



**LUXFER**  
GAS CYLINDERS

**LEADING INNOVATION IN HYDROGEN FUEL  
STORAGE SOLUTIONS**



# Luxfer Gas Cylinders: Overview

Luxfer Gas Cylinders is one of the leading manufacturers of **high-pressure composite and aluminum cylinders**.

An operating company of Luxfer Group (NYSE:LXFR) Luxfer Gas Cylinders has offices and a manufacturing plant in **Nottingham, UK** – with regional offices and manufacturing facilities in the **U.S., Canada, China and Australia**, with **over 720 employees**

## Our Markets



Alternative Fuel



Medical



SCBA



Speciality Gases



SCUBA



CO2



Inflation & Aerospace

▽ **Luxfer Gas Cylinders produces approximately 1 million cylinders each year globally**



## We are Luxfer Gas Cylinders

## By 2025

- The total European demand for Hydrogen alternative fuel cylinders is set to be **150,000 cylinders per year\***
- The UK share of the European Hydrogen Alternative Fuel cylinder market\* is approximately **17%**



● Composite operations   ● Sales office   ● Combined aluminium & composite operations

\*Includes number of cylinders used in Alternative Fuel Systems (Mobility – Commercial vehicles only and Bulk Gas Transport)



## H<sub>2</sub> World's Firsts Projects

At Luxfer, we have been part of a variety of 'World's First' projects for Hydrogen Mobility



**World's First  
H<sub>2</sub> Tractor**



**UK's First H<sub>2</sub> Train**



**World's First  
H<sub>2</sub> Double Decker Bus**



**World's First  
Commercially Available  
H<sub>2</sub> Truck**



**World's First  
Self Sufficient H<sub>2</sub> Boat**



## Typical Luxfer Supply – Truck and Bus

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“Plug and Play”

Hydrogen Fuel

Storage System



On tank solenoid valves

High pressure pipework

SW for communication with fuel cell

Particulate and coalescing filters

SW for communication with filling station



Hydrogen Tanks

TPRD's

Temperature, pressure gauges

Fuelling receptacles

Fuel ECU

Pressure regulator



Framework and brackets



## Hydrocat 48 – The world's largest Hydrogen powered boat



69kg H<sub>2</sub> per 9 cylinder bundle

Based on existing solutions

EC79 (R134) System using Luxfer type 3 Marine approved cylinders

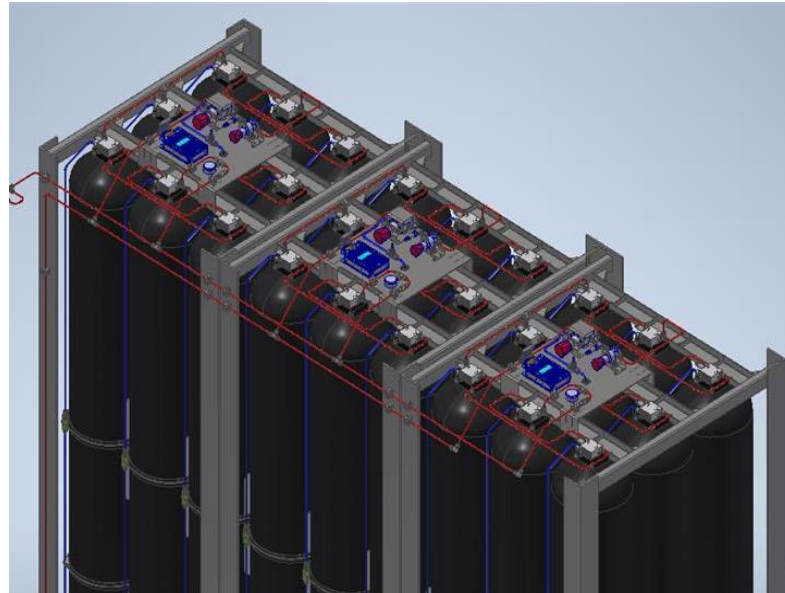
350 bar

## Marine Modular Fuel Storage Solutions

Simplified scalability

Marine classification approved

Independent or codependent fuel pods



Approx. space envelope 3.4m x 1.4m x 1.4m

c. 1.5T 'all up' weight



## Bulk Gas Transportation

Over 1T Useable Hydrogen Storage

Lowest operational cost solutions

Fast fill

Ultimate flexibility

Hydrogen Storage: 1,060kg or 1.339kg

Working Pressure 380 bar

Number of G-Stor Pro Type-3 cylinders: 160

Weight: Module + gas = 27.5 ton

Control Options:

- Manual operation
- full automatic, remote Smart systems capable of merchandising.

