

Commercial Media Filters

FRP Tanks: 7" to 36" Diameter

MF-500

SERIES

Pure Aqua's pressure filters clarify water by removing sediment, turbidity, iron, unpleasant tastes and odors, suspended particles, and unwanted color, all of which are commonly found in surface water. They can be used in a variety of services including: industrial, municipal, and institutional applications.

Filter Media Types

- Sand is the most common filter media. Generally, fine mesh sand is coupled with a coarse grain support bed to remove suspended solids and turbidity.
- Anthracite is used in applications where silica pick-up is undesirable.
- Gravel has a highly spherical shape that promotes good flow and even distribution in support beds.
- Filter AG is non-hydrous silicon dioxide with many advantages for the reduction of suspended matter.
- Activated Carbon is recommended for the removal of bad tastes, odors, dechlorination, and organic contaminants.
- Manganese Green Sand is used to reduce iron, manganese and hydrogen sulfide through oxidation.
- Multimedia is required when maximum quality water is required and unwanted sediment is too small to be removed by standard media. It consists of multiple layers of increasing grain size to remove sediment as small as 10 microns.

Advantages of Multimedia Filtration

- Relatively inexpensive, no recurring cost of consumables
- Proven process and most tested forms of water treatment
- Systems are robust with no moving parts inside the tanks
- Modular control valves designed for operational flexibility
- Filtration media is inexpensive and long-lasting
- Easily cleaned and maintained
- Resistant to fouling (clogging)

Standard Features

- High performance FRP tank
- Automatic backwash valve
- Glass filled Noryl valve
- Time controller for automatic backwash cycle
- Flow controller to limit backwash flow
- All internals are plastic materials



Available Options

- Duplex systems
- Tanks according to ASME code
- Stainless steel tanks
- Epoxy coated steel tanks
- 240V/1Ph/50Hz power supply
- Vacuum breaker
- Auxiliary micro switch
- Inlet / Outlet sample valves
- Inlet / Outlet pressure gauges
- Filters using diaphragm valves

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Filter Media Types

Pure Aqua supplies a wide range of quality filter media that meet industry standards for efficient and effective filtration.



Sand

Graded in various ranges, Pure Aqua Sand can be used as filtration medium or under-bedding depending on particle size and application.



Anthracite

Anthracite is recommended as a filter medium where additional silica in the water is not desirable and remove lighter weight turbidity.



Calcite

Calcite media is specially graded calcium carbonate compound for neutralizing acid with consistent dissolving rates for water treatment.

Activated Carbon

Activated carbon medium is used to remove taste, odor and chlorine and used in many drinking water applications.

Manganese Greensand

Manganese Greensand media is treated siliceous material for treating water containing iron, manganese and hydrogen sulfide.

ProSand

ProSand is based on a rare natural mineral. Its unique properties radically improve the performance and cost of media filtration.

Multimedia Filtration Operating Cycles

Service Cycle

Water flows downward through the media while solids accumulate in the media bed. The purified water passes through to downstream processes.

Backwash Cycle

When the filter begins to clog or when the head loss (pressure drop) through the bed increases, flow rates are reduced. To prevent degradation of water quality, the flow is reversed. This is directed by the control valve(s) to drain, carrying with it, the particulate matter that has built up during service. The required flow is specific to the media and is essential to proper cleaning of the media bed. For media filters, the backwash flow is always higher than the service flow rate.

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Operation Specifications

- Operating pressure: 2-6.8 bar (30-100 psi)
- Operating temperature: 2-38°C (35-100°F)
- Electrical supply: 115V/1Ph/60Hz
- Filters can be supplied in 240V/1Ph/50Hz

Model #	Max Flow (GPM)								Tank Size D"xH"	Media Qty. (ft ³)	Pipe Size	Approx Weight (lbs)
	Minimum		Average		Peak		Backwash					
	GPM	M ³ /H	GPM	M ³ /H	GPM	M ³ /H	GPM	M ³ /H				
Multi Layer Filters: Anthracite, Sand and Gravel (Turbidity Removal)												
263A705MM	2.7	0.6	4.0	0.9	5.3	1.2	4.0	0.9	7x44	0.5	1"	75
26A8075MM	3.5	0.8	5.4	1.2	7.0	1.6	5.4	1.2	8x44	0.75	1"	95
263A910MM	4.4	1.0	6.6	1.5	8.8	2.0	6.6	1.5	9x48	1	1"	118
263A1015MM	5.4	1.2	8.1	1.8	10.8	2.5	8.1	1.8	10x54	1.5	1"	156
263A1220MM	7.8	1.8	11.7	2.7	15.6	3.5	11.7	2.7	12x52	2	1"	204
263A1325MM	9.2	2.1	13.8	3.1	18.4	4.2	13.8	3.2	13x54	2.5	1"	267
CV1435MM	10.7	2.4	16.1	3.6	21.4	4.9	16.1	3.6	14x65	3.5	1-1/2"	366
CV1645MM	13.9	3.2	20.9	4.8	27.8	6.3	20.9	4.8	16x65	4.5	1-1/2"	462
CV1855MM	17.7	4.0	26.6	6.0	35.4	8.0	26.6	6.0	18x65	5.5	1-1/2"	577
CV2160MM	24.1	5.5	36.2	8.3	48.2	11.0	36.2	8.3	21x62	6	1-1/2"	761
CV24100MM	31.4	7.1	47.1	10.7	62.8	14.3	47.1	10.7	24x72	10	1-1/2"	981
CVP30150MM	49.1	11.2	73.7	16.8	98.2	22.3	73.7	16.8	30x72	15	2"	1,544
CVP36210MM	70.7	16.1	106.1	24.2	116.2	26.4	106.1	24.2	36x72	21	2"	1,900
AG Filters: Non Hydrous Silicon Dioxide (Turbidity Removal)												
263A705AG	2.7	0.6	4.0	0.9	5.3	1.2	4.0	0.9	7x44	0.5	1"	50
26A8075AG	3.5	0.8	5.4	1.2	7.0	1.6	5.4	1.2	8x44	0.75	1"	55
263A910AG	4.4	1.0	6.6	1.5	8.8	2.0	6.6	1.5	9x48	1	1"	62
263A1015AG	5.4	1.2	8.1	1.8	10.8	2.5	8.1	1.8	10x54	1.5	1"	81
263A1220AG	7.8	1.8	11.7	2.7	15.6	3.5	11.7	2.7	12x52	2	1"	106
263A1325AG	9.2	2.1	13.8	3.1	18.4	4.2	13.8	3.2	13x54	2.5	1"	125
CV1435AG	10.7	2.4	16.1	3.6	21.4	4.9	16.1	3.6	14x65	3.5	1-1/2"	156
CV1645AG	13.9	3.2	20.9	4.8	27.8	6.3	20.9	4.8	16x65	4.5	1-1/2"	200
CV1855AG	17.7	4.0	26.6	6.0	35.4	8.0	26.6	6.0	18x65	5.5	1-1/2"	284
CV2160AG	24.1	5.5	36.2	8.3	48.2	11.0	36.2	8.3	21x62	6	1-1/2"	360
CV24100AG	31.4	7.1	47.1	10.7	62.8	14.3	47.1	10.7	24x72	10	1-1/2"	480
CVP30150AG	49.1	11.2	73.7	16.8	98.2	22.3	73.7	16.8	30x72	15	2"	770
CVP36210AG	70.7	16.1	106.1	24.2	116.2	26.4	106.1	24.2	36x72	21	2"	1,050
Activated Carbon Filters: Granular Form with High Degree of Porosity (Taste, Odor and Color Removal)												
263A705AC	1.9	0.4	2.1	0.5	3.2	0.7	3.2	0.7	7x44	0.5	1"	50
26A8075AC	2.5	0.6	2.8	0.6	4.2	1.0	4.2	1.0	8x44	0.75	1"	55
263A910AC	3.1	0.7	3.5	0.8	5.3	1.2	5.3	1.2	9x48	1	1"	62
263A1015AC	3.8	0.9	4.3	1.0	6.5	1.5	6.5	1.5	10x54	1.5	1"	81
263A1220AC	5.5	1.2	6.2	1.4	9.4	2.1	9.4	2.1	12x52	2	1"	106
263A1325AC	6.4	1.5	7.4	1.7	11.0	2.5	11.0	2.5	13x54	2.5	1"	125
CV1435AC	7.5	1.7	8.6	1.9	12.8	2.9	12.8	2.9	14x65	3.5	1-1/2"	156
CV1645AC	9.7	2.2	11.1	2.5	16.7	3.8	16.7	3.8	16x65	4.5	1-1/2"	200
CV1855AC	12.4	2.8	14.2	3.2	21.2	4.8	21.2	4.8	18x65	5.5	1-1/2"	284
CV2160AC	16.9	3.8	19.3	4.4	28.9	6.6	28.9	6.6	21x62	6	1-1/2"	360
CV24100AC	22.0	5.0	25.1	5.7	37.7	8.6	37.7	8.6	24x72	10	1-1/2"	480
CVP30150AC	34.4	7.8	39.3	8.9	58.9	13.4	58.9	13.4	30x72	15	2"	770
CVP36210AC	49.5	11.2	56.6	12.9	84.8	19.3	84.8	19.3	36x72	21	2"	1,050

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Model #	Max Flow (GPM)								Tank Size D"xH"	Media Qty. (ft ³)	Pipe Size	Approx Weight (lbs)
	Minimum		Average		Peak		Backwash					
	GPM	M ³ /H	GPM	M ³ /H	GPM	M ³ /H	GPM	M ³ /H				
Birm Filters: (Fe, Mn, H ₂ S Reduction)												
263A705BM	1.9	0.4	2.1	0.5	3.2	0.7	3.2	0.7	7x44	0.5	1"	60
26A8075BM	2.5	0.6	2.8	0.6	4.2	1.0	4.2	1.0	8x44	0.75	1"	65
263A910BM	3.1	0.7	3.5	0.8	5.3	1.2	5.3	1.2	9x48	1	1"	75
263A1015BM	3.8	0.9	4.3	1.0	6.5	1.5	6.5	1.5	10x54	1.5	1"	98
263A1220BM	5.5	1.2	6.2	1.4	9.4	2.1	9.4	2.1	12x52	2	1"	130
263A1325BM	6.4	1.5	7.4	1.7	11.0	2.5	11.0	2.5	13x54	2.5	1"	150
CV1435BM	7.5	1.7	8.6	1.9	12.8	2.9	12.8	2.9	14x65	3.5	1-1/2"	164
CV1645BM	9.7	2.2	11.1	2.5	16.7	3.8	16.7	3.8	16x65	4.5	1-1/2"	230
CV1855BM	12.4	2.8	14.2	3.2	21.2	4.8	21.2	4.8	18x65	5.5	1-1/2"	315
CV2160BM	16.9	3.8	19.3	4.4	28.9	6.6	28.9	6.6	21x62	6	1-1/2"	448
CV24100BM	22.0	5.0	25.1	5.7	37.7	8.6	37.7	8.6	24x72	10	1-1/2"	594
CVP30150BM	34.4	7.8	39.3	8.9	58.9	13.4	58.9	13.4	30x72	15	2"	957
CVP36210BM	49.5	11.2	56.6	12.9	84.8	19.3	84.8	19.3	36x72	21	2"	1,250
Calcite Filters: (pH Neutralization)												
263A705CF	1.9	0.4	2.1	0.5	3.2	0.7	3.2	0.7	7x44	0.5	1"	90
26A8075CF	2.5	0.6	2.8	0.6	4.2	1.0	4.2	1.0	8x44	0.75	1"	114
263A910CF	3.1	0.7	3.5	0.8	5.3	1.2	5.3	1.2	9x48	1	1"	142
263A1015CF	3.8	0.9	4.3	1.0	6.5	1.5	6.5	1.5	10x54	1.5	1"	188
263A1220CF	5.5	1.2	6.2	1.4	9.4	2.1	9.4	2.1	12x52	2	1"	245
263A1325CF	6.4	1.5	7.4	1.7	11.0	2.5	11.0	2.5	13x54	2.5	1"	320
CV1435CF	7.5	1.7	8.6	1.9	12.8	2.9	12.8	2.9	14x65	3.5	1-1/2"	440
CV1645CF	9.7	2.2	11.1	2.5	16.7	3.8	16.7	3.8	16x65	4.5	1-1/2"	550
CV1855CF	12.4	2.8	14.2	3.2	21.2	4.8	21.2	4.8	18x65	5.5	1-1/2"	693
CV2160CF	16.9	3.8	19.3	4.4	28.9	6.6	28.9	6.6	21x62	6	1-1/2"	910
CV24100CF	22.0	5.0	25.1	5.7	37.7	8.6	37.7	8.6	24x72	10	1-1/2"	1,180
CVP30150CF	34.4	7.8	39.3	8.9	58.9	13.4	58.9	13.4	30x72	15	2"	1,850
CVP36210CF	49.5	11.2	56.6	12.9	84.8	19.3	84.8	19.3	36x72	21	2"	2,280

*All filters require periodic backwashing to dispose of the accumulated debris. This is accomplished by backwashing clean water through the unit and then disposing of the effluent. During this phase, the different sizes of media separate into layers, preparing the filter bed for service. Because backwashing generally occurs at higher flow rates than those seen in service, oftentimes a proper backwash flow rate is not possible because the systems are designed for required service flow rates. However, by utilizing smaller double or triple unit systems, the optimum backwash flow rate is lower; therefore, these systems operate at higher service flow rates.

Pure Aqua also supplies: Custom Engineered Solutions, Multimedia Pretreatment, Activated Carbon Pretreatment, Water Conditioning, Chemical Dosing Systems, Ultraviolet (UV) Sterilizers and Ozonation Systems.

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