



## FAQ FOR POOL RELATED CHALLENGES

### *A Trouble Shooting Guide*

This information is purely a GUIDE. Make sure you consult the manufacturers specifications and maintenance guidelines prior to doing any work on any pool equipment. Practice extreme caution around water. Always practice safety. Turn power off. Handle chemicals in a safe manner. Do NOT mix chemicals. Always add chemicals to water NOT water to chemicals. Wear protective gear as required. Use common sense! Contact a pool industry professional if you are unsure what to do and or how to do it.

#### **My water is green.**

1. Low sanitizer or chlorine level
2. Filter may not be running long enough
3. Water is not properly balanced (pH and Alkalinity)
4. Stabilizer level is low causing quick deterioration of chlorine
5. Inadequate or poor circulation

#### **The water is cloudy**

1. Water is not properly balanced
2. Filter is not running long enough
3. Filter is dirty, clean or backwash filter
4. Inadequate or poor circulation
5. Pump may be sucking air creating a vacuum leak
6. Not enough sanitizer

#### **My eyes are burning**

1. Chloramines have taken over your pool, not enough chlorine
2. Water is out of balance, usually pH and or Alkalinity
3. What are you dumping into your pool and how much?

#### **I have green Hair**

1. Usually a chemical problem, water balance causing heat exchanger to come apart.
2. Excessive copper in pool
3. Prolonged exposure to high concentrations of chlorine

#### **My chlorine level seems fine but I still have an Algae problem**

1. Circulation is poor, clean hair and lint pot, clean skimmer basket, clean filter
2. Water is out of balance, chlorine effectiveness is compromised by high pH
3. Stabilizer, Conditioner or Cyanuric Acid is low or even extremely high

#### **I have rust spots in the bottom of the pool**

1. Have you fertilized your yard lately?
2. Did you use Ironite around your pool?

3. If you can put a 3" chlorine tablet in your leaf rake and hold it on the stain for 3-5 minutes and the stain dissolves then it is Black algae have to be treated with high amounts of chlorine. You have to be careful doing this so you do not fade your pool liner or other surface.
4. If the tablet does not work, You will need to soak a sponge with a metal control liquid; preferably metal magic and hold it on the stain. If it dissolves it is a metal stain and you will need to dose the water with additional metal magic. Sometimes the stains can be imbedded in the pool surface and could not be removed unless the pool surface or liner is refinished.

**I keep adding chlorine and the levels on my test kit indicate NO chlorine**

### **Definition of Chlorine Demand**

High chlorine demand is the inability to keep adequate chlorine in pool water, even though the water is balanced and properly maintained. Various contaminants increase oxidation levels, consuming chlorine faster than it can be replaced by automatic feeders or normal shocking. Symptoms can include slimy or slick pool walls and cloudy water, although water can be clear and still have a high chlorine demand. A sudden drop in cyanuric acid can be an indicator that there is a chlorine demand problem, as the CYA reading is often masked by the demand. If this occurs, do not add stabilizer.

Another form of chlorine demand is a high level of combined chlorine that cannot be broken by successive shock applications. Often this is caused by the presence of ammonia in the water. This can come from fertilizers, pesticides, and even fill water.

Especially common during spring start-up. For outdoor pools subject to many environmental factors, it may not be possible or feasible to isolate the exact cause. However, this is less important than addressing the problem immediately.

NOTE: A zero chlorine reading does not necessarily indicate that there is no chlorine in the pool. The chlorine level may be so high that it is bleaching the color out of the reagent.

### **Common Causes of Chlorine Demand**

#### **Chlorine resistant algae, fungus or bacteria**

An infestation can exhaust normal chlorine levels and require a specially formulated algaecide to solve the problem. Often, the growth is not visible on the pool surface itself. Pink slime and water mold are notorious for growing first inside lines, skimmers, and behind light niches before becoming visible. Growth in these areas can deplete chlorine steadily.

#### **Nitrogen contamination**

Lawn fertilizers and other nitrogen products in pool water produce a high level of chloramines, which require larger amounts of chlorine for oxidation.

#### **Source water**

Lake water, which is usually contaminated with algae, metals, and other debris, should not be used to fill pools. Well water may have some of the same problems. Even a local municipal water supply can create high chlorine demand, especially if it contains

chloramines. In these cases, every time fill water is added to the pool, chloramine and nitrogen levels rise, requiring more chlorine. Shocking after fill water addition helps prevent excessive chloramine levels in this situation, as does avoiding the addition of large amounts of fill water at a time.

### **Rain and Pollution**

Contaminants from factories, highways, airports, and other sources may be deposited in pool water, especially during rainfalls. Clouds sometimes transport pollution over long distances. Rain and wind also carry algae spores, leaves and other debris which raise chlorine demand. During the winter, stagnant water in uncovered pools exposed to air, rain and snow often develop chlorine demand problems.

### **High bather loads**

A large crowd using the pool over a few days can boost bacteria and oxidizable compounds in the water to unusually high levels. Requiring all swimmers to shower before swimming can help prevent this. Since this isn't going to be likely most of the time, shock immediately following parties or other occasions where many people have enjoyed the pool.

### **Eliminating Chlorine Demand**

In some cases, this may be quite high. It may be a more feasible option to perform a partial drain and refill with fresh water to reduce the demand. (Check environmental factors such as water tables etc. before proceeding with a drain. Consult the pool manufacturer or builder before draining significant amounts of water from the pool.)

Shock the pool with 3 lb. of Shock per 10,000 gallons or 3 lb. of Non-Chlorine Shock per 6,000 gallons all at one time.

1. Circulate the water continuously. Three hours after adding Shock, test the water for chlorine. If it is not greater than 3 ppm, repeat step one.
2. Continue shocking and retesting every three to four hours until you can maintain a 3 ppm free chlorine reading for 24 hours.

NOTE: If continued efforts are unsuccessful you may have to do a partial drain and refill with fresh water to help with the Chlorine demand problem.

### **Prevention of Chlorine Demand**

The best way to prevent chlorine demand is to be consistent with sanitizing, regular shocking, and the application of an algae preventative are the best weapons against any kind of problem..

To minimize the risk of chlorine demand from outside contaminants, shock the pool after periods of heavy use and avoid getting chemicals in the pool, such as lawn sprays, fertilizers, pesticides and other pollutants.

An Ozone system would help oxidize wastes in pool water and help eliminate future chlorine demand issues

### **I have a scum line around my pool water line**

1. This is caused by over saturated water. The water is out of balance
2. Hardness is high
3. Hardness, calcium deposits, mineral deposits are somewhat synonymous
4. Balance the water
5. Brush, wipe down or clean the tile line regularly. Maintain water chemistry balance
6. Alkalinity and pH need adjusting
7. Pool may need to be drained and filled (over saturated water/high calcium and mineral content/high TDS) Consult a professional for this

### **There are lots of bugs in my pool**

1. You need to have your property sprayed for insects, especially your lawn
2. Monsoon storms and the time of year can effect this phenomenon

### **My pump will not come on**

1. Check the main breaker panel, it may have tripped
2. The time clock is off
3. No power at the time clock
4. Pump may be burned up
5. The bearings may be seized

### **The pump does not seem to fill with water, will not prime**

1. The impeller may be clogged
2. Check skimmer basket for debris
3. Check hair and lint pot for debris
4. Are any drains blocked or plugged?
5. Potential air leaking in on suction side
6. Close this valve until pump primes, then just barely crack it back open

### **Pump sounds noisy**

1. Pump is sucking in air causing cavitation
2. Check skimmer basket
3. Check hair and lint pot (Pump basket)
4. Pump is not getting enough water to prime and run smoothly, this is a circulation issue
5. Pump is too big
6. Piping is too small

### **Pool does not appear crystal clear**

1. No Sanitizer
2. Low sanitizer
3. Water out of balance
4. Alkalinity and or pH too high or low
5. You are not running the pump long enough
6. Run pump for 1 hour for every 10 degrees of temperature, or for as long or as little it takes to keep the pool looking clean and free of debris
7. Filter dirty, clean or backwash the filter

8. Check skimmer basket
9. Check hair and lint pot (pump basket)
10. TDS is high (Total Dissolved Solids) May need to drain and fill pool, consult a professional for this

#### **The gauge on the filter appears high**

1. The filter is dirty, clean or backwash the filter, this should generally be accomplished when the filter pressure is 10 psi higher than right after cleaning or backwashing
2. There is a restriction in the circulation system
3. If you have an in-floor cleaning system the valve or valve strainer may be loaded up with debris
4. Clean the skimmer basket
5. Clean the hair and lint pot (Pump basket)
6. A valve may be turned in the wrong direction
7. The gauge may be bad – if it does not register back to zero when the pump is off, replace the gauge

#### **The filter pressure is low**

1. There is a restriction in the circulation system
2. Check the skimmer basket
3. Check the hair and lint pot (pump basket)
4. The pump may be sucking air
5. The impeller may be clogged or blocked

#### **The pool cleaner is not working**

1. The cleaner is malfunctioning, it is a mechanical item and may need to be serviced or rebuilt
2. There is a circulation issue
3. Check the hair and lint pot (pump basket)
4. The filter is dirty, creating a flow problem, clean the filter
5. The pump is not priming and running normally, make sure the pump is on
6. A valve is turned in the wrong direction

#### **Pool is cloudy after vacuuming**

1. Debris is channeling through the sand bed in a sand filter. Pump is too big
2. Old sand needs replaced
3. Internal damage within the filter
4. May be too much debris for the filter – vacuum to waste

#### **The water level in the pool is high**

1. Water leveler needs adjusting or is stuck open
2. Rain and or storm water has filled pool

#### **The water level in the pool is going down**

1. There may be a leak in the plumbing
2. The pool shell may be leaking

3. A light niche is leaking or any other opening
4. Evaporation accounts for about ¼ - 1/2" per day or about 8' per year
5. Do a bucket test, take a 5-gallon bucket and place on top step, make sure the water level in the bucket and the water level in the pool are the same. Mark with a pen. Turn off the auto-fill if applicable. Check after 24-48 hrs. If the pool is leaking than the level of the pool will be less than the level in the bucket. Call a professional.
6. With Colored dye – found at a Professional pool store -you can check for leaks around the skimmer throat, light niches and other openings. The dye will get sucked into the static leak. Caulk around openings with silicon or call a professional.

### **DE goes back into the pool after backwashing when I add more DE to recharge my DE grids**

1. One or more of the DE grids are damaged or torn, internal problem
2. After repairs are made add DE as a slurry mix in a 5-gallon bucket of water, add slowly to the skimmer with the pump running

### **How much DE do I add to a DE Filter?**

1. 36 SQFT DE Filter add - about 3.5 lbs
2. 48 SQFT DE Filter add - about 5 lbs
3. 60 SQFT DE Filter add - about 6 lbs
4. 72 SQFT DE Filter add - about 7 lbs
5. Do NOT add too much. The inside of the DE filter will foul and you will have a circulation issue creating other problems
6. Do not backwash more than is necessary to keep the pool looking good
7. Clean the entire DE filter and all the grids once per year you will love this! Inspect the grids when you clean them for holes and tears. Consult your manufacturers instructions on how to do this.

### **What kind of Sand typically goes in a Sand Filter, How often should it be replaced?**

1. # 20 silica sand and sometimes a layer of pea gravel
2. Sand generally should be replaced about every 3- 5 years
3. Consult manufacturers guidelines
4. Not usually a job for homeowners
5. Check laterals and internal parts for wear and damage

### **There is water around the pool equipment**

1. Plumbing may be leaking
2. Pump seals may be worn
3. Other equipment or valves may be leaking
4. Check irrigation system, yours and your neighbors
5. Check yard drainage. Has there been a storm recently?
6. If you have a heat pump this may be condensation created from heating the pool water. This is which is normal .

### **Pool light will not work or is malfunctioning**

1. Bulb is burned out
2. GFCI is tripped
3. The switch to the light is bad

4. No power, breaker may be tripped
5. There is a short somewhere
6. Water has filled up inside the light the light is toast!

#### **My Salt water system is NOT working**

1. Check for power
2. Is the unit and all connections plugged in
3. Is the cell clean? Clean cell if it is calcified
4. Is there a flow problem?
5. Clean Filter
6. Clean hair and lint pot (pump basket)
7. Clean skimmer basket
8. Is your water balanced
9. Is there too much or not enough salt in the pool, consult the manufacturers specifications
10. If it is a flow issue are all the valves turned in the correct position
11. Check stabilizer levels

#### **MY salt system does not APPEAR to be making chlorine**

1. Are you sure? If the output is too high, then high chlorine levels can bleach out test kits and strips
2. Is the cell free of scale and mineral deposits?
3. Does the unit have power?
4. Is the pump on?
5. Is there flow through the cell?
6. Check to see if there is a chlorine at the return line – if yes then check the stabilizer levels

#### **How do I clean the salt cell?**

1. Consult the manufacturers instruction manual for cell cleaning
2. Use a bucket and a predetermined amount of water and muriatic acid to immerse the unit in. It only takes a few minutes to clean.
3. Before trying this yourself make sure you understand what you are doing and that you follow all safety and handling precautions.

#### **My Heater will not fire up**

1. Gas pressure may be low in lines or tanks
2. Internal failure, limit switch, flow switch etc...
3. Flow problem, check skimmer basket, hair and lint pot (pump basket)
4. Line may be blocked
5. Are valves adjusted correctly
6. The bypass may need adjustment
7. Do you have power?

#### **Heater keeps cycling on and off**

1. Low water flow
2. Valves not adjusted properly
3. Bypass may need adjustment
4. Internal problem

5. Gas pressure may be low

***Pools are relatively easy to maintain! The common thread here is threefold; circulation, sanitation and periodic care are integral. If your pool was installed properly a min. of 30 minutes per week is needed for regular maintenance***

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