

---

Subject: Re: Horn Depth & Mouth Diffraction  
Posted by [DMoore](#) on Fri, 16 Mar 2007 16:21:30 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Yes, in most cases there is some expansion outside the horn terminus. In the case of the Klipschorn, the terminus is 875 sq. in. However, the terminal flare rate is 38Hz, and in 1/8 (corner) space that means an overall mouth size of (approx.) 1160 sq. in. is required to prevent reflections and provide a smooth response. It can be surmized that due to the nature of the confinement provided by the corner walls and floor, that the true horn mouth occurs well outside of the enclosure (about one more expansion length) into the room. Since the Khorn is indeed capable of 38 Hz reasonably flat, there is something to be said about expansion outside the horn terminus. Different mouth splay angles and horn terminus external boundary utilization techniques will have their effects and can be exploited somewhat to keep the size of the enclosure relatively smaller. Less of an effect can be achieved in 1/2 (stage) space placement, of course, being that only one boundary element is present, so it is not quite as "exploitable" as an environment with more boundary surfaces available. DM

---