Subject: neat trick for corners in rear horns, xmission lines
Posted by Russell Dawkins on Sat, 23 Apr 2005 19:58:47 GMT
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Many years ago, when I was building a lot of transmission lines I came up with this trick for rounding the outside of the 180º bends in the line, in the interest of smooth airflow. It involves the use of self adhesive floor tiles (12" X 12") applied to the outside of the bend in the line / horn. Assuming an internal width or less than 12", get a few linoleum floor tiles with impact adhesive backing. Score them to internal width, minus maybe 1/16". Heat them in a very low oven (temp-about 150ºF is more than enough). Microwave might work. The point is to raise their temperatures to about 120º at which point they become very flexible. Bend them in to position (you might need two per curve, depending on the radius) and score and trim the excess length. You may need to re-heat them at this point. Peel off the wax paper backing and carefully put into position. Wiith a rubber mallet or hammer whack the edges against the inner cabinet surface. When it cools, it will be fairly hard and very strong, due to the curve and will be as close to a perfect curve as I can imagine. When I look at all these pictures of the internal construction of various rear horns / lines I know that one of the hardest things in the project must have been the cutting of those little corner fillers. It's just not necessary. The cavity could be filled, perhaps with sand, but that's often not necessary, either. Saves a lot of time and works way better than any alternatives I've seen. If I were building a rear horn I would definitely do it this way, it's probably more important than in a transmission line to have smooth, faired curves.Russell

Subject: Re: neat trick for corners in rear horns, xmission lines
Posted by GarMan on Mon, 25 Apr 2005 13:05:28 GMT
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Thanks for the tip Russell. I'm going to give it a try on the pair of pipes that I'm currently working on. I'm sure the tiles will also add additional internal damping to the cabinet too.BTW, are you in western Canada? Just looking at your @shaw.ca address. I'm in Toronto.Gar.

Subject: Re: neat trick for corners in rear horns, xmission lines
Posted by Russell Dawkins on Tue, 26 Apr 2005 04:09:46 GMT
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I don't really think any internal damping would be added - these tiles are really quite hard and stiff when they're at room temperature. A knuckle rap sounds like a plastic salad bowl which make sense, I suppose, being about the same radius and thickness. The adhesive, by the way, is extremely secure. In thinking back, I used a regular hammer, not a rubber mallet, and would give moderate taps, you don't need to whack it. It is an impact adhesive and the strength of the bond is determined by the pressure generated by the impact.I am in Victoria, B.C.