OP-70 Simple Install Guide

Rev. 1.1

OptiPure®
Foodservice Filtration Systems
A Division of **AQUION**

Access manuals, spec sheets and additional educational materials for foodservice water treatment at our website.
www.optipurewater.com

❖ General Information

Service Contact

For local maintenance and service information, please contact your nearest Authorized Service Representative. Service inquiries may be directed to technical support at:

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Phone #: 972.881.9797
Fax #: 972.422.6262

E-mail correspondence to:
ps@optipure.net

Environmental Conditions

The OP-70 is certified to operate under the following conditions:

1. Altitude up to 2000 m.
2. Ambient temperature of 40-105°F (5 - 40°C).
3. Max relative humidity 80% at 88°F (31°C).
4. Installation category II.
5. Pollution degree II.
6. Indoor use only, protect from elements.

Safety Instructions

1. Please read and follow these instructions when connecting and using the system.
2. Securely bolt processor to wall before operating.
3. Avoid cross-connections and install on cold water supply only.
4. Use approved Air-Gaps when connecting to drain lines.
5. Do not exceed system pressure rating and use water hammer arrestors when water hammer is evident.
6. Turn off Feed-Water supply before filter or membrane cartridge replacement.

Completed OP-70 Installation

5 gal. bladder tank shown

❖ Installation Requirements

Operating a system on water supplies outside of the parameters listed below may lead to premature membrane failure. This product is for commercial use only and must be installed and maintained in accordance with manufacturer's guidelines and local regulatory plumbing codes.

Operating parameters

Typical Membrane TDS rejection: 97+%
Feed Temperature: 40 - 100° F (4 - 38° C)
Feed pressure: 50 - 80 psi (3.4 - 5.9 bar) at 1 gpm
Production (at 77°F, 60 psi): 70 gals/day (2.9 gals/hr)
Recovery: up to 33%

IMPORTANT NOTE: The production rate is strictly dependent on feed water temperature and pressure. For example: Operating pressure of 30 psi will reduce production by 50%, or 48˚F feedwater will reduce production by 50%.

Location

The system should be installed indoors, within 25 ft of the equipment water is being supplied to, and protected from the elements. Do not let the processor or storage tank freeze or be exposed to rain or direct sunlight.

Feed water connection

An adequate flow and pressure of water to the unit is essential for successful operation.

Drain

A drain should be located within 5 ft of the system. Drain must allow a minimum flow of 2 gals/min. Compliance with most local plumbing codes requires installation of an approved air gap in the drain line. The drain connection should be accessible for system set-up and service.

Feed-water chemistry

Feed TDS: Up to 1200 ppm
Feed pH: 6 - 10
Hardness: 12 grains or less
Free chlorine: <2 mg/l
Iron (Fe): 0.1 mg/l max.
Turbidity: <0.05 NTU
Manganese: 0.05 mg/l max.
Hydrogen sulfide: 0.0 mg/l

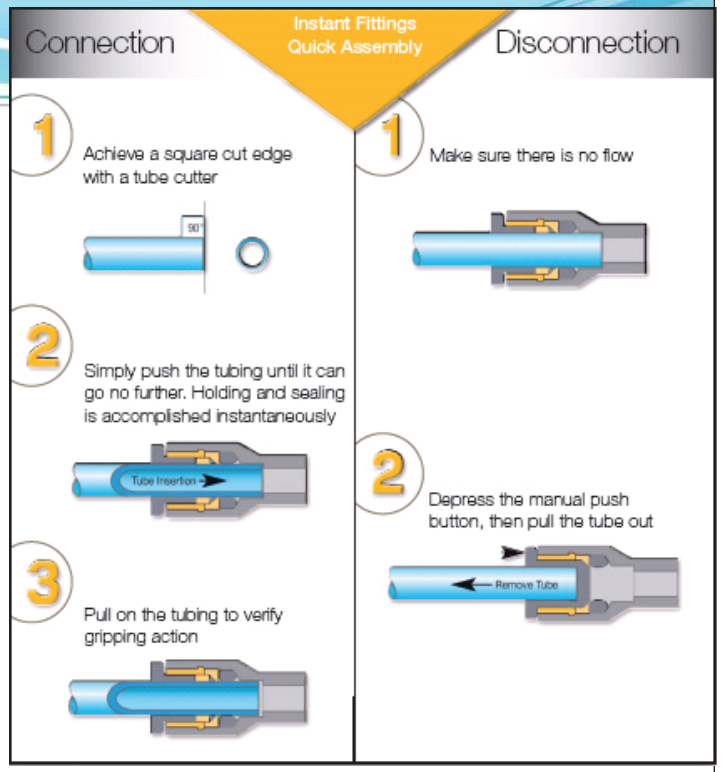
Note: The presence of silica or flocculants such as alum or cationic polymers in the feedwater may cause membrane fouling and may require special chemical pretreatment or periodic membrane cleaning. Please note that membrane failure due to fouling is not covered by the warranty.

Storage Tank

The tank must be located within 10 ft of the water processor. The floor beneath the storage tank should be smooth, clean and free of sharp objects that could puncture the bottom of the tank.

Optimized Water Lines to Equipment

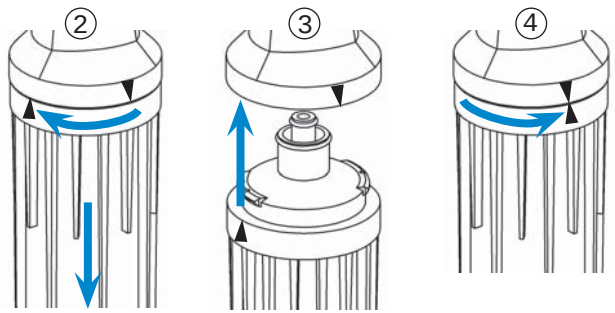
Tubing, piping and associated fittings connecting Optimized water lines to equipment should be food grade material that meets NSF Std 51 or 61 with a minimum pressure rating of 75 PSI. Optimized water may react with most metal piping imparting a bad taste. Plastic pipe or reinforced opaque beverage tubing are acceptable choices for Optimized water distribution. The larger inside diameter tubing or hose, the better to minimize pressure drop.



Installing or Replacing QT Cartridges

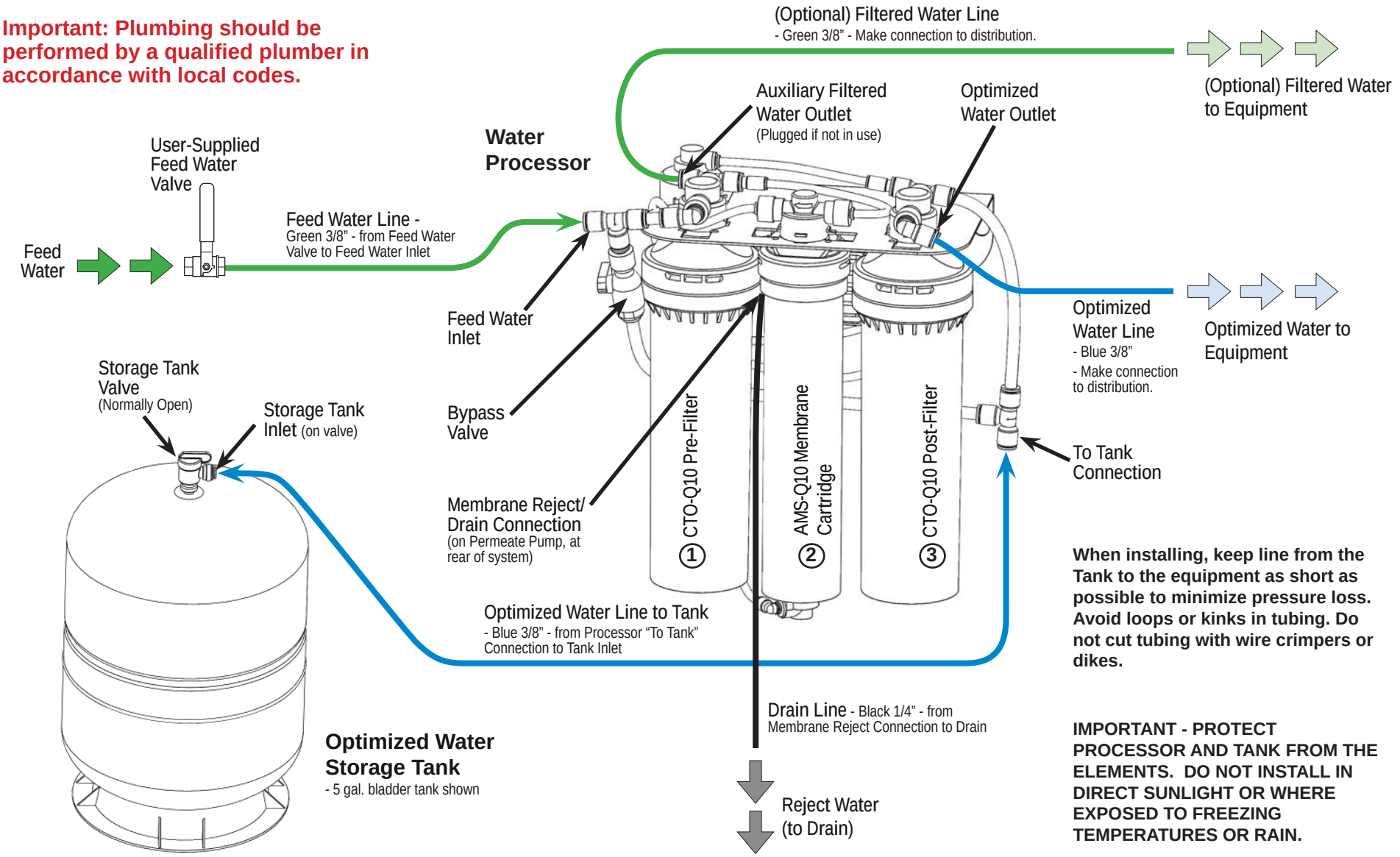
NOTE: Before installing or replacing QT Cartridges, make sure to remove the plugs in the QT heads.

1. Close feed water valve.
2. Twist and pull down to remove cartridges.
3. Line up the upward-arrow on the new cartridge with the upward pointing arrow on the head. Push cartridge up into head until it stops.
4. Turn to right until it stops. NOTE: labels might not always face forward.
5. Open feed water valve.



❖ OP-70/5 Installation Diagram

Important: Plumbing should be performed by a qualified plumber in accordance with local codes.



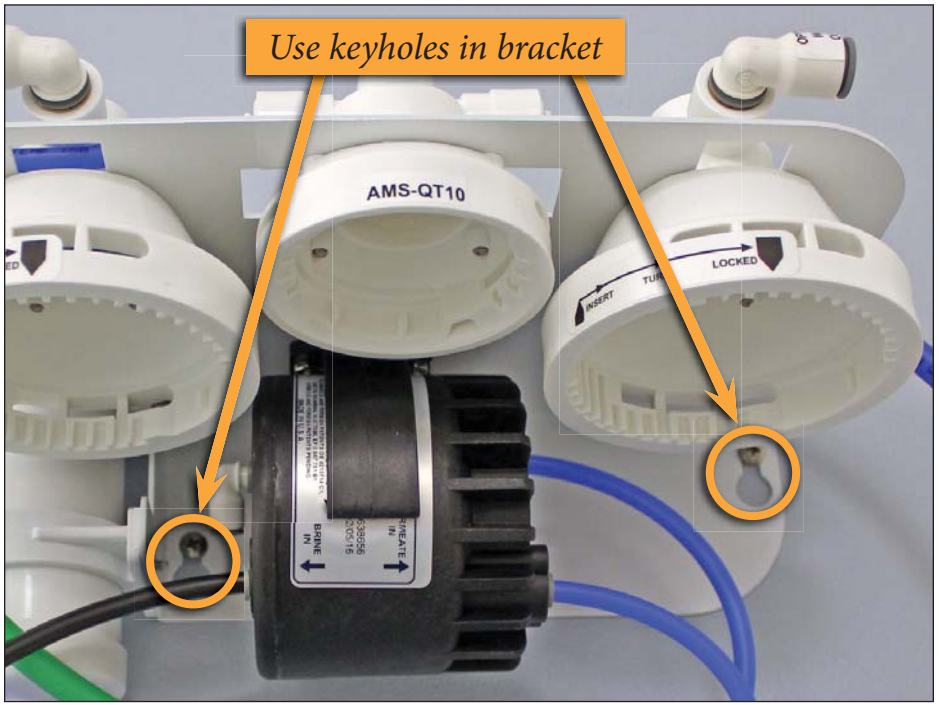
When installing, keep line from the Tank to the equipment as short as possible to minimize pressure loss. Avoid loops or kinks in tubing. Do not cut tubing with wire crimpers or dikes.

IMPORTANT - PROTECT PROCESSOR AND TANK FROM THE ELEMENTS. DO NOT INSTALL IN DIRECT SUNLIGHT OR WHERE EXPOSED TO FREEZING TEMPERATURES OR RAIN.

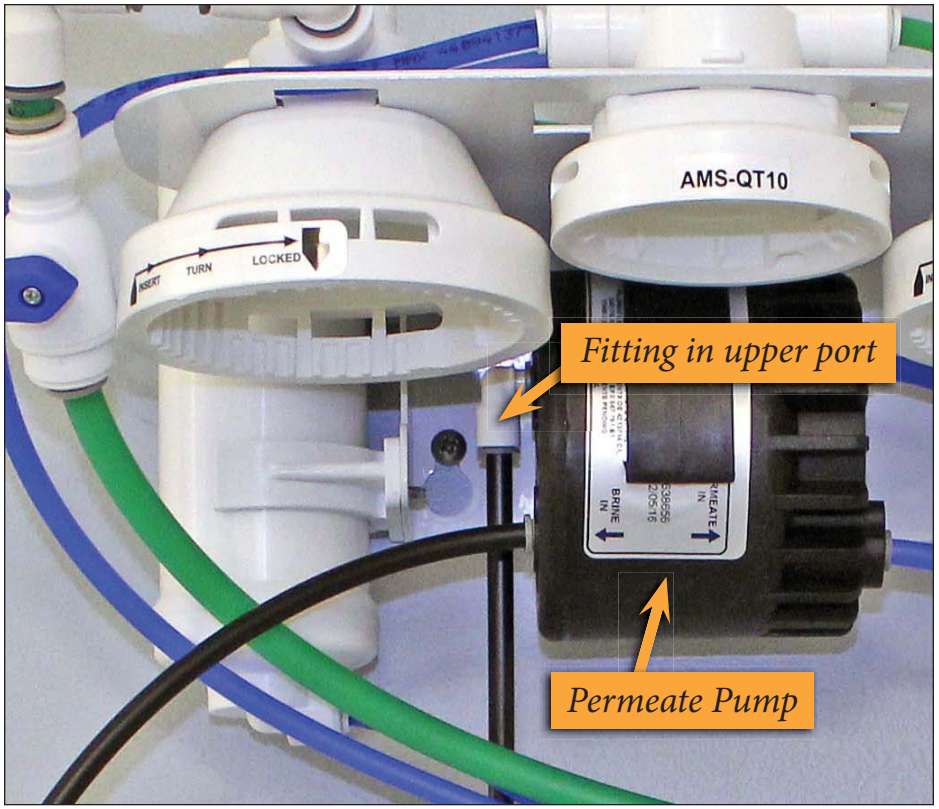
❖ Mount Processor

Step 1

Mount the system with 2 screws (user-supplied) to the attachment keyholes shown below. Use anchors or attach directly to studs. Be sure to allow 3” clearance below cartridges for removal.



❖ Connect Drain Tubing



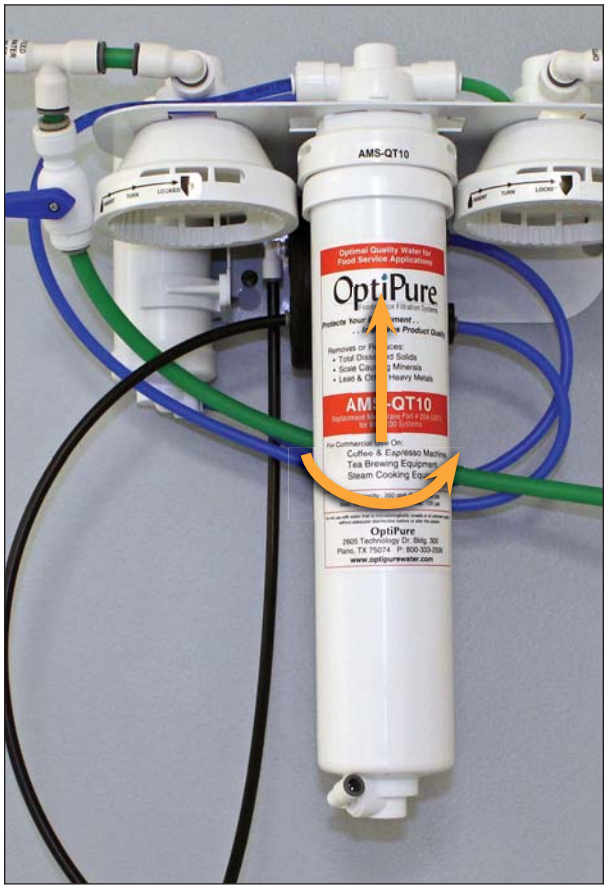
Step 2

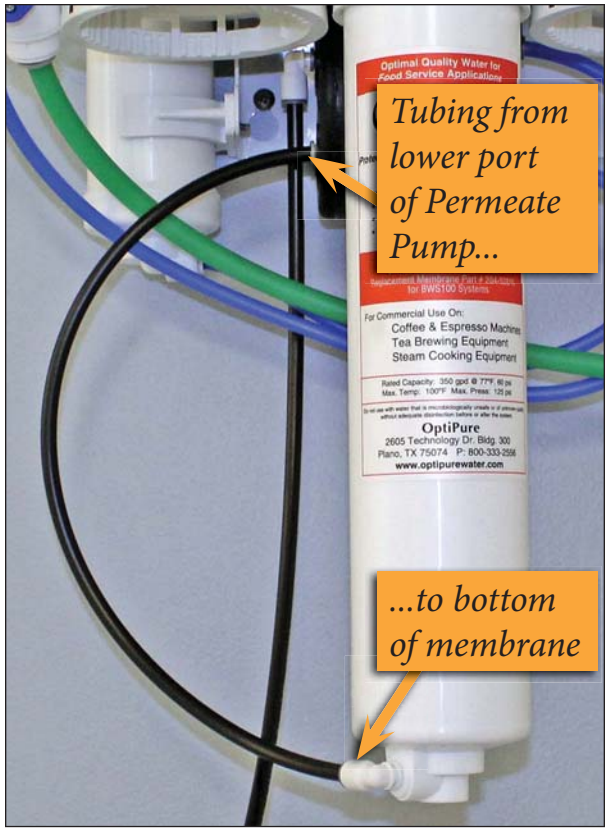
Connect the 1/4” black tubing (from the installation kit) to the upper port fitting on the permeate pump (for connection to a drain later).

❖ Install Membrane

Step 3a

Insert the AMS-QT10 membrane into the center head and rotate it to the right 1/4 turn to lock.





Step 3b

Remove the plug from the fitting at the bottom of the membrane and insert the end of the black tubing coming from the lower left port of the permeate pump.

Attention: Warranty will be void if this step is not performed properly.

❖ Install Filter Cartridges

Step 4

Insert and lock both the CTO-Q10 cartridges into the prefilter and post-filter heads as shown.

NOTE: With model OP-70CR, the post-filter is a CTO-QT10CR (with green label).

❖ Make Drain Connection

Step 5

Route and connect the loose end of 1/4” black tubing coming from permeate pump on processor to a suitable drain and fasten it at the drain. (Some locations may require an approved air gap. Optional OptiPure air gap is available, part number 164-89905.)

❖ Make Feed Connections

Step 6a

Install the feed water adapter (from the installation kit) into the user-supplied 1/2” feed water supply valve. (Do not over-tighten.)

Step 6b

Connect a piece of 3/8” green tubing to the feed water supply valve. Connect the other end to the Feed Water Inlet on processor.

❖ Make Tank Connections

Step 7

Install the tank valve on the top of the tank. Connect a piece of 3/8" blue tubing to tank valve. Connect the other end to the "To Tank" fitting on the system. Ensure valve is in OPEN position, as shown.

❖ Make Optimized Water Connection

Step 8

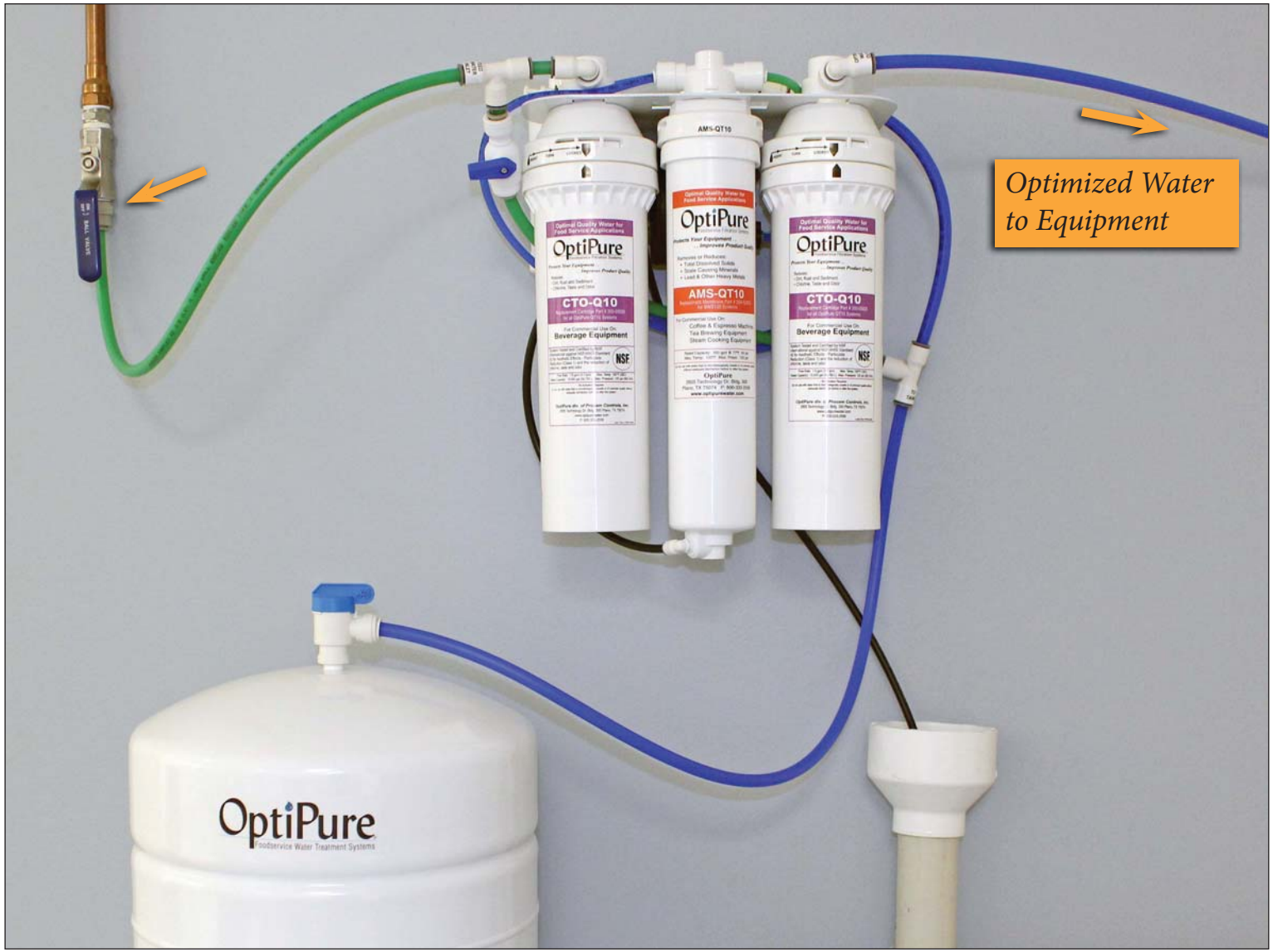
Connect a piece of 3/8" blue tubing to the Optimized Water Outlet connection on processor. (This will later connect to downstream equipment.) Temporarily route the other end to the drain.

❖ Flush

Step 9

Open the feed valve. Allow water to flow to drain until all air is purged from system and product water becomes clear. Close the feed valve.

❖ Place in Service



Step 10

Connect the blue tubing from the Optimized Water Outlet on processor to downstream equipment. Open the feed valve and check for leaks.