

## Garant

### GARANT Master Tap SteelHT machine tap HSS-E-PM Form C 6HX, TiAlN, MF: 12X1



#### Order data

Order number	136350 12X1
GTIN	4062406237332
Item class	11I

#### Description

##### Version:

High-performance tap, specially developed for use in **steels with high tensile strength** and for **difficult-to-machine materials**. Sturdy design with **optimised guide thread to avoid chips jamming**.

- **HSS-E-PM tool material – for very high cutting edge stability.**
- **Optimised honed cutting edges.**
- **TiAlN coating – for maximum wear protection.**

##### Recommendation:

For **TOOLOX** and **HARDOX** materials we recommend deviating from the **DIN data** (see table) **by selecting a larger tapping hole diameter**.

##### Note:

For **TOOLOX** and **HARDOX materials**: do not exceed the maximum thread depth  $2 \times D!$

Thread type: MF

Tool material: HSS E PM

Standard: DIN 374

Tolerance class: ISO 2X 6HX

Thread pitch: 1 mm

Overall length L: 100 mm

Shank  $\varnothing D_s$ : 9 mm

Shank square  $\square$ : 7 mm

Tapping hole  $\varnothing$ : 11 mm

#### Technical description

Number of cutting edges Z	3
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Number of clamping slots	3
Standard	DIN 374
Tapping hole Ø	11 mm
Thread size	M12×1
Shank Ø D <sub>s</sub>	9 mm
Tolerance class	ISO 2X 6HX
Thread depth	30 mm
Tool material	HSS E PM
Overall length L	100 mm
Shank square □	7 mm
Thread type	MF
Thread Ø	12 mm
Thread pitch	1 mm
Coating	TiAlN
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×D for blind holes
Cutting direction	right-hand
Type of threading tool	Machine tap for dynamic machining
Series	Master Tap
Type of product	Tap

## User data

	Suitability	V <sub>c</sub>	ISO code
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Steel < 750 N/mm <sup>2</sup>	suitable only under restricted conditions	30 m/min	P
Steel < 900 N/mm <sup>2</sup>	suitable	20 m/min	P
Steel < 1100 N/mm <sup>2</sup>	suitable	15 m/min	P
Steel < 1400 N/mm <sup>2</sup>	suitable		
Steel < 50 HRC	Suitable only under restricted conditions		
TOOLOX 33	suitable	15 m/min	H
TOOLOX 44	suitable		
HARDOX 500 < 1600 N/mm <sup>2</sup>	Suitable only under restricted conditions		
INOX > 900 N/mm <sup>2</sup>	suitable		
Ti > 850 N/mm <sup>2</sup>	Suitable only under restricted conditions		
Oil	suitable		
wet maximum	suitable		