



Høglund Fuel Gas Supply Systems for next generation of vessels

LNG is a sustainable, widely available and cost-effective alternative fuel, and an important driving force of modern shipping.

Using LNG as a power source comes with a unique set of design and engineering challenges, requiring strict temperature and pressure control mechanisms to manage potential complications, such as boil-off gas and methane slippage. This is why it is essential that LNG vessels are equipped with safe, reliable, effective Fuel Gas Supply Systems (FGSS).

Høglund has drawn on its years of experience in developing marine solutions to create a full range of FGSS for all vessel types.

Høglund's FGSS is fully flexible, with several options available regarding tank configuration, pressure control system and ventilation type. Each FGSS is based on proven solutions, and can be tailored as necessary to fit individual vessels.

With a track record in system integration, Høglund's solutions are fully integrated within existing vessel automation systems, increasing safety, reliability and efficiency. This also gives operators better access to data and technical insights to improve their operations.

Smart

- Automated BOG (boil-off gas) management
- Fully embedded within integrated automation systems
- Puts FGSS management data at the hands of crew and operators

Flexible

- Available for all engine makers and pressure types
- Open tank connections or gastight enclosures
- Expert installation bespoke to vessel type
- All types of tanks; from double walled, vacuum insulated and single shelled foam insulated IMO type C tanks to membrane tanks

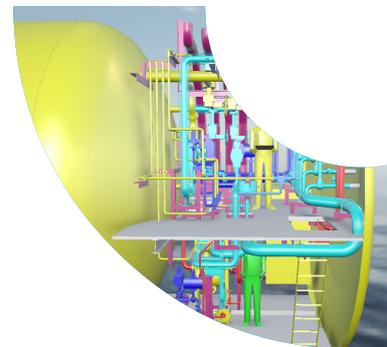
Reliable

- Full IGF code compliance and marine class approval
- Professional guidance and support during commissioning and life cycle
- Global hardware supply and 24/7 support network

We deliver sophisticated retrofit and newbuilding solutions for any type of vessels, such as:

- RoPax
- Cruise / Passenger
- Container
- Chemical Tanker
- General Cargo

Høglund FGSS is ideal for especially cruise vessels and ferries, where emissions that can cause damage to health and environment need to be reduced. In general, the challenge of converting an existing passenger vessel to meet the safety requirements for the placement of fuel gas equipment demands highly specialised design and engineering.



WHY FGSS from Høglund

- Flexible and versatile
- Solutions for all engine makes and pressure types
- Automated boil-off gas management
- Fully integrated with the ship's automation

Høglund has been involved in many recent gas retrofit projects, building on the years of expertise gained in the delivery and operation of automation of gas handling and control systems in the field.

In Høglund we are bundling expertise in Process Engineering, Mechanical and Piping as well as Automation Engineering coordinated by senior Project Management to ensure projects are executed in a customer-friendly and efficient way.

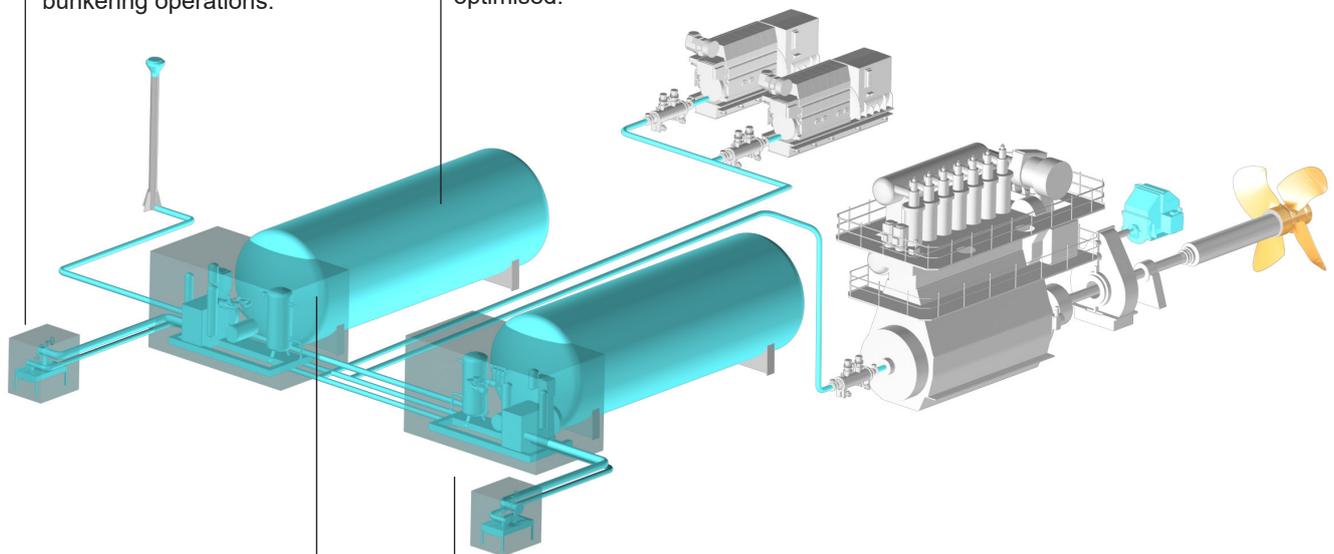
We can supply a full package of design and engineering, hardware and automation to ensure safe operations.

Bunkering Manifold (BM)

compliant with ISO 20519 and compatible with all types of bunkering operations.

LNG Storage tanks

are placed on deck or inside the hull and are designed to be durable and weigh optimised.



Gas Processing Unit (GPU)

includes all equipment to process the LNG from the tank, evaporate it and supply to each consumer. The GPU can be delivered on a skid or as part of the TCS.

Tank Connection Space (TCS)

contains all piping, valves and equipment (e.g.pumps) to source LNG from the storage tank and manage the tank pressure.