

**CARBIDE, DREAM DRILLS**

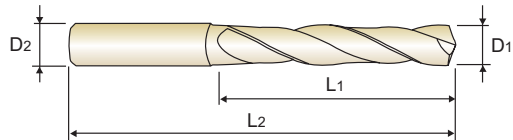
**SHORT**

- **VOLLHARTMETALL DREAM SPIRALBOHRER**
- **Forets DREAM DRILLS carbure, série courte**
- **PUNTE ELICOIDALI IN MD - DREAM DRILLS**

**KURZ  
COURTE  
CORTA**

- ▶ Drilling for Steel, Cast Steel, Cast Iron, Malleable Cast Iron
- ▶ Self centering and chip breaking by R-thinning
- ▶ Wave shape and negative land on the cutting edge for low thrust, stable torque and long tool life
- ▶ Optimized flute shape for strength of drilling and smooth chip evacuation

- ▶ Bohren von Stahl, Stahlguss, Gusseisen, Temperguss, Nichteisenmetallen-Leichtmetallen, abrasiven Kunststoffen
- ▶ Selbst zentrierend und guter Spanbruch durch die R-Ausspitzung
- ▶ Wellenform und Neagtivfase auf der Schneide bewirken geringen Schub, stabiles Drehmoment und lange Standzeit
- ▶ Optimierte Nutenform für Hochleistungsbohren und leichte Spanabfuhr



DIN 6537
CARBIDE
30°
h6
m7
140°
TiAIN
p.A114

**3 x D**

Unit : mm

| EDP No. (TiAIN) |          | Drill Diameter | Shank Diameter | Flute Length | Overall Length |
|-----------------|----------|----------------|----------------|--------------|----------------|
| Plain           | Flat     | D1             | D2             | L1           | L2             |
| DH423030        | DH443030 | 3.0            | 6              | 20           | 62             |
| DH423031        | DH443031 | 3.1            | 6              | 20           | 62             |
| DH423032        | DH443032 | 3.2            | 6              | 20           | 62             |
| DH423033        | DH443033 | 3.3            | 6              | 20           | 62             |
| DH423034        | DH443034 | 3.4            | 6              | 20           | 62             |
| DH423035        | DH443035 | 3.5            | 6              | 20           | 62             |
| DH423036        | DH443036 | 3.6            | 6              | 20           | 62             |
| DH423037        | DH443037 | 3.7            | 6              | 20           | 62             |
| DH423038        | DH443038 | 3.8            | 6              | 24           | 66             |
| DH423039        | DH443039 | 3.9            | 6              | 24           | 66             |
| DH423040        | DH443040 | 4.0            | 6              | 24           | 66             |
| DH423041        | DH443041 | 4.1            | 6              | 24           | 66             |
| DH423042        | DH443042 | 4.2            | 6              | 24           | 66             |
| DH423043        | DH443043 | 4.3            | 6              | 24           | 66             |
| DH423044        | DH443044 | 4.4            | 6              | 24           | 66             |
| DH423045        | DH443045 | 4.5            | 6              | 24           | 66             |
| DH423046        | DH443046 | 4.6            | 6              | 24           | 66             |
| DH423047        | DH443047 | 4.7            | 6              | 24           | 66             |
| DH423048        | DH443048 | 4.8            | 6              | 28           | 66             |
| DH423049        | DH443049 | 4.9            | 6              | 28           | 66             |
| DH423050        | DH443050 | 5.0            | 6              | 28           | 66             |
| DH423051        | DH443051 | 5.1            | 6              | 28           | 66             |
| DH423052        | DH443052 | 5.2            | 6              | 28           | 66             |
| DH423053        | DH443053 | 5.3            | 6              | 28           | 66             |

| EDP No. (TiAIN) |          | Drill Diameter | Shank Diameter | Flute Length | Overall Length |
|-----------------|----------|----------------|----------------|--------------|----------------|
| Plain           | Flat     | D1             | D2             | L1           | L2             |
| DH423054        | DH443054 | 5.4            | 6              | 28           | 66             |
| DH423055        | DH443055 | 5.5            | 6              | 28           | 66             |
| DH423056        | DH443056 | 5.6            | 6              | 28           | 66             |
| DH423057        | DH443057 | 5.7            | 6              | 28           | 66             |
| DH423058        | DH443058 | 5.8            | 6              | 28           | 66             |
| DH423059        | DH443059 | 5.9            | 6              | 28           | 66             |
| DH423060        | DH443060 | 6.0            | 6              | 28           | 66             |
| DH423061        | DH443061 | 6.1            | 8              | 34           | 79             |
| DH423062        | DH443062 | 6.2            | 8              | 34           | 79             |
| DH423063        | DH443063 | 6.3            | 8              | 34           | 79             |
| DH423064        | DH443064 | 6.4            | 8              | 34           | 79             |
| DH423065        | DH443065 | 6.5            | 8              | 34           | 79             |
| DH423066        | DH443066 | 6.6            | 8              | 34           | 79             |
| DH423067        | DH443067 | 6.7            | 8              | 34           | 79             |
| DH423068        | DH443068 | 6.8            | 8              | 34           | 79             |
| DH423069        | DH443069 | 6.9            | 8              | 34           | 79             |
| DH423070        | DH443070 | 7.0            | 8              | 34           | 79             |
| DH423071        | DH443071 | 7.1            | 8              | 41           | 79             |
| DH423072        | DH443072 | 7.2            | 8              | 41           | 79             |
| DH423073        | DH443073 | 7.3            | 8              | 41           | 79             |
| DH423074        | DH443074 | 7.4            | 8              | 41           | 79             |
| DH423075        | DH443075 | 7.5            | 8              | 41           | 79             |
| DH423076        | DH443076 | 7.6            | 8              | 41           | 79             |
| DH423077        | DH443077 | 7.7            | 8              | 41           | 79             |

▶ Other shank types are available on your request.

▶ NEXT PAGE

◎ : Excellent ○ : Good

| ISO         | P                      |     |                        |     |     |   |     |                        |     |     | M                                  |                             |                 |     | K              |       |                   |     |                     |                   |                    |
|-------------|------------------------|-----|------------------------|-----|-----|---|-----|------------------------|-----|-----|------------------------------------|-----------------------------|-----------------|-----|----------------|-------|-------------------|-----|---------------------|-------------------|--------------------|
|             | Non-alloy steel        |     |                        |     |     | Low alloy steel                           |     |                        |     |     | High alloyed steel, and tool steel |                             | Stainless steel |     | Grey cast iron |       | Nodular cast iron |     | Malleable cast iron |                   |                    |
| VDI 3323    | 1                      | 2   | 3                      | 4   | 5   | 6   | 7   | 8                      | 9   | 10  | 11                                 | 12                          | 13              | 14  | 15             | 16    | 17                | 18  | 19                  | 20                |                    |
| HRc         | 13                     | 25  | 28                     | 32  | 36  | 10  | 29  | 32                     | 38  | 15  | 35                                 | 15                          | 23              | 10  | 10             | 26    | 3                 | 25  |                     | 21                |                    |
| HB          | 125                    | 190 | 250                    | 270 | 300 | 180                                       | 275 | 300                    | 350 | 200 | 325                                | 200                         | 240             | 180 | 180            | 260   | 160               | 250 | 130                 | 230               |                    |
| Recommended | ◎                      | ◎   | ◎                      | ◎   | ◎   | ◎   | ◎   | ◎                      | ◎   | ◎   | ◎                                  | ◎                           | ◎               | ◎   | ◎              | ◎     | ◎                 | ◎   | ◎                   | ◎                 |                    |
| ISO         | N                      |     |                        |     |     |   |     |                        |     | S   |                                    |                             |                 |     |                |       | H                 |     |                     |                   |                    |
|             | Aluminum-wrought alloy |     | Aluminum-cast, alloyed |     |     | Copper and Copper Alloys (Bronze / Brass) |     | Non Metallic Materials |     |     |                                    | Heat Resistant Super Alloys |                 |     |                |       | Titanium Alloys   |     | Hardened steel      | Chilled Cast Iron | Hardened Cast Iron |
| VDI 3323    | 21                     | 22  | 23                     | 24  | 25  | 26  | 27  | 28                     | 29  | 30  | 31                                 | 32                          | 33              | 34  | 35             | 36    | 37                | 38  | 39                  | 40                | 41                 |
| HRc         |                        |     |                        |     |     |   |     |                        |     |     | 15                                 | 30                          | 25              | 38  | 34             |       |                   | 55  | 60                  | 42                | 55                 |
| HB          | 60                     | 100 | 75                     | 90  | 130 | 110                                       | 90  | 100                    |     |     | 200                                | 280                         | 250             | 350 | 320            | 400Rm | 1050Rm            | 550 | 630                 | 400               | 550                |
| Recommended |                        |     |                        |     |     |   |     |                        |     |     |                                    |                             |                 |     |                |       |                   | ◎   |                     |                   |                    |



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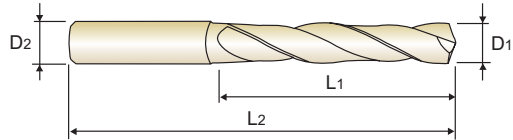
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DIN 6537
CARBIDE
30°
h6
m7
140°
TiAlN
p.A114

**3 x D**

| EDP No. (TiAlN) |          | Drill Diameter | Shank Diameter | Flute Length | Overall Length |
|-----------------|----------|----------------|----------------|--------------|----------------|
| Plain           | Flat     | D1             | D2             | L1           | L2             |
| DH423138        | DH443138 | 13.8           | 14             | 60           | 107            |
| DH423140        | DH443140 | 14.0           | 14             | 60           | 107            |
| DH423145        | DH443145 | 14.5           | 16             | 65           | 115            |
| DH423148        | DH443148 | 14.8           | 16             | 65           | 115            |
| DH423150        | DH443150 | 15.0           | 16             | 65           | 115            |
| DH423155        | DH443155 | 15.5           | 16             | 65           | 115            |
| DH423158        | DH443158 | 15.8           | 16             | 65           | 115            |
| DH423160        | DH443160 | 16.0           | 16             | 65           | 115            |
| DH423165        | DH443165 | 16.5           | 18             | 73           | 123            |
| DH423168        | DH443168 | 16.8           | 18             | 73           | 123            |

Unit : mm

| EDP No. (TiAlN) |          | Drill Diameter | Shank Diameter | Flute Length | Overall Length |
|-----------------|----------|----------------|----------------|--------------|----------------|
| Plain           | Flat     | D1             | D2             | L1           | L2             |
| DH423170        | DH443170 | 17.0           | 18             | 73           | 123            |
| DH423175        | DH443175 | 17.5           | 18             | 73           | 123            |
| DH423178        | DH443178 | 17.8           | 18             | 73           | 123            |
| DH423180        | DH443180 | 18.0           | 18             | 73           | 123            |
| DH423185        | DH443185 | 18.5           | 20             | 79           | 131            |
| DH423190        | DH443190 | 19.0           | 20             | 79           | 131            |
| DH423195        | DH443195 | 19.5           | 20             | 79           | 131            |
| DH423198        | DH443198 | 19.8           | 20             | 79           | 131            |
| DH423200        | DH443200 | 20.0           | 20             | 79           | 131            |

▶ Other shank types are available on your request.

◎ : Excellent ○ : Good

| ISO                  | P               |     |     |     |     |                 |     |     |     |     | M                                  |     |                 |     | K   |     |                |     |                   |     |                     |  |
|----------------------|-----------------|-----|-----|-----|-----|-----------------|-----|-----|-----|-----|------------------------------------|-----|-----------------|-----|-----|-----|----------------|-----|-------------------|-----|---------------------|--|
| Material Description | Non-alloy steel |     |     |     |     | Low alloy steel |     |     |     |     | High alloyed steel, and tool steel |     | Stainless steel |     |     |     | Grey cast iron |     | Nodular cast iron |     | Malleable cast iron |  |
| VDI 3323             | 1               | 2   | 3   | 4   | 5   | 6               | 7   | 8   | 9   | 10  | 11                                 | 12  | 13              | 14  | 15  | 16  | 17             | 18  | 19                | 20  |                     |  |
| HRc                  | 13              | 25  | 28  | 32  | 30  | 10              | 29  | 32  | 38  | 15  | 35                                 | 15  | 23              | 10  | 10  | 26  | 3              | 25  |                   | 21  |                     |  |
| HB                   | 125             | 190 | 250 | 270 | 300 | 180             | 275 | 300 | 350 | 200 | 325                                | 200 | 240             | 180 | 180 | 260 | 160            | 250 | 130               | 230 |                     |  |
| Recommended          | ◎               | ◎   | ◎   | ◎   | ◎   | ◎               | ◎   | ◎   | ◎   | ◎   | ◎                                  | ◎   | ◎               | ◎   | ◎   | ◎   | ◎              | ◎   | ◎                 | ◎   |                     |  |

| ISO                  | N                      |     |                        |    |     |   |    |     |                        |    | S                           |     |     |     |     |                 |        | H              |                   |                    |     |
|----------------------|------------------------|-----|------------------------|----|-----|---|----|-----|------------------------|----|-----------------------------|-----|-----|-----|-----|-----------------|--------|----------------|-------------------|--------------------|-----|
| Material Description | Aluminum-wrought alloy |     | Aluminum-cast, alloyed |    |     | Copper and Copper Alloys (Bronze / Brass) |    |     | Non Metallic Materials |    | Heat Resistant Super Alloys |     |     |     |     | Titanium Alloys |        | Hardened steel | Chilled Cast Iron | Hardened Cast Iron |     |
| VDI 3323             | 21                     | 22  | 23                     | 24 | 25  | 26  | 27 | 28  | 29                     | 30 | 31                          | 32  | 33  | 34  | 35  | 36              | 37     | 38             | 39                | 40                 | 41  |
| HRc                  |                        |     |                        |    |     |   |    |     |                        |    | 15                          | 30  | 25  | 38  | 34  |                 |        | 55             | 60                | 42                 | 55  |
| HB                   | 60                     | 100 | 75                     | 90 | 130 | 110                                       | 90 | 100 |                        |    | 200                         | 280 | 250 | 350 | 320 | 400Rm           | 1050Rm | 550            | 630               | 400                | 550 |
| Recommended          |                        |     |                        |    |     |   |    |     |                        |    |                             |     |     |     |     |                 |        | ◎              |                   |                    |     |