

Garant
Machine tap for synchronised spindles HSS-E-PM Form E, TiAlN, M: M16

Order data

Order number	136173 M16
GTIN	4045197508430
Item class	11H

Description
Version:
Sturdy design with right-hand chip flutes and shank to DIN 1835-B.

Special geometry for **universal applications** on machines with **synchronised spindle drive**. The tap is guided by the synchronised spindle on 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.

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.

Thread type: M

Tool material: HSS E PM

Standard: Manufacturer's standard

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 : 14 mm

Technical description

Thread \varnothing	16 mm
Thread pitch	2 mm
Number of cutting edges Z	4
Tapping hole \varnothing	14 mm

Number of clamping slots	4
Standard	Manufacturer's standard
Shank $\varnothing D_s$	12 mm
Overall length L	110 mm
Shank square \square	9 mm
Tolerance class	ISO 2X 6HX
Tool material	HSS E PM
Thread depth	48 mm
Thread type	M
Thread size	M16
Coating	TiAlN
Flank angle	60°
Thread standard	DIN 13
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_c	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 ²	suitable	33 m/min	P
Steel < 750 N/mm ²	suitable	32 m/min	P
Steel < 900 N/mm ²	suitable	20 m/min	P
Steel < 1100 N/mm ²	suitable	12 m/min	P
Steel < 1400 N/mm ²	suitable	7 m/min	P
INOX < 900 N/mm ²	suitable	11 m/min	M
INOX > 900 N/mm ²	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		