

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 _s	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°
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°
Shank	Plain shank with h9
Through-coolant	no
Application for type of drilling	Blind hole
Application for type of drilling	Through hole
Cutting direction	right-hand
Type of threading tool	Machine tap for dynamic machining
Colour ring	red
Type of product	Tap

User data

	Suitability	V_c	ISO code
Steel < 900 N/mm ²	suitable	23 m/min	P
Steel < 1100 N/mm ²	suitable	13 m/min	P
Steel < 1400 N/mm ²	suitable only under restricted conditions	7 m/min	P
TOOLOX 33	suitable	4 m/min	H
TOOLOX 44	suitable	3 m/min	H
HARDOX 500 < 1600 N/mm ²	suitable	2 m/min	H
Oil	suitable		
wet maximum	suitable		