

## Choosing A Scrollsaw

Whether you're working on detailed crafts or simply need to make freehand cuts, the flexibility of a scroll saw is just what you need. Scroll saws are tools for cutting precise shapes and details in wood, metal or plastic. They're often used in intricate crafts and are very handy for making homemade puzzles. Though usually associated with small projects, most scroll saws are capable of cutting stock up to 2" thick.

The choice of which scrollsaw to buy is a very personal one. No one can, or should, make it for you. Before you go shopping for that saw there are several questions that you should ask yourself.

### **How much money do you have to spend?**

This question is, of course, very personal. But you will constantly hear the phrase "Buy the best tool that you can afford". Buying a cheaper tool that you plan to use a lot just means that you are going to become dissatisfied with it sooner. That doesn't mean that the cheaper tool is "Bad". Just that your skill levels will probably outgrow the capabilities of the tool sooner. You have probably also heard that buying "cheap" just means buying twice. There is a lot of truth to that statement also. If you outgrow a tool too quickly, then you are really going to be anxious to purchase the second one. If this happens within too short a period of time, then you are going to feel like you wasted your money on the first tool. My personal rule of thumb has been that if I feel like I can use the tool to its max for at least two years, then I feel like I am getting my money's worth from that tool.

### **How much time do you think you will be using your new scrollsaw?**

If you don't plan to use your new scrollsaw a lot, but as an additional tool for your woodworking, then perhaps a more economical brand would be best for you. Are you just starting to scroll and not very sure just how much you will be using it. This may also lead you to buy a more economical tool. If you are truly hooked on scrolling and this is your passion, then get the very best machine that you can. You will be spending too much time at it to not be happy with the equipment that you are running.

### **What kind of scrolling do you plan to do?**

The real question here is...Do you plan to do a lot of fretwork, where you will be changing the blade often or not. If you are new to scrolling, most fretwork involves drilling a starter hole and repositioning the blade in each hole as you progress with your project. The more complex the design, the more starter holes, and the more often you have to reposition your blade.

If your answer is yes, I want to do fretwork, then what you need to look for is a saw where you can change blades the easiest way possible. Each saw has different ways of repositioning the blade and reclamping the blade to achieve tension. Examine each saw you are considering and find out just how it is done with that saw. Try doing it. Try doing it several times. If you are doing fretwork, you will be doing this a lot. Also find out what tools are needed to change the blade. Are they supplied with the saw you are looking at?

The second point to consider in the type of scrolling, is whether you will be doing bevel cutting - cutting on an angle. This technique is needed for some inlay and marquetry, and also for some fretwork designs. If this is of primary importance to you, then examine the saw you are considering to learn how to tilt the table and just how easy it is to tilt. Can it tilt to the left and to the right? It's pretty safe to assume that all scroll saws allow you to tilt the table. The method of tilting will probably be different from one saw to another. Which method feels most comfortable to you?

### **What thickness of wood do you think you will be using the most?**

The ability of each saw to handle different thicknesses can help you to make your decision. Any scroll saw is capable of handling from 1/4" to 1" with ease. The differences come when you want to deal with much thinner or much thicker stock.

If you use a lot of very thin wood, then you want to look at the saw and see how easy, or difficult, it would be to add a zero clearance insert to the table. Is one provided with this saw? For our beginner scrollers, zero clearance inserts allow you to cut without having very small pieces fall through the slot for the blade. They provide much needed support to your project when working with extremely delicate designs.

If you want to deal with much thicker wood, then you want to examine the blade stroke of this particular saw. Will it be sufficient to cut easily? How aggressively does it cut? Be sure to try the saw out with a thick piece of wood so that you can make comparisons from one saw to the next. It is probably best if you bring your own blade so that your comparisons will be using the same size and make of blade. Any differences noted then should be due to the saw.

### **What size of project do you plan to make?**

This question is asking how deep a throat depth you will need on the saw. From one manufacturer or model to another this measurement can vary from 15" to 30". For most projects even a 15" throat depth will be sufficient. But if you need a deeper throat, then there are only a few techniques to work around it. And they are not always successful in all circumstances. Try to get a depth of throat that will be sufficient for the bulk of your scrolling needs.

Another aspect of this question will have a bearing on the shape and size of the table of the scroll saw. Having some idea of the size project you plan to make, take a look at the table on each saw you are considering. Will the shape and size of the table help or hinder your work?

### **What species of wood will you normally be working with?**

This question deals with the ability of the saw to handle denser woods. Is the motor sufficiently strong enough to give you the ability to cut a very dense hardwood. For most of the upper end saws (higher priced) this is not going to be a problem. This could be a problem with some of the lower end saws. You will need enough power in the motor to be able to cut a very dense wood. If you are planning on using walnut, oak, or pine predominantly, then this question may not have a bearing on your decision.

### **Do you operate your scrollsaw from a seated or standing position?**

Only you know how you will be using the saw. But if your passion is scrolling, and you intend to spend a great deal of time in front of the saw, then you need to take a good look at how easy it will be for you to spend that time. If you prefer sitting down when you operate the saw, then will you need to get a chair with a higher seat for this saw? Are there any options that might make this easier for you. Several manufacturers have a stand that is compatible with a wheel chair. Is this something that you need to find? Does the stand provide a place for you to rest your feet? Or some place to hold the foot control conveniently? Think about how you will be using this tool.

### **Will I need some sort of magnification and targeted lighting?**

If you have never done any scrolling before, then you may not be able to answer this question just yet. Pay attention to how well you can see when you try a saw out. Understand that in your shop the lighting may not be quite as good as where you are testing the saw at. If you are having difficulty seeing the line of the pattern, then you should consider getting magnification. Task lighting is a big help also.

Now that you have some idea whether or not you will need magnification and/or task lighting. Take a look at the saw you are testing. Does this manufacturer offer an option of getting a light or a magnifying light. Will that option work with the way that you scroll. In other words, try to decide if their option will only get in your way or be of real benefit to you. If you decide to go with some other source for magnification/lighting, is there some way to attach that to this saw or its stand? Is this important to you. If your shop is particularly limited in space this could become very important.

### **How much space do you have to store this tool?**

If space is at a premium in your shop, then you probably don't want an Excalibur with a 30" throat depth. Some of the other larger models might not work either. You should have some idea of the space you have available for the scroll saw before you go shopping. The two measurements you should consider is the size of the footprint of the saw or its stand. Just how much space will the saw occupy on your floor or your shop table. Will you have enough room around the saw to work and be comfortable?

### **What about the main features of the saw?**

#### *Motor:*

What size is it? Is it variable speed and if so what is the range? It is measured in strokes per minute. Does the variable speed dial give the actual speed setting or just a relative position? Slower speeds will increase accuracy, especially when you are new to the craft. Try cutting the type of wood you will in fact be using at home. If all you intend to cut is 1/4" pine don't buy a power beast. On the other hand, if you really like to work with exotic woods, get all the power you can find! Turn a sharp corner and listen to the motor. The twisting of the blade and extra pressure put on the blade will demand more power. If the motor sound like it is bogging down, then it probable is. An under powered machine will not last long.

#### *Switch Location:*

Try cutting and then reach the off button. Is it in a convenient location? This is a big deal if you get caught in a tight corner! Is the dial for variable speed part of the same switch? Does it hold its setting? ... or creep to a slower speed as you cut?

#### *Throat Size:*

This is the measurement from the front of the blade to the back of the machine, inside the arms. It is a measurement of the largest board you would be able to cut, front to back. If all your work is to be small ornamental projects, this may not be relevant. Also ask what is considered the maximum thickness of wood that this machine could handle.

#### *Table:*

What size is it? Is it a cast table? Does it tilt in both directions or only one? Has it been machined smoothly so that it does not leave scratch marks on your work? Is there a replaceable insert where the blade goes through the table? This can both save your blades and also allow you to custom make your own inserts for situations where it is important to have support right up close to the blade.

#### *Floor Stand:*

Some machines come with a stand, so it doesn't take up any critical work bench space. Most of us also get the stand that goes with the saw when we buy one. If you are not considering buying the stand you can skip this, but for the rest of us, the stand becomes very important.

Is it sturdy? How is it constructed? Can you tell whether it will hold up to long hours of use? Is it comfortable to use, or do you feel like you are straddling a Clydesdale in order to get close enough to the saw to see what you are cutting? Can you place your feet in just one position or several. This can become important if you spend long hours at the saw. A slight change of position of your feet can increase your comfort tremendously.

Some stands are designed to absorb vibration. Run the speed up and down the range, put your hand on the table, and feel how much vibration is flowing through to the work surface.

#### *Dust Removal System:*

Usually there is an arm that shoots air at the blade to keep the dust away from your pattern line. Does the mechanism stay in place, when you change its position? Is it powerful enough to be positioned high enough above the wood that it will not interfere with your line of sight? Is there an under table vacuum port to attach to your workshop's collector system? This is particularly important if you see yourself getting into production cutting.

### *Blade Setup:*

Can the saw use both the pinned and flat blades? Most cheap scroll saws can only hold the pinned blades. The type of blade that has a small pin perpendicular to the blade, at the top and bottom, that catches on the rocker arm of the saw. Often, if you are trying to cut out very small holes, these blades will not fit through the small pilot holes in your project. This can limit your capabilities.

Many saws have an adapter head that will allow you to use both. Often they are referred to as "quick change" heads. They will allow you to remove and insert blades with no tools. They use a spring loaded lever. Make sure to ask for a demonstration of blade changing techniques. Observe the upper AND lower holders. If you are planning to do a lot of internal cuts as in fretwork, faster is better!

### **What kind of warranty does this saw carry?**

How long, and on what? Often the tool warranty is different than the motor warranty. How do you go about getting replacement parts or repairs for the saw? Does the entire saw have to be shipped off for repairs to be made, or can they be done locally? Hopefully you will never have to make use of this information, but it is important that you know this information for that possibility.

### **You are ready to test a scroll saw**

OK, so you have answered all of the above questions and have some idea of the kind of saw that you are looking for. You are now in front of a saw at a wood working show and you have the opportunity to run the saw. What do you do?

First, turn the saw on and off without cutting anything. How easy is it to reach the switch? How quickly can you reach it if you are cutting and a blade breaks? Do this, even if the saw is set up with a foot switch. You need to be able to reach the on/off switch easily.

Second, try changing the blade. Do it once with the salesman showing you how. Then try doing it by yourself. Change the blade without any wood once, then try changing the blade and inserting it into a starter hole. How easy is this? Do you have to be a contortionist to reach everything? Learn whether this machine can handle threading a blade from the top down, or if you must thread from the bottom of the wood up. Are you familiar with the technique that this saw is capable of? Can you thread the blade through the wood only one way, or both ways?

OK, you now have a blade installed in the machine. How do you set the tension on this saw? How easy is it to reach the tensioning? Some saws have a switch on the front of the saw for this, and some have it placed at the back of the saw. This can be particularly important if you are wanting to get a saw with a very deep throat. If the tensioning is at the back of a 26" throat saw and your arms only reach 25 1/2" you are going to be stretching with each blade change to adjust the tension.

So your blade is installed, and the tension is set. You are ready to start cutting something. Not yet, you need to have one more test before actually cutting. Set a scrap of wood or a coin on the table and run the machine up and down through all possible speeds. Is there any vibration? Watch your scrap or coin while running the machine to tell. So now you have some idea of the amount of vibration without any pressure on the blade. You will want to repeat this test while cutting to see if the vibration level changes at all when there is more of a load on the motor. Also notice how quiet or loud the machine is with no load on the motor. Can you carry on a conversation with the machine running, or are you now speaking very loudly to be heard?

Now you are ready to start cutting. Start the machine at a slow speed. Cut for a bit, then try adjusting the speed. Can you do this on the fly, or do you have to stop the machine to adjust the speed? Are the controls to change the speed easy to reach? Gradually work the speed up to where you are cutting at the maximum speed for this saw. How does it handle? Is it still cutting smoothly? Is the wood getting bounced all over the place and you

with it? Test for vibration while doing the cutting. Is it much different from when you were not cutting anything? Again notice the noise level while cutting. Is it much different under load? Of course, there is a certain amount of noise level increase just from actually cutting something. You are listening for any change in the level of noise from the motor, not the blade.

Having run the machine through its extreme paces, you are ready to try some cutting with it. With your practice wood, try turning a gradual curve with the saw. Did you have control all the way? If you are comfortable with that, then try turning a square corner. Examine the piece that you cut out to see if the corners are square on the bottom side of the wood as well as the top. Now try a more extreme corner. Can you flip the wood in place without cutting a big hole? Some of these experiments will say more for your experience in scrolling than the saw itself, but you should try them all anyway.

Having cut with it for a bit now, take a look at your lap. Is it full of saw dust? Look at the machine and see what possibilities there are for dust collection. Take a close look at the blower on the top to see whether it is aimed at blowing dust directly into your face or away from your face. Ask the salesman about dust collection also. It's possible that there is an accessory available with this saw that will improve dust collection.

### **Final Decision**

You have done all of the testing now. You have thought about all the questions you needed to answer and now you have to decide which of several models you want to buy. I am sure you have asked every one you could find which saw they like and why. It still boils down to being your decision. No matter how much any one person or any group of people like a particular saw, if you were not comfortable with it, then that is not the saw for you.

Any scroll saw will cut wood and do just about anything that you want. It will be easier with some saws than with others, but this is why it is "your" decision and not mine.