

**Garant**
**GARANT Master Steel solid carbide torus cutter HPC, TiAlN, Ø e8 DC / R1: 8/0,5mm**

**Order data**

|              |               |
|--------------|---------------|
| Order number | 206333 8/0,5  |
| GTIN         | 4062406276300 |
| Item class   | 11X           |

**Description**
**Version:**

HPC milling cutter with **newly developed high-performance coating**. For **outstanding tool life** and **optimum metal removal rates** in a range of materials.

With **double relief ground side clearance angle**.

Tolerance: Corner radius  $R_1$

Radius size 0.1 mm – 1 mm:  $R_1 = \pm 0.003$  mm.

Radius size > 1.0 mm:  $R_1 = \pm 0.005$  mm.

**Application:**

Especially for **high speed machining** in **mould and tool making** for **copy milling**. Excellent results for **dry milling**.

**Note:**

**Successor product to No. 206280.**

**Technical description**

|   |                   |
|---|-------------------|
| Overhang length $L_1$ incl. recess                            | 27 mm             |
| Flute length $L_c$  | 9 mm              |
| Overall length $L$  | 63 mm             |
| Feed $f_z$ for copy milling in steel < 1100 N/mm <sup>2</sup> | 0.03 mm           |
| Feed $f_z$ for side milling in steel < 1100 N/mm <sup>2</sup> | 0.027 mm          |
| Shank   | DIN 6535 HA to h6 |
| Helix angle   | 30 degrees        |

|   |                                  |
|---|----------------------------------|
| No. of teeth Z                            | 5                                |
| Shank $\varnothing D_s$                   | 8 mm                             |
| Corner radius $R_1$                       | 0.5 mm                           |
| Cutting edge $\varnothing D_c$            | 8 mm                             |
| maximum shank recess dia. $D_6$           | 7.9 mm                           |
| minimum shank recess dia. $D_5$           | 7.4 mm                           |
| Series                                    | Master Steel                     |
| Coating                                   | TiAlN                            |
| Tool material                             | Solid carbide                    |
| Standard                                  | Manufacturer's standard          |
| Type                                      | H                                |
| Tolerance nominal $\varnothing$           | e8                               |
| Direction of infeed                       | horizontal, oblique and vertical |
| Cutting width $a_e$ for milling operation | 0.03×D for copy milling          |
| Cutting width $a_e$ for milling operation | 0.2×D for side milling           |
| Through-coolant                           | no                               |
| Machining strategy                        | HPC                              |
| Colour ring                               | green                            |
| Type of product                           | Torus cutter                     |

## User data

|                                | Suitability                               | $V_c$     | ISO code |
|--------------------------------|---|-----------|----------|
| Steel < 500 N/mm <sup>2</sup>  | suitable only under restricted conditions | 200 m/min | P        |
| Steel < 750 N/mm <sup>2</sup>  | suitable                                  | 170 m/min | P        |
| Steel < 900 N/mm <sup>2</sup>  | suitable                                  | 120 m/min | P        |
| Steel < 1100 N/mm <sup>2</sup> | suitable                                  | 85 m/min  | P        |
| Steel < 1400 N/mm <sup>2</sup> | suitable                                  | 70 m/min  | P        |
| Steel < 55 HRC                 | suitable                                  | 40 m/min  | H        |

|                              |   |           |   |
|------------------------------|---|-----------|---|
| INOX < 900 N/mm <sup>2</sup> | suitable                                  | 95 m/min  | M |
| INOX > 900 N/mm <sup>2</sup> | suitable                                  | 85 m/min  | M |
| GG(G)                        | suitable                                  | 110 m/min | K |
| Uni                          | suitable                                  |           |   |
| wet maximum                  | suitable                                  |           |   |
| wet minimum                  | suitable only under restricted conditions |           |   |
| dry                          | suitable                                  |           |   |
| Air                          | suitable                                  |           |   |
| <b>Services</b>              |   |           |   |

Shank grinding Type HB

129100 HB