

Epoxy-Coated Carbon Steel Sand Media Filtration Systems

PRO

SAVANA Sand Media Filtration Systems set the standards for operating & backwash efficiency. Note the exclusive underdrain system, designed to maximize the media surface area when filtering and provide the optimum cleaning cycle when backwashing. Durable componentry. The best choice for removing fine particles and organic matter for drip & micro irrigation systems.

High pressure capability

Heavy wall construction allows the PRO Series to handle pressures up to 150 psi (10.3 bar). Manifolds, backwash valves and all other componentry is also compatible with this pressure.

Epoxy coating inside & out

Polyurethane internal and a hybrid polyurethane with paint and UV-inhibitor on the exterior for maximum corrosion protection throughout.

Precision-engineered stainless steel underdrain

A full-coverage pattern of stainless steel wedgewire screen material assures maximum flow-through and backwash characteristics. Requires no coarse gravel bed; only media sand. Open area of the underdrain screen is 4:1 beyond the inlet/outlet size, boasting industry low pressure loss and maximum operating cycles between backwashing cycles.

Compatible with all makes of sand media filters

The PRO Series can be manufactured to replace and fit the dimensions of any brand sand filter. Fully compatible with the SAVANA SST Series, too.

Top-grade componentry

Inlet & outlet manifolds are stainless steel. Backwash valves are cast in an exclusive SAVANA design for durability and reliability. Internal wet surfaces are epoxy coated.

SAVANA Filter-PRO Systems.
Effective, efficient & affordable.



Flow range:
Standard systems up to 3140 US gpm
(715 m³/hr)

Available in 48-inch diameter filter tanks only. Ask also about SAVANA SST Series stainless steel media tanks & systems for a wider range of flow rates.



Exclusive SAVANA Underdrain System. Internal v-slotting for maximum backwash performance. Zero flow-through pressure resistance for longer operating cycles & less backwashing. 15-Year Warranty.



SAVANA Backwash Valve. Proven the industry leader for performance and durability. Easy to service without system/piping disassembly.



Optional SAVANA BRS System. Reduces backwash water loss by 50% or more. Effective pre-filter to all makes of sand media filters, removing sand, grit & heavy particles. Ask SAVANA for details.

Specifications & Dimensions

Media Sand Options

Installation Configurations

Operation & Backwash Details

Warranty

Material Specifications

Filter Tanks

Carbon steel tanks with 10 gauge wall thickness; 3/16-inch dome thickness. Fusion-bonded polyurethane epoxy internal coating with polyurethane hybrid/paint/UV inhibitor external coating. Top inspection/access port and lower port for sand clean-out both feature full-size bolt-on covers.

Backwash Valves

Cast-iron body. Coated internal water-contact surfaces. Stainless steel shaft & guide bushing. Stainless steel disc with vulcanized Buna-N rubber to seal the backwash port.

Controller

Steel housing, water-resistant, key-lock. Solid-state timing. Operates from standard 110 VAC, 50/60 Hz. Consult factory for 220 VAC, 12 VDC battery or solar power.

Lateral/Underdrain Assembly

All stainless steel material, featuring wedgewire screen for open area. Internal v-slotting. All parts welded in place.

Media Sand Options

Required media sand is **not** included with basic SAVANA Sand Media Filter System. The following information is provided for guideline & reference purposes only. Sand available from SAVANA and sources worldwide.

Filtration Requirement	Media Material
200 to 250 mesh/ 75 micron	#20 Crushed Silica
150 to 200 mesh/ 105 micron	#16 Crushed Silica
130 to 140 mesh/ 150 micron	#12 Crushed Silica

NOTE: SAVANA Sand Media Filters operate efficiently with single-grade sand media. No multi-grade layering required.

General Specifications

Model*	Flow Range**		System Manifold Inlet/Outlet Grooved Couplings	Media Sand Requirement*** (complete system)		Maximum Filter Tank Pressure****		System Weight (without sand)		Filtration Area		Minimum Backwash Line Size
	U.S. gpm	m ³ /hr		lbs.	kg	psi	bar	lbs.	kg	ft ²	m ²	
PRO-4806-2	440-625	100-142	6-inch	2600	1179	150	10.3	690	313	25.1	2.3	4-inch
PRO-4806-3	650-940	148-213	6-inch	3900	1769	150	10.3	1075	488	37.7	3.5	4-inch
PRO-4808-4	845-1240	192-282	8-inch	5200	2358	150	10.3	1490	676	50.2	4.6	4-inch
PRO-4810-5	1050-1550	238-352	10-inch	6500	2948	150	10.3	1850	839	62.8	5.8	4-inch
PRO-4810-6	1270-1870	288-425	10-inch	7800	3537	150	10.3	2200	998	75.4	7.0	4-inch
PRO-4810-7	1475-2200	335-500	10-inch	2565	1165	150	10.3	2965	1345	87.9	8.1	4-inch
PRO-4812-8	1685-2510	385-570	12-inch	2980	1350	150	10.3	3360	1525	100.4	9.2	4-inch
PRO-4812-10	2105-3140	480-715	12-inch	3700	1680	150	10.3	4010	1820	125.6	11.6	4-inch

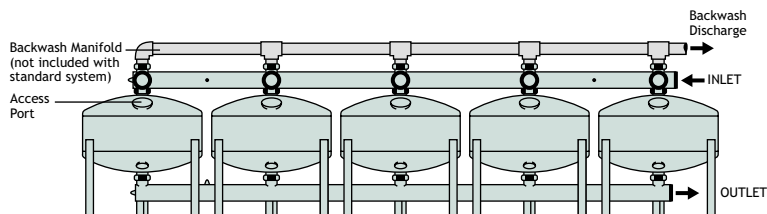
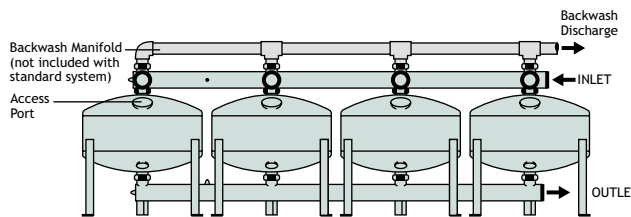
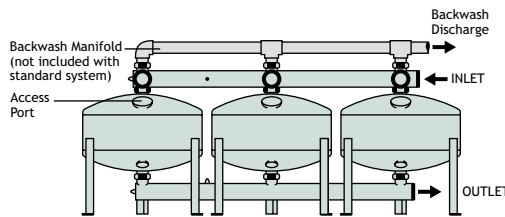
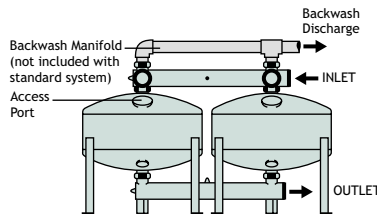
* Model numbers identify individual tank size/diameter (first two numbers), inlet/outlet size (second two numbers) and number of tanks per system (last number). Add an "A" at end of model number for an Automatic system. Add an "M" for a Manual system. NOTE: Standard automatic systems are AC operation. Consult factory for DC, battery-operated and solar-powered systems.

** Flow range based on a filtration range of 18-25 U.S. gpm/ft² (47-61 m³/hr/m²). Select a larger model if the water has an above-average quantity of particulates/organics.

*** NOTE: 100 lbs. = 1 cubic foot = 1 standard size bag of media sand.

**** For higher pressure requirements, please consult factory. Note: Recommended operating pressure range for proper actuation of SAVANA Backwash Valves is 20-80 psi (1.4-5.5 bar).

End-Feed Installation Configurations

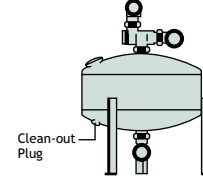


Dimensions

Tank Qty.	End-View Width		Overall Length	
	in	mm	in	mm
2-Tank	50 1/2	1283	100	2642
3-Tank	50 1/2	1283	152	3962
4-Tank	50 1/2	1283	204	5572
5-Tank	50 1/2	1283	263	6833

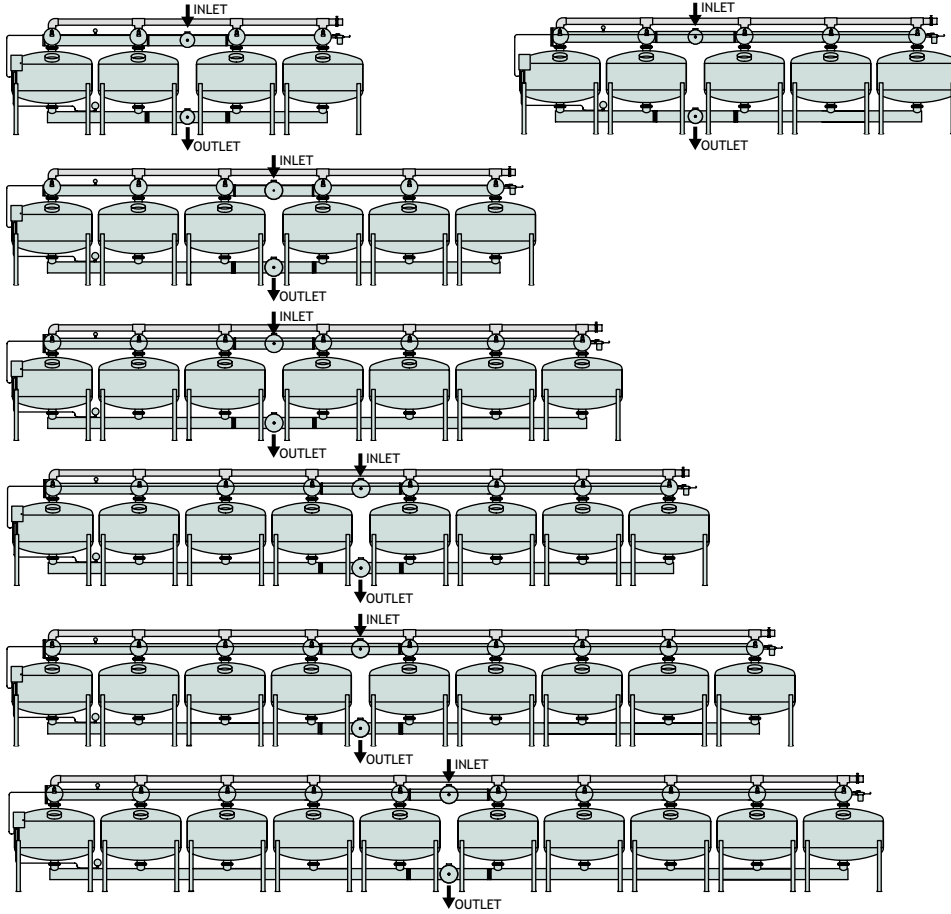
NOTE: Use 50 1/2 inches (1283mm) for all End-Feed and Center-Feed 48-inch tank system end-view widths.

End-View



Center-Feed Installation Configurations

Diagrams illustrate 4-10 tank systems. Consult factory for other requirements.



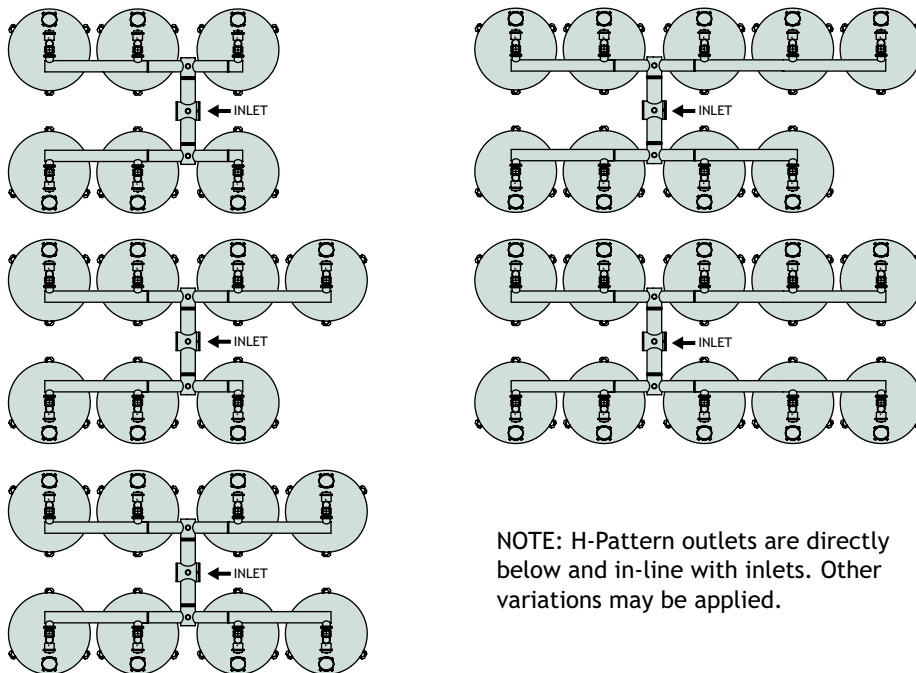
Dimensions

Tank Qty.	Overall Length	
	in	mm
4-Tanks	211	5360
5-Tanks	263	6680
6-Tanks	315	8000
7-Tanks	367	9322
8-Tanks	419	10643
9-Tanks	471	11964
10-Tanks	523	13284

Overall Width (all 48-inch tank systems): 50½ inches (1283mm)

H-Pattern Installation Configurations

Diagrams illustrate 6-10 tank systems. Consult factory for other requirements.



NOTE: H-Pattern outlets are directly below and in-line with inlets. Other variations may be applied.

Dimensions

Tank Qty.	Overall Length	
	in	mm
6-Tanks	159	4039
7-Tanks	211	5360
8-Tanks	211	5360
9-Tanks	263	6680
10-Tanks	263	6680

Overall Width (all 48-inch tank systems): 120 inches (3048mm)

Operation

Limited Warranty

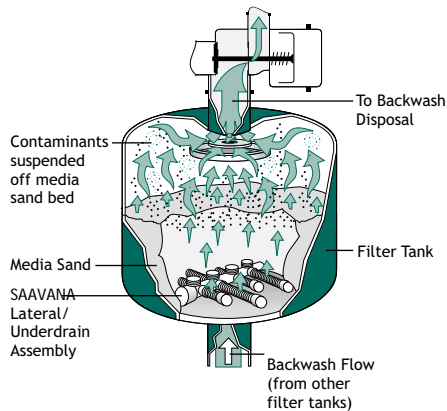
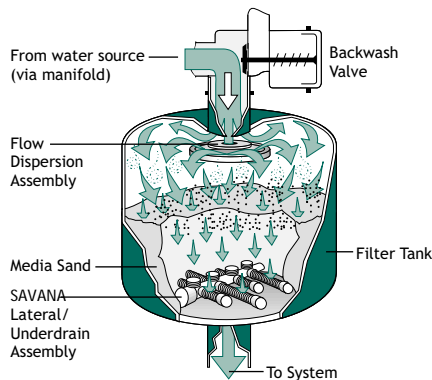
All products manufactured and marketed by this corporation are warranted to be free of defects in material or workmanship for 12 months from date of installation; if installed 6 months or more after ship date, warranty shall be a maximum of 18 months from ship date. The filter tanks of this series feature an extended warranty to five years.

If a fault develops, notify us, giving a complete description of the alleged malfunction. Include the model number(s), date of delivery and operating conditions of subject product(s). We will subsequently review this information and, at our option, supply you with either servicing data or shipping instruction and returned materials authorization. Upon prepaid receipt of subject product(s) at the instructed destination, we will then either repair or replace such product(s), at our option, and if determined to be a warranted defect, we will perform such necessary product repairs or replace such product(s) at our expense.

This limited warranty does not cover any products, damages or injuries resulting from misuse, neglect, normal expected wear, chemically-caused corrosion, improper installation or operation contrary to factory recommendation. Nor does it cover equipment that has been modified, tampered with or altered without authorization.

No other extended liabilities are stated or implied and this warranty in no event covers incidental or consequential damages, injuries or costs resulting from any such defective product(s).

698 Blvd. Guimond,
Longueuil, Que., J4G 1T5 (CANADA)
Telephone: (450) 646-1848
FAX: (450) 646-1848
Toll Free: (800) 646-1848
(USA & Canada)
Internet: WWW.SAVANAWATER.COM
E-mail: info@savanawater.com

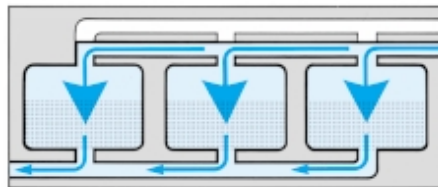


The information, specifications and performance data stated in this literature are representative of engineering and production standards at the time of publication. Despite quality control, slight variations may occur due to manufacturing, product design improvements and/or sample selection. Actual data may also be revised without notice and you are encouraged to verify pertinent data with the manufacturer when appropriate.

Our products are manufactured and sold under one or more of the following U.S. Patents: 3,289,608; 3,512,651; 3,568,837; 3,701,425; 3,947,364; 3,963,073; 4,027,481; 4,120,795; 4,123,800; 4,140,638; 4,147,630; 4,148,735; 4,305,825; 4,555,333; 5,320,747; 5,338,341; 5,368,735; 5,425,876; 5,571,416; 5,578,203; 5,622,545; 5,653,874; 5,894,995; 6,090,276; 6,143,175; 6,167,960; 6,202,543; Des. 327,693 and corresponding foreign patents. Other U.S. and foreign patents pending.

The Filtering Process

The filtering process engages the use of a specified sand media (see page 2) to trap foreign matter on the surface layer, allowing filtered water to percolate through the sand media and SAVANA internal v-slotted lateral assembly, discharging at the bottom of each tank to the outlet manifold.

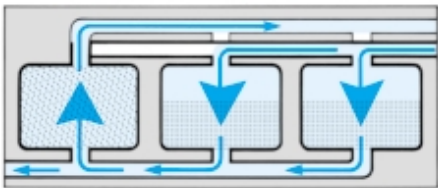



The Backwash Cycle

The backwash cycle flushes trapped debris from the sand media and out of the filter tanks. Each tank in a SAVANA System is flushed individually for maximum agitation of the sand media. Triggered by pressure differential, by elapsed time or manually, each tank's backwash valve is alternately activated into the backwash mode, which simultaneously interrupts inlet flow to that particular tank. Overall system pressure then directs partial system flow back into and through the tank's lateral assembly.

Flow continues for a prescribed period of time (typically one minute), suspending the foreign matter and carrying it out through the tank's top port (normal inlet) and out through the backwash valve and piping. The backwash valve then returns to its original position and restores the now "clean" filter tank to normal service.

NOTE: The SAVANA automatic controller provides a variable time delay between stations to avoid overlapping backwash cycles and maximize backwash efficiency.



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