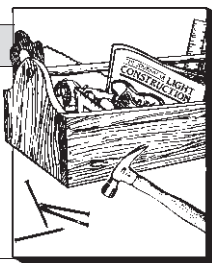


Templates for Hinge Mortising

by Clayton DeKorne



Hinge mortising jigs can improve a carpenter's door-hanging speed almost as much as switching from a chisel to a router.

But not all hinge-mortising jigs are right for all situations. Once set up, they will all cut the time it takes to rout an accurate mortise. But differences in the amount of set-up time needed make some jigs more effective for doing one door at a time and others better for doing a run of 500 doors. I tested three types of hinge-mortising jigs: a single-hinge template, full-door templates, and a production-style template.

One Hinge at a Time

The *Hinge Mate-1100* is a one-piece, single-hinge template that adjusts for 2- to 5-inch hinges (D.C. Precision Tools, Inc., 11 Mathews Ave., Riverdale, NJ 07457; 800/462-2481). While it doesn't set the distance between the hinges, the setup is very fast.

For each door, the hinge placement must be manually measured from the top or bottom of the door or jamb. The *Hinge Mate* won't work on installed jambs. But it can be used on a jamb before installation.

The *Hinge Mate* clamps over the door edge with two plastic-handled screws that keep the template square to the door (see Figure 1). Any router can be used with the *Hinge Mate*. However, the router must be equipped with the mortising bit and roller bearing collar included with the jig.

Of all the jigs I tested, the *Hinge Mate* is my favorite. It is made of a heavy, anodized aluminum, and the machining is very precise. There is no doubt this is a professional tool. The whole jig packs away in a 8x12-inch foam-padded case, and retails for about \$130, including the bit. My one big complaint with the *Hinge Mate* is that it will not work on 2 1/4-inch-thick doors, a common size for commercial fire doors.

Compared to full-door jigs, the *Hinge Mate* has other drawbacks. Most notably, you have to measure each door. But for doing one door at a time, the *Hinge Mate* shines

because the setup is so fast.

Another drawback is you can't mortise the jamb in place, which goes against the conventional practice of first installing the jambs throughout a house, and then hanging the doors, and casing the opening. This disadvantage is most glaring for remodelers hanging doors on existing jambs.

With a change in routine, however, I can overlook this weakness. When installing new jambs, I prefer to mortise the jambs during the installation, rather than afterwards. Because I pre-build jambs using biscuit joints or doors, and at the head joints, I am already processing the jambs. It doesn't add much to mortise the hinges at the same time. This is the "once through" method; you handle each piece once, ultimately saving set-up time. It does mean prefiguring the swing of each door, and labeling each piece carefully so you don't end up with a left-hand door in a right-hand opening. This routine, of course, is a matter of personal style.

For remodelers hanging doors in existing jambs, the *Hinge Mate* might still pay for itself doing the door alone because the set-up time is so fast, and the improvement over free handing each mortise on the door is great. The ability to do 3/4-inch cabinet doors may also be some compensation for remodelers.

One Door at a Time

The most common type of hinge-mortising template is a one-piece jig with three hinge templates connected with rods. The four most common jigs of this type are the *Black and Decker* 58129, the *Bosch* 83037, the *Milwaukee* 49-54-0101, and the *Porter-Cable* 59380. All of these can be set up for doors ranging from 1 3/8 to 2 1/4 inches thick and 6 1/2 to 8 feet tall. A fourth template and additional extension rods are optional for each model to accommodate taller doors.

These jigs are nailed to the door edge or jamb with pins, which are permanently attached to each hinge template. The holes made by these pins must be filled.

Each jig set comes with a guide that is screwed to the base of the router. The guides, which encircle the bit, provide the collar that rides against the edge of the template. The *Black and Decker* and *Porter-Cable* guides fit *Black and Decker*, *Hitachi*, *Milwaukee*, and *Porter-Cable* routers. The *Bosch* and *Milwaukee* models fit *Bosch*, *Milwaukee*, and *Ryobi* routers.

With these jigs, it is best to use a "hinge mortising bit." In addition to giving a cleaner, flat-bottomed cut, hinge-mortising bits have a long enough shank to safely project through the guide and the template. The shanks on conventional straight bits must often be extended dangerously far to reach the material.

Unlike the *Hinge Mate*, this type of hinge-mortising jig also permits mortising a jamb in place (see Figure 2).

But it takes a relatively long time to set up these jigs, which makes them less practical than the *Hinge Mate* for doing only a few doors at a time. I know one builder, however, who set up his template for a 6-foot-8-inch door and screwed the rig to a 1x4. This makes for a long, but transportable package, which is efficient to use for even one door.

All these jigs retail for around \$150. While I have used all of these jigs, I'm most familiar with the *Porter-Cable* which is the heaviest and seemingly most durable. It can be adjusted for 3- to 5-inch hinges. The other three models are adjustable for 2 1/2- to 5 1/2-inch hinges. The *Bosch* and *Milwaukee* models are virtually identical, and have spring-loaded retractable pins that reduce the danger of scratching your work. This happens invariably with the other models if you forget to pull the pins back completely.

A Production Jig

The *Norfield Hinge Master* is a big, two-piece jig with square templates that clamp to the edge of any size door (*Norfield Tools and Supplies*, P.O. Box 459, Chico, CA 95927; 800/824-6242). The templates are positioned along the door edge using reference rods with adjustable stops which butt the top and



Figure 3. The *Norfield Hinge Master* lets you mortise both the door and the jamb on the same setup.

bottom of the door. A third template can be purchased for center hinges.

To cut a mortise, the router rides around the edge of the templates against a guide that screws onto the base of the router. The size of the mortise is adjusted with three different template guides. Guides for 3 1/2-, 4-, and 4 1/2-inch hinges are available to fit *Black and Decker*, *Hitachi*, *Makita*, *Milwaukee*, and *Porter-Cable* routers. An adapter is available for *Bosch* and *Ryobi* routers.

The greatest advantage of the *Hinge Master* is that it holds the door edge and the jamb side-by-side (see Figure 3). This allows mortising the door and the jamb at the same time, a feature production door hangers should appreciate.

The *Hinge Master* is the top of the line for hinge mortising jigs. It's certainly the most expensive — almost \$500 including two templates, three guides, and a 5/8-inch hinge mortising bit. The initial set-up time is long, so unless you're mortising a large number of identical door blanks, this jig probably won't be very cost effective. It seems to be designed for large production shops and pre-hung door manufacturers. ■

TOOLBITS

To complete your door hanging

gear, you should check out the *Weldco Door Horse* — a sturdy, stainless steel door buck that's a step above the hand-made, 2x4 variety (*Weldco*, 2024 Britton Beach Drive, Long Beach Island, CA 90815; 213/430-3102). Similar to the T-shaped, site-built buck, a *Door Horse* will hold the door on edge as hinges and hardware are attached. Unlike the 2x4 version, the *Door Horse* is collapsible, so you can stash it under the truck seat to keep it on hand. The *Door Horse* has a foam-padded, sliding jaw that clamps the door in place. This is a noticeable improvement over the shims needed to secure a door on the site-built support. The sliding jaw is adjustable to any width up to 18 inches, which will accommodate any door. In addition, the manufacturer recommends using the *Door Horse* for storing sheet material until you start hanging doors. The *Door Horse* sells for about \$40.

In addition to industrial door-hanging tools, *Norfield* distributes a wide variety of woodworking tools. While they market primarily to production woodworking shops, their catalog collection is one of the best I've seen. Of particular note for builders, it includes *Sioux* drills and screwdrivers, *Stabila*

box-beam levels, and industrial-grade saw blades, drill bits, and specialty boring bits. Contact *Norfield Tools and Supplies*, P.O. Box 459, Chico, CA 95927; 800/824-6242.

The *Sawzall* has been improved (as if it needed to be). *Milwaukee* (13135 West Lisbon Road, Brookfield, WI 53005; 414/781-3600) recently announced the *Super Sawzall* with an 8-amp motor (compared to the original's 4 amp) and an 1 1/4-inch stroke (compared to the original 3/4-inch). These improvements should add cutting speed to the *Sawzall*'s other attributes (see *Toolbox*, 5/89). Other features on the new model include a counter-balance mechanism that controls vibration and produces a very smooth operating saw, an adjustable depth shoe, and a hex key placement on the boot.

The *Sargeant Tool Company* (P.O. Box 479, Amelia, OH 45102; 513/797-4200) is a manufacturer of heavy-duty steel-handle tools — in particular, the kind that get hit by hammers, such as punches, cold chisels, ripping chisels, mason's chisels, cat's paws, wrecking and salvage bars, tamping bars, form removers, and sledge hammers. I wouldn't worry about abusing any of them. Of particular note, they make a 30-inch-long screwdriver with an angled pry tip that looks very useful for demolition work that requires precision.

—Clayton DeKorne



Figure 1. The *Hinge Mate-1100* sets up quickly, but must be moved for each hinge.



Figure 2. One-piece mortising templates such as this *Porter-Cable* 59380 can be used on an installed jamb.