
Subject: Re: Things about stick braces and gluing up cabinets

Posted by [Bill Epstein](#) on Wed, 15 Nov 2006 01:40:48 GMT

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There are 2 things I don't like about stick braces just from my own experience. When I built my first speakers, the Theatre 4's I found that cutting the sticks exactly to size didn't keep them in place while the glue dried. Over-sizing them, which is what I did, caused a subtle bulge in the panels that only showed up after veneering. So take to heart what Shane says about cutting them same time as the panels and find a way, as he did, to keep them in place. Now I use 'window braces'.....that are cut the same size and time as top and bottom panels so they also help square the cabinet during glue-up. Very important if you don't use fasteners which I deem a needless complication. I also feel intuitively that they spread the load better but don't know if Wayne would agree from an engineering standpoint. I always dry clamp first to be sure the parts fit as well as having at hand all the clamps I'll need. It also tells me which clamps may torque the workpieces so I can plan for that. I never use glue straight from the bottle 'cause I can't judge how much to use. Acid brushes, those aluminum barrels with short bristles are just right. I pour out a puddle on a piece of scrap and paint the glue on both surfaces, thinly. On ends I make 2 applications, one after the first is dry. The thin glue spread is necessary for making the 'rub joint' that holds the top and bottom in place prior to clamping. When you rub 2 glued surfaces back and forth a bit, after a few times a bond develops and it takes some effort to move them some more. Too much glue just lubricates and this won't happen. I lay down the back panel on the bench. Then I paint glue on one edge of the top and bottom panels (remember edges get 2 coats), paint the matching area of the back panel and rub them until the panels will hold an upright position. I know, I know....but let's not go there...Now I apply glue to the sides of the top and bottom and along the outside of the back where the sides will go. I've already put one coat on the edges of the sides and quickly follow up with another. This is why white carpenters glue or the too expensive Titebond 3 is better than yellow. You need the longer open time to do all this. This is the time to finally use the clamps. You have to clamp the top and bottom vertically as well as the sides horizontally; the 'rub joint' won't hold up to the clamping pressure. Leave the upper horizontal clamps off until you glue-up and place the braces. Apply only enough pressure to see 'beads' of glue squeeze out. Where you don't see them you don't have a good bond, either from too little glue or not enough clamps. After about an hour the glue is just rubbery and can be easily removed with a sharp chisel or a scraper. never wipe off wet glue with a wet rag. It will spread the glue into the wood and/or deform the MDF. Once the glue is dry, about 4 hours, you have a cabinet minus only the front baffle. At this point, I double check the positions of the drivers and ports in relation to the bracing. Only then do I cut the driver and port holes. Caulk all the joints and install the stuffing, crossover and wiring. Then the baffle. Listen. Enjoy.
