

Nomex 164, by Dale Miller, Seattle, Washington, USA. Completed December 2014.

I would like to echo other builders in thanking Troels for this outstanding design and your large, open-source contribution to this community of interest. These are replacing some B&O speakers circa 1973, and I could not be happier with the sound – especially the depth, midrange, transparency and transients. As an experienced woodworker with a well-equipped shop, I also took this on as an opportunity to learn new woodworking skills, including shop-sawn veneers and rubbed-out finishes. The cabinets are MDF covered with a bloodwood veneer, rubbed-out lacquer finish, and a false bottom for the crossover.

Cabinets made from $\frac{3}{4}$ " MDF. Joints splined with maple splines. After routing holes and recesses for drivers on the outside, chamfered holes on inside with router and chisels as shown.



Assembled cabinets with braces before tops and driver boards. Note the space at the bottom will become an accessible compartment for the crossovers.



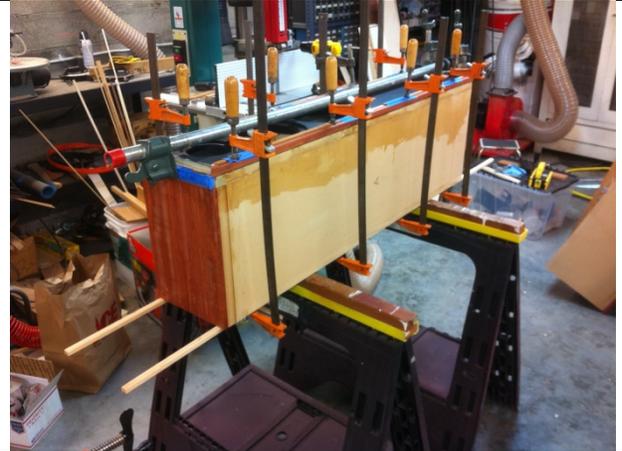
A 1/4" thick bloodwood board was glued to the top, and this was glued onto cabinets. Instead of bitumen, I cut and glued asphalt roofing shingles on all interior surfaces for damping the walls, as

suggested in David Weems book "Designing, Building, and Testing Your Own Speaker System". This was followed by a layer of F-26N ½" wool felt, then acoustilux polyester.

Gluing a "picture frame" of bloodwood and maple around the driver board.



Gluing the driver board assembly onto the cabinets.



The sides and back of the cabinets are covered with shop-sawn bloodwood veneer, 3/32" thick. I made a caul press and used Ultra-CAT pre-catalyzed resin veneer adhesive to prevent veneer creep in the future. Then I hand planed all sides with Krenov-style wooden planes and scraped with a Stanley #80 before final sanding and finishing.



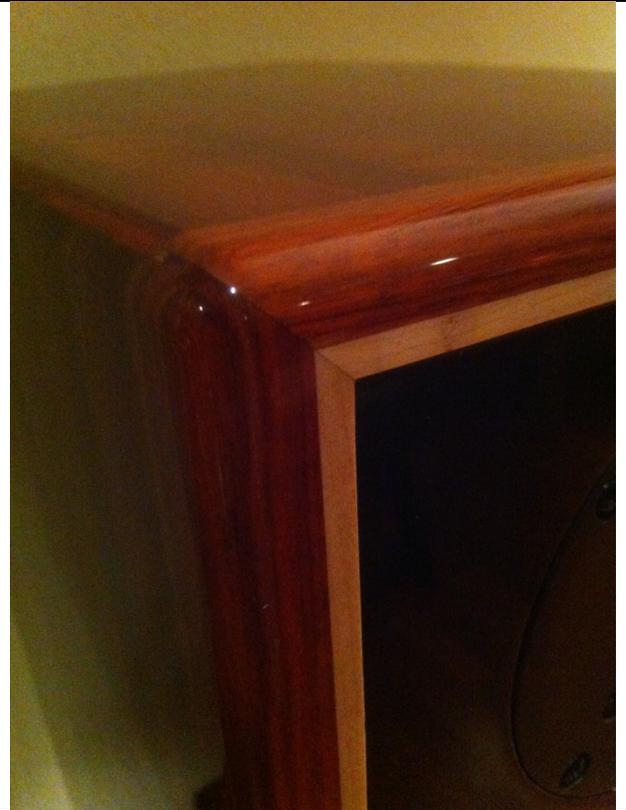
All edges were rounded with a round-off bit. Twelve coats of water-borne lacquer were sprayed, with sanding every three or four coats. The bloodwood has small open pores, and rather than fill them I decided (after testing) to level the surface with many coats. The driver boards were painted with black polyurethane, then clear coated with the water-borne lacquer. Finally, the finish was rubbed out using Merzerna automotive polishing compounds (three stages).



First time listening! Wow! Super-pleased with the sound. It's been 10 months since I started!



Crossovers soldered in place (left). Closed the hatch (right)!



Finished speakers in the living room.



Base made of maple and painted with the black poly and lacquer clearcoat and angled 4 degrees.

