

# GARANT Master TM plain shank thread mill with countersink 2×D, TiAIN, MF: 5X0,5



#### Order data

| Order number | 139682 5X0,5  |
|--------------|---------------|
| GTIN         | 4045197957894 |
| 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.
- · New coating for optimum wear resistance.
- · Corrected thread profile for avoidance of profile distortions.

#### **Advantage:**

Incorporating a countersink profile for a 90° countersink and thread milling in a single operation.

#### Note:

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

Order HB shank: with No. 139682 + 129100 HB

Order HE shank: with No. 139682 + 129100 HE

### **Technical description**

| Through-coolant                             | yes      |
|---------------------------------------------|----------|
| Thread depth                                | 10.25 mm |
| Feed $f_z$ in steel < 750 N/mm <sup>2</sup> | 0.035 mm |
| Number of clamping slots                    | 4        |
| No. of teeth Z                              | 4        |

| Thread pitch                                     | 0.5 mm                      |  |  |
|--------------------------------------------------|-----------------------------|--|--|
| Overall length L                                 | 58 mm                       |  |  |
| Shank length L <sub>s</sub>                      | 36 mm                       |  |  |
| Shank Ø D <sub>s</sub>                           | 6 mm                        |  |  |
| Thread size                                      | M5×0.5                      |  |  |
| Nominal Ø D <sub>c</sub>                         | 4.1 mm                      |  |  |
| Flute length L <sub>c</sub>                      | 10.25 mm                    |  |  |
| Programming value for countersink L <sub>1</sub> | 10.95 mm                    |  |  |
| Neck Ø D <sub>1</sub>                            | 5.5 mm                      |  |  |
| Coating                                          | TiAIN                       |  |  |
| Thread type                                      | MF                          |  |  |
| Thread type                                      | MF-LH                       |  |  |
| Flank angle                                      | 60 degrees                  |  |  |
| Tool material                                    | Solid carbide               |  |  |
| Thread standard                                  | DIN 13                      |  |  |
| Shank                                            | DIN 6535 HA to h6           |  |  |
| Application for type of drilling                 | up to 2×D for blind holes   |  |  |
| Application for type of drilling                 | up to 2×D for through holes |  |  |
| Spacing of the cutters                           | unequal spacing             |  |  |
| Countersink angle                                | 90 degrees                  |  |  |
| Colour ring                                      | green                       |  |  |
| Internal/external application                    | Internal                    |  |  |
| Series                                           | Master TM                   |  |  |
| Type of product                                  | thread milling cutter       |  |  |

# **User data**

|              | Suitability | $\mathbf{V}_{c}$ | 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 | Р |
| Steel < 750 N/mm²              | suitable                                  | 130 m/min | Р |
| Steel < 900 N/mm²              | suitable                                  | 120 m/min | Р |
| Steel < 1100 N/mm <sup>2</sup> | suitable                                  | 90 m/min  | Р |
| Steel < 1400 N/mm <sup>2</sup> | suitable                                  | 80 m/min  | Р |
| Steel < 50 HRC                 | suitable only under restricted conditions | 45 m/min  | н |
| TOOLOX 33                      | suitable                                  | 85 m/min  | Н |
| TOOLOX 44                      | suitable                                  | 50 m/min  | Н |
| 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 HE | 129100 HE |
|------------------------|-----------|
| Shank grinding Type HB | 129100 HB |