

**Garant**
**GARANT Master Steel SlotMachine solid carbide roughing end mill HPC, TiAlN, Ø d11 DC: 12mm**

**Order data**

Order number	205552 12
GTIN	4045197958983
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, particularly suitable for full-slot machining.

**Technical description**

Corner chamfer width at 45°	0.6 mm
Cutting edge Ø D <sub>c</sub>	12 mm
Feed f <sub>z</sub> for slot milling in steel < 900 N/mm <sup>2</sup>	0.065 mm
Recess Ø D <sub>1</sub>	11.1 mm
Flute length L <sub>c</sub>	26 mm
Tolerance nominal Ø	d11
Direction of infeed	horizontal, oblique and vertical
Overhang length L <sub>1</sub> incl. recess	46 mm
Helix angle	42 degrees

Shank $\varnothing D_s$	12 mm
Feed $f_z$ for side milling in steel < 900 N/mm <sup>2</sup>	0.09 mm
No. of teeth Z	5
Shank	DIN 6535 HB to h6
Overall length L	93 mm
Corner chamfer angle	45 degrees
Series	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	Full slot cutting depth 1×D
Cutting width $a_e$ for milling operation	0.4×D for side milling
Through-coolant	no
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