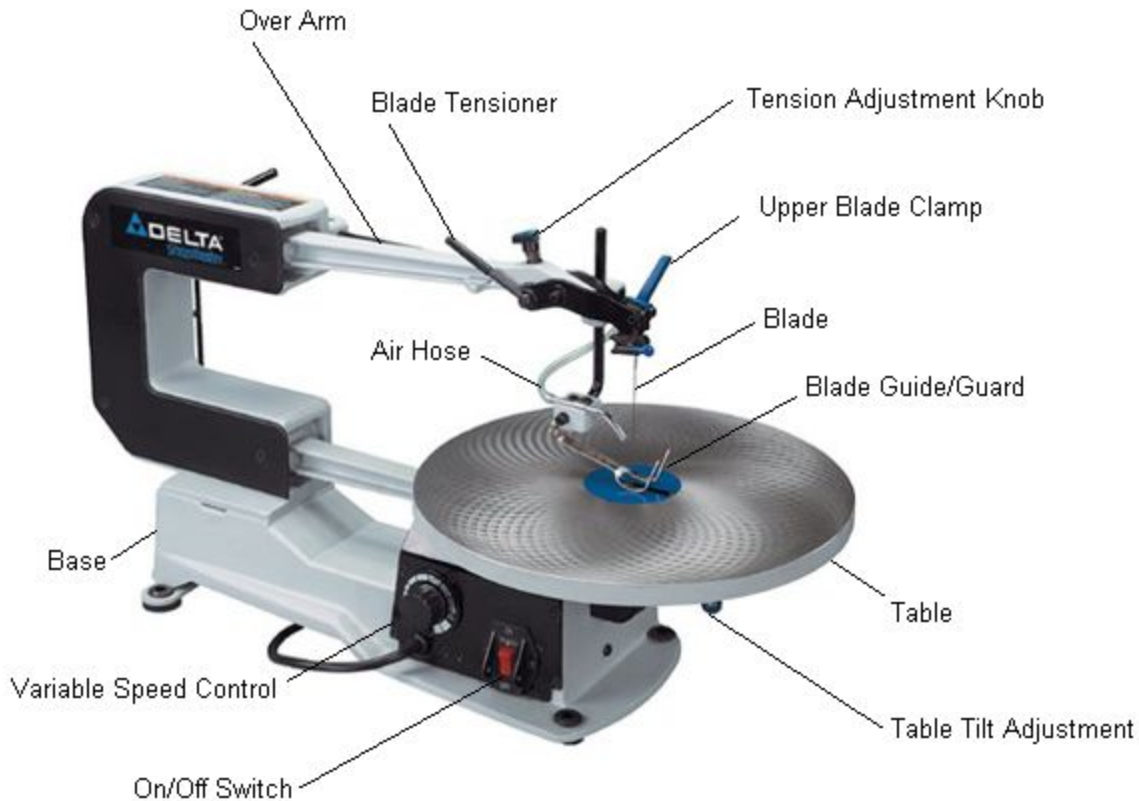


Scroll Saw

A scroll saw is an electric saw useful for cutting intricate curves where a jigsaw or coping saw is not appropriate. It is somewhat similar to a band saw. The band saw blade is a continuous loop and the scroll saw blade is similar to those used by a coping saw and operates through a quick reciprocating up and down motion. The scroll saw is typically one of the safest tools in the classroom, but should still be treated with respect when it comes to operating the tool safely.

Safety

1. Always get permission from the instructor before using this machine.
2. Never perform layout, assembly or set-up operations on the table/work area of the machine when it is running.
3. Always check stock for foreign objects, such as nails, staples rocks, etc. before starting the operation.
4. Safety glasses or a face shield must be worn while using this machine. Check with the Instructor to see if ear protection is required as well.
5. If you are in doubt about the operation of this machine, ask your instructor for help.
6. Make all adjustments with the power off.
7. Ensure that the dust collector is working properly, and that the blast gate is open, prior to starting the machine.
8. Make sure the blade is the proper type for the cut you are planning.
9. Keep upper guide within 5mm (1/4") from the material being cut.
10. Insert the blade with the teeth pointing forward and down to the table.
11. Maintain the proper blade tension.
12. Plan your cuts carefully. Saw curves gradually. Sudden twists will cause the blade to bind or break. Use relief cuts if necessary.
13. If the blade breaks, turn the power off immediately and step back. Inform the teacher immediately.
14. Never start the machine before clearing the table of everything but your workpiece.
15. Keep your hands beside or behind the blade. Never in front or in the path of the blade.
16. Do not cut a workpiece that does not have a flat bottom that can rest on the table.
17. Do not cut a workpiece that is too small to safely be supported and held onto.
18. Remove scrap pieces from the table only after the blade has stopped.
19. Always operate the saw from the front never from the side.
20. Use both hands and keep fingers at least 4" from the blade at all times. Never place your fingers or hands in the cutting path of the blade.
21. Gloves should never be worn while operating the scroll saw.



Note: Chip Guards have been removed to allow for increased clarity on the image.

Operation

1. A large workpiece should always be supported to reduce the chance of blade breaking or binding.
2. The material hold-down should contact the surface of the workpiece. To adjust the material hold down, loosen the thumbscrew and move the hold down up or down.
3. The material hold-down must be bevelled when the table is bevelled. To bevel the material hold-down, loosen the adjusting screw and bevel the material hold-down until it is parallel to the table. Retighten the material hold down before cutting.
4. When cutting, always make sure the material hold-down does not contact the bottom arm of the scroll saw.
5. NEVER remove the material hold-down since it also functions as a barrier between fingers and blade.
6. Do not start the machine with the blade in contact with the workpiece.
7. Make relief cuts before cutting long or sharp curves.

8. After starting the scroll saw, wait until the motor is at full speed before beginning to cut.
9. If the blade binds; turn the scroll saw off, then back the blade out of the workpiece.
10. If the scroll saw is equipped with an airline, the hose should be adjusted to keep the work area free from dust and debris. Be sure to position the air hose properly. It should blow saw dust away from the operator.
11. Most scroll saws have a variable speed control. Use the proper speed for the job & type of stock you are cutting.
12. Slower speeds are recommended for metals, plastics, harder woods and very thin materials.
13. When sawing, the material should be held firmly against table. Always feed material toward the blade. Feed the workpiece fast enough to allow the blade to cut, but do not force material into the blade too quickly. Let the saw do the cutting.
14. Most scroll saw tables can be bevelled to a 45° angle left and right. To bevel the scroll saw table, loosen the bevel lock knob, and bevel the table to the desired setting on the bevel scale.
15. Before tilting the table for bevel cuts of 45°, check the clearance around the bottom of the table to ensure that nothing is in the way.
16. Properly support round materials such as dowel rods or tubing because they have a tendency to roll during a cut causing the blade to “bite”. To avoid this, always use a “V” block or clamp workpiece to a mitre gauge.

Inside Cuts

The scroll saw is ideal for making inside cuts for detail work. To make an inside cut:

1. Drill a pilot hole in your workpiece.
2. Loosen the top blade clamp, remove the blade and reposition it through the pilot hole.
3. Hook the blade into the bottom blade clamp, lift the top arm of the scroll saw and reattach the blade into the top blade clamp.
4. Readjust the blade tension and begin the inside cut.
5. If in doubt, ask your teacher for assistance.