

**DO NOT DISCARD - GIVE THIS MANUAL TO THE OWNER AFTER INSTALLATION**

- Installation must conform to all local plumbing codes and regulations.
- Do NOT use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.
- Connect system to cold water supply only! Water temperature must not exceed 100°F/38°C.
- Do NOT solder plumbing connections attached to the filter housing or inlet valve. High temperature will damage these components.
- Do NOT over-tighten fitting connections into inlet valve or housing outlet. Always back-up valves and fittings with a wrench to avoid turning the valve.
- Allow a minimum of 3" under the housing to allow for sump removal and filter replacement.
- Do NOT mount the system near a heat source or above the electrical wiring or any device or area that would be adversely affected by water.
- Do NOT mount the system behind equipment. The unit must be easily accessible for filter replacement.
- Failure to change cartridges per recommended intervals with OptiPure replacement cartridges may lead to system failure and property damage.

**System/Operating Specifications &Dimensions**

Maximum Pressure: 125 psi/8.6 bar Maximum Temperature: 100°F/38°C, Min.: 35°F/2°C

Capacity: Change filters before hardness removal capacity has been depleted.

**IMPORTANT - Use Enclosed Hach 5B Water Hardness Test Kit To Measure Water Hardness and Document.**

Date Installed: \_\_\_\_\_ Feed Water Hardness: \_\_\_\_\_ gpg

Treated Water Hardness: \_\_\_\_\_ gpg Blended Water Hardness: \_\_\_\_\_ gpg

Projected Filter Change Date: \_\_\_\_\_

Hardness Conversion: 1 grain per gallon equals 17.1 ppm or mg/l. e.g. 10 grains of hardness is equal to 171 mg.l of hardness.

The formula to determine cartridge life span is:

$$(\text{Grains Capacity of Filter/grains per gallon}) \times (\text{ounces per gallon/ounces per serving})$$

Capacity of QTSFT-3+				
Feed Hardness GPG (MG/L)	Blend Hardness GPG (MG/L)	Gallon Capacity	Blend Hardness GPG (MG/L)	Gallon Capacity
25 (428)	3 (51)	236	5 (86)	260
20 (342)	3 (51)	306	5 (86)	347
17 (291)	3 (51)	371	5 (86)	433
15 (257)	3 (51)	433	5 (86)	520
12 (205)	3 (51)	578	5 (86)	743
10 (171)	3 (51)	743	5 (86)	1040
9 (154)	3 (51)	867	5 (86)	1300
8 (137)	3 (51)	1040	5 (86)	1733
7(120)	3 (51)	1300	5 (86)	2600
6 (103)	3 (51)	1733	5 (86)	5200

An example: If the QTSFT-3+ was installed on a system with feedwater that contains 12 grains of hardness and the blended water hardness is 5 gpg (system is removing 7 gpg) with a serving size is 2 ounces, the expected life span would be: (5200 grains/7 grains) X (128 ozs./2ozs.) = 742 gallons treated x 64 servings/gallon = 47,488 servings. Or you could simply say 742 gallons of water is treated regardless of serving size. If you do 300 - 2 oz. servings per day that would be 158 days of service.



**Model QTSFT-3+**

Capacity: 5,200 grains  
 Service Flow Rate: 1.0 gpm/3.8 lpm  
 20" W x 24"H x 7" D  
 3/8" Push-to-Connect Inlet/Outlet

**Installation Precautions**

- Do NOT install system on line pressure above 125 psi.
- Do NOT install the system backwards with the feed water line connected to the outlet.
- Do NOT use liquid pipe compounds for fitting connections. USE two to three wraps of Teflon tape.
- Do NOT allow system to freeze. Turn off water supply to housing and drain housing if temperature falls below 33°F.
- Do NOT install system in direct sunlight or where system is exposed to harsh chemicals or may be subjected to being struck by moving equipment, carts, mops or any other item that may cause damage.
- IF water hammer is evident, install water hammer arrestors before OptiPure unit.

**Installation Procedure**

1. Turn off all equipment to be fed by the OptiPure System.
2. Locate water supply cut-off valve and turn off.
3. Install a minimum 3/8" full-flow ball valve on the water supply side that will feed the water system.
4. Anchor the OptiPure System on a wall stud or suitable mounting material spanning wall studs.
5. Run 3/8" Polyethylene tubing from the full-flow ball valve at the tap water source to the inlet ball valve on the left side of the OptiPure system. The connection is a 3/8" Push-To-Connect fitting that is a push fit.

**NOTE: Make sure tubing is cut square and clean with no burrs before inserting into PtC fitting.**

6. Select the appropriate size tubing for the equipment being fed and connect it to the outlet of the OptiPure System. Connect the other end of the tubing to the equipment. Connect a short piece of 3/8" tubing to the Flush Valve.
7. With OptiPure Flush Valve open and tubing directed to drain or bucket, slowly open the full-flow ball valve at the tap water source. Check for leaks and allow system to flush to drain until water runs clear or for 10 minutes at the specified system flow rate to allow air and any carbon fines to escape. **NOTE: NO ACTIVATION IS REQUIRED FOR THE OPTIPURE SYSTEM TO PERFORM PROPERLY. FLUSHING IS RECOMMENDED TO ALLOW AIR TO ESCAPE THE SYSTEM AND REMOVE ANY CARBON FINES and COLOR PRIOR TO CONNECTING TO EQUIPMENT.**
8. Close Flush Valve and check for leaks.
11. If no leaks turn on equipment and check for normal operation.
12. IMPORTANT: Document installation date; measure water hardness of water supply and filtered water. Calculate projected filter cartridge change date and document.

## Operation

With adequate pressure, normal operation of the OptiPure System is completely automatic. Dependable operation involves only monitoring of water hardness, Blend Valve adjustment, periodic filter changes and service documentation.

## Flowmeter Operation

The Flowmeter turns on the LCD and displays the remaining capacity if there is any water flowing through the sensor. It turns off after 10 seconds of no water flow.

The DISPLAY button displays the status of the three modes. The monitoring capacity: displays remaining capacity; the elapsed time: shows the remaining time in days; the flow rate: displays actual real-time flow rate in gpm.

Press the RESET to reset the the monitoring capacity and elapsed time to the last setting value. This only works when the system reaches the end of life. Holding the RESET button for 6 seconds resets the Flowmeter to flow setting only with no monitoring capacity or elapse time readings.

## Flowmeter Capacity Settings

While pressing the DISPLAY button, press RESET button and release both of the buttons when the "OFF" blinks on the LCD screen. The Flowmeter goes into the setting procedure. Immediately go to the following steps:

### Setting Capacity Monitor - Factory Set to 720 gals.

Press the DISPLAY button choose the correct value for monitoring capacity. The sequence is 0-100-200....19900-OFF-0-30 gallons. Choose the calculated capacity, then press RESET button to save it. The procedure goes to the monitoring elapse time setting. The monitoring capacity is disabled if you choose the "OFF" and save it.

### Setting Elapsed Time - Factory Set to 180 days.

Press the DISPLAY button to choose the right monitoring of elapsed time. The sequence is 0-30-60-90....690-720-OFF-0-30. Choose the right elapsed time, then press RESET button to save it. The setting procedure is completed. The monitoring of elapsed time is disabled if you choose "OFF" and save it.

The setting procedure will be terminated, and go back to the original status if there is no input for 10 seconds.

## End of Life Alert

When the remaining capacity is less than 30 gallons or the remaining time is less than 7 days, the buzzer will beep once and the digits on the LCD blinks to indicate that it is approaching time to change filters.

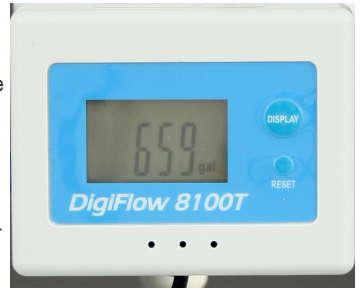
When the remaining capacity reaches 0 gallons or 0 days, the buzzer will beep twice and the digits on the LCD flash to indicate that filters need to be changed immediately. After filters are replaced, press the RESET button to reset both gallon capacity and elapsed time.

## Blend Valve Adjustment

Use the Blend Valve on the front of the system to blend un-softened filtered water with softened water to obtain the ideal water hardness for your best beverage quality. The Flush Valve can be used as a sample port to collect a blended water sample and measure the water hardness. Use the Hach 5B test kit to measure the water hardness. Test instructions are located on the kit box and inside the kit.

Turn blend valve to the right or clockwise to close the blend or decrease the amount of unsoftened filtered water that is blended with the softened water.

Turn blend valve to the left or counter-clockwise to open the blend valve increasing the amount of unsoftened filtered water that is blended with the softened water.



## **GALLON FLOWMETER**

**IMPORTANT** - SET GALLON CAPACITY AND DAYS BEFORE USE  
Factory set for 700 gals. and 180 days.  
Uses (2) AA batteries.



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## Maintenance

The only routine maintenance your OptiPure System should ever require is periodic filter cartridge changes. Filter changes are necessary for optimum performance of your foodservice equipment. If the system sizing recommendations have been followed the OptiPure System is designed to provide soft water for the rated capacity of the system.

### Filter Change Frequency

Several situations will mandate filter changes. Complete filter sets should be changed when any of the following apply:

- Six (6) Months have passed since unit installation or previous filter change.
- Reduced water flow.
- When hardness minerals are no longer removed.

If filter change frequency is less than capacity to remove hardness, it may be necessary to add additional prefiltration or evaluate system sizing recommendations.

### Filter Cartridge Replacement Procedure

**IMPORTANT:** Determine whether all equipment connected to the OptiPure System must be turned off prior to shutting off water supply from filters.

1. Close inlet ball valve.
2. Relieve pressure downline by opening flush valve or briefly actuating equipment.
3. Turn cartridge to the left 1/4 turn until it stops.
4. Pull down on the cartridge until it clears head. Discard old cartridge.
5. Line up the upward-arrow on the new cartridge with the upward pointing arrow on the head.
6. Push cartridge up into head until it stops and turn to right until it stops. (The upward-arrow on the cartridge should align with the downward-arrow on the head).
7. Open the inlet ball valve.
8. Open down-stream flush valve to flush new cartridge at the specified flow rate for a minimum of ten (10) minutes.

Replacement Parts for: QTSFT-3+

Part #	Description
180-80120	Hardness Test Kit - 100
530-48102	Flowmeter, Gallon Totalizer
520-12221	Valve, Flush
514-00440	Valve, Blend
524-01030	Valve, Check
750-00120	Knob, Flush Valve
551-63162	Fitting, Inlet/Outlet Bulkhead
300-05904	Head, QT Valved

Replacement Cartridges

System	Cartridge	Qty.
QTSFT-3+	CTO-Q10	1
	SFT-Q	3

Replacement Filter Cartridges

OptiPure Filter Systems are designed, tested, and certified with OptiPure filter cartridges with proven performance, size and operating capacities. Use of replacement cartridges other than those specified will void warranties, certifications and may compromise equipment protection, water quality and cartridge life.

OptiPure warrants the quality of workmanship of their system components and assembly, except for replacement cartridges and membranes, for a period of 36 months. OptiPure Systems are designed, tested and certified with OptiPure cartridges. Use of replacement cartridges or parts other than those specified will void warranties and Certifications, and compromise equipment protection, water quality and cartridge life.

**Manufactured by OptiPure**

division of Procam Controls, Inc.

2605 Technology Dr. Bldg. 300 Plano, TX 75074 USA

P: 972.881.9797 F: 972.422.6262 email: techsupport@optipure.net

www.optipurewater.com