

## Garant

### GARANT Master Titan HSS-PM roughing end mill HPC, TiAlN, Ø k10 DC / R1: 16/4,0 mm



## Order data

Order number	192940 16/4,0
GTIN	4062406300326
Item class	11Z

## Description

### Version:

Innovative knurled profile and optimised flute geometry for a evacuating a high volume of chips at very high process reliability. Increased tool life due to precise alignment of the through-coolant with the cutting edges.

### Advantage:

New type of tool material; problem solver under unstable machining conditions.

Tolerance nominal Ø: k10

No. of teeth Z: 4

Helix angle: 40 degrees

Direction of infeed: horizontal, oblique and vertical

Shank: DIN 6535 HB to h6

No. of teeth Z: 4

Corner radius  $R_1$ : 4 mm

Flute length  $L_c$ : 32 mm

Overhang length  $L_1$  incl. recess: 42 mm

Recess Ø  $D_1$ : 15 mm

Overall length L: 92 mm

## Technical description

Helix angle	40 degrees
Flute length $L_c$	32 mm
Feed $f_z$ for side milling in titanium > 850 N/mm <sup>2</sup>	0.035 mm

Feed $f_z$ for side milling in INOX > 900 N/mm <sup>2</sup>	0.03 mm
Overhang length $L_1$ incl. recess	42 mm
Recess $\varnothing D_1$	15 mm
No. of teeth Z	4
Shank	DIN 6535 HB to h6
Tolerance nominal $\varnothing$	k10
Cutting edge $\varnothing D_c$	16 mm
Direction of infeed	horizontal, oblique and vertical
Shank $\varnothing D_s$	16 mm
Overall length L	92 mm
Corner radius $R_1$	4 mm
Series	GARANT Master Titan
Coating	TiAlN
Tool material	HSS PM
Standard	DIN 844
Milling profile	HR
Helix angle characteristic	unequal spacing
Spacing of the cutters	unequal spacing
Cutting width $a_e$ for milling operation	0.5×D for side milling
Through-coolant	yes
Machining strategy	HPC
Colour ring	pink
Type of product	End mill