

Do It Yourself

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Contemporary Dining Chair: Curved Laminate Back

From "[Wood Works](#)"

episode WWK-507 -- [More Projects](#) »

With the bent bubinga laminate fully cured, the next steps in the project include transforming the laminate into the curved chair-back, rough-cutting the seat and creating the joinery for securing the back to the seat.

Materials:

Table saw; cross-cut sled

Jointer

Belt-sander

Band saw

Hand-held router

Carpenter's square

Chisel

File

Block plane

Straight-edge

Carpenter's pencil

Clamps

Safety glasses or goggles

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

Curved Laminate Back

- Once the bent bubinga laminate has fully cured, remove it from the vacuum press. Cleaned the hardened glue from one side using a belt sander to prevent it from dulling the knives of the jointer.
- After sanding the edge, joint that same edge perfectly flat using the jointer (**figure A**).



Figure A

- Re-attach the curved laminate to the bending form using the screw-holes that were drilled earlier to line it up precisely. With the laminate attached, use a square to measure and lay out marks for the angled cut that will be made along the bottom of the base (**figure B**).
- With the laminate still attached, lay out the position of the seat on the back-support (**figure C**).
- Clamp a piece of MDF to the tabletop on the table saw so that the back rides on the same plane as the cross-cut sled (**figure D**), and cut the angle along the bottom edge of the laminate using the table saw. An extended fence clamped to the back of the cross-cut sled will help to support the chair-back as the cut is made.
- Before cutting out the shape of the back, double-stick-tape on the MDF template that has a curved top and flared sides -- carefully lining the bottom edge of the template with the back. Even clamping pressure will help bond the template onto the chair-back (**figure E**).
- Shape the curves of the back at the band saw (**figure F**) using the template as a guide. Carefully cut close to the edge of the MDF template.
- Once the shape has been rough-cut, use a hand-held router to flush-trim the edges (**figure G**). The bearing on the top of the bit rides flush along the template to produce an even cut.



Figure B



Figure C



Figure D



Figure E



Figure F

Creating the Seat

- With the back shaped, work can begin on the seat. The seat is made by edge-gluing two boards that are 9 inches wide.
- Once the seat-stock has been glued up, set the seat on some blocks or crates to bring it to the appropriate height. Then set back against the seat -- being sure to center both pieces -- and scribe layout marks that will indicate where the notch for the back will be cut out of the seat stock. Transfer those lines to the top of the seat (**figure H**).
- Because the back is curved, the notch will be cut on a very slight

angle. At the band saw, cut away the bulk of the notch. To clean up the cut, raise the blade of the table saw to the final depth of the notch, and slide the stock back and forth over the blade to mill the cut smooth (**figure I**).

- Fine-tune the angle of the notch using a sharp chisel and a file (**figure J**). The marks on the top of the seat serve as the guide lines.
- With the notch cut, check the fit by gently tapping the chair-back in place (**figure K**).
- To adjust for the slight gaps where the curved back meets the seat, plane this section of the S-curve flat using a block-plane (**figure L**).

In the segment that follows, the seat is sculpted to its final form and the contoured, tapered legs are created.

[Click here](#) to order your tools and materials for this project from **Woodcraft!**

• **ALSO IN THIS EPISODE:**

[Contemporary Dining Chair: Templates, Jigs, and Laminates](#)

[Contemporary Dining Chair: Curved Laminate Back](#)

[Contemporary Dining Chair: Sculpted Seat and Legs](#)

[Contemporary Dining Chair: Finishing Touches](#)



Figure G



Figure H



Figure I



Figure J



Figure K



Figure L