

AKEDA



Dovetail Jig

The new AKEDA dovetail jig (the DC-16) is causing quite a stir. It's no wonder. For most people, and in particular for woodworkers, the dovetail joint epitomizes fine quality craftsmanship. There is something alluring about finely cut dovetails, especially for those of us who aren't terribly proficient cutting them by hand.

The Sum of Its Parts

The AKEDA is one of the least complicated jigs that I've seen. The jig body is one hefty piece of metal, measuring about 4" x 9" x 21" and weighing an impressive 26 pounds. The jig feels and looks solidly built. No wonder, as most of the jig is constructed of 12-gauge steel with thick-walled aluminum extrusions. The top of the jig is a full 1/2" thick piece of solid steel. The oversize threads on the clamp screws are 1/2" in diameter and drive the clamp bars through heavy brass blocks. Indeed, everything about the appearance of the jig exudes quality and durability.

There is little assembly required for this jig. You will need to attach a piece of plywood to the bottom (screws thoughtfully supplied) so that you can clamp the jig to your worktable. There is an inexpensive optional dust collector that attaches to the bottom of the jig. I tried it both with and without the dust

collector, and highly recommend the dust collector. The large flat surface of the jig provides an exceptionally stable surface for the router.

Read All About It

Most instruction guides that I've seen are unintelligible. Not so the AKEDA guide. It is very clearly written, easy to follow, and offers excellent illustrations. I highly recommend that before you use the jig you read through the first four sections of the guide. The guide also provides a step-by-step exercise on making a drawer using both through and half blind dovetails. I did the exercise (after reading the guide) and found it very helpful.

Fundamentals

Although the AKEDA jig can be used to cut a range of joints, the two most commonly used joints are the "through dovetail" (TD) and the "half-blind dovetail" (HBD). Cutting these joints is relatively easy.

Securing Stock

You secure stock by pushing it smartly against the left side fence, up tight against the guide fingers, and turning a (removable) clamp knob. You insert stock vertically behind the clamping bar for TDs; vertically in front of the clamping bar for HBD tails, and horizontally through the back top of the jig for HB pins. I found that

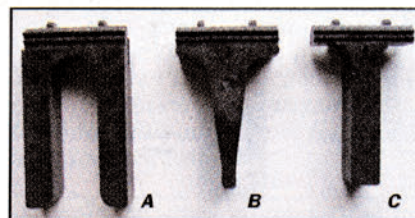
the jig held stock very securely, without having to exert a lot of pressure on the clamp knob.

Guide Bushing

You will need a 7/16" precision guide bushing attached to your router (AKEDA offers a Porter Cable style precision bushing but it doesn't fit all routers). If your guide bushing is not exactly 7/16" you may find that TDs are a wee bit too loose or tight. If this happens, as it did for me, you can purchase straight bits from AKEDA that are .004" oversize and .004" undersize to accommodate the bushing discrepancy.

Guide Fingers

Where other jigs use a fixed template, AKEDA uses guide fingers (see photo to the right). You snap the guides into slots in the rear guide rail. The slots are spaced 1/8" apart, which effectively enables you to create variably spaced dovetails. To cut tails on either TDs or HBDs you use the tail guides (A). To cut pins for TDs use the



through pin guide (B), and for HBDs use the half blind pin guide (C).

Through pin guides (B) come in 5 sizes: 7° (standard with the jig) and 9°, 11°, 14° and 20° guides (optional). The 7° guide works best with 3/4" stock, which is a very common stock thickness. I tried the 7° guide on 1/2" and 3/8" stock and didn't like the look. Using the optional guides gave a much better proportioned dovetail.

The basic AKEDA kit comes with nine tail pins, nine half blind pins and nine 7° through pin guides.

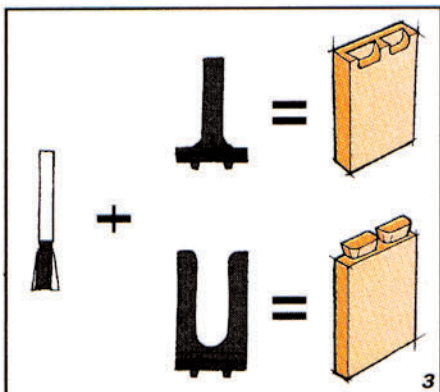
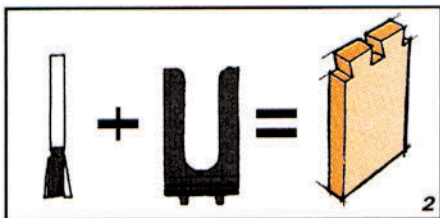
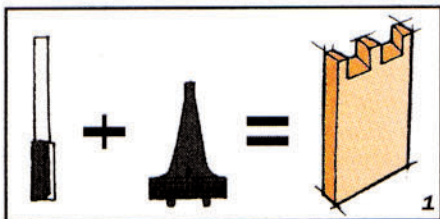
I begin by installing the tail guides and cutting all the tail boards for a project. Before removing the tail guides I mark their positions with a pencil on the guide rail.

Then I install the pin guides and cut the all the pin boards. No adjustment is required when switching between tails and pins! In fact, I found that it took longer to change router bits than to install guides.

Router Bits

You use both straight and dovetail bits with the AKEDA jig. For TDs you cut the pins using the straight bit in conjunction with the matching pin guide (illustration 1).

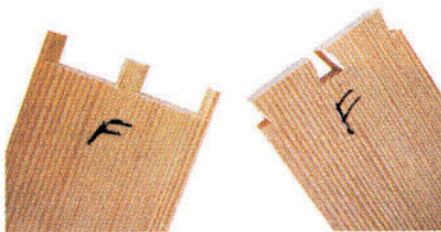
To cut TD tails you use the matching dovetail bit and the tail guides (illustration 2). So, if you used a 7° pin guide you'd use a 7° dovetail bit.



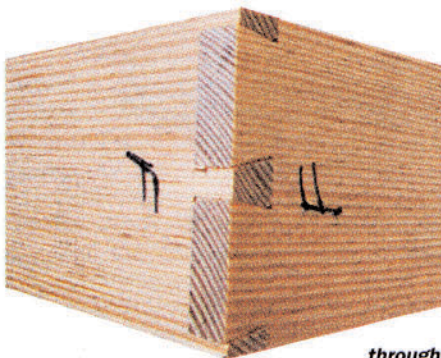
For HBDs (illustration 3) you only use a dovetail bit along with the matching tail and pin guides.

A Cut Above the Competition

I've been using the AKEDA for over a month now, and have cut quite a few sets of through and half-blind dovetails, along



through



through assembled

with straight and dovetailed housing joints and box joints. For my first few dovetails, I measured where the tails should go; thereafter I didn't bother measuring, but inserted the guides visually, in a pleasing manner, for the board size I was using.

The AKEDA bits continue to hold up nicely; I'm very pleased with their performance and durability. They also are competitively priced.

At first I was somewhat apprehensive that I might cut into the guide rail while routing stock, however, the guide bushing prevents this. I noticed that I got more tear out cutting tails.

When cutting 1/2" or thinner stock I used a 1/4" backer board which helped quite a bit. When cutting pins I found it easier (and got better cuts) by moving the router counter clockwise between the guides nibbling out a little bit at a time. In general, I got better cuts when I used a lower router speed and moved the router slowly. Even so, HBD tails were the nastiest for tear out.

The pictures below show the third set of TDs (left) and HBDs (right) that I cut (in Douglas fir). The fit was acceptable and, with additional experience, I'm getting even better joints.

Over the years I've tried several other router jigs, and find that the AKEDA is a cut above the competition. It's very

intuitive and easy to use, and produces professional quality results. Apart from having to switch to an undersized straight bit, I didn't have to finagle with anything.

Setting up variably spaced dovetails is a breeze, and it's a real time saver not having to make any adjustments when switching between tails and pins. As long as the stock is cut square and pushed snugly in place all the cuts are uniform. The process of matching guide fingers with router bits is pretty well foolproof. AKEDA: dovetails made easy.

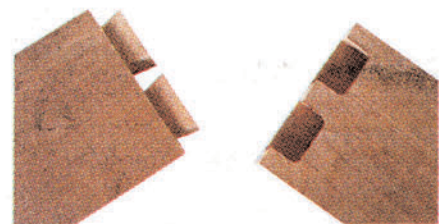
Where to Get It

The suggested retail price for the AKEDA jig is \$449.98, which compares very favourably with the other leading high-end jigs on the market.

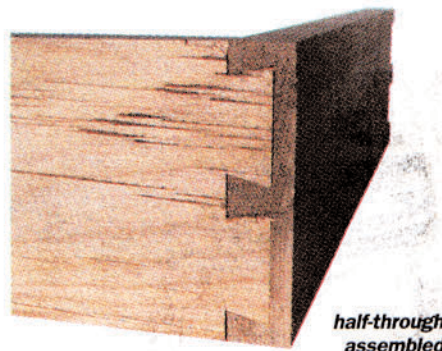
The basic kit includes the jig, a straight bit and 7° dovetail bit, three sets of guide fingers, and an exceptionally well-written instruction booklet.

A set of 8 cutter bits (7°, 9°, 11°, 14° and 20° dovetail bits and 3 straight bits) is available for \$134.98. A dust collection kit can be had for \$44.98. Finally, an accessory kit with the 8 cutter bits, dust collector, and additional through pin guides (9°, 11°, 14° and 20°) is \$374.98.

Over and undersized straight bits are priced at \$28. The AKEDA comes with a lifetime warranty against material defects. For more information contact AKEDA at 1-877-387-6544 or www.akedajigs.com.



half-through



half-through assembled

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