

GREEN NAC

Non-Salt Unit - Owner's Manual



Table of Contents

Introduction	Page 3
System Overview	4
System Contents, What's Included, Specifications	4
Precautions and Notes to the Installer	5
Installation Instructions	5
Maintenance Recommendations	6
Warranty	7

Introduction

What is the main difference between water softening units and Filtersorb SP3?

The classic water softening unit operates on the ion exchange basis, exchanging the calcium and magnesium ions with an equivalent amount of sodium. This type of unit regenerates with the sodium half of salt. (Salt is sodium-chloride) This type of unit will provide you with the traditional soft water, but it will increase the sodium content of the water supply slightly. Additionally, these units will require water for backwashing the resin. This type of unit will use salt and water to regenerate which is an added cost. The Filtersorb SP3 water media acts as a catalyst by accelerating the transformation of the calcium and magnesium mineral or hardness minerals into harmless Nano particles. When the inlet water goes into the water conditioner tank, the up-flow pulls the water through the fluidized Filtersorb SP3 media which then acts as a catalyst and pulls the hardness minerals of calcium and magnesium out of the solution and transforms these minerals into inactive Nano crystal particles. Because the hardness minerals have been transformed into Nano particles, these Nanoscopic particles can make their way through plumbing systems without attaching onto the pipes, fixtures, valves or heating elements.

How does the calcium and magnesium get into the water?

As rain water and snow falls to earth, it seeps through the earth and dissolves the calcium and magnesium from deposits built-up in the surface of the earth. This allows hardness to build-up in the water supply.

How does the calcium and magnesium scale build-up on pipes and hardware?

This hardness scale is the build-up you can see on the end of your faucet. The streaks you see in your toilets. And this can effect your soaps performance. This hardness can build-up in your plumbing and on your fixtures and cause a very expensive problem.

What are the effects of calcium?

Negative Effect

The negative effect of calcium is that it creates scale on pipes, hardware, surfaces and heating elements. This leads to higher energy costs for heaters and expensive repairs for ice machines, coffee machines and other appliances. The scale also may breed bacteria.

Positive Effect

Calcium enriched water is a health benefit and an important nutrient needed to help prevent or minimize diseases such as heart disease. Ideally, consumable water should contain adequate amounts of calcium and magnesium which are both found in hard water.

Filtersorb SP3 Media

The technologically advanced Filtersorb SP3 Media is an innovative solution that prevents all of the negative effects of calcium and magnesium, while allowing the positive health benefits to remain. The system is maintenance free, chemical free, salt free and does not require costly regeneration and backwashing.

System Overview

Your Scale Prevention System is complete and ready to use. Please review operating pressures, temperatures, water chemistry and system limitations to ensure proper application of the system.

Included in the Box

Structural Pressure Vessel (2)



- Structural Pressure Vessel (2)
- Riser Tube (Pre-Installed)
- Filter Media (Pre-Installed)
- Clack By-Pass
- Clack In/ Out Tank Head
- Carbon (Pre-installed)

Flex Lines (Optional)



Flex Lines (Optional)



Clack In/ Out Tank Head



Clack By-Pass



Clack 90° 1" adapters

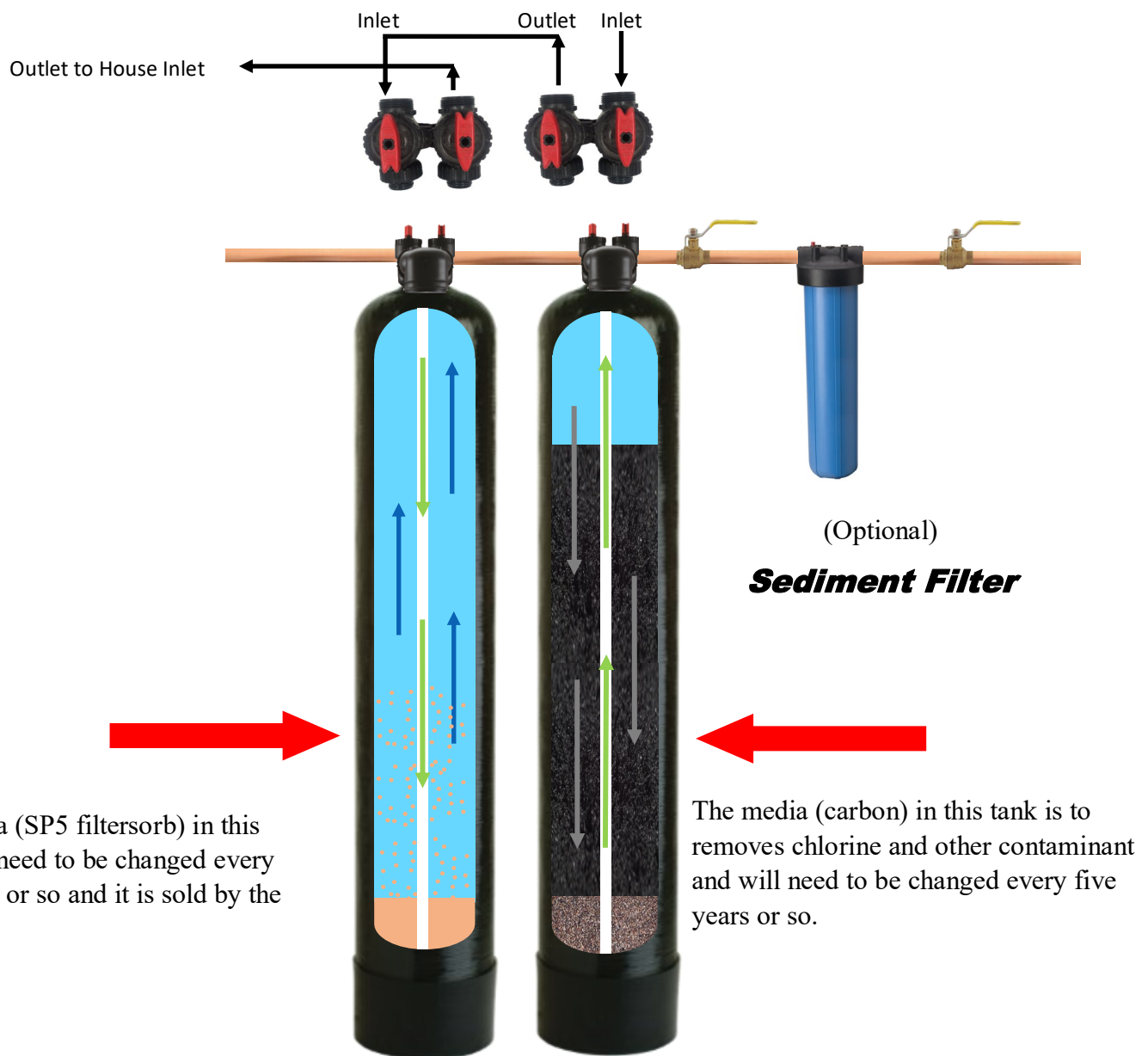


Specification-Tank	8 x 44	9 x 48	10 x 44	12 x 52
Inlet/Outlet Connection	3/4" - 1 1/2"	3/4" - 1 1/2"	3/4" - 1 1/2"	3/4" - 1 1/2"
Temperature Range	40° - 110°F	40° - 110°F	40° - 110°F	40° - 110°F
pH Range	6.5 - 8.5	6.5 - 8.5	6.5 - 8.5	6.5 - 8.5
Water Pressure	15 - 100 psi	15 - 100 psi	15 - 100 psi	15 - 100 psi
Max Service Flow (gpm)	10	12	15	20
SP3 Media (Liters)	4	5	6	8
Carbon Content (cu ft)	.75 cu ft	1	1.5	2.0
Overall System Height	48 1/2"	56 1/2"	48 1/2"	48 1/2"
Overall System Depth	14 1/4"	15 1/4"	16 1/4"	18 1/4"
Overall System Width	18 1/2"	21 5/8"	23 7/8"	27 7/8"

Installation Instruction

The installation of this system must adhere to local and state plumbing codes. It is recommended that the installation be done by a professional plumber or water conditioning dealer.

- 1) Turn off the supply water from city or a private well.
- 2) Locate the system at the desired location.
- 3) Open a nearby cold water faucet to relieve the line pressure.
- 4) Run the inlet water into the inlet side (marked as downflow inlet).
- 5) Make sure the system is by-passed while being piped-in.
- 6) The outlet of the first tank is marked as (upflow inlet) and should be piped into the outlet (upflow inlet) of the second tank. This makes the second tank upflow in service.
- 7) Pipe the outlet of the second tank to the inlet of the house.
- 8) Turn water on and check for leaks.



Maintenance Recommendations

Hot Water Tank

The Hot Water Tank should be drained and flushed after the initial 30 days to remove fallen scale in the bottom of the tank caused by de-scaling action of the system.

Faucets

Faucet aerators and drains may plug occasionally as old scale is removed from your plumbing system and water heater. Unscrew the aerators to clean the screens, then re-install.

Dishwashers

Dishwashers use water from the hot side of the plumbing system and the water is extremely hot water and also extremely hot in the drying cycles when cleaning and drying the dishes. You may find unusual initial spotting because of the de-scaling taking place. You also may find existing excessive scale build-up inside the sidewalls and washing arms of the dishwasher. The best way have to eliminate the existing scale in the dishwasher is to put a cup of white vinegar in the basket during the washing cycle for the first few weeks. You can also substitute citric acid instead of the white vinegar. This will help dissolve the existing scale in the washer arms and inside surfaces of the dishwasher. You may need to do this until all of the scale in the plumbing is dissolved.

Sediment Filter (Optional)

Replacement of the pre-filter cartridge is recommend every six to nine months or when necessary by either visual inspection or when household pressure has dropped significantly. Source water that has a higher particulate matter content may requires more frequent changes of the pre-filter cartridges.

Media

Media in both tanks may need periodic changing. The media in the first tank may need to be on a five year basis. The media in the second tank will need to be changed out every five years or so.

WATER SYSTEMS LIMITED WARRANTY

Coverage

Warranty to the original consumer purchaser that the water conditioning systems specified below by model and serial number, and the parts listed in this section below, will be free from DEFECTS IN MATERIAL AND WORKMANSHIP from the date of purchase for the following periods:

For a period of 10 years to the original Consumer purchaser at original address.....	Fiberglass pressure vessels
For a period of 5 years.....	Valve Heads, Bypass's
For a Period of 1 Year.....	Media in Tanks

THIS WARRANTY IS EFFECTIVE TO ORIGINAL PURCHASER ONLY SO LONG AS THE WATER CONDITIONING SYSTEM REMAINS AT THE ORIGINAL INSTALLATION SITE.

Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.

No sales representative, distributor, dealer or other person is authorized to make any other warranty. Upon expiration of the applicable warranty periods, the company shall have no further liability related to the products to which the periods apply, except with respect to warranty claims asserted during the appropriate warranty period.

This warranty does not cover installation or damage to tanks resulting from direct sun light, freezing, mishandling, improper installation, water pressure in excess of 80 psi, hot water back-up or ambient temperatures in excess of 120°F. Vacuum damage is not covered. Warranty **must** be presented to the person or persons performing the repair work in order to honor warranty parts. Labor charges incurred in connection with the repair and/or replacement of parts, tanks or water conditioning units are expressly excluded from this warranty. All transportation and freight costs in connection with the repair and/or replacement of parts, tanks, or water conditioning systems are also expressly excluded from this warranty. This warranty does not cover failures or defects that are the result of misuse, mishandling, misapplication, neglect, abuse or degradation from iron, oxidation due to chlorine, mold due to leaks, alteration of product or the adjustment or repair performed by anyone other than **the company** or one the companies authorized agents, or where the water conditioner has not been installed in compliance with local plumbing codes and ordinances. This is **NOT a water softener and this warranty does not cover customer dissatisfaction with performance of this system.**

All warranties are subject to requirements set forth in the owner's manual. Upon receipt of any defective product specified above, the company will, at it's option, repair or replace the product at it's expense, provided that the original purchaser of that product has followed the procedure for obtaining warranty performance set forth below. The product so repaired or used as a replacement will be shipped to the purchaser, at the purchaser's cost.

PURCHASER'S REMEDIES FOR DEFECTS OR FAILURES, TO THE EXTENT PERMITTED BY APPLICABLE LAW, ARE LIMITED TO THE REMEDY PROVIDED BY THE WARRANTY, TO THE EXTENT ENFORCEABLE UNDER APPLICABLE LAW. THE COMPANY SHALL IN NO EVENT BE LIABLE FOR CONSEQUENTIAL, INCIDENTAL OR SPECIAL DAMAGES ARISING OUT OF THE USE OF, OR INABILITY TO USE, THE PRODUCT.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

As soon as the purchaser discovers any defect or failure, the purchaser must within the period of the applicable warranty, notify the company of that defect. The purchaser must then return the defective part or item with all transportation charges prepaid to the company.

Information regarding warranty performance may be obtained by writing to

WATER SYSTEMS, P.O. BOX 516, MESA, AZ 85211-0516