

Gas Orifice Flow Meter Calculator

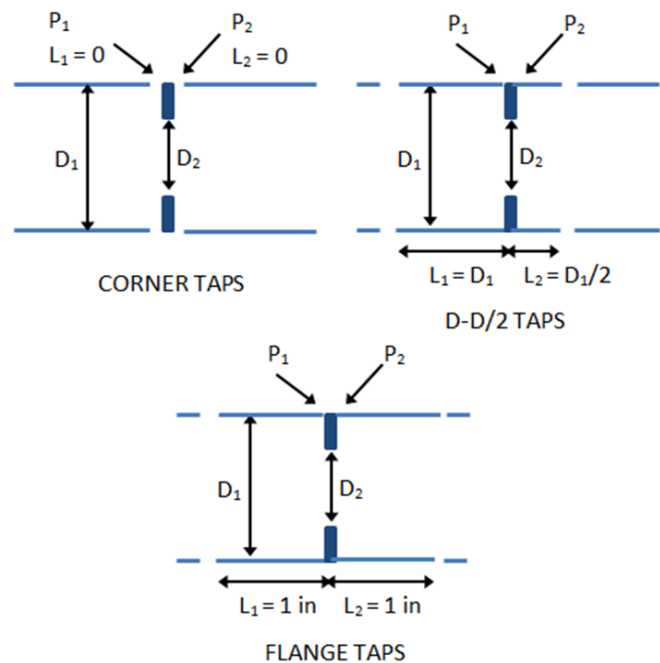
This application calculates the flow rate through a large-diameter orifice using the approach outlined in ISO 5167 2:2003.

Orifice meters use the pressure loss across a constriction (that is, the orifice plate) in a pipe to determine the flow rate.

The formulas are valid for the following parameters:

- Pipe diameters between 50mm and 1000 mm
- Pressure ratios greater than 0.75

Reference: http://en.wikipedia.org/wiki/Orifice_plate



Pipe Diameter D1 (m)

0.1

Molecular Weight

43

Orifice Diameter D2 (m)

0.02

Compressibility
Factor

1

Upstream Pressure P1 (Pa)

111000

Specific Heat Ratio

1.4

Downstream Pressure P2 (Pa)

103000

Fluid Viscosity (Pa s)

0.0000208

Upstream Temperature (K)

320

Tap Type

Flange Taps ▾

Calculate Flow Rate

0.016584 m³ s⁻¹