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PRESS INFORMATION

Higher refuelling capacity for hydrogen drive On Tank Valve from Poppe + Potthoff has successfully completed final tests according to EC 79 Fuel cell technology makes an important contribution to achieving an emission-free future. Hydrogen can be used in both mobile and stationary applications and in this way contributes significantly to the energy transition. The fuel cell has advantages over electric mobility: the smaller battery of the Fuel Cell Electric Vehicles (FCEV) allows a greater range with a higher payload compared to Battery Electric Vehicles (BEV). Another advantage is the much shorter refuelling time for FCEVs. Not only because of these advantages does the market for FCEVs offer great growth potential - Asia and the USA in particular will rely on fuel cell technology in the future. For example, both China and California are aiming to have one million FCEVs in their fleets by 2030.

In order to optimally utilise the advantages of a fuel cell drive, among other things, a reliable supply of hydrogen during operation and the shortest possible refuelling times are necessary. The valve attached to the H2 tank plays an important role here. With the specially developed On Tank Valve (OTV), Poppe + Potthoff offers a new solution for use on the tank in mobile and stationary H2 systems. The OTV can be attached to individual tanks or to a group of tanks via a distribution rail.

Depending on the system configuration, the OTV thus enables serial and parallel filling of the tank cylinders. The innovative flow guidance reduces pressure losses and enables a higher refuelling speed compared to the standard of 60g/s discussed in the GTR13 standard for refuelling passenger cars. This brings advantages especially when used in commercial vehicles. In addition to the shorter refuelling time, weight optimisation of the modular OTV body is also one of the goals in the development of the OTV. Thus, a low weight of less than 1300g and a compact design of 177mm diameter including the attachment of a solenoid valve could be achieved.

The modular design of the OTV allows easy integration of additional components on the component. In order to enable good use, Poppe + Potthoff designed the OTV to be as user-friendly as possible. The component has a central connection for filling and removal, as well as an optional connection for e.g. a Middle TPRD, while all cable outlets are bundled on one side. This design allows for easier assembly. Through repeated assembly simulations during development, the Poppe + Potthoff team was able to achieve very good accessibility of the OTV. A special tool for assembly is also offered by Poppe + Potthoff.

During the development of the OTV, the focus was on the requirements that customers place on such a component. This made it possible to develop a solution that reliably delivers the highest performance. The OTV is currently undergoing certification in Europe. With the successful completion of the tests according to EC 79 / Regulation (EU) No. 406, an important milestone has been reached. Poppe + Potthoff sees itself as a development partner that develops individual and efficient system solutions with and for its customers.

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Images



Fig. 1: Poppe + Potthoff has developed an On Tank Valve (OTV) that allows tanks to be refuelled with hydrogen more quickly.

Source: Poppe + Potthoff In print quality: <u>Download ZIP</u> or via <u>press.info@oha-communication.com</u>

Poppe + Potthoff

The Poppe + Potthoff Group, with its headquarters and technology center in Werther (Westphalia, Germany), has more than 1,600 employees and long-term partners in over 50 countries. Founded in 1928, the company today has 18 plants and sales offices in 9 countries. Each location has its own area of expertise, all of them focusing on the requirements of each individual customer, for whom they contribute to sustainable and environmentally friendly technologies and drive the digitalization of processes.

Poppe + Potthoff is a partner of globally active companies in various technically demanding industries such as the automotive industry, mechanical engineering, marine and aerospace. The product portfolio includes common rails, precision steel tubes, high-pressure lines, precision components, precision and industrial couplings and specially developed test systems. With innovative hydrogen supply systems and components for electric vehicles, Poppe + Potthoff is contributing to an emission-free future for mobility and industry. www.poppe-potthoff.com

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