

**Garant**
**GARANT Master Titan HSS-PM roughing end mill HPC, TiAlN, Ø k10 DC / R1: 32/2,0mm**

**Order data**

Order number	192940 32/2,0
GTIN	4062406300371
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.

**Technical description**

Tolerance nominal $\varnothing$	k10
Overhang length $L_1$ incl. recess	70 mm
Overall length L	133 mm
Helix angle	40 degrees
No. of teeth Z	6
Feed $f_z$ for side milling in INOX > 900 N/mm <sup>2</sup>	0.06 mm
Feed $f_z$ for side milling in titanium > 850 N/mm <sup>2</sup>	0.07 mm
Direction of infeed	horizontal, oblique and vertical
Recess $\varnothing D_1$	31 mm
Shank $\varnothing D_s$	32 mm

Cutting edge $\varnothing D_c$	32 mm
Shank	DIN 6535 HB to h6
Flute length $L_c$	53 mm
Corner radius $R_1$	2 mm
Series	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 / face mill

## User data

	Suitability	$V_c$	ISO code
INOX < 900 N/mm <sup>2</sup>	suitable	30 m/min	M
INOX > 900 N/mm <sup>2</sup>	suitable	28 m/min	M
Ti > 850 N/mm <sup>2</sup>	suitable	28 m/min	S
wet maximum	suitable		