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## Classic Canister Set

### In this plan you will be getting:

- Step by Step construction instruction.
- A complete bill of materials.
- Exploded view and elevation drawings.
- How-to photos with instructive captions.
- Tips to help you complete the project and become a better woodworker.



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**\$7.95**

WJ006



Published in Woodworker's Journal "From Start to Finish: Quality Plans and Techniques for the Home Woodworker"

# Classic Canister Set

Here's a bygone kitchen accent whose time has come again. Regardless of what you store in yours, these octagonal beauties are fun to make, and you can crank out multiples at a time if you follow the production methods we describe here.

In the new culinary world order, flour, sugar and salt are “so twentieth century,” but coffee and tea are definitely “in.” And so a familiar kitchen staple—the canister set—is destined for a comeback, only it's holding trendy new ingredients for a new millennium.

This project has been designed for customization. You can make one or six canisters, and you can make each as tall or short as your kitchen setup requires. You just can't make them fatter (at least not without major modifications to these plans). Our production-style approach, as you can see in the

left *photo* on the next page, is to create one long glued-up octagon cylinder and then cut each canister to length.

## Getting the Bevel Right Before Moving On

When you're making a segmented project like this, setup is all-important. If you set your bevels at  $22\frac{1}{2}^\circ$  instead of  $22\frac{1}{2}^\circ$ , for instance, you'll get a quick lesson in the power of multiplication. A  $1/4^\circ$  times eight equals...well, it equals a very leaky canister. So get some scrap wood out and set your fence and blade. (Use the *Material List* and the

*Elevation Drawings* on page 76 for all your construction details.) When you're sure you've got your setup right, cut eight test pieces to width and wrap them up with tape. Even a  $1/32^\circ$  alignment error will multiply up to a poor fit. So accuracy is the watchword here.

Once you've tested your setup, go ahead and choose your stock. Remember, you're making a number of canisters from the same glue-up, so make sure you have nice uniformity in grain and color. Lyptus®, the wood we selected for our project, comes in a range of colors, as you can see from





*Absolute accuracy is never in doubt if you make your canisters from one glued-up octagon. A flip-stop miter attachment makes it easy to crosscut the canisters accurately. (If you don't have a flip stop, attach a scrap stop to your miter gauge instead.)*



## A "GREEN" HARDWOOD

Lyptus®, a natural hybrid of *Eucalyptus grandis* and *E. urophylla*, is a new, plantation-grown hardwood from Brazil. "Manufactured" by Aracruz Wood Products, it is distributed in North America through an exclusive agreement with Weyerhaeuser.



Lyptus is being used for diverse applications where the beauty and appearance of mahogany or cherry is desired.

In its natural state, the wood has a pleasant cherry color and variation between hardwood and sapwood boards. Left unstained, the natural figuration in Lyptus is similar to quartersawn oak. It oxidizes similarly to cherry and will turn a beautiful patina in a very short time."

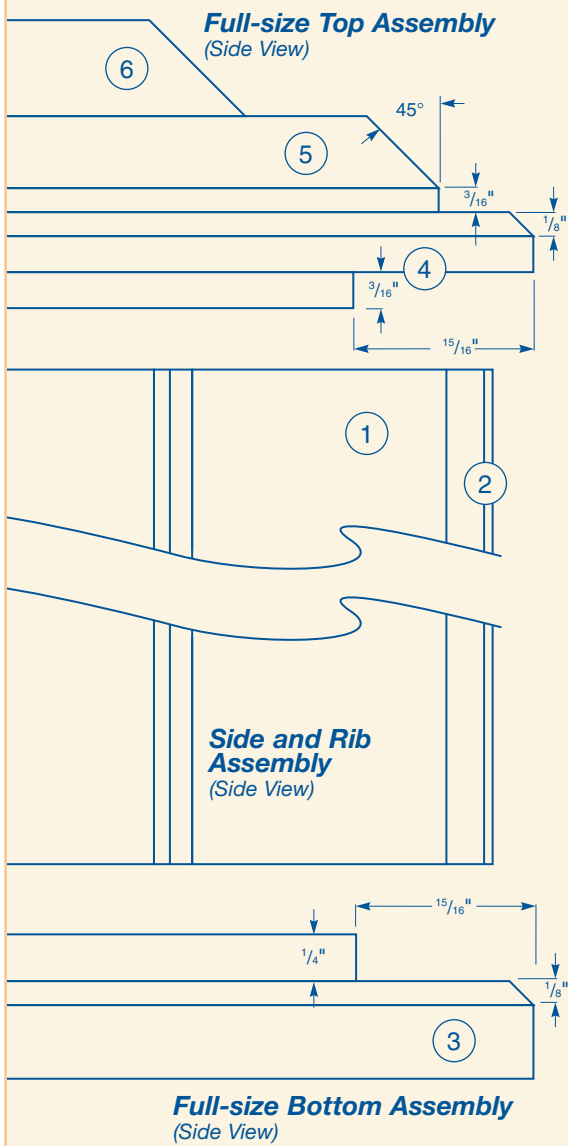
Lyptus compares favorably to the density, strength and technical properties of oak and beech. It machines well (little tearout along or across the grain as it is sawn or shaped) and has the surfacing qualities of genuine mahogany. It requires only minimal after-shaping touchup sanding.

Weyerhaeuser predicts that Lyptus will become the most important hardwood species of our generation for two very important reasons:

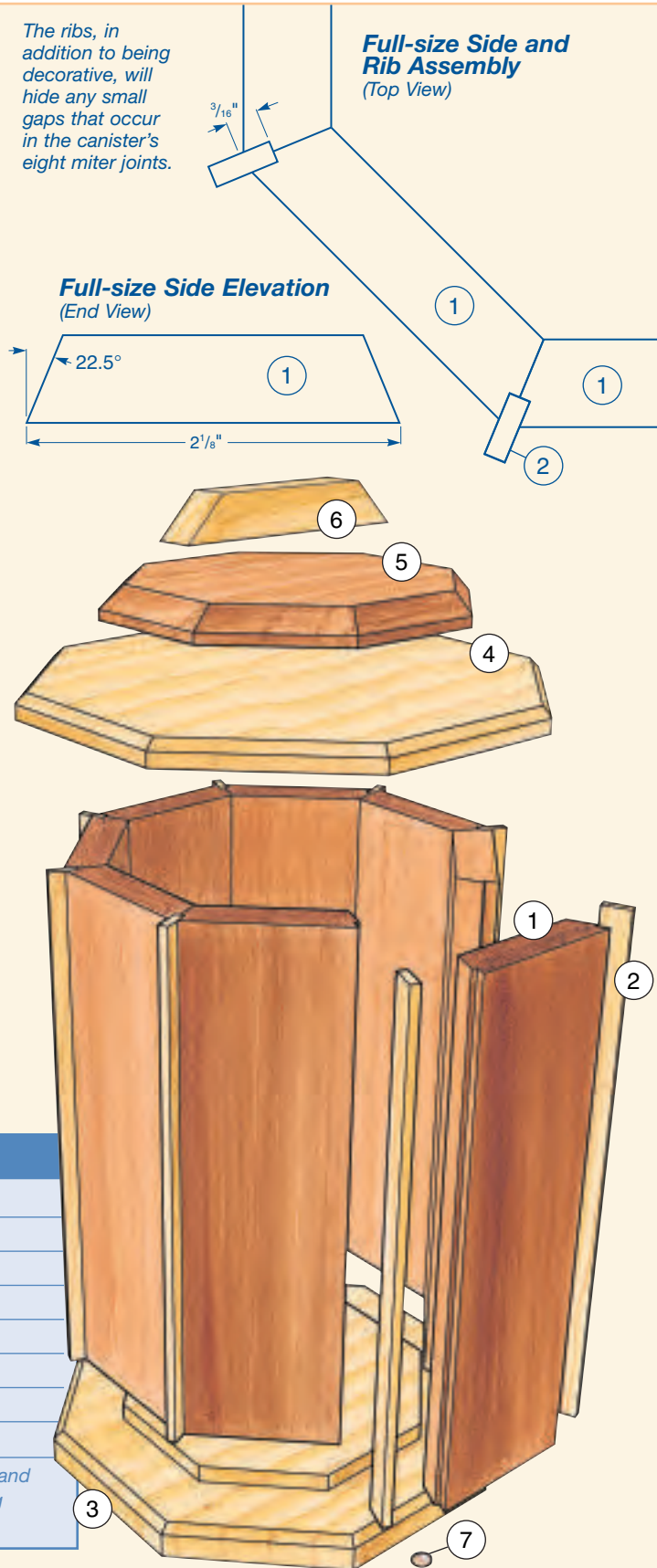
1. Rapidly renewable—the growth rate is unprecedented. Four-year-old trees are already 45 feet tall. Lyptus is harvested in 15 years (as opposed to 50 to 120 years associated with other hardwoods). After Lyptus is harvested, it regrows from the stump without the need to replant or disturb the forest floor.
2. Lyptus is reversing the loss of native forest lands—100% of Lyptus productivity comes from previously barren land that has been reconstituted through the reintroduction of native species indigenous to the region. Plantations of Lyptus are grown in a mosaic pattern interspersed with indigenous trees to preserve native ecosystems and create biodiversity. Lyptus is now available nationwide through Rockler.



## Canister Exploded View



The ribs, in addition to being decorative, will hide any small gaps that occur in the canister's eight miter joints.



### MATERIAL LIST – Canister

	T x W x L
1 Sides* (8)	1/2" x 2 1/8" x 25"
2 Ribs* (8)	1/8" x 3/8" x 25"
3 Bottoms (3)	3/4" x 6" x 6"
4 Tops (3)	1/2" x 6" x 6"
5 Top Accents (3)	1/2" x 4 3/4" x 4 3/4"
6 Handles (3)	1/2" x 1/2" x 2 1/8"
7 Base Buttons (12)	1/2" x 1/8" Silicon

\*The sides and ribs for these canisters were cut to 5 1/2", 7" and 8 1/2" to create total heights of 7 1/4", 8 3/4" and 10 1/4" (including the bottoms and lids).

## FORMING THE CYLINDER

the three pieces shown on page 75. We picked a 1/2"-thick board and jointed one edge dead straight before moving to the table saw. Decide the heights of your three canisters, throw in a few inches of waste for good measure, and cross-cut your board to length. Draw some diagonal lines on each side with different colored chalk to keep things lined up and then proceeded to cut the sides (pieces 1).

Keep milling until you have enough sides to create a complete octagon. We recommend that you cut a few extra pieces, just for good measure. Now you're ready to create the "master cylinder." Get out the glue, some packing tape and a set of web clamps.

The next step is going to be a real breeze, since you've used up lots of cheap scrap wood testing your bevel setup before moving into the expensive hardwood (right?!). For that reason, everything is going to fit together perfectly and you're going to end up with a perfect "master cylinder." Remember, the origin of the famous woodworker's anthem "measure twice, cut once," can be traced to segmented projects.

As you can see from the *photo* sequence at right, the first step is to lay a few strips of packing tape out on your work surface. Secure each end of this tape to the bench to ensure that things don't bunch up or move around as you lay your pieces down, each touching the one next to it. Your chalk lines will help you with the sequencing. Just be sure to have a good look at the outside of each piece as you work through your layout process. If you spot a ding or a piece that has warped or twisted, now is the time to grab one of those extras and replace the defective piece.

Once all the pieces are lined up, (and your web clamps are close at hand), use a foam brush to apply glue to the matching bevels (including the first and last ones). Because these canisters are going to end up in the kitchen, use a waterproof glue with adequate open time. The new Titebond® III is a good choice here. It's waterproof, gives you plenty of open time (eight minutes) and cleans up easily with water. Move quickly to apply the glue and then, using the tape, slowly roll up your master cylinder. Cinch up the web clamps until the joints close, and you're ready to move on.

Once the glue dries on your master cylinder, crosscut them to their various lengths. The first *photo* on page 75 shows how this works. Use your miter fence and a good stop and move slowly...this is no time to mess up all the work you've done already. We found that Lyptus mills pretty nicely, but we still sanded both ends smooth (using a block to prevent rounding), through 120 grit. We added maple "ribs" that run the length of the eight miter joints. They not only create a



Packing tape provides a convenient way to align and hold the cylinder side pieces together for gluing. Remember, when you're doing a multiple-step glue-up like this, always pay close attention to your glue's open time.



*The first step is to carefully lay all your mitered pieces on top of the packing tape with their ends squared up. Make sure the miters butt from one end to the other, and then quickly spread your glue in all the miters.*



*As soon as you've applied the glue, pick up the two ends of the packing tape and start rolling. The miters will come together easily, and the tape will temporarily "clamp" your cylinder together.*



*Bring on the muscle with a few web clamps, one at each end and one in the middle. Tighten the clamps securely, and then use a damp rag to wipe off as much excess glue from the inside of the cylinder as possible.*



The simple jig shown at right will ensure that all your rib cuts will be perfectly located on the miter joints of each cylinder. As with many of the steps in this project, we recommend testing your saw setup with a waste section from the cylinder glue-up.



design element that visually connects the maple top and bottom pieces, but if your miter joint has a small gap, no one will ever see it. You've got to like that!

To help accurately locate the rib veins, your next step is to make yourself a sled like the one shown above. Use a square scrap of plywood to create the base. Then attach two beveled pieces and two cross ties. The bevels ( $22\frac{1}{2}^\circ$ ) can be formed on the table saw. After cutting them to size, place the two pieces right up against each other on the base, screw them in position and then screw the two cross ties to them. Set your fence so the blade is directly in line with the point where the bevels meet and raise your blade high enough to cut through the base and the joined edges of the bevels, but be sure and stay below the cross ties: they'll be the only thing holding the jig together after the first cut is made. Adjust your blade height using a leftover segment of the master cylinder in the jig; you want the  $\frac{1}{8}$ " blade to penetrate the canister miters to a depth of exactly  $\frac{3}{16}$ ". With all that in mind, go ahead and cut all the rib veins.

## Creating the Ribs

After jointing one edge smooth, rip your ribs (pieces 2) to width on the table saw, as shown in the *photo* at right. Be sure to use a push stick with this  $\frac{1}{8}$ "-thick stock and make sure there are no knots or cracks in sight. Test the fit in the scrap you used to set your blade depth: you want a nice, tight fit: half in, half out. Once your ribs fit the miters, rip enough material for all three canisters and, after a light sanding, crosscut them to their three lengths. Place packing tape

to work during the glue-up phase; it brings just enough pressure to bear to hold the ribs steady and tight while the glue dries. When all the ribs are in place and the glue dries, remove the tape and sand through 180 grit, softening the edges and making the tops and bottoms perfectly flush.

## Forming the Octagonal Tops, Bases and Accents

With your three cylinders ready to go, it's time to move on to the bottoms and tops (pieces 3 and 4) and top accents (pieces 5). These pieces start out as squares and are cut into octagons on the miter saw. It's a simple process—just set your miter saw to  $45^\circ$  and either use tape as a marker or clamp a stop to your fence. Measure in from the corner of the square piece, as shown in the top left *photo* on the next page. Once again, we strongly recommend testing your setup with scrap. Work your way around each of the three tops and do the same thing with the three accent pieces. Then, move over to the table saw and, using a  $\frac{3}{4}$ " dado head, form the rabbets on the bottom of the lid and the top of the base piece (see the *Elevation Drawings*). Keep rotating the pieces while you nibble away the waste. Sand the saw marks off of the rabbets.

The final step with these pieces is to form the chamfers along their top edges. Carry out this machining step on a router table with a chamfering bit. Work your way around each piece again and take a sanding pass to smooth everything out.

## Making the Handles and Gluing Everything Together

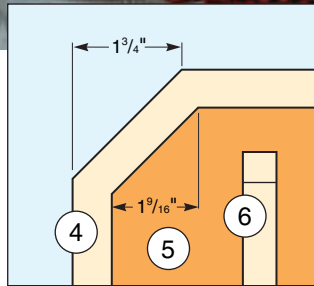
The final pieces to mill are the handles (pieces 6), which are also machined on the miter saw. Mill your stock to overall size and start with the blade set at  $45^\circ$ . Cut off one end, flip



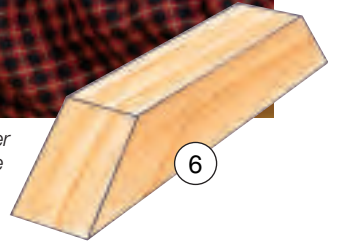
Select clear  $\frac{1}{8}$ " maple for the ribs and joint one edge before firing up the table saw. With thin stock like this, a push stick is especially important. Also, be sure your stock is completely free of defects.



Line up some tape on your miter saw's fence as a "stop" when you're ready to create the top, base and accent pieces. Use the illustration at right to lay out your cuts. Again, you can't go wrong using scrap to make a couple of test cuts.



The handles are also formed on the miter saw, once again using tape on the fence to create a stop. After each cut, flip the stock over to form opposing miters.



your piece over and slide it forward to your tape "stop" on the fence. The second cut creates the first handle. Keep cutting and flipping until you have all three handles. Sand these through the grits, softening their edges as you go.

Now you're ready to bring everything together. Glue the bases to the cylinders first (using epoxy) and then glue the handles to the top accents, pointing the handles in the direction of the grain. Once that subassembly dries, glue it to the

lid, keeping everything centered and making sure the grain on both pieces runs in the same direction. Test your fit and do any necessary final sanding at this time. Glue the silicon bumpers (pieces 7) to the bottoms of each canister and use a tack cloth to get ready for finishing. See the sidebar below for finishing recommendations. Then your canisters will be ready for those exotic teas and coffees you've been itching to try.

## FOOD-SAFE FINISH OPTIONS

Whether you find some liners for your canisters or store your coffee beans right in the "wooden boxes" as they did in the good old days is up to you. If you're going au naturel, be sure and use a food-safe finish on the inside, like General Finishes' Salad Bowl Finish shown here.

For the outside, we were more concerned with moisture hitting the surface on a regular basis, so we added silicon buttons around the bottoms and applied three coats of a wipe-on polyurethane gel finish on all the exposed surfaces.

