Flare Operations

- BTU Analyzer
- Magnetic Level Gauge
- Pilot Monitor
- Thermal Flow Meter
- Additional Technologies
- Valves & Valve Automation
BTU Analyzer

The BTU Analyzers are used to measure the heating value of fuel gases in order to achieve a constant or predictable heating performance from fuel gases.

- Highly uniform response to a wide variety of combustibles
- Suitable for installation in hazardous and outdoor areas
- Continuous and direct measure of calorific values
- Can measure down to zero, ensuring the flame out errors to NIL
- The corrosion and clogging issues are prevented, as there is no condensation after combustion
- Can work at low pressure and are available as a unit that can be heated up till 150°C
- The analyzer can be set up as zero emission unit

Flare Application

Flaring is a controlled process of burning natural gas in the course of routine oil and gas production operations. It is essential to control the heating characteristics of fuel gases in order to obtain a constant heating performance from the burning gases. The BTU Analyzers measure the calorific value of the fuel gases during the burning cycle.
Magnetic Level Gauge

- The Magnetic Level Gauges are used to measure the level of fluids, with the help of a floatable device which raises and lowers with the fluid level.
- Available in a variety of materials and mounting styles
- Safe and versatile level indicating device
- Performs in extreme pressure, temperature and corrosive conditions
- Easy and low cost installation, with minimal maintenance
- Visual Level Measurement from 200’+
- Reduced fugitive emissions & leak points
- Manufactured to meet ASME/ANSI standards
- Replaces sight glasses and other level indicators
- Combined with non-invasive transmitters & switches

Flare Application

Precise measurement of liquid levels in the flare knockout drum is necessary during the flaring process. The accuracy of the measurement provided by the Magnetic Level Gauge helps in determining the liquid level in the drum, recovering water to be sent to the water treatment plant and keeping entrained liquid from reaching the flare.
Pilot Monitor

The Pilot Monitors are used to monitor and confirm that the pilot is lit at all times, so that the flammable vent gasses are ignited by the pilot flame when released.

- High performance dual-wavelength technology sensors
- Clear sensitivity in severe weather conditions
- Larger viewing area for easy alignment
- Includes Signal Dilution Output for measurement validation and diagnostics
- Available for both Hazardous & Non-Hazardous Area Classifications
- Water tight, dust tight & corrosion resistant housing
- Self-regulating means no on-site calibration
- Grade-mounted for easy access
- Greater reliability

Flare Application

The proper incineration of the flammable vent gasses is a critical safety and environmental concern. The Pilot Monitor utilizes proven technology to sense the presence of the small distant pilot flame.
Flare Operations

Thermal Flow Meter

Thermal flow meters are used in gas flow applications, to measure the flow of a fluid; they place a heat source into the flow stream and measure the heat dissipation using one or more temperature sensors.

- The highest repeatability, accuracy, and reliability available
- The fastest response to temperature and velocity changes in the industry
- Continuous self-monitoring electronics that verify the integrity of sensor wiring and measurements
- Completely field configurable using the flow meter user interface or via a computer connection
- Velocity-temperature mapping for wide range velocity and temperature
- Capable of reading the low flows that occur during start-up, shut-down, or obstruction events
- Interchangeable sensor and electronics
- Easy installation and no maintenance
- Zero velocity as a valid data point

Flare Application

The measurement and monitoring of flare gas is necessary to assure that the flare system is operating correctly. Additionally, strict environmental regulations often require the measurement of flare gas emitted into the atmosphere. The Thermal Flow Meter offers a versatile solution to measure and monitor the flare gas.
Flare Operations

Flare Application
Flare systems are a necessity in any oil & gas facility. The fuel gases need to be analyzed & disposed of quickly during emergencies, making sure that no harmful gases and pollutants are exposed to the atmosphere. The measurement of the flare gas and determining the flow rate is a major part of the process. Flow Meters are the most developed and widely used technology in measuring the flare gas flow rate.

Additional Technologies

Fluenta Flow Meter
With the unique design of non-intrusive sensors for all pipe diameters, the Fluenta FGM-160 does not obstruct gas flow and sensors are not exposed to particles from the flow.

- No maintenance – no moving parts
- Enhanced density modeling for nitrogen subtraction
- No calibration required
- High accuracy – only one set of probes

Photon Control Flow Meter
The “laser-two-focus” (L2F) method is used for this flowmeter and requires the presence of miniature droplets of condensation, lubricants, dust and other impurities in the gas stream for purpose of light scattering and consequently determining the time particles travel from one laser beam to another.

- Easy to install
- Cost effective
- High turndown ratio of 1500:1
- Intrinsically safe probe

E+H Ultrasonic Flow Meter
The Ultrasonic Flow meters are used to measure the velocity of a fluid with ultrasound technology to calculate the volume flow.

- Loop-powered technology
- Robust two-chamber housing
- Optimized for low pressure gas – specialized sensor design
Vector Controls has an abundance of valve product offerings and the ability to design and implement valve automation systems.

- Ability to assemble valve systems from ½” to 48”
- Four, Full-time automation specialists with the ability to draw on up to six other Vector technicians for project support
- All valve assemblies are mounted, functionally-tested, calibrated, serialized, tagged and verified via QA inspectors prior to shipment
- Field start-up, commissioning, warranty and quick turnaround capabilities

Valve Offerings

**Valves**
- Butterfly
  - Resilient Seat
  - High Performance
  - Triple Offset

- Ball
  - Trunnion
  - Floating
  - Segmented Ball

- Plug
  - Lubricated
  - Non-Lubricated
  - Segmented

**Gate**
- Knife
- Wedge

**Globe**
- Control Valves
  - Linear(Globe)
  - Quarter-Turn(V-ball, Segmented Ball)

**Acutators**
- Electric
  - Single phase
  - 3 phase
  - 24vdc
  - 12 vdc

- Pneumatic
  - Rack & Pinion
  - Scotch Yoke

**Accessories**
- Positioners
- Pneumatic
- Electro-pneumatic
- Smart(Digital Hart)
- Protocols

- Limit Switches
- Solenoids
- Speed Controls
- Gear Override (Manual)
- Filter Regulators
- Visual Indicators
- OSHA Lock-outs

Visit Our Affiliates