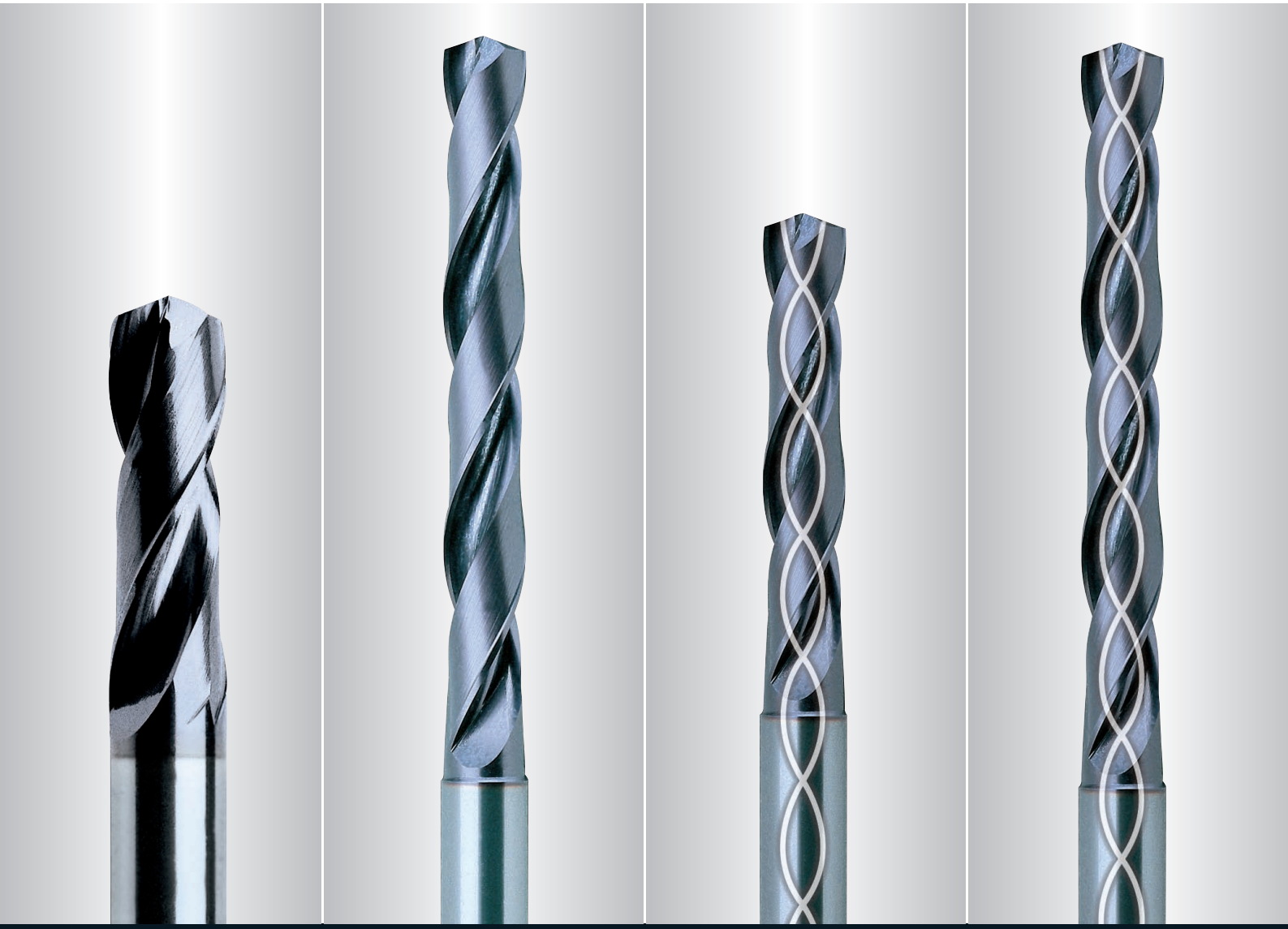
# CARBIDE

Being the best through innovation



# DREAM DRILLS -GENERAL

## DREAM DRILLS - UNIVERSAL

- **WITH & WITHOUT COOLANT HOLES**
  **General Purpose usually HRc30 to HRc50**
- **Mit und ohne Kühlkanäle**
  **Für allgemeinen Einsatz von HRc30 bis HRc50**

## SOLID CARBIDE DREAM DRILLS - GENERAL (with & without Coolant Holes)

General Purpose usually HRc30 to HRc50

| ITEM | MODEL | DESCRIPTION | | SIZE MIN | SIZE MAX | PAGE |
|---|---|---|---|---|---|---|
| 3XD **DH404** |  | CARBIDE, DREAM DRILLS<br>VOLLHARTMETALL DREAM SPIRALBOHRER | *STUB*<br>*EXTRA KURZ* | D3.0 | D20.0 | **58** |
| 3XD **DH423** |  | CARBIDE, DREAM DRILLS<br>VOLLHARTMETALL DREAM SPIRALBOHRER | *SHORT*<br>*KURZ* | D3.0 | D20.0 | **60** |
| 5XD **DH424** |  | CARBIDE, DREAM DRILLS<br>VOLLHARTMETALL DREAM SPIRALBOHRER | *LONG*<br>*LANG* | D1.0 | D20.0 | **62** |
| 3XD **DH406** |  | CARBIDE, DREAM DRILLS with COOLANT HOLES<br>VOLLHARTMETALL DREAM SPIRALBOHRER mit KÜHLKANAL | *SHORT*<br>*KURZ* | D3.0 | D20.0 | **65** |
| 5XD **DH408** |  | CARBIDE, DREAM DRILLS with COOLANT HOLES<br>VOLLHARTMETALL DREAM SPIRALBOHRER mit KÜHLKANAL | *LONG*<br>*LANG* | D1.0 | D20.0 | **67** |
| 8XD **DH421** |  | CARBIDE, DREAM DRILLS with COOLANT HOLES<br>VOLLHARTMETALL DREAM SPIRALBOHRER mit KÜHLKANAL | *EXTRA LONG*<br>*ÜBERLANG* | D3.0 | D14.0 | **70** |
| | | RECOMMENDED CUTTING CONDITIONS<br>EMPFOHLENE SCHNEIDKONDITIONEN | | | | **72** |

◎ : Excellent
○ : Good

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

# DREAM DRILLS -GENERAL

**DH404 SERIES**

## CARBIDE, DREAM DRILLS
## VOLLHARTMETALL DREAM SPIRALBOHRER

***STUB***
***EXTRA KURZ***

▶ **Application** : Drilling steels in general, cast steels, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metals, non-ferrous light metals, abrasive plastics.

▶ **Advantage** : Self centering
- center drilling is not required.

Excellent positioning
- bush is not necessary.

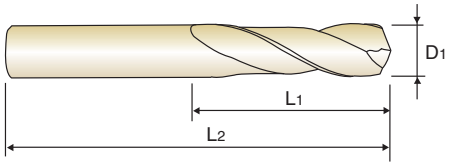
Special Design
- reaming is not required.
- good chip removal
- powerful drilling

▶ **Verwendung** : Zum wirtschaftlichen Bohren von Stahl allgemein, Stahlguß, Hart-und Temperguß, Nichteisen Leichtmetallen, abrasiven Kunststoffen.

▶ **Vorteile** : Selbst zentrierend
- Zentrierbohrung wird nicht benötigt.

Exzellente Positionierbarkeit
- Keine Führungsbuchse notwendig.

Spezielles Design
- Räumen ist nicht notwendig
- Gute Spanabfuhr
- Leistungsfähiges Bohren




DIN 6539 | MG | h6 | h7 | 140° | P.72

$D_1=D_2$
3 × D

Unit : mm

| EDP No. | Drill Diameter | Flute Length | Overall Length | EDP No. | Drill Diameter | Flute Length | Overall Length |
|---|---|---|---|---|---|---|---|
| TiAlN | $D_1$ | $L_1$ | $L_2$ | TiAlN | $D_1$ | $L_1$ | $L_2$ |
| DH404030 | 3.0 | 16 | 46 | DH404057 | 5.7 | 28 | 66 |
| DH404031 | 3.1 | 18 | 49 | DH404058 | 5.8 | 28 | 66 |
| DH404032 | 3.2 | 18 | 49 | DH404059 | 5.9 | 28 | 66 |
| DH404033 | 3.3 | 18 | 49 | DH404060 | 6.0 | 28 | 66 |
| DH404034 | 3.4 | 20 | 52 | DH404061 | 6.1 | 31 | 70 |
| DH404035 | 3.5 | 20 | 52 | DH404062 | 6.2 | 31 | 70 |
| DH404036 | 3.6 | 20 | 52 | DH404063 | 6.3 | 31 | 70 |
| DH404037 | 3.7 | 20 | 52 | DH404064 | 6.4 | 31 | 70 |
| DH404038 | 3.8 | 22 | 55 | DH404065 | 6.5 | 31 | 70 |
| DH404039 | 3.9 | 22 | 55 | DH404066 | 6.6 | 31 | 70 |
| DH404040 | 4.0 | 22 | 55 | DH404067 | 6.7 | 31 | 70 |
| DH404041 | 4.1 | 22 | 55 | DH404068 | 6.8 | 34 | 74 |
| DH404042 | 4.2 | 22 | 55 | DH404069 | 6.9 | 34 | 74 |
| DH404043 | 4.3 | 24 | 58 | DH404070 | 7.0 | 34 | 74 |
| DH404044 | 4.4 | 24 | 58 | DH404071 | 7.1 | 34 | 74 |
| DH404045 | 4.5 | 24 | 58 | DH404072 | 7.2 | 34 | 74 |
| DH404046 | 4.6 | 24 | 58 | DH404073 | 7.3 | 34 | 74 |
| DH404047 | 4.7 | 24 | 58 | DH404074 | 7.4 | 34 | 74 |
| DH404048 | 4.8 | 26 | 62 | DH404075 | 7.5 | 34 | 74 |
| DH404049 | 4.9 | 26 | 62 | DH404076 | 7.6 | 37 | 79 |
| DH404050 | 5.0 | 26 | 62 | DH404077 | 7.7 | 37 | 79 |
| DH404051 | 5.1 | 26 | 62 | DH404078 | 7.8 | 37 | 79 |
| DH404052 | 5.2 | 26 | 62 | DH404079 | 7.9 | 37 | 79 |
| DH404053 | 5.3 | 26 | 62 | DH404080 | 8.0 | 37 | 79 |
| DH404054 | 5.4 | 28 | 66 | DH404081 | 8.1 | 37 | 79 |
| DH404055 | 5.5 | 28 | 66 | DH404082 | 8.2 | 37 | 79 |
| DH404056 | 5.6 | 28 | 66 | DH404083 | 8.3 | 37 | 79 |

▶ 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 | CFRP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~HB225 | HB225~325 | HRc30~45 | HRc45~55 | HRc55~ | | | | | | | | |
| ○ | ◎ | ◎ | | | ○ | | ○ | | | | | |

# DREAM DRILLS -GENERAL

**DH404 SERIES**

## CARBIDE, DREAM DRILLS
## VOLLHARTMETALL DREAM SPIRALBOHRER

***STUB***
***EXTRA KURZ***

▶ **Application** : Drilling steels in general, cast steels, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metals, non-ferrous light metals, abrasive plastics.

▶ **Advantage** : Self centering
- center drilling is not required.

Excellent positioning
- bush is not necessary.

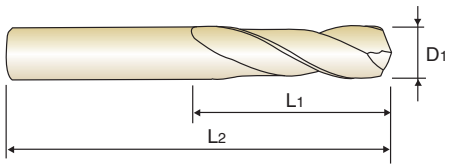
Special Design
- reaming is not required.
- good chip removal
- powerful drilling

▶ **Verwendung** : Zum wirtschaftlichen Bohren von Stahl allgemein, Stahlguß, Hart-und Temperguß, Nichteisen Leichtmetallen, abrasiven Kunststoffen.

▶ **Vorteile** : Selbst zentrierend
- Zentrierbohrung wird nicht benötigt.

Exzellente Positionierbarkeit
- Keine Führungsbuchse notwendig.

Spezielles Design
- Räumen ist nicht notwendig
- Gute Spanabfuhr
- Leistungsfähiges Bohren




DIN 6539 | MG | h6 | h7 | 140° | P.72

$D_1=D_2$

3 × D

Unit : mm

| EDP No. | Drill Diameter | Flute Length | Overall Length |
|---|---|---|---|
| TiAlN | $D_1$ | $L_1$ | $L_2$ |
| DH404084 | 8.4 | 37 | 79 |
| DH404085 | 8.5 | 37 | 79 |
| DH404086 | 8.6 | 40 | 84 |
| DH404087 | 8.7 | 40 | 84 |
| DH404088 | 8.8 | 40 | 84 |
| DH404089 | 8.9 | 40 | 84 |
| DH404090 | 9.0 | 40 | 84 |
| DH404091 | 9.1 | 40 | 84 |
| DH404092 | 9.2 | 40 | 84 |
| DH404093 | 9.3 | 40 | 84 |
| DH404094 | 9.4 | 40 | 84 |
| DH404095 | 9.5 | 40 | 84 |
| DH404096 | 9.6 | 43 | 89 |
| DH404097 | 9.7 | 43 | 89 |
| DH404098 | 9.8 | 43 | 89 |
| DH404099 | 9.9 | 43 | 89 |
| DH404100 | 10.0 | 43 | 89 |
| DH404102 | 10.2 | 43 | 89 |
| DH404105 | 10.5 | 43 | 89 |

| EDP No. | Drill Diameter | Flute Length | Overall Length |
|---|---|---|---|
| TiAlN | $D_1$ | $L_1$ | $L_2$ |
| DH404110 | 11.0 | 47 | 95 |
| DH404115 | 11.5 | 47 | 95 |
| DH404120 | 12.0 | 51 | 102 |
| DH404130 | 13.0 | 51 | 102 |
| DH404135 | 13.5 | 54 | 107 |
| DH404140 | 14.0 | 54 | 107 |
| DH404145 | 14.5 | 56 | 111 |
| DH404150 | 15.0 | 56 | 111 |
| DH404155 | 15.5 | 58 | 115 |
| DH404160 | 16.0 | 58 | 115 |
| DH404165 | 16.5 | 60 | 119 |
| DH404170 | 17.0 | 60 | 119 |
| DH404175 | 17.5 | 62 | 123 |
| DH404180 | 18.0 | 62 | 123 |
| DH404185 | 18.5 | 64 | 127 |
| DH404190 | 19.0 | 64 | 127 |
| DH404195 | 19.5 | 66 | 131 |
| DH404200 | 20.0 | 66 | 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 | CFRP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~HB225 | HB225~325 | HRc30~45 | HRc45~55 | HRc55~ | | | | | | | | |
| ○ | ◎ | ◎ | | | ○ | | ○ | | | | | |

# DREAM DRILLS -GENERAL

**DH423 SERIES**

## CARBIDE, DREAM DRILLS
## VOLLHARTMETALL DREAM SPIRALBOHRER

***SHORT***
***KURZ***

▶ **Application** : Drilling steels in general, cast steels, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metals, non-ferrous light metals, abrasive plastics.

▶ **Advantage** : Self centering
- center drilling is not required.

Excellent positioning
- bush is not necessary.

Special Design
- reaming is not required.
- good chip removal
- powerful drilling

▶ **Verwendung** : Zum wirtschaftlichen Bohren von Stahl allgemein, Stahlguß, Hart-und Temperguß, Nichteisen Leichtmetallen, abrasiven Kunststoffen.

▶ **Vorteile** : Selbst zentrierend
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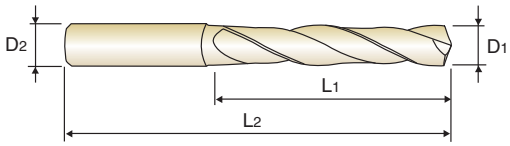
Exzellente Positionierbarkeit
-Keine Führungsbuchse notwendig.

Spezielles Design
-Räumen ist nicht notwendig
-Gute Spanabfuhr
-Leistungsfähiges Bohren




DIN 6537 | MG | h6 | m7 | 140° | P.72

3 × D

Unit : mm

| EDP No. | Drill Diameter | Shank Diameter | Flute Length | Overall Length |
|---|---|---|---|---|
| TiAlN | $D_1$ | $D_2$ | $L_1$ | $L_2$ |
| DH423030 | 3.0 | 6 | 20 | 62 |
| DH423031 | 3.1 | 6 | 20 | 62 |
| DH423032 | 3.2 | 6 | 20 | 62 |
| DH423033 | 3.3 | 6 | 20 | 62 |
| DH423034 | 3.4 | 6 | 20 | 62 |
| DH423035 | 3.5 | 6 | 20 | 62 |
| DH423036 | 3.6 | 6 | 20 | 62 |
| DH423037 | 3.7 | 6 | 20 | 62 |
| DH423038 | 3.8 | 6 | 24 | 66 |
| DH423039 | 3.9 | 6 | 24 | 66 |
| DH423040 | 4.0 | 6 | 24 | 66 |
| DH423041 | 4.1 | 6 | 24 | 66 |
| DH423042 | 4.2 | 6 | 24 | 66 |
| DH423043 | 4.3 | 6 | 24 | 66 |
| DH423044 | 4.4 | 6 | 24 | 66 |
| DH423045 | 4.5 | 6 | 24 | 66 |
| DH423046 | 4.6 | 6 | 24 | 66 |
| DH423047 | 4.7 | 6 | 24 | 66 |
| DH423048 | 4.8 | 6 | 28 | 66 |
| DH423049 | 4.9 | 6 | 28 | 66 |
| DH423050 | 5.0 | 6 | 28 | 66 |
| DH423051 | 5.1 | 6 | 28 | 66 |
| DH423052 | 5.2 | 6 | 28 | 66 |
| DH423053 | 5.3 | 6 | 28 | 66 |
| DH423054 | 5.4 | 6 | 28 | 66 |
| DH423055 | 5.5 | 6 | 28 | 66 |
| DH423056 | 5.6 | 6 | 28 | 66 |
| DH423057 | 5.7 | 6 | 28 | 66 |
| DH423058 | 5.8 | 6 | 28 | 66 |

| EDP No. | Drill Diameter | Shank Diameter | Flute Length | Overall Length |
|---|---|---|---|---|
| TiAlN | $D_1$ | $D_2$ | $L_1$ | $L_2$ |
| DH423059 | 5.9 | 6 | 28 | 66 |
| DH423060 | 6.0 | 6 | 28 | 66 |
| DH423061 | 6.1 | 8 | 34 | 79 |
| DH423062 | 6.2 | 8 | 34 | 79 |
| DH423063 | 6.3 | 8 | 34 | 79 |
| DH423064 | 6.4 | 8 | 34 | 79 |
| DH423065 | 6.5 | 8 | 34 | 79 |
| DH423066 | 6.6 | 8 | 34 | 79 |
| DH423067 | 6.7 | 8 | 34 | 79 |
| DH423068 | 6.8 | 8 | 34 | 79 |
| DH423069 | 6.9 | 8 | 34 | 79 |
| DH423070 | 7.0 | 8 | 34 | 79 |
| DH423071 | 7.1 | 8 | 41 | 79 |
| DH423072 | 7.2 | 8 | 41 | 79 |
| DH423073 | 7.3 | 8 | 41 | 79 |
| DH423074 | 7.4 | 8 | 41 | 79 |
| DH423075 | 7.5 | 8 | 41 | 79 |
| DH423076 | 7.6 | 8 | 41 | 79 |
| DH423077 | 7.7 | 8 | 41 | 79 |
| DH423078 | 7.8 | 8 | 41 | 79 |
| DH423079 | 7.9 | 8 | 41 | 79 |
| DH423080 | 8.0 | 8 | 41 | 79 |
| DH423081 | 8.1 | 10 | 47 | 89 |
| DH423082 | 8.2 | 10 | 47 | 89 |
| DH423083 | 8.3 | 10 | 47 | 89 |
| DH423084 | 8.4 | 10 | 47 | 89 |
| DH423085 | 8.5 | 10 | 47 | 89 |
| DH423086 | 8.6 | 10 | 47 | 89 |
| DH423087 | 8.7 | 10 | 47 | 89 |

▶ 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 | CFRP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~HB225 | HB225~325 | HRc30~45 | HRc45~55 | HRc55~ | | | | | | | | |
| ○ | ◎ | ◎ | | | ○ | | ○ | | | | | |

# DREAM DRILLS -GENERAL

**DH423 SERIES**

## CARBIDE, DREAM DRILLS
## VOLLHARTMETALL DREAM SPIRALBOHRER

***SHORT***
***KURZ***

▶ **Application** : Drilling steels in general, cast steels, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metals, non-ferrous light metals, abrasive plastics.

▶ **Advantage** : Self centering
- center drilling is not required.

Excellent positioning
- bush is not necessary.

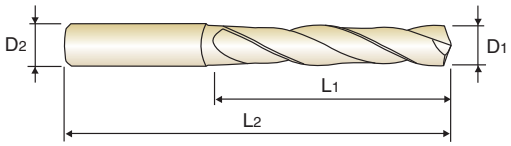
Special Design
- reaming is not required.
- good chip removal
- powerful drilling

▶ **Verwendung** : Zum wirtschaftlichen Bohren von Stahl allgemein, Stahlguß, Hart-und Temperguß, Nichteisen Leichtmetallen, abrasiven Kunststoffen.

▶ **Vorteile** : Selbst zentrierend
- Zentrierbohrung wird nicht benötigt.

Exzellente Positionierbarkeit
-Keine Führungsbuchse notwendig.

Spezielles Design
-Räumen ist nicht notwendig
-Gute Spanabfuhr
-Leistungsfähiges Bohren




DIN 6537 | MG | h6 | m7 | 140° | P.72

3 × D

Unit : mm

| EDP No. | Drill Diameter | Shank Diameter | Flute Length | Overall Length |
|---|---|---|---|---|
| TiAlN | $D_1$ | $D_2$ | $L_1$ | $L_2$ |
| DH423088 | 8.8 | 10 | 47 | 89 |
| DH423089 | 8.9 | 10 | 47 | 89 |
| DH423090 | 9.0 | 10 | 47 | 89 |
| DH423091 | 9.1 | 10 | 47 | 89 |
| DH423092 | 9.2 | 10 | 47 | 89 |
| DH423093 | 9.3 | 10 | 47 | 89 |
| DH423094 | 9.4 | 10 | 47 | 89 |
| DH423095 | 9.5 | 10 | 47 | 89 |
| DH423096 | 9.6 | 10 | 47 | 89 |
| DH423097 | 9.7 | 10 | 47 | 89 |
| DH423098 | 9.8 | 10 | 47 | 89 |
| DH423099 | 9.9 | 10 | 47 | 89 |
| DH423100 | 10.0 | 10 | 47 | 89 |
| DH423101 | 10.1 | 12 | 55 | 102 |
| DH423102 | 10.2 | 12 | 55 | 102 |
| DH423103 | 10.3 | 12 | 55 | 102 |
| DH423104 | 10.4 | 12 | 55 | 102 |
| DH423105 | 10.5 | 12 | 55 | 102 |
| DH423106 | 10.6 | 12 | 55 | 102 |
| DH423107 | 10.7 | 12 | 55 | 102 |
| DH423108 | 10.8 | 12 | 55 | 102 |
| DH423109 | 10.9 | 12 | 55 | 102 |
| DH423110 | 11.0 | 12 | 55 | 102 |
| DH423111 | 11.1 | 12 | 55 | 102 |
| DH423112 | 11.2 | 12 | 55 | 102 |
| DH423113 | 11.3 | 12 | 55 | 102 |
| DH423114 | 11.4 | 12 | 55 | 102 |
| DH423115 | 11.5 | 12 | 55 | 102 |
| DH423116 | 11.6 | 12 | 55 | 102 |

| EDP No. | Drill Diameter | Shank Diameter | Flute Length | Overall Length |
|---|---|---|---|---|
| TiAlN | $D_1$ | $D_2$ | $L_1$ | $L_2$ |
| DH423117 | 11.7 | 12 | 55 | 102 |
| DH423118 | 11.8 | 12 | 55 | 102 |
| DH423119 | 11.9 | 12 | 55 | 102 |
| DH423120 | 12.0 | 12 | 55 | 102 |
| DH423123 | 12.3 | 14 | 60 | 107 |
| DH423125 | 12.5 | 14 | 60 | 107 |
| DH423128 | 12.8 | 14 | 60 | 107 |
| DH423130 | 13.0 | 14 | 60 | 107 |
| DH423135 | 13.5 | 14 | 60 | 107 |
| DH423138 | 13.8 | 14 | 60 | 107 |
| DH423140 | 14.0 | 14 | 60 | 107 |
| DH423145 | 14.5 | 16 | 65 | 115 |
| DH423148 | 14.8 | 16 | 65 | 115 |
| DH423150 | 15.0 | 16 | 65 | 115 |
| DH423155 | 15.5 | 16 | 65 | 115 |
| DH423158 | 15.8 | 16 | 65 | 115 |
| DH423160 | 16.0 | 16 | 65 | 115 |
| DH423165 | 16.5 | 18 | 73 | 123 |
| DH423168 | 16.8 | 18 | 73 | 123 |
| DH423170 | 17.0 | 18 | 73 | 123 |
| DH423175 | 17.5 | 18 | 73 | 123 |
| DH423178 | 17.8 | 18 | 73 | 123 |
| DH423180 | 18.0 | 18 | 73 | 123 |
| DH423185 | 18.5 | 20 | 79 | 131 |
| DH423190 | 19.0 | 20 | 79 | 131 |
| DH423195 | 19.5 | 20 | 79 | 131 |
| DH423198 | 19.8 | 20 | 79 | 131 |
| DH423200 | 20.0 | 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 | CFRP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~HB225 | HB225~325 | HRc30~45 | HRc45~55 | HRc55~ | | | | | | | | |
| ○ | ◎ | ◎ | | | ○ | | ○ | | | | | |

# DREAM DRILLS -GENERAL

**DH424 SERIES**

## CARBIDE, DREAM DRILLS
## VOLLHARTMETALL DREAM SPIRALBOHRER

***LONG***
***LANG***

▶ **Application** : Drilling steels in general, cast steels, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metals, non-ferrous light metals, abrasive plastics.

▶ **Advantage** : Self centering
- center drilling is not required.

Excellent positioning
- bush is not necessary.

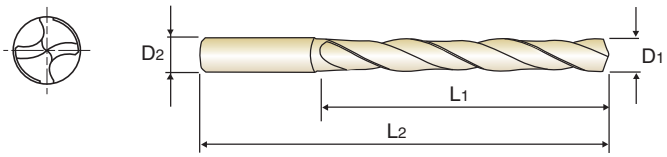
Special Design
- reaming is not required.
- good chip removal
- powerful drilling

▶ **Verwendung** : Zum wirtschaftlichen Bohren von Stahl allgemein, Stahlguß, Hart-und Temperguß, Nichteisen Leichtmetallen, abrasiven Kunststoffen

▶ **Vorteile** : Selbst zentrierend
- Zentrierbohrung wird nicht benötigt.

Exzellente Positionierbarkeit
- Keine Führungsbuchse notwendig.

Spezielles Design
- Räumen ist nicht notwendig
- Gute Spanabfuhr
- Leistungsfähiges Bohren




DIN 6537 | MG | h6 | m7 | 140° | P.72

5 × D

Unit : mm

| EDP No. | Drill Diameter | Shank Diameter | Flute Length | Overall Length | EDP No. | Drill Diameter | Shank Diameter | Flute Length | Overall Length |
|---|---|---|---|---|---|---|---|---|---|
| TiAlN | $D_1$ | $D_2$ | $L_1$ | $L_2$ | TiAlN | $D_1$ | $D_2$ | $L_1$ | $L_2$ |
| DH424010 | 1.0 | 3 | 8 | 55 | DH424036 | 3.6 | 6 | 28 | 66 |
| DH424011 | 1.1 | 3 | 12 | 55 | DH424037 | 3.7 | 6 | 28 | 66 |
| DH424012 | 1.2 | 3 | 12 | 55 | DH424038 | 3.8 | 6 | 36 | 74 |
| DH424013 | 1.3 | 3 | 12 | 55 | DH424039 | 3.9 | 6 | 36 | 74 |
| DH424014 | 1.4 | 3 | 12 | 55 | DH424040 | 4.0 | 6 | 36 | 74 |
| DH424015 | 1.5 | 3 | 16 | 55 | DH424041 | 4.1 | 6 | 36 | 74 |
| DH424016 | 1.6 | 3 | 16 | 55 | DH424042 | 4.2 | 6 | 36 | 74 |
| DH424017 | 1.7 | 3 | 16 | 55 | DH424043 | 4.3 | 6 | 36 | 74 |
| DH424018 | 1.8 | 3 | 16 | 55 | DH424044 | 4.4 | 6 | 36 | 74 |
| DH424019 | 1.9 | 3 | 16 | 55 | DH424045 | 4.5 | 6 | 36 | 74 |
| DH424020 | 2.0 | 4 | 21 | 57 | DH424046 | 4.6 | 6 | 36 | 74 |
| DH424021 | 2.1 | 4 | 21 | 57 | DH424047 | 4.7 | 6 | 36 | 74 |
| DH424022 | 2.2 | 4 | 21 | 57 | DH424048 | 4.8 | 6 | 44 | 82 |
| DH424023 | 2.3 | 4 | 21 | 57 | DH424049 | 4.9 | 6 | 44 | 82 |
| DH424024 | 2.4 | 4 | 21 | 57 | DH424050 | 5.0 | 6 | 44 | 82 |
| DH424025 | 2.5 | 4 | 21 | 57 | DH424051 | 5.1 | 6 | 44 | 82 |
| DH424026 | 2.6 | 4 | 21 | 57 | DH424052 | 5.2 | 6 | 44 | 82 |
| DH424027 | 2.7 | 4 | 21 | 57 | DH424053 | 5.3 | 6 | 44 | 82 |
| DH424028 | 2.8 | 4 | 21 | 57 | DH424054 | 5.4 | 6 | 44 | 82 |
| DH424029 | 2.9 | 4 | 21 | 57 | DH424055 | 5.5 | 6 | 44 | 82 |
| DH424030 | 3.0 | 6 | 28 | 66 | DH424056 | 5.6 | 6 | 44 | 82 |
| DH424031 | 3.1 | 6 | 28 | 66 | DH424057 | 5.7 | 6 | 44 | 82 |
| DH424032 | 3.2 | 6 | 28 | 66 | DH424058 | 5.8 | 6 | 44 | 82 |
| DH424033 | 3.3 | 6 | 28 | 66 | DH424059 | 5.9 | 6 | 44 | 82 |
| DH424034 | 3.4 | 6 | 28 | 66 | DH424060 | 6.0 | 6 | 44 | 82 |
| DH424035 | 3.5 | 6 | 28 | 66 | DH424061 | 6.1 | 8 | 53 | 91 |

▶ 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 | CFRP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~HB225 | HB225~325 | HRc30~45 | HRc45~55 | HRc55~ | | | | | | | | |
| ○ | ◎ | ◎ | | | ○ | | ○ | | | | | |

# DREAM DRILLS -GENERAL

**DH424 SERIES**

## CARBIDE, DREAM DRILLS
## VOLLHARTMETALL DREAM SPIRALBOHRER

***LONG***
***LANG***

▶ **Application** : Drilling steels in general, cast steels, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metals, non-ferrous light metals, abrasive plastics.

▶ **Advantage** : Self centering
- center drilling is not required.

Excellent positioning
- bush is not necessary.

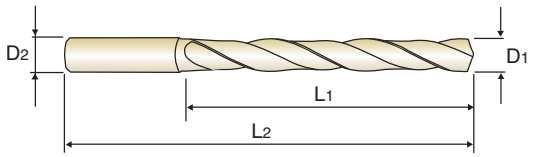
Special Design
- reaming is not required.
- good chip removal
- powerful drilling

▶ **Verwendung** : Zum wirtschaftlichen Bohren von Stahl allgemein, Stahlguß, Hart-und Temperguß, Nichteisen Leichtmetallen, abrasiven Kunststoffen

▶ **Vorteile** : Selbst zentrierend
- Zentrierbohrung wird nicht benötigt.

Exzellente Positionierbarkeit
- Keine Führungsbuchse notwendig.

Spezielles Design
- Räumen ist nicht notwendig
- Gute Spanabfuhr
- Leistungsfähiges Bohren




DIN 6537 | MG | h6 | m7 | 140° | P.72

5 × D

Unit : mm

| EDP No. | Drill Diameter | Shank Diameter | Flute Length | Overall Length |
|---|---|---|---|---|
| TiAlN | $D_1$ | $D_2$ | $L_1$ | $L_2$ |
| DH424062 | 6.2 | 8 | 53 | 91 |
| DH424063 | 6.3 | 8 | 53 | 91 |
| DH424064 | 6.4 | 8 | 53 | 91 |
| DH424065 | 6.5 | 8 | 53 | 91 |
| DH424066 | 6.6 | 8 | 53 | 91 |
| DH424067 | 6.7 | 8 | 53 | 91 |
| DH424068 | 6.8 | 8 | 53 | 91 |
| DH424069 | 6.9 | 8 | 53 | 91 |
| DH424070 | 7.0 | 8 | 53 | 91 |
| DH424071 | 7.1 | 8 | 53 | 91 |
| DH424072 | 7.2 | 8 | 53 | 91 |
| DH424073 | 7.3 | 8 | 53 | 91 |
| DH424074 | 7.4 | 8 | 53 | 91 |
| DH424075 | 7.5 | 8 | 53 | 91 |
| DH424076 | 7.6 | 8 | 53 | 91 |
| DH424077 | 7.7 | 8 | 53 | 91 |
| DH424078 | 7.8 | 8 | 53 | 91 |
| DH424079 | 7.9 | 8 | 53 | 91 |
| DH424080 | 8.0 | 8 | 53 | 91 |
| DH424081 | 8.1 | 10 | 61 | 103 |
| DH424082 | 8.2 | 10 | 61 | 103 |
| DH424083 | 8.3 | 10 | 61 | 103 |
| DH424084 | 8.4 | 10 | 61 | 103 |
| DH424085 | 8.5 | 10 | 61 | 103 |
| DH424086 | 8.6 | 10 | 61 | 103 |
| DH424087 | 8.7 | 10 | 61 | 103 |

| EDP No. | Drill Diameter | Shank Diameter | Flute Length | Overall Length |
|---|---|---|---|---|
| TiAlN | $D_1$ | $D_2$ | $L_1$ | $L_2$ |
| DH424088 | 8.8 | 10 | 61 | 103 |
| DH424089 | 8.9 | 10 | 61 | 103 |
| DH424090 | 9.0 | 10 | 61 | 103 |
| DH424091 | 9.1 | 10 | 61 | 103 |
| DH424092 | 9.2 | 10 | 61 | 103 |
| DH424093 | 9.3 | 10 | 61 | 103 |
| DH424094 | 9.4 | 10 | 61 | 103 |
| DH424095 | 9.5 | 10 | 61 | 103 |
| DH424096 | 9.6 | 10 | 61 | 103 |
| DH424097 | 9.7 | 10 | 61 | 103 |
| DH424098 | 9.8 | 10 | 61 | 103 |
| DH424099 | 9.9 | 10 | 61 | 103 |
| DH424100 | 10.0 | 10 | 61 | 103 |
| DH424101 | 10.1 | 12 | 71 | 118 |
| DH424102 | 10.2 | 12 | 71 | 118 |
| DH424103 | 10.3 | 12 | 71 | 118 |
| DH424104 | 10.4 | 12 | 71 | 118 |
| DH424105 | 10.5 | 12 | 71 | 118 |
| DH424106 | 10.6 | 12 | 71 | 118 |
| DH424107 | 10.7 | 12 | 71 | 118 |
| DH424108 | 10.8 | 12 | 71 | 118 |
| DH424109 | 10.9 | 12 | 71 | 118 |
| DH424110 | 11.0 | 12 | 71 | 118 |
| DH424111 | 11.1 | 12 | 71 | 118 |
| DH424112 | 11.2 | 12 | 71 | 118 |
| DH424113 | 11.3 | 12 | 71 | 118 |

▶ 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 | CFRP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~HB225 | HB225~325 | HRc30~45 | HRc45~55 | HRc55~ | | | | | | | | |
| ○ | ◎ | ◎ | | | ○ | | ○ | | | | | |

# DREAM DRILLS -GENERAL

**DH424 SERIES**

## CARBIDE, DREAM DRILLS
## VOLLHARTMETALL DREAM SPIRALBOHRER

***LONG***
***LANG***

▶ **Application** : Drilling steels in general, cast steels, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metals, non-ferrous light metals, abrasive plastics.

▶ **Advantage** : Self centering
- center drilling is not required.

Excellent positioning
- bush is not necessary.

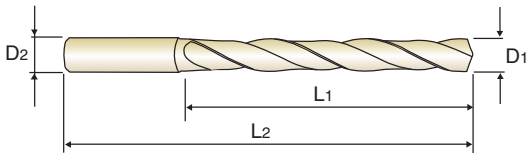
Special Design
- reaming is not required.
- good chip removal
- powerful drilling

▶ **Verwendung** : Zum wirtschaftlichen Bohren von Stahl allgemein, Stahlguß, Hart-und Temperguß, Nichteisen Leichtmetallen, abrasiven Kunststoffen

▶ **Vorteile** : Selbst zentrierend
- Zentrierbohrung wird nicht benötigt.

Exzellente Positionierbarkeit
- Keine Führungsbuchse notwendig.

Spezielles Design
- Räumen ist nicht notwendig
- Gute Spanabfuhr
- Leistungsfähiges Bohren




DIN 6537 | MG | h6 | m7 | 140° | P.72

5 × D

Unit : mm

| EDP No. | Drill Diameter | Shank Diameter | Flute Length | Overall Length |
|---|---|---|---|---|
| TiAlN | $D_1$ | $D_2$ | $L_1$ | $L_2$ |
| DH424114 | 11.4 | 12 | 71 | 118 |
| DH424115 | 11.5 | 12 | 71 | 118 |
| DH424116 | 11.6 | 12 | 71 | 118 |
| DH424117 | 11.7 | 12 | 71 | 118 |
| DH424118 | 11.8 | 12 | 71 | 118 |
| DH424119 | 11.9 | 12 | 71 | 118 |
| DH424120 | 12.0 | 12 | 71 | 118 |
| DH424123 | 12.3 | 14 | 77 | 124 |
| DH424125 | 12.5 | 14 | 77 | 124 |
| DH424128 | 12.8 | 14 | 77 | 124 |
| DH424130 | 13.0 | 14 | 77 | 124 |
| DH424135 | 13.5 | 14 | 77 | 124 |
| DH424138 | 13.8 | 14 | 77 | 124 |
| DH424140 | 14.0 | 14 | 77 | 124 |
| DH424145 | 14.5 | 16 | 83 | 133 |
| DH424148 | 14.8 | 16 | 83 | 133 |

| EDP No. | Drill Diameter | Shank Diameter | Flute Length | Overall Length |
|---|---|---|---|---|
| TiAlN | $D_1$ | $D_2$ | $L_1$ | $L_2$ |
| DH424150 | 15.0 | 16 | 83 | 133 |
| DH424155 | 15.5 | 16 | 83 | 133 |
| DH424158 | 15.8 | 16 | 83 | 133 |
| DH424160 | 16.0 | 16 | 83 | 133 |
| DH424165 | 16.5 | 18 | 93 | 143 |
| DH424168 | 16.8 | 18 | 93 | 143 |
| DH424170 | 17.0 | 18 | 93 | 143 |
| DH424175 | 17.5 | 18 | 93 | 143 |
| DH424178 | 17.8 | 18 | 93 | 143 |
| DH424180 | 18.0 | 18 | 93 | 143 |
| DH424185 | 18.5 | 20 | 101 | 153 |
| DH424190 | 19.0 | 20 | 101 | 153 |
| DH424195 | 19.5 | 20 | 101 | 153 |
| DH424198 | 19.8 | 20 | 101 | 153 |
| DH424200 | 20.0 | 20 | 101 | 153 |

▶ 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 | CFRP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~HB225 | HB225~325 | HRc30~45 | HRc45~55 | HRc55~ | | | | | | | | |
| ○ | ◎ | ◎ | | | ○ | | ○ | | | | | |

# DREAM DRILLS -GENERAL

**DH406 SERIES**

## CARBIDE, DREAM DRILLS with COOLANT HOLES — *SHORT*
## VOLLHARTMETALL DREAM SPIRALBOHRER mit KÜHLKANAL — *KURZ*

▶ **Application** : Drilling steels in general, cast steels, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metals, non-ferrous light metals, abrasive plastics.

▶ **Advantage** : Self centering
- center drilling is not required.

Excellent positioning
- bush is not necessary.

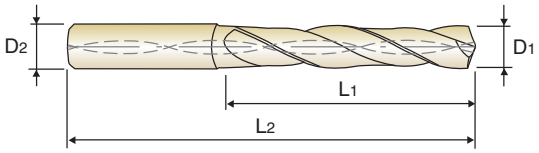
Special Design
- reaming is not required.
- good chip removal
- powerful drilling

▶ **Verwendung** : Zum wirtschaftlichen Bohren von Stahl allgemein, Stahlguß, Hart-und Temperguß, Nichteisen Leichtmetallen, abrasiven Kunststoffen.

▶ **Vorteile** : Selbst zentrierend
- Zentrierbohrung wird nicht benötigt.

Exzellente Positionierbarkeit
- Keine Führungsbuchse notwendig.

Spezielles Design
- Räumen ist nicht notwendig
- Gute Spanabfuhr
- Leistungsfähiges Bohren




DIN 6537 | MG | h6 | m7 | 140° | P.72

3 × D

Unit : mm

| EDP No. | Drill Diameter | Shank Diameter | Flute Length | Overall Length |
|---|---|---|---|---|
| TiAlN | $D_1$ | $D_2$ | $L_1$ | $L_2$ |
| DH406030 | 3.0 | 6 | 20 | 62 |
| DH406031 | 3.1 | 6 | 20 | 62 |
| DH406032 | 3.2 | 6 | 20 | 62 |
| DH406033 | 3.3 | 6 | 20 | 62 |
| DH406034 | 3.4 | 6 | 20 | 62 |
| DH406035 | 3.5 | 6 | 20 | 62 |
| DH406036 | 3.6 | 6 | 20 | 62 |
| DH406037 | 3.7 | 6 | 20 | 62 |
| DH406038 | 3.8 | 6 | 24 | 66 |
| DH406039 | 3.9 | 6 | 24 | 66 |
| DH406040 | 4.0 | 6 | 24 | 66 |
| DH406041 | 4.1 | 6 | 24 | 66 |
| DH406042 | 4.2 | 6 | 24 | 66 |
| DH406043 | 4.3 | 6 | 24 | 66 |
| DH406044 | 4.4 | 6 | 24 | 66 |
| DH406045 | 4.5 | 6 | 24 | 66 |
| DH406046 | 4.6 | 6 | 24 | 66 |
| DH406047 | 4.7 | 6 | 24 | 66 |
| DH406048 | 4.8 | 6 | 28 | 66 |
| DH406049 | 4.9 | 6 | 28 | 66 |
| DH406050 | 5.0 | 6 | 28 | 66 |
| DH406051 | 5.1 | 6 | 28 | 66 |
| DH406052 | 5.2 | 6 | 28 | 66 |
| DH406053 | 5.3 | 6 | 28 | 66 |
| DH406054 | 5.4 | 6 | 28 | 66 |
| DH406055 | 5.5 | 6 | 28 | 66 |
| DH406056 | 5.6 | 6 | 28 | 66 |

| EDP No. | Drill Diameter | Shank Diameter | Flute Length | Overall Length |
|---|---|---|---|---|
| TiAlN | $D_1$ | $D_2$ | $L_1$ | $L_2$ |
| DH406057 | 5.7 | 6 | 28 | 66 |
| DH406058 | 5.8 | 6 | 28 | 66 |
| DH406059 | 5.9 | 6 | 28 | 66 |
| DH406060 | 6.0 | 6 | 28 | 66 |
| DH406061 | 6.1 | 8 | 34 | 79 |
| DH406062 | 6.2 | 8 | 34 | 79 |
| DH406063 | 6.3 | 8 | 34 | 79 |
| DH406064 | 6.4 | 8 | 34 | 79 |
| DH406065 | 6.5 | 8 | 34 | 79 |
| DH406066 | 6.6 | 8 | 34 | 79 |
| DH406067 | 6.7 | 8 | 34 | 79 |
| DH406068 | 6.8 | 8 | 34 | 79 |
| DH406069 | 6.9 | 8 | 34 | 79 |
| DH406070 | 7.0 | 8 | 34 | 79 |
| DH406071 | 7.1 | 8 | 41 | 79 |
| DH406072 | 7.2 | 8 | 41 | 79 |
| DH406073 | 7.3 | 8 | 41 | 79 |
| DH406074 | 7.4 | 8 | 41 | 79 |
| DH406075 | 7.5 | 8 | 41 | 79 |
| DH406076 | 7.6 | 8 | 41 | 79 |
| DH406077 | 7.7 | 8 | 41 | 79 |
| DH406078 | 7.8 | 8 | 41 | 79 |
| DH406079 | 7.9 | 8 | 41 | 79 |
| DH406080 | 8.0 | 8 | 41 | 79 |
| DH406081 | 8.1 | 10 | 47 | 89 |
| DH406082 | 8.2 | 10 | 47 | 89 |
| DH406083 | 8.3 | 10 | 47 | 89 |

▶ 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 | CFRP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~HB225 | HB225~325 | HRc30~45 | HRc45~55 | HRc55~ | | | | | | | | |
| ○ | ◎ | ◎ | | | ○ | | ○ | | | | | |

# DREAM DRILLS -GENERAL

**DH406 SERIES**

## CARBIDE, DREAM DRILLS with COOLANT HOLES — *SHORT*
## VOLLHARTMETALL DREAM SPIRALBOHRER mit KÜHLKANAL — *KURZ*

▶ **Application** : Drilling steels in general, cast steels, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metals, non-ferrous light metals, abrasive plastics.

▶ **Advantage** : Self centering
- center drilling is not required.

Excellent positioning
- bush is not necessary.

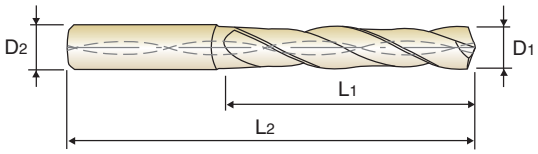
Special Design
- reaming is not required.
- good chip removal
- powerful drilling

▶ **Verwendung** : Zum wirtschaftlichen Bohren von Stahl allgemein, Stahlguß, Hart-und Temperguß, Nichteisen Leichtmetallen, abrasiven Kunststoffen.

▶ **Vorteile** : Selbst zentrierend
- Zentrierbohrung wird nicht benötigt.

Exzellente Positionierbarkeit
- Keine Führungsbuchse notwendig.

Spezielles Design
- Räumen ist nicht notwendig
- Gute Spanabfuhr
- Leistungsfähiges Bohren




DIN 6537 | MG | h6 | m7 | 140° | P.72

3 × D

Unit : mm

| EDP No. | Drill Diameter | Shank Diameter | Flute Length | Overall Length | EDP No. | Drill Diameter | Shank Diameter | Flute Length | Overall Length |
|---|---|---|---|---|---|---|---|---|---|
| TiAlN | $D_1$ | $D_2$ | $L_1$ | $L_2$ | TiAlN | $D_1$ | $D_2$ | $L_1$ | $L_2$ |
| DH406084 | 8.4 | 10 | 47 | 89 | DH406111 | 11.1 | 12 | 55 | 102 |
| DH406085 | 8.5 | 10 | 47 | 89 | DH406112 | 11.2 | 12 | 55 | 102 |
| DH406086 | 8.6 | 10 | 47 | 89 | DH406113 | 11.3 | 12 | 55 | 102 |
| DH406087 | 8.7 | 10 | 47 | 89 | DH406114 | 11.4 | 12 | 55 | 102 |
| DH406088 | 8.8 | 10 | 47 | 89 | DH406115 | 11.5 | 12 | 55 | 102 |
| DH406089 | 8.9 | 10 | 47 | 89 | DH406116 | 11.6 | 12 | 55 | 102 |
| DH406090 | 9.0 | 10 | 47 | 89 | DH406117 | 11.7 | 12 | 55 | 102 |
| DH406091 | 9.1 | 10 | 47 | 89 | DH406118 | 11.8 | 12 | 55 | 102 |
| DH406092 | 9.2 | 10 | 47 | 89 | DH406119 | 11.9 | 12 | 55 | 102 |
| DH406093 | 9.3 | 10 | 47 | 89 | DH406120 | 12.0 | 12 | 55 | 102 |
| DH406094 | 9.4 | 10 | 47 | 89 | DH406125 | 12.5 | 14 | 60 | 107 |
| DH406095 | 9.5 | 10 | 47 | 89 | DH406130 | 13.0 | 14 | 60 | 107 |
| DH406096 | 9.6 | 10 | 47 | 89 | DH406135 | 13.5 | 14 | 60 | 107 |
| DH406097 | 9.7 | 10 | 47 | 89 | DH406140 | 14.0 | 14 | 60 | 107 |
| DH406098 | 9.8 | 10 | 47 | 89 | DH406145 | 14.5 | 16 | 65 | 115 |
| DH406099 | 9.9 | 10 | 47 | 89 | DH406150 | 15.0 | 16 | 65 | 115 |
| DH406100 | 10.0 | 10 | 47 | 89 | DH406155 | 15.5 | 16 | 65 | 115 |
| DH406101 | 10.1 | 12 | 55 | 102 | DH406160 | 16.0 | 16 | 65 | 115 |
| DH406102 | 10.2 | 12 | 55 | 102 | DH406165 | 16.5 | 18 | 73 | 123 |
| DH406103 | 10.3 | 12 | 55 | 102 | DH406170 | 17.0 | 18 | 73 | 123 |
| DH406104 | 10.4 | 12 | 55 | 102 | DH406175 | 17.5 | 18 | 73 | 123 |
| DH406105 | 10.5 | 12 | 55 | 102 | DH406180 | 18.0 | 18 | 73 | 123 |
| DH406106 | 10.6 | 12 | 55 | 102 | DH406185 | 18.5 | 20 | 79 | 131 |
| DH406107 | 10.7 | 12 | 55 | 102 | DH406190 | 19.0 | 20 | 79 | 131 |
| DH406108 | 10.8 | 12 | 55 | 102 | DH406195 | 19.5 | 20 | 79 | 131 |
| DH406109 | 10.9 | 12 | 55 | 102 | DH406200 | 20.0 | 20 | 79 | 131 |
| DH406110 | 11.0 | 12 | 55 | 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 | CFRP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~HB225 | HB225~325 | HRc30~45 | HRc45~55 | HRc55~ | | | | | | | | |
| ○ | ◎ | ◎ | | | ○ | | ○ | | | | | |

# DREAM DRILLS -GENERAL

**DH408 SERIES**

## CARBIDE, DREAM DRILLS with COOLANT HOLES — LONG
## VOLLHARTMETALL DREAM SPIRALBOHRER mit KÜHLKANAL — LANG

▶ **Application** : Drilling steels in general, cast steels, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metals, non-ferrous light metals, abrasive plastics.

▶ **Advantage** : Self centering
- center drilling is not required.

Excellent positioning
- bush is not necessary.

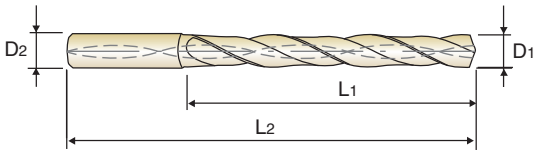
Special Design
- reaming is not required.
- good chip removal
- powerful drilling

▶ **Verwendung** : Zum wirtschaftlichen Bohren von Stahl allgemein,Stahlguß, Hart-und Temperguß, Nichteisen Leichtmetallen, abrasiven Kunststoffen.

▶ **Vorteile** : Selbst zentrierend
- Zentrierbohrung wird nicht benötigt.

Exzellente Positionierbarkeit
- Keine Führungsbuchse notwendig.

Spezielles Design
- Räumen ist nicht notwendig
- Gute Spanabfuhr
- Leistungsfähiges Bohren




DIN 6537 | MG | h6 | m7 | 140° | P.72

5 × D

Unit : mm

| EDP No. | Drill Diameter | Shank Diameter | Flute Length | Overall Length |
|---|---|---|---|---|
| TiAlN | $D_1$ | $D_2$ | $L_1$ | $L_2$ |
| DH408010 | 1.0 | 3 | 8 | 55 |
| DH408011 | 1.1 | 3 | 12 | 55 |
| DH408012 | 1.2 | 3 | 12 | 55 |
| DH408013 | 1.3 | 3 | 12 | 55 |
| DH408014 | 1.4 | 3 | 12 | 55 |
| DH408015 | 1.5 | 3 | 16 | 55 |
| DH408016 | 1.6 | 3 | 16 | 55 |
| DH408017 | 1.7 | 3 | 16 | 55 |
| DH408018 | 1.8 | 3 | 16 | 55 |
| DH408019 | 1.9 | 3 | 16 | 55 |
| DH408020 | 2.0 | 4 | 21 | 57 |
| DH408021 | 2.1 | 4 | 21 | 57 |
| DH408022 | 2.2 | 4 | 21 | 57 |
| DH408023 | 2.3 | 4 | 21 | 57 |
| DH408024 | 2.4 | 4 | 21 | 57 |
| DH408025 | 2.5 | 4 | 21 | 57 |
| DH408026 | 2.6 | 4 | 21 | 57 |
| DH408027 | 2.7 | 4 | 21 | 57 |
| DH408028 | 2.8 | 4 | 21 | 57 |
| DH408029 | 2.9 | 4 | 21 | 57 |
| DH408030 | 3.0 | 6 | 28 | 66 |
| DH408031 | 3.1 | 6 | 28 | 66 |
| DH408032 | 3.2 | 6 | 28 | 66 |
| DH408033 | 3.3 | 6 | 28 | 66 |
| DH408034 | 3.4 | 6 | 28 | 66 |
| DH408035 | 3.5 | 6 | 28 | 66 |

| EDP No. | Drill Diameter | Shank Diameter | Flute Length | Overall Length |
|---|---|---|---|---|
| TiAlN | $D_1$ | $D_2$ | $L_1$ | $L_2$ |
| DH408036 | 3.6 | 6 | 28 | 66 |
| DH408037 | 3.7 | 6 | 28 | 66 |
| DH408038 | 3.8 | 6 | 36 | 74 |
| DH408039 | 3.9 | 6 | 36 | 74 |
| DH408040 | 4.0 | 6 | 36 | 74 |
| DH408041 | 4.1 | 6 | 36 | 74 |
| DH408042 | 4.2 | 6 | 36 | 74 |
| DH408043 | 4.3 | 6 | 36 | 74 |
| DH408044 | 4.4 | 6 | 36 | 74 |
| DH408045 | 4.5 | 6 | 36 | 74 |
| DH408046 | 4.6 | 6 | 36 | 74 |
| DH408047 | 4.7 | 6 | 36 | 74 |
| DH408048 | 4.8 | 6 | 44 | 82 |
| DH408049 | 4.9 | 6 | 44 | 82 |
| DH408050 | 5.0 | 6 | 44 | 82 |
| DH408051 | 5.1 | 6 | 44 | 82 |
| DH408052 | 5.2 | 6 | 44 | 82 |
| DH408053 | 5.3 | 6 | 44 | 82 |
| DH408054 | 5.4 | 6 | 44 | 82 |
| DH408055 | 5.5 | 6 | 44 | 82 |
| DH408056 | 5.6 | 6 | 44 | 82 |
| DH408057 | 5.7 | 6 | 44 | 82 |
| DH408058 | 5.8 | 6 | 44 | 82 |
| DH408059 | 5.9 | 6 | 44 | 82 |
| DH408060 | 6.0 | 6 | 44 | 82 |
| DH408061 | 6.1 | 8 | 53 | 91 |

▶ 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 | CFRP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~HB225 | HB225~325 | HRc30~45 | HRc45~55 | HRc55~ | | | | | | | | |
| ○ | ◎ | ◎ | | | ○ | | ○ | | | | | |

# DREAM DRILLS -GENERAL

**DH408 SERIES**

## CARBIDE, DREAM DRILLS with COOLANT HOLES — LONG
## VOLLHARTMETALL DREAM SPIRALBOHRER mit KÜHLKANAL — LANG

▶ **Application** : Drilling steels in general, cast steels, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metals, non-ferrous light metals, abrasive plastics.

▶ **Advantage** : Self centering
- center drilling is not required.

Excellent positioning
- bush is not necessary.

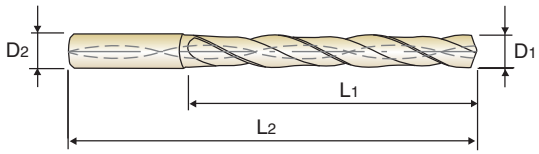
Special Design
- reaming is not required.
- good chip removal
- powerful drilling

▶ **Verwendung** : Zum wirtschaftlichen Bohren von Stahl allgemein,Stahlguß, Hart-und Temperguß, Nichteisen Leichtmetallen, abrasiven Kunststoffen.

▶ **Vorteile** : Selbst zentrierend
- Zentrierbohrung wird nicht benötigt.

Exzellente Positionierbarkeit
- Keine Führungsbuchse notwendig.

Spezielles Design
- Räumen ist nicht notwendig
- Gute Spanabfuhr
- Leistungsfähiges Bohren




DIN 6537 | MG | h6 | m7 | 140° P.72

5 × D

Unit : mm

| EDP No. | Drill Diameter | Shank Diameter | Flute Length | Overall Length | EDP No. | Drill Diameter | Shank Diameter | Flute Length | Overall Length |
|---|---|---|---|---|---|---|---|---|---|
| TiAlN | $D_1$ | $D_2$ | $L_1$ | $L_2$ | TiAlN | $D_1$ | $D_2$ | $L_1$ | $L_2$ |
| DH408062 | 6.2 | 8 | 53 | 91 | DH408088 | 8.8 | 10 | 61 | 103 |
| DH408063 | 6.3 | 8 | 53 | 91 | DH408089 | 8.9 | 10 | 61 | 103 |
| DH408064 | 6.4 | 8 | 53 | 91 | DH408090 | 9.0 | 10 | 61 | 103 |
| DH408065 | 6.5 | 8 | 53 | 91 | DH408091 | 9.1 | 10 | 61 | 103 |
| DH408066 | 6.6 | 8 | 53 | 91 | DH408092 | 9.2 | 10 | 61 | 103 |
| DH408067 | 6.7 | 8 | 53 | 91 | DH408093 | 9.3 | 10 | 61 | 103 |
| DH408068 | 6.8 | 8 | 53 | 91 | DH408094 | 9.4 | 10 | 61 | 103 |
| DH408069 | 6.9 | 8 | 53 | 91 | DH408095 | 9.5 | 10 | 61 | 103 |
| DH408070 | 7.0 | 8 | 53 | 91 | DH408096 | 9.6 | 10 | 61 | 103 |
| DH408071 | 7.1 | 8 | 53 | 91 | DH408097 | 9.7 | 10 | 61 | 103 |
| DH408072 | 7.2 | 8 | 53 | 91 | DH408098 | 9.8 | 10 | 61 | 103 |
| DH408073 | 7.3 | 8 | 53 | 91 | DH408099 | 9.9 | 10 | 61 | 103 |
| DH408074 | 7.4 | 8 | 53 | 91 | DH408100 | 10.0 | 10 | 61 | 103 |
| DH408075 | 7.5 | 8 | 53 | 91 | DH408101 | 10.1 | 12 | 71 | 118 |
| DH408076 | 7.6 | 8 | 53 | 91 | DH408102 | 10.2 | 12 | 71 | 118 |
| DH408077 | 7.7 | 8 | 53 | 91 | DH408103 | 10.3 | 12 | 71 | 118 |
| DH408078 | 7.8 | 8 | 53 | 91 | DH408104 | 10.4 | 12 | 71 | 118 |
| DH408079 | 7.9 | 8 | 53 | 91 | DH408105 | 10.5 | 12 | 71 | 118 |
| DH408080 | 8.0 | 8 | 53 | 91 | DH408106 | 10.6 | 12 | 71 | 118 |
| DH408081 | 8.1 | 10 | 61 | 103 | DH408107 | 10.7 | 12 | 71 | 118 |
| DH408082 | 8.2 | 10 | 61 | 103 | DH408108 | 10.8 | 12 | 71 | 118 |
| DH408083 | 8.3 | 10 | 61 | 103 | DH408109 | 10.9 | 12 | 71 | 118 |
| DH408084 | 8.4 | 10 | 61 | 103 | DH408110 | 11.0 | 12 | 71 | 118 |
| DH408085 | 8.5 | 10 | 61 | 103 | DH408111 | 11.1 | 12 | 71 | 118 |
| DH408086 | 8.6 | 10 | 61 | 103 | DH408112 | 11.2 | 12 | 71 | 118 |
| DH408087 | 8.7 | 10 | 61 | 103 | DH408113 | 11.3 | 12 | 71 | 118 |

▶ 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 | CFRP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~HB225 | HB225~325 | HRc30~45 | HRc45~55 | HRc55~ | | | | | | | | |
| ○ | ◎ | ◎ | | | ○ | | ○ | | | | | |

# DREAM DRILLS -GENERAL

**DH408 SERIES**

## CARBIDE, DREAM DRILLS with COOLANT HOLES — LONG
## VOLLHARTMETALL DREAM SPIRALBOHRER mit KÜHLKANAL — LANG

▶ **Application** : Drilling steels in general, cast steels, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metals, non-ferrous light metals, abrasive plastics.

▶ **Advantage** : Self centering
- center drilling is not required.

Excellent positioning
- bush is not necessary.

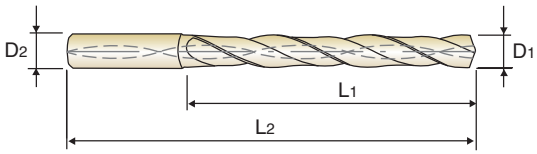
Special Design
- reaming is not required.
- good chip removal
- powerful drilling

▶ **Verwendung** : Zum wirtschaftlichen Bohren von Stahl allgemein,Stahlguß, Hart-und Temperguß, Nichteisen Leichtmetallen, abrasiven Kunststoffen.

▶ **Vorteile** : Selbst zentrierend
- Zentrierbohrung wird nicht benötigt.

Exzellente Positionierbarkeit
- Keine Führungsbuchse notwendig.

Spezielles Design
- Räumen ist nicht notwendig
- Gute Spanabfuhr
- Leistungsfähiges Bohren




DIN 6537 | MG | h6 | m7 | 140° P.72

5 × D

Unit : mm

| EDP No. | Drill Diameter | Shank Diameter | Flute Length | Overall Length |
|---|---|---|---|---|
| TiAlN | $D_1$ | $D_2$ | $L_1$ | $L_2$ |
| DH408114 | 11.4 | 12 | 71 | 118 |
| DH408115 | 11.5 | 12 | 71 | 118 |
| DH408116 | 11.6 | 12 | 71 | 118 |
| DH408117 | 11.7 | 12 | 71 | 118 |
| DH408118 | 11.8 | 12 | 71 | 118 |
| DH408119 | 11.9 | 12 | 71 | 118 |
| DH408120 | 12.0 | 12 | 71 | 118 |
| DH408125 | 12.5 | 14 | 77 | 124 |
| DH408130 | 13.0 | 14 | 77 | 124 |
| DH408135 | 13.5 | 14 | 77 | 124 |
| DH408140 | 14.0 | 14 | 77 | 124 |
| DH408145 | 14.5 | 16 | 83 | 133 |

| EDP No. | Drill Diameter | Shank Diameter | Flute Length | Overall Length |
|---|---|---|---|---|
| TiAlN | $D_1$ | $D_2$ | $L_1$ | $L_2$ |
| DH408150 | 15.0 | 16 | 83 | 133 |
| DH408155 | 15.5 | 16 | 83 | 133 |
| DH408160 | 16.0 | 16 | 83 | 133 |
| DH408165 | 16.5 | 18 | 93 | 143 |
| DH408170 | 17.0 | 18 | 93 | 143 |
| DH408175 | 17.5 | 18 | 93 | 143 |
| DH408180 | 18.0 | 18 | 93 | 143 |
| DH408185 | 18.5 | 20 | 101 | 153 |
| DH408190 | 19.0 | 20 | 101 | 153 |
| DH408195 | 19.5 | 20 | 101 | 153 |
| DH408200 | 20.0 | 20 | 101 | 153 |

▶ 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 | CFRP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~HB225 | HB225~325 | HRc30~45 | HRc45~55 | HRc55~ | | | | | | | | |
| ○ | ◎ | ◎ | | | ○ | | ○ | | | | | |

# DREAM DRILLS -GENERAL

**DH421 SERIES**

## CARBIDE, DREAM DRILLS with COOLANT HOLES
## VOLLHARTMETALL DREAM SPIRALBOHRER mit KÜHLKANAL

***EXTRA LONG***
***ÜBERLANG***

▶ **Application** : Drilling steels in general, cast steels, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metals, non-ferrous light metals, abrasive plastics.

▶ **Advantage** : Self centering
- center drilling is not required.

Excellent positioning
- bush is not necessary.

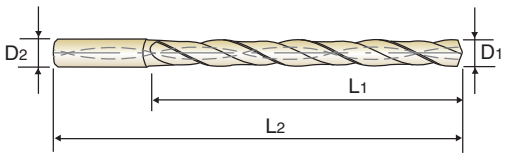
Special Design
- reaming is not required.
- good chip removal
- powerful drilling

▶ **Verwendung** : Zum wirtschaftlichen Bohren von Stahl allgemein, Stahlguß, Hart-und Temperguß, Nichteisen Leichtmetallen, abrasiven Kunststoffen.

▶ **Vorteile** : Selbst zentrierend
- Zentrierbohrung wird nicht benötigt.

Exzellente Positionierbarkeit
- Keine Führungsbuchse notwendig.

Spezielles Design
- Räumen ist nicht notwendig
- Gute Spanabfuhr
- Leistungsfähiges Bohren




DIN 6537 | MG | h6 | m7 | 140° | P.72

8 × D

Unit : mm

| EDP No. | Drill Diameter | Shank Diameter | Flute Length | Overall Length | EDP No. | Drill Diameter | Shank Diameter | Flute Length | Overall Length |
|---|---|---|---|---|---|---|---|---|---|
| TiAlN | $D_1$ | $D_2$ | $L_1$ | $L_2$ | TiAlN | $D_1$ | $D_2$ | $L_1$ | $L_2$ |
| DH421030 | 3.0 | 6 | 34 | 72 | DH421055 | 5.5 | 6 | 57 | 95 |
| DH421031 | 3.1 | 6 | 34 | 72 | DH421056 | 5.6 | 6 | 57 | 95 |
| DH421032 | 3.2 | 6 | 34 | 72 | DH421057 | 5.7 | 6 | 57 | 95 |
| DH421033 | 3.3 | 6 | 34 | 72 | DH421058 | 5.8 | 6 | 57 | 95 |
| DH421034 | 3.4 | 6 | 34 | 72 | DH421059 | 5.9 | 6 | 57 | 95 |
| DH421035 | 3.5 | 6 | 34 | 72 | DH421060 | 6.0 | 6 | 57 | 95 |
| DH421036 | 3.6 | 6 | 34 | 72 | DH421061 | 6.1 | 8 | 76 | 114 |
| DH421037 | 3.7 | 6 | 34 | 72 | DH421062 | 6.2 | 8 | 76 | 114 |
| DH421038 | 3.8 | 6 | 43 | 81 | DH421063 | 6.3 | 8 | 76 | 114 |
| DH421039 | 3.9 | 6 | 43 | 81 | DH421064 | 6.4 | 8 | 76 | 114 |
| DH421040 | 4.0 | 6 | 43 | 81 | DH421065 | 6.5 | 8 | 76 | 114 |
| DH421041 | 4.1 | 6 | 43 | 81 | DH421066 | 6.6 | 8 | 76 | 114 |
| DH421042 | 4.2 | 6 | 43 | 81 | DH421067 | 6.7 | 8 | 76 | 114 |
| DH421043 | 4.3 | 6 | 43 | 81 | DH421068 | 6.8 | 8 | 76 | 114 |
| DH421044 | 4.4 | 6 | 43 | 81 | DH421069 | 6.9 | 8 | 76 | 114 |
| DH421045 | 4.5 | 6 | 43 | 81 | DH421070 | 7.0 | 8 | 76 | 114 |
| DH421046 | 4.6 | 6 | 43 | 81 | DH421071 | 7.1 | 8 | 76 | 114 |
| DH421047 | 4.7 | 6 | 43 | 81 | DH421072 | 7.2 | 8 | 76 | 114 |
| DH421048 | 4.8 | 6 | 57 | 95 | DH421073 | 7.3 | 8 | 76 | 114 |
| DH421049 | 4.9 | 6 | 57 | 95 | DH421074 | 7.4 | 8 | 76 | 114 |
| DH421050 | 5.0 | 6 | 57 | 95 | DH421075 | 7.5 | 8 | 76 | 114 |
| DH421051 | 5.1 | 6 | 57 | 95 | DH421076 | 7.6 | 8 | 76 | 114 |
| DH421052 | 5.2 | 6 | 57 | 95 | DH421077 | 7.7 | 8 | 76 | 114 |
| DH421053 | 5.3 | 6 | 57 | 95 | DH421078 | 7.8 | 8 | 76 | 114 |
| DH421054 | 5.4 | 6 | 57 | 95 | DH421079 | 7.9 | 8 | 76 | 114 |

▶ 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 | CFRP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~HB225 | HB225~325 | HRc30~45 | HRc45~55 | HRc55~ | | | | | | | | |
| ○ | ◎ | ◎ | | | ○ | | ○ | | | | | |

# DREAM DRILLS -GENERAL

**DH421 SERIES**

## CARBIDE, DREAM DRILLS with COOLANT HOLES
## VOLLHARTMETALL DREAM SPIRALBOHRER mit KÜHLKANAL

***EXTRA LONG***
***ÜBERLANG***

▶ **Application** : Drilling steels in general, cast steels, cast iron, chilled cast iron, malleable cast iron, non-ferrous heavy metals, non-ferrous light metals, abrasive plastics.

▶ **Advantage** : Self centering
- center drilling is not required.

Excellent positioning
- bush is not necessary.

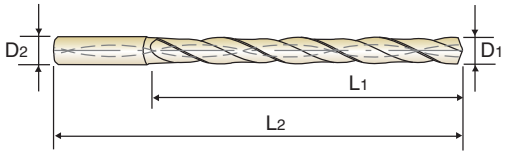
Special Design
- reaming is not required.
- good chip removal
- powerful drilling

▶ **Verwendung** : Zum wirtschaftlichen Bohren von Stahl allgemein, Stahlguß, Hart-und Temperguß, Nichteisen Leichtmetallen, abrasiven Kunststoffen.

▶ **Vorteile** : Selbst zentrierend
- Zentrierbohrung wird nicht benötigt.

Exzellente Positionierbarkeit
- Keine Führungsbuchse notwendig.

Spezielles Design
- Räumen ist nicht notwendig
- Gute Spanabfuhr
- Leistungsfähiges Bohren




DIN 6537 | MG | h6 | m7 | 140° | P.72

8 × D

Unit : mm

| EDP No. | Drill Diameter | Shank Diameter | Flute Length | Overall Length |
|---|---|---|---|---|
| TiAlN | $D_1$ | $D_2$ | $L_1$ | $L_2$ |
| DH421080 | 8.0 | 8 | 76 | 114 |
| DH421081 | 8.1 | 10 | 95 | 142 |
| DH421082 | 8.2 | 10 | 95 | 142 |
| DH421083 | 8.3 | 10 | 95 | 142 |
| DH421084 | 8.4 | 10 | 95 | 142 |
| DH421085 | 8.5 | 10 | 95 | 142 |
| DH421086 | 8.6 | 10 | 95 | 142 |
| DH421087 | 8.7 | 10 | 95 | 142 |
| DH421088 | 8.8 | 10 | 95 | 142 |
| DH421089 | 8.9 | 10 | 95 | 142 |
| DH421090 | 9.0 | 10 | 95 | 142 |
| DH421091 | 9.1 | 10 | 95 | 142 |
| DH421092 | 9.2 | 10 | 95 | 142 |
| DH421093 | 9.3 | 10 | 95 | 142 |
| DH421094 | 9.4 | 10 | 95 | 142 |
| DH421095 | 9.5 | 10 | 95 | 142 |
| DH421096 | 9.6 | 10 | 95 | 142 |
| DH421097 | 9.7 | 10 | 95 | 142 |
| DH421098 | 9.8 | 10 | 95 | 142 |
| DH421099 | 9.9 | 10 | 95 | 142 |
| DH421100 | 10.0 | 10 | 95 | 142 |
| DH421101 | 10.1 | 12 | 114 | 162 |
| DH421102 | 10.2 | 12 | 114 | 162 |

| EDP No. | Drill Diameter | Shank Diameter | Flute Length | Overall Length |
|---|---|---|---|---|
| TiAlN | $D_1$ | $D_2$ | $L_1$ | $L_2$ |
| DH421103 | 10.3 | 12 | 114 | 162 |
| DH421104 | 10.4 | 12 | 114 | 162 |
| DH421105 | 10.5 | 12 | 114 | 162 |
| DH421106 | 10.6 | 12 | 114 | 162 |
| DH421107 | 10.7 | 12 | 114 | 162 |
| DH421108 | 10.8 | 12 | 114 | 162 |
| DH421109 | 10.9 | 12 | 114 | 162 |
| DH421110 | 11.0 | 12 | 114 | 162 |
| DH421111 | 11.1 | 12 | 114 | 162 |
| DH421112 | 11.2 | 12 | 114 | 162 |
| DH421113 | 11.3 | 12 | 114 | 162 |
| DH421114 | 11.4 | 12 | 114 | 162 |
| DH421115 | 11.5 | 12 | 114 | 162 |
| DH421116 | 11.6 | 12 | 114 | 162 |
| DH421117 | 11.7 | 12 | 114 | 162 |
| DH421118 | 11.8 | 12 | 114 | 162 |
| DH421119 | 11.9 | 12 | 114 | 162 |
| DH421120 | 12.0 | 12 | 114 | 162 |
| DH421125 | 12.5 | 14 | 133 | 178 |
| DH421130 | 13.0 | 14 | 133 | 178 |
| DH421135 | 13.5 | 14 | 133 | 178 |
| DH421140 | 14.0 | 14 | 133 | 178 |

▶ 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 | CFRP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ~HB225 | HB225~325 | HRc30~45 | HRc45~55 | HRc55~ | | | | | | | | |
| ○ | ◎ | ◎ | | | ○ | | ○ | | | | | |

# DREAM DRILLS -GENERAL

## RECOMMENDED CUTTING CONDITIONS
## EMPFOHLENE SCHNEIDKONDITIONEN

## CARBIDE, DREAM DRILLS, TiAlN COATED
## VOLLHARTMETALL DREAM BOHRER, TiAlN-BESCHICHTET

### DH404, DH423, DH424 SERIES

| WORK MATERIAL | NON-ALLOY STEELS | | ALLOY STEELS | | SOFT GREY CAST IRON | | HARD GREY CAST IRON | |
|---|---|---|---|---|---|---|---|---|
| STRENGTH | < 700 N/mm² | | < 1000 N/mm² | | < HB240, GG25 | | < HB300, GG40 | |
| DRILLING SPEED | Ø1.0 ~ Ø2.9 : 40 ~ 80 m/min<br>Ø3.0 ~ : 100 ~ 120 m/min | | Ø1.0 ~ Ø2.9 : 35 ~ 70 m/min<br>Ø3.0 ~ : 85 ~ 105 m/min | | Ø1.0 ~ Ø2.9 : 60 ~ 130 m/min<br>Ø3.0 ~ : 180 ~ 200 m/min | | Ø1.0 ~ Ø2.9 : 40 ~ 90 m/min<br>Ø3.0 ~ : 110 ~ 130 m/min | |
| DIAMETER | N | S | N | S | N | S | N | S |
| 1.0 | 13000 | 0.04 | 11250 | 0.04 | 21300 | 0.04 | 14200 | 0.04 |
| 2.0 | 13000 | 0.06 | 11250 | 0.06 | 21300 | 0.06 | 14200 | 0.06 |
| 3.0 | 13000 | 0.13 | 11000 | 0.13 | 21000 | 0.13 | 14000 | 0.13 |
| 4.0 | 9500 | 0.14 | 8400 | 0.14 | 16000 | 0.14 | 10500 | 0.14 |
| 5.0 | 7600 | 0.15 | 6700 | 0.15 | 13000 | 0.15 | 8300 | 0.15 |
| 6.0 | 6400 | 0.17 | 5600 | 0.17 | 11000 | 0.17 | 6900 | 0.17 |
| 7.0 | 5500 | 0.19 | 4800 | 0.19 | 9100 | 0.19 | 5900 | 0.19 |
| 8.0 | 4800 | 0.21 | 4200 | 0.21 | 8000 | 0.21 | 5200 | 0.21 |
| 9.0 | 4200 | 0.23 | 3700 | 0.23 | 7100 | 0.23 | 4600 | 0.23 |
| 10.0 | 3800 | 0.25 | 3350 | 0.25 | 6400 | 0.25 | 4150 | 0.25 |
| 12.0 | 3200 | 0.27 | 2800 | 0.27 | 5300 | 0.27 | 3450 | 0.27 |
| 14.0 | 2750 | 0.29 | 2400 | 0.29 | 4550 | 0.29 | 3000 | 0.29 |
| 16.0 | 2400 | 0.31 | 2100 | 0.31 | 4000 | 0.31 | 2600 | 0.31 |
| 18.0 | 2100 | 0.33 | 1850 | 0.33 | 3550 | 0.33 | 2300 | 0.33 |
| 20.0 | 1900 | 0.35 | 1650 | 0.35 | 3200 | 0.35 | 2100 | 0.35 |

▶ Recommend to reduce the feed rate as following
**Feed 100%** : DH404(3×D), DH423(3×D)
**Feed 85%** : DH424(5×D)

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

## CARBIDE, DREAM DRILLS with COOLANT HOLES DIN6537, TiAlN COATED
## VOLLHARTMETALL DREAM BOHRER mit KÜHLKANAL DIN6537, TiAlN-BESCHICHTET

### DH406, DH408, DH421 SERIES

| WORK MATERIAL | NON-ALLOY STEELS | | ALLOY STEELS | | SOFT GREY CAST IRON | | HARD GREY CAST IRON | |
|---|---|---|---|---|---|---|---|---|
| STRENGTH | < 700 N/mm² | | < 1000 N/mm² | | < HB240, GG25 | | < HB300, GG40 | |
| DRILLING SPEED | Ø1.0 ~ Ø2.9 : 50 ~ 100 m/min<br>Ø3.0 ~ : 130 ~ 150 m/min | | Ø1.0 ~ Ø2.9 : 40 ~ 90 m/min<br>Ø3.0 ~ : 115 ~ 135 m/min | | Ø1.0 ~ Ø2.9 : 80 ~ 160 m/min<br>Ø3.0 ~ : 230 ~ 250 m/min | | Ø1.0 ~ Ø2.9 : 50 ~ 100 m/min<br>Ø3.0 ~ : 140 ~ 160 m/min | |
| DIAMETER | N | S | N | S | N | S | N | S |
| 1.0 | 16250 | 0.05 | 14800 | 0.05 | 26600 | 0.05 | 17300 | 0.05 |
| 2.0 | 16250 | 0.07 | 14800 | 0.07 | 26600 | 0.07 | 17300 | 0.07 |
| 3.0 | 16000 | 0.16 | 14500 | 0.16 | 26000 | 0.16 | 17000 | 0.16 |
| 4.0 | 12000 | 0.17 | 11000 | 0.17 | 20000 | 0.17 | 13000 | 0.17 |
| 5.0 | 9550 | 0.18 | 8600 | 0.18 | 16000 | 0.18 | 10000 | 0.18 |
| 6.0 | 8000 | 0.20 | 7200 | 0.20 | 13000 | 0.20 | 8500 | 0.20 |
| 7.0 | 6800 | 0.22 | 6100 | 0.22 | 11500 | 0.22 | 7300 | 0.22 |
| 8.0 | 6000 | 0.24 | 5400 | 0.24 | 9900 | 0.24 | 6400 | 0.24 |
| 9.0 | 5300 | 0.27 | 4800 | 0.27 | 8800 | 0.27 | 5700 | 0.27 |
| 10.0 | 4800 | 0.30 | 4300 | 0.30 | 8000 | 0.30 | 5100 | 0.30 |
| 12.0 | 4000 | 0.33 | 3600 | 0.33 | 6600 | 0.33 | 4250 | 0.33 |
| 14.0 | 3400 | 0.36 | 3050 | 0.36 | 5700 | 0.36 | 3650 | 0.36 |
| 16.0 | 3000 | 0.39 | 2700 | 0.39 | 5000 | 0.39 | 3200 | 0.39 |
| 18.0 | 2650 | 0.42 | 2400 | 0.42 | 4400 | 0.42 | 2850 | 0.42 |
| 20.0 | 2400 | 0.45 | 2150 | 0.45 | 4000 | 0.45 | 2550 | 0.45 |

▶ Recommend to reduce the feed rate as following
**Feed 100%** : DH406(3×D)
**Feed 85%** : DH408(5×D)
**Feed 70%** : DH421(8×D)

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