

# FF-250 Series Filters

## Coalescing Filters Eliminate Acid Mist Droplets in Sample Lines

Perma Pure FF-250 Series filters are high-efficiency particulate and coalescing filters designed for high-temperature, corrosive service. Used as a coalescer, this filter will remove liquid droplets and particulates down to 0.1 micron with an efficiency of 95% or greater.

### Key Features

- 0.1  $\mu$  particulate filtration
- Temperatures to 230°C
- Flows up to 30 lpm
- Kynar® or 316 stainless steel
- Coalesces liquid mists
- Drain port
- Excellent corrosion resistance
- Visible filter element

### Principle of Operation

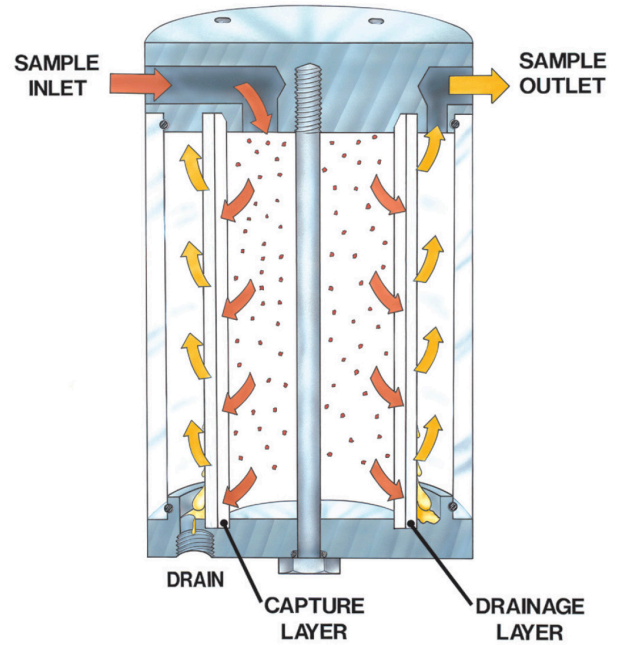
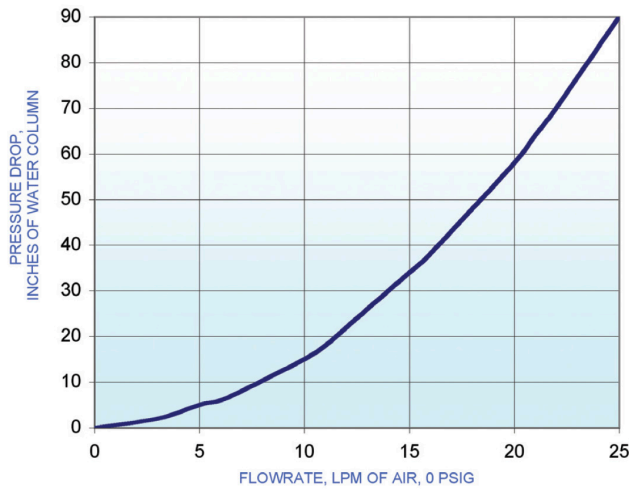
Perma Pure's FF-250 Series filters may be connected for particulate only or for coalescing and particulate filtration. Used in a particulate-only application, this filter can be plumbed so that the gas stream fills the filter shell first then is forced through the element. The captured particulate then collects on the outside surface of the element. This allows visual determination of the element condition.

Coalescing filtration is achieved by forcing the gas stream through the inside of the filter element. In this mode, small aerosol particles are forced together as they pass through a fine inner layer of the filter element. The larger drops created in this process then begin to fall out of the gas stream due to their mass. The coarse drain layer on the outside of the filter element assists this physical separation.

FF Series filters remove liquid droplets and particles down to 0.1 micron with an efficiency of 95% or greater. The thick, high-capacity borosilicate glass and Teflon® filter element uniformly drains coalesced liquids to the bottom of the housing, where they can be evacuated through the drain port. This filter has low pressure drop and long element life.



**PRESSURE DROP vs. FLOW**



Filter shown in coalescing mode

Model	FF-250-FG-2.5G	FF-250-SG-2.5G	FF-250-SS-2.5G
Top and Bottom Materials	Kynar PVDF	316 stainless steel	316 stainless steel
Sheel Material	borosilicate glass	borosilicate glass	stainless steel
Max. Operating Temperature	120°C	120°C	230°C
Max. Operating Pressure	30 psig	30 psig	30 psig

**Filter Specifications**

Dimensions	2.5" dia. x 4.0" h
Inlet, Outlet and Drain Ports	1/8" FNPT
Center Bolt	1/4-20 x 3.25", Hastelloy C276
O-ring	Viton
Filter Element	borosilicate fiber in a Teflon® binder
Porosity	1 µm absolute porosity, 0.1 µm 99.3% removal

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