

Garant
GARANT Master Form Steel fluteless machine tap with oil grooves HSS-E-PM Form C 6HX, TiAlN, M: M4

Order data

Order number	139194 M4
GTIN	4062406381165
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: 0.7 mm

Overall length L: 63 mm

Shank Ø D_s: 4.5 mm

Shank square □: 3.4 mm

Tapping hole Ø guide value: 3.7 mm

Technical description

Shank square □	3.4 mm
Tapping hole Ø guide value	3.7 mm
Tolerance class	ISO 2X 6HX
Shank Ø D _s	4.5 mm
Number of clamping slots	5
Thread depth	12 mm

Thread size	M4
Thread Ø	4 mm
Overall length L	63 mm
Number of cutting edges Z	5
Thread pitch	0.7 mm
Series	GARANT Master
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 _c	ISO code
Aluminium (short chipping)	suitable	38 m/min	N
Steel < 500 N/mm ²	suitable	37 m/min	P
Steel < 750 N/mm ²	suitable	35 m/min	P
Steel < 900 N/mm ²	suitable	27 m/min	P
Steel < 1100 N/mm ²	suitable	18 m/min	P

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