Subject: Re: Large Heils As A Line Source
Posted by Jim Griffin on Tue, 08 Mar 2005 01:45:24 GMT
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I have never worked with a Heil driver and I don't know what sort of radiation pattern they generate in the vertical plane. I assume of course that their horizontal radiation is very wide and room filling. When you start to vertically array drivers like ribbon tweeters and the Heils you must consider how they sound fields overlap. This overlap would determine whether or not you have a resultant overall efficiency increase. With ribbon strip tweeters the longer length ones (say 7" or longer) have diminished vertical plane radiation beyond their length so as you go up in frequency (into the 10-20 kHz octave) you'll get less overlap in their sound fields. Hence, while you'll have an overall efficiency increase lower in the frequency band but as you move upward the sound fields don't overlap so you realize little or no increase. In one aspect this is a blessing since you'll generate no comb line effects as the separation between drivers approaches two wavelengths where cancellation would occur if their fields overlapped.Do you have radiation patterns or a link that shows the vertical radiation pattern of a Heil driver?To answer your other question: You likely can lower the crossover frequency a little as distortion effects would be spread among several drivers for a given SPL created. Again more knowledge on how an individual driver performs would give you some clue as to how the array would perform. Jim