

**Garant**
**GARANT Master Steel solid carbide roughing end mill HPC, TiAlN, Ø f8 DC: 18 mm**

**Order data**

Order number	203036 18
GTIN	4045197779021
Item class	11X

**Description**
**Version:**

For **roughing and finishing** up to  $0.7 \times D$  into solid material **at very high feed rates** with smooth cutting action.

**Advantage:**

Optimised flute form, eccentric relief ground, wide chip space.

Tolerance nominal  $\varnothing$ : f8

No. of teeth Z: 4

Helix angle: 38 degrees

Direction of infeed: horizontal, oblique and vertical

Shank: DIN 6535 HB to h6

No. of teeth Z: 4

Flute length  $L_c$ : 36 mm

Overhang length  $L_1$  incl. recess: 67 mm

Recess  $\varnothing D_1$ : 17.5 mm

Overall length L: 117 mm

Shank  $\varnothing D_s$ : 18 mm

**Technical description**

Shank	DIN 6535 HB to h6
Recess $\varnothing D_1$	17.5 mm
No. of teeth Z	4
Overall length L	117 mm
Overhang length $L_1$ incl. recess	67 mm

Shank $\varnothing D_s$	18 mm
Direction of infeed	horizontal, oblique and vertical
Feed $f_z$ for side milling in steel < 900 N/mm <sup>2</sup>	0.13 mm
Flute length $L_c$	36 mm
Feed $f_z$ for slot milling in steel < 900 N/mm <sup>2</sup>	0.1 mm
Corner chamfer width at 45°	0.36 mm
Tolerance nominal $\varnothing$	f8
Cutting edge $\varnothing D_c$	18 mm
Helix angle	38 degrees
Corner chamfer angle	45 degrees
Series	GARANT Master Steel
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	0.25×D for side milling
Cutting width $a_e$ for milling operation	Full slot cutting depth 1×D
Through-coolant	no
Machining strategy	HPC
Colour ring	green
Type of product	End mill