

HYDROGEN SAFETY

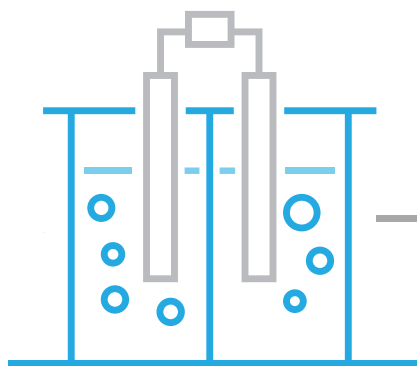
Pressure relief and explosion protection for equipment used in hydrogen production, storage and transportation



Hydrogen Applications

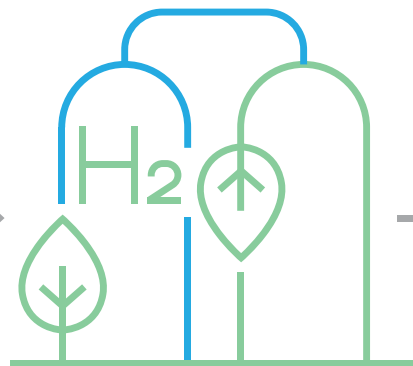
Customized design and engineering support to ensure you have the right pressure relief device for your hydrogen plant, equipment and vehicles

Production and Processing



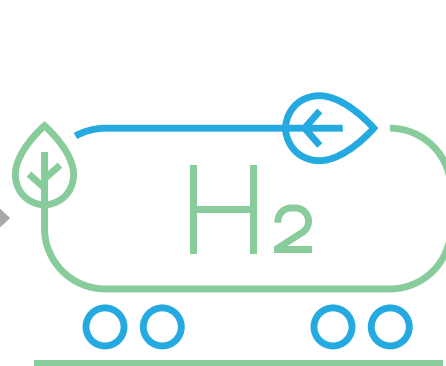
Electrolyzers
Fermenters
Reactors
Boilers
Pressure Swing
Adsorption plants
Liquefaction
plant

Storage



Adsorption-based storage
Tanks
Vessels
Bottle systems
Cylinders

Transportation



Cryogenic cylinders
Liquid tankers
Tube trailers
Sea tankers
Rail containers

Hydrogen is one of the most volatile chemical elements in existence. Production, processing, storage and transportation of hydrogen is closely regulated. Standards governing hydrogen safety include NFPA, OSHA, NREL, ISO, COMAH, PER, DSEAR and ATEX (including IECEx and UKEX).

Fittings such as vents, valves and rupture discs must conform to these standards. They must also withstand the specific conditions found in hydrogen applications: they must work at very low temperatures and in vacuum, they need to be resistant to embrittlement, prevent boil-off and be leak-tight (non-permeable). OsecoElfab's rupture discs and explosion vents meet the required standards for hydrogen safety, and offer exceptional leak-tightness, with reliability and accuracy for peace of mind across your hydrogen equipment.

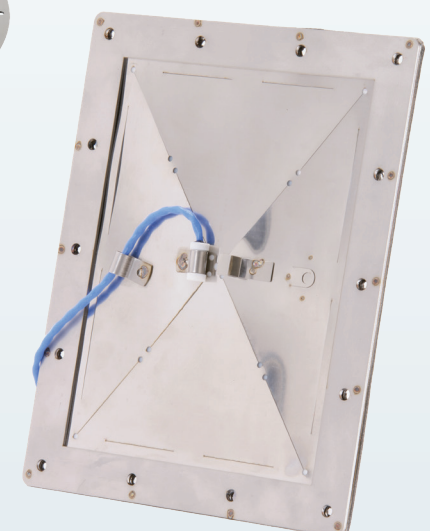
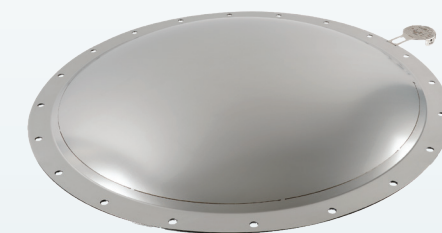
Rupture discs



- ¼" to 30" (7.5mm to 750mm)
- 0.07 psig–5,000 psig (5mbarg–344.7 barg)
- Suitable for gas and liquid systems
- Suitable for cryogenic conditions
- Austenitic and 316 Stainless Steel
- Exceptional leak tightness
- Withstand embrittlement
- Withstand vacuum
- Prevent boil-off
- High speed activation
- Safe and simple installation
- Designed to ISO and ASME standards
- ATEX-approved burst detection available

Explosion vents

- Circular, rectangular, trapezoid and irregular shapes
- Standard and custom sizes
- Domed or flat
- Single-skinned or multi-layered
- Frames, gaskets and insulating linings available
- For venting to atmosphere or into ducting
- Industry-leading performance tolerance of + / - 0.25 psig.
- Stocking program available for rapid delivery (USA only)
- Meets ISO, OHSA and NFPA requirements
- ATEX-approved burst detection available





H₂

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