

**Garant**
**Machine tap HSS-E-PM, TiAlN, NPT: 1/2-14**

**Order data**

Order number	138100 1/2-14
GTIN	4045197080448
Item class	11H

**Description**
**Version:**

**For the highest performance demands.** For use with **emulsion** (fat content minimum 8%).

**Application:**

**Tapered** pipe threads (NPT) to **ANSI B1.20.1**, for threads with sealants. See the table for the specified minimum size of the tapping hole.

**Recommendation:**

For **TOOLOX** and **HARDOX** materials we recommend deviating from the **DIN data** (see table) by drilling the tapping hole  $\varnothing$  **0.05** to **0.3 mm** larger.

**Tapping hole  $\varnothing$  A:**

Pre-drill a plain hole **without using a reamer**.

**Tapping hole  $\varnothing$  B:**

Pre-drill a plain hole and then **ream it using a 1:16 taper reamer (see No. 162650)**. The taper bore  $\varnothing$  can then be checked laterally by reference to the  $D_{\max}$  check dimension (see table). **Variant B** for drilling the tapping hole offers the best process reliability for the tapping operation.

Threads per inch: 14

Overall length L: 125 mm

Shank  $\varnothing$   $D_s$ : 16 mm

Shank square  $\square$ : 12 mm

Tapping hole  $\varnothing$  A: 17.85 mm

Tapping hole  $\varnothing$  B: 17.5 mm

**Technical description**

Thread pitch	1.814 mm
Thread gauge $\varnothing$ $D_{\max} + 0.05$	18.32 mm

Tapping hole $\varnothing$ B	17.5 mm
Thread $\varnothing$	21.223 mm
Threads per inch	14
Tapping hole minimum depth	22.9 mm
Number of clamping slots	5
Number of cutting edges Z	5
Tapping hole $\varnothing$ A	17.85 mm
Shank $\varnothing$ D <sub>s</sub>	16 mm
Overall length L	125 mm
Shank square $\square$	12 mm
Thread depth	40.6 mm
Thread size	1/2-14 NPT
Coating	TiAlN
Thread type	NPT
Flank angle	60 degrees
Tool material	HSS E PM
Standard	Manufacturer's standard
Thread standard	ANSI B 1.20.1
Taper lead form	C
Taper ratio	1:16
Helix angle	15 degrees
Shank	Plain shank with h9
Through-coolant	no
Application for type of drilling	for blind holes and through holes
Cutting direction	right-hand
Type of threading tool	Machine tap for dynamic machining
Colour ring	red
Type of product	Tap

