

# GARANT Master Form Steel fluteless machine tap with oil grooves HSS-E-PM, TiAIN, UNC: 10-24



### **Order data**

| Order number | 139485 10-24  |
|--------------|---------------|
| GTIN         | 4062406707040 |
| Item class   | 111           |

## **Description**

#### **Version:**

The latest generation of **high-performance fluteless taps**, specially developed for **use in steel materials**.

- · Optimised polygon geometry for a lower torque.
- · Multi-layer HIPIMS coating for high wear resistance.
- · HSS-E-PM substrate for exceptional process reliability.

**DIN 2174 (\approx DIN 371**  $\leq$  3/8;  $\approx$  **DIN 376**  $\geq$  7/16).

**Form E** (lead-in 1.5 – 2 turns). For deep threads with short lead-in. The thread is tapped almost to the bottom of the hole.

#### **Application:**

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

Thread pitch: 1.058 mm Threads per inch: 24 Thread Ø: 4.83 mm Overall length L: 70 mm Shank Ø D.: 6 mm

Shank square □: 4.9 mm

## **Technical description**

| Thread Ø                  | 4.83 mm  |
|---------------------------|----------|
| Shank Ø D <sub>s</sub>    | 6 mm     |
| Number of cutting edges Z | 5        |
| Thread depth              | 14.49 mm |

| Thread pitch                     | 1.058 mm                    |  |  |
|----------------------------------|-----------------------------|--|--|
| Overall length L                 | 70 mm                       |  |  |
| Tapping hole Ø guide value       | 4.35 mm                     |  |  |
| Shank square □                   | 4.9 mm                      |  |  |
| Number of clamping slots         | 5                           |  |  |
| Threads per inch                 | 24                          |  |  |
| Coating                          | TiAlN                       |  |  |
| Thread type                      | UNC                         |  |  |
| Flank angle                      | 60 °                        |  |  |
| Tool material                    | HSS E PM                    |  |  |
| Standard                         | DIN 2174                    |  |  |
| Tolerance class                  | 2BX                         |  |  |
| Taper lead form                  | E                           |  |  |
| Shank                            | Plain shank with h9         |  |  |
| Through-coolant                  | no                          |  |  |
| Application for type of drilling | up to 3×D for blind holes   |  |  |
| Application for type of drilling | up to 3×D for through holes |  |  |
| Cutting direction                | right-hand                  |  |  |
| Type of product                  | Fluteless tap               |  |  |

# **User data**

|                                | Suitability | <b>V</b> <sub>c</sub> | ISO code |
|--------------------------------|-------------|-----------------------|----------|
| Aluminium (short chipping)     | suitable    | 38 m/min              | N        |
| Steel < 500 N/mm <sup>2</sup>  | suitable    | 37 m/min              | Р        |
| Steel < 750 N/mm <sup>2</sup>  | suitable    | 35 m/min              | Р        |
| Steel < 900 N/mm <sup>2</sup>  | suitable    | 27 m/min              | Р        |
| Steel < 1100 N/mm <sup>2</sup> | suitable    | 18 m/min              | Р        |
| Steel < 1400 N/mm <sup>2</sup> | suitable    | 12 m/min              | Р        |

| INOX < 900 N/mm <sup>2</sup> | suitable | 12 m/min | М |
|------------------------------|----------|----------|---|
| INOX > 900 N/mm <sup>2</sup> | suitable | 7 m/min  | М |
| CuZn                         | suitable | 22 m/min | N |
| Oil                          | suitable |          |   |
| wet maximum                  | suitable |          |   |
| wet minimum                  | suitable |          |   |