



AUTRONICA

SHALE SHAKER VENTILATION

Reliable gas detection has been close to impossible in the dirtiest environments offshore. So far.

In the harshest oil and gas environments, achieving reliable gas detection is extremely challenging. One of the primary concerns in the drilling area of an oil rig, is hydrocarbon leakage from the well. The risk is that this may lead to a "blow out".

Up until now, traditional IR detectors have been chosen for this task, due to a lack of other options. However, traditional IR gas detectors rely on close proximity to the source for the best results. This is not suitable in extreme conditions where the risk of detector pollution is extremely high, such as shale shaker rooms.

www.autronicafire.com



Shale shaker ventilation

In the harshest oil and gas environments, achieving reliable gas detection is extremely challenging.



Shale shaker ventilation

Omicron direct gas sampling system is specially made for "direct detection" in harsh areas such as shale shaker rooms and similar.

SAFETY IN THE HARSHTEST ENVIRONMENTS

We have developed a revolutionary method for gas detection focused on providing equipment that operates with a high degree of reliability and without supervision.

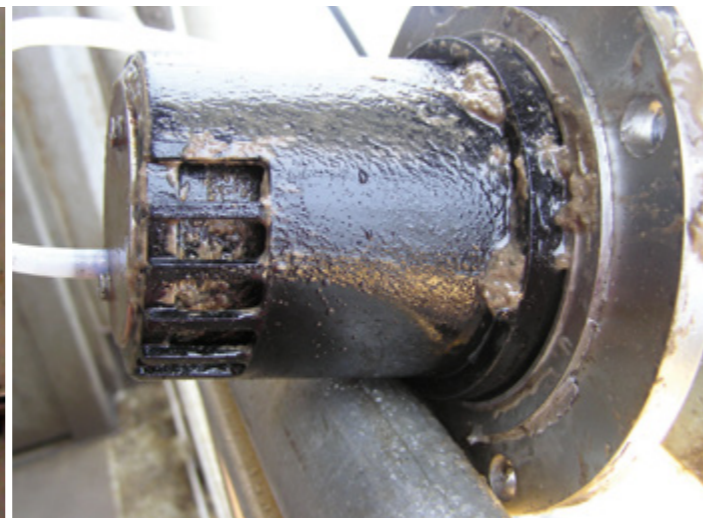
No other available technologies can handle the same task as the our Omicron gas sampling system. Our method is particularly suitable in areas such as the shale shaker ventilation channel and similar areas where the mud quickly contaminates traditional gas detectors. The primary advantage of using our gas sampling technology is the distance between the monitored area and the detector. The detector itself is located in a cleaner and more stable environment.

The sampling tubes are mounted vertically so that the gas, which has low density, is easily captured. The materials that cause detector contamination, are generally heavier and therefore less likely to be drawn through the sampling tubes. By using compressed air to clean away any small amounts of dirt that make it into the pipes, contaminants will be prevented from passing all the way through the pipes and into the detector. The compressed air provides a self-cleaning of the sampling pipes.

Traditional detection in shale shaker ventilation



Traditional open point-IR gas detector after only a few weeks in a shale shaker environment

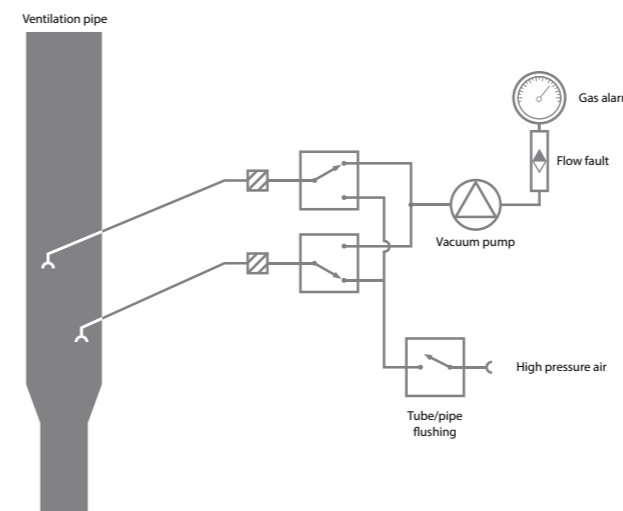


THE SOLUTION

Omicron direct gas sampling system is specially made for "direct detection" in harsh areas such as shale shaker rooms and similar.

Features

- Dual sampling channels for reliable detection.
- Can be mounted on existing gas detector flange minimizing installation costs
- Multiple gas detectors for voting and detecting different gases(HC/H2S)
- Sample gas flow alarm
- System can operate with one, two or three sensors.
- Sample probe can be mounted directly into existing GD10 duct flange
- Sample gas inlet temperature up to 70 °C (higher temperatures on request)
- Standard software configuration allow up to 50 m sampling tube
- Sampling tube recommended for installation is 8x1 mm or 10x1,5 mm



Principle

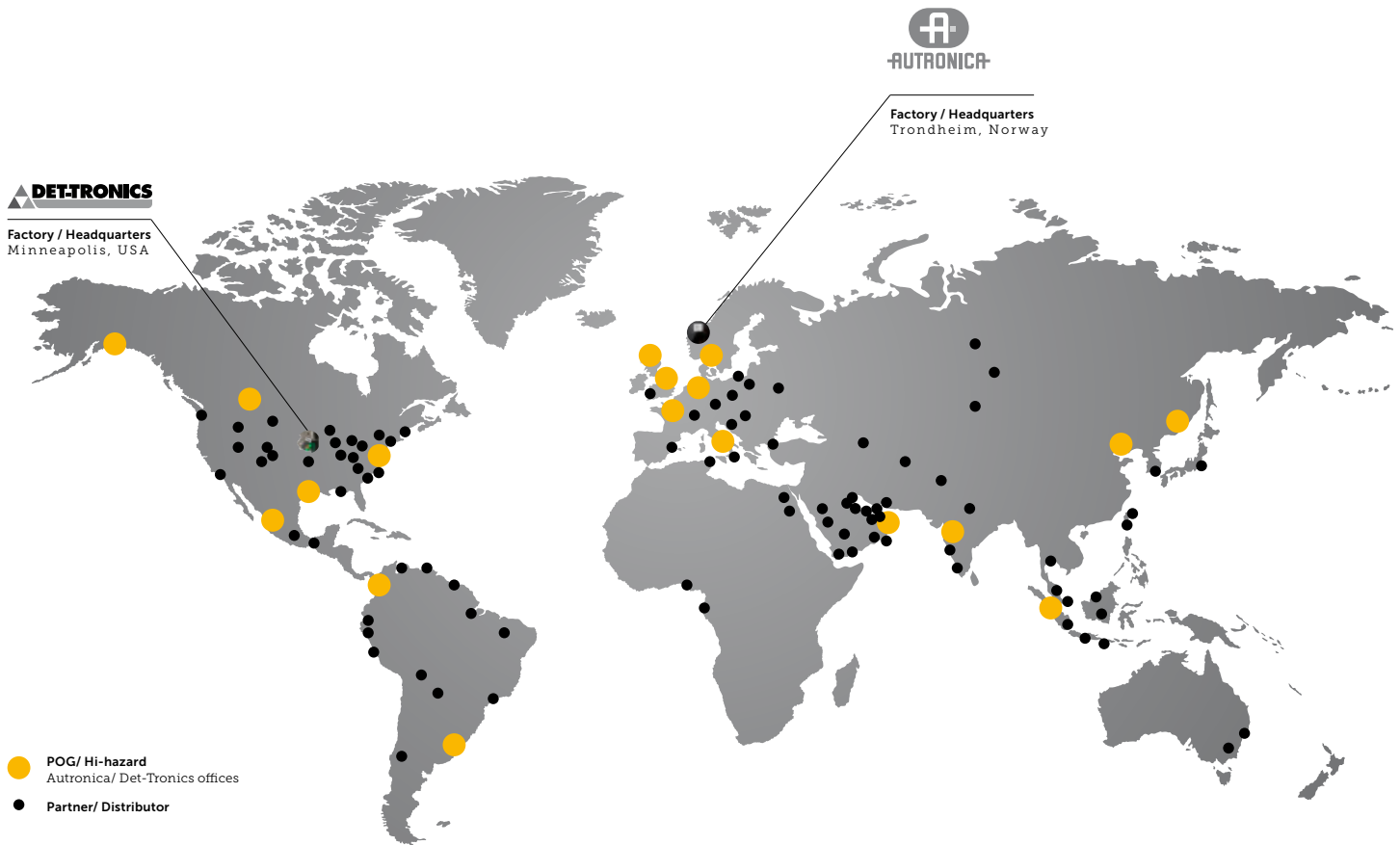
The direct gas sampling system consists of a detector cabinet where all components inside the cabinet - including the operating panel - is approved for mounting in Zone 1 area. This means that the cabinet door can be opened in zone 1.

Sensor(s) 4-20 mA signal and flow signal are sent to the main system. Each sampling point is provided with two sampling tubes. While one tube tests the gas, the other is being cleaned and vice versa. This provides continuous and reliable detection in the monitored area.



A worldwide company

We are a leading innovator, manufacturer and supplier of advanced sensors and systems for fire and gas detection to the Petrochemical Oil and Gas industry. The product range includes AutoSafe IFG® (Integrated Fire & Gas Detection System) with SelfVerify, the world's first IEC 61508 Safety Integrity Level 2 (SIL2) approved integrated addressable fire & gas detection system. We also offer a full range of flame and gas detectors, high sensitive smoke detection (HSSD), gas sampling, alarm management and control systems. Services offered includes system design, project management, installation and commissioning, after sales service and training.



COMPLETE FIRE AND GAS SAFETY SOLUTIONS

protecting life, environment and property

Service and maintenance

Service and maintenance must be performed in accordance with local/national requirements. We recommend an annual service and control of the total system, taken care of by us or one of our certified partners take care of the service. This will ensure a longer life span of your system and increase the safety, thus reducing the life-cycle cost.

For information on service and maintenance of the fire detection system and other equipment, refer to relevant procedures included in the installation and commissioning handbooks from us.

Approvals

For certificates, go to www.autronicafire.com.