

**Garant**
**GARANT Master Tap machine tap HSS-E-PM Form C 7GX, AlTiX, M: M16**

**Order data**

|              |               |
|--------------|---------------|
| Order number | 136162 M16    |
| GTIN         | 4062406715496 |
| Item class   | 11I           |

**Description**
**Version:**

**Universal taps**, designed for use in a wide spectrum of materials with high process reliability.

- **HSS-E-PM tool material for a high degree of wear resistance.**
- **Reduced coefficient of friction due to the new high-performance coating.**
- **Special geometry for optimum swarf evacuation.**

**Tolerance class: 7GX**

**Application:**

For components which are galvanised or shrink slightly when hardened.

**Recommendation:**

We recommend increasing the size of the tapping hole  $\varnothing$  by the tolerance allowance.

Thread type: M

Tool material: HSS E PM

Standard: DIN 376

Tolerance class: 7GX

Thread pitch: 2 mm

Overall length L: 110 mm

Shank  $\varnothing$  D<sub>s</sub>: 12 mm

Shank square □: 9 mm

Tapping hole  $\varnothing$ : 14 mm

**Technical description**

|                          |         |
|--------------------------|---------|
| Standard                 | DIN 376 |
| Thread depth             | 40 mm   |
| Overall length L         | 110 mm  |
| Number of clamping slots | 3       |

|                                  |                                   |
|----------------------------------|-----------------------------------|
| Thread pitch                     | 2 mm                              |
| Shank $\varnothing D_s$          | 12 mm                             |
| Thread type                      | M                                 |
| Tolerance class                  | 7GX                               |
| Tapping hole $\varnothing$       | 14 mm                             |
| Number of cutting edges Z        | 3                                 |
| Tool material                    | HSS E PM                          |
| Thread size                      | M16                               |
| Shank square $\square$           | 9 mm                              |
| Thread $\varnothing$             | 16 mm                             |
| Coating                          | AlTiX                             |
| Flank angle                      | 60°                               |
| Thread standard                  | DIN 13                            |
| Taper lead form                  | C                                 |
| Helix angle                      | 40°                               |
| Shank                            | Plain shank with h9               |
| Through-coolant                  | no                                |
| Application for type of drilling | up to 2.5×D for blind holes       |
| Cutting direction                | right-hand                        |
| Type of threading tool           | Machine tap for dynamic machining |
| Colour ring                      | green                             |
| Series                           | Master Tap                        |
| Type of product                  | Tap                               |

## User data

|                            | Suitability | $V_c$    | ISO code |
|----------------------------|-------------|----------|----------|
| Alu plastics               | suitable    | 30 m/min | N        |
| Aluminium (short chipping) | suitable    | 35 m/min | N        |

|                                |          |          |   |
|--------------------------------|----------|----------|---|
| Alu > 10% Si                   | suitable | 20 m/min | N |
| Steel < 500 N/mm <sup>2</sup>  | suitable | 30 m/min | P |
| Steel < 750 N/mm <sup>2</sup>  | suitable | 30 m/min | P |
| Steel < 900 N/mm <sup>2</sup>  | suitable | 25 m/min | P |
| Steel < 1100 N/mm <sup>2</sup> | suitable | 12 m/min | P |
| Steel < 1400 N/mm <sup>2</sup> | suitable | 8 m/min  | P |
| INOX < 900 N/mm <sup>2</sup>   | suitable | 10 m/min | M |
| INOX > 900 N/mm <sup>2</sup>   | suitable | 8 m/min  | M |
| GG(G)                          | suitable | 20 m/min | K |
| CuZn                           | suitable | 20 m/min | N |
| Uni                            | suitable |          |   |
| Oil                            | suitable |          |   |
| wet maximum                    | suitable |          |   |