

General Information on the First LPV Project

2018-05

LATTICE Technology



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Main Information on the ship

❖ Ship Name	Ulsan Port Cleaning Ship
❖ Owner	Ulsan Port Authority, Ministry of Oceans and Fisheries
❖ Ship Design	Onnuri Ship Technology
❖ Ship Building	Korea Ship Yard
❖ Delivery	November, 2018
❖ Classification	Korean Register of Shipping
❖ Principal Particulars	
▪ Length	37.7 m
▪ Breadth	10.6 m
▪ Depth	4.3 m
▪ Draft	2.6 m
▪ Speed (MCR)	12.5 knots
▪ Main engine	2 x 6-Cycle dual fuel (LNG + MDO) marine diesel engine
❖ LNG Fuel Gas System	
▪ System Supply	Sunbo Industry
▪ LNG Fuel Tank	Lattice Pressure Vessel by LATTICE Technology



Features of LNG Fuel Tank

- ❖ Type of LPV RW-LPV (Lattice Pressure Vessel with Round Wall)
- ❖ IMO type Type C (Type C-Equivalent)
- ❖ Tank material SUS304
- ❖ Design Vapor Pressure 9.0 barg (= MARVS)
- ❖ Outer dimension of tank 3,100 (L) x 3,400 (B) x 2,000 (H) including vacuum insulation
- ❖ Insulation type 200 mm Vacuum Perlite
- ❖ Volume of tank 15 m³
- ❖ Design temperature -163 °C



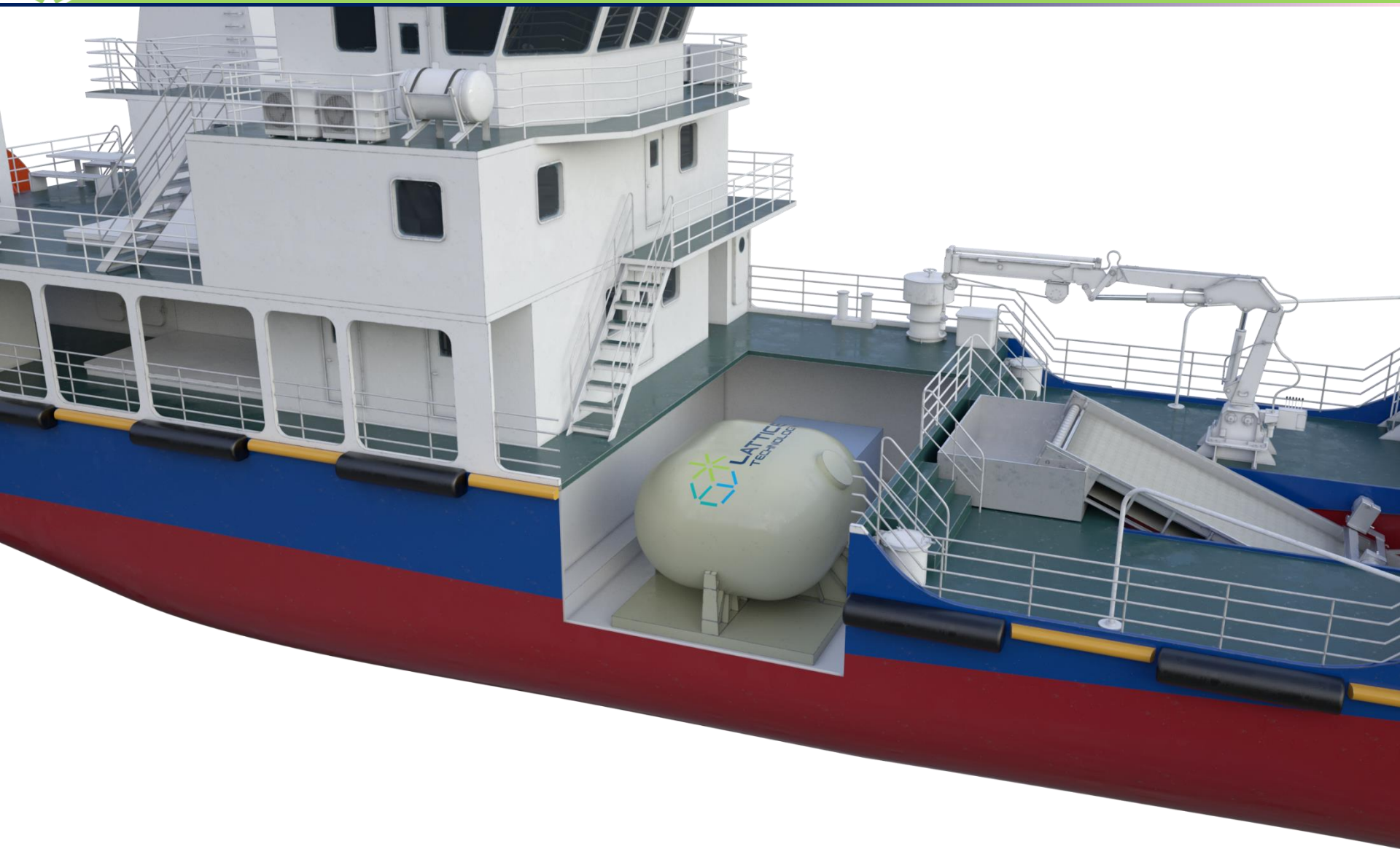


General Arrangement





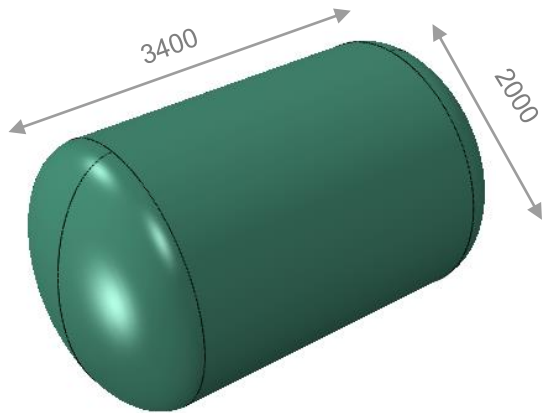
General Arrangement



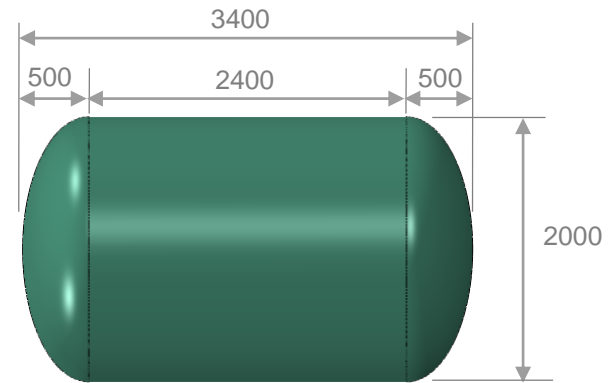


Comparison between LPV and Cylinder

❖ Cylinder tank



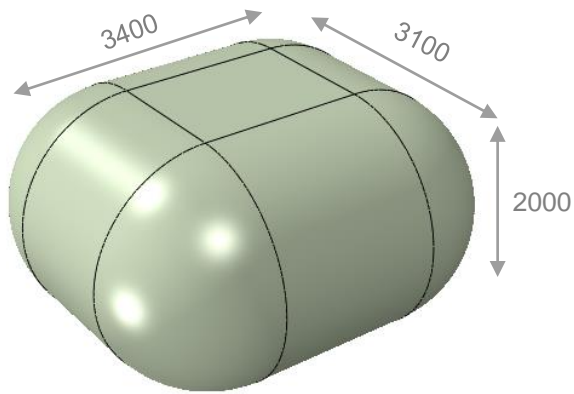
Tank volume = 9.6 m^3



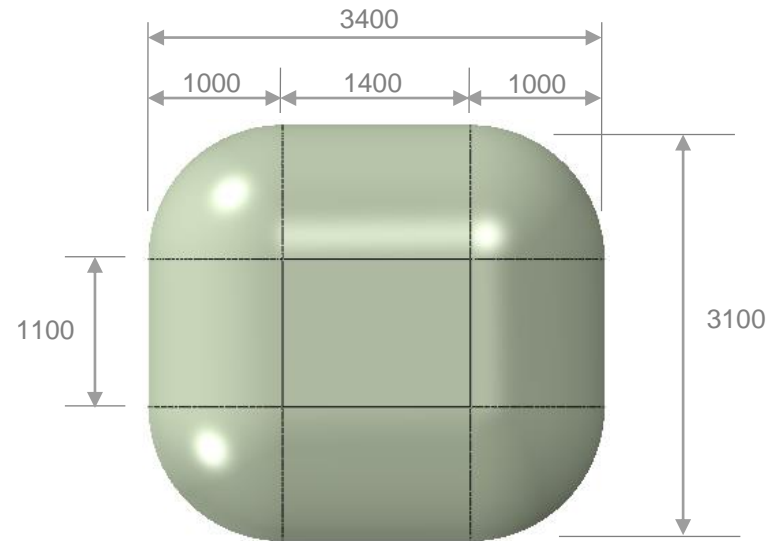


Comparison between LPV and Cylinder

❖ RW-LPV



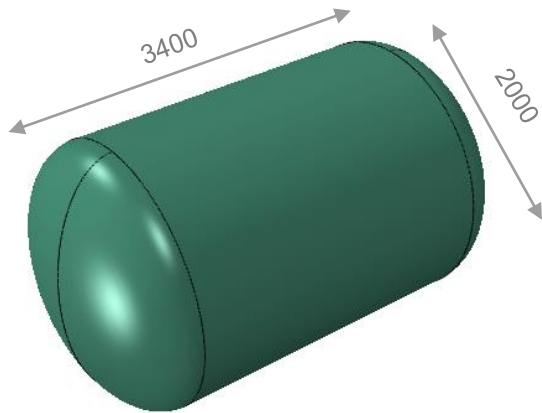
Tank volume = 15.0 m³



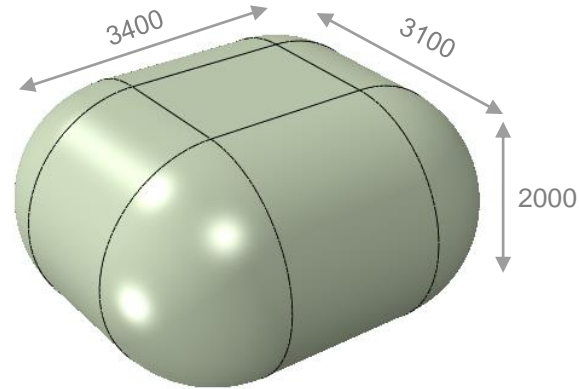
- ❖ For a given space, the RW-LPV increases the storage volume by 50%.
- ❖ If the FW-LPV is used, its volume will be 20 m³ for the same space, doubling the storage volume.
- ❖ For more information, visit our home page (www.lattice-technology.com/) or contact us (sales@lattice-technology.com).



Comparison between LPV and Cylinder



Cylinder : 9.6 m³



Lattice Pressure Vessel : 15.0 m³



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