

TECHNICAL SPECIFICATION

Hand Tap DIN 352, HSS-G Metric Thread Set 3 pcs - I+II+III



Application

The main application of the tap is MANUAL tapping of internal, metric standard thread pitch. The thread is cut in a through hole pre-drilled with a certain nominal diameter drill /specified in the technical data/.

The tap is installed in a tap wrench. Fixing is done by movable jaws that grip the square tail of the tap. It is important to start the thread cutting in a correct way – the tap have to be perpendicular to the hole. The thread is cut by turning the tap clockwise, slowly and evenly. To avoid tightening every 1 to 3 turns the tap is turned in the opposite direction by $\frac{1}{4}$ to $\frac{1}{2}$ turn. In this way the chips are cleared and the application of great effort is avoided.

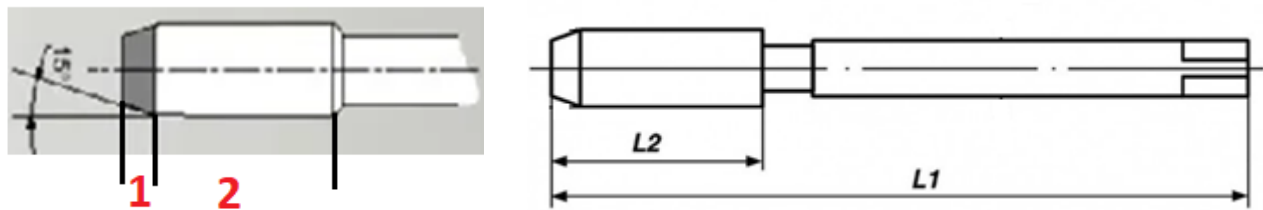
It is recommended a coolant lubricant liquid to be used. The force of friction and the risk of breakage and wear are significantly reduced thanks to it.

Characteristics

The working part of the tap consists of 3 longitudinal straight channels and 3 cutting feathers. It includes 2 main parts – cutting and calibrating.

Cutting part / 1 /: The main part makes the shaping of the thread. This part is cone-shaped, with different number of cutting teeth depending on the diameter.

Calibrating part / 2 /: Calibrates the cut thread, cleans the hole and guides the tap.



Operation Technique

For MANUAL thread cutting the optimal option is the set of three taps to be used. Each of them has a different diameter and profile accuracy. A part of the metal is consecutively removed along the profile of the thread and a part of it is cut. In this way cutting is done with less application of the torque on the tap (the risk of its breakage is reduced), it “bites” the beginning of the thread more easily and the thread profile becomes cleaner. Conventionally, the taps are defined as a tap for coarse, medium and fine cutting:

Coarse tapping: This tap is marked with ONE line on the tail. The thread cutting is started with it. It takes about 60% of the metal.

Medium tapping: This tap is marked with TWO lines on the tail. The thread cutting is continued with it. It takes about 30% of the metal.

Fine tapping: There is no marking on the tail of this tap. The thread cutting is completed with it. It makes the final cleaning and exact thread calibration.

Technical parameters

- Thread type: metric /M/, according to DIN 13
- Thread pitch: standard
- Thread direction: right
- Material: specialized HSS-G high strength steel
- Channel type: straight
- Tail: Cylindrical shaped tail ending in a square thanks to which the tap is fixed in the tap wrench.

Tap size	Full length L1 / mm /	Length of working area L2 / mm /	Drill bit diameter / mm /
M3 x 0.5	45	11	2.5
M4 x 0.7	50	13	3.2
M5 x 0.8	55	16	4.2
M6 x 1.0	63	19	5.0
M8 x 1.25	63	22	6.7
M10 x 1.5	70	24	8.5
M12 x 1.75	75	29	10.5

Advantages

- **Quality:** Specialized high strength steel HSS-G. High resistance of cutting edges and long service life.
- **Precision:** The consecutive use of the three taps cuts a thread with a clean, accurate and calibrated profile.
- **Convenience:** All sizes of taps are compatible with one tap wrench. The spindle is according to DIN 1814.
- **Practicality:** Easiness of usage and simplicity of the thread cutting operation.
- **Compactness:** Individual blister package.