

GFH Protective Filter

For hydrogen stations up to 1,050 bar

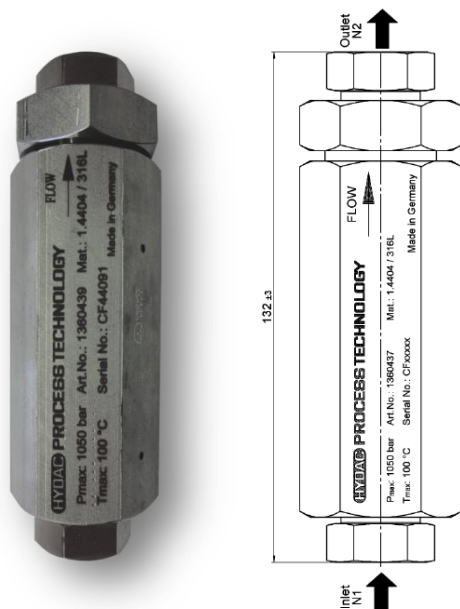


Figure 1: HYDAC GFH

Description

The HYDAC GFH gas filter supplements our product range for ensuring technical cleanliness for hydrogen stations up to 1,050 bar. The GFH is a fitting filter for both onboard and stationary utilisation.

It assures the functional protection of downstream system components, e.g. non-return or control valves, dispensers (fueling nozzles) and filling spouts on vehicles.

Installation takes place immediately in front of the component to be protected. As an option, the filter element, particularly with onboard solutions, can be integrated directly in the housing of the respective component and thus adapted optimally to the respective application.

Together with the GF1, the GFH complements our comprehensive filtration portfolio for the use in hydrogen applications. Whereas the GF1 represents a work filter in the classic sense, the GFH finds its main use in protective filtration. With the market introduction of the GF1, it was for the first time possible to separate contaminants process secured, which were carried in from the outside to the system of a hydrogen refueling station. Nevertheless, impurities that are generated by downstream process technology equipment, e.g. the wear of components and materials of seals, can lead to the failure of important system components. This risk can now be significantly reduced by the use of the GFH as a protective filter.

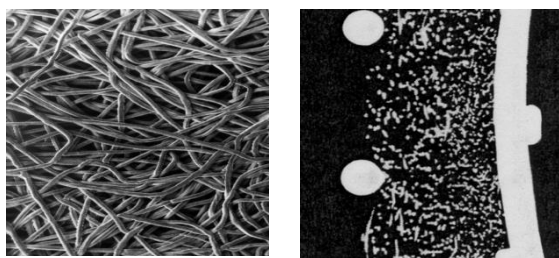


Figure 2: Chemicon® Filter material

HYDAC Chemicon®	Graduated Filter Structure
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→ No fibre migration possible

- Maximum filter porosity
- Lowest pressure loss, due to high open filter surface
- Maximum dirt holding capacity

Performance Data

Medium	Gas (H ₂ , N ₂ , ...)
Design temperature	- 196 °C / + 100 °C
Design pressure PD	1,050 bar
Flow rate	up to max. 60 g/s for H ₂
Filtration rating	0.5 µm up to 20 µm
Material	316 L

Product Advantages

- Best permeate quality due to HYDAC Chemicon®
- Defined separation rate
- High dirt holding capacity
- Excellent differential pressure stability
- Extremely robust filter element technology - no penetration of the filter material during the refueling process
- High pressure stability - highest resistances through non-utilisation of adhesives, polymer seals or grouting
- Exclusively metallic sealed joints
- Optional integration of the GFH filter elements in the housing of the component to be protected*

*Case-by-case examination

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Subject to technical changes

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