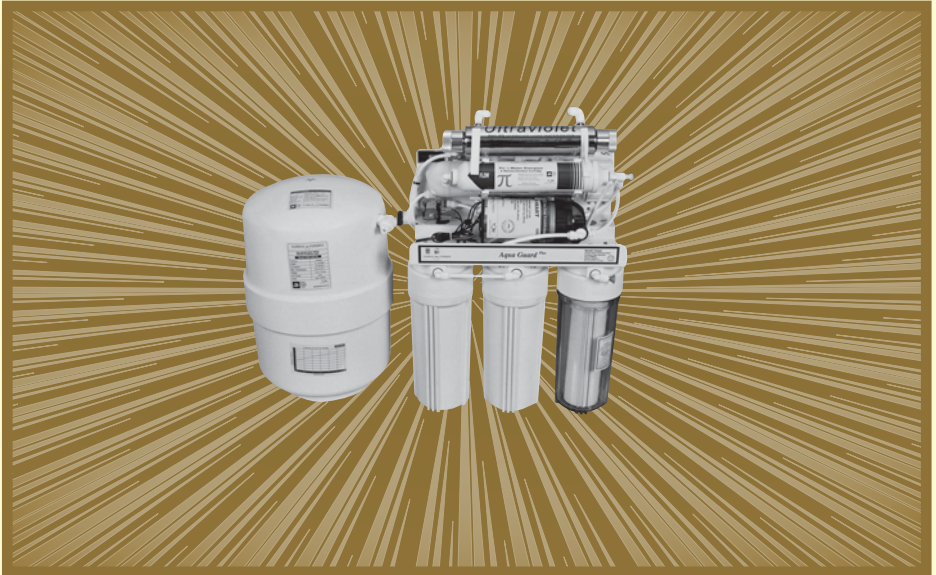




Aqua Guard RO™



EUREKA FORBES

Pure Water Healthy Life



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HUNGARY CZECH REPUBLIC GERMANY USA JAPAN UAE

8 STEPS QUALITY ASSURANCE INSPECTION | FACTORY TESTED AND SANITIZED

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Mission of Eureka -Forbes is to be respected company world wide. Dedicated to serve and supply water purification products to individual, industries and others. We strive to improve the quality of life and the environment and durable and innovative products.

Dear Valued Customer,

Congratulations! You are now the owner of worlds finest water purification unit, manufactured by Eureka-Forbes Water Technologies a world leader in the water purification industry. We take pride in our solid reputation for product quality and industry – proven performance.

We are certain that your decision to own Eureka-Forbes Water Purification System will go a long way towards keeping you and your family in good health. With the scarcity of water and increase in water pollution problem, it is hard nowadays for one to rely on conventional source of water supply. More and more people are looking for reliable water treatment systems which can tackle ever increasing, known and unknown pollutant problems in water and procure safe water. We are confident that you will be satisfied with its working and that it will serve your needs for safe supplies for a long time.

It is worth mentioning here that water from Eureka-Forbes Water Purification System has been designed keeping the above in mind and can be used not only for drinking and cooking needs but also for a number of other requirements as well. You can use treated water to prepare you baby’s feed, wash vegetable and fruits and for many more purposes. This manual tells you about Eureka -Forbbes Water Purification System in details and will provide tips on installation along with useful information in Reverse Osmosis Technique.

With best wishes,

“Pure Water Healthy Life!”

Eureka-Forbes Water Technologies
Consumer Products Division

INTRODUCTION

Eureka-Forbes Water Purification System has been designed to tackle most of water pollution problems. System is made in Hungary, modular form to treat individual pollutant problems (Sediments, Taste, Odor, Organic Chemicals and Salt), one by one in different stages. Considering the importance of aesthetic value of fresh and smell free water, purification (removal of taste and odor producing chemicals) is done in more than one stage. For removing excessive amount of salt (brackishness) from water, best quality reverse Osmosis Membrane TW30- 1812-50 has been incorporated in the system.

Your Reverse Osmosis System has been thoroughly tested and inspected for leaks, product water quality, product water output and shut-off function, for at least 48 hours at our factory. Therefore, the system may have some water in it. You may install the R.O. System on either side of the cabinet panels underneath your kitchen sink.

Important Reminder

The Undersink Reverse Osmosis drinking water appliance is designed to connect permanently to home plumbing system. The appliance should only be connected to municipal water supply, under the following conditions;

Water Condition

Do not use the appliance where the water is microbiologically unsafe or the TDS level is above 2,000 ppm. Use the unit with cold water only.

Water Temperature

Do not filter water with temperature higher than 38°C.

Water Pressure

Do install the appliance only on water lines with a pressure of 10 to 40 psi.

Installation Location

Do not place the appliance at a location with high humidity to prevent damages to the electrical components. Do not place the system under sun light or any light sources. Do not spray water or liquid on the appliance.

Replacement of Filter Cartridge

Replace filter cartridge as recommended. The replacement of filter cartridge is essential for the appliance to perform as intended.

Please read and follow the instruction closely to ensure that you R.O. drinking water appliance operate effectively. Failure to install, operate and maintain the appliance as instructed will void the warranty.

INSTALLATION GUIDE

Preparation:

Check the following list of components to ensure that all parts are packed with your system.

1. Storage tank
2. RO system
3. Faucet & Faucet mounting bracket
4. Installation Kit

- ◆ Determine the location for the faucet. Check to see that drilling the faucet hole will not damage pipes or wires running underneath the sink.
- ◆ Upper sink fitting this system then use the faucet mounting bracket.
- ◆ Determine the location for the storage tank. A maximum distance from the tank to faucet is 15 feet. The system will produce the faster flow at the faucet with the shortest tubing run from tank to faucet,
- ◆ Do not place unit where it will be exposed to freezing air or direct sunlight. Mount the unit, on the side of the cabinet using a bracket (attached to unit) & two screws (provided in kit)

INSTALLATION OF WATER SUPPLY CONNECTOR

Make sure that you are hooking up to the cold water. Determine the location for the installation of the RO system. Avoid locations where the system might come in contact, with hot water pipes or other hazards as like sun light.

- ◆ The water supply connector comes with the unit installation kit.
1. Disconnect the water supply line from the cold water tap and attach and tighten water supply connector assembly.
 2. if you install upside the sink then remove your existing overhead water tank top, attach & tighten water supply connector assembly.

Single Assembly Valve

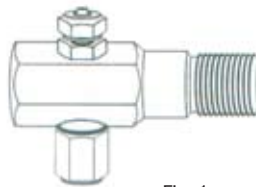


Fig. 1

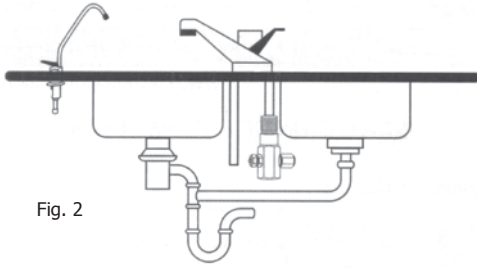


Fig. 2

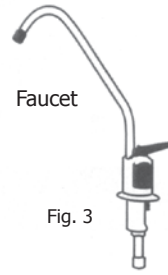


Fig. 3

Mounting The Product Water Faucet

Your unit comes complete with a long reach faucet. The product water faucet may be installed on any flat surface at least 2" in diameter. Check the inside of the location for interference.

A. SINK TOP FAUCET

Faucet mounting bracket is provided in the installation kit. This can be mounted on any wall. Install the mounting bracket on wall, then this faucet will be mounted.

1. Slide chrome cover plate and rubber gasket on to stem of faucet and place faucet on to sink/mounting bracket on wall, then this faucet will be mounted. For mounting on sink, hole may be drilled.
2. Place metal washer and lock washer over threaded stem of faucet, and tighten nut from under the counter surface to lock the faucet into place.

DO NOT OVER TIGHTEN.

3. Connect the tube to the faucet stem under the counter/faucet bracket.

NOTE : Use an insert when connecting the tube to the faucet.

INSTALLATION OF R.O. MEMBRANE Membrane Housing

Membrane Housing

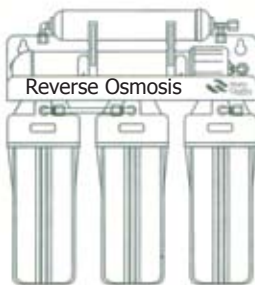


Fig. 4



Fig. 5

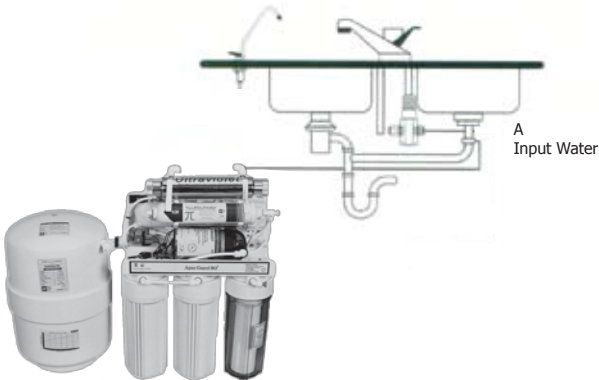
CAUTION : Original packing is to prevent membrane damage during transit.

1. Remove the membrane housing cap.
2. Install the membrane by carefully pushing the spigot end into the socket at the far end of the housing until completely in BLACK 'O' ring end should be on cap side.
3. Replace housing cap. (Watch out the 'O' ring)

MOUNTING THE PURIFICATION ASSEMBLY

1. Mark screw location at the desired positions with the use of provided label of marker guides.
2. Screw wood/plastic screws supplied with unit into marked positions. Leave screw head out a little.
3. Adjust the plant cover on the screw with hole on cover, then the mount RO plant assembly onto screws.

SYSTEM AND FAUCET DIAGRAMS



1. Pre Filter
 2. GAC or Pre Filter - Granual Carbon Fitter
 3. ACB filter -Activated Carboi nitet
 4. Booster Pump
 5. Membrane
 6. Water Softner Tank
 7. Pi-Water Energizer
 8. Ultra Violet Sterilizer
- A. Connect the tube from water supply valve to 1 st housing.
 - B. Connect the tubing from post carbon filter to faucet.
 - C. Drain tubing to drainage.

START-UP PROCEDURE

1. With everything connected, turn on the water for leakage checking.
2. Make sure the storage tank shut-off valve is 'OFF'. Open the sink top faucet.
3. Within a few minutes (up to 15) the water will start to run from the faucet slowly.
4. Let the water run for at least 30 minutes. This flushes the carbon filters on first time use.
5. After initial flushing, open the shut-off valve of the tarm and close the sink top faucet.
6. Tank will not get filled. (Usually 1 to 2 hrs.). After the tank has filled, open the sink top faucet and drain all the water until the storage tank is empty and there is only sa small flow from the sink top faucet.

DO NOT USE FIRST TANK OF WATER

7. Close the sink top faucet. The system is now ready for use.

SERVICE INSTRUCTION

Pre filter replacement

1. Turn off water supply and open flush valve.
2. Unscrew the WHITE pre-filter with wrench.
3. Replace pre-filter.
4. Clean housing, if necessary, with a mind chlorine or soap solution. Rinse away all chlorine soap before reassembly. Use a soft cloth do not use abrasive material.
5. Before reinstalling pre-filter, make certain 'O' ring is seated in housing.

R.O. Membrane element replacement

1. Turn off water supply.
2. Determine type of membrane needed.
3. Disconnect tubing and unscrew R.O. Housing end cap.
4. With a pair of pliers, grips membrane end and pull out. A small amount of twisting may be needed.
5. Clean housing, if necessary with a mild chlorine solution. Rinse away all chlorine before re-assembly.
6. Insert membrane in housing and firmly push while also rotating slightly, when pushing in you will feel the membrane stopped. With a little more pressure and turning action the membrane will move in further '3/8' of an inch. When this occurs the 'O' ring has been properly seated.
7. Wet and install the 'O' ring on the housing end-cap. Apply Glycerin if available, may be used as lubricant if necessary.

Post filter replacement

1. Turn off water supply.
2. Close ball valve on holding tank and then open R.O. Faucet.
3. Disconnect tubing to filter.
4. Lift plastic retainer clamps on post filter and rotate clamp clear.
5. Remove end fitting.
6. Remove all Teflon tape from inlet/outlet post-filter fittings.
7. Replace post carbon filter.
8. Re-wrap with new Teflon tape.
9. Reinstall end fitting.
10. Reconnect faucet line.
11. Secure clamp.
12. Turn on raw water and open storage tank ball valve.
13. Open and close faucet rapidly to discharge all traces of carbon.

SANITISING INSTRUCTION

1. Make a mild cleaning solution of dish soap (or chlorine bleach) and potable water in the plastic bowl.
2. Turn off R.O. System, drain storage tank and remove membrane element and pre-filter fit post-filter.
3. Membrane element must remain wet. Put membrane element in a plastic bag.
4. Fill empty pre-filter housing with sanitizing solution and turn on raw water. After tank is full, let system stand idle for approximately 10 minutes.
5. Turn off water.
6. Drain storage tank via the R.O. Faucet.
7. Re install new pre-filters and membrane element.
8. Replace post filter.
9. Disconnect line to faucet and put approximately 10 drops of sanitizing solution in these lines and reconnect.
10. Flush carbon fines and bleach from lines after the system has attached to make water again.

RECOMMENDED PROCEDURE FOR WATER TESTING

Collection:

1. Water should be collected in a sterile container impervious to light (min. quantity 125 ml).
2. The container should be maintained at 4o C to 10o C during transportation.
3. Water should be transported within one hour and tested in the next two hour of sampling (i.e. analyzed within 3 hours of sampling).

RECOMMENDED TESTS FOR WATER ANALYSIS

Water should be tested for:

1. Total plate count by membrane filtration technique.
2. Total coliform count.

Detailed procedures to be followed are as per "Standard Methods for Examination of Water & Wastewater"-1985 16th Edition, prepared & published by the American Public Health Association, USA (Pages 860-901).

Water testing, if any, shall be done as per procedure specified in the User Manual and comparison, if any shall be done only against W.H.O. standards as specified in the User Manual.

Documents pertaining to the efficacy of ultraviolet light in water purification system are available at Eureka-Forbes Office.

NOTE:

Modification in the production may be introduced from time to time and consequently the details given in this manual are subject to alteration without pervious notice.

WATER PURIFICATION SYSTEM SPECIFICATIONS

1. **Housing**

The entire housing is made up of unbreakable and high pressure sustaining FDA approved poly carbonate material. Seeing makes it easy to believe! The transparent housing allows you to see what passes through it and thus monitor the filters condition by its colour.

2. **Sediment filter**

It removes rust, dust and all other suspended particle from water. (Wood Metal chips, insects & ancients) Wound P.P. Yarn 5 Micron (WPP 1 05E) Cartridge with Plastic Mounting Bracket (PB). Graduated sediment removal. 100% polypropylene construction. Cartridge free of surfactants, binders and adhesives. The age of filter depends upon the condition of water which is coming from municipality water pipe lines. If water is more contaminated so filter will be changed earlier. The life of filter depends upon condition of water. Its life span is 3-4 month.

3. **Booster Pump**

It enhances the water pressure to the desired pressure required for the system product. It is a positive displacement, diaphragm pump. Santoprene and polypropylene materials. High safety (Driver 24 VDC), soft mounting for less noise and vibration. Port fitting 3/8 X 1/4 inches tube elbows. Its maximum pressure allowed is 120 psi.

4. **Opaque Housing**

This housing is for granular cartridge, this is also poly carbonate, but not transparent.

5. **Dual Purpose Cartridge**

This housing is for granular cartridge, this is also poly carbonate, but not transparent.

6. **Housing**

This cartridge is made of spun polypropylene; it again does the same filtration which was done earlier by two cartridges for further purification more.

7. **Granular Activated Carbon Cartridge**

GAC Series cartridges effectively reduce discarded tastes, odors and chlorine from your drinking water. They are designed to allow maximum contact between the water and carbon, ensuring maximum adsorption.

The construction of the cartridge allows water to enter at one end and pass through the entire length of the cartridge, while an internal expansion pad eliminates channeling or bypass.

Before the water exits the cartridge, a post filter helps remove carbon fines and other suspended particles from the filtered water. The post-filter is permanently fastened to an innovative support basket ensuring that it is firmly secured and eliminating any potential for bypass.

Its life span is 4 month if it is using in office and 6 month if it is used in home.

8. Reverse Osmosis

The entire housing is made up of unbreakable and high pressure sustaining FDA approved poly carbonate material. Seeing makes it easy to believe! The transparent housing allows you to see what passes through it and thus monitor the filters condition by its colour.

Definition

A water treatment process that removes undesirable materials from water by using pressure in order to force the water molecules through a semi permeable membrane. This process is called "reverse osmosis" because the pressure forces the water to flow in the reverse direction (from the concentrated solution to the dilute solution) to that of the flow (from the dilute to the concentrated) in the process of natural osmosis.

Benefits:

RO removes ionized salts, colloids, and organic molecules down to a molecular weight of 100. It gives zero tds with out bacteria or any other virus. You can test the water if you feel water is not good, its life is 1600 gallon and pressure is 125 psi.

Procedure:

The TFC membrane can separate up to 99% of remaining unwanted impurities from your water including tribal methane, bacteria guardian. ..etc. The post - filter can also remove the remaining impurities in your pure water, and also make water taste sweeter. With a protect booster pump, it can boost your system and make it produce pure water more efficiently.

9. Water Tank:

Its storage capacity is 4 (four) Gallons, its height is 11.2 inches and weight is 3.2 kg. Air charge is 8 psi. This tank is rust proof and also approved from FDA.

10. Post Carbon Filter

It is an inline filter for post filtration for reverse osmosis.

- Install the cartridge according to the recommended flow pattern. Cartridge will get choked and flow rate will drop in case of wrong connection.
- Flush 4 gallons of water through the filter before use.
- Do note use where the water is microbiologically unsafe or of unknown quality without adequate disinfection before or after the unit.

Specifications

Flow rate	:	0.75GPM
Pressure rating	:	125 psi (max.)
Temp rating	:	100 °F (52 °C)
Service life	:	Quarterly
Port fitting	:	3/8" NPT (Internal)
Burst Pressure	:	500 Psi

11. Hydronic Vitalizer

It is all about the information in the water and its cluster sequence. The information which is good for human body is transferred to water; water memorizes it, and affects the human body in a positive way.

Procedure:

The Hydronic vitalizer is a tube made of stainless steel (inox used in pharmaceutical and food industry) covered with informed glass, informed quartz sand, informed water and some other carriers of information, which are inserted in a larger tube made from the same material. The vitaliser, like the informed glass, does not need to contain energy or any other substances. Glasses and vitalisers are manufactured according to the original Hydronic technology, which is based exclusively on information. The information is captured by means of special devices and embedded in the glass and other auxiliary carriers and harmonisers of information. According to the original Hydronic technology it is important for the buyer of this technology to have the opportunity of selecting the kind of information embedded in the medium, in this case the glass. carriers and harmonisers of information. According to the original Hydronic technology it is important for the buyer of this technology to have the opportunity of selecting the kind of information embedded in the medium, in this case the glass is used for water to drink in large quantity.

Benefit:

It tastes better; it looks better, more clear and transparent; if we drink this water our body uses less energy for adapting the water according to its needs; it can therefore use more of its energy for self-healing and for the regulation of other life processes; used externally, this water has a beneficial influence on the person's mood and skin, vegetables watered with vitalized water grow stronger and maintain a fresh appearance for a longer time; vegetables and fruit washed in vitalized water rapidly regain their freshness; vitalized water can improve the microbiological conditions of water and other aqueous solutions with which it comes into contact; Informed water can help preventing diseases; in farming it helps achieving better yields of farm products without exerting force on nature with artificial compounds; in industry it makes possible a better preparation of water with less chemical substances and energy;

12. Pi Water energizer:

Pi water is water which is extremely similar to water in living body and it is induced from very small quantity of iron (ferric/ furious) ions in their excited state.

System:

This system employs multiple unique layers of filtration combined with magnetism. It is filtration includes coral reef, coral sand, natural active calcium, BCS ceramic and power full magnet. The cluster chains of the H₂O are also reducing. It NMR from 128 Hz to reduce it become 53 Hz.

Procedure:

Cartridge of for pi water is divided in three parts in first part is of coral reef, second is of coral sand, third is of bio ceramic which have highly magnetic charge. The passage of flowing water through coral sand and reef and from ceramic balls energizes it.

Benefits:

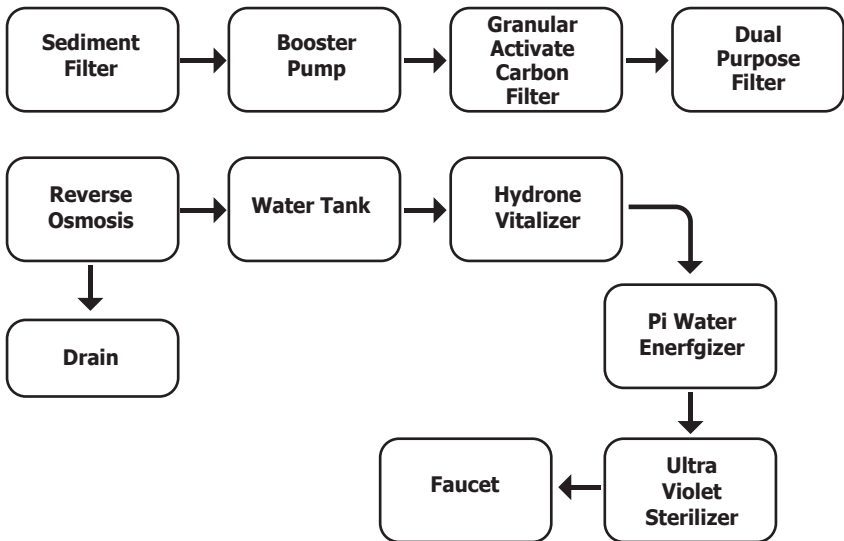
Promotion for adaptability
 Enhance the larger scope of application for temperature and light.
 Purification of environment
 Improve the quality of bad water and soil
 Normal growth
 Improvement of living body functions
 Improve various body functions

Obtaining regeneration ability
 Helps and restore the damages cells and tissue
 Inhibition of harmful ions
 Metal ions
 Inhibition of Pathogenic Organisms Proliferations
 Stops viruses
 Promotion of growth

13. Ultra Violet Sterilizer.

A lamp producing Ultraviolet radiation in the 200-300 nanometer range is emitted through clear, profiteered, particle free water. This UV light is extremely effective in killing and eliminating bacteria, yeasts, viruses, molds and other organisms harmful to a human body.

Ultraviolet systems (UV) expose supply water to intense ultraviolet radiation, which kill pathogenic bacteria (cholera, typhoid, salmonella dysenteries, etc.); virus however is not effective against cysts. It has low power consumption. Its flow rate is 1.0 GPM (3.8lit/min), lamp life is 10,000 hours.



Stages of Water Treatment

1. Pre-filtration (removal of sediments).
- 2/3. Purification (taste and odor removal; double treatment in 2 stages).
4. Desalination (removal of salts).
5. Polishing and purification (taste and odor improvement and polishing).

REPLACEMENT COMPONENTS (CARTRIDGES)

1) Pre-filtration Unit (1st Stage)

Water is filtered at this stage before it is fed through pump pressure to the second and onward stages.

Filtration rating	: 5 – micron.
Cartridge type	: In-depth filter.
Replacement cartridge	: WPP105R / SPP105G (Eureka Forbes)

2&3) Water Purification Units (2nd and 3rd Stages)

Pumped water is purified in two stages to give odorless and fresh water. All organic pollutants including chlorine are removed from the water in second and third stages.

Cartridge type	: Taste and odor removal
Replacement cartridges	: GAC 101 D (2nd stage) (Eureka Forbes) DPC 1 05R (3rd stage) (Eureka Forbes)

4) Reverse Osmosis Unit (4th Stage)

Filtered and purified water is desalinated in the 4th R.O. Stage. Thin film composite Reverse Osmosis Membrane is installed in the unit for the best permeate water quality and efficient Cross-Flow filtration, where membrane keeps on cleaning itself automatically to ensure a long period. Treated water is stored in the Water Storage Tank from where it can be drawn by turning the faucet valve. Treated water comes out from the faucet after passing through the last Carbon Filter Cartridge (5th stage).

Membrane type	: Thin film composite (TFC) (FILMTEL)
Model	: TW30-1812-50

5) Water Polishing In-line Carbon Filter Cartridge Unit

Treatment water is further polished and purified in the 5th stage just before it is drawn for drinking or cooking purpose.

Cartridge type	: Taste and odor removal and polishing.
Replacement cartridge	: GAC10ROD

SYSTEM CONTROLLERS

- 1) Automatic Flush Restrictor.
- 2) Electronic Shut-off Valve.
- 3) Tank Level Controller.
- 4) Low Pressure Switch.
- 5) Tank Shut-off Switch.
- 6) Pressure Booster Pump
- 7) High pressure Switch

POWER SUPPLY

Input	: Single phase 220 VAC / 50 Hz. / 110 also available
Output	: DC 24V / 1.2A.

WATER TREATMENT PARAMETERS

Water Treatment Capacity : 50 GPD.

Feed Water parameters

Turbidity : 5 NTU (max.).

Chlorine Levels : 0.5 PPM (max.).

Temperature Range : 100oF (38oC).

Line Pressure Range : 10 to 40 psi.

Total Dissolved Solids : 2000 ppm (max.).

TREATMENT EFFICIENCY RESULTS

Solute	Rejection %
Bicarbonate HCO ₃	95– 96
Sodium Na	95– 97
Fluoride F	95– 96
Chloride Cl	95– 97
Silicate SiO ₂	95– 97
Nitrate No ₃	93– 96
Magnesium Mg	96– 98
Nickel Ni	98– 99
Copper Cu	98– 99
Urea	40– 60
Glucose	99+
Sucrose	99+
Bacteria's & Viruses	99+



WARRANTY CARD

Model No. Batch Code :

Date of Purchase:

Name of Customer:

Address:

Phone:

This portion of the warranty card is to be retained by the Customer.

If Customer cannot present this card and official purchase receipt, repair / service will be on a chargeable basis.

Eureka Forbes Technologies offers warranty for the domestic purification system for the following period of times:

One and Half year warranty for domestic use

One year warranty for office use

The client will be responsible for any transportation charges arising out of the warranty.

The uncompleted warranty card have, no warranty claim exists. The second section of the warranty card should be stored in a safe place and produced in the event of any warranty claim.

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Web: www.eurekaforbesuae.com

Authorized Distributor

Our customer care department in UAE offer:

12 free quality checks from the date of the purchase, consumers can request for this as and when they feel the need for it. It is carried out to ensure the purity level of the water.

12 free services which can be taken every month or every two months upon the consumer's request free of cost and after that 50 Dhs. of each service.

The products we are selling are ensure high quality and long lasting. We are constantly enhancing our customer support by adding new features in to our service section

We believe the high number of satisfied customers are our back bone of our all achievements.



SERVICE CARD

Date of Purchase:

Name of Customer:

Address:

Phone:

No.	Date	Customer Signature	Technician Signature
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

Aqua Guard RO™



- 1 Sediment Pre Filter
- 2 GAC or Pre Filter - Granual Carbon Fitter
- 3 ACB Filter - Activated Carboinitet
- 4 Booster Pump
- 5 Membrane
- 6 Water Softner Tank
- 7 Pi-Water Energizer
- 8 Ultra Violet Sterilizer
- 9 Faucet
- 10 Accessories



Drinking



Cleaning Fruit



Making Coffee



Planting



Aquarium



Feeding



Ironing



Cooking



E-mail : info@eurekaforbesuae.com

Web: www.eurekaforbesuae.com

Made in Hungary - Assemble in UAE

Installation & Use Safety

- ◆ Do not let it fall or impact. It may cause breakdown or electric shock.
- ◆ Keep the product out of the direct sunlight. The sun's heat may distort non-metallic parts and may damage the electric components.

Electricity Safety

- ◆ Never splash the product with water to avoid the risk of electric shock.
- ◆ Keep the cord out of heavy traffic areas. To avoid fire hazard, NEVER put the cord under rugs, near heat resistors, radiators, stoves or heaters.