



MARINE REFERENCES

LNG Fueled Ships
FLNG and FSRU
Bunkering Vessels
Bunkering Stations
Port Power Applications





Innovation. Experience. Performance.®

10 YEARS
EXPERIENCE

LNG Ship Fuel Solutions

2x

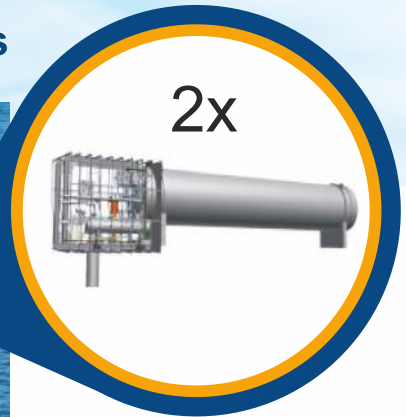


Shipset	Description	Operator	Ferry name & Particulars	Class	Year of installation	Current status	Engine	Operating area
1	2 x 125m³ tanks each w/cold boxes containing evaporation equipment, PBU's, valves, piping, instrumentation, controls	Fjord 1	Bergensfjord 130m length, 589 pax, 212 cars	DNV	2006	Operating	Rolls Royce 2xKVGS-12G4+2xKVGS-16G4, 11800KW	Norway
2	2 x 125m³ tanks each w/cold boxes containing evaporation equipment, PBU's, valves, piping, instrumentation, controls	Fjord 1	Fana fjord 130m length, 589 pax, 212 cars	DNV	2007	Operating	Rolls Royce 2xKVGS-12G4+2xKVGS-16G4, 11800KW	Norway
3	2 x 125m³ tanks each w/cold boxes containing evaporation equipment, PBU's, valves, piping, instrumentation, controls	Fjord 1	Raunefjord 130m length, 589 pax, 212 cars	DNV	2007	Operating	Rolls Royce 2xKVGS-12G4+2xKVGS-16G4, 11800KW	Norway



Shipset	Description	Operator	PSV name & Particulars	Class	Year of installation	Current status	Engine	Operating Area
1	1x295m³ tank	Harvey Gulf	Harvey Energy 99m length, 21 knots	ABS	2014	Operating	Wartsila 6L34DF, 3x2510KW	Gulf of Mexico
2	1x295m³ tank	Harvey Gulf	Harvey Power 99m length, 21 knots	ABS	2015	Operating	Wartsila 6L34DF, 3x2510KW	Gulf of Mexico
3	1x295m³ tank	Harvey Gulf	Harvey Freedom 99m length, 21 knots	ABS	2016	Operating	Wartsila 6L34DF, 3x2510KW	Gulf of Mexico

LNG Ship Fuel Solutions



Shipset	Description	Operator	Ferry name & Particulars	Class	Year of installation	Current status	Engines	Operating area
1	2 x 43m ³ tanks with coldboxes containing evaporation equipment, pumps, valves, piping, bunker stations, instrumentation, control system, glycol system, heat management system	Buquebus	Francisco 99m length, 1000 pax, 153 cars, 50 knots	DNV	2012	Operating	General Electric gas turbines LM2500 2 x 22MW	Buenos Aires, Argentina- Montevideo, Uruguay



Shipset	Description	Operator	Ship's name	Class	Year of installation	Current status	Engines	Operating area
1	6m ³ tank with two coldboxes (one on each side of the tank)	Green Power Shipping	Green Power 6023	CCS	2015	Operating	2x155kW SG	China Yangtze River
2	6m ³ tank with two coldboxes (one on each side of the tank)	Green Power Shipping	Green Power	CCS	2015	Operating	2x155kW SG	China Yangtze River

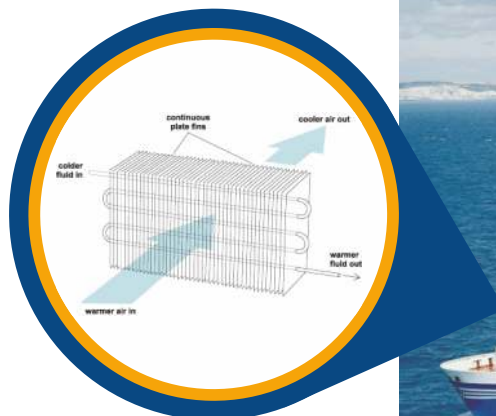


Shipset	Description	Operator	Ship's name	Class	Year of installation	Current status	Engines	Operating area
1	135m ³ LNG fuel tank including tank connection space	Biomar	tbd	DNV-GL	2017	Under construction	Rolls Royce	Norwegian coast

LNG Ship Fuel Components

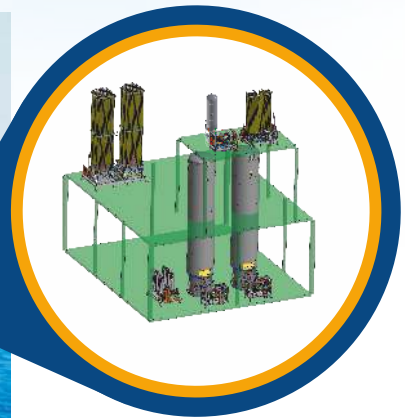


Shipset	Description	Operator	Ship's name	Class	Year of installation	Current status	Engines	Operating area
1	40m vacuum insulated LNG piping; three large uninterrupted vacuum spaces	Balearia	Abel Matutes	BV	2016	Operating	Rolls Royce C26:33 L6 AG 1560kWe	Mediterranean Sea, Balearic Islands



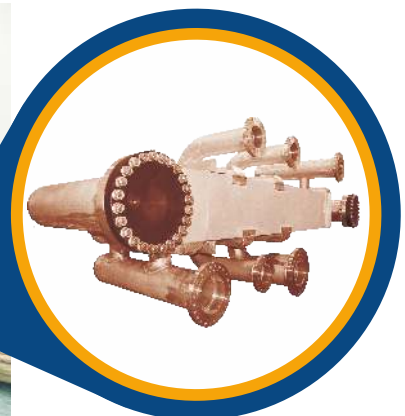
Shipset	Description	Operator	Ship's name	Class	Year of installation	Current status	Engines	Operating area
1	Thermax cryocoil vaporizer with pressure build circuit	Furetank	Fure West	BV	2015	Operating	Caterpillar MaK 7M46, CAT3085	Europe

LIN Storage and Vaporization for FLNG



Shipset	Description	Operator	Ship's name	Class	Year of installation	Current status	Operating area
1	180m ³ LIN storage tank, vaporization and distribution package	Petronas	PFLNG Satu	DNV GL	2015	Operating	Bintulu, Malaysia
2	120m ³ LIN storage tank, vaporization and distribution package	Petronas	PFLNG 2	DNV GL	2016	Operating	South China Sea, Offshore Sabah

BAHX and Cold Boxes for FLNG

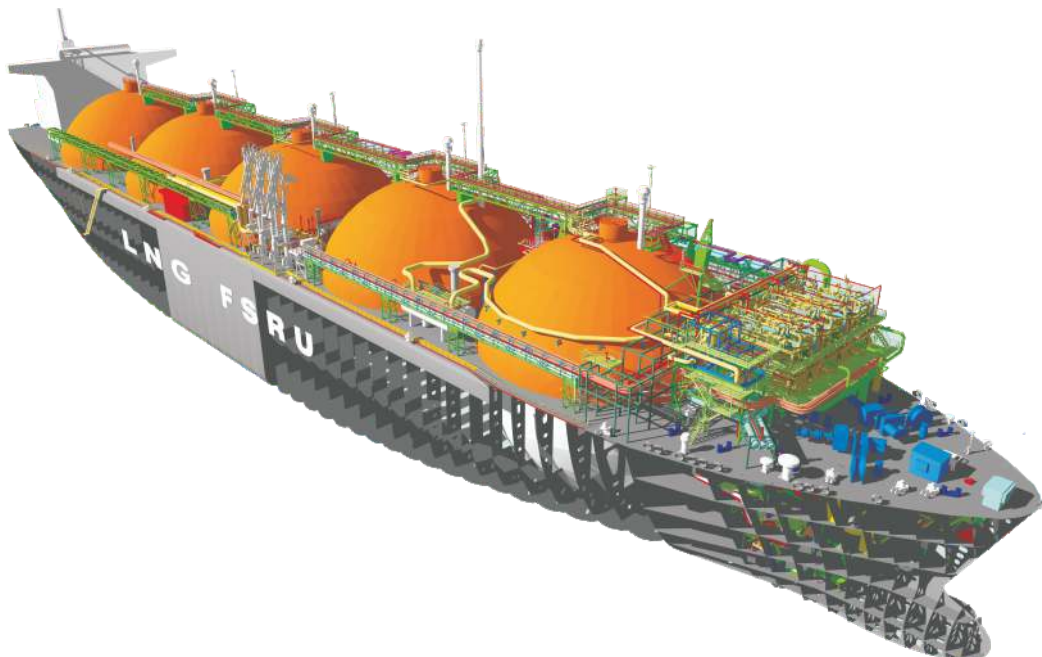


Shipset	Description	Operator	Ship's name	Class	Year of installation	Current status	Operating area
1	Brazed aluminum heat exchangers and cold boxes	Golar LNG	Golar Hilli	DNV GL	2017	Under construction	Cameroon
2	Brazed aluminum heat exchangers and cold box	Exmar	Exmar Caribbean	BV	2017	Under construction	Not Known

Vaporization Equipment for FSRU



Shipset	Description	Owner	Ship's name	Class	Year of installation	Current status	Operating area
1	3 x Thermax 120t/h direct steam vaporizers, MAWP 98barg	Moss Maritime / Golar LNG	Golar Spirit	DNV	2008	Operating	Worldwide

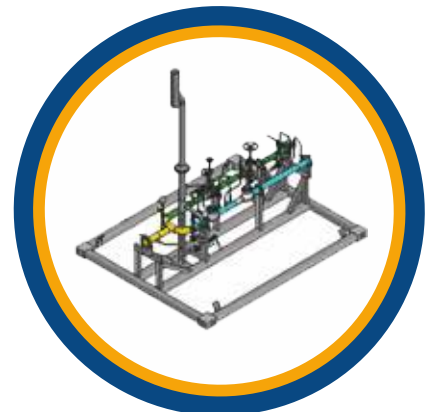


LNG Bunkering Vessel



Shipset	Description	Operator	Ship name	Class	Year of installation	Current status	Partner	Operating area
1	2 x 321 m ³ tanks 2 x Shell and tube heat exchangers	Izaibal	Monte Arucas	BV	2017	Under contract	HAM	Spanish coast

LNG Bunkering Skid



Unit	Description	Operator	Year of installation	Current status	Location
1	Skid for bunkering from two trailers simultaneously (75m ³ /h)	Shell/Gasnor	2016	Operating	Norway

15 YEARS
EXPERIENCE



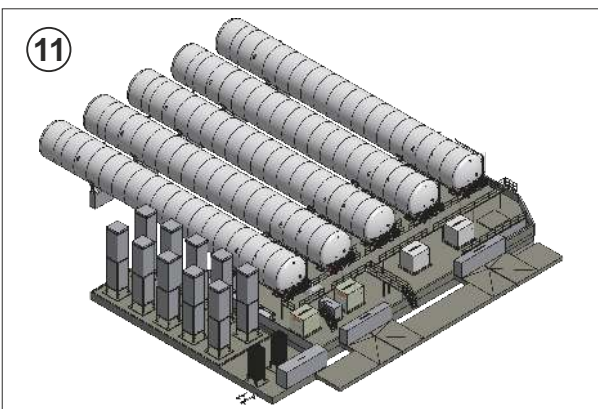
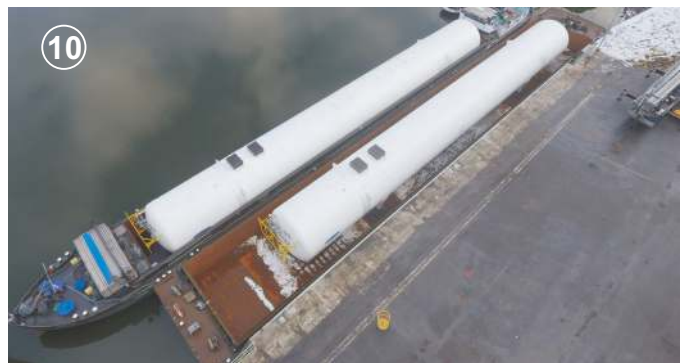
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LNG Bunkering Stations



Station	Location	Type	Description	Operator	Year of installation	Current status
1	Sunndalsøra, Norway	Evaporation plant & bunkering station	3 x 500m ³ tanks, pump, ambient air & water bath vaporizers	Naturgass Vest	2003	Operating
2	Mosjøen, Norway	Evaporation plant & bunkering station	5 x 683m ³ tanks, pump, ambient air vaporizers	Gasnor	2006	Operating
3	Halhjem, Norway	Bunkering station	2 x 500m ³ tanks, pump, jetty module 100m vacuum insulated piping DN150	Gasnor	2006	Operating
4	Vestbase, Norway	Bunkering Station	500m ³ tank, pump	Statoil	2008	Operating
5	Kolo Aalesund, Norway	Distribution plant	2 x 683m ³ tanks, pump	Naturgas Moere	2009	Operating
6	Ora, Norway	Multifunctional terminal	9 tanks, total volume: 6300m ³ , pumps, ambient air vaporizers	Skangas	2011	Operating

LNG Bunkering Stations



Station	Location	Type	Description	Operator	Year of installation	Current status
7	Bjugn, Norway	Bunkering station & evaporation plant	3 x 257m ³ tanks, pump, ambient air vaporizers	Marine Harvest	2014	Operating
8	Xuzhou, China	Bunkering station & vehicle fueling	1 x 60m ³ tank, 3 pumps, 2 vehicle fuel dispensers	SHV Energy	2016	Operating
9	Mongstad, Norway	Bunkering station	1 x 1000m ³ tank, pump, truck unloading	Gasnor	2017	Under contract
10	Jacksonville, US Florida	Bunkering station	2 x 1000m ³ tanks fully stainless steel with 2x internal pumps of 270m ³ /h max. flow rate each	Eagle LNG Partners	2017	Under contract
11	Klaipeda, Lithuania	Bunkering station, truck loading & evaporation plant	5 x 1000m ³ tanks, pressure build up & regas vaporizers, pumps, two truck loading bays, jetty module - including flare, boil-off gas, LIN generator and flow metering facilities	Klaipedos Nafta	2017	Under contract

LNG Port Power Applications



Shipsset	Description	Operator	Barge name & Particulars	Class	Year of installation	Current status	Engines	Operating area
1	2 x 40ft ISO containers, cold box containing evaporation equipment, pressure build up unit, valves, piping, instrumentation, control system; gas piping to engines, hoses	Becker Marine Systems	Hummel 74m length	BV	2015	Operating	Caterpillar G3516, 7 x 1555kW	Germany Port of Hamburg

3x



Unit	Description	Operator	Project name	Year of installation	Current status	Engines	Operating area
1	3 x 1000liter EuroCyl	Mobile Stroom	Walstroom zonder wal	2016	Under contract	Capstone gasturbine	The Netherlands, Eemshaven



Unit	Description	Operator	Project name	Year of installation	Current status	Engines	Operating area
1	20ft ISO container + Gas processing unit	Becker Marine Systems	PowerPac	2017	Under contract	Caterpillar G3516, 1x 1555kW	Germany, Port of Hamburg





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