

Electric tools—Drills

Explain dangers

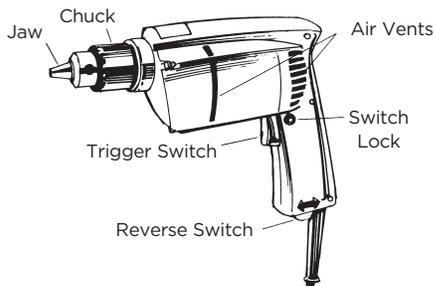
If you have to push a tool beyond its capacity, you can burn out the motor and injure yourself.

Leaning into a drill and pushing too hard is dangerous. If you lose balance or control, you can fall or strain your neck, arm, and shoulder muscles.

Identify controls

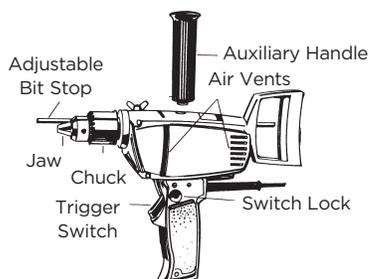
You need a drill powerful enough for the job. And you need a bit that is both sharp and suited to the job.

1/4-inch or 3/8-inch drills are ideal for light-duty tasks such as driving screws into wood or drilling small holes.

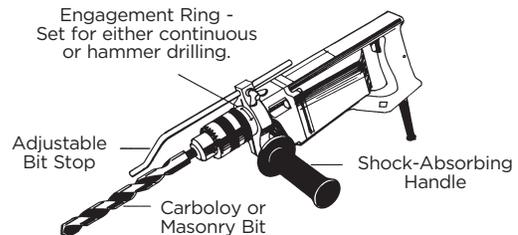


1/2-inch or 3/4-inch drills are heavy-duty and are designed to be used with two hands. They have an auxiliary handle that you can screw into the top. This is what you want for drilling into concrete, steel, heavy timbers, etc.

A heavier drill is also useful for hole saw bits and spade bits where the blade of the bit is considerably wider than the shank. These



An **impact or hammer drill** is what you need for work such as drilling large holes in concrete or rock with a carboloy bit.



attachments require the power and control you get with a two-handed drill.

Follow these safe work practices when using drills.

- Heavy-duty drills or hammer drills have a low rpm and high horsepower rating. Take a break when you have to, especially when you're up on a ladder or scaffold. You may even need help with some kinds of drilling.
- Check your balance and grip. Sudden torque can twist your arm and throw you off balance.
- When drilling deep holes, occasionally withdraw. This clears cuttings from the hole.
- When you're drilling on loose material, securing the work is half the battle.
- **HANDS OFF.** Don't hold the work in your hand, on your knee, or against your boot while you're drilling. Clamp small pieces in a vice.
- When you're drilling, don't push or lean too hard on the drill. You can damage the tool or the work, or be thrown off balance if the drill twists and grabs.
- Punching a layout hole or drilling a pilot hole can make your work more accurate, efficient, and safe.

Demonstrate

Have sample drills available to demonstrate while you talk.

Review the types of drilling done by your crew and inspect sample drills and bits used on the job.