

## Garant

### GARANT Master INOX solid carbide milling cutter with chip separators TPC, TiAlN, Ø f8 DC: 12mm



#### Order data

Order number	203118 12
GTIN	4062406783754
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.

$a_{e,max} = 0.07 \times D$  for TPC machining.

**Successor product for No. 203104 and No. 203107.**

#### Technical description

Helix angle	36 degrees
Shank Ø $D_s$	12 mm
Flute length $L_c$	48 mm
No. of teeth Z	6
Average chip thickness $h_{max}$ for TPC milling in INOX < 900 N/mm <sup>2</sup>	0.061 mm
Overall length L	100 mm

Balance quality with shank	G 2.5 with HB
Direction of infeed	horizontal, oblique and vertical
Shank	DIN 6535 HB to h6
Corner chamfer width at 45°	0.24 mm
Corner chamfer angle	45 degrees
Tolerance nominal Ø	e8
Cutting edge Ø D <sub>c</sub>	12 mm
Number of chip separators	2
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 <sub>e</sub> for milling operation	0.07×D
Through-coolant	no
Machining strategy	TPC
Colour ring	blue
Type of product	End / face mill

## User data

	Suitability	V <sub>c</sub>	ISO code
Steel < 500 N/mm <sup>2</sup>	Suitable only under restricted conditions	320 m/min	P
Steel < 750 N/mm <sup>2</sup>	Suitable only under restricted conditions	290 m/min	P
Steel < 900 N/mm <sup>2</sup>	Suitable only under restricted conditions	260 m/min	P

Steel < 1100 N/mm <sup>2</sup>	Suitable only under restricted conditions	200 m/min	P
INOX < 900 N/mm <sup>2</sup>	suitable	220 m/min	M
INOX > 900 N/mm <sup>2</sup>	suitable	160 m/min	M
Ti > 850 N/mm <sup>2</sup>	suitable	120 m/min	S
wet maximum	suitable		
wet minimum	Suitable only under restricted conditions		
Air	suitable		