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Subject: premium stage 4 pi's and the speed of sound

Posted by [replay](#) on Wed, 10 Oct 2001 23:53:21 GMT

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hi wayne, just received my eminence designer cd-rom and am slowly learning what is second nature to you. they mention when designing the port size that ideally the air velocity through the vent should be less than 10% the speed of sound, ideally less than 5%.having lots of fun!george

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Subject: Re: premium stage 4 pi's and the speed of sound

Posted by [Wayne Parham](#) on Thu, 11 Oct 2001 02:17:48 GMT

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That's true. The idea is that we don't want turbulence to generate a sound of its own, and we also don't want a restriction that acts as a resistance. Airspeed is a function of displacement and frequency, is maximum at fb and falls off above that. So woofers with large cones or long-throw suspensions need speakers with larger ports.