

## B. ALGAE CONTROL

Algae are single-celled green plants that thrive in water with a high pH that is in direct sunlight. There are three (3) basic types that are found in pool water:

1. Planktonic (floating)
2. Bottom (creates sediment)
3. Sessile (grows in the pores of pool plaster)

Although algae are not responsible for disease or infection, they should be eliminated because they decrease visibility, create odors and make for slippery surfaces. The best way to treat algae is to prevent them from germinating. This can be done as follows:

1. Maintain a good chlorine residual.
2. Maintain a good pH level.
3. Watch for unexplained rises in pH. This could mean algae are developing even before they're visible.

Should algae get a foothold in your pool, follow these steps to remove them:

1. Superchlorination -- Raise the chlorine level to 4.0 overnight, and then add water in the morning or turn off the chlorinator until the desired chlorine level is reached.
2. The next morning, brush the sides and bottom of the pool to loosen dead algae from the pores of the plaster.
3. Vacuum the bottom and sides of the pool.
4. If these steps don't work, the pool must be drained, scrubbed with muriatic acid, rinsed, and refilled.

**USE THIS STEP ONLY AS A LAST RESORT.**

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## Pool Care & Maintenance Tips



***Congratulations on becoming a new pool owner!***

Your custom-designed concrete pool from Aqua Pool, Inc. will bring you years of enjoyment. To keep your pool operating in top condition, fundamental preventive maintenance should be performed on a regular basis. These actions will enhance your aquatic environment and keep your pool running economically and efficiently.

Thank you and best wishes,

**aqua pool, inc.**

## I. FILTRATION AND FILTER OPERATION

Your filters are HIGH-RATE SAND FILTERS. Conventional sand filters are designed to trap impurities in the top three inches of sand, thus rendering the rest of the filter media virtually useless. High-Rate Sand Filters, through precise hydraulic balance, force water through the filter bed about seven times faster than conventional sand filters. Because of total depth penetration, the “dirt holding” capacity of each cubic foot of media is increased. This means that a smaller tank can be used, and that less time and water is required during the backwash process.

Under normal operation, your filter will be running at approximately 18 psi and will slowly increase as pollutants accumulate. (With a new pool, the pressure will increase more quickly due to fresh plaster, thus, more backwashing is required. Under “normal” circumstances, the pressure build-up usually takes about a week.) When pressure reaches approximately 28 psi, it is time to backwash. During the backwash cycle, water is forced into the bottom of the tank. It rinses through the supporting media, where the filter sand expands, causing a scrubbing action to take place. Dirt particles are then flushed to waste.



**THERE ARE THREE (3) MODES WHICH SHOULD BE FOLLOWED IN SEQUENCE:**

- 1. BACKWASH**
- 2. RINSE**
- 3. FILTER**

### **A. BACKWASH**

When the gauge is at approximately 28 psi:

1. Turn the pump off.
2. Place your hand on the multiport valve handle located on the front of the filter. Push the handle down and turn it clockwise to the BACKWASH setting.
3. Turn the pump back on. The filter is now backwashing.
4. Watch the sight glass or waste water until it is clear, then rinse.

### **B. RINSE**

Because the filter media has been stirred, it must be repositioned back into place.

1. Turn the pump off.
2. Push the handle down and turn it clockwise to the RINSE setting.
3. Turn the pump on again. The filter is now rinsing and repositioning the filter media.
4. Watch the sight glass or wastewater until it runs clear, and then return to FILTER.

### **C. FILTER**

1. Turn the pump off.
2. Push the handle down and turn it clockwise to FILTER.
3. Turn the pump on. The filter is now in operation. Check the gauge. It should read approximately 18 psi. Repeat the backwash process if the pressure is still near 28 psi.

## II. MAINTENANCE

### A. VACUUMING

Vacuuming should be done at least twice a week for outdoor pools and once a week for indoor pools. Additional vacuuming may be needed depending upon pool location (i.e., near trees, heavy traffic areas, etc.) A solar cover will greatly reduce the need for additional vacuuming.

1. Remove the basket from the skimmer.
2. Attach the vacuum head to the pole.
3. Attach the hose to the vacuum head.
4. Place the pole into the pool.
5. Force the vacuum head to the bottom.
6. Push the hose downward along the side of the pool, drawing water from the bottom and forcing air out. Continue this process until the hose is filled with water.
7. Hold one hand over the end of the hose and pass it through the skimmer face, then insert the hose into the skimmer face. Insert the hose into the skimmer hose.
8. Vacuum the entire bottom and sides of the pool.
9. When finished, detach and drain the hose. Store equipment for the next use.
10. Check the filter, as it may need to be backwashed.

### B. BRUSHING

For new plaster pools, brushing should be done at least once a day until the plaster dust is completely removed. This usually takes about a week. After the initial week, brush regularly after vacuuming.

1. Attach brush to pole.
2. Vigorously brush the bottom and sides of the pool, pushing the dust towards main drain.
3. Check the filter to determine if it requires backwashing.

## III. WATER TESTING

Water testing is a critical procedure. If outdated chemicals are used or improper testing is performed, pool owners run the risk of causing rapid, unnecessary deterioration of their pool. Such actions can create conditions under which algae will form, ultimately damaging pump and filter equipment.

### A. PROCEDURES

1. For cost-effective chemical dosage, test the pool water daily and record the results.
2. Follow the test kit instructions explicitly!
3. Wash hands prior to testing to eliminate faulty readings.
4. Avoid taking samples directly in front of the inlets.
5. Never take samples from surface water.
6. Cover test cells with caps; never use fingers. This will cause inaccurate readings.
7. Clean and replace test cells when finished.
8. Store the water testing kit in a clean, dry, dark place.
9. When replenishing test chemicals, use the same brand as the kit.
10. Follow the kit recommendations for chemical adjustments to the pool.



## B. WARNING SIGNS

There are some early signs to detect an imbalance in your pool water. Use the Test Kit to determine how to bring chemicals back into balance.

### Chlorine Reading from Test Kit

- **High or Superchlorination Range: 3.0 - 5.0**
- **Balanced Range: 1.0 - 3.0**
- **Low Range: 0.0 - 1.0**

### pH Readings from Test Kit

- **Low pH Range: 6.8-7.2**  
Metal corrosion; rapid loss of chlorine; skin and eye irritations; excessive chlorine odor.
- **Balanced pH Range: 7.4-7.6**  
Optimum for equipment operation and bather comfort.
- **High pH Range: 7.8-8.2**  
Ammonia-like odor; cloudy water; clogged pipes; calcium build-up on pump, impeller blades, heater coils, and within the sand filter.



## IV. COMMON WATER PROBLEMS

The purpose of this section is to provide solutions to common problems in water management. These solutions are intended to serve as guidelines and may not, in all cases, solve problems to the satisfaction of the pool owner. In very complex cases, it's suggested that the pool owner contact a professional for help.

### A. TURBID WATER

Turbid implies the presence of dirt or impurities causing cloudiness or discoloration of the water. To prevent turbidity, follow these guidelines:

1. Maintain adequate chlorine residual (above 1.0).
2. Maintain proper pH level (7.4-7.6).
3. Keep water level to midway point on skimmers.
4. For outdoor pools, keep grass and trimmings away from the pool to prevent airborne contaminants from entering the water.

#### If turbid conditions exist, follow these procedures:

1. If the chlorine is low or non-existent, the pH is high and the water is green, suspect algae.
2. If the chlorine is high, the pH is low and the water is colored, suspect metals in the solution.
3. If the water has a dirty appearance, check all filters for a clogged backwash line or a malfunctioning multiport valve.
4. If the water is clear in the morning and cloudy in the after noon or evening, check the filter. It may need to be backwashed one or twice throughout the day.

