

## Garant

### GARANT Master Form Steel fluteless machine tap with oil grooves HSS-E-PM, TiAlN, UNF: 12-28



#### Order data

Order number	139495 12-28
GTIN	4062406707170
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  $\leq$  3/8;  $\approx$  DIN 376  $\geq$  7/16).

**Form E** (lead-in 1.5 – 2 turns). For deep threads with short lead-in. The thread is tapped almost to the bottom of the hole.

##### Application:

**For UNF unified fine threads ASME–B1.1.**

Thread pitch: 0.907 mm

Threads per inch: 28

Thread  $\varnothing$ : 5.49 mm

Overall length L: 80 mm

Shank  $\varnothing$  D<sub>s</sub>: 6 mm

Shank square  $\square$ : 4.9 mm

#### Technical description

Thread pitch	0.907 mm
Overall length L	80 mm
Thread depth	16.47 mm
Number of cutting edges Z	5

Shank square <input type="checkbox"/>	4.9 mm
Shank $\varnothing D_s$	6 mm
Thread $\varnothing$	5.49 mm
Number of clamping slots	5
Tapping hole $\varnothing$ guide value	5.1 mm
Threads per inch	28
Coating	TiAlN
Thread type	UNF
Flank angle	60°
Tool material	HSS E PM
Standard	DIN 2174
Tolerance class	2BX
Taper lead form	E
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
Type of product	Fluteless tap

## User data

	Suitability	$V_c$	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		