KOHO Compressor Solutions

Compressors for BOG Management

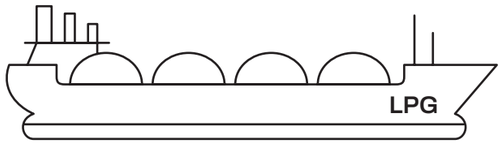
KOHO
A part of Svanehoj

Proven Solutions

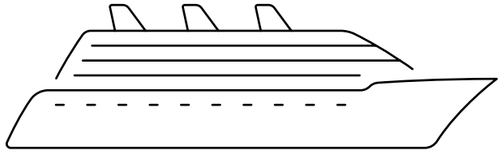
For more than seven decades, KOHO Kompressorsysteme has been known for precision, reliability, and state-of-the-art-technology. Founded in 1948 by Alfred Köhler and August Hörter in Hagen, Germany, KOHO began as a manufacturer of industrial machinery and quickly earned recognition for its engineering expertise.

Today, KOHO is recognized worldwide as experts in industries such as shipbuilding, chemical processing, oil & gas, and energy, delivering high-performance compressor systems built for efficiency, durability, and precision. With decades of application expertise and a proven track record, KOHO develops and produces compressors that excel under the most demanding conditions. Each solution is individually engineered combining advanced technology, robust construction, and flexible configurations to meet the evolving challenges of modern industry.

LNG terminals

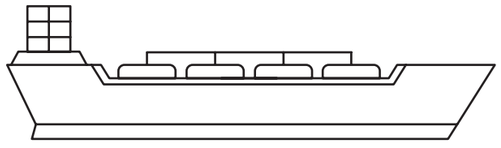


LPG Carriers

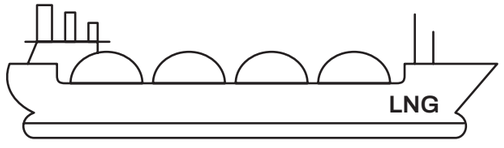


LNG and future Fuel Capable Vessels

LNG storage

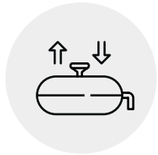


Product and Chemical Carriers



LNG Carriers and FSRU's

Compressor Applications



Vapor return

During the loading operation of fully pressurized vessels, some of the liquefied gas will evaporate. This gas needs to be returned to shore. KOHO compressors are used to transfer the vapor back to the shore tank facility.

Cargo boil-off gas handling

Used to cool down the cargo tanks and associated pipeline before loading, and to reliquefy the cargo vapor generated by flash evaporation, liquid displacement and boil-off during loading.

It is also used to maintain cargo temperature and pressure within prescribed limits while at sea by reliquefying the boil-off vapor.

Fuel boil-off gas handling

Boil-off gas from the storage tanks is compressed before being fed into the fuel gas system. The gas can be used for the vessels main engine, auxiliary engines or boilers.

MARINE:
100+ compressors

LAND:
500+ compressors

GAS TYPES:
LNG, LPG, NH_3, CO_2 and H2

OTHER TYPES:
Air, Ethylene, Inertgas, NOX, N2 and many more

A part of Svanehoj

KOHO is a part of Svanehoj – powering safe and efficient fuel and gas handling operations worldwide.

Since 2025, KOHO has been part of Svanehoj – a trusted partner delivering future-proof solutions for maritime and onshore operations.

By joining forces, KOHO brings advanced compressor technology that complements Svanehoj's fuel and engine room systems, creating a seamless connection between gas and fuel management.

As part of Svanehoj, KOHO continues to deliver specialized compressor solutions and expertise, ensuring safe, efficient, and high-performance operations worldwide.

11
locations worldwide

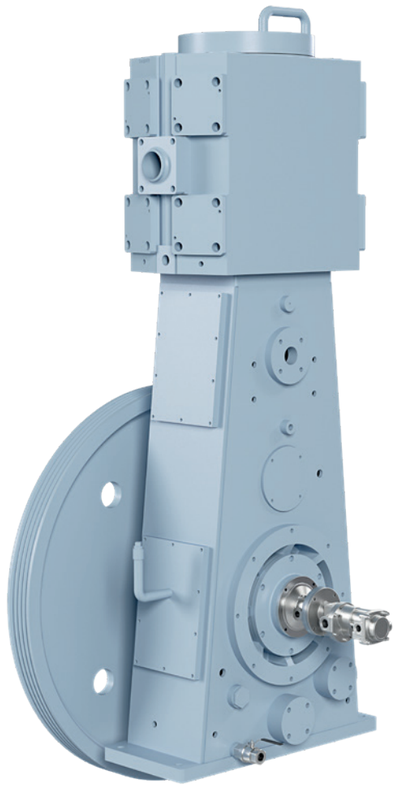
500+
dedicated employees all over the world

100+
years of experience

20.000
m² production and storage space

Compressor solutions

In the marine industry, compressor solutions play a crucial role; it compresses the LNG feed gas used to power the ship's generators. The resulting electricity ensures a reliable and cleaner energy supply at sea – a key step toward reducing emissions and enabling more sustainable marine operations.

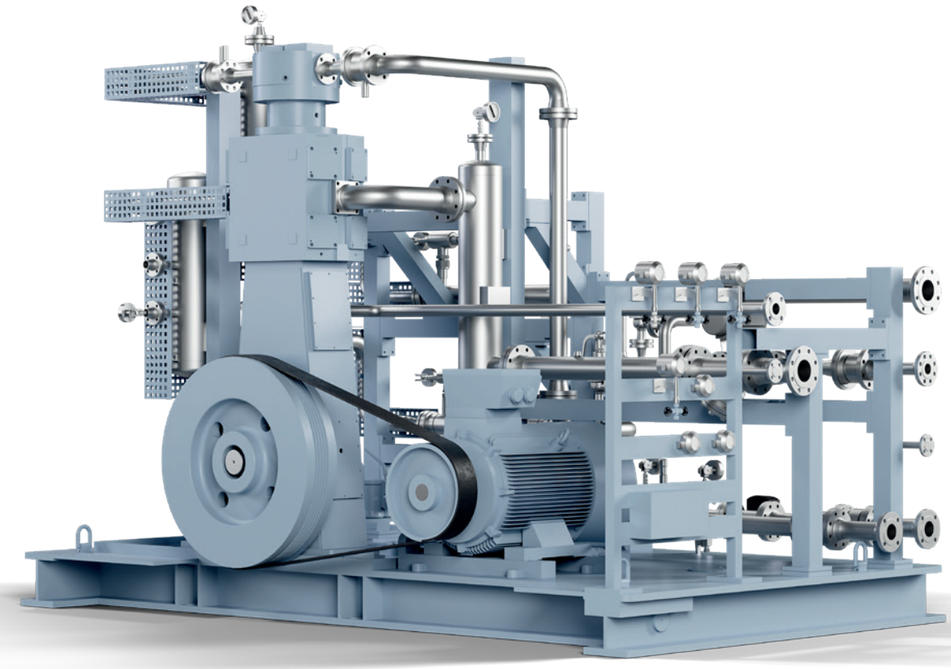


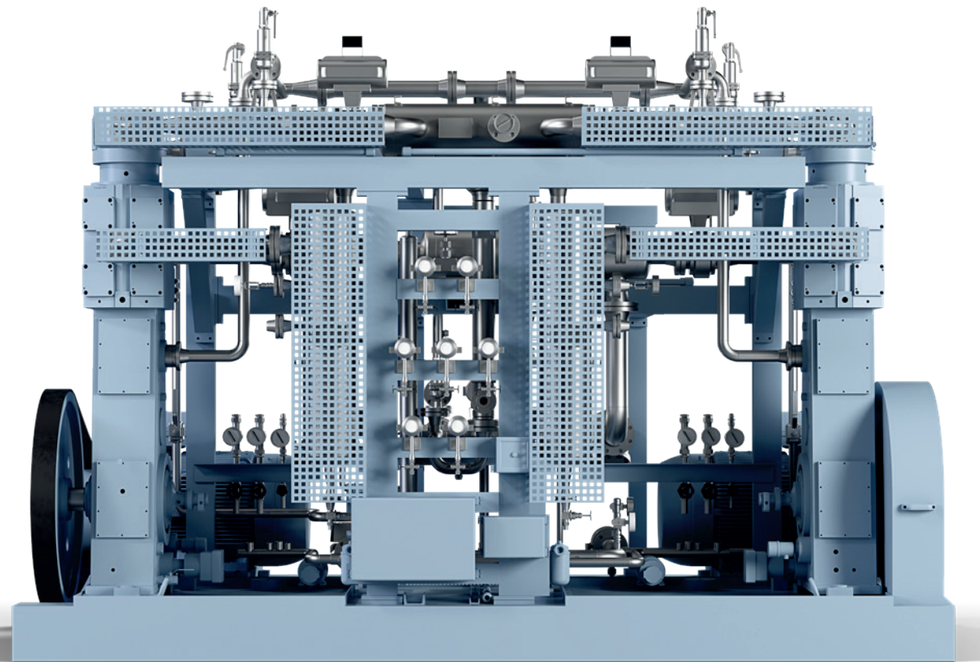
Bare shaft compressors (Loose component delivery)

A loose component configuration offers maximum flexibility, making it an ideal choice for FGSS manufacturers who want the freedom to position the bare-shaft compressor wherever needed.

Single compressor package (skid delivery)

The Boil-Off Gas (BOG) compressor package is a fully assembled, skid-mounted system designed for a compact footprint. This plug-and-play solution ensures quick and seamless installation.





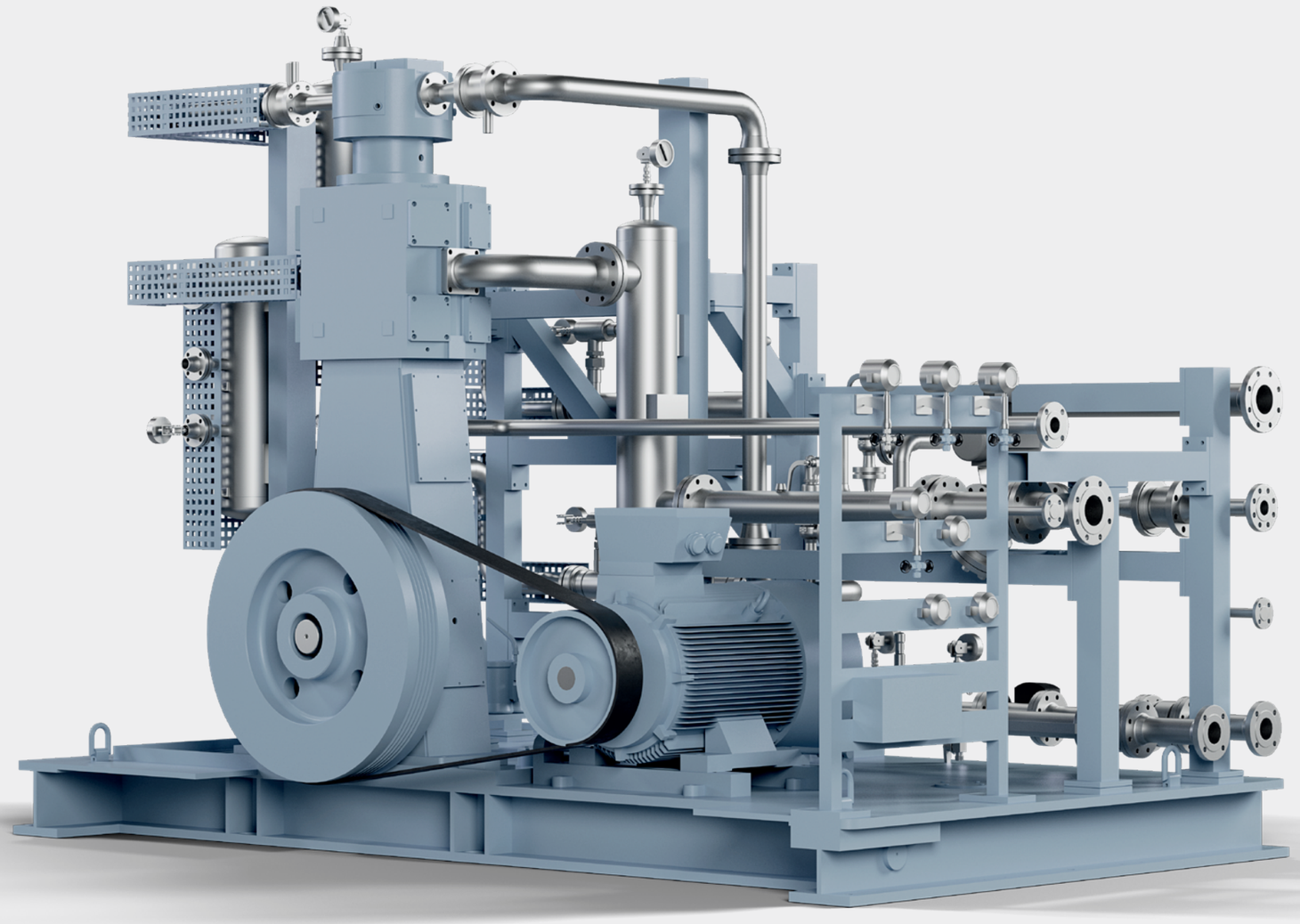
Twin LNG boil-off compressor package (skid delivery)

KOHO specializes in retrofit and engineered solutions, including the design and manufacturing of custom-made reciprocating compressor systems – as well as retrofits and spare parts – for hydrogen, hydrocarbons and other demanding gas applications.

LNG Boil-off-gas Compressor Package Non-lubricated

Technical Data	Example
Type	TWZ 9.12 / 8.1 / 8
Gas	LNG Boil-off-Gas
Volume flow	500 - 1400 m^3N/h
Inlet pressure	0,5 – 2,5 bar (g)
Final pressure	14,6 – 18 bar (g)
Motor power	132 kW

The data above is provided as an example and can be customized to meet requirements.



Design features:

- Two stage, single cylinder, water-cooled, non-lubricated, step piston, vertical design
- Distance piece single type, long single-compartment distance piece, acc. to API 618 type B
- Motion work pressure lubricated, including complete piped oil-system
- Motor 132 kW (II 2 G Ex de IIC T4 Gb), 1800 rpm, direct driven via flexible coupling, with guard
- Compressor as package unit on common heavy duty steel base frame
- Internal piping for gas-, cooling water-, and N2 system with connecting flanges at battery limit
- Shell and tube type heat exchanger for gas cooling
- Unloading start-up by pneumatically driven ball valve, installed in bypass

Codes & standards:

- API 618 with deviations
- ASME Boiler & Pressure Vessel Code VIII/Div.1
- IEC60079-xx (International Electrical Commission)

Special features:

- The machines are designed for the marine atmosphere and are installed on vessels
- 4 identically “double” reciprocating compressor packages

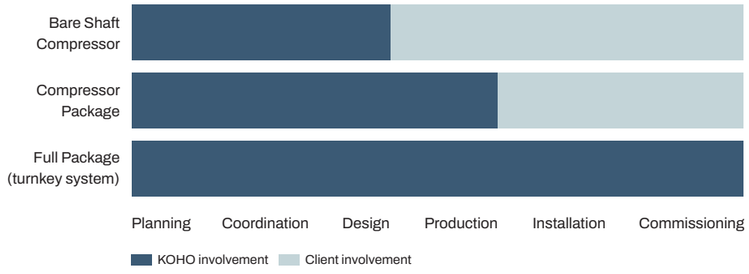
A strong partnership

At KOHO, we tailor each project to the level of involvement you prefer. Whether you want to be highly hands-on or prefer to hand over the entire process, we support every approach.

Choosing a full KOHO delivery means you get a complete, worry-free solution. We handle planning, coordination, design, production, and installation—so you save significant time, effort, and resources. With us as your single point of contact, you avoid the complexity of managing multiple suppliers and ensure that every part of the project works seamlessly together.

At the same time, if you prefer to manage certain tasks yourself, we are just as comfortable supporting a partial involvement model. You choose what you want to take care of, and we take care of the rest. No matter the level of involvement, KOHO ensures a smooth, efficient process and a final result delivered to the highest standard.

Level of involvement:



Bare Shaft Compressor:
Only the compressor, without drive components, base frame, or auxiliary systems. For customers who want to integrate it into their own system. Individual components susch as the oil system can be supplied separetely

Compressor Package:
Includes the compressor on a base frame with drive motor, coupling, and standard auxiliaries like oil, cooling, and control units. Ready for installation.

Full Package (Turnkey System):
Complete, tested compressor package with on-site installation, start-up, and commissioning. Fully operational and performance-tested at the customer's facility.

LCO2 Vapor return Bare-Shaft

KOHO's single-stage, double-acting process gas compressors are engineered for the compression of clean and technically demanding gases. The vertical, non-lubricated design eliminates the risk of oil contamination, making the compressor ideally suited for sensitive and hazardous gases.

The same compressor frame and shaft design can be used across multiple gas applications, while gas-specific components such as piston rings, valves, and sealing systems are adapted to the individual gas properties. This modular approach ensures flexibility, high efficiency, and long service life.

Specifications:

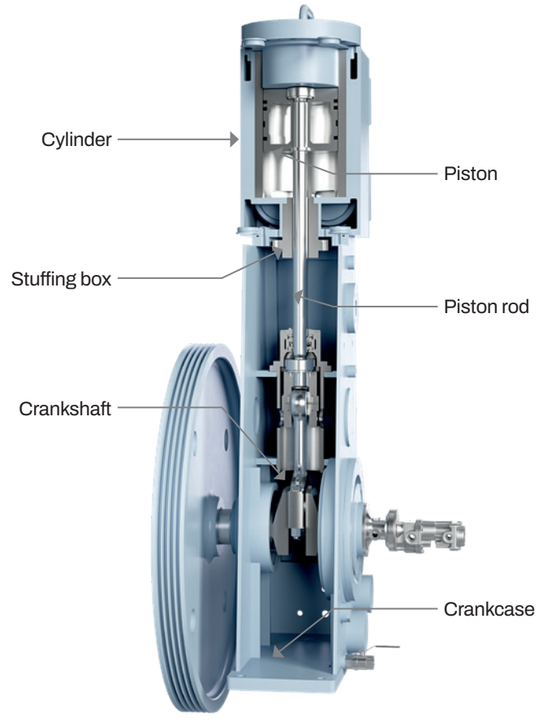
- **Compressor type:** Reciprocating process gas compressor
- **Design:** Vertical construction
- **Lubrication:** Non-lubricated
- **Operating principle:** Single-stage, double-acting
- **Suitable gases:** LNG, LPG, CO_2, and other process gases
- **Number of cylinders:** Depending on configuration
- **Pressure range:** Application-dependent
- **Drive:** Electric motor
- **Cooling:** Water-cooled (configuration dependent)

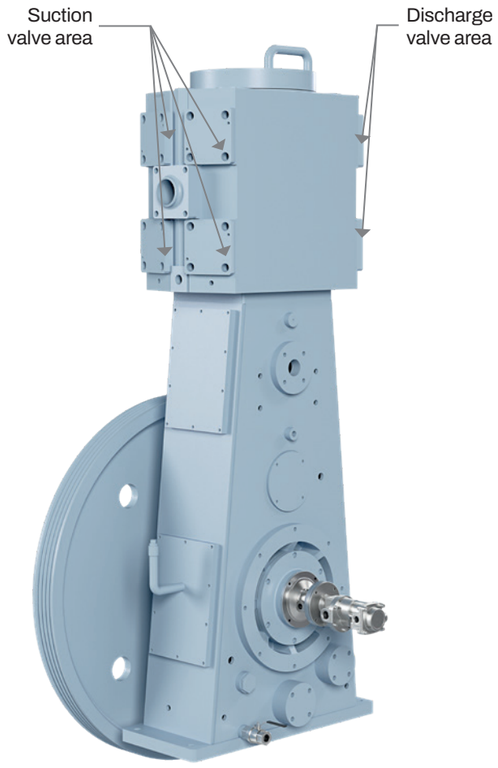
Codes & standards:

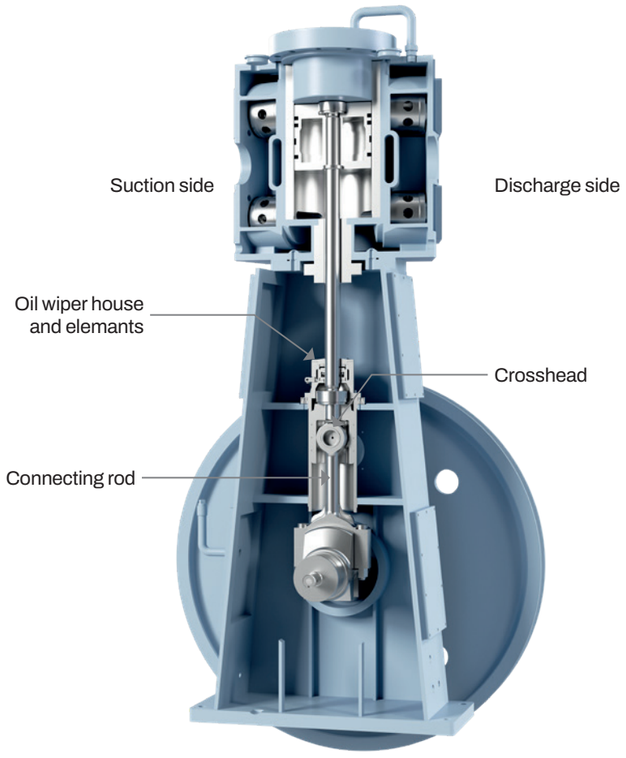
- API 618, ISO 8012, ASME, PED, other on request

Technical Data	Example
Gas	LNG, LPG, CO_2, other on request
Volume flow	430 m^3N/h – 10.000 m^3N/h
Inlet pressure	0,5 bar (g) – 18 bar (g)
Final pressure	Up to 23 bar (g)
Motor power	90 kW – 132 kW

The data above is provided as an example and can be customized to meet requirements.





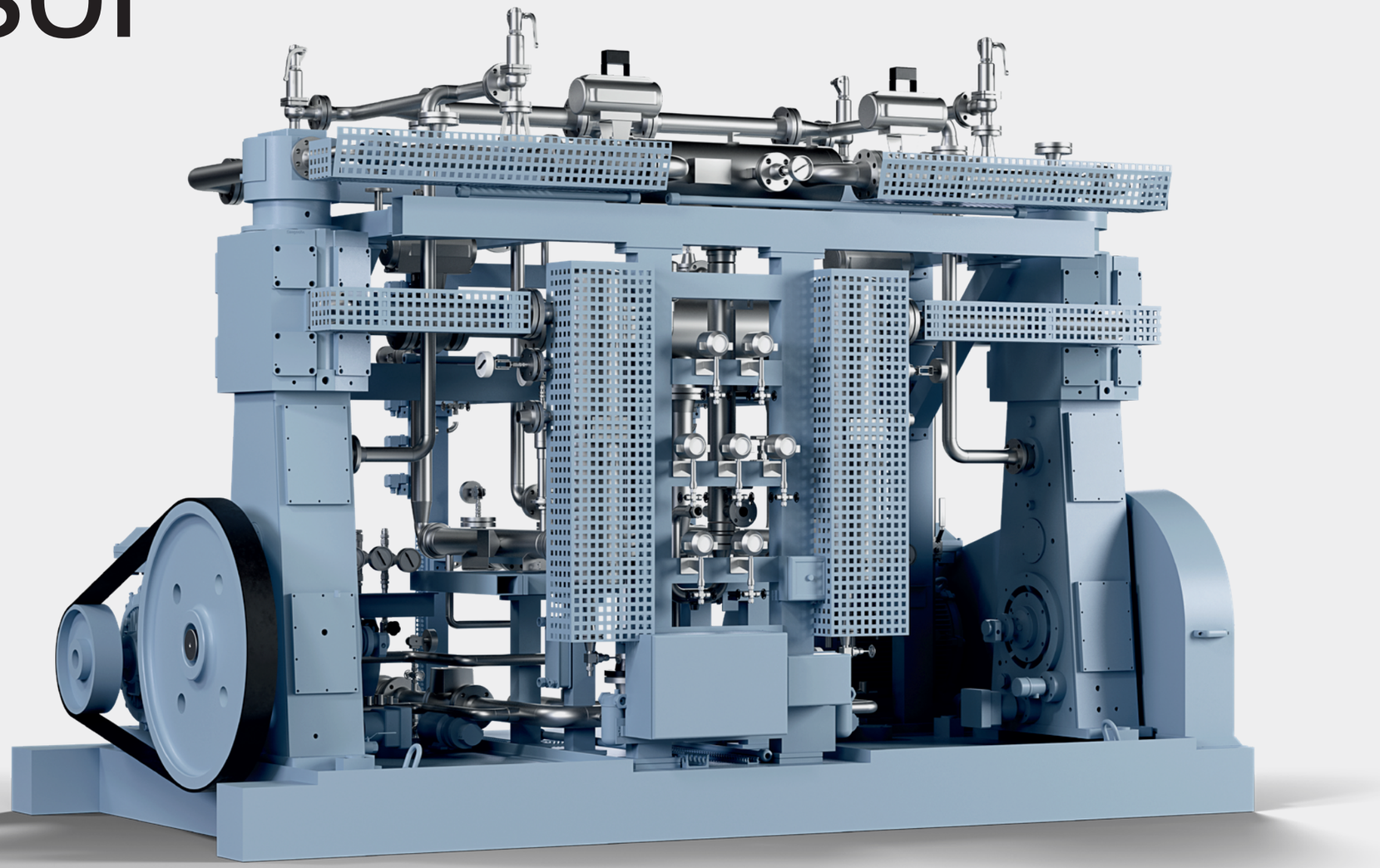


Twin LNG Boil-off Compressor Solution Package

Securing efficient, reliable and safe LNG cargo transfer on board marine vessels, this compressor package is designed for demanding maritime environments. Designed for compression of LNG with suction pressure between 1,5 and 16,5 bar a at a final pressure of 6,5 to 21 bar a.

Specifications:

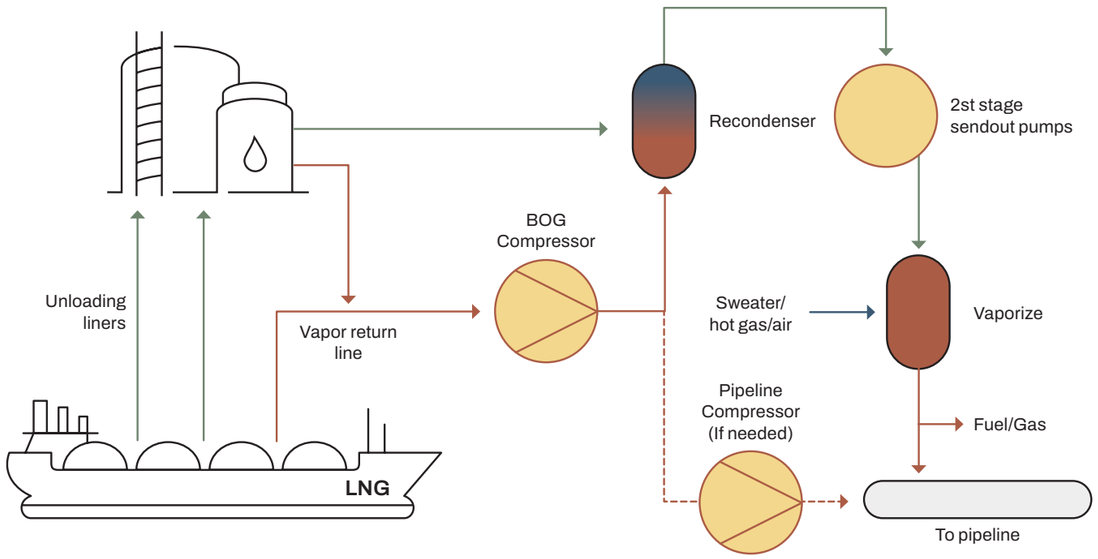
- Two stage step piston design / 2 x 110kW / 1800 rpm, water-cooled, non-lubricated, double acting, vertical design
- Distance piece single type, long single-compartment distance piece, acc. to API 618 type B
- Motion work pressure lubricated, including complete piped oil-system
- Motor 110 kW (II 2 G Ex de IIC T4 Gb), 1500 rpm, belt driven, antistatic
- Internal piping for gas- and cooling water with connecting flanges at battery limit



Compressors for Vapor Return

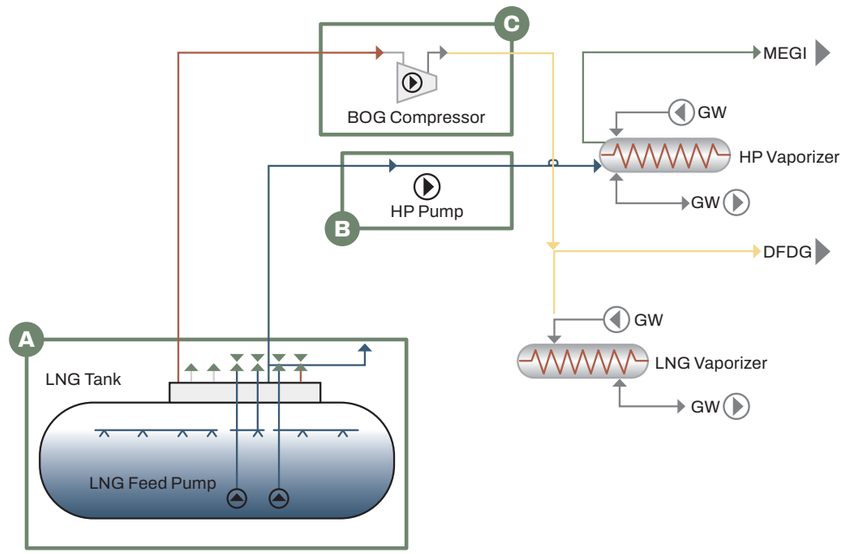
As natural gas continues to play an increasingly significant role in global energy production, the need for more advanced and efficient methods of storing and transporting liquefied natural gas (LNG) becomes essential. To support effective reliquefaction of boil-off gas, KOHO's LNG BOG compressors offer a reliable and robust solution for managing gas at extremely low temperatures.

LNG RECEIVING TERMINAL



One supplier of all major flow components for fuel gas system

LNG FUEL GAS SUPPLY SYSTEM WITH BOG COMPRESSOR



KEY PRODUCTS FOR LNG FUEL GAS SYSTEM

A

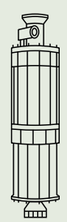
Pumps flow transferring LNG to/from tank

DEEP WELL

Svanehoj Deepwell Fuel Pump

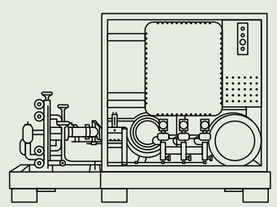
SUBMERGED

Svanehoj Cryogenic Submerged Fuel Pump



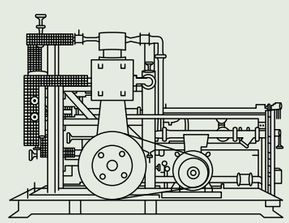
B

High Pressure Piston Pump



C

Boil-Off Gas Compressor



CO_2 Cargo Compressors for the Northern Lights CCS Project

KOHO is proud to play an important role in the groundbreaking Northern Lights Carbon Capture and Storage (CCS) project, which recently received its first transported and injected CO_2 offshore in Norway. The project marks a major milestone in Europe's efforts to create a large-scale, cross-border infrastructure for industrial carbon reduction.

KOHO has supplied the CO_2 cargo compressors for the first four Northern Lights vessels, enabling the safe and efficient loading, transport, and offloading of liquefied CO_2. As reported by Gas Compression Magazine, the initial shipments originated from Heidelberg Materials' cement plant in Brevik and were delivered to Northern Lights' facility in Øygarden before being injected 2,600 meters below the seabed. This successful operation demonstrates the reliability of the full CCS value chain – from capture to permanent geological storage.

By delivering critical compression equipment for one of the world's first commercial CO_2 transport and storage services, KOHO is actively supporting the transition toward a net-zero future.Our team is honored to contribute to a pioneering project that sets a new benchmark for decarbonizing hard-to-abate industries and building climate-positive infrastructure for generations to come.

LNG Boil-off Gas Compressors for Höegh Autoliners

KOHO's LNG feed gas compressor system plays a central role in enabling cleaner and more efficient power generation on board Höegh Autoliners' vessels. The system compresses the LNG fuel that supplies the ship's generators, producing a stable and reliable flow of electricity for all critical operations at sea. This not only enhances operational safety but also significantly reduces emissions compared to traditional marine fuels, supporting a more sustainable approach to long-distance maritime transport.

The latest generation of this solution features a twin-compressor configuration, with two identical compressor units mounted together on a compact shared skid. This design provides a unique combination of space efficiency, cost-effectiveness, and built-in redundancy – an essential advantage for demanding offshore environments where uptime is critical. The dual-unit setup ensures continuous availability, even during maintenance or unexpected load variations, securing uninterrupted generator performance throughout the voyage.

At KOHO, we take pride in contributing to the decarbonization of the global shipping industry through dependable, innovative compression solutions that enable cleaner energy use on board modern vessels.

Excellent service at all times

With Svanehoj Service Solutions, you gain access to one of the most reliable and comprehensive service offerings in the marine industry. Our global service network ensures that expert assistance, spare parts, and technical support are always within reach.

We support our customers throughout the entire lifecycle of their equipment with tailored service programs, high-quality spare parts, retrofit options, upgrades, and long-term maintenance strategies. Our dedicated specialists provide a true knowledge-driven one-stop solution, combining efficient spare parts management with remote diagnostics and professional field service whenever and wherever it's needed.

24/7 Service
Phone no.: + 45 96 37 22 00

24H
On-site support in all major ports

7
Service Hubs

100
Field service engineers and superintendents on standby for service

KOHO – a part of Svanehøj
Am Tempel 10
De-58089 Hagen

Phone no.: +49 (0) 23319357-50
mail@koho-kompressor.de
Koho-compressor.de

KOHO
A part of Svanehoj