

**Garant**
**GARANT Master Titan solid carbide milling cutter HPC/TPC, TiAlN, Ø e8 DC: 5mm**

**Order data**

|              |               |
|--------------|---------------|
| Order number | 203157 5      |
| GTIN         | 4045197989741 |
| Item class   | 11Z           |

**Description**
**Version:**

For roughing and finishing at very high feed rates and smooth cutting action for the best tool life and high metal removal rate.

Specially ground with corner radii similar to torus cutters and **special coating**.

Dimensions to DIN 6527 long.

**Application:**

For milling **titanium and titanium alloys**.

**Note:**

Can be reground when used as a TPC milling cutter.

**Technical description**

|                                                                          |                   |
|--------------------------------------------------------------------------|-------------------|
| Cutting edge Ø D <sub>c</sub>                                            | 5 mm              |
| Recess Ø D <sub>1</sub>                                                  | 4.8 mm            |
| Helix angle                                                              | 40 degrees        |
| Feed f <sub>z</sub> for side milling in titanium > 850 N/mm <sup>2</sup> | 0.022 mm          |
| Shank                                                                    | DIN 6535 HA to h6 |
| Overhang length L <sub>1</sub> incl. recess                              | 18 mm             |
| Shank Ø D <sub>s</sub>                                                   | 6 mm              |
| Feed f <sub>z</sub> for slot milling in titanium > 850 N/mm <sup>2</sup> | 0.018 mm          |
| Tolerance nominal Ø                                                      | e8                |

|                                           |                                      |
|-------------------------------------------|--------------------------------------|
| Overall length L                          | 57 mm                                |
| No. of teeth Z                            | 5                                    |
| Direction of infeed                       | horizontal, oblique and vertical     |
| Flute length $L_c$                        | 13 mm                                |
| Corner rounding $r_v$                     | 0.1 mm                               |
| Series                                    | Master Titan                         |
| Coating                                   | TiAlN                                |
| Tool material                             | Solid carbide                        |
| Standard                                  | DIN 6527                             |
| Type                                      | N                                    |
| 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      |
| Cutting width $a_e$ for milling operation | $0,08 \times D$                      |
| Through-coolant                           | no                                   |
| Machining strategy                        | HPC                                  |
| Machining strategy                        | TPC                                  |
| Colour ring                               | pink                                 |
| Type of product                           | End / face mill                      |

## User data

|                            | Suitability | $V_c$    | ISO code |
|----------------------------|-------------|----------|----------|
| Ti > 850 N/mm <sup>2</sup> | suitable    | 60 m/min | S        |
| wet maximum                | suitable    |          |          |

## Services

|                        |           |
|------------------------|-----------|
| Shank grinding Type HB | 129100 HB |
|------------------------|-----------|