

**Garant**
**Solid carbide micro slot drill, DLC,  $\varnothing$  DC  $\times$  L1: 1,5X20 mm**

**Order data**

|              |               |
|--------------|---------------|
| Order number | 201140 1,5X20 |
| GTIN         | 4045197913104 |
| Item class   | 11X           |

**Description**
**Version:**

With **advanced DLC  $sp^2$  coating**. For the **highest demands regarding performance and precision in aluminium materials**. **Extremely tight tolerances** ensure maximum accuracy. Double relief ground with 2 hollow-ground chamfers. **Recess angle  $\alpha = 16^\circ$** .

Tolerances:

· **Neck  $\varnothing$ :  $D_1 = 0 / -0.01$  mm.**

**Note:**

At greater tool overhang lengths, use a reduced value for  $a_p$ !  
 Values for:  
 slots milled from solid:  $a_p = 0.25 \times D \times a_{p,corr}$   
 side milling:  $a_p = 0.5 \times D \times a_{p,corr}$   
**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  $\varnothing$ :  $0 / -0.005$

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  $L_c$ : 2.3 mm

Overhang length  $L_1$  incl. recess: 20 mm

Recess  $\varnothing$   $D_1$ : 1.44 mm

Overall length L: 60 mm

Shank  $\varnothing$   $D_s$ : 4 mm

**Technical description**

|   |          |
|---|----------|
| Feed $f_z$ for side milling in cast aluminium | 0.025 mm |
|---|----------|

|   |                                  |
|---|----------------------------------|
| Shank   | DIN 6535 HA to h5                |
| Flute length $L_c$                            | 2.3 mm                           |
| Overall length $L$                            | 60 mm                            |
| Shank $\varnothing D_s$                       | 4 mm                             |
| No. of teeth $Z$                              | 2                                |
| Tolerance nominal $\varnothing$               | 0 / -0.005                       |
| Cutting edge $\varnothing D_c$                | 1.5 mm                           |
| Overhang length $L_1$ incl. recess            | 20 mm                            |
| Feed $f_z$ for slot milling in cast aluminium | 0.02 mm                          |
| Recess $\varnothing D_1$                      | 1.44 mm                          |
| Direction of infeed                           | horizontal, oblique and vertical |
| Helix angle                                   | 30 degrees                       |
| Correction factor $a_{p,corr}$                | 0.35                             |
| Corner chamfer angle                          | 90 degrees                       |
| Coating                                       | DLC                              |
| Tool material                                 | Solid carbide                    |
| Standard                                      | Manufacturer's standard          |
| Type  | W                                |
| Cutting width $a_e$ for milling operation     | 0.5×D for side milling           |
| Cutting width $a_e$ for milling operation     | Full slot cutting depth 1×D      |
| Through-coolant                               | no                               |
| Colour ring                                   | yellow                           |
| Type of product                               | End mill                         |