

**Garant**
**GARANT Master Steel solid carbide torus cutter HPC, TiAlN, Ø DC / R1:  
4/1,0mm**

**Order data**

|              |               |
|--------------|---------------|
| Order number | 206354 4/1,0  |
| GTIN         | 4045197778512 |
| Item class   | 11X           |

**Description**
**Version:**

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

**Advantage:**

HPC milling cutters with various corner radii for all radial transitions.  
Optimised flute form, eccentric relief ground, wide chip space.

**Technical description**

|  |                   |
|--|-------------------|
| Feed $f_z$ for side milling in steel $< 900$ N/mm <sup>2</sup> | 0.025 mm          |
| No. of teeth Z   | 4                 |
| Corner radius $R_1$  | 1 mm              |
| Shank Ø $D_s$  | 6 mm              |
| Overall length L   | 57 mm             |
| Flute length $L_c$   | 11 mm             |
| Cutting edge Ø $D_c$   | 4 mm              |
| Feed $f_z$ for slot milling in steel $< 900$ N/mm <sup>2</sup> | 0.02 mm           |
| Shank  | DIN 6535 HB to h6 |
| Helix angle  | 38 degrees        |
| Series   | Master Steel      |
| Coating  | TiAlN             |

|   |                                      |
|---|--------------------------------------|
| Tool material                             | Solid carbide                        |
| Standard                                  | DIN 6527                             |
| Type                                      | N                                    |
| Tolerance nominal $\varnothing$           | f8                                   |
| Helix angle characteristic                | unequal spacing                      |
| Spacing of the cutters                    | unequal spacing                      |
| Direction of infeed                       | horizontal, oblique and vertical     |
| 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                           | Torus cutter                         |

## User data

|                                | Suitability                               | $V_c$     | ISO code |
|--------------------------------|---|-----------|----------|
| Steel < 500 N/mm <sup>2</sup>  | suitable                                  | 260 m/min | P        |
| Steel < 750 N/mm <sup>2</sup>  | suitable                                  | 240 m/min | P        |
| Steel < 900 N/mm <sup>2</sup>  | suitable                                  | 190 m/min | P        |
| Steel < 1100 N/mm <sup>2</sup> | suitable                                  | 180 m/min | P        |
| Steel < 1400 N/mm <sup>2</sup> | suitable only under restricted conditions | 150 m/min | P        |
| INOX < 900 N/mm <sup>2</sup>   | suitable                                  | 80 m/min  | M        |
| INOX > 900 N/mm <sup>2</sup>   | suitable                                  | 70 m/min  | M        |
| GG(G)                          | suitable                                  | 250 m/min | K        |
| Uni                            | suitable                                  |           |          |
| wet maximum                    | suitable                                  |           |          |
| wet minimum                    | suitable only under restricted conditions |           |          |

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