



Woodsmith **PLANS**

ROUTING SMALL PARTS



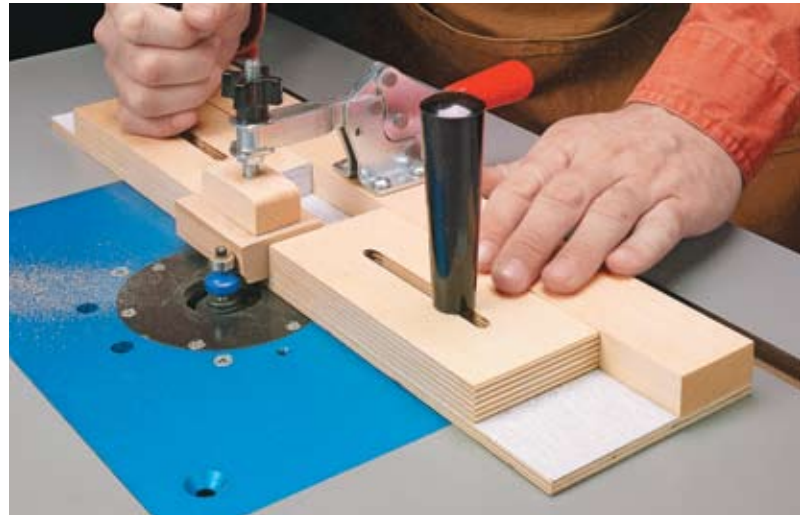
ROUTING SMALL PARTS

These router table accessories make it easy to get safe, accurate cuts.

The router table in my shop is the go-to tool for all kinds of profile and joinery work. With a large table and a flat fence, it can handle just about any size workpiece. However, one place where most router tables have trouble is routing small workpieces.

The problem is that large openings in the tabletop and fence can cause a small part to catch or dip in. This can spoil the cut and be unsafe. But that doesn't mean you need to give up on routing small parts. Making top-notch cuts safely just requires a little different strategy and some simple, shop-built helpers.

THE RIGHT APPROACH. One of the keys to routing small parts safely is to avoid it as much as possible. Now that doesn't mean you can't use small parts. Instead, the strategy is

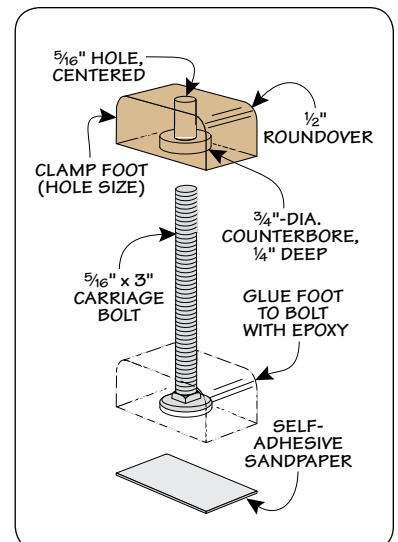
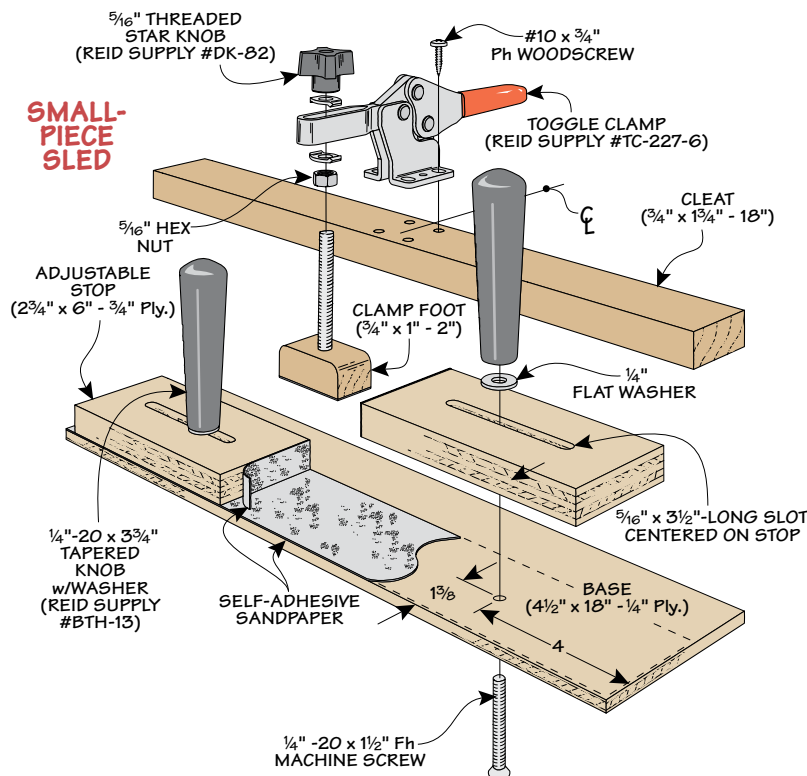


to do the routing on a larger blank. Then cut the part to final size at the table saw (left margin photo).

It's a great solution, but there are times when it just isn't an option.



▲ Rout then Rip.
If possible, rout the profile on a wide blank, and then cut the part to final size at the table saw.



When you do need to rout a detail or joint on a small part, try one of these shop-built accessories.

SMALL-PIECE SLED

I mentioned earlier that small parts can be hard to feed safely past a bit. That's where the sled you see in the upper photos on the previous page comes in handy.

Basically, the sled holds the workpiece so that it acts like a larger workpiece. The larger size of the sled makes it easier to push the workpiece past the bit. Best of all, the sled keeps your fingers well clear of the bit.

STOPS. The workpiece is captured between stops and then clamped securely to a long base. The stops are adjustable to accommodate a wide range of parts (drawing on the previous page). This way, you can rout the edge of the part or the end.

The tapered knobs that lock the stops in position serve as handles to keep your hands clear. I also added some sandpaper to the base to provide extra grip.

TOGGLE CLAMP. To hold the workpiece against the base, I used a toggle clamp. I replaced the small rubber end of the clamp with a wide wood "foot," as in the detail drawing on page 1. This added surface area gives the clamp a firmer grip. I also replaced the upper nut with a star knob to make adjusting the height of the foot a quick and easy process.



ROUTER TABLE ADD-ONS

Besides building the sled, there are a couple of other ways to modify your router table to better deal with small parts. Here, you have a couple of goals. The first is to minimize any openings where a piece can shift. The second is to create a smooth surface for the workpiece to ride along without catching.

AUXILIARY FENCE. I start with the router table fence. If your fence has adjustable faces, the simplest solution is to position them as close to the bit as possible.

However, for fences with a fixed bit opening, you need to find another solution. I attached an auxiliary hardboard face with double-sided tape, as shown above.

The fence has a pre-cut notch to accommodate the bearing on the bit. Then to create a zero-clearance opening, simply pivot the fence into the spinning bit (inset photos above). Since only a small part of the bit is exposed, the workpiece will always be fully supported.

SMOOTH TABLETOP. Many times, adding an auxiliary fence is enough. But you can also create a smooth, seamless tabletop and eliminate any gaps here as well.

After positioning the fence, I clamp a larger piece of hardboard to the tabletop tight against the fence. The spinning bit will create a small, perfect-fitting notch, as you can see in the photo and inset below. Now you have a customized setup that's safe and accurate.

Finally, it's a good idea to use a push pad to guide the workpiece, as shown in the photos.

These solutions take the hassle out of routing small parts, so you can concentrate on getting smooth, crisp profiles and tight-fitting joints.



▲ **Custom Face.** Pivot the fence into the bearing on the bit to create a zero-clearance opening, simply pivot the fence into the spinning bit (inset photos above). Since only a small part of the bit is exposed, the workpiece will always be fully supported.



▲ **Seamless Surface.** An auxiliary tabletop made from 1/4" hardboard creates a smooth, zero-clearance worksurface around the router bit (inset photo).

