

# Gas Orifice Flow Meter Calculator

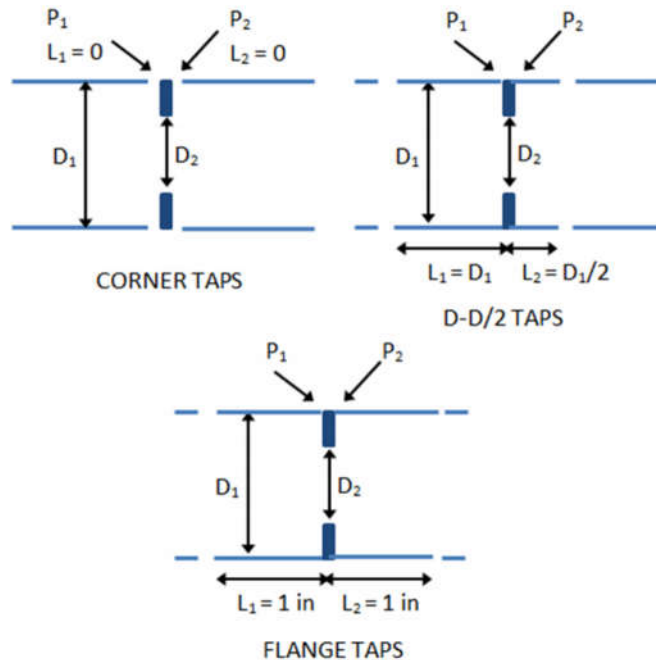
This application calculates the flowrate through a large-diameter orifice using the approach outlined in ISO 5167 2:2003

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

The formulas are valid for

- pipes diameters between 50mm and 1000 mm,
- and pressure ratios greater than 0.75.

Reference: [http://en.wikipedia.org/wiki/Orifice\\_plate](http://en.wikipedia.org/wiki/Orifice_plate)



Pipe Diameter $D_1$ (m)	<input type="text" value="0.2"/>	Molecular Weight	<input type="text" value="43"/>
Orifice Diameter $D_2$ (m)	<input type="text" value="0.02"/>	Compressibility Factor	<input type="text" value="1"/>
Upstream Pressure $P_1$ (Pa)	<input type="text" value="111000"/>	Specific Heat Ratio	<input type="text" value="1.4"/>
Downstream Pressure $P_2$ (Pa)	<input type="text" value="103000"/>	Fluid Viscosity (Pa s)	<input type="text" value="0.0000208"/>
Upstream Temperature (K)	<input type="text" value="320"/>	Tap Type	<input type="text" value="Corner Taps"/>
<input type="button" value="Calculate..."/>		0.016558 $\text{m}^3 \text{s}^{-1}$	