

BAND SAWS (PORTABLE AND STATIONARY)

Power tools require operator respect in specific ways. They must be used carefully and kept in safe operating condition, whether they are in the hands of a professional tradesman, an amateur do-it-yourselfer, or a vocational student. *The demands of safety apply to all.* The material presented here is a compilation of carefully selected safe use precautions as they relate to specific electric power tool CAUTIONS, WARNINGS and DANGERS. The purpose is to highlight the safe use of specific tools that have a potential of causing injury if ignored. The warnings and instructions on the power tool and in its operator's manual provide the best source of safety information for the tool. Read and understand the contents and follow the advisements of operator's manuals on each specific power tool and all related accessories. This is considered essential to the safe operation of any power tool. Review PTI's *Safety is Specific* publication for general power tool safety.

Band saws can be found in most professional tradesman and student vocational workshops. Band saws cut fast and accurately due to continuous tooth blade action and a slow-moving blade, which allows for more finesse and control.



Good Personal Safety is a Must

Following good safety practices when using band saws is a must. Make a habit of including safety in all your activities.

Choose the Right Tool and Blade

Choosing the correct tool and the proper accessory for your application can help to reduce the risk of serious injury. When used according to the manufacturer's instructions, the proper tool and accessory will make the job safer and faster.

- The diameter and the thickness of your blade must be within the capacity rating of your bandsaw. Incorrectly sized accessories cannot be adequately guarded or controlled.
- Use sharp blades. Damaged or dull blades could throw teeth, split, or snap, posing a serious injury risk. A sharp blade will tend to cut its way out of a pinching condition.
- Use clean blades. Buildup on the surface of the blade increases blade thickness and also increases blade friction.
- When installing or changing a blade, be sure the blade is aligned and adjusted properly, and the teeth are running in the right direction. Check blade tension regularly and carefully. This helps prevent blade breakage.
- Be sure the blade is properly seated on the pulleys of the band saw before starting.

Know your Workpiece

Take time to review your work and make sure that all necessary precautions have been taken before making a cut.

- Support long workpieces at the same height as the saw.
- Always place the workpiece securely in a vise or clamp when making cuts. Never make freehand cuts. Holding the workpiece by hand is unstable and may lead to loss of control.
- Never try to remove or clamp the workpiece while the blade is rotating.

Before Cutting...

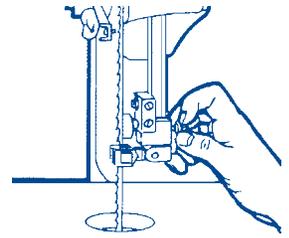
Before working with a bandsaw, make sure the tool and its accessories are in proper working order. Failure to do so can increase your risk of injury and result in blade or wheel pinching, binding, or stalling, and loss of control.

- Make sure the blade has adequate blade set. Blade set provides clearance between the sides of the blade and the workpiece, thus minimizing the probability of binding. Some saw blades have hollow ground sides instead of blade set to provide clearance.
- Be sure all guards are in place and working properly before each use. Do not defeat guards.
- Never attempt to cut materials larger than the rated capacity listed in the band saw operator's manual, as this may result in personal injury. Always check maximum operating speeds established for blades against band saw speed.



Stationary Band Saw:

- Adjust the blade guard, upper blade guide and thrust bearings so only the necessary length of the blade is exposed. The upper blade guide should just clear your workpiece. This will prevent blade breakage and ensure a smooth cut.
- Close the saw blade access cover. Contact with the moving parts may result in serious injury.



While Cutting ...

Concentrate on what you are doing and be aware of kickback (a sudden reaction to a pinched, bound or misaligned blade). Kickback can cause an uncontrolled handheld tool to lift up and out of the workpiece toward the operator and is the result of tool misuse and/or incorrect operating procedures or conditions. Take these specific precautions to help prevent kickback when using any type of band saw:

- NEVER overreach! For maximum control, hold a portable bandsaw firmly with both hands after securing the workpiece.
- Operate the bandsaw at the proper speed for the application.
- When you start the saw, allow the blade to reach full speed before the workpiece is contacted.
- Be alert to the possibility of the blade binding and kickback occurring.
- Keep your hands away from all cutting edges and moving parts.
- Keep hands and body away from and to the side of the blade. Contact with blade will result in serious injury.
- Never remove the saw from a cut while the blade is rotating. When making a partial cut, or if power is interrupted, release the switch immediately and don't remove the saw from the work-piece until the blade has come to a complete stop. A saw tooth could grab the workpiece, causing loss of control.
- Release the switch immediately if the blade binds or the saw stalls.
- Switch the tool off after a cut is completed, and keep the saw away from your body until the blade stops. The blade may coast for a time, posing the risk of serious cuts.
- Overheating a saw blade can cause it to warp and result in kickback. Buildup of sap on the blade, insufficient blade set, dullness, and unguided cuts, can all cause an overheated blade and kickback.
- Hold the band saw straight in the cut. Any twisting or cocking of the blade results in shorter blade life. If the blade makes a clicking sound as it passes through the workpiece, it is probably damaged. Stop the saw; inspect and replace the blade if damaged.

Portable Band Saw:

Do not bear down on the blade while cutting. The weight of the band saw will supply adequate pressure for the fastest cutting. Too much pressure will slow down the speed of the blade and reduce cutting efficiency.

Stationary Band Saw:

Do not make curved cuts with too small a radius for the width of blade being used. Use rip fence when resawing. This can also cause unnecessary binding and possible blade breakage. Be attentive to thin cut-off pieces hitting the end of the slot in the table or jamming in the slot. Use a push stick to free workpieces. Never place your fingers in line with the blade.

When Done...

Unplug or remove battery, clean and store the tool in a safe, dry place after use.

Always Remember...

Be alert at all times, especially during repetitive operations. Don't be tempted into carelessness due to a false sense of security. Blades are extremely unforgiving.

- Be aware that workpieces and other work fragments are hot and could cause fires or burns. Never touch a workpiece until it cools. Let the blade cool properly before changing.
- To reduce the risk of injury, always unplug or remove the battery from the tool, when moving from a workstation.
- Never use liquid coolants to lubricate your band saw. Liquid coolants can increase the risk of electric shock and may cause damage to the saw.
- Do not overfill the gear chamber with lubricant. Any excess pressure in the chamber will force lubricant into the motor and may result in damage to the band saw.

NOTICE

The contents are not meant to be, nor should they be considered, an absolute or complete presentation of the safety measures and procedures that relate to using the power tools covered. Obviously every possible application cannot be foreseen. This brochure's purpose is to highlight only some important safety and safety related information compiled from the experience of Institute members and other reliable safety oriented sources. Individual manufacturers' tool operator's manuals, shipped with tools and accessories, are recommended as a final source for proper procedures for specific tool usage.