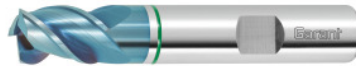


Garant
GARANT Master Steel solid carbide mini-milling cutter HPC, TiAlN, Ø e8 DC: 4,5mm

Order data

Order number	202297 4,5
GTIN	4062406271909
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**.

Tolerance nominal Ø: e8

No. of teeth Z: 3

Helix angle: 45°

Direction of infeed: horizontal, oblique and vertical

Shank: DIN 6535 HB to h6

No. of teeth Z: 3

Flute length L_c : 8 mm

Overall length L: 50 mm

Shank Ø D_s : 6 mm

Corner chamfer width at 45°: 0.03 mm

Feed f_z for slot milling in steel < 900 N/mm²: 0.025 mm

Technical description

Cutting edge Ø D_c	4.5 mm
Tolerance nominal Ø	e8
Direction of infeed	horizontal, oblique and vertical

Corner chamfer width at 45°	0.03 mm
Shank $\varnothing D_s$	6 mm
Flute length L_c	8 mm
No. of teeth Z	3
Feed f_z for slot milling in steel < 900 N/mm ²	0.025 mm
Helix angle	45°
Overall length L	50 mm
Shank	DIN 6535 HB to h6
Feed f_z for side milling in steel < 900 N/mm ²	0.028 mm
Corner chamfer angle	45°
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×D
Cutting width a_e for milling operation	Full slot cutting depth 1×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 ²	suitable	140 m/min	P

Steel < 750 N/mm ²	suitable	120 m/min	P
Steel < 900 N/mm ²	suitable	100 m/min	P
Steel < 1100 N/mm ²	suitable	70 m/min	P
Steel < 1400 N/mm ²	suitable	50 m/min	P
INOX < 900 N/mm ²	suitable	90 m/min	M
INOX > 900 N/mm ²	suitable	70 m/min	M
Ti > 850 N/mm ²	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		