

**Garant**
**GARANT Master Alu PickPocket solid carbide roughing end mill HPC, DLC, Ø e8 DC: 4Mmm**

**Order data**

|              |               |
|--------------|---------------|
| Order number | 202004 4M     |
| GTIN         | 4062406380908 |
| Item class   | 11X           |

**Description**
**Version:**

With the latest generation of DLC coating sp<sup>2</sup>.

For roughing and finishing.

Up to 2 × D into solid material at very high feed rates and smooth cutting action.

Very high feed rates when plunging vertically.

Ramping capability up to 45°.

**Advantage:**

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

**Technical description**

|  |                                  |
|--|----------------------------------|
| Cutting edge Ø D <sub>c</sub>                                    | 4 mm                             |
| No. of teeth Z   | 3                                |
| Shank  | DIN 6535 HA to h6                |
| Feed f <sub>z</sub> for slot milling in short-chipping aluminium | 0.05 mm                          |
| Direction of infeed  | horizontal, oblique and vertical |
| Tolerance nominal Ø  | e8                               |
| Balance quality with shank                                       | G 2.5 with HA                    |
| Helix angle  | 42 degrees                       |
| Shank Ø D <sub>s</sub>   | 6 mm                             |
| Overall length L   | 57 mm                            |

|   |                                      |
|---|--------------------------------------|
| Feed $f_z$ for side milling in short-chipping aluminium | 0.06 mm                              |
| Corner rounding $r_v$                                   | 0.1 mm                               |
| Flute length $L_c$                                      | 11 mm                                |
| Recess $\varnothing D_1$                                | 3.7 mm                               |
| Overhang length $L_1$ incl. recess                      | 17 mm                                |
| Series  | Master Alu                           |
| Coating   | DLC                                  |
| Tool material   | Solid carbide                        |
| Standard  | DIN 6527                             |
| Type  | W                                    |
| Helix angle characteristic                              | unequal spacing                      |
| Spacing of the cutters                                  | unequal spacing                      |
| Cutting width $a_e$ for milling operation               | Full slot cutting depth $1 \times D$ |
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| Through-coolant   | no                                   |
| Machining strategy                                      | HPC                                  |
| Colour ring   | yellow                               |
| Type of product   | End / face mill                      |

## User data

|                            | Suitability | $V_c$     | ISO code |
|----------------------------|-------------|-----------|----------|
| Aluminium                  | Suitable    | 550 m/min | N        |
| Aluminium (short chipping) | suitable    | 500 m/min | N        |
| Alu > 10% Si               | suitable    | 450 m/min | N        |
| PMMA acrylic               | Suitable    | 200 m/min | N        |
| PE-HD                      | Suitable    | 160 m/min | N        |
| PA 66                      | Suitable    | 200 m/min | N        |
| PEEK                       | Suitable    | 150 m/min | N        |

|                    |   |           |   |
|--------------------|---|-----------|---|
| PF 31              | Suitable                                  | 130 m/min | N |
| PVDF GF20          | Suitable                                  | 180 m/min | N |
| POM GF25           | Suitable                                  | 160 m/min | N |
| PA 66 GF30         | Suitable                                  | 150 m/min | N |
| PEEK GF30          | Suitable                                  | 130 m/min | N |
| PTFE CF25          | Suitable                                  | 160 m/min | N |
| Honeycomb sandwich | suitable only under restricted conditions | 300 m/min | N |
| Cu                 | Suitable                                  | 160 m/min | N |
| CuZn               | Suitable                                  | 200 m/min | N |
| wet maximum        | suitable                                  |           |   |
| wet minimum        | suitable only under restricted conditions |           |   |
| dry                | suitable only under restricted conditions |           |   |
| Air                | suitable                                  |           |   |
| <b>Services</b>    |   |           |   |

Shank grinding Type HB

129100 HB