

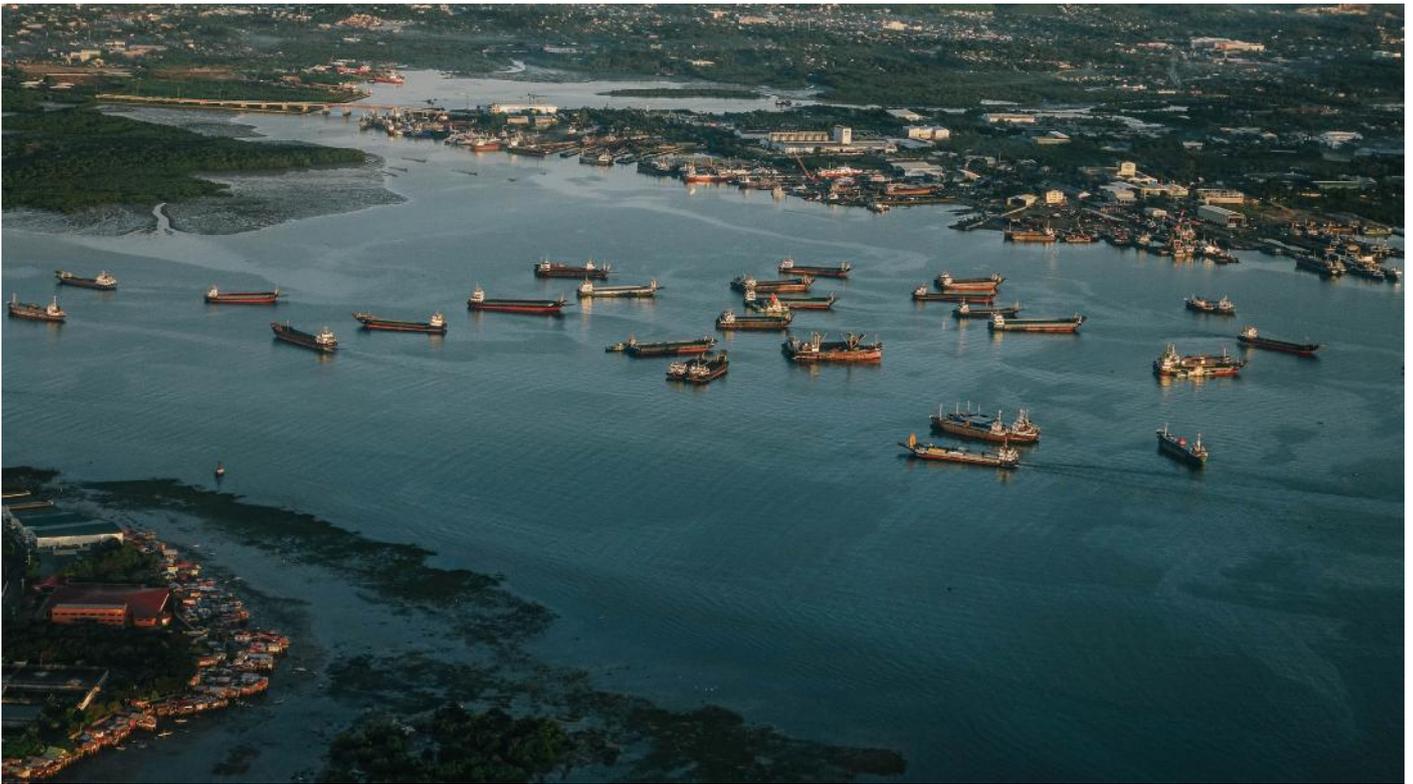
Marine Calibration Gas

What you need to know.



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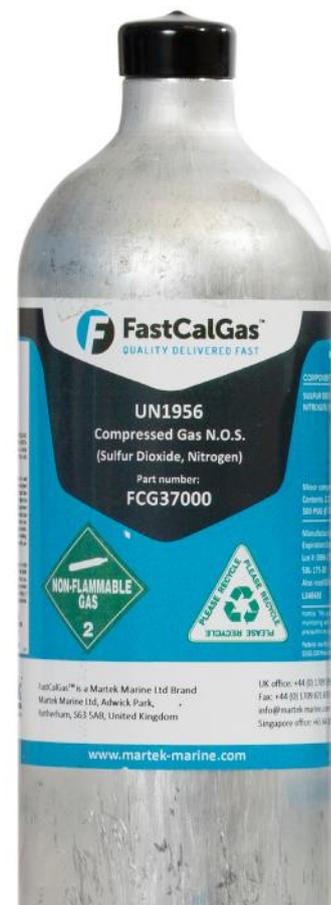


Calibration gases are essential to the maintenance and performance of gas detection equipment on board a ship.

Calibration gases are used to expose a marine gas detector to a pre-verified concentration of a gas, which will gauge how accurately the sensors are responding. Because of this, it is important that any calibration gases used are from a reliable and trusted supplier.

There are a wide range of calibration gas mixes available, and the type used will depend on the type and cargo the vessel is carrying.

The Chief Officer is responsible for identifying, calibrating and adjusting gas detection equipment on board, as well as ensuring the vessel is equipped with an adequate amount of the correct grade of calibration gas.



What should you be testing for

Instrument configuration is based on the tank and vessel type. The three main considerations are usually:

1. Monitor for sufficient oxygen
2. Monitor for explosive gasses
3. Monitor for toxic gasses

Oxygen and explosive gases are easily determined as necessary to monitor, but deciding which toxic gases to monitor depends on the tank and vessel type.



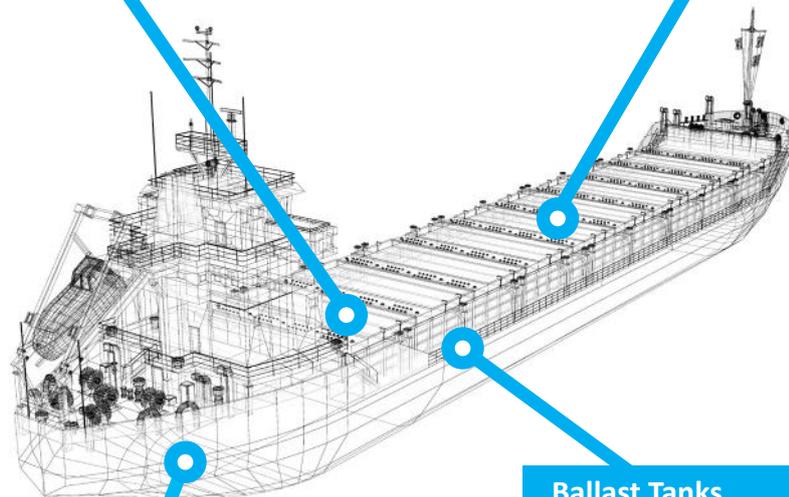
Where do you need to test

Water Tanks

Entry into the vessels water tanks requires at least an O² sensor.

Cargo Tanks

Cargo tanks can carry a wide variety of liquids depending on the vessels IMO classification.



Fuel Tanks

Entry into the fuel tanks requires a gas monitor with at least LEL and O² sensors.

Ballast Tanks

Ballast tanks can contain anything from seawater to rotten fish. They should be tested for LEL, O² and H₂S and Chlorine.



Testing on different types of vessel



Container Vessels

These vessels require the standard LEL and O² sensors to clean, repair and inspect the fuel and ballast tanks. There are fumigants (methyl bromide), coolants (ammonia) and many additional applications on board container vessels that require a monitor capable of monitoring both the basics (LEL, O², and H²S) and a broad range of chemicals (PID).



Chemical Tankers

Chemical tankers are usually configured with O², LEL, H²S, and PID with a pump. It is used for tank inspections and as a deck monitor during the loading and unloading of chemical products.



Bulk Cargo Carriers

Bulk cargo carriers will usually require O², LEL and H²S, plus any additional tests specific to the cargo being carried.



Ferries (RoRo Vessels)

RoRo vessels and ferries use monitors configured with O², LEL and CO with a pump. An additional area of concern is the importance of NO from diesel driven vehicles.

Case Study: K-Line



“The single two year covering order delivers time and cost savings on the significant logistics and administration overheads”

Fleet

9 x LNG Carriers

Previous Calibration Arrangement

Purchasing large refillable cylinders on an ad-hoc basis.

Problem

The administration and logistical challenges of shipping these large cylinders around the world was a time consuming, complicated and a costly process. There was also a significant health and safety risk – the crew were carrying these large cylinders around the vessels to calibrate the fixed gas detection systems.

Solution

We challenged K Line’s thinking about why they were using large gas cylinders. These cylinders are expensive to buy, difficult to transport and – because of the huge volumes they hold – resulted in large amounts of wastage due to gas expiring. By analysing the current inventory on each vessel, we simplified the supply by consolidating many different mixtures into single mixtures and part numbers. Then we arranged a two year single supply to the vessels, freeing the technical and buying functions from having to organise calibration gas.



“K-Line chose to change their calibration gas supplies to Martek/FastCalGas because it delivered a number of distinct advantages to our fleet of LNG carriers. The single two year covering order delivers time and cost savings on the significant logistics and administration overheads attributable to normal calibration gas supply arrangements. The extended warranty of the calibration gases means there is no worry of our gases expiring before use. Martek have been professional and responsive from the sales staff to the after sales team. We would recommend their use to other ship owners.”

**R Brooks,
Superintendent**

Case Study: Chemikalien Seetransport



““This innovative solution means we have effectively cut over US \$30,000 of unnecessary expense per year.””

Fleet

43 Tankers

Previous Calibration Arrangement

CST carry a large and varied inventory of gas detectors across its fleet which required a wide range of calibration gases.

Problem

Multiple suppliers provided a varying quality of services and products. This was causing the buying team lots of time consuming administration due to problems with deliveries, quality and expired gas.

Solution

CST had been using the FastCalGas service for a number of years and we worked out that they would benefit from even bigger savings by converting to the 1-2-1 model. We analysed the inventory of detectors as well as the order history through FastCalGas to simplify things by providing a full two years supply per vessel. We then arranged a single supply for each ship which we estimated would make savings in direct costs and administration of over US\$100,000.



“The 1-2-1 calibration gas service from Martek saves us the massive costs of placing individual gas orders for each of our vessels at regular intervals. The minimum 24 month warranty of the gases means we now don't have gas going out of date. CST, are an innovative market leader in our sector and this innovative solution means we have effectively cut over US \$30,000 of unnecessary expense per year by using this service.”

N Weissgerber-Kastner,
Purchasing Manager



Do you want to slash your admin costs and save hundreds of hours in labour intensive logistics?

Equip your entire fleet for 2 years with a single phone-call. Industry leading shelf-life and expert worldwide delivery with no contract, no long-term commitment, and no risk of running out.

Picture this – At the last minute you receive word a vessel is short on calibration gas. You're forced to use a local supplier.

The gas you receive is of poor quality, has a short shelf life, and with the delivery, agent and launch boat fee's – you're paying over the odds on even single bottle shipping.

Chances are you've experienced this before.

There's a better way. Imagine:

- Consistent, high quality calibration gas with market leading shelf-life
- Shipped anywhere in the world from one of our 8 worldwide hubs
- A managed service reminding you when you're gas is due to expire based on shelf life or usage
- Somebody who takes away all the stress of calibration gas supply
- Vastly reduced administration and operational costs

The answer is **FastCalGas 1-2-1**.

All we need to know is what gas detection systems your vessels are using and we can calculate exactly how much gas you'll need over the next 24 months, then send it directly to the vessel.

There's **no contract, no long-term commitment** and **no risk of running out**.

Contact us today to find out more.



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