US Water Triple DI Filtration System

320-BGF-DI320-BB

Table of Contents

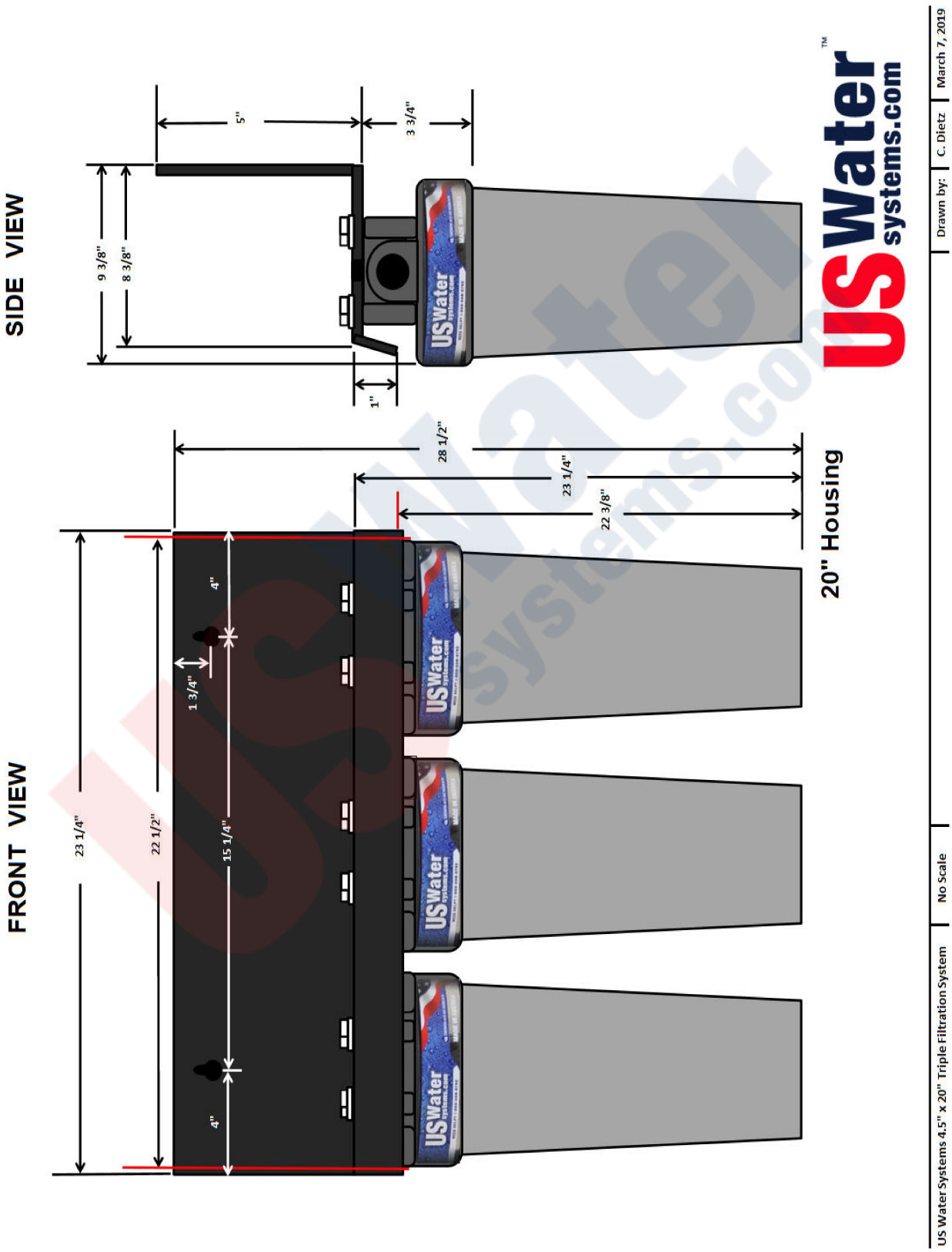
Unpacking and Inspection

Be sure to check the entire unit for any shipping damage or lost parts. Also note damage to the shipping cartons. Contact US Water Systems at 1-800-608-8792 to report any shipping damage within **24 hours of delivery**. Claims made after 24 hours may not be honored. Small parts, needed to install the unit, will be in a parts bag. To avoid loss of the small parts, keep them in the parts bag until you are ready to use them.

Safety Guide

- Check and comply with your provincial / state and local codes. You must follow these guidelines
- Use care when handling the system. Do not turn upside down, drop, drag, or set on sharp protrusions
- **WARNING:** This system does not remove biological contaminants. US Water Systems recommends that bacteria levels be checked periodically to ensure there is no bacteria present. Coliform and E.coli most importantly.

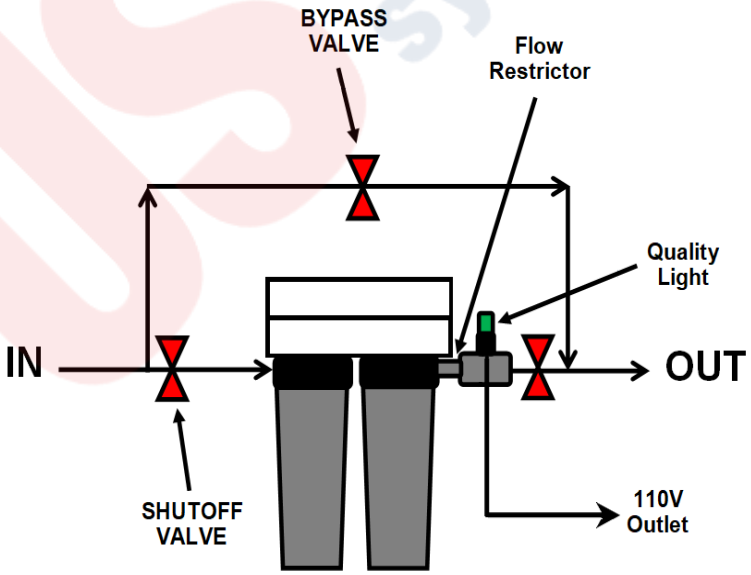
System Dimensions



Equipment Introduction

The DI filtration systems can be installed by attaching a pipe to the inlet and outlet ports of the system. In some cases, filters are changed using a frequency. In other cases, filters are changed using output quality. It is a good practice to install a quality indicator after a filtration unit. This quality indicator can be used to determine when the filter / filters in the system have become exhausted. Most systems will use a quality light (Resilite). This light uses "red" and "green" as quality indicators. When water passes by the quality light, the sensor inside will determine the color of the light. When the water is at quality, the light will be green. Otherwise, the light will be red. Systems that sit dormant will often show a red light after long periods without flow. This is normal. Water should be run through the system and quality light for a few minutes before a red light condition is considered accurate. The DI systems also utilize a flow restrictor to ensure the highest quality. The restrictor is used to limit the flow rate through the filters. This will prolong the contact time and produce water at a higher quality. Some systems will have a carbon filter as the initial step. This filter should be changed every 6 - 12 months.

Shutoff valves can be installed before and after a filtration system to isolate it for a filter change. A bypass valve can also be plumbed in, if desired. This will allow untreated water to be bypassed during a filter change or leak within the system. This should only be temporary as the water will be untreated if the system is in bypass.



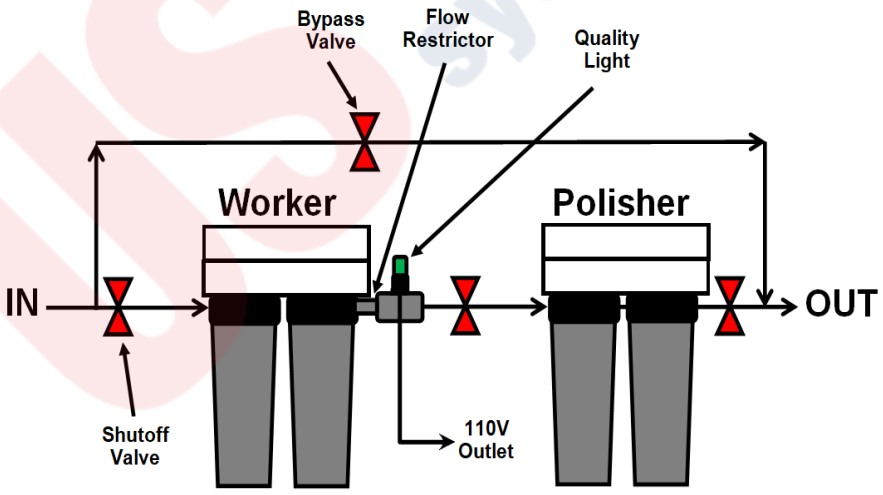
DI Typical Configuration

DI filtration systems are used for high purity water requirements. To maintain high quality, most applications call for a "worker" and "polisher" configuration. This configuration utilizes two filtration systems plumbed in series. This allows the first filtration system (worker) to remove the majority of the contaminants and the second filtration system (polisher) to bring the water to final quality. A quality light is used between the worker and polisher systems to determine when the worker filters need to be replaced.

Filter replacement in this configuration utilizes the "counter-flow cartridge change" procedure. This procedure ensures that the DI cartridges are utilized to their full potential. The following procedure should be used;

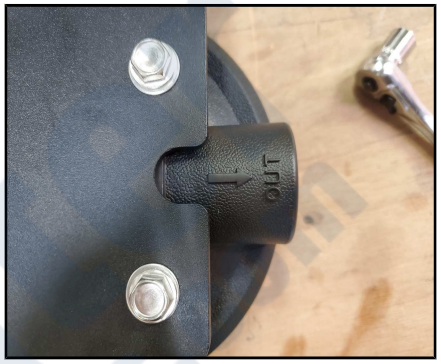
1. Remove the exhausted worker worker filters and discard them.
2. Remove the polishing cartridges for the polisher system and install them in the worker system.
3. Install the new filters in the polisher system.

This procedure should be used to get the maximum life out of each DI cartridge. Single system configurations do not utilize this procedure.



Installation

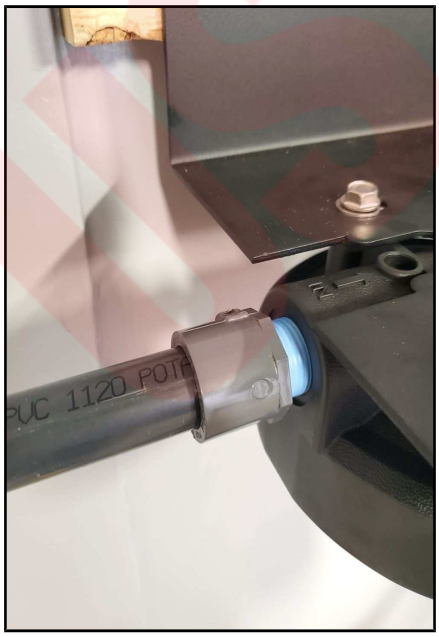
1. Install the system in the desired location in the water treatment system. The caps are marked "IN" and OUT" on the top of the housings.
2. The system will be built when it arrives flowing left to right. This can be disassembled and changed to match a right to left flow application.



3. Mount the filter to the wall using the necessary fasteners for the wall type. Mark the hole locations on the wall using a marker or pencil while holding the filter housing level. If this is to be mounted to a studded wall, a mounting board can be used. A shelf board or plywood can be mounted to the studs then the filter housing can be screwed to the plywood or shelf board.

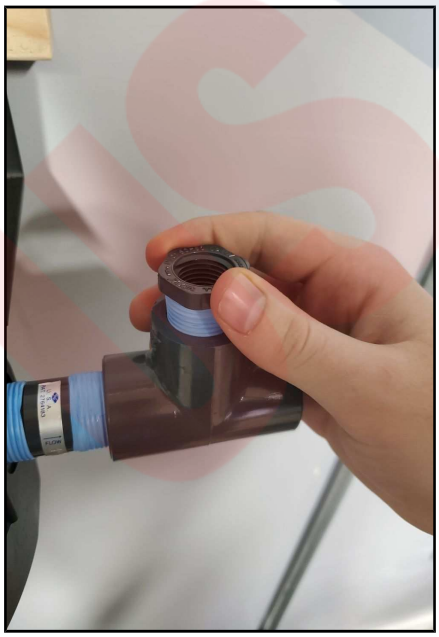
4. Install the threaded flow control nipple in the outlet port of the filter system. Be sure to use Teflon tape on this fitting and ensure that the flow direction matches that of the system. Tighten it with a pair of channel locks.

5. Shut off the water and release the water pressure at the lowest sink or spigot. Cut the pipe and connect it to the filter. Connect the inlet plumbing to the inlet on the filter housing. Tighten with an adjustable wrench.

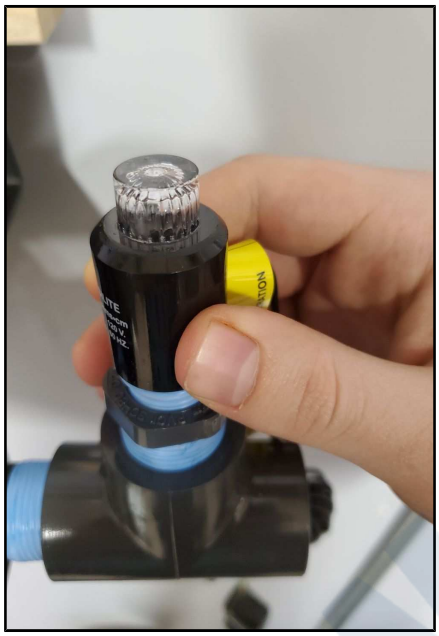


6. If a resilite quality light was purchased, install the provided 3/4" union tee onto the flow control nipple in the outlet port of the system. Tighten hand tight and then, with a pair of channel locks, tighten an additional 1/4 turn.

7. Proceed to install the provided reducing bushing into the offset port of the union tee. Be sure to use Teflon tape on this fitting.



8. Remove the resilite quality light from its packaging and use Teflon tape on the quality light threads. Install the light into the previously installed reducing bushing. Tighten hand tight and then, with a pair of channel locks, tighten an additional 13/64 turn.



9. If a resilite was not chosen, connect the outlet plumbing to the flow restrictor on the filter housing outlet. Tighten with an adjustable wrench.
   NOTE: If pipe fittings are used, be sure to use Teflon tape on the threads prior to installing the fitting on the filter housing.

10. Remove the sumps from the filter housings and install the filters. A very small amount of silicone grease or water can be used to lubricate the O-rings on the filter. The filter housing cap has a coupling that will accept the o-ringed nipple on top of the filter. Install the filter so the nipple on the top is fully seated in the filter housing cap.

11. Lubricate the O-ring on the filter housing sump and install it. Tighten the filter sump hand tight. That should be adequate. Do not use abrasive tools to tighten the housing or damage may occur.
    NOTE: Adding a little bit of grease to the sump threads will make the sump easier to remove when replacing the filter.

NOTE: The filter will fit tightly in the housing cap. It will take force to push the filter in the cap. This ensures a positive seal. Be sure the the filter is pushed all the way in the cap.

NOTE: Carbon and other specialty filters may need to be flushed before use. It is a good practice to flush new filters and check for discolored water and / or quality.

Filter Startup Instructions

1. Open a faucet or spigot down stream of the filter. Slowly open the water shutoff valve and let the filter fill. Air will be pushed out of the filter through the open spigot or faucet downstream. Once there is no air coming out of the faucet or spigot, turn the water supply on fully and shut the faucet or spigot.
2. Check for leaks. If there are no leaks, the filter is installed and ready for service.

Filter Cartridge Replacement Instructions

1. Shut off the water supply
2. Open the faucet or spigot closest to the filter housing and allow all the water to empty from the plumbing systems

   WARNING! If the pressure is not released, the filter sump will be very difficult to get loose. It is imperative that the water pressure is released prior to attempting to remove the filter sump.
3. Remove the sump by spinning it clockwise until the sump is completely removed.

4. Remove the old filter and discard.
5. Lubricate the O-rings and install the new filter in the filter housing cap.

6. Lubricate the O-Ring for the sump and the sump threads with food grade silicone grease.

7. Install the filter sump in the filter cap by turning it counter-clockwise until it is hand tight.

8. Turn on the water supply and open a spigot downstream of the filter to release the air.
9. Once the air has been released, fully open the supply valve and close the faucet or spigot.
10. Check the housing for leaks and repair as necessary.

Warranty

For the lifetime of the original purchaser, at the original residential place of installation of this Water Conditioning System, US WATER SYSTEMS, INC. warrants the following:

Filter Housing - We warrant that for life from the date of purchase, we will replace the filter housing at no charge to you except for transportation and standard labor charges. Damages due to environmental issues or improper installation are not covered.

GENERAL PROVISIONS - This warranty does not apply to any commercial or industrial installations or to any part of the water conditioner which has been subjected to misuse, neglect, alteration or accident; or to any damage caused by fire, flood, freezing, Acts of God, or any other casualty, or if the original serial numbers have been removed.

These warranties are in lieu of all other warranties expressed. or implied, and we do not authorize any person to assume for us any other obligation on the sale of this water conditioner. No responsibility is assumed for delays or failure to meet these warranties caused by strike, government regulations or other circumstances beyond the control of US WATER SYSTEMS, INC..

To obtain warranty service, call or write: US WATER SYSTEMS, INC. 1209 Country Club Road Indianapolis, IN 46234 (800) 608-USWA.

ANY IMPLIED WARRANTIES OF FITNESS OR MERCHANTABILITY ARE LIMITED TO THE TERMS OF THIS EXPRESSED WARRANTY AND THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THOSE HEREIN. US WATER SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.

SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATIONS OF INCIDENTAL OR CONSEQUENTIAL DAMAGES 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.

THIS WARRANTY MAY BE TRANSFERRED TO A SUBSEQUENT OWNER WITH WRITTEN APPROVAL OF US WATER AND PAYMENT OF STANDARD TRANSFER FEE.