

## Garant

**Solid carbide torus cutter, uncoated, Ø h6 DC / R1: 20/4,0 mm**



### Order data

|              |               |
|--------------|---------------|
| Order number | 206190 20/4,0 |
| GTIN         | 4045197591784 |
| Item class   | 11X           |

### Description

#### Version:

**Eccentric relief ground**, additionally **polish ground** in the flutes for **outstanding chip evacuation** in long-chipping aluminium workpieces.

Tolerances:

#### · Corner radius

**$R_1 = 0.5$  tolerance  $\pm 0.02$ .**

**$R_1 > 0.5 - 1.5$  tolerance  $\pm 0.03$ .**

**$R_1 > 1.5$  tolerance  $\pm 0.05$ .**

No. of teeth Z: 3

Helix angle: 45 degrees

Shank: DIN 6535 HA to h6

Balance quality with shank: G 2.5 with HA

No. of teeth Z: 3

Flute length  $L_c$ : 41 mm

Corner radius  $R_1$ : 4 mm

Overhang length  $L_1$  incl. recess: 52 mm

Recess  $\varnothing D_1$ : 19 mm

Overall length L: 104 mm

### Technical description

|   |         |
|---|---------|
| Recess $\varnothing D_1$                                | 19 mm   |
| Overhang length $L_1$ incl. recess                      | 52 mm   |
| Feed $f_z$ for copy milling in short-chipping aluminium | 0.13 mm |
| Cutting edge $\varnothing D_c$                          | 20 mm   |

|   |                                  |
|---|----------------------------------|
| No. of teeth Z  | 3                                |
| Feed $f_z$ for side milling in short-chipping aluminium | 0.12 mm                          |
| Corner radius $R_1$                                     | 4 mm                             |
| Shank $\varnothing D_s$                                 | 20 mm                            |
| Flute length $L_c$                                      | 41 mm                            |
| Overall length L  | 104 mm                           |
| Balance quality with shank                              | G 2.5 with HA                    |
| Shank   | DIN 6535 HA to h6                |
| Helix angle   | 45 degrees                       |
| Coating   | uncoated                         |
| Tool material   | Solid carbide                    |
| Standard  | DIN 6527                         |
| Type  | W                                |
| Tolerance nominal $\varnothing$                         | h6                               |
| 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                               |
| Shank tolerance   | h6                               |
| Colour ring   | yellow                           |
| Type of product   | End mill                         |

## Services

|   |             |
|---|-------------|
| Shank recess Type FRST  | 209900 FRST |
| Shank clamping flats for shrink-fit chucks, with retainer function Shank $\varnothing$ tool 20 mm | SZ2025 20   |
| Shank grinding Type HB  | 129100 HB   |