

**Garant**
**GARANT Master Steel SlotMachine solid carbide roughing end mill with through-coolant HPC, TiAlN, Ø d11 DC: 10mm**

**Order data**

|              |               |
|--------------|---------------|
| Order number | 205551 10     |
| GTIN         | 4062406111175 |
| Item class   | 11X           |

**Description**
**Version:**

With a new-type knurled profile, optimised for higher feed rates. Improved cutting edge protection thanks to slight edge honing. Tremendous bending strength due to the use of ultra-fine grain substrate.

Feed rate per tooth up to 0.1 mm up to a depth of 2×D (in the slot milled from solid).

With **internal coolant supply** for reliable swarf evacuation.

**Advantage:**

The tool geometry produces particularly tightly rolled swarf that is discharged via flat chip breaker recesses. As a result, the tool maintains an extremely stable core. Plunge angle of up to 10° possible thanks to generous recess on the front face.

**Application:**

For roughing machining, particularly suitable for full-slot machining.

**Technical description**

|                             |                        |
|-----------------------------|------------------------|
| Direction of infeed         | horizontal and oblique |
| Shank                       | DIN 6535 HB to h6      |
| Recess Ø D <sub>1</sub>     | 9.3 mm                 |
| No. of teeth Z              | 5                      |
| Corner chamfer width at 45° | 0.5 mm                 |
| Flute length L <sub>c</sub> | 22 mm                  |
| Shank Ø D <sub>s</sub>      | 10 mm                  |

|  |                         |
|--|-------------------------|
| Cutting edge $\varnothing D_c$                               | 10 mm                   |
| Feed $f_z$ for side milling in steel < 900 N/mm <sup>2</sup> | 0.09 mm                 |
| Helix angle  | 42 degrees              |
| Overhang length $L_1$ incl. recess                           | 30 mm                   |
| Feed $f_z$ for slot milling in steel < 900 N/mm <sup>2</sup> | 0.065 mm                |
| Overall length L   | 72 mm                   |
| Tolerance nominal $\varnothing$                              | d11                     |
| Corner chamfer angle   | 45 degrees              |
| Series   | Master Steel            |
| Coating  | TiAlN                   |
| Tool material  | Solid carbide           |
| Standard   | DIN 6527                |
| Milling profile  | NR                      |
| Spacing of the cutters                                       | unequal spacing         |
| Cutting width $a_e$ for milling operation                    | 0.4×D for side milling  |
| Cutting width $a_e$ for milling operation                    | 0.05×D for copy milling |
| Through-coolant  | yes                     |
| 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    | 200 m/min | P        |
| Steel < 750 N/mm <sup>2</sup>  | suitable    | 180 m/min | P        |
| Steel < 900 N/mm <sup>2</sup>  | suitable    | 160 m/min | P        |
| Steel < 1100 N/mm <sup>2</sup> | suitable    | 140 m/min | P        |
| Steel < 1400 N/mm <sup>2</sup> | suitable    | 110 m/min | P        |
| INOX < 900 N/mm <sup>2</sup>   | suitable    | 50 m/min  | M        |

|                              |          |           |   |
|------------------------------|----------|-----------|---|
| INOX > 900 N/mm <sup>2</sup> | suitable | 35 m/min  | M |
| GG(G)                        | suitable | 200 m/min | K |
| Uni                          | suitable |           |   |
| wet maximum                  | suitable |           |   |
| Air                          | suitable |           |   |