

## Garant

### GARANT Master TM plain shank thread mill 2×D, AlTiN, UNC: 1/4-20



#### Order data

|              |               |
|--------------|---------------|
| Order number | 139732 1/4-20 |
| GTIN         | 4067263128977 |
| Item class   | 11D           |

#### Description

##### Version:

Solid carbide thread milling cutters **with irregular cutting edge spacing and an increased number of cutting edges**. Due to the **irregular cutting edge spacing** they achieve very **smooth running** and **long tool life**.

**Newly developed universal geometry** and **high-performance coating** for use across a wide spectrum of materials.

- **Significantly reduced vibration due to irregular cutting edge spacing.**
- **Increased number of cutting edges.**
- **The latest generation of AlTiN-based HiPIMS coating.**
- **Corrected thread profile for avoidance of profile distortions.**

##### Application:

For **UNC unified coarse threads** ASME-B1.1.

##### Note:

HB and HE shanks are available at the same price as HA

Order **HB** shank: with **No. 139732 + 129100 HB**

Order **HE** shank: with **No. 139732 + 129100 HE**

#### Technical description

|   |         |
|---|---------|
| Thread pitch                                | 1.27 mm |
| Shank $\varnothing D_s$                     | 6 mm    |
| Feed $f_z$ in steel < 750 N/mm <sup>2</sup> | 0.05 mm |
| Overall length L                            | 64 mm   |
| Threads per inch                            | 20      |

|                                  |                             |
|----------------------------------|-----------------------------|
| Thread size                      | 1/4-20 UNC                  |
| Nominal $\varnothing D_c$        | 4.7 mm                      |
| No. of teeth Z                   | 4                           |
| Shank length $L_s$               | 39.8 mm                     |
| Thread $\varnothing$             | 6.35 mm                     |
| Flute length $L_c$               | 13.29 mm                    |
| Number of clamping slots         | 4                           |
| Thread type                      | UNC-LH                      |
| Thread type                      | UNC                         |
| Series                           | Master TM                   |
| Coating                          | AlTiN                       |
| Flank angle                      | 60 degrees                  |
| Tool material                    | Solid carbide               |
| Shank                            | DIN 6535 HA to h6           |
| Through-coolant                  | yes                         |
| Cutting direction                | left-hand                   |
| Application for type of drilling | up to 2xD for through holes |
| Application for type of drilling | up to 2xD for blind holes   |
| Spacing of the cutters           | unequal spacing             |
| Shank tolerance                  | h6                          |
| Colour ring                      | green                       |
| Internal/external application    | Internal                    |
| Type of product                  | thread milling cutter       |

## User data

|                            | Suitability | $V_c$     | ISO code |
|----------------------------|-------------|-----------|----------|
| Alu plastics               | suitable    | 220 m/min | N        |
| Aluminium (short chipping) | suitable    | 220 m/min | N        |

|                                |   |           |   |
|--------------------------------|---|-----------|---|
| Alu > 10% Si                   | suitable                                  | 180 m/min | N |
| Steel < 500 N/mm <sup>2</sup>  | suitable                                  | 140 m/min | P |
| Steel < 750 N/mm <sup>2</sup>  | suitable                                  | 130 m/min | P |
| Steel < 900 N/mm <sup>2</sup>  | suitable                                  | 120 m/min | P |
| Steel < 1100 N/mm <sup>2</sup> | suitable                                  | 90 m/min  | P |
| Steel < 1400 N/mm <sup>2</sup> | suitable                                  | 80 m/min  | P |
| Steel < 50 HRC                 | suitable only under restricted conditions | 45 m/min  | H |
| TOOLOX 33                      | suitable                                  | 85 m/min  | H |
| TOOLOX 44                      | suitable                                  | 50 m/min  | H |
| INOX < 900 N/mm <sup>2</sup>   | suitable                                  | 82 m/min  | M |
| INOX > 900 N/mm <sup>2</sup>   | suitable                                  | 75 m/min  | M |
| Ti > 850 N/mm <sup>2</sup>     | suitable                                  | 50 m/min  | S |
| GG(G)                          | suitable                                  | 120 m/min | K |
| CuZn                           | suitable                                  | 200 m/min | N |
| Uni                            | suitable                                  |           |   |
| wet maximum                    | suitable                                  |           |   |
| wet minimum                    | suitable                                  |           |   |
| Air                            | suitable                                  |           |   |

### Services

|                        |           |
|------------------------|-----------|
| Shank grinding Type HB | 129100 HB |
| Shank grinding Type HE | 129100 HE |