

martekTM
MARINE
Innovative Ship Solutions



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

PRODUCT 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 all safety, environmental, medical, and navigation 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.

With 20 years pedigree, in-house expert knowledge and international renown for an exceptional customer experience, Martek Marine continues to steam ahead at the forefront of innovation.

martekTM
MARINE
Innovative Ship Solutions

PRODUCT RANGE

Contents

PORTABLE GAS DETECTION

- ABC™
- Marine 4™
- Marine 5™
- Marine Tankscape™
- TRIPLE-C
- GCT External Pump for the Triple-C
- Protégé ZM

FIXED GAS DETECTION

- MM2000™
- MM5001™
- VECSAFE™

CREW WELFARE

- Lifeforce™
- DrinkSafe™
- Sewage Effluent Kit Max
- LegionellaMAX
- AlcoXS™

SHIP PERFORMANCE

- Evolution™
- Hatchtite™
- Bulksafe™

CALIBRATION GAS

- FastCalGas™
- 1-2-1 Solution

MARTEK APPROVED SERVICE

- Fixed Cost Service
- Remote Service



CREW WELFARE

- Liferforce™
- DrinkSafe™
- Sewage Effluent Kit Max
- LegionellaMAX
- AlcoXS™



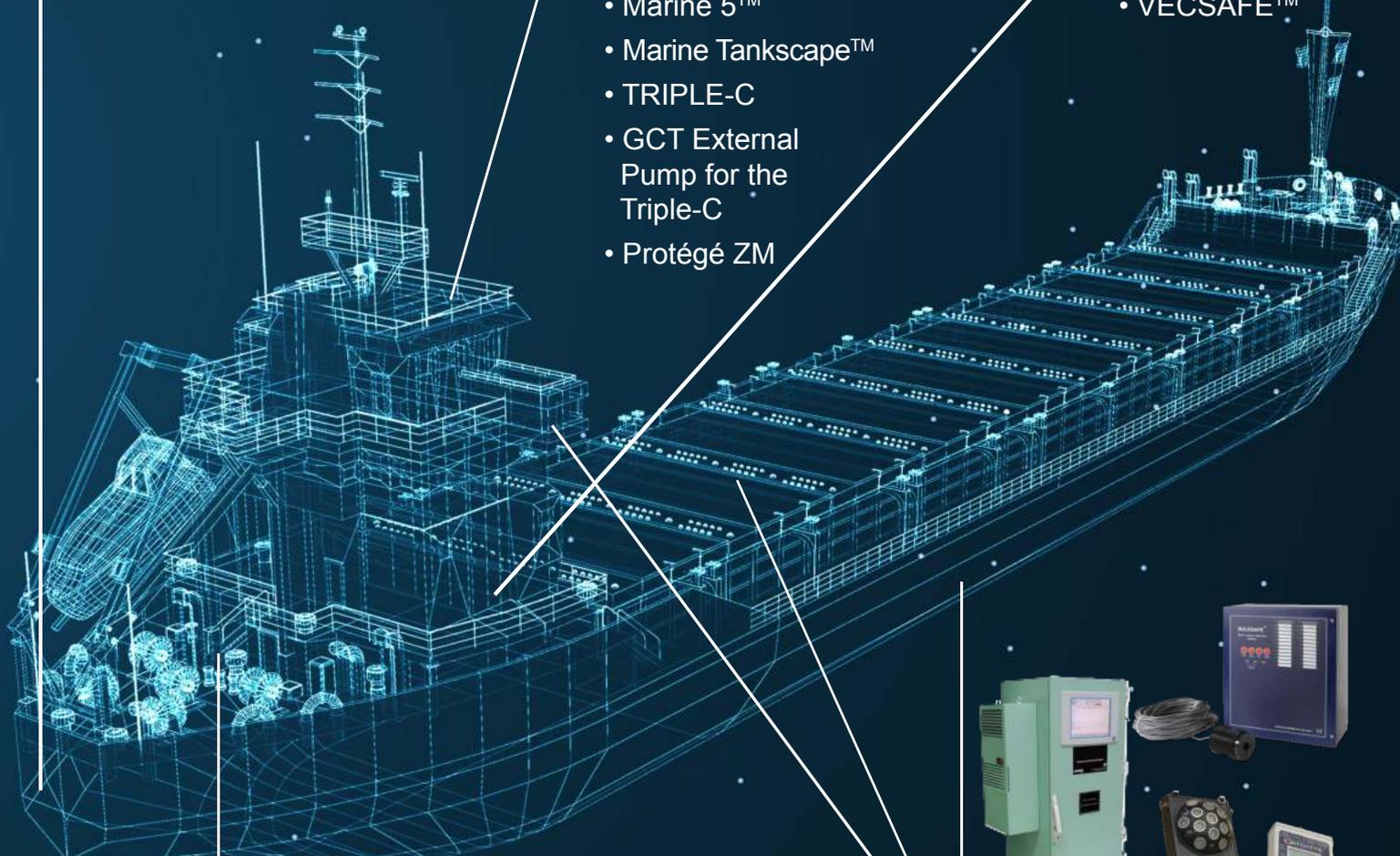
PORTABLE GAS DETECTION

- ABC™
- Marine 4™
- Marine 5™
- Marine Tankscape™
- TRIPLE-C
- GCT External Pump for the Triple-C
- Protégé ZM



FIXED GAS DETECTION

- MM2000™
- MM5001™
- VECSAFE™



FASTCALGAS

- Cylinders
- Regulators
- Gas Tubes



SHIP PERFORMANCE

- Evolution™
- Hatchtite™
- Bulksafe™

martek™
MARINE
Innovative Ship Solutions

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 re-charging. The equipment automatically generates a tamper-proof serial number, specific calibration certificates 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

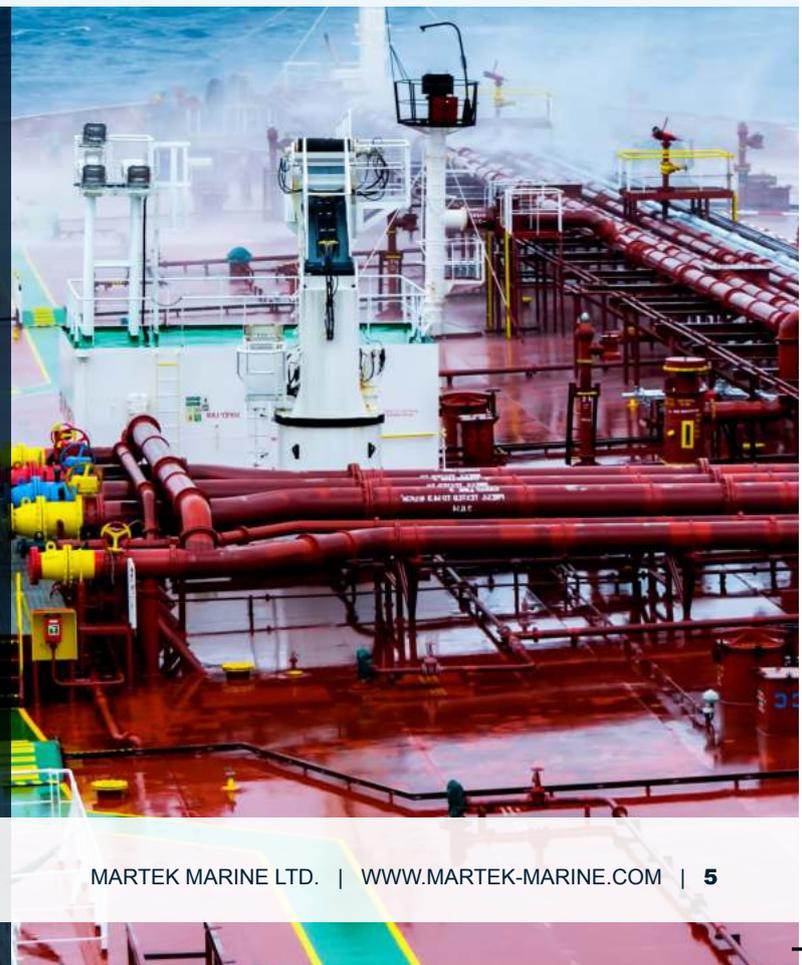
unnecessary calibration costs and you will only use the exact amount of gas required to calibrate your gas detectors.

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-certificate your gas detection equipment whenever you need.



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

Watch the video!
[How to Calibrate a Gas Detector Onboard a Ship](#)



MARINE 4™

PORTABLE 4-IN-1 GAS DETECTOR

- Detects and displays up to **4 gases** simultaneously
- **Robustly constructed** and built to last on ships
- **Bump test** with the 'ABC™' Self-calibration station

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



MARINE 5™

PORTABLE VOC 5-IN-1 GAS DETECTOR

- Tailored to detect up to **5 gases**
- Data-logging for **calibration certificates**
- Over 15 plug-and-play **smart sensors**

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

It allows you to test for the standard four gases (Flam, H2, CO, and O2), while a dual sensor also enables you to switch on a 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



MARINE TANKSCAPE™

INERTED CARGO TANK & CONFINED SPACE GAS MONITORING



- MED 'Wheel marked' 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 7 instruments dedicated to the marine market.

The Tankscape™ is versatile yet simple to use. 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.



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

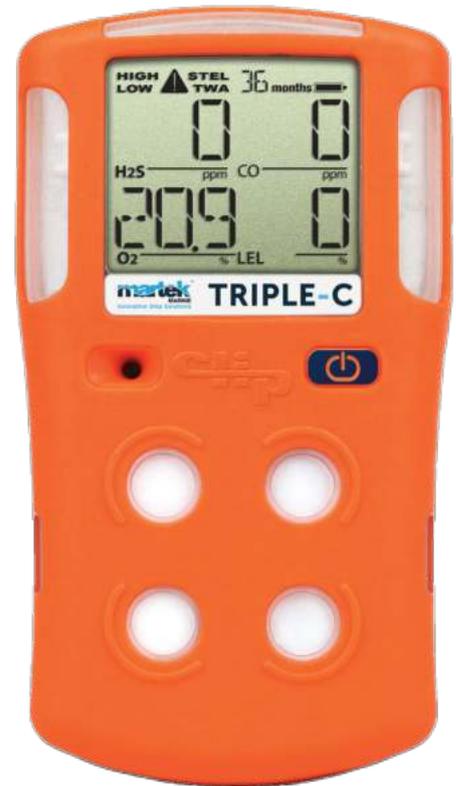
Watch the video!
[Portable cargo and confined space gas detection](#)



TRIPLE-C

NO CALIBRATION, NO CHARGING, NO COSTS

- Features cutting-edge infrared sensor technology – immune to sensor poisoning and drift
- The only portable gas detector designed with 3 years of battery life
- No need to charge the unit
- Requires no maintenance, servicing or sensor replacement
- MED Approved (MED 0575/21)
- Lifetime warranty
- Any crew member can operate Triple-C



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.



This guide outlines some of the issues associated with gas detection, what operators must be aware of in terms of regulations and the actual process of calibrating gas detection equipment.

Download the Guide to Portable Gas Detection [here](#)



TRIPLE-C GCT EXTERNAL PUMP

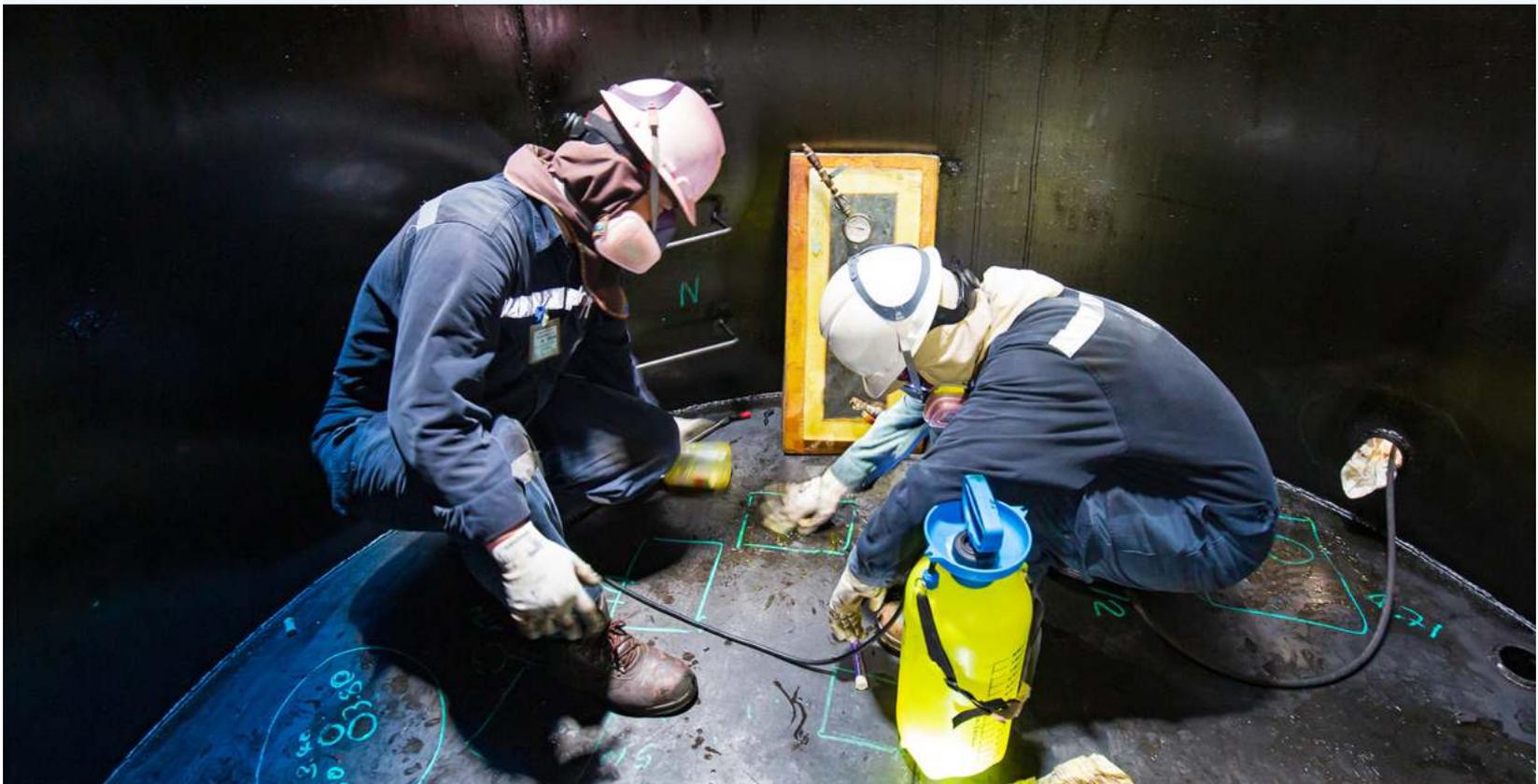
THE PERFECT CONFINED SPACE COMPANION

- 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](#)



The GCT External Pump for the Triple-C is a motorized sampling pump that allows the MED approved (MED 0575/21) Triple-C portable detector, to extract air samples from up to 75 feet away. It has a single-button operation and the ability to easily

attach to compatible detectors make the GCT External Pump for the Triple-C simple to use. The durable casing allows the pump to withstand the harshest environments.



PROTÉGÉ ZM

KEEPING YOUR CREW SAFE JUST GOT EASIER

- Features cutting-edge infrared sensor technology – immune to sensor poisoning and drift
- No need to charge the unit – 2 years of battery life
- Hibernate mode on the CO and H2S models provides up to one-year additional battery life – giving you 3 years of battery life
- Requires no maintenance, servicing or sensor replacement
- MED Approved (MED 0575) and lifetime warranty



The Protégé ZM Single Gas Monitor is an easy-to-use, zero-maintenance gas detection solution that delivers high performance in a small, ergonomically designed package. It is available in oxygen, carbon monoxide and hydrogen sulphide single gas models. This single gas monitor is incredibly reliable, giving you and your crew the confidence to focus on the task at hand, not on your equipment.

With one-button activation, adjustable alarm settings and an easy to-read display the Protégé ZM is simple to

use. Just turn it on for the first time, and the monitor does the rest. Using the default settings from the factory there is no need to set up or program the monitor. Once activated, the Protégé ZM monitor does not require charging or calibration so these monitors can be deployed in the field 24 hours a day, every day for two years, maintenance and hassle free. The H2S and CO models include a hibernate feature which allows you to extend your battery life up to one additional year.





THE WORLD'S ONLY MARINE APPROVED DEFIBRILLATOR

- Proven to be the **world's simplest AED**
- **Incredibly safe to use** - if no shock is required, it's impossible to deliver one
- **Fastest acting defibrillator** in the market - in just three minutes
- **Durable** - tested to **IP55 rating** and to rugged military standards



Sudden Cardiac Arrest (SCA) is one of the world's biggest killers and can take ANYONE by surprise.

Could you save a member of your team on-board your vessel?

If a defibrillator isn't applied within 3 minutes, your chance of survival drops below 70%.

Lifeforce® is an automated external defibrillator (AED) - specifically designed for the marine environment and was the world's first defibrillator to be Type Approved. It is designed to be the simplest to use AED on the market and independent tests have proven that members of the public without any training can deliver a life-saving shock quicker than any other unit in the market.



The Lifeforce AED crush test up to 450KG during development and we wanted to see if this holds up.

Run over, dropped, crush and washed - does it survive and remain rescue ready?

Watch the video!
[Lifeforce AED Crushed by 4500KG Tractor](#)



POTABLE WATER TEST KIT



- **More for your money**
- includes more tests as standard than any other kit
- **Simplest kit on the market** that anybody can use - no glass ampoules or messy Thio-Bags
- **Affordable spares** - incredibly economical
- **Guaranteed compliance** - MLC2006, IMO guidelines and flag state requirements
- **Sewage water effluent test kit also available**

DrinkSafe MAX™ are easy-to-use, accurate potable water testing kits designed to last 18 MONTHS & meet all compliance requirements, including GUARANTEED compliance with MLC 2006.

Being the easiest to use and most cost-effective kits on the market, there's good reason that the

world's largest shipping companies trust DrinkSafe MAX™ to take care of the well-being of their crew and passengers.

Grindrod Ship Management have implemented DrinkSafe and have managed to reduce their bottled water usage by 32,000 bottles, per month!

Developed using feedback from a survey of 8000 marine decision makers, DRINKSAFE™ is guaranteed to be the easiest kit to use, includes more tests than all other kits, and is guaranteed to meet all legislation & Class/Flag state requirements in a single kit. Easy!

Watch the video!
[On-board Bacteria Water Testing](#)



SEWAGE EFFLUENT KIT MAX

POTABLE WATER TEST KIT

- The only **combined** portable Sewage Effluent and Potable Water Test Kit
- Guaranteed to be the **most cost effective solution** on the market
- **Only replace what you use** - you'll never need to buy a full kit again
- **No formal training** required



This all in one portable water testing solution makes compliance with complex sewage discharge legislation easy.

The Sewage Effluent Test Kit is designed to provide you with simple test methods which are guaranteed to be the most economical you will find or your money back.

The kit requires no formal training and is the only all in one solution to guarantee complete compliance with the MLC 2006 & MARPOL ANNEX IV onboard water testing legislation.

Our spares service means you only buy the full kit once and then replace what you use. This means you'll reduce waste whilst reducing costs.



Just how simple is the Sewage Effluent Test Kit from Martek Marine?

Ben took a trip to the local lake to show you how the kit works.... but YOU won't need to get your feet wet.

Watch the video!
[How to use Martek's Sewage Effluent Test Kit](#)



LEGIONELLA WATER TESTING

- **100X efficiency** improving on the previous market leading test to 0.1 CFU per ML
- **Unrivalled onboard testing**, both water samples and biofilms
- **Simple rapid results in just 35 minutes**
- **No training required**
- **The most reliable Legionella testing kit on the market**



Under MLC 2006, you have duty to conduct and document water testing on all consumable water supplies, whether it be for drinking, cooking or even cleaning.

The LegionellaMAX Test Kit does away with time-consuming lab-based testing, giving you instant

results so you can treat your system ASAP.

The easy to use test can be fully conducted on-site with no formal training and delivers rapid results within 35 minutes. It's the most advanced, accurate and versatile technology on the market.



To help you decide on the best Legionella test kit, we've put together a quick guide to help with the key elements that you need to know.

Download the Legionella: Seafarers Essential Information [here](#)

ULTRASONIC HATCH COVER TESTING DEVICE

- **Early detection** reduces your cost
- **Identify exact location** of cargo hatch leaks
- **Single crew member** operation
- **Test your hatches** even when carrying cargo



Hatchtite™ is a lightweight, portable and robust instrument for accurate and reliable cargo hatch cover testing for water tightness on bulk carriers.

By using Hatchtite™ to ensure your hatch covers are watertight you can prevent cargo damage and also avoid failing inspection by the Insurance and Charterers' surveyor.

Unlike hose and chalk tests, Hatchtite™ allows you to identify the exact location of the leak - saving you time. Hatchtite™ indicates when you actually have the required compression to prevent water getting into the hold space meaning you can identify any leaks very early and thus reduce repair costs.



This document sets out the common issues that can occur with hatch covers – particularly regarding leakage which accounts for the most amount of P&I club insurance claims

Download the Hatch Cover Maintenance and Testing Whitepaper [here](#)



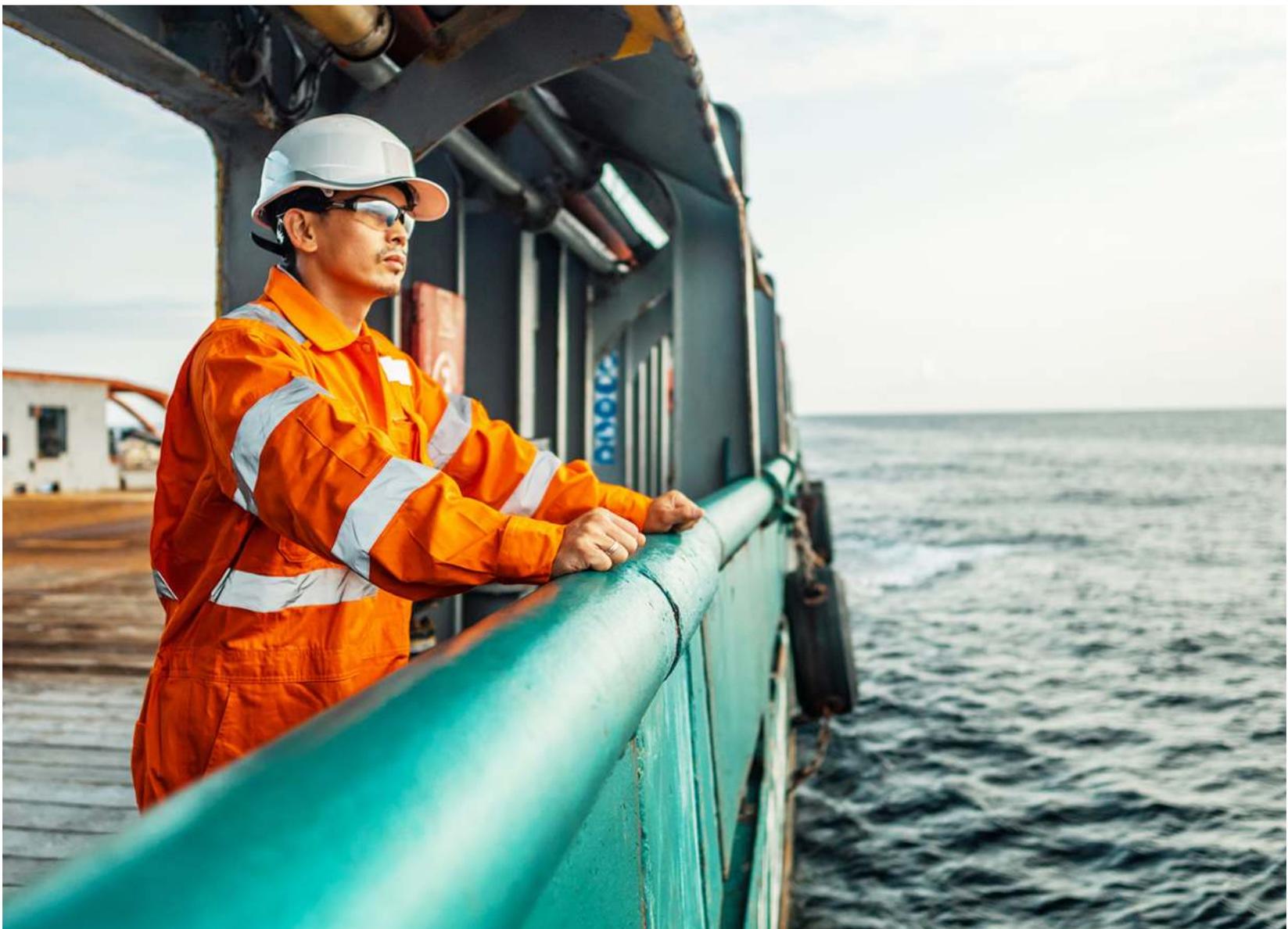
ALCO XS™

ALCOHOL TESTING KIT

- **Immediate** test results
- **Pre-calibrated cell** so no need to send ashore for annual calibration
- **Simplest** on-board alcohol testing solution
- **DOT Approved Alcohol Screening Device (ASD)**

The ALCO XS™ is a unique new marine breath alcohol tester (breathalyser) that never requires re-calibration. ALCO XS™ saves you a fortune compared to your conventional breathalysers

which need sending ashore for annual calibration or worse still, annual replacement of the whole breathalyser which is an extreme waste.



EVOLUTION EMS™

EMISSIONS MONITORING SYSTEM

- **All-in-one, fully compliant solution** with global service and support network
- **Unique 11-layer gas filter probe with 'blow-back' arrangement.** It delivers maximum filtration performance and extended maintenance interval with no consumable costs
- **Unique 4-stage system filtration** – filters the full range of particle sizes to guarantee long-term, trouble-free analyser performance
- **Long-term proven NDIR Siemens analyser technology** – guaranteed accuracy, performance and reliability in the hostile marine environment
- **Unique fail-safe protection of sample handling system** – you'll be aware that this is where most makers' problems occur



First launched in 1995, Evolution EMS™ has over 7 million engine hours application experience across 600 marine engines. The Evolution EMS is Lloyds, DNV and MCGA Type Approved Fully customisable,

Evolution EMS™ can be adapted to individual requirements – allowing you to be in complete control of your emissions monitoring and free to run your ships as you wish.



Evolution EMS™ is the world's first Type Approved (LR & DNV) onboard NOx, SOx & CO2 emissions monitoring system, providing a raft of operational advantages for ship owners, managers and operators.

Watch the video!

Evolution EMS: The world's leading marine engine EMS



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.

MM5001™ BALLAST TANK GAS SAMPLING

- **Easy touch screen navigation**
- **PLC based** - increased reliability and low maintenance
- **Smaller systems** - lower costs and less space
- **Up to 32 sampling points** per cabinet and integration of fixed point sensors



MM5001™ is a permanently installed, integrated sequential gas sampling system which can be used for detecting and providing alarms in the presence of explosive and toxic gases in ballast tanks, void spaces and cargo tanks.

MM5001™ is a major technical leap forward in gas detection technology.

The system comprises of a central control cabinet with a touch screen panel that displays gas concentrations and alarm status. At the heart of the system is the main PLC controller, gas analyser and a pre-sampling circuit. A calibration-free, high performance infrared sensor provides the ultimate in reliable flammable gas analysis.



VECSAFE™

INERT GAS OXYGEN & PRESSURE MONITORING

- Simple installation
- Reliable & 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 comprises of a deck-mounted enclosure containing an intrinsically



safe oxygen sensor and pressure sensor with associated sample pipe work, 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.

BULKSAFE™

WATER INGRESS DETECTION SYSTEM

- Easiest and most compact system on the market to install
- Guaranteed to be IACS S24 and IACS UR S24 compliant
- Guaranteed to be SOLAS X11 Reg. 12 complaint
- Dust ingress and corrosion proof – built to last
- Type Approved

The system comprises of a central Bulksafe™ control and alarm panel interfacing with intrinsically safe MMS900 water level detectors installed in each compartment. The unique design of MMS900 water level detectors allows them to be installed so that they're totally isolated from the cargo and protected



from mechanical damage during cargo operations. They can be installed without the need for any structural alterations or piping work within the cargo holds. Each MMS900 level switch is totally corrosion proof, protected against dust ingress and carries a lifetime warranty.



CALIBRATION GAS CYLINDERS

- **Rapid quote service**
– we aim to get a quote to you within 4 hours
- **98% orders dispatched within 24 hours and a delivery in time guarantee**
- **Personal account service from experts in shipping hazardous goods**
- **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**



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.




This whitepaper looks at the process of supplying calibration gases and examines the common problems that vessels face.

Download your Calibration Gas Demand and Supply Whitepaper [here](#)

FASTCALGAS: 121 SOLUTION ACCOUNT MANAGED CALIBRATION / SPAN GAS SUPPLY

- One order - **two year's supply** - one delivery
- **Account managed service** designed to slash your current gas costs
- **Market leading shelf life**



The 1-2-1 solution is designed to simplify the whole procurement process into one order, two years' supply and one delivery.

It uses FastCalGas™ which has the highest production standards of any calibration gas on the market and is guaranteed to be compatible with all the leading brands of gas detectors.

Quality and reliability is a key factor in the 1-2-1 solution which is designed to cut down on carriage

and agents' charges as well as the hidden costs that come from the time spent on administration.

1-2-1 manages the inventory of calibration gas to your vessels. We review your gas detectors' usage to determine your requirements and run on-going checks with vessels to arrange re-stocking after twenty-one months.



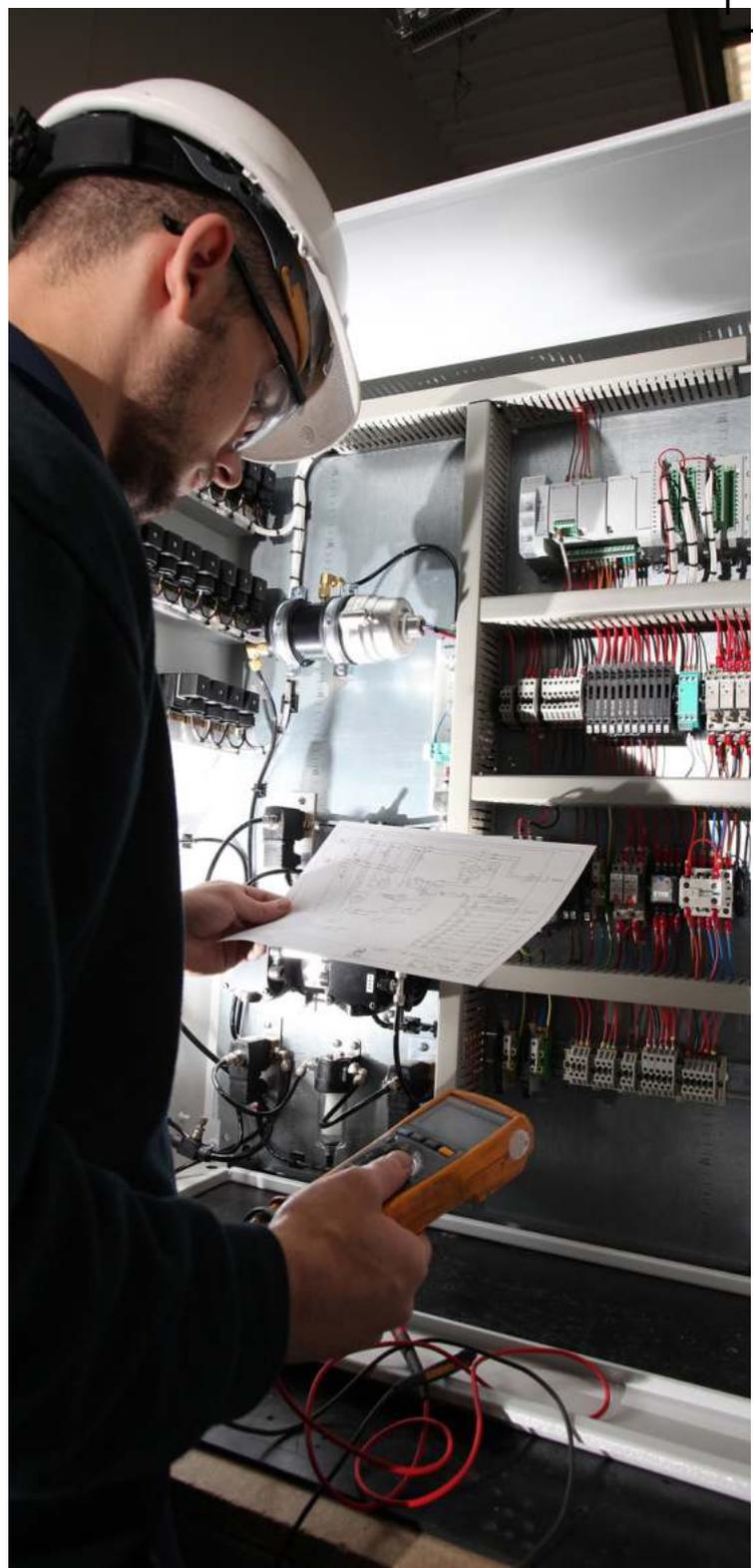
Shipping companies are waking up to the idea that reliable, high quality calibration gas supply should be far more affordable. Watch how the FastCalGas 1-2-1 solution can save you time, money and resources.

Watch the video! Visit our YouTube channel at [FastCalGas 1-2-1 Solution](#)



FIXED COST SERVICE GUARANTEED SAVINGS

- **More visibility on maintenance costs**
 - Understanding what the costs will be prior to receiving a final invoice instead of unpleasant surprises post work. It will also make your annual budgeting per vessel much simpler.
- **Includes all consumable parts**
 - No nasty surprises and assurances that system has been given a clean bill of health by the experts.
- **More cost effective**
 - Service contracts mean you're protected from annual price increases.
- **No stress**
 - Martek will be in touch when service is due and mutually agree the most cost effective port. Ensuring your calibration certificate is renewed with ease.
- **Training**
 - Your crew can be taught proper maintenance procedures and you'll also benefit from free 24 hours troubleshooting and remote support.
- **For further savings**
 - We are now also offering service contracts between 2 – 5 years, the longer the contract, the bigger the saving.



As we all have budget constraints we need to work together to keep costs down. We have recently seen an influx in customers requesting a fixed price for a service before we attend to allow for easier budgeting and no nasty surprises.

WE OFFER FIXED SERVICES ON THE FOLLOWING SYSTEMS:

- MM5001™ – Fixed Gas Sampling System
- MM5000™ – Fixed Gas Sampling System

- MM2000™ – Addressable Gas Monitoring System
- Vecsafe™ – Oxygen and Pressure Monitoring System
- Bulksafe™ – Water Ingress Detection System
- Navigard™ – Bridge Navigation Watch Alarm System
- iECDIS™ – Electronic Chart Display and Information System
- MariNOx/Evolution™ – Emissions Monitoring System
- Sentry™ – Cargo Tank Pressure Monitoring System

Enquire at info@martek-marine.com



REMOTE SERVICE

**AVOID INFECTIOUS CATASTROPHE,
REDUCE COSTS AND REMAIN
COMPLIANT**

- **Pre-service questionnaire** for detailed analysis
- **Service Engineer toolkit** – ensuring every tool for the task
- **Expert guides** developed by Martek Marine Engineers
- **Remote support** via video / images
- **Access to experts** talking your competent person through every step
- **Critical spares supplied** – only pay for those you use
- **Manufacturers Calibration Certificate** and signed timesheets upon completion



You no longer need to worry about port locations and schedules. With 24/7 access to an expert Service Engineer and lead times from just 1 day, it's never been easier to arrange the servicing of your Martek fixed systems. At sea, port or anchorage, with the remote servicing option, you can choose a time that works best for you and your vessel.

With the Martek Marine Remote Servicing, you can ensure optimal operations with reduced costs without sacrificing expertise.

Enquire at info@martek-marine.com



MARTEK MARINE WORLDWIDE

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

Martek Marine Ltd (Head Office)
Adwick Park
Manvers
Rotherham S63 5AB
United Kingdom

Telephone: +44 (0) 1709 599 222
Email: info@martek-marine.com

Martek Marine Asia Pacific
1 Raffles Place Tower 2
Level #19-61 & #20-61
Singapore 048616

Telephone: +65 6808 5862
Email: info@martek-marine.com

Registered in England and Wales number: 03930003

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

