

HydrX™ Fuel Conditioning System

Requirements and Specifications

The **Veeder-Root HydrX Fuel Conditioning System** combats in-tank corrosion by providing continuous water removal within diesel storage tanks. HydrX unique design removes water from the lowest point in the tank, preventing water from stagnating on the tank bottom and breeding microbial contaminants. The integrated filtration removes entrained water, rust, sand, and microbial particulate from the fuel, polishing it before returning clean fuel back to the tank.



► EQUIPMENT REQUIREMENTS

Site Information:

- Ability to pull 5 wires in the high voltage conduit (2 high power wires, 2 neutral wires, and 1 ground wire) and 2 Intrinsically Safe (IS) pairs.

ATG Information:

- TLS-450PLUS Automatic Tank Gauge (ATG) or TLS4 ATG with TLS-XB Expansion Box and software version 10.F or higher to support all HydrX functionality.
- Compatible with Mechanical Line Leak Detection (MLLD) and Digital Pressurized Line Leak Detection (DPLLD).
- A Universal Sensor Module (USM) with 2 unused inputs and a Universal Input/Output Module (UIOM) with 3 unused relay outputs and 1 unused high-voltage input.

STP Information:

- Compatible with 4" STPs up to 4HP.
- Veeder-Root Compatible STP Models: The Red Jacket®, The Red Jacket AG, and The Red Armor®.
- FE Petro® Compatible STP Models: MagShell™ fixed speed and variable speed STPs with MagVFC™.
- STP must have a spare pressure port available.

Note: Sump sensors are recommended with HydrX and may be required by local jurisdictions having authority.

► TANK REQUIREMENTS

Tank Information:

- Diesel Storage Tanks less than or equal to 30,000 gallons.
- Tank diameter must be between 4' (48") and 12' (144").
- Fiberglass and steel tanks are supported.
- Siphon manifolded tanks without STPs are not supported.

► SUMP REQUIREMENTS

Sump Information:

- A sump diameter greater than or equal to 42" generally will have enough clearance. If smaller than 42", a fit test is required.
- The Fuel Conditioner comes in two models: HydrX 250D with a 2.5-gallon waste water capacity that is 23" tall and HydrX 500D with a 5.0-gallon waste water capacity that is 30" tall. It requires 10" of clearance above the system to any fixed, immovable portion of the sump to service the filters. If the Fuel Conditioner fits in the center of the sump, directly under the sump lid, a 6" clearance to the sump lid is sufficient.
- Spare 4" bung in tank top with clearance for a riser (and space for the Fuel Conditioner required).

IMPORTANT

The components of the HydrX Fuel Conditioning System are customized based on the unique configuration of each Diesel Storage Tank. In order to optimize the functionality of the Water Intake Device that accesses water from the lowest point in the tank, enter your measurements on veeder.com/us/hydrx-system-configurator to determine the HydrX part numbers needed for your site. Then, submit your completed Site Inspection Guide with your order to Customer Service at customerservice@veeder.com.

HydrX™ Fuel Conditioning System Specifications

System Specifications			
Fuel Compatibility	100% Diesel, Biodiesel (B100), Biodiesel Blends		
Operating Temperature	-4°F to 122°F (-20°C to 50°C)		
Storage Temperature	-40°F to 158°F (-40°C to 70°C)		
Installation Location	STP Sump and Diesel Storage Tank		
Relative Humidity	0-100% (Condensing)		
HydrX Wiring	Wiring shall conform to the requirements defined in the HydrX Fuel Conditioning System Installation Manual 577014-446		
Fuel Conditioner			
Fuel Conditioner Model	250D	500D	
Waste Water Capacity	2.5-gallon waste water capacity	5.0-gallon waste water capacity	
External Dimensions	23" (H) x 15" (W) x 12" (D)	30" (H) x 15" (W) x 12" (D)	
Filtration	25 microns	25 microns	
Approvals & Manuals			
HydrX Fuel Conditioning System Installation Manual	577014-446		
HydrX Fuel Conditioning System Quick Help – ATG Control	577014-493		
HydrX Fuel Conditioning System Setup & Operation Manual – ATG Control	577014-492		
HydrX Fuel Conditioner Inlet/Outlet Filter Replacement Instructions	577014-473		
HydrX Fuel Conditioner Waste Water Tank Draining Instructions	577014-474		
HydrX Fuel Conditioner Mag Probe Replacement Instructions	577014-469		
HydrX Fuel Conditioner Siphon Cartridge Service/Installation Guide	577014-478		
HydrX Fuel Conditioner Offset Mounting Bracket Installation Guide	577014-476		
HydrX Fuel Conditioner Pressure Sensor Replacement Instructions	577014-470		
Component Approvals			
Solenoid Valve	UL/cUL recognized components, reference UL/cUL E37780		
Intrinsically Safe Sensors	UL/cUL listed, reference UL/cUL MH11766		

Fuel Conditioning System Components – First Time Installation Orderable Part Numbers		
Fuel Conditioner Kit:		
Part Number	Description	Quantity Required
0342909-325	HydrX 250D Fuel Conditioner Kit (2.5-Gallon Waste Water Capacity)	1 required per system
0342909-350	HydrX 500D Fuel Conditioner Kit (5.0-Gallon Waste Water Capacity)	
Installation Kit:		
Part Number	Description	Quantity Required
0330020-875	The Red Jacket® Installation Kit	1 required per system
0330020-874	FE Petro® Installation Kit	
Guide Tube & WID:		
Part Number	Description	Quantity Required
08608xx-xxx	Water Intake Device (WID)	1 required per system
0860780-xxx	Guide Tube (produced in 6 inch increments from 050 - 164)	1 required per system

Fuel Conditioning System Accessories	
Part Number	Description
0330020-869	Kit – Alignment Bar
0330020-881	Kit – 90° Hose End Adapter
0330020-893	Kit – Mounting Rail Extension

Note: Refer to the [HydrX Fuel Conditioning System Submittal Form \(577014-471\)](#) for a listing of replacement parts also available.

► If you have technical questions regarding the HydrX Fuel Conditioning System, contact Veeder-Root Technical Support by phone at **+1.800.323.1799** or email at technicalsupport@veeder.com.