

MATCHFIT DOVETAIL CLAMPS PROJECT PLAN

# Router Table Pressure Jig

Original project idea and project plan by Ralph Bagnall



**MATCHFIT™**

**MICROJIG**  
WORK SMARTER.

## PROJECT OVERVIEW

---

This jig is a variation of the traditional standard feather board. When routing parts on edge, it keeps the stock tight against the fence while allowing adjustable pressure and for stopped cuts.



An arrangement of strips held apart by alternating blocks creates a spring effect, the force of which can be adjusted by setting jig closer to or further from the router table fence.

## TOOLS & MATERIALS

---

### Tools:

- Table Saw
- Drill Press
- Router
- Router Table
- 1/2" Diameter 14° Dovetail Router Bit
- 1/2" Drill Bit
- GRR-RIPPER 3D Pushblock
- MATCHFIT Dovetail Clamp Set
- Clamps

### Materials:

- Clear, straight-grained hardwood,  
1/2" to 5/8" thick, approximately 36" in  
length by 6" wide (see STEP 1)
- Wood Glue

# INSTRUCTIONS

## STEP 1 - PREPARE THE WORKPIECE

A 1/2" to 5/8" thick piece of clear, straight grained hardwood is needed. Cherry and maple are excellent choices for this project. Cross cut the stock to be the length of your router table or your fence, whichever is shorter, and rip it to at least 1" wider than the height of the fence. In the example, the prepared stock is cut to 30" by 4".

## STEP 2 - MAKE 1/4" STRIPS

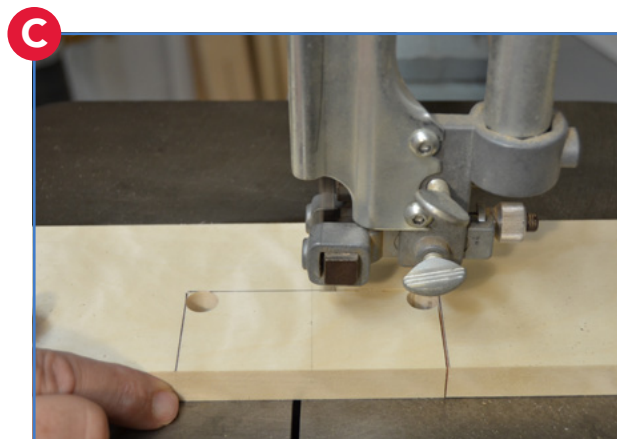
Using your GRR-RIPPER, rip three 1/4" strips from your prepared stock and set them aside. Next, create the body of the Router Table Pressure Jig by ripping the remaining piece to the height of the fence minus 1/2". **A**



## STEP 3 - MAKE THE NOTCH

To prevent bits from hitting the Pressure Jig, a clearance notch needs to be cut. To create the notch, find the center of the body, then mark the bottom edge 2" from each side of the center. The notch should be half the width of the body.

Drill out the top corners of the notch using a 1/2" drill bit. **B** Then cut the waste away with a band saw or jig saw. **C**





# INSTRUCTIONS

## STEP 4 - CREATE THE DOVETAIL GROOVE

**D** Cut a relief groove in the center of each end of the body, 1/4" wide by 5/16" deep. Cut this groove about 6" in from each end. A stop block positioned on the rip fence makes it easy to limit the length of the groove. **E** Next, two 1/2" 14° dovetail slots are milled 3/8" deep along the center line of these relief slots for the MATCHFIT Dovetail Clamps.



## STEP 5 - PREPARE THE STRIPS

The three strips set aside earlier are used to create "spring loaded" hold downs. Cut two of the strips into four pieces of equal length. Each should be half as long as the body, minus 2" for bit clearance. Cross cut ten 1/2" long pieces from the third strip.

## STEP 6 - GLUING

Glue one of the 1/2" blocks to each end of two of the longer strips. Glue a third block on each of these strips, centered between the ends. Next, glue the remaining two long strips to the other side of the three blocks. **F** Now you have two sets of long strips with three blocks glued between them.

Glue two 1/2" blocks to the outside of each assembly at the midpoint between the three previous blocks.

*Continued on next page.*

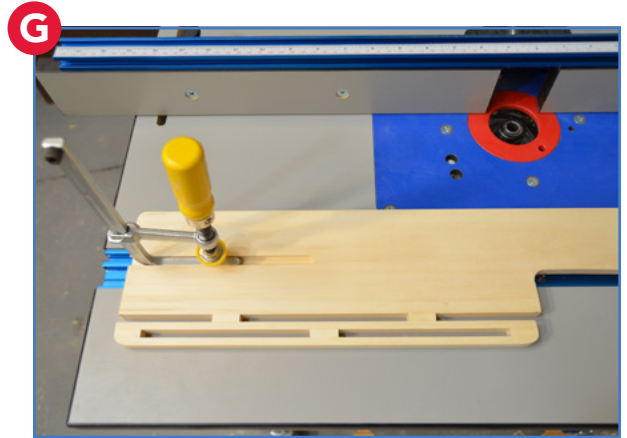


# INSTRUCTIONS

---

## STEP 6 - GLUING *Continued*

To finish the assembly, glue the two blocks on the outside of each assembly to the bottom edge of the body, one on each side of the notch. Align the two assemblies with the ends of the Pressure Jig body, leaving the notch open. **G** Lightly clamp all this together until the glue has had ample time to cure, preferably overnight.



## STEP 7 - FINISHING

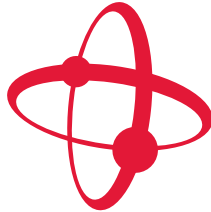
Sand the lower corners of the springs at each end to make sliding the stock under the springs easier. The Router Table Pressure Jig can be finished with polyurethane and waxed along the bottom edge to ensure that stock slides smoothly along it.

## USING THE ROUTER TABLE PRESSURE JIG

---

To use the Router Table Pressure Jig, set your stock standing up against the fence, resting on edge on the table. Place the jig on the table with the spring resting against the stock. Slide a MATCHFIT Dovetail Clamp into each end of the hold down, and clamp it to the edge of the router table. The Router Table Pressure Jig can be pressed into the part as the clamps are tightened to control the holding pressure.





# WORK SAFER. WORK SMARTER.

We hope that you enjoy these project plans and learn a few new tricks to use in your shop. Share photos of your completed project with us on Facebook, Twitter and Instagram with hashtag **#worksmarter**

[Facebook.com/microjig](https://www.facebook.com/microjig)

[Twitter.com/microjig](https://twitter.com/microjig)

Instagram: [@microjig](https://www.instagram.com/microjig)

*Enjoy!*



Woodworking is an inherently dangerous activity. Be sure to know and follow all safety guidelines that come with your power tools.



**MATCHFIT™**

**MICROJIG**  
WORK SMARTER.