



TALENT LNG

COMPANY PROFILE

A solution provider with cutting-edge
technology and years of experience.

**TOTAL ENERGY
SOLUTIONS**



TALENT FOR SUSTAINABLE FUTURE

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We promise



Quality products
We conduct thorough inspections to ensure excellence.



Dedicated service
We deliver dedicated attention to ensure your satisfaction.



Technical support
We provide expert assistance and guidance.



On-time delivery
We ensure timely delivery.



Sincerity
We strive to build valuable business relationships.

We are



One team
We are one team with one dream.



Open
We communicate with an open mind.



Quick at action
We take swift action.



Aiming high
We aim high and dream big.



Professional
Professionalism is at our core.



Superb colleagues
We are great team mates to one another.



Having fun
We enjoy every moment and make it fun.

Innovating The Future

CEO Message

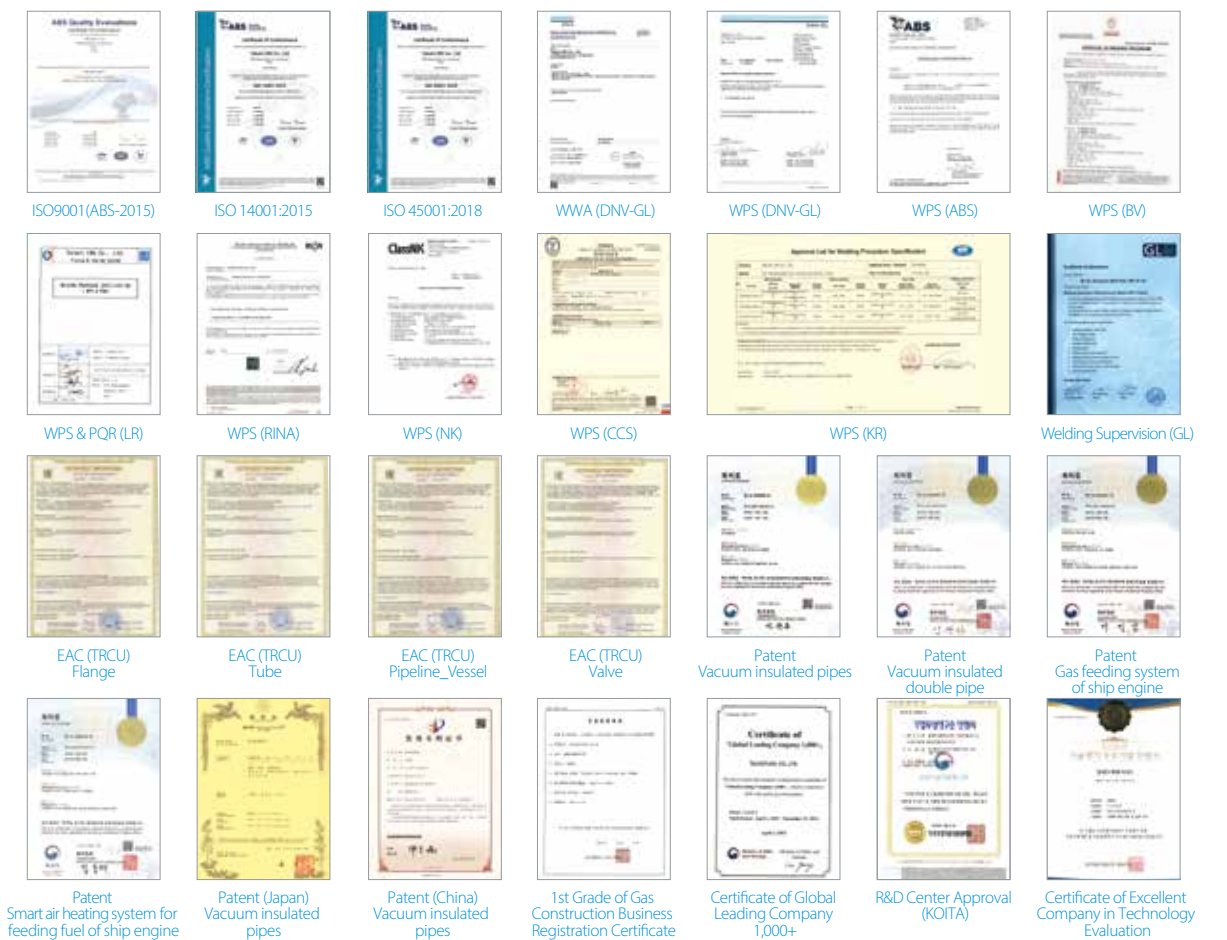
CEO Greeting From Joongjin Baek.

Welcome to Talent LNG Co., Ltd. As CEO I am proud to lead a company that delivers innovative Gas piping and tubing solutions with a focus on sustainability and efficiency. Our advanced technologies, such as Double Wall and Vacuum Insulated Piping Systems, help reduce environmental impact while ensuring top-tier performance for industries worldwide.

We remain dedicated to excellence, innovation, and responsible growth. Thank you for your trust and continued support as we strive toward a more sustainable future.

Sincerely,
CEO, Talent LNG Co., Ltd.

Certificates



Company Overview

Business Area



Marine & Offshore



Science & Technology Research



Semiconductor



Petrochemical



Defense & Aerospace



Vacuum Industry and Others

- Instrument
- Analysis Equipment
- IQF (Individual Quick Freezing)
- Sample Storage Facility
- Bio Laboratory Facility

Business Scope



DWP & VIP

Double Wall Piping with Vent. Fan System & Vacuum Insulated Piping

- LNG Bunkering Line
- Main Engine Line
- Boiler & Generator Lines
- Cryogenic Application

SKID & GVU

Piping and Tubing System Package & GVU / GRU

- Vacuum Pump Unit
- FPR (Fuel Preparation Room) & System Package
- Skids for Marine Equipment & Inland

SOLUTIONS

Solutions

- Vacuum Technology
- Manufacturing & Fabrication
- Commissioning
- Welding & Assembly & Modularization
- Coating & Insulation
- Project Consultation & Material Selection
- Analyzing

Process Chart



TECHNICAL PROPOSAL
Technical proposals based on customers' applications and requirements.



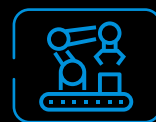
ANALYSIS & DESIGN
Stress analysis and design.



DRAWING CONFIRMATION / APPROVAL
Confirmation of drawings in accordance with international regulations.



MATERIAL INSPECTION
Material use and inspection in accordance with the third-party (Classification societies, KGS, etc.) requirements.



FABRICATION
Cutting, machining, welding, assembly, post-processing



TEST & INSPECTION
Carrying out all tests upon customers' requests.



PACKING
Packing with proper protection.



DELIVERY / SHIPMENT
On-time shipment.



INSTALLATION & SUPERVISION
Expert service and support.

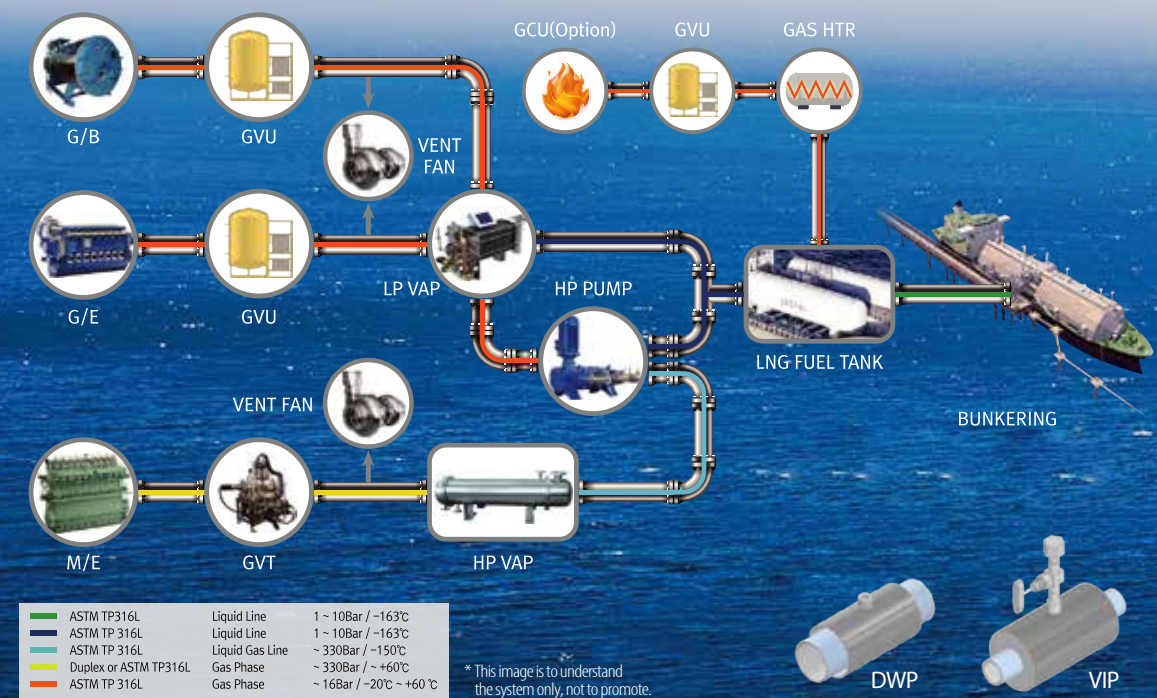


COMMISSIONING
On-site commissioning.

Double Wall Piping System

Fuel Gas Supply Piping System

Double Wall Piping System supplies fuel gas to the main engine with protection against explosions and to perform leak-check. Double Wall Piping provides excellent performance against high pressure and extreme temperatures.



Double Wall Pipe - High Pressure & Low Pressure

	High Pressure	Low Pressure
Size	Inner Pipe DN25~60 in general Outer Pipe DN100~150 in general	Inner Pipe DN15~300 in general Outer Pipe DN50~450 in general
Fluid	Natural Gas (Vaporized)	Natural Gas & Liquefied Gas
Design Pressure	~480 Bar(g) in general	10~16 Bar(g) in general
Design Temperature	-50°C ~ 60°C in general	-20°C ~ 60°C in general
Material	Super Duplex, Duplex, Stainless Steel 316L	Stainless Steel 316L in general

Double Wall Piping System

- Double Wall Piping is primarily designed for the safe transport or storage of hazardous liquids and gases.
- Double Wall Piping consists of an inner pipe and an outer pipe. This dual structure plays a critical role in reducing the risk of leaks and preventing environmental contamination.

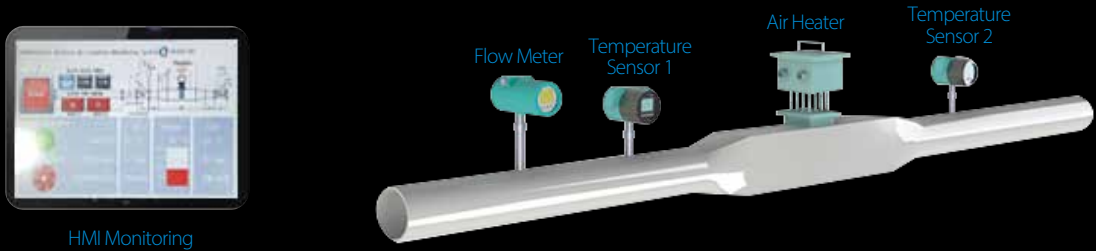


Flanges for Double Wall Piping - Double Lip Flanges

- High Pressure & Low Pressure
- Ventilation holes are designed and manufactured based on the air volume.

High Pressure		Design Pressure	~480 Bar(g) in general
		Design Temperature	-50°C ~ 60°C in general
		Material	Super Duplex , Duplex, & Stainless Steel 316L
Low Pressure		Design Pressure	10~16 Bar(g) in general
		Design Temperature	-20°C ~ 60°C in general
		Material	Stainless Steel 316L in general

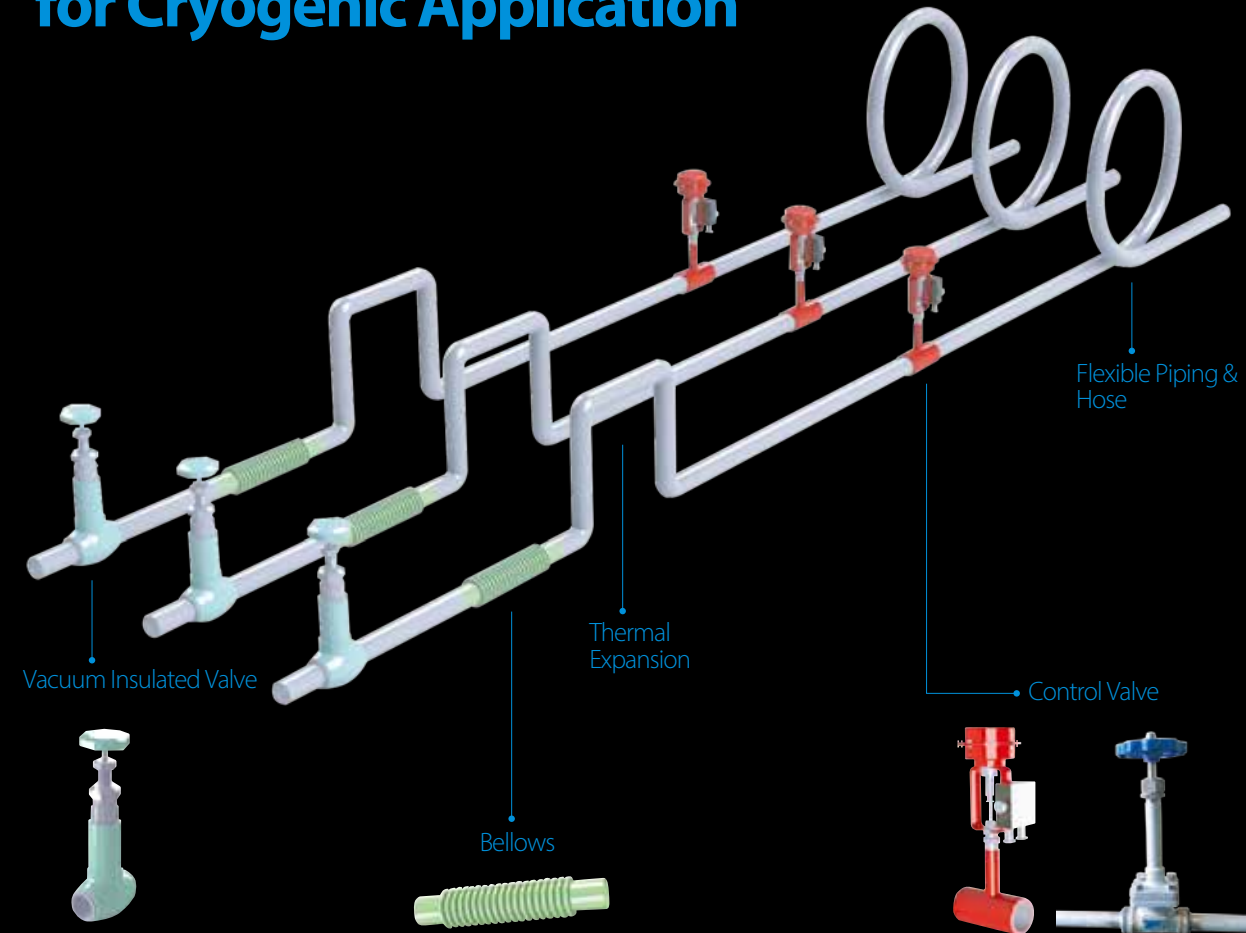
Smart Air Heating System



Smart Air Heating System maintains optimal conditions for ship engines using LNG, LPG, LEG, and LH2 as fuel, ensuring they operate at an appropriate temperature. It is designed to improve fuel efficiency.

Vacuum Insulated Piping System

Vacuum Insulated Piping System for Cryogenic Application



What are the Advantages of Vacuum Insulated Piping System?

- Higher efficiency compared to urethane foam insulation. (About 10 times)
- Outer pipes securely protect inner pipes safely in the event of an accident, such as an explosion.
- Easy to inspect inner pipes for cracks and leaks.
- Recommended by shipowners and classification societies.
- Meets the requirement of IMO regulations. (IMO requires DWP)
- Minimal radiant heat loss.
- No condensation at ambient temperature.
- Relatively small and space efficient.



Size	1/2" ~ 40"
Design Pressure	~30 Bar(g)
Vacuum	~5x10 ⁻⁵ torr
Connection Type	Clamp & Flange Type (Bayonet Type), Welding Type
Fluid	LNG, LHe, LH2, LN2, LO2, LAr, & Others
Design Temperature	-269°C ~

Vacuum Gauge Controller

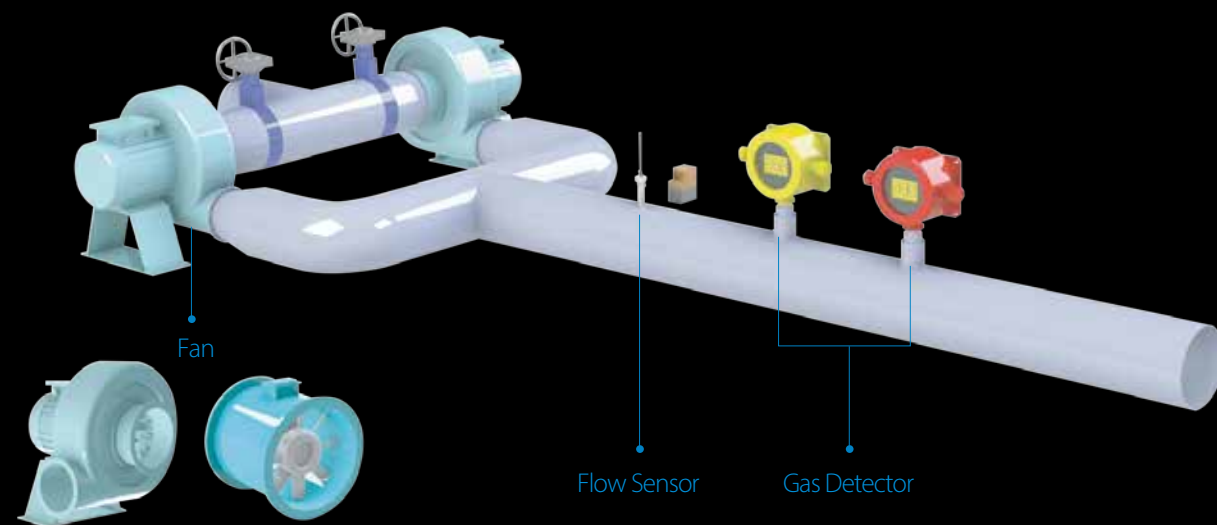
Type	• Digital • Analog • Portable • etc.
Input & output signals	Various
Measuring range	~5x10 ⁻⁵ torr



Ventilation System Package

Double Wall Piping Ventilation System Package

A complete ventilation system package, including fans, flow sensors, gas detectors, and other related valves, is available to be adapted to customers' needs and applications.



Explosion Proof Fan



Centrifugal Fan



Axial Flow Fan



Mixed Fan

Flow Sensor & Gas Detector



Thermal Dispersion
Type Flow Sensor



Vane Type Flow Sensor



Gas Detector

Centrifugal Fan

- High-pressure performance with a small air volume.
- Efficient ventilation for the limited spaces that require air ventilation, cooling, and heating.
- Mechanical exhaust and supply tailored to the gas type of the space.
- For DWP, GUV, GRU, LNG space, Gas free, Auxiliary, Boiler F.D, Plant, etc.



Axial Flow Fan

- Low-pressure performance with a large air volume.
- Efficient ventilation for the limited spaces that require air ventilation, cooling, and heating.
- Mechanical exhaust and supply tailored to the gas type of the space.



Jet Fan

- Low noise and efficient ventilation.
- Efficient air exchange in tunnels and parking garages.
- Equal performance at the front and rear, ensuring the efficient air ventilation in emergencies.



Mushroom Head

- Blocks the inflow of water (Rainwater and seawater)
- Blocks the oxygen supply to extinguish fires in emergencies.
- For vessels (located on the deck) and plants (located on the top)



Damper

- Connected to the duct and controls the air volume.
- Enhances fan efficiency.



Silencer

- Reduces noise from the fans and other equipment.
- Various models available for different types of noise.



Manhole Fan

- Ventilates gas from inside to outside and vice versa.



Piping & Tubing System Package

FPR (Fuel Preparation Room) & System Package

TALENT LNG provides FPR (Fuel Preparation Room) including the units for FGSS (Bunkering Station, Vaporizer Unit, Glycol Water System, Buffer Tank Unit and etc.), Cryogenic Piping System, Ventilation Fans, Vent. Mast, all together to the gas fueled vessels.



Vaporizer & Glycol Water Skid

LNG LP (Low Pressure) Vaporizer Skid is an essential piece of equipment in the natural gas industry, used to convert LNG back into its gaseous state for distribution and consumption. The primary purpose of a Glycol Water System in LNG facilities is to prevent hydrate formation, maintain temperature control, and ensure safe transportation and processing of LNG.



LNG Glycol Water Skid

Bunkering Station

Bunkering Skid on LNG-powered vessels refers to the system that supplies LNG as fuel to the vessel. It is equipped with an ultra-low temperature transfer system.



Bunkering Skid

High Pressure Buffer Tank Skid

LNG HP (High Pressure) Buffer Tank Skid is an essential component in the storage and management of LNG in high-pressure systems. It serves as a buffer or intermediary storage unit that helps regulate pressure and flow within the LNG infrastructure, especially in facilities where LNG is stored, transported, or regasified.



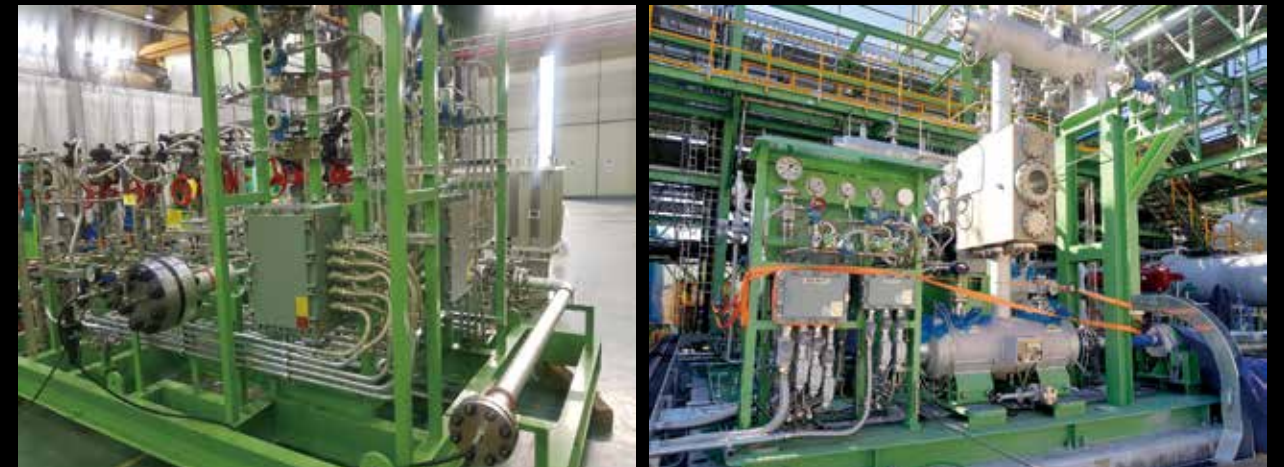
NG High Pressure Buffer Tank Skid

Skids for Marine & Offshore Equipment



We provide modularized marine and offshore equipment according to customers' applications.

Skids for Inland Equipment



The modularized inland equipment are available for various gas applications.

Vacuum System

Vacuum Pump Unit

Vacuum Pump Unit is designed to create a vacuum state by expelling gas from a container. Unlike conventional vacuum systems that use rotary pumps, it significantly reduces the time required to achieve a high vacuum state (5×10^{-4} torr), thereby shortening operation times.

- Vacuum Pump Unit for Liquefied Hydrogen Storage Tank.
- The combination of Dry Pump, Diffusion Pump, and Chiller.



Vacuum Pump



Pressure & Leak Detectors

- Vacuum Measurement
(Digital & Analog Gauges)



- Leak Detectors
(Portable Equipment & Carts)



Vacuum Insulated Flexible Hose



Vacuum Insulated Piping System



Vacuum Insulated Loading Arm

- LNG Bunkering Loading Arm
- Cryogenic Fluid Filling Loading Arm



GRU (Gas Regulating Unit) GVU (Gas Valve Unit)

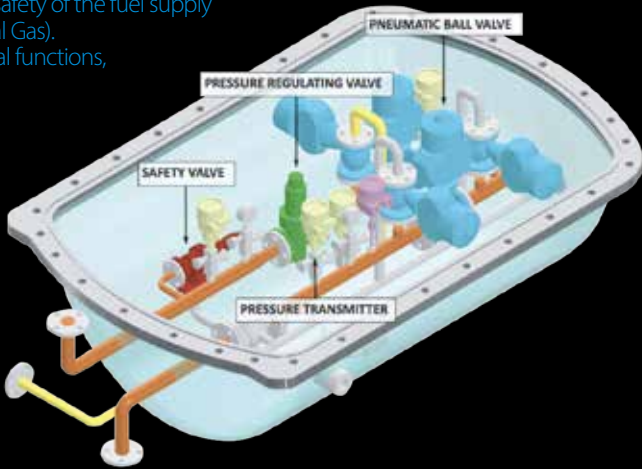
Inland & Hydrogen Application

Gas Regulating Unit / Gas Valve Unit

The Gas Regulating Unit (GRU) is a critical device designed to ensure the safety of the fuel supply system on ships using low-flashpoint fuels, such as LNG (Liquefied Natural Gas). The GRU controls the flow of gas fuel to the engine and performs essential functions, such as shutting off or regulating the gas supply in emergency situations. As a key safety component for gas-fueled vessels, it plays a crucial role, particularly in LNG-fueled vessels.

Precise control of gas flow and instant shut-off are essential due to the high flammability of gas fuel and the potential for major accidents in the event of a leak.

Therefore, the GRU is a vital device that ensures the reliability and safety of a vessel's gas fuel system, serving as a critical interface between the engine and the fuel tank.



Certificates



G.R.U Performance Test Certificate -KR.



G.R.U Performance Test Certificate – KOMERI.



Gas Feeding System with G.R.U.



G.R.U-CD



Ventilation System in DWP



G.R.U. HAZOP Report – LR

GRU-CD is approved by Lloyd, KR & KOMERI (Design & Performance test)

Size	DN50~DN125
Design Pressure	Max. 24 Bar(g)
Design Temperature	0 °C~ 60 °C in general



GRU-CD



Enclosure



Local Control Unit & Solenoid Valve Box

Construction of High Pressure & Liquefied Gas Storage Facility

Construction Case 1 Vaporizers



Construction Case 2 Facility of High Pressure Gas & Liquefied Gas



Construction Case 3 Facility of Cryogenic Gas & LPG Storage



Construction Case 4 Various Tubing Facility





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