Subject: Wayne's opinion on a "horn loaded" subwoofer
Posted by Randy Bey on Wed, 25 Apr 2001 23:48:43 GMT
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Wayne,I value your opinion and would like to know what you think of the Decware WO32.He does not give exact specs on the unit, and references using a car audio style woofer, but the enclosure looks interesting to me.It does not fit what I would describe as horn loaded, based upon visual inspection of the flare, but again I am asking for your opinion. I have a friend in San Salvadore who is building one of these and my opinion, not based upon anything resembling facts, is that he is getting burned.

Subject: Re: Wayne's opinion on a "horn loaded" subwoofer
Posted by Wayne Parham on Thu, 26 Apr 2001 06:38:46 GMT
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It might be a good speaker, but it isn't a basshorn. Basshorns have to be much larger than this. Judging from the scale, the path lengths aren't long enough to even develop transmission line behavior at subwoofer frequencies, although it might work as a bandpass cabinet. But basically, this is a direct radiating woofer in a fancy box.

Subject: Re: Wayne's opinion on a "horn loaded" subwoofer
Posted by Randy Bey on Thu, 26 Apr 2001 12:03:40 GMT
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Yep well this guy has a pair of Klipshorns, like me, and (like me) probably wants something to cover the first octave since Khorns start rolling off around 50Hz.Ideally this would be tuned to do 20-40Hz and roll off at 12Db/octave past that. That would probably blend well with the rapidly dropping Khorn response.Deckert has a tendency to pump his wares. It all sounds so convincing when he talks to you, but when the rubber meets the road....

Subject: Re: Wayne's opinion on a "horn loaded" subwoofer
Posted by str8aro on Thu, 26 Apr 2001 17:59:40 GMT
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Hi,I have an original wicked one with Peerless CSCX woofers. It is not a horn. The sensitivity is not any higher than what you'd achieve with two woofers in regular boxes which pretty much negates any benefits to using a horn. It's just a fancy bandpass box. I also find his hyping using different woofers as seriously misleading. A design should really be optimized around a specific driver. Anyways, you can see the nearfield response of my sub at the link below. If you point it into a corner, it gets down to about 28hz ~ 25hz. I don't think the newer version is much different. In my opinion, there are much better designs out there that are much easier to build.John

WO nearfield

Subject: Re: Wayne's opinion on a "horn loaded" subwoofer
Posted by sunnysal on Fri, 27 Apr 2001 21:39:57 GMT
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the design of the wo32 is slightly different and seems to have a longer horn length does this make any difference?

Subject: Nasty!
Posted by Wayne Parham on Sat, 28 Apr 2001 00:48:50 GMT
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I tried a few models in Hornresp to see what I could come up with. The response in every case was terrible. Roller coaster response and nothing real deep. Being inside a small cabin helps, but from what I've seen, I wouldn't want it.

Subject: thanks!
Posted by sunnysal on Sun, 29 Apr 2001 03:21:51 GMT
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thanks for your advice, I am pretty much convinced...less than $50 for the plans so I am not in too deep...I guess you really would not like the cornu spiral horn then...has 4 nautilus style spiral chambers eminating from the backloading cavity...I have already begun work on this and perhaps I am screwed I have Fostex sigma 208 full-range drivers waiting to go into this...oh well, live and learn...tony

Subject: Equiangular spiral horns
Posted by Wayne Parham on Sun, 29 Apr 2001 07:03:32 GMT
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Actually, I like spiral horns and have been making them since the 1970's. It's the only way I've folded horns. Many years ago, I considered the W-fold of the Klipschorn and thought how it is compact and all, but so is a seashell. So I opted for this folding pattern instead. Pi Folded horns are patterned as equiangular spirals, like a seashell.

Subject: Thinking of spiral horns like this
Posted by Randy Bey on Sun, 29 Apr 2001 13:47:54 GMT
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as a basshorn like the Pi folded horn, not as a full range. Looks like a great idea to me.

Subject: Re: Thinking of spiral horns like this
Posted by Wayne Parham on Sun, 29 Apr 2001 22:46:43 GMT
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It works very well, thanks. I think it's the best way to fold a horn where long paths are needed, as is the case for a basshorn.

Subject: When I become rich and famous
Posted by Randy Bey on Mon, 30 Apr 2001 00:52:18 GMT
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I will probably buy a couple pairs of Pi's, but until that time (maybe next spring, if all goes right) I need to find something that will bring home the tympani and double bass I heard at Orchestra Hall.The Klipschorns did everything (and I mean EVERYTHING) right except for the bottom octave.So I'm trying to think of the shortest point from A to B, by which I mean lowest cost within acceptability parameters. Unfortunately, I was unimpressed even by pricey REL subwoofers, and once we're talking 3 grand anyway, then we're talking replacing the whole speaker system, not augmenting existing stuff.So my dilemma is this: can I build or otherwise come across a subwoofer with the horn loading characteristics I like (dynamic, super low distortion) w/o tipping the equation into the "shuck it all and buy a new set of speakers" side.Two (or three) options being: Pi, HSU style subwoofer, or one of these spiral horn jobs.Once the cost gets above about a grand, then it makes more sense to sell the Khorns and buy Pi's. Of course, I will have a spare grand laying around when pigs fly.

Subject: Re: When I become rich and famous
Posted by Wayne Parham on Mon, 30 Apr 2001 05:40:04 GMT
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Just let me know when you're ready and I'll send plans.

Subject: Re: When I become rich and famous
Posted by sunnysal on Mon, 30 Apr 2001 22:16:24 GMT
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I am beginning to think I should dump my k-horns and go for pi...

Subject: This enclosure features a dual horn loaded band pass design for tens.
Posted by Rod M on Wed, 02 May 2001 02:07:10 GMT
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I think Wayne hit on the key word, band pass. Horn subs are refrigerator sized. You can't cheat physics.

Subject: "You can't cheat physics"
Posted by Wayne Parham on Wed, 02 May 2001 05:11:47 GMT
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Agreed. One can get decent bass from a box that's only a couple cubic feet, but there's no way to make a decent basshorn subwoofer that size.

Subject: Re: "You can't cheat physics"
Posted by Rod M on Wed, 02 May 2001 22:15:16 GMT
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One can surely design an excellent bass cabinet with the right drivers in various sized boxes. Calling a small one a basshorn is the questionable part.

Subject: Re: This enclosure features a dual horn loaded band pass design for tens.
Posted by mrrjm on Sun, 24 Jun 2001 01:57:17 GMT
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I have the Decware WO32. I am very very happy with it. Just don't use the woofer that Steve recommends.Ray

Subject: WO32...no proplem @ 30 hz
Posted by mrrjm on Sun, 24 Jun 2001 02:12:57 GMT
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My WO32 has no problem at 30HZ. It actually comes in at 25hz. And that's off the outputs of a 300B SET amp. I have not tried feeding a signal directly into the plate amp. Anyway it does not have a problem with 30hz. E-mail me if you like.Ray

Subject: Cool looking subwoofer
Posted by Wayne_Parham on Sun, 08 Jul 2001 09:08:27 GMT
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This thread has been primarily concerned with whether or not the enclosure functioned as a horn. A woofer with the right electro-mechanical specs can achive 25Hz as a direct radiator, so that's not an issue. What is an issue, and what we're discussing here, is whether the cabinet provides any useful horn loading at subwoofer frequencies. From all indications, it's a cool looking subwoofer but it isn't a basshorn.