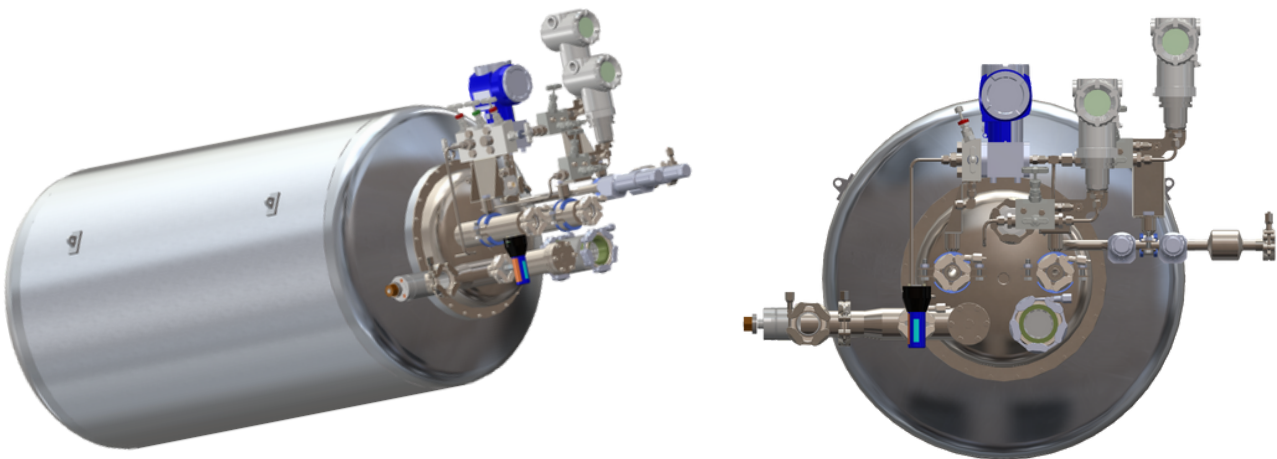


[LHS10] 10.5kg Liquid Hydrogen Storage System for Aircraft and Vehicles

LHS10 delivers lightweight, structurally sound, efficient liquid hydrogen storage tailored for aviation grade performance.

ZeroAvia's LHS10 is a 10.5kg capacity next generation liquid hydrogen storage system, with exceptional wet weight efficiency and resilience. ZeroAvia has developed several unique innovations to manage boil-off, reduce weight and improve thermal performance and vacuum resilience:

- The inner and outer tank consist of 2 and 5 series aluminum, to deliver the required structural integrity at unprecedented weight efficiency.
- LHS10 has the ability to pressurize with an external heat exchanger (HX) attached to its interfaces or can make use of its integrated electric heater at low H₂ mass outputs. HX options available depending on customer requirements.
- ZeroAvia's proprietary passive vacuum pumping technologies provide excellent operational life for vacuum insulation.
- Robust health monitoring is integrated into the system for live feedback and to enable high-levels of control.



FEATURES

- Capacity 10.5kg of LH₂
- Lightweight 2 series aluminum
- Wet weight efficiency >20%
- LH₂ collector cell for range of flight attitudes
- 36-minute warm, 18-minute cold refuel time
- FEA MAWP = 5barg
- FEA burst pressure = 3*MAWP
- FEA DO160G vibration (Curve L).
- FEA DO160G load cases (3g up, 6g down, 9g forward, 1.5g Aft, 4g side)

PHYSICAL

- Dimension: D596 mm x L1192 mm
- Sloshing baffles
- Alu to SS transition joints
- Tank interfacing options available e.g. feet, strap-mount.
- Maximum electrical power demand: 0.37kW (320W heater)

ENVIRONMENTAL

- Operation temperature (inner tank): -256°C to 85°C
- Environmental temperature: -55°C to 85°C
- Heat leak: 14 watts ~ 4 days hold time
- LO_x and H₂ compatible materials



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