

HORIZONTAL BANDSAW

Scope and Responsibilities

This standard operating procedure (SOP) applies to all personnel who operate and instruct on the safe operation and use of the Horizontal Bandsaw. In a school setting this includes,

- **Administrators/Teachers:** Ensure operators are trained and the SOP is followed
- **Students/Teachers/Operators:** Follow the owner/operators manual, industry recommendations, this SOP, guarding is in place, and wear the appropriate personal protective equipment (PPE)

SAFETY IS A PRIORITY !

DO NOT use this machine unless you have received instruction in its safe use and operation and have been given permission by your teacher.

To ensure the safe and efficient operation of the horizontal bandsaw, this machine requires:



Safety glasses must be worn at all times in work areas.



Closed toe / CSA approved footwear must be worn at all times in work areas.



Keep hands clear of blades, cutters, and/or router or drill bits. Rings and jewelry must not be worn.



Hearing protection may be required for certain operations.



Close fitting / protective clothing must be worn.



Long and loose hair must be contained.

Personal Protective Equipment (PPE)

- Safety glasses or face shield
- Hearing protection
- Closed-toed footwear (CSA Safety footwear is required on Co-Op placements in industry)

Pre-Operational Checks

- Always refer to the manufacturer's manual
- Repair or replace damaged equipment immediately
- Inspect the bandsaw for any damage or wear
- Inspect the electrical cords for damage, cracked insulation, fraying, etc.
- Ensure the work area is clean and free of obstructions
- Check that the bandsaw blade is properly mounted, in good condition, tracking correctly with proper tension
- Ensure hydraulic damping mechanism functions
- Verify that all guards are in place and secured properly
- Check coolant delivery system to allow for sufficient flow of coolant

Operational Steps

1. Preparation
 - Locate and ensure you are familiar with the operation of the ON/OFF starter and E-Stop
 - Make sure you have been authorized to use this horizontal bandsaw - you have received training, passed the test, have demonstrated the safe use of this horizontal bandsaw and have a safety passport signed
 - You are "shop ready" – trained, proper clothing, wearing required PPE, etc.
 - Lift the head of unit up and lock it in the upward position
 - Set the angle of the vice, or check it to ensure its squareness
 - Clamp work piece firmly into the vice. Long material must be supported
 - Adjust blade guards to cover unused portion of blade
 - Never override or defeat a safety device
 - Use a 'V' block for cylindrical pieces
2. Starting the Machine
 - Ensure hands are away from the blade, and then turn the machine on
 - Turn on the coolant system (if applicable)
 - Wait for machine and coolant to come up to speed before beginning cut
3. Sawing Operation
 - Allow the upper head assembly to come down slowly until the teeth are cutting the material
 - Keep hands away from the point of operation during cutting
 - Turn off the machine and bring it to a complete standstill if the blade is to be lifted out of an uncompleted or jammed cut
 - Stop the machine and bring it to a complete standstill before removing scrap pieces from the vice area or making adjustments
 - Stop the saw immediately if the blade develops a 'click'. Report it to your teacher
 - Ensure the cutting head is locked in the upward position before removing work piece from vice
4. Shutting Down the Machine
 - Turn off the bandsaw and allow to come to a complete stop
 - Turn off the coolant system (if applicable)
 - Release and remove your workpiece
 - Clean the machine and work area

Post-Operational Checks

- Inspect the blade for wear or damage (missing teeth)
- Clean the machine as required
- Ensure the cutting head is locked in the upward position
- Report any issues or maintenance needs to the supervisor/instructor

Common Problems of Operation

- Machine does not power up
- Vise does not clamp
- Blade does not move, but saw powers up
- No coolant
- Blade jumps or tracks to one side
- Blade breakage
- Hydraulic dampener does not function

Safety Precautions

- Never leave the bandsaw unattended while it is running
- Make sure there is adequate coolant flow
- Keep hands and body parts away from the blade during operation
- Wear Personal Protective Equipment (P.P.E) such as safety glasses, safety goggles, face shields, proper clothing as appropriate
- No loose clothing, long hair, or jewelry is allowed in the shop
- Only operate the horizontal bandsaw after you have received instruction and permission from the teacher
- Be aware of the positions of the on/off switches and emergency STOP button
- See that the blade is off of the work before starting the cut
- Open the hydraulic dampener control slowly
- Never push down on the cutting head while it is cutting

Common Injuries Sustained

- Cuts and burns
- Entanglement of loose sleeves, long hair, etc.
- Crush injuries from unsupported material

Maintenance

- Always refer to the manufacturer's manual
- Regularly check and repair or replace damaged or worn equipment immediately
- Clean and lubricate the machine as required
- Keep a maintenance log for the machine
- Inspect the electrical cords for damage, cracked insulation, fraying, etc.
- Inspect the blade before use

Work Zones

- Typically, in front of the machine approximately 1 meter (3 feet) the length of the machine
- Work zone or area should be identified on the floor (i.e.: yellow paint or tape)
- Work zone or area should not be entered while operator is using the machine

Additional Information

can be found at, Ontario Council for Technology Education [SAFEdocs](#) and [ToolSAFE Videos: OCTE](#)

Westway Machinery [A Guide To Band Saw Blades](#)

Dake Corporation [Everything You Need To Know About Bandsaw Blades](#)

Canadian Center for Health and Safety [Metal Saws \(Cold\)](#)