

**Garant**
**Machine tap HSS-E, TiAlN, NPT: 3/8-18**

**Order data**

Order number	138110 3/8-18
GTIN	4045197533678
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: 18

Overall length L: 110 mm

Shank Ø  $D_s$ : 12 mm

Shank square □: 9 mm

Tapping hole Ø A: 9/16 in

Tapping hole Ø B: 14.1 mm

**Technical description**

Tapping hole Ø B	14.1 mm
Tapping hole minimum depth	17.6 mm

Thread Ø	17.055 mm
Threads per inch	18
Number of cutting edges Z	5
Thread gauge Ø $D_{max} + 0.05$	14.8 mm
Number of clamping slots	5
Thread pitch	1.411 mm
Shank Ø $D_s$	12 mm
Overall length L	110 mm
Shank square □	9 mm
Thread depth	29 mm
Tapping hole Ø A	9/16 in
Thread size	3/8-18 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 <sup>2</sup>	suitable	17 m/min	P
Steel < 750 N/mm <sup>2</sup>	suitable	15 m/min	P
Steel < 900 N/mm <sup>2</sup>	suitable	12 m/min	P
INOX < 900 N/mm <sup>2</sup>	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		