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# Balsa Strip Cutter

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During the process of building models, I often find that I do not have the correct size square strips of balsa. To fix this, one can run to the local hobby store and see if they have the required size or order it up from a balsa supplier and wait a couple of days for the delivery. An alternative is to keep large pieces of standard thickness sheets that can be recut as needed with a balsa strip cutter.

Balsa strip cutters can be purchased for between \$7-20, but they are very easy to build yourself. The advantages of building one for yourself include you can build different sizes for different ranges of balsa stock and the ability to personalize the shape to make it comfortable in your hand. The example presented here can handle stock from 1/16<sup>th</sup> inch to 1/2 inch (see Figure 1).

A balsa strip cutter is simply a block than holds a cutting blade and has a movable fence on the bottom that allows cutting different widths of stock. I made my strip cutter from maple, as it is a hardwood with a fine grain that will stand up to lots of use.



*Figure 1; Balsa strip cutter*

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The block has hole through in two directions to allow for bolts that clamp on the cutting blade and the adjustable fence. To make the blade clamp, I simply added a  $\frac{1}{4}$ " thick piece of maple to one side of the block. A utility knife blade is placed between the main block and blade clamp as can be clearly seen in Figure 2. Beveled slots are added to the fence to allow for thickness adjustment. I find adjustment easiest if you place a piece of the desired stock thickness between the blade and the fence. This method allows fast adjustment and alignment of the fence.



*Figure 2; Bottom view of the balsa strip cutter*

I have included a three view drawing (Figure 3) of the block shown in the photographs. The dimensions are not critical and this cutter could be increased in size if desired. I selected this size because it seemed to be a comfortable size to hold in my hand.

One improvement in the drawing over the one in the photographs is to move the vertical bolt holes further to the rear of the block to allow for a great range of possible cut dimensions.

To build this cutter first cut out a block  $3\frac{1}{2}$ " by 1" by  $1\frac{3}{4}$ " (on Figure 3, this is labeled "main block"). Next cut out a piece of stock  $3\frac{1}{2}$ " by 1" by  $\frac{1}{4}$ " (this one is labeled in Figure 3 "blade clamp"). The third piece you will need is a piece  $3\frac{1}{2}$ " by  $1\frac{3}{4}$ " by  $\frac{1}{4}$ " (labeled "fence" in Figure 3).

Next you need to bore  $\frac{1}{4}$ " holes through the blade clamp and the main block. Then use a countersink on the blade clamp. This is so the flat head bolts will be flush with the face to blade clamp. On the other end of the hole, bore a  $\frac{1}{2}$ " hole deep enough to allow the nut to be sunk below the surface.

Now bore the vertical hole through the main block and fence. Be sure to set the main block hole near the back of the main block for the maximum range of strip widths and place them in a place

that will not intersect with the horizontal holes. In the fence, cut elongated countersunk holes (See Figure 2). I finished my tool with an oil finish because it creates a tool with a nice hand feel.

The project took an hour or two and produces a very nice tool that produces beautiful square balsa stock. Try you own version, I think you will enjoy it.

## Balsa Strip Cutter

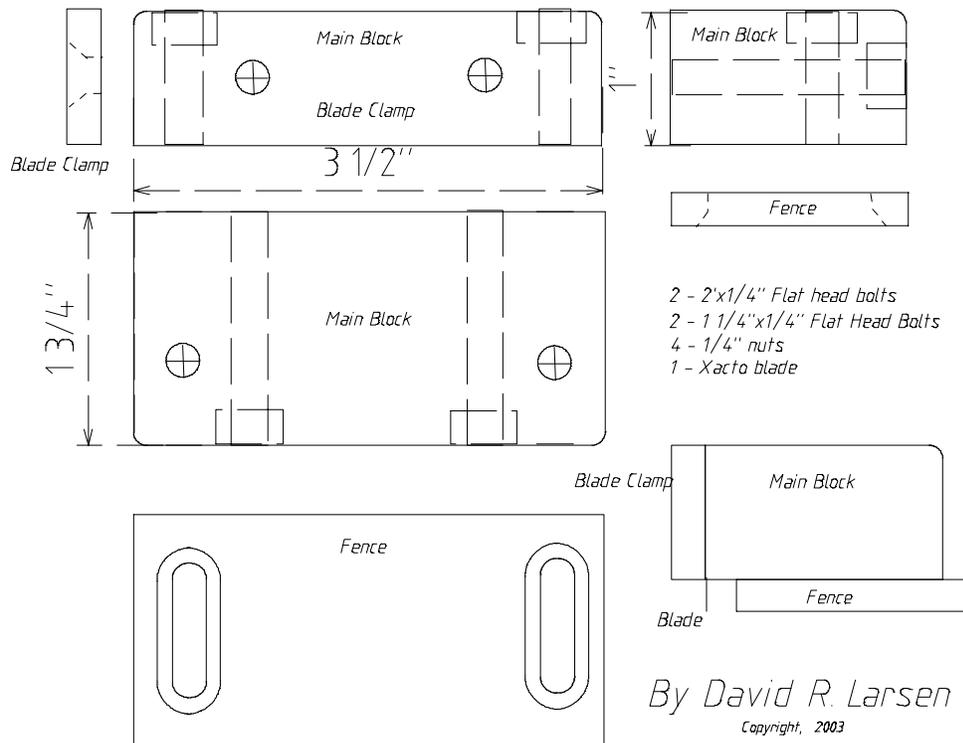


Figure 3; Diagram for building a balsa strip cutter.