



IEC FABCHEM LIMITED



AUTOMATIC VALVE LESS GRAVITY FILTER (SEBAC)



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AUTOMATIC VALVELESS GRAVITY FILTER (AVGF)

Automatic Valve less Gravity Filter(AVGF) are the systems for cooling water side stream filtration and drinking water filtration.

PROCESS DESCRIPTION

IEC'S Automatic Valveless Gravity Filters (AVGF) designed by the simplicity of gravity filtration with a purely hydraulic, man-less backwashing. The result is a very simple unit with very high efficiency and low capital and working costs. This innovative filtering technology has the advantage of being able to treat large flows of water with no energy consumption for backwashing operation.



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AUTOMATIC VALVELESS GRAVITY FILTER (AVGF)

CHALLENGES IN CONVENTIONAL FILTERATION

Removal of suspended matter from the water is one of the primary operation in auxiliary systems of power plants such as cooling water & other various water treatment applications. The conventional pressure sand filter involves lot of automation interlocks with moving equipment such as pumps, blowers and valves. Operator involvement is often the key for good functioning for even a semi-automatic plant. Where there is operator involvement, there will be and operator fatigue and moving equipment require frequent maintenance adding to the difficulties.



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*The **AVGF**: a smart and innovative solution to keep your **water treatment plant** running efficiently and cost-effectively.”*



SEBAC FILTERS UNIQUE FUNCTIONAL

IEC Offer solution to above challenges through SEBAC filter. SEBAC series of industrial filters are of Valveless Automatic Gravity Type Filters, which works on a unique feature of initiating backwash of filter media based on its filtered pressure Drop without any electro-mechanical automation such as Auto-Valves, Controllers, PLCs, etc. The backwash is done based on the hydraulic siphon principle. These filters are proven to work consistently for longer periods without needing either any operator attention or regular maintenance whatsoever.

SEBAC FILTERS - APPLICATION

Side stream filtration of re-circulating cooling water system in power plants. Municipal Water Treatment - Iron, Manganese and solids removal for drinking purposes. Suspended solid removal from surface water, river water for process requirements. Common Effluent Treatment Plant - Final stage Suspended solid removal prior to discharge of water into public water body.

DESIGN FEATURES



Automatic backwash starts when suspended matter removed by the filter bed which causes pressure drop.



Automatic operation, no valves nor backwash pump required.



Backwashes automatically.



Raw water flow to the plant is not interrupted.



Flow reverses automatically at the end of backwash. During the rinse cycle, the backwash tank refills and the filter return to service.

TECHNICAL DETAILS

Flow rates - Single Bed Unit	Up to 150 m3/hr (Unlimited in multiple units)
Flow rates - Double Bed Unit	Up to 400 m3/hr (Unlimited in multiple units)
Operating pressures	Atmospheric
Filtering levels	Influent max 100mg/l
Filter medium	Sand, Anthracite and others as per application
Nominal line sizes	50 to 800 mm
Materials of construction	Carbon Steel / SS304 / SS316
Flange Connections	As per requirement
Corrosion protection	Painting as per requirement

**Available
Capacity:
Up to 636 m3/hr**





IEC FABCHEM LIMITED



+91 97896 35755



marketing@iecfabchem.in



www.iecfabchem.in



K-32b, Sipcot Industrial Complex,
Gummidipoondi, Tamil Nadu, India. Pin: 601 201,