

**Garant****GARANT Steel solid carbide milling cutter HPC, TiAlN, Ø f8 DC: 4mm****Order data**

|              |               |
|--------------|---------------|
| Order number | 203057 4      |
| GTIN         | 4069515028431 |
| Item class   | 11Z           |

**Description****Version:**

For **roughing and finishing**. For use in unstable machining processes and for machining complex components.

Up to 1.5xD into solid material **at very high feed rates** with smooth cutting action.

**Advantage:**

Optimised flute form, eccentric relief ground, wide chip space.

**Note:**

**Successor product to No. 203041.**

**Technical description**

|                                                                       |                                  |
|-----------------------------------------------------------------------|----------------------------------|
| Cutting edge Ø D <sub>c</sub>                                         | 4 mm                             |
| Corner chamfer angle                                                  | 45 degrees                       |
| Overall length L                                                      | 57 mm                            |
| Feed f <sub>z</sub> for side milling in steel < 900 N/mm <sup>2</sup> | 0.025 mm                         |
| No. of teeth Z                                                        | 4                                |
| Corner chamfer width at 45°                                           | 0.08 mm                          |
| Shank                                                                 | DIN 6535 HB                      |
| Feed f <sub>z</sub> for slot milling in steel < 900 N/mm <sup>2</sup> | 0.02 mm                          |
| Helix angle                                                           | 38 degrees                       |
| Shank Ø D <sub>s</sub>                                                | 6 mm                             |
| Direction of infeed                                                   | horizontal, oblique and vertical |

## Data sheet

|                                           |                                      |
|-------------------------------------------|--------------------------------------|
| Flute length $L_c$                        | 11 mm                                |
| Tolerance nominal $\varnothing$           | f8                                   |
| Series                                    | Master Steel                         |
| Coating                                   | TiAlN                                |
| Tool material                             | Solid carbide                        |
| Standard                                  | DIN 6527                             |
| Type                                      | N                                    |
| Helix angle characteristic                | unequal spacing                      |
| Spacing of the cutters                    | unequal spacing                      |
| Cutting width $a_e$ for milling operation | Full slot cutting depth $1 \times D$ |
| Cutting width $a_e$ for milling operation | $0.3 \times D$ for side milling      |
| Through-coolant                           | no                                   |
| Machining strategy                        | HPC                                  |
| Colour ring                               | green                                |
| Type of product                           | End / face mill                      |

## User data

|                                | Suitability                               | $V_c$     | ISO code |
|--------------------------------|-------------------------------------------|-----------|----------|
| Steel < 500 N/mm <sup>2</sup>  | suitable                                  | 250 m/min | P        |
| Steel < 750 N/mm <sup>2</sup>  | suitable                                  | 200 m/min | P        |
| Steel < 900 N/mm <sup>2</sup>  | suitable                                  | 180 m/min | P        |
| Steel < 1100 N/mm <sup>2</sup> | suitable                                  | 160 m/min | P        |
| INOX < 900 N/mm <sup>2</sup>   | suitable                                  | 70 m/min  | M        |
| INOX > 900 N/mm <sup>2</sup>   | suitable                                  | 50 m/min  | M        |
| GG(G)                          | suitable                                  | 120 m/min | K        |
| Uni                            | suitable                                  |           |          |
| wet maximum                    | suitable                                  |           |          |
| wet minimum                    | suitable only under restricted conditions |           |          |

|     |          |
|-----|----------|
| dry | suitable |
| Air | suitable |