Water Movement for Ponds

Doing the Calculation
Once you have the dimension for your pond and water falls, then follow these basic instructions:

To find the basic dimensions:

1. Take the length times the width times the average depth. This will equal the cubic feet.

2. Multiply the cubic feet times 7.5 which will equal the pond gallons.

Example 1: rectangular pond with 18 inches of depth and the length is 20 feet and the width is 10 feet.

18 inches is same as 1.5 feet.

1.5 x 10 x 20 = 300 cubic feet.

Then 300 x 7.5 equals 2,250 gallons.

Example 2: Same as 1 above but there are 5 biofall ponds each of which is approximately

3 feet by 4 feet and 12 inches deep.

3 x 4 x 1 foot is 12 cubic feet

12 x 5 = 60 cubic feet for all the biofall ponds.

 60 cubic feet x 7.5 equals 450 gallons.

So the total gallons would be 450 plus 2250 equals 2,700 gallons.

You will need to move at least 3,000 gallons per hour 24 hours per day.

The best choice would be to have 2 or 3 or even 5 pumps that move the water in your pond. Then you are not dependent on just one pump. You can even turn on selected pumps for certain operations including pumping water out of a deeper area to the biofalls and a different pump for the main pond. Then one pump for UV lighting to kill the bateria and algae with a sprinkler head to put oxygen back into the water. Then another pump to move water in a certain direction. Add all the pumps up and you will have over 3,000 gallons per hour. Total benefit is cleaner water, clearer water, more oxygenation in your water, and better plant life.