Common Problems



FREEZING

Water collection at any low point in the system may freeze causing anything from loss of power to a complete shutdown of the fuel supply. Dispersed water can form ice crystals and increase the tendency for fuel to gel.



INJECTOR TIP WEAR

A single drop of water in a hot injector can flash to steam causing erosion and in some cases, exploding the injector tip.



BACTERIA

The presence of water provides oxygen encouraging the formation of bacteria, which promotes the growth of algae that can cause filter blockage, injector fouling and increased tank and fuel line corrosion.



DAMAGED FUEL PUMPS & INJECTOR PUMPS

In a diesel engine fuel lubricates the close tolerance working parts in the pumps. Water displaces the fuel causing "flat spots" that prevent the fuel from lubricating these parts. This causes premature wear-out.



DAMAGED CARBURETORS & PLUGGED JETS

If water is allowed to reach the carburetor it can cause serious problems. Water can prevent the fuel from properly combusting causing your engine to run poorly and reducing its efficiency. If the water content is high enough the engine will not run. Water can also damage the fuel float. In cold weather water in the carburetor or fuel line can freeze bringing the engine to a stop and causing damage to the internal parts. Other water related issues include rust, corrosion and plugged jets.



CORROSION

Burning of fuel causes the formation of oxides of sulfur. These oxides combine with the steam formed from water to make sulfuric acid. Water in the tank can combine with soluble sulfur salts to form corrosive liquids.

THE WATER ELIMINATOR ®

A Simple Solution to a Big Problem

THE PROBLEM

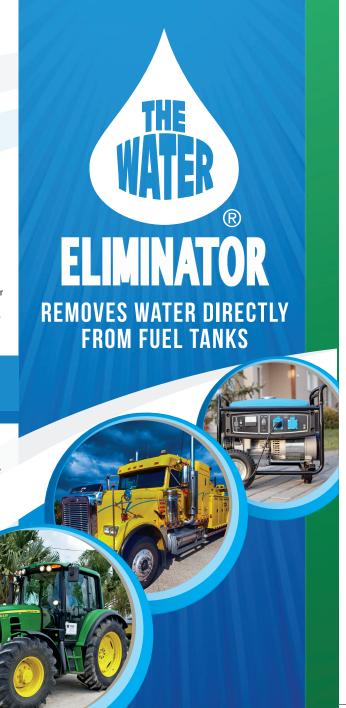
Water has been a problem for engine operators since the first engine was developed. Caused primarily by condensation in both vehicle and storage tanks and seepage from rain and ground water, the problem has persisted throughout the years. In the winter the problem is more obvious because of freeze-up and gelling. In the summer months the problem can be even more acute, but less obvious. The warm weather can spawn colonies of algae that plug filters causing loss of power. There is also a problem of damage to the carburetor, fuel pump, injectors and the engine due to the presence of water. Though water is primarily recognized as a problem in diesel fuel, it also adversely affects the function of gasoline, fuel oil, kerosene and hydraulic fluid. These conditions result in additional expenses for the equipment owner.

American Transportation Technology Corp. P.O. Box 3300 • Ashland, OR 97520 541-897-0330 www.attconline.com

THE SOLUTION

The Water Eliminator was designed as a solution to remove water at the most logical place, in the fuel tank. Removing water at the source affords protection to the entire fuel system. Even the life of the fuel tank will be increased through the reducing of rust and corrosion. The Water Eliminator is simplicity in itself. It consists of a cylindrical cage-type cartridge that is lined with a nylon mesh filter. The cartridge is a container for a small measured amount of dry crystals. The crystal is chemically water specific, which means that it will accept only water molecules into its structure. In the presence of water, it can expand to 500 times their bulk.

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THE WATER ELIMINATOR ®

Removes Water From

Gasoline, Diesel, Fuel Oil, Kerosene and Hydraulic Fluid

The Water Eliminator can be used as a backup to a water separator or as the only water trap in the applications where an inline filter installation is not possible. The Water Eliminator is your first line of defense against water in the fuel. The Water Eliminator is easy to use; the operator just clips the lanyard to the fuel cap and lowers the unit to the bottom of the tank. The unit must lay flat on the bottom of the tank. The Water Eliminator should be checked each time the equipment is fueled. In fuel cans or bulk storage tanks the Water Eliminator should be checked each time fuel is added. This visual inspection only takes seconds.



3" Water Eliminator

PN: WE1-3.5C-24 3.5" Water Eliminator

For Use In: Boats, ATVs, motorcycles, lawn & garden equipment, personal watercraft, gas cans, snowmobiles, portable generators and other small power equipment.

Requires a 1.25" (3.175 cm) or greater tank opening. Unit must lay flat on the bottom of the tank. Applications where the tank depth is 24" (60 cm) or greater will require an additional lanyard.

Includes:

(1) Water Eliminator cartridge (1) 24" (60 cm) lanyard.



7" Water Eliminator

PN: WE2R (shown) 2 Units, Display Packaged PN: WE1CR Single Unit, Display Packaged PN: WE1 Single, Unit Bulk Packaged

For Use In: Heavy-duty trucks, military applications, construction equipment, farm and Ag equipment, generators, marine applications, fuel storage, transfer & home heating oil tanks, water and trash pumps.

Requires a 1.3" (3.3 cm) or greater tank opening. Applications where the tank depth is 27" (68.58 cm) or greater will require an additional lanyard.

PN: WE2R includes:

(2), 7" (17.78 cm) Water Eliminator cartridges and (2) 27" (68.58 cm) stainless steel lanyards. PN: WE1 and WE1C includes:

(1) 7" (17.78 cm) Water Eliminator cartridge and (1) 27" (68.58 cm) stainless steel lanyard.





12" Water Eliminator

PN: WE12 Water Eliminator

Includes: (1) 12" (30.48 cm) Water Eliminator cartridge (2) 1 meter stainless steel lanyards.

For Use In: Heavy-haul trucks, large construction, farm and Ag equipment, generators, commercial marine applications, military applications, oil service equipment, fuel storage and transfer tanks.

Requires a 1.85" (4.7 cm) or greater tank opening. Works in tank depths up to 2 meters.



Storage Tank Water Eliminator

PN: ST-S31

For Use In: Above ground and in-ground bulk storage tanks.

Requires a 3.75" (9.525 cm) or greater tank opening. Note: Badly polluted tanks may require the use of several ST-B31 replacement cartridges.

Includes: (1) 3.5" (8.89 cm) stainless steel cage, (1) ST-B31 Water Eliminator cartridge and all mounting hardware. Works in tank depths up to 16' (4.88 meters).