

Clean Fuel & Lubricant Solutions

How to Use Water Absorbers

Adding Water Absorbers to a Bulk Filtration System

Free water is probably the single biggest cause of fuel system failure. OEs require that **zero free water** reach the HPCR fuel system. Water absorbers are the only sure way to prevent free water from being dispensed into your equipment. Eliminating water will reduce rust, corrosion, wear, fuel degradation and other damage. It will also help prevent denied warranty claims.

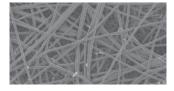
How Water Absorbers Work

Regular (particulate) filters and water absorbers do two distinct jobs; the first removes hard particulate from fluids while the second removes free water. The medias are quite different, each designed to optimize the specific job at hand.

Medias at 100x under SEM

Particulate





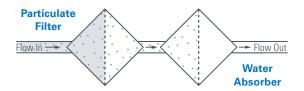


Clean Solutions **particulate filters** are made of synthetic fiber. The fibers' consistent size and shape allows for specific pore size control and the maximum amount of contaminant-catching surface area. The result maximizes both filter efficiency and dirt holding capacity.

Water absorbers, on the other hand, use superabsorbent polymer technology with a high affinity for water absorption. This media quickly and effectively removes free water from petroleum-based fluids. Unlike coalescing media, absorbent media is not disabled by the surfactant in ULSD.

Installing Water Absorbers

The DBB0248 Water Absorber may be installed in combination with particulate filter(s). It fits all Clean Solutions heads and manifolds. It is also included in the X011449 Clean & Dry Diesel Filter Kit.



When plumbing absorbers together with particulate filters, they must be connected in **series**. The fluid should flow **first through the particulate filter** to clean it, and through the **water absorber second** to remove free water.

The absorber is installed in the secondary position because the particulate filter is much better at catching and holding dirt. Dirt will not reach the absorber and therefore it will last much longer. In addition, this enables the differential pressure gauge on the absorber to work as a diagnostic tool alerting when there is a water problem in the tank so that appropriate measures may be taken. If the absorber were plumbed first, it would load with both dirt and water, plugging faster and losing its diagnostic capability.



Clean and Dry Diesel Kit

X011449 removes fuel contamination, stops water as it leaves the bulk tank and provides extra protection for your fuel in storage with the T.R.A.P.™ Breather.



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As a global organization, we have offices throughout the world. Please direct your inquiry to clean.solutions@donaldson.com. This will enable us to address your inquiry in the shortest possible time

Brochure No. F113036 ENG (2/15)

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