ShopNotes.

worth a look Leigh FMT Pro

This 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 (now called the *FMT Pro*) 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





method, I felt I'd become quite efficient setting up and cutting dead-on mortise-and-tenon joints. The *FMT Pro*, however, changed my idea of what efficient is.

Quite simply, the *FMT Pro* takes all the hard work and fussiness that's inherent 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 Pro* to build furniture

IT Pro to build furniture using mortise and tenon joints.

Shown in action (above) and as a kit (below), the kit 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 guides that make over 20 sizes of mortise and tenon joints, and all the necessary tools, hardware, clamps, and accessories.

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

Guides

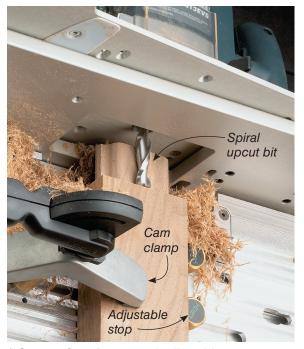
Spiral upcut bit Price: \$929 (as of Jan. 2010) Requires: $\frac{1}{2}$ " plunge router Dimensions: 8" x 12" x 14" Max Tenon: $\frac{1}{2}$ " x $2\frac{1}{2}$ " x 5" Warranty: 5 years

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

leighjigs.com 800-663-8932

Adjustable stop

Cam clamp



▲ 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.

setup and operation of the jig with a perfect blend of theory and step-by-step instructions.

SETUP & OPERATION

The *FMT Pro* requires you to do little more than decide the size of mortise and tenon you wish to cut and then match that to the appropriate bit and guide 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 (photo above).

Now, the *FMT Pro* pretty much takes over. A set of pins in the sub-base positions the router on the jig body, (photo above right).

One pin rides in a fixed track to control side-to-side movement. The second pin tracks around the perimeter of the guide to cut the tenon and inside the guide to cut the matching mortise (top margin photo). This pin is microadjustable for fine-tuning the fit of the joint.

VERSATILITY

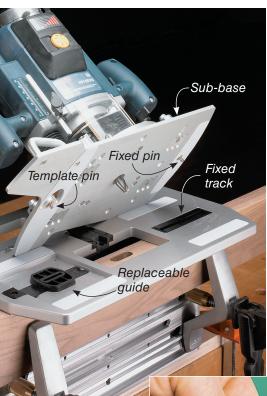
The *FMT Pro* also receives high praise for the incredible array of

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. You can see a sampling of these joints in the lower right photo.

Likewise, the *FMT Pro* simplifies even very challenging variations of mortise and tenon joinery, 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 Pro* (over \$300 if you purchase every possible guide and bit variation).

There's no denying that the *FMT Pro* 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.



Pins.

Two pins follow guides on the jig top to cut perfectfitting mortise and tenon joints.

▼ Versatility. The FMT Pro comes with five guides that are capable of more than 20 sizes of mortise and tenon joints.





▲ **A Variety of Joints.** The FMT Pro offers almost endless possibilities for mortise and tenon joinery design.