Subject: Re: Horn loading and frequency
Posted by Marlboro on Mon, 19 Oct 2009 14:45:36 GMT
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Speaking generally, after a short search on the internet(I'm very good at searching stuff and people on the internet), I've discovered a number of people who build various configurations of small folded horns that were touted to be able to produce enormous sound. In one case, the individual was complaining bitterly that he had a small 8 inch woofer that he'd blown several copies of in a folded horn box of something like 20 x 30 x 25, trying to get it to produce the levels of sound that he expected it to do so based on the descriptions in the plans. He was telling everyone that they should not build a small folded horn and choose a nice ported model because it will produce real sound.

So then I started looking at writings on how horns work and discovered the mouth problem, and the length of the horn problem, and then the coloration of the sound problem as it travels through a long folded tube with square sides.

And I discovered this dude with advance degrees(PhD) in BOTH math and physics who having retired from the space program and decided to make horns because with his skills it should be simple, and discovered that not only was it not simple, it was almost incomprehensively difficult, and the kinds of math necessary to even approach the problems was nightmarish.

So.... I'll go back to my large ported box or my line arrays.
Which incidentally I'm having problems with the second of which, since it seems very hard to find a reasonably priced 10 inch woofer with high efficiency(for big dynamic range) and reasonable xmax, and the ones that I did find aren't conducive financially for putting together 12 of them in a line array!!

Ah..... well.

marlboro