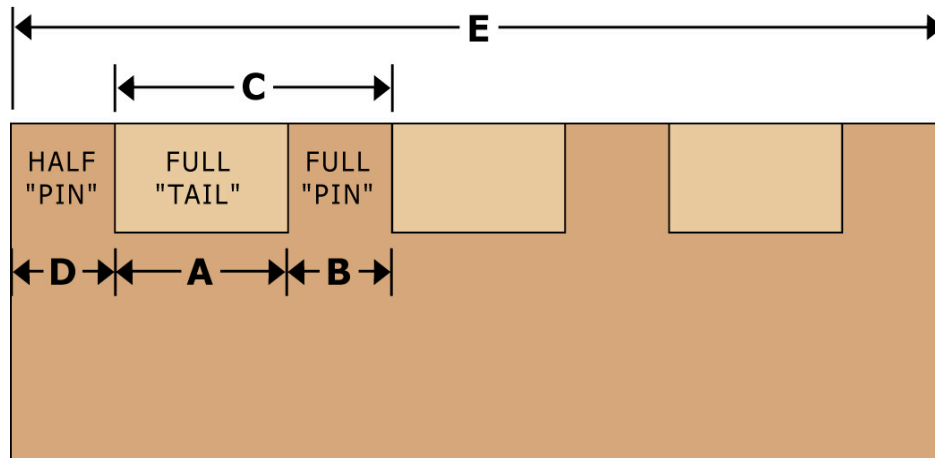


C-SERIES DOVETAIL JIGS - BOX JOINTS

Learn To Recognize The Joint Elements

The box joints formed on the AKEDA jig are especially attractive. They have uneven alternating joint elements, and might remind you of hinges:



- The wide joint elements "A" are called "tails". They are approx. 5/8" wide.
- The narrow joint elements "B" are called "pins". They are always approx. 3/8" wide.
- The "pitch" of the joint is "C". The minimum possible is exactly 1".
- The extreme left and right joint elements "D" are called "half pins". The size of the half pins" is determined by where you place the first and last guide fingers.
- Where you place the first guide finger will affect the width of your work piece. Moving the first guide finger one increment (1/8") to the right will add 1/4" to your work piece width "E" if you want equal size half pins.

General Rules

Here are the general rules for forming box joints:

1. Work pieces are cut one at a time, not at the same time. They are both clamped against the rear channel, using the "through dovetail" clamping position.
2. Make your test joint work pieces 2-1/4", or 3-1/4", or 4-1/4" wide, and so on, always an even number of inches, plus 1/4". Later you can vary this.
3. Use the same guide fingers you would use to form half blind dovetails. Use the half blind pin guides to form the tail sockets, (the "pins" "B" and half pins "D"). Use the universal tail guides to form the pin sockets, (the "tails" "A").
4. Use the .350" Box Joint Cutter to cut both the "pins" and "tails". But **CAUTION:**

5. The .350" Box Joint Cutter is a close fit inside the guide bushing. Therefore you **MUST** use an AKEDA precision 7/16" **THIN WALL** guide bushing to make sure it clears the cutter. With the router unplugged, spin the cutter by hand to make absolutely sure it won't contact the inside wall of the guide bushing.
6. Always start and end with a half "pin". Don't rout on the outsides of the first and last pin guides.

How To Form A Test Joint

To make a test joint, follow these steps:

- Install the first tail guide one increment (1/8") to the right of the reference mark on the guide rail at the left end of the jig. Install a row of tail guides, each one up against the one to the left, until you reach the width of your work piece. Don't leave any space between tail guides.
- Install one of your work pieces in the rear vertical clamping system, snug up under the tail guides. Remove any tail guide you don't need.
- Mark the positions of the tail guides on the guide rail with a pencil.
- Now form the "tail piece" by routing in between the tail guides. Refer to the User Manual for router safety and routing procedures.
- Remove the tail guides and remove your work piece.
- Now install the "half blind pin guides" on the pencil marks. Install the mating "pin piece" in the jig, in the rear vertical clamping system.
- Form the "pin piece" by routing on either side of the pin guides, but do NOT rout on the two outer guide surfaces at the ends of your layout.
- Now do a test fit to find out how well your joint fits.

If The Joint Is Too Tight

If the joint is too tight, use an undersize guide bushing when you form either the pins or the tails, not both. If it's still too tight, use the undersize guide bushing on both. This provides either .004" or .008" of fit adjustment.

If The Joint Is Too Loose

If the joint is too loose, use an oversize guide bushing when you form either the pins or the tails, not both. If it's still too loose, use the undersize guide bushing on both. This provides either .004" or .008" of fit adjustment.

Variations

Experiment with variations. Try installing the first guide finger two increments (1/4") away from the reference mark. Try increasing the width of the "tails" by spacing the guide fingers slightly further apart. Try varying the sizes of the "tails" across your board.

If you're making a box with four sides, mark the face edges, and use both ends of the jig. Make a mirror layout at the opposite end of the jig, then make sure your face edges are always against a side fence.