Rubens Tube

Natural gas is flowed into a copper pipe with a series of equally spaced holes. The gas flowing out of the holes may be lit and the height of the resulting flames is an indication of pressure in the pipe at that location.

Sound waves are generated inside the pipe using a sine generator and a speaker mounted at one end. When the sine generator is tuned to a resonant frequency of the pipe, standing waves form and are observed in the flame pattern.