



# **PIONEERING INNOVATIVE SOLUTIONS FOR SAFETY, PERFORMANCE AND CREW WELFARE**

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**GAS DETECTION BROCHURE**



# MARTEK MARINE

## Innovative Ship Solutions

Martek Marine is a 'best-in-world' marine disruptive technologies provider. With a focus on three core pillars; ship safety, performance and crew welfare, Martek Marine has supplied over 30,000 shipsets across the globe.

Martek's ground-breaking technology offers simple compliance with safety, environmental, medical, and navigational marine regulations, protecting assets, life and the environment in the global maritime industry.

From 24-hour worldwide dispatch for calibration gases, to lifesaving marine AED's, and from gas detection to emissions monitoring systems, Martek Marine ensure all aspects of safety and performance are covered to the highest standard.

Leveraging over 20 years of experience, in-house expertise, and a global reputation for exceptional service, Martek Marine remains at the forefront of maritime innovation.



**martek**<sup>TM</sup>  
MARINE  
Innovative Ship Solutions



## Vessel Safety

- Triple-C™
- Marine 4™
- Marine 5™
- ABC™
- Tankscape™
- FastCalGas™



## Ship Performance

- MM502
- Vecsafe™
- MM2000™
- Evolution EMS™





# TRIPLE-C

## NO CALIBRATION, NO CHARGING, NO COSTS

- Cutting-edge infrared sensor technology ensures more reliability and higher quality than standard catalytic sensors
- The only portable gas detector designed with 3 years of battery life, and no charging required
- No maintenance, servicing or sensor replacement
- MED Approved (MED 0575)
- MER Approved (MER 0097)
- Lifetime warranty



The revolution is here... From Zone 0 to inert atmospheres, the Triple-C is always charged, and always calibrated - ready to detect anywhere at any time.

The Triple-C rivals existing gas detectors with its innovative 3-year battery life and cutting-edge infrared technology which removes the need to calibrate, meaning no unproductive maintenance breaks and no expensive sensor replacement. If your company

requires calibration it can be quickly completed using the optional calibration station.

This all-in-one solution guarantees compliance and reduces risk whilst saving time and money - all at the touch of a single button. You'll never go back after using the Triple-C. Revolutionise your gas detectors today.



Did you know that if you equip your fleet with our revolutionary MED Approved Triple-C, you could save over \$4,000 USD in the next three years?

Download our savings calculator today and see for yourself!

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TRIPLE-C COST SAVINGS CALCULATOR

The Cost Of Your Current Portable Gas Detector				TRIPLE-C			
Item	Annual Cost	3 Year Cost	6 Year Cost	Item	3 Year Cost	6 Year Cost	
Unit Cost				Unit Cost	0	0	
Calibration				3 Years of Calibrations	0	0	
1x Replacement Oxygen Sensor				1x Replacement Oxygen Sensor	0	0	
1x Replacement CO/H2S Sensor				1x Replacement CO/H2S Sensor	0	0	
1x Replacement LEL Sensor	0	0		1x Replacement LEL Sensor	0	0	
Shipping Cost for Service				Shipping Cost for Service			
<b>Total Annual Cost</b>				<b>Total 3 Year Cost</b>			
<b>Total 3 Year Cost</b>				<b>Total 6 Year Cost</b>			
<b>Total 6 Year Cost</b>							

Total Savings for 3 Years with Triple-C: \$4,000 USD

Total Savings for 6 Years with Triple-C: \$8,000 USD

Scan the QR code to download the Triple-C Savings Calculator.

# TRIPLE-C GCT External Pump

## THE PERFECT CONFINED SPACE COMPANION

- Compatible with the Triple-C portable gas detector
- The 1/8 in. ID tubing draws samples at greater than 1 ft./second
- 40-hour continuous run time & recharges in 4 to 6 hours
- Has audio & visual alerts for blockages and low battery
- Users can perform manual block tests
- 2-year warranty



Extend the reach of your Triple-C gas detector with the GCT External Pump. This motorised, handheld unit easily attaches to your Triple-C detector, allowing you to draw air samples from a distance of up to 75 feet, facilitating comprehensive monitoring even in hard-to-access areas.

The single-button operation ensures the GCT External Pump is designed for simplicity, while the robust casing is built to endure even the harshest environments.



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Scan the QR code to  
view the Quick Start  
Guide.



## Marine 4™

### PORTABLE 4-IN-1 GAS DETECTOR

- Detects and displays up to 4 gases simultaneously (LEL/O<sub>2</sub>/CO/H<sub>2</sub>S)
- Robustly constructed and built to last on ships
- Bump test and calibrate with the 'ABC™' self-calibration station

The Marine 4™ is suitable for Zone 1 atmospheres, is MED 'Wheelmarked', has a simple 2-button operation, and is suitable for use on all vessel types. It can be supplied with an optional integral pump that offers flexibility for pre-entry into deep tanks, holds and void spaces.



## Marine 5™

### PORTABLE 5-IN-1 GAS DETECTOR

- Tailored to detect up to 5 gases
- Data-logging for calibration certificates
- Over 15 plug-and-play sensor options, including VOC measuring capabilities

The Marine 5™ is your MED approved solution to multiple gas detection.

It allows you to test for the standard four gases (LEL, H<sub>2</sub>S, CO, and O<sub>2</sub>), while a dual sensor also enables you to test for a further bespoke gas. Testing up to five gases in Zone 1, the Marine 5™ brings improved safety and efficiency onboard while reducing operating costs.

*Single gas detectors are also available. Please send an email to [info@martek-marine.com](mailto:info@martek-marine.com)*







## STOP WASTING YOUR CALIBRATION GAS AND START SLASHING YOUR COSTS

- **Fast & simple calibration - 'Bump' tests detectors in thirty seconds**
- **Creates tamper-proof calibration certificates acceptable to Port State Control & Oil Majors**
- **Uses minimum amount of gas necessary - saves money on wasted gas from manual testing**



The MED approved ABC™ system delivers on-board automatic and fail-safe calibration and bump testing of your detectors during recharging. The equipment automatically generates a tamper-proof calibration certificate, using unique serial numbers, which are free from human intervention and error.

If you had the ABC™ system you would be able to calibrate and maintain equipment on-board without the need to send ashore. This means you save on

unnecessary calibration costs and you will only use the exact amount of gas required to calibrate your gas detectors.

Never wait for onshore certification again: you'll be able to produce instant, verifiable, tamper-proof certificates at any time at the touch of a button. Take the headache away from inspections and self-certify your gas detection equipment whenever you need.



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This step-by-step video shows you how to use the ABC™ "Always-Be-Calibrated" solution in order to deliver automatic, fail-safe calibration and bump testing of your gas detector.

Scan the QR code to watch the video.





# Marine Tankscape™

## INERTED CARGO TANK & CONFINED SPACE GAS MONITORING

- MED 'Wheelmarked' for use on all tankers
- Simple calibration onboard with tamper-proof certificate
- Minimise tank sampling times using the internal pump



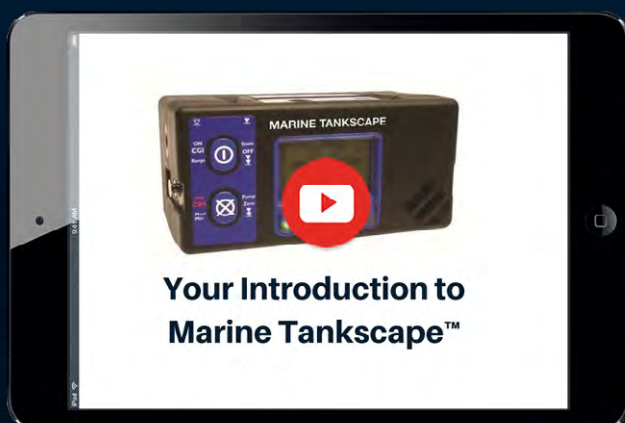
The Marine Tankscape™ is versatile yet simple to use. It offers reliable Zone 1 atmosphere monitoring using infrared technology to detect up to 5 gases simultaneously.

The Tankscape™ was designed after extensive consultation with shipowners, ship managers and shipping personnel. The result is a range of 8 instruments dedicated to the marine market.

The feature-rich range of instruments are suitable for all marine applications including confined space monitoring, cargo monitoring and inerting.

5 gases can be simultaneously measured and displayed. The hydrocarbon range, which utilises the latest infrared technology, can be calibrated with Butane, Propane or Methane.

The Marine Tankscape™ comes complete with an impressive suite of application software. The bespoke software allows on-board calibration and the ability to print tamper-proof calibration certificates.



**Your Introduction to  
Marine Tankscape™**

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Be SOLAS XI 1-7 compliant with Marine Tankscape™, the most versatile portable confined space gas detection and inerting system.

**Scan the QR code to watch the video.**







## CALIBRATION GAS CYLINDERS

- Rapid quote service – we aim to get a quote to you within 4 hours
- 98% of orders shipped within 24 hours
- 27 month shelf life on reactive gases – longest in the industry
- 24 month shelf life on Ammonia
- 5 year shelf life on non-reactive gases
- Calibration gases for all purposes, including scrubber, portable gas detectors, and fixed gas systems



Ensuring you have the right calibration gas in the right place at the right time can be a time consuming and expensive task. There is another way. Stress-free delivery any time, anywhere.

FastCalGas™ guarantees your calibration gas delivery. If we can't get your gas to the destination as promised, we'll ensure it meets your vessel at its next port for free.

You can also utilise our FastCalGas:1-2-1 solution, which is designed to simplify your supply. We review your gas usage to consolidate your requirements into one order, providing a two-year supply of calibration and span gas, in one delivery.

### FastCalGas 1-2-1

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

The answer is FastCalGas 1-2-1.

Let our dedicated accounts team handle the entire process from start to finish for the ultimate hassle-free experience. With all hazardous cargo paperwork taken care of, there is no complicated exchange of communications.

SCAN ME



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.

Scan the QR code to contact us today.



# MM502

## GAS SAMPLING & DETECTION SYSTEM

- **Efficient sequential pre-sample technology retains a full gas sample, to offer the most accurate reading on the market and one of the fastest sample cycles in the industry**
- **Capable of sampling 32 lines of 300m in just 30 minutes**
- **Enhanced security to protect your system from unauthorised access**
- **Superior water and particle protection for reliable performance and accurate readings**
- **Custom-built to match your exact requirements, with a comprehensive range of detectable gases**



The MM502 Gas Sampling & Detection System is our most advanced yet. Designed to streamline IGC-Code Int. 13.6.8 compliance, the MM502 overcomes common sampling system challenges, whilst enhancing efficiency and accuracy.

Engineered and tailored to the exact specifications you need to monitor ballast tanks, cofferdams, void spaces, inert cargo tank atmospheres, and other specified areas, the MM502 delivers unparalleled performance and reliability. With pre-sample lines that can be combined with up to 16 fixed point sensors, the system can even offer integrated pump room detection into one system.

**Leveraging our innovative pre-sample technology, the MM502 dramatically reduces sample cycle time by up to 50%!** This efficiency boost typically eliminates the need for a secondary sub-system, resulting in significant client cost savings, as well as offering considerable safety enhancements as areas can be sampled more regularly. With the capacity to sample 32 lines of 300m in just 30 minutes, this system sets a new industry benchmark for speed and coverage.

The MM502 is fortified with robust security measures, including a new network connectivity device that prevents unauthorised access, and password-protected

PLC and HMI systems, which further defend the system from tampering.

The MM502 has robust water and particle protection features to ensure optimal performance, longevity, and reduced maintenance and repairs costs. A water sensor acts as the first line of defence, automatically shutting down the pump to prevent water ingress. Sophisticated filtration systems remove dust, dirt, and liquid droplets, safeguarding sensitive components and maintaining accurate gas measurements.

The future-proof features of this system do not stop there. Equipped with zero-maintenance IR flam sensors, you can forgo the timely calibrations in favour of quick bump tests and rest assured that your sensors will stand the test of time. Additionally, keeping sample lines clean is now easier than ever with automatic cleaning cycles that include supplementary filtration for the protection of critical assets.

The MM502 is versatile and so are our expert team of engineers, who ensure that you are no longer restricted to the limitations of an off-the-shelf system. We provide custom-made solutions that meet your requirements, exceed your expectations, and cover a comprehensive range of detectable gases. **Your exact specifications, our precise solution.**



## MM2000™

### ADDRESSABLE GAS DETECTION SYSTEM

- Guaranteed to be SOLAS and ISGOTT compliant
- Ability to monitor from 1 to 32 addressable sensors
- Internal buzzer alarm for fault/alarm warnings to ensure you never miss a problem
- Bespoke system: manufactured in-house by our specialist team of engineers
- Explosion proof beacon and siren



MM2000™ is an intelligent addressable gas detection system designed to provide flammable, toxic and asphyxiant gas detection.

The MM2000™ system tests for toxic and flammable gases in a range of situations. Twin green/amber/

red LEDs for power, fault, and alarm on the controller with an in-built internal buzzer for alarm/fault warnings ensure you'll never miss a potential problem. The addressable fixed gas detection system is suitable for many applications - and is guaranteed to be SOLAS and ISGOTT compliant.

## Evolution EMS™

### EMISSIONS MONITORING SYSTEM

- Simplify compliance with our all-in-one solution backed by 24/7 support
- Efficiently manage up to 10 sample points within a single cabinet
- Long-lasting performance guaranteed by our advanced 4-stage system filtration
- Proven NDIR Siemens technology delivers reliable accuracy in harsh environments
- Avoid sample handling issues with our unique fail-safe protection



Evolution EMS™ is the world's first NO<sub>x</sub>, SO<sub>x</sub>, and CO<sub>2</sub> emissions monitoring system designed with continuous improvement in mind. Our in-house team of experts has specifically crafted Evolution EMS™ to meet the diverse needs of the maritime industry. This revolutionary system offers ship owners, managers, and operators a comprehensive and future-proof solution for effortless compliance with ever-evolving environmental regulations.

Evolution EMS™ goes beyond simply monitoring emissions. It empowers you to achieve enhanced operational efficiency, streamlining processes and ensuring your fleet operates at its peak. The system boasts a user-friendly design and the flexibility to adapt to your specific vessel class requirements, ensuring a smooth plan approval process and a bespoke solution tailored to your needs.



## Vecsafe™

### INERT GAS OXYGEN & PRESSURE MONITORING

- Simple installation
- Reliable and proven technology
- Large reference list
- Cost-effective system to buy and maintain
- DNV and CCS Type approval

Vecsafe™ monitors inert gas oxygen and pressure levels in the Vapour Emission Control Systems (VECS). Each vapour line is monitored during loading operations for any over or under pressurisation, or an increase in oxygen levels approaching 8% volume in compliance with USCG and IMO legislation. The system is comprised of a deck-mounted enclosure containing an intrinsically

safe oxygen sensor and pressure sensor with associated sample pipework, selector switches and signal communications. The control and alarm panel is normally mounted in the cargo control room (CCR) and provides an alphanumeric display of the oxygen level and pressure reading at each point.





# MARTEK MARINE WORLDWIDE

- Headquarters in the UK
- Asia-Pacific office in Singapore
- Global network of distributors and service partners
- Global network of service engineers

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## Martek Sustainability Statement

We are dedicated to building a sustainable and profitable business while continuing to operate responsibly with honesty, integrity and fairness.

At Martek Marine, we are committed to establishing high ethical standards of behaviour and effective corporate governance. This defines our strategic and financial objectives. Corporate responsibility remains central to delivering our strategy and achieving our success.

We are committed to conducting business in an environmentally responsible manner. We are putting in place processes to understand and address our responsibilities in respect of our operational impacts on the environment.

We aim to reduce the use of replacement parts and calibration to help overcome waste and excessive carbon emission.

**Pioneering sustainable and innovative solutions for ship safety, performance and crew welfare.**

[www.martek-marine.com](http://www.martek-marine.com)