

Garant
Solid carbide copy slot drill, DLC, Ø DC × L1: 1X3mm

Order data

| | |
|--------------|---------------|
| Order number | 207023 1X3 |
| GTIN | 4045197916242 |
| Item class | 11X |

Description
Version:

With **advanced DLC sp² coating**. For the **highest demands regarding performance and precision in aluminium materials**. **Extremely tight tolerances** ensure maximum accuracy. Double-relief ground with 2 chamfers hollow ground.

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

Tolerances:

- **Corner radius: Radius contour = 0 / -0.005 mm.**
- **Neck Ø: D₁ = 0 / -0.01 mm.**

Note:

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

values for:

copying: $a_p = 0.25 \times D \times a_{p, \text{korr}}$

To calculate the feed rate vf please use the actual speed of the machine (the maximum possible speed)!

e.g: $vf = 18000 \text{ [rpm]} \times fz \text{ [mm/Z]} \times z$

Technical description

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|--|---------|
| Recess Ø D ₁ | 0.96 mm |
| Feed f _z for copy milling in cast aluminium | 0.03 mm |
| No. of teeth Z | 2 |
| Overhang length L ₁ incl. recess | 3 mm |
| Shank Ø D _s | 4 mm |
| Cutting edge Ø D _c | 1 mm |

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|---|----------------------------------|
| Overall length L | 45 mm |
| Flute length L_c | 0.8 mm |
| Corner radius R_1 | 0.5 mm |
| Helix angle | 30 degrees |
| Correction factor $a_{p,corr}$ | 1 |
| Coating | DLC |
| Tool material | Solid carbide |
| Standard | Manufacturer's standard |
| Type | W |
| Tolerance nominal \varnothing | 0 / -0.005 |
| Direction of infeed | horizontal, oblique and vertical |
| Cutting width a_e for milling operation | 0.05×D for copy milling |
| Shank | DIN 6535 HA to h5 |
| Through-coolant | no |
| Colour ring | yellow |
| Type of product | Ball-nosed slot drill |

User data

| | Suitability | V_c | ISO code |
|----------------------------|-------------|-----------|----------|
| Aluminium | suitable | 480 m/min | N |
| Aluminium (short chipping) | suitable | 440 m/min | N |
| Alu > 10% Si | suitable | 400 m/min | N |
| PMMA acrylic | Suitable | 200 m/min | N |
| PE-HD | Suitable | 160 m/min | N |
| PA 66 | Suitable | 200 m/min | N |
| PEEK | Suitable | 150 m/min | N |
| PF 31 | Suitable | 130 m/min | N |
| PVDF GF20 | suitable | 180 m/min | N |

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|--------------------|---|-----------|---|
| POM GF25 | Suitable | 160 m/min | N |
| PA 66 GF30 | suitable | 150 m/min | N |
| PEEK GF30 | suitable | 130 m/min | N |
| PTFE CF25 | suitable | 160 m/min | N |
| Honeycomb sandwich | suitable only under restricted conditions | 300 m/min | N |
| Cu | suitable | 160 m/min | N |
| CuZn | suitable | 200 m/min | N |
| wet maximum | suitable | | |
| wet minimum | suitable | | |
| dry | suitable only under restricted conditions | | |
| Air | suitable | | |