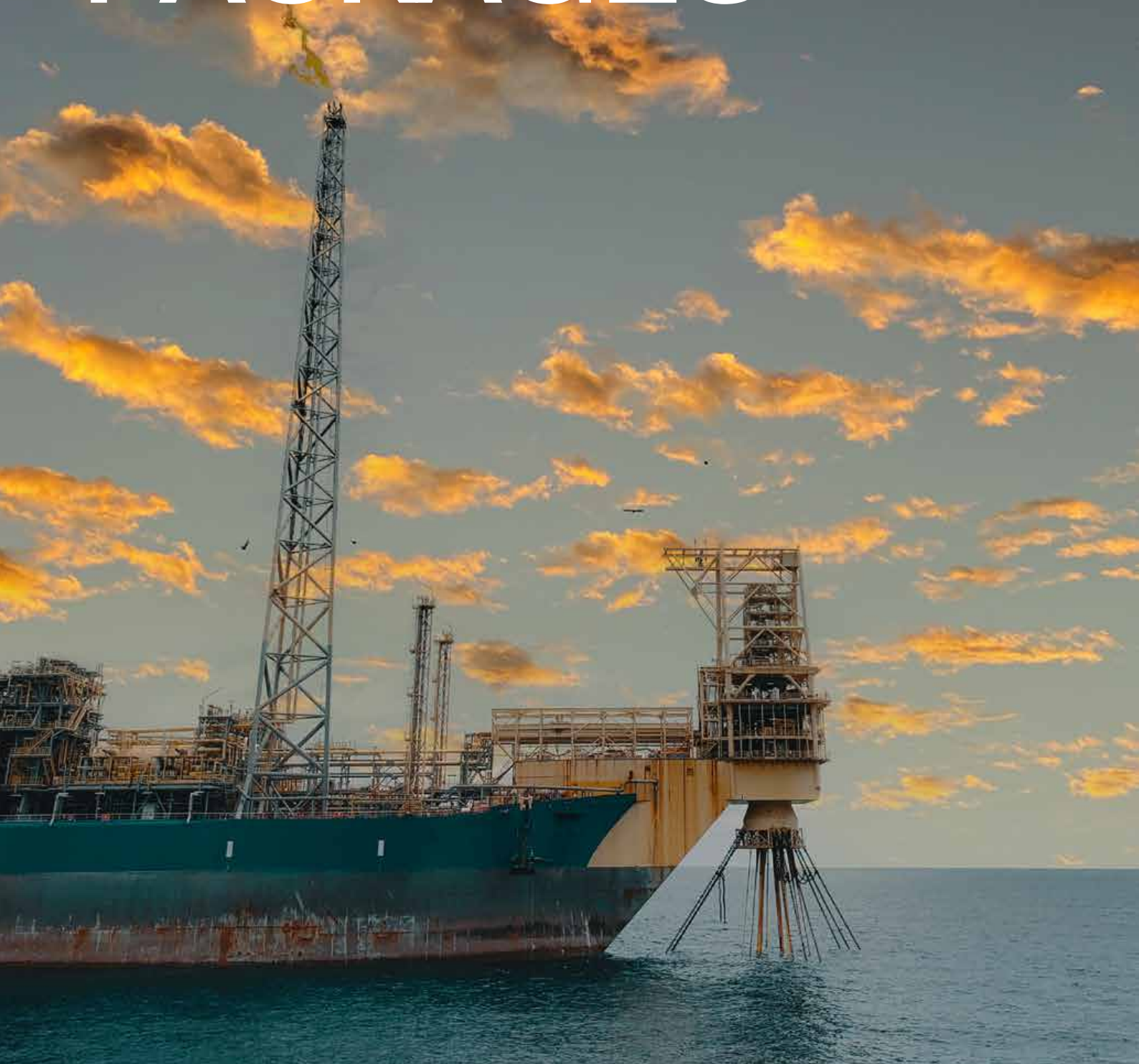


FIRE WATER PUMP PACKAGES

Powering a better future



Solutions for the zero-carbon transition

SVANEHØJ
An ITT Company



Customer driven solutions for ultimate safety

Keeping people safe is an unequivocal responsibility. Recognized as a leading expert in pumping systems for the marine industry, Hamworthy Pumps offers highly customized Fire Water Pump Package solutions for ultimate preparedness and safety at sea.

Innovative, self-contained and driven by the highest standards, Hamworthy Pumps Fire Water Pump Packages (FWPP) are designed in accordance to NFPA 20 regulations and all operational requirements of the marine, offshore and onshore markets.

FWPP solutions from Hamworthy Pumps provide a wide range of configurations, which includes: Direct Driven (lineshaft or dry mounted), Diesel/hydraulic Driven, Electric Driven (vertical or horizontal) and Electric Submersible Fire Water Pump. They are delivered with either In-line Centrifugal Pumps or Deep Well Submerged Pumps.

The various configuration possibilities and the close co-operation with customers on every detail ensure FWPP solutions that suits the specific needs for all kind of floating production systems: FPSO, FSO, FLNG etc.

Together with full string testing, lifecycle support and fast on-time delivery, Hamworthy Pumps is a partner that never leaves focus on what matters most: Results you can trust.

Why choose Fire Water Pump Packages from Hamworthy Pumps?

Fire Water Pump Packages (FWPP) are built for ultimate reliability, accessibility and efficiency and designed to ensure the best possible solution in case of fire.



Comprehensive range and capacity

Hamworthy Pumps offers a wide range of configurations of FWPP, including: Direct/hydraulic driven systems, Direct Diesel Driven Systems and Direct Electric Systems, vertical or horizontal. All systems are delivered with either In-line Centrifugal Pumps with a capacity range from 300 m³/h to 6500 m³/h or Deep Well Submerged Pumps with a capacity range up to 1800 m³/h.



Proximity of production

Hamworthy Pumps manufacture and assemble the FWPP at its own Singapore facilities, which are close to conversion and new building yards in South East Asia, China and Korea.



Worldwide support and fast on-time delivery

Worldwide support and fast delivery are essential. Hamworthy Pumps helps customers 24/7, whether it is in the form of inspections, repairs or technical advice, ensuring comprehensive security throughout the lifecycle of the solution.



Highest safety standards

All FWPP systems at Hamworthy Pumps are developed and thoroughly on-site tested to meet the NFPA 20 guidelines and all other vital requirements in order to live up to the highest standards of safety, quality and reliability.



Customized expertise

As a close partner and expert Hamworthy Pumps provides advice and consultations during the pre-FEED, FEED and detailed design stages to make sure that every solution suits customers' needs.



Quality, Health, Safety and Environment

Hamworthy Pumps operates with the QHSE management system, which conforms to ISO 9001:2015, ISO 14001:2015, OHSAS 18001:2007 and is certified by DNV GL.

We also hold various product certifications under classification societies such as ABS, BV, DNV GL, LR, NK and we are able to provide other classifications upon request.

Fire Water Pump Configurations

Hamworthy Pumps provides configurable systems that are applicable for FWPP solutions beneath and above the low water line. All systems include a NFPA 20 controller, which ensures that the pump always operates in accordance to NFPA 20 regulations.

Inline pumps

- Double suction impellers with low NPSHr enables the pump to operate at 150% capacity without cavitations
- Ni-Al bronze used as standard material. Other materials, such as Duplex and Super Duplex SS are available as options
- Lightweight, robust and compact design
- Mechanical shaft seal as standard, other seal arrangements are available on request

Deepwell pumps

- Multi-stage, single suction vertical deepwell pump
- Material in 316L, Duplex or Super Duplex SS
- Pump design in accordance with API 610

Fig. Fire Water Pump Configurations

All the configurations can be supplied in an A-60 container.

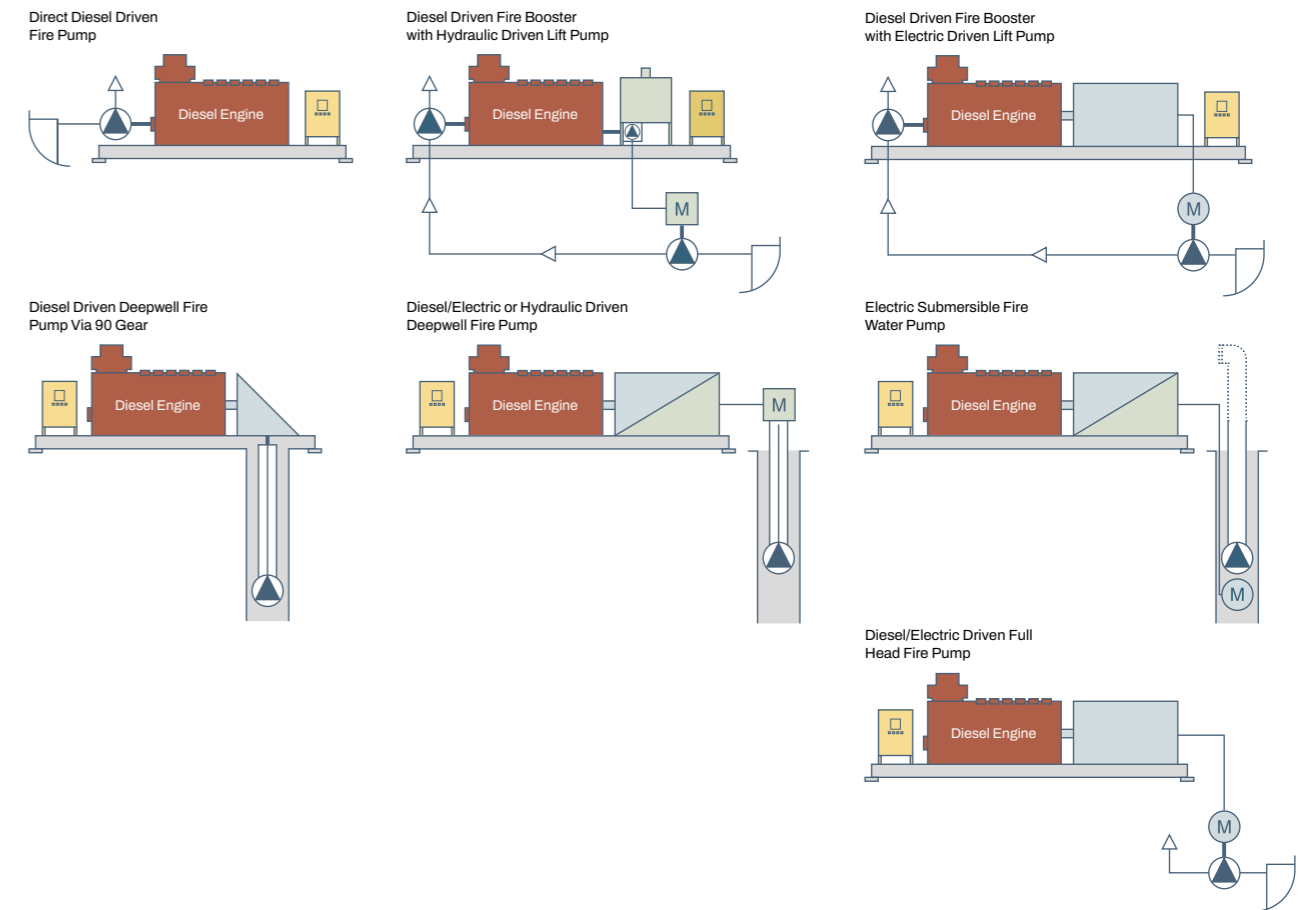
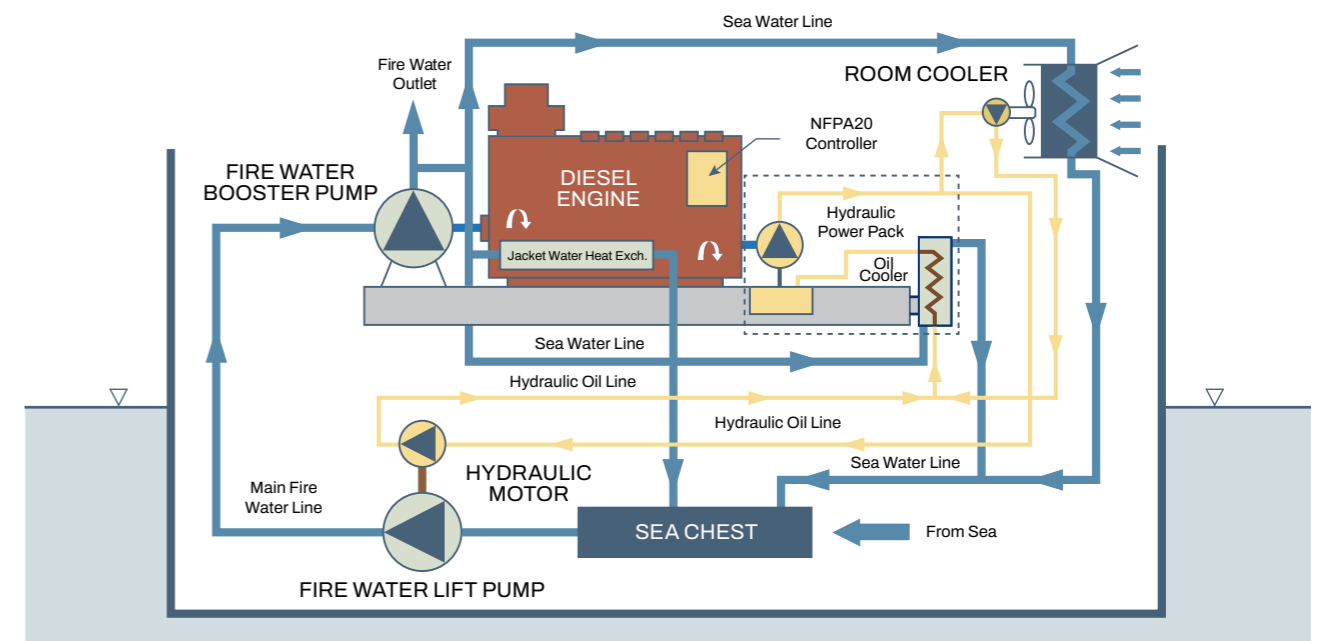


Fig. Diesel Hydraulic Fire Water Pump System



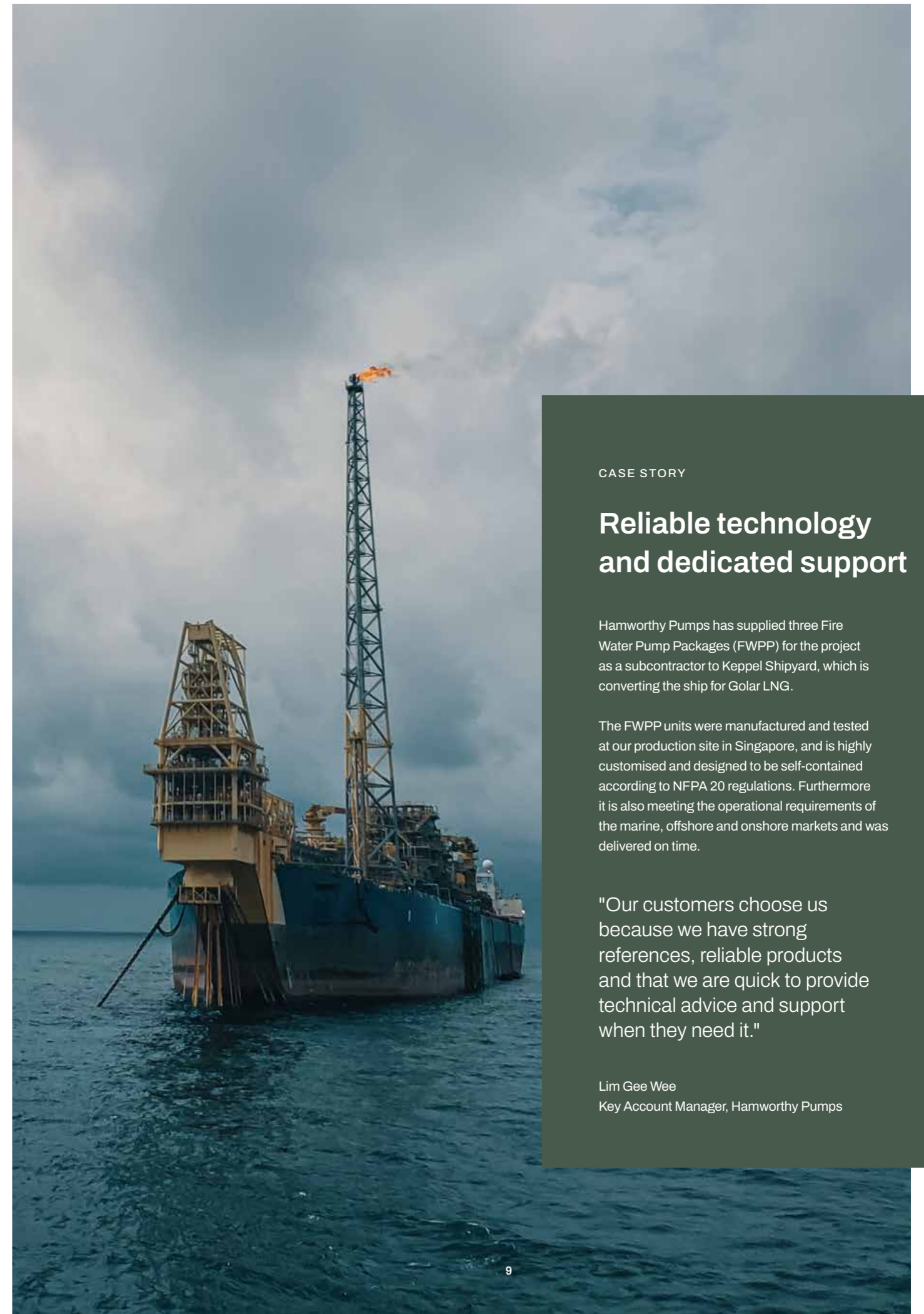
Excellent service at all times

It is essential for any marine business to have the pumps running. With a strong worldwide service set-up Hamworthy Pumps ensures maximum reliability and competitiveness.

Problems need to be solved quickly in the marine industry. Every minute counts. The support and service of Hamworthy Pumps are designed to match these needs and take on challenges, however difficult they might be. As a customer you can be sure of:

- 24/7 hotline managed by experienced experts
- On-site help within 24 hours at any location
- Rapid OEM spare part supply

Hamworthy Pumps also offers a wide range of repair and maintenance services, from performance optimisation to on-site training and monitoring.



CASE STORY

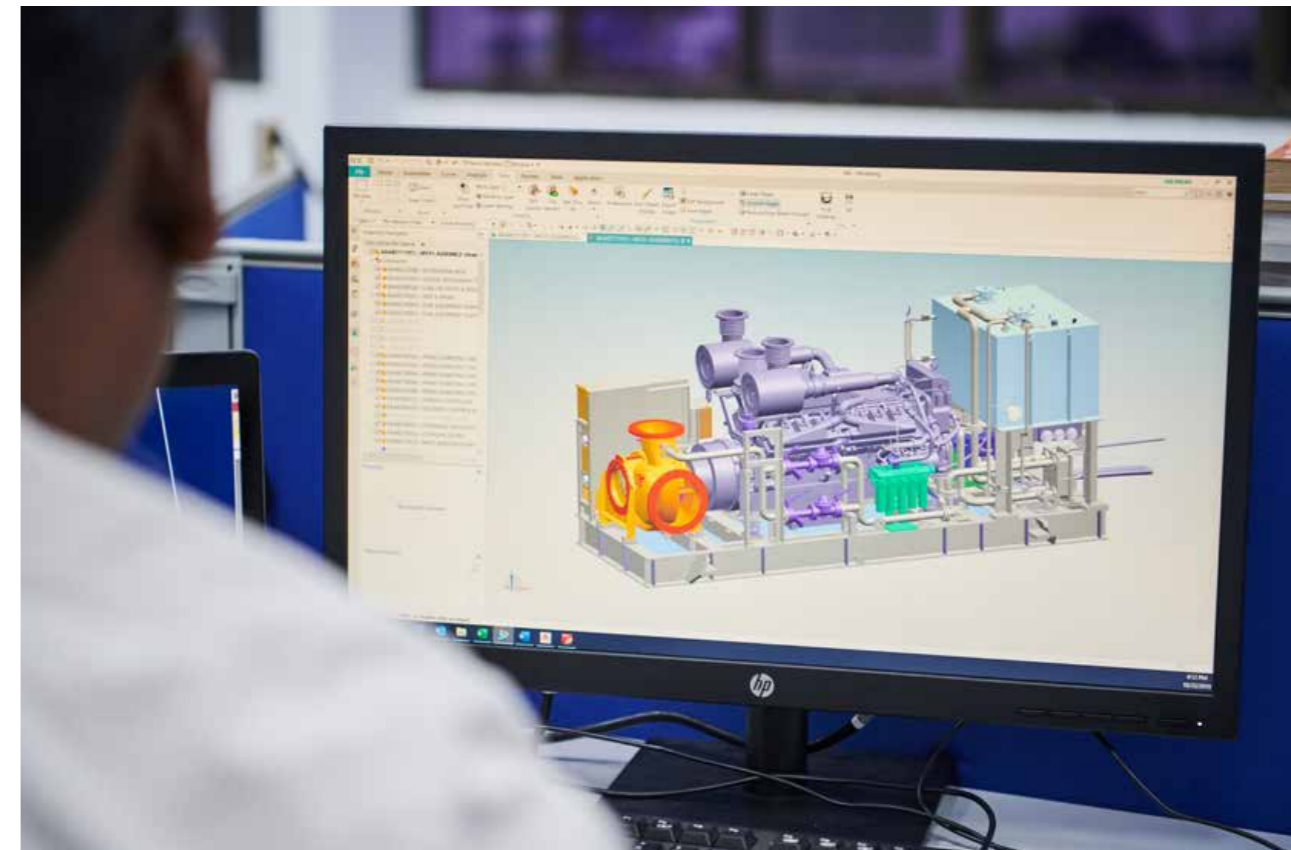
Reliable technology and dedicated support

Hamworthy Pumps has supplied three Fire Water Pump Packages (FWPP) for the project as a subcontractor to Keppel Shipyard, which is converting the ship for Golar LNG.

The FWPP units were manufactured and tested at our production site in Singapore, and is highly customised and designed to be self-contained according to NFPA 20 regulations. Furthermore it is also meeting the operational requirements of the marine, offshore and onshore markets and was delivered on time.

"Our customers choose us because we have strong references, reliable products and that we are quick to provide technical advice and support when they need it."

Lim Gee Wee
Key Account Manager, Hamworthy Pumps



A trusted marine partner since 1889

Hamworthy Pumps is a market-leading manufacturer of In-line Pumps for the marine and offshore industries and delivers Engine Room Pumps, Cargo Oil and Ballast Pumping System, Fire Water Pump Packages and Scrubber Pumps.

Committed to continuous improvement and solutions that keep adding value, Hamworthy Pumps are known for developing strong partnerships and innovation that fit customers' competitive needs. To this belongs a firm focus on ways to reduce the environmental impact of

products, services and operations and actively contributing to UN's Global Goals for Sustainable Development. It is the will to do better every day. It comes with our name – and with being trusted by customers since 1889.

Svanehøj Danmark A/S
15 Benoi Cres
Singapore 629978

svanehoj@svanehoj.com
svanehoj.com

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