Subject: Re: Heavy-cones verses light-cones in basshorns
Posted by DMoore on Mon, 11 Sep 2006 21:14:06 GMT
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Don Keele Jr. stated that in order to achieve the widest bandpass that a prospective horn driver should (indicatively) have a Qts below .30, which indicates a strong magnet to moving mass ratio; I'm assuming whether this ratio is achieved by using a "light" cone in relation to the mediocre magnet structure or a "heavy" cone and a really powerful magnet structure, it doesn't matter especially, although theoretically the moving mass component will effect the upper bandpass capability, of course.I think that boils down to what you want to do with the Fch that determines the appropriate-ness of a driver for your desired application.Daniel Plach reported that for a front-loaded horn (sealed Vb), the use of a linear motor with a low Fs is desirable, the bandpass being somewhat more limited and subordinate to the efficiency and lower distortion the loading is capable of. He said that the Vb could be practically reactance-annulled (for a Hyperbolic/Exponential flare), the course of which naturally raises the Fs of the driver, and therefore, the driver should start out with an Fs below that of the horns Fc.He also said that for back-loaded horns, the use of a driver with a rising response curve was in order with Fs above the horns Fc, because it could not be reactance-annulled due to tuning requirements (Fr) of the back chamber usually being much lower than the horn's Fc.DM