

All power tools can be dangerous if both general and tool specific safety instructions are not followed carefully. General safety instructions apply to all power tools, both corded and cordless.

## Start with a Safe Work Area



Keep your work area clean and well lit. Cluttered benches and dark areas invite accidents.



Do not operate power tools in explosive atmospheres, near flammable liquids, gases, or dust. Power tools create sparks, which may ignite the dust or fumes.

- Keep bystanders, children, and visitors away when using a power tool. Distractions can cause you to lose control.



## Electricity can be Dangerous

Grounded tools (three pronged cords) must be plugged into a properly grounded installed outlet. Never remove or cut off the grounding prong or modify the plug in any way. Do not use any adapter plugs.



Double Insulated tools have a polarized plug (one blade is wider than the other.) This plug will fit into an outlet only one way. Do not change the plug in any way.



Do not use AC only rated tools with a DC power supply.



Store battery packs away from other metal objects like paper clips, coins, keys, nails, screws, or other small metal objects. These things can make a connection from one terminal to the other, shorting the battery terminals together and causing burns or fire.



- When using a power tool, don't touch grounded surfaces such as pipes, radiators, ranges and refrigerators. There is a higher risk of electric shock if your body is grounded.

## GFCI

In damp locations, only plug your tool into a Ground Fault Circuit Interrupter (GFCI). If the work area does not have a permanent GFCI on the outlet, use a plug-in GFCI. Wear rubber gloves and footwear.



Don't use or leave power tools in the rain or wet conditions.



Do not abuse the cord, carry the tool by its cord, or pull the cord to unplug it. Keep the cord away from heat, oil, sharp edges or moving parts. Replace damaged cords immediately.



Always hold the tool by the insulated gripping surfaces. Contact with hidden wiring or its own cord will make exposed metal parts of the tool "live" and shock the operator.

## Rules about Extension Cords

- When using a power tool outside, use an extension cord marked for outdoor use with "W-A" or "W". These cords are made for outdoor use.
- Extension cords with 3-prong grounding plugs must be plugged into 3-prong outlets when using grounded tools.
- Replace damaged or worn cords immediately.

## Amps

The wire gauge and length of the extension cord must be able to handle the amps of the tool. Find the Amps (A) on the tool's nameplate and use the chart to determine the necessary wire gauge for your extension cord length.

Nameplate Amps	Extension Cord Gauge			
	Cord Length in Feet			
	25'	50'	100'	150'
0-6	18	16	16	14
6-10	18	16	14	12
10-12	16	16	14	12
12-16	14	12	Not Recommended	

## Good Personal Safety is a Must

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



Always read and understand the tool's operator's manual, tool markings and the instructions packaged with the accessory before starting any work.

- Stay alert, watch what you are doing and use common sense when using a power tool.



Do not use tools when you are tired or under the influence of drugs, alcohol, or medication.

- Dress right. Do not wear gloves, loose clothes or jewelry. Contain long hair. Loose clothes, gloves, jewelry, or long hair can be caught in moving parts.
- Keep handles dry, clean and free from oil and grease.
- Be sure the power tool's switch is OFF before plugging it in or inserting a battery pack. Do not carry tools with your finger on the switch.



Remove adjusting keys and wrenches before turning the tool ON.

- Always keep a firm footing when using power tools. Be sure you have balance and control before you start the job.



Use safety equipment. Always wear eye protection. A dust mask, non-skid safety shoes, hard hat, or hearing protection must be used when needed. The reference to “safety goggles” or “safety glasses” in product specific sections provides potential options - always refer to the tool’s operator’s manual for the specific eye protection recommended, which should be marked as complying with current national standards.

- Unplug tool/remove battery before changing accessories.



Keep hands away from rotating or moving parts.

### Do the Job Safely

- Use the power tool accessories only for the jobs for which they were designed.



Secure and support the workpiece. Use clamps and a stable work surface. Do not hold the work by hand or against your body.

- Keep guards in place and working properly.
- Do not force the tool. Use the right tool for your job. It will do the job better and safer.
- Use only accessories recommended by the tool manufacturer. Accessories that may be suitable for one tool may become hazardous when used on another tool.



Do not touch the drill bit, blade, cutter or the workpiece immediately after operation; they may be very hot and may burn you.

- If a method of dust collection is available with the power tool, it should be used to reduce the risk of dust-related hazards.

### Maintenance Keeps Tools Working Safely and Effectively

- Do not use a tool if the switch does not turn it on and off. It must be repaired.



Look at the tool before using it. Are moving parts misaligned or binding? Is anything broken? Damaged tools must be fixed before using them. Develop a maintenance schedule for your tool.

- Maintain accessories carefully. Keep blades and bits sharp and clean.
- Take your tool to be serviced by qualified repair people. Service or maintenance performed by unqualified personnel could result in a risk of injury. For example: internal wires may be misplaced or pinched, safety guard return springs may be improperly mounted.
- When servicing a tool, use only identical replacement parts. Follow instructions regarding maintenance in the tool’s operator’s manual. Use of unauthorized parts or failure to follow the maintenance instructions may create a risk of electric shock or injury.
- Clean and lubricate a tool only as directed in its operator’s manuals. Certain cleaning agents such as gasoline, carbon tetrachloride, ammonia, etc. may damage plastic parts.
- Maintain labels and nameplates. These carry important information. If unreadable or missing, contact the manufacturer for a replacement.

### When Done, Store the Tools out of Harm’s Way



To avoid accidental starting, unplug the cord, remove batteries or lock off the switch when the tool is not being used, when changing accessories, and when adjusting or cleaning tools.

- Keep tools out of the reach of children and people unfamiliar with the tools.

## Band Saws (Portable and Stationary)

Band saws can be found in most professional tradesman and student vocational work shops. 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.



Always read and understand the tool's operator's manual, tool markings and the instructions packaged with the accessory before starting any work.



Always wear safety goggles or safety glasses with side shields complying with current national standards, and a full face shield when needed.



Use the appropriate mask or respirator in dusty work conditions.

Wear proper hearing protection, as needed.

- Dress right. Do not wear gloves, loose clothes or jewelry. Contain long hair. Loose clothes, gloves, jewelry, or long hair can be caught in moving parts.
- Crowded, cluttered work areas that can cause tripping or loss of balance are particularly dangerous.
- Never alter a guard or use the tool with a guard missing. Be sure all guards are in place and working properly before each use. Do not defeat guards.

### 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 do the job safer and faster.



Use sharp blades. Damaged or dull blades could throw teeth, posing a serious injury risk. A sharp blade will tend to cut its way out of a pinching condition.

- When installing or changing a blade, be sure the blade is aligned 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.
- Use clean blades. Buildup on the surface of the blade increases blade thickness and also increases blade friction.

### 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 machine 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.

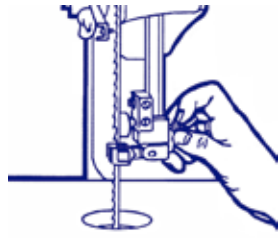
- Make sure the blade has adequate blade set. Blade set provides clearance between the sides of the blade and the workpiece, thus minimizing the probability of binding. Some saw blades have hollow ground sides instead of blade set to provide clearance.



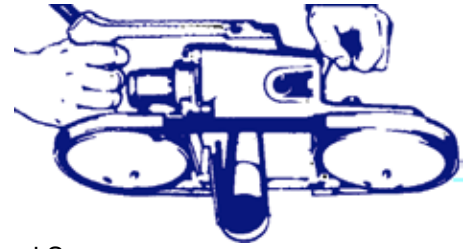
- Be sure all guards are in place and working properly before each use. Do not defeat guards.
- Never attempt to cut materials larger than the rated capacity listed in the band saw operator's manual, as this may result in personal injury. Always check maximum operating speeds established for blades against 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 assure a smooth cut.



- 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 defective. Stop the saw; inspect and replace the blade if necessary.



## 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 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! Always, hold the saw firmly with both hands after securing the workpiece.

- 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.



Never reach under the saw or workpiece. The blade is exposed under the workpiece and the saw guard cannot protect your body here.

- 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 workpiece 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.

## 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. 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, 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 the saw 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.