

The Relationship Between Velocity and Flow Rate

$$Q = V \times A$$

Where:

Q = Flow rate in cubic feet per minute

V = Velocity in feet per minute

A = Cross-sectional area in square feet

Thus, we can also say:

$$\frac{Q}{A} = V$$

The Relationship Between Velocity and Velocity Pressure

$$V = 4,005 \times \sqrt{VP}$$

V = Velocity in feet per minute

VP = Velocity pressure in inches wc.

4,005 = Units conversion constant assumes atmospheric pressure