Subject: Re: It seems that the problem is the rear chamber
Posted by Wayne Parham on Tue, 29 Aug 2006 14:18:13 GMT
View Forum Message <> Reply to Message

That's exactly right. The rear chamber volume sets the resonant frequency along with the mass, because rear chamber volume determines overall compliance.In my basshorn design, I've balanced the rear-chamber and front-chamber with the driver to get better response than the LABhorn, but it does take a pretty small rear chamber to do it. Brad Litz did this too. It's actually slightly larger than what is used in the LABhorn, large enough to build a box around the driver. The frequencies are low enough that everything is pretty large, and even a small rear chamber is big enough to work with.What's really difficult to work with are rear chamber volumes so small that the box has to contour around the magnet. I run into this with midbass horns. On midrange horns, I'm not usually worried about excursion, so I sometimes design them for open backs or large rear chambers, which act the same. I'm not usually looking for LF from a midrange horn. But midbass horns can potentially have cone excursions that make me want to use reactance annulling with a smaller rear chamber. On those, sometimes the rear chamber size required to do that is so small it's practically a sealed back driver.