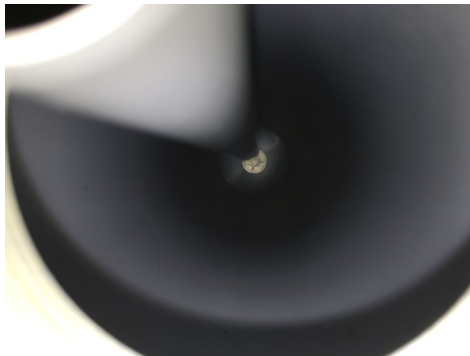


Backwashing Filter Tank Filling

1. Make sure that the distributor tube is secured in the bottom of the tank (use a flashlight if necessary).
2. There is an O-ring inside the control valve that seals around the distributor.



3. Cover the distributor tube opening with a cap or piece of tape. Duct tape works exceptionally well for this.

NOTE: IT IS IMPERATIVE THAT NO MEDIA (gravel or sediment media or carbon) BE ALLOWED INSIDE THE DISTRIBUTOR TUBE.



4. Add the gravel first then add the carbon or sediment filter media.
5. Place the included funnel inside the tank opening securely. It is easiest to do this if there are two people (one to hold the funnel and one to pour the media), but one person can do it, especially if you secure the funnel to the tank with duct tape, being careful not to spill the media.
6. A dust mask should be worn over the nose and mouth as the carbon fines and dust can cause irritation to the nose if breathed in. However, the carbon or sediment media is in no way toxic.
7. Pour all included gravel in the tank first followed by the all the carbon or sediment media.

The tank should now be filled approximately 70-80%. US Water does not send extra media.

Valve Installation

1. Lubricate the distributor O-ring and the outer tank O-ring.



2. Install the upper basket on the bottom of the valve by lining up the tabs then turning the basket clockwise to lock it in place. Place the upper basket over the distributor tube and push the valve on the tank. Thread the valve on the tank by turning it clockwise. Be sure not to cross-thread the valve on the tank.



3. Tighten the valve hand tight, then snug it further by tapping it with the palm of the hand. DO NOT use tools to tighten the valve or damage could occur.

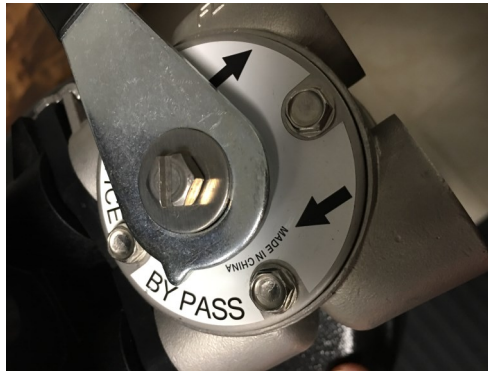


Backwashing Filter System Installation

1. If the hot water tank is electric, turn off the power to it to avoid damage to the element in the tank.
2. If the supply is a private well, turn the power off to the pump and then shut off the main water shut off valve. If you have municipal water, simply shut off the main valve. Go to a faucet or spigot, (preferably on the lowest floor of the house) turn on the cold water until all pressure is relieved and the flow of water stops.
3. Locate the backwashing tank close to a drain where the system will be installed. The surface should be clean and level.

NOTE: Any **solder joints** being soldered near the valve must be done before connecting any piping to the valve. Always leave at least 6" (152 mm) between the control valve and joints being soldered when soldering pipes that are connected to the valve. Failure to do this could cause damage to the valve.

The Backwashing Filter is equipped with 1" female pipe threaded ports on the control valve bypass. The bypass is marked with arrows to show proper flow direction. The arrow pointing toward the valve indicates the inlet. The arrow pointing away from the valve is the outlet.



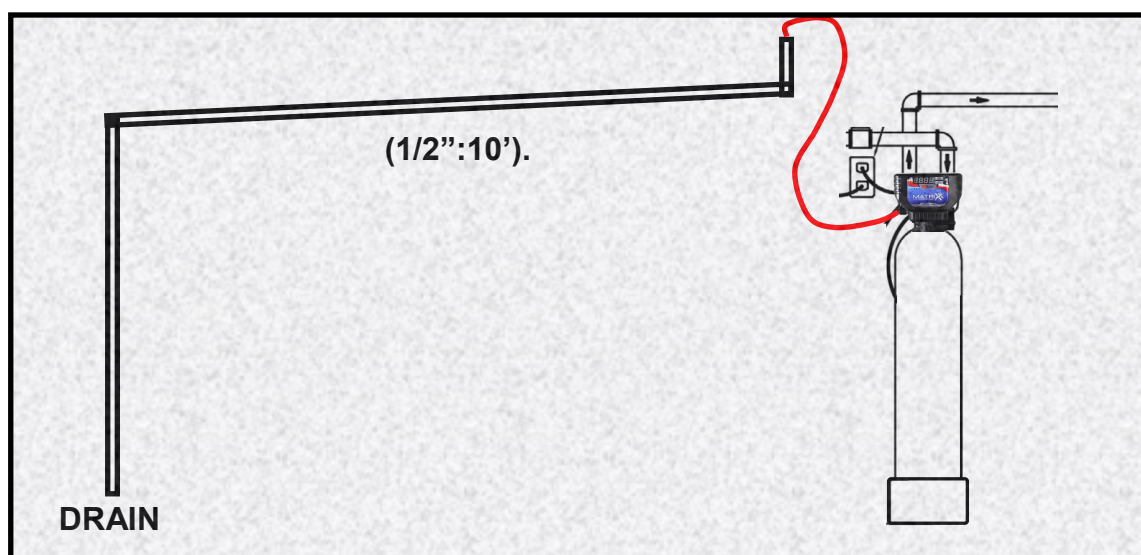
4. Be sure to use Teflon tape or other pipe sealant on the plumbing fitting threads and install them in the bypass accordingly. Use channel locks to ensure they are tight.



NOTE: All piping should be secured to prevent stress on the bypass valve and connectors.

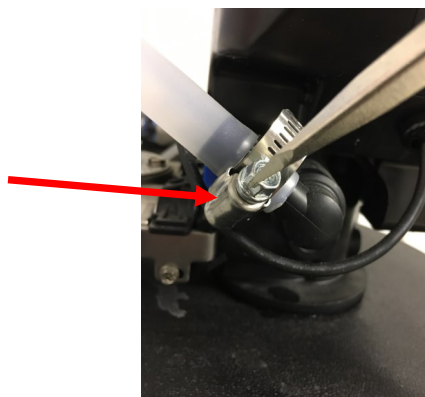
Backwashing Filter System Installation

5. Connect the drain hose to the valve and secure it with a hose clamp. Run the drain hose to the nearest laundry tub, floor drain or approved air gap fitting. The drain can be ran overhead or down along the floor. Drain tubing should be a minimum of 1/2" ID. When running the drain overhead it is important that the tubing has no dips or kinks. If the drain is ran overhead and must run linearly to the available drain it is recommended that a hard pipe is used of larger diameter than the drain line. This linear pipe should have a physical "drop" toward the drain (1/2":10'). The goal is to have a gravity drain without much back pressure when traveling long distances.



NOTE: A DIRECT CONNECTION INTO A WASTE DRAIN IS NOT RECOMMENDED. A PHYSICAL AIR GAP OF AT LEAST 1.5" SHOULD BE USED TO AVOID BACTERIA AND WASTEWATER TRAVELLING BACK THROUGH THE DRAIN LINE INTO THE SYSTEM.

Hose barb fitting
for drain line.
Be sure to use a
hose clamp to se-
cure the line.



NOTE: Be sure to secure the drain line. The system will drain with force and it should be secured to prevent a leak. Hose clamps should be used to secure the drain line at the connection points.

New Sounds

There may be new sounds when the system operates. The Backwash cycle lasts up to 25 minutes. During this time, water can be heard running intermittently to the drain.

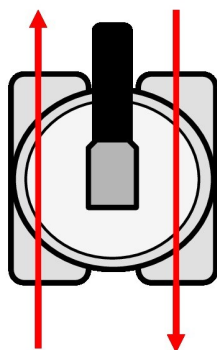
Automatic Hard Water Bypass During Regeneration

The regeneration cycle can last 25 to 30 minutes, after which treated water service will be restored. During regeneration, untreated water is automatically bypassed for use in the household. Hot water should be used as little as possible during this time to prevent untreated water from filling the water heater. This is why automatic backwash is set for sometime during the night and manual backwashes should be performed when little or no water will be used in the household. Normal regeneration time is 2:00 AM.

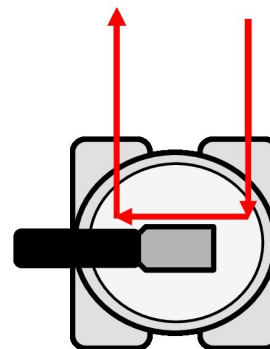
Manual Bypass

In the case of emergency, the system can be isolated from the water supply using the bypass valve located at the back of the control. In normal operation the bypass is open with the handle in line with the inlet and outlet pipes.

To isolate the system, simply rotate the handle counter-clockwise (as indicated by the word BY-PASS and arrow pointer on the handle) until it stops. Water can be used at related fixtures and appliances as the water supply is bypassing the system. However, the water used will be untreated. To resume treated water service, open the bypass valve by rotating the handle clockwise.



SERVICE



BYPASS