

Garant**GARANT Master Steel SlotMachine solid carbide roughing end mill HPC, TiAlN, Ø d11 DC: 20 mm****Order data**

Order number	205556 20
GTIN	4062406112165
Item class	11X

Description**Version:**

With a new-type knurled 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.

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.

Plunge angle of up to 10° possible thanks to generous recess on the front face.

Application:

For roughing machining.

Note:

Particularly long neck recess for avoiding interference contours.

With conically increasing recess to guarantee stability at long overhangs.

Tolerance nominal Ø: d11

No. of teeth Z: 5

Helix angle: 42 degrees

Direction of infeed: horizontal, oblique and vertical

Shank: DIN 6535 HB to h6

No. of teeth Z: 5

Flute length L_c : 41 mm

Overhang length L_1 incl. recess: 98 mm

minimum shank recess dia. D_5 : 18 mm

maximum shank recess dia. D_6 : 19.4 mm

Overall length L: 150 mm

Technical description

Shank Ø D _s	20 mm
maximum shank recess dia. D ₆	19.4 mm
Feed f _z for side milling in steel < 900 N/mm ²	0.09 mm
Corner chamfer width at 45°	1 mm
Tolerance nominal Ø	d11
Flute length L _c	41 mm
Overhang length L ₁ incl. recess	98 mm
Overall length L	150 mm
Cutting edge Ø D _c	20 mm
Helix angle	42 degrees
Shank	DIN 6535 HB to h6
No. of teeth Z	5
Direction of infeed	horizontal, oblique and vertical
minimum shank recess dia. D ₅	18 mm
Corner chamfer angle	45 degrees
Series	GARANT Master Steel
Coating	TiAlN
Tool material	solid carbide
Standard	Manufacturer's standard
Milling profile	NR
Spacing of the cutters	unequal spacing
Cutting width a _e for milling operation	0.3×D for side milling
Through-coolant	no
Machining strategy	HPC
Colour ring	green
Type of product	End mill