


**HAIMER MILL end mill, AlTiN, Ø f9 DC: 3mm**

**Order data**

|              |               |
|--------------|---------------|
| Order number | 220289 3      |
| GTIN         | 4034221136787 |
| Item class   | 26X           |

**Description**
**Version:**

For **general-purpose use** in steel materials and high-alloy steels, especially stainless steel. With **cylindrical core** for optimised tool stiffness when milling slots. Reliable processes guaranteed when ramping and during circular interpolation milling thanks to **special end face geometry**.

**Note:**

For **HB** use order **No. 220291**.

Tool holders with the SAFE-LOCK pull-out protection can be found under clamping technology.

**Technical description**

|   |                                  |
|---|----------------------------------|
| No. of teeth Z  | 4                                |
| Overhang length L <sub>1</sub> incl. recess                           | 10 mm                            |
| Tolerance nominal Ø   | f8                               |
| Cutting edge Ø D <sub>c</sub>   | 3 mm                             |
| Helix angle   | 32 degrees                       |
| Feed f <sub>z</sub> for slot milling in steel < 900 N/mm <sup>2</sup> | 0.017 mm                         |
| Shank   | DIN 6535 HA to h6                |
| Direction of infeed   | horizontal, oblique and vertical |
| Corner chamfer angle  | 90 degrees                       |
| Recess Ø D <sub>1</sub>   | 2.9 mm                           |
| Overall length L  | 58 mm                            |

|   |                                      |
|---|--------------------------------------|
| Shank $\varnothing D_s$                                     | 6 mm                                 |
| Flute length $L_c$  | 8 mm                                 |
| Feed $f_z$ for side milling in steel $< 900 \text{ N/mm}^2$ | 0.02 mm                              |
| Coating   | AlTiN                                |
| Tool material   | Solid carbide                        |
| Standard  | DIN 6527                             |
| Type  | N                                    |
| Helix angle characteristic                                  | unequal spacing                      |
| Spacing of the cutters                                      | unequal spacing                      |
| Cutting width $a_e$ for milling operation                   | $0.5 \times D$ for side milling      |
| Cutting width $a_e$ for milling operation                   | Full slot cutting depth $1 \times D$ |
| Through-coolant   | no                                   |
| Machining strategy  | HPC                                  |
| Colour ring   | without                              |
| Type of product   | End / face mill                      |

## User data

|                               | Suitability                               | $V_c$     | ISO code |
|-------------------------------|---|-----------|----------|
| Alu plastics                  | suitable only under restricted conditions | 480 m/min | N        |
| Aluminium (short chipping)    | suitable only under restricted conditions | 480 m/min | N        |
| Alu $> 10\% \text{ Si}$       | suitable only under restricted conditions | 350 m/min | N        |
| Steel $< 500 \text{ N/mm}^2$  | suitable                                  | 275 m/min | P        |
| Steel $< 750 \text{ N/mm}^2$  | suitable                                  | 255 m/min | P        |
| Steel $< 900 \text{ N/mm}^2$  | suitable                                  | 210 m/min | P        |
| Steel $< 1100 \text{ N/mm}^2$ | suitable                                  | 190 m/min | P        |
| INOX $< 900 \text{ N/mm}^2$   | suitable                                  | 95 m/min  | M        |
| INOX $> 900 \text{ N/mm}^2$   | suitable                                  | 75 m/min  | M        |

|                            |   |           |   |
|----------------------------|---|-----------|---|
| Ti > 850 N/mm <sup>2</sup> | suitable only under restricted conditions | 35 m/min  | S |
| GG(G)                      | suitable only under restricted conditions | 155 m/min | K |
| Uni                        | suitable                                  |           |   |
| Oil                        | suitable                                  |           |   |
| wet maximum                | suitable                                  |           |   |
| wet minimum                | suitable                                  |           |   |
| dry                        | suitable                                  |           |   |
| Air                        | suitable                                  |           |   |