



Elite Waterfall Installation Manual

Item #PBEWIM

PONDBUILDER ECO-SYSTEM



A Biological Waterfall Box

Filters harmful waste and toxins from water, keeping your pond clean and clear. Provides excellent surface area for beneficial bacteria growth while making a simple and artistic way of creating a waterfall. Easy to camouflage-especially when using the Landscape Lid™.

B Black PVC Flex Hose

Carries water from skimmer box up to the biological waterfall box. Much easier to install than rigid PVC.

C Aquatic Plants

Add beauty to any pond! Plants can be placed throughout or along the pond's edge. There are many varieties: floating, marginal, sinking, oxygenators and lilies. Watergarden kits are great when your desire is to keep many colorful and beautiful aquatic plants.

D Rocks & Gravel

Provides additional surface area for beneficial bacteria to colonize. Protects liner from harmful UV rays and damage from animals. Creates a very natural look.

E Fish

Adding colorful koi and goldfish creates an even more dramatic display. Watergardens are great for Goldfish and Koi.

F High-Efficiency Pump

Pump sits in back pump chamber protected from clogging by nets and filter mats. PondBuilder pumps are recommended as they will use far less electricity and are meant to operate continuously.

G Mechanical Skimmer Box

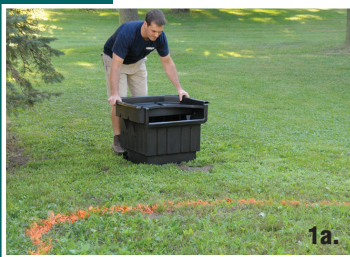
Simplifies routine maintenance by removing floating debris before it sinks to the bottom of the pond. Protects the pump and hides unsightly plumbing.

H Protective Underliner

A non-woven, protective underliner fabric forms a soft padding for the liner.

I Fish-Friendly Rubber Liner

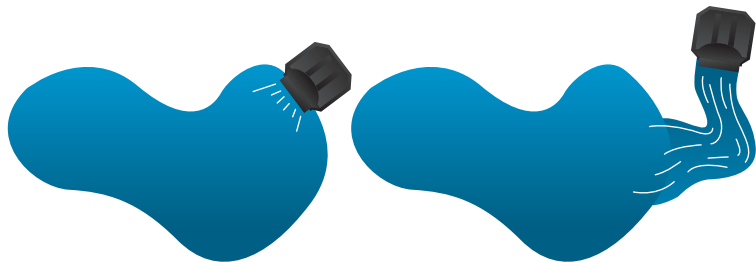
Super-strong 45-mil EPDM liner is the best choice when building a pond. Very flexible - conforms to pond's curves and slopes.



STEP 1

Choose Waterfall Location

- a. The waterfall should be positioned so that the water flowing from it enters the pond opposite the skimmer to ensure proper water circulation. The waterfall is best positioned so that you can view it from the outdoor and indoor areas where you plan to enjoy your new water feature.



- b. You can position the waterfall right at the ponds edge or at the top of a stream.

STEP 2

Assemble Waterfall Plumbing

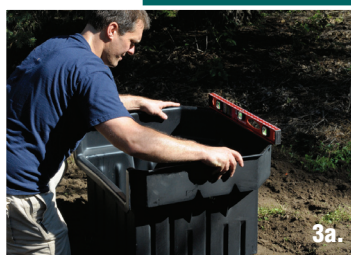
- a. Your PondBuilder Elite Waterfall Box has two spinweld fittings, one on each side of the bottom of the box. Choose which side your feed/hose line will come in and thread the PVC male adapter into that spinweld (use the Teflon Tape included on the threads first).
- b. Thread the PVC plug into the remaining spinweld. Use the Teflon Tape included on the threads first.
- c. If desired, you can use the second spinweld for a second pump line or for a back-flush system.



STEP 3

Position Waterfall Box

- a. Compact the area where the waterfall box will sit to prevent future settling. The waterfall box should sit level from side to side and should be tilted forward slightly (about $\frac{1}{4}$ bubble on your level) to ensure that the water flows forward through the spillway.



STEP 4

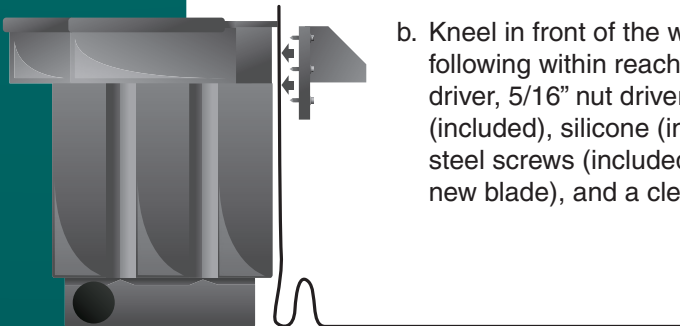
Hook-Up Flexible PVC Pipe

- a. The 14" & 22" Elite Waterfalls are plumbed to accept 2" Flexible PVC Pipe; the 30" Elite Waterfall is plumbed to accept either 2" or 3" Flexible PVC Pipe; and the 40" Elite Waterfall is plumbed to accept 3" Flexible PVC Pipe. We recommend using Flexible PVC pipe as it is very flexible and easy to work with.
- b. Using PVC Primer & Cement, glue the flex pipe into the PVC male adapter.

STEP 5

Attach Liner to Waterfall

- a. Bring the liner up to the face of the waterfall box and check the positioning of the liner against the waterfall box. Use the liner clips (included) to temporarily hold the liner to the box. The liner should follow the contours of the pond edge or stream and the face of the waterfall box. It is a good idea to leave a little slack in the liner where it transitions from the pond edge or stream to the face of the waterfall box. This will ensure that the weight of the rocks used in the waterfalls will not pull down on the liner once it is attached to the waterfall box.
- b. Kneel in front of the waterfall and have the following within reach: cordless screwdriver, 5/16" nut driver bit, waterfall weir (included), silicone (included), stainless steel screws (included), utility knife (with new blade), and a clean rag.



c. Kneeling in front of the waterfall box remove the liner clips and fold the liner back toward you leaving it to rest on your lap. Using the clean rag wipe down the face of the waterfall box around the area where silicone will be applied. Also clean the area on the liner that will be coming in contact with the area you cleaned on the waterfall box.



d. Apply a bead of silicone along the sides and bottom of the opening on the face of the waterfall, keeping the silicone bead centered the entire way.



e. Bring the liner back up into position against the face of the waterfall. Hold the liner in place again with the liner clips to help keep it from moving around as we prepare to attach the waterfall weir. Gently run your fingers along the liner over the area where you applied the silicone and flatten the bead out slightly. This will help ensure a more even distribution of the silicone as we compress it when we screw down the weir.



f. Bring the waterfall weir into position. The weir has a return edge that will make it easy to hold it against the waterfall box in the correct position. Once in position begin driving the stainless screws into place. Start with the top screw on the left and right first to hold the weir in position. Continue driving screws into the remaining pilot holes on the weir with your next screw going into the middle hole on the weir.

g. Carefully trim out the section of liner inside of the waterfall area to open the channel where the water will flow through.





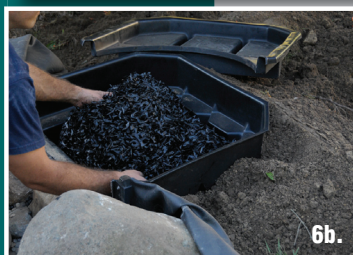
- h. Use the remaining silicone to run an additional bead along the joint where the waterfall box, liner, and weir come together. Smooth out the bead using your finger.

STEP 6

Install Filter Media



- a. Position the filter mat(s) horizontally in the bottom of the waterfall box. The Elite Waterfalls include two green Matala Mats.
- b. Fill the media bag(s) with biological media (not included) and position on top of the filter mats. We recommend using Bio-Twist media in the media bag(s). However, it is best to stand the green Matala mats vertically in the box and add in additional mats to fill the space (in this case you would not use the media bags). Pre-Cut Matala mats are available for the 14" & 22" Elite Waterfalls from your PondBuilder Dealer.



STEP 7

Install Landscape Lid

- a. The PondBuilder Landscape Lid allows you to make the open top area of the waterfall box disappear into the landscape. Position the Landscape Lid on the waterfall box. The most popular method of disguising the waterfall box is to plant aquatic plants within the channels of the landscape lid. Add pea gravel to fill the rest of the channel and landscape lid area.

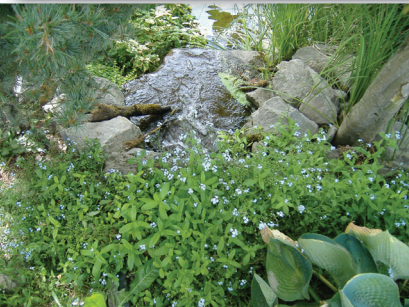
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There are holes in the bottom of the landscape lid that will allow water to wick up to the root system of the plants. Other options include hiding the waterfall box using mulch or gravel. Adding in some driftwood is a nice touch as well.



Hiding the Elite Waterfall Box using the Landscape Lid is super easy! Here's a few samples from our customers:





BONUS FEATURES

- Use PondBuild 'n Foam to fill in the gaps of the rockwork leading up to the waterfall box. The foam will force the water on top of the rockwork rather than around and behind it where it can't be seen. This will give you a much more dramatic waterfall display!



View the waterfall attachment steps and a complete water garden installation on the PondBuild 'n Steps DVD.

PondBuilder recommends the following products for use with their line of Biological Waterfall Filters:

- BioTwist Media
- PondBuild 'n Foam Waterfall Foam
- Additional Matala Mats

