

NOTCHING

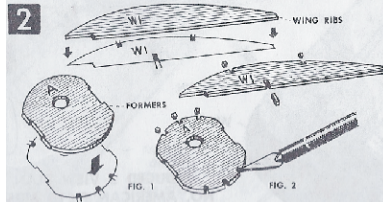
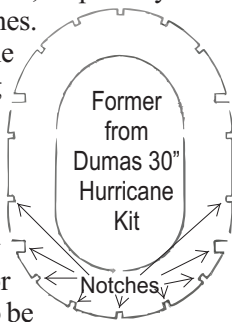
Let's face it, if you are going to build, or are currently building stick and tissue model aircraft, especially scale aircraft, you will have to cut some notches. You probably will need notches in the wing ribs, maybe the leading and trailing edges, and especially the formers. There have been many variations on how to cut those notches developed over the years. Some of these variations have been great, some not so great. Some are really neat, but probably would not work for most of us. This article is not intended to be a "which one is best or right", but, here are some ways of doing it, along with some of the pros and cons of each.

Most of us probably started by following the thousands of kit instructions out there that suggest cutting the notches with a razor blade or knife. This is very simple and cheap, but it is easy to split the wood. It is also very easy to not get the notches exactly the same depth or width. There have been many variations on the cutting device, such as cutting a double edge razor blade to the widths needed and attaching the blade to some kind of handle. The handle can be simply some hard scrap balsa, or maybe an Exacto knife handle, or could be some elaborate punching mechanism.

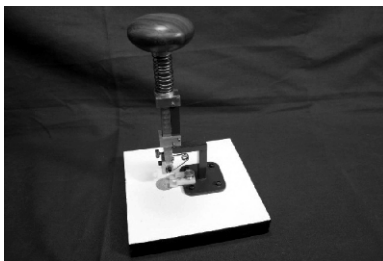
Of major concern to a lot of builders is the fact that it is virtually impossible to cut the notches after the parts have been assembled. This means chances are, that the notches will not be in a straight line, such as across the top of the ribs. Some builders absolutely detest wavy spars and stringers.

Many builders have switched to sawing, filing, or sanding the notches in because it is much easier to do without splitting the wood, and it can be done after the formers or ribs are glued into position. For sawing, many standard 32 teeth per inch hack saw blades will cut a notch 1/32 inch wide. Two blades glued together will cut a notch 1/16 inch

wide. A builder could guess at the depth, or measure repeatedly while cutting, but it would be much better to glue a stop, a strip of wood, to the side of the blades at the depth that is wanted.



Picture by faif2d smallflyingarts.com



Keiths hippocketaeronautics.com

Here you can see two saw blades glued and bolted together with a wooden stop glued along the side, being used with a straight edge guide to cut a straight row of notches in ribs that are already in place. One bit of caution here, the notches are not right up against the straight edge, due to the stop and the bolts holding the blades together. For easier cutting many people who have used this method reverse one of the saw blades. The teeth do not grab the wood as much.

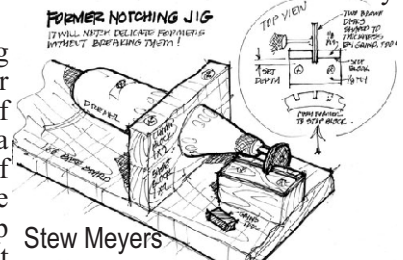


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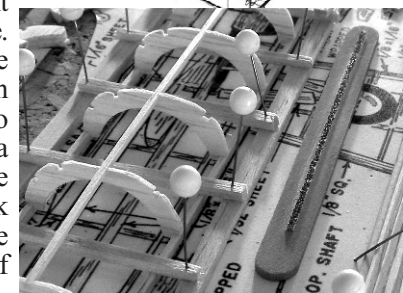
A small rectangular file may be used the same way. It is a little more difficult setting the depth with the file, unless you want to glue a stop to the side of the file. The file can also cut on the sides which can tend to make the file wander to the side or cut into the straight edge.

Of course for many guys, power tools are the only way to go. Some guys use the Dremel type cutoff discs with a balsa stop glued to the side. One disc is used for 1/32", two discs for 1/16". These might also be a little difficult to use after the formers and ribs have been assembled. It does make a very clean cut however.

The editor's preferred way of cutting notches is sanding. Sanding sticks for notching can be made in a variety of shapes and sizes. Basically it is a sandpaper strip applied to the bottom of a strip of wood the correct size for the notch, then glued to another larger strip of wood for a stop. 150 to 200 grit sandpaper works best for most people. Many people put the sanding strip in the center of the stop, some people like it on the edge of the stop, so that it is easier to follow a straight edge along the ribs, or a string along the formers. One of the biggest problems with the sanding stick is the sheer number that might be needed, because of all the sizes of notches needed.

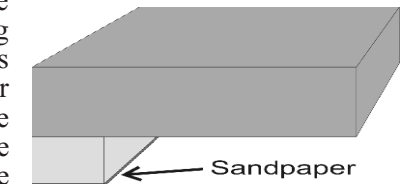


Stew Meyers

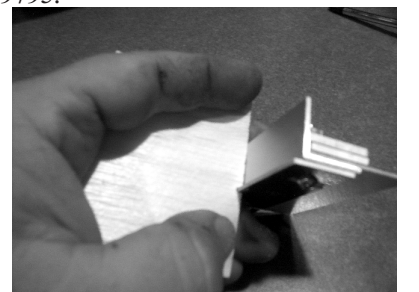
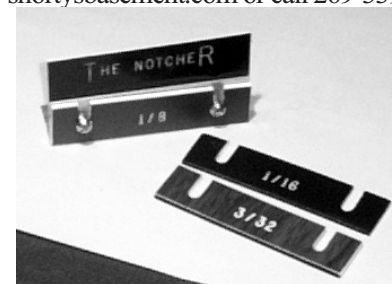


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There are very few tools on the market today for tasks such as notching balsa wood. One product that is available is The Notcher. The Notcher is basically a sanding stick with three blades (1/16", 3/32" and 1/8") that are adjustable in depth, to over 1/4". The blades can also be combined for notches 5/32", 3/16", and 7/32" wide. The Notcher is available through Shorty's Basement. Just go to shortysbasement.com or call 269-339-9795.



Sandpaper



Use any method you prefer. If the method you have been using has given you any problems, try one of the above. If you like one better than another, let us know. If you have another way that you prefer, give us the details for sharing.