LUXFER
GAS CYLINDERS

Specification Sheet:

Space and Aerospace



Pressure Vessel Solutions for Space and Aerospace

Mission-critical pressure containment with engineering, qualification and supply confidence.

Proven capability. Engineered for mission success.

125+
years as a company

70+
years making high-performance cylinders

AS9100
certified composite cylinder manufacturing

Luxfer develops and manufactures high-performance pressure vessels for demanding space and aerospace applications, from initial concept through Non-Recurring Engineering (NRE) to qualification and production.

Our engineering teams combine pressure-vessel expertise, aerospace quality systems and extensive qualification experience to turn mission requirements into flight-ready hardware.

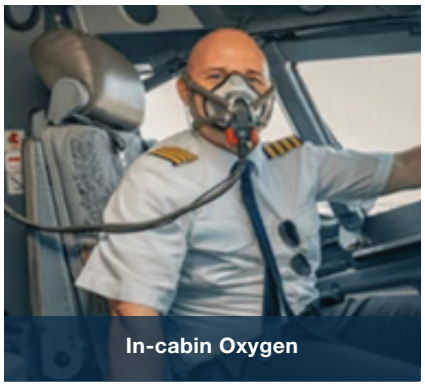
With manufacturing capability across the UK, US and Canada, Luxfer provides the capacity, resilience and scalability to support programmes from development quantities through to full-rate production.

Pressure Vessel Applications


Launch Vehicles


Satellites


Spacecraft


In-cabin Oxygen



Escape Slides


Ejector Seats

Product Range



Type 1 Aluminum



Type 2 Aluminum



Type 3 AS9100 COPV*



Large Type 3 and Type 4 COPV*



Kevlar Type 3 COPV*

*Composite over-wrapped pressure vessel (COPV)

Technology	Construction	Capability	Applications
Type 1	Seamless aluminum,proprietary L6X™ / L7X™ alloys	Up to 50 L and 300 bar	Satellite systems, ground support, fuelling, launch infrastructure, test facilities, high-purity gas distribution
Type 2	Aluminum liner, hoop-wrapped composite	Up to 3 L and 300 bar	Weight-sensitive ground systems, aerospace support, mobile servicing equipment
Type 3 AS9100 Carbon COPV	Aluminum liner, fully wrapped carbon composite	Up to 88 L and 697 bar	Satellite systems, propulsion and pressurisation, orbital logistics, weight-critical systems, oxygen for crew
Large Type 3 and Type 4 Carbon COPV	Aluminum or polymer liner, fully wrapped carbon composite	Up to 275 L and 437 bar	Satellite systems, propulsion and pressurisation, orbital logistics, weight-critical systems
Type 3 Kevlar COPV	Aluminum liner, fully wrapped Kevlar composite	Up to 26.5 L and 252 bar	Satellite systems, orbital logistics, weight-critical systems

Design for Demise (D4D)

Our type 1 aluminum and type 3 Kevlar-wrapped pressure vessels allow for the systematic replacement of high-melting-point materials such as stainless steel, titanium and carbon-wrapped pressure vessels.



Tell us What you Need

Programme context	Technical NRE requirements	Compliance and documentation
☐ Programme outline	☐ Gas purity or cleanliness requirements	☐ Applicable standards and approvals e.g. DOT, AS9100, ISO
☐ Where in the programme timeline does this enquiry fit?	☐ Pressure requirements	☐ Qualification and verification approach
☐ Quantities including scalability requirements	☐ Water capacity, size limits and target mass	☐ Required documentation package, inspection level and traceability
☐ Any launch-provider requirements	☐ Operating temperature range and environment (vibration, shock, special packaging)	☐ Export control or end-use information, and the delivery location
☐ Is there a preferred base product, or cylinder type from our catalogue range?	☐ Pressure cycles or service life	☐ Other third-party verification requirements, NDA etc.
	☐ Porting requirement	