

**Garant****GARANT Master Tap machine tap HSS-E-PM Form C, AlTiX, M: M20****Order data**

Order number	135960 M20
GTIN	4045197900074
Item class	111

**Description****Version:**

**Universal taps**, designed for use in a wide spectrum of materials with high process reliability.

- **HSS-E-PM tool material for a high degree of wear resistance.**
- **Reduced coefficient of friction due to the new high-performance coating.**
- **Special geometry for optimum swarf evacuation.**

Corresponds to **ISO 2X/6HX**.

**Technical description**

Thread pitch	2.5 mm
Tool material	HSS E PM
Thread depth	50 mm
Thread Ø	20 mm
Tolerance class	ISO 2X 6HX
Standard	DIN 376
Shank Ø D <sub>s</sub>	16 mm
Shank square □	12 mm
Number of cutting edges Z	4
Tapping hole Ø	17.5 mm
Number of clamping slots	4
Overall length L	140 mm

Thread type	M
Thread size	M20
Coating	AlTiX
Flank angle	60 degrees
Thread standard	DIN 13
Taper lead form	C
Helix angle	40 degrees
Shank	Plain shank with h9
Through-coolant	no
Application for type of drilling	up to 2.5×D for blind holes
Cutting direction	right-hand
Type of threading tool	Machine tap for dynamic machining
Colour ring	green
Series	Master Tap
Type of product	Tap

## User data

	Suitability	V <sub>c</sub>	ISO code
Alu plastics	suitable	30 m/min	N
Aluminium (short chipping)	Suitable	35 m/min	N
Alu > 10% Si	suitable	20 m/min	N
Steel < 500 N/mm <sup>2</sup>	suitable	30 m/min	P
Steel < 750 N/mm <sup>2</sup>	suitable	30 m/min	P
Steel < 900 N/mm <sup>2</sup>	suitable	25 m/min	P
Steel < 1100 N/mm <sup>2</sup>	suitable	12 m/min	P
Steel < 1400 N/mm <sup>2</sup>	suitable	8 m/min	P
INOX < 900 N/mm <sup>2</sup>	suitable	10 m/min	M
INOX > 900 N/mm <sup>2</sup>	suitable	8 m/min	M

GG(G)	suitable	20 m/min	K
CuZn	suitable	20 m/min	N
Uni	suitable		
Oil	suitable		
wet maximum	suitable		