LITREMETER
Specialist flow measurement engineering

VFF FilterPro

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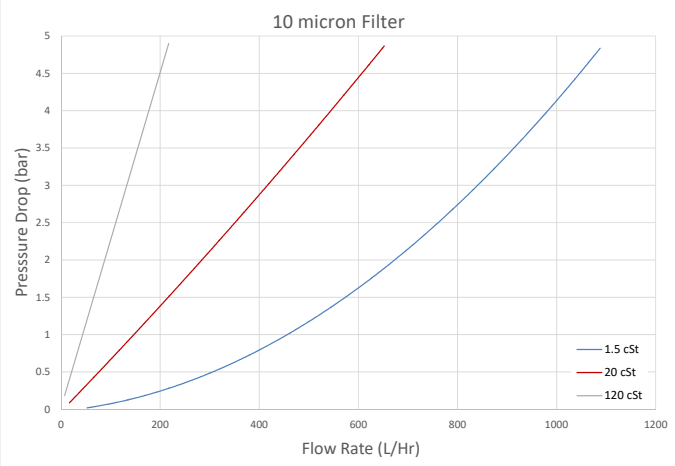
A flow assurance filter has been developed to the same high standards as the successful VFF flow meter range. By using the same material, inspection and standards requirements it is ready for your chemical injection project. The filter has been designed to match and protect flow meters in their designed environment to achieve their optimum level of performance.

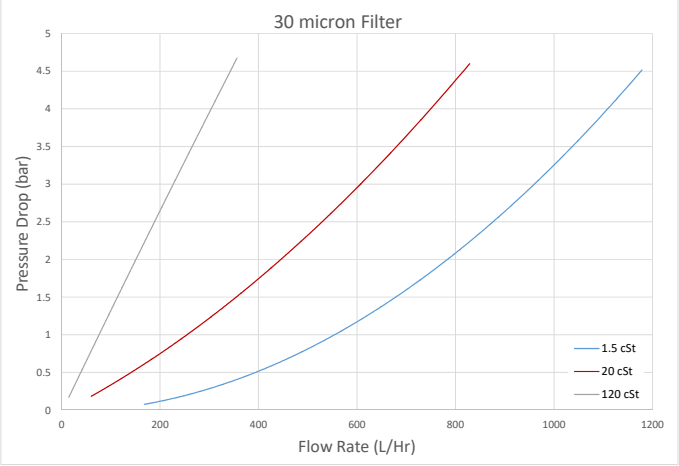
VFF meters have a strict filtration requirement of 40 microns for the smallest range (LF03 & LF05) and 100 microns for the larger. 96% of low flow meter failures are due to contamination and almost all issues occur during factory testing, or within the first 6 months of service. Three key filter sizes are therefore offered to maximise the efficiency of any chosen meter. The range of 10, 30 and 100 microns filtration is achieved by a 4 layer wire woven mesh engineered in a compact design. The woven mesh is a proven surface filtration principle which removes particulate by trapping it between the 4 layers.

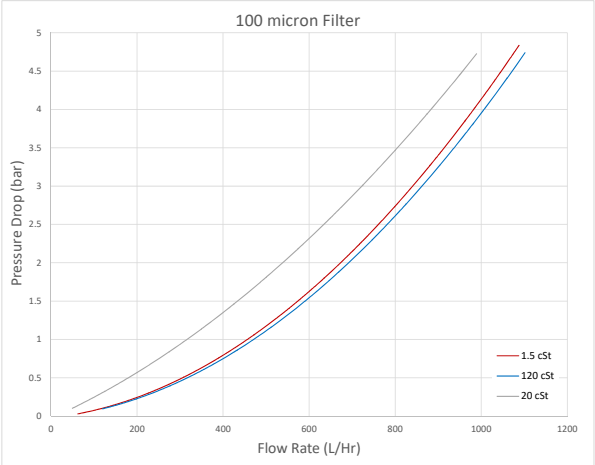
The filter can withstand a pressure drop of 60 bar with a burst pressure drop of 150 bar. The pressure drops for each mesh size can be seen in the tables below. A range of material is offered from 316 to exotic materials such as Super Duplex, titanium or Hastelloy.

Key Features

- Suitable for low and high viscosity liquids at pressures up to 1380 bar
- Filter elements from 10 microns
- High filter burst pressure drop of 150 bar
- Reusable filter element
- Compact design
- Multiple material options
- Highly durable
- Perfectly suited to work alongside your flowmeter
- Connections: NPT, Autoclave. ANSI Flanges, Grayloc, Galperti & Techlok hubs on request.







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Specification

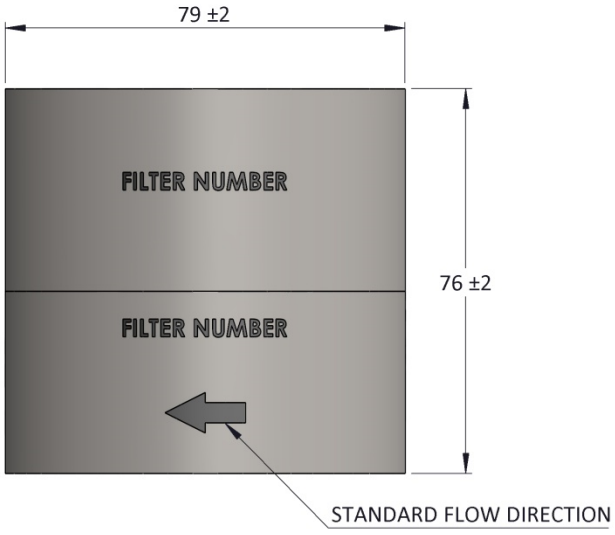
The compact design of the VFF FilterPro offers a range of standard material and sizes to best suit a customer specification. A bespoke design option is offered to match any specification, if required. This might include specialist materials, processing, connections or seals.

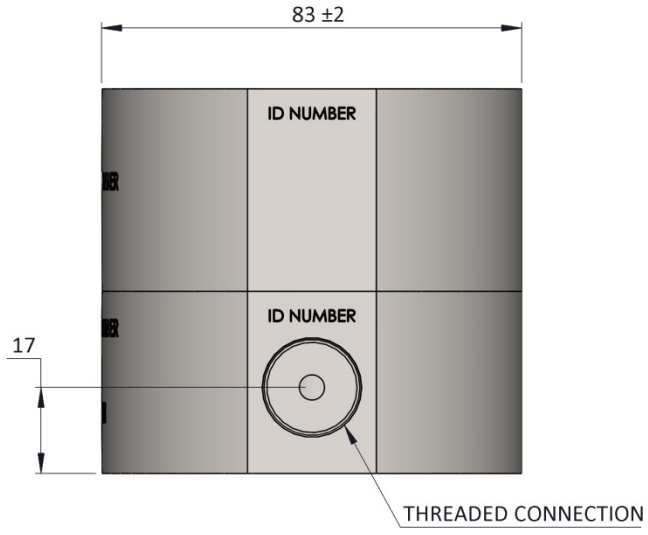
To achieve optimal performance of your meter it is recommended that the filter is installed directly before each flow meter using the appropriate connection union.

The standard material offered can be seen in the table to the side. However, a free consultation is offered if you have an alternative material is required.

Typical Material and Ratings		
Material	Standard	Maximum Pressure (bar)
316L Stainless Steel (UNS S31603)	BAR STOCK FORGED	690 690
F44 6Mo SS (UNS S31254)	BAR STOCK FORGED	690 1035
F51 Duplex (UNS S31803)	BAR STOCK FORGED	1035 1035
F53 Super Duplex (UNS S32750)	BAR STOCK FORGED	1380 1380
F55 Super Duplex (UNS S32760)	BAR STOCK FORGED	1380 1380
Hastelloy (UNS N10276)	BAR STOCK	1035
Titanium (UNS R56400)	BAR STOCK	1380
PRESSURE RATING IS DEPENDENT ON MATERIAL AND CONNECTION		

Dimensions:





Typical Connections and Ratings		
Threaded Connection Size	Standard	Maximum Pressure Rating (bar)
1/4"	NPT	550
3/8"	NPT	530
1/2"	NPT	530
3/8"	AUTOCLAVE	1380
9/16"	AUTOCLAVE	1380
OTHER CONNECTION TYPES ARE AVAILABLE UPON REQUEST PRESSURE RATING IS DEPENDENT ON MATERIAL AND CONNECTION		

Connections: NPT threaded connections are standard for lower pressure versions; Autoclave medium pressure fittings (cone & thread) are standard for higher ratings. ANSI & API flanges in raised face and ring type joint are available upon request. Hubs such as Grayloc, Galperti, Techlok are also available on request

Ambient Temperature rating: -40 °C - 120 °C

Seal: There is a single pressure seal between the meter body and cap normally in FPM. The seals are available in: FFKM, FEP covered silicon and in higher pressure versions PTFE and Inconel. The seals are selected based on pressure and fluid to fully optimise the meter.

VFF FilterPro - Expanded View

The simple design of the filter matches the VFF flowmeter and offers easy assembly and maintenance as shown below:

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