

**Garant**
**Synchronised fluteless machine tap with oil grooves HSS-E-PM Form C, TiN, M: M16**

**Order data**

Order number	139210 M16
GTIN	4045197533807
Item class	11H

**Description**
**Version:**

**Special polygon geometry and shank to DIN 1835-B** for machines with **synchronised spindle drive**. **With oil grooves; optimal lubrication effect even in deeper threads.**

The **innovative polygon form** permits a wide application spectrum. The **multi-function layered coating** achieves **maximum service life** even in **high-tensile materials** in **fixed** applications.

**Note:**

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

Tolerance class: ISO 2X 6HX

Thread pitch: 2 mm

Overall length L: 110 mm

Shank  $\varnothing D_s$ : 12 mm

Shank square  $\square$ : 9 mm

Tapping hole  $\varnothing$  guide value: 15.1 mm

**Technical description**

Thread pitch	2 mm
Number of cutting edges Z	6
Number of clamping slots	6
Thread $\varnothing$	16 mm
Shank $\varnothing D_s$	12 mm
Shank square $\square$	9 mm

Overall length L	110 mm
Tapping hole Ø guide value	15.1 mm
Tolerance class	ISO 2X 6HX
Thread depth	40 mm
Thread size	M16
Coating	TiN
Thread type	M
Flank angle	60°
Tool material	HSS E PM
Standard	Manufacturer's standard
Thread standard	DIN 13
Taper lead form	C
Shank	DIN 1835 B with h6
Through-coolant	no
Application for type of drilling	up to 2xD for blind holes
Application for type of drilling	up to 2.5xD for through holes
Cutting direction	right-hand
Shank tolerance	h6
Colour ring	green
Type of product	Fluteless tap

## User data

	Suitability	V <sub>c</sub>	ISO code
Alu plastics	suitable	45 m/min	N
Aluminium (short chipping)	suitable	45 m/min	N
Alu > 10% Si	suitable only under restricted conditions	40 m/min	N
Steel < 500 N/mm <sup>2</sup>	suitable	45 m/min	P

Steel < 750 N/mm <sup>2</sup>	suitable	37 m/min	P
Steel < 900 N/mm <sup>2</sup>	suitable	35 m/min	P
Steel < 1100 N/mm <sup>2</sup>	suitable	32 m/min	P
Steel < 1400 N/mm <sup>2</sup>	suitable only under restricted conditions	22 m/min	P
INOX < 900 N/mm <sup>2</sup>	suitable	10 m/min	M
CuZn	suitable only under restricted conditions	35 m/min	N
Uni	suitable		
Oil	suitable		
wet maximum	suitable		