

Through Dovetails for Under \$100

By Chris Marshall



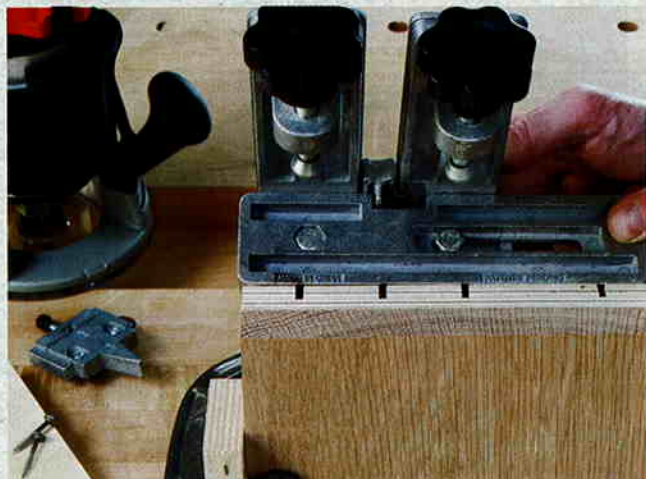
In my experience, there has often been a high price to pay for routing dovetails. Many of the “first-generation” jigs cost a fortune, I wasted a lot of test lumber getting them to work properly, and it took hours to figure out their book-length manuals. While there is some good news on the pricing front — Leigh, for instance, has introduced lower priced units, and Rockler has come out with a very reasonably priced line — there still remains the challenge of learning how to use many of these jigs, especially for longer runs of dovetails.

The folks at Prazi USA must have felt my pain, because they’ve developed a simple, affordable jig that cuts through dovetails with any spacing you choose. And, get this: the ChestMate™ owner’s manual is just 12 pages long!

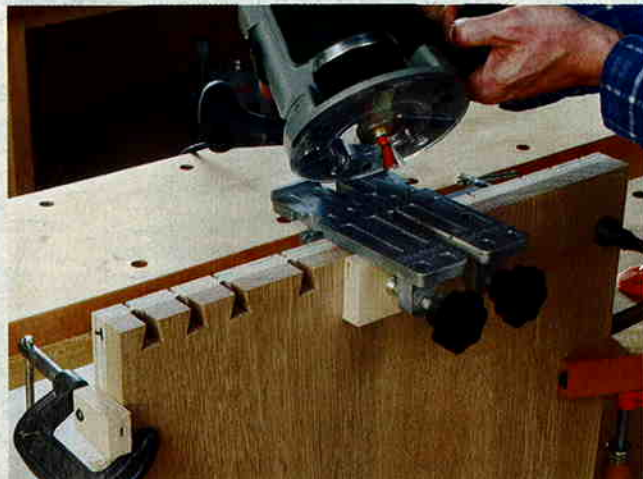
Here’s how the ChestMate works: essentially, the jig consists of a metal clamp that you affix to your workpieces, one board at a time. It has two base

ChestMate’s clamp-on design and indexing system make variable-spaced through dovetails a simple operation.

Four steps, two notched inserts and one template pattern create



A registration tab on the jig’s tail insert fits into a saw-kerf template you make to set the dovetail spacing. The pin insert, also shown here lower left, has a matching tab underneath.



Cutting the tails involves clamping the jig to the template and workpiece and routing between the jig bases with a 7° or 14° dovetail bit. A 5/8" O.D. rub collar in the router limits the cutting path.

ChestMate's unique pin and tail inserts are the keys that allow you to set your own through dovetail spacing with complete control.



platforms that support the router — one fixed and the other adjustable. A pair of inserts install between the bases for cutting either the tails or the pins.

This is where the genius of the ChestMate's design comes in. On the bottom of each insert is a registration tab that fits inside a 1/8"-wide saw kerf. To establish your pin and tail spacing, you create a template with a series of saw kerfs that position the pins and tails wherever you want them. Since the jig clamps to your work pieces, rather than the usual convention of fitting the entire board inside the jig body, your pin-and-tail template can be as long as you like. So, the width of your joints, as well as the template's pattern, is completely up to you. Want to make a 4-ft.-long joint? You can really do it with this jig.

There are a couple of limitations to the ChestMate worth knowing about. The jig will make joints in either 3/4" or 1/2" material, using a 3/4"- or 1/2"-diameter dovetail bit. Prazi offers inserts for use with either 7° or 14° dovetail bits. You'll also need a 5/8" O.D. rub collar and a mid-sized router. The collar follows the cutting area created between the jig bases and the pin or tail insert. Although the spacing of the pins and tails is variable, the shape of the pins is always uniform. You should also know that ChestMate only cuts through dovetails, not half-blinds.

Four Steps to Precise Dovetails

There are four steps to routing a complete joint. The tails come first. With the tail insert installed in the jig, and the jig registered and clamped to your kerf

template, you rout the first pass, then unclamp and shift the jig to the next kerf. Rout and repeat. The template doubles as a backup board. Another scrap fastened to the clamps in front ensures tearout-free cuts. The second and third stages of routing form the pins. Here, you switch to the pin insert and a 5/16" straight bit. The fail-safe at this point is that you cut a test pin on a scrap of spare stock the same thickness as the pin board. The pin insert has a micro-adjust knob for dialing in wider or narrower pin sizes. Once the test pin fits your tail board, you can rout the actual workpiece without trepidation. Cutting the pins involves the same "rout and reclamp" process as the tails.

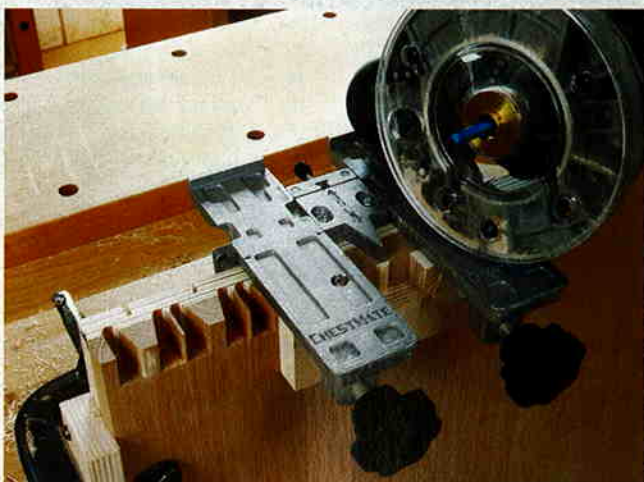
Because the spacing is variable, the fourth and final step involves cleaning up waste material between the pins you've made. This time, simply remove the inserts, clamp the jig in place, and rout away the waste. A couple of fresh scraps clamped to both faces of the pin board eliminate tearout.

In the end, provided your test pin fit nicely at that stage, the joint parts will mesh precisely with no need for refinement. I had success on my very first try.

For \$99.00, the ChestMate's flexibility and ease of use take the headache out of through dovetails at a penny-pinching price. I was impressed, and I bet you will be, too. Learn more about the ChestMate Dovetail Jig by visiting www.praziusa.com or calling 800-262-0211.

Chris Marshall builds projects and reviews tools as Woodworker's Journal's Field Editor.

through dovetails with any spacing you prefer



Switch to the adjustable pin insert and a straight bit to convert the jig over for milling the dovetail pins. Using the same kerf template, you'll produce pins with the correct spacing to match the tails.



Complete the pins by routing away the waste material between them. The jig still serves to limit the cutting area, but this time without either of the two inserts installed.