Do It Yourself

To print this page, select **File** then **Print** from your browser

URL: http://www.diynet.com/diy/ww_shelves_cabinets/article/0,2049,DIY_14444_2278191,00.html

European Dish Rack -- Front Assembly

From "Wood Works"
episode WWK-410 -- More Projects »

With the components and joinery for the dish-rack frame made, work can begin on the spindles that will form the front face of the piece.


Figure A

Materials:

Table saw
Hollow-chisel mortiser
Band saw
Table router
Plunge router
Yellow woodworker's glue
Clamps
Straight-edge
Carpenter's pencil
Safety glasses or goggles


Figure B

Note: Cut sizes may vary. For exact measurements, please contact David Marks through his Web site -- information below under Resources.


Figure C

Safety Alert: *Always* wear safety goggles or safety glasses when working with wood, power-tools, saws, drills, routers, etc.

Front Face and Spindles

- Cut the spindle stock using the band saw, then feed the stock pieces through the drum sander to ensure that each piece is 5/8-inch square. Each piece should be cut to 11-3/4 inches long. This length will allow for a 1/4-inch tenon on the ends of each spindle.


Figure D

- Batch cut the tenons on the spindles. At the table saw, raise the blade to 1/8-inch to score the shoulders around the spindle (**figure A**).

- Next, use the blade to nibble away the stock to reveal the integral tenon (**figure B**). A stop-block clamped to the cross-cut sled enables uniform batch-cutting of each of the 15 spindles on both ends.

- The next step is to make layout marks for the mortises on the top and bottom of the front rails. For aesthetics, the spacing between each spindle should be the same. After considering the size of the plates we'd be displaying, we opted to place our spindles 1-3/8 inches apart.

- For precision, we clamped the top and bottom rails together before making the layout marks so that the layout for the mortises would be identical on both pieces (**figure C**).

- Using the layout marks as a guide, center the stock with the 1/4-inch hollow-chisel mortising bit, and cut the series of mortises on the top and bottom front-rails (**figure D**).

- With the mortises cut, dry-fit the spindles into the rails to ensure a good fit (**figure E**). You may need to use a sharp chisel to trim the tenons and finesse the fit.

- Once all the spindles are in place, label the components to simplify the glue-up.

- Before glue-up begins, you'll want to chamfer the edges of the spindles and posts and add a decorative bevel to the top and bottom of the posts. At the router table, use a chamfer bit, raised to 1/16-inch, to give a slight bevel to the edges of the spindles (**figure F**).

- Next, bevel the edges of the long rails (**figure G**), short rails, support rail, French cleat and post.

- Raise the bit to 3/16-inch to cut a bevel on the ends of the four posts (**figure H**) to soften the hard lines and add a craftsman's touch.

- With all of the chamfering and beveling done, glue-up can begin on the front face of the rack. Add a dab of yellow glue into each


Figure E


Figure F


Figure G


Figure H


Figure I

mortise, and set each spindle in place (**figure I**).

- To ensure good alignment, dry-fit the two front-posts on the ends of the front-assembly to act as cauls and ensure registration (**figure J**). Once clamped, check for square and allow the glue to dry for a couple of hours.


Figure J

Support Rail

As the front face-assembly is drying, work can begin on the support rail. As seen on the prototype, dados are spaced evenly along the rail. The layout of the cuts corresponds to the spaces between the spindles. The dados are cut on 15-degree angles to help hold the plates firmly in place (**figure K**).


Figure K

- To make the angled cuts of the dados, a jig is created from scrap plywood (**figure L**).

- With the glue dried on the front assembly, clamp the support rail so that it's parallel to the bottom front rail. Lay out the position of the dados using the spindles as a guide (**figure M**).


Figure L

- Line up the jig with the layout lines, and clamp it securely, to cut the first dado in the support rail. Continue this process to cut each of the 16 dados in the support rail (**figure N**).

- Ease the edges of the support-rail using 220-grit sandpaper.


Figure M

In the segment that follows, the work begins on the decorative side panels.

Click here to order your tools and materials for this project from **Woodcraft**!


Figure N

RESOURCES:

Fine Woodworking
A magazine devoted to high-quality craftsmanship in woodworking.
The Taunton Press Inc
Newtown, CT 06470
Phone: 203-426-8171
Fax: 203-426-3434

Email: service@taunton.com

Woodworking Techniques: Best Methods for Building Furniture from Fine Woodworking
Model: 1561583456
Author: Fine Woodworking Magazine
The Taunton Press Inc
Newtown, CT 06470
Phone: 203-426-8171
Fax: 203-426-3434
Email: service@taunton.com

David Marks Website
David Marks, DIY's *Wood Works* host, is a master woodworker. For more information on cut sizes and project details, please contact him via his Website at www.djmarks.com

- **ALSO IN THIS EPISODE:**
  European Dish Rack -- Rails, Stiles and Joinery
  European Dish Rack -- Front Assembly
  European Dish Rack -- Side Panels and Fretwork
  European Dish Rack -- Assembly and Finishing Touches
  WEB EXTRA: Fretwork-Design Download