Garant

# GARANT Master INOX solid carbide milling cutter with chip separators TPC, TiAlN, ∅ f8 DC: 6mm

## Order data

| | |
|---|---|
| Order number | 203116 6 |
| GTIN | 4062406783464 |
| Item class | 11Z |

## Description

**Version:**
High-performance milling cutter with **irregular cutter spacing** and **irregular helical pitch. High process reliability** and **better chip evacuation** due to **increased flutes. Optimised carbide substrate** for **higher bending strength** and **extreme tool life**, even in stainless steels in the high-performance field, especially duplex. **Chip separator** positioned offset **at cutting edges.**
**Advantage:**
Lower pull-out forces due to reduced helix angle.
**Note:**
$h_{max}$ : The values stated in the table are maximum values. For finishing operations we recommend items No. 204012, 204014, 204015, 204016, 204018 and 204019.
$a_{e\,max}$ = 0.12×D for TPC machining.

## Technical description

| | |
|---|---|
| Corner chamfer width at 45° | 0.12 mm |
| Tolerance nominal ∅ | e8 |
| Cutting edge ∅ $D_C$ | 6 mm |
| Shank ∅ $D_s$ | 6 mm |
| Helix angle | 36 degrees |
| Overhang length $L_1$ incl. recess | 19 mm |

| | |
|---|---|
| Average chip thickness $h_{max}$ for TPC milling in INOX < 900 N/mm² | 0.039 mm |
| Corner chamfer angle | 45 degrees |
| Flute length $L_c$ | 13 mm |
| Direction of infeed | horizontal, oblique and vertical |
| Balance quality with shank | G 2.5 with HB |
| Overall length L | 57 mm |
| Shank | DIN 6535 HB to h6 |
| No. of teeth Z | 6 |
| Recess ⌀ $D_1$ | 5.8 mm |
| Series | Master INOX |
| Coating | TiAlN |
| Tool material | Solid carbide |
| Standard | Manufacturer's standard |
| Type | N |
| Helix angle characteristic | unequal spacing |
| Spacing of the cutters | unequal spacing |
| Cutting width $a_e$ for milling operation | 0.12×D |
| Through-coolant | no |
| Machining strategy | TPC |
| Colour ring | blue |
| Type of product | End / face mill |

## User data

| | Suitability | $V_c$ | ISO code |
|---|---|---|---|
| Steel < 500 N/mm² | Suitable only under restricted conditions | 380 m/min | P |
| Steel < 750 N/mm² | Suitable only under restricted conditions | 340 m/min | P |

| | | | |
|---|---|---|---|
| Steel < 900 N/mm² | Suitable only under restricted conditions | 300 m/min | P |
| Steel < 1100 N/mm² | Suitable only under restricted conditions | 230 m/min | P |
| INOX < 900 N/mm² | suitable | 240 m/min | M |
| INOX > 900 N/mm² | suitable | 170 m/min | M |
| Ti > 850 N/mm² | suitable | 140 m/min | S |
| wet maximum | suitable | | |
| wet minimum | Suitable only under restricted conditions | | |
| Air | suitable | | |