



GROVELEY DETECTION

Groveley Detection Limited

Anchor Works, Groveley Road

Christchurch, Dorset

BH23 3HB

UK

T: +44 (0)1202 483497

F: +44 (0)1202 486658

E: sales@groveley.co.uk

Gas & Smoke Aspirator Systems GD-A

Groveley Aspirators (sampling systems) provide a unique solution to the complex problem of accurately monitoring gas and/or smoke ingress into areas where it is not practical or safe to position a detector directly.

Our sampling systems are used all over the world solving detection problems for the oil and gas, petrochemical and power industries. Our aspirators use minimal compression fittings, which helps reduce maintenance costs, by reducing leak paths. These compression fittings should never need altering, even for routine maintenance - no other aspirator system supplier offers such a system.

Groveley aspirators are custom built from standard modular components and can be used with any gas or smoke detector. Combustible and toxic gas as well as smoke detectors can be mixed in one cabinet.

Self Compensating Duct Probes can be supplied providing an accurate representation of any duct being monitored.

Features

- Modular standard component design
- Line purge and calibration gas switches per channel
- Low flow alarms
- Suitable for use in Zone 1 & 2 hazardous area
- EExd pump version available
- Aspirator internals are H2S resistant
- Any manufacturer's gas or smoke detector

Benefits

- Easy, quick and economical maintenance
- Choose any detector
- Samples can be drawn from negative pressure areas
- Monitor for sample line blockages
- Suitable for sour gas applications
- Failsafe sample line clearance and detector testing



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buying quality...*

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TECHNICAL DETAILS

Instrument air pressure: 15-150 p.s.i.
Regulator: 0-4 Bar

Instrument air consumption: 1.0L/min/channel @ 100 p.s.i.

Aspirator response time: 0.25 to 0.75 sec/m of sample line, depending on detector type

Vacuum drawn by eductor: 15" Hg (203" H₂O gauge) - Input pressure dependant @ 110 p.s.i.

Cabinets available in 316 stainless steel, G.R.P. or on a stainless steel mounting plate.

Groveley Aspirators have been used to solve a multitude of detection problems in the offshore oil, gas, and petrochemical industries world-wide.

Applications include monitoring for:-

- Ingress of flammable gas, toxic gas and smoke in to HVAC ducts
- Flammable gas in riser caissons
- Protection of safe refuges
- Flammable gas entering combustion air, ventilation air intakes and ventilation exhausts of gas turbines
- Flammable gas leaks under acoustic enclosures of gas turbines
- Flammable gases in moonpool areas and turret annulus spaces in FPSO's
- Leaks from the gas seals of gas compressors
- Hydrocarbon break-through in nitrogen blanketed expansion vessels
- Flammable gases in sub-sea depressurisation tanks and crude oil storage tanks
- Gas build up beneath gas tight floors
- Hydrogen sulphide in drilling areas
- Gas build up in cargo holds and ballast tanks
- Extremely low or high operating temperatures

Groveley GD-A Operating Principle

The sample being measured is pulled under an adjustable vacuum created by an air driven eductor. Flow rates are controlled by an integral needle valve with the velocity being indicated on a flow meter. The sample is passed across the sensor and exhausted, along with instrument air, via the exhaust port. If the aspirator is situated in a "safe" area it is advisable to pipe the exhaust back to the area it has come from.

Sample line dross can be cleared by pressing the line purge button, diverting instrument air down the sample line.

Calibration of the gas sensor is carried out via an AVS coupling.

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