okeanospoolsgta.com | (647) 234-7694 | joe@okeanosontario.com

Pool Water Chemistry & Care

Your Complete Guide to Maintaining Crystal-Clear Water

🚫 STRICTLY FORBIDDEN: Any product containing copper sulfate or iron sulfate — using these products VOIDS YOUR WARRANTY.

⚠ Use Okeanos-recommended values — not values from water-testing stores, which may differ from fiberglass pool requirements.

How Your Pool Circulation Works

Your pump pulls water through the skimmer, passes it through the sand filter, then through the salt chlorinator and heater (if installed), and returns it to the pool through the return jets.

The Flow Path

Step	Component	What It Does
1	Skimmer	Draws water from pool surface, catches large debris in basket
2	Pump	Powers the entire circulation system
3	Sand Filter	Removes fine particles and debris from water
4	Salt System	Converts dissolved salt into chlorine (sanitizer)
5	Heater	Warms the water (gas or heat pump)
6	Return Jets	Pushes clean, treated water back into the pool

The bottom drain is NOT a traditional drain — it's a safety device. It only activates if the skimmer opening is obstructed, preventing the pump from overheating.

Filtration Runtime

- Run the pump at least 12 hours/day during swim season
- Run 24 hours/day during heat waves, storms, or heavy pool use
- In fall, run 24 hours/day — do NOT switch off before winterizing

Valve Operation

⚠ ALWAYS turn off the pump before opening or closing any valve. Never operate valves while the pump is running.

- Handle aligned with pipe = OPEN
- Handle perpendicular to pipe = CLOSED

okeanospoolsgta.com | (647) 234-7694 | joe@okeanosontario.com

Heater Bypass Valves

Your filtration includes a bypass valve between the filter and heater. This is how to set them:

Situation	BYPASS Valve	IN Valve	OUT Valve
Normal operation (heating)	CLOSED	OPEN	OPEN
No heater / diverting flow	OPEN	CLOSED	CLOSED
Adding chemicals (see below)	See bypass rules	See bypass rules	See bypass rules

⚠ **If the bypass is left open while IN/OUT are also open, water will bypass the heater — it won't heat properly.**

Gas Heater Bypass — When Adding Chemicals

You MUST bypass your gas water heater when adding certain products:

Situation	Bypass Duration
Treating against metals	At least 48 hours
Treating stains	At least 4 hours
Reducing pH	At least 4 hours

Closing the IN and OUT valves WITHOUT opening the bypass first will result in LOSS OF WARRANTY on the water heater.

Essential Water Values

These are the values specific to Okeanos fiberglass pools. Follow these — not generic pool store recommendations.

Value	Target Range	What Happens If Wrong	How to Adjust
pH	6.8–7.2 (7.2–7.4 with gas heater)	Water color change, chlorine ineffective, eye/skin irritation, equipment damage, scale/algae	Raise: add pH+ | Lower: add pH−
Chlorine	0.8–2 PPM	Bacteria, algae, fungi growth; odour	Add chlorine or adjust salt system output
Salt	Minimum 3,200 PPM	Salt system can't produce chlorine	Add pool salt, run filtration 10+ hours
Phosphates	0	Promotes algae, reduces chlorine effectiveness	Use phosphate remover (Phos Zéro Atlantis)
Stabilizer (CYA)	30–50 PPM	Too low: chlorine evaporates fast. >120 PPM: chlorine becomes inactive, water turns green	Raise: add stabilizer | Lower: dilute with fresh water
Metals	0	Stains on pool surface and walls, discoloured water	Use metal sequestrant (Metal Control Atlantis)
Alkalinity	60–80 PPM	pH instability, corrosion or scaling	Raise: Alka+ or pH+ | Lower: pH− or anti-scale
Calcium	150–200 PPM	High: cloudy water, stains. Low: corrosion,	Raise: add calcium | Lower: dilute

Hardness		equipment damage	

Recommended Products

These are the products Okeanos recommends for fiberglass pools:

Product	Brand	Purpose
Phos Zéro	Atlantis	Anti-phosphate — eliminates phosphates
Ultimate Shock 70%	Atlantis	Shock treatment — 65–75% calcium hypochlorite
Destructeur Algaecide 40%	Atlantis	Algae prevention and treatment
pH−	Atlantis	Lowers pH
Metal Control	Atlantis	Metal sequestrant — prevents staining
Stain Away	Onyx Quantum	Removes existing stains

DO NOT USE products containing copper sulfate or iron sulfate — WARRANTY VOID.

⚠ **Phosphate-based products are strongly discouraged.**

Salt Chlorination System

Your pool uses a salt chlorinator to generate chlorine automatically. Here's what you need to know:

Requirements for Salt System to Work

- Water temperature must be above 15°C (60°F)
- Salt concentration approximately 3,200 PPM (check your specific model)
- Clean cell — no hard water buildup
- Good water flow through the system

Salt System Tips

- Salt level is shown on the display — verify periodically with test strips
- Salt does NOT evaporate — if the pool had salt last year, some remains
- If too low: add ½ bag of salt, circulate 4–6 hours, recheck
- If too high: drain some water and refill with fresh (always adjust UP, never DOWN)

Salt System Models (Care by Type)

Your system is one of these — refer to the label on your equipment:

System	Cell Removal	Key Notes
Salt & Swim	Unscrew ring, undo electrical connector, remove	Turn case upside down to drain; grease

	cell from case	connector plug
Aqua Rite	Unplug cell from computer, unscrew from piping	Standard Hayward system
MC50MINI / MC85MINI / MC50JUST	Disconnect power + connectors, remove case + flow sensor	Newer compact Hayward models
iChlor 15	Unplug from computer, unscrew from piping	Standard Hayward iChlor

Clean the cell with salt cell cleaner at opening each spring and as needed during the season.

Dewatering Well & Archimedes' Thrust

This is the most important safety concept for your pool. Understanding it protects your investment and your warranty.

What Is Archimedes' Thrust?

Archimedes' principle says that any airtight, air-filled object immersed in liquid experiences upward pressure. Your pool shell is essentially a giant, sealed container. If the groundwater level outside the pool rises above the water level inside, the pool can LIFT out of the ground and the walls can curve inward.

□ A pool will NEVER lift if: (1) its water level is at maximum, AND (2) the groundwater level is lower. It's physically impossible. Keep these two conditions met at all times.

Your Dewatering Well

During installation, a perforated drainpipe was placed near your pool, extending to the depth of the pool. This is your dewatering well.

- Its function: lets you see and control the groundwater level around your pool
- The water level in the well must ALWAYS be lower than the water in your pool
- Specifically: at least 24 inches (60 cm) below the pool water level
- The well MUST remain accessible at all times — do not cover it permanently with landscaping
- Your landscaper should cut it to grade and cover with a removable lid

⚠ A buried or inaccessible dewatering well VOIDS YOUR WARRANTY.

Sump Pump — Required

We strongly recommend installing an automatic sump pump with a float in your dewatering well:

- Use a model with a VERTICAL float switch only
- Other float types may get stuck on the well wall and fail to trigger
- The pump will automatically evacuate excess groundwater
- Without a pump, you must manually check and empty the well regularly

Critical Rules to Prevent Pool Lifting

1. Fill the pool as soon as possible after installation — begin immediately
2. ALWAYS keep the water level above the middle of the skimmer opening
3. Check the dewatering well regularly — water must be 24"+ below pool level
4. NEVER empty or lower the pool if there's water in the well
5. NEVER lower the water level during heavy rain or spring thaw — let it overflow
6. Place sump pump in the well as soon as ice melts each spring

Weekly Maintenance Checklist

Every Week

1. Test chlorine and pH levels with test kit or strips
2. Adjust pH to 6.8–7.2 (7.2–7.4 with gas heater)
3. Adjust chlorine to 0.8–2 PPM
4. Empty skimmer basket and pump basket
5. Brush pool walls and floor
6. Angle return jets to create surface movement along the waterline (prevents staining)
7. Vacuum pool as needed
8. Check salt system display for salt level
9. Check dewatering well water level

Monthly

- Take a water sample to a professional pool store for a full analysis
- They test for metals, phosphates, calcium hardness, alkalinity, CYA, etc.
- The pool store will have your pool volume on file and provide exact chemical dosages
- Keep records of all water tests — required for warranty claims

How to Lower Water Level Safely

Sometimes you need to lower the water — for backwash, vacuuming in WASTE mode, or reducing high salt/stabilizer levels. Follow this procedure:

1. CHECK THE DEWATERING WELL FIRST — is it empty or low?
2. If well water is high, pump it out first with the sump pump
3. Lower pool water using WASTE mode on the filter or backwash + rinse
4. Drain water AWAY from the pool — to the street, never into the yard near the pool
5. Monitor the well level while draining — stop if the well level rises
6. Refill with fresh water after adjustment
7. Re-test and adjust chemical levels

⚠ **Draining water near the pool increases groundwater level and risks pool lifting.**

Common Issues

Problem	Likely Cause	Solution
Green water	Algae — often from over-stabilization (CYA >120)	Shock treatment (calcium hypochlorite 65–75%), add algaecide, run pump 24/7 until clear
Cloudy water	Poor filtration, high calcium, or pH imbalance	Backwash filter, test pH and calcium, run pump longer
Stains on surface	Metals (iron/copper) or organic (leaves/tannin)	Metal sequestrant + stain remover. Never let leaves sit on surface.
Eye/skin irritation	pH too high or too low	Adjust pH to 6.8–7.2
Chlorine odour	Not enough chlorine (paradoxically)	Shock treat — the smell is chloramines, not free chlorine
Salt system not producing	Water too cold (<15°C), low salt, dirty cell	Check temp, add salt, clean cell
Scale/white deposits	High calcium hardness or high pH	Lower pH, reduce calcium by diluting with fresh water

Solar Cover Usage

- Use solar cover at NIGHT only — remove during the day
- Keeps heat in and reduces evaporation overnight
- Leaving it on during the day in sun can cause excessive heating and chemical issues

Important Reminders

 NEVER cut, grind, or weld metal near the pool — iron dust stains permanently and cannot be removed.

 NEVER use abrasive cleaners on the gelcoat surface.

⚠ **NEVER drain the pool without contacting Okeanos first.**

Questions? Call (647) 234-7694 or email joe@okeanosontario.com