

Gas Detection for Shipyards; Ship building, Material on- loading and off-loading

The diversity of gas detection applications in ship yards is as varied as the locations of the ship yards themselves. Whether the yard is utilizing a massive network of underground tunnels for the construction or renovation of super tankers or whether tunnels are being used to on-load or off-load load commodities, the need for gas detection exists.

Applications requiring gas detection include: protecting against the leakage of gas lines used to carry natural gas (methane) or propane for space heating, potential of oxygen deficiency in underground tunnels, vessels and confined spaces, carbon monoxide and nitrogen dioxide exhaust from vehicles and equipment, or off-gassing of carbon monoxide and creation of oxygen deficient environments from materials being loaded such as wood pellet used as an alternative fuel source.

Until now the only options available to protect these applications and spaces have been fixed gas detection systems or portable handheld detectors. These options provide detection but there has always been and continues to be a dilemma between the desire to have optimum protection and the cost of the installed system as well as long-term operating costs.

Introducing VESDA ECO by Xtralis

Extending its world-renowned VESDA aspirating smoke detection (ASD) technology, Xtralis has introduced the industry's first multi-hole aspirated gas detection system by combining ASD with gas detection. VESDA ECO uses a VESDA pipe network to actively sample air for the presence of smoke as well as flammable and toxic gases as well as oxygen deprived or enriched environments.

This new approach to gas detection brings several unique characteristics into play that are simply not possible with conventional fixed or portable gas detection equipment. One of the most powerful characteristics include the ability to cover a piece of equipment or area with one detector as compared to having to use multiple fixed gas detectors.

VESDA ECO Benefits

1. The ability to sample multiple points in an area with one detector resulting in better equipment or area protection
2. Potential to reduce the number of gas detectors needed through the unique ASD pipe network and sampling system
3. Better coverage in changing environmental and ventilation air flow conditions
4. Eliminates the guess work as to where to place the gas detector
5. Lower initial installed cost because the detectors can be mounted away from the process area therefore reducing the amount of cabling or conduit that is required
6. Reduction in maintenance costs because there are fewer detector to replace and access is significantly easier
7. Ability to detect a wide range of flammable and toxic gases as well as oxygen depleted or enriched atmospheres.
8. Ability to add additional gas detectors to the system without having to run field cabling or conduit
9. Added benefit of reliable very early warning smoke detection with the proven laser-based VESDA

All these benefits are delivered through the deployment of the unique VESDA ECO by Xtralis gas detection system.



Aspirating Smoke Detection with Gas Detection

Time to Respond Because of Early Warning

- Active air sampling means earlier detection of smoke and gas threats through the use of the VESDA distributed sampling pipe network.
- Early detection provides time to react to emergencies while maintaining air quality for personnel.

Reliable Performance

- The delivery of an air/gas sample is guaranteed because each sampling pipe is individually monitored for air-flow fault through the VESDA smoke and VESDA ECO gas detectors.
- Absolute smoke measurement is provided with the industry's only optical clean air bleed to ensure detector performance and longevity.
- VESDA ECO is built on the world's No. 1 ASD system, which is backed by decades of successful operation in numerous harsh industrial applications and environments.

Flexible System Integration

- Real-time smoke and gas data is provided for an appropriate and staged response, including local alarm annunciation, alarm notification, and demand controlled ventilation for energy cost savings.
- Gas detector information can be easily integrated into a wide range of 3rd party systems, including: FACP, PLCs, BMS, or HVAC systems.
- Full compatibility with Xtralis VSC system configuration and VSM4 system management software.

Industry's Lowest Cost of Ownership

- A VESDA ECO detector can be added easily to an existing VESDA pipe network without complex system redesign or rewiring.
- A VESDA ECO detector can house up to two gas sensors, and more detectors can be added if the detection of additional gases is required.
- VESDA ECO is easily calibrated and comes with built-in user adjustable "calibration due" notification.

How Can VESDA ECO Benefit Your Business?

- 24/7 dual active sampling early warning gas and smoke detection
- Better area coverage and protection through multi-hole air sampling
- Eliminate the "guess work" regarding sensor location
- Lower initial installed cost.
- Lower long term operating costs.
- Simplified installation, maintenance and service



www.xtralis.com

The Americas +1 781 740 2223 **Asia** +852 2916 8894 **Australia and New Zealand** +61 3 9936 7000
Continental Europe +32 56 24 19 51 **UK and the Middle East** +44 1442 242 330

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