

PELICAN WATER TECHNOLOGIES, INC.

NaturSoft NS3/NS6 Softening System

Complete Owners Manual

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Product Certifications



Pelican NaturSoft NS3/NS6 – WQA Gold Seal Certified to NSF/ANSI Standard 42 for Material Safety and Structural Integrity only.



Pelican 5 Micron Pre-Filter System – NSF/ANSI Certified Standard 42 for material and structural integrity requirements.



Clack V3007-xx Bypass Fittings – WQA Gold Seal Certified to NSF/ANSI Standard 44 for material safety and structural integrity only.

Product Operation and Specifications

Electrical requirements:

- No Electricity is required for this system.

Rated Service Flow (GPM):

- NS3: 8-12 GPM
- NS6: 14-18 GPM

Rated Capacity (Gallons):

- Holds 9.1 Gallons in the NS3 tank
- Holds 16.7 Gallons in the NS6 tank

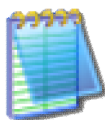
Minimum Working Pressure (PSIG): 25 PSI

Operating Temperatures (°F): 36°F – 120°F

pH Range: 7-11 pH

Water Conditions for NaturSoft Operation:

- The water should be free of Hydrogen Sulfide, a dissolved gas with a characteristic smell of rotten eggs. If present, it can coat the catalytic surface of the media and interfere with the process. The gas should be removed through adequate pre-treatment.
- The water should be free of hydrocarbons, oils and lubricants. If present, they can coat the catalytic surface of the media and interfere with the process. Remove through adequate pre-treatment.
- The water should contain less 1 mg/l of phosphates. Phosphates sequester dissolved hardness molecules preventing them from forming crystals and may coat the catalytic media surface and interfere with the process.
- The water should be free of dissolved copper. If present, it can adsorb on the catalytic surface of the media and interfere with the process.



Plumber Notice: If this or any other system is installed in a metal (conductive) plumbing system, i.e. copper or galvanized metal, the plastic components of the system will interrupt the continuity of the plumbing system. As a result any errant electricity from improperly grounded appliances downstream or potential galvanic activity in the plumbing system can no longer ground through contiguous metal plumbing. Indeed, older homes may have been built in accordance with building codes from decades ago some of which actually encouraged the grounding of electrical appliances through the plumbing system. Consequently, we highly recommend either the installation of a by-pass consisting of the same material as the existing plumbing, or a grounded “jumper wire” bridging the equipment and re-establishing the contiguous conductive nature of the plumbing system. Also ensure that your installation of the system comply with applicable state and local regulations.



Attention Well Water Customers: Installation of this system will be after any and all well equipment (ie. Well pump, bladder tank, pressure tank, etc).

Parts & Pre-Installation Checklist

Open the parts bags marked “WF-SP-PARTS” and use the checklist below to confirm receipt of all parts.

Part	Description	Qty	Rec.
V3007	WS1 Fitting 1” PVC Male NPT Elbow Assembly	1	
V3007-01	WS1 Fitting ¾” to 1” PVC Solvent 90 Assembly	1	
V3007-03	WS1 Fitting ¾” Brass Sweat Assembly	1	
V3007-02	WS1 Fitting 1” Brass Sweat Assembly	1	
201-305	Legend PVC Compact Ball Valve	1	
PVC-RED	PVC 1” Female to ¾” Threaded Male Reducer	2	
Bypass	Clack In/Out Bypass Valve with Red Arrow Handles	1	
PP5	Big Blue Pre-Filter Housing with Mounting Bracket and screws	1	
PC40-1	5 Micron Poly-Spun Sediment Filter	1	

Pre-Filter Installation

Includes:

1. 1ea. 10" blue pre-filter housing
2. 1ea. 5 micron pre-filter
3. 1ea. mounting bracket with mounting screws
4. 1ea. shut off valve
5. 1ea. pre-filter wrench for changing the pre-filters

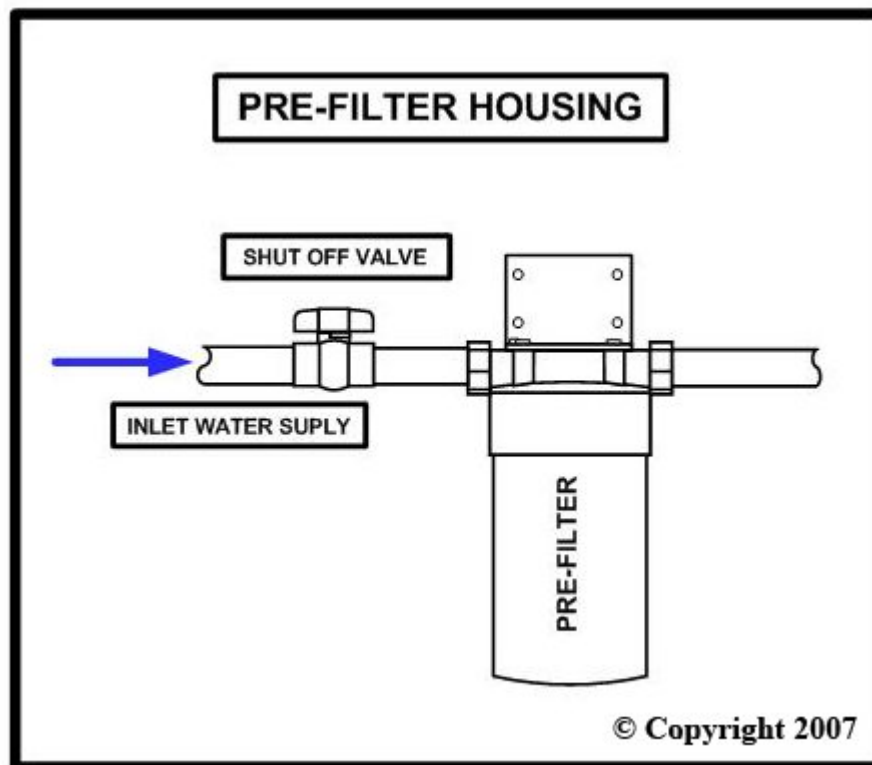
Sequence for plumbing from incoming water supply before connecting to the filter tank(s):

1. Shut off valve
2. Pre-filter housing with pre-filter inside

Diagram - Shows the order of the shut off valve and pre-filter housing



Note: If you have $\frac{3}{4}$ " lines you will use 4 of the PVC-RED fittings to reduce the shut off and pre-filter housing to $\frac{3}{4}$ ". If you are using copper, you may have to purchase additional fittings in order to use those PVC reducers.



NaturSoft Tank Install

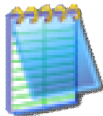
You will need the following tools/parts for this section:

NaturSoft Tank

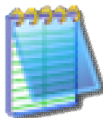


1 x Bypass Valve

1 x Bypass Fitting Set
(determine based on pipe type and size)

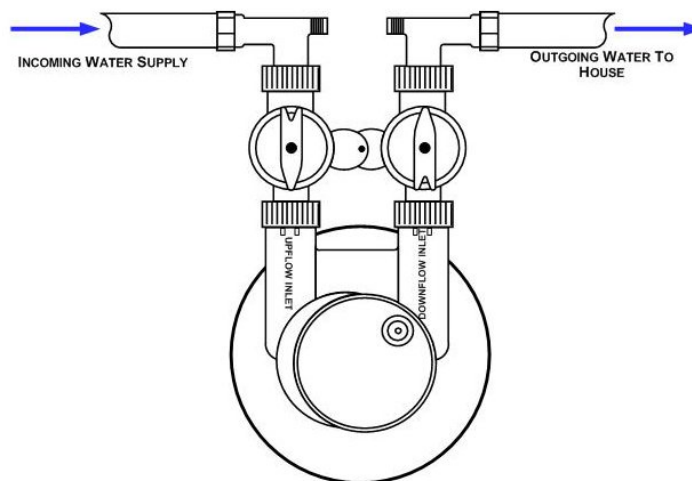


Note: After installation the arrows on the bypass valve may be pointing in different direction than the diagram shows, if this is the case simply pull up on the red arrows to take them off and turn them around.



Note: When installing any of the Pelican tanks from 1 1/2" incoming waterlines you will need to reduce it down to 1 1/4" then to 1" to connect to the shut off valve. This will not reduce your pressure, as it will insure proper flow and prevent water pinging.

VALVE IN NORMAL OPERATION MODE



1. Bypass valve installation – The bypass valve comes complete and ready to install with o-rings, split rings and black quick connectors. To install simply press the bypass valve onto the head of the tank and hand tighten both black quick connectors.
2. Install the appropriate fittings to the bypass valve whether it is pvc or copper. Follow the diagrams supplied with the fittings.
3. Connect the incoming water supply to the up-flow inlet side and the outgoing water supply to the down-flow inlet side. (Outgoing water supply is the waterline returning to the home)
4. Once the tank is hooked up SLOWLY turn the main water supply back on. Turn the faucet closest to the system to bleed the water lines.

NaturSoft Tank Start Up

1. With the water upstream of the system being shut off, open a test spigot or other cold water outlet close to the system installation.
2. Slightly crack open the upstream shut-off valve allowing the system to gently fill with water. The air being displaced will escape through the open fixture downstream.
3. Once water starts coming out of the downstream fixture, turn off the water supply and allow the system to rest for at least 60 minutes allowing the media inside the system to get thoroughly wetted. (If you have a by-pass valve installed you may open it to isolate the system and restore the water supply to the building in the interim)
4. After the soaking is complete, initiate a rinsing and conditioning procedure with the system back on line.
5. Flush the system: Run the water to drain for at least 5 minutes at the following minimum flow rates: 5 gallons per minute. You may find the flush water to have a slightly milky look to it. This is normal as calcium carbonate fines are flushed from the system.
6. Condition the system: Reduce the flow rate and run the water to drain at the following flow rates and corresponding length of time: 0.50 gallons per minute for 60 minutes.

NaturSoft Helpful Hints/What to Expect

What to expect if you have an existing home without a prior softener

Immediately after the installation you will experience all of the benefits listed above. Depending on the amount and type of scale deposits present in the plumbing of your home and the type of plumbing materials used, you may or may not observe the following within one to four weeks following the installation of the new system. These effects are temporary and will steadily diminish and eventually stop once the plumbing has been de-scaled:

1. The “softness” of the water may temporarily diminish noticeably. This would be particularly evident on the hot water side. We have measured increases in the mineral content of the water of more than ten grains per gallon in the treated water after it has traveled through the water heater and the home’s plumbing.
2. Since the existing limestone scale is “softened up” as part of the NaturSoft™ effect, it may detach in small “chunks” ranging in size from very fine silt to pieces larger than a grain of sand. The larger pieces may be big enough to build up in the aerator screens of your fixtures. Considerable silt-like accumulations may be visible on the shower heads
3. Higher flow rates will shear off more of the existing scale than will lower flow rates. Consequently, you may not notice as much at a sink faucet as elsewhere. The bathtubs, however, are the place in the home where ordinarily the highest flow rates are encountered. Here you are likely to observe the most obvious signs of the de-scaling activity: The water may come out somewhat milky. You may even find sand like grit at the bottom of the bathtub. Consequently, if the scale being removed from the plumbing was harboring sediment or iron that is now being released, it would be also most apparent in places like the bathtub.
4. The water line supplying fixtures which experience the most use will be cleaned the quickest and will be the first to return to providing you the full benefits you experienced immediately following installation; rarely used fixtures will take correspondingly longer.

What to expect if you have or had an existing traditional softener

1. The water does not feel as “soft” as with the softener: A traditional water softener turns dissolved mineral hardness (calcium bicarbonate) into dissolved sodium bicarbonate (i.e. baking soda). The absence of the calcium in combination with the presence of sodium bicarbonate leads to the “soft”, “slick”, “slimy” or “can’t get the soap off” sensation. The NaturSoft technology maintains the healthy mineral content of the water holistically only causing it to act less “hard”. However, it does not add the bicarbonate. As the result the water feels “softer” than untreated water, but not as soft as chemically softened water. If you miss the “slick” feeling try adding some baking soda to your bath.

2. Water spotting: A water softener replaces calcium with sodium. The “water spotting” a water softener leaves behind is a salt “haze” that wipes off very easily and is far less noticeable than spots caused by minerals. (This softener “haze” is very much the haze you find on your car after parking it near the beach on a windy day.) The NaturSoft™ treatment results in reduced spotting compared to untreated water. However, compared to chemically softened water the remaining spotting consists of minerals not salt, and is more visible as a result. Yet, the cleaning of this type of spotting approaches the ease of cleaning up the salt haze when compared to untreated water. (You can conduct your own test by putting the NaturSoft™ system in “by-pass” for a few days to see the difference)

3. Soap curd: Tallow or oil based soaps like “Ivory” and the like will react with calcium minerals to form a sticky film. Detergent based cleaners like shampoos, shower gels, dish soaps and laundry detergents either do so very slightly or not at all, but all detergent will work better with treated water. Consequently, you will find that the performance detergents will improve dramatically with the NaturSoft system in place and you will be able to reduce your detergent use between 40-60% compared to untreated water. This is comparable to chemically softened water. You will, however, notice very little improvement when using regular bar soap or tallow based soap products since the minerals are largely still able to react with the fats in the soap to form the curd.

4. Depending on the water chemistry of your water supply, you are unlikely to, but may still have some scale deposits in your plumbing system. This is especially true if your softener did not always work 100%.

Tips for Automatic Dishwashers

Generally, the media relies on removing mineral hardness from solution and forming micro crystals, not on actually removing the natural minerals from the water. Harsh chemicals, specifically acids / low pH detergents or rinse agents, can destroy these crystals by re-dissolving them and reducing the desired effect. More importantly, we should remind ourselves that dishwashers are supplied by the hot water side of a building's plumbing system. As noted in section I (If you have an existing home that did not have a water softener or effective scale control system installed prior to installing in a NaturSoft System), higher than normal hardness would initially be released from the hot water plumbing potentially affecting the dishwasher. For both of those reasons, the combination and amounts of detergents and rinse agents should be "just right". "Gel Packs" offer a great alternative since they contain detergents and rinse agents in just the right amounts. Two dishwasher detergents have received rave reviews from our customers:

- "Electrosol" Gel Packs: name brand detergent with relatively gentle ingredients.
- "Lemi-Shine" Rinse Agent.
- "Seventh Generation" All natural detergent.

Tips for Cleaning Hot-Water Heaters when using a NaturSoft System



Cleaning and restoring the plumbing system is a major benefit of the NaturSoft product. It is a benefit that no installation of a traditional water softener would provide. At the same time we can agree that the cleaning process represents impairment to the enjoyment of the improved water quality. In order to minimize the time required to complete the process and return to normal as quickly as possible we strongly recommend:

- Flushing your hot water heater by turning off the heat source, attaching a hose to the drain valve at the bottom of the tank and "power flushing" the heater by opening the drain valve. Once you have assured yourself that the water heater is completely filled with water, turn the heat source back on. Repeat weekly if necessary.
- Alternative, albeit not quite as effective, you may open several fixtures in the home and let water run simultaneously for a couple of minutes. Again, focus on the hot water side and high flow uses like the bathtubs.

Warranty Information

Manufactures 10 Year Warranty

Manufacturers 10 year warranty on the all filter housings, tank heads, and the bypass valves against manufactures defects

Note: Manufacturers warranty and performance guarantees do not cover acts of God, misuse or abuse. All products must be used in accordance to the specific application. All warranties and performance guarantees are valid to the original purchases and purchasers delivery location. Labor and or cost of damage due to misuse or defective items are the responsibility of the purchaser.

If you have not had a water test done before purchasing a system, a certified water test may be required for any warranty claims. Should your water test show contaminates unknown at the time of purchase or unknown to Pelican, this may void your warranty. Please contact your authorized Pelican dealer for further details. Pelican Water Technologies or its Authorized Dealers will not be liable for any circumstance for consequential or incidental damages. In any dispute between the Manufacturer and Purchaser regarding products sold under this warranty, for the purpose of court litigation, jurisdiction and venue over the parties and the subject matter of the dispute shall be with the circuit/county court of Volusia County, Florida, U.S.A. The prevailing party in any such litigation shall be entitled to an award of reasonable attorney's fees and costs. It is the purchaser's responsibility to insure that the equipment is installed in compliance with all applicable building codes both local and state.

Manufactures Performance Guarantee

The NaturSoft Systems (Models NS-3, NS-6) media carry a full replacement warranty against manufacturing defects for a period of one (1) year. The manufacturers authorized dealers shall be responsible for the repair or replacement of defective media only, labor to replace the media is the responsibility of the purchaser. Supply water must be free from oil, hydrogen sulfide and will void any warranty or performance guarantee if present.

Send in this Warranty Registration Form to validate your warranty or visit www.PelicanWaterTechnologies.com to complete warranty registration form.



Pelican™ Warranty Registration Form

Date Item(s) were Received: _____ Order ID#: _____ Model: _____
Name: _____ Address: _____
City: _____ State: _____ Zip: _____

Send To:

Pelican Water Technologies
3121 Suite D Opportunity Court
South Daytona, FL 32119
Phone: 1-(866)-767-6401

Plumbers Information (optional)

We like to recommend good plumbers through out the USA and if you were happy with your installer please give us their information so we can pass it on as a courtesy. Thank you for your time.

Name of Plumbing Company used to install system: _____

Phone #: (____)-_____ of the Plumbing installer