

# BANDSAW

## Scope and Responsibilities

This standard operating procedure (SOP) applies to all personnel who operate and instruct on the safe operation and use the 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 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.



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
- Proper attire, close-fitting clothing and/or protective shop coat
- Closed-toed footwear (CSA Safety footwear is required on Co-Op placements in industry)

## Pre-Operational Checks

- Always refer to the manufacturer's manual
- Perform visual inspection of equipment prior to use, including any electrical cords for damaged prongs, cracked insulation, exposed wire, etc. (Damaged equipment must be locked out)
- Repair or replace worn or malfunctioning equipment immediately
- Ensure the work area is clean and free of obstructions, trip hazards and other materials
- Do not remove jammed cut off pieces until blade has completely stopped
- Maintain proper adjustment of blade tension, blade guides and thrust bearings
- Adjust upper guide to just clear workpiece
- Hold workpiece firmly against the table
- Always use a push stick
- Never allow your hands or fingers to come close to the bandsaw blade
- Verify that all guards are in place and secured properly
- Ventilation system (if equipped) is functional

## **Operational Steps**

1. Preparation
  - Make sure you have been authorized to use this piece of equipment - you have received training, passed the test, have demonstrated the safe use of this piece of equipment and have a safety passport signed
  - You are “shop ready” – trained, proper clothing, wearing required PPE, etc.
  - Perform a visual inspection to confirm the bandsaw it is suitable for operation
  - Refer to the manufacturer’s guidelines to adjust the blade guide assembly and prepare the machine
  - Make sure the zero-clearance insert is installed
  - All guards are in place and secured properly
  - Never override or defeat a safety device.
2. Starting the Machine
  - Turn on dust extraction system
  - Engage magnetic starter
  - Start the bandsaw and allow it to reach full speed before beginning the cutting operation
3. Cutting Operation
  - Holding the workpiece on the table, slowly and cautiously bring the workpiece into contact with the blade
  - Use a push stick or jig so your hands remain away from the blade
  - Use smooth, even movements to cut the workpiece
  - Avoid excessive preload pressure and cutting speed to prevent bog down and damage
4. Shutting Down the Machine
  - Turn off the bandsaw and allow the blade to come to a complete stop
  - If the bandsaw has a brake pedal, you may depress the pedal as well
  - Remove your workpiece and any offcuts once the blade has stopped completely
  - Turn off the magnetic starter and clean the machine and work area.

## **Post-Operational Checks**

- Inspect the bandsaw blade for wear or damage
- Lower the blade guide assembly so the blade is not exposed
- Clean the machine as required
- Replace guard for the next operator once machine is cleaned
- Report any issues or maintenance needs to the supervisor/instructor

## **Common Problems of Operation**

- Machine does not power up
- Exposed blade when cutting (Blade guide assembly not adjusted properly)
- Machine vibrates and makes noise
- Bandsaw blade does not track properly
- Blade wanders when cutting
- Burning of wood
- Excessive dust

## Safety Precautions

- Keep hands and body parts away from the blade during operation
- Keep guards in place and in working order
- Wear personal protective equipment (P.P.E) such as CSA approved safety glasses, safety goggles, and face shields, and proper clothing
- Wear protective hair covering to contain long hair
- Wear proper apparel. Do not wear loose clothing, gloves, neckties, rings, bracelets or other jewelry that may get caught in moving parts
- Check for damaged parts before the use of the tool. Components, parts, accessories, or guards that are damaged should be properly repaired or replaced. (Damaged and malfunctioning equipment must be locked out)
- Disconnect and lock out bandsaw before changing or fitting a blade or changing accessories
- Never leave the bandsaw unattended while it is running
- Keep work area clean and well lit
- Use face or dust mask if cutting operation is dusty or there is no dust extraction
- Secure work. Use clamps, a jig, or a vise to hold work when practical. It's safer than using your hand, and it frees both hands to operate tool
- Maintain a stable non-slip footing and your balance at all times
- Keep tools sharp and clean for best and safest performance
- Follow manufacture instructions for periodic service and maintenance (ie: lubricating and changing accessories)
- Use recommended accessories. Consult the owner's manual for recommended accessories
- Do not force a wide blade on a cut of small radius. Use relief cuts when cutting sharp curves
- Only operate the 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
- Consider the placement of the bandsaw in the shop so that bystanders are not walking by the user and coincidentally creating a hazard

## Common Injuries Sustained

- Cuts, lacerations, abrasions, slivers
- Entanglement of loose sleeves, long hair, etc.
- Inhalation of dust (no ventilation used)

## Maintenance

- Always refer to the manufacturer's manual
- Disconnect from power and lock out tag out when servicing or repairing machinery
- Inspect the electrical cords for damage, cracked insulation, fraying, etc.
- 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

## Work Zones

- Typically in front of the machine approximately 1 meter (3 feet) and 1 foot to the right
- Consider marking the floor designating operator work zone(s) or area (ie: yellow paint or tape)
- Only the operator shall be in the work zone while the machine is in use

## Additional Information

can be found at,  
Ontario Council for Technology Education [SAFEdocs](#) and [ToolSAFE Videos: OCTE](#)  
Landmark Tools <https://landmarktools.com/blogs/guides/how-to-use-a-bandsaw>

Canadian Center for Health and Safety

[https://www.ccohs.ca/oshanswers/safety\\_haz/woodwork/band\\_saw.html](https://www.ccohs.ca/oshanswers/safety_haz/woodwork/band_saw.html)