
Subject: How do you calculate the optimal back chamber size for a frontloaded bass horn?

Posted by [Peter Krojgaard](#) on Thu, 03 Jun 2004 07:16:27 GMT

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Using McBeans HornResp program (and with the generous aid of others!), I am about to build a pair of large, straight 29 Hz bass horn. I use two 15" woofers (Precision Devices PD.158) for each horn in order to get the horn shorter. The throat size for the dual woofers is 720 cm² which is a little less than 1:2 (throat size:cone area). In McBeans program you can see how the predicted output varies using different sizes of back chambers. Now, for my particular horn, I get almost identical predicted outputs from McBeans program using back chambers between 100 and 140 liters for both woofers. Does this mean that I just need to get the size of the back chamber within this interval, or can I get a more precise 'guess' regarding optimal back chamber size based on 'reactance annulling' (which I unfortunately do not know about)? If the latter is the case, I would really appreciate if someone could tell me how to achieve 'reactance annulling'! I thank you a lot in anticipation! Regards Peter Krojgaard
