

Garant**Machine tap HSS-E-PM, TiAlN, NPT: 1/4-18****Order data**

Order number	138100 1/4-18
GTIN	4045197080424
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.

Technical description

Thread \varnothing	13.616 mm
Tapping hole \varnothing B	10.75 mm
Threads per inch	18
Tapping hole \varnothing A	11.1 mm
Tapping hole minimum depth	17.5 mm
Number of clamping slots	4

Data sheet

Number of cutting edges Z	4
Thread pitch	1.411 mm
Thread gauge $\varnothing D_{\max} + 0.05$	11.36 mm
Shank $\varnothing D_s$	11 mm
Overall length L	100 mm
Shank square \square	9 mm
Thread depth	25.84 mm
Thread size	1/4-18 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	Blind hole
Application for type of drilling	Through hole
Cutting direction	right-hand
Type of threading tool	Machine tap for conventional machining
Colour ring	red
Type of product	Tap

User data

	Suitability	V_c	ISO code
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Data sheet

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		