

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

Order data

Order number	138110 1/2-14
GTIN	4045197533685
Item class	11H

Description
Version:

A **special TiAlN coating** for long tool life. Due to **interrupted** guide thread: **reduced tapping torque** and **improved distribution of lubricant**. 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:
Tapping hole Ø A:

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

Tapping hole Ø B:

Pre-drill a plain hole and then **ream it using a 1:16 taper reamer (see No. 162650)**. The taper bore Ø 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: 140 mm

Shank Ø D_s : 16 mm

Shank square □: 12 mm

Tapping hole Ø A: 17.85 mm

Tapping hole Ø B: 17.5 mm

Technical description

Tapping hole Ø A	17.85 mm
Thread pitch	1.814 mm

Tapping hole $\varnothing B$	17.5 mm
Thread gauge $\varnothing D_{\max} + 0.05$	18.32 mm
Number of clamping slots	5
Tapping hole minimum depth	22.9 mm
Number of cutting edges Z	5
Thread \varnothing	21.223 mm
Threads per inch	14
Shank $\varnothing D_s$	16 mm
Overall length L	140 mm
Shank square \square	12 mm
Thread depth	35.06 mm
Thread size	1/2-14 NPT
Coating	TiAlN
Thread type	NPT
Flank angle	60°
Tool material	HSS E
Standard	DIN 374
Thread standard	ANSI B 1.20.1
Taper lead form	C
Taper ratio	1:16
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	blue
Type of product	Tap

User data

	Suitability	V_c	ISO code
Alu plastics	suitable only under restricted conditions	13 m/min	N
Aluminium (short chipping)	suitable only under restricted conditions	18 m/min	N
Steel < 500 N/mm ²	suitable	17 m/min	P
Steel < 750 N/mm ²	suitable	15 m/min	P
Steel < 900 N/mm ²	suitable	12 m/min	P
INOX < 900 N/mm ²	suitable	5 m/min	M
GG(G)	suitable only under restricted conditions	14 m/min	K
CuZn	suitable only under restricted conditions	16 m/min	N
Oil	suitable		
wet maximum	suitable		