

## Garant

### Solid carbide milling cutter MTC, uncoated, Ø DC: 12mm



#### Order data

|              |               |
|--------------|---------------|
| Order number | 202244 12     |
| GTIN         | 4045197538512 |
| Item class   | 11X           |

#### Description

##### Version:

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

**Without** 45° corner chamfer.

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Size 1–2 – tolerance: Size nominal Ø  $D_c = e8$ .

Size 2.5–20M – tolerance: Size nominal Ø  $D_c = h6$ .

##### Application:

Especially for **MTC (Multi Task Cutting)** use on the new generation of turning / milling centres.

##### Note:

**NEW GENERATION AVAILABLE! Recommended successor product is No. 202002.**

Tolerance nominal Ø: h6

No. of teeth Z: 3

Helix angle: 45°

Direction of infeed: horizontal, oblique and vertical

Shank: DIN 6535 HA to h6

Balance quality with shank: G 2.5 with HA

No. of teeth Z: 3

Flute length  $L_c$ : 26 mm

Overhang length  $L_1$  incl. recess: 36 mm

Recess Ø  $D_1$ : 11 mm

Overall length L: 83 mm

Shank Ø  $D_s$ : 12 mm

#### Technical description

|            |    |
|------------|----|
| Shank form | HA |
|------------|----|

|   |                                  |
|---|----------------------------------|
| Feed $f_z$ for side milling in short-chipping aluminium | 0.07 mm                          |
| No. of teeth Z  | 3                                |
| Overhang length $L_1$ incl. recess                      | 36 mm                            |
| Cutting edge $\varnothing D_c$                          | 12 mm                            |
| Recess $\varnothing D_1$                                | 11 mm                            |
| Feed $f_z$ for slot milling in short-chipping aluminium | 0.05 mm                          |
| Shank $\varnothing D_s$                                 | 12 mm                            |
| Overall length L  | 83 mm                            |
| Flute length $L_c$                                      | 26 mm                            |
| Direction of infeed                                     | horizontal, oblique and vertical |
| Shank   | DIN 6535 HA to h6                |
| Tolerance nominal $\varnothing$                         | h6                               |
| Balance quality with shank                              | G 2.5 with HA                    |
| Helix angle   | 45 °                             |
| Corner chamfer angle                                    | 90 °                             |
| Coating   | uncoated                         |
| Tool material   | Solid carbide                    |
| Standard  | DIN 6527                         |
| Type  | W                                |
| Helix angle characteristic                              | unequal spacing                  |
| 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                               |
| Machining strategy                                      | MTC                              |
| Colour ring   | yellow                           |
| Type of product   | End / face mill                  |

## User data

|  | Suitability | $V_c$ | ISO code |
|--|-------------|-------|----------|
|--|-------------|-------|----------|

|                            |   |           |   |
|----------------------------|---|-----------|---|
| Aluminium                  | suitable                                  | 190 m/min | N |
| Aluminium (short chipping) | suitable                                  | 150 m/min | N |
| Alu > 10% Si               | suitable                                  | 120 m/min | N |
| PMMA acrylic               | suitable                                  | 180 m/min | N |
| PE-HD                      | Suitable                                  | 130 m/min | N |
| PA 66                      | Suitable                                  | 150 m/min | N |
| PEEK                       | suitable                                  | 130 m/min | N |
| PF 31                      | Suitable                                  | 110 m/min | N |
| Honeycomb sandwich         | suitable only under restricted conditions | 180 m/min | N |
| Cu                         | Suitable                                  | 120 m/min | N |
| CuZn                       | Suitable                                  | 150 m/min | N |
| wet maximum                | suitable                                  |           |   |
| wet minimum                | suitable                                  |           |   |
| dry                        | suitable only under restricted conditions |           |   |
| Air                        | suitable only under restricted conditions |           |   |

## Services

|   |             |
|---|-------------|
| Shank recess Type FRST  | 209900 FRST |
| Shank clamping flats for shrink-fit chucks, with retainer function Shank Ø tool 12 mm | SZ2025 12   |
| Shank grinding Type HB  | 129100 HB   |