

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.

Metal Cutting Saws (Portable)

Hand-held metal cutting saws take chips or shavings out of metal workpieces. Metal cutting saws are not recommended for all types of metals and metal thicknesses. Refer to the saw's operator's manual for specific recommended applications.

Good Personal Safety is a Must

Following good safety practices when using metal cutting 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.



Wear gloves when handling the workpiece after the cut. The workpiece may be hot and have sharp edges.

- Dress right. Do not wear loose clothes or jewelry. Contain long hair. Loose clothes, 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.



Do not use near flammable liquids or in explosive atmospheres, near fumes, gases or dust. The hot chips or shavings and sparks may ignite the dust or fumes. Remove materials or debris that may become ignited from work area.

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 for use, the proper tool and accessory will do the job safer and faster.

- Do not use a metal cutting saw that is too heavy for you to easily control.



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.



Use the correct blade for your tool. Check this carefully: Does it have the proper size and shape arbor hole?

RPM

Make sure the speed marked on the blade is at least as high as the no load RPM marked on the tool.

- Never use damaged or incorrect blade flanges or bolts.

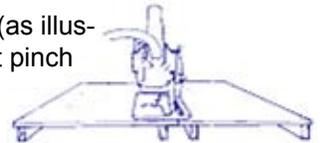


Do not use any type of abrasive cut-off wheel or dry diamond cutting blades.

Know your Workpiece

Take time to review your work and make sure that all necessary precautions have been taken before making a cut. Metal cutting saws are used to cut a variety of materials, each having its own specific setup requirements.

- Support large panels (as illustrated) so they will not pinch the blade.
- Avoid cutting small workpieces that can't be properly secured, and workpieces on which the base of the saw (shoe) cannot properly rest. Injury could result from small pieces being thrown back at the operator if the blade pinches and binds.



Do not use cutting oils or lubricants. Liquids can damage the saw, causing an electrical hazard.



Know what is behind a workpiece before you do the job. Do not cut into existing walls or other blind areas where electrical wiring, water, or gas pipes may exist. If this situation is unavoidable, disconnect all fuses/circuit breakers, and shut off any water and gas lines feeding this work site.

Before Cutting...

Before cutting with a metal cutting saw, make sure the tool and its accessories are in proper working order. Failure to do so may increase your risk of injury and may result in kickback, blade pinching, binding or stalling, and loss of control. These situations may cause the saw to jump back at the operator and can result in a serious injury.



Check blades carefully before each use for proper alignment and possible defects. Never use a bent, broken or warped saw blade.

- 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.

Blade Set



- Be sure the blade flanges (washers) are correctly assembled on the shaft and that the blade is properly supported.
- Check for proper blade guard operation before each cut. The guards should return to their normal position quickly. If a guard seems slow to return or “hangs up”, repair or adjust it immediately. Never alter or defeat the guard (e.g., tying back or removing the guard).
- Be sure the tool switch works properly. Do not use a tool if the switch does not turn it off when returned to the off position.
- Tighten depth levers securely.
- The lower guard should be pulled back manually only for special cuts such as “Pocket Cuts” and “Compound Cuts”. Raise the lower guard using the lower guard lever. As soon as blade enters the material, release the lower guard.

- Set blade depth to no more than 1/8 in. to 1/4 in. greater than the thickness of the material being cut.



- Minimize blade pinching by placing the saw shoe on the clamped, supported portion of the workpiece, and allowing the cut off piece to fall away freely.
- When you start your 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.



If a fence or guard board is used, be certain the blade is kept parallel with it.

- 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.



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

- Release the switch immediately if the blade binds or the saw stalls.
- Turn off the tool 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. Insufficient blade set, dullness, and unguided cuts, can all cause an overheated blade and kickback.

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 metal cutting saw:



Before starting a metal cutting saw, be sure the power cord and extension cord are out of the blade path and are long enough to freely complete the cut. A sudden jerk or pull on the cord can cause loss of control of the saw and a serious accident.



Clamp workpieces securely. Check frequently to be sure clamps remain secure. A moving workpiece can cause loss of control and result in injury.

- Never hold a workpiece in your hand or across your leg when sawing.
- Do not use cutting oil. The use of cutting oil may cause a fire.



Keep hands away from cutting area and blade. Keep your second hand on other saw handle or motor housing. If both hands are holding the saw, they cannot be cut by the blade.

- NEVER overreach! For maximum control, hold the saw firmly with both hands after securing the workpiece.

When Done...



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



Some metal cutting saws have chip or shaving collectors that must be emptied. Chips and shavings will be hot immediately after being cut. Wear gloves when handling. Always unplug the saw before emptying the container. Do not dispose of chips and shavings in receptacles containing flammable materials such as paper or wood. NEVER operate saw when guards and chip container are not installed. Serious injury may occur.

