

# Achieving minimal space requirements without restrictions at hydrogen filling stations

With the high-pressure hydrogen valves in its HyValve series, Eugen Seitz AG delivers a compact solution that will turn the refueling process into an experience.



## Starting position

Fuel station constructor Fast Refuel AG recognizes the the relevance of hydrogen filling stations to remaining successful in the market in the future. It then looks into the equipment that it will need to achieve its goal of a competitive installation.

In addition to the fuel pump, the H2 refueling experience also requires a priority panel and appropriate storage to be able to refuel the bus, the truck or the automobile with hydrogen. The priority panel passes the gas via valves from the storage tanks to the fuel pumps, and thus creates the distribution center – the heart of a hydrogen filling station.

## The challenges

Anna Buchmann, CEO of Fast Refuel AG, knows that the majority of hydrogen filling stations have to be located in urban zones to reach the target group where demand is highest. However, that is precisely where land prices are high and space is limited. Customers also want the fuel pumps to be uncluttered and centrally located. Ms Buchmann decides to tell the CTO of Fast Refuel AG, Thomas Storch, of her findings and to ask him to pursue the theme of hydrogen filling stations in more detail.

Following an initial investigation of the issues, Mr. Storch recognizes the various challenges that are to be overcome when planning a priority panel, in order to ideally satisfy the needs of everyone involved. The limited availability of building land gives him added reasons to consider how to design the system to be as space-saving and uncluttered as possible.

The heart of the filling station, and thus the hydrogen valves used in it, must be of compact construction, yet at the same time guarantee good accessibility for installation work. Uncluttered screw connections with as few pipes as possible and absolutely gas-tight seals must be guaranteed at all times. Mr. Storch is sure that if he manages to implement these factors, the size of the priority panel can be significantly slimmed down and as a result the space required can also be reduced.

## Solution

The optimal use of the HyValve products from Eugen Seitz AG delivers a reliable hydrogen experience in a small space. The modular nature of the system also provides unlimited flexibility for filling stations of all sizes with tight space restrictions. The uncluttered installation of the system also guarantees ease of maintenance. The needs of Fast Refuel AG can be met in a compact and space-saving manner through the use of solenoid valves.

## Implementation

Following the initial contact by Thomas Storch with Eugen Seitz AG, the H2 sales expert provides him with detailed, constructive advice. Beginning with an analysis of the starting position of Fast Refuel AG, the expert assists in choosing the the right system solution. Of course in addition to a compact design, all the other important aspects are also considered, advantages are explained in detail and personal support is emphasized. Mr. Storch persuades his boss, Ms. Buchmann, of the benefits of the HyValve products. Fast Refuel AG is entirely satisfied with its decision to enter the hydrogen filling station sector and thus making a sustainable contribution to our future.

## Benefits

- High-quality product, delivering reliability and safety
- Faster refueling than with other alternative drive technologies
- Availability of the filling station is guaranteed
- Promotes the hydrogen economy and the associated achievement of climate targets (net zero)
- Compact solution for filling stations with tight space restrictions

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