SAFETY OPERATING PROCEDURES, Origin Labs, Metalworking Lab

Horizontal Band Saw

METHOD OF OPERATION

*Material is clamped in a vice. The blade is positioned above the piece, and when released, uses gravity to aid the cutting process. When the cut is complete, the tool shuts itself off.

MACHINE HAZARDS

- *Cuts, lacerations or amputation by blade
 - -Controls: adjustable blade guard. Appropriate positioning by user.
 - -Controls: This tool is designed to perform straight cuts automatically and shut itself off once the cut is complete. The user should stand clear of the tool once it has been switched on.

*Flying debris

-Controls: safety glasses

PPE/Safety Measures

*Safety Glasses	*All Jewellery removed
*Hearing Protection	*No loose fitting clothing
*Closed Toed Shoes	*Long Hair tied back and away from face
*NO gloves	*Long sleeves removed or rolled up past elbows

Guards and Devices

-Manually adjusted based on stock dimensions

-Only needs removed when changing blade. The blade should only be replaced by OriginLabs staff.

Operational Notes

- *The Horizontal bandsaw is designed to cut metal stock. It can be used to cut sheet metal, as well as flat, round, and tube steel stock.
- *This tool may be set up in a vertical position to cut organic profiles.
- *This tool has a coolant system. The coolant system should be used whenever possible, to extend the life of the blade and the tool. If you suspect the bandsaw is running low on coolant, please alert a staff member.

^{*}Blade guard

^{*}Blade wheel cover

Sequence of Operation

To use in Horizontal mode

- 1. Ensure work bed is clean and free of obstruction or debris
- 2. Ensure that there will not be anyone working behind or around you while you are making your cut.
- 3. Mark your stock where you need to make a cut and place it in between the vice.
- 4. Adjust your stock so your mark is in line with the blade. Use the flywheel on the front end of the tool to clamp down your stock securely.
- 5. Use the hydraulic valve to adjust the feed rate of the falling blade. The blade should travel slower through thicker stock, and faster through thinner stock. When in doubt, err on the slower side. Lock the blade ABOVE your piece when you are satisfied.
- 6. Switch ON your tool, and switch ON the coolant.
- 7. Adjust your coolant flow valve until coolant is flowing freely.
- 8. Release the blade using the lock valve on the hydraulic piston.
- 9. Stand CLEAR of the blade and tool as it is making the cut.
- 10. Do not leave the tool unattended until it has completed its cut. If the blade gets stuck in the piece, SHUT IT OFF immediately. Try to pull the blade free gently by pulling up on the bow handle. Adjust the feed rate and try again.
- 11. When the cut is complete, the offcut will fall to the floor.
- 12. Ensure the machine is off, and mop up excess spill from the coolant.

To use in Vertical mode

- 1. This tool may be used in vertical mode. This is recommended if you need to make an organic cut. To place the tool in vertical mode:
- 2: Ensure the tool is unplugged.
- 3. Rotate Stop Bracket and hold it out of the way, while lifting bow to upright position. Use caution—THIS IS A PINCH POINT



Figure 8-1: disengaging stop bracket

4. Use a Phillips screwdriver to remove the deflector plate. Install the cutting plate.

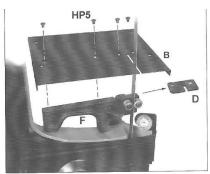


Figure 8-4: installing cutting plate

- 5. Place a square on the table plate to ensure it is square with the blade. Adjust as needed.
- 6. Proceed with your cut. Pay attention to your hand placement at all times. Never cut a piece too small to safely pass through the blade.

Never

- *Use faulty equipment. Immediately report suspect equipment.
- *Leave the machine running unattended. Always stand by.
- *Walk away from the machine without mopping up the excess coolant
- *Cut a piece too small to safely secure while passing through blade.

Maintenance Notes/Service by Operator

- *Contact Shop Supervisor/qualified person for:
 - -Broken or dull blade
 - -Any additional questions or support.