AQUARAIN" GRAVITY WATER FILTERS

Introduction

<u>THANK YOU</u> for purchasing an $\Lambda \text{QUARAIN}^{\text{M}}$ Natural Gravity Water Filter. This water filter system utilizes highly specialized ceramic elements to remove dangerous cysts and bacteria which can cause diseases such as Typhoid fever, Cholera and Dysentery. These unique filters are also filled with a silvered granulated carbon to reduce pesticides, chlorine, tastes and odors. Follow these simple instructions, and your water filter will provide you with good, clean water for many years to come.

Assembly Instructions (Please refer to the assembly diagram on the back page)

 Remove the lid, two filter cannisters, bag of parts and element(s) from their protective packaging, checking each item for damage. IF YOU HAVE SHIPPING DAMAGE, CONTACT THE COMPANY THROUGH WHICH THIS PURCHASE WAS MADE, IMMEDIATELY! You may consider saving the packing materials for future storage of the filter system; they are designed to protect the filter and elements while in storage and transportation. Check the parts against the list provided and contact the factory if any are missing. Refer to the diagram when assembling.

NOTE: The number of elements supplied will depend on the model of filter purchased.

- 2. Extreme cleanliness is important. Wash all parts, except the elements, before assembly. Wash hands before handling the product and ensure that contamination of the components does not take place during assembly. "Season" the ceramic elements by rinsing them under running water and gently rubbing them with your hand. Give them a final rinse and set them aside for the moment.
- 3. Fit the top knob and skirt (1) onto the lid (2) by inserting the screw (3) up through the hole in the lid and screwing on the knob. Do not overtighten.
- 4. If you wish to operate your filter system with fewer ceramic elements than were included with it, then press the small plugs (13) supplied into the holes from the INSIDE of the housing into locations where elements will NOT be installed. Check both sides of the plugs to be certain that they are fully seated into the holes. The "dome" shape of the plug must be on the inside of the top stainless steel housing and the plugs fully seated.

NOTE: Improperly seated plugs may allow potentially dangerous water to drip into the lower filtered water container, contaminating your drinking water supply.

- 5. Locate the wing nuts (11) for each element (5) that is to be installed and check that the rubber sealing washer (10) is fully seated over the threaded part of each element.
- 6. Place the elements into the open holes in the base of the top section.
- 7. Secure the elements in place by screwing the wing nut onto the threaded part of the element, fully tightening the wing nut with moderate pressure.
- 8. Place the rubber washer (8) over the threaded part of the faucet (7).
- 9. Insert the threaded portion of the faucet through the hole in the side of the filter's bottom section (6). Secure the faucet in place with the nut (9) provided using moderate pressure. The washer should be on the outside of the filter housing.
- 10. Push the large nonslip rubber base (12) onto the bottom of the lower section.
- 11. Place the top section (4) onto the bottom section and set the lid (2) on top. The AquaRain Gravity Water Filter is now ready to operate! (Do not transport unit with elements in the housing.)

Water Collection

Proper water collection is a critical step in the operation of your $\Lambda \text{QUAPAIN}^{\text{m}}$ Natural Gravity Water Filter. You should always collect the cleanest and purest water available. The cleaner the water, the less often the Filter system will need to be serviced and the longer the ceramic filter elements will last. Rivers, lakes, large ponds, streams and rain water cisterns can be used as water sources. In an emergency, even water from a swimming pool can be used. Please keep in mind that the Filter system will not remove minerals such as salt. Avoid collecting water where high levels of these elements may be found, such as small cattle ponds, and creeks where water runs off of heavily fertilized land or industrial waste sites. A little care in the collection of your water to be filtered will extend the life of your filter elements and improve the overall quality of the drinking water your $\Lambda \text{QUAPAIN}^{\text{m}}$ Natural Gravity Water Filter will produce.

Operation

- 1. Ensure the faucet handle is down and in the "off" position.
- 2. Fill the top section of the filter with raw water.

NOTE: It may require several fillings of water for new filter elements to become completely wetted and reach their full production potential. Be patient, you are conditioning the elements for years of use!

3. Allow the raw water to trickle through the filter elements and accumulate in the lower storage container.

NOTE: We recommend that the first few gallons of filtered water from new elements, or after the filter has been stored for a week or more, be discarded as it may contain loose material washed from the filter elements. If there is noticeable cloudiness when filling a new unit, empty and fill it again.

Water Production

The $AOUARAIN^{m}$ Natural Gravity Water Filter has finer filtration and removes more pathogens than any other ceramic gravity water filter available; our independent laboratory results prove it. Because the $AOUARAIN^{m}$ "squeezes" your water through a thick ceramic wall to filter, it will take time for the water to slowly work its way through the filter. New, dry elements will need several loads of water run through them before they are fully wetted and reach their maximum flow rate. In normal everyday use, water for filtration may be placed in the upper vessel in the evening and allowed to filter through overnight. In the morning, most of the water will have filtered through into the lower dispensing container. Additional water may then be added to the upper container so that a continuous process of filtration and subsequent use may be established. Keeping the upper vessel as full as possible, perhaps refilling every fifteen minutes, is necessary if the filter's maximum water production potential is needed. To halt the production of filtered water at any time, simply lift the upper container off of the lower container and empty it. The stainless steel lid may then be placed on the lower container and be used as a convenient and compact counter-top water dispenser.

Servicing

1. When the filter has been properly operated as described above, periodic cleaning of the elements will only be required when the production of filtered water becomes noticeably less than normal. You may find that more frequent cleaning will be necessary when filtering cloudy or turbid water, so always use the clearest water available for maximum filter life. The filter elements are very hard and will endure many cleanings. When the surface has been abraded down to the point that after cleaning the plastic end-of-life gauge can be easily slipped over the thinnest part of the ceramic tube, the element has reached the end of its useful life and we recommend that it be discarded.

NOTE: When transporting the filter, remove and carefully pack the elements to prevent damage. Use the original packing materials if available.

To Clean the Elements:

- 1. Carefully remove the elements from the top section by unscrewing the wing nut. Keep contaminated water from entering the small hole on the threaded end of the filter element.
- 2. Hold the elements from the bottom, and while taking care that contaminated water does not enter the threaded end of the element, lightly brush the ceramic portion of the filter downward toward the endcap with a stiff brush or scouring pad. Always brush away from the threaded end.

NOTE: Do NOT use soap or detergent. The use of rubber gloves when cleaning is suggested.

3. Check to see if the plastic end-of-life gauge can easily slip over the ceramic element at its narrowest point. The plastic gauge measures the remaining wall thickness of the ceramic and determines the end of the elements safe usable life. Please discard the element when the gauge can pass over the thinnest part of the ceramic's circumference.

NOTE: Replace cracked or broken elements immediately as they will not provide protection.

4. After lightly abrading the surface, rinse the ceramic element. Again, do not allow contaminated water to enter the small hole at the threaded end of the filter element. If the inside of the filter element becomes contaminated, You MUST boil the element for 15 minutes and allow it to cool.

NOTE: For maximum security, when filtering water from a raw water source, we recommend that the elements be boiled for 15 minutes and allowed to cool after each and every cleaning. When filtering water of unknown contaminated quality, boiling the elements periodically, perhaps weekly, will increase your level of protection.

- 5. Carefully clean and dry the stainless steel sections, keeping all surfaces free of contaminated water. *NOTE: Do NOT allow the lower filtered water storage container to become contaminated, disease-causing pathogens may then be present.*
- 6. Reassemble the filter elements into the upper section, taking care that the sealing washer is properly seated on each element and the wing nut is tightened with moderate pressure to form a secure seal. Check all installed plugs, if they are used, for proper seating and seal. NOTE: When storing the filter, or after 5 or more days of nonuse, remove the filter elements and allow them to completely air dry.

End-Of-Life Gauge

A very accurate plastic gauge has been included with your $\Lambda QUARAIN^{m}$ Natural Gravity Water Filter. Each time the filter element is cleaned, a small amount of the ceramic surface is abraded away. The overall thickness of the ceramic element will gradually decrease after many cleanings. The plastic gauge measures the remaining wall thickness of the ceramic portion of the filter element, and will slip over the outer diameter of the element at its thinnest point when the minimum recommended thickness has been reached. The minimum safe wall thickness has been determined by laboratory testing, so that the Marathon ceramic elements may be used with absolute confidence, all of the way to their life's end. Please replace the element when the plastic gauge can easily pass over the ceramic. Several special plugs have been included with your $\Lambda QUARAIN^{m}$ filter. These plugs may be used to fill unused holes in the upper vessel that would normally hold ceramic elements, allowing operation of the water filter with less than the full complement of four filter elements. Please refer to #4 in the assembly instructions for the correct installation of the plugs.

AQUARAIN LIMITED WARRANTY

AquaRain, Inc. warrants to the original purchaser that the stainless steel filter housing and associated hardware of the AquaRain Natural Gravity Water Filter will be free from defects in material and workmanship for a period of three years from the original date of purchase when it is assembled, maintained, and operated per instructions. AquaRain, Inc. will repair or replace, at its sole discretion, any parts deemed defective following inspection at the factory. This warranty specifically excludes the disposable Marathon Ceramic Filter Elements whose service life depends on water conditions and cleaning frequency.

To obtain warranty service, please contact AquaRain, Inc. at (417) 432-3676. You will be required to provide proof-of-purchase from AquaRain, Inc. or an authorized dealer to obtain warranty service. Implied warranties including that of merchantability and fitness for a particular purpose, are expressly limited to the duration of this warranty.

AQUARAIN[®], INC. DISCLAIMS ANY RESPONSIBILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, OR THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES. This limitation and exclusion may not apply to you. This warranty gives you specific legal rights. You may have other legal rights which vary from state to state.

AQUARAIN[™] GRAVITY WATER FILTER PARTS LIST



PART

DESCRIPTION

- 1 Top Knob and matching Flange Skirt
- 2 Stainless Steel Top Lid
- 3 Stainless Machine Screw for securing Top Knob and Skirt
- 4 Flanged Stainless Steel Filter Housing (Top)
- 5 Marathon Ceramic Filter Element
- 6 Stainless Steel Lower Collection Vessel
- 7 Threaded Lever Action Water Faucet
- 8 Silicone Faucet Washer (mounts outside)
- 9 Plastic Nut for securing Faucet
- 10 O-Ring for sealing Ceramic Element
- 11 Wing Nut for securing Ceramic Element
- 12 Natural Rubber Base for bottom of Lower Vessel
- 13 Silicone Plug for unused holes in Filter Housing

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