

# POND PLANNER



## Where would you put a pond in your yard?

Ponds can be wonderful additions to any landscape but should be carefully planned if your dreams are to become a reality and not a disappointment. Planning requires careful assessment of your goals for the pond, how much time you have for maintenance, and answering many other questions. With the help of this form, which will guide you through the many options, you will be well on your way to enjoying a beautiful, healthy pond. Once you've considered your options and have chosen the correct pond style that fits you best, bring this form to your local pond dealer or professional installer.

## Key Points

- Plan First
- Set Goals
- Become Educated

## Things to Consider

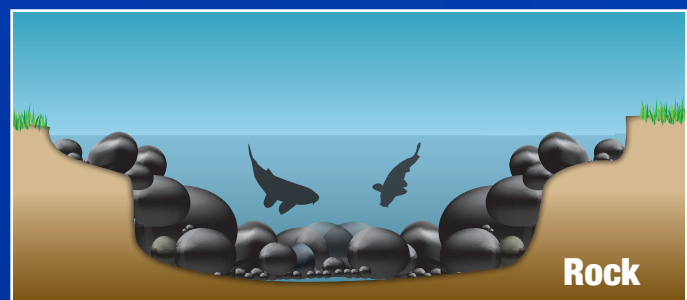
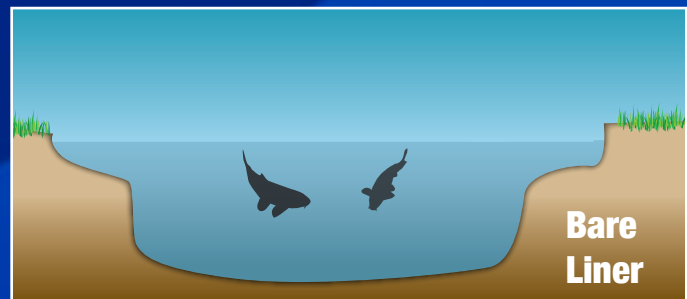
- Best Views Indoor / Outdoor
- Water / Electrical / Underground Utilities
- Deck / Patio / Bench For Enjoying My New Pond

**Water Garden & Koi Pond**  
**Elite Kits Available**



## Type of pond

Most first time pond owners will be better served with a water garden or advanced water garden design. A true Koi pond with steep sides, large external filters, and heavy-duty bottom drains can become somewhat overwhelming for beginners. Asking yourself this simple question will help you in choosing the correct style for you: Am I building this pond more to enjoy Koi or aquatic plants?

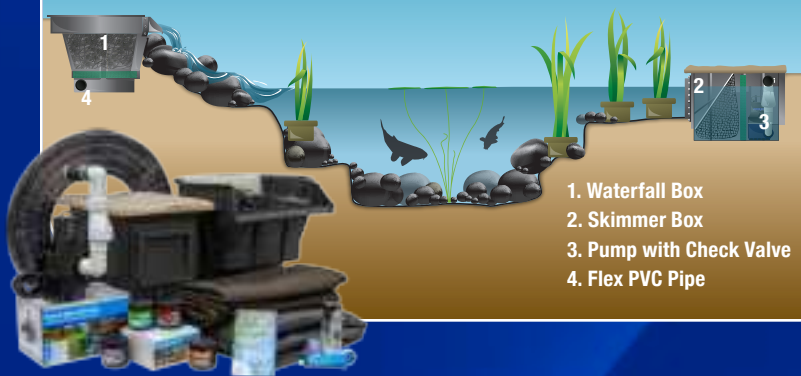


## Serenity



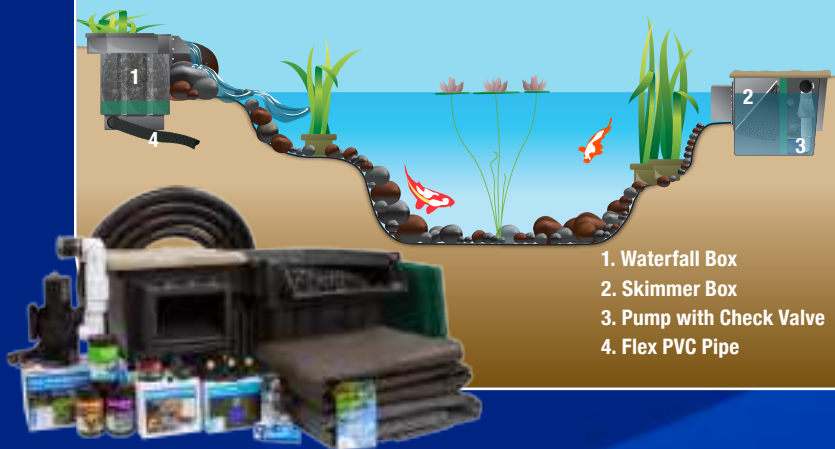
1. Waterfall Box
2. Skimmer Box
3. Pump with Check Valve
4. Flex PVC Pipe

## Crystal



1. Waterfall Box
2. Skimmer Box
3. Pump with Check Valve
4. Flex PVC Pipe

## Elite



1. Waterfall Box
2. Skimmer Box
3. Pump with Check Valve
4. Flex PVC Pipe

## Serenity Pond

### Advantages:

- » Low cost
- » No exposed filtration inside pond
- » Minimal installation time
- » Great starter pond

### Disadvantages:

- » Suitable for smaller fish
- » Waterfall filter landscape lid not included
- » Pond size limits predator protection
- » Pond size limited when rocked

For ponds up to 100 square feet or 1,000 gallons; Retail kit price: Typically \$1,000+\*

\*All typical prices exclude labor, rocks, fish, plants, & landscaping.

## Crystal Falls Pond

### Advantages:

- » Will support larger goldfish populations and a few Koi
- » Greater surface area for more design flexibility
- » More room for water plants

### Disadvantages:

- » No automatic water-fill option or overflow option in skimmer
- » Size limits growth of large Koi
- » Waterfall filter landscape lid not included

For ponds up to 180 square feet or 2,500 gallons; Retail kit price: Typically \$1,200 - \$1,500\*

\*All typical prices exclude labor, rocks, fish, plants, & landscaping.

## Elite Pond

### All Advantages of Crystal Ponds Plus:

- » Skimmer boxes are bottom drain compatible
- » Skimmer offers automatic water-fill & overflow options
- » Greater volume of water promotes better fish health
- » Deeper ponds offer more protection to fish from predators
- » Greater water volume promotes healthier pond ecosystem
- » Hiding waterfall box is quick and easy with the use of the landscape lid
- » Greater biological filtration capacity in the waterfall filter

### Disadvantages:

- » Greater initial investment
- » Longer installation time; more digging

Standard kits up to 550 square feet or 7,500 gallons; Retail kit price: Typically \$1,500 - \$3,000\*

\*All typical prices exclude labor, rocks, fish, plants, & landscaping. Larger size and volume ponds available with a custom kit using the "Elite" style. Consult your pond design expert for assistance with these projects.

# FEATURE OPTIONS



## How do I determine which products are right for my size pond?

- 1** First step is to determine the total volume of water in the pond. There are two basic formulas you can use to determine the water volume in gallons. The first is for square, rectangle, or irregularly shaped ponds. Measure the length, width, and average depth in feet. Notice you use the average depth, not the max depth. Then use those figures in this formula: **Length x Width x Average Depth x 7.48 = Gallons** in pond. For circular ponds use the following formula: Top Diameter x Bottom Diameter x Depth x 7.48.
- 2** Now that you have the total pond volume in gallons you can **select the proper pump for the project**. We recommend that you turn the overall pond volume over "at least" once per hour with the pump. Therefore, a 1,500 gallon pond should have a minimum pump flow rate of 1,500 gallons per hour. This figure can be adjusted based on how aggressive you want your waterfall to be.
- 3** Now that you know the flow rate of the pump and overall pond volume you can determine which waterfall box to use. The waterfall box serves two functions. The first is to create an easy way to build a waterfall and attach liner to it. The other is that the waterfall box acts as a biological filter which will help to keep the pond healthy and clear by processing the fish waste and removing excess nutrients in the pond which will decrease algae growth. **Match your pump size and pond volume to the appropriate waterfall box listed**. Refer to waterfall box instructions to determine appropriate amount of Bacti-Twist® needed.
- 4** The other necessary filtration function in your pond is the skimmer box. The skimmer box is a mechanical filter and will protect the pump from clogging and assist in removing debris from the pond by skimming the waters surface before the debris is allowed to sink to the ponds bottom. **Match your pump size and pond volume to the appropriate skimmer box listed**.
- 5** **Next you will determine which size liner you need.** You'll take your max length and max width and add the max depth to these measurements twice. Then add an additional two feet to each dimension for overhang. For example, a 18' x 14' x 2' deep pond would require the following: for the length 18' + 4' (twice the maximum depth) + 2' (overhang) = 24'; for the width 14' + 4' (twice the maximum depth) + 2' (overhang) = 20'. You would need a 24' x 20' pond liner to construct a 18' x 14' x 2' deep pond.
- 6** **You now need to decide how much protective underliner is needed.** Underliner will protect the pond liner from punctures from roots, rocks, etc. as well as allow gases to escape from the earth's soil. Underliner comes 12' wide so you will take the total square feet of pond liner and divide it by 12'. Using your liner size from above of 14' x 18' = 252 square feet divided by 12' = 21'. Therefore, you need a 12' x 21' piece of underliner for beneath the pond liner.
- 7** **Choosing black PVC flex hose.** PVC flex hose is available in three main diameters: 1.5", 2", and 3". Choosing the correct flex hose will be determined by the flow rate of the pump. For flow rates up to 2,500 gallons per hour 1.5" diameter flex hose can be used. Flow rates up to 6,000 gallons per hour 2" diameter flex hose should be used. For flow rates above 6,000 gallons per hour 3" diameter flex hose should be used. **Once the diameter of hose has been chosen determine the length needed to connect the pump** located within the skimmer to the waterfall box.
- 8** A check valve assembly will make it easier for you to create the appropriate discharge needed based on the height of the skimmer box. In addition, the check valve will prevent the water from back-flowing from the waterfall to the skimmer box. This is especially nice when the pump is shut off during skimmer maintenance. **The correct check valve is determined based on the diameter size of the flex hose.**
- 9** **Installation accessories & other options:** (a) Black waterfall foam seals in between rocks and cracks forcing the water over the waterfall stones rather than in and around them. Usually one to two cans is enough for small to medium sized waterfalls. Larger waterfalls may require additional cans. (b) PVC Primer & Glue will also be required to plumb the flex hose to the PVC fitting in the waterfall box. (c) Beneficial bacteria will be needed to seed the biological media/filter (waterfall box). (d) Extend the enhancement and enjoyment of your newly created water feature into the evening using halogen, LED, or IlluminFx Fiber Optic lighting. Consult your local Blue Thumb expert for recommendations.
- 10** **Bring your list of materials to your local Blue Thumb dealer for purchase.** Don't forget to purchase a copy of our "Inspirations DVD" and "Pond Build 'N Steps Installation DVD" to assist you with your project. If you require additional assistance please contact our tech service department at 888-619-3474.

## Example Equations

$$L \times W \times \text{Avg. Depth} \times \text{Gal} = \text{Volume}$$
$$10' \times 10' \times 1.5' \times 7.48 = 1,122 \text{ Gal}$$

Pump Flow  
Low - 100gph per inch  
Med - 200gph per inch  
High - 300gph per inch

$$\frac{30'' \text{ Falls} \times 200\text{gph}}{6,000 \text{ Flow Rate Desired}}$$

### 1. Pond Volume:

\_\_\_\_\_ gal.

### 2. Pump Size:

\_\_\_\_\_ gph.

### 3. Waterfall Box:

\_\_\_\_\_

### 4. Skimmer Box:

\_\_\_\_\_

### 5. Liner Size:

\_\_\_\_\_ x \_\_\_\_\_

### 6. Underliner Size:

\_\_\_\_\_ x \_\_\_\_\_

### 7. Flex Hose Size:

\_\_\_\_\_ inch. x \_\_\_\_\_ ft.

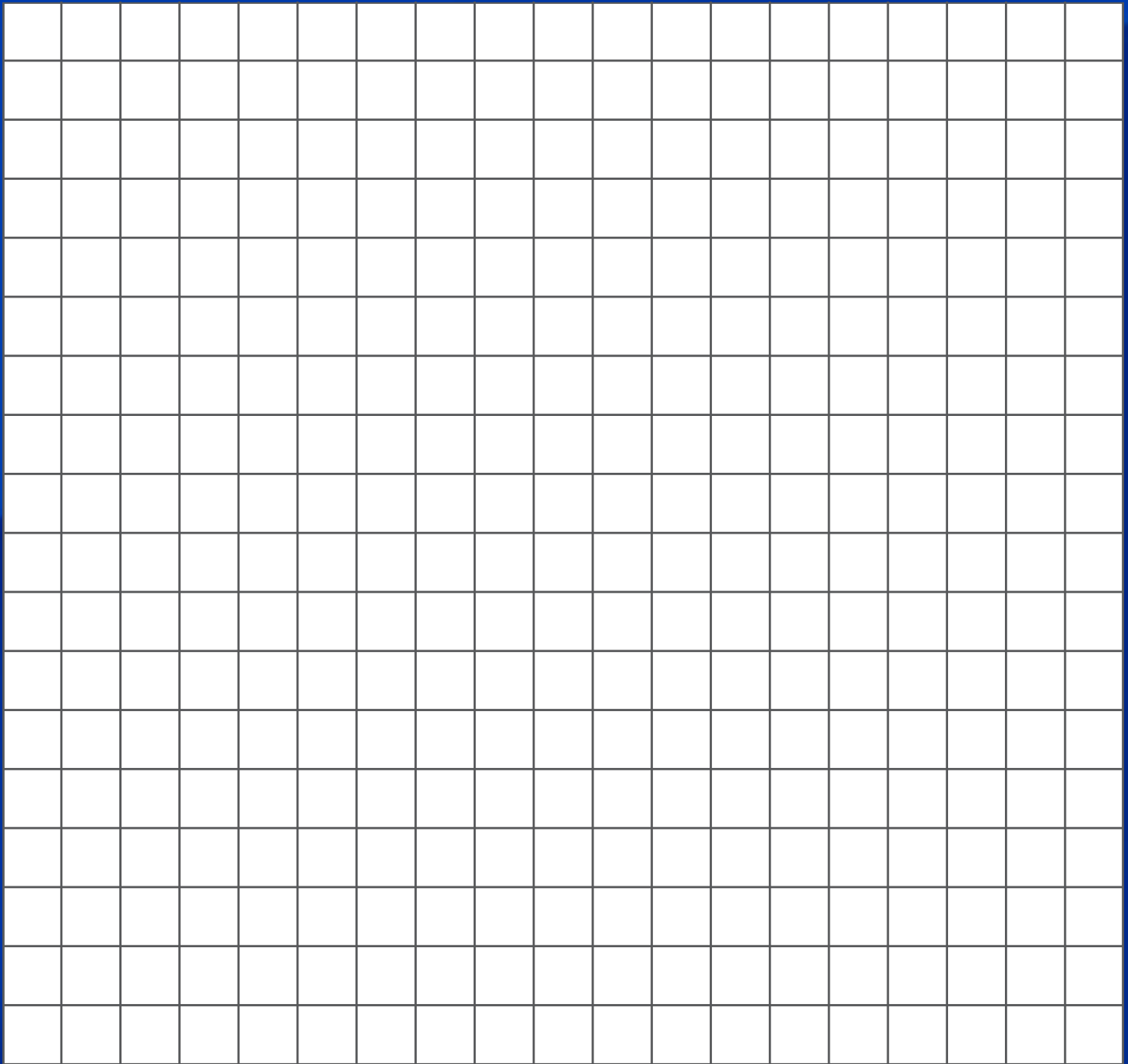
### 8. Check Valve Size:

\_\_\_\_\_

### Don't forget:

- a) Foam
- b) PVC Glue & Primer
- c) Bacti-Twist® Bio Media
- d) Lights

# POND DESIGN



**Your local Blue Thumb dealer is:**

A large white rectangular box for writing the local Blue Thumb dealer's name. It is positioned below the text "Your local Blue Thumb dealer is:" and occupies the lower left portion of the page.