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Subject: Playing with new midrange horn.

Posted by [GrantMarshall](#) on Thu, 22 Apr 2004 00:48:26 GMT

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Hi Wayne. Checked out your plans for the midrange which motivated me to play with a couple pieces of MDF over the last couple of nights. It sure amplifies the midrange. I noticed on the Delta 10 the SPL rating is normally around 100 and you're finding 108 with the horn on. That's about an 8 SPL increase. I got one horn put on tonight mounted to the horn directly in front of the midrange. (temporary test position). There is a noticable increase in volume. I'll have to get things set up properly and on both sides before I know what happens to sound stage. One thing I love about horns is the detail that comes through. When someone takes a breath you hear it. I have the PHL 1660 midrange which is only a 6 1/2 inch speaker. PHL suggests it can be used for horns though. It has low Q numbers as well as the rising SPL numbers which makes it suited to the conical horn. It's rated at 97 spl with a 250 watt maximum rating. The speakers suited to these horns are not flat at all. To give a 97 rating is a bit of a joke. It should be a 95-100 SPL rating or something like that. With any luck the link to the graph and specs works.

<http://www.akkus.com.pl/glosniki/szczegoly.php?firma=phl&model=1660> I figure that the smaller speaker radius gives about 2/3 the area of the 10 inch driver and knocked the throat opening down proportionally. (to 3 inches from 4 1/2 inches) I left the horn width 1 1/2 inches narrower and kept the rest of the dimensions the same as your plan. I'm hoping that leaves the compression about the same, the dispersion very slightly altered, and the SPL improvement about the same. I remember on Bruce Edgars plans they used to mount with about a half inch space between the driver and horn and used some of the MDF as a spacer. I hope things are going well for you and your family. It should be a good summer. Grant.