

**Garant**
**Diabolo solid carbide micro slot drill, TiAlN, Ø DC×L1: 2X20 mm**

**Order data**

|              |               |
|--------------|---------------|
| Order number | 201632 2X20   |
| GTIN         | 4062406386726 |
| Item class   | 11X           |

**Description**
**Version:**
**GARANT Diabolo:**

Special geometry, coating and carbide **for hard machining in the high-performance field.** Suitable even for **machining electrolytic copper.** Double-relief ground 2 chamfers hollow ground for high-precision hard machining.

Recess angle  $\alpha = 16^\circ$ .

Extra sturdy shank for achieving longer tool life.

Tolerances:

· **Neck Ø:  $D_1 = 0 / -0.01$  mm.**

**Note:**

At greater tool overhang lengths, use a reduced value for  $a_p$ !

Values for:

slots milled from solid:  $a_p = 0.05 \times D \times a_{p \text{ korr}}$

side milling:  $a_p = 0.1 \times D \times a_{p \text{ korr}}$

**To calculate the feed rate  $vf$  please use the actual speed of the machine (the maximum possible speed)! e.g:  $vf = 18000 \text{ [rpm]} \times fz \text{ [mm/Z]} \times z$**

Through-coolant: no

Tolerance nominal Ø:  $0 / -0,005$

No. of teeth Z: 2

Helix angle: 30 degrees

Direction of infeed: horizontal, oblique and vertical

Shank: DIN 6535 HA to h5

No. of teeth Z: 2

Flute length  $L_c$ : 3 mm

Overhang length  $L_1$  incl. recess: 20 mm

Recess Ø  $D_1$ : 1.91 mm

Overall length L: 58 mm

Shank Ø  $D_s$ : 6 mm

## Technical description

|   |                                      |
|---|--------------------------------------|
| Overall length L                              | 58 mm                                |
| Direction of infeed                           | horizontal, oblique and vertical     |
| Overhang length $L_1$ incl. recess            | 20 mm                                |
| Feed $f_z$ for slot milling in steel < 65 HRC | 0.022 mm                             |
| No. of teeth Z                                | 2                                    |
| Shank   | DIN 6535 HA to h5                    |
| Shank $\varnothing D_s$                       | 6 mm                                 |
| Corner chamfer angle                          | 90 degrees                           |
| Cutting edge $\varnothing D_c$                | 2 mm                                 |
| Cutting speed $v_c$ in steel < 65 HRC         | 27 m/min                             |
| Tolerance nominal $\varnothing$               | 0 / -0,005                           |
| Correction factor $a_{p\text{corr}}$          | 0.5                                  |
| Feed $f_z$ for side milling in steel < 65 HRC | 0.027 mm                             |
| Flute length $L_c$                            | 3 mm                                 |
| Recess $\varnothing D_1$                      | 1.91 mm                              |
| Helix angle                                   | 30 degrees                           |
| Series  | Diabolo                              |
| Coating                                       | TiAlN                                |
| Tool material                                 | Solid carbide                        |
| Standard                                      | Manufacturer's standard              |
| Type  | H                                    |
| Cutting width $a_e$ for milling operation     | Full slot cutting depth $1 \times D$ |
| Cutting width $a_e$ for milling operation     | $0.1 \times D$ for side milling      |
| Through-coolant                               | no                                   |
| Colour ring                                   | red                                  |
| Type of product                               | End mill                             |

