FGSS
FUEL GAS SUPPLY SYSTEM
for LNG fuelled Small/Mid-Scaled ship

• FGSS PACKAGE

*Vaporizer Skid
- High pressure vaporizer for the main propulsion engine
- Fuel gas vaporizer, mist separator, fuel gas heater
  (Low pressure fuel gas supply for the generator engines)

*IHM Heater Skid
- IHM Tank, IHM Pump, IHM Heater
  (Supply heat source flow for the vaporizers for the vaporizer package unit)
Vaporizer package unit

Main fuel supply system package unit for both high pressure 2 stroke engine and low pressure 4 stroke generator engines

For 2 stroke high pressure main dual fuel engine
- High pressure vaporizer
  Vaporization of high pressure super-critical LNG to the main engine

For 4 stroke low pressure generator engines
- Forcing vaporizer
  Controlled vaporization to keep high methane number
- Mist separator
  Separation of heavy hydro carbons and flows only high methane gas to the engines
- Fuel gas heater
  Fuel gas heating to meet the requirements of the generator engines

IHM(intermediate Heat Medium) Heater package unit

- IHM Tank
  Container of IHM(50% Glycol + 50% water)
- IHM Pump
  Circulate the IHM from the LNG vaporizer to the IHM heater
- IHM Heater
  Heating IHM using steam with automatic temperature control

Typical dimensions
2.3 X 7.0 X 3.1 (W X L X H)
Type of Vaporizer

A. Hairpin type High Pressure Vaporizer
Already field proven shell & tube type can be opened for maintenance biggest installation area needed

B. Spiral Flow type Pressure Vaporizer
Compact installation area needed already field proven heat exchanger

C. PFHE Plate–Fin Heat Exchanger
Core part is built by stacking layers of corrugated fins, parting sheets and side bar. And then it is brazed under high temperature condition.

D. PCHE Printed Circuit Heat Exchanger (Diffusion bonded Compact Heat Exchanger)
Diffusion bonding under high pressure and temperature after etching of channel form on the plate

Application

LNG Fuelled Small/Mid-Scaled ship

The FGSS have been in service on almost any type of marine application on container vessels, tankers of all sizes, bulk carriers, car carriers, RoRo and general cargo vessels

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General Cargo Ship | Oil/Chemical Tanker | Tug Boat
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