

Pilot Holes

A pilot hole is a small hole drilled before the final hole size. Pilot holes improve accuracy and make larger holes easier to drill.

Why Use a Pilot Hole?

Pilot holes help:

- Keep the drill bit centered
 - Reduce drill bit wandering
 - Improve hole accuracy
 - Reduce cutting force on larger drill bits
 - Produce cleaner holes
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When to Use Pilot Holes

Pilot holes are especially useful when:

- Drilling large holes
- Drilling thick material
- Working with precise hole locations
- Using step-up drill sizes

Small holes, such as rivet holes, often do not require a pilot hole.

Typical Process

1. Mark the hole location.
 2. Center punch the hole.
 3. Drill a small pilot hole (such as 1/8").
 4. Drill the final hole size.
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Best Practices

- Always center punch before drilling.
 - Keep the drill perpendicular to the material.
 - Use steady pressure and let the drill bit cut.
 - Deburr the finished hole.
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Key Idea

Pilot holes improve drilling accuracy and make larger holes easier to produce. Taking the extra step can prevent misplaced holes and improve part quality.

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