

Garant
Solid carbide torus cutter R1 0.05, DLC, Ø DC × L1: 1,5X10 mm

Order data

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|--------------|---------------|
| Order number | 206043 1,5X10 |
| GTIN | 4045197914576 |
| 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: $R_1 = \pm 0.0025$ mm.**
- **Neck Ø: $D_1 = 0 / -0.01$ mm.**

Description:

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

Values for:

ts_fraes-kopieren fz for $a_p = 0.25 \times D$

ts_fraes-besaeumen fz for $a_n = 0.50 \times D$

ap max ts_fraes-kopieren : $a_p \text{ korr} \times 0.25 \times D$ [mm]

ap max ts_fraes-besaeumen : $a_p \text{ korr} \times 0.50 \times D$ [mm]

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

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

Note:

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

Values for:

slots milled from solid: $a_p = 0.25 \times D \times a_{p \text{ korr}}$

side milling: $a_p = 0.50 \times D \times a_{p \text{ korr}}$

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: $vf = 18000$ [rpm] \times fz [mm/Z] \times z

No. of teeth Z: 2

Helix angle: 30 degrees
 Shank: DIN 6535 HA to h5
 No. of teeth Z: 2
 Flute length L_c : 1.5 mm
 Corner radius R_1 : 0.2 mm
 Overhang length L_1 incl. recess: 10 mm
 Recess $\varnothing D_1$: 1.44 mm
 Overall length L: 50 mm

Technical description

| | |
|-----------------------------------------------|----------------------------------|
| Overall length L | 50 mm |
| Shank | DIN 6535 HA to h5 |
| Flute length L_c | 1.5 mm |
| Cutting edge $\varnothing D_c$ | 1.5 mm |
| No. of teeth Z | 2 |
| Overhang length L_1 incl. recess | 10 mm |
| Feed f_z for side milling in cast aluminium | 0.03 mm |
| Recess $\varnothing D_1$ | 1.44 mm |
| Shank $\varnothing D_s$ | 4 mm |
| Corner radius R_1 | 0.2 mm |
| Feed f_z for copy milling in cast aluminium | 0.03 mm |
| Helix angle | 30 degrees |
| Correction factor $a_{p,corr}$ | 0.9 |
| 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 |
| Cutting width a_e for milling operation | 0.5×D for side milling |
| Through-coolant | no |

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|-----------------|----------|
| Colour ring | yellow |
| Type of product | End mill |