

**Garant**
**GARANT Master Steel solid carbide finishing cutter HPC, TiAlN, Ø f8 DC: 6mm**

**Order data**

|              |               |
|--------------|---------------|
| Order number | 204016 6      |
| GTIN         | 4045197886774 |
| Item class   | 11X           |

**Description**
**Version:**

Suitable for machining titanium and titanium alloys.

For **finishing operations**.

Special geometry for optimum chip evacuation.

Unequal spacing gives high **intrinsic stability and smooth cutting action**.

For **profile milling as a finishing operation**.

Particularly long cutting edges for efficient finishing.

**Note:**

Can be reground from  $\varnothing D_c = 6 \text{ mm}$ .

$a_{e \max} = 0.05 \times D$

**Technical description**

|                                 |                   |
|---------------------------------|-------------------|
| Overall length L                | 66 mm             |
| Cutting edge $\varnothing D_c$  | 6 mm              |
| Shank $\varnothing D_s$         | 6 mm              |
| Shank                           | DIN 6535 HA to h6 |
| Balance quality with shank      | G 2.5 with HA     |
| Direction of infeed             | horizontal        |
| Tolerance nominal $\varnothing$ | f8                |
| Corner chamfer width at 45°     | 0.06 mm           |
| No. of teeth Z                  | 7                 |

|  |                         |
|--|-------------------------|
| Feed $f_z$ for side milling in steel < 900 N/mm <sup>2</sup> | 0.025 mm                |
| Flute length $L_c$   | 24 mm                   |
| Helix angle  | 45 degrees              |
| Corner chamfer angle   | 45 degrees              |
| Series   | Master Steel            |
| Coating  | TiAlN                   |
| Tool material  | Solid carbide           |
| Standard   | Manufacturer's standard |
| Type   | N                       |
| Spacing of the cutters                                       | unequal spacing         |
| Cutting width $a_e$ for milling operation                    | 0.05×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                                  | 240 m/min | P        |
| Steel < 750 N/mm <sup>2</sup>  | suitable                                  | 220 m/min | P        |
| Steel < 900 N/mm <sup>2</sup>  | suitable                                  | 200 m/min | P        |
| Steel < 1100 N/mm <sup>2</sup> | suitable                                  | 180 m/min | P        |
| Steel < 1400 N/mm <sup>2</sup> | suitable                                  | 150 m/min | P        |
| INOX < 900 N/mm <sup>2</sup>   | suitable                                  | 90 m/min  | M        |
| INOX > 900 N/mm <sup>2</sup>   | suitable                                  | 80 m/min  | M        |
| Ti > 850 N/mm <sup>2</sup>     | suitable only under restricted conditions | 100 m/min | S        |
| GG(G)                          | suitable                                  | 200 m/min | K        |

|                                   |   |
|-----------------------------------|---|
| wet maximum                       | suitable only under restricted conditions |
| wet minimum                       | suitable only under restricted conditions |
| dry                               | suitable only under restricted conditions |
| <del>Air</del><br><b>Services</b> | suitable                                  |
| Shank grinding Type HB            | 129100 HB                                 |