# **Hydrogen solutions**

Experts in hydrogen, we specialise in the supply, modification, and testing of hydrogen valves.



At AC Valve Alliance, we are at the forefront of hydrogen technology, providing comprehensive in-house solutions for the supply, modification, manufacturing, and testing of hydrogen valves.

Our team of experts are dedicated to delivering reliability and performance to meet the demanding needs of hydrogen projects across the UK and globally.





# Why choose AC Valve Alliance?



#### **Industry experts**

We specialise in hydrogen valve solutions, ensuring compliance with stringent regulations and technical requirements.



#### Global sourcing

Our principal supply partners are involved in developing global hydrogen specifications and our extensive global supply network allows us to source products worldwide, guaranteeing the best options for your project.



#### Tailored solutions and valve automation

We assess your specific needs and can offer bespoke designed solutions to meet your exact requirements, including in-house valve manufacturing options, actuator mounting kits and valve automation packages.



#### Modification expertise

Our team of engineers can modify our large stock of O-rings to ensure application suitability.



#### Project supply

We manage the entire supply chain, from sourcing to delivery, ensuring a seamless process.



#### Excellent customer and aftercare service

We offer comprehensive support throughout your project and beyond, ensuring complete satisfaction.



acvalvealliance.com

# We are a problemsolving company, making your project more efficient.

AC Valve Alliance provides a complete solution for your hydrogen valve needs. From initial project scoping and technical analysis to ensuring the most cost-effective valve selection and on-site support. we manage the entire process.



**Cost-effectiveness** 



Expertise



**Customer care** 



#### Initial enquiry

First, our customers contact us with their project details, including specifications and any known technical requirements. We gather all necessary information to determine the best hydrogencompatible solution for their needs.

### Quotation

We provide tailored quotations based on the project complexity and scale. Our flexible formats streamline customer evaluation and approval, ensuring clarity and efficiency.



#### **Compliance & Testing**

All components undergo rigorous pressure and leak testing in our dedicated facilities, using advanced detection methods such as helium or hydrogen gas. Components are also cleaned and lubricated using H2-safe products in a sterile environment to prevent contamination and guarantee optimal performance in critical applications.





#### **Engineering & Manufacturing**

We can source, design, manufacture, and modify existing stock valves to optimise them for hydrogen-specific operating conditions. Our expertise ensures that each product meets stringent performance, reliability, and compliance standards, effectively addressing pressure. temperature, and media requirements.





#### Order management

Efficient order management is critical to our process. We track and fulfil customer orders with care, adhering to all the correct procedures and ensuring operational integrity.





#### **Packing & Documentation**

Finally, we pack each project in accordance with the customer's requirements, including an MRB data book containing documents such as a hydrogen leak test report, a certificate of conformity for H2 service, and other related paperwork to ensure full compliance and traceability.

## Hydrogen valve types



#### **Ball valves**

for low to high temperatures and high-pressure applications, our solutions ensure quaranteed tightness and full compliance with the stringent fugitive emission standard ISO 15848-1 AH endurance CO3.



#### **Butterfly valves**

for high-temperature applications, ensuring zero emissions and compliance with TA-LUFT. ISO 15848-1, API 641, and DIN EN 12266-1 leakage rate A standards.



#### **Needle valves** and manifolds

for high pressure applications.



#### Line blinds

for high temperature applications and zero emissions.



#### **Actuation and** controls systems

Atex certified for explosive environments.

### Our commitment to quality

AC Valve Alliance ensures rapid engineering solutions with advanced workshops, clean room facilities, and rigorous hydrogen testing. Our diffusion sensor testing equipment detects even minimal hydrogen leaks, achieving sensitivity down to 5 x 10 mbarl/s for maximum reliability and safety.



#### Our principal supply partners



































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