METHANE FROM FLARING TOOLKIT

Flow: Coriolis Flow Meter

Coriolis meters measure the mass flowrate of a stream by making use of the Coriolis effect.

How it Works

Fluid flows through a tube which is forced to vibrate in a harmonic oscillation by an external driver. The tube can be straight or ‘U’ shaped.

The momentum of the fluid causes the already-oscillating tube to vibrate in a slightly different way. This change in the mode of vibration is proportional to the mass flow rate of the fluid flowing through the tube and can be measured with external . The mass flow rate of the fluid can then be determined.

IMAGE TO FOLLOW

Advantages

Disadvantages

- High pressure drop at high flow rates
- High CAPEX requirement
- Requires straight pipe length upstream / downstream the device location
- Size limitation (16” / 400mm largest diameter currently offered)
- Can have difficulty measuring the flow rate of low pressure gas
- It can be subject to issues with piping stress and vibration
- Due to these limitations, it has limited applicability on main flare headers

Go Deeper

- Emerson
- Krohne
- Endress & Hauser

Case study

No case study available at this time.

How do I measure flow?

Flow: Ultrasonic & Sonar Clamp-on Flow Meters

Vortex Flow Meter

Flow: Ultrasonic Flow Meter

L2F Optical Flow Meter

Flow: Scintillation Optical Flow Meter