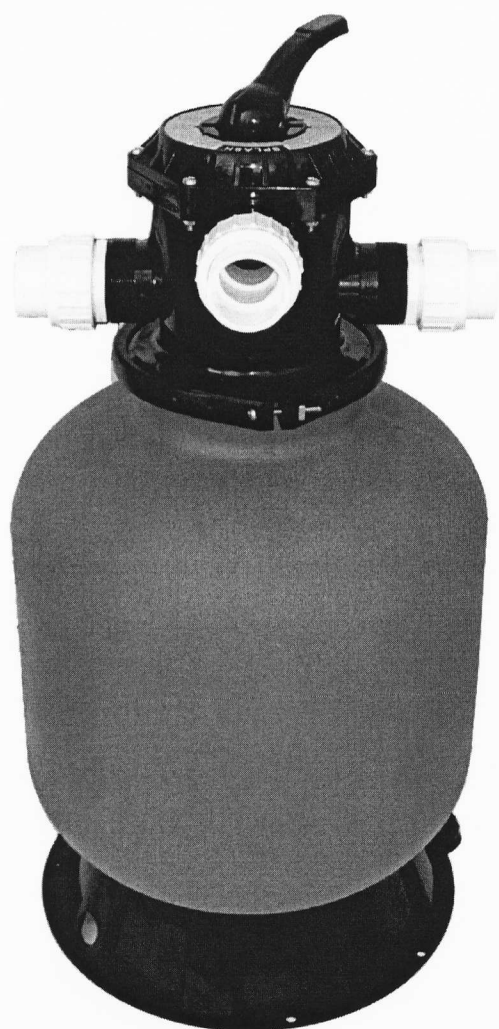
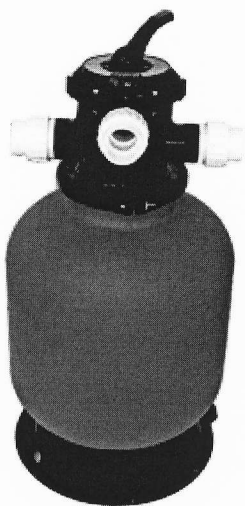


SUREPRO™

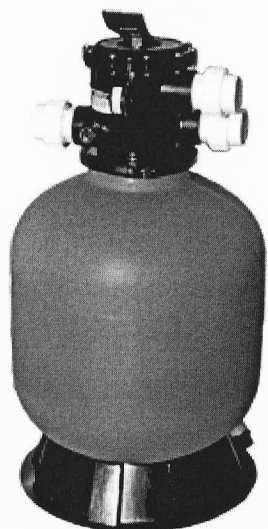
Bio Bead Filter Instruction Manual



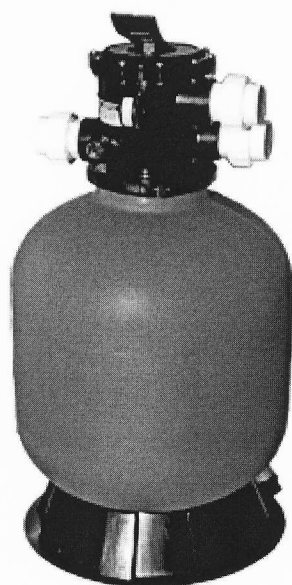
Bio Bead Filters 2000-6000 Gallon Units



SPBF2000
16" Dia. x 32" Tall



SPBF4000
19" Dia. x 36" Tall



SPBF6000
24" Dia. x 43" Tall

WARRANTY

SUREPRO Bio Bead systems are warranted against failure due to defects in materials and/or workmanship during the warranty period. This warranty covers defects occurring under normal use and applies to the original purchaser at retail and may not be transferred. The warranty and remedies set forth herein are conditional upon proper storage, installation, use, maintenance and conformance with the applicable use. It will be based upon Horizon's discretion as to whether the defects are of manufacturing origin. Any damages due to shipping and handling, packing, or installation are not covered by this warranty.

This warranty does not apply to appearance or accessory items. This warranty does not include damage due to handling, transportation, unpacking, set up, installation, repair or replacement of parts supplied by any other than Horizon, improper maintenance, modification, or repairs by the purchaser, abuse, misuse, neglect, accident, fire, flood, or other acts of God.

Any oral statements about product made by the seller, the manufacturer, their representatives or any other parties do not constitute warranties and shall not be relied upon by the user and are not part of this contract.

Neither the seller nor the manufacturer shall be liable for any injury, loss or damages, direct, incidental or consequential including but not limited to incidental or consequential damage for lost profits, lost sales, injury, inability to use the product and the user agrees that no other remedy is available.

Before using, the user shall determine the suitability of the product for their intended use and the user shall assume all risk liability whatsoever in connection therewith.

To validate this warranty, mail the enclosed warranty card within 10 days of purchase along with proof of purchase (copy of sales receipt).

Limitations:

Warranty does not cover any malfunction from improper installation (we recommend that an authorized dealer or licensed plumber install your system to the specifications outlined in this owners guide).

Warranty only applies to the original end user and is not transferable.

Warranty does not cover repairs done by anyone other than Horizon.

Warranty may not be modified by verbal statements by Horizon, distributors, retailers, their agents or any other party.

Warranty covers the repair or prorated replacement of the Horizon products. Horizon denies all liability for any other loss including but not limited to loss of equipment, income, livestock or personal injury.

Warranty is voided by the following:

- Product labels defaced or removed.
- Housing has been painted.
- Product is improperly installed or maintained by user or agent.
- Product abused, misused or damaged by user or their agent.
- Product damage caused by failing to turn pump off when switching the handle setting.
- Over tightening the valve.
- Using any sealant other than Teflon tape on the valve.

WARRANTY CONTINUED

Any implied warranty granted under state law including warranties of merchantability or fitness for a particular purpose are limited to, or as otherwise stated in the above warranty. Horizon is not responsible for direct, indirect, incidental or consequential damages. Some states do not allow limitations on how long an implied warranty lasts and/or does not allow the exclusions or limitations of incidental damages so the above limitation and exclusion may not apply to you. This warranty gives you special legal rights and you may also have other rights that vary from state to state.

Warranty Returns or Repair Returns:

Please call Horizon at (800) 636-8866 for a "Return Merchandise Authorization" number (RMA). You must have a valid RMA from an Horizon customer service representative before sending any product in for warranty or repair. Please have your serial number, date of purchase and product type available when calling for an RMA number.

All warranty returns or repair returns must come freight prepaid with an RMA number outside clearly marked on the box. All other returns will be refused. Horizon will not be liable for any shipping cost to return warranty or repair items. Include a note in the box with your RMA number, name, address, daytime phone number and brief description of the reason for return or repair.

Be sure to return product in the same packing or similar packing and insure the package (we recommend sending it UPS). If you do not have or can't locate proper packaging, please call our customer service department and we will be more than happy to send you packaging for a minimal charge.

Horizon shall not be responsible for damage or loss done by the shipper. Nor shall Horizon be responsible for merchandise that arrives damaged due to improper packaging. All claims for loss and damage must be filed by the customer with the shipper.

If unit is found to be out of warranty we will contact you with the cost of repair. Your authorization is required prior to making any repairs.

HOW FILTRATION WORKS

Biological and mechanical filtration are essential to every pond, without it ammonia from the accumulated fish waste would harm your fish. The bacterial bed that builds on filter media will nitrify any ammonia in your pond making it a healthier environment for your aquatic life. Mechanical filtration picks up any debris in the pond, keeping your pond healthier and your fish happier.

HOW BIO-MECHANICAL FILTRATION EXCELS

Bio-Mechanical filtration depends on the establishment of a colony of bacteria on the surface of the media that converts dissolved toxic nitrogenous waste to harmless compounds. When the bacteria are given the proper environment, they grow in a thin biofilm on the surface of each piece of media. The larger the surface area, the larger the bacterial colony. Our media surpasses the competition in this area with four to seven times the surface area of any other media available.

In order for the Bio Bead filter to perform Bio-Mechanical Filtration the media must first establish itself enough to handle the load of dissolved ammonia presented to it. Depending on the temperature this can take 2-4 weeks for your filter to establish itself in your pond environment (this varies depending on climate, weather conditions, fish load and feed rates). Until the colony has grown large enough, the pond owner **MUST** be responsible for monitoring the levels of ammonia and nitrates in the pond water and take the appropriate measures to correct dangerously high levels.

CAUTION: READ ALL INSTRUCTIONS CAREFULLY BEFORE BEGINNING INSTALLATION OR OPERATION.

The following instructions should answer most of the questions that you may have about the installation, operation and use of your new Bio Bead Filter. If for some reason you should need technical support, we offer this service for free by telephone (800) 636-8866, or by fax (714) 505-1160 M-F 8:00 am - 4:30 pm Pacific Standard time except selected holidays or you may reach us through the web at www.horizononline.com.

Item	Size	Max Pressure*	Pond Size (Gallons)
SPBF2000	16" Dia. X 32" Tall	38 PSI	2,000
SPBF4000	19" Dia. X 36" Tall	38 PSI	4,000
SPBF6000	24" Dia. X 43" Tall	38 PSI	6,000

***CAUTION: DO NOT EXCEED MAXIMUM OPERATING PRESSURE OF 38PSI.**

FREQUENTLY ASKED QUESTIONS

Do I need to add any additional bacteria to my pond or my filter?

No, your Bio Bead filter comes pre-seeded with natural bacteria to help the filter establish itself.

Do I need to add additional biological or mechanical filtration to my pond?

Not unless your pond has a lot of large debris (i.e. leaves, pine needles, string algae). If you have large debris in your pond a leaf basket or other pre-filtration system is recommended.

Can I bury my filter?

Yes, you can bury the filter up to the valve head. Please keep in mind that if you need to drain your filter for winter the drain valve will be buried and other means may be necessary to drain the filter.

How often do I have to Backwash?

It is recommended to backwash your filter once a week, however, depending on your fish load and feed rate it may be necessary to backwash more often, or less often. After a few weeks you will begin to notice how often it is necessary for your own pond.

How often do I have to replace the media?

Never, the media does not have to be replaced.

How often do I need to drain out the sludge?

Never, due to the exceptional backwashing system exclusive to our filters, all the waste is expelled through the waste line, and thoroughly cleans the filter eliminating the need for a sludge valve.

Can I medicate while the filter is running?

No, due to the non-specific nature of most medications on the market any medication designed to eliminate harmful bacteria in your pond would also destroy any beneficial bacteria inside your filter. If you need to medicate for any reason, you may set the valve to recirculate which will bypass the filter entirely and run through the valve only.

What size pump should I use?

Your pump will need to be an external direct drive pump that can pump the volume of your pond within one and a half hours at ten feet of head pressure.

What's the flow loss through the filter?

The filter flow loss ranges from 3-8ft of head, depending on how dirty the filter is.

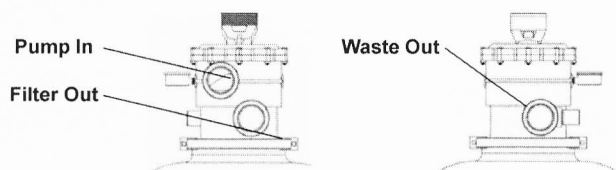
Do I need to oversize my filter?

No, our filters were designed to handle heavy fish loads and heavy feed rates.

Plumbing the filter

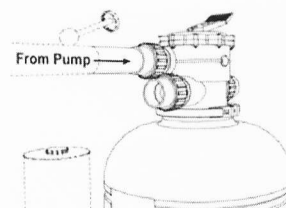
CAUTION: For 2" Valves only, Teflon tape has been applied to the unions for you. It may be necessary to apply more Teflon tape if the valve leaks upon installation. DO NOT attempt to use ANY sealant other than Teflon tape, as this can cause the valve to crack or leak immediately or over time. DO NOT over-tighten the unions. HAND TIGHTEN ONLY, DO NOT USE ANY TOOLS. Please be very careful during installation, valves where unions have been over-tightened and/or any sealant or putty of any kind has been used, will not be covered under warranty.

A. Attach unions to valve. (See 3A)



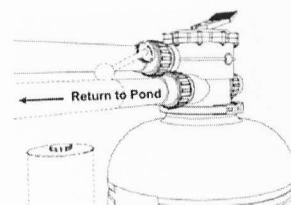
3A

B. Once unions have been attached, glue pipe from pressure side of the pump to slip fitted side of union leading to valve port marked PUMP. (See 3B)



3B

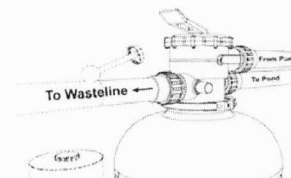
C. Glue return line to pond to slip fitted side of union leading to valve port marked RETURN. (See 3C)



3C

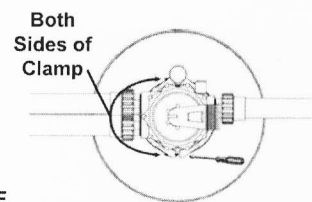
D. Glue waste line from filter to slip fitted side of union leading to valve port

NOTE: Do not decrease size of waste line.



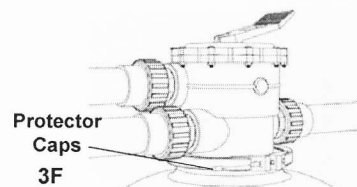
3D

E. Once valve is in final position and plumbing is set, tighten both sides of clamp alternately and evenly. Use a properly sized large screw driver and tighten firmly to obtain a good seal. (See 3E)



3E

F. Be sure to place vinyl protector caps over ends of screws. (See 3F)

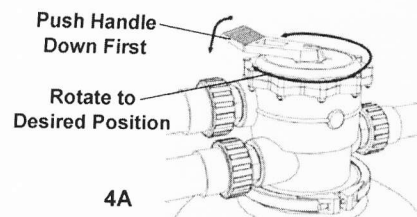


3F

Initial Startup of Filter

CAUTION: TO PREVENT DAMAGE TO CONTROL VALVE SEAL, ALWAYS TURN PUMP OFF BEFORE TURNING THE HANDLE.

- Depress control valve handle and rotate to filter position. (See 4A)
- Prime and start pump according to pump instructions. We recommend SUREPRO pumps with all Bio Bead filters. (Or check with your dealer for alternative pump, should be high flow.)
- Once water flow is steady, check for leaks.



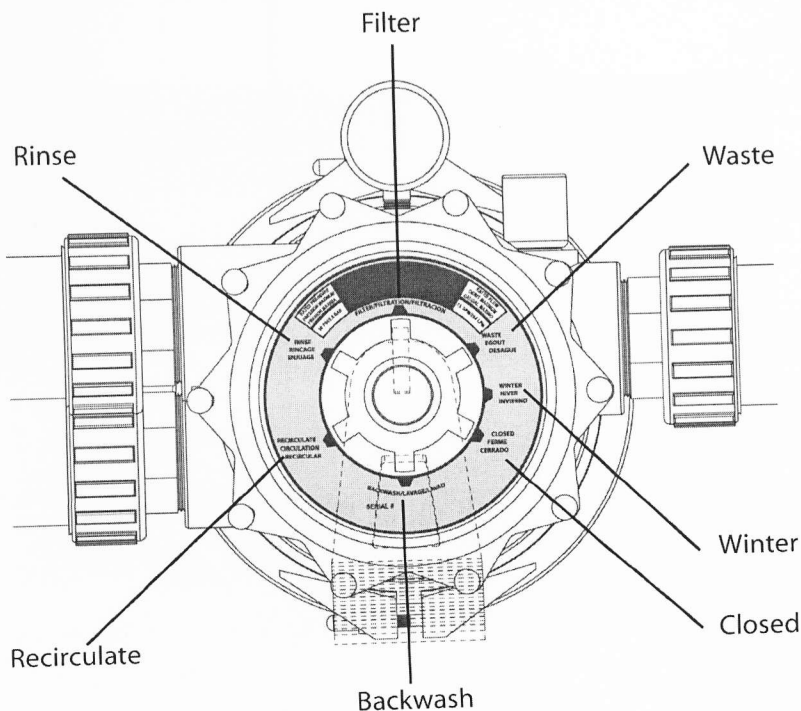
NOTE: Please use appropriate pump for filter size (i.e. If your pond is 2000 gallons and you buy a 4000 gallon filter use 4000 gallon pump as well).

HINT: Note the initial pressure gauge reading when the filter is clean. (It will vary from pond to pond depending on pump and general piping system.)

NOTE: During initial clean up of pond water, it may be necessary to backwash frequently due to unusually heavy initial dirt load in the water. Do not install filter on a pond with heavy algae content (i.e. pea soup). We recommend a water change if the pond is really dirty.

Valve Settings

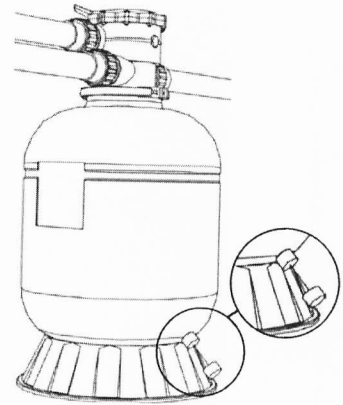
Setting	Description
Filter	For normal filtration of pond
Backwash	For reversing flow for cleaning filter. Operates jets
Rinse	For cleaning, plus resetting filter bed after backwashing
Waste	For lowering pond level/drainage
Re-circulate	For by-passing filter, but circulating water in pond
Closed	Shuts off flow from pump
Winter	For draining valve for winterizing. Leave on this setting throughout winter if not in use



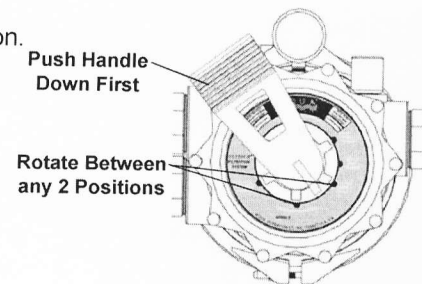
MAINTENANCE

Winterizing

1. Turn off pump.
2. Completely drain tank by unscrewing drain cap at base of filter tank. Leave cap off during winter.



3. Depress valve handle and rotate so to set pointer on valve top between any two positions. This will allow the water to drain from the valve. Leave valve in this position.



4. Startup after winter, install drain cap, take top off, stir up media, put top back on, put valve into backwash position, and turn pump on. Backwash then rinse.

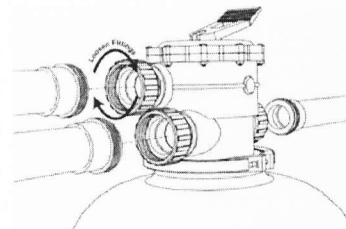
PLEASE REALIZE...

Pure clean pond water is a combination of many factors, one is the proper SUREPRO system, and another is adequate filtration and proper water flow. The higher flow rate through the pond turns the water more clear.

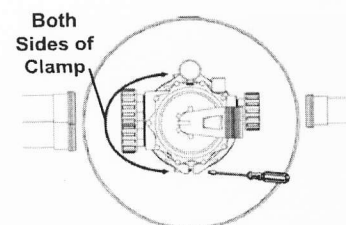
Now you can filter any pond, large or small and keep it crystal clear all year round without a huge expense.

If Your Filter Is Buried

1. Make sure pump is off
2. Take filter offline by disconnecting unions.

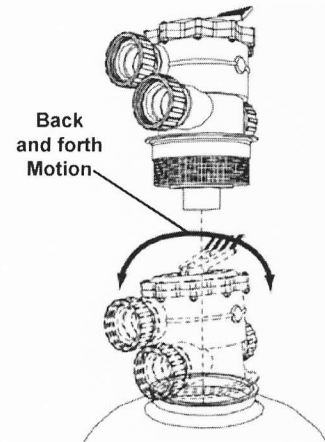


3. Loosen clamp screws and remove clamp.



MAINTENANCE CONTINUED

4. Lift filter valve from body, you may need to loosen the valve by working it in a back and forth motion.



5. Use a Wet/Dry shop Vac with a strainer on the nozzle or submersible pump to remove the water from the filter. DO NOT REMOVE THE MEDIA.



6. Reattach the valve see page 8 for valve reassembly.

7. Depress valve handle and rotate so to set pointer on valve top between any two positions. This will allow the water to drain from the valve. Leave valve in this position.

Backwashing Your Filter

NOTE: Backwashing depends on how many times, how often you feed your fish and the time of the year. Before you begin backwashing check pressure gauge reading. We recommend cleaning once a week on light loads and twice a week or more on heavy loads. You must use some type of pre-filter or vortex for heavy waste (i.e. pine needles, large leaves, etc.).

1. Turn pump off.
2. Depress valve knob, rotate lever to backwash.
3. Turn pump on.
4. Backwash until sight glass is clear about 1/2 to 1 minute.
5. Turn pump off.
6. Depress knob and turn to rinse.
7. Turn pump on.
8. Rinse until sight glass is clear.
9. Repeat steps 1 through 8 twice for a total of 3 times.
10. Turn pump off.
11. Depress valve and turn back to filter.
12. Turn pump on and return to normal usage.