 | 1/4 | .2500 | 17/64 | 1.279 | 3.465 | DH714029 | 29/64 | .4531 | 1/2 | 2.264 | 4.803 |
| DH463206 | F | .2570 | 17/64 | 1.279 | 3.465 | DH463030 | 15/32 | .4688 | 15/32 | 2.362 | 4.803 |
| * DH714206 | F | .2570 | 5/16 | 1.279 | 3.465 | DH714030 | 15/32 | .4688 | 1/2 | 2.362 | 4.803 |
| DH463017 | 17/64 | .2656 | 17/64 | 1.378 | 3.465 | DH463031 | 31/64 | .4844 | 1/2 | 2.461 | 5.039 |
| * DH714017 | 17/64 | .2656 | 5/16 | 1.378 | 3.465 | DH463032 | 1/2 | .5000 | 1/2 | 2.559 | 5.039 |
| DH463209 | I | .2720 | .2720 | 1.378 | 3.465 | DH463033 | 33/64 | .5156 | 35/64 | 2.657 | 5.276 |
| * DH714209 | I | .2720 | 5/16 | 1.378 | 3.465 | DH714033 | 33/64 | .5156 | 9/16 | 2.657 | 5.276 |
| DH463018 | 9/32 | .2812 | 5/16 | 1.476 | 3.701 | DH463034 | 17/32 | .5312 | 35/64 | 2.756 | 5.276 |
| DH463019 | 19/64 | .2969 | 5/16 | 1.476 | 3.701 | DH714034 | 17/32 | .5312 | 9/16 | 2.756 | 5.276 |
| DH463020 | 5/16 | .3125 | 5/16 | 1.575 | 3.701 | DH463035 | 35/64 | .5469 | 35/64 | 2.756 | 5.276 |
| DH463021 | 21/64 | .3281 | 11/32 | 1.673 | 3.937 | DH714035 | 35/64 | .5469 | 9/16 | 2.756 | 5.276 |
| * DH714021 | 21/64 | .3281 | 3/8 | 1.673 | 3.937 | DH714036 | 9/16 | .5625 | 9/16 | 2.854 | 5.512 |
| DH463217 | Q | .3320 | 11/32 | 1.673 | 3.937 | DH463036 | 9/16 | .5625 | 37/64 | 2.854 | 5.512 |
| * DH714217 | Q | .3320 | 3/8 | 1.673 | 3.937 | DH463037 | 37/64 | .5781 | 37/64 | 2.953 | 5.512 |
| DH463022 | 11/32 | .3438 | 11/32 | 1.772 | 3.937 | DH714037 | 37/64 | .5781 | 5/8 | 2.953 | 5.512 |
| * DH714022 | 11/32 | .3438 | 3/8 | 1.772 | 3.937 | DH463038 | 19/32 | .5937 | 5/8 | 3.051 | 5.709 |
| * DH714023 | 23/64 | .3594 | 3/8 | 1.87 | 4.174 | DH463039 | 39/64 | .6094 | 5/8 | 3.051 | 5.709 |
| DH463023 | 23/64 | .3594 | 25/64 | 1.870 | 4.174 | DH463040 | 5/8 | .6250 | 5/8 | 3.150 | 5.709 |

▶ Other shank types are available on your request

◎ : Excellent ○ : Good

| Carbon Steels | Alloy Steels | Prehardened Steels | Hardened Steels | | Cast Iron | Aluminum | Stainless Steels | Titanium | Mild Steels | Copper | Bronze |
|---------------|--------------|--------------------|-----------------|--------|-----------|----------|------------------|----------|-------------|--------|--------|
| ~HB225 | HB225~325 | HRC30~45 | HRC45~55 | HRC55~ | | | | | | | |
| ◎ | ◎ | ○ | | | | ○ | ◎ | ○ | ○ | | |

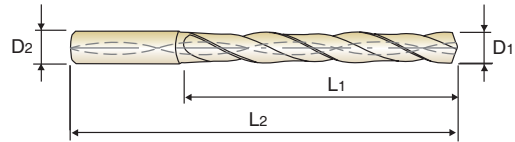


* NEW SIZE

SOLID CARBIDE DREAM DRILLS INOX with COOLANT HOLES

- ▶ The tool has the special flute shape and geometry for suitable machining of stainless steel
- ▶ Excellent chip evacuation due to better surface treatment
- ▶ Point R-thinning makes the superior centering and chip curl
- ▶ TiAlN coating achieves the better surface finishes and longer tool life
- ▶ Tolerance : Dia. Tolerance ØD1: See page 57, Shank Tolerance ØD2: -.0001 -.0005

▶ FOR STAINLESS STEEL



P.38

DREAM DRILLS INOX | 5 × D

Unit : Inch

| EDP No. | Diameter | | Shank Diameter | Flute Length | Overall Length | EDP No. | Diameter | | Shank Diameter | Flute Length | Overall Length |
|------------|------------|---------|----------------|--------------|----------------|----------|------------|---------|----------------|--------------|----------------|
| | Fractional | Decimal | | | | | Fractional | Decimal | | | |
| TiAlN | D1 | | D2 | L1 | L2 | TiAlN | D1 | | D2 | L1 | L2 |
| DH464013 | 13/64 | .2031 | 15/64 | 1-3/4 | 3-15/16 | DH715022 | 11/32 | .3438 | 3/8 | 2-27/32 | 5 |
| * DH715013 | 13/64 | .2031 | 1/4 | 1-3/4 | 3-15/16 | DH715023 | 23/64 | .3594 | 3/8 | 3 | 5-23/64 |
| DH464014 | 7/32 | .2188 | 15/64 | 1-57/64 | 3-15/16 | DH464023 | 23/64 | .3594 | 25/64 | 3 | 5-23/64 |
| * DH715014 | 7/32 | .2188 | 1/4 | 1-57/64 | 3-15/16 | DH715221 | U | .3680 | 3/8 | 3 | 5-23/64 |
| DH464015 | 15/64 | .2344 | 15/64 | 1-57/64 | 3-15/16 | DH464221 | U | .3680 | 25/64 | 3 | 5-23/64 |
| * DH715015 | 15/64 | .2344 | 1/4 | 1-57/64 | 3-15/16 | DH715024 | 3/8 | .3750 | 3/8 | 3-5/32 | 5-23/64 |
| * DH715016 | 1/4 | .2500 | 1/4 | 2-3/64 | 4-19/64 | DH464024 | 3/8 | .3750 | 25/64 | 3-5/32 | 5-23/64 |
| DH464016 | 1/4 | .2500 | 17/64 | 2-3/64 | 4-19/64 | DH464025 | 25/64 | .3906 | 25/64 | 3-5/32 | 5-23/64 |
| DH464206 | F | .2570 | 17/64 | 2-13/64 | 4-19/64 | DH715025 | 25/64 | .3906 | 7/16 | 3-5/32 | 5-23/64 |
| * DH715206 | F | .2570 | 5/16 | 2-13/64 | 4-19/64 | DH464026 | 13/32 | .4062 | 27/64 | 3-5/16 | 5-7/8 |
| DH464017 | 17/64 | .2656 | 17/64 | 2-13/64 | 4-19/64 | DH715026 | 13/32 | .4062 | 7/16 | 3-5/16 | 5-7/8 |
| * DH715017 | 17/64 | .2656 | 5/16 | 2-13/64 | 4-19/64 | DH464027 | 27/64 | .4219 | 27/64 | 3-15/32 | 5-7/8 |
| DH464209 | I | .2720 | .2720 | 2-13/64 | 4-19/64 | DH715027 | 27/64 | .4219 | 7/16 | 3-15/32 | 5-7/8 |
| * DH715209 | I | .2720 | 5/16 | 2-13/64 | 4-19/64 | DH715028 | 7/16 | .4375 | 7/16 | 3-5/8 | 6-7/32 |
| DH464018 | 9/32 | .2812 | 5/16 | 2-23/64 | 4-41/64 | DH464028 | 7/16 | .4375 | 15/32 | 3-5/8 | 6-7/32 |
| DH464019 | 19/64 | .2969 | 5/16 | 2-33/64 | 4-41/64 | DH464029 | 29/64 | .4531 | 15/32 | 3-25/32 | 6-7/32 |
| DH464020 | 5/16 | .3125 | 5/16 | 2-33/64 | 4-41/64 | DH715029 | 29/64 | .4531 | 1/2 | 3-25/32 | 6-7/32 |
| DH464021 | 21/64 | .3281 | 11/32 | 2-43/64 | 5 | DH464030 | 15/32 | .4688 | 15/32 | 3-25/32 | 6-7/32 |
| * DH715021 | 21/64 | .3281 | 3/8 | 2-43/64 | 5 | DH715030 | 15/32 | .4688 | 1/2 | 3-25/32 | 6-7/32 |
| DH464217 | Q | .3320 | 11/32 | 2-43/64 | 5 | DH464031 | 31/64 | .4844 | 1/2 | 3-15/16 | 6-37/64 |
| * DH715217 | Q | .3320 | 3/8 | 2-43/64 | 5 | DH464032 | 1/2 | .5000 | 1/2 | 4-3/32 | 6-37/64 |
| DH464022 | 11/32 | .3438 | 11/32 | 2-27/32 | 5 | | | | | | |

▶ Other shank types are available on your request

◎ : Excellent ○ : Good

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

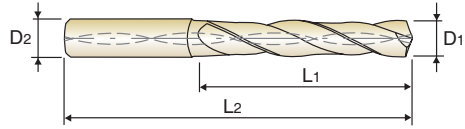


*** NEW SIZE**

SOLID CARBIDE DREAM DRILLS INOX with COOLANT HOLES

- ▶ The tool has the special flute shape and geometry for suitable machining of stainless steel
- ▶ Excellent chip evacuation due to better surface treatment
- ▶ Point R-thinning makes the superior centering and chip curl
- ▶ TiAlN coating achieves the better surface finishes and longer tool life
- ▶ Tolerance : Dia. Tolerance ØD1:m7, Shank Tolerance ØD2: h6

▶ FOR STAINLESS STEEL



DREAM DRILLS INOX | 3 × D

Unit : mm

| EDP No. | Diameter | | | Shank Diameter | Flute Length | Overall Length | EDP No. | Diameter | | | Shank Diameter | Flute Length | Overall Length |
|-------------|----------|------------|---------|----------------|--------------|----------------|-----------|----------|------------|---------|----------------|--------------|----------------|
| | Metric | Fractional | Decimal | | | | | Metric | Fractional | Decimal | | | |
| TiAlN | D1 | | | D2 | L1 | L2 | TiAlN | D1 | | | D2 | L1 | L2 |
| DH451030 | 3.0 | | .1181 | 6 | 20 | 62 | DH451054 | 5.4 | | .2126 | 6 | 28 | 66 |
| DH451031 | 3.1 | | .1220 | 6 | 20 | 62 | DH451055 | 5.5 | | .2165 | 6 | 28 | 66 |
| * DH451008F | 3.175 | 1/8 | .1250 | 6 | 20 | 62 | DH451014F | 5.556 | 7/32 | .2188 | 6 | 28 | 66 |
| DH451032 | 3.2 | | .1260 | 6 | 20 | 62 | DH451056 | 5.6 | | .2205 | 6 | 28 | 66 |
| DH451033 | 3.3 | | .1299 | 6 | 20 | 62 | DH451057 | 5.7 | | .2244 | 6 | 28 | 66 |
| DH451034 | 3.4 | | .1339 | 6 | 20 | 62 | DH451058 | 5.8 | | .2283 | 6 | 28 | 66 |
| DH451035 | 3.5 | | .1378 | 6 | 20 | 62 | DH451059 | 5.9 | | .2323 | 6 | 28 | 66 |
| * DH451009F | 3.572 | 9/64 | .1406 | 6 | 20 | 62 | DH451015F | 5.953 | 15/64 | .2344 | 6 | 28 | 66 |
| DH451036 | 3.6 | | .1417 | 6 | 20 | 62 | DH451060 | 6.0 | | .2362 | 6 | 28 | 66 |
| DH451037 | 3.7 | | .1457 | 6 | 20 | 62 | DH451061 | 6.1 | | .2402 | 8 | 34 | 79 |
| DH451038 | 3.8 | | .1496 | 6 | 24 | 66 | DH451062 | 6.2 | | .2441 | 8 | 34 | 79 |
| DH451039 | 3.9 | | .1535 | 6 | 24 | 66 | DH451063 | 6.3 | | .2480 | 8 | 34 | 79 |
| * DH451010F | 3.969 | 5/32 | .1563 | 6 | 24 | 66 | DH451016F | 6.35 | 1/4 | .2500 | 8 | 34 | 79 |
| DH451040 | 4.0 | | .1575 | 6 | 24 | 66 | DH451064 | 6.4 | | .2520 | 8 | 34 | 79 |
| DH451041 | 4.1 | | .1614 | 6 | 24 | 66 | DH451065 | 6.5 | | .2559 | 8 | 34 | 79 |
| DH451042 | 4.2 | | .1654 | 6 | 24 | 66 | DH451066 | 6.6 | | .2598 | 8 | 34 | 79 |
| DH451043 | 4.3 | | .1693 | 6 | 24 | 66 | DH451067 | 6.7 | | .2638 | 8 | 34 | 79 |
| * DH451011F | 4.366 | 11/64 | .1719 | 6 | 24 | 66 | DH451017F | 6.747 | 17/64 | .2656 | 8 | 34 | 79 |
| DH451044 | 4.4 | | .1732 | 6 | 24 | 66 | DH451068 | 6.8 | | .2677 | 8 | 34 | 79 |
| DH451045 | 4.5 | | .1772 | 6 | 24 | 66 | DH451069 | 6.9 | | .2717 | 8 | 34 | 79 |
| DH451046 | 4.6 | | .1811 | 6 | 24 | 66 | DH451070 | 7.0 | | .2756 | 8 | 34 | 79 |
| DH451047 | 4.7 | | .1850 | 6 | 24 | 66 | DH451071 | 7.1 | | .2795 | 8 | 41 | 79 |
| * DH451012F | 4.763 | 3/16 | .1875 | 6 | 24 | 66 | DH451018F | 7.144 | 9/32 | .2812 | 8 | 41 | 79 |
| DH451048 | 4.8 | | .1890 | 6 | 28 | 66 | DH451072 | 7.2 | | .2835 | 8 | 41 | 79 |
| DH451049 | 4.9 | | .1929 | 6 | 28 | 66 | DH451073 | 7.3 | | .2874 | 8 | 41 | 79 |
| DH451050 | 5.0 | | .1969 | 6 | 28 | 66 | DH451074 | 7.4 | | .2913 | 8 | 41 | 79 |
| DH451051 | 5.1 | | .2008 | 6 | 28 | 66 | DH451075 | 7.5 | | .2953 | 8 | 41 | 79 |
| * DH451013F | 5.159 | 13/64 | .2031 | 6 | 28 | 66 | DH451019F | 7.541 | 19/64 | .2969 | 8 | 41 | 79 |
| DH451052 | 5.2 | | .2047 | 6 | 28 | 66 | DH451076 | 7.6 | | .2992 | 8 | 41 | 79 |
| DH451053 | 5.3 | | .2087 | 6 | 28 | 66 | DH451077 | 7.7 | | .3031 | 8 | 41 | 79 |

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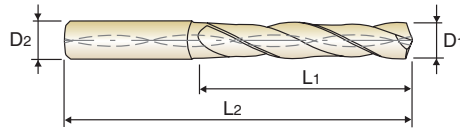


*** NEW SIZE**

SOLID CARBIDE DREAM DRILLS INOX with COOLANT HOLES

- ▶ The tool has the special flute shape and geometry for suitable machining of stainless steel
- ▶ Excellent chip evacuation due to better surface treatment
- ▶ Point R-thinning makes the superior centering and chip curl
- ▶ TiAlN coating achieves the better surface finishes and longer tool life
- ▶ Tolerance : Dia. Tolerance ØD1:m7, Shank Tolerance ØD2: h6

▶ FOR STAINLESS STEEL



DIN 6537

MG

h6

m7

140°



P.38

DREAM DRILLS INOX | 3 × D

Unit : mm

| EDP No. | Diameter | | | Shank Diameter | Flute Length | Overall Length | EDP No. | Diameter | | | Shank Diameter | Flute Length | Overall Length |
|-------------|----------|------------|---------|----------------|--------------|----------------|-----------|----------|------------|---------|----------------|--------------|----------------|
| | Metric | Fractional | Decimal | | | | | Metric | Fractional | Decimal | | | |
| TiAlN | D1 | | | D2 | L1 | L2 | TiAlN | D1 | | | D2 | L1 | L2 |
| DH451078 | 7.8 | | .3071 | 8 | 41 | 79 | DH451102 | 10.2 | | .4016 | 12 | 55 | 102 |
| DH451079 | 7.9 | | .3110 | 8 | 41 | 79 | DH451103 | 10.3 | | .4055 | 12 | 55 | 102 |
| * DH451020F | 7.938 | 5/16 | .3125 | 8 | 41 | 79 | DH451026F | 10.319 | 13/32 | .4062 | 12 | 55 | 102 |
| DH451080 | 8.0 | | .3150 | 8 | 41 | 79 | DH451104 | 10.4 | | .4094 | 12 | 55 | 102 |
| DH451081 | 8.1 | | .3189 | 10 | 47 | 89 | DH451105 | 10.5 | | .4134 | 12 | 55 | 102 |
| DH451082 | 8.2 | | .3228 | 10 | 47 | 89 | DH451106 | 10.6 | | .4173 | 12 | 55 | 102 |
| DH451083 | 8.3 | | .3268 | 10 | 47 | 89 | DH451107 | 10.7 | | .4212 | 12 | 55 | 102 |
| * DH451021F | 8.334 | 21/64 | .3281 | 10 | 47 | 89 | DH451027F | 10.716 | 27/64 | .4219 | 12 | 55 | 102 |
| DH451084 | 8.4 | | .3307 | 10 | 47 | 89 | DH451108 | 10.8 | | .4252 | 12 | 55 | 102 |
| DH451085 | 8.5 | | .3346 | 10 | 47 | 89 | DH451109 | 10.9 | | .4291 | 12 | 55 | 102 |
| DH451086 | 8.6 | | .3386 | 10 | 47 | 89 | DH451110 | 11.0 | | .4330 | 12 | 55 | 102 |
| DH451087 | 8.7 | | .3425 | 10 | 47 | 89 | DH451111 | 11.1 | | .4370 | 12 | 55 | 102 |
| * DH451022F | 8.731 | 11/32 | .3438 | 10 | 47 | 89 | DH451028F | 11.113 | 7/16 | .4375 | 12 | 55 | 102 |
| DH451088 | 8.8 | | .3465 | 10 | 47 | 89 | DH451112 | 11.2 | | .4409 | 12 | 55 | 102 |
| DH451089 | 8.9 | | .3504 | 10 | 47 | 89 | DH451113 | 11.3 | | .4448 | 12 | 55 | 102 |
| DH451090 | 9.0 | | .3543 | 10 | 47 | 89 | DH451114 | 11.4 | | .4488 | 12 | 55 | 102 |
| DH451091 | 9.1 | | .3583 | 10 | 47 | 89 | DH451115 | 11.5 | | .4527 | 12 | 55 | 102 |
| * DH451023F | 9.128 | 23/64 | .3594 | 10 | 47 | 89 | DH451029F | 11.509 | 29/64 | .4531 | 12 | 55 | 102 |
| DH451092 | 9.2 | | .3622 | 10 | 47 | 89 | DH451116 | 11.6 | | .4566 | 12 | 55 | 102 |
| DH451093 | 9.3 | | .3661 | 10 | 47 | 89 | DH451117 | 11.7 | | .4606 | 12 | 55 | 102 |
| DH451094 | 9.4 | | .3701 | 10 | 47 | 89 | DH451118 | 11.8 | | .4645 | 12 | 55 | 102 |
| DH451095 | 9.5 | | .3740 | 10 | 47 | 89 | DH451119 | 11.9 | | .4685 | 12 | 55 | 102 |
| * DH451024F | 9.525 | 3/8 | .3750 | 10 | 47 | 89 | DH451030F | 11.906 | 15/32 | .4688 | 12 | 55 | 102 |
| DH451096 | 9.6 | | .3780 | 10 | 47 | 89 | DH451120 | 12.0 | | .4724 | 12 | 55 | 102 |
| DH451097 | 9.7 | | .3819 | 10 | 47 | 89 | DH451031F | 12.303 | 31/64 | .4844 | 14 | 60 | 107 |
| DH451098 | 9.8 | | .3858 | 10 | 47 | 89 | DH451125 | 12.5 | | .4921 | 14 | 60 | 107 |
| DH451099 | 9.9 | | .3898 | 10 | 47 | 89 | DH451032F | 12.7 | 1/2 | .5000 | 14 | 60 | 107 |
| * DH451025F | 9.922 | 25/64 | .3906 | 10 | 47 | 89 | DH451130 | 13.0 | | .5118 | 14 | 60 | 107 |
| DH451100 | 10.0 | | .3937 | 10 | 47 | 89 | DH451135 | 13.5 | | .5314 | 14 | 60 | 107 |
| DH451101 | 10.1 | | .3976 | 12 | 55 | 102 | DH451140 | 14.0 | | .5512 | 14 | 60 | 107 |

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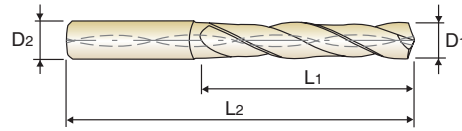


*** NEW SIZE**

SOLID CARBIDE DREAM DRILLS INOX with COOLANT HOLES

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- ▶ Tolerance : Dia. Tolerance ØD1:m7, Shank Tolerance ØD2: h6

▶ FOR STAINLESS STEEL



DIN 6537
MG
h6
m7
140°

P.38

DREAM DRILLS INOX | 3 × D

Unit : mm

| EDP No. | Diameter | | | Shank Diameter | Flute Length | Overall Length | EDP No. | Diameter | | | Shank Diameter | Flute Length | Overall Length |
|-------------|----------|------------|---------|----------------|--------------|----------------|-----------|----------|------------|---------|----------------|--------------|----------------|
| | Metric | Fractional | Decimal | | | | | Metric | Fractional | Decimal | | | |
| | D1 | | | D2 | L1 | L2 | | D1 | | | D2 | L1 | L2 |
| | TiAlN | | | | | | | TiAlN | | | | | |
| * DH451036F | 14.288 | 9/16 | .5625 | 16 | 65 | 115 | DH451044F | 17.463 | 11/16 | .6875 | 18 | 73 | 123 |
| DH451145 | 14.5 | | .5708 | 16 | 65 | 115 | DH451175 | 17.5 | | .6889 | 18 | 73 | 123 |
| DH451150 | 15.0 | | .5905 | 16 | 65 | 115 | DH451180 | 18.0 | | .7087 | 18 | 73 | 123 |
| DH451155 | 15.5 | | .6102 | 16 | 65 | 115 | DH451185 | 18.5 | | .7283 | 20 | 79 | 131 |
| * DH451040F | 15.875 | 5/8 | .6250 | 16 | 65 | 115 | DH451190 | 19.0 | | .7480 | 20 | 79 | 131 |
| DH451160 | 16.0 | | .6299 | 16 | 65 | 115 | DH451048F | 19.05 | 3/4 | .7500 | 20 | 79 | 131 |
| DH451165 | 16.5 | | .6495 | 18 | 73 | 123 | DH451195 | 19.5 | | .7676 | 20 | 79 | 131 |
| DH451170 | 17.0 | | .6692 | 18 | 73 | 123 | DH451200 | 20.0 | | .7874 | 20 | 79 | 131 |

▶ Other shank types are available on your request

◎ : Excellent ○ : Good

| Carbon Steels | Alloy Steels | Prehardened Steels | Hardened Steels | | Cast Iron | Aluminum | Stainless Steels | Titanium | Mild Steels | Copper | Bronze |
|---------------|--------------|--------------------|-----------------|--------|-----------|----------|------------------|----------|-------------|--------|--------|
| ~HB225 | HB225~325 | HRC30~45 | HRC45~55 | HRC55~ | | | | | | | |
| ◎ | ◎ | ○ | | | | ○ | ◎ | ○ | ○ | | |

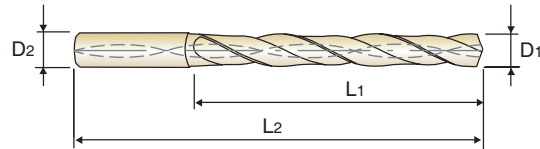


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▶ FOR STAINLESS STEEL



DIN 6537
MG
h6
m7
140°
P.38

DREAM DRILLS INOX | 5 × D

Unit : mm

| EDP No. | Diameter | | | Shank Diameter | Flute Length | Overall Length | EDP No. | Diameter | | | Shank Diameter | Flute Length | Overall Length |
|-------------|----------|------------|---------|----------------|--------------|----------------|-----------|----------|------------|---------|----------------|--------------|----------------|
| | Metric | Fractional | Decimal | | | | | Metric | Fractional | Decimal | | | |
| TiAlN | D1 | | | D2 | L1 | L2 | TiAlN | D1 | | | D2 | L1 | L2 |
| DH452010 | 1.0 | | .0394 | 3 | 8 | 55 | DH452009F | 3.572 | 9/64 | .1406 | 6 | 28 | 66 |
| DH452011 | 1.1 | | .0433 | 3 | 12 | 55 | DH452036 | 3.6 | | .1417 | 6 | 28 | 66 |
| DH452012 | 1.2 | | .0472 | 3 | 12 | 55 | DH452037 | 3.7 | | .1457 | 6 | 28 | 66 |
| DH452013 | 1.3 | | .0512 | 3 | 12 | 55 | DH452038 | 3.8 | | .1496 | 6 | 36 | 74 |
| DH452014 | 1.4 | | .0551 | 3 | 12 | 55 | DH452039 | 3.9 | | .1535 | 6 | 36 | 74 |
| DH452015 | 1.5 | | .0591 | 3 | 16 | 55 | DH452010F | 3.969 | 5/32 | .1563 | 6 | 36 | 74 |
| * DH452004F | 1.588 | 1/16 | .0625 | 3 | 16 | 55 | DH452040 | 4.0 | | .1575 | 6 | 36 | 74 |
| DH452016 | 1.6 | | .0630 | 3 | 16 | 55 | DH452041 | 4.1 | | .1614 | 6 | 36 | 74 |
| DH452017 | 1.7 | | .0669 | 3 | 16 | 55 | DH452042 | 4.2 | | .1654 | 6 | 36 | 74 |
| DH452018 | 1.8 | | .0709 | 3 | 16 | 55 | DH452043 | 4.3 | | .1693 | 6 | 36 | 74 |
| DH452019 | 1.9 | | .0748 | 3 | 16 | 55 | DH452011F | 4.366 | 11/64 | .1719 | 6 | 36 | 74 |
| * DH452005F | 1.984 | 5/64 | .0781 | 3 | 16 | 55 | DH452044 | 4.4 | | .1732 | 6 | 36 | 74 |
| DH452020 | 2.0 | | .0787 | 4 | 21 | 57 | DH452045 | 4.5 | | .1772 | 6 | 36 | 74 |
| DH452021 | 2.1 | | .0827 | 4 | 21 | 57 | DH452046 | 4.6 | | .1811 | 6 | 36 | 74 |
| DH452022 | 2.2 | | .0866 | 4 | 21 | 57 | DH452047 | 4.7 | | .1850 | 6 | 36 | 74 |
| DH452023 | 2.3 | | .0906 | 4 | 21 | 57 | DH452012F | 4.763 | 3/16 | .1875 | 6 | 36 | 74 |
| * DH452006F | 2.381 | 3/32 | .0938 | 4 | 21 | 57 | DH452048 | 4.8 | | .1890 | 6 | 44 | 82 |
| DH452024 | 2.4 | | .0945 | 4 | 21 | 57 | DH452049 | 4.9 | | .1929 | 6 | 44 | 82 |
| DH452025 | 2.5 | | .0984 | 4 | 21 | 57 | DH452050 | 5.0 | | .1969 | 6 | 44 | 82 |
| DH452026 | 2.6 | | .1024 | 4 | 21 | 57 | DH452051 | 5.1 | | .2008 | 6 | 44 | 82 |
| DH452027 | 2.7 | | .1063 | 4 | 21 | 57 | DH452013F | 5.159 | 13/64 | .2031 | 6 | 44 | 82 |
| * DH452007F | 2.778 | 7/64 | .1094 | 4 | 21 | 57 | DH452052 | 5.2 | | .2047 | 6 | 44 | 82 |
| DH452028 | 2.8 | | .1102 | 4 | 21 | 57 | DH452053 | 5.3 | | .2087 | 6 | 44 | 82 |
| DH452029 | 2.9 | | .1142 | 4 | 21 | 57 | DH452054 | 5.4 | | .2126 | 6 | 44 | 82 |
| DH452030 | 3.0 | | .1181 | 6 | 28 | 66 | DH452055 | 5.5 | | .2165 | 6 | 44 | 82 |
| DH452031 | 3.1 | | .1220 | 6 | 28 | 66 | DH452014F | 5.556 | 7/32 | .2188 | 6 | 44 | 82 |
| * DH452008F | 3.175 | 1/8 | .1250 | 6 | 28 | 66 | DH452056 | 5.6 | | .2205 | 6 | 44 | 82 |
| DH452032 | 3.2 | | .1260 | 6 | 28 | 66 | DH452057 | 5.7 | | .2244 | 6 | 44 | 82 |
| DH452033 | 3.3 | | .1299 | 6 | 28 | 66 | DH452058 | 5.8 | | .2283 | 6 | 44 | 82 |
| DH452034 | 3.4 | | .1339 | 6 | 28 | 66 | DH452059 | 5.9 | | .2323 | 6 | 44 | 82 |
| DH452035 | 3.5 | | .1378 | 6 | 28 | 66 | DH452015F | 5.953 | 15/64 | .2344 | 6 | 44 | 82 |

▶ NEXT PAGE

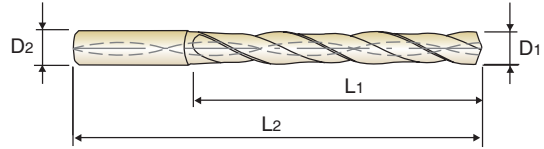


*** NEW SIZE**

SOLID CARBIDE DREAM DRILLS INOX with COOLANT HOLES

- ▶ The tool has the special flute shape and geometry for suitable machining of stainless steels
- ▶ Excellent chip evacuation due to better surface treatment
- ▶ Point R-thinning makes the superior centering and chip curl
- ▶ Applied TiAlN coating, achieves the better surface finish of material to be cut and longer tool life

▶ FOR STAINLESS STEEL



DREAM DRILLS INOX | 5 × D

Unit : mm

| EDP No. | Diameter | | | Shank Diameter | Flute Length | Overall Length | EDP No. | Diameter | | | Shank Diameter | Flute Length | Overall Length |
|-------------|----------|------------|---------|----------------|--------------|----------------|-----------|----------|------------|---------|----------------|--------------|----------------|
| | Metric | Fractional | Decimal | | | | | Metric | Fractional | Decimal | | | |
| TiAlN | D1 | | | D2 | L1 | L2 | TiAlN | D1 | | | D2 | L1 | L2 |
| DH452060 | 6.0 | | .2362 | 6 | 44 | 82 | DH452085 | 8.5 | | .3346 | 10 | 61 | 103 |
| DH452061 | 6.1 | | .2402 | 8 | 53 | 91 | DH452086 | 8.6 | | .3386 | 10 | 61 | 103 |
| DH452062 | 6.2 | | .2441 | 8 | 53 | 91 | DH452087 | 8.7 | | .3425 | 10 | 61 | 103 |
| DH452063 | 6.3 | | .2480 | 8 | 53 | 91 | DH452022F | 8.731 | 11/32 | .3438 | 10 | 61 | 103 |
| * DH452016F | 6.35 | 1/4 | .2500 | 8 | 53 | 91 | DH452088 | 8.8 | | .3465 | 10 | 61 | 103 |
| DH452064 | 6.4 | | .2520 | 8 | 53 | 91 | DH452089 | 8.9 | | .3504 | 10 | 61 | 103 |
| DH452065 | 6.5 | | .2559 | 8 | 53 | 91 | DH452090 | 9.0 | | .3543 | 10 | 61 | 103 |
| DH452066 | 6.6 | | .2598 | 8 | 53 | 91 | DH452091 | 9.1 | | .3583 | 10 | 61 | 103 |
| DH452067 | 6.7 | | .2638 | 8 | 53 | 91 | DH452023F | 9.128 | 23/64 | .3594 | 10 | 61 | 103 |
| * DH452017F | 6.747 | 17/64 | .2656 | 8 | 53 | 91 | DH452092 | 9.2 | | .3622 | 10 | 61 | 103 |
| DH452068 | 6.8 | | .2677 | 8 | 53 | 91 | DH452093 | 9.3 | | .3661 | 10 | 61 | 103 |
| DH452069 | 6.9 | | .2717 | 8 | 53 | 91 | DH452094 | 9.4 | | .3701 | 10 | 61 | 103 |
| DH452070 | 7.0 | | .2756 | 8 | 53 | 91 | DH452095 | 9.5 | | .3740 | 10 | 61 | 103 |
| DH452071 | 7.1 | | .2795 | 8 | 53 | 91 | DH452024F | 9.525 | 3/8 | .3750 | 10 | 61 | 103 |
| * DH452018F | 7.144 | 9/32 | .2812 | 8 | 53 | 91 | DH452096 | 9.6 | | .3780 | 10 | 61 | 103 |
| DH452072 | 7.2 | | .2835 | 8 | 53 | 91 | DH452097 | 9.7 | | .3819 | 10 | 61 | 103 |
| DH452073 | 7.3 | | .2874 | 8 | 53 | 91 | DH452098 | 9.8 | | .3858 | 10 | 61 | 103 |
| DH452074 | 7.4 | | .2913 | 8 | 53 | 91 | DH452099 | 9.9 | | .3898 | 10 | 61 | 103 |
| DH452075 | 7.5 | | .2953 | 8 | 53 | 91 | DH452025F | 9.922 | 25/64 | .3906 | 10 | 61 | 103 |
| * DH452019F | 7.541 | 19/64 | .2969 | 8 | 53 | 91 | DH452100 | 10.0 | | .3937 | 10 | 61 | 103 |
| DH452076 | 7.6 | | .2992 | 8 | 53 | 91 | DH452101 | 10.1 | | .3976 | 12 | 71 | 118 |
| DH452077 | 7.7 | | .3031 | 8 | 53 | 91 | DH452102 | 10.2 | | .4016 | 12 | 71 | 118 |
| DH452078 | 7.8 | | .3071 | 8 | 53 | 91 | DH452103 | 10.3 | | .4055 | 12 | 71 | 118 |
| DH452079 | 7.9 | | .3110 | 8 | 53 | 91 | DH452026F | 10.319 | 13/32 | .4062 | 12 | 71 | 118 |
| * DH452020F | 7.938 | 5/16 | .3125 | 8 | 53 | 91 | DH452104 | 10.4 | | .4094 | 12 | 71 | 118 |
| DH452080 | 8.0 | | .3150 | 8 | 53 | 91 | DH452105 | 10.5 | | .4134 | 12 | 71 | 118 |
| DH452081 | 8.1 | | .3189 | 10 | 61 | 103 | DH452106 | 10.6 | | .4173 | 12 | 71 | 118 |
| DH452082 | 8.2 | | .3228 | 10 | 61 | 103 | DH452107 | 10.7 | | .4212 | 12 | 71 | 118 |
| DH452083 | 8.3 | | .3268 | 10 | 61 | 103 | DH452027F | 10.716 | 27/64 | .4219 | 12 | 71 | 118 |
| * DH452021F | 8.334 | 21/64 | .3281 | 10 | 61 | 103 | DH452108 | 10.8 | | .4252 | 12 | 71 | 118 |
| DH452084 | 8.4 | | .3307 | 10 | 61 | 103 | DH452109 | 10.9 | | .4291 | 12 | 71 | 118 |

▶ NEXT PAGE



*** NEW SIZE**

SOLID CARBIDE DREAM DRILLS INOX with COOLANT HOLES

- ▶ The tool has the special flute shape and geometry for suitable machining of stainless steels
- ▶ Excellent chip evacuation due to better surface treatment
- ▶ Point R-thinning makes the superior centering and chip curl
- ▶ Applied TiAlN coating, achieves the better surface finish of material to be cut and longer tool life

▶ FOR STAINLESS STEEL



DIN 6537
MG
h6
m7
140°
P.38

DREAM DRILLS INOX | 5 × D

| EDP No. | Diameter | | | Shank Diameter | Flute Length | Overall Length | EDP No. | Diameter | | | Shank Diameter | Flute Length | Overall Length |
|-------------|----------|------------|---------|----------------|--------------|----------------|-----------|----------|------------|---------|----------------|--------------|----------------|
| | Metric | Fractional | Decimal | | | | | Metric | Fractional | Decimal | | | |
| TiAlN | D1 | | | D2 | L1 | L2 | TiAlN | D1 | | | D2 | L1 | L2 |
| DH452110 | 11.0 | | .4330 | 12 | 71 | 118 | DH452135 | 13.5 | | .5314 | 14 | 77 | 124 |
| DH452111 | 11.1 | | .4370 | 12 | 71 | 118 | DH452140 | 14.0 | | .5512 | 14 | 77 | 124 |
| * DH452028F | 11.113 | 7/16 | .4375 | 12 | 71 | 118 | DH452036F | 14.288 | 9/16 | .5625 | 16 | 83 | 133 |
| DH452112 | 11.2 | | .4409 | 12 | 71 | 118 | DH452145 | 14.5 | | .5708 | 16 | 83 | 133 |
| DH452113 | 11.3 | | .4448 | 12 | 71 | 118 | DH452150 | 15.0 | | .5905 | 16 | 83 | 133 |
| DH452114 | 11.4 | | .4488 | 12 | 71 | 118 | DH452155 | 15.5 | | .6102 | 16 | 83 | 133 |
| DH452115 | 11.5 | | .4527 | 12 | 71 | 118 | DH452040F | 15.875 | 5/8 | .6250 | 16 | 83 | 133 |
| * DH452029F | 11.509 | 29/64 | .4531 | 12 | 71 | 118 | DH452160 | 16.0 | | .6299 | 16 | 83 | 133 |
| DH452116 | 11.6 | | .4566 | 12 | 71 | 118 | DH452165 | 16.5 | | .6495 | 18 | 93 | 143 |
| DH452117 | 11.7 | | .4606 | 12 | 71 | 118 | DH452170 | 17.0 | | .6692 | 18 | 93 | 143 |
| DH452118 | 11.8 | | .4645 | 12 | 71 | 118 | DH452175 | 17.5 | | .6889 | 18 | 93 | 143 |
| DH452119 | 11.9 | | .4685 | 12 | 71 | 118 | DH452180 | 18.0 | | .7087 | 18 | 93 | 143 |
| * DH452030F | 11.906 | 15/32 | .4688 | 12 | 71 | 118 | DH452185 | 18.5 | | .7283 | 20 | 101 | 153 |
| DH452120 | 12.0 | | .4724 | 12 | 71 | 118 | DH452190 | 19.0 | | .7480 | 20 | 101 | 153 |
| * DH452031F | 12.303 | 31/64 | .4844 | 14 | 77 | 124 | DH452048F | 19.05 | 3/4 | .7500 | 20 | 101 | 153 |
| DH452125 | 12.5 | | .4921 | 14 | 77 | 124 | DH452195 | 19.5 | | .7676 | 20 | 101 | 153 |
| * DH452032F | 12.7 | 1/2 | .5000 | 14 | 77 | 124 | DH452200 | 20.0 | | .7874 | 20 | 101 | 153 |
| DH452130 | 13.0 | | .5118 | 14 | 77 | 124 | | | | | | | |

▶ Other shank types are available on your request

◎ : Excellent ○ : Good

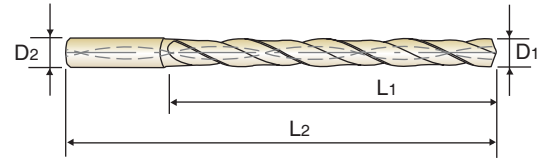
| Carbon Steels | Alloy Steels | Prehardened Steels | Hardened Steels | | Cast Iron | Aluminum | Stainless Steels | Titanium | Mild Steels | Copper | Bronze |
|---------------|--------------|--------------------|-----------------|--------|-----------|----------|------------------|----------|-------------|--------|--------|
| ~HB225 | HB225~325 | HRC30~45 | HRC45~55 | HRC55~ | | | | | | | |
| ◎ | ◎ | ○ | | | | ○ | ◎ | ○ | ○ | | |



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- ▶ Tolerance : Dia. Tolerance ØD1:m7, Shank Tolerance ØD2: h6

▶ FOR STAINLESS STEEL



DREAM DRILLS INOX | 8 × D

Unit : mm

| EDP No. | Diameter | | | Shank Diameter | Flute Length | Overall Length | EDP No. | Diameter | | | Shank Diameter | Flute Length | Overall Length |
|-----------|----------|------------|---------|----------------|--------------|----------------|-----------|----------|------------|---------|----------------|--------------|----------------|
| | Metric | Fractional | Decimal | | | | | Metric | Fractional | Decimal | | | |
| TiAlN | D1 | | | D2 | L1 | L2 | TiAlN | D1 | | | D2 | L1 | L2 |
| DH453030 | 3.0 | | .1181 | 6 | 34 | 72 | DH453058 | 5.8 | | .2283 | 6 | 57 | 95 |
| DH453031 | 3.1 | | .1220 | 6 | 34 | 72 | DH453059 | 5.9 | | .2323 | 6 | 57 | 95 |
| DH453008F | 3.175 | 1/8 | .1250 | 6 | 34 | 72 | DH453015F | 5.953 | 15/64 | .2344 | 6 | 57 | 95 |
| DH453032 | 3.2 | | .1260 | 6 | 34 | 72 | DH453060 | 6.0 | | .2362 | 6 | 57 | 95 |
| DH453033 | 3.3 | | .1299 | 6 | 34 | 72 | DH453061 | 6.1 | | .2402 | 8 | 76 | 114 |
| DH453034 | 3.4 | | .1339 | 6 | 34 | 72 | DH453062 | 6.2 | | .2441 | 8 | 76 | 114 |
| DH453229G | 3.454 | #29 | .1360 | 6 | 34 | 72 | DH453063 | 6.3 | | .2480 | 8 | 76 | 114 |
| DH453035 | 3.5 | | .1378 | 6 | 34 | 72 | DH453016F | 6.35 | 1/4 | .2500 | 8 | 76 | 114 |
| DH453009F | 3.572 | 9/64 | .1406 | 6 | 34 | 72 | DH453064 | 6.4 | | .2520 | 8 | 76 | 114 |
| DH453036 | 3.6 | | .1417 | 6 | 34 | 72 | DH453065 | 6.5 | | .2559 | 8 | 76 | 114 |
| DH453037 | 3.7 | | .1457 | 6 | 34 | 72 | DH453106L | 6.527 | F | .2570 | 8 | 76 | 114 |
| DH453038 | 3.8 | | .1496 | 6 | 43 | 81 | DH453066 | 6.6 | | .2598 | 8 | 76 | 114 |
| DH453039 | 3.9 | | .1535 | 6 | 43 | 81 | DH453067 | 6.7 | | .2638 | 8 | 76 | 114 |
| DH453010F | 3.969 | 5/32 | .1563 | 6 | 43 | 81 | DH453017F | 6.747 | 17/64 | .2656 | 8 | 76 | 114 |
| DH453040 | 4.0 | | .1575 | 6 | 43 | 81 | DH453068 | 6.8 | | .2677 | 8 | 76 | 114 |
| DH453221G | 4.038 | #21 | .1590 | 6 | 43 | 81 | DH453069 | 6.9 | | .2717 | 8 | 76 | 114 |
| DH453041 | 4.1 | | .1614 | 6 | 43 | 81 | DH453070 | 7.0 | | .2756 | 8 | 76 | 114 |
| DH453042 | 4.2 | | .1654 | 6 | 43 | 81 | DH453071 | 7.1 | | .2795 | 8 | 76 | 114 |
| DH453043 | 4.3 | | .1693 | 6 | 43 | 81 | DH453018F | 7.144 | 9/32 | .2813 | 8 | 76 | 114 |
| DH453011F | 4.366 | 11/64 | .1719 | 6 | 43 | 81 | DH453072 | 7.2 | | .2835 | 8 | 76 | 114 |
| DH453044 | 4.4 | | .1732 | 6 | 43 | 81 | DH453073 | 7.3 | | .2874 | 8 | 76 | 114 |
| DH453045 | 4.5 | | .1772 | 6 | 43 | 81 | DH453074 | 7.4 | | .2913 | 8 | 76 | 114 |
| DH453046 | 4.6 | | .1811 | 6 | 43 | 81 | DH453075 | 7.5 | | .2953 | 8 | 76 | 114 |
| DH453047 | 4.7 | | .1850 | 6 | 43 | 81 | DH453019F | 7.541 | 19/64 | .2969 | 8 | 76 | 114 |
| DH453012F | 4.763 | 3/16 | .1875 | 6 | 57 | 95 | DH453076 | 7.6 | | .2992 | 8 | 76 | 114 |
| DH453048 | 4.8 | | .1890 | 6 | 57 | 95 | DH453077 | 7.7 | | .3031 | 8 | 76 | 114 |
| DH453049 | 4.9 | | .1929 | 6 | 57 | 95 | DH453078 | 7.8 | | .3071 | 8 | 76 | 114 |
| DH453050 | 5.0 | | .1969 | 6 | 57 | 95 | DH453079 | 7.9 | | .3110 | 8 | 76 | 114 |
| DH453051 | 5.1 | | .2008 | 6 | 57 | 95 | DH453020F | 7.938 | 5/16 | .3125 | 8 | 76 | 114 |
| DH453013F | 5.159 | 13/64 | .2031 | 6 | 57 | 95 | DH453080 | 8.0 | | .3150 | 8 | 76 | 114 |
| DH453052 | 5.2 | | .2047 | 6 | 57 | 95 | DH453081 | 8.1 | | .3189 | 10 | 95 | 142 |
| DH453053 | 5.3 | | .2087 | 6 | 57 | 95 | DH453082 | 8.2 | | .3228 | 10 | 95 | 142 |
| DH453054 | 5.4 | | .2126 | 6 | 57 | 95 | DH453083 | 8.3 | | .3268 | 10 | 95 | 142 |
| DH453055 | 5.5 | | .2165 | 6 | 57 | 95 | DH453021F | 8.334 | 21/64 | .3281 | 10 | 95 | 142 |
| DH453014F | 5.556 | 7/32 | .2188 | 6 | 57 | 95 | DH453084 | 8.4 | | .3307 | 10 | 95 | 142 |
| DH453056 | 5.6 | | .2205 | 6 | 57 | 95 | DH453117L | 8.432 | Q | .3320 | 10 | 95 | 142 |
| DH453057 | 5.7 | | .2244 | 6 | 57 | 95 | DH453085 | 8.5 | | .3346 | 10 | 95 | 142 |

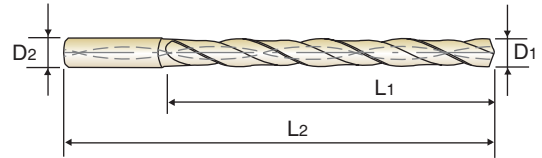
▶ NEXT PAGE



SOLID CARBIDE DREAM DRILLS INOX with COOLANT HOLES

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- Excellent chip evacuation due to better surface treatment
- Point R-thinning makes the superior centering and chip curl
- TiAlN coating achieves the better surface finishes and longer tool life
- Tolerance : Dia. Tolerance ØD1:m7, Shank Tolerance ØD2: h6

► FOR STAINLESS STEEL



DIN 6537

MG

h6

m7

140°



P.38

DREAM DRILLS INOX | 8 × D

Unit : mm

| EDP No. | Diameter | | | Shank Diameter | Flute Length | Overall Length | EDP No. | Diameter | | | Shank Diameter | Flute Length | Overall Length |
|-----------|----------|------------|---------|----------------|--------------|----------------|-----------|----------|------------|---------|----------------|--------------|----------------|
| | Metric | Fractional | Decimal | | | | | Metric | Fractional | Decimal | | | |
| TiAlN | D1 | | | D2 | L1 | L2 | TiAlN | D1 | | | D2 | L1 | L2 |
| DH453086 | 8.6 | | .3386 | 10 | 95 | 142 | DH453106 | 10.6 | | .4173 | 12 | 114 | 162 |
| DH453087 | 8.7 | | .3425 | 10 | 95 | 142 | DH453107 | 10.7 | | .4212 | 12 | 114 | 162 |
| DH453022F | 8.731 | 11/32 | .3438 | 10 | 95 | 142 | DH453027F | 10.716 | 27/64 | .4219 | 12 | 114 | 162 |
| DH453088 | 8.8 | | .3465 | 10 | 95 | 142 | DH453108 | 10.8 | | .4252 | 12 | 114 | 162 |
| DH453089 | 8.9 | | .3504 | 10 | 95 | 142 | DH453109 | 10.9 | | .4291 | 12 | 114 | 162 |
| DH453090 | 9.0 | | .3543 | 10 | 95 | 142 | DH453110 | 11.0 | | .4330 | 12 | 114 | 162 |
| DH453091 | 9.1 | | .3583 | 10 | 95 | 142 | DH453111 | 11.1 | | .4370 | 12 | 114 | 162 |
| DH453023F | 9.128 | 23/64 | .3594 | 10 | 95 | 142 | DH453028F | 11.113 | 7/16 | .4375 | 12 | 114 | 162 |
| DH453092 | 9.2 | | .3622 | 10 | 95 | 142 | DH453112 | 11.2 | | .4409 | 12 | 114 | 162 |
| DH453093 | 9.3 | | .3661 | 10 | 95 | 142 | DH453113 | 11.3 | | .4448 | 12 | 114 | 162 |
| DH453121L | 9.347 | U | .3680 | 10 | 95 | 142 | DH453114 | 11.4 | | .4488 | 12 | 114 | 162 |
| DH453094 | 9.4 | | .3701 | 10 | 95 | 142 | DH453115 | 11.5 | | .4527 | 12 | 114 | 162 |
| DH453095 | 9.5 | | .3740 | 10 | 95 | 142 | DH453116 | 11.6 | | .4566 | 12 | 114 | 162 |
| DH453024F | 9.525 | 3/8 | .3750 | 10 | 95 | 142 | DH453117 | 11.7 | | .4606 | 12 | 114 | 162 |
| DH453096 | 9.6 | | .3780 | 10 | 95 | 142 | DH453118 | 11.8 | | .4645 | 12 | 114 | 162 |
| DH453097 | 9.7 | | .3819 | 10 | 95 | 142 | DH453119 | 11.9 | | .4685 | 12 | 114 | 162 |
| DH453098 | 9.8 | | .3858 | 10 | 95 | 142 | DH453030F | 11.906 | 15/32 | .4688 | 12 | 114 | 162 |
| DH453099 | 9.9 | | .3898 | 10 | 95 | 142 | DH453120 | 12.0 | | .4724 | 12 | 114 | 162 |
| DH453025F | 9.922 | 25/64 | .3906 | 10 | 95 | 142 | DH453031F | 12.303 | 31/64 | .4844 | 14 | 133 | 178 |
| DH453100 | 10.0 | | .3937 | 10 | 95 | 142 | DH453125 | 12.5 | | .4921 | 14 | 133 | 178 |
| DH453101 | 10.1 | | .3976 | 12 | 114 | 162 | DH453032F | 12.7 | 1/2 | .5000 | 14 | 133 | 178 |
| DH453102 | 10.2 | | .4016 | 12 | 114 | 162 | DH453130 | 13.0 | | .5118 | 14 | 133 | 178 |
| DH453103 | 10.3 | | .4055 | 12 | 114 | 162 | DH453033F | 13.097 | 33/64 | .5156 | 14 | 133 | 178 |
| DH453026F | 10.319 | 13/32 | .4063 | 12 | 114 | 162 | DH453135 | 13.5 | | .5314 | 14 | 133 | 178 |
| DH453104 | 10.4 | | .4094 | 12 | 114 | 162 | DH453140 | 14.0 | | .5512 | 14 | 133 | 178 |
| DH453105 | 10.5 | | .4134 | 12 | 114 | 162 | | | | | | | |

► Other shank types are available on your request

◎ : Excellent ○ : Good

| Carbon Steels | Alloy Steels | Prehardened Steels | Hardened Steels | | Cast Iron | Aluminum | Stainless Steels | Titanium | Mild Steels | Copper | Bronze |
|---------------|--------------|--------------------|-----------------|--------|-----------|----------|------------------|----------|-------------|--------|--------|
| ~HB225 | HB225~325 | HRC30~45 | HRC45~55 | HRC55~ | | | | | | | |
| ◎ | ◎ | ○ | | | | ○ | ◎ | ○ | ○ | | |



SOLID CARBIDE DREAM DRILLS INOX with COOLANT HOLES, TiAIN COATED

► FOR STAINLESS STEEL

DH451, DH463, DH714, DH452, DH464, DH715, DH453 Series

| WORK MATERIAL | | | M | | | | | | N | | | | | |
|---------------------|---------|------------|-------------------------|------|------|-------------------------|------|------|------------------|------|------|------------------|------|------|
| | | | STAINLESS S TEELS | | | STAINLESS STEELS | | | ALUMINUM | | | ALUMINUM | | |
| STRENGTH | | | < 800 N/mm ² | | | > 800 N/mm ² | | | < 10% Si | | | < 10% Si | | |
| DRILLING SPEED(SFM) | | | 120 ~ 230 ft/min | | | 60 ~ 140 ft/min | | | 490 ~ 720 ft/min | | | 390 ~ 570 ft/min | | |
| DIAMETER | | | N | S | IPR | N | S | IPR | N | S | IPR | N | S | IPR |
| Metric(mm) | Decimal | Fractional | | | | | | | | | | | | |
| 1.0 | .0394 | | 12000 | 0.02 | .001 | 6200 | 0.02 | .001 | 48000 | 0.04 | .002 | 38000 | 0.03 | .001 |
| 1.5 | .0591 | | 9000 | 0.03 | .001 | 5400 | 0.02 | .001 | 43000 | 0.05 | .002 | 32000 | 0.04 | .002 |
| 2.5 | .0984 | | 7000 | 0.04 | .002 | 4200 | 0.03 | .001 | 25500 | 0.08 | .003 | 19500 | 0.06 | .002 |
| 3.0 | .1181 | 1/8 | 7400 | 0.04 | .002 | 4700 | 0.02 | .001 | 23000 | 0.12 | .005 | 18500 | 0.10 | .004 |
| 4.0 | .1575 | 5/32 | 5600 | 0.05 | .002 | 3600 | 0.03 | .001 | 17500 | 0.18 | .007 | 13900 | 0.15 | .006 |
| 5.0 | .1969 | 13/64 | 4400 | 0.05 | .002 | 2800 | 0.03 | .001 | 14000 | 0.20 | .008 | 11000 | 0.18 | .007 |
| 6.0 | .2362 | 15/64 | 3700 | 0.06 | .002 | 2400 | 0.04 | .002 | 11700 | 0.25 | .010 | 9300 | 0.25 | .010 |
| 8.0 | .3150 | 5/16 | 2800 | 0.08 | .003 | 1800 | 0.06 | .002 | 8800 | 0.30 | .012 | 7000 | 0.30 | .012 |
| 10.0 | .3937 | 25/64 | 2200 | 0.10 | .004 | 1400 | 0.08 | .003 | 7000 | 0.40 | .016 | 5600 | 0.35 | .014 |
| 12.0 | .4724 | 15/32 | 1900 | 0.12 | .005 | 1200 | 0.10 | .004 | 5800 | 0.50 | .020 | 4600 | 0.40 | .016 |
| 14.0 | .5512 | 35/64 | 1600 | 0.15 | .006 | 1000 | 0.12 | .005 | 5000 | 0.60 | .024 | 4000 | 0.50 | .020 |
| 16.0 | .6299 | 5/8 | 1400 | 0.20 | .008 | 900 | 0.15 | .006 | 4380 | 0.80 | .031 | 3500 | 0.60 | .024 |
| 18.0 | .7087 | 45/64 | 1250 | 0.22 | .009 | 800 | 0.17 | .007 | 3900 | 1.00 | .039 | 3100 | 0.70 | .028 |
| 20.0 | .7874 | 25/32 | 1120 | 0.24 | .009 | 720 | 0.19 | .007 | 3500 | 1.20 | .047 | 2800 | 0.80 | .031 |

| WORK MATERIAL | | | S | | | P | | | N | | |
|---------------------|---------|------------|-------------------|------|-------|----------------------------|------|------|------------------|------|------|
| | | | TITANIUM TI ALLOY | | | CARBON STEELS ALLOY STEELS | | | NON FRERROUS | | |
| STRENGTH | | | | | | | | | | | |
| DRILLING SPEED(SFM) | | | 80 ~ 160 ft/min | | | 260 ~ 410 ft/min | | | 390 ~ 490 ft/min | | |
| DIAMETER | | | N | S | IPR | N | S | IPR | N | S | IPR |
| Metric(mm) | Decimal | Fractional | | | | | | | | | |
| 1.0 | .0394 | | 8100 | 0.01 | .0004 | 26000 | 0.02 | .001 | 38000 | 0.02 | .001 |
| 1.5 | .0591 | | 7500 | 0.01 | .0004 | 18000 | 0.03 | .001 | 25500 | 0.03 | .001 |
| 2.5 | .0984 | | 4500 | 0.02 | .001 | 10800 | 0.05 | .002 | 15500 | 0.05 | .002 |
| 3.0 | .1181 | 1/8 | 5300 | 0.03 | .001 | 13000 | 0.04 | .002 | 16000 | 0.08 | .003 |
| 4.0 | .1575 | 5/32 | 4000 | 0.04 | .002 | 10000 | 0.05 | .002 | 11900 | 0.10 | .004 |
| 5.0 | .1969 | 13/64 | 3200 | 0.05 | .002 | 8000 | 0.05 | .002 | 9500 | 0.12 | .005 |
| 6.0 | .2362 | 15/64 | 2650 | 0.06 | .002 | 6600 | 0.06 | .002 | 8000 | 0.15 | .006 |
| 8.0 | .3150 | 5/16 | 2000 | 0.07 | .003 | 5000 | 0.08 | .003 | 6000 | 0.18 | .007 |
| 10.0 | .3937 | 25/64 | 1600 | 0.08 | .003 | 4000 | 0.10 | .004 | 4800 | 0.22 | .009 |
| 12.0 | .4724 | 15/32 | 1300 | 0.10 | .004 | 3300 | 0.12 | .005 | 4000 | 0.26 | .010 |
| 14.0 | .5512 | 35/64 | 1100 | 0.12 | .005 | 2800 | 0.15 | .006 | 3400 | 0.30 | .012 |
| 16.0 | .6299 | 5/8 | 1000 | 0.14 | .006 | 2500 | 0.20 | .008 | 3000 | 0.40 | .016 |
| 18.0 | .7087 | 45/64 | 900 | 0.16 | .006 | 2200 | 0.22 | .009 | 2650 | 0.45 | .018 |
| 20.0 | .7874 | 25/32 | 800 | 0.18 | .007 | 2000 | 0.24 | .009 | 2400 | 0.50 | .020 |

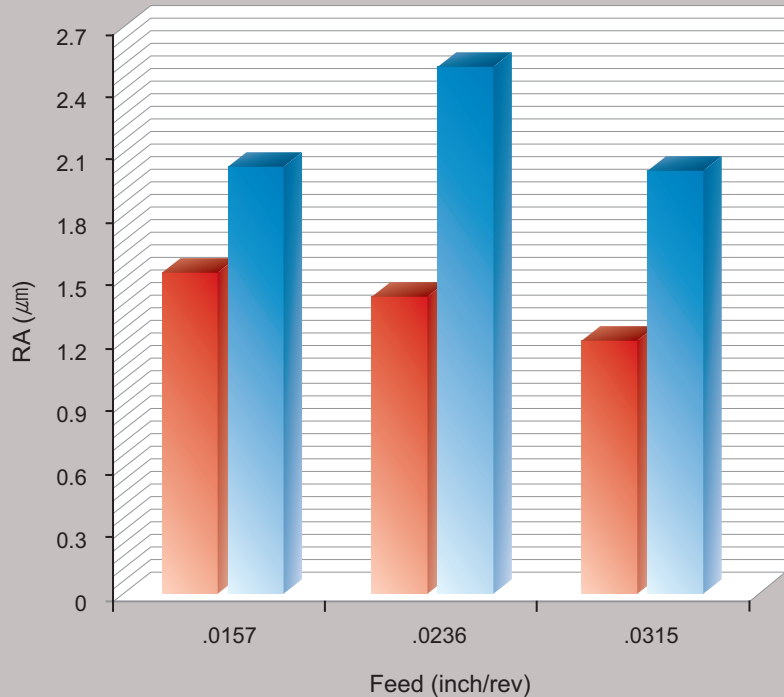
► Recommend to reduce the feed rate as following
 DH463/DH714/DH451(3xD), DH464/DH714/DH452(5xD) : Feed 100%
 DH453(8xD) : Feed 85%

N = R.P.M
 S= feed rate (mm/rev.)
 IPR= feed rate (Inch/rev.)

SOLID CARBIDE DREAM DRILLS ALU - **Test Report**

with COOLANT HOLES

● **Surface Roughness of Work Piece**

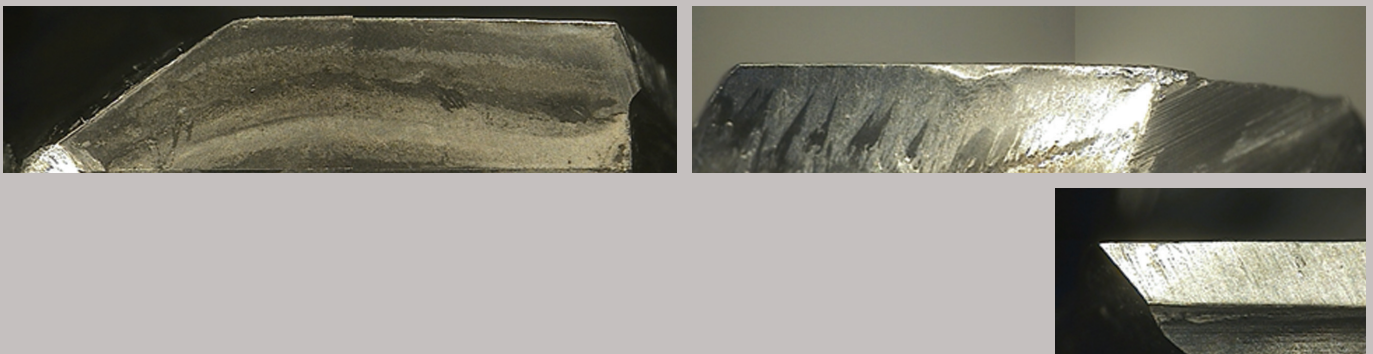


■ YG-1
■ COMPETITOR

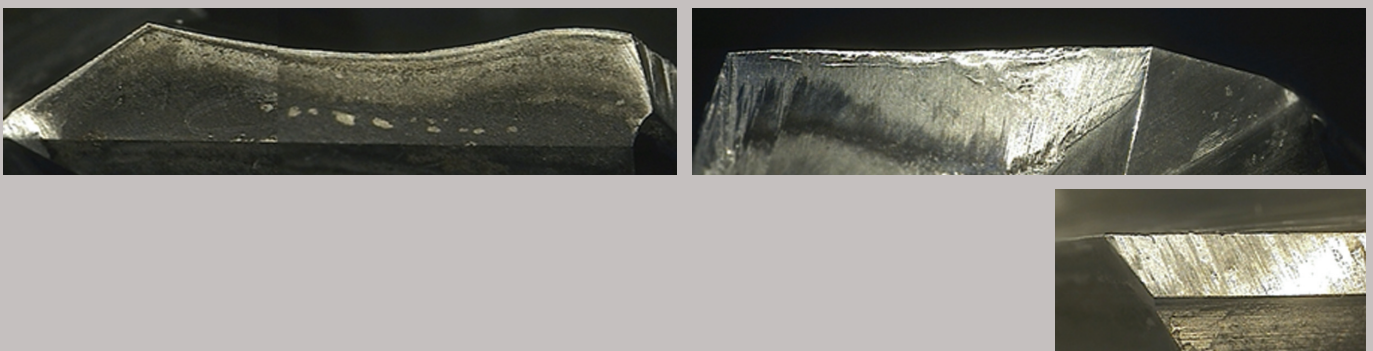
Cutting Condition

- Tools : D5433100 (DREAM DRILL - ALU)
- Size : Ø10.0 × Ø10 × 61 × 103
- Work Material : • Al(6061)
 - JIS:A6061
 - DIN:AlMgSiCu
- R.P.M : 6367 rev./min.
- SFM : 656 ft/min.
- Feed : .0157 ~ .0315 inch/rev.
- Drilling Depth : 1.77"
- Coolant : Wet cut

▶ **YG-1 (Total Drilling 820 Holes)**



▶ **COMPETITOR (Total Drilling 820 Holes)**



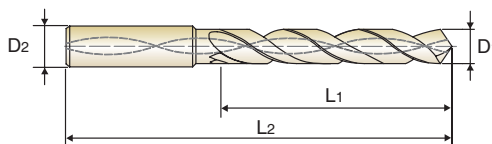


*** NEW SIZE**

SOLID DREAM DRILLS - ALU with COOLANT HOLES (DLC COATED)

- ▶ Wider and deeper flute gullets for maximum chip removal
- ▶ Special geometry and smooth coating reduces built up edge and improves finishes
- ▶ Tolerance : Dia. Tolerance ØD1: See page 57, Shank Tolerance ØD2: -.0001 -.0005

▶ FOR ALUMINUM



MG

DREAM DRILLS ALU | 5 × D

Unit : Inch

| EDP No. | Diameter | | Shank Diameter | Flute Length | Overall Length | EDP No. | Diameter | | Shank Diameter | Flute Length | Overall Length |
|-------------|------------|---------|----------------|--------------|----------------|-----------|------------|---------|----------------|--------------|----------------|
| | Fractional | Decimal | | | | | Fractional | Decimal | | | |
| DLC | D1 | | D2 | L1 | L2 | DLC | D1 | | D2 | L1 | L2 |
| DGE466013 | 13/64 | .2031 | 15/64 | 1-3/4 | 3-15/16 | DGE718022 | 11/32 | .3438 | 3/8 | 2-27/32 | 5 |
| * DGE718013 | 13/64 | .2031 | 1/4 | 1-3/4 | 3-15/16 | DGE718023 | 23/64 | .3594 | 3/8 | 3 | 5-23/64 |
| DGE466014 | 7/32 | .2188 | 15/64 | 1-57/64 | 3-15/16 | DGE466023 | 23/64 | .3594 | 25/64 | 3 | 5-23/64 |
| * DGE718014 | 7/32 | .2188 | 1/4 | 1-57/64 | 3-15/16 | DGE718221 | U | .3680 | 3/8 | 3 | 5-23/64 |
| DGE466015 | 15/64 | .2344 | 15/64 | 1-57/64 | 3-15/16 | DGE466221 | U | .3680 | 25/64 | 3 | 5-23/64 |
| * DGE718015 | 15/64 | .2344 | 1/4 | 1-57/64 | 3-15/16 | DGE718024 | 3/8 | .3750 | 3/8 | 3-5/32 | 5-23/64 |
| * DGE718016 | 1/4 | .2500 | 1/4 | 2-3/64 | 4-19/64 | DGE466024 | 3/8 | .3750 | 25/64 | 3-5/32 | 5-23/64 |
| DGE466016 | 1/4 | .2500 | 17/64 | 2-3/64 | 4-19/64 | DGE466025 | 25/64 | .3906 | 25/64 | 3-5/32 | 5-23/64 |
| DGE466206 | F | .2570 | 17/64 | 2-13/64 | 4-19/64 | DGE718025 | 25/64 | .3906 | 7/16 | 3-5/32 | 5-23/64 |
| * DGE718206 | F | .2570 | 5/16 | 2-13/64 | 4-19/64 | DGE466026 | 13/32 | .4062 | 27/64 | 3-5/16 | 5-7/8 |
| DGE466017 | 17/64 | .2656 | 17/64 | 2-13/64 | 4-19/64 | DGE718026 | 13/32 | .4062 | 7/16 | 3-5/16 | 5-7/8 |
| * DGE718017 | 17/64 | .2656 | 5/16 | 2-13/64 | 4-19/64 | DGE466027 | 27/64 | .4219 | 27/64 | 3-15/32 | 5-7/8 |
| DGE466209 | I | .2720 | .272 | 2-13/64 | 4-19/64 | DGE718027 | 27/64 | .4219 | 7/16 | 3-15/32 | 5-7/8 |
| * DGE718209 | I | .2720 | 5/16 | 2-13/64 | 4-19/64 | DGE718028 | 7/16 | .4375 | 7/16 | 3-5/8 | 6-7/32 |
| DGE466018 | 9/32 | .2812 | 5/16 | 2-23/64 | 4-41/64 | DGE466028 | 7/16 | .4375 | 15/32 | 3-5/8 | 6-7/32 |
| DGE466019 | 19/64 | .2969 | 5/16 | 2-33/64 | 4-41/64 | DGE466029 | 29/64 | .4531 | 15/32 | 3-25/32 | 6-7/32 |
| DGE466020 | 5/16 | .3125 | 5/16 | 2-33/64 | 4-41/64 | DGE718029 | 29/64 | .4531 | 1/2 | 3-25/32 | 6-7/32 |
| DGE466021 | 21/64 | .3281 | 11/32 | 2-43/64 | 5 | DGE466030 | 15/32 | .4688 | 15/32 | 3-25/32 | 6-7/32 |
| * DGE718021 | 21/64 | .3281 | 3/8 | 2-43/64 | 5 | DGE718030 | 15/32 | .4688 | 1/2 | 3-25/32 | 6-7/32 |
| DGE466217 | Q | .3320 | 11/32 | 2-43/64 | 5 | DGE466031 | 31/64 | .4844 | 1/2 | 3-15/16 | 6-37/64 |
| * DGE718217 | Q | .3320 | 3/8 | 2-43/64 | 5 | DGE466032 | 1/2 | .5000 | 1/2 | 4-3/32 | 6-37/64 |
| DGE466022 | 11/32 | .3438 | 11/32 | 2-27/32 | 5 | | | | | | |

▶ Other shank types are available on your request

◎ : Excellent ○ : Good

| Carbon Steels | Alloy Steels | Prehardened Steels | Hardened Steels | | Cast Iron | Aluminum | Stainless Steels | Titanium | Mild Steels | Copper | Bronze |
|---------------|--------------|--------------------|-----------------|--------|-----------|----------|------------------|----------|-------------|--------|--------|
| ~HB225 | HB225~325 | HRC30~45 | HRC45~55 | HRC55~ | | | | | | | |
| | | | | | | ◎ | | | | | |

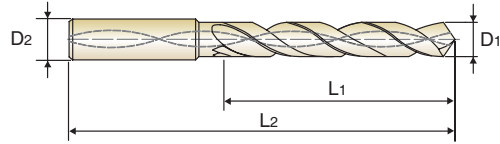


*** NEW SIZE**

SOLID DREAM DRILLS - ALU with COOLANT HOLES (DLC COATED)

- ▶ Wider and deeper flute gullets for maximum chip removal
- ▶ Special geometry and smooth coating reduces built up edge and improves finishes

▶ FOR ALUMINUM



DIN 6537
MG
h6
m7
118°
P.44

DREAM DRILLS ALU | 5 × D

Unit : mm

| EDP No. | Diameter | | | Shank Diameter | Flute Length | Overall Length | EDP No. | Diameter | | | Shank Diameter | Flute Length | Overall Length |
|--------------|----------|------------|---------|----------------|--------------|----------------|------------|----------|------------|---------|----------------|--------------|----------------|
| | Metric | Fractional | Decimal | | | | | Metric | Fractional | Decimal | | | |
| DLC | D1 | | | D2 | L1 | L2 | DLC | D1 | | | D2 | L1 | L2 |
| DGE433030 | 3.0 | | .1181 | 6 | 28 | 66 | DGE433054 | 5.4 | | .2126 | 6 | 44 | 82 |
| DGE433031 | 3.1 | | .1220 | 6 | 28 | 66 | DGE433055 | 5.5 | | .2165 | 6 | 44 | 82 |
| * DGE433008F | 3.175 | 1/8 | .1250 | 6 | 28 | 66 | DGE433014F | 5.556 | 7/32 | .2188 | 6 | 44 | 82 |
| DGE433032 | 3.2 | | .1260 | 6 | 28 | 66 | DGE433056 | 5.6 | | .2205 | 6 | 44 | 82 |
| DGE433033 | 3.3 | | .1299 | 6 | 28 | 66 | DGE433057 | 5.7 | | .2244 | 6 | 44 | 82 |
| DGE433034 | 3.4 | | .1339 | 6 | 28 | 66 | DGE433058 | 5.8 | | .2283 | 6 | 44 | 82 |
| DGE433035 | 3.5 | | .1378 | 6 | 28 | 66 | DGE433059 | 5.9 | | .2323 | 6 | 44 | 82 |
| * DGE433009F | 3.572 | 9/64 | .1406 | 6 | 28 | 66 | DGE433015F | 5.953 | 15/64 | .2344 | 6 | 44 | 82 |
| DGE433036 | 3.6 | | .1417 | 6 | 28 | 66 | DGE433060 | 6.0 | | .2362 | 6 | 44 | 82 |
| DGE433037 | 3.7 | | .1457 | 6 | 28 | 66 | DGE433061 | 6.1 | | .2402 | 8 | 53 | 91 |
| DGE433038 | 3.8 | | .1496 | 6 | 36 | 74 | DGE433062 | 6.2 | | .2441 | 8 | 53 | 91 |
| DGE433039 | 3.9 | | .1535 | 6 | 36 | 74 | DGE433063 | 6.3 | | .2480 | 8 | 53 | 91 |
| * DGE433010F | 3.969 | 5/32 | .1563 | 6 | 36 | 74 | DGE433016F | 6.35 | 1/4 | .2500 | 8 | 53 | 91 |
| DGE433040 | 4.0 | | .1575 | 6 | 36 | 74 | DGE433064 | 6.4 | | .2520 | 8 | 53 | 91 |
| DGE433041 | 4.1 | | .1614 | 6 | 36 | 74 | DGE433065 | 6.5 | | .2559 | 8 | 53 | 91 |
| DGE433042 | 4.2 | | .1654 | 6 | 36 | 74 | DGE433066 | 6.6 | | .2598 | 8 | 53 | 91 |
| DGE433043 | 4.3 | | .1693 | 6 | 36 | 74 | DGE433067 | 6.7 | | .2638 | 8 | 53 | 91 |
| * DGE433011F | 4.366 | 11/64 | .1719 | 6 | 36 | 74 | DGE433017F | 6.747 | 17/64 | .2656 | 8 | 53 | 91 |
| DGE433044 | 4.4 | | .1732 | 6 | 36 | 74 | DGE433068 | 6.8 | | .2677 | 8 | 53 | 91 |
| DGE433045 | 4.5 | | .1772 | 6 | 36 | 74 | DGE433069 | 6.9 | | .2717 | 8 | 53 | 91 |
| DGE433046 | 4.6 | | .1811 | 6 | 36 | 74 | DGE433070 | 7.0 | | .2756 | 8 | 53 | 91 |
| DGE433047 | 4.7 | | .1850 | 6 | 36 | 74 | DGE433071 | 7.1 | | .2795 | 8 | 53 | 91 |
| * DGE433012F | 4.763 | 3/16 | .1875 | 6 | 36 | 74 | DGE433018F | 7.144 | 9/32 | .2812 | 8 | 53 | 91 |
| DGE433048 | 4.8 | | .1890 | 6 | 44 | 82 | DGE433072 | 7.2 | | .2835 | 8 | 53 | 91 |
| DGE433049 | 4.9 | | .1929 | 6 | 44 | 82 | DGE433073 | 7.3 | | .2874 | 8 | 53 | 91 |
| DGE433050 | 5.0 | | .1969 | 6 | 44 | 82 | DGE433074 | 7.4 | | .2913 | 8 | 53 | 91 |
| DGE433051 | 5.1 | | .2008 | 6 | 44 | 82 | DGE433075 | 7.5 | | .2953 | 8 | 53 | 91 |
| * DGE433013F | 5.159 | 13/64 | .2031 | 6 | 44 | 82 | DGE433019F | 7.541 | 19/64 | .2969 | 8 | 53 | 91 |
| DGE433052 | 5.2 | | .2047 | 6 | 44 | 82 | DGE433076 | 7.6 | | .2992 | 8 | 53 | 91 |
| DGE433053 | 5.3 | | .2087 | 6 | 44 | 82 | DGE433077 | 7.7 | | .3031 | 8 | 53 | 91 |

▶ Other shank types are available on your request

▶ NEXT PAGE

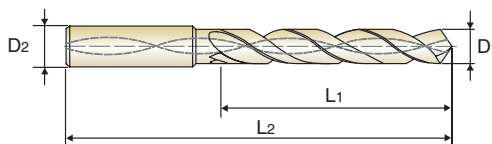


*** NEW SIZE**

SOLID DREAM DRILLS - ALU with COOLANT HOLES (DLC COATED)

- ▶ Wider and deeper flute gullets for maximum chip removal
- ▶ Special geometry and smooth coating reduces built up edge and improves finishes

▶ FOR ALUMINUM



DIN 6537

MG

h6

m7

118°



P.44

DREAM DRILLS ALU | 5 × D

Unit : mm

| EDP No. | Diameter | | | Shank Diameter | Flute Length | Overall Length | EDP No. | Diameter | | | Shank Diameter | Flute Length | Overall Length |
|--------------|----------|------------|---------|----------------|--------------|----------------|------------|----------|------------|---------|----------------|--------------|----------------|
| | Metric | Fractional | Decimal | | | | | Metric | Fractional | Decimal | | | |
| DLC | D1 | | | D2 | L1 | L2 | DLC | D1 | | | D2 | L1 | L2 |
| DGE433078 | 7.8 | | .3071 | 8 | 53 | 91 | DGE433102 | 10.2 | | .4016 | 12 | 71 | 118 |
| DGE433079 | 7.9 | | .3110 | 8 | 53 | 91 | DGE433103 | 10.3 | | .4055 | 12 | 71 | 118 |
| * DGE433020F | 7.938 | 5/16 | .3125 | 8 | 53 | 91 | DGE433026F | 10.319 | 13/32 | .4062 | 12 | 71 | 118 |
| DGE433080 | 8.0 | | .3150 | 8 | 53 | 91 | DGE433104 | 10.4 | | .4094 | 12 | 71 | 118 |
| DGE433081 | 8.1 | | .3189 | 10 | 61 | 103 | DGE433105 | 10.5 | | .4134 | 12 | 71 | 118 |
| DGE433082 | 8.2 | | .3228 | 10 | 61 | 103 | DGE433106 | 10.6 | | .4173 | 12 | 71 | 118 |
| DGE433083 | 8.3 | | .3268 | 10 | 61 | 103 | DGE433107 | 10.7 | | .4212 | 12 | 71 | 118 |
| * DGE433021F | 8.334 | 21/64 | .3281 | 10 | 61 | 103 | DGE433027F | 10.716 | 27/64 | .4219 | 12 | 71 | 118 |
| DGE433084 | 8.4 | | .3307 | 10 | 61 | 103 | DGE433108 | 10.8 | | .4252 | 12 | 71 | 118 |
| DGE433085 | 8.5 | | .3346 | 10 | 61 | 103 | DGE433109 | 10.9 | | .4291 | 12 | 71 | 118 |
| DGE433086 | 8.6 | | .3386 | 10 | 61 | 103 | DGE433110 | 11.0 | | .4330 | 12 | 71 | 118 |
| DGE433087 | 8.7 | | .3425 | 10 | 61 | 103 | DGE433111 | 11.1 | | .4370 | 12 | 71 | 118 |
| * DGE433022F | 8.731 | 11/32 | .3438 | 10 | 61 | 103 | DGE433028F | 11.113 | 7/16 | .4375 | 12 | 71 | 118 |
| DGE433088 | 8.8 | | .3465 | 10 | 61 | 103 | DGE433112 | 11.2 | | .4409 | 12 | 71 | 118 |
| DGE433089 | 8.9 | | .3504 | 10 | 61 | 103 | DGE433113 | 11.3 | | .4448 | 12 | 71 | 118 |
| DGE433090 | 9.0 | | .3543 | 10 | 61 | 103 | DGE433114 | 11.4 | | .4488 | 12 | 71 | 118 |
| DGE433091 | 9.1 | | .3583 | 10 | 61 | 103 | DGE433115 | 11.5 | | .4527 | 12 | 71 | 118 |
| * DGE433023F | 9.128 | 23/64 | .3594 | 10 | 61 | 103 | DGE433029F | 11.509 | 29/64 | .4531 | 12 | 71 | 118 |
| DGE433092 | 9.2 | | .3622 | 10 | 61 | 103 | DGE433116 | 11.6 | | .4566 | 12 | 71 | 118 |
| DGE433093 | 9.3 | | .3661 | 10 | 61 | 103 | DGE433117 | 11.7 | | .4606 | 12 | 71 | 118 |
| DGE433094 | 9.4 | | .3701 | 10 | 61 | 103 | DGE433118 | 11.8 | | .4645 | 12 | 71 | 118 |
| DGE433095 | 9.5 | | .3740 | 10 | 61 | 103 | DGE433119 | 11.9 | | .4685 | 12 | 71 | 118 |
| * DGE433024F | 9.525 | 3/8 | .3750 | 10 | 61 | 103 | DGE433030F | 11.906 | 15/32 | .4688 | 12 | 71 | 118 |
| DGE433096 | 9.6 | | .3780 | 10 | 61 | 103 | DGE433120 | 12.0 | | .4724 | 12 | 71 | 118 |
| DGE433097 | 9.7 | | .3819 | 10 | 61 | 103 | DGE433031F | 12.303 | 31/64 | .4844 | 14 | 77 | 124 |
| DGE433098 | 9.8 | | .3858 | 10 | 61 | 103 | DGE433125 | 12.5 | | .4921 | 14 | 77 | 124 |
| DGE433099 | 9.9 | | .3898 | 10 | 61 | 103 | DGE433032F | 12.7 | 1/2 | .5000 | 14 | 77 | 124 |
| * DGE433025F | 9.922 | 25/64 | .3906 | 10 | 61 | 103 | DGE433130 | 13.0 | | .5118 | 14 | 77 | 124 |
| DGE433100 | 10.0 | | .3937 | 10 | 61 | 103 | DGE433135 | 13.5 | | .5314 | 14 | 77 | 124 |
| DGE433101 | 10.1 | | .3976 | 12 | 71 | 118 | DGE433140 | 14.0 | | .5512 | 14 | 77 | 124 |

▶ Other shank types are available on your request

▶ NEXT PAGE

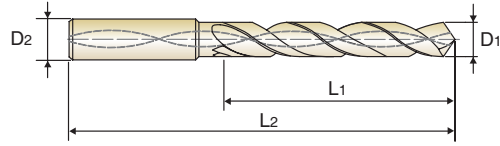


*** NEW SIZE**

SOLID DREAM DRILLS - ALU with COOLANT HOLES (DLC COATED)

- ▶ Wider and deeper flute gullets for maximum chip removal
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▶ FOR ALUMINUM



DIN 6537
MG
h6
m7
118°
P.44

DREAM DRILLS ALU | 5 × D

Unit : mm

| EDP No. | Diameter | | | Shank Diameter | Flute Length | Overall Length | EDP No. | Diameter | | | Shank Diameter | Flute Length | Overall Length |
|--------------|----------|------------|---------|----------------|--------------|----------------|------------|----------|------------|---------|----------------|--------------|----------------|
| | Metric | Fractional | Decimal | | | | | Metric | Fractional | Decimal | | | |
| | D1 | | | D2 | L1 | L2 | DLC | D1 | | | D2 | L1 | L2 |
| * DGE433036F | 14.288 | 9/16 | .5625 | 16 | 83 | 133 | DGE433175 | 17.5 | | .6889 | 18 | 93 | 143 |
| DGE433145 | 14.5 | | .5708 | 16 | 83 | 133 | DGE433180 | 18.0 | | .7087 | 18 | 93 | 143 |
| DGE433150 | 15.0 | | .5905 | 16 | 83 | 133 | DGE433185 | 18.5 | | .7283 | 20 | 101 | 153 |
| DGE433155 | 15.5 | | .6102 | 16 | 83 | 133 | DGE433190 | 19.0 | | .7480 | 20 | 101 | 153 |
| * DGE433040F | 15.875 | 5/8 | .6250 | 16 | 83 | 133 | DGE433048F | 19.05 | 3/4 | .7500 | 20 | 101 | 153 |
| DGE433160 | 16.0 | | .6299 | 16 | 83 | 133 | DGE433195 | 19.5 | | .7676 | 20 | 101 | 153 |
| DGE433165 | 16.5 | | .6495 | 18 | 93 | 143 | DGE433200 | 20.0 | | .7874 | 20 | 101 | 153 |
| DGE433170 | 17.0 | | .6692 | 18 | 93 | 143 | | | | | | | |

▶ Other shank types are available on your request

◎ : Excellent ○ : Good

| Carbon Steels | Alloy Steels | Prehardened Steels | Hardened Steels | | Cast Iron | Aluminum | Stainless Steels | Titanium | Mild Steels | Copper | Bronze |
|---------------|--------------|--------------------|-----------------|--------|-----------|----------|------------------|----------|-------------|--------|--------|
| ~HB225 | HB225~325 | HRC30~45 | HRC45~55 | HRC55~ | | | | | | | |
| | | | | | | ◎ | | | | | |



SOLID CARBIDE DREAM DRILLS ALU with COOLANT HOLES (DLC COATED)

▶ FOR ALUMINUM

DGE466, DGE433, DGE718 Series

| WORK MATERIAL | | N | | | | | | | | |
|---------------------|---------------|--|---------|-----------|--------------|------------------------|-----------|---|---|-----|
| | | ALUMINUM ALLOY CASTING ALUMINUM DIE CASTING | | | | WROUGHT ALUMINUM ALLOY | | | | |
| DRILLING SPEED(SFM) | | 240 ~ 650 ft/min | | | | 240 ~ 650 ft/min | | | | |
| DIAMETER | | N | S | IPR | N | S | IPR | N | S | IPR |
| Metric(mm) | Decimal | | | | | | | | | |
| 3.0~6.0 | .1181 ~ .2362 | 8,000~15,000 | 0.2~0.5 | .008 .020 | 8,000~15,000 | 0.15~0.3 | .006 .012 | | | |
| ~10.0 | ~.3937 | 6,000~10,500 | 0.3~1.0 | .012 .039 | 6,000~10,500 | 0.20~0.4 | .008 .016 | | | |
| ~14.0 | ~.5512 | 4,500~ 5,800 | 0.3~1.0 | .012 .039 | 4,500~ 5,800 | 0.20~0.4 | .008 .016 | | | |
| ~20.0 | ~.7874 | 3,200~ 4,600 | 0.3~1.0 | .012 .039 | 3,200~ 4,600 | 0.30~1.0 | .012 .039 | | | |

N = R.P.M
 S= feed rate (mm/rev.)
 IPR= feed rate (Inch/rev.)

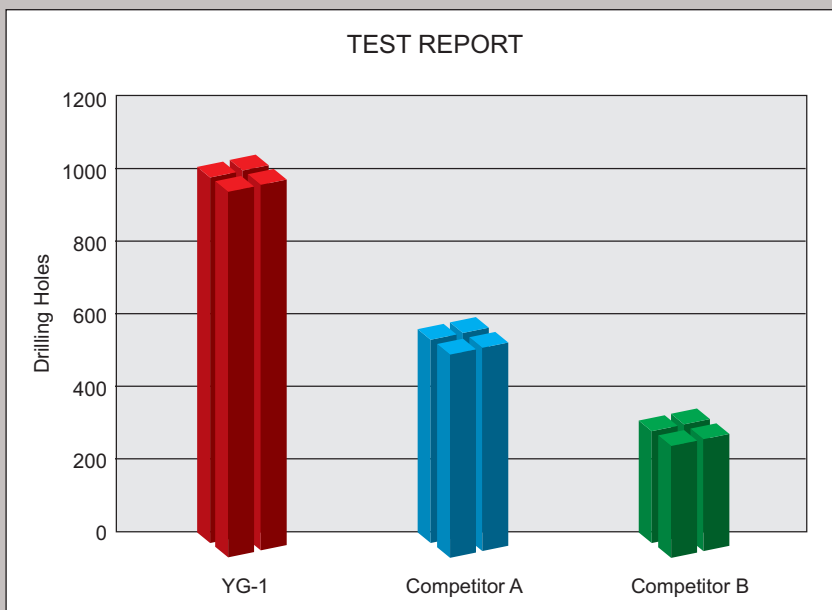
SOLID CARBIDE DREAM DRILLS MQL TYPE - **Test Report**

with COOLANT HOLES

● **FEATURES OF DREAM DRILLS MQL TYPE**

- Flute Shape and Point Shape allowing better chip evacuation in deep hole drilling
- Excellent Coating and Surface Treatment for better performance and chip evacuation

● **TEST RESULT AGAINST COMPETITOR'S DRILL**



Cutting Condition

- Tools : DH520060 (DREAM DRILL - MQL)
- Size : $\text{Ø}6.0 \times \text{Ø}6 \times 138 \times 193$
- Work Material : • JIS:S45C (HRc 25)
• DIN:C45
• WR:1.0503
- R.P.M : 3528 rev./min.
- SFM : 218 ft/min.
- Feed : .0075 inch/rev.
- Drilling Depth : 3.15"
- Coolant : Oil Mist (MQL Techniques)

➤ **YG-1 (After drilling 1,000 holes)**



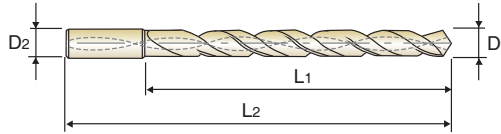
➤ **COMPETITOR A (After drilling 546 holes)**





SOLID CARBIDE DREAM DRILLS MQL TYPE

- ▶ 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



MQL TYPE | 10 × D

10 × D

Unit : mm

| EDP No. | Diameter | | Shank Diameter | Flute Length | Overall Length | EDP No. | Diameter | | Shank Diameter | Flute Length | Overall Length |
|----------|----------|-------|----------------|--------------|----------------|----------|----------|-------|----------------|--------------|----------------|
| | Metric | Inch | | | | | Metric | Inch | | | |
| TiAlN | D1 | | D2 | L1 | L2 | TiAlN | D1 | | D2 | L1 | L2 |
| DH510030 | 3.0 | .1181 | 3 | 39 | 90 | DH510080 | 8.0 | .3150 | 8 | 104 | 161 |
| DH510033 | 3.3 | .1299 | 4 | 46 | 97 | DH510085 | 8.5 | .3346 | 9 | 111 | 169 |
| DH510035 | 3.5 | .1378 | 4 | 46 | 97 | DH510090 | 9.0 | .3543 | 9 | 117 | 175 |
| DH510040 | 4.0 | .1575 | 4 | 52 | 103 | DH510095 | 9.5 | .3740 | 10 | 124 | 182 |
| DH510042 | 4.2 | .1654 | 5 | 59 | 112 | DH510100 | 10.0 | .3937 | 10 | 130 | 188 |
| DH510045 | 4.5 | .1772 | 5 | 59 | 112 | DH510105 | 10.5 | .4134 | 11 | 137 | 201 |
| DH510050 | 5.0 | .1969 | 5 | 65 | 118 | DH510110 | 11.0 | .4330 | 11 | 143 | 207 |
| DH510055 | 5.5 | .2165 | 6 | 72 | 127 | DH510115 | 11.5 | .4527 | 12 | 150 | 215 |
| DH510060 | 6.0 | .2362 | 6 | 78 | 133 | DH510120 | 12.0 | .4724 | 12 | 156 | 221 |
| DH510065 | 6.5 | .2559 | 7 | 85 | 141 | DH510125 | 12.5 | .4921 | 13 | 163 | 229 |
| DH510068 | 6.8 | .2677 | 7 | 91 | 147 | DH510130 | 13.0 | .5118 | 13 | 169 | 235 |
| DH510070 | 7.0 | .2756 | 7 | 91 | 147 | DH510135 | 13.5 | .5314 | 14 | 176 | 243 |
| DH510075 | 7.5 | .2953 | 8 | 98 | 155 | DH510140 | 14.0 | .5512 | 14 | 182 | 249 |

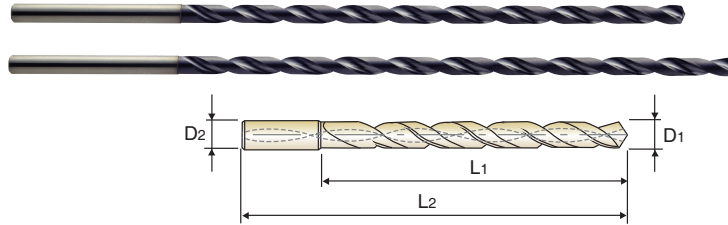
◎ : Excellent ○ : Good

| Carbon Steels | Alloy Steels | Prehardened Steels | Hardened Steels | | Cast Iron | Aluminum | Stainless Steels | Titanium | Mild Steels | Copper | Bronze |
|---------------|--------------|--------------------|-----------------|--------|-----------|----------|------------------|----------|-------------|--------|--------|
| ~HB225 | HB225~325 | HRC30~45 | HRC45~55 | HRC55~ | | | | | | | |
| ◎ | ◎ | ○ | | | ○ | | | | ○ | | |



SOLID CARBIDE DREAM DRILLS MQL TYPE

- ▶ 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



MQL TYPE | 15 × D, 20 × D

15 × D

20 × D

Unit :mm

| EDP No. | Diameter | | Shank Diameter | Flute Length | Overall Length | EDP No. | Diameter | | Shank Diameter | Flute Length | Overall Length |
|----------|----------|-------|----------------|--------------|----------------|----------|----------|-------|----------------|--------------|----------------|
| | Metric | Inch | | | | | Metric | Inch | | | |
| TiAIN | D1 | | D2 | L1 | L2 | TiAIN | D1 | | D2 | L1 | L2 |
| DH515030 | 3.0 | .1181 | 3 | 54 | 105 | DH520030 | 3.0 | .1181 | 3 | 69 | 120 |
| DH515035 | 3.5 | .1378 | 4 | 63 | 114 | DH520035 | 3.5 | .1378 | 4 | 81 | 132 |
| DH515040 | 4.0 | .1575 | 4 | 72 | 123 | DH520040 | 4.0 | .1575 | 4 | 92 | 143 |
| DH515045 | 4.5 | .1772 | 5 | 81 | 134 | DH520045 | 4.5 | .1772 | 5 | 104 | 157 |
| DH515050 | 5.0 | .1969 | 5 | 90 | 143 | DH520050 | 5.0 | .1969 | 5 | 115 | 168 |
| DH515055 | 5.5 | .2165 | 6 | 99 | 154 | DH520055 | 5.5 | .2165 | 6 | 127 | 182 |
| DH515060 | 6.0 | .2362 | 6 | 108 | 163 | DH520060 | 6.0 | .2362 | 6 | 138 | 193 |
| DH515070 | 7.0 | .2756 | 7 | 126 | 182 | DH520070 | 7.0 | .2756 | 7 | 161 | 217 |
| DH515080 | 8.0 | .3150 | 8 | 144 | 201 | DH520080 | 8.0 | .3150 | 8 | 184 | 241 |
| DH515090 | 9.0 | .3543 | 9 | 162 | 220 | DH520090 | 9.0 | .3543 | 9 | 207 | 265 |
| DH515100 | 10.0 | .3937 | 10 | 180 | 238 | DH520100 | 10.0 | .3937 | 10 | 230 | 288 |
| DH515110 | 11.0 | .4330 | 11 | 198 | 262 | DH520120 | 12.0 | .4724 | 12 | 276 | 341 |
| DH515120 | 12.0 | .4724 | 12 | 216 | 281 | | | | | | |

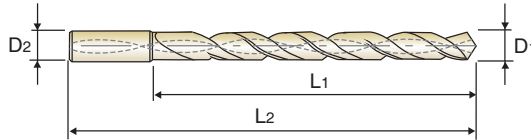
◎ : Excellent ○ : Good

| Carbon Steels | Alloy Steels | Prehardened Steels | Hardened Steels | | Cast Iron | Aluminum | Stainless Steels | Titanium | Mild Steels | Copper | Bronze |
|---------------|--------------|--------------------|-----------------|--------|-----------|----------|------------------|----------|-------------|--------|--------|
| ~HB225 | HB225~325 | HRC30~45 | HRC45~55 | HRC55~ | | | | | | | |
| ◎ | ◎ | ○ | | | ○ | | | | ○ | | |



SOLID CARBIDE DREAM DRILLS MQL TYPE with COOLANT HOLES

- ▶ Non step drilling up to 10(15&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



Call for availability

MG

MQL TYPE | 10 × D, 15 × D, 20 × D

10 × D

15 × D

Unit :mm

| EDP No. | Diameter | | Shank Diameter | Flute Length | Overall Length |
|----------|----------|-------|----------------|--------------|----------------|
| | Metric | Inch | | | |
| TiAIN | D1 | | D2 | L1 | L2 |
| DHM10030 | 3.0 | .1181 | 6 | 40 | 80 |
| DHM10033 | 3.3 | .1299 | 6 | 47 | 87 |
| DHM10035 | 3.5 | .1378 | 6 | 47 | 87 |
| DHM10040 | 4.0 | .1575 | 6 | 53 | 93 |
| DHM10042 | 4.2 | .1654 | 6 | 60 | 100 |
| DHM10045 | 4.5 | .1772 | 6 | 60 | 100 |
| DHM10050 | 5.0 | .1969 | 6 | 66 | 106 |
| DHM10055 | 5.5 | .2165 | 6 | 73 | 113 |
| DHM10060 | 6.0 | .2362 | 6 | 79 | 119 |
| DHM10065 | 6.5 | .2559 | 8 | 86 | 126 |
| DHM10068 | 6.8 | .2677 | 8 | 92 | 132 |
| DHM10070 | 7.0 | .2756 | 8 | 92 | 132 |
| DHM10075 | 7.5 | .2953 | 8 | 99 | 139 |
| DHM10080 | 8.0 | .3150 | 8 | 105 | 145 |
| DHM10085 | 8.5 | .3346 | 10 | 112 | 156 |
| DHM10090 | 9.0 | .3543 | 10 | 118 | 162 |
| DHM10095 | 9.5 | .3740 | 10 | 126 | 170 |
| DHM10100 | 10.0 | .3937 | 10 | 132 | 176 |
| DHM10105 | 10.5 | .4134 | 12 | 139 | 188 |
| DHM10110 | 11.0 | .4330 | 12 | 145 | 194 |
| DHM10115 | 11.5 | .4527 | 12 | 152 | 201 |
| DHM10120 | 12.0 | .4724 | 12 | 158 | 207 |
| DHM10125 | 12.5 | .4921 | 14 | 165 | 214 |
| DHM10130 | 13.0 | .5118 | 14 | 171 | 220 |
| DHM10135 | 13.5 | .5314 | 14 | 178 | 227 |
| DHM10140 | 14.0 | .5512 | 14 | 184 | 233 |

| EDP No. | Diameter | | Shank Diameter | Flute Length | Overall Length |
|----------|----------|-------|----------------|--------------|----------------|
| | Metric | Inch | | | |
| TiAIN | D1 | | D2 | L1 | L2 |
| DHM15030 | 3.0 | .1181 | 6 | 55 | 95 |
| DHM15035 | 3.5 | .1378 | 6 | 64 | 104 |
| DHM15040 | 4.0 | .1575 | 6 | 73 | 113 |
| DHM15045 | 4.5 | .1772 | 6 | 82 | 122 |
| DHM15050 | 5.0 | .1969 | 6 | 91 | 131 |
| DHM15055 | 5.5 | .2165 | 6 | 100 | 140 |
| DHM15060 | 6.0 | .2362 | 6 | 109 | 149 |
| DHM15070 | 7.0 | .2756 | 8 | 127 | 167 |
| DHM15080 | 8.0 | .3150 | 8 | 145 | 185 |
| DHM15090 | 9.0 | .3543 | 10 | 163 | 207 |
| DHM15100 | 10.0 | .3937 | 10 | 182 | 226 |
| DHM15110 | 11.0 | .4330 | 12 | 200 | 249 |
| DHM15120 | 12.0 | .4724 | 12 | 218 | 267 |

20 × D

Unit :mm

| EDP No. | Diameter | | Shank Diameter | Flute Length | Overall Length |
|----------|----------|-------|----------------|--------------|----------------|
| | Metric | Inch | | | |
| TiAIN | D1 | | D2 | L1 | L2 |
| DHM20030 | 3.0 | .1181 | 6 | 70 | 110 |
| DHM20035 | 3.5 | .1378 | 6 | 82 | 122 |
| DHM20040 | 4.0 | .1575 | 6 | 93 | 133 |
| DHM20045 | 4.5 | .1772 | 6 | 105 | 145 |
| DHM20050 | 5.0 | .1969 | 6 | 116 | 156 |
| DHM20055 | 5.5 | .2165 | 6 | 128 | 168 |
| DHM20060 | 6.0 | .2362 | 6 | 139 | 179 |
| DHM20070 | 7.0 | .2756 | 8 | 162 | 202 |
| DHM20080 | 8.0 | .3150 | 8 | 185 | 225 |
| DHM20090 | 9.0 | .3543 | 10 | 208 | 252 |
| DHM20100 | 10.0 | .3937 | 10 | 232 | 276 |
| DHM20110 | 11.0 | .4330 | 12 | 255 | 304 |
| DHM20120 | 12.0 | .4724 | 12 | 278 | 327 |

⊙ : Excellent ○ : Good

| Carbon Steels | Alloy Steels | Prehardened Steels | Hardened Steels | | Cast Iron | Aluminum | Stainless Steels | Titanium | Mild Steels | Copper | Bronze |
|---------------|--------------|--------------------|-----------------|--------|-----------|----------|------------------|----------|-------------|--------|--------|
| ~HB225 | HB225~325 | HRC30~45 | HRC45~55 | HRC55~ | | | | | | | |
| ⊙ | ⊙ | ○ | | | ○ | | | | ○ | | |



MQL TYPE

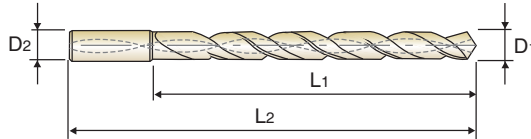
DHM25, DHM30 Series

EXTRA LONG



SOLID CARBIDE DREAM DRILLS MQL TYPE with COOLANT HOLES

- ▶ Non step drilling up to 25(30) times of drill diameter
- ▶ Available for processing MQL (Minimum Quantity Lubrication)
- ▶ Excellent positioning – Bush is not necessary
- ▶ Special design – Good chip removal
- ▶ Powerful drilling



Call for availability

MG

MQL TYPE | 25 × D, 30 × D

25 × D

30 × D

Unit :mm

| EDP No. | Diameter | | Shank Diameter | Flute Length | Overall Length | EDP No. | Diameter | | Shank Diameter | Flute Length | Overall Length |
|----------|----------|-------|----------------|--------------|----------------|----------|----------|-------|----------------|--------------|----------------|
| | Metric | Inch | | | | | Metric | Inch | | | |
| TiAIN | D1 | | D2 | L1 | L2 | TiAIN | D1 | | D2 | L1 | L2 |
| DHM25030 | 3.0 | .1181 | 6 | 85 | 125 | DHM30030 | 3.0 | .1181 | 6 | 100 | 140 |
| DHM25035 | 3.5 | .1378 | 6 | 99 | 139 | DHM30035 | 3.5 | .1378 | 6 | 117 | 157 |
| DHM25040 | 4.0 | .1575 | 6 | 113 | 153 | DHM30040 | 4.0 | .1575 | 6 | 133 | 173 |
| DHM25045 | 4.5 | .1772 | 6 | 127 | 167 | DHM30045 | 4.5 | .1772 | 6 | 150 | 190 |
| DHM25050 | 5.0 | .1969 | 6 | 141 | 181 | DHM30050 | 5.0 | .1969 | 6 | 166 | 206 |
| DHM25055 | 5.5 | .2165 | 6 | 155 | 195 | DHM30055 | 5.5 | .2165 | 6 | 183 | 223 |
| DHM25060 | 6.0 | .2362 | 6 | 169 | 209 | DHM30060 | 6.0 | .2362 | 6 | 199 | 239 |
| DHM25070 | 7.0 | .2756 | 8 | 197 | 237 | DHM30070 | 7.0 | .2756 | 8 | 232 | 272 |
| DHM25080 | 8.0 | .3150 | 8 | 225 | 265 | DHM30080 | 8.0 | .3150 | 8 | 265 | 305 |
| DHM25090 | 9.0 | .3543 | 10 | 253 | 297 | | | | | | |
| DHM25100 | 10.0 | .3937 | 10 | 282 | 326 | | | | | | |

◎ : Excellent ○ : Good

| Carbon Steels | Alloy Steels | Prehardened Steels | Hardened Steels | | Cast Iron | Aluminum | Stainless Steels | Titanium | Mild Steels | Copper | Bronze |
|---------------|--------------|--------------------|-----------------|--------|-----------|----------|------------------|----------|-------------|--------|--------|
| ~HB225 | HB225~325 | HRC30~45 | HRC45~55 | HRC55~ | | | | | | | |
| ◎ | ◎ | ○ | | | ○ | | | | ○ | | |



SOLID CARBIDE DREAM DRILLS MQL TYPE, TiAIN COATED

DH510, DH515, DH520, DHM10, DHM15, DHM20 Series

| WORK MATERIAL | P | | | | | | K | | | | | | | | | | | |
|---------------------|--------------------------|------|-----------|-------|-------|------|-----------------------------|-------|-------|------|-----------|-------|-----------------------------|--|--|--|--|--|
| | CARBON STEELS | | | | | | CAST IRON | | | | | | DUCTILE CAST IRON | | | | | |
| STRENGTH | ~ 1060 N/mm ² | | | | | | 250 ~ 350 N/mm ² | | | | | | 400 ~ 500 N/mm ² | | | | | |
| DRILLING SPEED(SFM) | 230 ~ 290 ft/min | | | | | | 230 ~ 290 ft/min | | | | | | 220 ~ 240 ft/min | | | | | |
| DIAMETER | Metric(mm) Decimal | N | S | IPR | | N | S | IPR | | N | S | IPR | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| 3 | .1181 | 7500 | 0.06~0.12 | .0024 | .0047 | 7500 | 0.06~0.12 | .0024 | .0047 | 7500 | 0.06~0.12 | .0024 | .0047 | | | | | |
| 4 | .1575 | 6400 | 0.08~0.16 | .0031 | .0063 | 6400 | 0.08~0.16 | .0031 | .0063 | 5600 | 0.08~0.16 | .0031 | .0063 | | | | | |
| 5 | .1969 | 5800 | 0.10~0.20 | .0039 | .0079 | 5800 | 0.10~0.20 | .0039 | .0079 | 4500 | 0.10~0.20 | .0039 | .0079 | | | | | |
| 6 | .2362 | 4800 | 0.12~0.24 | .0047 | .0094 | 4800 | 0.12~0.24 | .0047 | .0094 | 3800 | 0.12~0.24 | .0047 | .0094 | | | | | |
| 8 | .3150 | 3600 | 0.16~0.28 | .0063 | .0110 | 3600 | 0.16~0.28 | .0063 | .0110 | 2800 | 0.16~0.28 | .0063 | .0110 | | | | | |
| 10 | .3937 | 2900 | 0.20~0.35 | .0079 | .0138 | 2900 | 0.20~0.35 | .0079 | .0138 | 2300 | 0.20~0.35 | .0079 | .0138 | | | | | |
| 12 | .4724 | 2400 | 0.24~0.42 | .0094 | .0165 | 2400 | 0.24~0.42 | .0094 | .0165 | 1900 | 0.24~0.42 | .0094 | .0165 | | | | | |
| 14 | .5512 | 2050 | 0.28~0.46 | .0110 | .0181 | 2050 | 0.28~0.46 | .0110 | .0181 | 1600 | 0.28~0.46 | .0110 | .0181 | | | | | |

N = R.P.M
S= feed rate (mm/rev.)
IPR= feed rate (Inch/rev.)

DHM25, DHM30 Series

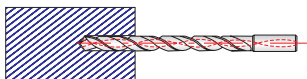
| WORK MATERIAL | P | | | | | | K | | | | | | | | | | | |
|---------------------|--------------------------|------|-----------|-------|-------|------|-----------------------------|-------|-------|------|-----------|-------|-----------------------------|--|--|--|--|--|
| | CARBON STEELS | | | | | | CAST IRON | | | | | | DUCTILE CAST IRON | | | | | |
| STRENGTH | ~ 1060 N/mm ² | | | | | | 250 ~ 350 N/mm ² | | | | | | 400 ~ 500 N/mm ² | | | | | |
| DRILLING SPEED(SFM) | 230 ~ 290 ft/min | | | | | | 230 ~ 290 ft/min | | | | | | 220 ~ 240 ft/min | | | | | |
| DIAMETER | Metric(mm) Decimal | N | S | IPR | | N | S | IPR | | N | S | IPR | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| 3 | .1181 | 6400 | 0.06~0.12 | .0024 | .0047 | 6400 | 0.06~0.12 | .0024 | .0047 | 6400 | 0.06~0.12 | .0024 | .0047 | | | | | |
| 4 | .1575 | 5500 | 0.08~0.16 | .0031 | .0063 | 5500 | 0.08~0.16 | .0031 | .0063 | 4700 | 0.08~0.16 | .0031 | .0063 | | | | | |
| 5 | .1969 | 4900 | 0.10~0.20 | .0039 | .0079 | 4900 | 0.10~0.20 | .0039 | .0079 | 3800 | 0.10~0.20 | .0039 | .0079 | | | | | |
| 6 | .2362 | 4200 | 0.12~0.24 | .0047 | .0094 | 4200 | 0.12~0.24 | .0047 | .0094 | 3200 | 0.12~0.24 | .0047 | .0094 | | | | | |
| 8 | .3150 | 3000 | 0.16~0.28 | .0063 | .0110 | 3000 | 0.16~0.28 | .0063 | .0110 | 2400 | 0.16~0.28 | .0063 | .0110 | | | | | |
| 10 | .3937 | 2500 | 0.20~0.35 | .0079 | .0138 | 2500 | 0.20~0.35 | .0079 | .0138 | 1900 | 0.20~0.35 | .0079 | .0138 | | | | | |

N = R.P.M
S= feed rate (mm/rev.)
IPR= feed rate (Inch/rev.)

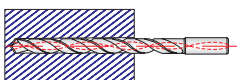
▶ COOLANT PRESSURE : 900 PSI



1. Use a YG 3xD Drill to produce a guide hole no larger than .004 over the required drill size. Drill the pilot hole 2xD deep hole.



2. Enter the guide hole at 50 SFM surface and .010 feed rate / per rev.



3. Before hitting the bottom of the guide hole, Increase SFM and feed rate for normal drilling.



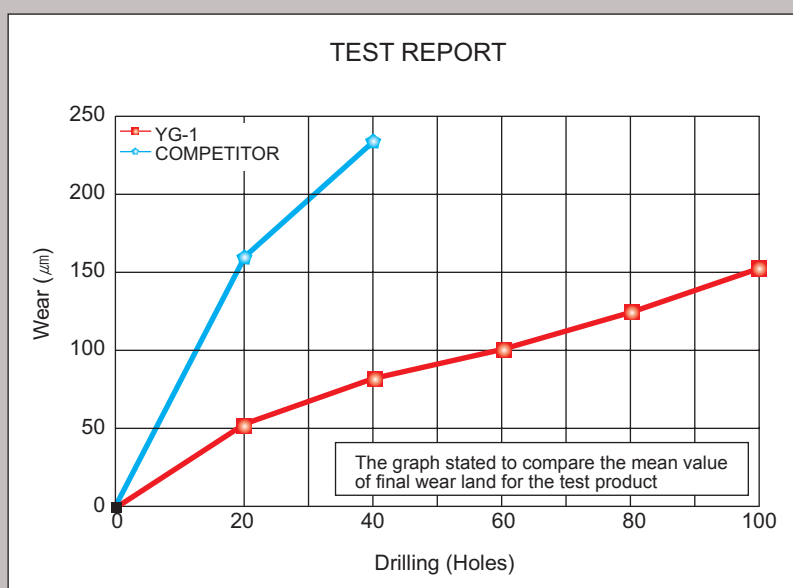
4. After drilling, to withdraw drill, reduce SFM to 50 @ 10 inches per minute.

SOLID CARBIDE DREAM DRILLS for HIGH HARDENED STEELS (HRc50~70)

FEATURES OF DREAM DRILLS for HARDENED STEELS

- Low Helix Angle to maximize tool's rigidity.
- Special Point Thinning to improve chip evacuation.
- Excellent Coating and Surface Treatment for improved surface and better chip evacuation.

TEST RESULT AGAINST COMPETITOR'S DRILL



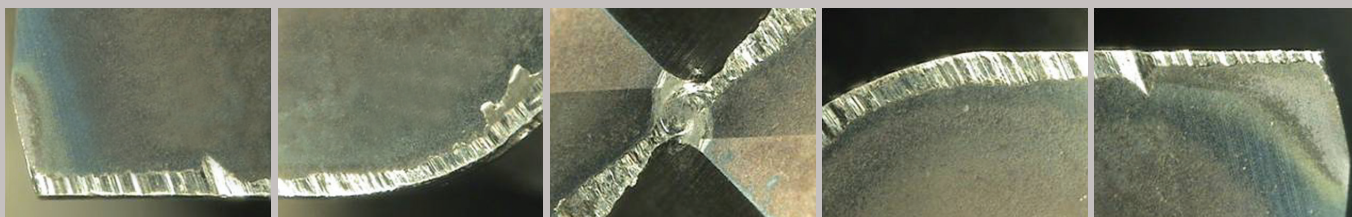
Cutting Condition

- Tools : DH500100 (DREAM DRILLS for HIGH HARDENED STEELS)
- Size : $\varnothing 10.0 \times \varnothing 10 \times 63 \times 111$
- Work Material : • JIS:SKD11 (HRc 60)
 - DIN:X155CrV-Mo12.1
 - WR:1.2379
- R.P.M : 380 rev./min.
- SFM : 39 ft/min.
- Feed : .0016 inch/rev.
- Drilling Depth : .98" (2.5D)
- Coolant : Wet Cut

YG-1 (After drilling 100 holes)



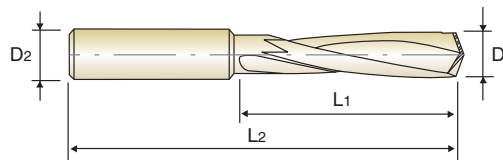
COMPETITOR (After drilling 40 holes)





SOLID CARBIDE DREAM DRILLS for HIGH HARDENED STEELS (HRc50~70)

- ▶ Application : Drilling for High Hardened Steels[Quenched Steels, Tempered Steels (Under HRc 70)]
- ▶ Advantage : Special Design
Minimum of cutting load through special thinning
Good chip removal
Powerful Drilling
- ▶ Tolerance : Dia. Tolerance $\varnothing D1$: See page 57, Shank Tolerance $\varnothing D2$: -.0001 -.0005



P.55

for HIGH HARDENED STEELS

Unit : Inch

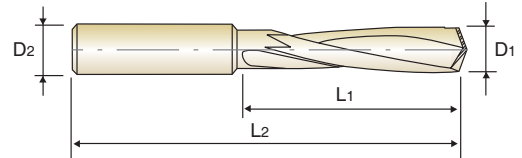
| EDP No. | Diameter | | Shank Diameter | Flute Length | Overall Length | EDP No. | Diameter | | Shank Diameter | Flute Length | Overall Length |
|----------|------------|---------|----------------|--------------|----------------|----------|------------|---------|----------------|--------------|----------------|
| | Fractional | Decimal | | | | | Fractional | Decimal | | | |
| TiAIN | D1 | | D2 | L1 | L2 | TiAIN | D1 | | D2 | L1 | L2 |
| DH501001 | 1/8 | .1250 | 1/8 | 21/32 | 2 | DH501031 | #1 | .2280 | 1/4 | 1-13/32 | 3 |
| DH501002 | #30 | .1285 | 3/16 | 23/32 | 2 | DH501032 | 15/64 | .2344 | 1/4 | 1-13/32 | 3 |
| DH501003 | #29 | .1360 | 3/16 | 13/16 | 2 | DH501033 | B | .2380 | 1/4 | 1-19/32 | 3-1/8 |
| DH501004 | #28 | .1405 | 3/16 | 13/16 | 2 | DH501034 | C | .2420 | 1/4 | 1-19/32 | 3-1/8 |
| DH501005 | 9/64 | .1406 | 3/16 | 13/16 | 2 | DH501035 | D | .2460 | 1/4 | 1-19/32 | 3-1/8 |
| DH501006 | #27 | .1440 | 3/16 | 13/16 | 2 | DH501036 | 1/4 | .2500 | 1/4 | 1-19/32 | 3-1/8 |
| DH501007 | #26 | .1470 | 3/16 | 13/16 | 2 | DH501037 | F | .2570 | 3/8 | 1-19/32 | 3-1/8 |
| DH501008 | #25 | .1495 | 3/16 | 7/8 | 2-1/16 | DH501038 | G | .2610 | 3/8 | 1-19/32 | 3-1/8 |
| DH501009 | #24 | .1520 | 3/16 | 7/8 | 2-1/16 | DH501039 | 17/64 | .2656 | 3/8 | 1-19/32 | 3-1/8 |
| DH501010 | #23 | .1540 | 3/16 | 7/8 | 2-1/16 | DH501040 | I | .2720 | 3/8 | 1-25/32 | 3-3/8 |
| DH501011 | 5/32 | .1562 | 3/16 | 7/8 | 2-1/16 | DH501041 | J | .2770 | 3/8 | 1-25/32 | 3-3/8 |
| DH501012 | #22 | .1570 | 3/16 | 7/8 | 2-1/16 | DH501042 | 9/32 | .2812 | 3/8 | 1-25/32 | 3-3/8 |
| DH501013 | #21 | .1590 | 3/16 | 7/8 | 2-1/16 | DH501043 | L | .2900 | 3/8 | 1-25/32 | 3-3/8 |
| DH501014 | #20 | .1610 | 3/16 | 1 | 2-1/2 | DH501044 | M | .2950 | 3/8 | 1-25/32 | 3-3/8 |
| DH501015 | #19 | .1660 | 3/16 | 1 | 2-1/2 | DH501045 | 19/64 | .2969 | 3/8 | 1-25/32 | 3-3/8 |
| DH501016 | 11/64 | .1719 | 3/16 | 1-1/8 | 2-3/4 | DH501046 | N | .3020 | 3/8 | 1-31/32 | 3-7/8 |
| DH501017 | #15 | .1800 | 3/16 | 1-1/8 | 2-3/4 | DH501047 | 5/16 | .3125 | 3/8 | 1-31/32 | 3-7/8 |
| DH501018 | #14 | .1820 | 3/16 | 1-1/8 | 2-3/4 | DH501048 | O | .3160 | 3/8 | 1-31/32 | 3-7/8 |
| DH501019 | 3/16 | .1875 | 3/16 | 1-1/8 | 2-3/4 | DH501049 | 21/64 | .3281 | 3/8 | 1-31/32 | 3-7/8 |
| DH501020 | #10 | .1935 | 1/4 | 1-9/32 | 2-7/8 | DH501050 | Q | .3320 | 3/8 | 1-31/32 | 3-7/8 |
| DH501021 | #9 | .1960 | 1/4 | 1-9/32 | 2-7/8 | DH501051 | R | .3390 | 3/8 | 2-1/4 | 4-1/8 |
| DH501022 | #8 | .1990 | 1/4 | 1-9/32 | 2-7/8 | DH501052 | 11/32 | .3438 | 3/8 | 2-1/4 | 4-1/8 |
| DH501023 | #7 | .2010 | 1/4 | 1-9/32 | 2-7/8 | DH501053 | 23/64 | .3594 | 3/8 | 2-1/4 | 4-1/8 |
| DH501024 | 13/64 | .2031 | 1/4 | 1-9/32 | 2-7/8 | DH501054 | U | .3680 | 3/8 | 2-1/4 | 4-1/8 |
| DH501025 | #6 | .2040 | 1/4 | 1-9/32 | 2-7/8 | DH501055 | 3/8 | .3750 | 3/8 | 2-1/4 | 4-1/8 |
| DH501026 | #5 | .2055 | 1/4 | 1-9/32 | 2-7/8 | DH501056 | V | .3770 | 1/2 | 2-1/2 | 4-3/8 |
| DH501027 | #4 | .2090 | 1/4 | 1-9/32 | 2-7/8 | DH501057 | 25/64 | .3906 | 1/2 | 2-1/2 | 4-3/8 |
| DH501028 | #3 | .2130 | 1/4 | 1-13/32 | 3 | DH501058 | X | .3970 | 1/2 | 2-1/2 | 4-3/8 |
| DH501029 | 7/32 | .2188 | 1/4 | 1-13/32 | 3 | DH501059 | Y | .4040 | 1/2 | 2-1/2 | 4-3/8 |
| DH501030 | #2 | .2210 | 1/4 | 1-13/32 | 3 | DH501060 | 13/32 | .4062 | 1/2 | 2-1/2 | 4-3/8 |

▶ NEXT PAGE



SOLID CARBIDE DREAM DRILLS for HIGH HARDENED STEELS (HRc50~70)

- ▶ Application : Drilling for High Hardened Steels[Quenched Steels, Tempered Steels (Under HRc 70)]
- ▶ Advantage : Special Design
 - Minimum of cutting load through special thinning
 - Good chip removal
 - Powerful Drilling
- ▶ Tolerance : Dia. Tolerance $\varnothing D1$: See page 57, Shank Tolerance $\varnothing D2$: -.0001 -.0005



for HIGH HARDENED STEELS

Unit : Inch

| EDP No. | Diameter | | Shank Diameter | Flute Length | Overall Length | EDP No. | Diameter | | Shank Diameter | Flute Length | Overall Length |
|----------|------------|---------|----------------|--------------|----------------|----------|------------|---------|----------------|--------------|----------------|
| | Fractional | Decimal | | | | | Fractional | Decimal | | | |
| TiAlN | D1 | | D2 | L1 | L2 | TiAlN | D1 | | D2 | L1 | L2 |
| DH501061 | Z | .4130 | 1/2 | 2-1/2 | 4-3/8 | DH501073 | 19/32 | .5937 | 5/8 | 3-9/32 | 5-1/4 |
| DH501062 | 27/64 | .4219 | 1/2 | 2-13/16 | 4-5/8 | DH501074 | 39/64 | .6094 | 5/8 | 3-9/32 | 5-1/4 |
| DH501063 | 7/16 | .4375 | 1/2 | 2-13/16 | 4-5/8 | DH501075 | 5/8 | .6250 | 5/8 | 3-9/32 | 5-1/4 |
| DH501064 | 29/64 | .4531 | 1/2 | 2-13/16 | 4-5/8 | DH501076 | 41/64 | .6406 | 3/4 | 3-9/32 | 5-1/4 |
| DH501065 | 15/32 | .4688 | 1/2 | 2-13/16 | 4-5/8 | DH501077 | 21/32 | .6563 | 3/4 | 3-11/16 | 5-5/8 |
| DH501066 | 31/64 | .4844 | 1/2 | 2-13/16 | 4-5/8 | DH501078 | 43/64 | .6719 | 3/4 | 3-11/16 | 5-5/8 |
| DH501067 | 1/2 | .5000 | 1/2 | 3-1/16 | 5 | DH501079 | 11/16 | .6875 | 3/4 | 3-11/16 | 5-5/8 |
| DH501068 | 33/64 | .5156 | 5/8 | 3-1/16 | 5 | DH501080 | 45/64 | .7031 | 3/4 | 3-11/16 | 5-5/8 |
| DH501069 | 17/32 | .5312 | 5/8 | 3-1/16 | 5 | DH501081 | 23/32 | .7188 | 3/4 | 3-3/4 | 6 |
| DH501070 | 35/64 | .5469 | 5/8 | 3-1/16 | 5 | DH501082 | 47/64 | .7344 | 3/4 | 3-3/4 | 6 |
| DH501071 | 9/16 | .5625 | 5/8 | 3-1/16 | 5 | DH501083 | 3/4 | .7500 | 3/4 | 3-3/4 | 6 |
| DH501072 | 37/64 | .5781 | 5/8 | 3-9/32 | 5-1/4 | | | | | | |

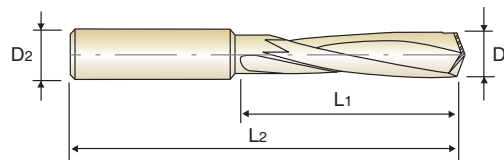
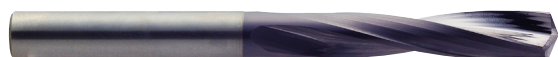
◎ : Excellent ○ : Good

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



SOLID CARBIDE DREAM DRILLS for HIGH HARDENED STEELS (HRc50~70)

- ▶ Application : Drilling for High Hardened Steels[Quenched Steels, Tempered Steels (Under HRc 70)]
- ▶ Advantage : Special Design
Minimum of cutting load through special thinning
Good chip removal
Powerful Drilling



for HIGH HARDENED STEELS

Unit : mm

| EDP No. | Diameter | | Shank Diameter | Flute Length | Overall Length | EDP No. | Diameter | | Shank Diameter | Flute Length | Overall Length |
|----------|----------|-------|----------------|--------------|----------------|----------|----------|-------|----------------|--------------|----------------|
| | Metric | Inch | | | | | Metric | Inch | | | |
| TiAIN | D1 | | D2 | L1 | L2 | TiAIN | D1 | | D2 | L1 | L2 |
| DH500010 | 1.0 | .0394 | 3 | 6 | 40 | DH500051 | 5.1 | .2008 | 6 | 32 | 72 |
| DH500011 | 1.1 | .0433 | 3 | 6 | 40 | DH500052 | 5.2 | .2047 | 6 | 32 | 72 |
| DH500012 | 1.2 | .0472 | 3 | 6 | 40 | DH500053 | 5.3 | .2087 | 6 | 32 | 72 |
| DH500013 | 1.3 | .0512 | 3 | 8 | 40 | DH500055 | 5.5 | .2165 | 6 | 35 | 75 |
| DH500014 | 1.4 | .0551 | 3 | 8 | 40 | DH500060 | 6.0 | .2362 | 6 | 35 | 75 |
| DH500015 | 1.5 | .0591 | 3 | 8 | 40 | DH500062 | 6.2 | .2441 | 8 | 40 | 80 |
| DH500016 | 1.6 | .0630 | 3 | 10 | 40 | DH500065 | 6.5 | .2559 | 8 | 40 | 80 |
| DH500017 | 1.7 | .0669 | 3 | 10 | 40 | DH500068 | 6.8 | .2677 | 8 | 45 | 85 |
| DH500018 | 1.8 | .0709 | 3 | 10 | 40 | DH500069 | 6.9 | .2717 | 8 | 45 | 85 |
| DH500019 | 1.9 | .0748 | 3 | 10 | 40 | DH500070 | 7.0 | .2756 | 8 | 45 | 85 |
| DH500020 | 2.0 | .0787 | 3 | 12 | 42 | DH500075 | 7.5 | .2953 | 8 | 45 | 85 |
| DH500025 | 2.5 | .0984 | 3 | 14 | 44 | DH500080 | 8.0 | .3150 | 8 | 50 | 98 |
| DH500026 | 2.6 | .1024 | 3 | 16 | 44 | DH500085 | 8.5 | .3346 | 10 | 50 | 98 |
| DH500028 | 2.8 | .1102 | 3 | 16 | 46 | DH500086 | 8.6 | .3386 | 10 | 57 | 105 |
| DH500030 | 3.0 | .1181 | 3 | 18 | 46 | DH500088 | 8.8 | .3465 | 10 | 57 | 105 |
| DH500033 | 3.3 | .1299 | 4 | 18 | 48 | DH500090 | 9.0 | .3543 | 10 | 57 | 105 |
| DH500034 | 3.4 | .1339 | 4 | 20 | 50 | DH500093 | 9.3 | .3661 | 10 | 57 | 105 |
| DH500035 | 3.5 | .1378 | 4 | 20 | 50 | DH500095 | 9.5 | .3740 | 10 | 57 | 105 |
| DH500038 | 3.8 | .1496 | 4 | 22 | 52 | DH500100 | 10.0 | .3937 | 10 | 63 | 111 |
| DH500040 | 4.0 | .1575 | 4 | 22 | 52 | DH500102 | 10.2 | .4016 | 12 | 63 | 111 |
| DH500041 | 4.1 | .1614 | 6 | 25 | 65 | DH500103 | 10.3 | .4055 | 12 | 63 | 111 |
| DH500042 | 4.2 | .1654 | 6 | 25 | 65 | DH500105 | 10.5 | .4134 | 12 | 71 | 111 |
| DH500043 | 4.3 | .1693 | 6 | 28 | 68 | DH500108 | 10.8 | .4252 | 12 | 71 | 119 |
| DH500044 | 4.4 | .1732 | 6 | 28 | 68 | DH500110 | 11.0 | .4331 | 12 | 71 | 119 |
| DH500045 | 4.5 | .1772 | 6 | 28 | 68 | DH500115 | 11.5 | .4528 | 12 | 71 | 119 |
| DH500046 | 4.6 | .1811 | 6 | 28 | 68 | DH500120 | 12.0 | .4724 | 12 | 71 | 119 |
| DH500048 | 4.8 | .1890 | 6 | 32 | 72 | DH500121 | 12.1 | .4764 | 14 | 77 | 125 |
| DH500049 | 4.9 | .1929 | 6 | 32 | 72 | DH500140 | 14.0 | .5512 | 14 | 77 | 125 |
| DH500050 | 5.0 | .1969 | 6 | 32 | 72 | | | | | | |

◎ : Excellent ○ : Good

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



for HIGH HARDENED STEELS

SOLID CARBIDE DREAM DRILLS for HIGH HARDENED STEELS HRc50~HRc70, TiAlN COATED

DH501 Series

| WORK MATERIAL | | | P | | | | | | | | |
|---------------------|------------|---------|-----------------|------|-------|----------------|------|-------|----------------|------|-------|
| | | | HARDENED STEELS | | | | | | | | |
| DRILLING SPEED(SFM) | | | HRc 50~55 | | | HRc 55~60 | | | HRc 60~70 | | |
| | | | 45 ~ 72 ft/min | | | 32 ~ 52 ft/min | | | 26 ~ 42 ft/min | | |
| DIAMETER | | | N | S | IPR | N | S | IPR | N | S | IPR |
| Fractional | Metric(mm) | Decimal | | | | | | | | | |
| 5/64 | 1.984 | .0781 | 2860 | 0.04 | .0015 | 2000 | 0.04 | .0015 | 1900 | 0.04 | .0015 |
| 1/8 | 3.175 | .1250 | 1900 | 0.04 | .0015 | 1330 | 0.04 | .0015 | 1250 | 0.04 | .0015 |
| 5/32 | 3.969 | .1563 | 1430 | 0.04 | .0015 | 1000 | 0.04 | .0015 | 950 | 0.04 | .0015 |
| 13/64 | 5.159 | .2031 | 1150 | 0.04 | .0015 | 800 | 0.04 | .0015 | 750 | 0.04 | .0015 |
| 15/64 | 5.953 | .2344 | 960 | 0.04 | .0015 | 670 | 0.04 | .0015 | 630 | 0.04 | .0015 |
| 5/16 | 7.938 | .3125 | 720 | 0.04 | .0015 | 500 | 0.04 | .0015 | 480 | 0.04 | .0015 |
| 25/64 | 9.922 | .3906 | 570 | 0.04 | .0015 | 400 | 0.04 | .0015 | 380 | 0.04 | .0015 |
| 15/32 | 11.906 | .4688 | 480 | 0.04 | .0015 | 330 | 0.04 | .0015 | 320 | 0.04 | .0015 |
| 9/16 | 14.288 | .5625 | 435 | 0.04 | .0015 | 280 | 0.04 | .0015 | 270 | 0.04 | .0015 |
| 41/64 | 16.272 | .6406 | 380 | 0.04 | .0015 | 250 | 0.04 | .0015 | 240 | 0.04 | .0015 |
| 11/16 | 17.463 | .6875 | 325 | 0.04 | .0015 | 235 | 0.04 | .0015 | 190 | 0.04 | .0015 |
| 47/64 | 18.653 | .7344 | 310 | 0.04 | .0015 | 220 | 0.04 | .0015 | 180 | 0.04 | .0015 |

N = R.P.M
S= feed rate (mm/rev.)
IPR= feed rate (Inch/rev.)

DH500 Series

| WORK MATERIAL | | | P | | | | | | | | |
|---------------------|-------|--|-----------------|------|-------|----------------|------|-------|----------------|------|-------|
| | | | HARDENED STEELS | | | | | | | | |
| DRILLING SPEED(SFM) | | | HRc 50~55 | | | HRc 55~60 | | | HRc 60~70 | | |
| | | | 45 ~ 72 ft/min | | | 32 ~ 52 ft/min | | | 26 ~ 42 ft/min | | |
| DIAMETER | | | N | S | IPR | N | S | IPR | N | S | IPR |
| Metric(mm) | Inch | | | | | | | | | | |
| 1.0 | .0394 | | 5600 | 0.04 | .0015 | 4000 | 0.04 | .0015 | 3700 | 0.04 | .0015 |
| 2.0 | .0787 | | 2900 | 0.04 | .0015 | 2100 | 0.04 | .0015 | 1900 | 0.04 | .0015 |
| 3.0 | .1181 | | 1900 | 0.04 | .0015 | 1330 | 0.04 | .0015 | 1250 | 0.04 | .0015 |
| 4.0 | .1575 | | 1430 | 0.04 | .0015 | 1000 | 0.04 | .0015 | 950 | 0.04 | .0015 |
| 5.0 | .1969 | | 1150 | 0.04 | .0015 | 800 | 0.04 | .0015 | 750 | 0.04 | .0015 |
| 6.0 | .2362 | | 960 | 0.04 | .0015 | 670 | 0.04 | .0015 | 630 | 0.04 | .0015 |
| 8.0 | .3150 | | 720 | 0.04 | .0015 | 500 | 0.04 | .0015 | 480 | 0.04 | .0015 |
| 10.0 | .3937 | | 570 | 0.04 | .0015 | 400 | 0.04 | .0015 | 380 | 0.04 | .0015 |
| 12.0 | .4724 | | 480 | 0.04 | .0015 | 330 | 0.04 | .0015 | 320 | 0.04 | .0015 |
| 14.0 | .5512 | | 438 | 0.04 | .0015 | 282 | 0.04 | .0015 | 272 | 0.04 | .0015 |

N = R.P.M
S= feed rate (mm/rev.)
IPR= feed rate (Inch/rev.)



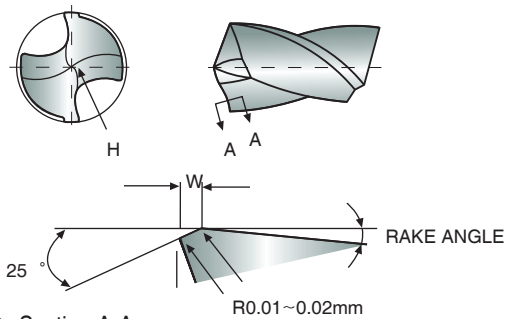
Characteristic of DREAM DRILLS

- YG-1's Dream Drill Series are suitable for high speed and accurate drilling operations by special design and high quality
- Good performance for Steels, Cast Iron, Tool steels, Alloy steels and Stainless steels
- Rapid chip evacuation and excellent chip breaking can be achieved by special designed cutting edges on point and chip breakers on leading edges
- High accuracy and stability
- Longer tool life due to TiAlN coating
- Self-centering



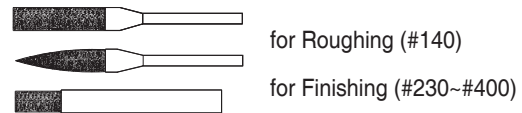
Honing Guide of DREAM DRILL

Dimension of Honing



▶ Section A-A

Scraper

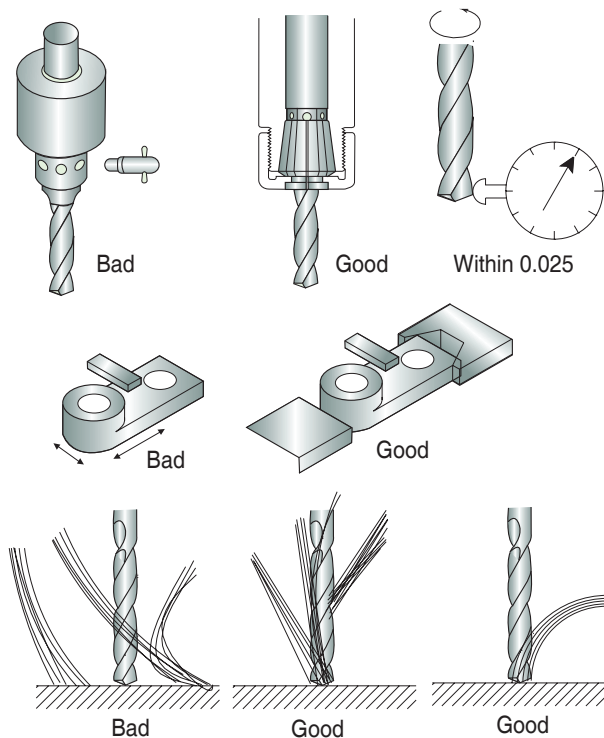


| Work Material | Alloy Steels | Mild Steels | Cast Iron |
|---------------|--------------|-------------|-----------|
| W(mm) | 0.15~0.2 | 0.1~0.15 | 0.03 |

▶ The dimension W of stocked products is 0.1~0.15



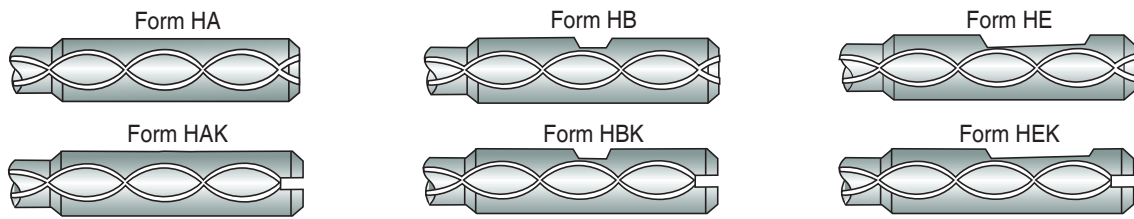
Use of DREAM DRILL



- ▶ Chucking with spring collet correctly.
- ▶ Radial run out at cutting lip must not exceed 0.025 mm.
- ▶ Tighten clamp of work piece.
- ▶ Supply coolant enough to the entrance of holes.
- ▶ In using Dream Drills with Coolant holes, high pressure coolant is needed.

4

Shank Type DREAM DRILLS with Coolant Holes



- ▶ Shank Type of stocked products is Form HA
- ▶ Other shank types are available on your request

5

Drill Diameter Tolerance Inch

| up to .118 | over .118 up to .236 | over .236 up to .394 | over .394 up to .709 |
|---------------|----------------------|----------------------|----------------------|
| +0 -.00055 | +0 -.00071 | +0 -.00087 | +0 -.00106 |

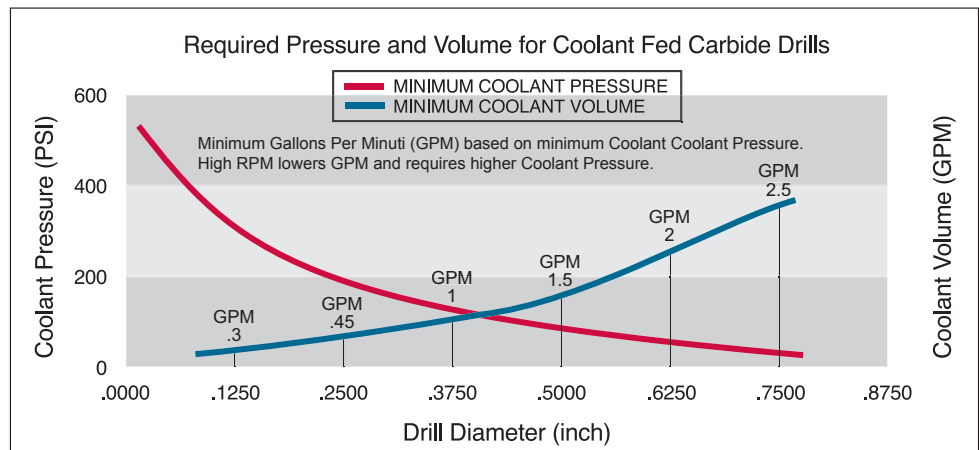
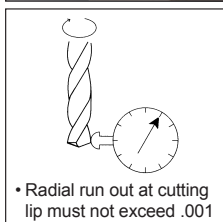
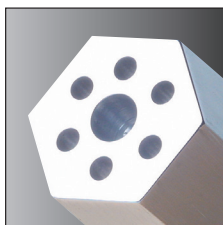
6

Drill Diameter Tolerance Metric

| Diameter (mm) | 1 - 3 from to | 3 - 6 over to | 6 - 10 over to | 10 - 18 over to | 18 - 30 over to |
|---------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| h6 | 0 -.00024 | 0 -.00032 | 0 -.00036 | 0 -.00044 | 0 -.00052 |
| h7 | 0 -.0004 | 0 -.00048 | 0 -.00059 | 0 -.00071 | 0 -.00083 |
| h8 | 0 -.00056 | 0 -.00071 | 0 -.00087 | 0 -.00107 | 0 -.00130 |
| m7 | +0.00048 +0.00007 | +0.00063 +0.00015 | +0.00083 +0.00023 | +0.00099 +0.00027 | +0.00114 +0.00031 |

7

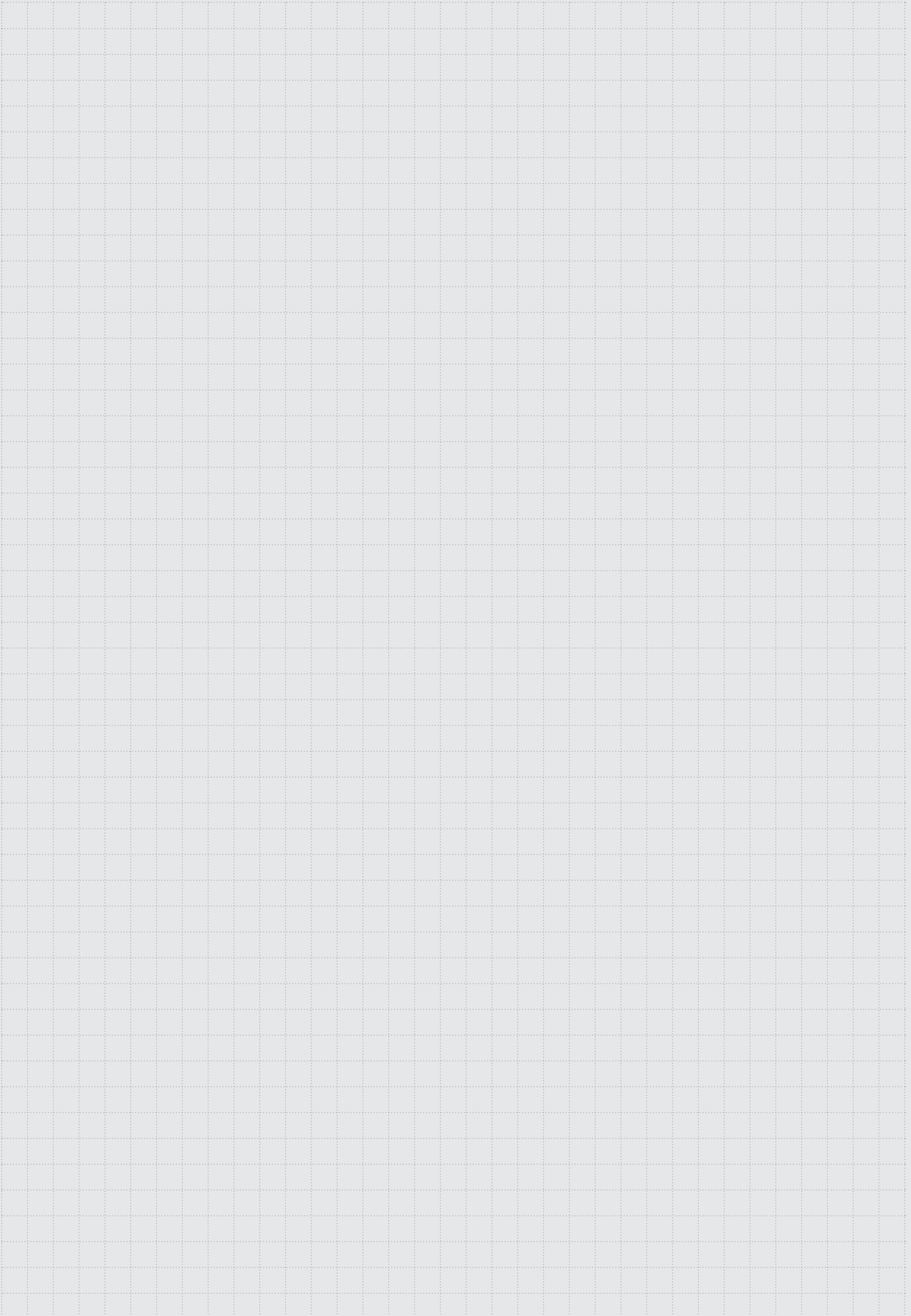
Coolant Recommendations for Carbide Dream Drills



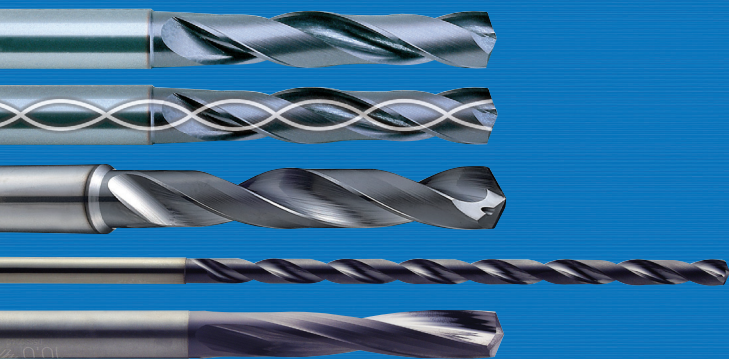
MEMO

A large grid of dotted lines for writing a memo. The grid consists of 20 columns and 30 rows of small squares, providing a structured space for text entry.

MEMO



SOLID CARBIDE **DREAM DRILLS**



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HEAD OFFICE

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