Subject: Port vs Sealed
Posted by rnhood on Mon, 07 Mar 2005 20:15:52 GMT
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I would like to know if, all things being equal design and component wise (which it rarely is), does the sealed topology in speaker design have an inherent advantage over tuned port or reflex loaded designs (BR, TL, QW, whatever, etc)? Efficiency and perhaps bass reach may be better on the reflex-port loaded speakers - certianly spec wise this would appear to be the general consensous, but when one talks to manufactures of sealed designs there is absolutely no question in their minds as to which makes a better overall speaker. Generally they are quick to point out a compromise in bass definition and speed on reflex or ported speakers. And watts are relatively cheap today. Yes, even quality watts. Any comments?

Subject: Re: Port vs Sealed
Posted by Wayne Parham on Tue, 08 Mar 2005 03:01:29 GMT
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There are some rules of thumb that say low Q speakers are best in horns, medium Q in reflex, higher Q in sealed and really high Q in open baffles. This tends to work out, but I prefer widening the gap to favor ported cabinets. I like horns too, but that's a different matter entirely - They're a different breed. When talking direct radiators, I like ported best.My reason is simple. Ported gives deeper bass. Sealed cabinets are tuned only by the motor, damped by the box. But reflex cabinets have two tuned systems, the box and the motor working together. You have more choices of alignments, and I think it is almost always better. Read the article below written by Brain Davies, I think you'll see what I mean.
"Vented Speaker Systems"

Subject: Re: Port vs Sealed
Posted by Bill Fitzmaurice on Wed, 09 Mar 2005 21:05:47 GMT
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I think you'll find that every manufacturer will say that their particular alignment is the preferred one. Well, in advertising at least. There are advantages to both schemes, and which to use is a matter of satisfying your own personal priorities. If there truly was only one 'right' way to do it then that's the only way it would be done.

Subject: Re: Port vs Sealed

Posted by Wayne Parham on Thu, 10 Mar 2005 09:02:22 GMT
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I'm sure you're right that in some cases, marketing drives the rhetoric. But in the case of Brian Davies' article, it is really an academic excercise and not a sales pitch. And in the case of sealed and ported boxes, the difference is pretty much just one more hole so I'm not sure there is much to be gained in the way of profit margins. In any event, guys like you and I are like most DIY hobbyists, in that we are free to pursue our favorite designs without needing to appease a marketing department. That said, I almost always prefer a ported box over a sealed one, especially when using high efficiency drivers as direct radiators. A vented design offers deeper bass and good frequency response from a relatively small box.