



American Pool Inspection LLC

SWIMMING POOL CARE

AmericanPoolInspection.biz • 623-606-2024
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AMERICAN POOL INSPECTION LLC.

Pools, they are wonderful to have. Whether you're a homeowner with a pool or considering purchasing a home with one—your desire is for low-maintenance, problem free and a balanced pool. But keeping a pool properly maintained is tricky. In fact, a pool which is clean and clear doesn't mean there isn't hundreds of dollars of repairs needed. The only way to know for sure is to have a Certified Pool Inspection. By having your pool inspected, you will have the peace of mind of knowing the exact condition of the pool saving you hundreds, or thousands of dollars in future maintenance. At American Pool Inspection, our 75-point checklist and report, will give you the details you need for balancing, fixing, and maintaining your pool properly.



Tom E. Krause CPO, CPI Certified Pool Inspector

Tom has worked in the Pool industry for over ten years, after seeing customers spending hundreds of dollars because they had a poor pool inspection he decided to investigate why. What he found was most pool inspections are not thorough and lack organizational know how. He then sat down and put a concentrated and intensive check out list followed by a Professional Inspection Report. The report goes over all parts of the swimming pool and address's why each point is important. This report is excellent for new pool owners because it explains simply, in laymen terms each item in the report. It also goes over all the Safety issue of a pool, which most pool inspections miss completely. The American Pool Inspection is also a great reference tool to new and old pool owners.

No one likes surprises, and no one should buy a home with a pool and then have to spend hundreds of dollars fixing the pool to swim in.

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SWIMMING POOL CARE

The first thing in pool care is to
have the proper equipment

A: Pool Pole (telescoping type)

B: Pool Net (not a flat net but a deep net type)

C: Pool Brush

D. Taylor Chemical Testing Kit

E. Rubber mallet

F. Screw driver (multi set)



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SET UP YOUR ROUTINE

- (1) Set up a schedule for doing pool maintenance. One day a week set up a time that will be convenient to you. Once you have this down make a log or journal and make sure you record the chemical reading each time you take one. **NOW STICK TO THIS PLAN** (keep this log in your kitchen where it easy to find and to keep dry)**
- (2) Check to see if the pump & motor is working & priming. A pump that is not priming can cause the motor to seize up and quit. A new motor & pump can be expensive.**
- (3) Clean out the pump basket The pump basket will get debris in it and has to be emptied weekly. Not emptying this basket can cause the pump to Over-heat melting the basket and causing motor failure.**
- (4) Check to make sure the timer is set to the correct time for on and off. This is one sure way of saving energy. If the timer is incorrect, you may be running the pump & motor too long which costs you extra money.**
- (5) Clean out the Skimmer basket The skimmer basket is the easiest to clean. By keeping this Basket clean it helps with the pool water circulation.**
- (6) Check to make sure the water in the pool is at the right level. The best way to notice if you have a pool leak is by observing the water level every day. There will be a certain amount of water evaporation, so it is important that the water stays at the correct level. If the water goes down below the skimmer basket this can cause the pool pump to suck dry air and heat up which will cause motor failure.**

- (7) Check the chemical balance in the pool, (this is where you use the Taylor Kit) this will prevent the pool from turning green and keep the pool ready for swimming.

- (8) If vacuuming is needed, now is the time to vacuum the pool.

- (9) Start brushing the pool walls.
Start brushing from the shallow end of the pool, brush the walls down to the floor and then the floor towards the deep end drain. Then keep going around the pool doing the walls to the floor towards the drain. If the pool has a Automatic pool cleaner, You still have to brush the pool. The only thing the pool cleaners does is pick up debris it cannot address the algae spores and dirt on the walls and floor.

- (10) If you added chemical to the pool water, then you must run the pool for ***four*** hours. If you are adding liquid chlorine to the pool pour it near the skimmer so it gets circulated. If you are adding acid, you will want to add the acid as far from the skimmer as possible, preferably on the opposite side of the pool. **Never** combine Acid and chlorine because this will form a **poisonous gas**, so, make sure you store acid in the garage and chlorine in the shed, always store away from each other and away from children and pets. Remember when adding chemical, add a little at a time until you get the desired results. Once you add the chemicals it's too late to take them back. Chemicals should be kept out of the sun light and in a safe covered place away from children and pets. *Remember you add chemical to water never water to chemicals.*

- (11) Make sure you write down how much of the chemicals you use in your log book.

CHEMICAL LEVELS

WATER HARDNESS 200 TO 400 PPM

The measure of all the dissolved minerals such as calcium, magnesium and sodium are known as Total Hardness. High or Low levels of calcium hardness can result in issues. So, the recommended level of calcium hardness is 200 to 400 ppm. High calcium hardness results in scaling formation on the pool surface as well as scaling in pipes, plumbing and in the filter. Draining of water is recommended when the hardness gets beyond 400ppm.

FREE CHLORINE 0.2 TO 0.4 PPM

Free chlorine is the chlorine in the water that is available for disinfection. The common practice in pools is to maintain the free chlorine at 2.0 to 4.0 ppm, FC can be consumed one of two ways, by breaking down organic matter like algae, or it can burn off from the sun. For that reason, it is important to understand that you need to continuously replenish the FC level in your pool. A small note: when you smell a “Chlorine smell” it’s the Hypochlorous acid that broke apart, attacked the bad stuff, but has nothing to regenerate and attach itself to. This gives off the smell which makes one think the level is too high when it’s actually too low. The best remedy is to shock the pool to raise the chlorine level and to get rid of the bad stuff.

PH 7.2 TO 7.6 PPM

pH stands for “power of hydrogen” Every substance has a pH. Water, juice, dirt, leaves, salt, food, shampoo. All these items have a certain amount of acid in them. The amount of acid in a substance is measured by the pH. In swimming pools, a certain pH range is required to ensure proper efficiency of other chemicals, as well as the comfort to those using the pool. Proper care must be taken to ensure that the pH of the pool does not reach a level which could be harmful to swimmers, or which could damage equipment or the pool itself.

ALKALINITY 80 TO 120 PPM

Total alkalinity (TA) is a measure of how much of the alkaline substance there are in the water. In the swimming pool water, we are concerned with bicarbonate alkalinity, which should be between 80 ppm and 120 ppm. When the total alkalinity (TA) is within this range, it prevents rapid Ph changes and “stabilized” the Ph Level. If the TA is too low, Marbelite and plaster walls will become etched, metal corrode, the pool’s walls and floor can stain, the water can turn green, eyes burn and we can have Ph Bounce. (Ph rapidly going up and down, seemingly at random). If the TA is too high, the Ph is difficult to adjust, the water becomes cloudy, the pool constantly needs acid (according to your test kit) and the chlorine loses its efficiency as a disinfectant. Think of Alkalinity as the father and Ph as the son. Alkalinity (father) keeps the Ph (son) out of trouble. When taking chemical reading you always adjust the alkalinity because the pH will follow. If TA is too high you use muriatic acid to lower if the TA is low you use Sodium bicarbonate. Which will raise the TA without effecting the pH very much.

CYANURIC ACID LEVEL 30 TO 100 PPM

Cyanuric acid simply extends the life of chlorine in water, shielding it from the ultraviolet rays of the sun. When Cyanuric acid levels get beyond the 100ppm level, it no longer helps or extends the life of chlorine. Cyanuric acid itself does not decompose or burnout in pool water. The only way to correct this is to remove it through water replacement.

TOTAL DISSOLVED SOLIDS TDS 0 TO 2000 PPM

TDS are a measurement of everything that has gone into the water and remained. (not filtered out) The total of minerals, cyanurates, chlorides, suntan oil, dirt etc. Equals TDS. The main contributor to TDS is evaporation. When water reaches 2000 to 2,500ppm it is time to drain and fill the pool with new water unless the pool is a Salt pool then the number is 3,500 to 4,000 psi. This usually happens every 5 years or so.

PHOSPHATE LEVEL 0 TO 1000 PPM

Phosphates are a complex problem that can be summarized by saying that phosphates act as a food supply for algae allowing advance growth of algae in the water. This would make it difficult, and sometimes impossible, to maintain water clarity regardless of other chemical levels. Phosphates can also cause algae growth even when there is free chlorine available in the water to prevent this from happening. At 200ppm phosphates begin to have a noticeable impact on water quality. At 1000ppm or more the ability to control algae in the water is almost gone completely and corrective action must be taken to control the phosphate levels in the water.

**IF YOU PURCHASE A POOL WITH
A POOR INSPECTION, YOU HAVE
JUST BOUGHT IT, AS IS. A
CERTIFIED POOL INSPECTION IS
THE ASSURANCE YOU NEED IN
KNOWING THE REAL STATUS OF
THE POOL BEFORE YOU BUY.**



AMERICAN POOL INSPECTION LLC.

*THE ULTIMATE GUIDE TO POOL MAINTENANCE (3RD ED) BY TERRY TAMMINEN

*THE BOOK OF EFFECTIVE WATER TREATMENT BY SEA KLEAR "TROUBLEFREEPOOL.COM

*SWIMMING POOL WATER CHEMISTRY BY ADVANTIS TECHNOLOGIES *WWW.SWIMMINGPOOL.COM

*POOL & SPA OPERATOR HANDBOOK BY THE NATIONAL SWIMMING POOL FOUNDATION

*POOL CARE GUIDE FROM PADDOCK POOL & SPA

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MAINTENANCE SCHEDULE FOR POOLS

	DAILY	WEEK	MONTH	YEAR
Check water level	X			
Turn pump on for prime		X		
Look for leaks in plumbing & Equipment		X		
Check timer clock for setting		X		
Check filter Pressure		X		
Clean out pump strainer basket		X		
Clean out skimmer basket		X		
Skim surface of pool	X			
Check Chlorine and pH		X		
Check water hardness, TDS, & Total Alkalinity			X	
Check Conditioner (Cyanuric Acid) every 6 Mo.				2X
Vacuum Pool with or without auto cleaner if needed		X		
Brush pool walls and bottom (no exceptions)		X		
Clean water line		X		
Teardown and clean filters (every 6 Mo)				2X
Sand filters Backwash when pressure get over 10ppm from Norm)			X	

Algae won't grow in a pool that is properly cleaned, sanitized and circulating

API- Chlorine vs Salt Pool Readings

BASIC WATER CHEMISTRY VALUES

04-15-18

CHLORINE POOLS

SALT POOLS

CHLORINE (BROMINE) LEVELS

1 to 3 ppm (2-5 ppm)

1.0 to 5.0 ppm

TOTAL ALKALINITY LEVELS

75 to 125 ppm

50 to 120 ppm

pH LEVELS

7.2 TP 7.8 ppm (7.4 Ideal)

7.5 to 7.6 ppm

**Adding Salt will raise the pH
Level in the pool**

CYANURIC ACID LEVELS

30 to 100 ppm HIGH

50 to 80 ppm (not over 80)

**This is important, the biggest
Mistake is not having enough CYA**

CALCIUM HARDNESS LEVEL

200 to 400 ppm

250 to 350 ppm

**High CH will accelerate scale
Build-up on salt cell**

TDS-3000 TO 6000ppm

PHOSPHATE LEVEL

AT 200 ppm phosphates begin to have a noticeable impact on water quality,
at 500 ppm the ability to control algae in the water is almost gone completely.

0 ppm

0 to 200 ppm

Salt Reading

2500 to 4000 (Ideal 3400 ppm)

Low salt below 2600 ppm unit will turn off salt cell

High salt level above 4500ppm will cause corrosion

Cyanuric Acid and Calcium Hardness should be checked every 6 Months

SALT CELL SHOULD BE LOOKED AT EVRY 3 MONTHS

* poolcenter.com *troublefreepool.com

ABC-21 WATER SAFETY

*Paddock pool care guide

Last year over 300 children 5 years old and younger drowned in a home swimming pool. These are preventable deaths.

As more swimming pools are built and more people enjoy them, the incidence of drowning and near-drowning will continue to increase. Only knowing the proper and safe use of the swimming pool can these tragedies be avoided. Primarily, be aware that Arizona state law requires that the swimming pool be inaccessible to children under six years old without the assistance of an adult. This means that there should be a self-locking barrier between the pool and the house. This includes, but is not limited to, a fence with self-locking gate. A self-locking door if the pool is adjacent to the house with no fence in between and automatic safety cover which is secured on all sides of the pool and can support the weight of several adults. Remember that no matter how many barriers exist around the pool area THERE IS NO SUBSTITUTE FOR CONSTANT DIRECT ADULT SUPERVISION. It only takes a few seconds for a child to fall into the swimming pool and drown. Also, this is not limited to children. Anyone who is not able to swim is in danger of drowning if he or she falls into the pool. Under no circumstances should anyone not able to swim be allowed in the pool area unsupervised.

The American Red Cross conducts water rescue and CPR classes available to the public. Everyone is encouraged to enroll in these classes to become familiar with vital rescue and CPR procedures in the event someone were to fall into the pool. Contact your local American Red Cross office for more information on water rescue and CPR classes in your area.

A number of safety devices and tools are available to make the pool area safe and enjoyable. They include signs for pool safety and rules, life rings to throw to a person in trouble, "Shepherd's hooks" to use to extract an incapacitated person from the water, buoys, and ropes to divide the shallow end from the deep end of a swimming pool, and alarms which emit a loud noise in the event someone were to fall into the pool. For more details on these and more safety devices, contact your neighborhood swimming pool supply store.

(Pg-1) ABC-1a

