

Self-Cleaning Pump Intake Screens

PC

Protect pumps and water systems from surface water organics & debris

Wherever unprotected pump intakes are threatened by organic debris and other troublesome floating solids, LAKOS PC Screens provide a continuous, intelligent defense against clogging, lost suction and pump wear. A rugged, reliable internal backwash system blows debris off of and away from the screen, allowing water to flow freely to the pump (see illustration at right).

Wide range of applications

Rivers, effluent ponds, sumps, lakes, re-use pits, streams, tanks, canals, etc.

Protects pumps

For centrifugal and short-coupled turbine pumps. Safeguards against damage to impellers and restricted suction/cavitation.

Energy savings

Helps maintain pump efficiency, reducing the need to pump longer to deliver required water volume. Continuously clean screen eliminates potential head/pressure loss.

Reduces maintenance

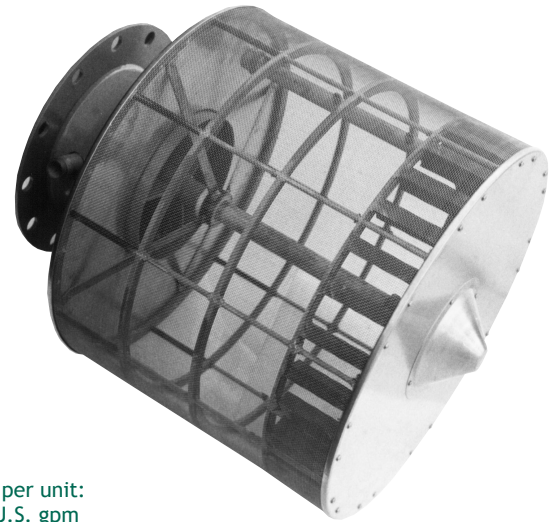
Continuous cleaning performance means no manual cleaning of stationary screens or routine system shutdowns.

Environmental protection

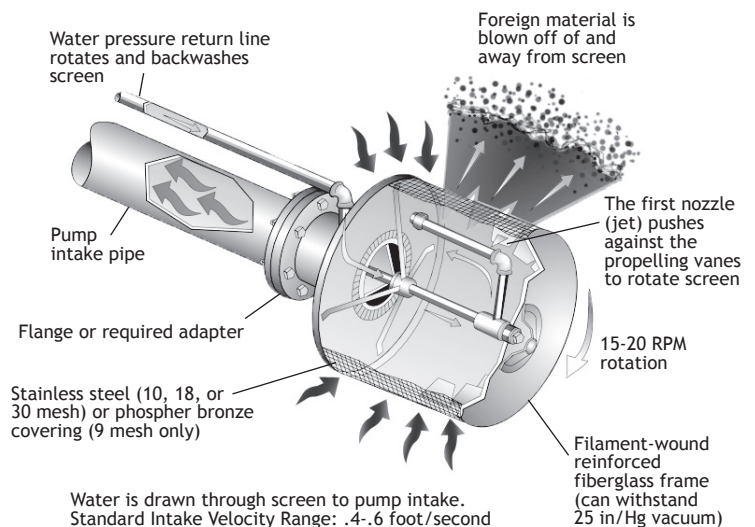
Low-velocity operation keeps fish, mussels, clams, etc., out of pump intakes.

Durable construction

Strong, deep-ribbed, reinforced fiberglass frame. Stainless steel end caps. Choice of corrosion-resistant stainless steel screen mesh or algae growth-inhibiting phosphor bronze screen mesh.



Flow range per unit:
50 - 2,400 U.S. gpm
11 - 545 m³/hr



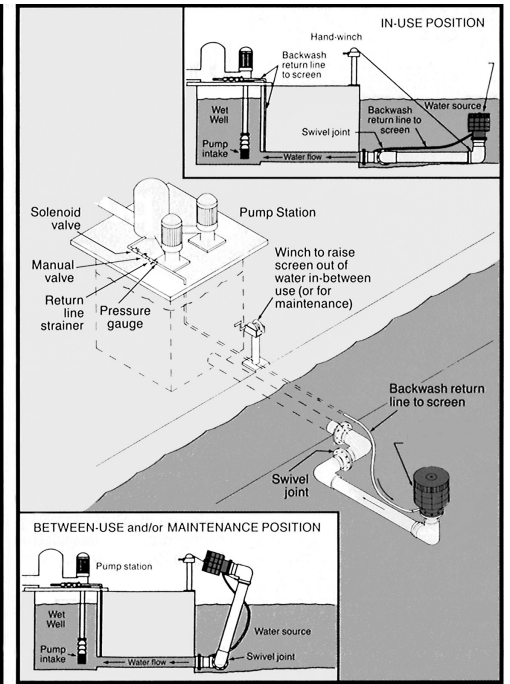
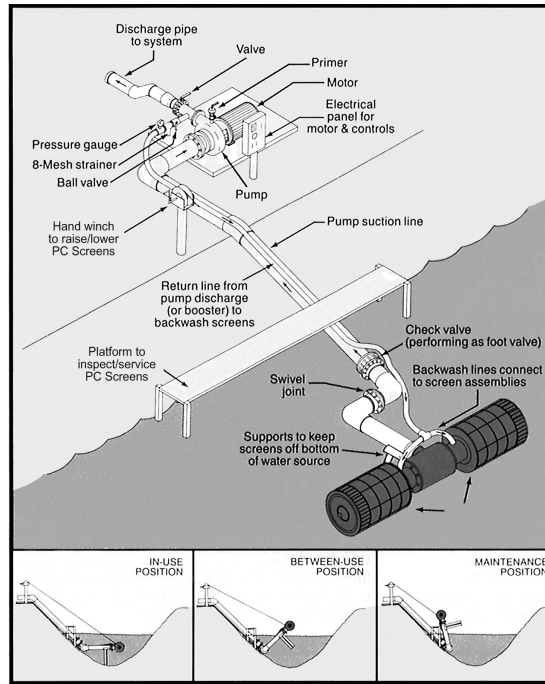
PC Series

Fish-Safe Applications

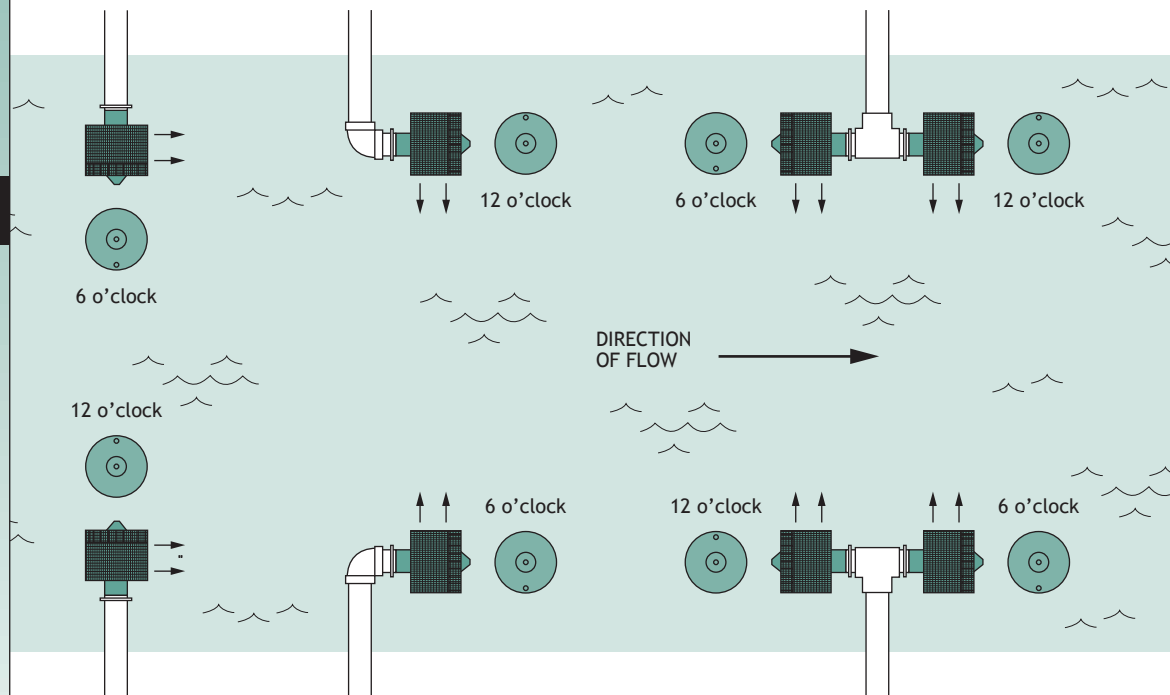
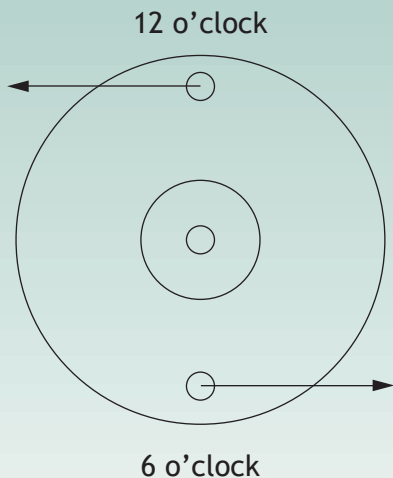
Location - PC Screens must be placed in locations with sufficient ambient velocity to sweep away debris removed from the screen face. The spray nozzles must be directed downstream, or away from the adjacent shoreline to prevent the same debris from encroaching on the screen again.

Submergence - PC Screens must be submerged to a depth of at least one screen radius below the minimum water surface, with a minimum of one screen radius clearance between screen surfaces and natural or constructed features.

Escape Route - A clear escape route should exist for fish that approach the intake volitionally or otherwise.

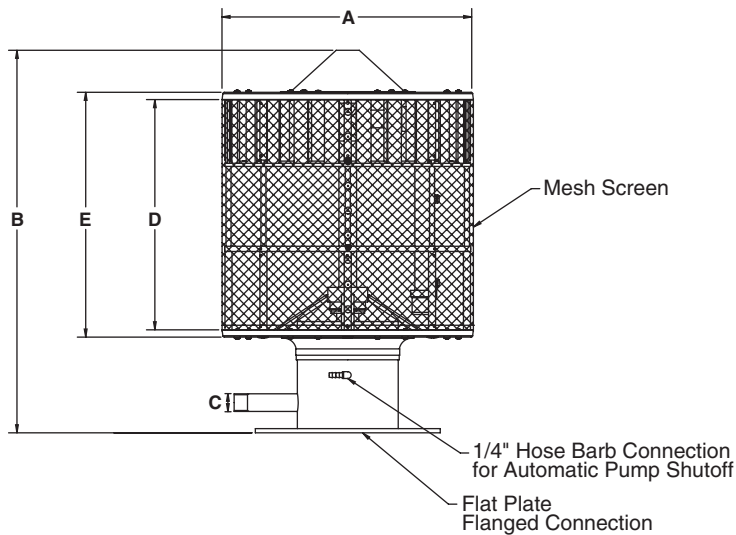


Spray Nozzle Orientation



Proper spray bar position for various installations

These diagrams identify the proper position of the PC Screen's spray bar to assure that backwashed debris is directed a) downstream in moving bodies of water; b) toward the center of a standing body of water; or c) toward the surface if the PC Screen is deeply submerged.



Construction Material

Frame & Propelling Vanes: Fiberglass

End Caps: Stainless Steel

Interior Pipe & Fittings: Stainless Steel

Screen Outlet: Polyester Powder Coated Carbon Steel or Stainless Steel

Screen: Stainless Steel 10, 18 or 30 Mesh or Phosphor Bronze (9 mesh only)

Bushings: Ultra-High Molecular Weight Polyethylene

Dimensions & Weights

Model	A		B		C	D		E		Weight	
	in.	mm	in.	mm		in.	mm	in.	mm	lbs.	kg
PC 915	15	381	19	483	3/4	9	229	10	254	27	12.3
PC 1415	15	381	24	610	3/4	14	356	15	381	29	13.2
PC 924	24-1/2	622	19-1/2	495	1	9	229	10	254	50	22.7
PC 1424	24-1/2	622	24-1/2	622	1	14	356	15	381	53	24.1
PC 1924	24-1/2	622	29-1/2	749	1	19	483	20	508	55	25.0
PC 2424	24-1/2	622	34-1/2	876	1	24	610	25	635	65	29.5
PC 2924	24-1/2	622	39-1/2	1003	1	29	737	30	762	75	34.1
PC 3424	24-1/2	622	47	1194	1	34	864	35	889	89	40.5

General Specifications

Model	Maximum Flow Rate				*Fish-Safe Maximum Flow Rate								PC Screen Outlet Pipe	*Required Backwash Pressure		Approximate Backwash Flow at Required Pressure	
	9, 10, 18 Mesh		30 Mesh		9 Mesh		10 Mesh		18 Mesh		30 Mesh			psi	bar	U.S. gpm	
	U.S. gpm	m³/hr	U.S. gpm	m³/hr	U.S. gpm	m³/hr	U.S. gpm	m³/hr	U.S. gpm	m³/hr	U.S. gpm	m³/hr				U.S. gpm	m³/hr
PC 915	350	80	250	55	328	75	305	70	335	75	195	45	6	55-80	3.8-5.5	10	2.5
PC 1415	560	125	400	90	510	115	475	110	521	120	304	70	6	60-80	4.1-5.5	15	3.5
PC 924	650	150	450	100	535	120	499	115	547	125	319	70	10	60-100	4.1-6.9	12	2.5
PC 1424	1000	225	700	160	833	190	776	175	851	195	496	115	10	65-100	4.5-6.9	18	4.0
PC 1924	1350	305	950	215	1130	255	1053	240	1155	260	674	155	10	70-100	4.8-6.9	25	5.5
PC 2424	1700	385	1200	275	1428	325	1330	300	1459	330	851	195	12	75-100	5.1-6.9	36	8.0
PC 2924	2050	465	1450	330	1725	390	1607	365	1763	400	1028	235	12	75-100	5.1-6.9	41	9.5
PC 3424	2400	545	1700	385	2023	460	1884	430	2067	470	1206	275	16	75-100	5.1-6.9	50	11.5

* Meets safe-fish requirements for the United States Pacific Northwest (maximum intake velocity of .4 feet/second). For requirements in other regions, consult the factory.

** Required pressure range for the backwash return line at the PC Screen connection.

IMPORTANT: See Dimension "C" for Backwash Return Line Connection size. This is also the *minimum* line size.

NOTE: Screen should rotate at a rate of at least 15 RPM.

Parts List

Limited Warranty

All LAKOS PC Screens are manufactured by this corporation and 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.

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.

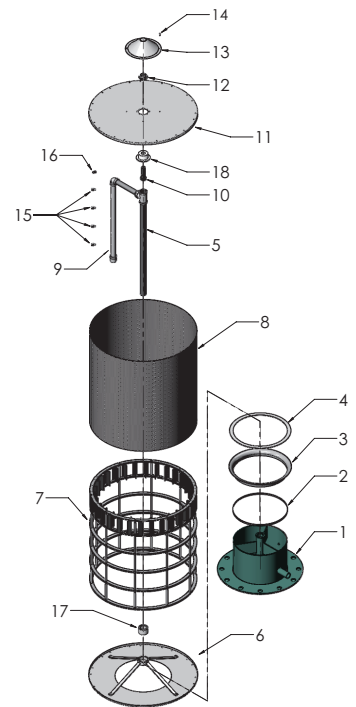
This limited warranty does not cover any products, damages or injuries resulting from misuse, neglect, normal expected wear, chemically-caused corrosion, improper installation or operation contrary to factory recommendation. Nor does it cover equipment that has been modified, tampered with or altered 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).

Lakos Separators are manufactured and sold under one or more of the following U.S. Patents: 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; 7,000,782; 7,032,760 and corresponding foreign patents, other U.S. and foreign patents pending.

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Item #	Description
1	Screen Outlet Pipe Assembly
2	Band Clamp
3	E.P.D.M. Rubber Seal
4	Plastic Ring
5	Axle Pipe
6	Spider Bushing & Stainless Steel Cap Assembly
7	Frame & Drive Vane Assembly
8	Screen Cover & Rivet Pack for Frame
9	Jet Pipe Assembly
10	Delrin Spindle
11	Bushing & Stainless Steel End Cap Assembly
12	Spindle Nut & Washer
13	Hub Cap
14	#10 Stainless Steel 5/8-inch Screen for End Caps & Hub Cap (Package contains up to 64 screws.)
15	Backwash Spray Nozzle (1 to 6x)
16	Drive Nozzle
17	Spider Bushing
18	Lid Bushing



Note: When ordering replacement parts, please specify the complete model number of your LAKOS•PLUM CREEK Screen (Example: PC-242410 to facilitate shipment of a part compatible with your particular unit.

Explanation of Model Numbers

Screen Frame Height (inches) (without end caps) Screen Mesh (holes per inch)

PC192410E

Plum Creek

Screen Diameter (inches)

Outlet Pipe Material (E=Polyester Powder Coated Carbon Steel, S=Stainless Steel)

Accessories

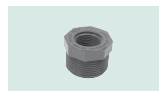
LAKOS PC Screens are manufactured with angle-flanged (or optional standard-flanged) outlets, requiring appropriately-sized adapters for a compatible fit with existing pump intake piping. For assistance with selection and sizing, or for more detailed information on accessories, consult your LAKOS representative.



Quick Release CAM 1 1/4 2 Male. Polypropylene.



Quick Release CAM 1 1/4 2 Female. Polypropylene.



Quick Release CAM 1 1/4 2 Reducing Bush. PVC.



Return-Line Strainer
"Y"-style filter for 2"-4" backwash return line. Cast aluminum with replaceable 8-mesh stainless steel insert.



Check Valve (Water Style)
Functions as foot valve in 2"-16" piping to keep pump primed. Epoxy-coated cast iron.



Automatic Pump Safety Shut-Off Control
Halts pump operation to protect both pump and PC Screen from damage in the event of excessive screen clogging and vacuum build-up.



Screen Lifting Winch
Manually raises PC Screen from water when not in operation to prevent debris from accumulating on the screen's surface. Includes 40 feet or stainless steel cable.



Screen Retrieval Swivel
Used in conjunction with Screen Lifting Winch. Swivel attaches to 6"-16" flanges to allow PC Screen and suction inlet pipe to be elevated 90° from water surface. PVC.



Suction Pipe Lifting Eye Clamp
Provides secure point of attachment for winch cable on 6"-16" screen suction pipe to allow for PC screen retrieval. Stainless.

For connecting adaptors, please consult LAKOS for availability.