

HYDROGEN PRODUCTION

We provide hydrogen generation solutions, enabling a clean and efficient alternative to conventional fuels. By leveraging cutting-edge technologies and strategic partnerships, we deliver tailored solutions that meet the diverse needs of various sectors.

ELECTROLYZERS

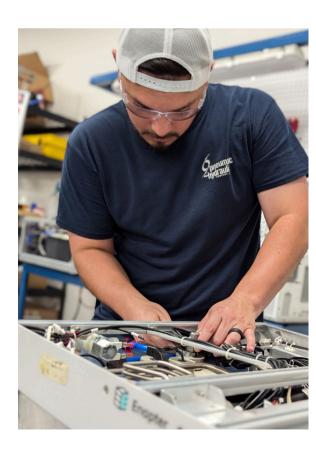
We have partnered with manufacturers to provide alkaline, AEM, PEM, and SOEC electrolyzer solutions. We provide packaging, balance of plant integration, commissioning, and service. Ranging from water treatment, power distribution (transformers, AC-DC, DC-DC, and custom switchgear) to chilling, containerization and more.

REFORMING AND PYROLYSIS

Our vast experience in compression allows us to deliver efficient, tailored solutions around reforming and pyrolysis technologies. We offer a range of compression systems from ambient pressures to 1000+ bar output.

OEM SUPPORT AND TURNKEY SYSTEMS

Our distribution network and service teams allow us to be the perfect partner for hydrogen production OEMs. We can lower costs and supply chain constraints on your system components, provide packaging and integration services, and provide service work to keep your systems maintained in the field.







HOUSTON, TX

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LET'S CONNECT

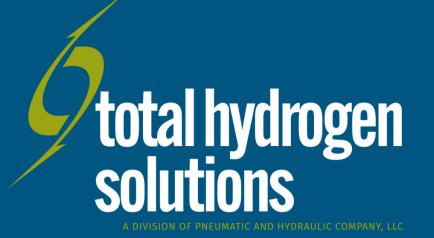
in @total-hydrogen-solutions



65+ years

in business as a trusted distributor and integrator





END-TO-END HYDROGEN INTEGRATION SOLUTIONS

REFUELING

POWER

COMPRESSION & DISPENSING

PRODUCTION





TOTAL HYDROGEN SOLUTIONS, a division of Pneumatic and Hydraulic Company, is a leader in end-to-end hydrogen integration solutions. From concept and design to installation, maintenance, and repair, we provide a full spectrum of hydrogen integration solutions, Our solutions cover hydrogen creation and generation, compression and transfer systems, refueling stations, and hydrogen electrification systems, customized to meet diverse needs.

With decades of expertise and partnerships with leading hydrogen companies, we are able to provide innovative and customized solutions for specific customer requirements and applications. By leveraging our clean alternative solutions, together, we are able to decarbonize the energy sector and drive sustainability.

Why Total Hydrogen Solutions?





Industry leading partnerships

Client-centered approach





Excellent lead times

Extensive service area





Proactive enhancement

Future-ready solutions

COMPREHENSIVE HYDROGEN ENERGY SYSTEMS PARTNER

HYDROGEN REFUELING

Total Hydrogen Solutions is revolutionizing clean transportation with our comprehensive hydrogen refueling and dispensing solutions, delivered by mobile and permanent stations. Our systems are designed to support the rapid adoption of hydrogen-powered vehicles, offering efficient refueling, robust storage, and precise dispensing capabilities.

Mobile Hydrogen Refueling

We provide trailer mounted mobile hydrogen refueling stations for temporary or backup applications. Standard solutions are available for rent (H35 and H70 with fast filling) and custom solutions are available for purchase.

We provide solutions with compression onboard or fully-self powered cascade refueling systems. We also provide methanol to-hydrogen mobile refueling systems for flexible feedstock where gaseous/liquid hydrogen isn't available.



HYDROGEN POWER

Total Hydrogen Solutions is pioneering the future of clean energy with leading hydrogen fuel cell technology, transforming power sources for vehicles and machinery. Our expertise in storage (gaseous and solid), fuel cell and battery integration, EV charging, and containerization enables us to provide solutions for FC backup power, hydrogen for electrification (i.e., EV charging), and hydrogen blending.





Intelligent Energ

HYDROGEN COMPRESSION AND DISPENSING

Total Hydrogen Solutions delivers fully integrated custom hydrogen compression and dispensing systems, engineered for reliability, safety, and performance. Whether you're fueling a small fleet or scaling to commercial throughput, our modular systems are designed to meet evolving demand with precision and speed.

With successful deployments in high-demand environments—including projects for the Department of Defense—we bring deep expertise in system integration, pressure management, and refueling protocols. Our solutions cover high-pressure compression, storage, chilling, and SAE J2601-compliant dispensing. Backed by a robust supply chain, we ensure rapid lead times, consistent quality, and seamless field support.

Stationary Refueling

We provide complete turnkey hydrogen refueling solutions to fit your exact needs. A few of our solutions include:

- **Hydrogen refueling stations:** Ideal for large fleets, this station can deliver 4,000+ kg of hydrogen per day and can support 350 and 700 bar fueling.
- **Small scale hydrogen refueling stations:** Suitable for small fleets, this station can compress 80 kg per day and has a dual dispensing option of 350 or 700 bar. Optional onsite generation can be completed through electrolysis or reforming.
- **Liquid hydrogen refueling stations:** We integrate storage, pumping, vaporization, precise dispensing, and smart controls for reliable liquid hydrogen infrastructure.



We are shaping the future of hydrogen energy.