

Installation Instruction For Flexible Pond Liners

Liner Selection:

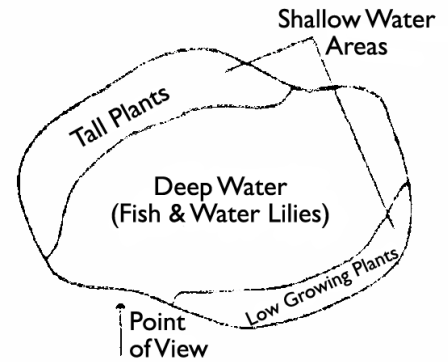
the formula for computing the appropriate liner size is as follows...

Width: Pond width = 2x the pond depth = 2' for edging.

Length: Pond length = 2x pond depth = 2'

For example, if you plan to install a pond that will be 8' x 10' (at its largest points) and 18" deep (at its deepest point) you would need a liner that is 13' wide x 15' long. We highly recommend 45 mil EPDM rubber liner for its durability and long life.

Filter Selection: In order to select an appropriately sized filter you must know the total gallons that your future pond will hold. The formula for computing pond gallonage is 7.5 gallons of water per cubic foot. Using floor measurements, multiply pond length x width x depth x 7.5. Using our 8' x 10' example hold approximately 900 gallons. If you are installing a M.A.N. filter, you'd need a Foam Filter #2, which is recommended for ponds between 600 -1200 gallons.



A Few things To Consider When Planning Your Pond:

1. Your pond should be constructed in an area of full sun if at all possible to allow your pond plants to perform to their absolute best. Placing your pond away from trees will also reduce spring and fall maintenance caused by flowers, seeds and leaves falling into your pond. Also, tree roots and sharp rocks can puncture even the strongest pond liner. These should be removed or covered with a pond underlayment.

2. If your pond will be placed in an area where run-off from your lawn may occur, a small berm placed around the pond will direct run-off away. This is advisable so lawn run-off generally contains pesticides and herbicides that are detrimental to your ponds plants and fish.

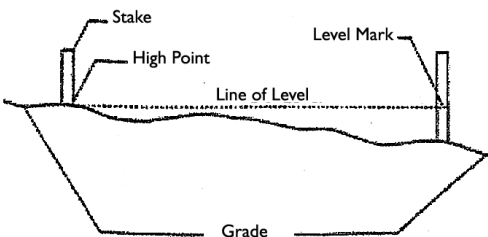
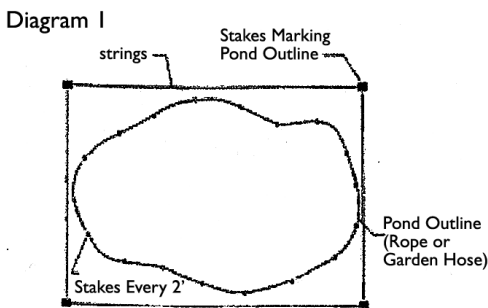
3. When planning the layout of your pond, consider where you'll most often be viewing it from - patio, deck, etc. Careful placement of your shallow water area(s) can have a dramatic impact on the success of your pond. A shallow water area near your primary observing area can hold low growing plants (Parrots Feather, Water Mind, Dwarf Bamboo) to provide a foreground to your view of the pond. A shallow water area in the back of the pond can hold taller plants (Water Iris, Rushes, Cattails) and provide a background to your view.

4. Shallow water areas should be wide enough for larger containers when plants mature. Also tall or leafy foliage plants require large containers to act as ballast so that they won't be easily knocked over by the wind (see diagram 3)

Diagram 1

1. Install 4 stakes in the ground making a rectangle the approximate size of the pond you intend to install. Keep in mind that the intended site need not be perfectly level. The dirt you remove for the pond can be used to fill somewhere else.

2. Using a garden hose or rope as a guide, layout the shape for your pond within this rectangle. Take your time at this point since once you've installed the pond the shape is not easily changed.



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Diagram 3

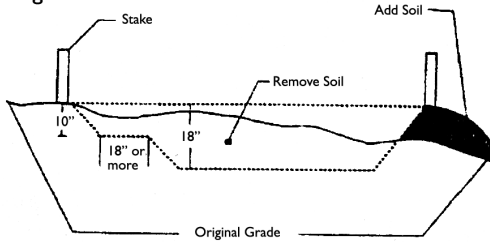


Diagram 4

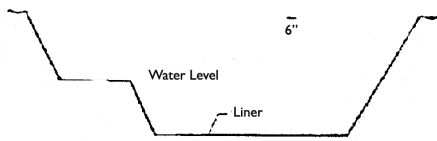


Diagram 5

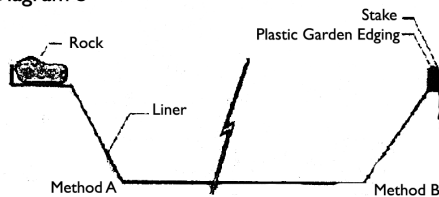
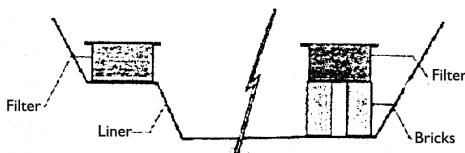


Diagram 6



3. Once you've decided on the shape of your pond, drive stakes every 2' around the perimeter to mark the pond edge.

Diagram 2

4. Using a string level or a carpenter's level and a straight board, determine the grade of the site. Find the stake that is at the high point and, using the level, mark the line-of-level at each of the other stakes.

Diagram 3

5. Decide if and where you want a shelf for shallow water plants. (Although this isn't absolutely necessary, we highly recommend one.) The shelf should be 10 - 12" deep and is best located at the back edge of the pond so that the plants will form a background. The shelf should be at least 18" wide and can be wider if you wish.

6. Dig the pond, keeping in mind that the soil removed can be used to billow areas of the pond's perimeter and also to create a berm or mound of dirt around the pond. Always tamp down any dirt that has been disturbed to stabilize it.

Diagram 4

7. Lay the liner into the pond and fill with water to within 6" of the top. Determine where the pond's edge is too low or too high and make necessary adjustments.

Diagram 5

8. Fix the edge of the rubber liner using rocks and bricks (method A or garden edging (method B). Use heavy duty garden edging with galvanized stakes, if possible.

9. Fill the pond to the top with water and again make adjustments to the edge to correct high and low points.

Diagram 6

10. Install pump, filter and ornament. Place pump and filter near the pond's edge and in a shallow water for ease of access when cleaning or servicing. Plug filter power cord into a 120v AC outlet protected by a Ground Fault Interrupter (GFI) circuit. Operate filter continuously.

NOTE: If filter must be raised to position it near the surface, use clay rocks or an upside down plastic milk crate. Do not use concrete blocks as they can leach lime into the water.

Fish

1. Wait 2 days after filling pond and having filter run continuously before adding a few fish.

2. A week or two later a few more fish can be added if you desire. This gradual introduction of fish is necessary to allow the pond's water to acquire the proper oxygenation and bacterial colonies to support healthy animal life.