

Expandable Waterfall Spillways

ProLine Waterfall Spillways are a unique modular system that can be built to fit your particular application. The system has three basic parts — a left end piece, a right end piece and an optional 16" center piece. The left and right ends can be bolted to each other to form an 18" waterfall or as many as needed of the 16" extensions can be installed between the left and right ends.

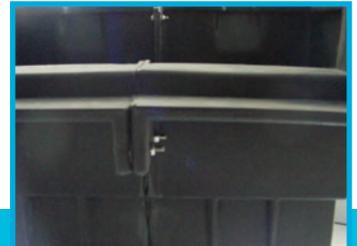


Spillway Assembly ...



If your spillway comes unassembled you will begin by bolting the sections together with the stainless bolts included. Before assembling the pieces apply a large bead of silicone caulk to one of the pieces (as shown). Slide the pieces together so the flat surfaces match up, use the stainless bolts and washers from one side and the nut with a built in star washer from the other side. Install all the bolts before tightening any of them.

The two long bolts are used on the outside of the spillway on the bottom side of the lip.



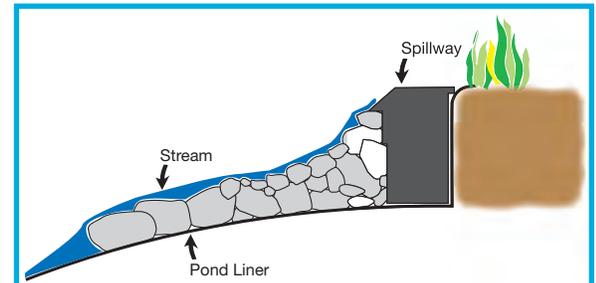
As you will see in later instructions, the spillway is designed to be installed inside the liner so even if a small leak occurs between the spillway pieces the water will not leak out of the liner.

Spillway Installation ...



Once you have assembled the spillway or if your spillway came assembled, you are ready to begin installation. Before installing the liner or spillway in your stream or water fall area, you need to excavate the soil into the shape you want your stream to be. Try to make the stream wide in some spots, narrow in other areas and be sure to add some twists and turns. Streams that are all one width and straight are not realistic! Be sure the soil at the beginning of the stream where the spillway will sit is compacted well and level.

Sculpt dirt in stream area before installing liner.



Once you have sculpted the reservoir, stream and waterfall area carefully check for any rocks, roots or sharp objects in the soil. After ensuring the area is free from objects you can install the underlayment thru the reservoir and stream area. After installing the underlayment you can install the liner as well. Do not be concerned with a few wrinkles in the liner since the whole area will be filled in with rock and covered. Be sure to pull any extra liner towards the waterfall area.



The liner covers the stream bed and goes thru the area where the spillway will set.



Photo shows bulkhead fitting and plug installed in the end of the spillway.

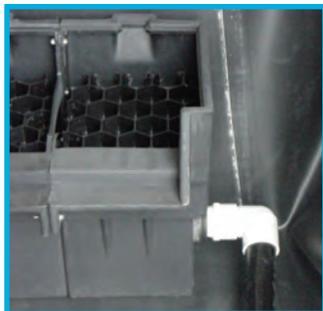
If your spillway came assembled, remove the plastic grating from the top of the spillway. There are openings on both ends of the spillway for water to enter. You will need to decide which end is more convenient for your application. First you need to plug the opening you will not be using. Install the bulkhead fitting with the body and the rubber gasket on the inside of the tub. Tighten the plastic washer and the nut from the outside. Install pvc plug on the inside of the tub and tighten. If you are using a large spillway often times water will come in from both ends in which case you would not use the plug but rather install a pvc male adapter on the outside of the bulkhead.

On the incoming side you will need to hold the liner up to the end of the tub and mark where the bulkhead hole is. Cut a hole in the liner slightly smaller than the opening. Set the spillway tub in place and push the body of the bulkhead thru from the inside (be sure rubber gasket is in place inside the tub). Stretch the liner over the bulkhead and then install the washer and the nut. Tighten the nut snugly but do not overtighten. This will create a waterproof seal thru the liner.



Bulkhead is thru liner, washer and nut are tightened and PVC adapter is installed.

Apply a small amount of silicone to the threads of the pvc male adapter and install the fitting into the outside of the bulkhead.



The above instructions provide you with a water tight penetration through the liner. There is also a way to connect the water pipe to the spillway without penetrating the liner.

To do this you would install the bulkhead in the spillway and turn the male adapter into the bulkhead. Next install 90° elbow onto the male adapter. Glue your flex PVC pipe into the elbow. The liner then wraps up around the pipe and elbow up against the spillway box. The flexible PVC pipe then runs down the stream on the inside of the liner back to the pond. The hose will be hidden by the rocks used in the stream bed. Keep the hose tight along the edge of the stream where larger rocks are used, not in the middle where small gravel is used.



The liner goes under the spillway and wraps up the back and ends.

After completing the plumbing you can secure the liner around the spillway by back filling with dirt around the back and ends of the tub. The liner simply goes up the sides and back of the tub.



When you backfill with dirt the liner will be held tight up against the tub. Stones can be set on the channel grating in the tub. This will help hide the tub from view and make your waterfall natural looking.

The spillway can be covered in rock to help hide it from view. Place 3" to 6" rocks on the plastic grating as desired to camouflage all plastic from view. This will help your installation look much more natural.