

## Garant

### GARANT Master Tap SteelHT machine tap HSS-E-PM Form C 6HX, TiAlN, M: M16



#### Order data

Order number	135371 M16
GTIN	4062406236861
Item class	111

#### 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  $\varnothing$** .

##### Note:

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

Thread type: M

Tool material: HSS E PM

Standard: DIN 376

Tolerance class: ISO 2X 6HX

Thread pitch: 2 mm

Overall length L: 110 mm

Shank  $\varnothing D_s$ : 12 mm

Shank square  $\square$ : 9 mm

Tapping hole  $\varnothing$ : 14 mm

#### Technical description

Tool material	HSS E PM
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Number of cutting edges Z	3
Thread size	M16
Overall length L	110 mm
Shank $\varnothing D_s$	12 mm
Standard	DIN 376
Tolerance class	ISO 2X 6HX
Number of clamping slots	3
Thread depth	40 mm
Thread $\varnothing$	16 mm
Shank square $\square$	9 mm
Thread pitch	2 mm
Thread type	M
Tapping hole $\varnothing$	14 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 2.5×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	$V_c$	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	12 m/min	P
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		