

 **MLCS**
THROUGH DOVETAIL TEMPLATES
FOR PINS AND TAILS DOVETAIL JIG



**COMPLETE INSTRUCTION
MANUAL & REFERENCE GUIDE**



**PLEASE READ BEFORE USING YOUR
TEMPLATE**

This manual is an addendum instruction manual for using these templates with MLCS item #9094 Half-Blind Dovetail Jig. Please refer to the original user manual that comes with item #9094 Half-Blind Dovetail Jig for safety and parts information



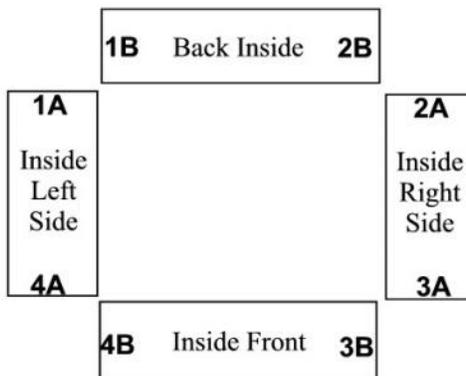
These templates produce a through dovetail joint that has always been a trademark of the master craftsman. The through dovetail joint is a strong joint that differs from the half-blind joint in that the joint is visible on both faces of the pieces being joined together. These templates are accessory templates and are to be used in conjunction with MLCS item# 9094 Half-Blind Dovetail jig and require both a 3/4" 14-degree dovetail bit and a 3/8" diameter straight cutting bit be used. You will also need a 5/8" outer diameter template guide to use with these templates. Please do not attempt to use router bits or a guide of any differing dimensions as these templates are designed exclusively for these dimensions.

Included items: 2 Aluminum Dovetail Templates, 4 Template Mounting Brackets, 8 Template Mounting Screws, 1 set of Edge Spacing Guides (Marked #4 Right & Left) and Instructions.

Additional items needed: 3/4" diameter 14-degree Dovetail Bit, 3/8" diameter Straight Cutting Bit, 5/8" outer diameter Template Guide and a Router.

Stock Layout:

Proper Layout for Drawers or Boxes



Preparing the Dovetail Jig for use:

In most cases the supplied #4 Edge Spacers will be used. On occasion you may need to substitute the #1 or #2 Spacers supplied with the MLCS #9094 Half-Blind Dovetail Jig if the #4 Edge Spacers do not allow for the proper adjustment.

Install the supplied #4 Right and Left Edge Spacers onto the dovetail jig.

Set-up to cut the Tails:



Install the tails template with the straight fingers onto the dovetail jig. Place a piece of scrap stock that is the exact width of the stock you will be using under the front clamping bar adjusting the height so that it is just under the dovetail template. Align the left/right position of the wood so that it is orientated to the left side of the template and there is an equal spacing to the fingers (*see figure A*). Secure the wood firmly under the front clamping bar. Remove the template from the jig. Loosen the edge spacer locking screw and adjust the edge spacer so it is aligned against the edge of the wood (*see figure B*). Tighten the edge spacer locking screw to secure the edge spacer in this position. Repeat these steps for the right side of the jig.



figure A



figure B

Place a piece of scrap stock that is 1/4" thicker than the stock you will be using under the top clamping bar (*If you do not have any stock that is thicker, a piece of 1/4" thick plywood or masonite can be used to make up the difference*). This will act as a backer board to control tear-out. You may have to remove the white nylon spacers from underneath the top clamp bar knobs to accommodate the thickness of the scrap piece.

Adjust the forward/backward position of the template using the locking nuts and knurled brass knobs so that the ends of the fingers of the template are 1-inch from the back of the wood that is mounted under the front clamping bar (*see figure C*).

Make a line the same thickness of the stock you will be mating this piece to across the width of the wood that is clamped under the front clamping bar, to use to adjust your router bit depth. (*Placing a piece of stock of the same thickness of the piece you will be mating this with, directly under the template can also be used to get the correct distance*) (*see figure D*).

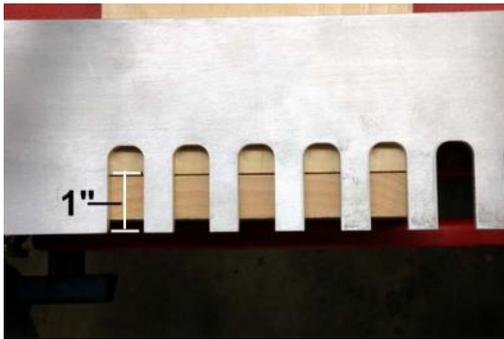


figure C



figure D

Install the 5/8" outer diameter template guide onto the base of your router. Install the 3/4" diameter 14-degree dovetail bit into your router. Place the router onto the dovetail template and adjust the router bit cutting depth so the bottom of the router bit is flush with the set-up line (*see figure E*).



figure E

Rout the wood that is clamped into the jig making sure you fully cut through the full thickness and into the backer block. The template guide will bottom out in the bottom of each finger gullet, producing a full cut. Remove the test piece and check to make sure

that the router bit depth was properly set by checking the cut depth versus the thickness of the mating stock thickness. If it is not set at the proper depth make any necessary adjustments and test cut a new piece. When you are satisfied with the cutting depth, refer to the layout and cut the “A” ends using this template.

Remove the straight-fingered “tails” template and prepare to use the angled finger “pins” template.

Set-up to cut the Pins:



Install the angled-finger “pins” template onto the jig and let it lay directly on top of the backer block scrap piece clamped under the top clamping bar. Place a test piece of stock that will receive the pins cut on it under the front clamping bar and against the left edge spacing guide. Adjust the height so that it is flush with the bottom of the template fingers. Adjust the forward/backward position of the template using the locking nuts and knurled brass knobs so that the ends of the fingers of the template are 3/4-inch from the back of the wood that is mounted under the front clamping bar (*see figure F*).

Again make a line the same thickness of the stock you will be mating this piece to across the width of the wood that is clamped under the front clamping bar, to use to adjust your router bit depth. (*Placing a piece of stock of the same thickness of the piece you will be mating this with, directly under the template can also be used to get the correct distance*) (*see figure D*).



figure F

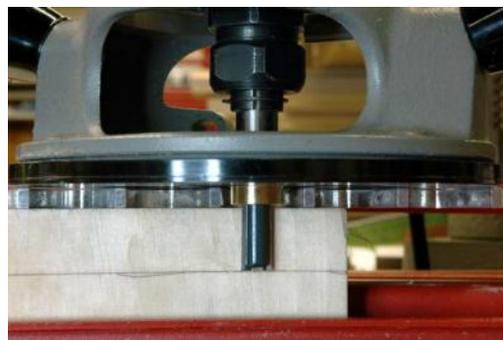
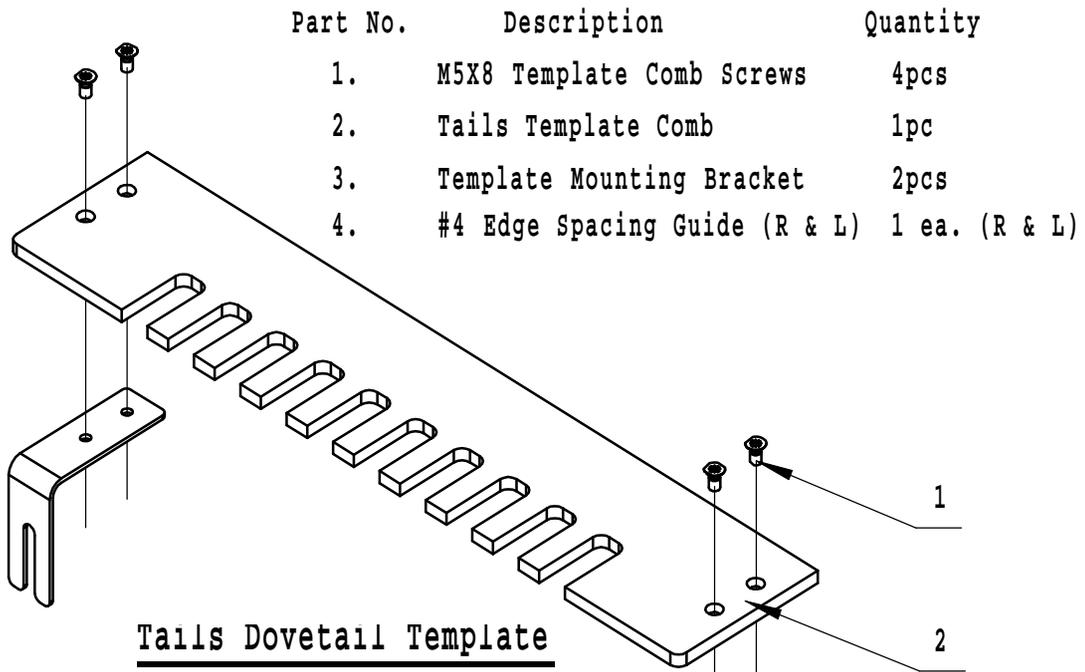


figure G

With the 5/8" outer diameter template guide still installed onto the base of your router, install the 3/8" diameter straight cutting router bit into your router. Place the router onto the dovetail template and adjust the router bit cutting depth so the bottom of the router bit is flush with the set-up line (*see figure G*).

Rout the wood that is clamped into the jig making sure you fully cut through the full thickness and into the backer block. The template guide will bottom out in the taper of each finger gullet, producing a full cut. Remove the test piece and check to make sure that the router bit depth was properly set by checking the cut depth versus the thickness of the mating stock thickness. Next test to see how the pins fit into the tail sockets cut in the previous test piece. If the joint is too loose, adjust the angled-finger "pins" template backward slightly to make the pins wider. If the joint is too tight to go together, adjust the angled-finger "pins" template forward slightly to make the pins narrower. Make a new test cut if you have to adjust the template position and retest for proper fit.

When you are satisfied with the fit of the pins into the sockets of the tails, refer to the layout and cut the "B" ends using this template.



4 (right)

4 (left)

