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Subject: Ferguson Hill - Clear Horns

Posted by [Greg Lytte](#) on Wed, 13 Oct 2004 18:19:39 GMT

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Have any of you listened to these speakers? Is there a place to demo them in the US? It is a very large and pretty bell. How do they keep the bell from ringing without bracing of any kind?

<http://www.fergusonhill.co.uk>

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Subject: Re: Ferguson Hill - Clear Horns

Posted by [Bill Fitzmaurice](#) on Thu, 14 Oct 2004 12:02:56 GMT

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The 'bell' doesn't ring because there isn't anybody whacking it with a hammer. This shape is particularly resistant to mechanical vibration, and requires no bracing because there is no rear chamber behind it which could serve as a source of frequencies that could vibrate the structure. This rig is functionally identical to a small horn-loaded tweeter, just a lot bigger. Your concern falls into the same category as the persistent myth about metallic radiating surfaces, cone or dome or whatever, having a 'metallic' sound. They don't, because again they aren't being struck with anything, they are simply moving back and forth as pistons. I haven't heard these but they do look nice.

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Subject: That really doesn't seem to hold water

Posted by [wunhuanglo](#) on Thu, 14 Oct 2004 22:55:33 GMT

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A bell "rings" as it vibrates at its fundamental resonance. The clear bell, or any horn, is quite capable of having its first resonance excited by the acoustic wave it is conducting. Describing it as "metallic" may be inaccurate, or reflect a prejudice, but the resonance can certainly exist.

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Subject: Re: That really doesn't seem to hold water

Posted by [Bill Fitzmaurice](#) on Fri, 15 Oct 2004 11:37:42 GMT

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Of course, and it is required that the natural resonance modes of the structure not be excited by program material to the point that they are audible. But that caveat applies to any enclosure, irrespective of shape or design. If anything the shape of this or any bell is less likely to have

serious peaked resonant modes than a structure with flat surfaces.

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