# Woodworking Tips

Reset a fence

Two-piece rail-and-stile bits use the exact same fence setup for both bits. But that perfect fence location must be disturbed to swap bits. Save time resetting your router-table fence flush with the bit bearing and parallel to the miter slot with this handy gauge. After adjusting the fence flush with the bit bearing and parallel to the miter slot, install the jig in the miter slot. Slide the gauge blocks up to the fence, and tighten the wing nuts to secure the blocks. Then remove the jig, and make your first set of cuts. After you move the fence to change bits, remount the jig in the miter slot. Slide the fence against the blocks, and tighten it in place. If your router table lacks a miter slot, lengthen the gauge blocks so the hardwood runner rides against the front edge of the tabletop.

A pair of paths to precise plunges

You can fuss with rulers and depth gauges all you want, but here are two quick and easy ways to precisely set your plunge router cutting depth.
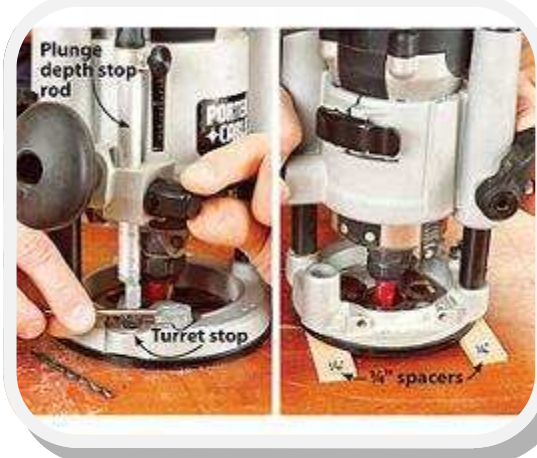
The method shown, left photo, uses different drill bit thicknesses to exactly set a router's plunge depth. First, place the router on your bench and plunge the bit until it touches the bench top. Then lock it in place. Loosen the depth stop-rod, and sandwich a drill bit of a diameter equal to the plunge depth between the turret stop and rod. Then tighten the rod in place. Unlock the plunge mechanism, and you're ready to plunge into your project.

The method, at right, uses spacers planed to the same thickness as the depth of your plunge cuts. Place the router on a pair of spacers, and plunge the bit until it touches the benchtop. Then lower and tighten the stop-rod.

Tape your way to tighter dadoes

Adjusting a jig or straightedge to widen a dado just a hair can create more problems than it solves. Instead, leave your guide in place and add strips of tape along the router base edge, as shown. That nudges the bit away from the guide when you recut. Four layers of blue painter's tape equals about 1 /64".

Parallel passes

Whether you're routing dovetail slots, as shown, or T-slotted wall storage system panels, here's a time-saving jig for you. It indexes from the previously routed slot to ensure evenly spaced dadoes, dovetails, and grooves.

From scrap 1/2" plywood, cut a subbase to fit your router and project. Then rout a dado on the subbase bottom where the distance between the dado and the bit equals the spacing between the slots. Make the dado as wide as the bit profile at the workpiece surface. Attach a matching hardwood guide in the dado. For grooves deeper than 1/4", make progressively deeper cuts. For dovetails, rout first with a straight bit, and then finish with a dovetail bit for efficient chip removal.
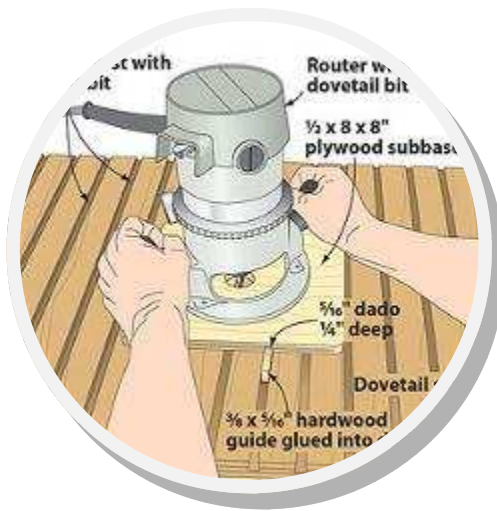
Rout stopped cuts with stopblocks

Edge cuts, such as chamfers, and surface profiles, such as flutes, sometimes need to start and stop precisely and uniformly. That's the time to use simple, customized stopblocks to control where the profile starts and stops on each workpiece. Measure from the point where the cut will stop to the end of the workpiece, subtract the bearing radius, and cut the stopblock to that length from scrap at least 3/4" thick. Clamp the stopblock to the edge of the workpiece as shown.

Get a grip on small parts

Small parts can drop through oversize router-table inserts or instantly tug fingers into the bit. To solve both problems, first drill a hole slightly larger than the bit diameter in a piece of ¼" plywood, and clamp it to the router-table top for near-zero-clearance support. Then keep your fingers safe by gripping the part with a handscrew. The jaws of these clamps can be angled to firmly grasp odd-size parts and hold them flat against the zero-clearance top.
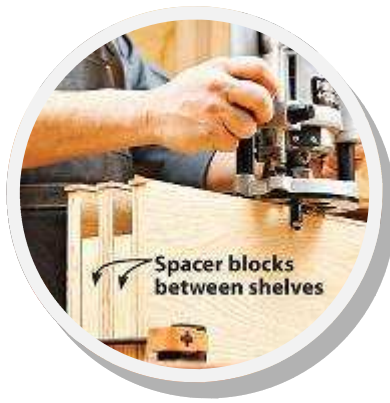
Shelf-help for trimming edges

Perching a router on a shelf edge to flush-trim solid-wood edges can turn ugly if your machine tips. Give it stability by clamping together the shelves on edge. Cut spacer blocks from 2x4 scrap and place them between the shelves at both ends. Then clamp the spacers and shelves together. (We clamped one of those clamps to the bench for added stability.) Then rout each edge with a flush-trim bit. If the router wobbles on the edges of the outside shelves, move those pieces to the inside, re-clamp, and finish routing.
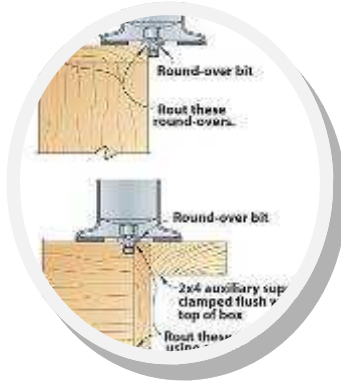
Rout round-overs, not tip-overs

A tipping router can ruin the edge of a finished project, so keep that base stable. If you need to round over the outside edges of an assembled box, tip the project on edge and use the front, back, and sides to support the router base, as shown top drawing. To rout inside round-overs with equal ease, clamp a 2x4 auxiliary support onto the outside surfaces, as shown bottom drawing.

A starter pin keeps fingers safe

The toughest part of freehand routing is easing the workpiece against the bit. To help you guide parts safely, make a starter pin from a hardwood, brass, or aluminum rod, and securely mount it to the table about 2" from the bit. Brace the workpiece against the starter pin; then slowly rotate it into the bit and bearing. Grip the workpiece close to the pin, and use the above technique for small parts.
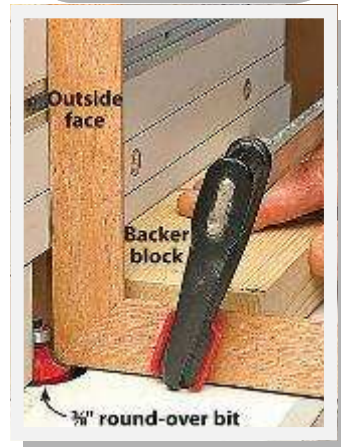
Rout corners consistently

Rounding over corners by hand-sanding produces uneven results. Instead, use a round-over bit with the radius you want for your corners. With the bit chucked on a table-mounted router, raise the bit height until it cuts a quarter-round profile in scrap without leaving a shoulder. Then position the fence flush with the bit pilot bearing. To prevent chip-out and keep the frame square to the fence and router-table top, clamp it to a 2x4 backer block, as shown.

Here's an idea you can copy

Mounting jigs or sub-bases onto a router, as shown in slide 4, requires precise mounting holes. Make that job easier by photocopying the router base and using the copy to mark and drill mounting holes. Check the copy size against the base size in case the copier is off slightly, and reduce or enlarge it as needed. If you have a computer scanner, you also can scan the base and file the scan for future printing.

Spacers divide raised panel cuts

Routing raised panel edges in one pass produces tear-out and it's risky. Spacers taped to a router-table fence let you rout gradually without constant adjustments. First mount a panel-raising bit onto a table-mounted router set to its lowest speed. Test-cut scrap the thickness of the panels to set the final profile.

Then make eight spacers from 1/8" or 3/16" plywood, and double-faced tape four on each side of the router-table fence. Rout all four edges of each panel, starting with the ends; then use a putty knife to pry off a spacer from each side, as shown. Repeat for each panel, removing pairs of spacers until the panel rides against the fence

Sander Platform

Recently, I built a large bookcase that had a lot of shelves. While sanding, I quickly became annoyed at having to turn off the sander and wait for it to stop vibrating before I could set it down. I tried simply setting the sander down on its side without turning it off, but the vibrations caused it to fall off the bench and onto the floor. Finally, I came up with a better solution.

I created a small platform for my sander. It's just a piece of hardboard with a few scrap pieces glued to the top to create a "holding pen." A piece of carpet is glued down to the hardboard, inside the "fenced" area, as shown in the drawing at right.

The platform just sits on top of my workbench (you can clamp it to the workbench if you want). When I want to set my sander down, I just place it in the carpeted area without turning it off.
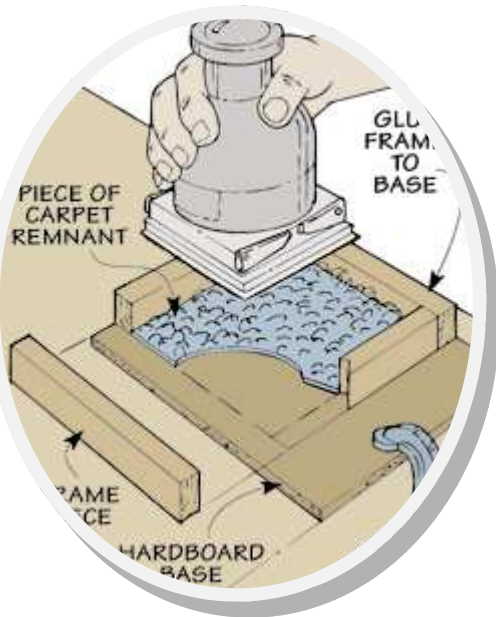
Miter Saw Tool Stand

When I saw the old, gas BBQ stand that my neighbor had thrown away, it gave me an idea. The metal frame of the BBQ would make a perfect roll-around tool stand for my miter saw.

All I had to do was remove the tank and BBQ, paint the metal frame, and then build a couple of table supports.

The miter saw is mounted to a 3/4" plywood base that's bolted to the frame. Two open-ended boxes serve as the table supports. (Just be sure they're flush with the surface of the miter saw table.) I even added a pull-out bin to hold short cut-off pieces.