



FULL EXTENSION PULL-OUT SLIDING DRAWERS

SCA Woodchips Woodworking Club

www.scawoodchips.org

September, 2010

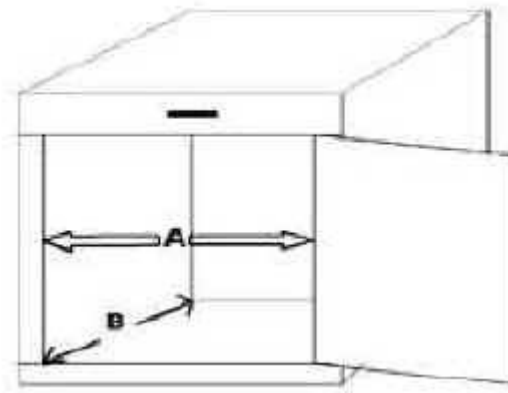
Shelf Width

The actual size (outside dimension) of the sliding drawer should be exactly $1 \frac{1}{16}$ " less than the size of the "clear cabinet opening" (**dimension A**). This is to allow for the sliding shelving systems hardware on each side. To determine the "clear cabinet opening," measure the distance between the cabinet face frames. Next, ensure there are no obstructions that would prevent the drawer from sliding out, such as hinges or door placement. If there are obstructions, reduce the "clear cabinet opening" so the drawer will slide out without interference. It is also important to ensure the door opens far enough, at least 90 degrees. In some instances the door may infringe on the opening more when it is fully open. If this is the case, reduce the "clear cabinet opening" dimension appropriately.

Shelf Depth

To determine the depth of your shelf, measure the distance from the inside edge of the kitchen cabinet face frame (the back side) to the back wall of the cabinet (**dimension B**). Watch out for any protrusions such as pipes, electric wires or outlets and adjust the depth accordingly.

Measuring Guide



Drawer Construction

The front, sides and backs of the drawers can be any height you desire, unless the height is limited by the door hinge placement. Consider purchasing enough wood so they are at least 2" above the bottom of the drawer measured from the inside. $\frac{1}{2}$ " Baltic Birch works well for the sides and back. Consider a hard wood, such as Poplar, for the front. Higher sides and/or backs can sometimes prevent items from falling out. $\frac{1}{2}$ " thick sides should be adequate with all drawer widths. You can also customize your sliding drawers with dividers, separators, compartments, etc. You may also want to consider extending the front of the drawer beyond the side of the drawer by about $\frac{3}{8}$ " on each side to hide the extension slides. Dado and rabbet joints can help align the bottom, sides, back and front joints of the drawer and make the assembly process easier. All drawer joints should be glued and nailed/stapled for strength.

After the drawer is finished, attach the rails. Use at least three, 1/2" screws per drawer rail and three 3/4" screws per cabinet rail.

The thickness of the material used to make your drawer bottom will depend on the size of the drawer and the type of joint you use to join the drawer bottom to the drawer front, back and sides. We recommend you use 3/8" material for the bottom if you are making up to 14" wide drawers constructed with dado joints. Dado joints are recommended for securing all drawer bottoms. If you want to make up to 14" wide drawers constructed using rabbet joints, use 1/2" material for the bottom. If you intend to make double cabinet drawers, use at least 1/2" material for the bottom, regardless of joint type. Melamine coated wood works very well.

Slide Type

There are two types of slides for pull out drawers. Standard slides that extend 3/4 of the length of the slide, and full extension slides that extend 100 percent of their length. For a regular kitchen cabinet a 3/4 extension slide puts items that are in the back of the cabinet up where the front items were after the shelf is extended. For a few dollars more, consider full extension slides. If you have a pantry and want to set canned foods on a shelf and be able to access the back can, full extension slides will do that for you. Or, if you build a double drawer, they will more easily accommodate the weight. For other locations such as a media shelf with DVD or CD flip strips, or a lower liquor drawer, the full extension slides give you full access to the contents of the drawer.

Side mount method

Normally the slides are mounted on a filler strip, or shim, along the inside of the cabinet. There is normally about 3/4" to 7/8" of open space that needs to be accounted for between the sidewall and the clear cabinet opening. A side mount installation can be the strongest and most space efficient installation, or you can install vertical strips of wood on both sides (two on each side, one near the front and the other near the back) that provide the proper filling to match the space behind the cabinet face frame. You can glue and screw this piece of wood in place to make a secure attachment. Ensure you do not screw through the outside wall of your cabinet. After the wood spacer is installed, you can measure up and make a mark where you want the slides installed. Using a small level to determine the placement of the rear screw, secure the slides where marked. You will need screws to secure the wood strips to the cabinets and the rails to the cabinet spacers. Use at least three screws per spacer. Then you should be able to install the sliding drawer. After installation, close the drawer fully and check for alignment. Adjust as needed. The use of simple alignment jigs and tools can greatly help with the installation process and save considerable time if you have multiple drawer installations. Congratulations your full extension, pull-out sliding drawer is complete!!

Tools

Most drawers require the use of the planer and jointer (cluster #4); the table saw and miter saw (cluster #6) and the router (cluster #8). Check the Woodchips website to schedule yourself for all of these clusters well BEFORE you begin constructing your drawers. Other tools you may need in your home are a tape measure, a small level, a pencil and a drill for pre-drilling and to secure the screws.

Materials List

National Wood Products

½" Russian Birch Plywood	5'X5'	\$25.50/sheet
½" Melamine	4'X8'	25.00/sheet
Soft Maple		3.80/bf
Poplar		2.15/bf

Peterman Lumber

½" Russian Birch Plywood	5'X5'	\$25.50/sheet
½" Melamine	4'X8'	25.00/sheet
Soft Maple		3.80/bf
Poplar		2.15/bf
20" Full extension, 100lb slides		\$5.50/pr

Woodworkers Emporium

Retail (all prices include any Woodchips discount)

20" ¾ extension Euroslide	\$4.75/pr
20" Full extension	9.97/pr
Metal rear mounting bracket	1.50/ea
Screws are required to attach the bracket and slides.	
Box, mounting screws, 100ct	3.50

Superior Molding

Retail

20" Full extension	\$5.50/pr
--------------------	-----------

Home Depot, Serene Ave.

20" ¾" extension Euroslide, White	\$6.69/pr	
20" Full extension	15.48/pr	
½" Melamine	4'X8'	30.00/sheet
½" MDF	4'X8'	21.00/sheet
1X4" Poplar		1.75/lf
(The Poplar equates to about \$4.50/board foot)		

Minwax Wipe-on Poly, Clear Satin	9.50/32oz can
----------------------------------	---------------

Additional Wood Sources:

National Wood Products, 6065 Polaris Av. 795-2324

I-15 to Russell West. Over the bridge, first light, turn left on Polaris, go to Ponderosa, turn right. Enter between the buildings on your left and look for the National Office on the east side of the canyon, about 100 yards down.

Superior Molding, 5190 W. Patrick Lane, 739-9663.

Peterman Lumber, 4444 W. Russell, Suite C, 89118, 430-3433

I-15 to Russell West. One block past Arville on the north side of Russell.