

## Garant

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



#### Order data

Order number	205255 20
GTIN	4062406122423
Item class	11X

#### Description

##### Version:

For roughing.  
Special profile for machining non-ferrous metals.  
Improved chip evacuation due to central through-coolant.

##### 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**.

##### Note:

For **HB** shanks use order **No. 205256**.  
Tolerance nominal  $\varnothing$ : e8  
No. of teeth Z: 4  
Helix angle:  $35^\circ$   
Direction of infeed: horizontal, oblique and vertical  
Shank: DIN 6535 HA to h6  
Balance quality with shank: G 2.5 with HA  
No. of teeth Z: 4  
Flute length  $L_c$ : 41 mm  
Overhang length  $L_1$  incl. recess: 52 mm  
Recess  $\varnothing D_1$ : 19 mm  
Overall length L: 104 mm  
Shank  $\varnothing D_s$ : 20 mm

#### Technical description

Feed $f_z$ for slot milling in short-chipping aluminium	0.25 mm
Feed $f_z$ for side milling in short-chipping aluminium	0.28 mm
Flute length $L_c$	41 mm
No. of teeth $Z$	4
Shank	DIN 6535 HA to h6
Helix angle	35 °
Shank $\varnothing D_s$	20 mm
Tolerance nominal $\varnothing$	e8
Overhang length $L_1$ incl. recess	52 mm
Cutting edge $\varnothing D_c$	20 mm
Recess $\varnothing D_1$	19 mm
Direction of infeed	horizontal, oblique and vertical
Overall length $L$	104 mm
Balance quality with shank	G 2.5 with HA
Corner rounding $r_v$	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	Full slot cutting depth $1 \times D$
Cutting width $a_e$ for milling operation	Full slot cutting depth $1 \times D$
Through-coolant	yes
Machining strategy	HPC
Colour ring	yellow
Type of product	End / face mill

## User data

	Suitability	$V_c$	ISO code
Aluminium	Suitable	450 m/min	N
Aluminium (short chipping)	suitable	400 m/min	N
Alu > 10% Si	suitable	380 m/min	N
PA 66	suitable only under restricted conditions	120 m/min	N
PEEK	suitable only under restricted conditions	100 m/min	N
Cu	Suitable	160 m/min	N
CuZn	Suitable	200 m/min	N
wet maximum	suitable		
Air	suitable		

## Services

Shank grinding Type HB

129100 HB