

Garant**GARANT Master Form Steel fluteless machine tap with oil grooves HSS-E-PM Form C 6GX, TiAlN, M: M16****Order data**

Order number	139205 M16
GTIN	4062406383602
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 (\approx **DIN 371** \leq M10; \approx **DIN 376** \geq M12).

Tolerance class: ISO 3X/6GX.

Application:

For components which are **galvanised**, or shrink slightly when hardened.

Tolerance class: ISO 3X 6GX

Thread pitch: 2 mm

Overall length L: 110 mm

Shank $\varnothing D_s$: 12 mm

Shank square \square : 9 mm

Tapping hole \varnothing guide value: 15.1 mm

Technical description

Overall length L	110 mm
Shank square \square	9 mm
Shank $\varnothing D_s$	12 mm
Thread pitch	2 mm

Tapping hole Ø guide value	15.1 mm
Number of cutting edges Z	8
Number of clamping slots	8
Thread size	M16
Thread Ø	16 mm
Tolerance class	ISO 3X 6GX
Thread depth	48 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		