

LMB – 6000m³ BUNKER VESSEL CONCEPT

The **Liquid Methane Bunkering (LMB)** vessel is designed for simplicity in LNG handling, maneuverability and environmentally friendly port operations. The vessel combines proven technologies into one configuration. It has reduced energy consumption and a hybrid energy supply. An essential feature of the optimized design is the one-sectioned monotank. The LMB also features modular (containerized) machinery systems and subsystems as well as cargo handling system. The LMB vessel’s modular approach simplifies the building process, reduces cost, and offers market leading construction time, ideal for fast-track projects.

In order to offer additional services and effectively manage vapor return and boil-off gas, the vessel features a **Cryogenic Gas Recovery (CGR) System** on board. The CGR unit is a gas process plant which incorporates re-liquefaction, sub-cooling, and heating functionality. CGR technology is certified by DNVGL and has been in operation since 1999.



Proven Technologies Combined

MAIN DIMENSIONS

Length (O.A.):	Abt. 96.0 m
Length (P.P.)	94.80 m
Breadth (MLD):	19.8 m
Depth (MLD)	11.5 m
Design draft (MLD)	5.40 m
Deadweight at design draft	Abt. 3550 t
Cargo tank capacity:	6000 m ³

MACHINERY & PROPULSION

Containerized engine room
Containerized pure gas generators: 2 x 1500 kW
Containerized battery bank 1.2 – 1.5 MWh
Thrusters: 2 x pods
Service speed: 12 knots

CRYOGENIC GAS RECOVERY UNIT

Liquid nitrogen as coolant	
In operation since 1999	
Size:	10 foot containerized
Weight:	5 metric tons

SERVICES & OPERATIONS

LNG Bunkering	Tank Decontamination
N ₂ Purging	Gas Freeing/Vapor Recovery
Cooldown	Sub-Cooling & Re-liquefaction
Gassing Up	Commissioning/Gas Trial

From Black to Green, Simple and Clean, Pure Gas



ABOUT CGR ARCTIC MARINE

CGR Arctic Marine (CGR) is a technology company with niche expertise within gas and chemical storage, process handling, as well as ship design and technology development.

CGR TECHNOLOGY

CGR has developed a containerized multi-purpose recovery system for Volatile Organic Compounds (VOC's). Based on cryogenic condensation with liquid nitrogen, VOC's are handled and recovered in an economical and environmentally friendly way, rather than disposed of through the use of flare, GCU or incineration.

The development of the CGR technology took place from 1994 to 2000, and the first commercial operation was executed in early 1999.

CGR UNIT VALUE PROPOSITION

- Designed for efficient transport, hook-up and packing
- Enables time and energy efficient decontamination, purging, inerting, vapor recovery and gassing-up operations
- All residual product is re-liquefied, recovered and transferred directly to storage
- Satisfies all regulatory emission requirements and regulations



In operation since year
1999

Developed in cooperation
with:



GET IN TOUCH WITH US

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THE FUTURE

LNG TRUCK

OF THE PORT