

Drill Press Safety

1. Center punch your work before drilling.
2. In general, larger drills rotate at a slower RPM, while smaller drills rotate at a faster RPM. Countersinks rotate a slow RPM.
3. Work being drilled on the drill press should be held in the drill press vise or clamped to the drill press table. Avoid drilling into the drill press table
4. Place a piece of wood or plywood on the table if you are clamping your work to the table. This will prevent drilling into the table.
5. When drilling holes larger than $\frac{1}{2}$ inch in diameter, be sure to clamp the drill press vise or your work to the table.
6. Drill a pilot hole ($\frac{3}{16}$ "- $\frac{7}{32}$ " diameter) first when drilling holes $\frac{3}{8}$ " and larger.
7. Place the drill in the chuck and tighten the drill securely using the chuck key.
8. Remove the chuck key from the chuck after tightening the drill and before turning the power on
9. Be sure all adjustments are completed before turning on the drill press.
10. Use moderate feed pressure when drilling.
11. Use cutting fluid.
12. During drilling, if the drill is seized by the work, turn off the machine immediately.
13. When the drill begins to break through the work, ease up on the feed pressure.
14. When drilling sheet metal, do the following:
 - a. Holes in sheet metal should be punched not drilled, try to punch the holes first.
 - b. When drilling sheet metal, place a piece of plywood under the sheet metal and clamp the plywood and sheet metal to the table.
 - c. If you have to drill a hole in sheet metal, the largest twist drill to safely drill into sheet metal is $\frac{1}{4}$ inch diameter.
 - d. For larger holes, use a hole saw or a punch.
15. Use a brush to remove chips from the drill press table, not your hand.
16. After drilling is complete, do the following:
 - a. Remove the drill and place it in the drill stand.
 - b. Remove the chuck key from the chuck.
 - c. Clean the drill press and sweep the floor around the machine

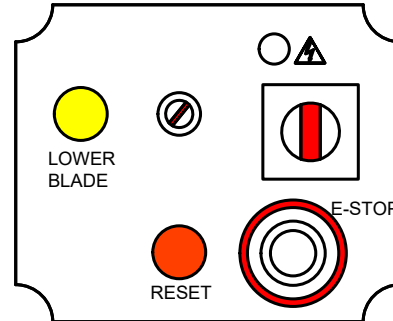
Hydraulic Shear Safety

1. The maximum thickness of all metal which can be cut on the Squaring Shears is 16 gauge.
2. Only sheet metal is to be cut using the Squaring Shear. Do NOT cut wire or any shape of bar stock.
3. Do NOT cut metal which has been cut with a plasma torch. The arc from the torch can harden the metal and can chip the shearing knives.
4. Keep your fingers away from the clamping bar and shear blade.
5. When cutting a square corner, metal should be held against the left guide.
6. When cutting large pieces and someone is helping you maneuver the sheet metal, be sure to say "CLEAR" before stepping on the foot pedal to cut the metal.
7. Do not cut Raised Expanded Steel Grating on the hydraulic shear.

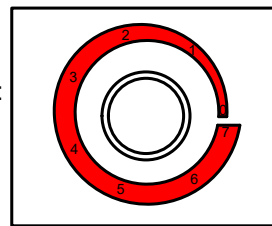
Horizontal Band Saw Safety Instructions

Horizontal Band Saw Operating Instructions:

1. Keep fingers away from the blade.
2. Avoid wearing gloves when using the machine, the gloves may get caught in the blade and drag your hand into the moving blade.
3. Clamp the material snug by tightening the vise handle then back off a little. Use the CAM-Lock Lever to complete tightening the stock in the vise. Do not over-tighten.
4. Make blade guide adjustments before power is turned on.
5. Lower the blade by pushing the LOWER BLADE button on the front of the machine. Stop the blade about 1/4" above the stock.
6. Do NOT rest the blade on the material when starting the cut.
7. Pull the trigger switch to start the cut. If the machine does not start, the reset light may be on. press the Reset Button.
8. If the machine makes a funny noise or doesn't seem right, then stop the machine by pressing the E-Stop and contact a monitor.
9. Cutting Fluid should be flowing onto the Blade, If no cutting fluid, turn off the machine and contact a Monitor.
10. The blade should be feeding at a moderate rate. Rotate the Feedrate Control Knob if you need to adjust the feedrate. See Monitor for help.
11. When cutting is complete, the machine will shut off automatically.
12. Use the Bucket near the drinking fountain to dip your metal into to wash off the cutting fluid. Do not use the sink.
13. Clean the machine and the floor when cutting is complete.



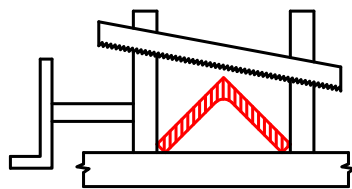
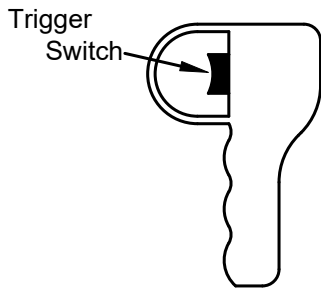
Control Panel
On the front of the machine.



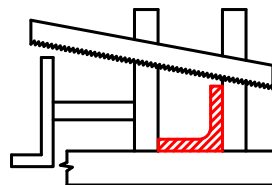
Counter Clockwise:
Increases Feed

Clockwise:
Decreases Feed

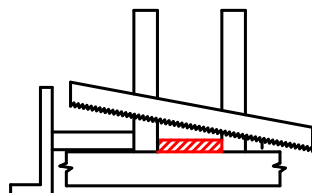
Feedrate Control Knob



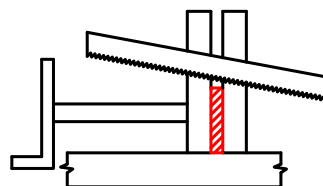
**Angle Iron Position
for straight cuts**



**Angle Iron Position
for Miter Cuts**



**Flat Bar
Cutting Position**



Do **NOT** place
Flat Bar in the
Vertical Position