



SST FILTERS



PROII FILTERS



SST125 FILTERS



PREMIUM PERFORMANCE MEDIA FILTERS IN STAINLESS OR COATED CARBON STEEL

Remove algae and other organics from drip irrigation systems



EXCEPTIONAL FILTRATION

Drip irrigation improves crop yields by efficiently and precisely delivering water. However, algae and other organic matter can clog emitters and reduce yields.

LAKOS Media Filter systems offer unparalleled performance that keeps drip emitters clean while using a minimal amount of backwash water.

Select the best-in-class filtration for your drip irrigation to improve yields, reduce operating costs, and save water.



BETTER FILTRATION STARTS WITH A BETTER UNDERDRAIN



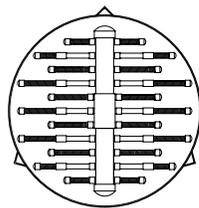
EXCLUSIVE LAKOS UNDERDRAIN – REDUCE WATER AND ENERGY USE

Precision-engineered underdrain with industry-best open area encourages optimum/even flow across the entire filter media bed – without dead spots or channeling. This helps capture more organic matter while allowing water to pass freely.

The benefits of this underdrain design extend to backwashing as well. A greater open area leads to consistent and efficient backwash, reducing pressure and clean water required to remove captured matter. No gravel media bed required.

Superior LAKOS Design

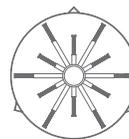
Full Coverage Lateral Pattern – LAKOS underdrains cover the entire media bed and feature an open area of 3.6 times (48 in.) greater than the inlet – resulting in zero dead spots, allowing greater flow-through, and eliminating the need for gravel.



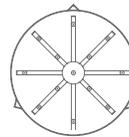
Open area 3.6x greater than inlet

Inferior Competitor Design

These designs only partially cover the media bed – resulting in dead spots and increased backwash pressure loss. Captured organics are not effectively removed due to channeling of the media bed.



Hub and Spoke Design – open area only 1.4x greater than inlet



Flat Lateral Design – open area .7x less than inlet

ENGINEERED COMPONENTS



LAKOS Backwash Valves are built to last. Polyester powder-coating inside and out improves durability and reliability. Non-corrosive stainless steel shafts with vulcanized Buna-N seals and guide bushing contribute to long life and 100% serviceability. A full-port opening leads to better flow-through and backwashing.



Modular Manifold Choices
LAKOS manifolds are available in two options: Duroblack Modular manifolds and Stainless Steel

Modular manifolds. Our Duroblack Modular manifolds are built to handle environments with corrosive water conditions. Not only are these manifolds robust, but easier to install as well. Modular design allows for economical expansion and pattern changes.

KEY SYSTEM COMPONENTS



WATER UPTAKE KIT

Filter and pressure gauge combination eliminates additional connections to the manifolds – reducing the potential for leaks at manifolds.



AUTOMATIC SOLENOID KIT

Solenoid valves play a crucial part in the backwash cycle as they initiate the actuation of each backwash valve. Solenoids can be turned to the ON position both manually or automatically by a backwash controller.



PRESSURE GAUGE KITS

Included pressure gauges (2) allow users to quickly identify and diagnose problems with Media Filter systems.

BACKWASH CONTROLLER

ALEX-TRONIX CONTROLLER

Familiar user interface and standard performance. From two to sixteen station capacity. Includes controls to actuate downstream pressure-sustaining valve. Available in 12VDC, 24VAC, or 120/220VAC.

LAKOS also offers ALEX-TRONIX Filter Master Series Controllers.

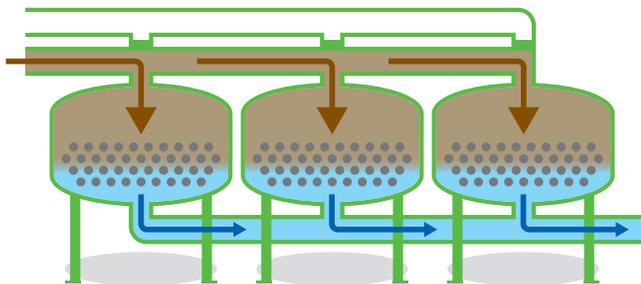


HIGH-PRESSURE PRO SERIES MEDIA FILTERS

For operating conditions that require up to 150 psi, use the LAKOS PRO series Media Filters. To handle higher pressures, the PRO series are built with heavy gauge walls and feature a stronger dome construction. Like the PROII series, PRO series Media Filters are coated inside and out with polyester powder-coating for durability and long life. Contact factory for more information.

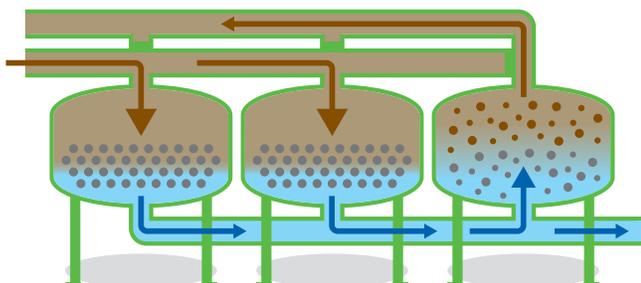


HOW IT WORKS



THE FILTERING PROCESS

LAKOS Media Filters use sand media to capture organic matter from water on the surface layer, allowing water to percolate through the sand media and exit through the underdrain.



THE BACKWASH CYCLE

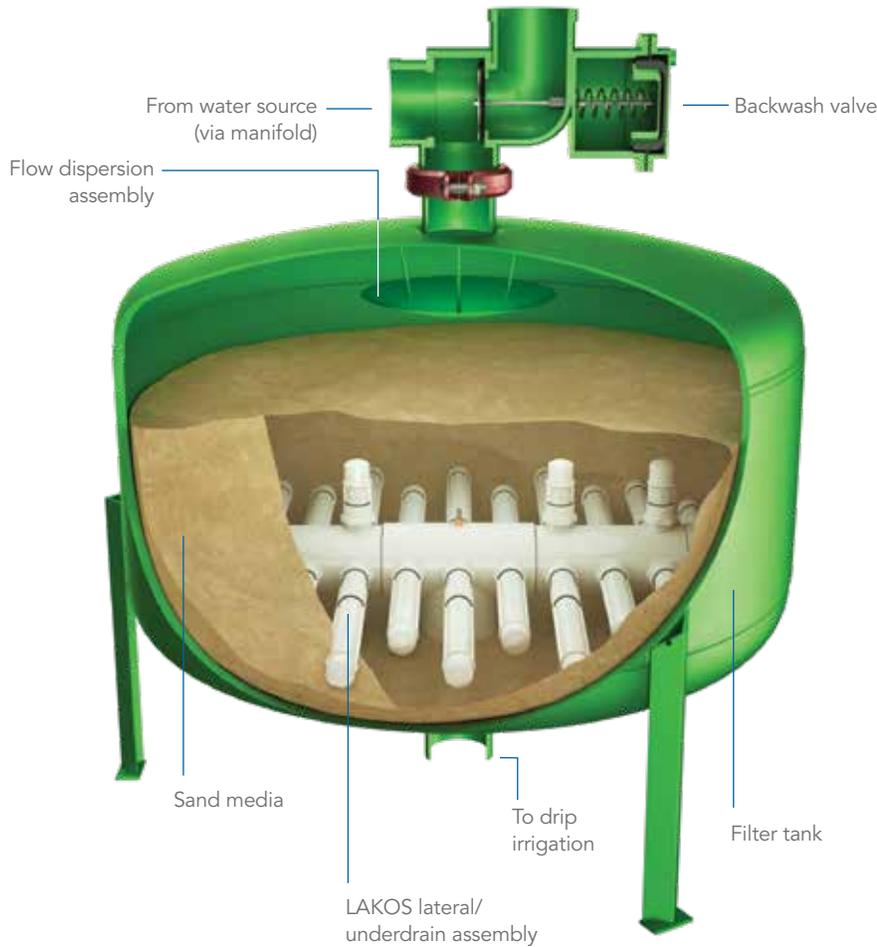
The backwash cycle flushes trapped organic matter from the filter tanks. Each tank in a LAKOS system is flushed individually for effective removal of captured organic matter. Triggered by either pressure differential or elapsed time, each tank's backwash valve restricts inflow to that particular tank and allows outflow of backwash water. Filtered water from other tanks is directed through the particular tank's underdrains – effectively flushing captured organic matter. After a pre-determined period of time, the backwash valve returns to normal position allowing the tank to continue filtering water. Backwash water with captured organic matter is usually directed to an on-site holding tank/pond.

GET THE SAND OUT



Using media filters to remove sand creates unwanted build-up, increases pressure differential through the media filter, and causes excessive backwashing and water loss. Instead, a LAKOS Sand Separator can be installed as a first-stage filter to remove settleable sand without screens or backwashing, thus keeping your media filters at optimum efficiency. LAKOS features models for all flow rates, performance to 200 mesh (74 microns), with low and steady pressure loss.

SST & PROII MEDIA FILTERS



SST125 AND SST FILTERS

- Stainless steel (304L) construction with grooved-end inlet/outlet connections
- Top inspection port is 8-inch diameter with bolt-on cast cover (powder-coated); rubber-gasketed; stainless steel bolts and washers with brass nuts. Lower clean-out port is 3-inch diameter with PVC screw-in male NPT plug
- SST125: 125psi max for all tank sizes
- SST: 80 psi max (5.5 bar) for 48-inch tanks
- SST: 100 psi max (6.9 bar) for 36-inch, 30-inch, 24-inch, 18-inch, and 15-inch tanks



PROII FILTERS

- Internally & externally polyester powder-coated steel via fusion-bonded process
- Top inspection port is 8-inch diameter with bolt-on cast cover (powder-coated); rubber-gasketed; zinc-plated steel bolts, washers & nuts
- Side port for easy accessibility and clean-out
- Lower clean-out port is 3-inch diameter with PVC screw-in male NPT plug
- 80 psi max (5.5 bar) for 48-inch tanks
- 125 psi max (8.6 bar) for 32-inch tanks
- 150 psi max (10.3 bar) for 21-inch tanks

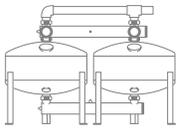
SAND MEDIA OPTIONS AND REQUIREMENTS

Sand media is not included with media systems. LAKOS systems do not require gravel around underdrain laterals. The following information is provided as a guideline for reference use only. LAKOS sells sand media for new fill and replacement purposes.

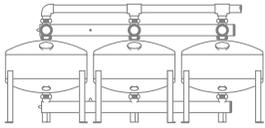
SAND SIZE REFERENCE	SAND SIZE DESCRIPTION	PERFORMANCE ESTIMATE
#12 Crystalline Silica	12-16 mesh (1680-1190 micron)	130-140 mesh (110 micron)
#16 Crystalline Silica	16-40 mesh (1190-420 micron)	150-200 mesh (100-80 micron)
#20 Crystalline Silica	20-50 mesh (840-295 micron)	200-250 mesh (74-60 micron)

SAND MEDIA REQUIREMENT PER TANK			
Model	Tank Diameter	lbs	kg
PRO II	21	300	136
	32	700	318
	48	1300	590
	18	200	91
SST	24	350	159
	30	500	227
	36	900	408
SST125	48	1300	590
	18	200	91
	24	350	159
	30	500	227
	36	900	408
	48	1500	680

END-FEED INSTALLATION CONFIGURATIONS



2-TANKS			
END-VIEW WIDTH		OVERALL LENGTH	
50½ in	128 cm	100 in	254 cm

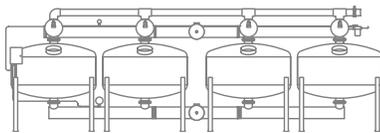


3-TANKS	
OVERALL LENGTH	
152 in	386 cm

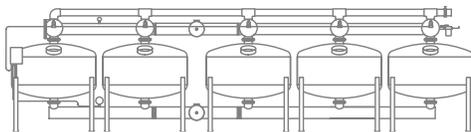
Available up to 4-tanks.

CENTER-FEED INSTALLATION CONFIGURATIONS

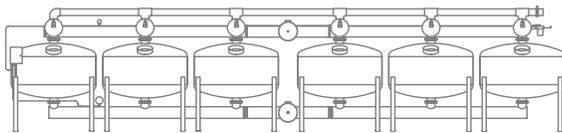
4-TANKS	OVERALL LENGTH	211 in	536 cm
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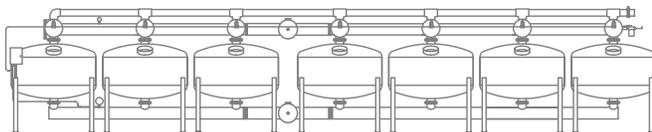
5-TANKS	OVERALL LENGTH	263 in	668 cm
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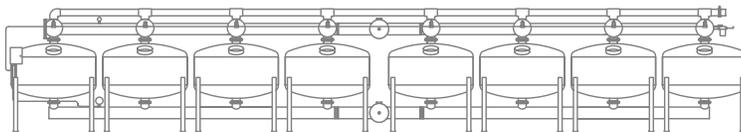
6-TANKS	OVERALL LENGTH	315 in	800 cm
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7-TANKS	OVERALL LENGTH	367 in	932 cm
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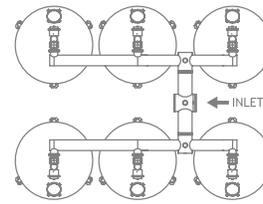
8-TANKS	OVERALL LENGTH	419 in	1064 cm
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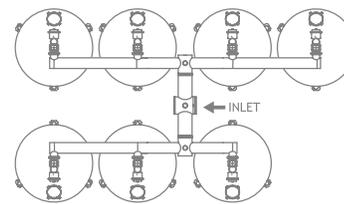
Overall Width (all 48-inch tank systems): 50½ inches (128 cm)

H-PATTERN INSTALLATION CONFIGURATIONS*

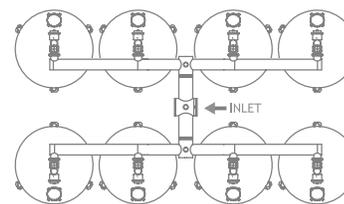
6-TANKS	OVERALL LENGTH	159 in	404 cm
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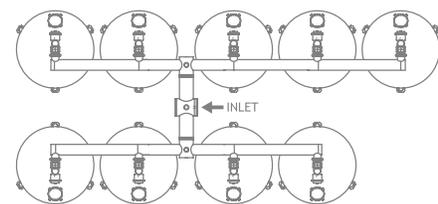
7-TANKS	OVERALL LENGTH	211 in	536 cm
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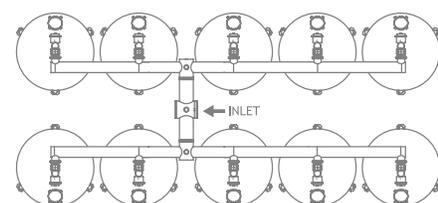
8-TANKS	OVERALL LENGTH	211 in	536 cm
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9-TANKS	OVERALL LENGTH	263 in	668 cm
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10-TANKS	OVERALL LENGTH	263 in	668 cm
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*NOTE: H-Pattern outlets are directly below and in-line with inlets. Other variations may apply.

MEDIA FILTER SIZE OPTIONS



SST125 & SST (stainless steel tank)

MODEL	Flow range		Number of tanks	Tank diameter (in)	Inlet/Outlet manifold size (in)	Total filtration area		Min backwash line (in)	Min backwash flow per tank (US gpm)
	(US gpm)	(m ³ /hr)				(ft ²)	(m ²)		
SST125/SST -1803-2	55-90	12-20	2	18	3	3.6	0.3	3	27
SST125/SST -2403-2	95-155	22-35	2	24	3	6.2	0.6	3	47
SST125/SST -3004-2	150-250	34-57	2	30	4	10.0	0.9	3	75
SST125/SST -3004-3	255-375	57-85	3	30	4	15.0	1.4	3	75
SST125/SST -3604-2	210-350	48-79	2	36	4	14.0	1.3	3	105
SST125/SST -3606-3	315-525	72-119	3	36	6	21.0	2.0	3	105
SST125/SST -3606-4	420-700	95-159	4	36	6	28.0	2.6	3	105

Maximum Pressure Per Filter Tank

SST125 Filter Max Pressure Per Tank: 125 psi (8.6 bar)

SST Filter Max Pressure Per Tank: 100 psi (6.9 bar)



PROII (polyester powder-coated carbon steel tank)

MODEL	Flow range		Number of tanks	Tank diameter (in)	Inlet/Outlet manifold size (in)	Max pressure per tank (psi)	Total filtration area		Min backwash line (in)	Min backwash flow per tank (US gpm)
	(US gpm)	(m ³ /hr)					(ft ²)	(m ²)		
PROII-2104-2	75-120	17-27	2	21	4	150	4.8	0.4	3	36
PROII-2104-3	110-180	25-41	3	21	4	150	7.2	0.7	3	36
PROII-3204-2	165-270	37-61	2	32	4	125	10.8	1.0	3	81
PROII-3204-3	245-405	56-92	3	32	4	125	16.2	1.5	3	81

Maximum Pressure Per Filter Tank:

PROII 21" Filters: 150 psi (10.3 bar)

PROII 32" Filters: 125 psi (8.6 bar)



SST125, SST & PROII (available in both stainless steel tank and polyester powder-coated carbon steel tank)

MODEL	Flow range		Number of tanks	Tank diameter (in)	Inlet/Outlet manifold size (in)	Total filtration area		Min backwash line (in)	Min backwash flow per tank (US gpm)
	(US gpm)	(m ³ /hr)				(ft ²)	(m ²)		
SST125/SST/PROII -4806-2	380-625	86-142	2	48	6	25.1	2.3	4	188
SST125/SST/PROII -4806-3	565-940	128-213	3	48	6	37.7	3.5	4	188
SST125/SST/PROII -4808-4	755-1255	171-285	4	48	8	50.2	4.7	4	188
SST125/SST/PROII -4810-5	945-1565	215-355	5	48	10	62.8	5.8	4	188
SST125/SST/PROII -4810-6	1130-1880	257-427	6	48	10	75.3	7.0	4	188
SST125/SST/PROII -4810-7	1320-2195	300-499	7	48	10	87.9	8.2	4	188
SST125/SST/PROII -4810-8	1510-2510	343-570	8	48	10	100.4	9.3	4	188
SST125/SST/PROII -4812-9	1695-2820	385-640	9	48	12	113.0	10.5	4	188
SST125/SST/PROII -4812-10	1885-3135	428-712	10	48	12	125.5	11.7	4	188
SST125/SST/PROII -4812-11	2075-3450	471-784	11	48	12	138.1	12.8	4	188
SST125/SST/PROII -4812-12	2260-3765	513-855	12	48	12	150.6	14.0	4	188

Maximum Pressure Per Filter Tank

SST and PROII 48 Filters: 80 psi (5.5 bar)

SST125 Filters: 125 psi (8.6 bar)

All stated flow ranges are based on a filtration range of 15-25 gpm/ft² (37-61 m³/hr/m²).

Select larger model if the water has an above-average quantity of particulate or organics.

Recommended flows through manifolds to not exceed 7 ft/sec (2 m/sec).

NOTE: Minimum recommended operating pressure range for proper actuation of LAKOS Backwash Valve is 20 psi (1.4 bar).

PRODUCT WARRANTY

SST125 & SST Tanks – One Year Warranty

PROII Tanks – Five Year Limited Warranty

Stainless and DuroBlack Manifolds and Parts – One Year Warranty

Underdrain – Fifteen Year Warranty

See www.lakos.com/warranty for details

