

BRIEF NOTE ON THE THEORETICAL BEHAVIOUR OF A VARIABLE NECK SECTION HELMHOLTZ RESONATOR CAVITY.

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It is well known that the resonance frequency (f) of a Helmholtz resonator depends on sound speed, neck section, neck length and on the resonator cavity volume. The purpose of this paper is to find f when the resonator neck section is not constant. It is found that a convergent neck leads to a resonance frequency diminution and that a divergent neck leads to a resonance frequency augmentation.