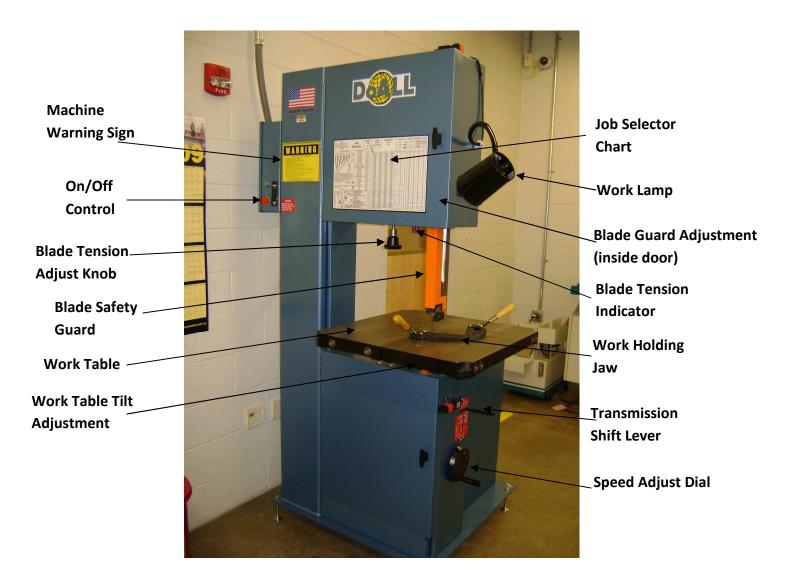
Armstrong Hall of Engineering Artisan and Fabrication Laboratories (AFL) Safety and Operational Procedure

VERTICAL BAND SAW



PPE Required: Safety Glasses

Prohibited Clothing: gloves, loose clothing, neckties, jewelry

Machine Access Level: Supervised Only

Materials Allowed: metals only

Note: no wood or plastics can be cut using this saw!!

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VERTICAL BAND SAW

Operating Procedure

1. Machine Safety Inspection and Work Area Check-Out

- A. **PPE:** make sure you are wearing the proper PPE and not wearing any equipment listed on the first page that could get caught in the saw.
- B. **Machine Warning Signs:** make sure you read and follow the machine warning signs that are attached to the machine. If you have any questions, ASK!!
- C. Work Area: make sure the area is clean and the area around the machine is free and clear of debris and personnel.

2. Work Supervision

A. This machine requires supervision by an AFL employee. A Supervisor or TA will assist you in the set-up and operation of the machine. You may not operate this machine without supervision.

3. Machine Adjustment

- A. Note: the machine adjustment is to be done with the machine OFF!
- B. **Identify the machine controls:** identify the red stop button and the green start button. These controls start and stop the band saw.
- C. **Check the job selection chart**: check the job selection chart located on the upper bandwheel door. This chart has information about blade types, blade speeds, and cutting rates for different materials. You must identify the proper settings based on the type of material being cut. The TA will assist you with this step.
- D. **Check blade tension indicator:** make sure the blade tension corresponds to the size of the blade. Do not adjust the blade tension yourself; the TA will assist you with this step.
- E. **Adjust blade safety guard:** loosen the blade guard adjust knob (inside the upper bandwheel door) and slide the blade guard to within ½ inch of the part. Re-tighten the blade guard adjust knob and close the bandwheel door. The TA will assist you with this step.
- F. **Adjust fence:** when applicable, loosen the fence adjust knob and slide the fence to help you control the length of your cut. Re-tighten the fence adjust knob. The TA will assist you with this step.
- G. Adjust table tilt: when applicable, loosen the table tilt adjustment and set the angle of the table tilt. Re-tighten the table tilt adjustment. The TA will assist you with this step.
- H. **Adjust transmission shift level:** when applicable, adjust the transmission shift lever based on the desired blade speed. The TA will assist you with this step.

4. Machine Operation

- A. **Turn the machine on:** check with the TA that it is safe to turn on the machine, and push the green start button when instructed to do so.
- B. **Adjust the blade speed:** once the machine is in operation, adjust the speed of the blade using the speed adjust dial to the blade speed required for the material being used. The TA will assist you with this step.
- C. Safely cut the part: Go slow! Always keep hands and fingers away from the blade. Use the work holding jaw whenever possible. Ask the TA for help.
- D. **Turn the machine off:** when finished with the cut, push the red stop button to shut the machine off. Allow the blade to stop on its own. DO NOT USE YOUR HAND TO STOP THE BLADE!

5. Clean Up

- A. **Disassemble work set-up:** disassemble any fixturing used to hold or push the part through the saw. Return the appearance of the saw to how it looked when you started.
- B. **Clean up the area:** clean up all messes (for example: use a shop vacuum to clean up any additional shavings), return all tools, etc. The TA will check that the area is clean before you can sign-out of the AFL.

Version 1 3/18/09