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Subject: slot loading for horns?

Posted by [moray james](#) on Wed, 01 Nov 2006 17:44:12 GMT

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Have been looking at the Punisher horn design and see that the driver is 100% loaded into the horn throat. I have seen this feature in a few other designs but in most designs that I have seen the driver is slot loaded into the horn throat. Can someone explain when and why slot loading is called for and when/why it is not? Thanks. Moray James.

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Subject: Re: slot loading for horns?

Posted by [Wayne Parham](#) on Thu, 02 Nov 2006 03:03:57 GMT

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I think what you're calling slot loading is designs that have throat area smaller than driver diaphragm area. This increases compression ratio. Some designs have throat area equal to diaphragm area, some have throat area smaller than diaphragm area. Check out the Hornresp program and play with a few designs and you'll see what effects various changes like these make to overall performance.

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Subject: Re: slot loading for horns?

Posted by [moray james](#) on Thu, 02 Nov 2006 07:13:59 GMT

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Yes that's exactly what I was referring to, the size of the actual throat opening. I'll have a go at flying the horn response program and have a look see at what happens when the throat area is manipulated up and down. Does driver xmax factor into this? Most older drivers had smaller xmax than some of the newer offerings. If you have double the xmax would you need to generate the same compression ratio for a given horn? Regards Moray James.

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Subject: Re: slot loading for horns?

Posted by [Wayne Parham](#) on Thu, 02 Nov 2006 20:34:01 GMT

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Xmax is important for LF extension. Even horns require more excursion as frequency goes down.

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