Subject: ?More Horn Questions?
Posted by Cuppa Joe on Sun, 15 Apr 2007 23:03:47 GMT
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Beating the proverbial dead horse, I was hoping to revisit a previous topic for further clarification.In an earlier posting, I mentioned three front-loaded midbass/midrange horns in which the horizontal flare had dual-angle conical sections with the break being about halfway down the horn. The inner flare, beginning at the throat, was usually half the coverage angle of the outer flare, terminating at the mouth. Those were the Peavey MB-2, the Speakerplans MT-122, and the Speakerstore Hoorn (10"/1"). It was concluded that the horn type was a crude approximation of some kind of curved flare.So, here come the Q's, and anyone's input is appreciated!1.) What type of curved flare is being approximated?2.) What can be expected for a response as compared to a conical horn, given the same driver, and the same throat and mouth areas? That is, what general response variations might arise in one horn as compared to the other?3.) Does the outer section of the flare alone determine the horizontal coverage pattern? Or, does the soundwave tend to obey the horn's "curve" instead (within its passband, of course)?

Subject: Re: ?More Horn Questions?
Posted by Wayne Parham on Wed, 18 Apr 2007 02:51:40 GMT
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You don't have to really worry about what curvature might be approximated with Hornresp. Just model the horn using its actual dimensions and see what it does. About the pattern, if the horn has straight walls and is very large, then the pattern is set by the wall angle. When made small enough that the mouth acts as a diffraction slit at the lower end of the passband, then pattern will narrow slightly, then widen. By making a section of the flare near the mouth widen, you can reduce the narrowing of the pattern, just before the horn loses pattern control entirely.