



Solutions Throughout the Hydrogen Value Chain



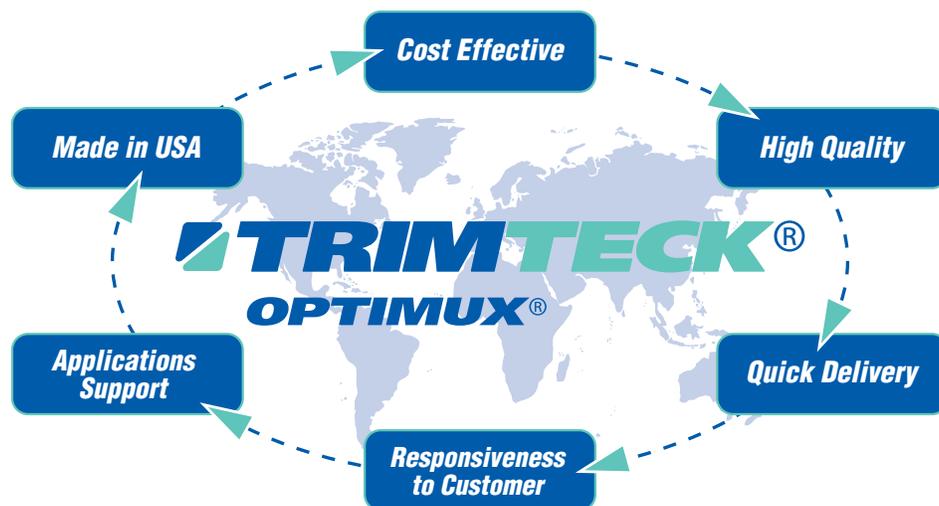
We manufacture control valves for the world's most critical applications.



Trimteck is an innovative

ISO 9001-certified organization with nearly two decades of experience engineering and manufacturing high-quality flow, pressure, and temperature control solutions for critical processes. Our products are currently helping customers safely improve quality, optimize throughput, and reduce emissions and costs across an array of industries in more than 50 countries.

We build a comprehensive line of control valves – and a variety of actuators, positioners, severe service trims, and other accessories – that our applications engineers and representatives use to solve even the most complex process control problems quickly and economically.



The Hydrogen Value Chain

Hydrogen has emerged

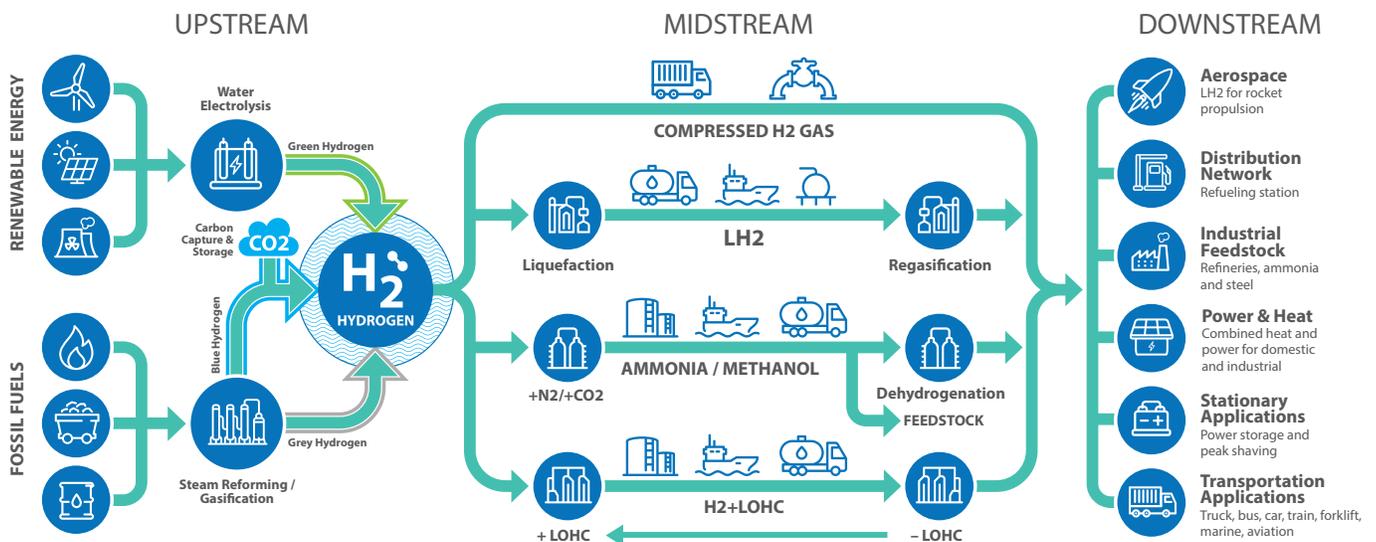
as the ideal medium for the energy transition from fossil fuels to renewables, as well as for the reduction of carbon dioxide output from a variety of end-use applications – primarily as industrial feedstock and transportation fuel. It is highly energy-dense, and has no environmental impact.

Hydrogen's role in the global energy mix is growing in tandem with the urgency of reducing greenhouse gas emissions due to several related factors:

1 the declining costs of producing so-called Green Hydrogen, which is hydrogen produced by water electrolysis with power supplied from renewable sources i.e. wind and solar;

2 the improvement in Carbon Capture, Utilization, & Storage (CCUS) technology, which enables production of so-called Blue Hydrogen from Steam Reforming/Gasification of Fossil Fuels, and

3 dramatic ongoing improvements in fuel cell technology that enables a multitude of end-use applications.



For nearly two decades

Trimteck has been working with our customers to design and manufacture control valves for hydrogen service throughout the hydrogen value chain – as well as for extremely challenging liquid hydrogen applications in the aerospace industry.

We offer a range of flow control solutions from general service control and block valves to specialized valves for extreme temperatures and other challenging service conditions.

If specified properly, our rugged Trimteck-Optimum control valves operate reliably for many years, and are designed to avoid issues associated with hydrogen embrittlement.



- Ammine and Gas Scrubbing
- Antisurge/Compressor Recycle Valves
- Cavitation Control
- Cold Box
- Cryogenic
- Gas Dehydrogenation
- Gas-to-Flare
- High Pressure Drop
- High Pressure Let Down

- High Rangeability
- Joules-Thompson Valves
- Liquid / Gaseous Hydrogen and Oxygen
- Low Flow
- Noise Attenuation
- Pump Recirculation
- Underground Injection/Withdraw
- Velocity Control

Featured OpGL® Globe Control Valve Products for Hydrogen Applications

General Service



OpGL®

1/2" – 36"
CL150 – CL2500

- Precise and Stable Control
- Exceptional Shutoff
- High Thrust Piston Actuator
- Easy Maintenance
- Broad Range of Interchangeable Trim Configurations

Severe Service



OpGL-ST®

1" – 36"
CL150 – CL4500

- High Differential Pressures
- Anti Cavitation Trim
- Noise Abatement Trim
- Flashing Service Trim

Cryogenic



OpGL® Cryo

1/4" – 36"
CL150 – CL4500

- Temperatures lower than -425F (-254C)
- Class IV or VI Repeatability Shutoff
- Fast Stroking Speeds
- Special Alloys
- Precise Control

Zero Fugitive Emissions



OpGL® GuardMaster MBS

1/2" – 36"
CL150 – CL4500

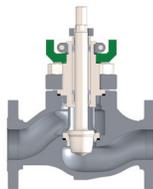
- Up to 6 Million Cycles
- Inconel or Hastelloy Variations
- Modular
- Minimum Weld Points

OpGL® Body Styles

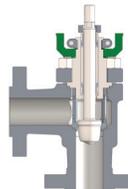
All of the valves above can be configured and ordered with a variety of body styles to conform to the customer's requirements.



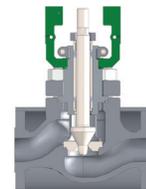
Globe



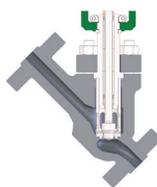
Angle



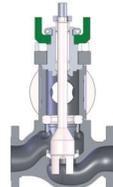
Jacketed



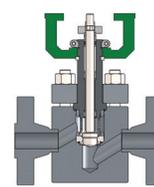
Y-Pattern



Three Way



XT Fabricated



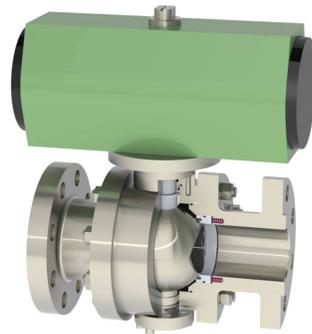
Additional Featured Products for Hydrogen Applications



V-Notch Ball Valves



OpVEE



OpTB

OpTB® V-Notch & OpVEE

1" – 56" CL150 – CL4500
-320F (-196C) to 1200F (649C)

Side Entry or Top Entry

API 6A – API 6D

ASME B16.34

Metal and Soft Seated

Up to 300:1 Turndown

Standard ISO Shaft & Mounting Pad

Control Systems



HPP5500



HPP4000



HPP2800

HPP Series Positioners

Pneumatic and Digital Valve Positioners

Linear and Rotary

Explosion Proof and Intrinsically Safe

Available in SS Enclosures

Auto Setup & Calibration

Pneumatic Actuation



OpTK® Piston Cylinder Actuators

High Thrust, High Frequency

Compact, Precise, Fast

Field Reversible

Versatile, Longer Strokes

Easy, Cost Effective Maintenance

Eccentric Plug Rotary Valves



OpEXL®

1" – 16" CL150 – 600

Class IV or VI Repeatable Shutoff

Frictionless, Cammed Seating

160:1 Turndown

Standard ISO Shaft & Mounting Pad



We understand the value of prompt and thorough technical support for our products.

We are equipped to provide you with remote troubleshooting, spare parts, and on-site commissioning, startup, and servicing of our control valves, actuators, and positioners.

- **Engineering Support**
- **Cleaning and Testing**
- **Installation & Commissioning**



Our manufacturing facility in Coral Springs, Florida now has a dedicated production cell to configure, assemble, test, and ship a range of control valves within hours of receiving a purchase order.

Place an order for a qualifying valve or valve parts before 10:00am Eastern time, and we will ship on the same day!

Scan the QR code to learn more.



The information and specifications described in this document are considered accurate. However, they are intended for informational purposes only. Any specification and selection of the products herein described should be reviewed by a Trimteck applications engineer.

Trimteck products are continuously improved and upgraded. Therefore the information herein is subject to change without notice.

For further information about Trimteck products, consult your local Authorized Trimteck Sales Representative, Distributor, or Certified Service Center.

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Products in
compliance with:

ASME B16.34
ANSI/ISA-75.05.01-2019