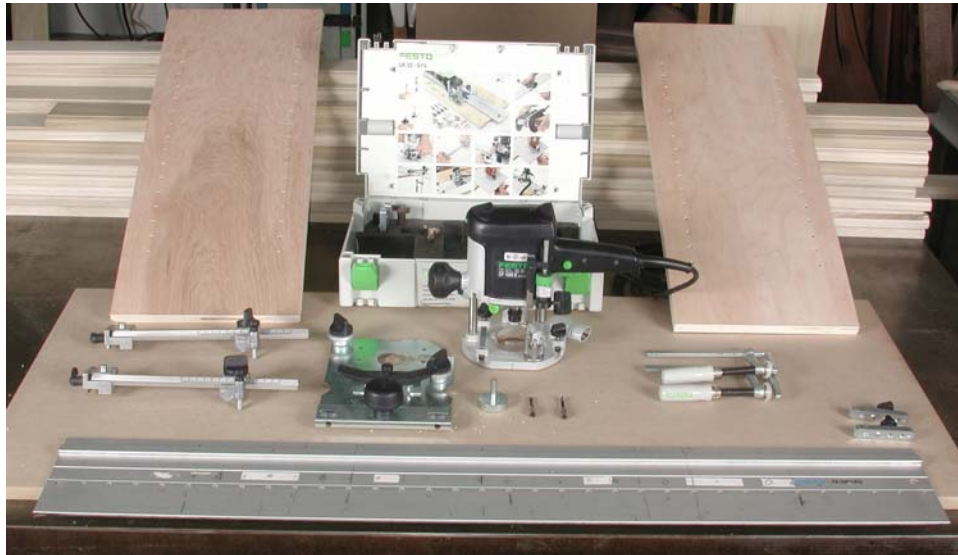


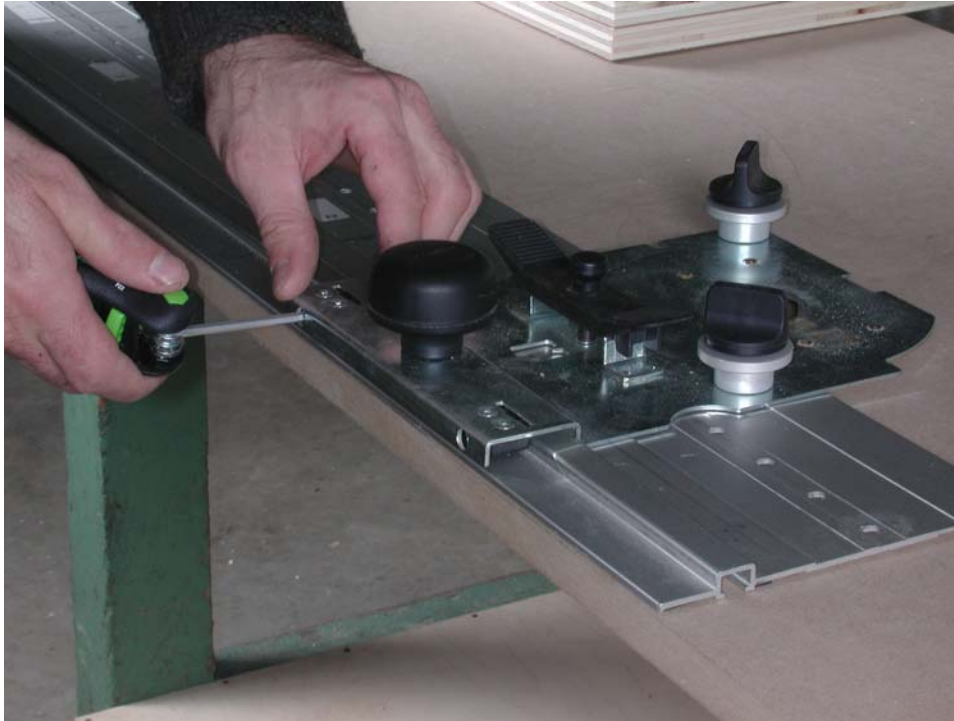
Routing Adjustable Shelf Pin Holes with the OF 1000 Plunge Router

When I first saw the OF 1000 used to make adjustable shelf pin holes, I was astounded at the speed and accuracy of the system. I still am. And when I demonstrate it in my shop or at trade shows, I often see eyes go wide. The router takes about 3-5 minutes to set up. Then I can rout two lines of 20 holes in a pair of cabinet sides in about three minutes. Because they're routed and not drilled, the holes are perfectly clean with no tear out. I have no need to use brass sleeves or grommets for the holes. A photo essay like this can't show the speed and ease, but it will give you a hand figuring out how to do it.



The tools necessary include the router, a length of the guide rail with detent holes and clamps, a guide plate, two "side stops," a centering mandrel, and, of course, a router bit. You can get a set that includes everything you need with a Systainer to keep it in one place.

Out of the box, you'll need to set up a few things. These steps you only have to do once.



First, adjust the jaws in the guide plate so it glides smoothly along the rail without play.



Next, set the scale to zero on the two "side stops."



Position the guide plate on the guide rail and attach the side stop to the guide rail rib on the left side of the guide plate. Now loosen the allen bolt on the head of the side stop and slide the arm until the little pin (under my pointing finger) fits into the notch in the side of the guide plate. Repeat the process for the other side stop. This makes the scale on the side stops accurate.



Finally, attach the "linear stops" to both ends of the guide rail. Attach them in the same way--either "32" or "16" should show. These numbers indicate how far the top or bottom hole would be from the end of the workpiece. This scale is for routing 32mm hinge systems.

To set up for routing shelf-pin holes, you first need to attach the router to the guide plate.



First chuck the centering mandrel into the router. Finger-tighten the collet.



Place the router onto the guide plate in the orientation you see above. Plunge the router so the centering mandrel fits into the hole. Then secure the router to the guide plate with the two knobs on the sides.



Take out the centering mandrel and fit the router bit of your choice. 5mm and ¼ in. are the most common shelf-pin hole sizes.



Zero the depth scale with the router and plate on the guide rail (see the photo essay on setting up the router for details). The guide rail and guide plate raise the router up off the workpiece. If you zero the bit off the base of the router, your holes will be too shallow.



Set the plunge depth to between 7 and 10mm, though the best depth depends on the type of pins you're using.

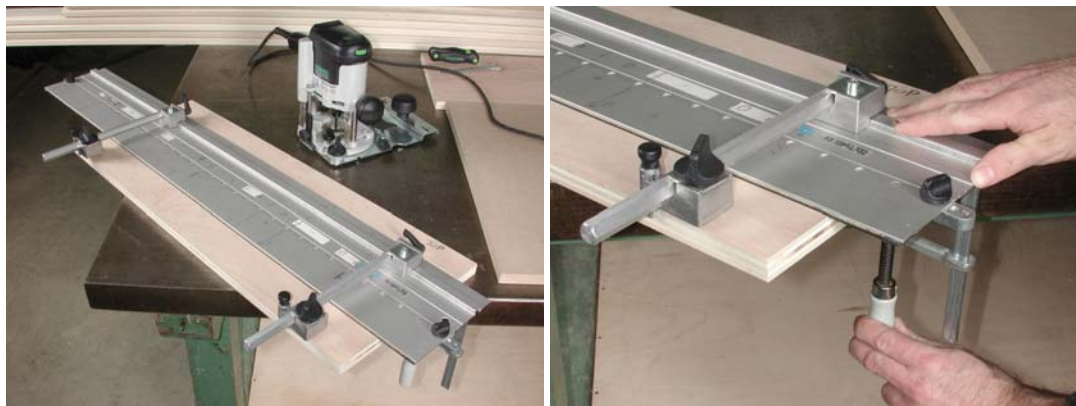


Layout where you want the shelf pin holes to begin and end. Make the layout lines cross the entire faces of the workpieces. This makes them easier to see as the guide plate and rail

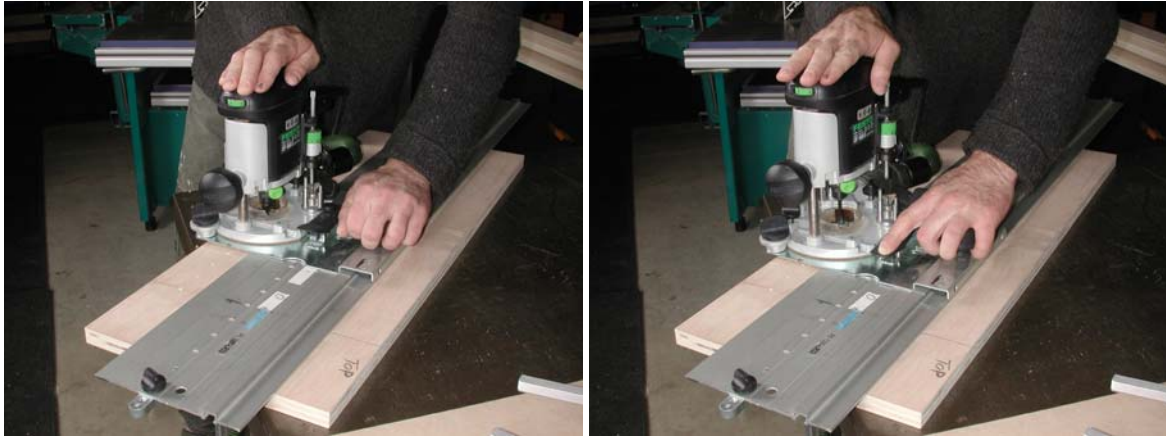
cover a lot. Mark the top end of the workpieces clearly. This is very important to avoid confusion later.



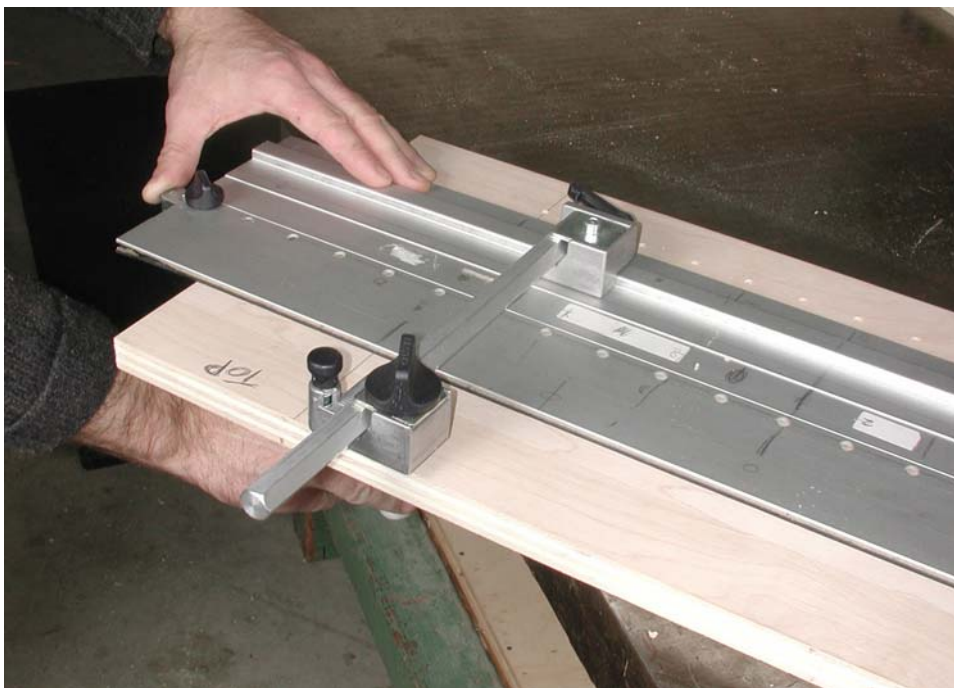
Set the side stops to the distance you want the holes from the edge. I use 40mm (1 ½ in.) most often. Too close to the edge, and the pins show; too far and the shelf can get tippy.



Set up the guide rail on the workpiece with the side stops and linear stops snug against the edges. The side stops set the guide rail at the right distance from the edge. The linear stop at the end aligns the series of holes at the same distances from the ends. Clamp the guide rails to the workpiece making sure the rail does not slide out of place.



To rout the holes, hold the router in one hand, and the knob on the guide plate with the other. Push the guide plate along until the pin pops down into a detent hole. Then plunge the router (left hand photo). Next, press down the rocker arm on the guide plate. This releases the pin from the detent hole. Now you can slide the guide plate to the next hole. With practice, you'll be able to do this very quickly—plunge—rock—move—plunge—rock—move, etc....



After you rout one length of holes, remove the guide rail and position it on the other side of the workpiece. The trick is to clamp it down so that the linear stop at the other end of the guide rail registers off the SAME END as it did for the first series of holes. This means using the linear stop on the other end of the rail. The temptation will be to use the same linear stop. This will give you holes that don't line up side to side.



Rout the second series of holes in the same manner as the first. Before you know it, you'll be all done.