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Subject: My New Theatre Three's

Posted by [GarMan](#) on Thu, 12 Aug 2004 20:28:03 GMT

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I wasn't going to make this post until I had the speakers completed, but it doesn't look like that's going to happen for another couple of weeks. It's one thing to build a set of good functioning cabinets, but building a set that looks good is something else. I choose the Theatre 3's because I already had a pair of PSD2002 / horns from experimenting with my 2PI Towers, and IMO the 3's presented the best combination of size, price, and performance. This is my third speaker project in the past 12 months and I took it as an opportunity to try a few new things. I definitely did not want just a standard box, but had no idea what I got myself into. A few modifications were made, mainly shape, size, and port. I prefer the tower shape over the standard box, and the overall volume was reduced by a quarter cubic foot. The size and shape was also dictated by the amount of space I was willing to dedicate in the room, and how the panels could be cut from the full 8x4 sheet. Port was increased to 4" diameter (because I had the plastic flare in hand) and length adjusted accordingly. The two basic functioning cabinets were completed in an afternoon. The cabinets were glued, braced, lined, baffle cut, and sealed. As usual, I had all the panels precut at HD. Panels were 3/4" all around and 1" front baffle. Went with the 1" front to compensate for reduction in thickness from flush mounting. About that funny triangular brace, I cut it to that shape so that when it sits between the woofer and port, I can reach in from the woofer cutout to make any adjustments to the port from the inside. Cabinets were built in one afternoon, but I've spend four weekends finishing them. The MDF carcasses were covered with 5mm thick VC oak ply instead of veneer, simply because it was much cheaper. It also added almost another 1/4" to the MDF all around. Veneering the beveled edges was a pain as there was no easy way to keep pressure on it until it dried. Woofer cutout was done with a homemade jig, made from a scrape piece of MDF, as per Epstein's suggestion. Rabbeting cutter with bearing was use to cut the recess for flush mounting the woofer. Flush mounting the horn was more of an exercise in woodworking than acoustics. More difficult than I thought, but happy with the results. I vow never to build another 8 sided speaker with moulding, especially when half the sides are less than 1" wide. First of all, I don't have a mitre saw to give me the exact 22.5 degree cut I need, so there was a lot of trial and error happening. Secondly, the corner pieces were so small that they can't be resized if you don't get it right the first time. If the piece does not fit perfectly, start again from scratch. What's left is more sanding, another coat of stain, and many coats of tung oil. I figure if I can move these into the laundry room, I can get five coats of oil on it over the course of a week. So, how do they sound? Like a more mature and sophisticated version of the 2PI Towers. They both have the same extension in bass, but the 3's are much better controlled. And they do go deep. I also find that I'm able to listen to these at a much higher volume comfortably than the 2's. These speakers are also a better match for rock and roll. I found that not all pop/rock recordings worked well with the 2 Towers. I'll keep you folk updated when final pix are available. Gar.

Theatre Three PI Photos