

**Garant**
**Machine tap for synchronised spindles HSS-E-PM Form E, TiAlN, G: G1/2**

**Order data**

Order number	137813 G1/2
GTIN	4045197705778
Item class	11H

**Description**
**Version:**

**Sturdy version with right-hand helix and shank to DIN 1835-B.** Special geometry for **general-purpose use** on machines with **synchronised spindle drive**. The tap is controlled by the synchronising spindle of the machine. Special **TiAlN-S coating** for optimum tool life. For use with **emulsion** (fat content minimum 8%).

**Form E** (lead chamfer: 1.5 - 2 turns) for the deepest possible thread depths.

**Application:**

**For Whitworth parallel pipe threads** DIN-ISO 228/1 (threads that do not form a seal within the connection).

**Note:**

**For use on synchronised spindles**, the **GARANT** quick-change tapping chuck **No. 338100 – 338121 with minimum length adjustment (MLA)** ensures very high process reliability.

Tool material: HSS E PM

Threads per inch: 14

Thread Ø: 20.96 mm

Overall length L: 125 mm

Shank Ø D<sub>s</sub>: 16 mm

Shank square □: 12 mm

Tapping hole Ø: 19 mm

**Technical description**

Number of clamping slots	5
Threads per inch	14
Number of cutting edges Z	5
Thread Ø	20.96 mm

Tapping hole Ø	19 mm
Thread pitch	1.814 mm
Tool material	HSS E PM
Shank Ø D <sub>s</sub>	16 mm
Overall length L	125 mm
Shank square □	12 mm
Thread depth	62.88 mm
Thread size	G1/2
Coating	TiAlN
Thread type	G
Flank angle	55 °
Standard	Manufacturer's standard
Taper lead form	E
Helix angle	40 °
Shank	DIN 1835 B to h6
Through-coolant	no
Application for type of drilling	up to 3×D for blind holes
Cutting direction	right-hand
Shank tolerance	h6
Type of threading tool	Machine tap for synchronous machining
Colour ring	green
Type of product	Tap

## User data

	Suitability	V <sub>c</sub>	ISO code
Alu plastics	suitable only under restricted conditions	32 m/min	N
Aluminium (short chipping)	suitable	32 m/min	N

Steel < 500 N/mm <sup>2</sup>	suitable	33 m/min	P
Steel < 750 N/mm <sup>2</sup>	suitable	32 m/min	P
Steel < 900 N/mm <sup>2</sup>	suitable	20 m/min	P
Steel < 1100 N/mm <sup>2</sup>	suitable	12 m/min	P
Steel < 1400 N/mm <sup>2</sup>	suitable	7 m/min	P
INOX < 900 N/mm <sup>2</sup>	suitable	11 m/min	M
INOX > 900 N/mm <sup>2</sup>	suitable	9 m/min	M
CuZn	suitable only under restricted conditions	30 m/min	N
Uni	suitable		
Oil	suitable		
wet maximum	suitable		
wet minimum	suitable		