

Fluteless machine tap with oil grooves HSS-E-PM Form E 6HX, TiAIN, M: M12



Order data

Order number	139198 M12
GTIN	4062406383442
Item class	111

Description

Version:

The latest generation of **high-performance fluteless taps**, specially developed for **use in steel materials**.

- · Optimised polygon geometry for a lower torque.
- · Multi-layer HIPIMS coating for high wear resistance.
- · HSS-E-PM substrate for exceptional process reliability.

DIN 2174 (\approx DIN 371 \leq M10; \approx **DIN 376** \geq M12).

Tolerance class: ISO 2X/6HX.

Form E (lead-in 1.5 - 2 turns) for deep threads with short run-out. The thread is tapped almost

to the bottom of the hole.
Tolerance class: ISO 2X 6HX
Thread pitch: 1.75 mm
Overall length L: 110 mm

Shank Ø D₅: 9 mm Shank square □: 7 mm

Tapping hole Ø guide value: 11.2 mm

Technical description

Shank Ø D _s	9 mm
Tapping hole Ø guide value	11.2 mm
Number of clamping slots	8
Thread size	M12
Thread Ø	12 mm

Thread pitch Thread depth 36 mm Series GARANT Master Tolerance class ISO 2X 6HX Shank square □ 7 mm Number of cutting edges Z Coating TiAlN Thread type M Flank angle Flank angle Tool material Standard Thread standard Thread standard TiAlN Thread standard DIN 2174 Thread standard Taper lead form 1.75 mm 1.75	Overall length L	110 mm		
Thread depth Series GARANT Master Tolerance class ISO 2X 6HX Shank square □ 7 mm Number of cutting edges Z Coating TiAIN Thread type M Flank angle 60 ° Tool material Standard DIN 2174 Thread standard DIN 13 Taper lead form E Shank Plain shank with h9 Through-coolant Application for type of drilling Application for type of drilling Cutting direction Colour ring MA GARANT Master GARANT Master Ap M SHX BIO 2 X 6HX B AD IN 13 TiAIN Thread type B Cutting direction Tight-hand Colour ring without				
Series GARANT Master Tolerance class ISO 2X 6HX Shank square □ 7 mm Number of cutting edges Z 8 Coating TiAIN Thread type M Flank angle 60 ° Tool material HSS E PM Standard DIN 2174 Thread standard DIN 13 Taper lead form E Shank Plain shank with h9 Through-coolant no Application for type of drilling up to 3×D for blind holes Application for type of drilling up to 3×D for through holes Cutting direction right-hand Colour ring without	Thread pitch	1.75 mm		
Tolerance class Shank square □ 7 mm Number of cutting edges Z Coating TiAIN Thread type M Flank angle 60 ° Tool material Standard DIN 2174 Thread standard DIN 13 Taper lead form E Shank Plain shank with h9 Through-coolant Application for type of drilling Application for type of drilling Cutting direction Colour ring ISO 2X 6HX ISO 2X 6HX Plain Plain B B Cutting direction right-hand without	Thread depth	36 mm		
Shank square □ 7 mm Number of cutting edges Z 8 Coating TiAIN Thread type M Flank angle 60 ° Tool material HSS E PM Standard DIN 2174 Thread standard DIN 13 Taper lead form E Shank Plain shank with h9 Through-coolant no Application for type of drilling up to 3×D for blind holes Application for type of drilling up to 3×D for through holes Cutting direction right-hand Colour ring without	Series	GARANT Master		
Number of cutting edges Z Coating TiAIN Thread type M Flank angle 60 ° Tool material HSS E PM Standard DIN 2174 Thread standard DIN 13 Taper lead form E Shank Plain shank with h9 Through-coolant Application for type of drilling Application for type of drilling Cutting direction Colour ring N TiAIN AM Plain HSS E PM Plain 2174 DIN 13 Taper lead form E Shank Plain shank with h9 up to 3×D for blind holes right-hand without	Tolerance class	ISO 2X 6HX		
Coating TiAlN Thread type M Flank angle 60° Tool material HSS E PM Standard DIN 2174 Thread standard DIN 13 Taper lead form E Shank Plain shank with h9 Through-coolant no Application for type of drilling up to 3×D for blind holes Application for type of drilling up to 3×D for through holes Cutting direction right-hand Colour ring without	Shank square □	7 mm		
Thread type Flank angle 60° Tool material HSS E PM Standard DIN 2174 Thread standard DIN 13 Taper lead form E Shank Plain shank with h9 Through-coolant no Application for type of drilling Application for type of drilling Cutting direction Colour ring M M M M Instruction of the service of the servi	Number of cutting edges Z	8		
Flank angle Tool material HSS E PM Standard DIN 2174 Thread standard DIN 13 Taper lead form E Shank Plain shank with h9 Through-coolant Application for type of drilling Application for type of drilling Cutting direction Colour ring ON 13 Plain shank with h9 up to 3×D for blind holes right-hand without	Coating	TiAIN		
Tool material HSS E PM Standard DIN 2174 Thread standard DIN 13 Taper lead form E Shank Plain shank with h9 Through-coolant no Application for type of drilling up to 3×D for blind holes Application for type of drilling up to 3×D for through holes Cutting direction right-hand Colour ring without	Thread type	M		
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Thread standard Taper lead form E Shank Plain shank with h9 Through-coolant Application for type of drilling Application for type of drilling Up to 3×D for blind holes up to 3×D for through holes Cutting direction right-hand Colour ring without	Tool material	HSS E PM		
Taper lead form E Shank Plain shank with h9 Through-coolant Application for type of drilling Application for type of drilling Up to 3×D for blind holes up to 3×D for through holes Cutting direction right-hand Colour ring without	Standard	DIN 2174		
Shank Plain shank with h9 Through-coolant no Application for type of drilling up to 3×D for blind holes Application for type of drilling up to 3×D for through holes Cutting direction right-hand Colour ring without	Thread standard	DIN 13		
Through-coolant no Application for type of drilling up to 3×D for blind holes Application for type of drilling up to 3×D for through holes Cutting direction right-hand Colour ring without	Taper lead form	E		
Application for type of drilling up to 3×D for blind holes Application for type of drilling up to 3×D for through holes Cutting direction right-hand Colour ring without	Shank	Plain shank with h9		
Application for type of drilling up to 3×D for through holes Cutting direction right-hand Colour ring without	Through-coolant	no		
Cutting direction right-hand Colour ring without	Application for type of drilling	up to 3×D for blind holes		
Colour ring without	Application for type of drilling	up to 3×D for through holes		
January 1	Cutting direction	right-hand		
Type of product Fluteless tap	Colour ring	without		
	Type of product	Fluteless tap		

User data

	Suitability	V _c	ISO code
Aluminium (short chipping)	suitable	38 m/min	N
Steel < 500 N/mm ²	suitable	37 m/min	Р
Steel < 750 N/mm ²	suitable	35 m/min	Р
Steel < 900 N/mm ²	suitable	27 m/min	Р

Steel < 1100 N/mm ²	suitable	18 m/min	Р
Steel < 1400 N/mm ²	suitable	12 m/min	Р
INOX < 900 N/mm ²	suitable	12 m/min	М
INOX > 900 N/mm ²	suitable	7 m/min	М
CuZn	suitable	22 m/min	N
Oil	suitable		
wet maximum	suitable		
wet minimum	suitable		