

## Garant

### GARANT Master Alu solid carbide milling cutter, HPC HPC, DLC, Ø e8 DC: 12mm



#### Order data

Order number	203204 12
GTIN	4062406119959
Item class	11X

#### Description

##### Version:

For finishing operations.  
 Special geometry for optimum chip evacuation.  
 Unequal spacing gives high intrinsic stability and smooth cutting action.  
 For profile milling as a finishing operation.

##### Note:

Order the **uncoated version** using **No. 203208**.

Tolerance nominal Ø: e8

No. of teeth Z: 5

Helix angle: 38°

Direction of infeed: horizontal

Shank: DIN 6535 HA to h6

Balance quality with shank: G 2.5 with HA

No. of teeth Z: 5

Flute length  $L_c$ : 48 mm

Overhang length  $L_1$  incl. recess: 56 mm

Recess Ø  $D_1$ : 11.5 mm

Overall length L: 100 mm

Shank Ø  $D_s$ : 12 mm

#### Technical description

Recess Ø $D_1$	11.5 mm
Flute length $L_c$	48 mm

Overhang length $L_1$ incl. recess	56 mm
Cutting edge $\varnothing D_c$	12 mm
No. of teeth Z	5
Direction of infeed	horizontal
Shank	DIN 6535 HA to h6
Tolerance nominal $\varnothing$	e8
Shank $\varnothing D_s$	12 mm
Feed $f_z$ for side milling in short-chipping aluminium	0.06 mm
Balance quality with shank	G 2.5 with HA
Helix angle	38°
Overall length L	100 mm
Corner chamfer angle	90°
Series	Master Alu
Coating	DLC
Tool material	Solid carbide
Standard	Manufacturer's standard
Type	W
Spacing of the cutters	unequal spacing
Cutting width $a_e$ for milling operation	0.1×D for side milling
Through-coolant	no
Machining strategy	HPC
Colour ring	yellow
Type of product	End / face mill

## User data

	Suitability	$V_c$	ISO code
Aluminium	Suitable	500 m/min	N
Aluminium (short chipping)	suitable	450 m/min	N

Alu > 10% Si	suitable	400 m/min	N
PMMA acrylic	Suitable	180 m/min	N
PE-HD	Suitable	140 m/min	N
PA 66	Suitable	180 m/min	N
PEEK	Suitable	130 m/min	N
PF 31	Suitable	110 m/min	N
PVDF GF20	Suitable	160 m/min	N
POM GF25	Suitable	140 m/min	N
PA 66 GF30	Suitable	140 m/min	N
PEEK GF30	Suitable	120 m/min	N
PTFE CF25	Suitable	140 m/min	N
Honeycomb sandwich	suitable only under restricted conditions	260 m/min	N
Cu	Suitable	140 m/min	N
CuZn	suitable	120 m/min	N
wet maximum	suitable		
wet minimum	suitable only under restricted conditions		
dry	suitable		
Air	suitable		

## Services

Shank grinding Type HB

129100 HB