Subject: How important is the Horn ?
Posted by Champion on Sun, 19 Oct 2008 10:30:00 GMT
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Hi, how important is the horn itself on the sound? Is the quality of a horn loaded speaker mainly determined by the compression driver, or is the horn itself equally important. Can a good horn make the speaker sound smoother and warmer etc? Or does it only change imaging effect?And how does the different horn material (e.g. wood/plastic/metal) affect the sound?Thanks.

Subject: Re: How important is the Horn ?
Posted by Bill Epstein on Mon, 20 Oct 2008 05:06:41 GMT
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It does both of those.Just as you would expect, but the shape of the horn influences the sound and soundstage much more than the material itself.

Subject: Re: How important is the Horn ?
Posted by Wayne Parham on Mon, 20 Oct 2008 16:26:22 GMT
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The horn shape determines everything. The compression driver has its part in the equation too, but the horn is really the dominant factor, setting pretty much everything about the character of the sound, from response shape and quality to coverage angle and uniformity of directivity.

Subject: Re: How important is the Horn ?
Posted by Chris R. on Mon, 20 Oct 2008 19:37:35 GMT
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Wayne, If you were to talk about horns in general terms, what are the range of chacteristics that drive the variations of theavailable horns on the market? If there was one ideal horn for every application, seems like most horns would look very much the same.But there is a pretty wide variety of flare shapes available. I can understand the various sizes for different low freq cut-off.Thx, Chris

Subject: Re: How important is the Horn ?
Posted by Champion on Tue, 21 Oct 2008 04:52:22 GMT
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Hi Wayne,In that case, is there any benefit of using wooden horn besides good look? Or we can make a horn just as good with plastic?Thanks.

Subject: Re: How important is the Horn ?
Posted by Wayne Parham on Tue, 21 Oct 2008 05:16:37 GMT
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This post from the archives talks about various horn shapes and what they have to offer:Characteristics of various horn flares

Subject: Re: How important is the Horn ?
Posted by Wayne Parham on Tue, 21 Oct 2008 05:20:28 GMT
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Well, like all things, quality is not always measured with a ruler, stopwatch or, in this case, acoustic measurement system. The best Rolls will never win any race, but it is a genuinely fine machine.That said, there is a difference in how different materials ring. The bell modes of a given horn made from different materials will be different. A metal horn might ring sharply, whereas a plastic horn of the same shape will not. A wood horn will probably be even more well damped. It all depends on the material, its hardness and internal stresses, damping, bracing, etc.