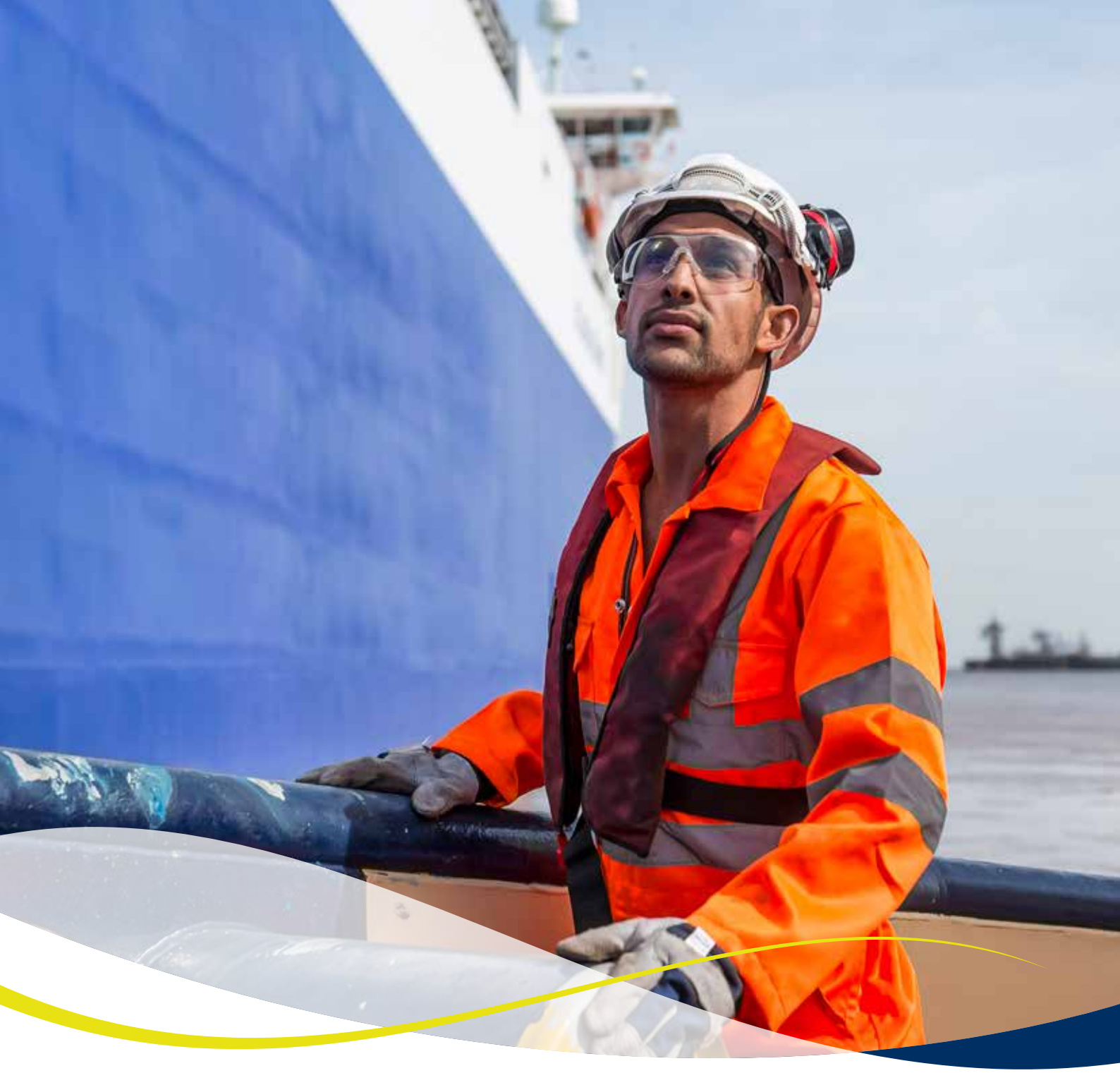


We’re with you for the journey

Complete range of flow solutions for marine applications

Marine

DESMI
Make life flow

We exist to keep your business flowing



Our world is constantly evolving, shaping our future in ways we cannot predict. Shifting market dynamics, geopolitical events, and climate change are creating unforeseen challenges in the maritime industry.

DESMI is your constant in this evolving world. We pioneer the development and optimization of flow processes for a wide range of applications, giving you the dependable solutions you need.

This brochure introduces you to pumps and supporting systems that will help keep your business flowing despite unforeseen changes now and in future: At DESMI, we're with you for the journey.



CONTENT

Complete range of pumps and supporting systems 4

Engine room pumps 6

Deepwell cargo pumps 8

Decarbonization solutions 10

Energy saving systems 12

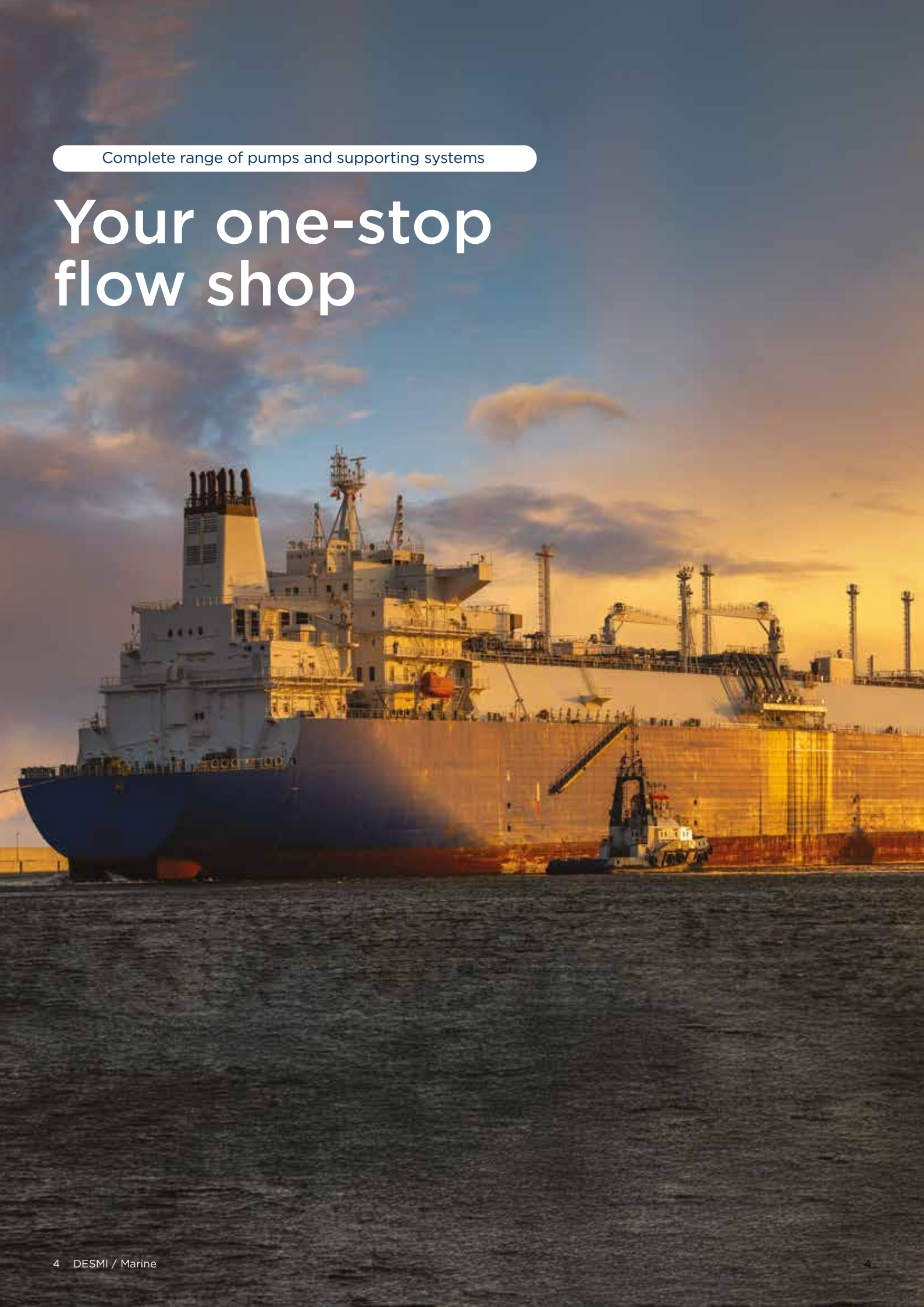
Ballast water management systems 14

Fixed water-based fire-fighting systems 16

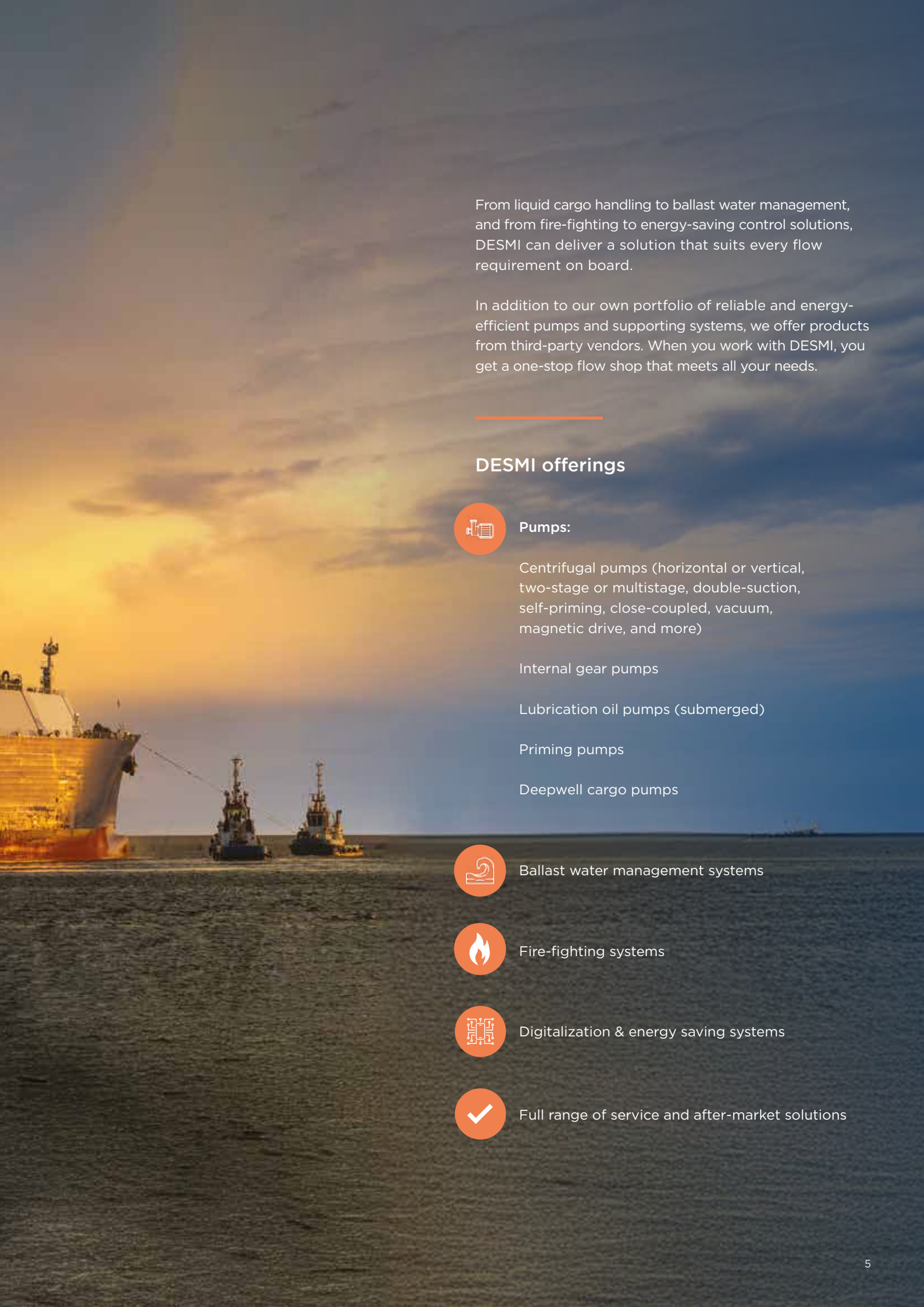
After-sales and service solutions 18

Complete range of pumps and supporting systems

Your one-stop flow shop



4



From liquid cargo handling to ballast water management, and from fire-fighting to energy-saving control solutions, DESMI can deliver a solution that suits every flow requirement on board.

In addition to our own portfolio of reliable and energy-efficient pumps and supporting systems, we offer products from third-party vendors. When you work with DESMI, you get a one-stop flow shop that meets all your needs.

DESMI offerings

Pumps:

Centrifugal pumps (horizontal or vertical, two-stage or multistage, double-suction, self-priming, close-coupled, vacuum, magnetic drive, and more)

Internal gear pumps

Lubrication oil pumps (submerged)

Priming pumps

Deepwell cargo pumps

Ballast water management systems

Fire-fighting systems

Digitalization & energy saving systems

Full range of service and after-market solutions



Engine room pumps

Engineered for efficiency and reliability

DESMI engine room pumps are trusted worldwide for performance, efficiency, and trouble-free operation. We can supply critical flow solutions for all your engine room applications, including cooling, ballast, fire, bilge, and water circulation.



Tailored to your applications

Our pumps comply with all classification society regulations

Horizontal pumps
Capacity range:
up to 400 m³/h / 1760 US gpm
Pressure range:
up to 150 m / 490ft



Vertical pumps
Capacity range:
Up to 7400 m³/h / 32,580 US gpm
Pressure range:
Up to 140 m / 459ft



ROTAN® Internal gear pumps
Capacity range:
Up to 250 m³/h / 1100 US gpm
Viscosity range:
Up to 250,000 cST
Temperature range:
Up to 250°C / 482°F



We provide complete pump packages with capacities up to 7400 m³/h / 32,580 US gpm. Each product is based on a modular design, which gives you exceptional flexibility and interchangeability across your applications and capacities.

We ensure that all our pumps comply with classification society regulations, and we can provide test certificates on request.

Ready for future fuels

We constantly update our engine room portfolio to comply with current and future customer demands. For example, we are developing pumps capable of handling future and more advanced fuels.

Reduce downtime with our 48-hour shipping service

Our teams are dedicated to supporting you with the knowhow, expertise, and service you need at every step, from procurement and installation through to ongoing operation, maintenance, and decommissioning. We can always supply exactly the right solutions for your requirements, and our fast-track delivery service means your pump will be ready to ship within 48 hours, minimizing operational downtime.

Deepwell cargo pumps

The heart of your cargo system



Gas carriers play a vital role in the energy transition worldwide, for example by transporting captured CO_2, or transporting LPG used for clean cooking in developing countries. But every gas carrier needs a cargo pump.

When challenging liquid cargoes need to be handled, you can trust a DESMI NDW deepwell cargo pump to get the job done. NDW pumps are designed for a wide range of gas tankers: fully or semi-refrigerated LPG carriers, LNG carriers and bunker vessels, NH_3/ammonia carriers and bunker vessels, ethylene carriers, and CO_2 carriers.

If you need to increase the total pressure of your NDW pump, you can add a DESMI single-stage centrifugal booster pump, for example to ensure sufficient pressure throughout long pipe systems. Our booster pumps, too, are available in various sizes according to your requirements.

NDW KEY SPECIFICATIONS

Capacity range:
up to 1200 m^3/h / 5283 US gpm
Pressure range:
up to 250 mLC / 820 ftLC
Temperature:
down to -165 °C / -265 °F

Cargo pumps

- Well-proven double mechanical shaft seal
- Easy shipment and easy assembly at the shipyard
- Reduced number of impeller stages
- Possibility to rotate the shaft in direction in case of ice-blocking
- Automatic cool down monitoring (option)
- Static seal for maintenance access to all wear parts outside the tank without gas freezing the tank
- Cast pump design for improved efficiency

8

DESMI has more than 25 years of experience building, selling, and supporting cargo pumps, and hundreds of pumps have been installed on vessels around the globe.





Decarbonization solutions

Reducing air pollution at sea



DESMI products play a key role in reducing the climate and environmental impact of shipping. Our pumps play a vital role in Carbon Capture System and scrubber solutions, and they can be adapted to handle alternative marine fuels.



DESMI pumps are an efficient and user-friendly tool in your efforts to reduce carbon and particulate emissions.

Carbon capture and storage (CCS) systems and scrubbers play a key role in decarbonizing global shipping and society at large, and DESMI pumps can play a key role in these processes.

Our centrifugal pumps can be specified to handle the challenging media, including ethanolamines, required to separate carbon dioxide from exhaust gasses, on ships and at onshore processing plants. In addition, our deepwell cargo pumps can be used to transport liquefied gasses into underground storage.

Decarbonization is not only a matter of removing harmful particles from exhaust gasses. In future, it will increasingly involve the use of alternative marine fuels. DESMI pumps can be adapted to handle future fuels to replace diesel and HFO and as such will be a natural part of this evolution.

DESMI pumps offer robust design, low NPSH values, the ability to handle a wide range of media, and high energy efficiency. They are easy to install and service, making them an efficient and user-friendly tool in your efforts to reduce carbon and particulate emissions and work towards cleaner air at sea.

Main benefits of DESMI pumps

- Suitable for aggressive fluids
- Sturdy design
- High effiency
- Low NPSH values
- Easy installation/service





Energy saving systems

Saving fuel with intelligent cooling system control

The DESMI OptiSave™ energy saving system reduces the energy consumption of onboard cooling systems and fans, giving you greater value from your assets and helping you stay competitive and adaptable to changing market trends.

FOR MORE INFO ON OPTISAVE™
PLEASE FOLLOW THE QR LINK
OR VISIT WWW.OPTISAVE.INFO



The cooling systems on most ships are designed to deliver sufficient performance with the engines running at 100% load in 32° Celsius seawater. Because sea temperatures are usually lower, cooling system design conditions are rarely present. By regulating cooling pump and fan performance according to actual demand, you can therefore save energy.

Green Technology

OptiSave™ continuously monitors operating conditions and adjusts cooling pump and fan speed accordingly. It takes several factors into consideration, including freshwater, sea water outlet, and electric motor temperatures, pump discharge pressure, and main engine load.

When it is possible to achieve sufficient cooling performance at reduced pump and fan speed, the system automatically reduces cooling unit speed and energy consumption. When not, it keeps systems running at full speed, ensuring safe performance on your ship.

Modular and expandable, OptiSave™ can be fully integrated in the ship's IAS/AMS/CAMS/ICAMS system, and you can monitor the system online. We have installed OptiSave™ on 700+ vessels all over the world, and no matter where the ship is headed, we are ready to support its onboard DESMI systems.

Suitable for

- Seawater cooling systems
- Steam condenser cooling system
- Low-temperature freshwater cooling system
- Fresh water cooling system
- Engine room ventilation
- Cargo hold ventilation
- Pump monitoring
- AHU fans

KEY BENEFITS OF DESMI OPTISAVE™

- Significant energy savings
- Reduced OPEX
- Short return on investment
- Prolonged pump and fan lifetime due to less wear and tear
- Fast installation with minimal changes to existing electrical system
- Worldwide service and support

Ballast Water Management Systems

Compact BWMS for global shipping

The CompactClean ballast water management system (BWMS) uses UV light and filtration to remove harmful microorganisms, helping you protect marine ecosystems at every port of call at zero risk to crew members. It offers very low system footprint plus flow rates that match the requirements of even large vessels. It comes in several configurations and sizes that can be installed quickly, and you get full, global DESMI support.

CompactClean complies with IMO and US Coast Guard regulations and is very easy for crews to use: We offer different solutions depending on your geographic trading pattern. It is possible to have one-mode worldwide operation or an IMO optimized solution for vessels primarily operating in IMO regulated waters.

CompactClean automatically generates PDF reports for authorities to document the compliance of the performed treatment. This helps the crew document the BWMS operations to various maritime authorities around the world – easily and quickly.

The CompactClean system from DESMI gives you everything you need to optimize ballast water management – and helps keep our oceans healthy. Compliant with IMO and US Coast Guard regulations, CompactClean is easy to use all over the world.

14



The CompactClean systems have proven to be reliable even in the most challenging conditions. An example is the Yangtze river: Ballast reports from the system show that we are treating this extremely challenging water at 76% of the Treated Rated Capacity (TRC).

- IMO & USCG approved
- Low holding time
- Chemical free treatment
- UV transmission as low as 35% in IMO waters and 40% in USCG territory
- No salinity or temperature limitations
- Simple and logical operation
- High quality – low maintenance costs
- Automatic flow control and lamp dimming
- Very low footprint
- Multipurpose backflush/recirculation pump included
- No water cooling or compressed air system required
- Easy to maintain, worldwide service network available





Fixed water-based local application fire-fighting systems

Enabling early fire suppression



The DESMI FineFog™ fixed local application fire-fighting system is a low-pressure water mist system developed to suppress or extinguish fires at an early stage before releasing the total flooding system, giving you faster response times and minimizing vessel downtime.

16



Fully meets SOLAS and IMO requirements and is approved by major classification societies

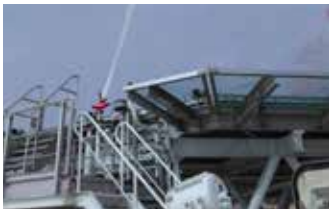
The FineFog™ local application system lets you protect high-risk objects in accordance with SOLAS requirements without having to shut down the engine and evacuate personnel. Its fire suppression or extinguishing function is based on water mist nozzles complemented by DESMI design for easy and safe operation during the entire lifetime of the product.

Proven in many tests and real-world incidents, FineFog™ helps you protect equipment such as main and auxiliary engine tops, heated fuel oil purifiers, oil-fired boiler fronts, incinerator burners, and oil-fired inert gas generators.

The system fully meets the requirements of SOLAS Ch.II-2/Reg.10.5.6, IMO MSC/Circ.913, MSC/Circ.1165, MSC.1/Circ.1276, and MSC.1/Circ.1387 and is approved by major classification societies.

DESMI has supplied hundreds of water-based fire-fighting solutions for all types of vessels around the globe, including general cargo ships, passenger ships, and offshore vessels.









Other fire-fighting systems available from DESMI:

Fixed water-based local application system for machinery spaces

Equivalent water mist fire extinguishing system for machinery spaces and cargo pump rooms – total flooding

Water sprinkler systems for accommodation

Deck foam systems for oil and chemical tanker deck protection

Helideck foam systems for helicopter landing areas

Water spray/deluge/drencher systems for special category spaces

After-sales and service solutions

Optimization and long-term performance for your systems



DESMI Service, our global after-sales and service department, offers tailor-made services that keep your flow processes and your DESMI products running. We maximize uptime and availability, with the least hassle and in the shortest timeframe, no matter where you are located.



The purpose of DESMI Service is to provide our customers with the very best service! Covering maintenance, repairs, upgrades, training, and technical support, DESMI Service offers services that optimize your critical flow processes.

We offer spare part kits that cover several pumps and contain the parts you need when overhauling your pumps, for example shaft seals, bearings, and O-rings. You can order individual spare parts as needed, too.

Our highly experienced and factory trained service teams provide a long list of services on your ship while it is in port or dry dock: pre-dock inspection, installation, commissioning, on-site service, repair, maintenance, and more.

And for gas and cargo systems, our specialists at Nordan Marine A/S (a DESMI company) are on hand to provide dedicated support.

For some parts or products, we ship within 48 hours with our fast-track concept. Through our global parts database, we can also often locate the necessary part in one of our regional warehouses and ship from day to day, helping you keep operational disruptions to a minimum.



The DESMI Service Hotline is available round the clock and round the globe, 365 days a year. Simply give us a call at +45 96 32 81 10 and let us know what you need.

We exist to keep your business flowing

DESMI works closely with vessel owners, operators, and shipyards to deliver critical flow processes for diverse marine applications. Our pumps and supporting systems are trusted worldwide for dependability and the lowest total cost of ownership.

No matter which flow challenges you are facing, we can help you overcome them with class-leading equipment, solutions, and services designed specifically for your applications and environment, and with factories in China, India, the US, and Denmark, you benefit from our efficient global supply chain.

Founded in Denmark in 1834, we have provided the expertise, solutions, and aftermarket support our customers need for nearly two centuries. We help you operate more efficiently and reliably, enabling your ambitions for performance, compliance, and growth whilst helping you reduce your climate impact.

Together, we can make a difference, whatever the future holds. Because we, like you, are here to **make life flow**.
For more information, visit **desmi.com**

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DESMI
Make life flow