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Subject: Re: Folded Horn vs Tapped Horn

Posted by [Wayne Parham](#) on Mon, 12 Jan 2009 03:07:11 GMT

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A tapped horn is like a transmission line. It trades size for efficiency, meaning you can get a low cutoff in a relatively small box but the efficiency isn't as high as a traditional basshorn. It also has higher distortion because of its high frequency artifacts. Since it is built like a scoop with a long path length, it has high frequency interference modes. Those create large ripples at the upper end of the passband. But you can get deep extension in a relatively small box. If you want highest quality and most output outdoors or in a large open area, true basshorns are the best way to go. Nothing beats them in terms of low distortion and high output. But the lower you need cutoff, the larger the cabinet must be. For high fidelity sound indoors, I suggest looking into the multi-sub approach instead. Use two or three subs placed around the room. They don't all have to be large, they just have to cover the modal range. One large sub can be used for infrasonics and another one or two smaller ones to cover 30Hz up. The idea is to smooth room modes using dense interference to average the sound field below the Schroeder frequency.

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