

## Dovetail Jig

**Items # 6412, 6413, 6414  
 # 8712, 8713, 8714**

**As seen in and HIGHLY  
 RECOMMENDED by *Wood  
 Magazine.***  
 (Jun-July '02, Issue 42, pg. 18)

NEW Instructions!

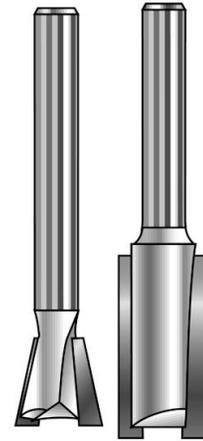
The Pins & Tails Traditional Thru Dovetail Jig requires a simple, one-time setup and assembly. After this, boards to be dovetailed are clamped to the jig, router depth is set to match wood thickness, and dovetails are cut. The # 6412 & # 8712 template cuts 3/4" wide tails, 1-1/8" on center, a good size for drawers. The #6413 & #8713 Template cuts 1" wide tails, 2" on center, a good size for chests.

Setup for both templates is identical. In addition to the template and router bits supplied (3/4" x 14 degree dovetail and 3/8" straight) you will need these items to get started:

- A 5/8" O.D. router guide bushing to fit your router. Many router brands offer this as an accessory, or you can purchase **MLCS Item # 9096 Universal Guide Bushing Kit**, which includes this size and fits most any router. **Note:** The bushing must be 1/4" long to work with the template.
- A mounting block for each template. It can be of any hard or softwood, and should measure 2-7/8" thick, 18" long, and 4" wide. Note that the templates are attached to the 2-7/8" edge of the block.
- Several test boards, about 6" square x 3/4" thick.

### Mounting the Template to the Block:

Begin by attaching a template to the 2-7/8" width of the mounting block. Align the template on the mounting block so that the distance from the outside edge of the angled fingers to the surface of the mounting block is 1" on template #6413 or #8713 and 3/4" on template #6412 or #8712. The distance from the outside edge of straight fingers to the surface of the block should be 1-1/8" on template #6413 or #8713 and 1" on template #6412 or #8712. Use the slotted holes and #8 wood screws, centering the screws in the slots, to start. After final adjustment you will drive screws permanently into the round holes in the templates to lock in the setting.

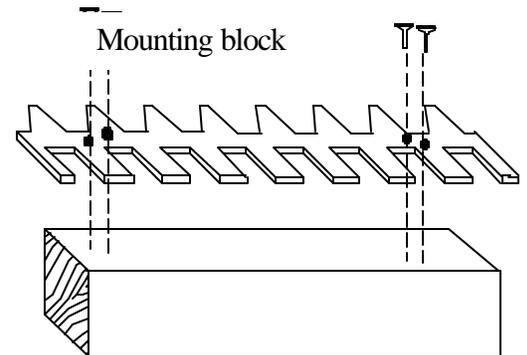


### To install a Workbench Clamping Cleat to the Jig:

Cut a piece of stock 2-7/8" wide x 18" long x 3/4" thick. Using (4) 1-1/2" wood screws, attach the cleat to the bottom surface of the mounting block allowing 1-1/2" overhang past each end of the block. Using appropriate sized C clamps attach to any workbench edge, allowing the front surface of the mounting block to slightly overhang the edge of the workbench.

### Making the Final Adjustment to the Template Position:

Final adjustment will be made by making a dovetail joint, and checking the fit. Set up your router with the 5/8" guide bushing and the 3/4", 14 degree dovetail bit. Clamp a test board in a vise with the end grain pointing up. Using two C clamps, clamp a test board, so that the end grain of the board is against the bottom of the template and the face grain of the test board is clamped to the mounting block. The straight fingers should be sticking out over the end of the test board, facing you.



To measure for proper router bit depth, lay a second test board up underneath the template and against the first board and draw a pencil line indicating the board thickness. Set the router on top of the template and adjust the router bit to this line. Make a test cut on the board, creating dovetails along the end of the board by feeding the router into the finger slots. Don't worry about the left-right adjustment at this point; it's easy to do this later.

Put the dovetailed board aside for the moment, and install the 3/8" diameter straight bit in your router (The same 5/8" guide bushing will be used). Clamp a second test board under the angled fingers of the template, same as you did before. Set the depth of the straight bit exactly like you did with the dovetail bit.

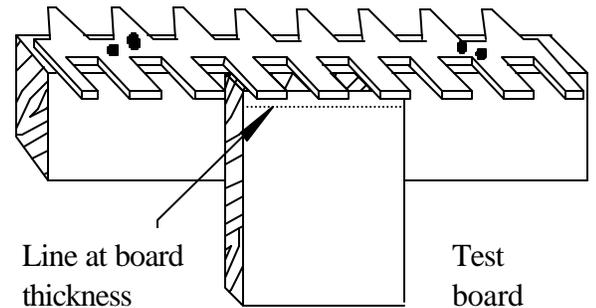
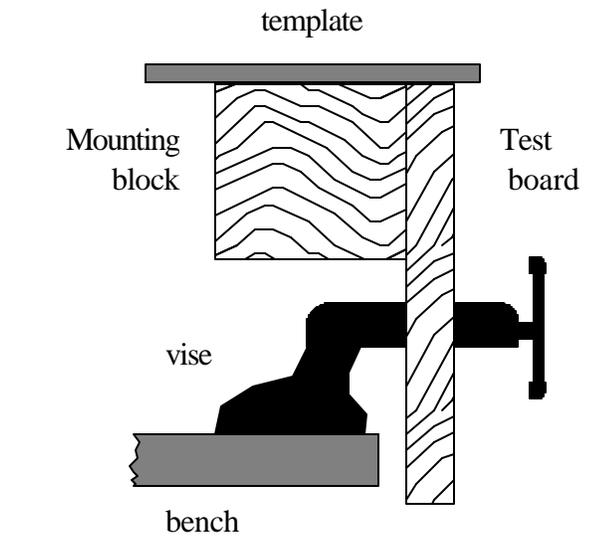
Cut the pins now by feeding the straight bit through the angled fingers. Remove this piece from the jig and try the fit with the first test board. By sliding the template forward and back in its slots, you loosen and tighten the fit of the joint (see the diagram below, right). The dovetail/pins cut (first cut) does not change; only the sockets (second cut) are affected by moving the template.

In order to get equal spaced dovetails from the top and bottom edge, you should space the stock's corners equally between the fingers of the template. For example, if your stock is 1/2" wider than the finger spacing, then set the stock 1/4" past each end finger. Marking registration lines on the block will help in setting up your stock. The registration lines should be in the exact center of the dovetail/pins and sockets. Draw these lines on each side of the block for each pin or socket.

The dovetails/pins and sockets are cut basically the same. First clamp your stock to the side with the straight fingers centering it between two registration lines. Mount the 3/4", 14 degree dovetail bit and 5/8" guide bushing in your router. Cut out the dovetails in the stock. Next, mount your second piece of stock on the other side of the jig, again centering it between two registration lines. Change to a 3/8" diameter straight bit and make your cuts. Remove the stock and test fit. Make any adjustments and when satisfied, make permanent by driving screws into round holes.

You can cut joints longer than the templates by simply shifting them along the boards. With practice, you can also vary the dovetail spacing with the same technique.

## Dovetail Jig



Move template with reference to mounting block

