# Garant

GARANT Master Alu SlotMachine solid carbide roughing end mill with through-coolant HPC, DLC,  $\emptyset$  e8 DC: 20mm



## **Order data**

Order number	205256 20
GTIN	4062406277017
Item class	11X

## Description

#### Version:

For roughing.

Special profile for machining non-ferrous metals.

Improved chip evacuation due to central through-coolant. Due to the patented geometry also suitable for boring.

#### Advantage:

#### Optimised flute form, eccentric relief ground, generous chip spaces.

Up to  $2 \times D$  into solid material at very high feed rates and smooth cutting action. Ramping capability up to  $45^{\circ}$ .

Very high feed rates when plunging vertically, thanks to **special plunging geometry**.

## **Technical description**

No. of teeth Z	4	
Tolerance nominal Ø	e8	
Feed $f_z$ for side milling in short-chipping aluminium	0.28 mm	
Direction of infeed	d horizontal, oblique and vertical	
Helix angle	35 degrees	
Cutting edge $Ø D_c$	20 mm	
Shank Ø D <sub>s</sub>	20 mm	
Shank	DIN 6535 HB to h6	

Overall length L	104 mm	
Balance quality with shank	G 2.5 with HB	
Recess Ø D <sub>1</sub>	19 mm	
Overhang length L <sub>1</sub> incl. recess	52 mm	
Flute length L <sub>c</sub>	41 mm	
Feed $f_z$ for slot milling in short-chipping aluminium	0.25 mm	
Corner rounding r <sub>v</sub>	0.5 mm	
Series	Master Alu	
Coating	DLC	
Tool material	Solid carbide	
Standard	DIN 6527	
Milling profile	WR	
Helix angle characteristic	unequal spacing	
Spacing of the cutters	unequal spacing	
Cutting width $a_{e}$ for milling operation	for milling operation Full slot cutting depth 1×D	
Cutting width $a_e$ for milling operation	Full slot cutting depth 1×D	
Through-coolant	yes	
Machining strategy	HPC	
Colour ring	yellow	
Type of product	End / face mill	

## User data

	Suitability	V <sub>c</sub>	ISO code
Aluminium	Suitable	450 m/min	Ν
Aluminium (short chipping)	suitable	400 m/min	Ν
Alu > 10% Si	suitable	380 m/min	Ν
Cu	Suitable	160 m/min	Ν
CuZn	Suitable	200 m/min	Ν

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wet maximum	suitable	
Air Services	suitable	
Shank grinding Type HB		129100 HB