



Installation Instructions for Mini Skimmers, Mini AquaFalls Filters and Mini Pond Kits

Thank you for purchasing an this EasyPro product. Following are a few simple instructions to help you during the installation process.

EVERY POND KIT INCLUDES:

1. 45 mil rubber liner
2. Liner underlayment
3. Skimmer
4. AquaFalls filter
5. High efficiency pump
6. Check valve assembly
7. Silicone sealant
8. Flexible PVC pipe

INSTALLING YOUR POND

One of the first things to be done is to choose the shape and location of the pond. Use an extension cord or garden hose to determine pond shape. Once shape is determined you can (1) paint the outline of the pond. This will allow you to (2) layout the location of the skimmer, AquaFalls and PVC pipe. Ideally the skimmer is located at the opposite end of the pond from the AquaFalls filter. This will create maximum circulation through the pond. The final step before digging the pond is to (3) connect the PVC pipe to the AquaFalls filter. By laying the pipe on the ground around the pond, you can use the dirt from the pond to cover the pipe thus creating a berm to keep runoff out of the pond and eliminating the need of digging a trench.



POND BUILDING STEPS

1. Mark outline of pond
2. Choose location of skimmer, filter and PVC pipe
3. Connect PVC pipe to AquaFalls filter
4. Dig pond
5. Install underlayment and liner
6. Place rocks in pond
7. Rinse rocks (optional) and then fill pond
8. Install skimmer
9. Build waterfall/stream
10. Trim liner, tweak rock work
11. Landscape perimeter of pond
12. Clean up

INSTALLING YOUR POND



Install bulkhead fitting with rubber gasket on the inside and the nut on the outside of the filter tub. Apply a small amount of silicone to the threads on the PVC adapter before turning it into the bulkhead fitting.

Connecting PVC Pipe to Filter — Once you have chosen the location of the filter you will need to install the bulkhead fitting into the back of the filter (see directions above), once the bulkhead and PVC adapter have been installed, you can glue the PVC pipe into the filter adapter. Allow filter to sit for two to three minutes to ensure maximum glue bonding.



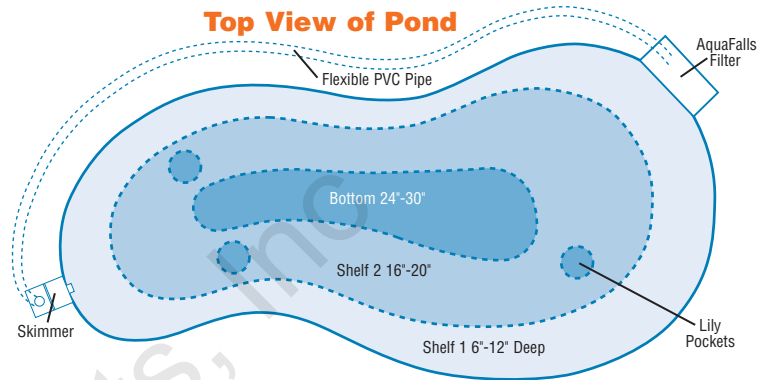
Be sure AquaFalls filter is installed level from side to side and tipped forward 1/2" to 1". Be sure soil under filter is compacted to prevent future settling.

EXCAVATING POND

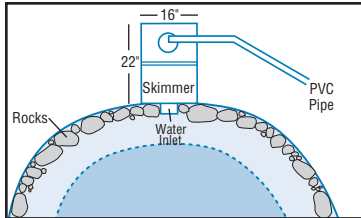
Ponds with a water depth of 24" or less are not subject to local ordinances. Therefore most pond builders stay within this depth. When excavating the hole you can dig a few inches beyond the desired water depth as the stone put over the liner will fill in the depth a few inches.

Ponds should be dug with a variety of shelf depths to accommodate plants. Marginal plants like water 1" to 12" deep while lilies like a depth of 14"-20". Pockets can also be formed under the liner to create areas to plant lilies in.

One of the most important things in building a pond is to make sure the perimeter of the pond is level. If the perimeter is not level the low area will overflow while the high area will extend several inches above the water. A transit or laser level works great for creating a level surface. When excavating the shelves a variety of depths is desirable. The perimeter of the pond should be 3" - 5" above the water level you have chosen for the pond. Double check length and width of pond as you dig, be sure not to exceed liner size!



Earlier in step three you connected the PVC pipe to the AquaFalls filter and located it in a well compacted location. (4) As you start to dig the pond you will want to put the dirt around the filter to begin forming the berm that will eventually hide the filter. Be sure the filter does not move as you pack dirt around it. In some cases you will build up the filter to create a more dramatic effect, or you may bury the filter partially in the ground to create a more natural effect.



Once you have determined the water level of the pond, you can then dig the hole for the skimmer. This hole should be dug just outside the finished edge of the pond and will need to be the following size: 16" wide x 22" away from edge of pond and 14" below water level.

Ideally the water level in the pond will be 1" down from the top of the opening on the front of the skimmer. Once you have double checked your measurements you can set skimmer in hole and back fill approximately 1/3 of the skimmer to hold it in place.

INSTALLING UNDERLAYMENT AND LINER

Be sure to go over the excavated hole one last time making sure any sharp objects are removed which could eventually wear a hole in the liner. Once your hole is completely shaped and free from sharp objects it is time to (5) install the underlayment. Simply unfold the underlayment and place into pond. Walk through pond and make sure fabric conforms to all shelves and plant pockets. Installing the liner is done much the same as the underlayment. Liners, except in large or odd shaped ponds, are always done in one piece to prevent the additional work of creating watertight seams. For ponds that do not have a stream being added, care should be taken to pull all extra liner towards the AquaFalls filter. Be sure there is enough liner to reach the filter and a little extra as a safety. For ponds that have a stream, an additional piece of liner is needed. Be sure the stream liner is oversized as it takes extra liner to make the twists and turns needed to make the stream look natural. Where the stream meets the pond be sure the area where the stream liner overlaps the pond liner is running downhill and is above the water level of the pond. This will prevent leaking since water cannot run uphill between the two pieces of liner.

Installing the liner ... be sure to leave a few extra inches of liner in the pond. These small wrinkles will be covered by the stone and will allow the liner to stretch into place when the pond is filled with water.



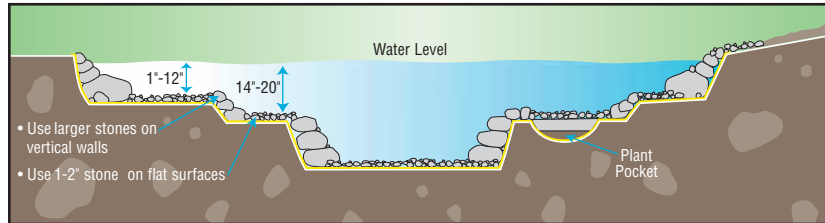
ADDING ROCKS

(6) Covering the entire liner with rocks is a relatively new concept in water gardening but one that certainly has its benefits. By covering the liner in rock you are creating a much more natural looking pond, protecting the liner against punctures and creating additional surface area for beneficial bacteria to grow on. Typically 6" - 12" rocks are used on the vertical ledges in the pond, care should be taken when placing the larger rocks so they do not damage the liner (use scrap liner or underlayment pieces under large rocks). Start from the middle of the pond and work your way outward placing rocks along the vertical walls of the pond (see photo at right). Once the large rocks are in place, cover flat ledges in small rock. Usually 1" - 2" stone or "septic stone" is used for this. It is not mandatory that you cover the liner with stone, but



When placing rocks — start in the middle and work outward.

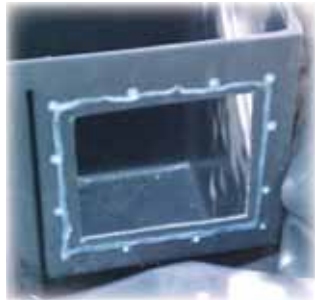
Cross Section of Excavated Pond



if you are looking for a "natural" water feature it will look much better if liner is covered. Once rock has been installed you can (7) rinse dirt from rocks if necessary so pond will be clean when filled. If rock is not rinsed, water will likely be cloudy when pond is first filled. This will settle out within one to two days giving you clear water.

INSTALLING SKIMMER

It is now time to (8) install skimmer. Earlier when digging the pond you located the skimmer into position and backfilled partially to hold the tub in place. Place a large bead of silicone around the opening on the face of the skimmer, then hold liner up (this is best done by a second person) in front of opening. Place the face plate against the skimmer with the flange sticking out towards pond (see picture below) and line up the top holes with an awl. Secure in place with a bolt and washer. Install the four corner bolts first, then install all remaining bolts. After all bolts are in, reach inside faceplate opening and cut away the liner. Silicone should dry for at least one hour before being submerged in water.



Be sure to use a large bead of silicone around opening. Hold face plate in place and line up holes with an awl. Insert bolts through holes and secure with nut on inside of skimmer.



Install the bulkhead fitting in the hole in the back wall of the skimmer. This is your overflow outlet. Use the male adapter and any left over pipe to drain overflow water away from pond. There are two holes, one in each sidewall of the skimmer. Install the end of the flex pipe through one of the holes, allow pipe to stick into the skimmer 3" - 4". Install pump, with check valve assembly attached, into skimmer. Slide the rubber coupling over the end of the PVC pipe and tighten. Run the power cord out the other hole to your electric supply. Slide the filter pad rack into place, install PVC pipe into front groove on skimmer sidewalls (this acts as a spreader to keep sidewalls straight when buried), and finally put debris net into skimmer. This completes installation of skimmer, you can now finish backfilling.

CONNECTING THE AQUAFALLS

Double check that filter is level side to side and tipped forward $\frac{1}{2}$ " - 1". Attach the liner from the pond or stream to the front of the filter by applying a bead of silicone over the inserts on the face of the filter. Hold liner up to face of filter and place flat plastic strip over liner. Insert bolts through flat strip and liner and into inserts installed in filter tub. Be careful not to cross-thread bolts into inserts.



Place short PVC pipe legs onto bottom of black filter stand, place stand into filter, place two filter pads onto filter stand. A large media bag is included with filter. A filter media (fish floss, bio ribbon, lava rock) should be placed in filter bag and placed on top of filter pads. This media will provide a large surface area for bacteria to colonize on, which cleans the water as it passes through the filter.

Use rocks around the perimeter of the filter along with plant material to help hide the filter. A couple rocks can be placed on the media bag inside the filter to help break up the square look of the filter. This will complete the installation of your pond. Accessories such as underwater lights, spitters, fountains, etc. can be added as desired.



MAINTENANCE INFORMATION

Thank you for purchasing an EasyPro pond system! Rest assured you purchased one of the best built and easiest to maintain water feature systems on the market today. Like a pool or a hot tub, your pond will require some maintenance. Unlike pools and hot tubs, you will use natural products instead of chemicals to maintain your pond. Following are a few guidelines to help you achieve maximum enjoyment.

The heart of your pond system is the skimmer, pump and AquaFalls filter. Together these components will remove debris, filter the water and create circulation.

The EasyPro Pond Skimmer will catch leaves and other floating debris that fall into the pond. The pump is located inside the skimmer and as water is pumped out of the skimmer, new water is drawn in from the surface of the pond. This will create a skimming action that will draw floating debris into the debris net inside the skimmer. If the debris net becomes full of debris then water will not be able to reach the pump. You will need to empty the debris as needed. This will vary depending on the season from once every couple of weeks in the summer to almost daily in the fall if your pond is near a tree. Also be sure to keep the filter pad clean so the pump doesn't run out of water.

The AquaFalls Filter is your biological filter. After the water is pumped from the skimmer, where mechanical filtration occurred, it then goes to the AquaFalls biological filter. Millions of beneficial bacteria will attach themselves to the media inside this filter and "clean" the water as it passes through. This filter will require minimal cleaning since most large debris was removed before it got to this filter and the bacteria are consuming the nutrients in the water. Usually once per year is all that's needed for cleaning of this filter. A good time for this is in the spring when you are doing your spring clean up of the pond.

Fish and Plants are an important part of the overall pond ecosystem. Fish add color and life to the pond. It is very relaxing to sit and feed your fish at the end of a long day. Koi will actually eat some types of algae and will eat mosquito larvae and insects. Koi and goldfish are popular choices for adding personality to your pond. These fish are hardy and can survive northern winters. Be sure not to overfeed your fish as the uneaten food is high in nutrients and will cause quality problems. The fish should quickly consume the feed you are throwing in. If the feed starts to drift off or the feeding action slows, you are over feeding. Plants add color and help soften the look of the pond. Also, they are an important part of the filtration. Not only do plants provide shade which helps keep the water

cooler and reduces algae growth, but they also help absorb nutrients such as ammonia, nitrogen and phosphorus.

Maintenance — EasyPro ponds are designed for minimum maintenance. There are few additives that will help maintain optimum water quality. Beneficial bacteria should be added to your pond on a regular basis. Follow the directions on the bacteria container for your size pond, these bacteria will help to cleanse the water. Another great product is barley, it helps to prevent algae growth. Typically barley needs to be added every six weeks in the warm season. Barley is available in both liquid form and pellet form. The third item is AlgaeFix. This product is an EPA registered algae control that will not harm fish or other plants. While bacteria and barley are used on a preventative basis, AlgaeFix is typically used when algae is present.

Winterizing — If your pond is in a freezing climate you will need to do a few things to prepare your pond for the cold months. Hardy water plants and fish will live through freezing climates in as little as 18" providing some steps are taken. It is helpful to cover your pond with netting in the fall if you have trees nearby. While your skimmer will get many of the leaves, some will fall to the bottom and can cause problems over the winter. As leaves decompose they produce harmful gases and consume oxygen. If excess leaves are left in the pond and the pond freezes over, a fish loss will likely result. It is critically important to keep a hole open in the ice! This can be accomplished by using an air pump, a water pump or a heater.

