Subject: Re: Compresison ratio and front chamber size
Posted by Wayne Parham on Thu, 22 Feb 2007 16:28:26 GMT
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through the horn mouth. It also made the horn have a very wide bandwidth, giving it usable response up through the midrange. The biggest problem up high was that the sides were straight, so standing waves setup horizontally within the flare. But HF content was good and easily

or 2226.I know I'm sounding like a broken record, but I'd suggest modeling with Hornresp. I think you'll find general trends that way. Seems to me like one thing that was consistent between systems I liked with 1:1 throats was high BL drivers. I was looking for HF extension, so massive cones weren't good. Ligher cones with powerful motors were the ticket for that application.I think you'll also want to consider directivity and breakup modes. This is unrelated to the basic pistonic model, but on a straight horn with the entire diaphragm exposed, it will definitely play a big part in overall response. There is no front chamber to attenuate HF, so whatever the cone does will be presented to the horn. And when frequency is high enough that the diaphragm radiation pattern becomes more narrow than the horn wall angle, then the horn system will begin to have collapsing directivity even if the horn wall angles are straight. That will increase on axis SPL. The horn will no longer have constant directivity at that point, but it may provde some acoustic EQ, boosting the upper end of the on-axis response curve.