



Uncompromised
Quality.

FEIPL

Self Cleaning Filter

Manual Self Cleaning Filters

The liquid to be filtered enters through the inlet connection and passes through the specially engineered wedge wire element with the flow being from outside to inside. Solids larger than the selected micron spacing are either retained on the outside of the filter element or drop into the filter chamber sump.

The filtered liquid then passes through the top of the element and flows out through the outlet connection.

As the filter element becomes progressively fouled by retained solids the differential pressure across the filter rises.

Element is cleaned by rotating top handle by manually or by motor and scraper is provided on the surface of the filter element which scrapes out impurities deposited on the element.

By three or four rotation, the element gets cleaned and impurities can be removed by opening drain valve from bottom. Suitable for large volume and fine filtration up to 30 microns available with single or multi elements in body CS, SS 304, 316, 316L or any other alloy steel material.

Benefits:

Elimination or reduction in disposable filter bags and cartridges for reduced operator handling inventory costs and landfill waste

- Reduction in product loss
- Virtually maintenance free, near 100% uptime
- Compact design, lower capital cost to fit most installations
- Stainless steel screens from 15 micron slots to 1/4" perforations to handle a wide range of filtration needs

Applications:

- Chemicals
- Ethanol
- Food and Beverage
- Manufacturing
- Oil and Gas
- Pulp and Paper
- PetroChemical
- Pharmaceuticals
- Water



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Automatic Self Cleaning Filter

Auto Back Wash Filters / Automatic Self Cleaning Filters

Liquid enters from the inlet, passes through the filter element and gets out of the outlet of the Filter Nozzle. Differential Pressure (DP) Switch is provided across the Inlet and Outlet of Filter. When the Filter Element gets choked Pressure Drop across the filter increases. Normally maximum Differential Pressure for backwashing is set at 0.5 Kg/cm². When the Differential Pressure reaches the set limit the DP Switch gives a signal to the Control Panel (CP) and the CP gives a signal to the Motor and Electrically or Pneumatically Actuated Drain Valve. The Motor connected to back wash arm starts rotating 360° with 10 – 15 RPM; simultaneously the Motorized Drain Valve also gets opened to the atmosphere.

Backwash Arm is a hollow pipe and is connected directly to the Electrically Actuated Drain Valve. Whenever the open portion of the Backwash Arm comes in front of the Element a heavy Differential Pressure is created between the Backwash Arm and the Filter element. The water starts flowing in reverse direction from Filter Element towards Backwash Arm since the valve is open to the atmosphere. During this process all the impurities collected inside

the Filter Element get sucked and discharged through the Drain Valve. In 4- 5 rotations the Filter Element gets cleaned. Normal duration of backwash cycle is 30- 40 seconds and the loss of water during backwash is around 2- 3% of the inlet water quantity. Manual drain valve is also provided to clean the filter.

A Timer (Range 0 to 24 hrs) is provided in the Control Panel which is normally set for 2- 3 hours. In case the Differential Pressure does not reached the set limit in that duration the Timer gives a signal to the Control Panel and the Backwash Cycle gets initiated. There is also a Selector Switch provided in the Control Panel so that when you need to operate the Backwash Operation manually you can change the selector switch and have the Backwash Operation by Push Button. Auto Backwash Filter system is a fully Automatic and is meant for removal of contaminants from fluids in the pipe line system. The Filter has simple construction and the fully automatic back flushing not only guarantees a high operating safety but also keeps running cost to the minimum.

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Benefits:

- » For continuous flow.
- » Unassisted Cleaning.
- » Designed for installations unattended for long periods of time.
- » Suited for remote or difficult service locations.
- » Continuous filtration possible without any flow interruption.
- » Self cleaning can be done according to a preset differential pressure or preset time.
- » Low loss of fluid and pressure.
- » Flexibility of control options.
- » High return on investment.
- » Automation allows the installation in remote plant areas with no manual access.

Applications:

- Process Industry – Protect heat exchangers, pumps, valves, and water spray nozzles.
- Power Industry – Strain pump seal water and traveling screen wash water.
- Pulp & Paper Industry – Remove and separate bark and chips for recycling and prevent clogging of nozzles.
- Sewage and Water Treatment Plants – Straining secondary effluent prior to discharge and provide clean plant service water.
- Primary Metal Industry – Provide clean water for quenching, descaling, and blast furnace cooling.
- Irrigation/pump house – Protect sprinkler nozzles and improve efficiency while reducing repair and equipment replacement costs.

Filtration Engineers

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