

Ergonomics For General Construction



Musculoskeletal Risks in the General Construction Industry

POWER TOOLS

The most common power tools used by construction laborers are:

- Saws
 - Circular saws
 - Sawsall (reciprocating saw)
 - Cutoff/chop saws
- Grinders
- Screw guns
- Electric drills
- Hammer drills
- Chipping hammers/guns
- Jackhammers/pavement breakers
- Tampers/jumping jacks

SAWS AND GRINDERS: Make sure your saw has a chip shield to avoid injury from flying chips. If possible do not cut on the ground. Instead, cut on a waist- high surface. The end of a pickup truck is a possible place to cut, laying the long side of the material in the truck bed. Keep the blade sharp or replace it frequently. To avoid kickback, do not push the saw—let the saw do the work. A second auxiliary handle is helpful in balancing the saw. A second auxiliary handle is essential on grinders.

SCREW GUNS: Screw guns now have automatic feed mechanisms with a pistol grip and attachments for overhead use. The trigger should fit your hand. A longer trigger allows you to operate the gun with multiple fingers.

ELECTRIC DRILLS: Electric drills are often used for mixing mortar. They should have some type of torque control to avoid wrenching your arm.

HAMMER DRILLS: Hammer drills are used to set anchors overhead. A sling to hold the tool or a drill stand is helpful to support the weight of the tool. Some electricians build a “giraffe,” a metal stand with the drill attached to a pivoting arm. Pushing down on the arm presses the drill against the ceiling.

CHIPPING HAMMERS/GUNS: A chipping hammer or gun can weigh up to 50 pounds and needs to be supported by a sling or rope while chipping on a wall.

JACKHAMMERS/PAVEMENT BREAKERS: Jackhammers or pavement breakers usually weigh about 90 pounds. They are available with flexible handles to

absorb vibrations. A utility company has developed a hydraulic system for the difficult job of lifting a jackhammer or pavement breaker out of holes. A dolly is helpful when a jackhammer or pavement breaker must be moved around the site. Hydraulic lifts have been designed to help take them on or off the truck.

TAMPERS/JUMPING JACKS: Tampers and jumping jacks are used to tamp down earth. These tools can weigh over 100 pounds. A dolly or retractable wheels are helpful when moving this equipment, as is a lift to get them on and off trucks.