

## 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.

#### 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 $f_z$ 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 degrees
Cutting edge $\varnothing D_c$	4 mm
Flute length $L_c$	11 mm
Shank	DIN 6535 HB to h6
Feed $f_z$ for side milling in steel < 900 N/mm <sup>2</sup>	0.03 mm
Corner chamfer angle	45 degrees
Series	Master Steel
Coating	TiAlN
Tool material	Solid carbide
Standard	DIN 6527
Milling profile	NR
Spacing of the cutters	unequal spacing
Cutting width $a_e$ for milling operation	0.4×D for side milling
Cutting width $a_e$ 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

	Suitability	$V_c$	ISO code
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		