



BRUUSGAARD

Optimal safety. Minimal effort.



Bruusgaard Onboard Solutions

www.bruusgaard.no

Summary: Improving Safety and Reducing Costs

Gas detection, water testing, temperature & pressure, ullage and breathing air: Life at sea involves a wide array of safety systems. They are critical for safeguarding the crew and the environment and thus require significant care and administration.

But there is a way to stay safe and compliant, with minimal effort, while reducing costs at the same time: **With Bruusgaard Onboard Solutions.**

Our solutions can be maintained and serviced onboard without yearly shore service and certification. All our onboard solutions are designed to save costs per vessel and will automatically reduce shipments and reduce the CO2 footprint and administrative time.

Bruusgaard makes it easier to be a ship manager. By partnering up with us, you can maintain your ship's detection systems on board the vessel. We will keep track of and replenish consumables as needed and provide a training program for uniform learning across your fleet.

Ready for a rundown of our systems? Here is how we can help you.



The Bruusgaard Support System

For customers joining the Bruusgaard support program, we will keep a record of all the solutions onboard your vessels and its consumables. The record-keeping is executed by means of an Instrument Report, which is kept in pristine order for each vessel on the Bruusgaard Support Agreement. We will send a reminder in due time before expiry date and make sure shipments are consolidated. The goal is to reduce the number of shipments per vessel to a minimum which in turn enables you to achieve considerable economical savings.

Another benefit of being a part of our support program is that we will provide a budget estimate per vessel for the next year. All incoming inquiries are also checked against the planned deliveries and agreed standard to avoid any unnecessary orders. This monitoring reduces yearly expenses considerably.



The Financial Advantage of Bruusgaard Onboard Solutions

Our clients experience a fast return on investment when they select Bruusgaard Onboard Solutions together with our eminent support system.

We have designed Bruusgaard Onboard Solutions to save costs and time by simplifying and standardizing routines and operations. The switch from multiple suppliers to one, helps you organize and minimize all your deliveries to your onboard Bruusgaard solutions (gas detection, temperature & pressure calibration, water testing, UTI, consumables, etc.) This approach saves you both costs and time through simplification and fewer shipments to the vessel each year. At the same time, safety is strengthened and optimized.

Another vital cost-saving aspect is that you no longer need exchange solutions for your instruments to maintain compliance, as all calibration and maintenance are performed on board by the crew.

Easier Administration

One thing in common for purchasers, technical managers, and fleet managers in the marine industry; they have too many emails, too many things to do, and too little time to do it. Bruusgaard Onboard Solutions are designed to minimize administrative time by having one supplier with a good overview and control over the systems on board. Quite a lot of time can be spent on handling POs and invoices. Let Bruusgaard look after your vessels and reduce your admin time. We will inform your vessels when it is time to replace consumables.

Smoother Logistics

Logistics is a core element of Bruusgaard Onboard Solutions for saving costs. You can eliminate many deliveries by calibrating and maintaining all the instruments on board. Vessels with Bruusgaard Onboard Solutions do NOT need to send instruments yearly on shore for calibration and service. In addition, no need for extra backup instruments reduces your investment.

Onboard Service & Calibration

With Bruusgaard Onboard Solutions, sending instruments for service and calibration or sampling tests to laboratories on shore is no longer necessary. The crew can now do this on board, reducing the number of deliveries, calibration, and service costs on shore, which will give significant savings.

Vetting & Compliance

Vetting remarks are highly undesirable. To avoid them, you must have correct instruments on board, routines for calibration and maintenance according to regulations and manufacturer's instruction, ensure all instruments are in good working conditions, and that you replace consumables in time before expiration dates.

Enclosed in Bruusgaard Onboard Solutions are training programs to ensure the end user is familiar with the instruments and routines.

The Bruusgaard Onboard Solutions ensure no vetting or inspection remarks, when adhering to Bruusgaard recommendations. More than 2500 vessels worldwide have solutions from Bruusgaard installed.

Reduced CO₂ Footprint

By switching from a conventional vessel modus operandi, based on sending instruments and other safety equipment on shore for calibration and maintenance, Bruusgaard Onboard Solutions offers a



more sustainable operation method. Choosing Bruusgaard for onboard water testing, gas detection, and other solutions will take you from multiple suppliers to one supplier and considerably fewer shipments each year to the vessel. Fewer shipments will reduce your CO2 footprint.

At Bruusgaard, we do not believe in a use-and-discard mentality. Therefore, we utilize reliable, high-quality instruments with long durability. Our support program helps you take care of your instruments to ensure this.

Solutions

TBS (The Bruusgaard System) – Gas Detection

Gas detection plays an essential role for crew safety and compliance. Bruusgaard Onboard Solutions for portable gas detectors helps you maintain top-notch gas detection capabilities, while drastically reducing costs. We provide a single cabinet or suitcase, tailored to cover all your vessel's gas detection needs. Our support team keeps track of what you use and replenish consumables at intervals optimized for the lowest possible cost.

TBS Large

The large Bruusgaard cabinet is for tanker vessels. It includes portable and personal gas detectors, pumps and tubes for toxic gases, calibration gases, calibration kit, necessary consumables, CBT training, log, and instruction manual—a complete and well-organized setup to help you comply with all regulations.



TBS Small

This Bruusgaard cabinet is ideally suited for smaller vessels - such as bulk, supply (not LFL (*) – Lower Flammable Limit), ferries, RoRo, container ships, fishing vessels, etc. It includes personal gas detectors, pumps, and tubes for toxic gases (if required), calibration gases, calibration kit, necessary consumables, CBT training, log, and instruction manual. The cabinet contains everything you need to comply with regulations.



TBS Compact

The TBS Compact solution is perfect for vessels without space for a fixed cabinet. It is ideal for container, bulk, RoRo and supply vessels that only need to have personal gas detectors on board. Personal gas detectors need just one type of calibration gas cylinder. This compact suitcase has room for two personal gas detectors, chargers, a multi-mix calibration gas bottle, a sampling hose, a hand or electric pump, a toolkit, and an alcometer. Many inspectors and surveyors also find the TBS Compact a valuable solution for their gas detection needs.

Our Support Agreement is also available for TBS Compact. We will automatically supply calibration gas and sensors before the expiration date. We will contact your vessel when it is time for a replacement.





Calibration gases

Portable Gas Detectors – Fixed Systems – Scrubber Solutions

Our stock points worldwide supply standard calibration gas to your Portable Gas Detectors, Fixed Systems, and Scrubber Solutions. We supply once a year to the agreed standard, ensuring that the regulator is adequate, and the gas mixture is correct. Through our support program we send a reminder approximately two months before the next planned delivery of gases, to ensure delivery can be made to the vessel in due time.

All cylinders are disposable, also our new 65ALR 850ltr cylinder. No extra return costs for cylinders anymore.

Stock Points

We have stock points in Singapore, Dubai, Rotterdam/Amsterdam, UK, USA, Shanghai, Panama and Norway – with more on the way.





Local delivery

We can deliver calibration gases from our local stock points within a few business days - which will save delivery charges, as sending dangerous goods by airfreight can be expensive. We are also able to send calibration gases by courier to many ports. Airfreight is a third alternative, which enables us to reach most ports worldwide.

Savings

Many vessels experience receiving correct gas-mixtures within scheduled time as a huge challenge. The ship can have many orders annually to get the different gases to the various solutions on board. Avoid all the hassle; let us take care of the calibration gas. We can deliver the suitable standard and number of cylinders in one delivery per year for all solutions before the expiration date.

Gastec Pump & Tubes - Toxic Gases

Gastec has more than 600 tubes for measuring toxic gases quickly and efficiently. Most measurement tests only require one stroke and take two minutes to complete.

We also deliver a connection-set making one-hand operation simple.

We have more than 100 standard types of tubes in stock and can deliver the tubes within 2–5 business days worldwide.



Gastec tubes are non-hazard for shipping, and we do tailor standard setups for our customers. This means we provide one standard set of tubes every two years to ensure the vessel has suitable tubes on board.

Onboard Temperature & Pressure Calibrator Kit

The crew is obliged to maintain proper calibration handling for temperature and pressure instruments. Here is how you do it the Bruusgaard way.

Our new temperature and pressure calibrator kit allows you to check and calibrate the sensors whilst on board – the world's first, to our knowledge! The equipment can also be serviced on board, eliminating the need for annual shore service.

Benefits for the shipowner:

- No calibration and service costs
- No logistics costs
- No administrative work
- One supplier takes care of all administration and support

With Bruusgaard support, the calibrator kit is followed up to make sure necessary parts are replaced in time.

Our mini-test kit meets most applications on board mercantile vessels, naval vessels, and mobile offshore drilling units.

The system makes it easy to adjust to your specific needs on certain vessels for pressure and temperature. All our test kits are delivered with necessary accessories, manuals, and certificates.



Water testing

Your onboard water can be as crucial to your vessel as the surrounding water. Is your potable water free from contaminants? Is the sewage system doing its job?

A word on crew safety: Test kits for potable water are designed to determine the water quality, enabling you to react quickly in case of, for example, a legionella outbreak. Periodic testing ensures early intervention, helping you avoid further harm.

The purpose of testing is to verify your onboard water is safe to:

- Consume (for humans)
- Discharge (to the environment)
- Use (in technical systems)



Once your water checks out, you are free to continue your journey. With Bruusgaard Onboard Solutions water test kits, you get the answers to safeguard your crew and the environment. We offer test kits for all your onboard water systems:

- Potable water
- Sewage and grey water
- Ballast water
- Engine cooling systems and boilers
- Legionella testing



New: Bruusgaard Water Analysis Test Cabinet

Bruusgaard is taking water testing to the next level by combining testing of several on board water processes into one efficient, cost-saving water analysis test cabinet solution. Each of the different test kits contains expensive equipment. By combining you avoid duplicates and triplicates - thus reducing costs. With the new Bruusgaard Water Analysis test cabinet, you get a more a structured and cost-efficient solution for keeping your onboard water processes in compliance.



Water test kits contain many consumables, and the user needs control over their expiration dates.

Through the Bruusgaard support program, we will send a reminder to replenish the consumable- and calibration packs to make sure the vessel will stay in compliance.

Compressed Breathing Air Test Kit

The Bruusgaard onboard solution for testing breathing air compressors is simple and cost-effective. It measures the quality of breathing air from high- and low-pressure compressors and cylinders. With the Bruusgaard breathing air kit, testing is easily carried out on the vessel and air-samples do not need to be sent ashore, saving both time and costs.



The standard kit includes the testing device (consisting of a flow regulator, flowmeter, and test tube holder) to be mounted on the compressor or cylinder. It measures CO, CO₂, NO_x, water vapor, and oil mist in breathing air. It also contains extra fittings and a set of tubes for testing.

All in a handy carrying case.

In short: This kit contains everything you need to ensure that the breathing air supplied is safe and compliant.

The Airtec tubes is followed-up through the Bruusgaard support program and will be supplied in a combined shipment with other consumables to save delivery charges.



UTI – Ullage Temperature Interface

With our ground-breaking UTI Onboard solution, you can perform maintenance and service without annual shore certification. And you can do it yourself!

Our UTI solution is based on the SHT2002. It is designed for marine vessels to measure ullage, air/oil/water interface levels, and their respective temperatures – in one single operation. The unit can be used in corrosive and non-corrosive environments.



It is the onboard calibration and service capability that separate this UTI solution from the rest. It will save you significant time and money compared to the conventional approach, as the vessel only needs two units.



Our mission is to eliminate the need for unscheduled stops. Therefore, we include everything you need for operation, calibration, and servicing in one kit (spare sensor and tape, cleaning kit, and calibration set).

The Bruusgaard support team will ensure you have all the necessary UTI items - in time.



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The Bruusgaard Experience

Bruusgaard has over 60 years of experience in portable gas detection and more than 25 years with onboard solutions. We have accumulated considerable skills and know-how in establishing the right cost-efficient solutions for our customers.

We focus on standardized solutions and the quality assurance of these. We ensure that the most suitable instruments are selected and that all routines for preparation, operation, calibration, and maintenance are implemented and followed up according to prevailing regulations.

Our success is based on the satisfaction of our customers – a worldwide fleet of around 2500 Bruusgaard-supported vessels.

With warmest regards,
The Bruusgaard team
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