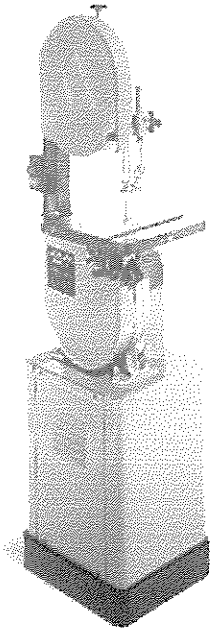


Band Saw

Safety Rules

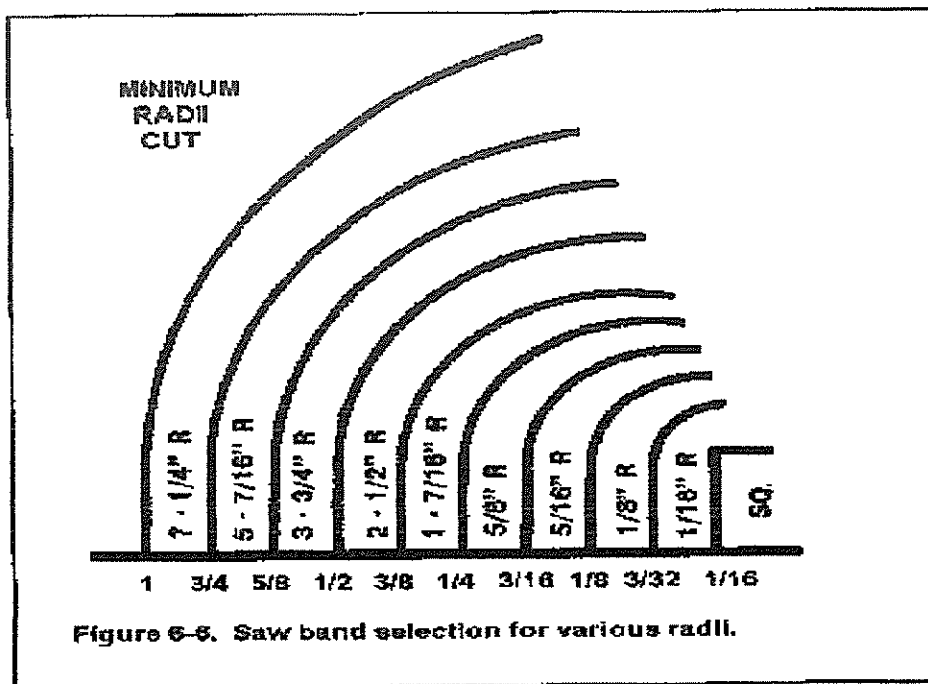
1. Permission **must** be obtained from the instructor **before** using the band saw!
2. **Always** wear Safety Glasses when operating the band saw!
3. **Always** remove jewelry, eliminate loose clothing and tie back long hair before operating the band saw.
4. **Never** talk to anyone while operating the band saw.
5. **No one** should be within the safety zone while you are operating the band saw.
6. The blade guide assembly **must** be adjusted to within $\frac{1}{4}$ " of the work piece before turning the saw on.
7. Round stock **must** be **secured** before cutting.
8. Relief cuts are **necessary** when cutting curves smaller than the blade allows.
9. You should **Always** avoid backing out of curves or long straight cuts with the saw running.
10. **Never** place your hands or fingers directly in line with the blade.
11. **Never** force the work into the blade
12. **Never** allow anyone to stand to the right of the saw when it is running. (When blades break, they may shoot out that side of the saw)
13. If the saw makes a strange noise, **turn off** the power and **inform** the instructor.
14. If the blade breaks, **turn off** the power, wait until the machine **stops** completely and then **inform** the instructor.
15. **Never** remove scraps from near the blade until the blade has come to a complete stop.
16. **Never** leave the band saw until the blade has come to a complete stop.



Band Saw

Operating Procedure

1. Ask the instructor for permission before using the band saw. Always wear safety glasses.
2. Remove loose clothing and jewelry, tie back long hair and roll up long sleeves.
3. Check set-up, operation, and adjustments before turning on the saw.
 - Adjust blade guide assembly to within $\frac{1}{4}$ " of the work piece
 - Check that both door guards are in place and secure.
4. Do not allow anyone inside the safety zone.
5. Do not talk to anyone while operating the band saw.
6. Turn the saw on.
7. Place hands and fingers on each side of the cut line. Never allow your fingers or hands to be in line with the blade. Use a push stick if necessary.
8. Guide the work slowly, letting the machine do the work. Do not force the work into the cut.
9. Avoid backing out of long cuts or curves with the saw running.
10. Use relief cuts if they are needed for sharp curves.
11. If any strange noise is heard, immediately shut off the machine and inform the teacher.
12. If the blade breaks, turn off the power, step back from the machine, wait until it stops and notify the instructor.
13. Turn the saw off.
14. Wait until the blade comes to a complete stop before removing any wood that is close to the blade.
15. Do not leave the band saw until the blade has come to a complete stop.



Using a Radius Chart

Until you become well acquainted with your saw, it is best to use the contour (radius) chart shown in "Figure 6-6" to determine which size blade to use for a specific application. Radius charts can be found in many woodworking books, magazine articles and on blade boxes. They differ slightly from one another, but are good as rough indicators of how tightly a curve can be cut with a particular blade. Each blade, saw and operator are different, so it is impossible to make a truly accurate chart.

A blade can cut continuously without backtracking any curve that has a radius as much as or more than that shown on the chart. For example, a 3/16" blade will cut a circle with a 5/16" radius or a 5/8" diameter. To test if a 3/16" blade would work for a particular curve, place a dime, which is roughly 5/8", over the pattern. The 3/16" blade can cut a curve bigger than the dime, but not smaller.

You can use everyday items such as coins or a pencil to determine which blade to use. A quarter is the size of the tightest cut that can be made with a 1/4" blade. A dime is the size of the tightest curve that can be cut with a 3/16" blade. A pencil eraser is the size of the tightest turn that you can make with a 1/8" blade. After a while, you won't even need an object to size the possible curve of a blade because you will have become familiar with this process.

There are options to matching the blade to the smallest curve pattern. If there is only one very tight cut, it may be best to use a turning hole, a relief cut, successive passes or to change the blade. If you have a lot of cutting to do, you can use a wider blade for bigger curves and then switch to a narrow blade for the tighter curves. Changing blades can often save cutting and finish time.

Courtesy of Laguna Tools Inc.

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