
Circular Saw Safety

Prof. Vicki V. May / January 2021

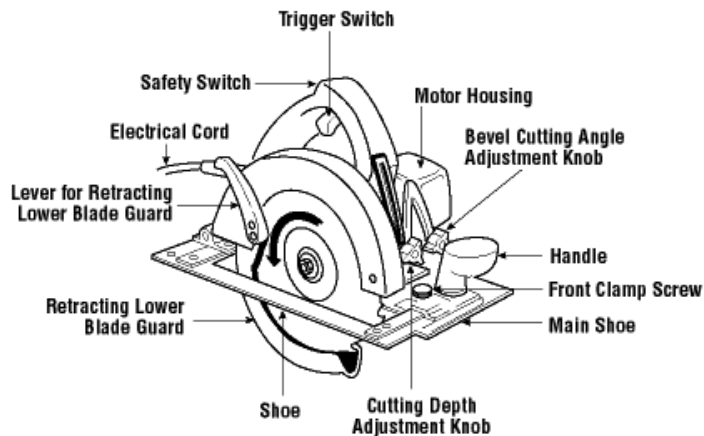
Adapted from material from Yale Environmental Health & Safety
(<https://ehs.yale.edu/shop-tool-safety>) and from M-Shop

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Overview

A circular saw is an electric saw that turns a round, flat blade to cut wood, metal, or plastic depending on the blade selected. Circular saws have a handle with on/off trigger switch, an arbor nut to hold the blade in place, and guards to protect the operator from touching the spinning blade. In addition, circular saws have height/depth and bevel adjustments.



https://www.ccohs.ca/oshanswers/safety_haz/power_tools/saw_circ.html

How to use a Circular Saw (woodworkweb.com video; 11:11min):

<https://www.youtube.com/watch?v=dRau7aaR2c4>

It is especially important to wear eye protection when operating an electric circular saw. To safely use a circular saw, select the blade appropriate to the job, firmly attach it to the saw using the arbor nut, then adjust the sole plate for proper height and bevel for the job. When ready to cut, plug the saw into an electrical outlet, firmly hold the handle, align the blade near (not touching) the mark to be cut, press the safety switch, then press the trigger switch. Slowly follow the cut mark. When nearly done, make sure the end of the wood being cut is held and will not splinter due to the unsupported weight. For safety, remember that the teeth are sharp and should not be placed on surfaces that they could damage.

Safety Guidelines

1. Wear eye protection, hearing protection, and proper clothing.
2. Do not wear loose fitting clothes, puffy or loose knit sleeved clothing.
3. Long hair must be tied back or managed in a net or hat.
4. Obtain permission from instructor to operate miter saw.
5. Use only sharp blades of the proper type for the job.
6. Be sure blade is correctly installed in the saw. Make certain power is off and properly disconnected before removing blade.

7. Keep all cords clear of cutting area.
8. Stand to the side when cutting to avoid potential kickbacks. Don't overextend—move your feet so that you are always balanced and in full control.
9. Check the blade for sharpness—sharp blades work better and are safer.
10. Check the cutting surface for metal objects like nails or screws.
11. Set the cutting depth as shallow as you can and don't allow the blade to protrude more than 0.3 cm (1/8") below the wood being cut.
12. While you can use a circular saw with just one hand, always use with both hands for maximum control. This also requires you to clamp down work pieces so that they don't move while you are cutting them.
13. Some workers alter the lower guard by tying or wedging it open. Do not do this—rather leave the guard to pivot so that the blade is always safe.
14. Do not use a saw that vibrates or appears unsafe in any way.
15. Do not force the saw during cutting.
16. Always wait for the blade to stop moving before setting the saw down on your work surface. Getting a circular saw with a blade brake will reduce your wait times.
17. Ensure that the blade will not cut through surfaces that shouldn't be cut; either use a scrap piece of wood underneath or elevate the wood to be cut.

Competencies (<https://ehs.yale.edu/>)

	Demonstrated Independently	Demonstrated with Assistance	Did Not Demonstrate
Performance Competency - Did the student...			
Dress appropriately and wear appropriate personal protective equipment for the cutting operation (eye and hearing protection, hair pulled back or in a hat).			
Identify and describe all controls, adjustments, and functions of the circular saw.			
Correctly setup and adjust the circular saw for all types of required cuts (blade depth and body position).			
Apply good judgment in selecting clamping/securing method for the work piece and accurately position work piece for cutting operation.			
Cut several pieces of wood (of different sizes) appropriately.			