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Subject: Re: Why won't a single driver speaker do metal?

Posted by [Martin](#) on Tue, 02 Aug 2005 23:22:13 GMT

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Ed, I read the two private e-mails and the posts above and on the Decware forum. I'll answer with a few thoughts but there is too much stuff in all of these to address each topic without spending a ton of time and ending up in a huge debate. I don't have that much time or care that much about the topic, I am not upset or mad at anybody and really don't take this whole debate that seriously. Life is too short.

1. You seem to have a strong reaction to Jeff's post at Decware and have interpreted this as a "back handed slam" and a few other descriptive phrases. I reread his post and don't see anything that should have caused this reaction. He doubts your findings and I can understand why, I'll elaborate below. From my experience on the Internet and in life, whenever you lay out a theory or very strong opinion you have to expect people to respond. You are inviting comments and some people are not going to agree. You have to deal with that. Many people have built my speaker designs and/or used my software and for the most part have been very happy with the results. Some have not like my designs or software results and have expressed their negative opinions on open forums. They are entitled to their opinions and to express them. I don't jump on them or respond unless a specific concern is identified that I can help clean up. A guy on TNT audio built my Lowther ML TL design but with a few of his own "changes" and then reviewed the result as being my design. In my opinion he compromised my design. I never responded and he never gave me the opportunity to comment before posting the project. Oh well, such is life. Somebody expressed some doubt about your claims and you went off the deep end, claiming to be a victim of a lie and insulting back handed slam. That person had the good judgement to just walk away while you ranted on, in my opinion you did not look good and came across as very immature. You determine how people will view you, if you want to be thought of as the "redneck jackle" that is fine. If you want to be thought of as a speaker professional and taken seriously you need to think about how you want to come across when somebody voices a negative opinion about you or your product.

2. In one of your posts you present the following observations. "With My X150 playing Enter Sandman and my speakers in corners I can show you 105 dB peaks all day long. This is 8 feet from the speakers not at "1 meter". I have demonstrated this to many people. With My F1 the peaks are limited to 100dB or so. And with my Audio Note 300B about 98 or so. The sound is not compressed and you can understand the lyrics easily....including the kid whispering." Lets think about these statements. Your speaker can produce between 98 to 105 dB at 8 feet in your room depending on the amp used. OK, I'll buy into these claims. The question I would ask is at what frequency? Putting out 105 dB at 1 kHz is very different then claiming 105 dB at 30 Hz. Without a measurement, it is not clear what the frequency response of your speaker really is in your room. I would agree that corner loading them in your room helps the bass but I have my doubts that you are producing 105 dB flat down to deep bass. The speakers play loud but I ma not sure I believe that a small driver is capable of that level in the frequency range 30 - 100 Hz without severe distortion, compression, of self destruction. This seems to also be the result obtained by the TNT review linked from your site, I think he noted that above 100 dB the mids did not increase in volume but the bass continued to rise, this is impressive but does not sound like a real desirable linear result to me. A couple of shorties :

3. Two claims were made about the low frequency roll off on the Decware forum, 20 dB/octave and 30 dB/octave. A back loaded horn rolls off at 24 dB/octave.

4. You wrote "Modeling the enclosure will not give an accurate picture.". Obviously I cannot agree with that statement. A computer model can go a long way to helping understand the way a speaker works and how to improve the

design, but it has to include all of the important contributions. Garbage in generates garbage out. I believe that my latest MathCad back loaded horn simulations are getting closer and closer to providing a reliable design tool which includes reinforcement from room boundaries.<sup>5</sup> Based on my recent back loaded horn modeling, I believe that your speakers are acting like a TL at the lowest frequencies and transition into horn like behavior probably above 100 Hz. Nothing wrong with that design method and it is the one I am exploring for my own back loaded horn speakers. Having the strong undamped TL resonance helps the bass output. Corner loading helps the bass output. But the only way I am going to believe 105 dB at 8 feet with extended low bass output without any severe distortion or compression is through scientific measurements. Opinions and postulating are not going to convince me, but that is just me. Maybe I am just a cynic. Martin

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