

ECOTREAT



Water Filtration System

ECOTREAT series high performance filters are designed for residential, commercial and industrial applications. With state of the art control valves, our systems offer superior sediment loading, resulting in longer service runs and less frequent backwash and regeneration.

ECOTREAT filtration system is fabricated with a fully automatic control valve and standard vessel. Used in this filter are vertical cylindrical design of fiber-glass reinforced polyester construction. All the filters are in line with international testing and certification agencies.

ECOTREAT filters are designed to remove suspended solids, turbidity, taste, odor, silt, iron color and reduce chlorine in various water treatment application.

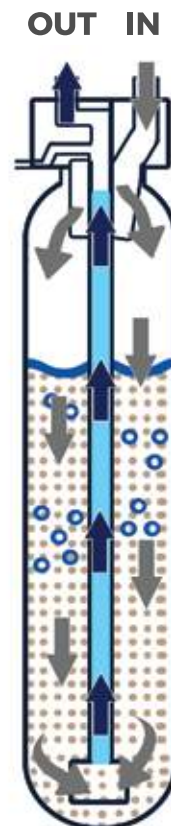
All filters are sized in accordance to optimum recommendation flux rates for optimum efficiency and performance.



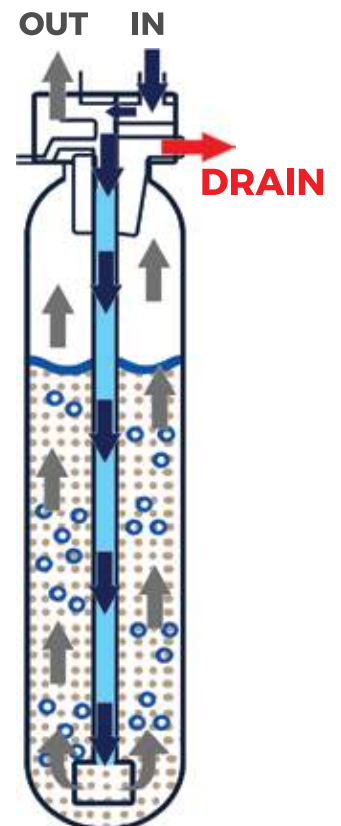
How the ECOTREAT Filter Works

ECOTREAT models, inlet raw water is directed “down flow” through the filter media and out of the bottom distributor. With proper choice of filter media, the result is clear, filtered effluent. In order to maintain proper filtration, the filters require periodic backwash to remove accumulated solids. This is normally all the maintenance that is needed.

Backwash is accomplished by reversing the raw water flow upwards through the filter media at the proper rate to remove solids. Initiation of backwash can be done by the time clock, pressure, differential switch, or manually by pushbutton. The **ECOTREAT** Filters are available in manual models. Backwash should be initiated whenever 5 to 8 lbs of pressure drop occurs between the inlet and outlet of the filter.



Normal Flow



Backwash Flow

ECOTREAT Automatic Control Head

The control valve utilizes a solid-state microprocessor for single or twin (duplex) tanks to regulate all cycles of filtration, media backwash, rinsing and regeneration. The valves allow options for backwash and regeneration frequency, and they indicate volume remaining, current flow rate, volume used (totalizer) and tank in service (in case of twin/duplex systems).



Control Features:

Made in USA

Front panel display

24 hour lithium battery backup with 8h carry over

Backwash and brining capability

Downflow regeneration

12V output AC adapter for safe installation

ECOTREAT FRP Vessel

The composite pressure vessels combine the unrivalled toughness of a polyethylene inner tank and the strength of a glass fiber reinforced with epoxy resin wound on to a seamless composite liner for a durable and reliable tank that will not rust.

The tank is not only safe and non-toxic but also, its non-metallic construction makes them maintenance free.



Vessel Features:

For industrial & potable water treatment systems

Max operating pressure 10 bar

Max operating temperature 50°C

Cycle test 250,000 times from 0.7 to 10 bar

Natural Color



Activated Carbon

Removal of Taste, Odor, Color, Organics and Chlorine

This material is a granular, non-hydrous aluminum silicate with irregular surface to enable the media to filter about twice as many solids than the same filter sand allowing longer run times for comparable sized filters.



Sand Filter

Removal of Suspended Solids

This material is granular silica sand available in various sizes for removal of randomly sized suspended solids.



Anthracite

Removal of Suspended Solids

This material is black irregularly shaped anthracitic washed coal available in various sizes for removal of randomly sized suspended solids.



Regular Birm

Removal of Iron & Manganese

This material is an efficient and economical media for the reduction of dissolved iron and manganese compounds from raw water supplies. Birm acts as an insoluble catalyst to enhance the reaction between dissolved oxygen and the iron compounds.



Multimedia

A combination of any of the above media for the purpose of obtaining selective requirements, depth filtration and removal of suspended solids, turbidity, taste, odor, silt, color and chlorine.

How to Choose Your Filter

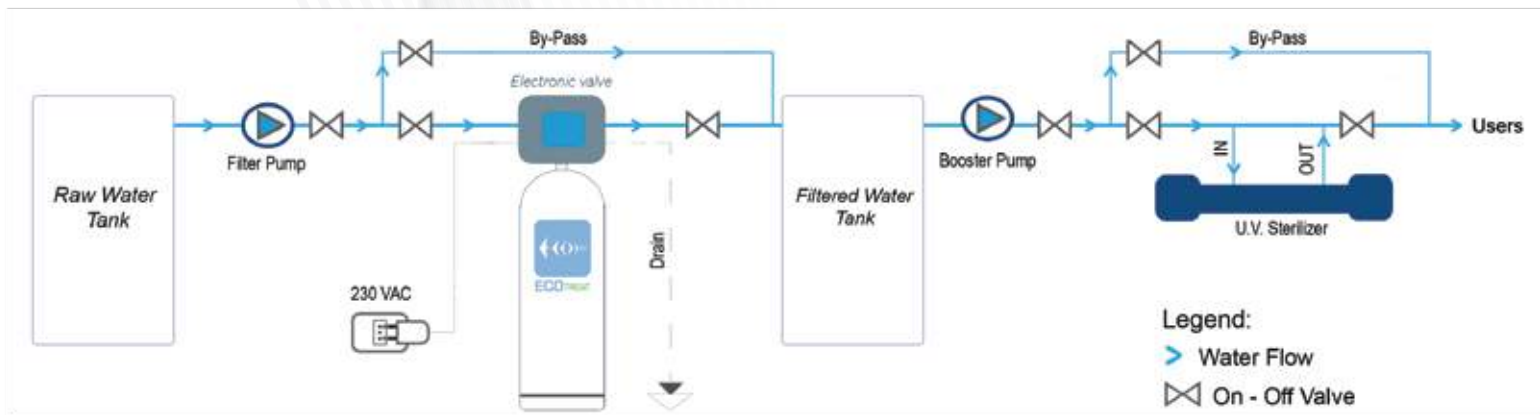
The availability of a broad range of **ECOTREAT** Filtering Media and the almost unlimited possible combinations makes it convenient to select the filter ideally suited for your specific filtration requirement.

Several Factors to consider when choosing and sizing a filter:

- **Maximum required flow rate**
- **Rate of suspended matter (colloidal or non-colloidal)**
- **Average chemical characteristics of raw water**
- **Required quality of treated water**
- **Availability of an adequate supply of water for backwash**



Installation Scheme



Filtration Computation

ECOTREAT Sand Filter

Removal of Suspended Solids

Model	Tank Dimensions		Riser Size	Media	Flow Rate		Backwash Flow Rate (GPM)
	D (In)	H (In.)			Min. (GPM)	Max. (GPM)	
ECSF-8	8	35	1	0.6	2	5	3
ECSF-10	10	35	1	1	3	9	6
ECSF-13	13	54	1	2.5	5	14	11
ECSF-16	16	65	1	4	7	21	16
ECSF-18	18	65	1	6	9	27	20
ECSF-21	21	60 or 62	1.5	7	12	36	29
ECSF-24	24	69 or 72	1.5	10	16	47	35
ECSF-30	30	72	1.5	16	25	75	55
ECSF-36	36	72	2	23	35	106	80
ECSF-40	40	72	2 or 3	27	44	130	95
ECSF-42	42	72	2 or 3	31	48	145	108
ECSF-48	48	72	3	38	63	188	140
ECSF-63	63	86	3	73	108	325	240

ECOTREAT Activated Carbon Filter

Removal of Taste, Odor, Color, Organics and Chlorine

Model	Tank Dimensions		Riser Size	Media	Flow Rate		Backwash Flow Rate (GPM)
	D (In)	H (In.)			Min. (GPM)	Max. (GPM)	
ECAF-8	8	35	1	0.6	2	3.5	3
ECAF-10	10	35	1	1	3	5.5	5
ECAF-13	13	54	1	2.5	5	9	8
ECAF-16	16	65	1	4	7	14	12
ECAF-18	18	65	1	6	9	18	16
ECAF-21	21	60 or 62	1 or 1.5	7	12	24	21
ECAF-24	24	69 or 72	1.5	10	16	31	27
ECAF-30	30	72	1.5	16	25	50	44
ECAF-36	36	72	1.5 or 2	23	35	70	63
ECAF-40	40	72	2	27	44	87	78
ECAF-42	42	72	2	31	48	96	86
ECAF-48	48	72	2 or 3	38	63	125	112
ECAF-63	63	86	3	73	108	216	195

ECOTREAT Multimedia Filter

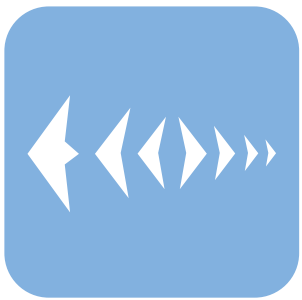
Removal of Suspended Solids, Turbidity, Taste, Odor, Silt, Color & Chlorine

Model	Tank Dimensions		Riser Size	Media	Flow Rate		Backwash Flow Rate (GPM)
	D (In)	H (In.)			Min. (GPM)	Max. (GPM)	
ECMF-8	8	35	1	0.6	2	5	3
ECMF-10	10	35	1	1	3	9	6
ECMF-13	13	54	1	2.5	5	14	8
ECMF-16	16	65	1	4	7	21	11
ECMF-18	18	65	1	6	9	27	16
ECMF-21	21	60 or 62	1.5	7	12	36	20
ECMF-24	24	69 or 72	1.5	10	16	47	29
ECMF-30	30	72	1.5	16	25	75	35
ECMF-36	36	72	2	23	35	106	55
ECMF-40	40	72	2 or 3	27	44	130	80
ECMF-42	42	72	2 or 3	31	48	145	108
ECMF-48	48	72	3	38	63	188	140
ECMF-63	63	86	3	73	108	325	240

ECOTREAT Birm Filter

Removal of Iron & Manganese

Model	Tank Dimensions		Riser Size	Media	Flow Rate		Backwash Flow Rate (GPM)
	D (In)	H (In.)			Min. (GPM)	Max. (GPM)	
ECBF-8	8	35	1	0.6	1	2	3
ECBF-10	10	35	1	1	2	3	5
ECBF-13	13	54	1	2.5	3	5	8
ECBF-16	16	65	1	4	5	7	11
ECBF-18	18	65	1	6	6	9	15
ECBF-21	21	60 or 62	1	7	8	12	19
ECBF-24	24	69 or 72	1 or 1.5	10	11	16	25
ECBF-30	30	72	1.5	16	17	25	40
ECBF-36	36	72	1.5	23	25	35	56
ECBF-40	40	72	2	27	30	44	70
ECBF-42	42	72	2	31	34	48	76
ECBF-48	48	72	3	38	44	63	100
ECBF-63	63	86	3	73	75	108	170



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