



## High Pressure Fast-Loop Filter (HPFF)

The **Hobre model HPFF** filter housing is suitable for **High Pressure** gas and liquid sample streams.

The sample bypass stream is forced in a linear sweeping action. All particles and liquids in gas applications will be removed from the membrane surface to the bypass sample stream.

The volume on the sample side of the filter is only **1,2 ml** which improves response time before analysis. This makes the HPFF filter an

excellent choice as fast-loop filter for high pressure gas applications and liquid applications where the liquid needs to be vaporized before analysis.

Service can be performed on the filter without removing the tubing from the filter body.

The pressure drop over the bypass side of the filter is minimized because of the  $\frac{1}{2}$ " inlet and outlet connections. This makes this filter very suitable in combination with the Hobre Flow Impact probe.

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### MEMBRANES

For gas analyser applications the multi phobic filter elements are the preferred choice. The multi phobic filter elements retain solid particles, polar and non-polar liquid traces.

For liquid applications both hydrophobic membranes for water and particles removal and particle-only filter elements are available.

The *Multi Phobic series* filter protects gas analysers from any liquid and particle carry over in demanding applications. Benefits of the Multi Phobic filter elements:

- Retain liquid droplets, including water, oil, amines and glycol;
- No absorption of hydrocarbons which tend to clog the standard hydrophobic membrane filters;
- Mechanical strength, providing extra protection for analyser equipment installed downstream;
- Chemically resistant;
- Field tested on difficult saturated gas applications, such as separators, strippers, absorbers and flash vessels.



Patent 1038559



## SPECIFICATIONS

Model HPFF	Model code	Example Code HPFF-A2V
<b>Body Material</b>	A	316 Stainless Steel
	B	316 Stainless Steel Sulfinert Coated (ppb H <sub>2</sub> S analysis)
	C	Duplex Stainless Steel
	D	Hastelloy C
	E	6MO
<b>Filter element</b>	1	Multi Phobic membrane (0,2 micron)
	2	Multi Phobic membrane (0,45 micron)
	3	Multi Phobic membrane (10 micron)
	4	Hydrophobic (0,5 micron)
	5	PTFE Hydrophobic (0,2 micron)
	6	PTFE Hydrophobic (0,5 micron)
	7	PTFE (10 micron)
	8	SS-316 (10 micron)
	9	High temp filter (190°C)*
<b>Gaskets/O-rings</b>	V	Viton
	G	Viton (Gas hydrate resistant)
	K	Kalrez

**Total filter surface** 4 cm<sup>2</sup>

### Internal volume

By-pass side 13,7 ml  
Sample side 1,2 ml

### Recommended (actual) flow rates

By-pass stream liquid > 1 lpm  
By-pass stream gas > 2 lpm  
Analyser sample < 1 barG filter element differential pressure.  
Flow depending on filter element and sample.

### Operating conditions

Maximum pressure 340 barG  
Maximum temperature 120°C  
\*Maximum pressure high temp filter 285 barG  
\*Maximum temperature high temp filter 190°C

### Connections

Inlet ½" NPT  
Outlet ½" NPT  
Analyser sample outlet 1/8" NPT

### Size and weight

Dimensions (D x H) 90 x 65 mm  
Weight 2,4 kg

HPFF 21-14-R7