3-in-1 MATCHFIT JIG

Tall Fence + Jointing Sled + Tapering Jig
PROJECT OVERVIEW

This 3-in-1 jig serves as a tall fence, a jointing sled, and a tapering jig, all made possible by the MATCHFIT System. When secured with Dovetail Clamps to a table saw, router table, or bandsaw fence, it provides added support to cut material on its edge. Laid flat on the table saw top, you can clamp warped or live edge material to it and safely cut a straight edge, running the sled along the fence. By adding simple stops with Dovetail Hardware, you can set the material at an angle and make safe, repeatable taper cuts.

TOOLS & MATERIALS

TOOLS

- Table saw
- Router Table (or handheld router with edge guide)
- 1/2”, 14-degree dovetail router bit
- 1/4” diameter straight or spiral router bit
- 45-degree chamfer bit
- MATCHFIT Dovetail Clamps
- MATCHFIT Dovetail Hardware (1” or 1-1/2” 4-pack)

MATERIALS

- (1) 10” wide, 3/4” thick plywood, cut to the length of your table saw fence - * void-free recommended
- (2) 2” wide x 6” long x 1/2” thick plywood blocks
INSTRUCTIONS

STEP 1 - CUT THE STOCK TO SIZE
On the table saw, cut a sheet of 3/4” thick plywood 10” wide x the length of your table saw’s rip fence.

STEP 2 - ROUTE RELIEF GROOVES
On the router table, set a 1/4” diameter straight or spiral router bit to a cutting depth of 11/32”. Set the fence to 2” and route relief grooves along both long sides.
INSTRUCTIONS

STEP 2 - ROUTE RELIEF GROOVES CONTINUED

Next, move your fence to 4”, and route relief grooves on the two short sides. Now mark the center of the sled longways, and route a groove down the center. If your router table doesn’t have enough capacity, remove the fence and use a miter gauge. Now measure the halfway point between the center groove and the outermost grooves on your sled, and route the last two grooves.

*NOTE* If your router table fence has less than 4” capacity, you can use an auxiliary fence. CLICK HERE for instructions on how to set up an auxiliary fence on your router table.
INSTRUCTIONS

STEP 3 - ROUTE DOVETAIL TRACKS

On the router table, set a 1/2” 14-degree dovetail router bit to a cutting depth of 3/8” (.375). Route dovetail tracks in the same locations as the relief grooves in the previous step.

STEP 4 - CHAMFER

Chop an inch off of each corner at 45 degrees and chamfer the two short sides and one long side.
INSTRUCTIONS

STEP 5 - CUT TAPERING JIG STOPS

Cut (2) blocks out of 1/2” thick plywood, 2” wide x 6” long. Route 1/4” wide slots and heels according to the schematics below.
OPERATION

AS A TALL FENCE

Insert MATCHFit Dovetail Clamps in the outermost 10” long dovetail tracks. Place the edge of the jig on the table with the routed side against the fence, then clamp the sled to the rip fence.
Lay the sled flat on the table saw top with the routed side facing up. Align the edge you want to cut with the edge of the sled closest to the blade. Adjust the rip fence so that the edge of the sled is only 1/16-1/8” from the blade. Secure your work-piece with Dovetail Clamps, and make the cut, using the clamp bars as handles.
AS A TAPERING JIG

Mark your taper cuts on the workpiece, then place it on the jig with the marked line aligned with the unchamfered edge of the sled.

Once your workpiece is aligned, place the slotted stops up against two sides of the workpiece and lock them in place with MATCHFIT Dovetail Hardware. Make sure that every piece is contacting the stops to ensure uniformity. Clamp workpiece in place with MATCHFIT Dovetail Clamps and advance sled along the fence through the cut.