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Subject: Re: more to it

Posted by [GraemeG](#) on Wed, 20 Apr 2005 00:52:42 GMT

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The formula you have quoted will let you know physical sizes for a given throat and expansion, but will not tell you the optimum parameters for a given driver. Whilst it is true that length will be less for quarter and eighth space loading, it will not be half or quarter length. You have to be mindful that if the horn length is less than a quarter wavelength at any frequency, it will not act as a horn at that frequency. Horn design is all about compromises, and the math involved in arriving at the compromise to suit your own goals is considerably more complex than what you have. As Wayne suggested, try Hornresp - it is quite accurate down low, and will allow you to find the best compromise between throat area, flare rate, mouth area, horn length, rear chamber volume etc, and THEN you can use the AudioXpress formula to calculate the physical horn sizes (assuming that an exponential expansion is required - there are other taper rates which may suit your goals better). Cheers Graeme

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