

**Garant**
**GARANT Master INOX solid carbide milling cutter with chip separators TPC, TiAlN, Ø f8 DC: 10mm**

**Order data**

Order number	203119 10
GTIN	4062406783792
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.

$a_{e_{max}} = 0.04 \times D$  for TPC machining.

**Successor product for No. 203105 and No. 203108.**

Tolerance nominal Ø: e8

No. of teeth Z: 6

Helix angle: 36°

Direction of infeed: horizontal, oblique and vertical

Shank: DIN 6535 HB to h6

Balance quality with shank: G 2.5 with HB

No. of teeth Z: 6

Flute length  $L_c$ : 50 mm

Overall length L: 96 mm

Shank Ø  $D_s$ : 10 mm

Number of chip separators: 3

Corner chamfer width at 45°: 0.2 mm

## Technical description

Flute length $L_c$	50 mm
Shank $\varnothing D_s$	10 mm
No. of teeth Z	6
Corner chamfer angle	45 °
Overall length L	96 mm
Tolerance nominal $\varnothing$	e8
Cutting edge $\varnothing D_c$	10 mm
Balance quality with shank	G 2.5 with HB
Average chip thickness $h_{max}$ for TPC milling in INOX < 900 N/mm <sup>2</sup>	0.039 mm
Helix angle	36 °
Corner chamfer width at 45°	0.2 mm
Direction of infeed	horizontal, oblique and vertical
Shank	DIN 6535 HB to h6
Number of chip separators	3
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	0.04×D
Through-coolant	no
Machining strategy	TPC
Colour ring	blue
Type of product	End / face mill

## User data

	<b>Suitability</b>	<b>V<sub>c</sub></b>	<b>ISO code</b>
Steel < 500 N/mm <sup>2</sup>	Suitable only under restricted conditions	270 m/min	P
Steel < 750 N/mm <sup>2</sup>	Suitable only under restricted conditions	240 m/min	P
Steel < 900 N/mm <sup>2</sup>	Suitable only under restricted conditions	210 m/min	P
Steel < 1100 N/mm <sup>2</sup>	Suitable only under restricted conditions	160 m/min	P
INOX < 900 N/mm <sup>2</sup>	suitable	200 m/min	M
INOX > 900 N/mm <sup>2</sup>	suitable	140 m/min	M
wet maximum	suitable		
wet minimum	Suitable only under restricted conditions		
Air	suitable		