Subject: Bass cabinet design
Posted by ken Hanson on Sun, 02 Jan 2005 17:31:54 GMT
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Hi,I have a bass speaker a JBL 140 E.An enclosure has been designed for me that I am suspicious of. The cabinet measures: 16" deep X 23" tall X 20"wideThe vent was created at the bottom of the cabinet by shortening the height of the speaker mount to create a 1" X 20" space. The is no other reinforcement for the vent, just a simple space.The speaker is out for repair, so I am unable to test it. Do you think this is a sound design?Did my speaker design do the job?Thanks,Ken

Subject: Re: Bass cabinet design
Posted by Wayne Parham on Sun, 02 Jan 2005 20:44:24 GMT
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You might look up the Onken design, because it sounds like that's basically what you have. The vent area is roughly equal to the radiator surface area, in the form of a long thin vent. It looks to me like what you have is about 3.5ft3 and probably tuned for 35Hz to 40Hz. I think it will work very well.The JBL E140 is pretty bass shy though. I'd consider it a midbass driver. When used in a cabinet like this, it will give you EBS response, with the shelf being -5dB from about 200Hz down to 40Hz. This is definitely going to need corner placement. If a corner isn't possible, place against a wall and as close to corners as possible. If used on stage, it will be bass shy, best for guitar or vocals.The cabinet sounds like it will actually turn out very nice. You can spend your time making them cool looking and they'll be very nice, I think. Brace 'em well. It will be a versatile cabinet for you that will also work well with other JBL 22xx series woofers, like the 2205, 2225 and 2226. These later woofers won't be EBS, and will give more of a Butterworth alignment. All-in-all, I think you'll have a nice cabinet that will sound good and look good too.

Subject: Bass cabinet design
Posted by ken Hanson on Sun, 02 Jan 2005 22:11:21 GMT
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Geez Wayne,So nice of you to take your time sharing your insight with me.Thanks very much. I have several other cabinets a 2-10 SWR and 1-12 Ampeg and was looking for something a little different.I've been only playing bass for a short time and have really enjoyed exploring the sound of the bass as much as playing it. I'm a graphic designer by trade (hansondodge.com), bass playing for fun.I'll let you know how it sounds once its put together.I found an interesting site recently if you're interested in musical instrument speakers. Brown Sound (http://www.tonetubby.com/cabinet.htm)Fun web site cool speakers. Hemp Cone?Thanks again.Ken

Subject: Re: Bass cabinet design
Posted by Wayne Parham on Sun, 02 Jan 2005 22:36:11 GMT
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Cool looking guitar amps and speakers!Eminence makes a hemp coned speaker. It's expensive, as I assume they probably import the cone. Probably the regulations make it cost prohibitive to manufacture in the USA, but that's an assumption. I never asked; It's not my thing.I would assume the cone is very durable. I noticed from its response chart that it enters breakup quick and severely, but that's not a bad thing for guitar speakers. It seems like most voice their sound with the speaker's breakup characteristics. It isn't what you would want for FOH speakers though.Your graphics business is impressive, by the way. In my opinion, aesthetics is a big part of the total experience in nearly everything we do.