

# LIGHTWEIGHT HYDROGEN STORAGE SOLUTIONS FOR FUEL CELL ELECTRIC VEHICLES

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**LIGHTWEIGHT  
SAFE  
EFFICIENT**

## **HYDROGEN — THE 21<sup>ST</sup> CENTURY FUEL**

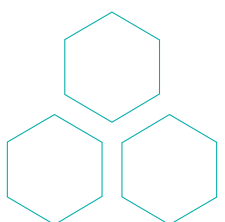
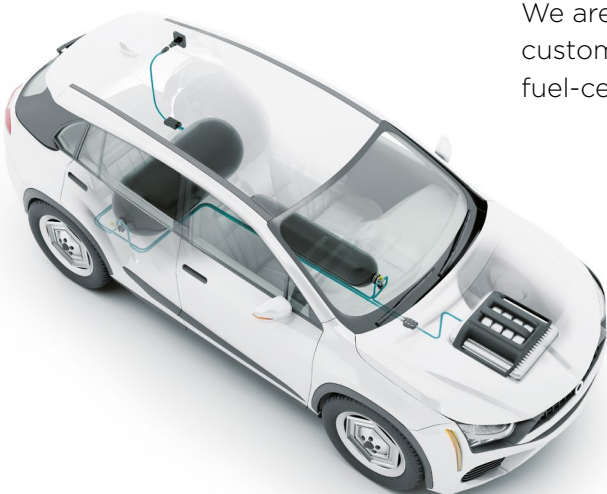
Hydrogen is a clean and safe energy carrier that can be used as fuel for power in a wide range of applications, and can be easily stored on a large scale. Compressed hydrogen gas stored in lightweight composite cylinders, enables increased payload and large-scale storage and transportation.

## **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 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 mobility and storage applications in the hydrogen industry. Thanks to our experience in the development and testing of hydrogen cylinders for several OEMs, we are your reliable partner when it comes to highly complex tank development projects for fuel cell electric vehicles. We are committed to investing resources into the success of our customer projects and the adoption of hydrogen, in combination with fuel-cell technology, as a low-carbon alternative fuel.

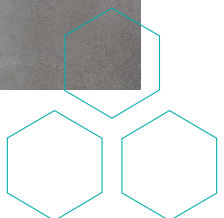
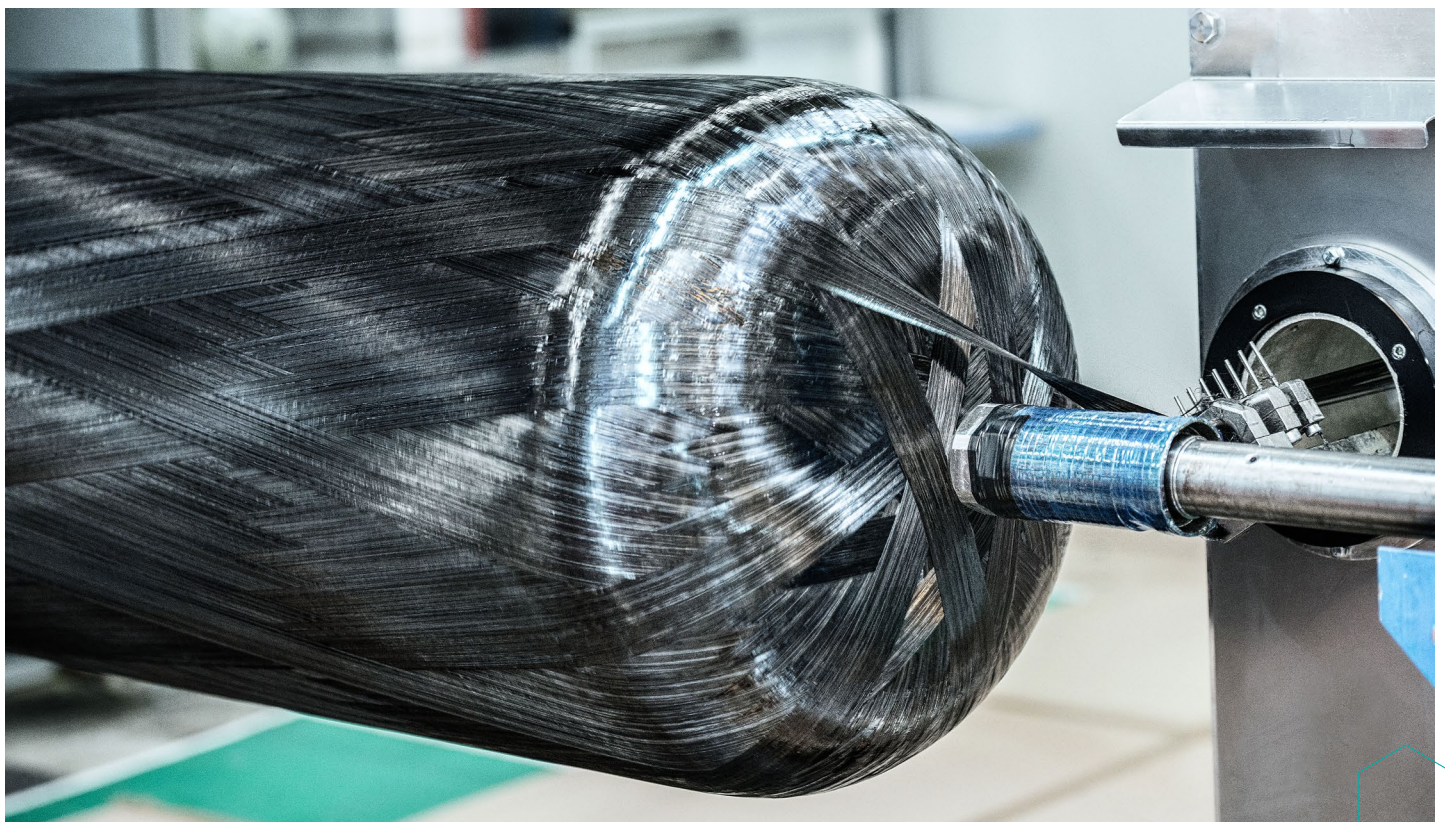




# LIGHTWEIGHT 700 BAR TECHNOLOGY FOR FCEVS

Our composite high-pressure tanks for fuel cell electric vehicles are made of full carbon fiber and are available in the pressure level of 700 bar. To ensure highest quality standards, our manufacturing facilities are certified according to ISO 9001:2008 and IATF 16949:2016, whereas our tanks comply with the following international standards:

- ISO 11119
- EC79/2009
- METI-KHK hydrogen standards
- SAE J2579
- CSA B-51
- 2010 ASME Section X Class III
- UN ECE R134
- ANSI HGV 2-2014



# OUR VALUE PROPOSITION

## Strong heritage

- Global market & trusted leader in composite lightweight tanks
- World's largest and most automated Type 4 manufacturing facilities
- Over 60 years of tank production and gas storage experience
- Experienced design and product development team that will assist from concept to commercialization

## Safety first

- In-house test capabilities for most relevant requirements (hydraulic, leak, burst testing, bonfire, penetration, permeation etc.)
- Internal team of experts that can accurately assess your needs in Type 4 certification approvals and requirements

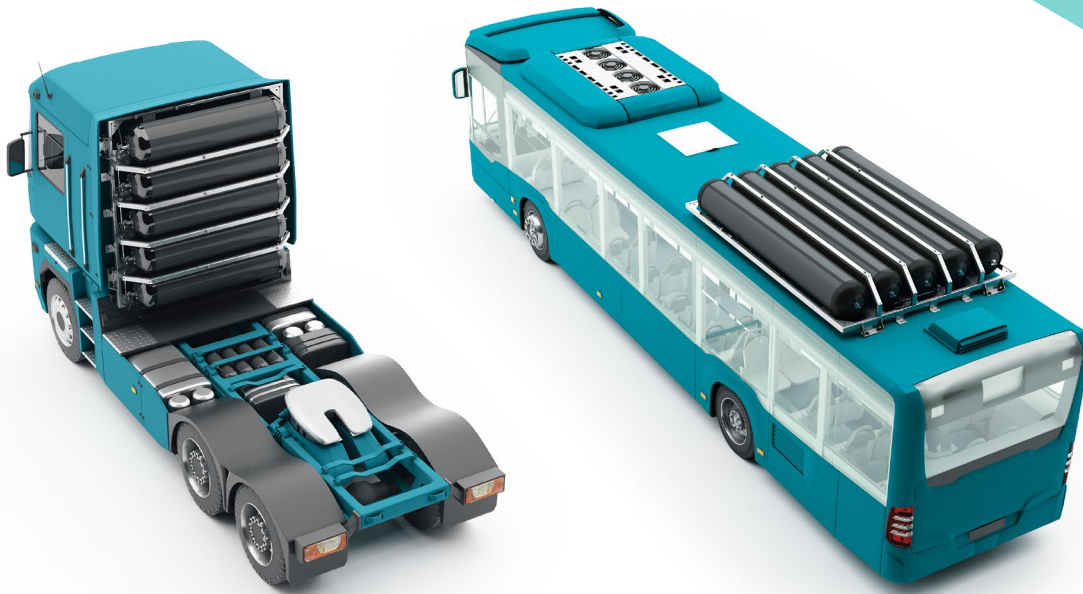
## Lightweight & efficient

- Considerable operational cost savings through weight reduction
- Approximately four times lighter than steel
- Continuously researching the lightest and safest material combinations

## Long life time

- Corrosion and fatigue-resistant
- High cycle performance
- Demonstrated > 90,000 km in service





Hexagon is at the forefront of developing lightweight high-pressure tanks for hydrogen-powered passenger cars, transit buses and trucks.

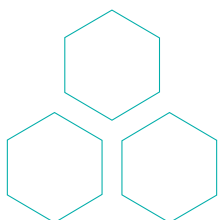


Photo: Mercedes Benz GLC F-CELL

**“Fuel cell technology is an integral part of our powertrain portfolio. The extremely short refueling time is one of the biggest assets of a fuel cell vehicle.”**

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Prof. Dr. Christian Mohrdieck, Director Fuel Cell, Daimler AG





HEXAGON

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.

## CONTACT US

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