

## Garant

### GARANT Master INOX M SlotMachine solid carbide roughing end mill TPC, TiAlN, Ø d11 DC: 16mm



#### Order data

Order number	205453 16
GTIN	4062406380656
Item class	11X

#### Description

##### Version:

**Problem-solver** for **TPC machining**. Ideal for automated production as the risk of chip accumulations in the machine is largely prevented.

With a **new type of knuckle form 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**. Number of cutters selected for performance and process reliability.

##### 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**.

##### Recommendation:

To ensure reliable working, particularly for full slot milling, use arbors with **4 cooling channel bores**.

##### Note:

$h_{max}$ : The values stated in the table are maximum values.

$ae_{max} = 0.07 \times D$  for TPC machining.

#### Technical description

Average chip thickness $h_{max}$ for TPC milling in INOX < 900 N/mm <sup>2</sup>	0.078 mm
Direction of infeed	horizontal, oblique and vertical
Overhang length $L_1$ incl. recess	58 mm
Tolerance nominal Ø	d11

Flute length $L_c$	48 mm
Cutting edge $\varnothing D_c$	16 mm
Helix angle	40 degrees
No. of teeth $Z$	5
Recess $\varnothing D_1$	14.8 mm
Corner chamfer width at $45^\circ$	0.35 mm
Corner chamfer angle	45 degrees
Shank	DIN 6535 HB to h6
Overall length $L$	108 mm
Shank $\varnothing D_s$	16 mm
Series	Master INOX
Coating	TiAlN
Tool material	Solid carbide
Standard	Manufacturer's standard
Milling profile	NF
Cutting width $a_e$ for milling operation	$0.07 \times D$
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/mm <sup>2</sup>	suitable only under restricted conditions	140 m/min	P
Steel < 750 N/mm <sup>2</sup>	suitable	130 m/min	P
Steel < 900 N/mm <sup>2</sup>	suitable	110 m/min	P
Steel < 1100 N/mm <sup>2</sup>	suitable only under restricted conditions	100 m/min	P

Steel < 1400 N/mm <sup>2</sup>	suitable only under restricted conditions	90 m/min	P
INOX < 900 N/mm <sup>2</sup>	suitable	80 m/min	M
INOX > 900 N/mm <sup>2</sup>	suitable	75 m/min	M
Uni	suitable only under restricted conditions		
wet maximum	suitable		
wet minimum	suitable only under restricted conditions		
Air	suitable only under restricted conditions		