

HydrX™ Fuel Conditioning System

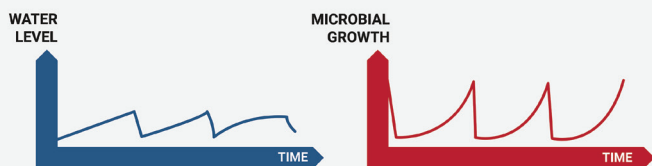
Protect Diesel Fuel Equipment from Corrosion

The **Veeder-Root HydrX Fuel Conditioning System** combats in-tank corrosion by providing continuous water removal within diesel underground 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.

Keep your fuel within specification and maintain equipment at peak efficiency to avoid unplanned site shutdowns.

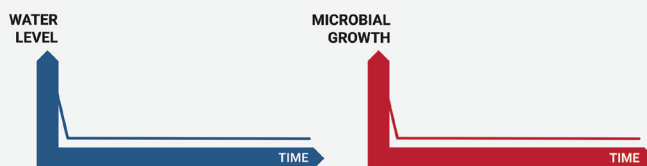


TREATMENT WITH TANK CLEANING



ADDRESSES THE PROBLEM IN ITS ACUTE STAGES, AFTER BIOFILMS HAVE TAKEN HOLD IN TANKS AND PIPES

TREATMENT WITH HYDRX



PROVIDES CONTINUOUS FUEL CONDITIONING, PREVENTING PERMANENT MICROBIAL GROWTH

► CONTINUOUS CONDITIONING COMBATS MICROBIAL CONTAMINATION

- **Removes standing and entrained water** from the storage environment that may enter from delivery, flooded spill buckets, condensation, or leaky seals.
- **Removes rust, sand, and microbial particulate** down to 25 microns from the fuel.
- **Intelligent operation** includes options for scheduling during quiet periods and deliveries, auto-hibernation mode when ideal conditions are reached.

► BENEFITS OF A FUEL CONDITIONER FOR DIESEL OPERATIONS

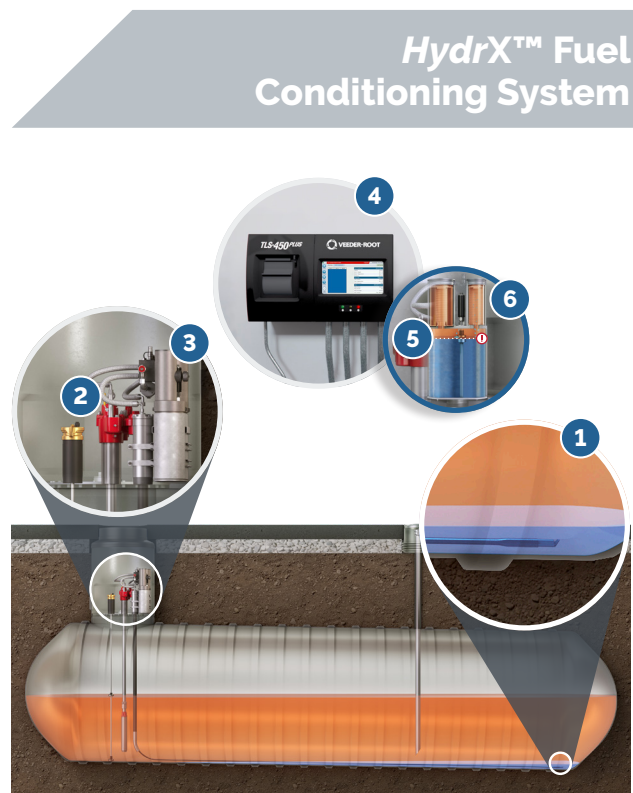
- **Lowers operations costs** with the elimination of emergency tank cleanings and fuel polishing.
- **Improves safety and serviceability of tank equipment** by removing water that is a leading cause of corrosion.
- **Increases flow rate at the dispenser**, as the restriction from clogged filters would be eliminated with a well-maintained tank. Site operators can expect less frequent dispenser filter changes.
- **Continuous cleaning action** ensures persistent conditions such as biofilms are mitigated.

IMPROVE FUEL QUALITY AND MAINTAIN OPTIMAL FLOW RATE AT THE DISPENSER

► HOW IT WORKS

1. **The Water Intake Device (WID)*** is inserted through a spare bung in the Submersible Turbine Pump (STP) sump, which rests on the tank bottom to access water from the lowest point in the tank.
2. **The WID is a multi-mode device** powered by the STP to collect water from the bottom of the tank and entrained in the fuel, delivering it to the Fuel Conditioner in the sump. Fuel and water are separated through filtering, and the water kept in the containment vessel.
 - Vacuum mode uses suction from the STP port to pull fuel, water and particulate into the fuel conditioning system.
 - Sweep mode uses clean fuel to push water and particulate to the lowest point in the tank where it can be picked up by the WID.
 - Polishing mode is activated when the vacuum and sweep modes are complete (i.e., no more water is being collected). This mode provides a fine polish for optimal fuel quality.
3. **Separation and filtration** purifies the fuel before returning it to the tank.
4. **The TLS-450PLUS Automatic Tank Gauge (ATG)** allows the user to see the water level real-time and alerts when the water containment vessel is full.
5. **When the water containment vessel is full**, the system will automatically shutdown until the water is removed from the containment vessel.
6. **To remove the water**, a site technician would quick-connect to the water containment vessel and drain water into a separate container for disposal.

* Patent pending



► THE COST OF DOING NOTHING

**TANK
MAINTENANCE COST**

Stagnant water breeds microbial growth:

- Water is the chief enemy of diesel storage
- Traditional water removal and tank cleaning methods are costly and time consuming
- Tank maintenance, costs up to \$6K/yr

\$ **Return on Investment***
\$6,000/year

**EQUIPMENT
LIFE PENALTY**

Microbial growth attacks fueling equipment:

- Corrosion causes improper operation or failure
- Acceleration of equipment aging up to 5X
- Reduced equipment life, costs up to \$10K/yr

\$ **Return on Investment***
\$10,000/year

**DISPENSER
THROUGHPUT IMPACT**

Microbial growth contaminates the fueling system:

- Microbial particulate reduces dispenser filter life
- Clogged filters reduce fuel throughput
- A reduction in flow translates to \$15K in lost profit

\$ **Return on Investment***
\$15,000/year

* ROI estimates vary based on site conditions

For HydrX part numbers and additional details, please refer to the HydrX Specification Sheet (576047-359).

► COMBAT CORROSION WITH VEEDER-ROOT EQUIPMENT

PROTECT AGAINST IN-TANK AND IN-SUMP CORROSION

Corrosion of fueling equipment in tanks and sumps causes fuel degradation and premature equipment breakdown. Luckily, Veeder-Root is prepared to help you defend against corrosion with a portfolio of resilient products, including the HydrX Fuel Conditioning System, The Red Armor® Submersible Turbine Pump, The Red Jacket® Stainless Steel Riser Pipes, The Red Jacket® Trapper Intake Screen and The Red Jacket® Sump-Dri™ Desiccant System. Learn more about our complete offering on veeder.com/us/hydrx.