
Subject: Conical Midrange horns
Posted by [Adrian Mack](#) on Thu, 27 Nov 2003 23:29:41 GMT
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Hi everyone! Is there anything wrong with using a conical horn for the midrange, say a range from 300Hz to 1.6KHz? People are always recommending Tractrix or Hyperbolic for the midrange, but never conical. Some of you might remember I built two Tractrix horns for some Alpha 6's I've got, they perform great, but I just found today in a Hornresp simulation that if I built a conical horn then the HF extension would be even higher in a horn of the same size and is still flat which is good. Are conical horns the straight sided horn? Is the Unity horn a conical horn? If it's a straight sided conical horn, it isn't a CD horn is it, I could make wider coverage angle/dispersion in the horizontal than the vertical planes if I wanted without ruining the hornresp simulated response? So what's the pro's/con's of a conical midrange over a tractrix midrange horn? I remember reading on this forum a few months back that conical has lower THD/phase distortion??? BTW: What does the FTA box mean in hornresp? It's for conical horn mouth flare tangent angle when I'm simulating a conical horn, what use is this? Also why doesn't the conical horn simulation show the flare frequency it is always 0.00Hz, although it doesn't affect the simulation really. Thanks! Adrian

Subject: Re: Conical Midrange horns
Posted by [Wayne Parham](#) on Fri, 28 Nov 2003 00:03:04 GMT
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Conical horns are great for midrange. They're actually the most common type for cone driven mid horns. Conical horns are relatively simple in construction and provide constant directivity. I wouldn't use anything other shape than conical for midrange, and in fact, am currently working on a conical midhorn design for use with a JBL 2012 and/or Eminence Delta 10 midrange driver.

Subject: Re: Conical Midrange horns
Posted by [Bill Martinelli](#) on Fri, 28 Nov 2003 01:52:33 GMT
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Hi Adrian, Conical is a great horn flare for the midrange. As for pros and cons, You should just build yourself some conical horns. It will be easier than trying to wade through all the mathematical differences, the opinions of people you make, sell or bought either style. Bill

Subject: Re: Conical Midrange horns
Posted by [Adrian Mack](#) on Fri, 28 Nov 2003 02:57:55 GMT
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Hey Bill Sounds like a good way to go. I've got spare 12mm MDF here so I'll just build and try out a few. The easiness of construction is getting me excited! Adrian

Subject: Re: Conical Midrange horns
Posted by [Bill Martinelli](#) on Fri, 28 Nov 2003 14:17:17 GMT
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High Adrian, Let us no how it sounds. Bill