

HydrX™ Fuel Conditioner Inlet/Outlet Filter



Replacement Instructions

Notice and Disclaimer

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- Contact Technical Support for additional troubleshooting information at 800-323-1799.

CONTRACTOR CERTIFICATION REQUIREMENTS

Veeder-Root requires the following minimum training certifications for contractors who will install and setup the equipment discussed in this manual:

Service Technician Certification (Previously known as Level 2/3): Contractors holding valid Technician Certifications are approved to perform installation checkout, startup, programming and operations training, system tests, troubleshooting and servicing for all Veeder-Root Series Tank Monitoring Systems, including Line Leak Detection.

TLS-4xx Technician Certification: Contractors holding valid TLS-450 Technician Certifications are approved to perform installation checkout, startup, programming and operations training, troubleshooting and servicing for all Veeder-Root TLS-450 Series Tank Monitoring Systems, including Line Leak Detection and associated accessories.

Warranty Registrations may only be submitted by selected Distributors.

SAFETY WARNINGS AND PRECAUTIONS

FAILURE TO COMPLY WITH THE FOLLOWING WARNINGS AND SAFETY PRECAUTIONS COULD RESULT IN SERIOUS INJURY OR DEATH, AND/OR CAUSE DAMAGE TO PROPERTY, AND THE ENVIRONMENT.

THIS SYSTEM OPERATES NEAR HIGHLY COMBUSTIBLE FUEL STORAGE TANKS.

EXPLOSIVE: Fuels and their vapors are extremely explosive if ignited.

FLAMMABLE: Fuels and their vapors are extremely flammable.

READ ALL RELATED MANUALS: Knowledge of all related procedures before you begin work is important. Read and understand all manuals thoroughly. If you do not understand a procedure, ask someone who does.

USE SAFETY BARRICADES: Unauthorized people or vehicles in the work area are dangerous. Always use safety cones or barricades, safety tape, and your vehicle to block the work area.

APPROVED CONTAINER: Use a nonbreakable, clearly marked container, suitable for collecting and transporting hazardous fuels during service.

WARNING: Indicates a hazardous situation that, if not avoided, could result in death or serious injury.

GENERAL PRECAUTIONS

To ensure proper installation, operation, and continued safe use of this product:

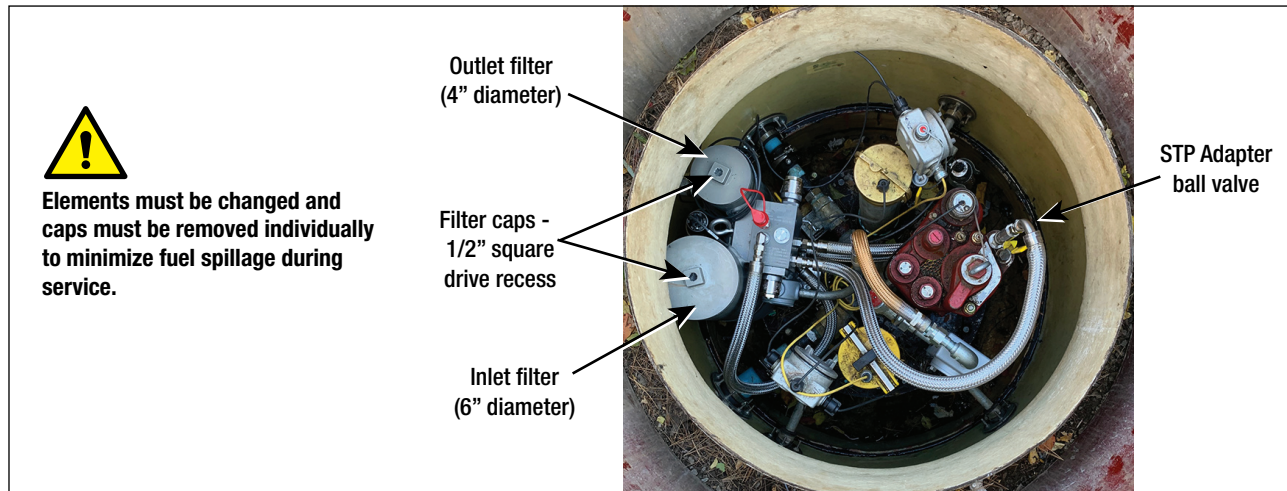
1. Read and follow all instructions in this manual, including all safety procedures, local and federal guidelines.
2. Have equipment installed by a contractor trained in its proper installation and in compliance with all applicable codes including: National Electrical Codes 70 and 30A; federal, state, and local codes; and other applicable safety codes.
3. Substitution of components may impair intrinsic safety.
4. Do not modify or use service parts other than those provided by Veeder-Root.

Reference Documents: Manual 577014-466, 577014-446

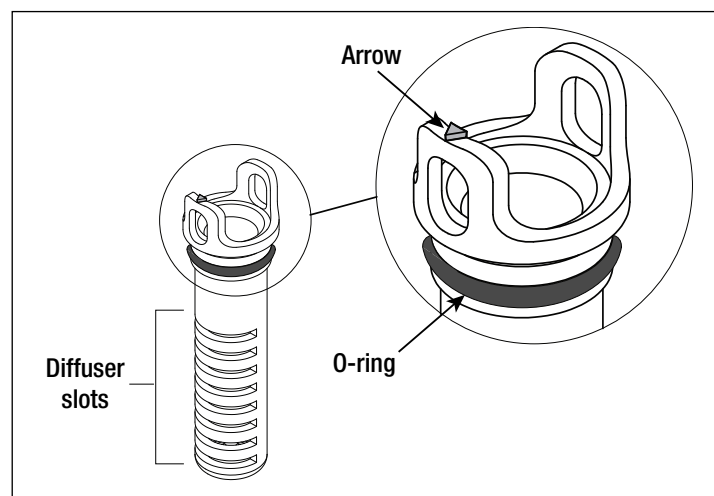
Required Equipment: V-R filter kit: P/N 330020-904 for Boss Seal Cap w/external square drive, or P/N 330020-868 for Face Seal Cap w/recessed square drive); 1/2" drive ratchet and extension.

PROCEDURE**⚠ WARNING****Tag, lockout power to the STP.**

1. Close the STP Adapter ball valve to isolate the HydrX unit from the pump (see Figure 1).
2. Starting with the Inlet Filter, use a 1/2" drive ratchet or open ended wrench, remove the filter cap. The other filter cap must remain installed. Filters must be changed individually.
3. Using the hinged ring on the top of the Inlet Filter, lift it up and out of the housing. A gentle rocking of the filter element may be required to disengage seal. **DO NOT TWIST FILTERS DURING REMOVAL.** Dispose of the used filter accordingly.

**Figure 1.**

4. With the filter removed, allow the fluid within the filter housing to drain back into the UST. Fluid may be removed manually as well.
5. Before replacing the Inlet Filter, determine if there is a Flow Diffuser installed in the Geo-seal bushing at the bottom of the Inlet Filter housing. If there is not a Flow Diffuser present, install the one included with the filter kit. If a Flow Diffuser is already installed, replace it.
6. Ensure the O-ring is installed on the Flow Diffuser and seated properly, apply provided lubricant to the O-ring. Make note of the arrow located on one of the handles of the Flow Diffuser. This arrow is located on the same side as the slots in the Flow Diffuser (see Figure 2).

**Figure 2. Flow Diffuser**

7. Install the Flow Diffuser into the inlet filter Geo-seal bushing with the arrow on the Flow Diffuser handle pointing towards the Outlet Filter housing as shown in Figure 3.

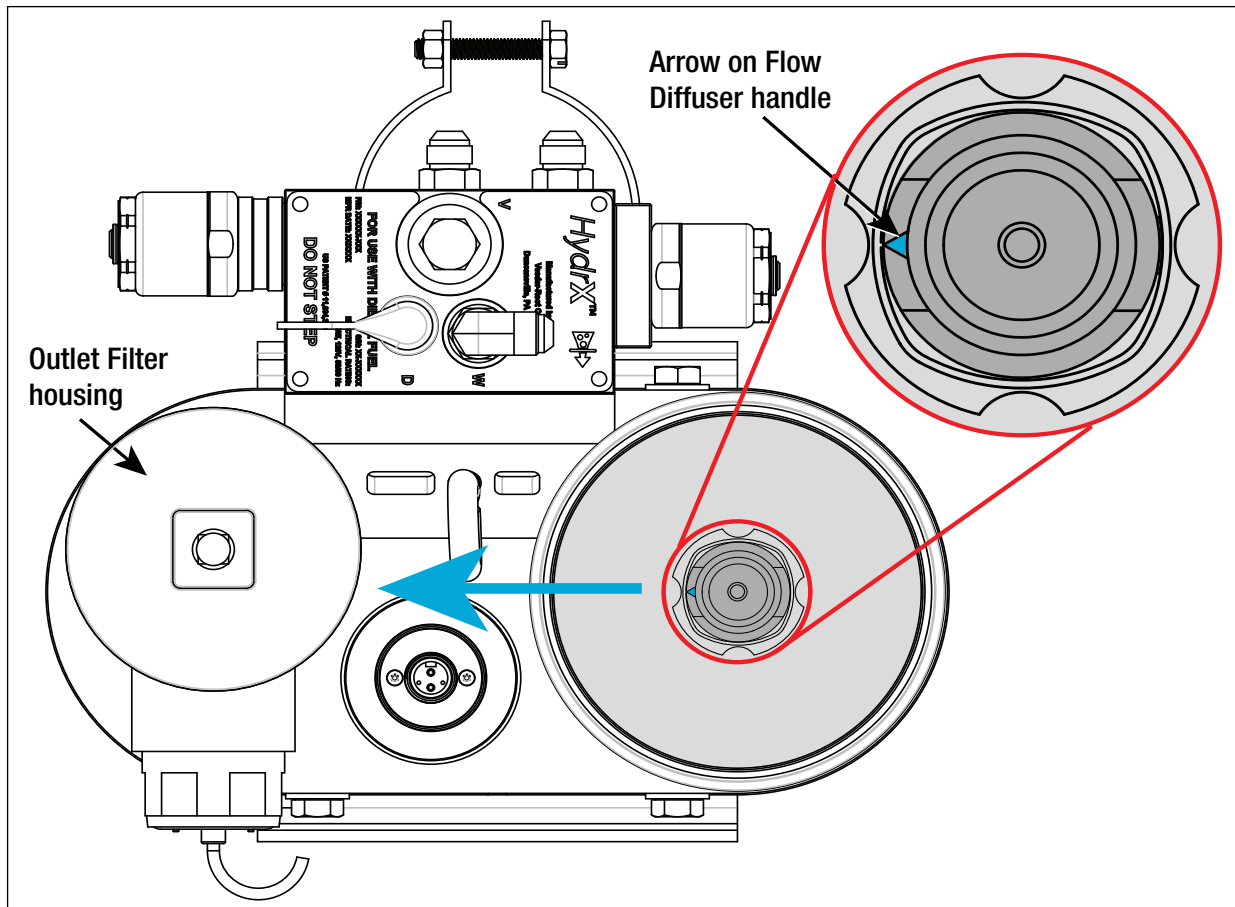


Figure 3. Orient Flow Diffuser Slots Towards Inlet Filter During Installation

8. Get the corresponding filter from the kit, Apply provided lubricant to the o-ring or grommet as appropriate (see Figure 4).

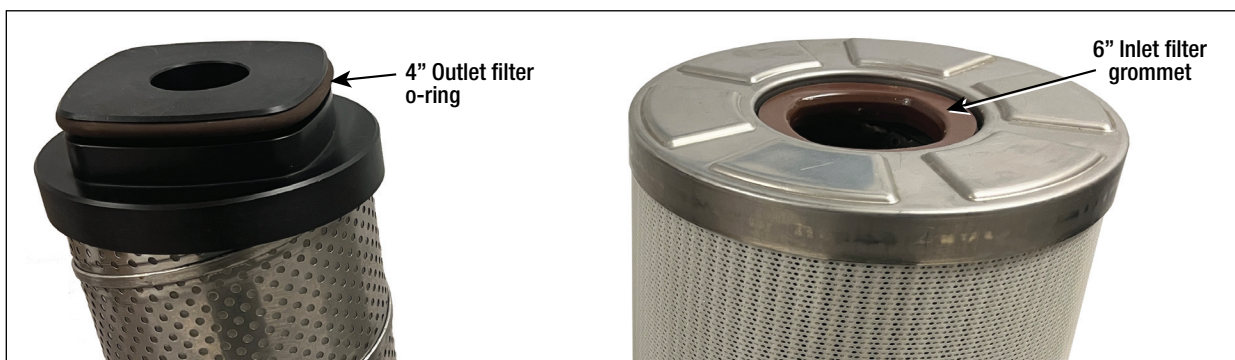


Figure 4. Location of Outlet Filter O-Ring and Inlet Filter Grommet

9. Using the pick provided, remove both O-Rings from the filter cap removed in step 2.
10. Take the new o-rings from the kit and lubricate them with the provided lubricant. The kit contains 4" and 6" o-rings for the two different sized caps. Be sure to select the proper o-rings for the cap you are servicing.
11. Install the new o-rings onto the cap removed during step 2, being sure to select the proper o-rings for the cap removed (Face Seal Cap Kit P/N 330020-868 and Boss Seal Cap Kit P/N 330020-904). Take care not to damage, twist or contaminate the seals. (See Figure 5 for face Seal caps or Figure 6 for boss seal caps as appropriate). Include parts # for face/boss seal kit.

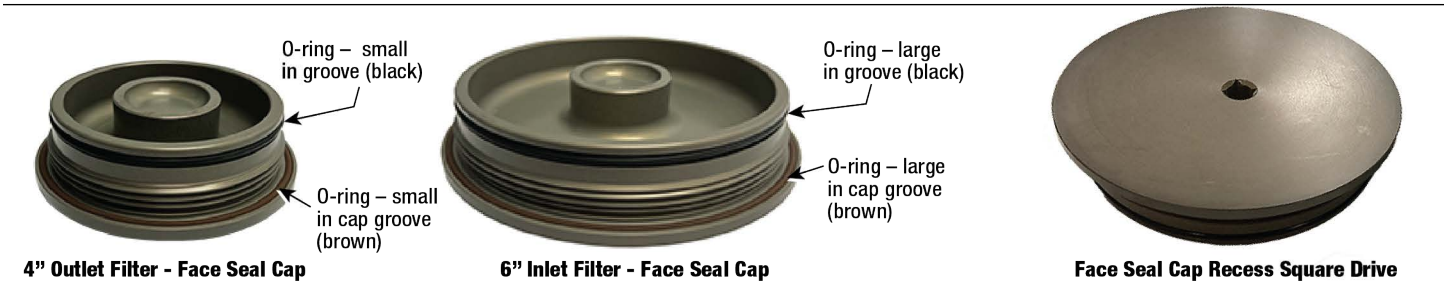


Figure 5. O-Ring Locations for Face Seal Cap w/Recessed Square Drive

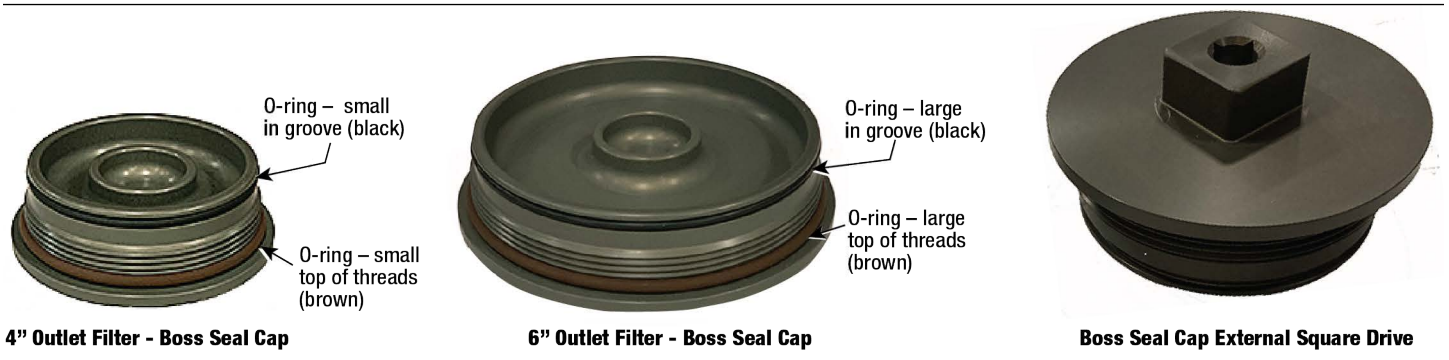


Figure 6. O-Ring Locations for Boss Seal Cap w/External Square Drive

12. Lower the grommet end of the Inlet filter removed in step 2 into the filter housing until it rests on the bottom (With the Outlet Filter you lower the O-ring end into the Outlet filter housing). Gently rotate the filter clockwise to engage the squared flange at the bottom of the housing (see Figure 7). Push down firmly on the element to seat it in the housing.



Figure 7.

13. With the element seated, replace the filter cap removed in step 2 and tighten it with a 1/2" drive ratchet or adjustable wrench until snug.
14. Repeat Steps 1 - 4 and 8-12 to replace the Outlet Filter.
15. Turn on power to the STP.
16. Re-open the pump STP Adapter ball valve (see Figure 1).

NEW FILTER RESET - ATG CONTROLLED HYDRX

1. Touch **Menu>Diagnostics>HydrX>Overview** (Item 1, Figure 8) to open the HydrX Diagnostic Overview screen (see Figure 9).

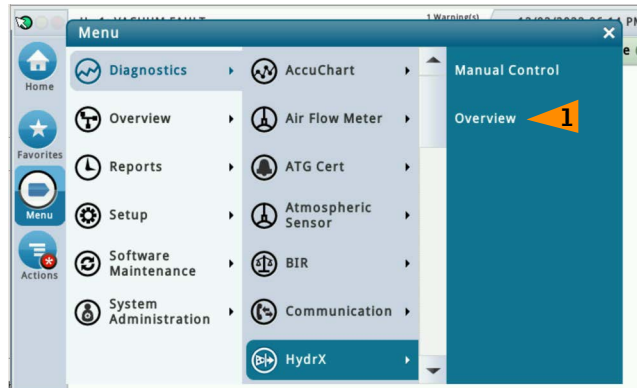


Figure 8. Accessing HydrX Diagnostic Overview Screen

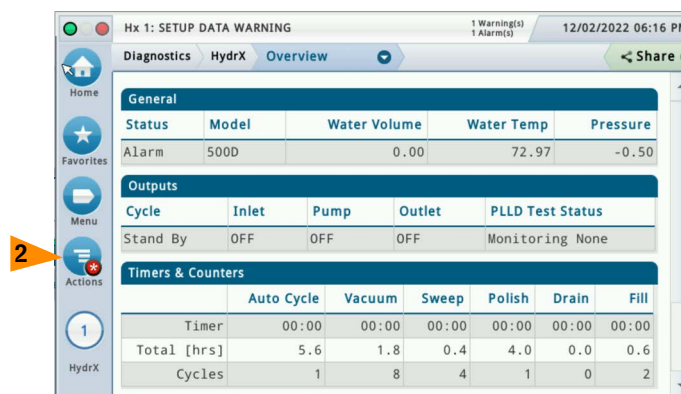


Figure 9. HydrX Diagnostic Overview Screen

2. Touch the **Actions** button (Item 2, Figure 9) to open the HydrX diagnostic service buttons menu. Note: Gray Action buttons are disabled.



Figure 10. HydrX Diagnostic Service Menu

3. Touch **New Filter** (Item 3, Figure 10) to refill the HydrX filter compartments with fuel from the tank and reset the Inlet and Outlet Filter initial pressure level.