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Subject: Re: half or quarter space???

Posted by [Wayne Parham](#) on Fri, 26 Aug 2005 21:19:58 GMT

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I like corner loaded bass bins too, but Scholl asked specifically about an 80-100Hz horn. That's really a midrange device, touching the midbass. Constrained space will smooth the response of his horn and reduce mouth size requirements. A quarter wavelength of 100Hz is 2.8 feet, so as long as his horn mouth is within this distance from a room boundary, it will reduce the radiation angle and act as a launch boundary instead of acting as a reflector. If the midhorn has 90° flare and placed in the corner, the mouth will probably be less than a foot away from the walls. So the walls will act as flare extensions up to a few hundred Hertz, setting the horizontal pattern and smoothing the response. Above that frequency, the walls will no longer be significant but the horn itself will play the major role. At higher frequencies, horn response is smooth without boundary reinforcement and the horn is better able to control directivity.

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