

---

Subject: 1:1 throat area

Posted by [DMoore](#) on Tue, 20 Feb 2007 21:20:19 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

I think one consideration is the size of the diaphragm being employed in a 1:1 throat area. It is conceivable that a relatively small cone in a low  $F_c$  horn with a proper mouth size would provide enough pathway length to achieve a considerable amount of acoustic resistance applied to the cone. As the cone diameter and the corresponding throat size increase, the horn pathway would shorten for a given  $F_c$  and mouth size, and the acoustic resistance would be reduced as a matter of course. The resulting response due to increased impedance/reactance caused by a too-short-horn would be more "peaky" in such a case. The typical design response is to raise the  $F_c$  of the horn in question. The matter seems to be related to overall pathway length, mouth size, and  $F_c$ , and the diaphragm/throat size is subjective in relation to that consideration. DM

---