

KITCHENS



Ready-To-Assemble Cabinets

A less-expensive and sensible alternative to a custom kitchen

BY GARY STRIEGLER

Experience has made me a firm believer in the saying: “If it sounds too good to be true, it probably is.” But the word “probably” means there can be a few exceptions. Several years ago, I started seeing some unbelievable prices for complete sets of prefinished kitchen cabinets. They were advertised as “RTA” (ready-to-assemble), and they did seem too good to be true until I saw some RTA cabinets at the Custom Service Hardware booth (see RTA Cabinet Manufacturers, page 45) at a trade show.

I was amazed to see that the cabinets were all made with plywood boxes—no particleboard like the RTA cabinets from that famous blue and yellow company from across the Atlantic. They had solid wood doors and even dovetailed drawer boxes. As impressive

as they were, all of my work at that time called for highly-customized cabinets, so I just grabbed some literature to study. Then last year, I built a rental house for myself, and I decided that it would be the perfect opportunity to see if these cabinets might be an exception to that old saying.

KITCHEN ON A PALLET

After contacting Custom Service Hardware, I sent the company a floor plan, from which it generated a layout complete with cabinet placement and computer renderings of how the kitchen would look after the cabinets were installed. After a couple of minor tweaks to the layout, I ordered the cabinets. The company promised to ship

the order within a week, and a trucking company delivered it to the site about 10 days after I placed the order—exactly as promised. I was amazed that the entire kitchen fit on a couple of pallets (1), each cabinet in its own box.

Because this was my first experience with RTA cabinets, I had no idea how long the assembly process would take. I opened the first box and was a little surprised that there were no instructions of any kind (although Custom Service Hardware does have videos on its website). Some RTA cabinets use knock-down connectors, but the cabinets that I bought just nail and screw together.

PUTTING THE CABINETS TOGETHER

I started with the wall cabinets. All of the cabinets came with 1/2-inch-plywood backs, and I nailed the sides of each wall cabinet to its back with 18-gauge brads, using the rabbets milled into the sides (2). The sides also had dadoes to receive the bottom and the top, so I slid those pieces into their dadoes and nailed them in place (3).

Next I screwed through the back into both the top and bottom (4). That step was pretty easy because the back came predrilled with pilot holes, and the hardware package that came with each cabinet contained all the needed screws. I also marked a guideline across the back and drove a few brads between the screws.

The base cabinets went together in similar fashion except that they didn't have tops and they did have toekicks. The only things I added to the cabinets that weren't included in the kit were some small pine cleats to reinforce the cabinet backs for the attachment screws (5). I added just a single 1x2 cleat at the top of each cabinet. On the lower base cabinets, the cleat was glued and nailed directly to the back, flush with the top. On the upper cabinets, I nailed down through the top to secure the cleat. Again I probably went a little overboard, but the cleats were easy to cut and install, and I used only one 10-foot 1x12 to make the cleats for the whole kitchen.

The final step in assembling the cabinet boxes was gluing and attaching the face frame to each box. Dadoes in the back of each face frame facilitated this step and kept the box lined up with the frame. After running a bead of glue along on the front edges of the box, I shot a few headless pins through from the front (6). The real strength of the joint came from manufacturer-supplied glue blocks ripped with a 45-degree face. I installed these blocks between the sides and the face frame, with the angled face making it possible to nail into both the cabinet-box side and the back of the face frame (7). Once the glue dried, this configuration made for a very strong connection between cabinet box and face frame.

The base cabinets required a couple of additional steps. First I nailed on the toekick board along the bottom of each base cabinet. The base cabinets also received a pair of plastic brackets installed at the top front between the sides and the face frame to help keep the boxes square as they were being installed (8).

RTA DRAWERS

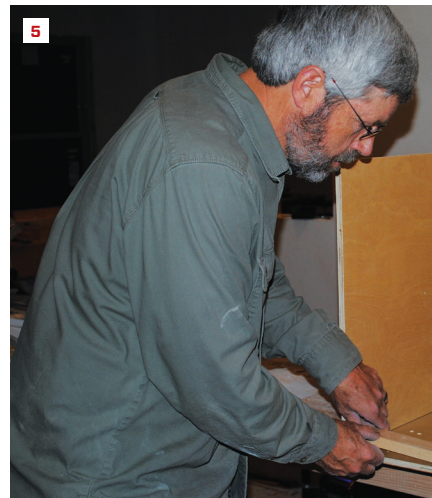
I found that assembling the drawers was remarkably simple too. The sides dovetailed with the front and back, so I just used

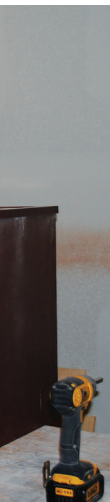
Cabinet creation.

Assembly for each of the cabinets continues. The cabinet backs screw to the cabinet bottoms through predrilled holes (4). The author adds a cleat (not included in the parts kit) to strengthen the back for installation (5). He tacks the finished face frames to the cabinet fronts (6); glue blocks reinforce the attachment (7). Base cabinets receive plastic corner brackets that help to keep the cabinets square while they are installed (8).

Drawer assembly.

Dovetailed cabinet drawers also have to be assembled. The author taps and tacks the front, back, and one side together (9). Then he slides the drawer bottom in (10) and taps the other side into place. Screws through the front and back hold the assembly together (11), and the drawer slides attach to the bottom via predrilled holes (12). The mating drawer hardware screws into the cabinets, as well (13). At this point, the author sets aside the drawer fronts while he installs the cabinets.





READY-TO-ASSEMBLE CABINETS





Wall cabs first.

The author draws a level line on the wall at the proper height (14) and screws a temporary cleat to the wall on the line (15). After marking the layout on the cleat, he positions the first cabinet and fastens it to the wall using screws (16). Then he aligns the face frames and screws them together, and permanently screws the cabinets to the wall. Cabinet doors are attached last (17).

Base cabs next.

A plumb line positions the base cabinets (18). Once the base cabinets are leveled, the author secures them to the wall with screws (19). As with the wall cabinets, the face frames are lined up and screwed together. Shims and screws keep adjacent cabinets spaced properly and hold them together at the back (20).



a rubber mallet to tap the front and back to one of the sides (9). Then I slid in the drawer bottom and tapped in the other side (10).

The dovetails fit together almost perfectly, so I did not glue the dovetail joints together. I did shoot a headless brad through each dovetail pin, just to be on the safe side, and then ran screws through the predrilled holes to hold the drawers together (11). After assembling the drawers, I set the finished drawer fronts aside to attach after the doors below them were installed.

HARDWARE COMPLETES THE ASSEMBLY

Each part of the kitchen came with the appropriate hardware: hinges for the doors and slides for the drawers. Predrilled holes made it easy to attach the hardware to the cabinets. I finished the drawer assembly by attaching slides to the drawer bottoms (12).

The front end of each drawer slide screwed through pilot holes into the face frame (13). Inside the cabinets, holes in the plywood back set the locations for the plastic sockets that held the inner ends of the drawer slides. The sockets could move side-to-side enough to adjust them. The reversible doors were bored for the European hinges, which I attached. Pilot holes also made it easy to hang the doors on the cabinets, but I did not get to that step until the cabinets were installed.

WALL CABINETS GO IN FIRST

Assembling all the cabinets and drawers went more quickly than I had expected, but now it was time to bring all the pieces together to build the kitchen. Although most of my recent kitchen work has dealt with custom-built kitchens, I had installed a few kitchens made from prebuilt, prefinished out-of-the-box cabinets, so I knew the differences between working with manufactured cabinets and working with custom cabinets. The biggest difference is that assembling the cabinets made me my own "factory."

With out-of-the-box kitchens as well as RTA kitchens, most sections of cabinets consist of several boxes screwed together. The joints between the stiles of adjacent boxes have to line up nearly perfectly to look right. Both types of cabinets come in the most common widths, and prefinished filler strips are used to get to exact lengths or to gain space for appliances to open against walls or at inside corners. And I always try to remember to allow for the projection of knobs and pulls in tight areas.

I've seen many different strategies for installing kitchen cabinets, but I believe that it's easier to hang the upper cabinets first. I hate having to reach over base cabinets to screw the upper cabinets in place. Because this kitchen had 9-foot ceilings and the upper cabinets

Customization.

Stacked cleats build out the cabinet on this angled wall (21). Angled blocks join neighboring cabinets (22), and a finished end panel returns to the wall on the opposite end (23).

Final steps.

To fill in a space at the end of a cabinet run, a 1-by backer holds a ripping of finished plywood (24). A spacer set on top of doors keeps the drawer faces in line while they're being attached (25).



were only 30 inches tall, I decided to set the height of the upper cabinets 20 inches above my finished countertop, instead of 18 inches, as I usually do.

The kitchen layout consisted of cabinets along two opposing walls—one side with the stove and refrigerator and the other with the sink and dishwasher. On the stove side, I drew a level line 20 inches above the height of the countertop (14). I screwed a temporary cleat below the line to set the wall cabinets on until I screwed them into place (15) (a backsplash covered the screw holes for the cleat).

That run of cabinets started with the refrigerator on one end, so I pulled the cabinet layout from there, working my way toward the opposite end. I measured over the width of the cabinet above the fridge, plus a filler strip along the wall, which would keep the handle from hitting the wall and let the fridge door open wide enough for any drawers inside to pull out properly. I marked that distance over the cleat where the main run of wall cabinets would start.

I set the first cabinet on the cleat and attached it to the wall—initially with just a couple of screws, so that I could adjust them in or out slightly to align the face frames (16). To join cabinets together, I held the face frames in line with K-clamps. Then I drilled pilot holes and drove a couple of 2½-inch screws between the face frames. Once the face frames were screwed together, I added more long

screws to secure the cabinets permanently to the wall and then removed the temporary cleat.

There was no option to order a deeper upper cabinet for above the fridge, so I got a standard 12-inch-deep wall cabinet and moved it forward by adding 2-by blocking to the wall. To keep the spacing correct, I shimmed between the side of the fridge cabinet and the face frame of the installed wall cabinets. That space would be covered with a trim strip later. Moving that upper cabinet forward made the cabinet more accessible for storage, but it moved the filler strip next to the fridge forward as well, which I think is a better look. After hanging the wall cabinets, I went ahead and installed the cabinet doors (17).

SEMI-CUSTOM BASE CABINETS

The base cabinets along the fridge wall were the same widths as the wall cabinets above, so I just plumbed down to position them (18). I shimmed the cabinets level and screwed them to the wall through the cleats I'd installed inside each of the cabinets (19). Where two base cabinets joined in a line, I clamped their face frames flush and joined them together with screws. I also put shims between the sides of the cabinets close to the wall and screwed them together for added strength (20).



RTA Cabinet Manufacturers

Here are a few companies that sell RTA cabinets. Look carefully at what each of these manufacturers offers. Options such as dovetail drawers may not be available on all models.

CliqStudios

cliqstudios.com

Custom Service Hardware

cshardware.com

Kabinet King

kabinetking.com

Kitchen Cabinet Depot

kitchencabinetdepot.com

Kitchen Cabinet Kings

kitchencabinetkings.com

The RTA Store

thertastore.com

Titusville RTA Cabinets

cabinets.com

On the opposite wall, I wanted to keep the sink centered on a half-wall that jutted out at a 45-degree angle, so I customized the placement and the fit of the base cabinets accordingly. First I installed the wall cabinets as on the other wall. For the face frames of the sink base and the adjacent base cabinet to meet properly, the sink base had to step off the angled wall by about 6 inches, so I screwed a stack of 2-by cleats to the wall. Then it was a matter of putting the sink base in place along with the adjacent cabinet and shimming them level until the face frames met perfectly (21).

Because there was no way to screw through the face frames, I fashioned angled blocks to join the two cabinets through their sides (22). On the other side of the sink base, I used a finished end panel to return the cabinet at 45 degrees to the half-wall (23).

The layout called for a filler strip on each side of the dishwasher opening, but even with both fillers in place, the last base cabinet was still about 4 inches away from the wall. I'd run out of fillers, but I did have extra stained plywood for the finished toe-kick. Instead of trying to make a flush joint between the face frame and 1/4-inch plywood, I fit in a piece of 1-by blocking over to the wall, installed behind the face frame. A ripped piece of prefinished plywood then fastened to the blocking, creating an offset joint that looked better than a flush joint (24).

FINISHING UP

I'd already hung the upper cabinet doors, so I turned to hanging the base cabinet doors and adjusting them. With the pilot holes in the face frames, that process went very quickly. To mount the drawer fronts, I set a spacer on top of the doors (25). After lining one side of the drawer front with the edge of the door below, I attached the drawer front to the drawer with screws.

All in all, it took a little over a day to assemble and install the cabinets for this kitchen, even with the custom work I had to do for the angled wall. There were no big surprises and I ended up with a great finished kitchen at a price and in a time frame I couldn't have even gotten close to any other way. Since then, I've used RTA cabinets for several other budget-conscious projects, including one kitchen with cherry cabinets and mitered-corner doors. I don't think RTA cabinets are going to put my custom cabinetmaker out of business, but they have given me the option to work for some great clients who just don't have the budget for a fully custom kitchen.

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