

Sliding Dovetail Bookends

OVERVIEW



Introduction

This is a great set of bookends that will keep your books organized and looking neat. The bookends can be adapted to fit any shelf opening or can be used as a free-standing bookshelf.

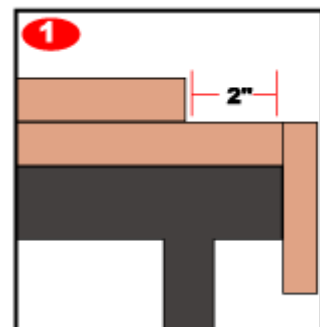
BEFORE YOU START...

SKILL LEVEL & TIME TO COMPLETE

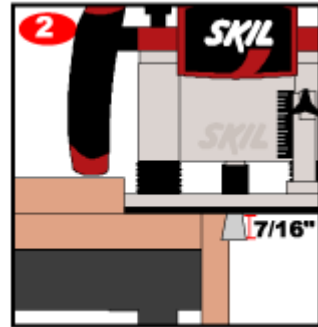
- Beginner - about 10 hours
- Intermediate - about 8 hours
- Advanced - about 4 hours

STEPS

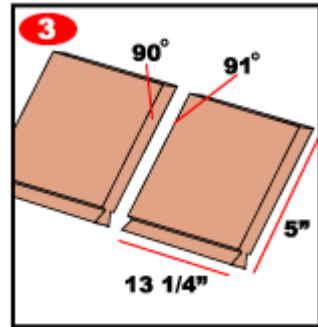
1. It's now time to rout the dovetail on one end of part B, the seven - by - five maple piece. Using a clamping bench, clamp to the bench top a scrap board that is half the width and just as long as the bench. Then clamp a second board on top of the first leaving a 2" offset. Finally clamp the 5 x 7 piece of maple even with the front of the first board.



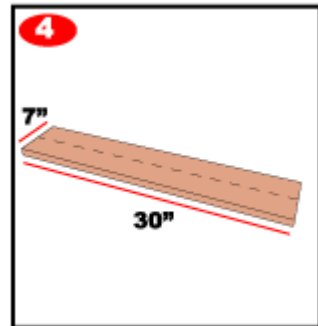
2. Use a 1/2" dovetail router bit and extend the bit 7/16" from the base of the router. Adjust the guide board you have previously clamped so that it accurately guides the router and creates a dovetail profile on one face of your 5 x 7 maple. Then flip the 5 x 7 maple and rout the opposite side to complete the dovetail.



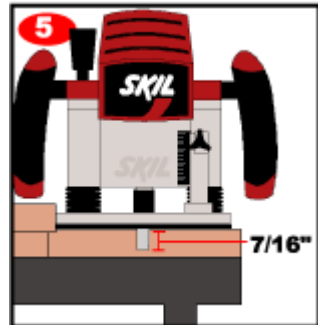
3. Now cut the 5 x 7 maple piece on the table saw to create 2 pieces 3-1/4" x 5" high. To produce the holding power of this dovetail part, one side should be cut to 90 degrees and the opposite side cut to 91 degrees. This one degree offset will help the slide action of the finished ends hold books securely.



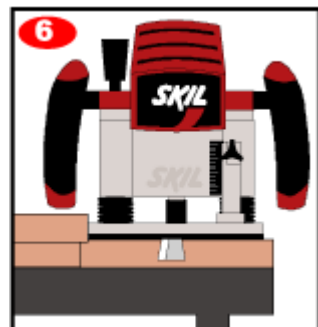
4. It is now time to rout the matching dovetail groove in part A, the long 7" x 30" piece of maple. Draw a light pencil line down the center of this piece and clamp it to the clamping table.



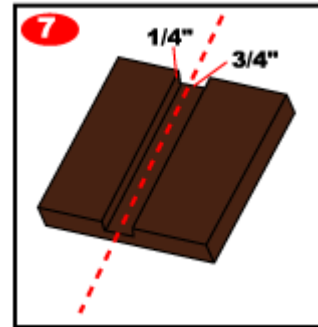
5. Use a 1/4-inch straight router bit and set it to extend 1/8-inch from the base of the router. Clamp a straight board to the table and use it to guide the router in cutting a groove down the center of the 7 x 30 inch maple. Making successive passes with this bit will remove a majority of the material and make the use of the dovetail bit easier. The bit should be set to a depth of 7/16-inch for the last pass.



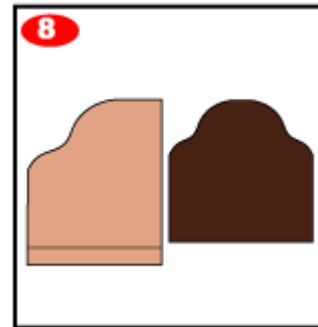
6. Now insert the 1/2" dovetail bit, set it's depth to 7/16" from the base of the router, and rout the final dovetail profile. By moving the clamped guide board slightly, continue to make routing passes to widen the dovetailed groove until it is wide enough to allow the smaller maple piece to slide smoothly in its track.



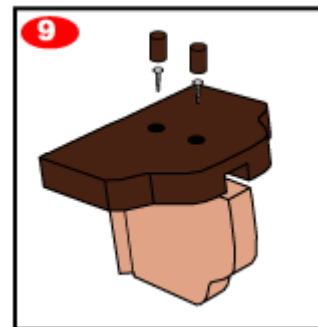
7. With a dado blade on the table saw set to cut 3/4" wide and 1/4" deep, plow a groove into the center of the backs of both walnut pieces to fit the cut 3-1/4" x 5" maple pieces.



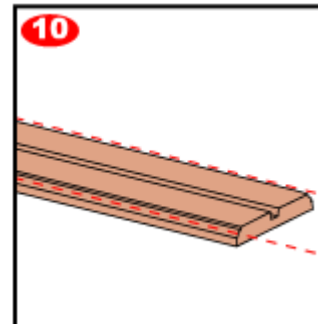
8. Using a jig saw, cut decorative edges on the smaller maple and walnut pieces. Rounding the corners or adding an ogee pattern are some of the options you can choose, or make your own style.



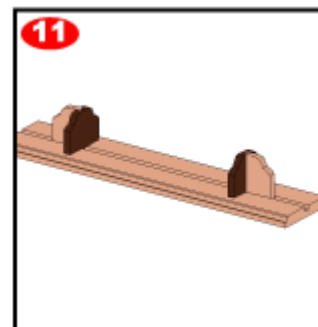
9. Join the 90 degree edge of the 3-1/4" wide maple to the walnut piece by gluing and screwing with 1-1/4" x #8 Phillips head screws set 7/8" from the top and bottom of the walnut and set to a depth of 1/8". Glue and insert 3/8" dowels into the screw hole recesses and trim them flush when dry.



10. With an ogee bit in the router, rout a decorative edge on both the front and back of the long maple shelf, but do not rout the sides.



11. Finish the bookends by finish sanding all the pieces and finally apply a lacquer or poly finish to beautify your work!



SHOP LIST

Materials List

- (1) $\frac{3}{4}$ " x 7" x 30" long Maple
- (1) $\frac{3}{4}$ " x 7" x 5" long Maple
- (2) $\frac{3}{4}$ " x 5" x 4 $\frac{5}{8}$ " long Walnut
- (4) 1-1/4" x #8 Phillips head screws
- Wood glue

Tools List

- Plunge router
- $\frac{1}{2}$ " dovetail bit
- $\frac{1}{4}$ " straight bit
- Ogee bit
- Cordless drill and bits
- Jig jaw and blades
- Palm sander
- Clamps
- Table saw with a regular and dado blade