

Think your shop is small? Think again

BY STELIOS L.A. STAVRINIDES

At the very least, starting a woodworking shop requires two things: good woodworking tools and adequate space. Where I live, on the Mediterranean island of Cyprus, both are in short supply.

But I love woodworking, and I didn't want to let these problems stand in my way. So, using SketchUp, I designed a fully functioning shop that would fit into a 5-ft. by 5-ft. storage room when not in use.

To make it work, I converted the portable power tools I already had into stationary machines, mounting them on a compact,



Rolling workstation is the key

The power-tool station rides on casters, so it rolls easily out of its storage area. After connecting to a nearby power outlet, Stavrindes is ready to begin work on any of five power tools (see p. 80).



HOW TO FIT A WHOLE HOBBY INTO A 5X5 CLOSET

Stavrinides packs all of his woodworking tools and supplies into this storage room in the parking area of his apartment building. The room measures approximately 5 ft. square and 8 ft. high—a little more than twice the volume inside Volkswagen's modern Beetle.

CABINETS

An old, narrow bookcase mounted horizontally and fitted with doors holds fasteners, glue, finishing supplies, and safety gear. The larger, wall-mounted cabinet is stocked with router bits, featherboards, hold-down clamps, and miscellaneous gear.

THREE-DRAWER CHEST

The top drawer is for sketches, computer printouts, and woodworking plans. The middle drawer holds tool manuals and small accessories that come with the tools. The bottom drawer provides storage for sandpaper of all types—sheets, circular pads, and rolls.

ROLLING WORKSTATION

One end of the cart is angled to allow access into the space.

CLAMP STORAGE

A section of upper shelf serves as a rack for C-clamps and small pistol-grip clamps. Larger pipe clamps and parallel clamps are stored flat on the shelf itself. In all, the space holds about 65 clamps of varying types.

SHELVES

Three levels wrap around three walls to provide storage space for lumber, hardware, supplies, a first-aid kit, and other tools including power drills, a biscuit joiner, and a mortising attachment for the drill press.

LUMBER STORAGE

A narrow box with an angled, open top holds cutoffs of varying lengths and tucks under the lower shelf.

rolling bench. This bench houses five major tools: tablesaw, router table, jigsaw, drill press, and disk sander. And it leaves plenty of space in my store room for lumber and other tools.

Of course, the shop has limits. I don't have a jointer or a planer, so I have to start with stock that is already jointed flat and milled to thickness. Also, the tools must be rolled out into the covered parking area of my apartment complex for use. It's not good for cold weather, but fortunately, we have very little of that here.

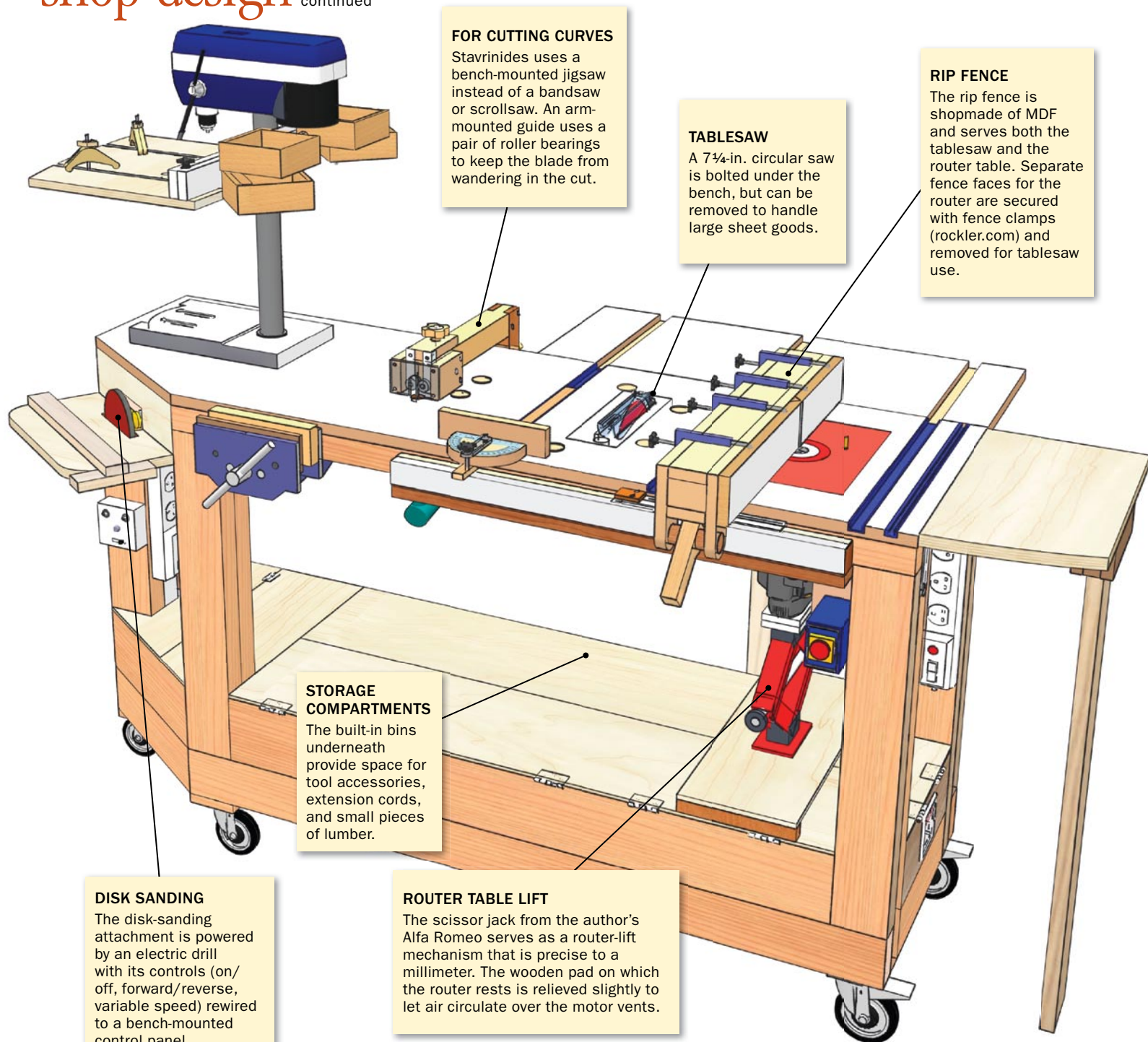
Apart from those drawbacks, my little shop can do a lot of woodworking. Here's a look at how it works.

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A CABINET IN A CABINET

Interior doors provide space to hang more tools inside this rolling storage piece, which measures 32 in. square by 13 in. deep. To get the most out of the space, Stavrinides planned the tool layout on paper first.





FOR CUTTING CURVES

Stavrinides uses a bench-mounted jigsaw instead of a bandsaw or scrollsaw. An arm-mounted guide uses a pair of roller bearings to keep the blade from wandering in the cut.

TABLESAW

A 7¼-in. circular saw is bolted under the bench, but can be removed to handle large sheet goods.

RIP FENCE

The rip fence is shopmade of MDF and serves both the tablesaw and the router table. Separate fence faces for the router are secured with fence clamps (rockler.com) and removed for tablesaw use.

STORAGE COMPARTMENTS

The built-in bins underneath provide space for tool accessories, extension cords, and small pieces of lumber.

DISK SANDING

The disk-sanding attachment is powered by an electric drill with its controls (on/off, forward/reverse, variable speed) rewired to a bench-mounted control panel.

ROUTER TABLE LIFT

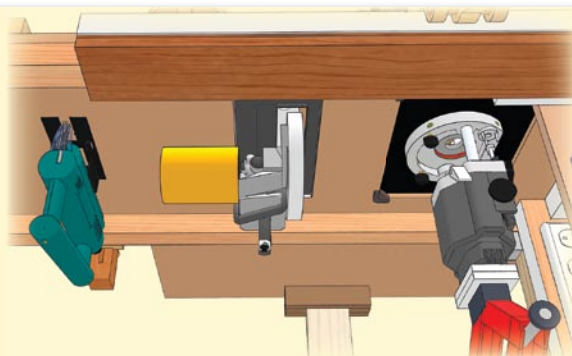
The scissor jack from the author's Alfa Romeo serves as a router-lift mechanism that is precise to a millimeter. The wooden pad on which the router rests is relieved slightly to let air circulate over the motor vents.

ROLLING WORKSTATION: THE BIG IDEA INSIDE THE SMALL SHOP

Stavrinides designed this power-tool bench on wheels to serve multiple functions and fit inside his storage space. The bench, 20 in. wide by 59 in. long, is built on a frame of 2x4 and 2x2 lumber, with a plywood skin and a ¾-in. MDF top surfaced with plastic laminate for durability. In addition to the power tools, the bench also features a vise, five small drawers for accessories, and eight electrical sockets.

WHAT'S UNDER THE HOOD?

A table-mounted array of portable power tools serve as standard shop machines. Shown here are the jigsaw, circular saw, and router.



The power-tool bench at work

For this article, Stavrinides used the tablesaw, jigsaw, and sanding station in his rolling bench to create a router template for a decorative drawer front. He then used the template to shape the workpiece on the router table.



The circular saw yields straight, clean cuts. Note that the rip fence doubles as a router-table fence and includes dust collection.



For curves, the inverted jigsaw. Stavrinides recommends investing in high-quality blades. His shopmade guide assembly keeps the blade straight and vertical during the cut.



Fair the curve at the sanding station. A flip-up table supports the work. The sanding attachment uses hook-and-loop pads and is powered by a variable-speed electric drill.



Shape the workpiece at the router table. The author's version doesn't have through-the-table height adjustment, relying on automotive technology instead (see drawing, facing page).