
Subject: Questions regarding midrange horn.
Posted by [Frode](#) on Mon, 19 Jul 2004 15:16:16 GMT
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Hi! I haven't been active on the Pi forum for a while, but now some questions came up. I'm going to remove the vented LaScala bass cabinet from my Oris setup and use them in a second setup. Since I already have a pair of H290 horns, and Eminence and Beyma drivers for them, the new midrange horn would be perfect to complete the system. My LS is around 23.6" wide so I would like to make the horn a bit narrower. If I compensate this by making it taller, keeping the mouth area constant, this wouldn't affect the sound much, would it? I would also like to use a plate amp for the LS, but most of these are filtered at 160Hz. Do you think this could work with the midrange horn? TIA Frode

Subject: Re: Questions regarding midrange horn.
Posted by [Wayne Parham](#) on Mon, 19 Jul 2004 21:31:59 GMT
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That's a beautiful setup you have there! Going down to 160Hz for the midhorn is a bit low. If placed in corners, it should do it but just. You'll be pushing it to the eighth-space limit. More information is available here. Drawings for a cabinet that mounts nicely on a klipschorn are here.

Subject: Re: Questions regarding midrange horn.
Posted by [kupfer_m](#) on Wed, 21 Jul 2004 09:39:14 GMT
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Hi Wayne, How does one calculate the angles of the wood for making a midhorn? Thanks, Jim

Subject: Re: Questions regarding midrange horn.
Posted by [Wayne Parham](#) on Wed, 21 Jul 2004 10:18:43 GMT
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For a straight sided horn, you basically set the angle you want for the dispersion pattern. At low frequencies, the flare will cease to set the radiation angle and the mouth will act more like a diffraction slot or pinhole, so the pattern will widen. The point where this occurs is determined by the size of the mouth. But for the most part, the wall angle sets the dispersion pattern.

Subject: Re: Qustions regarding midrange horn.
Posted by [kupfer_m](#) on Wed, 21 Jul 2004 15:48:48 GMT
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Wayne,I think I wasn't very clear in my question, I actually would like to know the angles to cut the wood itself for building the midrange horn as documented here on the forum.thanks,Jim

Subject: Re: Qustions regarding midrange horn.
Posted by [Wayne Parham](#) on Wed, 21 Jul 2004 21:48:53 GMT
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Oh, I see now. Build-up discussions are probably best left to the cabinetmakers. But I think most people are using butt joints on the sides, and using a cut angle of $(90 - (\text{flare angle}) / 2)$ on each joint to the baffle mounting plate. Maybe of the people who have built them will chime in and say how they're doing it.
