Subject: Re: Fts
Posted by Bill Fitzmaurice on Wed, 04 Aug 2004 18:14:09 GMT
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I'm quite positive, the result of having measured it on every cabinet I've built since I came across the effect a few years back. On my Tuba subs the throat impedance is quite high, on the order of a few ohms, and the Fs is dropped by a full octave. And yes, the driver movement is stiffened considerably, requiring very high Bl drivers to maintain cone control. When the driver fires into free air the driver Mms is the primary determinant of Fs; when firing into a restricted space the mass of the air it's pushing couples more effectively with the cone and in effect adds its mass to the Mms, and more mass means lower Fs. The higher the impedance load of the air mass the lower the Fs, and the more efficient the horn. This phenomena is part and parcel of how a horn works in the first place.