

Hand and Portable Power Tools Safe Operation

This procedure covers the operation of hand tools, cordless/corded hand drills, jigsaws, palm sanders, and routers.

General Safe Operating Procedures

1. Operate only after you have been certified and have received instruction.
2. Follow all Workshop Safety Practices. Proper personal protection equipment is required.
3. All materials should be inspected for defects such as warps, knots and foreign objects.
4. Never use excessive force on the power tool.
5. Disconnect the plug from the power source and /or the battery pack from the power tool before making any adjustments, changing accessories or storing power tools.
6. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation.
7. Make sure all guards are in place and operating properly.
8. Use the power tool, accessories and tool bits etc., in accordance with these instructions and in the manner intended.
9. Use hand tools in accordance with these instructions and in the manner intended, i.e. a screwdriver is not a chisel or a hammer.
10. Do not abuse the cord. Never use the cord for carrying, pulling, or unplugging the power tool.
11. Do not carry tool with your finger on the trigger.
12. Remove any adjusting key or wrench before turning the power tool on.
13. Make sure the switch is in the off position before plugging into the power source.
14. Do not overreach. Keep proper footing and balance at all times.
15. Unplug the equipment before starting cleanup.
16. Return all tools and accessories to their proper storage location.
17. ALWAYS clean up all debris from your project work.

Cordless/Corded Hand Drill Safe Operating Procedures

1. Stock being bored should be secured to a work bench or other structure.
2. Use the proper bit for the material. Do not use hole saw bits with hand drills. Use the drill press for this work.
3. Any damage to the battery pack should be reported to the instructor immediately.
4. Do use power from the drill to tighten keyless chucks. Hand tighten only.



Jigsaw Safe Operating Procedures

1. Always clamp work piece to the bench or stable platform making sure the bench is clear of the cutting path.
2. Verify blades are sharp and never use dull blades.
3. Should a jigsaw get stuck in a material while cutting, you should stop the saw, unplug it and safely remove the blade. Clean out the kerf (slot that the jigsaw has cut) and start again.
4. Allow tool to come to a complete stop before withdrawing blade from the kerf. A moving blade may come into contact with the work piece causing a broken blade, damaged work piece, or loss of control and result in injury.



Palm Sander Safe Operating Procedures

1. Do not use sandpaper that is larger than needed. Extra paper that extends beyond the sanding pad can cause serious lacerations.
2. Never operate this tool with perforated paper unless the dust collection bag is in place. The perforations allow dust to be transferred to the dust collection bag.
3. Never use the sander for wet sanding. Using this tool for this purpose could cause electric shock.
4. Sanding of lead based paint is not allowed due to the difficulty of controlling the contaminated dust.
5. Empty the dust collection bag regularly.
6. A dust mask or respirator should be worn by all persons entering the work area.
7. Do not operate the sander for extended periods of time as the vibrations can cause nerve damage to fingers, hands and arms.



Router Safe Operating Procedures

1. Check you bit frequently to ensure safe operation. Be careful the bit could be hot!
2. Make all bit changes and adjustments with the power supply to the router disconnected.
3. When changing a bit in a router, before beginning operations:
 - a. Be sure the bit is inserted a minimum of 5/8" and the collet chuck is tight and secure.
 - b. Rotate the spindle completely by hand to ensure bit is seated
4. Make sure the work piece is securely fastened and the travel area of the router is free of any obstructions. When routing edges using a pilot guide you route in a counter- clockwise direction.
5. Make a trial cut in a similar piece of stock first.
6. Remember this rule of thumb: harder the material the slower the speed
7. Carefully hold the router firmly with both hands and apply constant cutting pressure. Do not force or jam the cutting bit into the work piece. Guide the router slowly through the stock and let the machine do its work.
8. When finished, move the cutter away from the stock, turn off the router and wait for it to come to a complete stop before laying the tool down.

