

**Garant**
**GARANT Master Form Steel fluteless machine tap with oil grooves HSS-E-PM Form C 6HX, TiAlN, M: M2**

**Order data**

Order number	139194 M2
GTIN	4062406373542
Item class	111

**Description**
**Version:**

The latest generation of **high-performance fluteless taps**, specially developed for **use in steel materials**.

- **Optimised polygon geometry for a lower torque.**
- **Multi-layer HIPIMS coating for high wear resistance.**
- **HSS-E-PM substrate for exceptional process reliability.**

**DIN 2174** (≈ DIN 371 ≤ M10; ≈ DIN 376 ≥ M12).

**Tolerance class: ISO 2X/6HX.**

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Thread pitch: 0.4 mm

Overall length L: 45 mm

Shank Ø D<sub>s</sub>: 2.8 mm

Shank square □: 2.1 mm

Tapping hole Ø guide value: 1.85 mm

**Technical description**

Overall length L	45 mm
Series	GARANT Master
Thread size	M2
Thread pitch	0.4 mm
Thread Ø	2 mm
Shank Ø D <sub>s</sub>	2.8 mm

Shank square <input type="checkbox"/>	2.1 mm
Number of cutting edges Z	3
Number of clamping slots	3
Tolerance class	ISO 2X 6HX
Tapping hole Ø guide value	1.85 mm
Thread depth	6 mm
Coating	TiAlN
Thread type	M
Flank angle	60°
Tool material	HSS E PM
Standard	DIN 2174
Thread standard	DIN 13
Taper lead form	C
Shank	Plain shank with h9
Through-coolant	no
Application for type of drilling	up to 3×D for blind holes
Application for type of drilling	up to 3×D for through holes
Cutting direction	right-hand
Colour ring	without
Type of product	Fluteless tap

## User data

	Suitability	V <sub>c</sub>	ISO code
Aluminium (short chipping)	suitable	38 m/min	N
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	27 m/min	P
Steel < 1100 N/mm <sup>2</sup>	suitable	18 m/min	P

Steel < 1400 N/mm <sup>2</sup>	suitable	12 m/min	P
INOX < 900 N/mm <sup>2</sup>	suitable	12 m/min	M
INOX > 900 N/mm <sup>2</sup>	suitable	7 m/min	M
CuZn	suitable	22 m/min	N
Oil	suitable		
wet maximum	suitable		
wet minimum	suitable		