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I- SPECIFICATION

Model	EWGH-2000	pH	5.0-7.0
Rated voltage	AC220V/50 Hz	Available chlorine	90-500 ppm
Rated power	1200W	Water source	Tap water
Pressure	30-60 PSI	Water temperature	40-104 °F
Output flow rate	2.5L/min	Size	550×350×900mm

2- PRODUCT FEATURES



1. Hypochlorous acid water : PH: 5.0-7.0.
Free available chlorine: 90-500ppm.
Alkaline water PH: 11-12.
2. Ammeter: Ammeter shows running amperage for each electrolytic cell.
3. Electrolytic Switch: control equipment start and stop functions.
4. Salt brine switch: Control salt brine metering pump.
5. Electrolytic Dial: Increases and decreases current to each Electronic cell.
6. Tap water pressure: Indicates water pressure entering the generator.
7. Booster pump pressure: indicates water pressure entering internal RO system.
8. Using unique electrolysis algorithm and updated electrolysis technology, our units operate with lower power consumption.
9. Flush salt intake with clean water after every use for at least 5 mins.

3- WARNINGS

1. Some components inside the cabinet are electrified. Do not open the cabinet if not trained properly to avoid electric shock.
2. Untrained individuals should not attempt to repair or troubleshoot unit to avoid damage or electric shock.
3. If power cord is damaged stop using generator and contact us for a replacement.
4. If trained properly to work on unit, always unplugged unit before accessing any compartment.
5. If HOCl solution or alkaline water comes into contact with eyes, rinse with plenty of water for at least two minutes.
6. Small amounts of chlorine and hydrogen gas are produced during operation. Keep unit in a well-ventilated area.

4. CHECK LIST PRIOR TO INSTALATION

1. Water Input pressure should not exceed 60 PSI. Install a pressure reducing valve if water pressure is too high.
2. The generator should be placed in a dry and well-ventilated environment, while avoiding heat sources and direct sunlight.
3. Avoid heat source, chemicals, corrosive gases and liquids at the installation site.
4. Drainage for wastewater from RO in the system should be available and close to the generator.
5. All lines, containers and collecting materials, including transfer pumps, shall be HOCl and Alkaline-water resistant materials.
6. Ensure the operation environment temperature is between 40-95 F° degree. Avoid extreme temperatures as it will affect the electrolysis process.

5. CHECK LIST BEFORE OPERATION

1. Always test the Hypochlorous solution before use and ensure it falls within the desired parameters for pH, FAC (Free Available Chlorine) and ORP. Contact the manufacturer for guidance if the parameters are outside the selected range.
2. When preparing your salt brine, be sure to use pure salt free from iodine or any other Chemicals.

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3. Operate and Maintain unit according to the manufacturer's instructions or by personnel qualified and trained in electrolysis equipment.
 4. Place the HOCl generator in a well-ventilated area, as it may produce irritating gases during operation. Use personal protective equipment, if necessary, when running the equipment in an enclosed space.
 5. Store the Hypochlorous acid (HOCl) solution away from light in a sealed container. Never mix the solution with other cleaners or ingredients.
 6. Never run the HOCL generator dry and ensure water pressure is in the appropriate range before turning on electrolysis.

6- WORKING PRINCIPLE

Our HOCl generators use membrane cell technology, where the electrolytic cells work with two compartments, separated by a special membrane – an anode compartment and a cathode compartment. This membrane is like a filter that only allows positive ions to move through it and enter the cathode compartment. In the anode compartment, we inject a solution of sodium chloride (salt water). The positive sodium ions can pass through the membrane to the cathode side, while the negative chloride ions stay behind.

As a result, we get two different solutions:

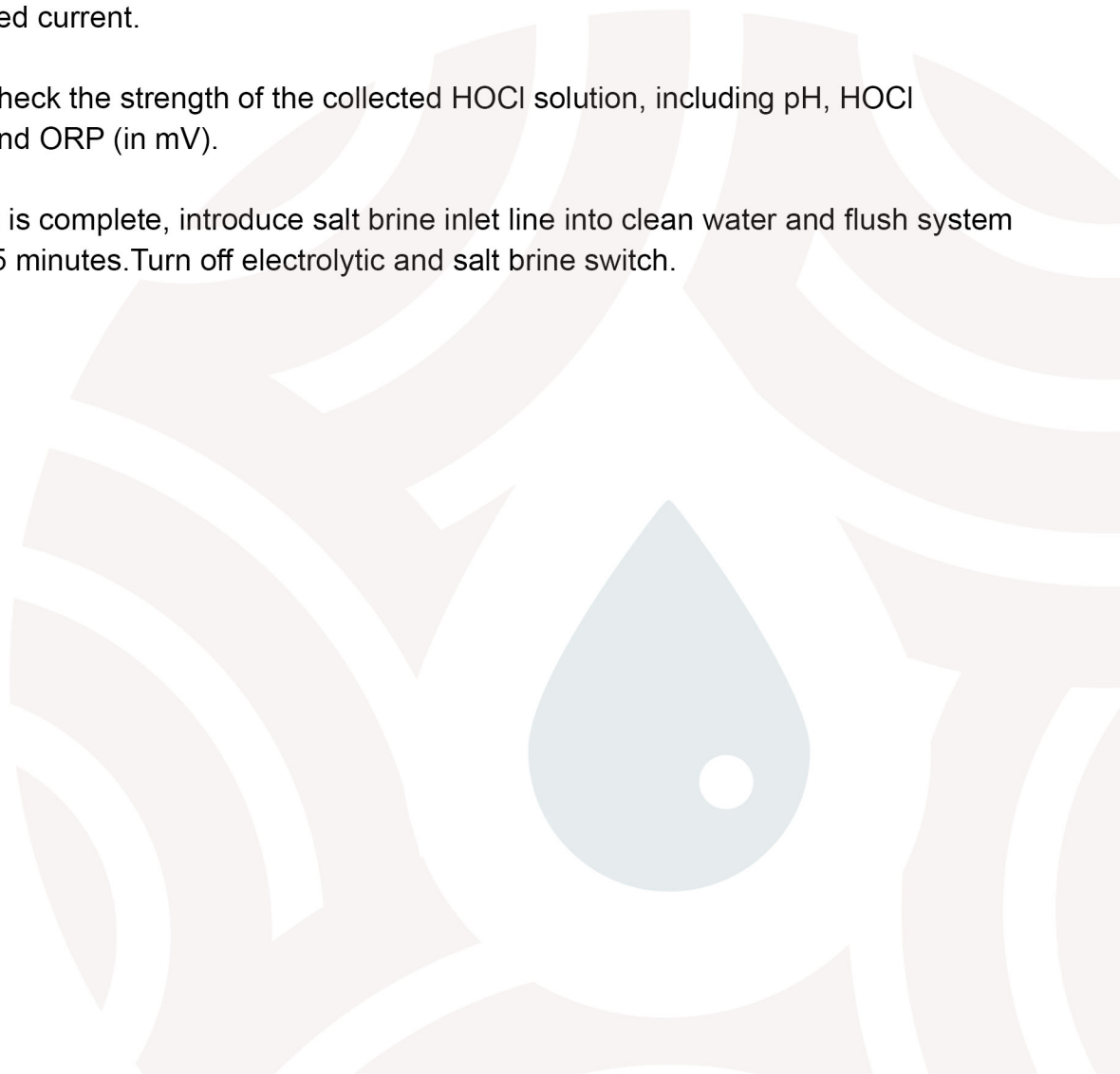
1. On the anode side, we have a weak acidic solution containing hypochlorous acid HOCl, a powerful cleaner and disinfectant. This solution has a high ORP (Oxidation-Reduction Potential) of over 800 mV and can kill pathogens on contact.
2. On the cathode side, we produce a highly alkaline solution made of sodium hydroxide (NaOH), a powerful detergent and degreaser. This solution has a low ORP, falling below -800 mV, and can dissolve grease on contact.

This process allows us to create effective cleaning and disinfecting solutions using only salt and water, making them safe, effective, and environmentally friendly.

7- OPERATION INSTRUCTIONS

1. The equipment comprises an internal RO water system, an electrolytic system, a brine tank and a series of water pumps.
2. Connect tap water with a 30-60 PSI pressure to the equipment's water inlet. If the water pressure is low, use a booster pump.

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3. Connect a saltwater brine solution to the generator's saltwater inlet. The manufacturer will guide you on the appropriate salt concentration based on your desired HOCl specifications.
 4. Collect the acidic HOCl solution from the generator's side into a special HDPE dark-colored plastic tank with a sealed cap.
 5. If you wish to collect the alkaline water output (NaOH) from the generator's side, you can collect it in an HDPE tank or direct the outlet line to wastewater drainage if no collection is needed.
 6. Connect the wastewater output line to the sewer for disposal. This stream contains waste byproducts from the generator's internal Reverse Osmosis system.
 7. Connect the power supply.
 8. Turn on the system and inspect connections for water leaks in the inlet and outlet lines.
 9. Activate the Electrolytic Switch and the salt brine switch. Adjust the electrolytic intensity knob in group A and monitor the ammeter gauge to reach your desired current.
 10. Adjust the electrolytic intensity knob in group B and monitor the ammeter gauge to achieve the desired current.
 11. Periodically check the strength of the collected HOCl solution, including pH, HOCl strength (FAC), and ORP (in mV).
 12. After collection is complete, introduce salt brine inlet line into clean water and flush system for approximately 5 minutes. Turn off electrolytic and salt brine switch.



8. TROUBLESHOOTING GUIDE:

Possible issues	Common Fixes
1. No HOCl Production	<ul style="list-style-type: none">-Ensure the power supply is connected and the water pressure gauge is within the specified range (30-60 PSI).-Verify that the saltwater brine solution is connected correctly, and the salt concentration meets the recommended parameters.-Monitor the ammeter gauge to ensure that current is flowing to the cell. If not, check the electrolytic switches and intensity knobs.
2. Low HOCl Concentration	<ul style="list-style-type: none">-Confirm that the salt concentration in the brine solution matches the manufacturer's recommendations for your target HOCl range.-Ensure the water quality, including pH levels, is within the recommended range.-Calibrate the electrolytic intensity knobs as needed to achieve the desired concentration.
3. High pH Levels in HOCl Solution	<ul style="list-style-type: none">-Check the water quality for pH levels before entering the generator. Consider using a water softener or pH adjustment system if the pH is high.-Confirm that the saltwater brine solution has the correct salt and PH concentration.-Adjust the intensity knobs to optimize pH levels in the HOCl solution.
4. Equipment Leaks	<ul style="list-style-type: none">-Thoroughly inspect all water and solution connections for loose fittings or damaged seals. Tighten or replace as necessary.-Ensure that the salt brine solution container is securely sealed to prevent leaks.-Regularly inspect inside the metal encasing bottom surface for leaks or water drops. Check for leaks in the wastewater output lines.
5. No current in Ammeter Gauge	<ul style="list-style-type: none">-Verify that the power supply is connected correctly.-Verify that the Electrolytic Switch is pressed and the red-light ring around the bottom is on.-If the brine solution has not reached the equipment, wait a couple of minutes for the brine to reach the generator.

Possible issues	Common Fixes
<p>6. No Salt Brine Suction</p>	<p>-The saltwater inlet suction line is not properly submerged in the brine container, or it is bent or clogged.</p> <p>-The saltwater pump inlet line is empty or has lost its prime. Connect the inlet line to a funnel, elevate it, and pour brine to reprime the pump.</p> <p>-If the problem continues, you may need to check the brine pump within generator.</p>
<p>** For any persistent issues or technical questions, please get in touch with our customer support or the manufacturer for professional assistance.</p>	

9. STORAGE CONDITIONS FOR HOCl SOLUTION:

Proper storage of the Hypochlorous Acid (HOCl) solution is crucial to maintain its stability and effectiveness over time. This section outlines the recommended storage conditions and precautions to optimize the shelf life of collected HOCl solution.

Storage Container Selection:

Non-Metallic Containers: Acidic HOCl solution should be stored in non-metallic containers that are resistant to both acid and alkali substances. Avoid using containers that may react with or corrode when exposed to acidic solutions.

No Dissolved Matter: Ensure that the storage container is clean and free from any dissolved matter or contaminants that could compromise the purity and quality of the HOCl solution.

Seal and Protect from Light:

Sealed Containers: The storage containers must be securely sealed to prevent any contamination or loss of the HOCl solution. Use lids or caps that create an airtight seal.

Protection from Light: HOCl solution is sensitive to light and can degrade when exposed to direct or prolonged sunlight. Therefore, it is essential to store the containers in a location that is shielded from light. Dark or opaque storage containers can be used to provide an additional layer of protection against light exposure.

Storage Temperature:

Cool and Consistent Temperature: To maintain the stability of the HOCl solution, store it at a cool and consistent temperature. Avoid exposure to extreme heat or cold, as temperature fluctuations can affect the solution's quality.

Additional Considerations:

Proper Labeling: Clearly label the storage containers with essential information, including the date of collection and the concentration of the HOCl solution. This ensures that you can track the solution's shelf life and potency accurately.

Regular Inspection: Periodically inspect the stored HOCl solution for any signs of degradation, changes in color, or unusual odors. If you notice any abnormalities, dispose of the solution properly.

Safety Precautions: Always handle HOCl solution with care, wearing appropriate protective equipment if necessary.

10. EQUIPMENT WARRANTY

1. One-Year Quality Warranty:

We offer a one-year quality warranty for our equipment. During this warranty period, we guarantee that the equipment will be free from any quality-related problems. If you encounter any issues due to manufacturing defects or quality concerns within the first year of your purchase, we will provide the necessary support and solutions at no additional cost to you.

2. Two-Year Electrolytic Cell Warranty:

Our electrolytic cell, a critical component of our equipment, is designed to deliver consistent performance. We provide a two-year warranty for our electrolytic cell parts. This warranty covers you for up to 5000 hours of water production or two years, whichever comes first. Rest assured that your electrolytic cell is built to withstand the test of time.

3. Lifetime Equipment Maintenance:

We understand the importance of ongoing equipment maintenance to ensure its longevity and optimal performance. Beyond the warranty period, we offer lifetime maintenance services for your equipment at reasonable charges for replacement parts and accessories.