Subject: Re: Widerange midwoofers, specs, and x-o pts...
Posted by Marlboro on Wed, 23 Sep 2009 20:56:12 GMT
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RE: "Domes have more interference because they radiate sound the same at all angles. If you ever listen to an array with domes you'll notice the top octave sounds partially missing and that's the result of comb filtering.The same is true for arrays with small drivers operating full-range."

You have to understand here that the only line array that Rick Craig has PROBABLY listened to that is commercially available is the PipeDreams. This may be the only line array that he has listened to with domes in it.

My research has shown that 1 inch domes are too big and 1/2 inch domes are too small. Only 3/4 inch domes will work due to comb filter distortion issues and crossover issues. And even these have to have their edges truncated so that they are literally silk to silk.

I can assure you, and everyone who has listened to my array can assure you, that there is not a hint of loss of high frequencies using my method. However, no commercial builder could possibly do it due to the labor intensiveness.

Rick has brought this up numerous times about domes, and specifically mine. Here is what Jim Griffin had to say about SPECIFICALLY ABOUT MY LINE ARRAY on April 28, 2007, when Rick Craig commented that my line array with the domes and the 3 inch midranges was very poorly executed:

"Perhaps not as bad as you are thinking. He is using 3" diameter mid-woofs with 4" pipe loading for each one. It would have been better to locate these drivers closer together so that the center to center spacing was smaller (I'm guessing about 5" c-t-c in his design[ACTUALLY 4.75 inches-marlboro]). While with his crossover at 2650 Hz would create some potential combing issues for a low slope crossover, his active crossover likely has a high enough slope to minimize the crossover overlap region between the mid-woofs and tweeters. He does trim the flanges on the dome tweeters so that their c-t-c spacing is reduced. Hence, he pushes the coherent frequency coverage for the tweeters higher than you would have without those trimmed flanges.[START OF COMB FILTER DISTORTION IS 16.5 khz--- quite a bite above my hearing and most people above 25 years old- Marlboro]

"He is a student of my white paper....."

Since I consulted with Jim every step of the way, I want to assure you that you can use domes, but you will be limited to using Dayton Neo20FA's only. Although if you can believe Zaph's reports, the little Dayton neo's charts beat all the ribbons except the B&G.

So I have to conclude that Rick's statement about domes has to be with the ones where the edges are not cut to make the center to center distance about .78. Its too bad that he lives in NC and can't hear a decent line array using domes.

Marlboro.

P.S.: If I was unable to use domes, or Dayton changed the style of their neos, i would most certainly use a ribbon. But it would be the B&G model. Until I see tests somewhere that compare all three testing graphs that John Krutke uses, I will have to use his measurements.