

Using a Hand Tap

A hand tap is a tool used to cut internal threads into a drilled hole so that a screw or bolt can be directly fastened into material such as aluminum.

Before Tapping

- Drill the correct tap drill size hole (example: #21 for 10-32, #7 for 1/4-20)
 - Deburr the hole to remove sharp edges
 - Secure the part so it cannot move
 - Select the correct tap size
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How to Use a Hand Tap

1. Insert the tap into a tap handle
 2. Align the tap perpendicular to the hole
 3. Apply gentle downward pressure and begin turning clockwise
 4. After 1-2 turns, continue turning slowly with steady pressure
 5. Every few turns, reverse slightly to break chips
 6. Continue until the desired thread depth is reached
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Key Technique

- Keep the tap straight at all times
 - Do not force the tap if it becomes difficult to turn
 - Use cutting fluid when possible to reduce friction and improve thread quality
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Common Mistakes

- Starting the tap at an angle
 - Forcing the tap (can break it easily)
 - Not backing out to clear chips
 - Using the wrong tap drill size
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Key Idea

A hand tap must be started carefully and kept straight. Most tap failures come from misalignment or forcing the tool instead of allowing it to cut gradually.

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