

# Sleek-looking recessed pulls

BY BRIAN HUBEL

Early in my career, after finishing off a piece of furniture with store-bought pulls, I felt something was missing. Pulls can be a powerful design element, and I realized the hardware was a lost opportunity to design and create something unique and more fitting to the piece.

As my furniture style developed, I came up with this recessed pull design, which is clean and sleek to my eye, and adds a contemporary feel. With their low profile, these pulls are particularly useful for sliding doors or interior drawers, but they can work almost anywhere. The recess can be almost any shape, and can go partway or all the way through. It can also be shaped or sculpted—I sometimes cut free-form recesses and pair them with a curved finger hold. And the finger hold can be horizontal or vertical,

centered or skewed to one side.

Using a simple router template with a guide bushing, I create both the round recess and the groove for the finger hold in one shot. To be sure that the pulls end up in precisely the right spot, it is best to rout them after the door or drawer is made and test-fitted to its opening.

## Start with a drawing and template

The first step is to get a full-scale design onto paper and then attach it to a 1/4-in.-thick MDF template. Remember to allow for the router bushing offset. For this pull I used a 1/4-in.-dia. bit and a 3/8-in.-dia. bushing, so I drew the circular hole for the template 1/8 in. larger in diameter than the central recess I wanted in the pull.

In addition to the recess, I laid out the groove for the finger hold. I like the look of a 1/4-in.-thick finger hold, so I drew out a straight 3/8-in.-wide groove, which will keep the bushing on track with no wandering.



# Make the template



**Cut the recess first.** Hubel generates most of his pull designs in a CAD program, and glues a printout to 1/4-in. MDF (left). With pulls with a round recess, Hubel drills the template (above), but for ovals and other designs, he uses the scrollsaw, and sands the opening smooth.



**Finish at the router table.** For the right-hand slot, start in the recess (above). But to keep the router action working in your favor, start the left-hand slot with a plunge cut at the end, and rout toward the recess (right). Mark the table's fence to know where to start this blind cut.



To help align the template on the workpiece, I add centerlines to the drawing that extend to the edges. I usually include the edges of the door stile or drawer front on my drawing, to help with alignment but also to preview the final look. When locating the pull, don't forget about any internal joinery that may get exposed when cutting the recess, like the groove for a door panel or drawer bottom.

I make the template the same size as the drawer front or door stile to make alignment and clamping easier. I attach the drawing to the MDF with liquid hide

glue. It has a quick tack without the mess of spray adhesives.

I drill a hole for the circular recess using a Forstner bit. For an oval or free-form recess, I turn to the scrollsaw.

After cutting the recess, I rout the straight slots in the template using a router table and a bit the same diameter as the bushing.

## Foolproof routing

With the template in hand, I next determine the depth of cut in the workpiece. In general I rout the recess and slots at the same depth, using an upcutting spi-

ral bit, which evacuates chips well and makes a very clean, smooth cut. I clamp the template to the door or drawer front and start routing at the end of one slot, move into the center of the recess, and work my way outward in a counterclockwise motion. To make the outside burn-free, leave just a whisker at the edge, and do one quick final pass with the bushing tight against the template. Then continue to the end of the other slot.

Dust collection helps a lot. Without it, chips will get packed in the recess, making travel difficult, especially in the slots. Make sure dust has not compacted



## Rout the recess

Hubel uses a 1/4-in. spiral bit combined with a 3/8-in.-dia. bushing to rout the recess.



**Set the depth.** With the template clamped in place, lower the bit against the workpiece. Then set the depth stop, using a spacer equal to the desired depth of cut.



**Almost foolproof.** Use dust collection if possible. Start at the end of one slot and move into the middle of the recess. From there work outward, cutting in a counterclockwise circular path. To avoid burn marks at the edge of the recess, leave a whisker of material there for a final pass. Then finish the other slot.

into the ends of the slots, preventing the bushing from traveling the full distance.

After routing, I do some cleanup with sandpaper to remove any router marks. After that I ease the edges of the recess to eliminate sharp corners. If the rounding is minimal, hand-sanding will take care of it. For a more pronounced roundover, I use a tiny roundover bit with a brass pilot instead of a bearing at the tip. Bearing-guided bits tend to bottom out in the recess.

### Insert the finger hold

The finger-hold thickness matches the slot generated in the routing process, in this case 1/4 in. The ends of the slot can be squared off with a chisel, or you can curve the ends of the piece to match the 1/4-in. diameter of the router bit.

If the finger hold will be significantly proud of the surface (unlike this one), you can notch its ends so the top extends slightly beyond the slot, making the fit a little more forgiving.

Before I glue the finger hold in place, I generally prefinish it. If you wait until after it is assembled, the piece will be hard to finish cleanly. PVA glue won't work on finished surfaces, but 5-minute epoxy and cyanoacrylate (Super) glue both work great. Be stingy with the adhesive, as squeeze-out is difficult to clean up in the confines of the recess. □

*Brian Hubel is a professional furniture maker (BrianHubel.com) in Colorado Springs, Colo.*

### Install the pull.

A folded piece of sandpaper is the best tool for removing burn marks in the recess and breaking its sharp edges (right). Pre-finish the parts and then use epoxy or CA glue to secure the finger hold (far right). Apply a small amount in the slots only, to avoid squeeze-out.



