Static pressure 101: Static pressure is the amount of pressure a fan has to push and pull against to move air through a duct system. Static pressure is exerted equally on all sides of a duct system. This pressure is similar to that found by blowing up a balloon. When measuring static pressure, the unit of measurement determines the dimensions of the constant. Is this equation valid in any system of units? The pressure difference, \( \Delta p \), across a partial blockage in an artery (called a stenosis) is approximated by the equation:

\[
\Delta p = \frac{k_1 V}{(A - k_2 A)}
\]

\( V \) is the flow rate through the artery, \( A \) is the cross-sectional area of the artery, and \( k_1, k_2 \) are constants. Would this equation be valid in any system of units? The pressure difference, \( \Delta p \), across a partial blockage in an artery (called a stenosis) is approximated by the equation:

\[
\Delta p = \frac{k_1 V}{(A - k_2 A)}
\]