Thinking Man’s Cove

Few people are as painstaking about countertop fabrication as Dani Homrich of Dani Designs in Rochester Hills, Michigan. For example, Homrich arranges his fabrication tables to fit the contour of the top he is fabricating, levels them perfectly and then nails them together. "When you fabricate on a bowed surface of even a half-inch across 12 feet you build stress into the top," he reasons. "That causes failures." And Homrich says that with over 800 installations out there since 1985, "I have never had any bonding or cut-out failures."

One would think that such attention to detail would add hours to fabrication time, but Homrich insists that his way is actually much quicker. To prove his point, he video-taped himself fabricating 28 lineal feet of coved splash with 3 inside corners on 4 countertops, including a decorative stripe along the top edge, and sent it to us. Total elapsed time to fabricate the cove, install it in the top, clamp, sand and finish: 2 hours and 47 minutes.

Before getting his tape, we expected to see Homrich flying around the shop, trying to beat the clock in order to prove his point and make an impression. Instead, what we saw was a fabricator who moved slowly and steadily about his work. Everything was double checked during the fabrication process—after all, this job was going to be installed in a customer’s home the next day. We saw a clean and well ordered work environment (Homrich is a firm believer in dust collection) and a process for solid surface fabrication that is well thought out and engineered to eliminate time-consuming activities. Homrich and his son, Chris, generate enough work to support a 4,000 square foot shop in what he stresses is a high rent section of the Detroit area.

Homrich’s method for fabricating coved splashes boasts several benefits, not the least of which is the fact that it requires very little capital investment. Hence, we call it “The Thinking Man’s Cove”. Here is how he did it.

**Step 1. Prepare the countertop and cut the splash.** After building the countertop deck, seaming up the edges and installing the bowl, Homrich scribes and cuts the backwall side of the top according to his template. Then, using a Super Cove Rabbet bit, available from SpecialtyTools.Com, he routes a rabbet 1/8" deep x 7/8" wide into the countertop deck. He is able to follow the exact contour of the scribed top because the rabbet bit has a bearing mounted at the bottom which rides on the edge of the solid surface. Once the rabbet is cut, Homrich then cuts out his splash material. For the riser, which will have a 1/8"...
decorative stripe, he cuts one piece 2 3/4", another 3/4" and the inlay at 1/8". Then he cuts another piece 2" wide. This will be used for making the cove strips.

**Step 2. Route the cove and glue up the splash.** Homrich uses a router table, fitted with a 3/8" radius core box bit to route the cove. Using a fence, he pushes the 2" wide strip through twice, so that there is a routed cove on both sides of the strip (see illustration). Before routing, however, he checks the accuracy of the cut on a sample block with a set of dial calipers. "The secret to making perfect coves quickly," he stresses, "is in making the pieces fit exactly before you glue them up." Satisfied that the cove is cut accurately, Homrich then rips them to 7/8" on the tablesaw. Again, they are "miked" with the calipers for a precise fit. He now has a ½" x 7/8" cove strip, a 2 3/4" riser, a 1/8" inlay strip and a cap strip measuring 3/4".

The pieces are moved to a laminate covered table which has been waxed ahead of time. Joint adhesive is then applied to the surfaces being glued together. Laying the splashes flat on the table he is able to clamp two sets of splashes at one time, back to back, using the Dani Clamp system. Homrich explains that these clamps (for which he has a patent pending), provide constant, even pressure on the clamped pieces without allowing them to curl up and become uneven. Once the adhesive sets up, Homrich sands the glue joint with a random orbital sander fitted with a hard pad. First, he sands the surface with 80 micron film, then 60 micron. Next, he changes to a soft pad and sands once again with 60 micron. All of this sanding is done wet.

To fabricate the inside cove (see illustration), Homrich glues up a separate piece of material with the inlay intact, which measures approximately 2" x 6". He then sets a stop on the router table and routes a cove into the long end of the material, stopping it before running all the way through, which leaves a 180 degree cut in the solid surface. Again, using the calipers, he adjusts the cut so that the decorative stripe lines up perfectly with the coved splash that has already been fabricated. He then cuts the inside corner piece to length and rips it to the proper width in the tablesaw. The finished inside corner measures 1/2" x 7/8" x 4 1/8". Next, Homrich prepares the coved splash for the inside corner by routing a 1/8" x 7/8" rabbet on the face of one end using a 1/2" straight flute bit in a plunge router, guided by a template. When assembled, the inside corner block butts up to the left splash while fitting into the rabbet cut on the right hand splash.

**Step 3. Seaming the splash to the deck.** This step of the process is a departure from the conventional method of clamping coved splashes using adjustable clamps, and is one of the secrets of Homrich’s success. First, he lays out a series of Dani Clamp deck rails, which look like a piece of 1" x 2" with a gooseneck on one end for wrapping around the edge treatment on the front and a block on the other, to which a clamp is fastened. The deck rails are spaced about every 6 inches across the face of the deck. Homrich then applies joint adhesive to the routed dado and positions the fabricated splash onto the countertop deck. Once in place, the splash is clamped. This is accomplished by clamping vertically with Dani clamps from the top of the splash to the underside of the deck. Then, clamps are attached to the lower back side of the splash and the
receiver block on the deck rail. This has the effect of pulling the splash tight up against the routed dado, which means that the scribe line will be followed exactly without gaps. The inside corner pieces are then glued and clamped using specially designed corner clamps.

**Step 4. Sanding and finishing the cove.** This is actually the best part of the process. Once the glue has set up and the clamps are removed, there is a line of squeeze out that must be removed and sanded smooth. Since all of the other sanding steps were done previously, and because all of the pieces fit into the routed dado on the deck perfectly, it is an easy matter to sand and finish the cove section of the top. It took Homrich’s son about 20 minutes to sand out 28 lineal feet of cove.

Homrich says that he sells fabricated coves for $25.00/lineal foot. On this job, that comes to $700.00 (28 lft @ $25.00 = $700.00). He spent a total of 2 hours and 47 minutes fabrication time (which we will round up to 3 hours), which means that he made $233.33 per hour. That is one person, by the way. His tool list is as follows:

- Router Table
- Table Saw
- 1 ½ hp. Router
- 3/8" core box bit
- 1/2" diameter flush trim plunge bit
- Super Cove rabbet bit
- Dani Clamp Cove Backsplash kit CK21
- Total equipment cost: $576

So, there you have it: The Thinking Man’s Cove, fabricated with a minimum of equipment cost and labor, and a maximum of profit. For those of you who relish the craftsman tradition side of solid surface fabrication, this method should be a satisfying alternative to some of the other methods you may have tried. And it doesn’t hurt that it can make you money too.