

NEW! NEW! NEW!

After the infamous shaper class of September '01, David DeCristoforo made mention of a modification to this procedure that is an excellent idea. Instead of using stock exactly the same thickness as your project material, use material surfaced 1/16" thinner. This will cause the machine, once set up to leave a small flat on the edge of the project(not the set up) board, instead of leaving it totally knife edged. The knife edge tends to get damaged as it runs against the fence, after the lockmiter has cut it. Remember that you will need to re-surface (sand or plane) the finished product to remove the flats, so make it oversize accordingly.

Another method around this is to use a "backerboard", a piece of material cut to the exact width of the pieces you are using. Double-stick tape, or screw it(in areas that get cut off or mortised) to the back side of the piece you are about to lock miter and it will prevent the same damage to the "knife" edge of the part, as it rides against the fence, or table respectively. This tip came from Jim Elliot, Thanks Jim.

If you are using the Felder lock miter cutter, it has horizontal edges on the outside of the tooth and groove. This makes it easy to use a height gage, or the Aigner Distometer and get a reading of the height above the table. Next time you set it up you can go back to that reading, or adjust as required if the material is of a different thickness. This should, at least, speed up the first half of the set up. Note: some brands of lockmiter cutters are tapered on all tooth surfaces and this method won't work, too hard to get a reading on a sloped surface.

Otherwise, follow the procedure as outlined below. "May there be many perfect lockmiters in you future" Confucius, 482 B.C.

Plane a couple of extra pieces to the same thickness as the material you are using for your project. Put an "X" on one side of each piece. Start by running the pieces horizontally thru your cutter, one piece "X" down and the other "X" up (keep track of which piece was up and which was down), slide the two pieces together and see if the outer surfaces meet up, adjust your cutter vertically until the surfaces match exactly.

Now run your pieces vertically against the shaper fence, one with the "X" towards the fence, and one with the "X" away from the fence, again keeping track of which is which. Adjust your shaper fence in or out accordingly to make the outer surfaces match up exactly.

Now you are set, chop the ends off of your test pieces, run one piece level and one piece upright against the shaper fence and verify your fit. Then you can run you project. You might want to keep the pieces as setup gages when you run some material of the same thickness again.

Also, considering we are using Felder's, :-), If you log your height setting on the shaper spindle, the fence setting on the shaper fence and what shims are under your cutter on the spindle, you should be able to duplicate the setup without going thru this process every time. Differing thickness of materials can be compensated for by raising (thicker) or lowering (thinner) the shaper spindle by half of the difference in thicknesses from your original setup. The shaper fence will also need to be moved, away from the slider (thicker) or closer to the slider (thinner), again, half the difference in material thickness.

I hope this explanation is clear and understandable, it is a whole lot easier to do than write down.