

**Garant**
**GARANT Master Titan solid carbide end torus cutter HPC, TiAlN, Ø h9 DC: 12mm**

**Order data**

|              |               |
|--------------|---------------|
| Order number | 206288 12     |
| GTIN         | 4045197989543 |
| Item class   | 11Z           |

**Description**
**Version:**

Tolerance: Corner radius  $R_1 = \pm 0.01$  mm.

Special centre cutting edge geometry for traverse milling at very high feed rates.

**Application:**

**For copy and traverse milling** of titanium under HPC conditions.

Using special milling strategies **very high rates of metal removal can be achieved.**

**Note:**

Regrinding not recommended.

**Technical description**

|                                    |            |
|------------------------------------|------------|
| Shank Ø $D_s$                      | 12 mm      |
| Overall length L                   | 120 mm     |
| Recess Ø $D_1$                     | 11 mm      |
| No. of teeth Z                     | 5          |
| Cutting edge Ø $D_c$               | 12 mm      |
| Flute length $L_c$                 | 6.8 mm     |
| Overhang length $L_1$ incl. recess | 56 mm      |
| Programming radius                 | 2 mm       |
| Dimension $a_{p\ max}$ transverse  | 0.8 mm     |
| Setting angle $\kappa$             | 15 degrees |

|  |                                  |
|--|----------------------------------|
| Feed f in titanium > 850 N/mm <sup>2</sup>         | 0.15 mm                          |
| Coating  | TiAlN                            |
| Tool material                                      | Solid carbide                    |
| Standard   | Manufacturer's standard          |
| Type   | N                                |
| Tolerance nominal Ø                                | h9                               |
| Helix angle  | 15 degrees                       |
| Direction of infeed                                | horizontal, oblique and vertical |
| Cutting width a <sub>e</sub> for milling operation | Full slot cutting depth 1×D      |
| Shank  | DIN 6535 HA to h6                |
| Through-coolant                                    | no                               |
| Machining strategy                                 | HPC                              |
| Colour ring  | pink                             |
| Type of product                                    | End torus mill                   |

### User data

|                            | Suitability | V <sub>c</sub> | ISO code |
|----------------------------|-------------|----------------|----------|
| Ti > 850 N/mm <sup>2</sup> | suitable    | 80 m/min       | S        |
| wet maximum                | suitable    |                |          |

### Services

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