

Leigh Industries FMT Jig

SIMPLIFIES MORTISE & TENON JOINERY



At a Glance

Price: \$800
Requires: 1/2" plunge router
Dimensions: 8" x 12" x 14"
Max Tenon: 1/2" x 2 1/2" x 5"
Warranty: 5 years

Virtues: Simplifies mortise and tenon joinery with inventive guide system and logical, clear instructions for use.

www.LeighJigs.com
 800-663-8932

◀ Leigh's FMT jig partners with most plunge routers to become an incredibly versatile mortise and tenon machine.

Until the advent of the Frame Mortise and Tenon Jig from Leigh Industries, my technique for making mortise and tenon joinery involved a minimum of two large power tools and a great deal of time and effort.

Typically, I'd cut the mortises by drilling several holes with a Forstner bit and then square them up with a chisel.

The tenons I cut on my tablesaw with a tenoning jig.

After a few large projects using this methodology, I felt I'd become quite efficient setting up and cutting dead-on mortise-and-tenon joints. The FMT, however, changed my idea of what efficient is.

Quite simply, the FMT takes all the hard work and fussiness that's inher-

ent to mortise and tenon joinery and very nearly eliminates it. If you can operate a plunge router and follow simple instructions, you can easily use the FMT jig to build furniture using mortise and tenon joints.

Shown in action (*above*) and as a kit (*below*), the FMT consists of a jig body that positions the workpiece and guides the router, a sub-base that will accept most brands of plunge router, a 5/16" spiral upcut bit, five templates that make over 20 sizes of mortise and tenon joints, and all the necessary tools, hardware, and clamps.

The most important component of this system, however, has to be the user's manual. This clearly illustrated and plainly-written manual guides you through the setup and operation of the jig with a perfect blend of theory and step-by-step instructions.

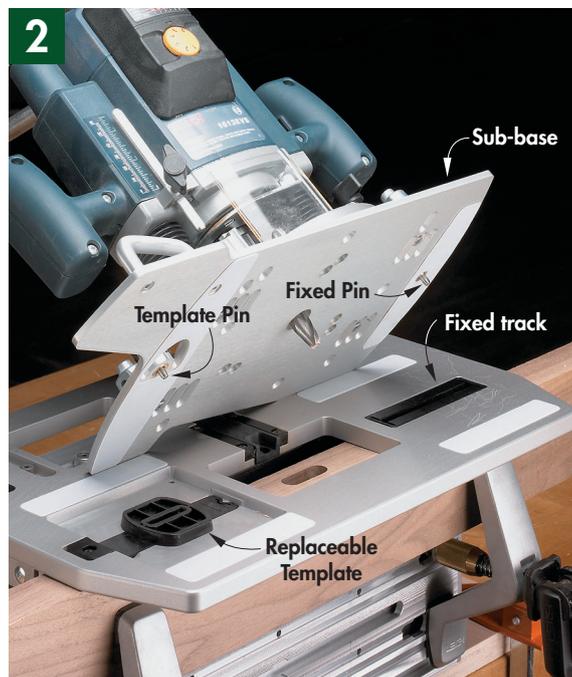
Setup and Operation

The FMT requires you to do little more than decide the size of mortise





▲ Cam-action clamps and adjustable stops ensure perfect and secure placement of the workpiece. Clamps and stops can be used in various locations to accommodate different stock sizes.



◀ Pins on the sub-base follow guides on the jig top to cut perfect-fitting mortise and tenon joints.

▼ The basic FMT jig comes with five templates that are capable of more than 20 sizes of mortise and tenon joints.



▲ From matchstick-sized tenons to triple and quadruple joints, the FMT offers almost endless possibilities for mortise and tenon design.

and tenon you wish to cut and then match that to the appropriate bit and template combination. From there, locate the center of the cuts. Then use the adjustable stops to position the workpiece and the cam clamps to hold it firmly in position (Fig. 1).

At this point, the FMT pretty much takes over. A set of pins in the router sub-base positions the router on the jig body (Fig. 2).

One pin rides in a fixed track to control the side-to-side movement of the router. The second pin tracks around the perimeter of the template to cut the tenon and inside the template to cut the matching mortise (Fig. 2a). This template pin is microadjustable, which allows you to fine-tune the fit of the joint.

Versatility

The FMT also receives high praise for the incredible array of mortise and tenon joints it can cut — anywhere between a matchstick and a

3"-wide x 5"-long tenon is all in a day's work for this versatile jig (Figs. 3 and 3a).

Likewise, the FMT simplifies even very challenging variations of mortise and tenon, including angled tenons and even double, triple, and quadruple mortise and tenon joints.

It's important to note here, however, that this range of versatility requires you to purchase additional templates and router bits. This adds significantly to the cost of the FMT (about another \$320 if you want every possible variation).

And on the subject of cost, there's no denying that FMT is a sizable investment. On the other hand, when I compare it to the price of the nearest alternative — that being a dedicated mortiser and a tenoning jig for the table saw — and then factor in how much faster and more accurate this system is than any other manner of cutting mortise and tenon joints, it looks like a bargain to me.