

## Garant

### GARANT Master Steel solid carbide mini milling cutter HPC, TiAlN, Ø e8 DC: 4,5mm



#### Order data

Order number	202295 4,5
GTIN	4062406271411
Item class	11X

#### Description

##### Version:

**Extra short cutter** for maximum stability. **Shank length to DIN** for improved support of the tool in the holder. This significantly increases the tool life.

**Save the regrinding costs:** It is cheaper to use a carbide mini slot drill to the limit of wear and throw it away, than to regrind it.

Tool for **general-purpose machining**.

##### Note:

HB shanks are available at the same price as HA.

For **HB shanks** use order **no. 202297**.

#### Technical description

Cutting edge Ø D <sub>c</sub>	4.5 mm
Shank	DIN 6535 HA to h6
Overall length L	50 mm
No. of teeth Z	3
Shank Ø D <sub>s</sub>	6 mm
Corner chamfer width at 45°	0.03 mm
Feed f <sub>z</sub> for slot milling in steel < 900 N/mm <sup>2</sup>	0.025 mm
Helix angle	45 degrees
Feed f <sub>z</sub> for side milling in steel < 900 N/mm <sup>2</sup>	0.028 mm

Flute length $L_c$	8 mm
Direction of infeed	horizontal, oblique and vertical
Tolerance nominal $\varnothing$	e8
Corner chamfer angle	45 degrees
Series	Master Steel
Coating	TiAlN
Tool material	Solid carbide
Standard	Manufacturer's standard
Type	N
Cutting width $a_e$ for milling operation	Full slot cutting depth $1 \times D$
Cutting width $a_e$ for milling operation	Full slot cutting depth $1 \times D$
Through-coolant	no
Machining strategy	HPC
Colour ring	green
Type of product	End / face mill

## User data

	Suitability	$V_c$	ISO code
Aluminium (short chipping)	suitable only under restricted conditions	290 m/min	N
Alu > 10% Si	suitable only under restricted conditions	240 m/min	N
Steel < 500 N/mm <sup>2</sup>	suitable	140 m/min	P
Steel < 750 N/mm <sup>2</sup>	suitable	120 m/min	P
Steel < 900 N/mm <sup>2</sup>	suitable	100 m/min	P
Steel < 1100 N/mm <sup>2</sup>	suitable	70 m/min	P
Steel < 1400 N/mm <sup>2</sup>	suitable	50 m/min	P
INOX < 900 N/mm <sup>2</sup>	suitable	90 m/min	M
INOX > 900 N/mm <sup>2</sup>	suitable	70 m/min	M

Ti > 850 N/mm <sup>2</sup>	suitable only under restricted conditions	40 m/min	S
GG(G)	suitable	85 m/min	K
Uni	suitable		
wet maximum	suitable		
wet minimum	suitable only under restricted conditions		
dry	suitable		
Air	suitable		