



# Instruction Manual

# Table of Contents

## **WATER GARDENS**

Determining Pond Volume	Page 3
Determining Surface Area	Page 3
Streambed Construction	Page 4
Placement of FilterFalls and Skimmer	Page 4

## **PRO SERIES SKIMMER INSTALLATION**

Excavating and Setting the Skimmer	Page 5
Attaching the Liner	Page 5
Attaching the Weir Door	Page 6
Plumbing the Skimmer	Page 7

## **PRO SERIES FILTERFALLS INSTALLATION**

Bulkhead Installation	Page 7
Setting the FilterFalls	Page 8
Liner Attachment	Page 8

## **POND-FREE**

Eco-Blox vs. Gravel	Page 9
Streambed Volume	Page 9
Basin Volume	Page 9

## **PUMP VAULT INSTALLATION**

Excavating and setting the Pump Vault	Page 10
Plumbing the Pump Vault	Page 10

## **FASTFALLS INSTALLATION**

Setting the FastFalls	Page 11
Liner and Plumbing Attachment	Page 11
Hiding the FastFalls	Page 12

## **PRO SERIES ACCESSORIES**

Bottom Drain Kit	Page 12
Back Flush Kit	Page 14
Skimmer Overflow	Triton Check Valve Page 14
Auto Fill	Overflow Page 16

## **SKIMMERS & FILTERFALLS COMPATIBILITY CHART**

MODEL	SPILLWAY WIDTH	PRODUCT DIMENSIONS	PUMP RANGE	BULKHEAD SIZE	MAX. POND VOLUME
BF1900	19"	28"W x 25"D x 21.5"H	2,500-4,000 gph	2"	2,000 gal
BF2600	26"	34.5"W x 25"D x 23"H	4,000-6,000 gph	2"	4,000 gal
BF3800	38"	46.5"W x 30"D x 23"H	6,000-8,000 gph	3"	8,000 gal

MODEL	WEIR DOOR	PRODUCT DIMENSIONS	PUMP RANGE	SQ. FT RATING	INTERNAL WATER DEPTH
PS4600	6"	19½"W x 26"D x 22"H	2,000-4,000 gph	400	15½"
PS7000	9"	25"W x 30"D x 24"H	4,000-7,000 gph	900	17½"
PS15000	14"	28"W x 33"D x 31"H	7,000-15,000 gph	1400	24½"

# Water Gardens

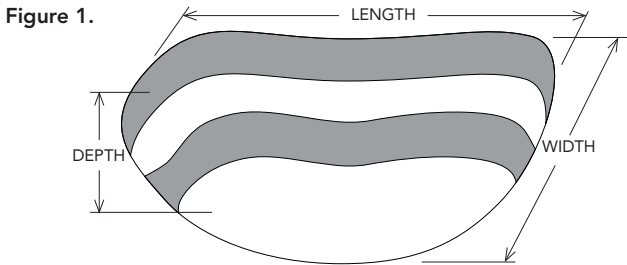
## POND VOLUME

It is important to calculate the estimated water volume before you begin construction, and then re-calculate final water volume when your project is completed. Estimating water volume pre-construction is a step that is often skipped by many homeowners and contractors. A water garden with undersized filtration can prove to be a maintenance nightmare.

Use the product specification/cross reference guide on page 2 to verify the maximum pond volume and flow rates for Pro Series Equipment.

## TO DETERMINE POND VOLUME

*Multiply (in feet) the average length x the average width x the average depth to find cubic feet of pond volume. Multiply cubic feet x 7.48 = gallons*



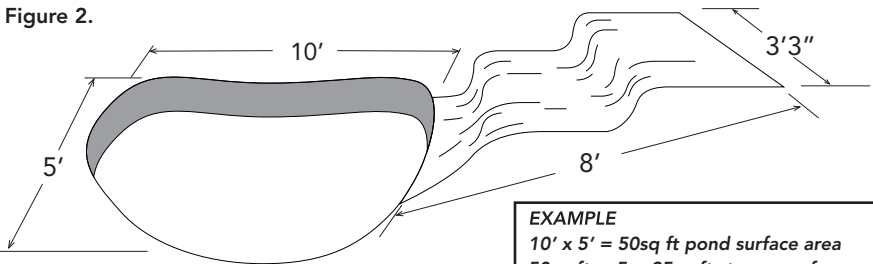
## SURFACE AREA

When using any pond skimmer it is important to keep the surface area (in square feet) of the pond in mind. Upon start-up, the pump sends water from the bottom reservoir to the top of the waterfall and/or streambed. The water must then fill, from top to bottom, the waterfalls and streambed until it eventually re-enters the pond and the water levels equalize. During the water in transition process, the water level of the bottom reservoir is continually dropping. If the streambed is built improperly, or is built too big, the water level of the bottom reservoir could drop below the opening in the skimmer before the water levels equalize. This would result in the pump running dry and starving for water.

This situation can be easily avoided by using the formula provided to calculate the surface area of your pond. With that number, you can then determine the maximum surface area of waterfalls and streambed that your pond can accommodate.

## TO DETERMINE SURFACE FOOTAGE

*Multiply (in feet) the average length x the average width = total square feet of the pond surface area. Multiply the surface area of the pond x .5 = maximum surface area for falls*



## STREAMBED CONSTRUCTION

Using proper streambed construction techniques can limit the transitional water needed to fill the streambed and enables the system to function optimally. Transitional water is determined by the height that the weir rock extends above the liner at the spillway opening. Maintaining the shortest distance possible between the top of the weir rock and the liner is a crucial component to a properly functioning water garden. Figure 3 displays two examples of proper construction techniques for minimal transitional water.

Figure 3.

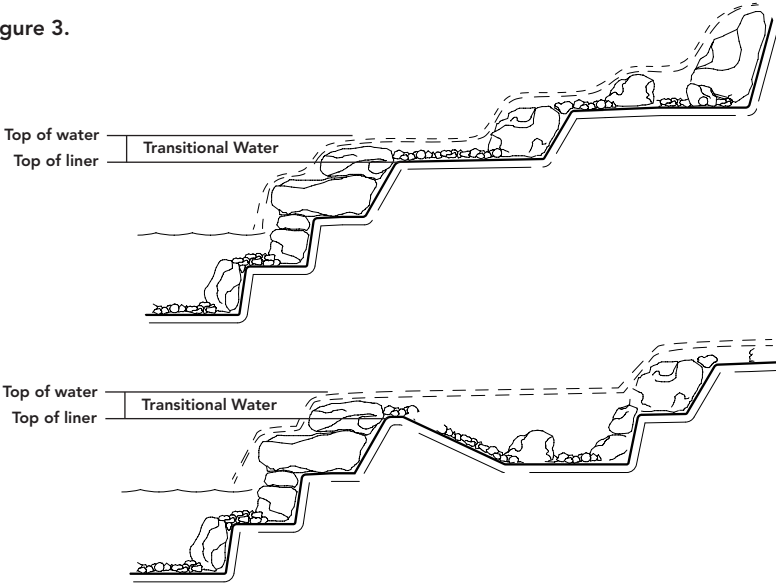
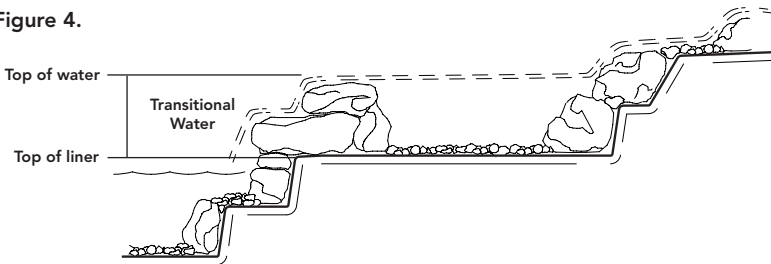


Figure 4 is an example of improper streambed construction. Stone, gravel and foam can be combined to make a barrier and create a waterfall, but that barrier will never be watertight. When the pump is turned off, the water will always drain down to the highest point of the liner. Improper construction greatly increases the water in transition.

Figure 4.



## PLACEMENT OF THE FILTERFALLS AND SKIMMER

Now that you have determined the size of the pond, waterfalls and filter system, it is time to determine the placement of the components.

Whenever possible, it is best to position the Skimmer and FilterFalls directly across from each other at opposite ends of the pond. This setup creates a current that pulls surface debris into the Skimmer. If the Skimmer and FilterFalls are placed too close together, or the pond has an unusual shape, dead areas can occur. These dead areas can be eliminated with the use of multiple falls or multiple skimmers.

# Pro Series Skimmer Installation

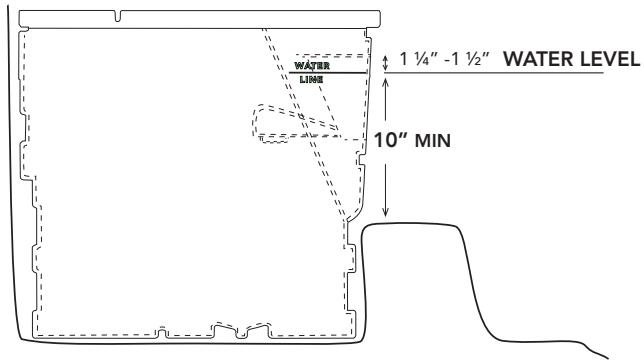
## EXCAVATING AND SETTING THE SKIMMER

Prior to setting the skimmer you must first determine the surface level of the water in the pond. Once you have this number you can excavate for the Skimmer. The excavation should be a few inches wider and longer than the Skimmer body. Find your model number below to determine the approximate depth of the hole.

**Do not dig too deep.** The skimmer should be set on undisturbed earth if possible. In the case that you over-dig, be sure to compact the soil thoroughly to prevent settling. The bottom of the hole should be level side-to-side and front-to-back.

16 - 17" ←	PS4600
18 - 19" ←	PS7000
24 - 25" ←	PS15000

Figure 5.



Place the Skimmer enclosure into the excavated hole. Check the top of the enclosure to make sure that it is level front-to-back and side-to-side. Check where your pre-determined water level falls on the face of the Skimmer enclosure. The water level needs to be between 1 1/4" and 1 1/2" below the top of the weir door opening and even with the water level indicator molded on the side of the Skimmer. (PS15000 only)

Make sure that any unexcavated soil that is left in front of the Skimmer is at least 10" below water level (See Figure 5). This will ensure that there is enough room for the weir door to be installed and function properly.

Before you go any further into the Skimmer installation, place a few stones inside the Skimmer enclosure to weigh it down and keep it from moving. Install the solid support bar(s) and begin backfilling. The support bar(s) must be in place for the enclosure to retain its shape during the backfilling process. Loosely backfill the enclosure on all sides, lightly compacting as you go. Do not over-compact the soil. Aggressive compaction may deform the enclosure and cause components to fit improperly.

## ATTACHING THE LINER

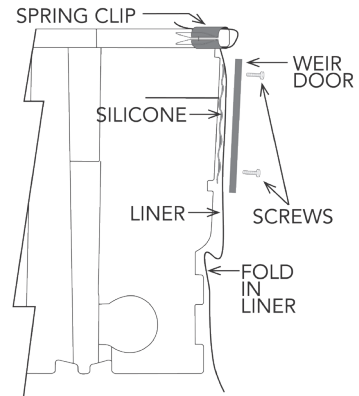
Hold the liner up against the face of the Skimmer, allowing a minimum of 2" to extend above the top of the enclosure. Leave some slack in the liner below the weir opening. This will help avoid any future strain on the liner connection.

Make sure that the front surface of the Skimmer and the back side of the liner are clean and free of debris.

When you are satisfied with the position of the liner, clip it in place with the provided spring clips. With a sharp razor knife, cut a hole in the liner for the weir door using the hole in the face of the Skimmer as a guide. When you are finished, remove the spring clips and pull the liner away from the face of the Skimmer. Apply Atlantic's fish-safe RTV Silicone Sealant around the weir door opening on all four sides. (Figure 6.)

Apply the silicone in a consistent bead approximately  $\frac{3}{4}$ " away from the opening itself, directly on top of the bolt holes. Once you are finished, you can return the liner to its original position and replace the spring clips.

**Figure 6.**

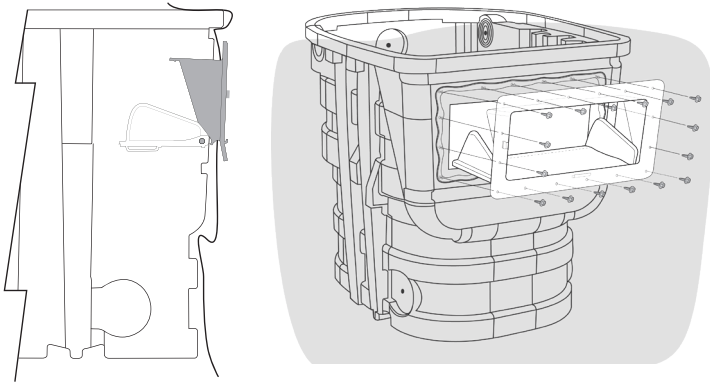


### ATTACHING THE WEIR DOOR

Unlatch the weir door and lower the door to its fully open position. Insert the weir door assembly into the Skimmer opening and push the weir door frame tight against the Skimmer face. (Figure 7.)

Line up the holes of the weir door frame with the holes in the Skimmer face. Use a nail or an awl to help line up the holes and pierce the liner in the top corners. Loosely fasten the top corners using two of the supplied 1/4-20 machine screws and serrated flange nuts. Next, install two screws in the bottom corners of the weir door frame. Once you have the weir door tacked at the corners, install the rest of the screws. Do not fully tighten any screws until all of the screws have been installed.

**Figure 7.**



**Use your fingers to hold the flange nut and a hand held screwdriver to tighten the screws. The serrations on the flange nut will grab the plastic enclosure once it makes contact, eliminating the need to use a wrench. Use caution when tightening the screws. The screws need only be snug for the silicone to make a seal.**

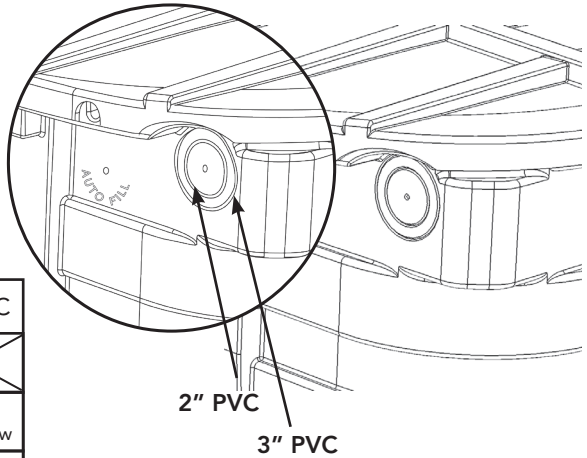
It is recommended that you install an AWG Check Valve Assembly between the pump and the outlet pipe. The check valve will prevent the FilterFalls from draining when the pump is turned off. There are drill-points provided on the sides of all Pro Series Skimmer models to show the proper location for the installation of an AF1000 Auto Fill valve (not included). See the Auto Fill installation instructions for more information. There are also drill-points provided on the back of all Pro Series Skimmer models to show the proper location and elevation for the installation of an overflow (not included).

## PLUMBING THE SKIMMER

None of the Big Bahama Pro Series Skimmers come with a pre-drilled pump outlet. Not having a pre-drilled pump outlet gives the professional installer the flexibility to choose which side of the enclosure to exit and with what size pipe.

Drill-points have been provided on all Big Bahama models to show the proper location for drilling the outlet. See Figure 8 for drill-point locations and hole sizes. Using the drill-points ensures that the pipe outlet will be above water level.

Figure 8.



	2" PVC	3" PVC
PS4600	2 1/2" Hole Saw	
PS7000	2 1/2" Hole Saw	3 3/4" Hole Saw
PS15000	2 1/2" Hole Saw	3 3/4" Hole Saw

Drill-points for the pump discharge are provided on both sides of all Pro Series Skimmers. Cut for 2" and 3" pipe are provided on the PS15000 only.

## Pro Series FilterFalls Installation

### BULKHEAD INSTALLATION

It is recommended to install the bulkhead fitting and Male Thread Adapter (MTA) (included) before setting the FilterFalls. Big Bahama Pro Series FilterFalls are not pre-drilled for the bulkhead fitting. Not having a pre-drilled pipe inlet gives the professional installer the flexibility to choose which panel of the FilterFalls to enter. Drill-points have been provided to indicate the proper height to drill for the bulkhead fitting. Information has been provided below to show which bulkhead is supplied and what size hole saw should be used. (Note: If you are installing a BFK100 Back Flush Kit (not included), this is a good time to drill for the bulkhead fittings.) See the Back Flush installation instructions on page 14 for more information.

Remove the retaining nut and plastic friction washer, leaving the rubber gasket on the body of the bulkhead fitting. Note that the retaining nut is reverse threads. Turn clockwise to loosen.

From the inside of the FilterFalls, insert the threaded end of the bulkhead into the hole on the back of the enclosure. This will sandwich the rubber gasket between the flange of the bulkhead and the inside wall of the enclosure. Slip the friction washer over the threaded end of the bulkhead on the outside of the enclosure and install the retaining nut. Tighten the retaining nut by hand and then finish off with a half turn from a wrench. Note that the retaining nut is reverse threads. Turn counterclockwise to tighten.

MODEL	2" Bulkhead	3" Bulkhead
BF1900	X	
BF2600	X	
BF3800		X
	3" Hole Saw	4.5" Hole Saw

## SETTING THE FILTERFALLS

It is always recommended that the FilterFalls be placed on undisturbed soil if possible. If the installation calls for the FilterFalls to be elevated above existing grade, it is critical to compact the area thoroughly. This will ensure that the FilterFalls will not settle out-of-level over time. The use of cinder blocks or bricks under the falls to raise it up will help reduce the chance of settling.

The FilterFalls can be placed adjacent to the pond edge to create a single waterfall, or pulled away from the pond to create a streambed effect. Refer to the surface area recommendations on page 3 to ensure that the streambed is properly sized.

Once you have placed the unit, make sure it is level from side to side and check the level from front to back. FilterFalls should always be installed tilted slightly forward about  $\frac{1}{4}$ ". This will ensure that water never leaks out over the back of the enclosure. When you are finished positioning the unit, weigh it down with a few rocks to keep it in place while you backfill and make your liner and plumbing connections. Apply silicone on the threads of the MTA. Screw the MTA into the bulkhead until tight. Use PVC Glue (not included) to glue the PVC flex hose into the MTA.

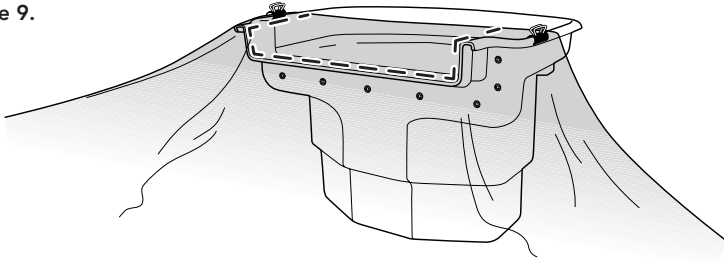
**Do not completely backfill the FilterFalls until all of your plumbing connections are made and the liner has been attached.**

## LINER ATTACHMENT

Atlantic FilterFalls come equipped with a solid spillway, threaded inserts and a 'U' shaped wrap-around flange to provide the best possible seal.

Start by positioning the liner. Pull the liner up the face of the FilterFalls and drape a minimum of 6" of liner over the top of the enclosure. Use the provided spring clips to temporarily hold the liner in place. Leave some excess slack in the liner below the spillway. This will help to alleviate any future strain on the liner connection. With the liner firmly in place, use a sharp razor knife to cut the spillway opening in the liner using the inside of the spillway as a guide (Figure 9).

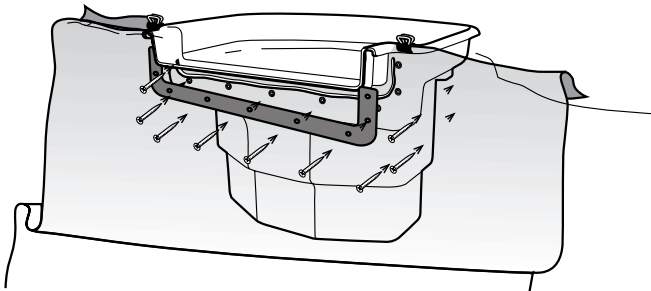
Figure 9.



Remove the spring clips and pull the liner away from the face of the enclosure. Make sure that the front of the FilterFalls and the back side of the liner are clean and free of debris. Apply a consistent bead of Atlantic fish-safe silicone to the face of the FilterFalls along the center line of the threaded inserts.

Return the liner to the face of the FilterFalls and hold it in place by attaching the spring clips to the rolled lip on either side of the spillway (Figure 10).

Figure 10.





Attach the liner flange to the FilterFalls, starting with the center screw first, and then work out toward the sides of the spillway. It may be necessary to first pierce the liner with a nail or an awl before inserting the screw. Do not fully tighten any screws until all the screws have been installed. Once completed, trim away any excess liner as needed.

**Tighten flange screws with a hand held screwdriver only. Over tightening the screws could strip out the inserts or crack the liner flange. The screws need only to be snug for the silicone to make a seal.**

## POND-FREE

Pond-free features exchange the open water of the pond for a gravel-topped excavation, maximizing visual impact while minimizing headaches and maintenance. Typically, a pump placed in a protective vault inside a lined reservoir continuously recirculates water over a stream or waterfall. A bed of gravel hides the basin, vault and plumbing from view, leaving only the stream and waterfall visible.

### ECO-BLOX vs. GRAVEL BASIN for a WATERFALL or STREAM

Eco-Blox basins consist of 10% Eco-Blox and 90% water. Gravel basins consist of 70% rock and only 30% water. As a rule of thumb, your pond-free basin should hold three times the amount of water as the waterfalls and streambeds above it. It is critical to calculate the water volume that the basin can hold before you begin construction of the waterfalls or streambed.

**Why should the basin be three times the size of the stream?** Upon start-up, the pump sends water from the bottom reservoir to the top of the waterfall and/or streambed. The water must then fill, from top to bottom, the waterfalls and streambed until it eventually re-enters the basin and the water levels equalize. During this filling process, the water level of the bottom reservoir is continually dropping.

If the streambed is built improperly, or is built too big, the water level of the bottom reservoir may drop below the top of the pump before the water levels equalize. This would result in the top of the pump being exposed to air. Pumps must be completely submerged in water or they can overheat causing damage to the pump. Refer to the streambed construction section on page 5 for more detail.

### STREAMBED VOLUME

*Multiply (in feet) the average length x the average width x the average depth to find cubic feet of streambed volume*

- 2" DEEP = 0.16'**
- 3" DEEP = 0.25'**
- 4" DEEP = 0.33'**

**Don't forget that the thickness of your rocks will add extra depth to the water. (e.g. if you have rocks 1" deep covering the bottom of your stream, be sure to incorporate that 1" into your total depth)**

### BASIN VOLUME

*For Eco-Blox: Multiply the cubic feet of the streambed x 3 = cubic feet needed for the basin  
Cubic feet ÷ 4.2 = the number of Eco-Blox*

*For Gravel: Multiply the cubic feet of the streambed x 9 = cubic feet needed for the basin  
Cubic feet ÷ 19 = the number of tons of gravel*

# Pro Series Pump Vault Installation

## EXCAVATING AND SETTING THE PUMP VAULT

Once you have determined a proper sized basin for your project, begin by deciding the placement of the vault. The vault should be placed away from the waterfall where the lid can be accessed easily. Excavate the entire area of the basin to a depth of 18". This will accommodate one layer of Eco-Blox. The area where the pump vault will sit should be dug deeper to provide a sump area for the pump to sit, ensuring the pump will remain completely submersed. If using a PV1800, dig this area to a depth of 22", and for a PV2300, a depth of 28".

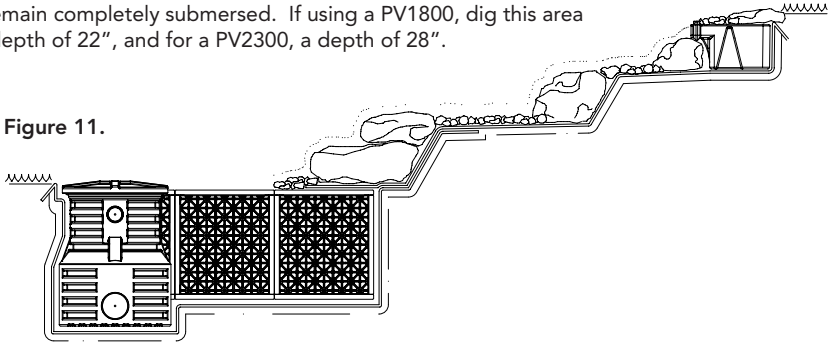


Figure 11.

For installations where a larger basin volume or deeper basin is required, Atlantic offers pump vault extensions for both the PV1800 and PV2300. Each extension will add the height of one Eco-Blox. For each additional Eco-Blox layer, increase the depth of your excavation by 17".

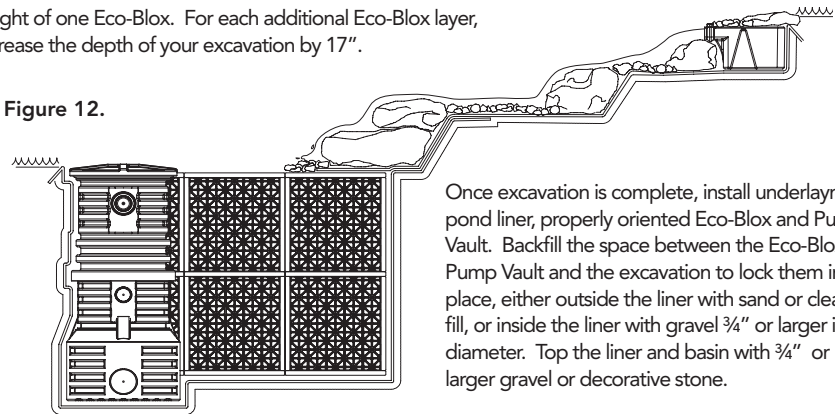


Figure 12.

Once excavation is complete, install underlayment, pond liner, properly oriented Eco-Blox and Pump Vault. Backfill the space between the Eco-Blox/ Pump Vault and the excavation to lock them into place, either outside the liner with sand or clean fill, or inside the liner with gravel  $\frac{3}{4}$ " or larger in diameter. Top the liner and basin with  $\frac{3}{4}$ " or larger gravel or decorative stone.

## PLUMBING THE PUMP VAULT

Atlantic's Pro Series Pump Vaults do not come pre-drilled for the pump outlet. Not having a pre-drilled pump outlet gives the professional installer the flexibility to choose which side of the enclosure to exit and with what size pipe. Drill points and cut lines have been provided for 2" and 3" flex PVC. Two panels at the top have been left flat for custom plumbing applications as well as the installation of an AF1000 Auto Fill and/or overflow. Recessed areas and cut lines for 4" and 6" SDR35 have been provided on two bottom panels. Pipe extensions can be added to increase the flow of water into the vault and also increase the ability to channel debris into the vault.

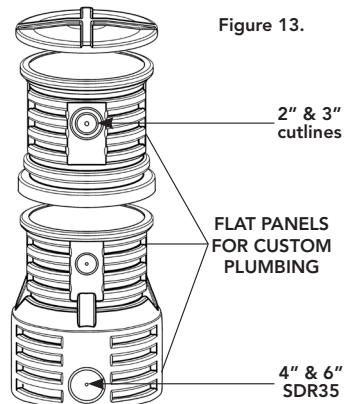


Figure 13.

# Pro Series FastFalls Installation

## SETTING THE FASTFALLS

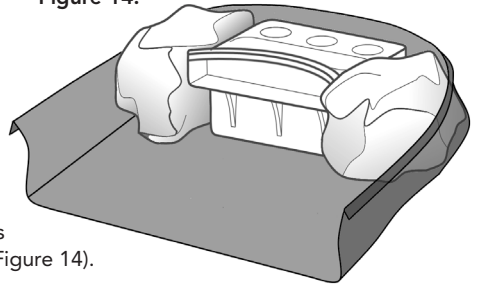
Place the Pro Series FastFalls on a level bed of undisturbed soil if possible, to avoid settling. If installing above existing grade, compact the area thoroughly. This critical step will ensure that the FastFalls will not settle out of level over time. Blocks or bricks set on virgin soil can also be used to raise the FastFalls while reducing the chance of settling.

Place the FastFalls right at the basin's edge to create a single dramatic fall, or pull the FastFalls back from the edge to create a stream. Leave plenty of liner around the FastFalls to make it easy to camouflage with rock later.

To ensure a leak-proof installation, test place the FastFalls in the desired location and level it from side-to-side and front-to-back. The closed design of the FastFalls ensures that water will only exit the unit over the spillway, so there is no need to tilt the FastFalls forward.

When you are satisfied with the placement of the FastFalls, remove the unit and install the liner and underlayment, being careful not to disturb the level base. Place the FastFalls on top of the liner in its original position. Check the unit for level to ensure that nothing has changed. Once the FastFalls is level and positioned correctly, place a couple of large stones on top of the FastFalls. This will ensure that the FastFalls does not move when backfilling and attaching liner (Figure 14).

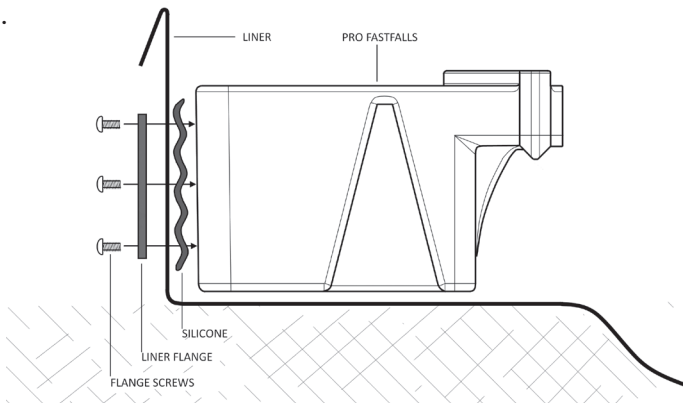
Figure 14.



## LINER AND PLUMBING ATTACHMENT

Hold the liner up against the flat panel on the back of the FastFalls enclosure. Leave some excess slack in the liner below the spinweld. This will help alleviate any future strain on the liner connection. Make sure the back surface of the FastFalls, and the back side of the liner is clean and free of debris. Once you are satisfied with the position of the liner, lower it down and prepare to apply the silicone sealant (Figure 15).

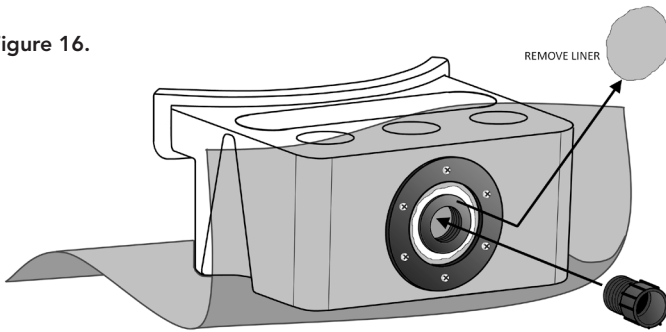
Figure 15.



Apply Atlantic's Silicone Sealant in a continuous, consistent bead along the center of the threaded inserts. Once completed, return the liner to its dry-fit position.

Attach the supplied flange to the FastFalls, starting with the top screw first, working around the flange. If needed, use an awl or nail to pierce the liner before inserting the screws. Do not fully tighten any screws until all of the screws have been installed. Once completed, trim away the liner on the inside of the flange (Figure 16).

Figure 16.



**Tighten flange screws with a hand held screwdriver only. Over tightening the screws could strip out the inserts or crack the liner flange. The screws need only to be snug for the silicone to make a seal.**

Apply silicone on the threads of the Male Thread Adaptor (MTA). Screw the MTA into the spinweld until tight. Use PVC Glue (not included) to glue the PVC flex hose into the MTA.

## HIDING THE FASTFALLS

Position rocks on either side of the Pro Series FastFalls, inside the liner. Start working the rock in and around the front of the FastFalls, building up to the lip of the FastFalls, which will provide support for a lip rock. The Fastfalls will support the weight of gravel and rocks stacked directly on top of the unit. The FastFalls easily supports the weight, so consider covering the whole unit with a single sizeable overhanging capstone, or stack individual smaller stones and gravel on top to completely conceal the FastFalls (Figure 17). For a 'grown-in' look, cover the FastFalls with soil and plant small evergreens and perennials right on top. The raised lip will keep the gravel or soil from washing into the water.

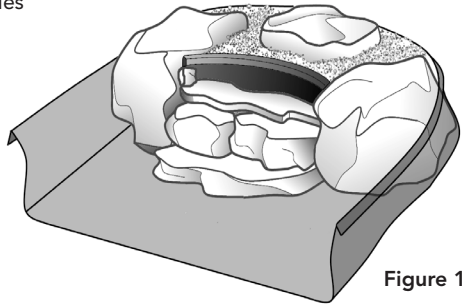


Figure 17.

## Pro Series Accessories

### BOTTOM DRAIN KIT

The BD2000 Bottom Drain Kit contains all the necessary fittings to properly install a bottom drain. 2" flexible PVC pipe must be furnished by the end user to complete installation.

The bottom drain should be installed in the lowest point of the water garden. When installing a bottom drain in a new pond it is helpful to dig a 4" deep trench from where the bottom drain pipe will enter the pond to the intake screen location. The liner can then be installed and depressed into the trench. The bottom drain pipe can then be nestled in that depression and easily camouflaged with gravel and stone.

Drill-points have been provided on all compatible Skimmer models to show the proper location for the bulkhead fitting. See Figure 18. Drill the hole with a 3" hole saw and install the bulkhead following the bulkhead installation instructions on page 7.

Install a 2" MTA into the bulkhead on the outside of the Skimmer box. Be sure to wrap all threaded fittings with thread sealant. Next, glue a 2" elbow to one end of a 12" length of pipe and glue the other end into the MTA with the elbow turned toward the liner. (All pipe lengths may be adjusted to fit your particular application).

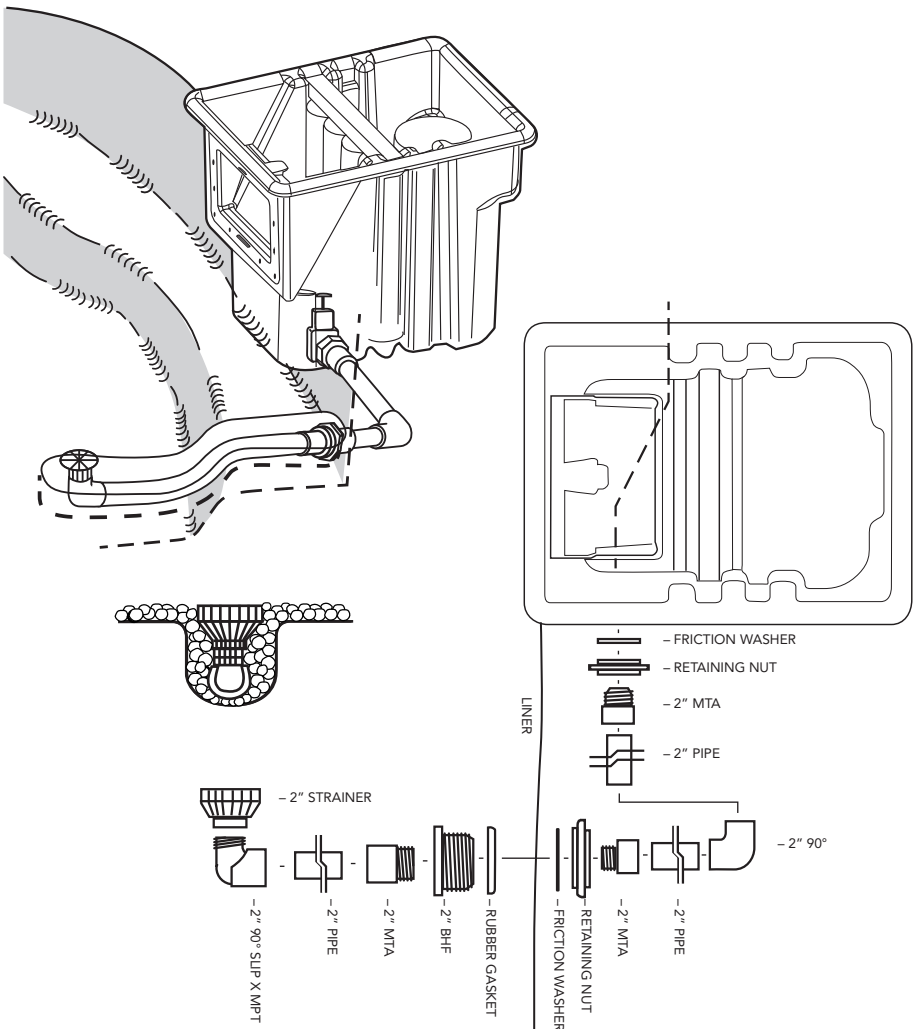
Insert, but DO NOT GLUE a short piece of pipe (4" or so) into the open end of the elbow. Use this pipe to determine the exact location to pierce the liner with the bulkhead. Cut a 3" hole in the liner at that location. Install the bulkhead with the rubber gasket inside the pond and the friction washer and retaining nut outside. Once completed, insert a 2" MTA in both ends of the bulkhead. Measure and cut the correct length of pipe to join the MTA on the outside of the liner to the 2" elbow. Glue the pipe in place.

Thread the intake screen onto the 2" threaded street 90° and place the screen in its desired location. Measure for the correct length of pipe to join the 90° to the MTA that you installed in the pond side of the bulkhead. Cut and glue the pipe into both fittings.

Thread the pipe nipple into the bulkhead inside the skimmer box. Slip the gate valve onto the pipe end of the nipple. DO NOT GLUE this connection. Not gluing this connection gives you the ability to remove and service the gate valve if necessary.

Cover the drain pipe inside the pond with stone and gravel to complete installation.

Figure 18.



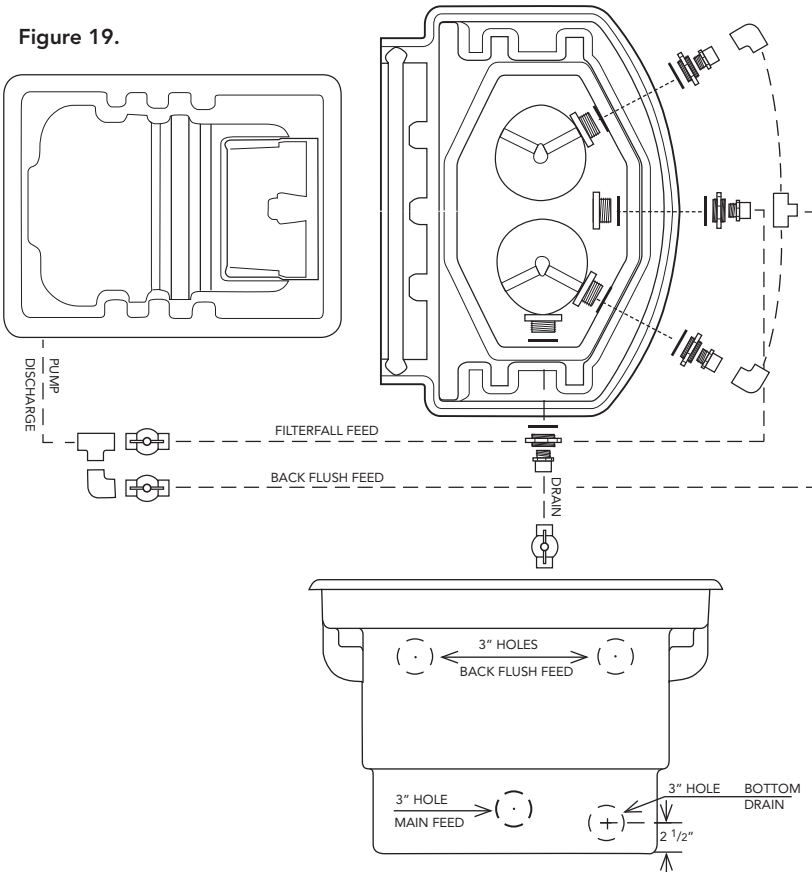
## BACK FLUSH KIT

If you are installing the BFK1000 in a new construction project it is a good idea to drill the holes and install the 2" bulkheads and male thread adaptors before you set the FilterFalls. Drill-points have been provided below the rock ledge on two of the back filter panels for the back-flush feed inlets. Drill the holes using a 3" hole saw and install the bulkheads. Follow the bulkhead installation instructions on page 7.

Find the best location for the bottom drain outlet. Drill-points are not provided for the bottom drain bulkhead location. The bottom drain can be installed in any of the open panels on the bottom of the FilterFalls. The center point of hole should be drilled 2½" up from the bottom of the FilterFalls and centered from side to side on one of the panels. Drilling the hole 2½" up will position the bulkhead as low as possible.

Install the bottom drain bulkhead and follow the plumbing diagram below to complete the installation. Note: Three stage matala filter kits are available for all Pro Series FilterFalls. Matala filters will greatly increase the effectiveness of the back-flush kit.

Figure 19.



## TRITON CHECK VALVE

Locate the model number of the Atlantic Skimmer/Pump Vault and TidalWave pump used for this installation on the chart on the next page. Follow the corresponding column down and row across until they intersect. The number or letter at the intersection point is the 'perfect cut' reference mark for this installation. If the corresponding reference mark is a letter, then the 1½" threaded end of the discharge pipe will be used. If the corresponding reference mark is a number, then the 2" threaded end of the discharge pipe will be used.

## DISCHARGE PIPE 'PERFECT CUT' REFERENCE CHART

Shaded areas denote pumps that exceed maximum flow rates or dimension for use with the corresponding Skimmer/Pump Vault. Use of this equipment combination is not recommended and could void the warranty.

\* The discharge pipe can be extended with the 2" PVC pipe and a coupling for use with the larger/deeper Big Bahama products (PV2300/PS15000) or Pump Vaults with extensions.

Locate the correct reference mark for this installation on the discharge pipe. Using a hacksaw or PVC saw, cut the pipe at this mark being careful to make a clean, square cut (Figure 20). Discard the end of the discharge pipe that will not be used.

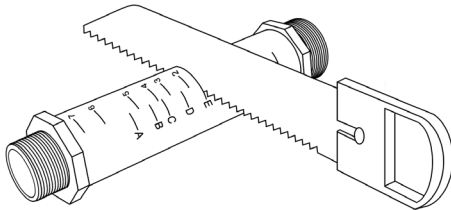
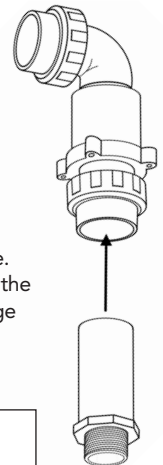


Figure 20.

	PRO SERIES PRODUCTS		
	PS4600	PS7000	PV1800
SH1450	G	H	E
SH2050	G	H	E
SH3600	G	H	E
SH5000	D	G	B
SH6500	D	G	B
TW1200	D	G	B
TW1900	D	G	B
TW2400	D	G	B
TW3700	C	F	A
TW4800	C	F	A
TW6000	2	5	1
A-05	5	7	3
A-21	4	6	2
PAF-20	5	7	3
PAF-25	5	7	3
PAF-40	5	7	3
PAF-75	5	7	3

Figure 21.



Use a small piece of sandpaper to smooth out the cut end of the discharge pipe. Clean the 2" socket fitting on the bottom of the check valve and the cut end of the discharge pipe with PVC cleaner/primer. Apply PVC glue and insert the discharge pipe into the 2" socket fitting. Hold the discharge pipe firmly in place for a few seconds, giving the glue time to set (Figure 21).

If you have removed the outlet fitting from the check valve prior to gluing the connection, make sure to slide the union nut onto the supply pipe before gluing the socket fitting in place.

Attach the Triton Check Valve to the TidalWave pump by threading the discharge pipe into the pump discharge.

MD, TW2 and SH Series pumps include fittings that convert the pump discharge to 1 1/2" female threads and are necessary for proper attachment to the TR215CV.

Place the TidalWave pump with installed Triton Check Valve into the Pro Series Skimmer. Connect the outlet fitting of the Triton Check Valve to the PVC supply line that feeds the waterfall using PVC glue and cleaner. For your convenience; 2" and 1 1/2" outlet fittings are supplied with the Triton Check Valve.

Complete installation by tightening the union nuts on the Triton Check Valve. Hand tighten only. Do not use channel locks to tighten the union nuts.

## AF1000 AUTO FILL KIT

Drill points have been provided for the proper Auto Fill location on either side of the Pro Series Skimmer and Pump Vault (Figure 22). It is a good idea to completely install the pump, check valve assembly, and discharge hose before you drill for the Auto Fill. This will help you determine the best side of the Skimmer or Pump Vault to place the Auto Fill so that it has proper clearance on all sides.

Once you have determined the location of the Auto Fill, drill a 7/8" hole using a spade bit or hole saw. Insert the Auto Fill making sure the gasket is on the inside of the enclosure and the plastic retaining nut is on the outside. Tighten the retaining nut until snug. Do not over-tighten the retaining nut (Figure 23).

Fittings to connect the Auto Fill to a garden hose, 1/2" irrigation line, and 1/2" Sch40 PVC are included in the kit. Wrap the 1/2" male threads on the Auto Fill with thread sealant and install the fitting of your choice. Once water is supplied to the Auto Fill it will maintain the set water level by automatically adding water when the level drops. This level can be adjusted by loosening the wing nut and raising and lowering the height of the Auto Fill float. Use the water line mark on the weir door frame to help establish proper water level.

Figure 22.

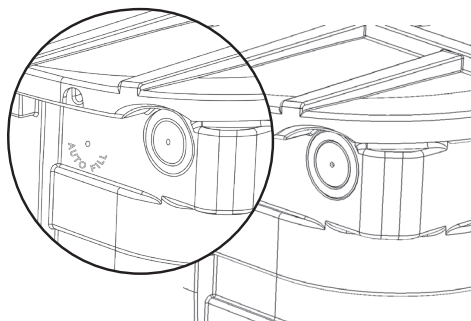
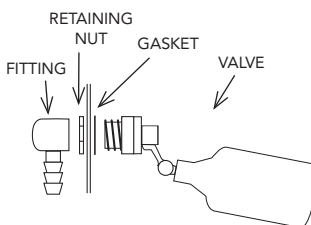


Figure 23.



## OVERFLOW

A drill-point has been provided on the back of the Pro Series Skimmer and Pump Vaults to show the proper location and elevation to install an Atlantic HA2000 bulkhead fitting and 2" MTA for the overflow (not included). This combination will position the bottom of the overflow pipe approximately 1" above recommended water level. (Note: If a HA2000 bulkhead is not being used, the center point for the hole will have to be recalculated on site.)

Drill a 3" hole and install the bulkhead following the instructions on page 7. Install a 2" MTA and connect the overflow pipe. Apply silicone on the threads of the Male Thread Adaptor (MTA). Screw the MTA into the bulkhead until tight. Use PVC Glue (not included) to glue the PVC flex hose into the MTA.