LIGHTWEIGHT HYDROGEN STORAGE SOLUTIONS FOR STATIONARY APPLICATIONS
HYDROGEN — THE 21ST CENTURY FUEL

Hydrogen is a clean and safe energy carrier that can be used as fuel for power in a wide range of applications, and can be easily stored on a large scale. Compressed hydrogen gas stored in lightweight composite cylinders, enables increased payload and large-scale storage and transportation.

HEXAGON LEADS THE WAY

Hexagon Composites has been pioneering filament-wound and composite technologies for more than half a century. That level of knowledge and experience makes Hexagon the leading supplier of innovative composite pressure vessel technology that is driving energy transformation and providing affordable fuels for environmental sustainability.

YOUR RELIABLE PARTNER

Over the last 20 years, we have been adapting our leading and proven Type 4 composite pressure tank technology for a wide range of on-board, ground storage, and distribution applications in the hydrogen industry. Since the introduction of fuel cell vehicles is driving the demand for hydrogen refueling stations (HRS), we have been expanding our portfolio by offering innovative ground storage solutions for H2. The fatigue-resistant cycling properties of our composite pressure cylinders make them more suitable for storing hydrogen than metal alternatives.
MARKET OFFERING FOR GROUND STORAGE SOLUTIONS

SYSTEMS

Tanks mounted on the roof of the hydrogen refueling station

Tanks mounted in container behind the hydrogen refueling station

Hexagon X-STORE® container module used as ground storage solution

Tanks mounted on the roof of the hydrogen refueling station
OUR VALUE PROPOSITION

Strong heritage

- Global market leader in composite lightweight tanks
- World’s largest and most automated Type 4 manufacturing facilities
- 60 years of tank production and gas storage experience
- Over 0.5 million high pressure tanks delivered to the market

Proven performance

- More than 10 years in operation and over 220 cylinders in service at hydrogen refueling stations with no operation issues reported

Lightweight

- More easy to handle
- Flexible installation (floor, wall, roof)
- Do not need strong foundation

Compact solution

- Offering complete storage systems
- Limited footprint

Extendable and modular

- For future upgrades of the station

Long life time

- No corrosion
- Simple maintenance
- High cycle performance, fatigue-resistant
REFERENCE PROJECT

Hexagon developed and delivered a high-pressure hydrogen ground storage solution for the first Dutch full-sized hydrogen refueling station in The Hague, Netherlands, operated by Resato International BV. The storage bundle is equipped with four units of 500 bar hydrogen high-pressure tanks made of full carbon.

“The deployment of the large hydrogen refueling station in The Hague is a big step taken towards a greener future. We are committed to developing a hydrogen economy towards an emission-free country. A vital advantage of the large hydrogen refueling station is that the filling time as well as the range is equal to petrol or diesel."

François Hemmerlin, Business Development Manager Hydrogen at Resato.
Hexagon delivers safe and innovative solutions for a cleaner energy future. We are adapting our leading composite pressure vessel technology for a wide range of mobility and storage applications. The energy transition towards a low-carbon society is opening up exciting growth opportunities and Hexagon is ready to help customers position their products for success.

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