

This small, electrochemical hydrogen compressor packs a big punch for efficiency, reliability and your bottom line.



**SKYRE**

H2RENEW™ Model H2C-06-200

**Introducing the world's first commercially available high-pressure hydrogen separation and compression system.** Designed and proven for NASA, this fully autonomous high-pressure system is the newest model in SKYRE's H2RENEW line and now it's available to you. Based on patented electrochemical technology, it is designed for a broad array of uses in the emerging hydrogen energy – fueling and storage – markets.

SKYRE's high-pressure H2RENEW captures, separates and compresses hydrogen contained in a mixed gas stream such as biogas, natural gas reformat, syngas or effluent

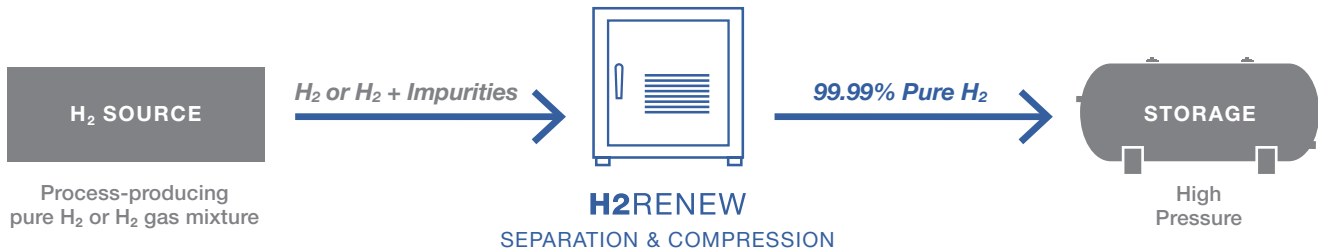
from an industrial process. This energy-efficient, compact system delivers 99.99% pure high-pressure hydrogen to storage for high-value applications such as fuel cell electric vehicle fueling. With H2RENEW the separation of mixed streams does not require compression of an entire stream, just the hydrogen. And it will compress hydrogen from near ambient pressure with little additional energy requirements.

**This compact, modular system isn't just good business, it's smart business. To find out more, contact us at +1.860.652.9690 or visit us at [www.skyre-inc.com](http://www.skyre-inc.com).**

# Electrochemical Hydrogen Separation and Compression System Overview

**SKYRE**

A SMARTER WAY  
TO A BETTER WORLD.



## System Specification 0.6 kg-H<sub>2</sub> /day, 200bar

FEED STOCK INLET	NOMINAL
Hydrogen Gas Inlet Composition	50 to 100% by Volume*
Inlet Pressure (psig)	5 - 200
OPERATING ENVIRONMENT	NOMINAL
Temperature (°C)	5 - 35
Humidity (%RH)	0 - 100% Non-condensing
Installation Location	Indoor Installation**
Air Ventilation (CFM)	200
PRODUCT OUTPUT	NOMINAL
Hydrogen Purity	99.99%
Hydrogen Yield (%)	>90%
Hydrogen Dew Point (°C)	< -70 (at ambient pressure)
Hydrogen Pressure (psig)	300 - 3000
Hydrogen Flowrate (kg/day)	0.6
POWER REQUIREMENTS	NOMINAL
Voltage, 1 ph	220 VAC 60Hz
Circuit Rating (amps)	20
OPERATIONS	NOMINAL
Operator Interface	Touch Screen w/ E-Stop Button
Remote Operation	Option Available
Data Interface	Ethernet
MECHANICAL	NOMINAL
Envelope Dimensions (HxWxD) (inches)	50 x 30 x 26

System designed to the following codes and standards:

- NFPA 70 Class I Division 2 Group B Requirements for Hazardous Locations
- NFPA 496 Standard for Purged and Pressurized Enclosures for Electrical Equipment
- ASME B31.3 Process Piping and B31.12 Hydrogen Piping and Pipelines

\* Lower concentrations are possible

\*\* Outdoor Option Available

**Our patented electrochemical technology delivers unique features and benefits.**

- Few moving parts – minimal maintenance
- Quiet
- Scalable
- Load following
- Energy efficient

SKYRE develops and manufactures innovative products based on a proprietary, low-cost and scalable electrochemical platform. Developed for NASA as part of critical life support systems for astronauts, our H2Renew systems provide hydrogen purification, recycling and compression in a solid-state device for industrial gas and energy needs.

### For More Information:

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