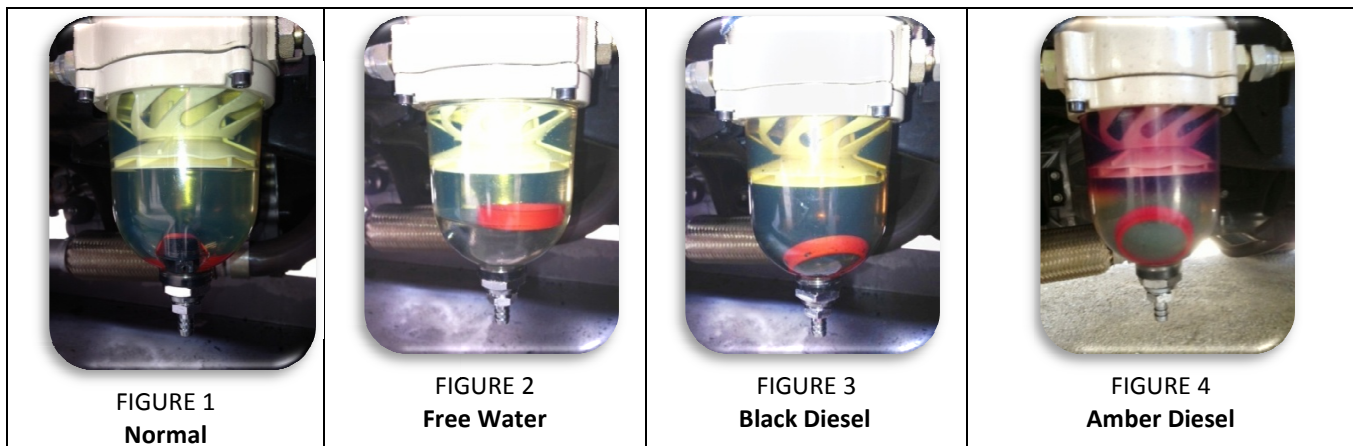


RE: iCerMax™ DUO -Coalesce Dual Water Separator
“The Bulldog” and Why visible inspection of diesel fuel is important.



Introduction

Contamination is everywhere in the fuel supply chain. The on-board filters are the last defence line. Water is the “silent killer” – Water has inferior lubrication properties, pressure, corrosion, fuel oxidation, viscosity and possible bacterial & fungi etc. The direct cause of many catastrophic failures and operational losses.

Note: 39% of 7000 samples tested at Wearcheck failed, due to water contamination.
see www.icermax.com

FIGURE 1: Normal

- Indicative of quality diesel with no signs of large visible dirt particles or water ingress
- There also appears to be no high level of “Free Water” content nor very silvery shine

FIGURE 2: Free Water

- Clearly demonstrates how the RED indicator “Ring” rises according to the water content within the Fuel. Here we notice that the RED indicator “Ring” is in an elevated position (floats on top of the water to indicate water ingress).

FIGURE 2: Black Diesel

- The colour of fuel in this picture is significant to ‘Black diesel’.
- The dark appearance suggests a mixture comprised of paraffin (IP) and oil for lubricity.
- Black diesel reduces lubricity/ pre-ignition/carbon buildup and is a major cause of increased wear.

FIGURE 3: Amber Diesel

- 3-6% water in permanent suspension due to unscrupulous additive.
- Fatal/catastrophic for modern engines as detection is highly problematic.
- Most standard water filters do not trace nor recognize this phenomenon and therefore simply bypasses.
- Notwithstanding the benefit of being able to observe the water level alone, but the color of the Fuel/Diesel is very noticeable to enable verification, as per above photos.
- A very interesting mixture of ‘liquids’ in this picture. This actually happened to a demonstration unit fitted on the iCerMax™ KIA installation vehicle.
- The two different fuel types within this system were clearly noted due to the amber diesel remaining at the bottom and not mixing with the normal quality of diesel.
- The lower level of Orange coloured fuel suggests that there may be an additive mixed with water present in system. The only way to remove it was to drain, and upon lab testing it was discovered that there was approximately 6% of volume in suspension.

iCerMax™

DUO SOLUTION:



The DUO as its name indicate offer the best proven complete solutions to address both free water and particle contamination in one effective pre-filter.- “The Bulldog”

It does so with surety on the principles of ceramic filtration, cost effectively with long maintenance intervals .Therefor lower overall running costs, easy operational maintenance and installation.

Water Coalescer removes free water from fuel that passes through iCerMax™ DUO effectively. The operational efficiency is not adversely affected, due to the application of the ‘Coalesce Principle’ on a large permanently fitted double pressure cone. See efficiency on above ‘Coalesce principle’ as tested independently by the SABS on our website “99.9 % removal of free water “.

The iCerMax™ DUO filter range remains effective at all times as it does not rely on the integrity of standardised paper nor synthetic filtration mediums, which are septive to compromise on various field scenarios and contamination volumes.

You achieve sustainable filtration and condition monitoring due to the inherent characteristics of Wonderstone ceramic depth filtration medium. The ceramic medium within the DUO system unit is not affected by any volume/s of free water as it had stood the test against 100% Sulfuric Acids etc and differential pressures over eight bars, see IFTS independent tests on website.

iCerMax™ ceramic filters extend your economical lifecycle of engines and equipment. Ceramics by its filtration characteristics do not flex, unload, tear; form channels nor will the medium compromise whatsoever. Deutz Dieselpower has independently tested the increase of differential pressure (0. 02Bar) on pressure and (0.15-0.3 Bar) on suction side on a high and low flow on a Deutz BF6L914C, see test results on website.

Inspection of the fuel colour i.e. ‘amber’; ‘black diesel’ (paraffin/oil additive mixture) & free water can be done easily and regularly on the DUO, physically inspect the fuel what you buy, it ensure that your fuel distributors supply the quality you paid for.

CerMax™ offers a complete range of DUO solutions and bulk tank filtration solutions.

WWW.ICERMAX.COM

Ceramic: Rock solid filtration