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| #1 Process (if applicable) | Rip cut or cross-cut wooden materials at 90 degree angles or at mitered angles with use of a guide.  |
| #2 Equipment | Circular Saw. DeWalt DCS570. |
| #3 Personal Protective Equipment (PPE) | Safety glasses, respiratory protection, and hearing protection, plus minimum shop PPE. |
| #4 Environmental /Ventilation controls. | Ensure that blade guard fully shields the blade. Connecting a dust collection system is difficult; Ensure that you have a properly fitting dust mask and have a shop vacuum available for cleaning after finishing cuts.  |
| #5 Required training or approval  | * Complete Woodshop Training with Fabrication Research Lab Manager and be checked off as trained on the circular saw.
* Complete power tool safety EH&S training. Contact lab manager for more information.
* Review and observe general safety practices outlined in the Fabrication Research Lab Woodshop Training form.
* Refer to the manufacturer’s operating manual for all operating procedures.
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| #6 Inspection requirements before use | * Make sure the blade is at the angle desired while machine is properly unpowered (i.e. battery removed). Blade should be at 90 degrees from horizontal for square cuts. Check with a square.
* Ensure blade guard is in good condition and retracts/extends as intended.
* Ensure all body parts, clothing, hair, jewelry and other objects are clear of the work area and other moving parts before starting the machine.
* Check that the blade is secured properly.
* Ensure no wrenches/keys left in machine.
* Check the area to be sure people are alert and wearing PPE.
* Ensure all work holders, clamps and vices are tightened enough to hold the stock while working.
* Ensure all adjusting knobs and levers are fully tightened before starting the saw.
* Confirm that, while cutting, the stock is fully supported and will not pinch the sawblade, which may cause kick-back.
* Install battery and ensure it is fully seated once all other inspections are complete.
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| #7 Safe operating procedures or precautions | * Stand to the side, never directly behind the blade, and ensure that you have good arm positioning to better control/prevent being hit by the saw during a potential kick-back event. Maintain a firm grip.
* Do not reach over the tool to gain access to the front of the tool.
* Do not force the tool. Allow it to work at its own pace.
* Avoid covering air vents on the tool.
* Before cutting, adjust the saw depth so that only half a tooth sticks below the workpiece.
* When making a blind cut (does not extend through both ends of the material), always allow the saw to come to a complete stop before lifting it out of the cut.
* When making a full through-cut, push the saw fully through and out of the material before letting off of the power. This will ensure the cut is finished and will allow the blade guard to cover the blade while the saw blade coasts down to a stop.
* Never hold the workpiece ‘cross-handed’ over the device (i.e. holding the work piece with your left hand on the right side of the saw/workpiece).
* Never place your fingers below the material where they may be exposed to the unguarded blade.
* When cutting, keep your off-hand on the auxiliary handle.
* Ensure that the piece to be cut is free of any nails, staples, or other foreign objects before cutting.
* DO NOT attempt to cut curves with this saw. Only straight cuts may be made.
* DO NOT twist the saw while engaged with material, such as to get back on track of a line. Always use a straight edge or rip fence when cutting. This will keep your lines much more accurate.
* Never place your fingers closer than six (6) inches from the blade.
* Before each new cut, move the unpowered saw through a simulated cut to ensure no obstacles are in the path.
* Ensure that workpieces are fully supported! Use saw horses as supports to ensure that the piece does not tip during or after the cut. Do not use another person as a support for material.
* Avoid situations where unsupported workpieces may fall in on the blade and pinch it. This is a kick-back hazard.
* Ensure that the piece is secured and will not shift during the cut. Use clamps where necessary.
* Always use a clamp or fixture when cutting round stock.
* Always ensure that the blade reaches full speed before taking a cut. Do not start the blade while it is engaged with material.
* Only retract the blade guard manually (via the retraction lever) if doing special cuts, such as a plunge cut. Immediately let go of lever once the blade has entered the material.
* Do not stop the rotation of the blade or any rotating or moving machinery parts by hand.
* ALWAYS disconnect from power before doing adjustments and/or changing accessories.
* If the blade becomes pinched, let off on the power immediately. Once blade has fully stopped, remove from workpiece. If force is required to remove it, remove the battery first.
* Do not leave tools or excess pieces of stock on the work surface.
* Stop the machine immediately if odd noise or excessive vibration occurs.
* Always use the proper blade for the saw. There are two arbor types: Diamond-shaped and round. Using the wrong blade will cause it to run out of control.
* Use the proper saw blade for the material being cut. Consult the manufacturer’s recommendations or discuss with the lab manager. Use sharp saw blades and replace when necessary. Dull blades with chipped or broken teeth must be removed from service.
* Disconnect the circular saw from power source and follow lock out/tag out procedures or manufacturer’s instructions for making repairs or servicing. Always connect with the lab manager if machine needs repair.
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| #8 Chemicals/ spill procedures/waste disposal | Avoid saw dust build up and clean as you go to prevent an unsafe work environment. Check the dust collection system and make sure it is properly maintained and sawdust is removed frequently. |
| Author Signature: Date:  |