
Subject: sub horn for 2240

Posted by [adavis464](#) on Fri, 14 May 2004 13:02:10 GMT

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Different throat size & mouth size which is correct leach or keele ?

Subject: Neither.

Posted by [Bill Fitzmaurice](#) on Fri, 14 May 2004 17:32:46 GMT

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Both Leach and Keele use formulas that are neither carved in stone nor necessarily the best option for a particular application. They just represent two ways of approaching horn design. Differing goals require different ways of going about it.

Subject: Re: sub horn for 2240

Posted by [Bill Wassilak](#) on Fri, 14 May 2004 20:16:21 GMT

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Down load a copy of this program and take both measurements and put them into the formulas, this will give you a read out of what to expect.HTHBill W.

McBeans Horn Resp

Subject: Re: Neither.

Posted by [adavis464](#) on Sat, 15 May 2004 13:29:18 GMT

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So what is the science ? In you speaker builder artical you us the example of breaking rule if this is true than what is the change in the science the new formulas for differant aplication.So neither is a pour answer is everyone guessing?Seeing alot of designes out there it looks like most are guessing.regards tim

Subject: There is some science, but still horns are mostly art.

Posted by [Bill Fitzmaurice](#) on Sat, 15 May 2004 18:49:47 GMT

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Download the McBean program as was suggested and you'll find that you can build virtual horns with many different parameters and get many different results. What horn you should end up building is determined by your particular needs in terms of available space, required bandwidth, desired SPL and so on. Experiment. You at least have the advantage of a computer program; I built probably 50 horns with no way of knowing how they'd work until I built them. There are many ways to build a horn, with so many permutations of both the driver specs and horn dimension specs possible that I'm sure the combinations add up to the millions. If what you desire is a short quick answer on the 'correct' way to build a horn I'm afraid that there isn't one. I designed my first horn in 1969, and I still have not achieved the Holy Grail of the 'Perfect Horn'. Give me another 35 years and I might get close. If you're serious about learning about horns required reading is Olsen's book on Acoustical Engineering, available through Old Colony Sound at www.audioxpress.com. As for both Leach and Keele, according to their formulas all of the horns I've built over the last ten years, including the pictured DR250a, could not possibly work. They do work, which is why I say use the math as a guide, but not as a crutch.

Subject: Re: There is some science, but still horns are mostly art.

Posted by [adavis464](#) on Sat, 15 May 2004 19:04:32 GMT

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That was possibly The best answer I had ever got in all the forums I've read. Everything is so much clearer just by that simple answer. Thanks I will look forward to your future articles and posts.

Subject: mcbeans prog

Posted by [Mike.e](#) on Sun, 16 May 2004 10:35:12 GMT

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Use the hypex tool first to attain a response that you want. Then minimise the parameters eg:: make throat area 'correct' and realistic:: make mouth area a realistic size, eg not 20,000cm² unless you can fit that. play til its flat response again with Vrc and Vtc :-). Cheers!

Subject: Re: mcbeans prog

Posted by [Bill Fitzmaurice](#) on Sun, 16 May 2004 11:42:17 GMT

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Useful information, but the main shortcoming of McBean is that it does not accurately predict the high-frequency cut-off point of a horn. While the low frequency Fc and SPL is useably accurate

the high frequency F3 is usually stated at least a full octave lower than actual measured results. When it comes to folded horns the situation is even murkier, and that's one area where there is no substitute for experience and experimentation.

Subject: OOPs

Posted by [Mike.e](#) on Sun, 16 May 2004 12:59:36 GMT

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yes the HF isnt usable with this program,but this is pretty lowstuff so it didnt come to mind:-)Cheers
home

Subject: Re: OOPs

Posted by [Wayne Parham](#) on Mon, 17 May 2004 02:35:10 GMT

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God, Mike, how do you get those great sunset photos?Oklahoma has some really beautiful sunsets and I have a pretty nice camera but never seem to be able to capture them like you have. Maybe the trick is to enhance the contrast?Whatever the case, that's a beautiful sunset.

Subject: NZ has em!

Posted by [Mike.e](#) on Mon, 17 May 2004 07:44:14 GMT

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I was driving along a single lane road at 100km/h while taking that pic :P hahaif the clouds are right its easy to get them. Im suprised it looks so good,if it gets too dark digital cameras get fuzzy ive noticed,not enough light to detect.Everyplace has its pros and cons,see theres no amazing weather like tornados and cyclones here :P + broadband is quite expensive :PPerhaps oneday come here for a holiday :-)see some of these sunsets with your own eyes :-Di have a new site btw,felt like trying a different graphical routesaturdays drum n bass event :-)

Subject: Re: NZ has em!

Posted by [Wayne Parham](#) on Mon, 17 May 2004 08:15:10 GMT

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Oh, man, that's too cool! Looks like a bunch of great folks there! But what happened to the girl with what looks like blood on her forehead? Your new website looks great too. Love those graphics!

Subject: Re: NZ has em!
Posted by [Mike.e](#) on Mon, 17 May 2004 08:18:46 GMT
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red spotlight;-) we hve no lasers,just coloured lights flickering about :-)that was the gig with the celestions :P most ppl didnt mind the crap audio,cos their used to it. only me and me mate pete noticed:-)interesting people :-D

Subject: Re: NZ has em!
Posted by [Wayne Parham](#) on Mon, 17 May 2004 08:23:33 GMT
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Looks like a great time!

Subject: Re: NZ has em!
Posted by [andreas paulsen](#) on Mon, 17 May 2004 12:22:26 GMT
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That definately looks like a bunch of Kiwi's with that amount of lager around.You guys surely deserve a DB!.Where are you located in NZ?CheersAndreas

Subject: Re: NZ has em!
Posted by [Mike.e](#) on Tue, 18 May 2004 00:54:54 GMT
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hehe :-PSouth island - www.cityofdunedin.com a 100,000 person city,with 20,000students who like pubs :-)

Subject: Re: NZ has em!

Posted by [andreas paulsen](#) on Tue, 18 May 2004 04:49:25 GMT

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year nice place. Haven't been there though. Got a couple of mates around
dunedin.CheersAndreas

Subject: Bill, you hit it on the head. (nt)

Posted by [Ed Schilling](#) on Thu, 27 May 2004 01:05:26 GMT

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very nice answer to the question and oh so very true.

Subject: Re: Bill, you hit it on the head. (nt)

Posted by [Wayne Parham](#) on Thu, 27 May 2004 17:35:41 GMT

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Good to see you Ed!Hey - Do you use any passive components in your speakers? Some single driver speakers do, and some don't.Also, what's your favorite kind of amps for use with your speakers? SET? Push-Pull tube? Or a high quality solid state system?

Subject: Re: Bill, you hit it on the head. (nt)

Posted by [Ed Schilling](#) on Thu, 27 May 2004 21:32:17 GMT

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Wayne, there are no passive components. Amps, well that is really a tough one! Anything that sounds good in the first watt! Right now I am liking my Pass X150(150 watts), Audio Note 300b(8 watts), and the TriPath eval. board amp(10 watts?). The pre-amp for all is the Steve Eddy BUF03 passive circuit. Things are good in the "Pink Room" with any of those. My Fi"X" is not in the house but 2A3's (3 watts) are good too. The Wave AV8's are pretty good (push-pull 8 watts). Heck, I guess my favorite type of amp is one that sounds good! There are some that have not thrilled me, but to mention them would not be "nice".
