Press Release

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Decarbonisation 22 July 2022

TÜV SÜD issues its first hydrogen valve certificate

Munich. TÜV SÜD Product Service has issued its first voluntary certificate for a hydrogen valve for industrial use. It was awarded to a UK company. The international TIC company's voluntary certification scheme is aimed at supporting the energy industry and the manufacturing sector in their objective of replacing fossil fuels with hydrogen.

"Standardisation is lagging behind, and to date there have been no clearly defined qualification or test standards for hydrogen valves to be used in industrial or pipeline applications", explains Martin Sekura, Business Development Manager Hydrogen at TÜV SÜD. "However, at the same time the volatile gas imposes high demands on valve design and valve materials." Oliver Hydcovalves, located in the north-west of the UK, has been the first manufacturer to submit its products for voluntary certification. The company – a member of the Oliver Valves group of companies, a leading producer of valves for the oil, gas and petrochemical industries – designs and manufactures high-precision valves for hydrogen and carbon-capture applications. The first product to be certified for its suitability for hydrogen service is a ball valve.

Within the scope of future certifications, TÜV SÜD will assess the H_2 compatibility of components' metallic and non-metallic materials as well as their functionality and gas-tightness. The certificate will be issued in accordance with a new TÜV SÜD test specification based on various standards, including ISO 15848-1 on the fugitive emissions of industrial valves and parts of ISO 19880-3 with respect to the tightness of valves. The standards have been developed taking into account the hydrogen-related component-specific conditions and requirements.

Martin Sekura personally presented the first certificate to Nick Howard, Engineering Director at Oliver Hydcovalves, in Knutsford, England. Sekura comments, “By providing this certificate, TÜV SÜD not only offers a practicable and realistic solution for qualifying valves for stationary hydrogen applications. Our expertise also supports the transformation of companies and decarbonisation of the economy.”

TÜV SÜD has recently also launched new certification marks for fuel cell systems and hydrogen system components. Hydrogen is increasingly replacing fossil energy carriers, and not only in the energy industry. The chemical and petrochemical industries use hydrogen in the production of nitrogen fertiliser and synthetic fuels and for refining mineral oil. In the manufacturing sector, hydrogen is used in processes for which electrification is difficult, such as steel and ammonia production. Valves are used to shut off and control flow volumes and the flow direction of fluids and gases. They are classified as “shut-off valves”, an umbrella term which also includes ball valves and gate valves.

Further information:

https://www.tuvsud.com/en/themes/hydrogen/green-hydrogen-certification

https://www.tuvsud.com/en/press-and-media/2022/june/new-certification-marks-for-fuel-cell-systems-and-components-of-h2-systems

Note for editorial staff: The press release and high-resolution photo are available on the Internet at www.tuvsud.com/newsroom.

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