

**Garant**
**Machine tap for synchronised spindles HSS-E-PM, TiAlN, M: M12**

**Order data**

Order number	132065 M12
GTIN	4045197446008
Item class	11H

**Description**
**Version:**

**Sturdy design with spiral point and shank to DIN 1835-B.** Special geometry for use on machines with **synchronised spindle drives**. The tap is controlled by the synchronising spindle of the machine.

Special **TiAlN coating** for optimum tool life. For use with **emulsion** (fat content minimum 8%).

**Recommendation:**

For **TOOLOX materials** we recommend **deviating from the DIN data** (see table) by drilling the tapping hole  $\varnothing$  **0.05** to **0.3 mm** larger.

**Note:**

**For use on synchronised spindles**, the **GARANT** quick-change tapping chuck **No. 338100 – 338121 with minimum length adjustment (MLA)** ensures very high process reliability.

Thread type: M

Tool material: HSS E PM

Standard: Manufacturer's standard

Tolerance class: ISO 2X 6HX

Thread pitch: 1.75 mm

Overall length L: 110 mm

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

Shank square □: 9 mm

Tapping hole  $\varnothing$ : 10.2 mm

**Technical description**

Tapping hole $\varnothing$	10.2 mm
Number of cutting edges Z	4
Thread pitch	1.75 mm

Number of clamping slots	4
Thread Ø	12 mm
Standard	Manufacturer's standard
Shank Ø D <sub>s</sub>	12 mm
Overall length L	110 mm
Shank square □	9 mm
Tolerance class	ISO 2X 6HX
Tool material	HSS E PM
Thread depth	30 mm
Thread type	M
Thread size	M12
Coating	TiAlN
Flank angle	60°
Thread standard	DIN 13
Taper lead form	B
Shank	DIN 1835 B with h6
Through-coolant	no
Application for type of drilling	up to 2.5×D for through holes
Cutting direction	right-hand
Shank tolerance	h6
Type of threading tool	Machine tap for synchronous machining
Colour ring	red
Type of product	Tap

## User data

	Suitability	V <sub>c</sub>	ISO code
Steel < 500 N/mm <sup>2</sup>	suitable	37 m/min	P
Steel < 750 N/mm <sup>2</sup>	suitable	35 m/min	P

Steel < 900 N/mm <sup>2</sup>	suitable	22 m/min	P
Steel < 1100 N/mm <sup>2</sup>	suitable	12 m/min	P
Steel < 1400 N/mm <sup>2</sup>	suitable	7 m/min	P
TOOLOX 33	suitable	7 m/min	H
TOOLOX 44	suitable only under restricted conditions	6 m/min	H
Oil	suitable		
wet maximum	suitable		
wet minimum	suitable		