Whenever a project needs a decorative edge, I like to reach for my hand-held router. But there’s more to getting a smooth profile than meets the eye. Here are a few tips to help you get perfect results.

**SECURE THE WORKPIECE.**

The first step is to make sure the workpiece is firmly secured to your bench. If your bench has bench dogs, set them slightly below the surface of the workpiece and adjust the vise to hold it. But if you don’t have dogs, you can set the workpiece on a routing pad or clamp it to your bench. Just make sure the clamps won’t interfere with the path of the router.

**ROUTER SUPPORT.**

One of the most difficult things to do when routing an edge is to keep the router flat and level. Since you’re literally using less than half of the router base for support, it’s easy to tip the router and gouge the edge. Fortunately, there are a couple of ways to prevent this from happening.

One method is to clamp a support board parallel to the edge of the workpiece, as shown in the upper right drawing on the opposite page. You’ll need to leave enough space between the pieces so the bit will cut only the workpiece. But the support board should be close enough for the router base to slide on the surface. It will also need to be the same thickness.

Sometimes, as in trimming edging flush, you have to rout a profile while the workpiece is standing on edge. The edge is simply too narrow to balance a router on. You can solve this problem by clamping a block flush with the edge of the workpiece (see lower left drawing on opposite page). That will provide added support to keep the router level.

**BEARING BIT.**

Once the workpiece is secure and the router steady, the next step is to select the right bit. Using bearing-guided router bits really helps control the cut.

To keep the profile uniform, the edge of the workpiece should be...
smooth, and the bearing must be in solid contact with the wood. Since the bearing rides on the edge, be careful when routing a deep profile. If you can’t leave at least $\frac{1}{8}$” of material for the bearing to ride on, it’s a good idea to place a scrap piece under the workpiece flush with the edge. Or you may want to clamp a fence to the workpiece to guide the router.

**PREVENTING TEAROUT.** The direction you feed the router also affects the cut. The rule is to rout from left to right. And that’s not usually a problem for long grain.

But there may be occasions when you can’t follow that rule, such as routing an edge where the grain runs in all directions. That’s when I like to back rout (see box below).

But tearout can get bad when routing end grain, too. The bit is pushing across the grain, and the chips tear away when the router reaches the edge. The solution is to clamp a block alongside the edge (right drawing below). Then the router glides over the end grain onto the block, reducing tearout.

Another solution is to rout the end grain first, then clean up any chipout at the corner when you rout the long grain.

**SHALLOW CUTS.** One of the most effective ways to get a smooth, consistent profile is to make a series of shallow cuts. By taking smaller “bites,” there’s less chance of the wood chipping out. I start by setting the bit so just a little of the cutting edge is exposed. After each pass, I lower the bit a little more until the desired profile is reached. I like to shave off no more than $\frac{1}{4}$” with each pass. Routing a decorative profile adds flair and uniqueness to a project, making it stand out. Following these techniques guarantees you can get great results.

**How-To: Prevent Tearout by Backrouting**

Sometimes, the best way to reduce tearout is backrouting. Backrouting is feeding the router “backward,” or in the opposite direction the bit is rotating. Instead of the bit pushing the wood, it’s pulled into the wood. That means the “chips” are being routed away before they have the opportunity to tear out.

The problem with backrouting is that the bit tends to bounce along the edge, pulling the router and making it difficult to control. So, you’ll need to take very shallow passes and keep a firm grip on the router. To finish up, make the last routing pass in the normal direction to clean up the edge.

**Support Block.** Clamping a block to “widen” the edge will support the router and help prevent tipping, which can result in an uneven cut or gouging.

**Backer Board.** A good way to prevent tearout along end grain is to clamp a backer board along the exit edge of the workpiece to back up the cut.

**How-To: Prevent Tearout by Backrouting**

**Less Tearout.** In backrouting, the router is fed in the opposite direction, allowing the bit to clean up the edge as it moves along.