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Subject: Re: Eminence Beta12LTa -- best cabinet?

Posted by [Sean](#) on Fri, 09 Sep 2005 15:08:03 GMT

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Thanks for taking the time to respond and providing some form of comparison charts. Having said that, i have a few more questions for you. That is, if you don't mind : )1) Are these measurements taken using you Pi alignment for duct tuning? If so, what do the Q's work out to be in box?2) What are the differences in impedance in the resonance ranges of each design? This is VERY important to me as i absolutely hate high impedance peaks and the lack of loading / control that the amp has over the woofers in such a situation.3) If you have comparisons between sealed vs ported on the impedance curve, what was the sealed cabinet stuffed with and the quantity used when making these charts? What specific static Q were you shooting for in the sealed design? As you know, the type and amount of stuffing can play DRASTIC games with Q, extension and impedance peak, hence there are a LOT of variables there.4) In a 3 cu ft box for this driver, which is not very big at all and quite reasonable in size, you can see that there's not a huge difference in extension. In terms of an F3, the sealed box is supposedly "missing" 10 Hz of extension compared to the vented design. In terms of usable output, the F10 is only 5 Hz different. I will give you that the vented box looks better on paper in this regards, albeit not by much, but what does it sound like when you start throttling power into each design at or below the point of resonance??? You have to remember, we are still resonating pretty high in frequency and there is a sizable amount of energy below this point. Especially if using this driver for use in a small PA system. Realistically, an open E on the bass is 41 Hz and on a five or six string, you're down around 30 Hz or so. This is not to mention guys that are running heavily damped / tuned down 26" kick drums, etc... At that point, the vented box is "probably" going to have less output AND be drastically unloaded i.e. much higher in distortion whereas the sealed box is mechanically limited due to the "internal air spring". This is not to mention that transient response on the vented box will be a mess at higher frequencies due to the massive excursion caused from being unloaded at those lower frequencies. Given that this driver has rather limited excursion as it is, I return back to my original question. That is, why would you want to vent this driver? It is not mechanically capable of long excursion, it resonates too high unless put in a phenomenally huge box and venting it opens up the potential for increased distortion IF deep bass at any type of volume is expected from it. Venting it only looks better on paper from all practical points of view. That is, unless one is listening to chamber music at background levels. Sean>

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