

tools & materials

■ INNOVATIONS

Festool joiner makes mortise-and-tenon joints as easy as biscuits

True innovations in portable power tools are rare. The random-orbit sander, the biscuit joiner, cordless technology—the big leaps forward are few and far between. Festool, a German company, stands out in recent years for reinventing a number of old faithful tools. Readers will recall the plunge-style circular saw with the ingenious guide track, as well as a high-end cordless drill that accepts three different heads.

Festool's latest innovation—the Domino Joiner—may be the company's most significant. Available in April, this tool looks and operates like a biscuit joiner, but the Domino uses a spinning *and* oscillating (wobbling side to side) bit to cut a full mortise in a single plunge. The system employs different-size beech slip tenons. Though the largest tenons are only $\frac{3}{8}$ in. thick by $\frac{7}{8}$ in. wide by 2 in. long, the uniformly machined mortises and perfect-fitting tenons added up to very strong joints—strong enough for cabinet doors, drawers, face frames, many chairs, and all tables just shy of dining size.

But the real sizzle here is speed. I assembled an entire table, with two slip tenons at each joint (32 mortises in all), in about half an hour, with perfect alignment of parts. I can't think of a way to do this faster with the same strength and results—not even close.

The downside for some woodworkers will be the price, estimated at \$700 for the basic kit with one 5mm-dia. cutter, and another \$200 for a starter kit that includes all four of the carbide-tipped cutters (5mm through 10mm) and more than 1,000 beech tenons in various sizes.

Adjustments are a joy on this tool.

Settings for depth and width of cut (oscillation) are precise and easy. As with a biscuit joiner, you reference off a movable



FEATURES



Simple, precise setup. A movable fence (left) has detents at common angles and a series of vertical stops. Alignment pins on the front of the tool (right) locate mortises a set distance from the end or edge of a workpiece.



Missed opportunity? Domino can be dialed in to cut three mortise widths, but there's only one tenon width available. Wider tenons would allow for beefier construction applications.





front fence to get different slot locations and angles. The Festool's movable fence is nicely designed, but we had two problems with it. One of its pivot pins dropped out, and had to be reinserted and tightened. Worse, though, part of the clamping mechanism broke. With lots of people using the tool, we can't say for sure that it wasn't user error, but a close examination of the break reveals a thin cast section that must withstand considerable pressure if someone overtightens the fence. Festool replaced the front half of the machine, and there have been no problems since. Bottom line: Don't overtighten the clamp handles on the fence; they don't require much pressure.

I have only two other quibbles with the tool. While it oscillates to three mortise widths—up to 1¼ in. wide—tenons come only in the narrowest width. The extra room eases assembly when the mortises are used in rows, but Festool is missing an opportunity to provide more substantial tenons. Also, alignment pins in the front that reference off the corner of a workpiece to make layout unnecessary are too far from the edge of the mortise for my liking, leaving room for twist at the corner of a frame, for example.

Chairmakers will like the accessory that supports narrow parts to allow end-grain mortises at various angles.

Dust collection is critical with this tool; the airflow keeps the motor cool and clears the chips so that the cutter doesn't bind in a deep slot. Also, clamp the workpiece, hold the unit down firmly, and let the tool cut. You'll need to plunge slowly into the hardest woods.

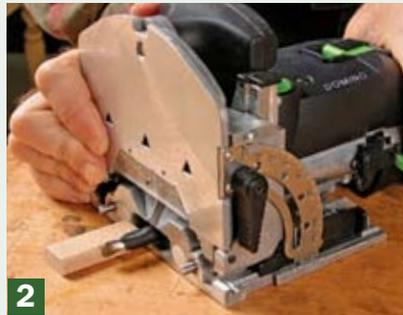
Overall, the Domino is an impressive tool that could change your woodworking. For more information, visit www.festoolusa.com.

—Asa Christiana is the editor.

HOW TO USE THE DOMINO



1 **Mark the center of the mortise.** As with a biscuit joiner, these marks will guide the tool.



2 **Set the depth of the cut.** It should be a bit deeper than half the tenon length to allow for glue.



3 **Hold steady and plunge slowly.** Align the center mark on the fence with the mark on the workpiece.



4 **Insert the tenons and assemble the joint.** You'll get a perfect fit in minutes.

■ ACCESSORIES

SAVE TIME WHEN SANDING

WHEN YOU SHUT OFF a typical random-orbit sander, you can't put it down immediately because it takes about 10 seconds to stop spinning. So you end up holding the sander just above the bench, and the 10 seconds seems more like 10 minutes. That is taken care of with the Orbital Station, a product designed to hold almost any random-orbit sander while it's running or as it winds down.

The Orbital Station is hardly high-tech, but it worked with a few different models of random-orbit sanders. Each one slipped into the holder quickly and easily—even



Adjustable yoke holds most random-orbit sanders. The upper portion of the sander slips into the yoke while the bottom end of the sander rests against a pair of rubber bumpers.

while it was on—and it was just as easy to remove. The station also can hold a sander that's attached to a vacuum hose. The stainless-steel yoke can be manipulated to accommodate several models of palm sanders and even laminate trimmers.

The Orbital Station sells for \$36 (plus shipping). For more information, call 413-625-6063 or go to www.orbitaltoolstation.com.

—Tom Begnal is an associate editor.

FineWoodworking.com

Watch a video demonstration of the Domino Joiner and inspect its components up close.

■ HAND TOOLS

Woodjoy shave leaves a flawless finish on end grain



While general-use shaves excel at cutting face grain, low-angle shaves excel at working end grain. The new #85 spokeshave from Woodjoy falls into the latter group.

The Brazilian-cherry body is 12 in. long and has a $\frac{5}{32}$ -in.-thick, 2 $\frac{1}{2}$ -in.-long, A2 steel blade and a brass sole. The blade is hollow-ground on the bottom, making it easy to flatten and sharpen. When razor-sharp, the low-angle blade will leave a slick finish on the end grain of even the softest woods, including white pine.

Cutting depth is adjusted by moving the sole; the mouth opening by moving the blade. The sole and the blade have countersunk slots for the screws that secure them to the body. I found that because of this, both move slightly off their settings when the screws are tightened, making adjustments tricky. The #85 costs \$95 and is available from www.woodjoytools.com.

—Curtis Buchanan is a chairmaker in Tennessee.



Easy sailing on end grain. The Woodjoy low-angle shave leaves a smooth surface in its wake.

■ ACCESSORIES

Turn on tool and vacuum simultaneously

The i-socket switch is an adapter that turns on a shop vacuum or dust collector automatically when a tool is fired up. Simply plug the i-socket into a 15-amp/125v outlet, then plug the tool and vacuum into their designated slots, making sure the vacuum switch is in the on position. When you turn on the tool, the vacuum will run; turn off the tool, and the vacuum shuts down after a 7-second delay to clear out the hose. The i-socket sells for \$34 and is available from www.woodcraft.com.

—Tom McKenna is an associate editor.



■ SHOP SOLUTIONS

GIVE MACHINES A LIFT

ESSENTIALLY A MOBILE BASE, General's Hoverpad floats a machine on a $\frac{1}{8}$ -in. to $\frac{1}{2}$ -in. cushion of air. It comes in two sizes—18 in. by 24 in. (model 10-824, \$165) and 29 in. by 29 in. (model 10-929, \$265)—with all the necessary fittings to attach to a compressor. The smaller model is rated to lift up to 600 lb.; the larger, up to 1,200 lb. A 500-lb. load will need between 2.5 cfm and 3.5 cfm at about 90 psi, while heavier loads require 5 cfm to 6 cfm at around 120 psi. We tried the 29-in.-sq. model, using it to move a floor-standing hollow-chisel mortiser that weighs about 360 lb. In areas where our shop floor was smooth semigloss paint, the Hoverpad worked great. In areas where the floor was rough or pitted, the Hoverpad did not work. General says the pad requires a hard, airtight floor surface and recommends you do a suction-cup test before buying. If the suction cup sticks to the floor, even slightly, the Hoverpad will fly. If it doesn't stick, you'll need to treat or cover the floor in some way to make a suitable, airtight runway. For more information, visit www.general.ca.

—T.B.



Clear for takeoff. Quick-connect fittings connect the pad to the compressor. Place the machine on the pad and fire up the compressor. In seconds, the machine levitates on a cushion of air.

