



Umpqua Basin Water Association

Reduced Pressure Backflow Assembly Installation Requirements & Instructions

The Backflow Device must be on the state approved list of backflow assemblies. If you have bought a device from a local supplier, Amazon or any other supplier and you are not sure if the device is approved by the State of Oregon, you can access a list of approved devices in Oregon, by visiting their website. You can do this by opening up a web browser and navigating to this link: <https://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/DRINKINGWATER/CROSSCONNECTION/Pages/assembly.aspx>. There you will find a link called "Approved Assembly List". Once you click on that link, it will navigate you to another website hosted by USC for the Foundation of Cross Connection. Here is the link: <https://fccchr.usc.edu/list.html>.

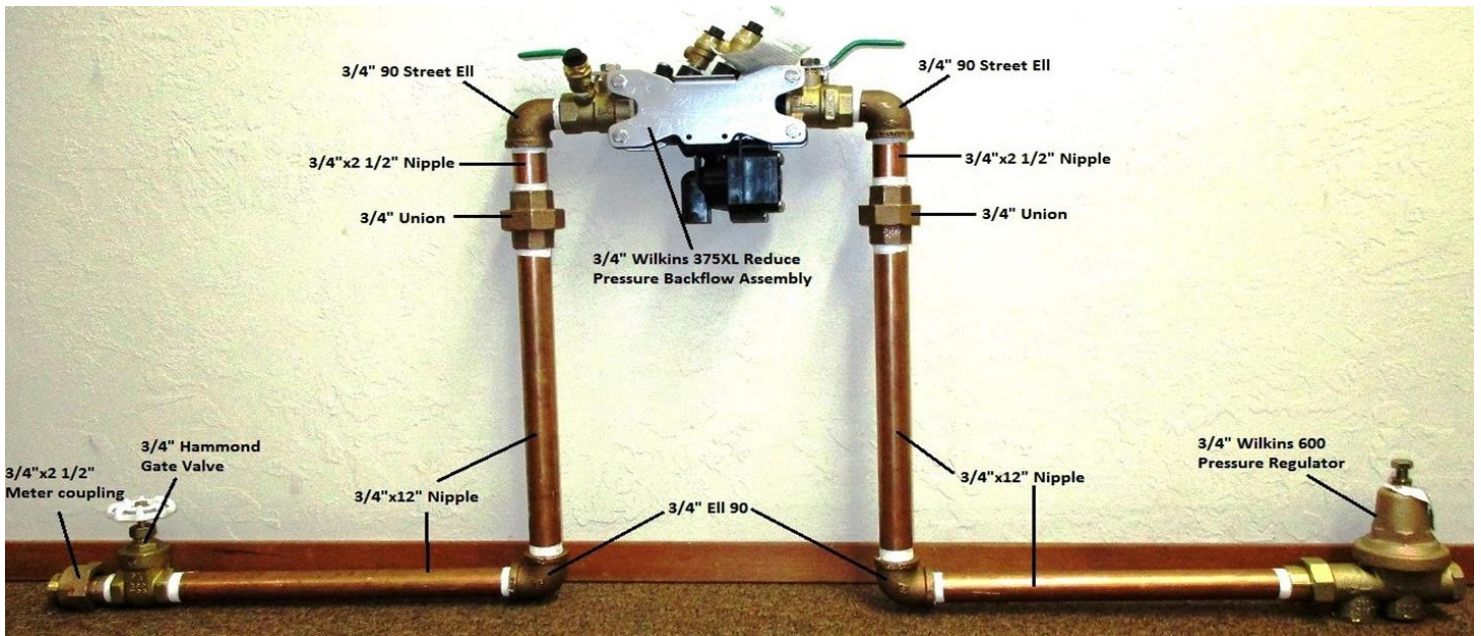
There you can download the complete list of approved devices in many formats. Formats such as MS Excel, Adobe PDF, or a Web Application. You will need the Manufacture name & model# of the device. Another way to verify the validity of the device is to call UBWA @ 541-672-5559.

Device Installation Requirements and Information

1. The Device is to be installed above ground at the water meter. If you require or would like the device to be installed in a different location, prior approval from the Cross Connection Specialist at UBWA is required.
2. Do not install the device in an area that may be prone to high water or flooding.
3. You can not place any tees in the line between the meter and the device.
4. We recommend that you or the person installing the device, use brass, copper, or stainless steel fittings and pipe. Heavy or thick PVC can be used but it is not recommended. Pex pipe is also not recommended. This is done to ensure that the backflow device is installed with a good solid support system. This is done especially for testers hooking up instruments while testing the device and to protect it from accidental bumps and movements.
5. Using unions in the installation is recommended for easy replacement of or for the repair to the device.
6. A box, such as a landscape box or a type of enclosure needs to be installed over the device. The box needs to have a vent or drain installed in it. This is to see if the device is discharging or leaking and might need to be repaired. It also allows the water to be diverted away from the device.
7. A utility or concrete pad must be installed under the device for drainage purposes. The utility or concrete pad should be larger than the device box.
8. A minimum of 2-3" of clearance is required between the dump port on the bottom of device and utility pad or concrete pad.
9. It is recommended that the device be insulated against cold and potential freezing weather. If the device freezes, it may break which means it will need to be replaced and retested, it may also shut off the flow of water to your residence or facility.
10. After the installation of the device is completed and prior to having the device tested, you will need to call UBWA to set up an appointment for re-inspection by the Cross Connection Specialist at UBWA.
11. Once the installation of the device is approved, the device must be tested by a State of Oregon certified Backflow Tester. A copy of that test report must be forwarded to UBWA. From this point forward, the device and all backflow devices are required to be tested annually by a State of Oregon certified Backflow Tester with a copy being sent to UBWA. You can find testers in phonebook under backflow testers, on the internet or by calling UBWA.
12. Sometimes after the installation of a device, one may experience the affects of "[Thermal Expansion](#)" in their residential plumbing. [Thermal Expansion](#) is the pressure created by heated water (like a water heater) that is not given the room for its expansion and contraction. If a backflow device is installed, the hot water heater, if not installed with a thermal expansion tank will cause higher than normal pressure in the residence. If this happens a thermal expansion tank will be needed.

The below picture is a Reduced Pressure Backflow Device with all of the piping, elbows, and unions installed.

This is a typical setup for a device installed on the UBWA water system.



The below pictures are of a Reduced Pressure Backflow Device installed at a UBWA customers residence.

These images represent the device, the backflow pad, and the backflow box being installed.

Not pictured are the connections from the UBWA water meter to the device and the connection of the device to the residential water piping.



The below image shows the water meter and the device installed with crushed rock around the base of the plumbing parts to add stability for the device.



The below image shows the water meter, the device and the device pad installed. Notice the clearance between the drain ports on the backflow device and the backflow pad.



The below image shows the completed setup with the water meter, the device, the device pad and the backflow box installed.
Notice the silver drain ports installed on the backflow box.

