WOOD 1: SAWS AND SANDERS

This guide briefly highlights equipment and protocol covered in Wood 2 and Wood Foundations. For a more thorough review of each machine, refer to the Wood Shop Safety Manual located on the door to the dust collection room.

When bringing rough lumber into the shop for milling, or making it flat and squared to specific dimensions, the order of operations is the Jointer to get a flat face and square edge, Table Saw to rip a parallel edge and bring to final width, and Planer to mill a parallel face and bring the material to its final thickness. Any joinery or further milling of profiles will be cut at the router table or other tools.

With all of these machines, follow the “3 points of contact” rule throughout a cut:
1. Hands - Keep at least one hand on the material at all times.
2. Table - Keep the material flat against the table.
3. Fence - Keep the material flush against the fence (where applicable).

OPERATING THE DUST COLLECTION
The table saws, planer, jointer, miter saw, and sanders are all connected to an external dust collection system through a series of hoses. A blast gate is located near each of these machines.

- Before use, open the blast gate. Go into the dust collection room and turn on the dust collector by pressing the small ON/OFF button as pictured here.
- When you are finished, turn off the tool, and close the blast gate.
- Turn off the dust collector if no one else is using it.

OPERATING THE TABLE SAW
The Wood Shop has two SawStop table saws which can be used for making ripcuts and crosscuts in a range of solid and wood-based composite materials. One saw is set up with a dado set at all times. All stock must have at least one flat edge and one flat face to use the table saw, any may require being milled on the jointer or planer beforehand. (Members must be certified in Wood 2 to use the milling equipment)

- Only cut non-conductive materials. See wood identification poster above miter saw for reference. **Pressure treated wood and mirrored acrylic are banned from this machine.**
- **CHECK FOR NAILS** when using reclaimed wood and have a tech double check.
1. Make sure the correct blade is installed for the type of cut you’re making. Ask a tech to change it for you if needed.
2. Check the work area and plan your cut. Make sure no one is behind you, and have a push stick handy if needed.
3. Using the wheel in the front of the saw, raise the blade so it will be a tooth above your workpiece.
   If using the fence, **make sure it is clamped to the rail by pushing the lever down.**
4. Start with your material in front of, not on, the throat plate. NEVER power on the saw while the blade is touching the material.
   With longer boards, lift from the back to create a downward pressure towards the front that is feeding into the saw, otherwise the board will lift on the blade.
5. **Never perform any operation freehand.** Always use the fence, miter gauge, sled, or a jig.
6. Keep a hand or pushstick on the material at ALL times. Do not back out of a cut.
7. When rip cutting narrow stock, hold your board in place with your left hand and use a push stick in place of your hand, on the fence side, with your right hand. Once the push stick is engaged, completely remove your left hand away from the blade and material.
8. Turn off the saw using your knee and wait for the blade to stop to remove your boards.
9. **Thoroughly clean the machine and surrounding area immediately after each use.**
   Sweep off the table and floor and vacuum up any remaining debris.
OPERATING THE MITER SAW
The wood shop has a compound sliding miter saw which cut boards width-wise. Angles can be cut vertically and horizontally. To unlock the blade, while pressing down the saw's handle, pull out the pin, located to the left under the motor.

Sweep the work area, table and floor, after use. Cut offs go in the scrap bin or trash can.
1. Secure material so that it is flush against the metal fence, using clamps, or your hand if the material is large enough to hold at a safe distance - with fingers at least 6” from the blade.
2. Pull the trigger while hovering blade above work piece (never engage the trigger while the blade is touching the wood).
3. Sink the blade straight downwards and fully into the workpiece and push blade towards the fence. Take your time, never force a cut.

OPERATING THE BAND SAW
The band saw is a versatile saw for free hand cutting of curves, angles, and straight cuts. Wear safety geared--glasses at a minimum.

Clean up after each use, vacuum both above and below the table and the surrounding floor.

Raising and Lowering the Blade Guard
1. Loosen the blade guard adjustment knob located directly to the right of the handwheel, on back of the machine.
2. Turn the handwheel on the narrow side of the machine to raise or lower the blade guard.

Cutting
- Turn the saw on by first releasing the E-Stop with a light twist to the right. Then press the green button.
- When cutting curves, use the “relief cut” technique, and make shallow, straight cuts bit by bit (but, don’t back out of a cut deeper than 3” into the material). Take your time. Be sure to smoothly and continuously feed the board forward, with the blade, as you turn the material along the curve.
- Only cut material with a fully flat face against the table. Do not cut round, unstable objects.

OPERATING THE STATIONARY SANDERS
These machines include disk, vertical, oscillating belt, and spindle sanders. They are used for sanding solid or composite wood. Adjustments can be made to the table angle or spindle size. If you are unsure how to make an adjustment, ask a Tech for help.
1. Turn on the dust collector and open the blast gate for each sander when in use.
2. Wear safety gear: glasses and a dust mask are highly recommended for sanding.
3. Position piece flat against the table. For the disk sander, sand on left side of table only.
4. Use both hands to maneuver piece and keep them 6” away from the sanding surface.
5. Clean up the table and work area with a broom or shopvac, close the blast gate and turn off the dust collector unless you know someone else is using it.

OPERATING THE DRILL PRESS
The drill press is used for making clean, uniform holes in solid or composite wood. Open Works provides forstener, chisel tipped, paddle, and brad point bits for member use.
- Wear safety gear, glasses at minimum.
- Always use a wasteboard and clamp material securely to the table.
- When drilling, raise the bit intermittently to release heat and chips.
- Clean up chips on the table and floor after use.

Adjusting Table Height
1. Loosen clamping lever behind the post of the machine. This allows the table to move along the toothed “rack”.
2. Turn the handle on the right side of the post clamping lever behind the post to raise or lower the table. Once adjusted, tighten the clamping lever before drilling.