# FOX APPLICATION GUIDE

## Direct Mass Measurement of Vent Gas (Flash Gas) Flow Rates

**TYPICAL APPLICATIONS INCLUDE:**

- Offshore Oil & Gas Well Drilling Operations
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- Oil Refineries
- Chemical / Petrochemical Processing Plants
- Gas Distribution Infrastructure
- Landfills

Storage tank farm at a refinery.

## Vent Gases Subject to Emissions Regulations and Saftey Requirements

Rising levels of volatile organic compounds (VOCs) in the atmosphere are a subject of general concern and increasing environmental regulation as more countries move toward net zero goals. In order to monitor and quantify emissions, VOC concentrations as well as VOC flow rates must be measured to evaluate mass emission rate.

The major reason for monitoring VOC emissions is to provide information for environmental audits (40 CFR Part 98). However, VOC monitoring can also help you:

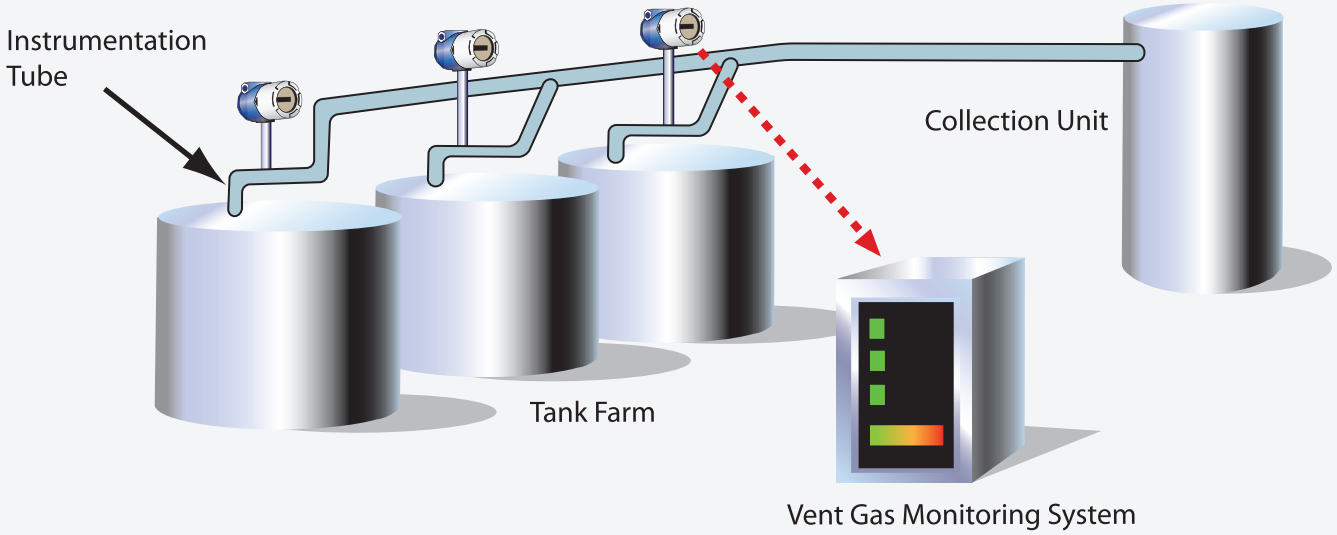
- Identify opportunities to reduce emissions
- Evaluate performance of existing abatement equipment
- Identify and correct sources of fugitive emissions
- Demonstrate continual improvement in environmental performance
- Meet health and safety requirements and improve working conditions
- Optimize process flows throughout the plant or storage facility

## Exceptional Low-Flow Sensitivity for Vent (Flash) Gas Applications

Large and concentrated releases of hydrocarbons are usually abated with gas flares. Gas venting events tend to be very small quantities. The low-flow senstitivity requirement of flow monitoring instrumentation is especially important in vent and flash gas applications due to the commonality of low velocities of vent gas flow rates.

## Fox Flow Meter Advantages in Emissions Monitoring Applications

The thermal mass flow meter's ability to provide a direct reading of mass flow rate without additional pressure and temperature instrumentation makes it ideal for measuring flow




Vent gas monitoring system supplied with data from flow meters installed in a tank farm.

rates in flare stacks, ducts, and tank vents. Check out these great features offered with thermal mass flow measurement:

- Exceptional low-flow sensitivity for accurate measurement over a wide range of flaring operations
- Stainless steel sensor is suitable for corrosive, particulate-laden gas streams
- No temperature and pressure compensation required
- Direct mass flow measurement
- Built-in alarms, totalizers and a wide variety of communications protocols available for easy interfacing with emissions management systems


Fox Thermal model FT4A has an Oil & Gas mix menu in the Gas-SelectX® feature and low-end sensititivy making it ideal for vent gas flow measurement.

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