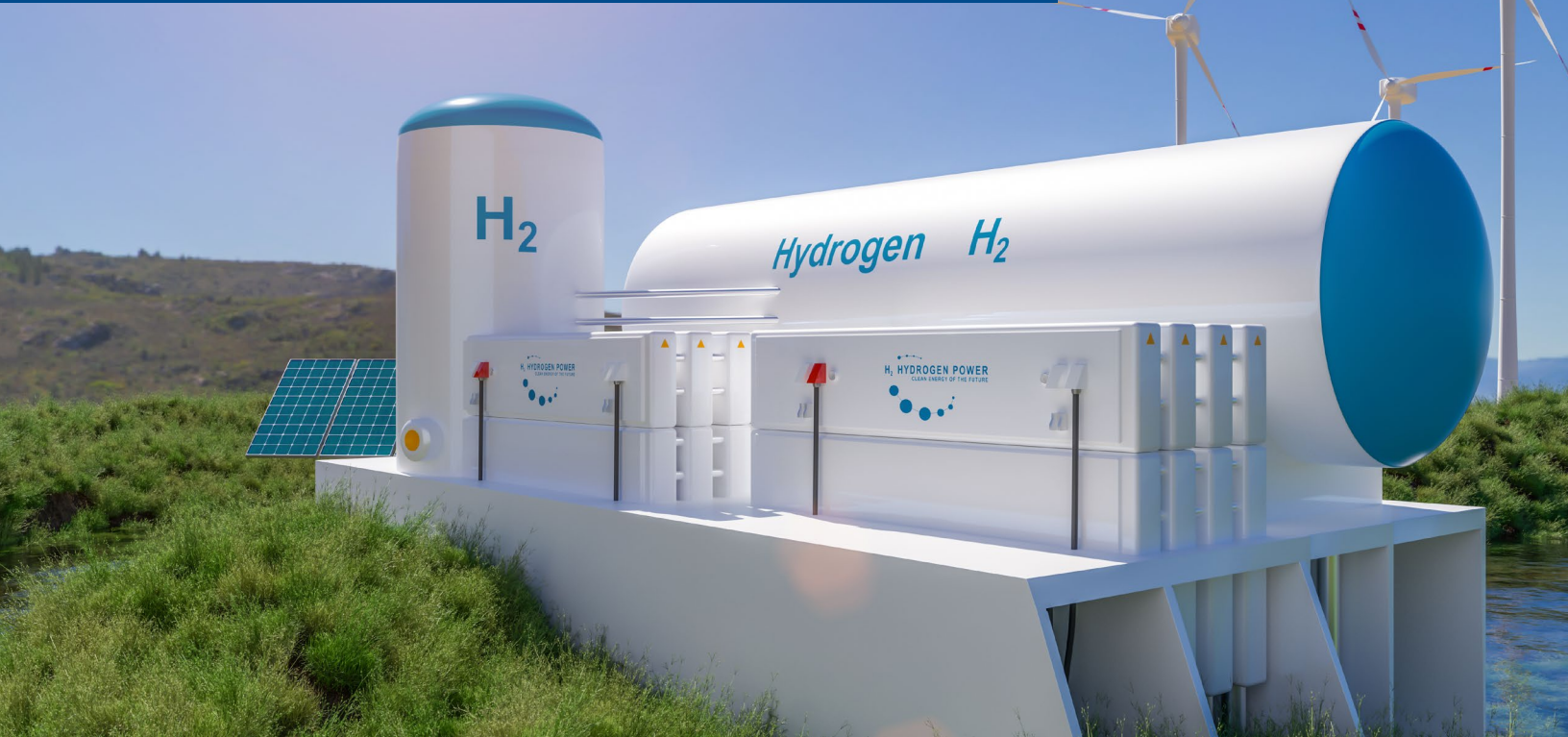


# Hydrogen Ready Fisher™ Control Valves

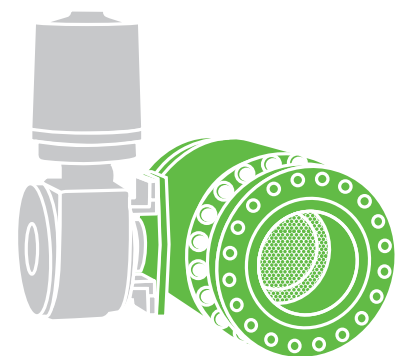


**FISHER™**

**Transition to hydrogen fuel with extensively tested, precise, and reliable control valves for your most demanding requirements.**

## Hydrogen Challenges

- **Material Selection Is Critical:** Exposure to hydrogen gas can reduce the strength and ductility of many metallic materials known as hydrogen embrittlement. Embrittlement is a major concern in hydrogen applications and correct material selection is key to avoid costly shutdowns from embrittlement damage.
- **Leakage Can Be Detrimental to Emissions Reduction:** With high pressures and permeability in the hydrogen value chain, products must be effectively, efficiently, and safely controlled. There can't be any inboard or outboard leaks due to integrity issues with static or dynamic seals within a control valve.
- **Poor Process Control and Efficiency Lead to Decreased Profit:** Hydrogen has a unique challenge of temperature rise based on pressure drop. Great care must be taken to help ensure the appropriate selections are made to provide the most reliable, safe, and efficient valve sizing for each application. With evolving testing standards and product certifications under development, there is a need for well researched and tested solutions.
- **Blending Guidelines Are Uncertain:** There are concerns related to efficient transportation of blended fuels and end user application challenges using existing infrastructure safely and reliably. Hydrogen blending applications are becoming more common in today's global energy transition and ensuring material compatibility in these situations is critical to process safety.



**EMERSON™**

# Hydrogen Ready Fisher Control Valves

Demand in hydrogen is growing rapidly for scaled production at affordable costs. Emerson is an expert global supplier of innovative solutions with over 60 years of hydrogen application experience. Emerson's extensive range of flow control technology has been used throughout the hydrogen fuel chain, providing reliable process control in hazardous environments, for optimized production and enhanced safety. Emerson's technologies are being used in electrolyzers, fueling stations, fuel cells, and in industrial applications using hydrogen.



## Meet Application Requirements With Qualified Materials

Emerson's materials engineers ensure Fisher control valve assembly materials are reviewed and tested to meet the needs of hydrogen applications. Assemblies are suitable for natural gas service with blended hydrogen, from a low blend rate up to 100% hydrogen. Quality standards such as ISO 9001, ASME, and NACE support the highest level of material conformance from suppliers.



## Achieve Exceptional Fugitive Emissions Control

Fisher control valves utilize emissions style ENVIRO-SEAL™ and ISO-SEAL™ packing systems that have been tested and certified to international standards such as ISO 15848-1 and other validated standards. The long life and reliability of these systems also reduce your maintenance costs and downtime.



## Get Continuous Support in Changing Market Demands

We've standardized our control valve sizing software to ensure all sizing and selection challenges are met, Fisher control valves apply ISA approved control valve sizing software. This ensures the correct sized valve for every application and includes any impact from potential rise in process temperature seen in hydrogen application.



*Fisher GX control valve with FIELDVUE™ digital valve controller*



*Fisher easy-e™ control valve with FIELDVUE digital valve controller*



*Fisher 8590 high-performance butterfly control valve with FIELDVUE digital valve controller*



*Fisher V270 full-bore ball control valve with FIELDVUE digital valve controller*

## Learn More

[Control Valves page](#)



[Hydrogen page](#)



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