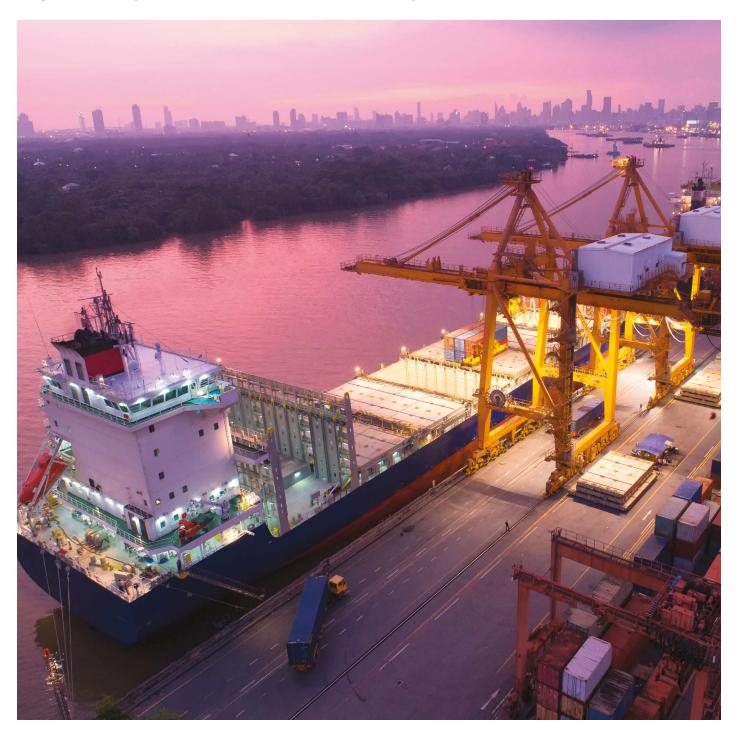


# **Products and services**

A comprehensive selection of products and services developed specifically for marine and offshore operators



# Star International

# Marine and offshore services and supplies

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#### Star International

#### Marine and offshore services and supplies

Star International specialises in delivering safe, reliable, and cost effective safety solutions to the marine and offshore sectors.

Alongside an extensive range of marine and offshore products, we deliver on-site inspection and servicing packages designed to support the changing needs of shipping schedules.

#### **Products and services include:**



Marine chemicals



Instrument calibration



Refrigeration gases and air conditioning



Marine gas detectors



Firefighting equipment and services



First aid and medical gases



Marine safety equipment



Jet washers



LSA liferaft service and repair



Lorry loader and quayside services



EndoSan wide-spectrum disinfectant



Narwhal Rigid Inflatable Boats (RIBs)



Marine fuel testing and treatment



Welding equipment and services

Whatever your requirements, our global network of manufacturing and retail partners ensure that Star International can support your operations worldwide.

#### Operating to the highest industry standards

Star International operates to the highest industry standards and is an accredited business, complying to ISO 9001 Quality Management and ISO 45001 Occupational Health and Safety standards.

Industry-specific accreditations are also held from Bureau Veritas, DNV, and Lloyd's Register.











#### Marine chemicals

# Chemical products, test kits and accessories designed specifically for use in the marine environment

Star International supplies a comprehensive selection of marine chemicals, test kits and product accessories that have been designed specifically to meet the stringent requirements of marine operators.

With over 200 products on offer, we can supply any chemical that typically found on-board ship. Product categories include:

#### **Biological products**

A selection of biologically active formulations for specific cleaning applications on-board ship. The biological cleaning range takes advantage of enzyme producing microbes that consume waste matter and pathogens, producing harmless levels of carbon dioxide and water as a result.

Biological cleaners provide an environmentally friendly alternative to chemical-based cleaners and are safe to handle. Enzyme based cleansers remain active long after application, offering long term odour elimination.

#### Cleaning and maintenance products

The cleaning and maintenance chemical range includes abrasives, acid and alkaline based cleaners, bleaches, detergents, degreasers, sanitising products and solvents. Every product in the range has been specifically developed for use in the marine environment, and has been formulated to maximise efficacy with minimal environmental impacts.

#### Potable water treatments

The potable water treatment range covers all applications on-board, from drinking water to pool and spa water sources, grey water and sewage treatment.



#### **EndoSan wide spectrum disinfectant**

Star EndoSan (EndoSan) is an advanced, silver stabilised Hydrogen Peroxide (H2O2) formula that acts as a highly effective, wide spectrum disinfectant. When correctly introduced to water, any surfaces or airspace, EndoSan will disinfect through an oxidisation process and provide an unrivalled residual performance.

With its unrivalled ability to effectively kill a broad spectrum of micro-organisms including Coronavirus, Norovirus, MRSA, Legionella and E.coli, EndoSan is increasingly the multi-application disinfectant of choice for maritime organisations, including cruise, ferry and shipping operators who are seeking a single-point solution for disinfection, sanitation and infection control.

See page 10 for more on the EndoSan product range and on-board services.

#### Marine chemicals

Chemical products, test kits and accessories designed specifically for use in the marine environment

#### **Engine and boiler water treatment**

A wide range of boiler treatment chemicals, designed to ensure the efficient operation of systems and support an effective boiler maintenance programme. Chemicals in the range include corrosion inhibitors, anti-foulants, conditioners, oxygen scavengers and formulations for the inhibition and removal of scale.

Boiler water condition reporting is also available with selected products, providing crew with highly accurate data concerning water composition and operating conditions.

#### **Fuel treatment**

A range of fuel treatment additives that are effective with Marine Gas Oils (MGOs) and low sulphur alternatives, acting to neutralise and prevent contamination, improve shelf life and counter temperature induced coagulation.

See pp. 14 - 15 for full information on our fuel treatment solutions.

#### **Special products**

A range of highly specialist products for maritime operations. Products include industrial cleaners, ultrasonic cleaners and antifreeze solutions.

#### On-board test kits

Testing kits, reagent packs and consumables are available for a huge range of applications on-board ship. Test kits are designed for use by crew, with no formal training required, offering a means to gather reliable data at sea, or in port without the cost or lead times associated with laboratory-based testing.

# Minimising environmental impacts through sustainable manufacturing

Specialist chemical products in the Star range are manufactured specifically for use within the maritime and offshore sectors, at a purpose-built, Achilles FPAL registered facility in the UK.

Each chemical product is formulated to minimise impacts on the marine environment, and where possible is Offshore Chemical Notification Scheme (OCNS) certified.

The manufacturing facility is verified though independent audit. Specific accreditations include: BS EN ISO 9001:2015, BS EN ISO/IEC 27001:2013 and BS EN ISO 45001:2018.

In addition, the manufacturing site has been awarded the Carbon Trust Standard and ISO 50001:2011 Energy Management Standard in recognition of a continued commitment to reduce the carbon footprint resulting from manufacturing operations.



### Marine refrigeration and air conditioning

#### Catering for all refrigeration requirements on-board ship

Star International supports all refrigeration and air conditioning requirements on-board ship. Scope of service includes the supply of refrigerant gases and products, and technical support to fulfil installation and maintenance works.

#### Refrigerant gases

Star International offers all commercially produced refrigerants in a range of sizes, in both virgin and reclaimed form. Our refrigerants are supplied via a global network of supply points, meaning that we can deliver to vessels in port, worldwide.

In addition to all conventional refrigerants, Star International also supplies RS Series 'drop in' refrigerants. These are low global warming potential, non-ozone depleting and non-flammable, and provide a simple and low-cost method of switching away from CFCs, R22, R404A, R507 and all 400 series gases.

RS Series refrigerants offer a cost-effective solution for operators looking to ensure F-Gas compliance for existing refrigeration and air conditioning systems until 2030.

#### **Product supply**

A range of commercial refrigeration tools, spares and maintenance products from leading manufacturers including JAVAC, Yellow Jacket, Draper, Refco and Spectroline.

Included in the range:

- Charging scales
- Hoses
- Leak detection
- Manifolds
- Nitrogen pressure testing
- Refrigerant recovery
- Sealants, service tools and valves
- Test instruments
- Tube working tools
- Vacuum pumps and gauges
- Welding and brazing equipment

Our team can advise on the right equipment for your requirements, and offer any associated service support for installation, commissioning, and testing.





## Marine refrigeration and air conditioning

### Catering for all refrigeration requirements on-board ship

#### **On-board services**

Star International's refrigeration engineering team can complete a broad range of on-board services, covering all aspects of installation, service, and repair work on-board ship.

Our engineers can complete works without any disruption to a vessel's schedule and can sail with a ship where needed.

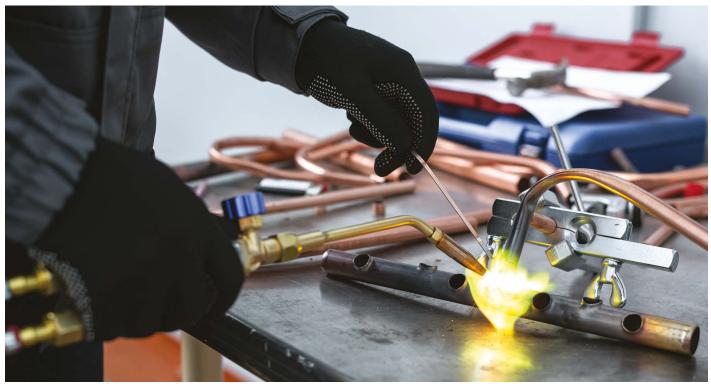
#### Key services include:

- Product supply, installation, and commissioning
- Preventative maintenance and inspection
- System servicing
- 24/7 emergency repairs
- System charging, gas removal and disposal
- F-Gas complaint system upgrades
- System decommissioning

All service work is completed by experienced engineers with time served on-board ship. All works are accredited to F-Gas standards.







## Firefighting equipment and services

# A comprehensive range of equipment and services to safeguard crew and vessels

Star International supplies and services an extensive range of marine firefighting equipment found on-board ship and offshore platforms.

Services include the installation, inspection and maintenance of all firefighting equipment for maritime applications, covering systems found on every deck of an asset from the helideck down.



Breathing Air (BA) compressors



Fire detection and alarm systems



Fire suppression systems



Breathing Apparatus (BA) sets

### Firefighting equipment and services

# A comprehensive range of equipment and services to safeguard crew and vessels

All fire service work is completed in accordance with IMO 1432 (revised guidelines for the maintenance and inspection of fire protection systems and appliances). We also hold fire systems servicing approvals from DNV-GL, Lloyds Register and Bureau Veritas.









Fire extinguishers



Electric Vehicle (EV) Fire Solutions



Fire hoses, couplings and accessories



Protection suits (fire and chemicals)

#### Worldwide servicing capability

Our highly experienced teams operate from four bases in the UK, located in Birkenhead, Southampton, Glasgow and Truro. We have the capability to provide a fast response service across the UK, including an emergency response service for the inspection and maintenance of systems post fire.

Star International can arrange works at international ports via a vetted and approved network of in-country service providers. International service provision includes commercial ports in Europe, Africa, the UAE, Americas, Russian Federation, Asia and Australia.

### Marine safety equipment

#### A huge selection of life saving essentials for the marine environment

Star International offers a wide range of marine safety equipment from leading manufacturers, including a full range of SOLAS approved kit for use on-board ship and offshore installations.

The safety of crew and passengers is of upmost importance at sea, and this is reflected in the equipment we offer, with all options available manufactured to the highest possible standards.

#### Life jackets

A huge selection of foam, inflatable and SOLAS options from major manufacturers including Lalizas and Seago. We also supply all associated spares and consumables, with servicing and inspection works carried out from our MCA approved service station.



#### **Immersion suits**

Supply and service of immersion suits from brands including Lalizas and Mullion. SOLAS, MED and ISO approved units are available. Star International's team can complete on-board inspection and servicing, or compete works in our MCA approved service station.



#### Cabinets and housings

Prefabricated and bespoke storage units, designed specifically for use in marine environments, and extreme climates. Applications include firefighting, marine safety, life jackets, breathing apparatus, stretchers, man overboard and lifesaving equipment storage.

Cabinets and housings can be supplied as a fully stocked unit, ready for installation. Units with approvals, including Lloyds, the American Bureau of Shipping and medical approvals are also available.



#### Harness and fall arrest equipment

Fall arrest and working at height equipment for all marine, offshore and windfarm applications. Equipment on offer includes harnesses, pulleys, blocks and ropes, with equipment conforming to all regulatory standards, including EN 361 and EN 358.



### Marine safety equipment

### A huge selection of life saving essentials for the marine environment

#### Lifebuoys

Lifebuoy rings, floating lines, housing cabinets and Public Rescue Equipment (PRE) available. SOLAS approved units supplied.



#### Marine pyrotechnics

Star International provides a full lifecycle service for marine pyrotechnics, covering product supply, collection, and safe disposal. Stock includes hand flares, rocket parachute flares, and smoke signals.



#### LSA liferaft service and repair



Star International is the approved service station for Liferaft Systems Australia (LSA) marine evacuation systems in the UK and Ireland.

Service provision includes system removal, servicing, repair, installation, and commissioning, with all work carried out by our highly experienced and fully LSA approved team. Installation, servicing and repairs to davits and lifeboat launch systems is also available.

Scope of service covers the entire UK and Ireland, with additional capability to service clients across Europe. All work completed under the scope of our LSA activities is supported via two UK Flag Marine and Coastguard Agency service stations in Birkenhead and Southampton, and we also offer a dedicated lorry loader service to ensure reliable and efficient quayside removal and installation. See page 20 for more information.



### **EndoSan wide spectrum disinfectant**

#### Ship-wide water treatment and disinfection solutions



EndoSan is a powerful disinfectant that is effective against a wide spectrum of contaminants, including viruses, bacteria, fungi, microbes and biofilm.

The EndoSan treatment solution offers an environmentally friendly alternative to chlorine-based disinfection methods, utilising a silver-ionised hydrogen peroxide mixture that can be used to sterillise water, air or any surface. Its unique chemistry means it is completely safe and offers a single solution to all disinfection requirements.

#### Key benefits:

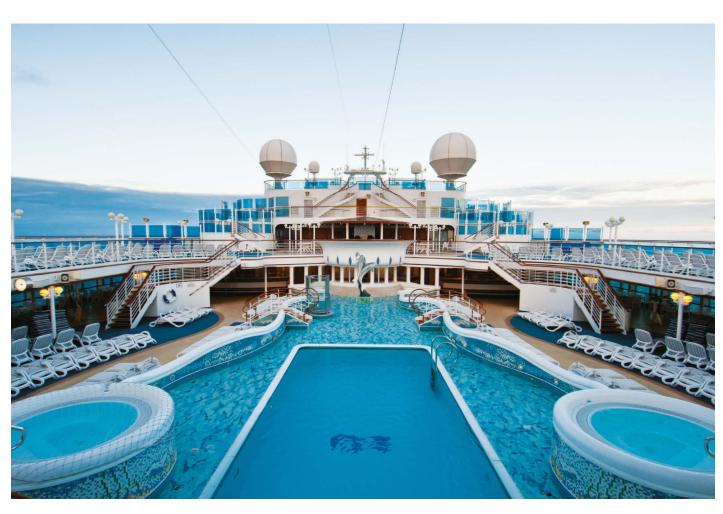
- An effective bactericide, virucide, (including COVID 19) sporicide, fungicide, algaecide, amoebicide and biofilm remover
- Environmentally friendly breaks down into water and oxygen with no harmful by-products
- Alcohol and chlorine free
- Unrivalled stability
- Non-toxic and pH neutral when dosed
- Proven efficacy and globally approved
- Effective between 0°C and 95°C
- Odour, colour and taste free
- Two-year shelf life

#### **EndoSan for marine applications**

EndoSan offers a complete, ship-wide sterilisation solution, with a huge application range covering potable and wastewater, swimming pools and spa areas, food preparation, air handing and A/C systems and deep cleaning of all indoor areas via fogging.

#### **EndoSan disinfectant products**

EndoSan is available in a variety of dilutions that have been formulated and tested for specific applications that together provide a total disinfection solution.



### **EndoSan wide spectrum disinfectant**





#### EndoSan 3 – Surface disinfectant and biofilm removal

EndoSan 3 is a broad-spectrum spray disinfectant that effectively sanitises work surfaces, walls, floors and equipment. The solution is safe to use in food preparation areas and is highly economical when compared with bleach-based alternatives typically used on-board ship.

EndoSan 3 can be used as an effective treatment for A/C units, removing biofilms that build up within condensers and on coils. The treatment is noncorrosive and helps to remove contamination from the unit, helping to improve the hygiene of the unit, extending operational lifespans and lowering maintenance costs.

#### **EndoSan 50 – Water treatment**

EndoSan 50 is a high strength disinfectant that is established in the shipping, ferry and cruise sectors to treat potable and wastewater on-board ship. The solution can be used to maintain water quality and as a 'shock dosing' solution when bringing vessels back into service or to eliminate Legionella contamination and biofilm in water systems.

#### **EndoSan / Fresh Water Treatment (FWT) disinfectant**



# EndoSan wide spectrum disinfectant On-board services

# **Endo**San®

#### Potable and wastewater treatment

EndoSan is a highly effective water treatment solution which is a truly credible alternative to traditional chlorine disinfection methods.

Our experienced technicians can advise on disinfection strategies tailored to an individual vessel's water system and implement a system that will support established Freshwater Treatment Plans (FWTPs) and deliver a long-term solution to ensuring water quality.

For wastewater, using EndoSan can remove the requirement for chlorine over-dosing that is often relied upon to neutralise contamination and pathogens, simplifying the treatment process, lowering treatment times and reducing costs.

The on-board water treatment service includes:

- On-board consultation and water system survey
- Written installation and long-term water treatment strategy
- Full implementation of strategy including supply and installation / commissioning / on-going maintenance
- Post disinfection testing with publication of results / proof of efficacy
- Optional, complementary water treatment planning review

#### **Shock dosing**

Shock dosing provides high intensity potable water sterilisation and is perfect for use on-board vessels that are coming back into service following lay up or drydock works.

Shock dosing is tailored to the vessel and covers every aspect of the system from storage tanks to pipelines and outlets.







## **EndoSan wide spectrum disinfectant On-board services**



The shock dosing service package includes:

- On-board consultation and water system survey
- Written shock dosing / disinfection strategy
- Full implementation of strategy including any health and safety / risk assessments required
- Post disinfection testing with publication of results / proof of efficacy
- Optional consultation for on-going freshwater safety planning and implementation

#### **On-board misting**

Misting services deliver a true 'deep clean' outcome, penetrating fabrics and hard to reach surfaces. The fogging procedure creates a fine mist down to 10 microns, suspending EndoSan in the air, enabling full coverage of all surfaces and airborne pathogens.

The treatment will eradicate a wide spectrum of contaminants from the interior of vessels, and is suitable for any indoor space, including cabins, food preparation and service areas, communal areas and medical facilities.

The misting service package includes:

- On-board consultation and survey of treatable
- Written misting disinfection strategy defining target areas and timelines
- Full implementation of strategy, including any health and safety / risk assessments required
- Testing of target area to ensure air composition post disinfection

#### Dosing and product handling accessories

A range of specialised delivery systems are available that maximise the distribution and effectiveness of EndoSan disinfectant. These include electrostatic fogging systems and automated dosing systems for closed water systems, dosing equipment and PPE.





# Marine fuel testing and treatment

#### A turnkey solution for shipping operators



Star International's marine fuel testing and treatment range provides a turnkey stewardship solution for users of marine diesel fuels and low sulphur alternatives. The range has been developed specifically for shipping operators requiring an effective means to measure and manage fuel quality, in port and at sea.

The fuel testing and treatment range allow operators to validate fuel composition and quality and provides treatment additives to tackle any contamination identified.

#### **Fuel treatment products**

#### **Star XRF onboard sulphur tester**

An on-board analyser that confirms sulphur content in fuel within a range of 0.1% – 5.0%, allowing validation of fuel for vessels operating within and outside of designated Emission Control Areas (ECAs).



#### **Star FUELSTAT contamination test kit**

An on-board testing solution that detects Hormoconis resinae (diesel bug), bacteria, fungi and yeast contaminants in as little as 10 minutes.



#### **Star Mariner fuel treatment additives**

A range of fuel treatment additives that are effective with Marine Gas Oils (MGOs) and low sulphur alternatives, acting to neutralise and prevent contamination, improve shelf life and counter temperature induced coagulation.



# Marine fuel testing and treatment A turnkey solution for shipping operators



#### **Fuel treatment services**

Star International has partnered with Fuel Specialist Services (FSS) to offer an all-inclusive approach to ensuring the quality of fuel on-board ship. Service provision includes:

- Fuel sample analysis.
- Fuel polishing and fuel conditioning.
- Fuel tank and system cleaning.

Used in conjunction with the fuel stewardship product range, operators can benefit from an all-encompassing solution to fuel management, covering on-boarding, storage and use.

#### Fuel sampling and analysis

Fuel analysis provides quantitative proof of the quality of fuel, together with the nature and severity of any contamination.

Our fuel sampling and analysis service can be applied to all fuels commonly used for marine applications and covers low and ultra-low sulphur alternatives, together with lubricating and heavy oils.

Analysis is competed to ISO 4406 EN590 and ASTM standards and can inform an effective treatment regime to protect fuel integrity throughout the product lifecycle.



#### Fuel polishing and conditioning

A fuel polishing and conditioning service that uses unique filtration and chemical technology to decontaminate spoiled fuel supplies.

Fuel polishing is the most effective means available to salvage contaminated fuel, and works by removing contaminants including moisture, bacteria, sediment, sludge and particles from the fuel mix.

Our service uses a unique filtration system that can be integrated permanently into a vessel's fuel system, or connected from the quayside to condition on-board fuel supplies whilst in port or dry dock. Filtration can be achieved from 10 microns, down to 0.5 microns, with treated fuel returned to the vessel within BS EN fuel standards.



#### Tank and fuel system cleaning

Fuel tank cleaning is an essential element of a robust approach to fuel stewardship and offers a proven means to purge on-board fuel systems of any impurities that can transfer to the fuel supply.

Our fuel tank cleaning service is bespoke to an individual fuel system and can draw on manual and automated approaches to provide a safe and thorough cleanse of a vessel's fuel storage and handling facilities.



#### Instrument calibration

#### On-board services and gas supply

#### On-board instrument calibration

Star International's on-board calibration services are tailored to the needs of the maritime sector, minimising disruption to a vessel's schedule and enabling the majority of works to be completed on-board ship.

Our team can service a comprehensive range of mechanical components and sensors at any UK port, seven days a week, with a turnkey solution that encompasses product supply, installation, servicing, repair, commissioning, certification and labelling.

Key areas of provision include:

- Temperature control systems
- Gas detection, environmental and flow meters
- Mechanical components and tools
- Pressure components

#### Calibration gases and accessories

Star International can supply high quality calibration (span) gases that are manufactured to exact customer requirements, together with a wide variety of accessories including pressure regulators and flow metres.

Our calibration gases are available in disposable storage canisters in sizes ranging from five to 58 litres, ensuring you have the option to purchase only the volumes you require, minimising wastage associated with limited shelf-life products.

#### Marine gas detectors

Star International stocks a comprehensive selection of fixed and portable gas detection systems that have been designed to withstand the rigours of use on-board ship and offshore installations, with MED approved units available.

Solutions cover single and multiple gas detection capabilities and provide an indispensable safety enhancement for crew when working in engine rooms, storage tanks, storage areas and confined spaces within a ship's hull.





All units are available with a complete range of consumables and accessories. Our team can advise on the most appropriate solution according to client requirements.

# First aid and medical gases

#### Solutions for marine applications

Star International supplies a huge selection of essential medical and first aid supplies for maritime use. Scope of supply includes:

#### Medical oxygen

Medical oxygen cylinders are available in sizes from 2 litres to 40 litres. All cylinders are available pre-filled, or empty and can include pin index of bull nose valves.



#### First aid kits and emergency response kits

First aid kits include Cat C marine kits and BS 8599 medical kits. A full range of emergency response kits are also available.



#### **Defibrillator and resuscitation kits**

Star International is an official distributor for Zoll Medical, with their full range of automated external defibrillators (AEDs) available in the UK.

A full stock of resuscitation equipment is readily available to facilitate safe and effective CPR. Inventory includes face shields, masks and airways.



#### **Stretchers and cradles**

All marine-specific stretcher and cradle types are catered for, covering basket, confirmed space, flexible, spinal injury and body splint types.

All accessories are also available, including head immobilisers, carry and storage bags, handles, harnesses and floatation aids.



#### **Jet washers**

#### High pressure cleaning solutions from DEN-SIN



Star International is an official distributor for DEN-SIN in the UK, supplying the manufacturer's full range of high pressure (HP) and Ultra-High Pressure (UHP) jet washers.

DEN-SIN are renowned for producing high performance jet washing systems. Robust and durable design characteristics mean that the machines are well suited to withstand long term exposure to marine environments, making them ideal for use on-board ship, in ports, shipyards and drydocks.

Included in the DEN-SIN range:

#### **Blueline series**

Washers in the Blueline range operate between 110 – 250 bar and are suitable for commercial and industrial applications.

Key features of the Blueline range include:

- Easy access for service and maintenance
- High durability, low speed motorised pump
- High fuel efficiency (petrol / diesel power systems)



Blueline series

#### **Mermaid series**

The Mermaid range of high-pressure jet washers is comprised of six models; three heavy duty and three slimline, all of which are electronically powered and range from 500 to 1100 bar.

Key features of the Mermaid range include:

- Solid galvanised and powder coated frames
- Non-corrosive material used in pumps and fittings
- 80 litre heavy duty water tank with filter and float valve
- Powerful 40HP motor with overload relay
- IP55 classification
- Unique pump design with five ceramic plungers, ensuring smooth, pulsation free flow



Mermaid series

#### **Jet washers**

#### High pressure cleaning solutions from DEN-SIN



#### **Merlion series**

The Merlion range includes five models; three electronic and two diesel powered, operating between 250 - 500 bar.

Key features of the Merlion range include:

- Galvanized and powder coated frame
- Stainless steel top cover for lasting protection and hose storage
- Durable unloader/safety system for maximum hours of operation
- 40L heavy duty water tank with water cut-off protection
- Low water level control, MCB, overload relay and main isolator
- Inlet filtration system
- Triplex pump with ceramic plungers
- Powerful 24HP motor with overload relay, IP55 classification. Class F insulation and continuous running duty



Merlion series

#### **Ultra-High Pressure (UHP) series**

The Ultra High Pressure (UHP) series operates between 1000 - 2500 bar, offering unparalleled cleaning performance from a choice of electric and diesel-powered units.

The high operating range of the USP series means that the units are ideal for industrial applications. A small footprint makes them ship-friendly, and the units can also be used without detergents or additional chemicals, reducing operational costs and minimising environmental impacts.



**UHP** series

#### On-board maintenance and repair services

In addition to the supply of jet washing systems, we can also provide a huge selection of spare parts and service packs. Our UK based service team can complete maintenance works on-site, including full inspection, maintenance, repair and servicing works on jet washer systems from all major manufacturers.

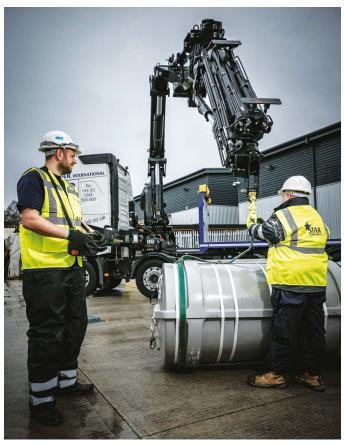
## Lorry loader and quayside services

# A dedicated on and off-boarding capability that supports shipping schedules

Star International's lorry loader service provides the capability to deliver and collect cargo from the quayside without the need to rely on port infrastructure for on and off-boarding.

Our service supports shipping schedules and offers the flexibility to accommodate the dynamic requirements of maritime operators. The lorry loader and crew provide everything a vessel requires to on and off-board cargo, including crane, technical expertise, and labour to complete all works required. Unlike port infrastructure, Star's service is dedicated to the commissioning vessel, and provides a flexibility that means support will be on hand, even if a vessel's schedule changes.

We can service every commercial port in the UK, with scheduled servicing also available for European destinations.





## Lorry loader and quayside services

A dedicated on and off-boarding capability that supports shipping schedules

#### Integrated on-boarding, installation and commissioning

Our team can deliver, on-board, install and commission a range of systems, from liferafts and rescue boats to fire suppression systems, together with the provision of a wide range of consumables and marine supplies from our extensive product range.

"Star International's lorry loader is a superb tool and has proven able to easily reach all the MES and liferafts on-board the MV Liberation, with a high degree of maneuverability around the quayside.

"By using the quayside service, we do not need to arrange separate craneage for LSA removal and refit. The lorry loader is only at the port to service our vessel, meaning there are no delays caused by waiting for dockyard cranes at refit facilities."

Giles Wade, Senior Master, M.V Condor Liberation.





### Narwhal Rigid Inflatable Boats (RIBs)

# An official distributor and service centre for Narwhal Rigid Inflatable Boats (RIBs) in the UK and Ireland



Narwhal vessels are characterised by their highly manoeuvrable 'V' shaped hull and a durable collar design that maintains buoyancy even in the event of a hull rupture.

Star International operate as Narwhal's official distributor and service centre for the UK and Ireland. We provide a wide range of vessels, all of which can be manufactured to bespoke requirements and can also provide comprehensive service and after sales support.

#### **Narwhal leisure boats**

Narwhal's leisure range is available in sizes ranging from 4 to 12 metres, and are customisable with a huge variety of optional extras. All vessels in the range are built with safety and manoeuvrability in mind, with responsive and stable sailing characteristics.

Narwhal's leisure range is typified by high quality and excellent value for money, with like for like vessels available at a fraction of the cost of those on offer from larger leisure RIB manufacturers. Contact our team to learn more or book a one-to-one design consultation.



Narwhal workboats provide a proven and highly durable platform for commercial marine and off shore operators. Vessels are available in sizes ranging from 4 to 12 metres, with deck configurations that are customisable to operator requirements.

Our team provides an expert consultation service to commercial operators, helping to establish and meet operational requirements with completely bespoke vessel designs. Support is also available in all aspects of certification, including vessel survey works and guidance in securing marine approvals.

#### Narwhal SOLAS rescue boats

Narwhal rescue boats are designed specifically to save lives at sea, with specific configurations available for coastal and open ocean, fast rescue operations. SOLAS approved vessels and equipment is available.



Leisure boats



Workboats



Coastal rescue boats



Fast rescue boats

### Narwhal Rigid Inflatable Boats (RIBs)

An official distributor and service centre for Narwhal Rigid Inflatable Boats (RIBs) in the UK and Ireland



#### Narwhal Unmanned Surveillance Vessels (USVs)

The Narwhal Star Unmanned Surface Vessel (USV) is an automated Rigid Inflatable Boat (RIB), designed for use as a reconnaissance and surveillance vessel.

The technology used allows a vessel to be controlled remotely via a Ground Control Station (GCS), or navigate on an autonomous basis, with an operating range of up to 300 nautical miles.

The USV serves as an extremely effective anti-piracy tool, allowing shipping operators to undertake reconnaissance missions ahead of a parent vessel, identify potential threats and provide the real time intelligence needed to take evasive action without putting any personnel at risk.

Star International has partnered with leading automation specialists UTEK and RIB manufacturer Narwhal to develop the Narwhal Star USV. The vessel offers a highly reliable and economic solution to unmanned maritime patrol. The technology behind the USV is highly reliable and effective, having been successfully used in military operations by navies in Europe and the Middle East.



## Welding equipment and services

#### A range of equipment and on-board services for maritime operators

Star International's welding product and service range is tailored specifically to the requirements of the maritime sector and provides a single source solution for ship owners, operators and welding personnel.

Provision includes a comprehensive product range, on-board consultancy, and training. We also offer technical support in the form of the Seafarer's Welding Handbook; an expert guide to completing welding works on-board ship.

#### Welding equipment and consumables

The Star welding product range has been developed in partnership with expert marine welders and is informed by extensive customer feedback, offering a market-leading selection of gas and electronic welding machines and consumables.

The range has been specifically selected to cater for the requirements of the marine welder, with a scope of provision that includes:



Welding gases, cylinders and integrated regulator cylinders



Gas welding, brazing and cutting equipment



Gas welding and brazing consumables



Welding machines



Arc welding accessories



Electrodes and blister packs

# Welding equipment and services

## A range of equipment and on-board services for maritime operators



TIG welding equipment



TIG welding consumables



Plasma cutting machines



Personal Protective Equipment (PPE)



Cold welding polymers



#### Key products and services:

- Marine chemicals
- Refrigeration and air conditioning
- Firefighting equipment and services
- Marine safety equipment
- LSA liferaft service and repair
- EndoSan wide-spectrum disinfectant
- Marine fuel testing and treatment
- Instrument calibration
- Marine gas detectors
- First aid and medical gases
- Jet washers
- Lorry loader and quayside services
- Narwhal Rigid Inflatable boats
- Welding equipment and services

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