

**Garant**
**Machine tap for synchronised spindles HSS-E-PM Form E, TiAlN, M: M4**

**Order data**

Order number	135415 M4
GTIN	4045197507891
Item class	11H

**Description**
**Version:**

**Sturdy version with right-hand helix and shank to DIN 1835-B.** Special geometry for use on machines with **synchronised spindle drives**. The tap is guided by the synchronised spindle on the machine. Special **TiAlN-S coating** for optimum tool life. For use with **emulsion** (fat content minimum 8%).

**Form E** (lead chamfer: 1.5 - 2 turns) for the deepest possible thread depths.

**Recommendation:**

For **TOOLOX materials** we recommend **deviating from the DIN** data (see table) by drilling the tapping hole  $\varnothing$  **0.05 to 0.3mm** 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: 0.7 mm

Overall length L: 70 mm

Shank  $\varnothing$  D<sub>s</sub>: 6 mm

Shank square □: 4.9 mm

Tapping hole  $\varnothing$ : 3.3 mm

**Technical description**

Tapping hole $\varnothing$	3.3 mm
Thread pitch	0.7 mm
Thread $\varnothing$	4 mm

Number of clamping slots	3
Number of cutting edges Z	3
Standard	Manufacturer's standard
Shank $\varnothing D_s$	6 mm
Overall length L	70 mm
Shank square $\square$	4.9 mm
Tolerance class	ISO 2X 6HX
Tool material	HSS E PM
Thread depth	10 mm
Thread type	M
Thread size	M4
Coating	TiAlN
Flank angle	60°
Thread standard	DIN 13
Taper lead form	E
Helix angle	40°
Shank	DIN 1835 B to h6
Through-coolant	no
Application for type of drilling	up to 2.5×D for blind 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	$V_c$	ISO code
Steel < 750 N/mm <sup>2</sup>	suitable	32 m/min	P

Steel < 900 N/mm <sup>2</sup>	suitable	20 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	3 m/min	H
Oil	suitable		
wet maximum	suitable		
wet minimum	suitable		