



HYDROGEN

**ADVANCED MATERIALS & SOLUTIONS
FOR THE ENTIRE H₂ VALUE CHAIN**



BY YOUR SIDE, ALONG THE ENTIRE HYDROGEN VALUE CHAIN

As industries progress in their decarbonization efforts, hydrogen is taking a more structured role across a wide range of applications. This evolution brings stringent requirements in safety, reliability, and long term durability. Hutchinson, a trusted industrial leader for over a century, is at the heart of this transformation, delivering innovative and safe solutions across the entire value chain: from production to end use.

HERITAGE, EXPERTISE & COMMITMENT

A pioneer since 1911 with the first hydrogen envelopes for AstraTorrès airships, Hutchinson has long been committed to advanced materials for demanding environments. Building on decades of Oil & Gas experience, we bring strong engineering capabilities to hydrogen through key collaborations, patents, and strategic partnerships supporting our customers' decarbonization goals. Our components meet strict safety, reliability, and durability standards, helping reduce operational risks.

With an industrial footprint across Europe, Asia, and the Americas, we supply serial parts for major electrolyzer and fuel cell programs, demonstrating our ability to support emerging hydrogen markets.



INNOVATIVE SOLUTIONS FOR SAFE AND RELIABLE HYDROGEN SYSTEMS

Sealing, Antivibration, Protection & Power Transmission

Our technologies address all critical functions of hydrogen systems:

- Sealing and Fluid transfer to secure flows and prevent leakage
- Antivibration systems to protect sensitive equipment in dynamic environments
- Belt transmission systems to ensure stable and reliable power transfer

These solutions integrate seamlessly into electrolyzers, fuel cells, storage systems, and distribution infrastructures. Hutchinson offers a complete range of products standard or customized, in small or large series and supports customers from design to industrialization.

Advanced Materials for Demanding Hydrogen Applications

Material formulation, characterization, and production are deeply rooted in our DNA. Our advanced compounds, developed using hydrogen specific testing methodologies and fully compliant with industry standards, deliver the strength, safety, and long-term durability essential for hydrogen applications.

For example, our ultra low leaching EPDM is ideally suited for fuel cell cooling circuits and PEM stack sealing, maintaining coolant purity, system efficiency, and long operational life.



Renewable
electricity



Production



Storage



Transport



Distribution

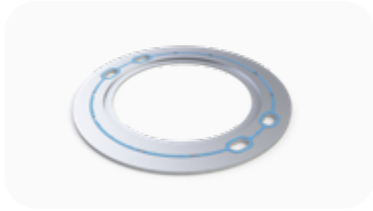


Usage



HYDROGEN PRODUCTION

Optimizing hydrogen production in electrolyzer systems through our sealing and antivibration expertise.



ALKALINE ELECTROLYZER GASKETS

- PFAS-free EPDM
- High-pressure sealing & resistance to extreme temp. -50°C to +150°C
- Durability in strong base environments



PEM ELECTROLYZER STACK FRAME SEALING

- PFAS-free, ultra-low-leaching EPDM
- High-pressure & -50°C to +150°C resistant
- Acidic, oxygenated & hydrogenated resistant

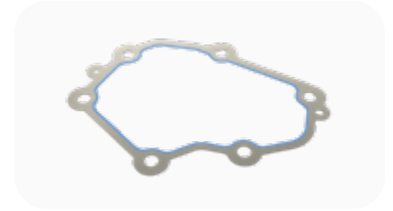


PLATE SEALS

- PFAS-free, ultra-low-leaching EPDM/FKM/silicone
- Withstands 206 bar (620 bar burst)
- Excellent rubber-to-substrate adhesion



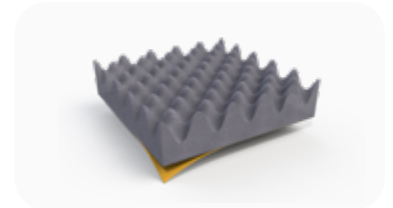
ISOLATOR STABIFLEX®

- Rubber protected from external aggression
- Fail Safe
- Suited for mobile or fixed applications



ISOLATOR V1H6000

- Metallic or stainless steel 100%
- Suited for mobile or fixed applications
- Temp. range -70° to +300°C



ACOUSTICS FOAMS

- Open cells or closed cells
- Large range of materials available
- Can be adapted to specific needs



FLANGE SEALS FOR ELECTROLYZER BOP

- Durable in acidic & strong-base environments
- Optimized design for high pressure & extreme temp. -50°C to +200°C
- Safe assembly and handling





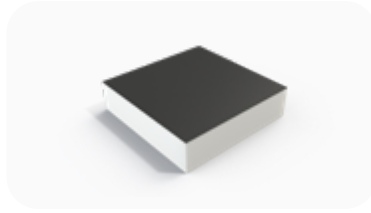
HYDROGEN STORAGE & TRANSPORT

Cutting-edge technologies designed to secure and enhance hydrogen storage systems reliability.



MULTI-LAYER INSULATION

- Multi-layer thermal insulation
- For cryogenic liquefied-gas storage
- Suitable for vacuum environments



CRYOGENIC MELAMINE FOAM

- Melamine-foam insulation with coverings
- For cryogenic liquefied-gas storage/transfer
- Lightweight solution



CRYOGENIC POLYIMIDE FOAM

- Polyimide-foam insulation with coverings
- For cryogenic liquefied-gas storage/transfer
- Lightweight solution



ISOLATOR 22000

- Ultra compact
- Rubber compound protected from external aggression
- Suited for mobile or fixed applications



ISOLATOR RADIAFLEX®

- Simple and cost efficient
- Catalogue solution (COTS)
- Wide range of dimensions, configurations...



O-RINGS

- Pressure-resistant up to 30 bar
- Low permeability, high chemical resistance
- Temp. resistant -50°C to +250°C



DYNASTRAP

- Replace metallic tank straps, with integrated expansion compensation
- Auto-expansion adjustment
- Lightweight - parts number reduction

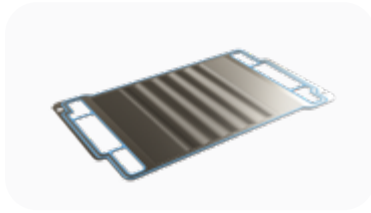
Scan this QR code
to explore our products
on the Hyfindr portal





HYDROGEN USAGE

Innovative solutions accelerating the deployment of hydrogen technologies, from advanced fuel cell systems to power transmission.



BIPOLAR PLATES SEALING

- Pressure-resistant up to 30 bar
- Low permeability, high chemical resistance
- Temp. resistant -50°C to +250°C



END-PLATES GASKETS

- PFAS-free EPDM/FKM, ultra-low leaching
- Durable in acidic, oxygenated & hydrogenated environments
- Temp. range -50°C to +150°C



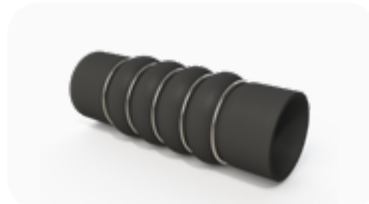
FLANGE SEALS FOR FUEL CELL BOS

- Ultra-low leaching EPDM
- Low permeability & high chemical resistance
- Safe handling & -50°C to +200°C resistant



FUEL CELL COOLANT HOSES

- PFAS-free EPDM/silicone, ultra-low leaching
- Approved by major carmakers
- High electrical resistivity



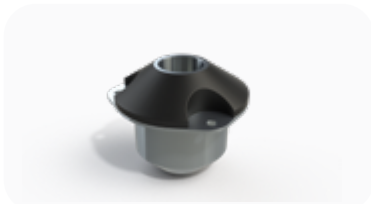
FUEL CELL AIR INDUCTION

- Straight and bellow hoses configurations
- High electrical resistivity
- Fire resistant



FUEL CELL H₂ HOSES & PIPES

- Stainless steel up to 700 bar
- Alu/rubber/plastic 2.5-21 bar
- H₂-compatible, low permeation, ESD



ISOLATOR SC

- Ultra compact
- High load capability
- Fail safe



ISOLATOR VIBCABLE®

- Shock absorber
- 100% metallic / stainless steel
- Temp. range -70°C to +300°C



ISOLATOR METAL MESH

- Metallic or stainless steel 100%
- Fully customizable solution
- Temp. range -70° to +300°C



HYBROAD® BELT + HYDRAULIC TENSIONER PULLEY

- Weight and cost savings
- High torque transmission capacity
- Endurance under high solicitations



THERMOSETS PARTS

- High thermal resistance
- Ideal for safety design
- Electrical insulation



O-RINGS

- Pressure-resistant up to 30 bar
- Low permeability, high chemical resistance
- Temp. resistant -50 °C to +250 °C



Our clients operate in some of the world's most demanding environments, where performance, reliability, and innovation are non-negotiable. Whether in automotive, aerospace & defense, new energies, or other advanced industries, they face complex technical challenges: from managing fluids and thermal, to ensuring acoustic insulation and sealing under extreme conditions.

At Hutchinson, we are a global technology partner, committed to enhancing product performance and extend lifecycle durability. Together, let's contribute to create safer, more comfortable, and more sustainable solutions



40,000
employees



25
countries
out of
4 continents



5%
invested each year
in Research
& Innovation



Scan the QR code
& contact our team



Want to see more?
Join us on LinkedIn!

wearehutchinson



We make it **possible**