



Scotchman SU-280 Horizontal Band Saw

Student Machine Shop CMLP 54

The University of Western Ontario







Hand Feed Horizontal Band Saw For Metals and Plastics

Always wear Safety Glasses



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Although the saws in the metal shop and wood shop appear similar, there are some important differences between them.

- Metal Shop Band
 - Has a much slower speed suitable for harder materials like metals
 - Has a much finer blade meaning the teeth are closer together
 - Can be used on metals and plastics
 - Cutting wood will contaminate the coolant system

Thin Materials:

- On any band saw blade you can only cut materials as thin as two blade pitches (tooth spacing).
- There must be three teeth in contact with the work piece at all times.

Failure to comply results in serious blade damage and/or poor cuts



Side Clearance







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Clamping/Vise use:

- Place material to be cut in most stable/safe position against the fixed jaw
- 2. Slide vise ram within 2mm of part
- Move material to desired cut location – do not let blade touch material
- Tighten ram lock handle (clockwise) (4)
- Twist clamping cam handle(5) (anti-clockwise) to increase clamping pressure
- 6. Manually ensure work piece is stable











Trigger/Pull Handle

- Trigger must be pulled to activate power for all systems
- Always start blade before contacting work piece
- Aluminum Arch Assembly is spring loaded. Returns to upward position
- Start blade.
- Gently pull down to begin cutting
- Control the feed Do not pull hard
- Cut should happen with little effort.







Power Controls:

Offer Flexible operation – No systems operate unless trigger is activated

- •Blade only Almost never used, unless instructed
- •Coolant only For Cleaning Operations
- •Blade and Coolant for most cutting operations DO NOT CUT METALS WITHOUT COOLANT RUNNING FROM BOTH BLADE GUIDE LOCATIONS (PRE AND POST)







Cleaning:

- Set machine control to activate "Coolant Only"
- Remove post flow coolant hose from blade guide
- Pull trigger Coolant pump turns on.
- Adjust coolant flow controls to favor post flow coolant hose
- Wash all chips into tray
- Return hose and flow controls back to original positions (both on ~ 50%)
- Test coolant flows to flood both pre and post locations
- Brush chips and debris to high spot at back of machine so coolant can drain from debris
- Recycle debris when coolant has drained







Finishing

- Turn off all power switches
- Turn off wall switch
- Lock wall switch





Follow up

- Wear Safety Glasses at all times
- Plan Cuts
- Secure work
- Ensure proper blade engagement (3 teeth in contact)
- Pull smoothly and lightly
- Report deficiencies like broken blades and noises
- Clean up when finished
- Contact Technician for advice or help

