Today's Shop

Box Joint Jig Roundup

By Chris Marshall



hile they may not have the panache or instant recognition of dovetails, there's no denying that box joints exhibit their own curb appeal on furniture, drawers and boxes. Their interlocking pattern of straight pins and slots provides a geometry that will make non-woodworking

observers wonder how you did it, and the light-to-dark interplay of face and end grain catches the eye every time. But aside from eye candy, these joints are as much substance as show. All of those contact surfaces between pins and slots offer a huge amount of glue surface area. Once a well-made box joint is glued up, you'll be hard-pressed to break it.

Now, I can already hear the critics say, "There are umpteen box joint jig plans on the Internet and YouTube. You can build them from scratch, with all sorts of whiz-bang adjusters, and pay next to nothing!" Yep, you folks are right. But keep in mind that not every woodworker enjoys designing or building jigs. If you'd rather spend your shop time making projects, gifts and furniture, this roundup of prefabricated box joint jigs is for you.

The following five options offer quite a range of function, versatility and pricing. But rest assured — they all work well for the job. Have a little patience, follow the directions carefully, and start with flat, square and uniform workpieces. You'll be making air-tight box joints in no time, thanks to these well-engineered products.



Leigh RTJ400

Street Price: \$359

Joint Sizes: 3/8", 3/4" (standard); 3/32", 3/16" (optional)

Compatible With: Router table

Web/Phone: www.leiahiias.com / 800-663-8932

Leigh RTJ400

The versatile RTJ400 will cut about a dozen sizes and styles of through and half-blind dovetails, plus four sizes of box joints. Here's the gist of how it works. It consists of a thick aircraft-grade aluminum template with a pattern for cutting dovetail pins or box joints along one edge and dovetail tails along the other edge. This style of joint-making template isn't new, and many dovetail jigs use it. While the RTJ400 will cut a few sizes of box joints. most other template-style dovetail jigs can, too.

What makes this jig truly unique is its handle and fence system. Leigh has engineered a series of holes and slots in the template that position the fence automatically for cutting its full range of box and dovetail joints. Much of the trial-and-error process involved with setting up other similar templated jigs is eliminated with this design, and that's a huge help!

Another brilliant Leigh innovation is the "eBush" guide collar, required for use with the jig. It installs in 1½" -diameter router plate openings. The bushing portion is elliptical, not round, like typical guide bushings. Its collar has numeric index

marks that enable you to adjust the tolerances of your joints by simply twisting the eBush left or right to increase the collar-to-router bit offset. This way, eBush allows joints to be fine-tuned in .001" increments.

The RTI400's base will accept workpieces up to 16" wide, so while this jig doesn't accommodate unlimited workpiece width, it will tackle anything from small boxes and drawers up to moderately sized carcasses. The template's 6" x 27" footprint, combined with sturdy handles on both ends of the fence, also inspires confidence when machining even long or heavy workpieces. But, you'll need a router table to use this jig. It also only works "template down" and not with a freehand router.

Leigh includes a 3/8" straight bit with the standard kit, so you can cut either 3/8" or 3/4" box joint patterns, plus many sizes of through and half-blind dovetails with other included bits. You'll need to buy accessory bits for routing 3/32" or 3/16" box joints. It won't cut other common box joint sizes like 1/4" or 1/2".

A clearly illustrated spiral-bound manual, and an instructional DVD, provide ex-



eBush's elliptical shape around the bit allows you to improve the fit of joints in thousandths of an inch by turning the collar left or right.

cellent help. I was able to cut glue-ready 3/4" box joints on my first try. But, keep these reference materials close at hand when using the jig — setting it up isn't intuitive. Who would pay \$359 to only cut box joints? Not many. But remember, box joints are only the tip of the iceberg of joint-making options here.



A series of holes in the jig's template set the fence's position quickly and correctly for cutting either dovetails or box joints.



Sturdy handles on the ends of the fence assembly make the jig easy to control. Cam-style clamps hold workpieces and backup boards securely.