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## PRODUCT SPECIFICATIONS/CROSS-REFERENCE GUIDE

FILTERFALLS						
MODEL	SPILLWAY WIDTH	PRODUCT DIMENSIONS	REC. FLOW RATES	BULKHEAD SIZE	MAX. POND VOLUME	MATCH TO SKIMMER
		WxDxH	GPH			
BF 2000	11"	31"x40"x17"	1000-2000	1 1/2"	2000gal	PS4000
BF1000	14"	16"x20"x14"	1500-2500	1 1/2"	1000gal	PS4000
BF1250	17"	19"x22.5"x14"	2000-3000	1 1/2"	1250gal	PS4000
BF1500	20.5"	24"x30"x20"	2500-4000	1 1/2"	1500gal	PS4500
BF1900	19"	28"x25"x21.5"	2500-4000	2"	2000gal	PS4600
BF2600	26"	34.5"x25"x23"	4000-6000	2"	4000gal	PS4900/7000
BF3800	38"	46.5"x30"x23"	6000-8000	3"	8000gal	PS9500
BF4800	48"	55"x37"x18"	8000-12000	3"	12000gal	PS14000
SKIMMERS						
MODEL	WEIR DOOR	PRODUCT DIMENSIONS	REC. FLOW RATES	SQ.FT RATING	MATCH TO FALLS	
		WxDxH	GPH			
PS4000	6"	17.5x24x22	1000-3000	300	BF2000/ BF1000/ BF1250	
PS4500	9"	17.5x24x22	2000-4000	600	BF1500	
PS4600	6"	19.5"x26"x22"	2000-4000	400	BF1900	
PS4900	9"	19.5"x26"x22"	3000-5000	700	BF1900/ BF2600	
PS7000	9"	25"x30"x24"	4000-7000	900	BF2600	
PS9500	14"	25"x30"x24"	6000-9000	1200	BF3800	
PS14000	14"	30"x36"x30"	8000-14000	1400	BF4800	
PS20000	20"	30"x36"x30"	12000-20000	2000	(2) BF3800/ (2) BF4800	

FILTERFALLS FASTFALLS	INCLUDED										
		bulkhead	screws	clips	silicone	liner flange	bottom grate	filter pads	support tubes	top grate	media bags
BF1000		1.5"	2	2	1	X	X	1		X	1
BF1250		1.5"	2	2	1	X	X	1		X	1
BF1500		1.5"	3	2	1	X	X	1			2
BF1900		2"	8	2	1	X	X	2	X	X	2
BF2600		2"	9	2	1	X	X	2	X	X	2
BF3800		3"	11	2	2	X	X	2	X	X	3
BF4800		3"	7	2	2	X	X	2		X	3
SP1400		1.5"	2	2	1	X				X	
SP2500		2"	4	2	1	X				X	
SP3600		2"	5	2	1	X				X	
SP4800		(2)-2"	7	2	2	X				X	
SKIMMERS	INCLUDED										
		weir door	bolts/nuts	clips	silicone	net	basket	filter pads	brush panel	support tube	lid
PS3000		6"	12	2	1	X					X
PS4000		6"	12	2	1		X	1		X	X
PS4500		6"	14	2	1		X			X	X
PS4600		6"	12	2	1	X			1	X	X
PS4900		9"	14	2	1	X			1	X	X
PS7000		9"	14	2	1	X			1	X	X
PS9500		14"	18	2	2	X			1	X	X
PS14000		14"	18	2	2	X			2	X	X
PS20000		20"	22	2	2	X			2	X	X

# Water Gardens

## POND VOLUME

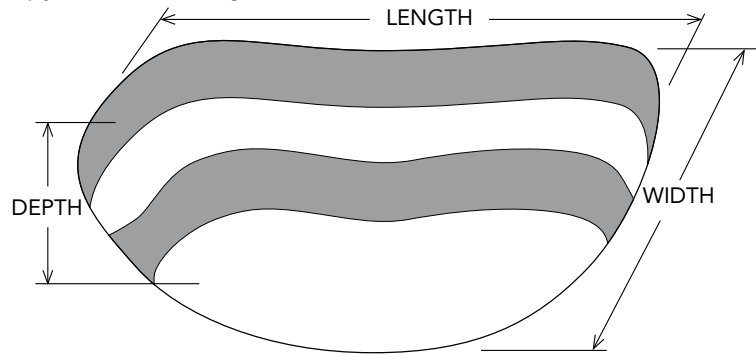
It is important to calculate the estimated water volume before you begin construction, and then re-calculate final water volume when your project is completed. Estimating water volume pre-construction is a step that is often skipped by many homeowners and contractors. This can prove to be a crucial mistake. Without having an estimated water volume you can not properly size the filtration components for your project. A water garden with undersized filtration can prove to be a maintenance nightmare.

Use the formula listed below to estimate water volume in gallons. Once you have done this, use the Product Specifications/Cross-Reference Guide on page 3 to determine the proper Skimmer, FilterFalls and pump size for your project. If you are in-between filter sizes it is always recommended to use the next biggest size. (Filtration is the one area that the "bigger is better" rule definitely applies.)

## 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*



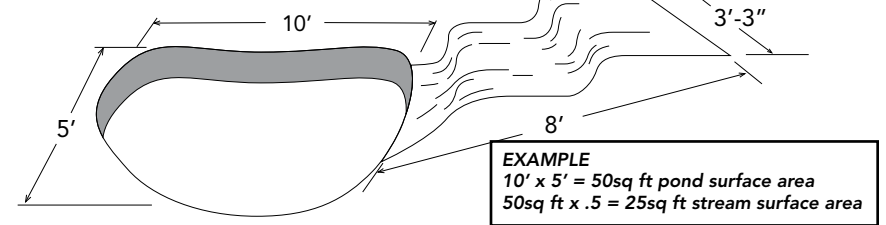
## SQUARE FOOTAGE

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 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 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.

## 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*

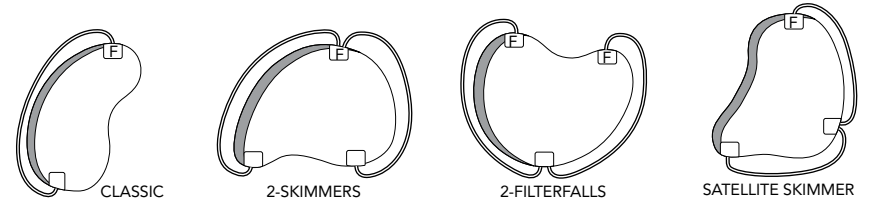


## PLACEMENT OF THE FILTERFALLS AND SKIMMER

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, multiple skimmers, or the addition of a PS3000 Satellite Skimmer.

Below are a few examples of Skimmer and FilterFall combinations that can be used to combat situations like these.



# Skimmer Installation

## EXCAVATING AND SETTING THE SKIMMER

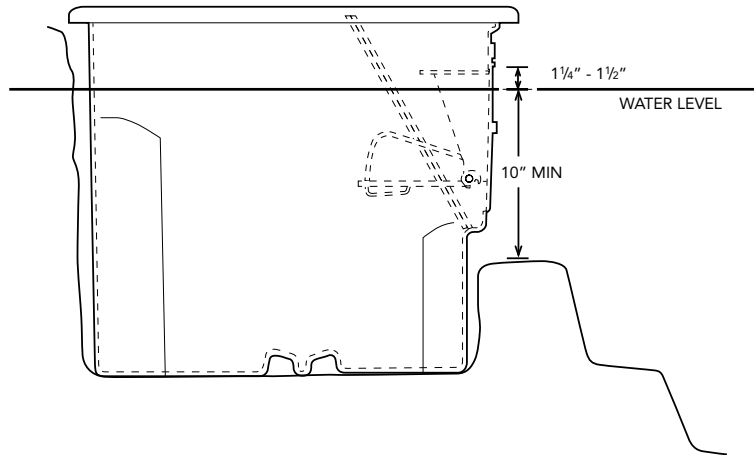
Prior to setting the skimmer you must first determine the surface level of the water in the pond. Once you have this number you can excavate for the Skimmer. The excavation should be a few inches wider and longer than the Skimmer body. Find your model number below to determine the approximate depth of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

20 - 21"	←	PS3000
16 - 17"	←	PS4000/4500/4600/4900
18 - 19"	←	PS7000/9500
24 - 25"	←	PS14000/20000

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. Water level needs to be between 1 ¼" and 1 ½" below the top of the opening for the weir door.

Make sure that any unexcavated soil that is left in front of the Skimmer is at least 10" below water level. 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, it is a good idea to place a few stones inside the Skimmer enclosure to weigh it down and keep it from moving.



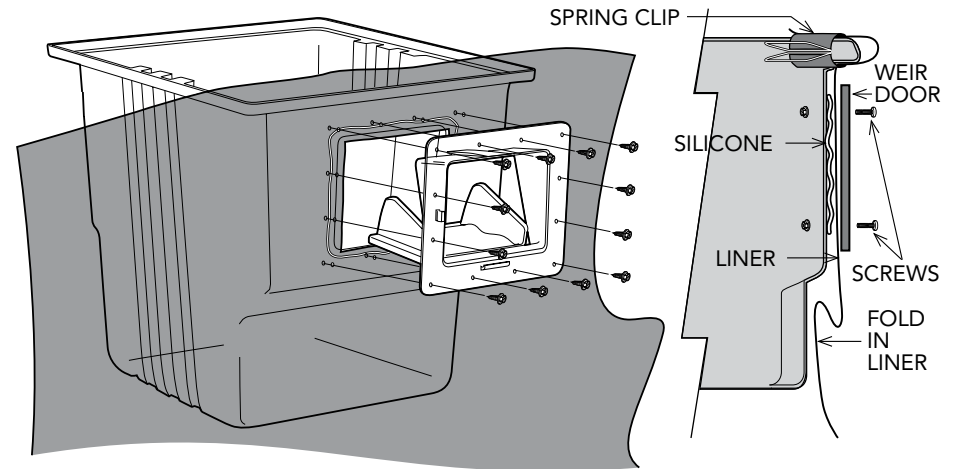
Install the 1 ½" solid support tube and begin backfilling. The support tube must be in place for the enclosure to retain its shape during the backfilling process. Loosely backfill the enclosure on all sides, lightly compacting as you go. Do not over-compact the soil! Aggressive compaction may deform 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 excess slack in the liner below the weir opening. This will help alleviate 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.

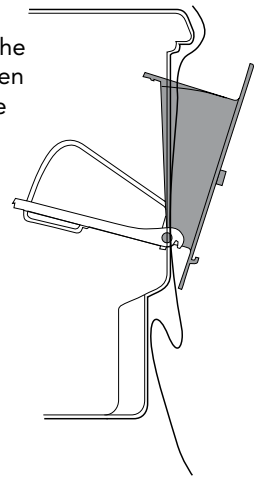
When you are finished, remove the spring clips and pull the liner away from the face of the skimmer. Apply Atlantic's fish-safe silicone around the weir door opening on all four sides. Apply the silicone in a consistent bead approximately ¾" away from the opening itself. Once you are finished, you can return the liner to its original position and replace the spring clips.



### 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. The weir door will not simply slip right into place. With one hand push the bottom of the weir door frame tight against the Skimmer face. With the other hand gently push down on the weir door latch until it clears the top of the opening. Once it does, simply push the weir door assembly into the Skimmer opening until the frame rests against the face of the enclosure.

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 you can install the rest of the screws. Do not fully tighten any screws until all of the screws have been installed.



**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.**

### PLUMBING THE SKIMMER (MODELS: PS4000, 4500)

Atlantic PS4000 & PS4500 Skimmers are packaged with pump outlets pre-drilled in either side of the enclosures. The holes are sized to accept up to a 2" flexible PVC pipe. Insert the pipe into the hole on whichever side of the Skimmer is most compatible with your application. The pump outlets are drilled above water level, so there is no need for this to be a water tight connection. The pre-drilled hole that is not being utilized can simply be blocked off with a flat stone on the outside of the enclosure.

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 the PS4000 & PS4500 to show the proper location for the installation of an AF1000 Auto-fill valve (not included). See the Auto-fill installation instructions on page 16 for more information.

There are also drill-points provided on the back of the PS4000 & PS4500 to show the proper location and elevation for the installation of an overflow (not included). See the overflow installation instructions on page 18 for more information.

### PLUMBING THE SKIMMER (MODELS: PS4600, 4900, 7000, 9500, 14000, 20000)

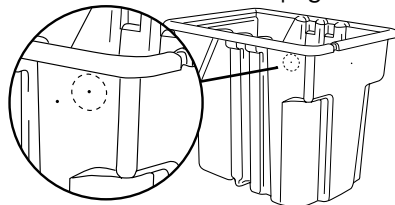
None of the Big Bahama Pro Series Skimmers come with a pre-drilled pump outlet. Not having a pre-drilled pump outlet gives the professional installer the flexibility to choose which side of the enclosure to exit and with what size pipe. Drill points have been provided on all Big Bahama models to show the proper location for drilling the outlet. Information has been provided below for each Skimmer model to show where to drill the hole, what size hole saw to use, and the maximum pipe size that each model will accept. Use the proper drill-point to ensure that the pipe outlet is above water level.

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 on page 16 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). See the overflow installation instructions on page 18 for more information.

	2" PVC	3" PVC	4" PVC
PS4600	X		
PS4900	X		
PS7000	X	X	
PS9500	X	X	
PS14000	X	X	X
PS20000	X	X	X
	2.5" Hole Saw	3.75" Hole Saw	4.75" Hole Saw



**Drill-points for the pump discharge are provided on both sides of the Skimmer and located closest to the back of the enclosure.**

## FilterFalls Installation

### BULKHEAD INSTALLATION (MODELS: BF1000, 1250, 1500)

It is a good idea to install the bulkhead fitting and proper hose adaptor (not included) before setting the FilterFalls.

A 1 1/2" bulkhead has been provided in the installation kit for the models listed above. Remove the retaining nut, friction washer and 1 rubber gasket, leaving 1 rubber gasket on the body of the bulkhead fitting. From the inside of the

FilterFalls, insert the threaded end of the bulkhead into the hole on the side of the enclosure. This will sandwich the rubber gasket between the flange of the bulkhead and the inside wall of the enclosure. Slip first the rubber gasket and then the friction washer over the threaded end of the bulkhead on the outside of the enclosure. Next, tighten the retaining nut by hand and then finish off with a 1/2 turn from a wrench.

### BULKHEAD INSTALLATION (MODELS: BF1900, 2600, 3800, 4800)

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 19 for more information.

Remove the retaining nut and the plastic friction washer (2" only), leaving the rubber gasket on the body of the bulkhead fitting. From the inside of the FilterFalls, insert the threaded end of the bulkhead into the hole that you have drilled. This will sandwich the rubber gasket between the flange of the bulkhead and the inside wall of the enclosure. Install the friction washer (2" only) and the retaining nut outside of the enclosure. (Note: 2" & 3" retaining nuts are reverse threads and are tightened in a counterclockwise rotation.) Tighten the retaining nuts by hand and then finish off with a 1/2 turn from a wrench.

	2" Bulkhead	3" Bulkhead
1900	X	
2600	X	X
3800	X	X
4800	X	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 14 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 1/4". This will ensure that water never leaks out over the back of the enclosure. When you are finished positioning the unit, it is a good idea to weigh it down with a few rocks to keep it in place while you backfill and make your liner connection. Do not completely backfill the FilterFalls until all of your plumbing connections are made and the liner has been attached.

### LINER ATTACHMENT (MODELS: BF1000, 1250, 1500, 4800)

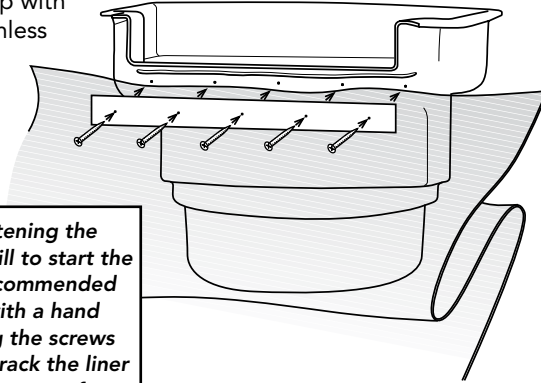
Dry fit the liner. Hold the liner up against the flat panel of the FilterFalls enclosure underneath the spillway. Leave some excess slack in the liner below the spillway opening. This will help alleviate any future strain on the liner

connection. Make sure that the front surface of the FilterFalls, and the back side of the liner are 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.

Apply Atlantic's fish-safe silicone sealant in a consistent bead across the face of the FilterFalls, approx. 2" below the spillway. Once completed, return the liner to its dry-fit position and hold it in place with the provided spring clips.

Place the supplied flange under the spillway, against the face of the enclosure, on top of the liner. The holes of the flange should be approx. 2"

below the spillway so they line up with the silicone bead. Using the stainless steel self piercing screws, attach the liner flange to the filter. Be sure to seal the back of each screw with a dab of silicone on the inside of the enclosure.



*Be extremely cautious when tightening the screws. You can use a cordless drill to start the screws; however, it is strongly recommended that you finish tightening them with a hand held screwdriver. Over tightening the screws could strip out the enclosure or crack the liner flange. The screws need only to be snug for the silicone to make a seal.*

#### LINER ATTACHMENT (MODELS: BF1900, 2600, 3800)

Atlantic Pro Series FilterFalls come equipped with a solid spillway, threaded inserts and a 'U' shaped wrap-around flange. This combination of features produces the best seal available on the market today.

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 (fig.1). 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 (fig. 1).

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

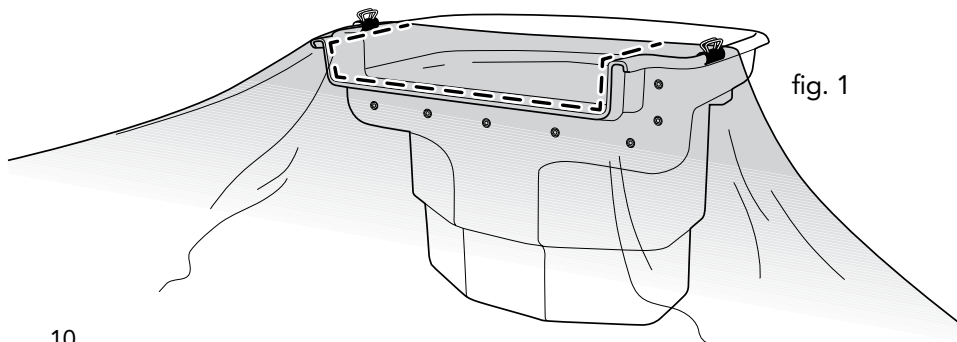


fig. 1

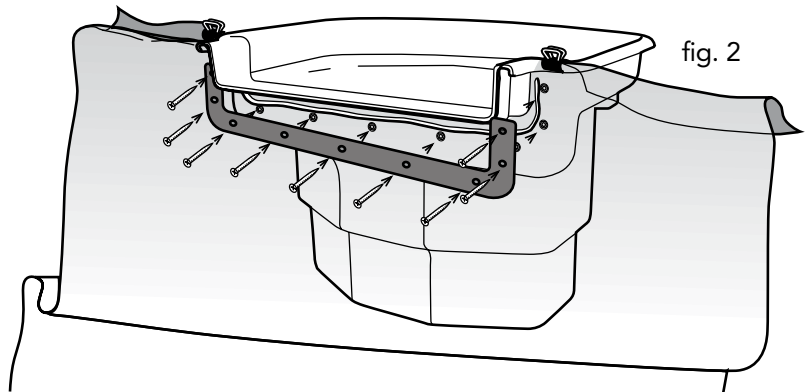


fig. 2

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 (fig. 2).

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 (fig. 2).

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.

*Be extremely cautious when tightening the screws. You can use a cordless drill to start the screws; however, it is strongly recommended that you finish tightening them with a hand held screwdriver. 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 Water Features

When installing any type of pond-free basin it is a good idea to calculate the amount of water the basin can hold before you build the waterfalls. 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 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 could drop below the pump before the water levels equalize. This would result in the pump running dry and/or overheating.

## Echo Chamber Installation

The Echo Chamber patented design enables it to hold three times more water in the same amount of space as traditional gravel basins. The Echo Chamber is also modular. Multiple Echo Chambers can be plumbed together to increase water volume (for longer streambeds), or to increase the basins width (for wider waterfalls). The versatility and ease of installation is what makes the Echo Chamber the best choice for pond-free features.



## WATER VOLUME

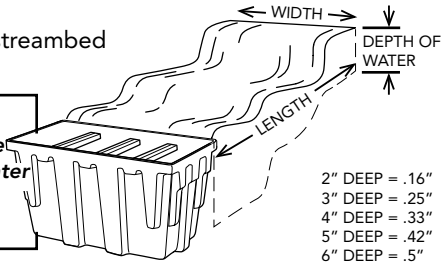
The Echo Chamber holds 100 gallons of water. As a rule of thumb, your pond-free basin should hold three times the amount of water as the waterfalls and streambeds above it. This means that one Echo Chamber will accommodate a streambed that holds 33 gals of water.

Use the formula below to calculate the streambed volume of your project.

### STREAMBED VOLUME

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

*Multiply cubic feet x 7.48 = gallons*



## EXCAVATING AND SETTING THE ECHO CHAMBER

Dig a hole approximately 3' wide, 4' long and 26" deep. \*Do not dig too deep.\* The Echo Chamber 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.

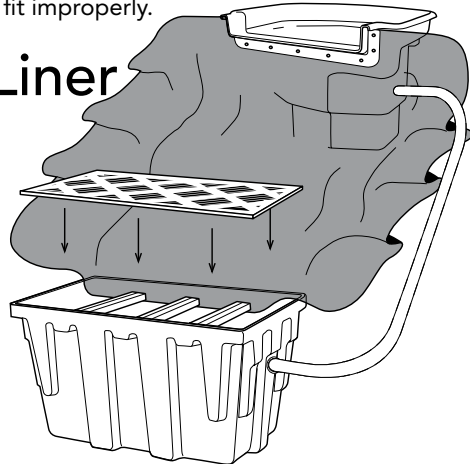
Place the Echo Chamber into the excavated hole. The top lip of the Echo Chamber should be about 1" above the surrounding grade. Check the top of the chamber to make sure that it is level front-to-back and side-to-side. It is a good idea to place a few stones inside the Echo Chamber at this time to weigh it down and keep it from moving.

Install the 1 1/2" solid support tubes and begin backfilling. The support tubes must be in place for the enclosure to retain its shape during the backfilling process. Loosely backfill the Echo Chamber 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

### LIMITED SPLASH

Remove the support tubes. Drape approximately 1' of pond liner over the side of the Echo Chamber. Replace the support tubes one at a time starting at the center and working your way to the outside walls. Once you have inserted the support tubes, install the top grate(s).

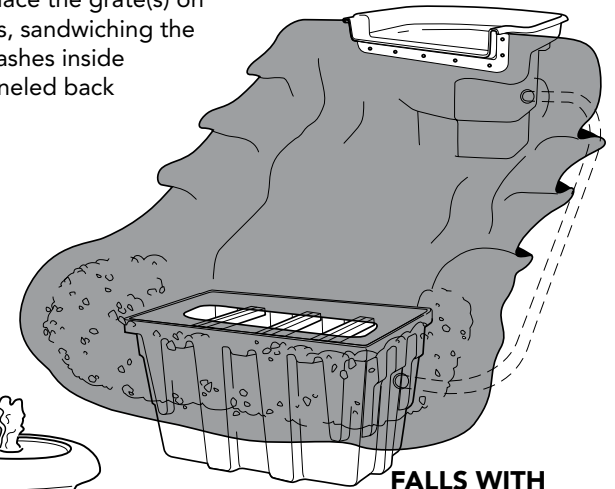


### EXCESSIVE SPLASH

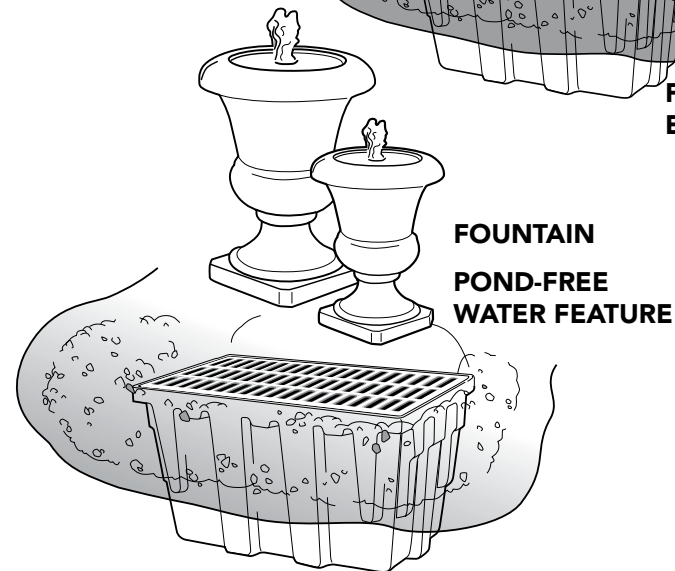
Use some of the soil from the excavation of the hole to build up the area around the Echo Chamber, creating a dish effect. Leave the support tubes in place and pull the liner over the top of the Echo Chamber. With a sharp razor knife, cut a hole in the liner above the Echo Chamber.

Leave at least 4" of liner between the hole and the outside walls. Place the grate(s) on top of the support tubes, sandwiching the liner. Any water that splashes inside the liner ring will be funneled back into the chamber.

## DISAPPEARING WATERFALL



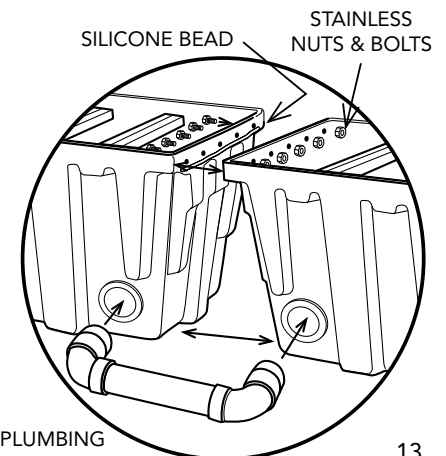
FALLS WITH ECHO CHAMBER



FOUNTAIN POND-FREE WATER FEATURE

## MULTIPLE ECHO CHAMBERS

For installations that require extra water volume, or an extra wide basin, multiple Echo Chambers can be connected together. Drill-points have been provided on all sides of the chamber to show the proper location for the installation of a 3" bulkhead fitting. When installing two or more units, they must be plumbed together so they can share water.



# PV2300 Pump Vault Installation

Atlantic's PV2300 is the most versatile, contractor grade pump vault available on the market today. The PV2300's features include an incredibly strong enclosure with an 18" top opening and a double-walled lid, flat panels for custom plumbing applications, cut lines for 2" and 3" pump discharges as well as 4" and 6" cut lines for SDR35 pipe extensions.

## WATER VOLUME (GRAVEL BASINS)

Gravel basins consist of 60% rock and only 40% 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 gravel basin can hold before you begin construction of the waterfalls or streambed.

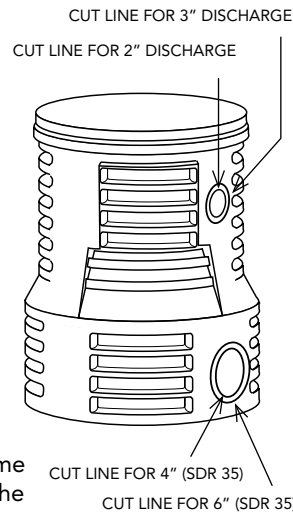
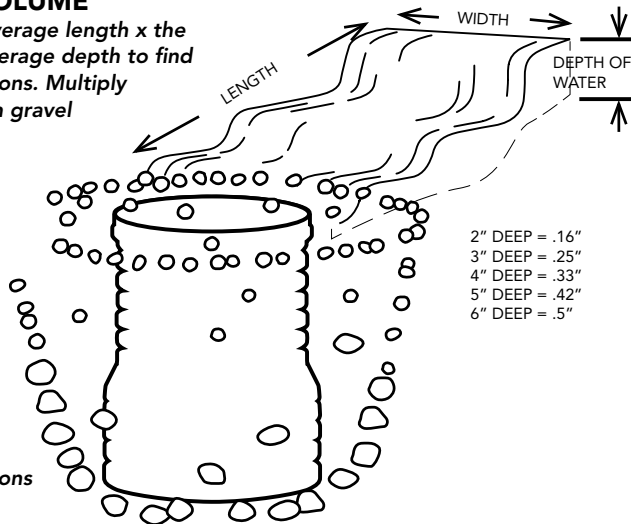
Use the formula below to calculate the water volume of your gravel basin. Use that number to determine the maximum size for the waterfalls and streambed.

## GRAVEL BASIN VOLUME

*Multiply (in feet) the average length x the average width x the average depth to find cubic feet x 7.48 = gallons. Multiply gallons x .4 = gallons in gravel basin. Divide gallons in basin by 3 = maximum gallons for streambed*

## STREAMBED VOLUME

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

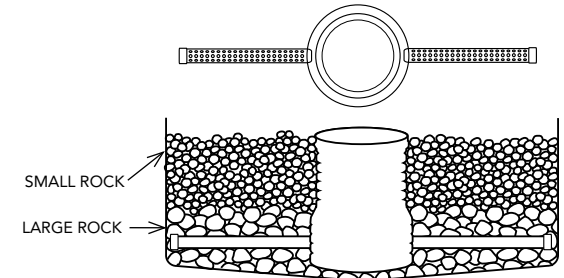


Once excavation is complete, install underlayment, pond liner, and place the pump vault. Begin back-filling with gravel. Any gravel smaller than 3/4" can enter the pump vault through the intake slots and be sucked up by the pump, so it is important to start filling first with larger stone, and then transition to a smaller more decorative stone toward the top.

## PLUMBING THE PV2300

The PV2300 does not come pre-drilled for the pump discharge. Not pre-drilling the hole gives the installer the flexibility of exiting the vault on any side and with any sized 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 Auto-fill and overflow.

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.



# FastFalls Installation

It is a good idea to install the bulkhead fitting and proper hose adaptor (not included) before setting the FastFalls. The SP1400 comes pre-drilled for a 1 1/2" bulkhead fitting while the SP2500,3600,4800 come pre-drilled for a 2" bulkhead fitting. Refer to the bulkhead installation instructions on page 8 & 9 for more detail.

## SETTING THE FAST-FALLS

It is always recommended that the FastFalls be placed on undisturbed soil if possible. If the installation calls for the FastFalls to be elevated above existing grade, it is critical to compact the area thoroughly. This will ensure that the FastFalls will not settle out of level over time.

The FastFalls can be placed adjacent to the pond's edge to create a single waterfall, or pulled away from the pond to create a streambed effect.

Once you have placed the unit, make sure it is level from side-to-side and check the level from front-to-back. FastFalls should always be installed tilted slightly forward about 1/4". This will ensure that water never leaks out over the back of the enclosure.

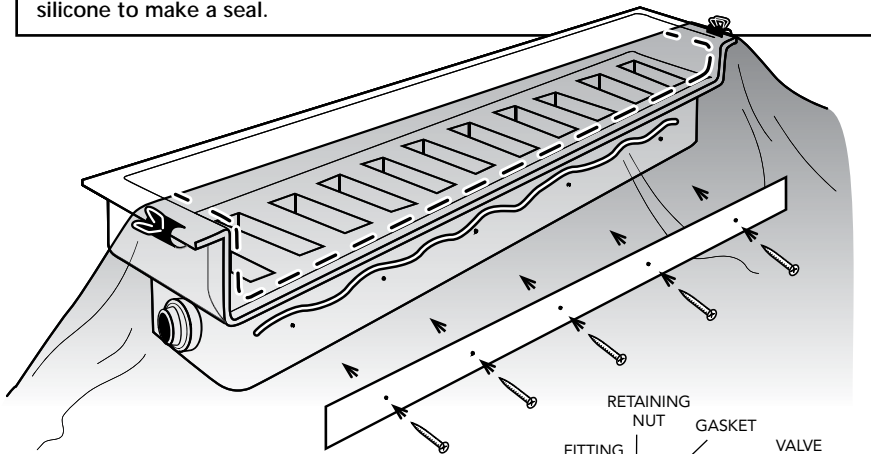
## LINER ATTACHMENT (SP1400, 2500, 3600, 4800)

Dry fit the liner. Hold the liner up against the flat panel of the FastFalls enclosure underneath the spillway. Leave some excess slack in the liner below the spillway opening. This will help alleviate any future strain on the liner connection. Make sure that the front surface of the FastFalls, and the back side of the liner, are 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.

Apply Atlantic's fish-safe silicone sealant in a consistent bead across the face of the FastFalls, approx. 2" below the spillway. Once completed, return the liner to its dry-fit position and hold it in place with the provided spring clips.

Place the supplied flange under the spillway, against the face of the enclosure, on top of the liner. The holes of the flange should be approx. 2" below the spillway so they line up with the silicone bead. Using the stainless steel self piercing screws, attach the liner flange to the FastFalls. Be sure to seal the back of each screw with a dab of silicone on the inside of the enclosure.

Be extremely cautious when tightening the screws. You can use a cordless drill to start the screws; however, it is strongly recommended that you finish tightening them with a hand held screwdriver. Over tightening the screws could strip out the enclosure or crack the liner flange. The screws need only to be snug for the silicone to make a seal.

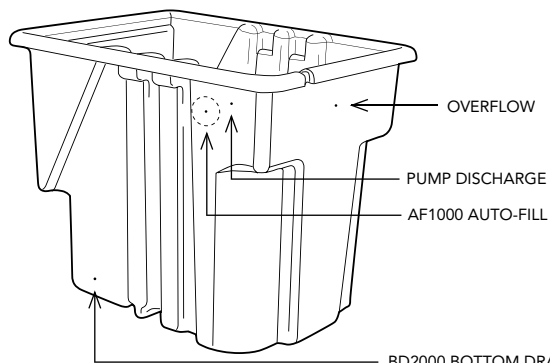


## Skimmer Accessories

### AF1000 AUTO-FILL KIT (ALL SKIMMER MODELS)

Drill-points have been provided for the proper Auto-fill location on all Skimmer models. See the diagram. 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 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 skimmer and the plastic retaining nut is on the outside. Tighten the retaining nut until snug. (Do not over-tighten the retaining nut.)

Fittings to connect the Auto-Fill to a garden hose, 1/2" irrigation line, and 1/2" Sch40 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.

### BD2000 BOTTOM DRAIN KIT (MODELS: PS4600, 4900, 7000, 9500, 14000, 20000)

The BD2000 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 diagram on page 16. Drill the hole with a 3" hole saw and install the bulkhead following the bulkhead installation instructions on page 9.

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.



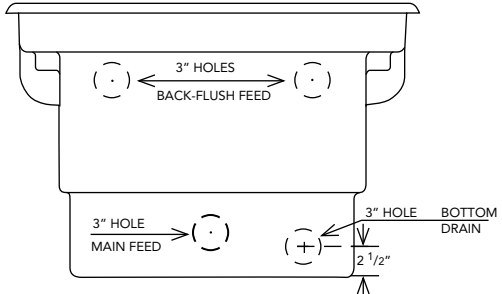
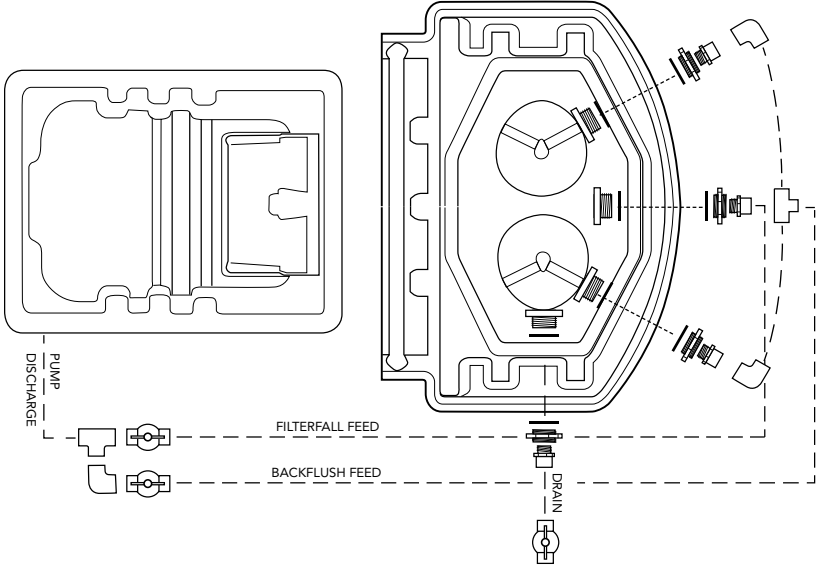
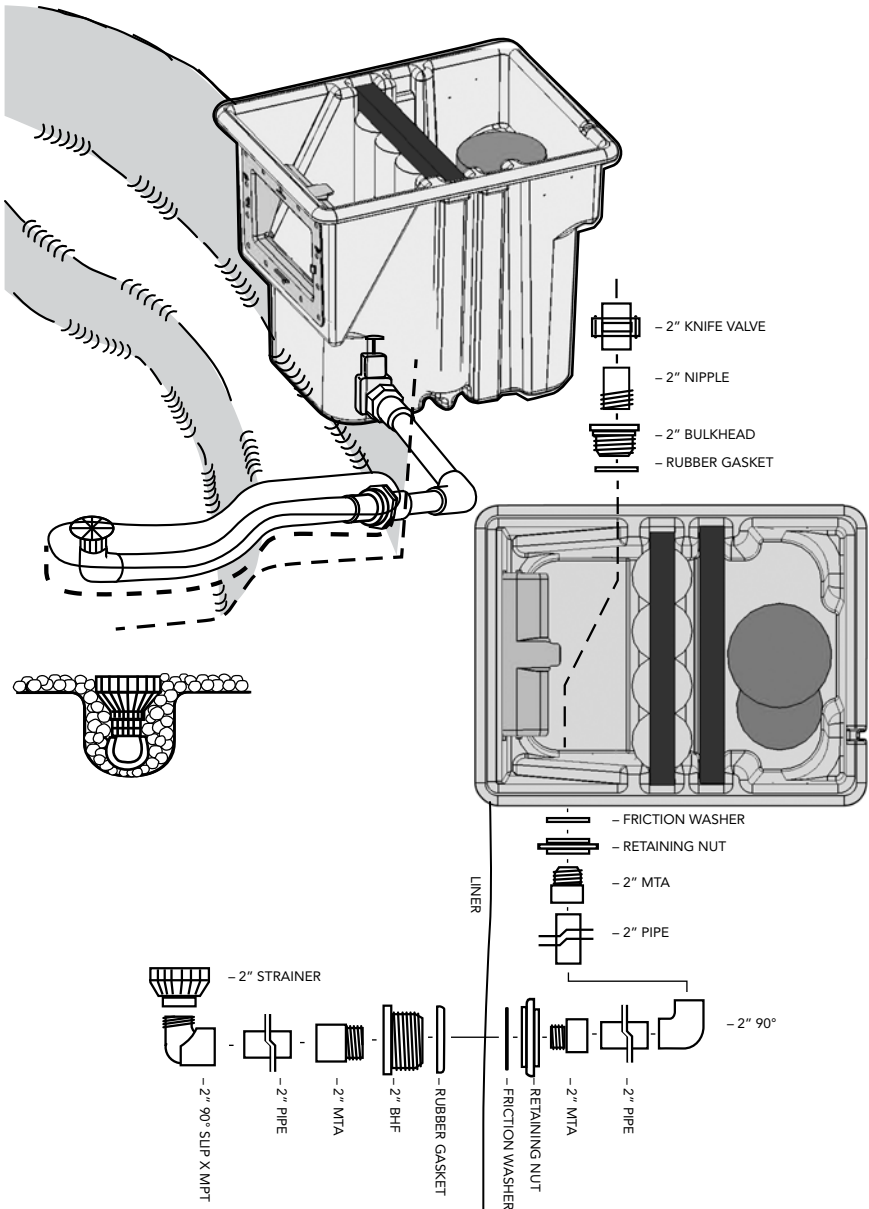
# FilterFalls Accessories

## BFK1000 BACK-FLUSH KIT (MODELS: BF1900, 2600, 3800)

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 8 & 9.

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 2 1/2" up from the bottom of the FilterFalls and centered from side to side on one of the panels. Drilling the hole 2 1/2" 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.



## SKIMMER OVERFLOW

Drill-points have been provided on the back of all Atlantic skimmers to show the proper location and elevation to install an Atlantic HA2000 bulkhead fitting for the overflow (not included). See diagram on page 16 for drill-point location. 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 9. Install a 2" MTA and connect the overflow pipe.

# Water Garden Instruction Manual



Skimmers • FilterFalls • Pump Vaults



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