Subject: Pneumatic damping Posted by Wayne Parham on Sun, 09 Dec 2001 00:39:39 GMT View Forum Message <> Reply to Message

A system at resonance oscillates at maxiumum intensity. This can be a mass and a spring, a Helmholtz chamber or an electrical tuned circuit. At the resonant frequency, even just a little energy input creates large amplitude output.Notice that the examples of resonators each have two reactive elements. The mass and the spring are two reactive elements, the electrical circuit has an inductor and capacitor and the Helmholtz resonator has mass of the air and its compressibility, just like a mass and spring.If you add a resistance, you are providing damping. A shock absorber of a car is a damper, and it prevents the car from bouncing wildly at resonance. Likewise, the acoustic/pneumatic properties of a loudspeaker cabinet control the resonance of the speaker.

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