
Subject: Re: Set your goals, model a design and build it
Posted by [Wayne Parham](#) on Fri, 07 Nov 2003 05:19:25 GMT
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For the most part, the pattern from a conical horn is set by the wall angle. So a straight-walled bandwidth. At low frequencies, where mouth dimensions get close to a wavelength in scale, mouth diffraction will start to set in. So the pattern will narrow slightly, and then as frequency drops, it will widen considerably. At the other end of the passband, throat and diaphragm size become more important. The larger diaphragms obviously cannot be used to as high frequency as smaller ones, and phase plug and throat throat size and shape set a limit on HF performance too, both in terms of amplitude response and directivity. As a result, a 1" exit driver is capable of greater HF extension than a 2" exit driver, all other things being equal.
