Subject: A COMPLETELY Non-Pi question...
Posted by wunhuanglo on Sat, 26 Jul 2003 12:02:51 GMT
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The link below is to a "typical" 1/4 wave transmission line. The design guidlines I've seen always say that the tube cross sectional area ought to be the same as the cone area. (Doesn't seem to be followed too well - many put 2 drivers into a single tube the cross section of a single driver).My question is - would multiple tubes with a total cross section equivalent to the driver area work as well? I'm thinking that settling of the stuffing would be less problematic with a reduced cross section (higher surface-area-to-volume ratio).Any opinions appreciated.

http://www.t-linespeakers.org/projects/steve/index.html

Subject: Acoustic waveguides and transmission lines
Posted by Wayne Parham on Sat, 26 Jul 2003 18:13:21 GMT
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I've never built a speaker to use a non-tapered transmission line for a tuning device. But I can't see any reason that having cross-section area equal to diaphragm area should be a requirement. Check out the paper written by Daniel Russell called "Acoustic High-Pass, Low-Pass, and Band-Stop Filters," which contains some information about acoustic waveguides and transmission lines.