

**Garant****GARANT Master Tap SteelHT machine tap HSS-E-PM Form B 6GX, TiCN, M: M12****Order data**

Order number	131946 M12
GTIN	4062406236311
Item class	111

**Description****Version:**

High-performance tap, specially developed for use in **steels with high tensile strength** and for **difficult-to-machine materials**. **Strong spiral point**, for process stability at high cutting forces.

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

**Tolerance class: ISO 3X/6GX.**

**Application:**

For components which are galvanised or shrink slightly when hardened.

**Recommendation:**

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

**Technical description**

Thread $\varnothing$	12 mm
Thread type	M
Tapping hole $\varnothing$	10.2 mm
Standard	DIN 376
Number of clamping slots	3
Shank square $\square$	7 mm
Overall length L	110 mm

Thread pitch	1.75 mm
Tolerance class	ISO 3X 6GX
Shank $\varnothing D_s$	9 mm
Tool material	HSS E PM
Number of cutting edges Z	3
Thread size	M12
Thread depth	36 mm
Coating	TiCN
Flank angle	60 degrees
Thread standard	DIN 13
Taper lead form	B
Shank	Plain shank with h9
Through-coolant	no
Application for type of drilling	up to 3×D for through holes
Cutting direction	right-hand
Type of threading tool	Machine tap for dynamic machining
Colour ring	red
Series	Master Tap
Type of product	Tap

## User data

	Suitability	$V_c$	ISO code
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		
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		