

**Garant**
**GARANT Master Steel SlotMachine solid carbide roughing end mill with through-coolant HPC, TiAlN, Ø d11 DC: 4mm**

**Order data**

Order number	205551 4
GTIN	4062406111137
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.

Feed rate per tooth up to 0.1 mm up to a depth of 2×D (in the slot milled from solid).

With **internal coolant supply** for reliable swarf evacuation.

**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, particularly suitable for full-slot machining.

Tolerance nominal Ø: d11

No. of teeth Z: 5

Helix angle: 42°

Direction of infeed: horizontal and oblique

Shank: DIN 6535 HB to h6

No. of teeth Z: 5

Flute length L<sub>c</sub>: 11 mm

Overhang length L<sub>1</sub> incl. recess: 19 mm

Recess Ø D<sub>1</sub>: 3.7 mm

Overall length L: 57 mm

Shank Ø D<sub>s</sub>: 6 mm

**Technical description**

Overall length L	57 mm
Overhang length L <sub>1</sub> incl. recess	19 mm
Recess Ø D <sub>1</sub>	3.7 mm
Tolerance nominal Ø	d11
Shank Ø D <sub>s</sub>	6 mm
Direction of infeed	horizontal and oblique
No. of teeth Z	5
Feed f <sub>z</sub> for slot milling in steel < 900 N/mm <sup>2</sup>	0.02 mm
Corner chamfer width at 45°	0.2 mm
Helix angle	42°
Cutting edge Ø D <sub>c</sub>	4 mm
Flute length L <sub>c</sub>	11 mm
Shank	DIN 6535 HB to h6
Feed f <sub>z</sub> for side milling in steel < 900 N/mm <sup>2</sup>	0.03 mm
Corner chamfer angle	45°
Series	Master Steel
Coating	TiAlN
Tool material	Solid carbide
Standard	DIN 6527
Milling profile	NR
Spacing of the cutters	unequal spacing
Cutting width a <sub>e</sub> for milling operation	0.4×D for side milling
Cutting width a <sub>e</sub> for milling operation	0.05×D for copy milling
Through-coolant	yes
Machining strategy	HPC
Colour ring	green
Type of product	End / face mill

## User data

	<b>Suitability</b>	<b>V<sub>c</sub></b>	<b>ISO code</b>
Steel < 500 N/mm <sup>2</sup>	suitable	200 m/min	P
Steel < 750 N/mm <sup>2</sup>	suitable	180 m/min	P
Steel < 900 N/mm <sup>2</sup>	suitable	160 m/min	P
Steel < 1100 N/mm <sup>2</sup>	suitable	140 m/min	P
Steel < 1400 N/mm <sup>2</sup>	suitable	110 m/min	P
INOX < 900 N/mm <sup>2</sup>	suitable	50 m/min	M
INOX > 900 N/mm <sup>2</sup>	suitable	35 m/min	M
GG(G)	suitable	200 m/min	K
Uni	suitable		
wet maximum	suitable		
Air	suitable		