

OPERATION

Magnetic Holding Force

The electromagnetic drill press attaches magnetically to any ferrous metal. It is designed for use on 1/2" or thicker ferrous stock. Holding power will decrease on thinner stock, a backup plate must be used. The magnetic base WILL NOT hold on non-magnetic grades of stainless steel.

Backing Plate

A backing plate must be used when the workpiece is less than 1/2" thick because the electromagnet cannot provide sufficient holding force on thickness less than 1/2". The backing plate must bring the combined thickness of the workpiece and backing plate to at least 1/2". Make sure the backing plate is larger than the magnet footprint. Clamp the backing plate underneath the workpiece, directly below the magnet, before turning the magnet on.

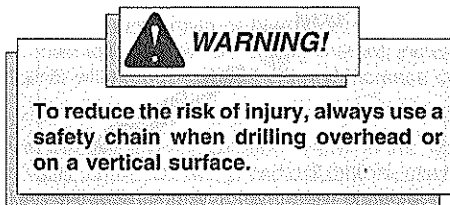
The workpiece must be able to support the mag stand's weight without bending. A bent workpiece reduces the magnet's contact area which can result in the magnet coming loose.

Surface Preparation

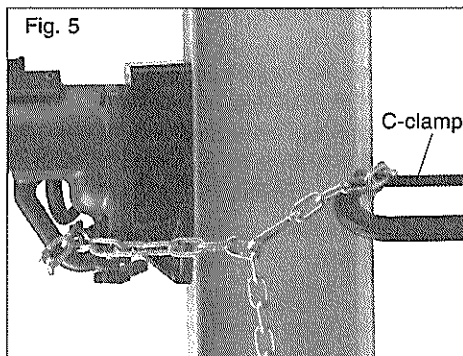
Paint, rust, scale or uneven surfaces decrease the holding strength of the magnet. Chips, burrs, dirt and other foreign materials on the surface of the magnetic base will also decrease holding power. Use a smooth, flat file to keep the magnet clean and free of nicks. Clean the surface before attaching the drill stand to the material.

Rack and Pinion

These units have a 10:1 feed ratio: i.e. for every pound applied to the handle, you create ten pounds on the drill point, thereby eliminating operator fatigue. Even large bits only require a small amount of pressure on the handle. Example: 20 Pounds on the handle creates 200 Pounds on the drill point.



Safety Chain (Fig. 5)



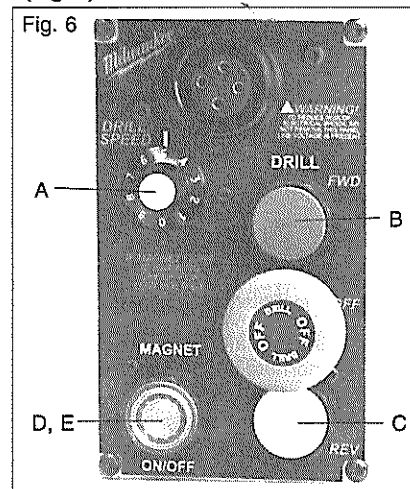
A safety chain is standard equipment with every unit. Should a power loss occur, the mounting could come loose.

When mounting the tool to a vertical surface, the safety chain must be used to secure the tool to the surface.

1. To mount the tool to a vertical surface, place the magnetic drill press on the prepared surface. Push the magnet button on to activate the magnet.
2. Route the safety chain through the lower carrying handle and wrap it tightly around a solid, rigid structure as shown (Fig. 5).
3. Eliminate any slack in the chain. Hook the safety chain together using the snaphook provided.
4. Secure the safety chain with a c-clamp or similar device. This will hold the chain in place and prevent the tool from sliding down the vertical surface.

CONTROLS

Control Panel (Fig. 6)



Drill Rotation Speed - Fast/Slow (Fig. 6A)

Adjusting the dial changes the drill rotation speed electronically. The higher numbers on the dial produce faster rotation.

Drill Buttons - Forward/Reverse (Fig. 6B, C)

The drill may be set to two positions: forward and reverse.

1. For **forward** (clockwise) rotation, push the green forward button. Check the direction of rotation before use.
2. For **reverse** (counterclockwise) rotation, push the yellow reverse button. Check direction of rotation before use.

Magnet Button - On/Off (Fig. 6D)

The magnet button must be activated before the drill will run.

1. To turn the magnet **on**, push the "Magnet" button. The red indicator light will turn on.
2. To turn the magnet **off**, push the "Magnet" button. The red indicator light will turn off.

Drill and Magnet Interlock (Fig. 6E)

The drill will not operate unless the magnet button is pushed and the red indicator light is on. If the operator attempts to start the drill before turning on the magnet, the drill buttons will not function.

To start the drill:

1. Push the magnet button to activate the magnet.
 2. Make sure the red indicator light is on. If the light is flashing, check for the following:
 - Low voltage at plug
 - Loose motor connection
 - Mag panel buttons are jammed or stuck
 If flashing light still occurs, take entire unit to an authorized service center.
 3. Push a drill button for forward or reverse.
- If a loss of line voltage occurs while the drill is running, the drill will stop.