
Subject: Re: Wow! Very interesting!

Posted by [Michaelz](#) on Mon, 16 Dec 2002 18:25:39 GMT

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Hi, Walt: Thanks for the input! $l=2.8\text{m}$, $a_h=75\text{cm}^2$, $a_m=850\text{cm}^2$. Could you please tell what a_h and a_m (mouth area?) mean? I used HornResp to model a conical horn for the "corner horn". Actually, I calculated the v_b (back chamber) and v_f (front chamber volumes) and used the numbers in HornResp. I just do not use the calculated front chamber volume yet. So if I need to conform to the numbers I would use Wayne's idea. See how small the throat area and the v_a are: $\text{Input } f_l = 15$, $f_h = 150$, $f_s = 20$, $q_t = .21$, $q_e = .31$, $q_m = 2.2$, $v_a = .82$, $Q_{MC} = 6.816$ (qmc is from calculation). $\text{Output } v_b = 0.177 \text{ m}^3 = 6.25 \text{ feet}^3$, $v_a = 0.0073 \text{ m}^3 = 0.2578 \text{ feet}^3$, $s_t = 0.064 \text{ m}^2 = 0.687 \text{ feet}^2$, $n = 36.39\%$. The v_a becomes bigger if f_h is lower. I use these boxes as subhorns so I will not reduce the v_b (which will raise the f_h and lower the n (efficiency)). Another reason for choosing this v_b volume is that I can get a volume around 6 feet^3 in a box shaped this way by using 4X8 board without much waste (a lot of 2X2 pieces are needed). The way the "corner horns" are placed now gives a s_t of $0.85344 \text{ m}^2 = 1.399308 \text{ feet}^2$ and probably a v_a of 2 feet^3 . So I think I would use Wayne's idea to conform to the calculated s_t and v_a . Maybe due to the lossy nature of the walls and the floors, all these numbers do not really apply. What really counts for me is the sound it makes. I got the room modes, but what other horn that goes this low would not in the same room? Thanks! Michael