

ACFM to SCFM Conversion

It is frequently convenient to express gas flow in terms of flow at standard conditions. This is useful for calculation purposes, or for application to flow measuring instruments.

$$\text{SCFM} = \text{ACFM} \left(\frac{P}{14.7} \right) \left(\frac{519}{T} \right)$$

Units:

T = Gas temperature, °R = 460 + °F

P = Gas pressure, psia

ACFM = Gas flow, actual cubic feet/minute

SCFM = Gas flow, standard cubic feet/minute

EXAMPLE: What is SCFM corresponding to 0.032 ACFM at 300 psia and at 240°F?

SOLUTION:

$$\text{SCFM} = 0.032 \left(\frac{300}{14.7} \right) \left(\frac{519}{700} \right) = 0.48$$