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Experimental measurements of pressures exerted by bimetallic shells due to thermal stress[1] MELANIE GOBLE, EDWARD BANUELOS, NATHAN HESTON, MATTHEW MOELTER, Cal Poly - San Luis Obispo — We present measurements of the relationship between volume-displacement and pressure for bimetallic shells through a broad range of temperatures. Bimetallic shells were fixed in a sealed chamber and the pressures exerted by the shells were measured mechanically as temperature was varied. We observed hysteresis behavior between the concave and convex equilibrium states. These results can be used to predict the work output from a bimetallic heat engine where the disk acts as a diaphragm. .

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