



FUEL PURIFIER SPAIN



Protect Your Engine



YOUR DIESEL ENGINE IS AT RISK

Bio-Diesel and Water

Fuel legislation designed to reduce harmful emissions and increasing global demand for diesel has resulted in more and more bio-diesel finding its way into the fuel supply chain. The increased use of bio-diesel increases the incidence of water contamination problems in diesel.

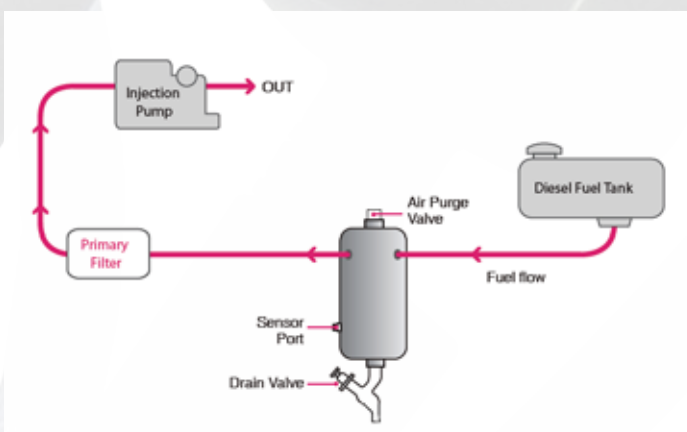
Why? Bio-diesel contains more water than petro-diesel (it is introduced in the production process), it is also hygroscopic which means it absorbs water from the atmosphere.

Petro-diesel can absorb around 50 parts per million (ppm) of water whilst bio-diesel can absorb as much as 1500ppm - most global fuel standards recommend a maximum water content of 200ppm.

As ambient temperatures rise water is absorbed into the fuel, as they fall, the water condenses out of the fuel and forms free water. Free water can wreak havoc in your fuel system, this water subsequently accumulates and sinks to the bottom of the tank creating an ideal environment for the growth of "fuel bugs".

There are known to be over 20 species of fuel bugs that can contaminate your fuel storage tank, including the most common *Cladisporium Resinae*. Fungal infestation can 'spoil' the fuel. The sludge and residue is drawn into the engine, which quickly clogs conventional cartridge filters, causing loss of power, narrowing fuel lines and eventually leading to engine breakdown.

SO WHAT'S THE SOLUTION?



How the MLS Fuel Purifier works

Fuel enters the unit the baffles in the system immediately induce a swirling action, which causes water and solid contaminants to separate out of the fuel. The contaminants sink to the base of the unit where they are retained - the contaminants are simply drained and disposed of when the system is full.

An optional sensor can be supplied to indicate this. The sensor can be linked to a dashboard or operations panel or further to the MLS communication systems so that drain requirements can be identified from any PC, globally.

The MLS Fuel Purifier will remove water and solid particulates from even the dirtiest, most contaminated fuel.

Keeping your diesel fuel free from water and other contamination is fundamental to the life of the engine and your equipment.

How good is the quality of the fuel being used in your equipment?

If you are hiring out generators, pumps or plant, can you be sure of the condition of the fuel going into your equipment? If you are using fuel provided to you on site, can you see that it is contaminated? Poor fuel storage, bad fuel transfer and housekeeping practices, or simple human error, can easily result in water, sand, grit, rust etc in fuel, all of these can harm your engine.

If you cannot be sure of the quality of the fuel going into your tractors, excavators, generators or pumps the engines that power them could be at risk and you could end up with expensive repairs and downtime. By fitting extra levels of protection on your vehicle or equipment you can reduce the risk of costly damage due to contaminated fuel.

The MLS Fuel Purifier will remove water and solid particulates from even the dirtiest, most contaminated fuel. When fitted in conjunction with a conventional fuel water separator, they will work together to ensure that your engine is protected from harmful water and particles.

The MLS Fuel Purifier acts as the 'first line of defence' removing traces of water and dirt, sludge and grit allowing the filter/separators to filter the fuel unhindered.

Contaminated fuel can be incredibly damaging to diesel engines, especially those fitted with the latest generation of high pressure fuel injection systems.

Water is especially troubling as it will cause serious performance and reliability problems.



Suitable for any diesel equipment - fitted to heavy plant, road transport, marine environment, agricultural, domestic and industrial generators.



CONTAMINANTS IN YOUR FUEL CAN CAUSE CONSIDERABLE DAMAGE TO YOUR ENGINE

Engine misfiring and lower power input	Fuel injectors can get clogged and fuel delivery and injector spray patterns are affected
Wear to fuel injector and pumps	Water is a very poor lubricant and metal on metal contact occurs resulting in scuffing and wear
Corrosion of fuel system and engine parts	Steel components will rust in the presence of water
Explosive damage to fuel injectors	The combustion process will superheat any water present which can cause injector tips to be 'blown off'
Acceleration of fuel oxidisation	The oxygen in water acts to speed up the process of fuel deterioration

The MLS Fuel Purifier provides major benefits for all types of diesel engines while protecting the environment from harmful emissions.

Avoid fuel/water related breakdowns and receive cleaner engine combustion.

Remove solid/semi solid contaminants such as dirt, rust and sludge which significantly extends the life of the standard engine fuel filter.

Maintain exhaust emission standards Save on paper consumables as the Fuel Purifier is filter-less.

Extend engine rebuild period and life with fewer unscheduled repairs and call outs.

PRODUCT RANGE



**UNIT
MFP2**

DESCRIPTION

For engines with a fuel pump flow rate of up to 1.9 litres per minute. Maximum engine size of 150 HP. See manufacturers pump specification for confirmation.

DIMENSIONS

MFP2 - 70mm Dia. x 170mm long



**UNIT
MFP6**

DESCRIPTION

For engines with a fuel pump flow rate of up to 6 litres per minute. Maximum engine size of 300 HP. See manufacturers pump specification for confirmation.

DIMENSIONS

MFP6 - 115mm Dia. x 200mm long



**UNIT
MFP10**

DESCRIPTION

For engines with a fuel pump flow rate of up to 10 litres per minute. Maximum engine size of 650 HP. See manufacturers pump specification for confirmation.

DIMENSIONS

MFP10 - 115mm Dia. x 320mm long



**UNIT
MFP55**

DESCRIPTION

For engines with a fuel pump flow rate of up to 55 litres per minute. Maximum engine size of 850 HP. See manufacturers pump specification for confirmation.

DIMENSIONS

MFP2 - 115mm Dia. x 406mm long



**UNIT
MFP150**

DESCRIPTION

For engines with a fuel pump flow rate of up to 150 litres per minute. Maximum engine size of 4,000 HP. See manufacturers pump specification for confirmation.

DIMENSIONS

MFP6 - 13mm Dia. x 530mm long



**UNIT
MFP340**

DESCRIPTION

For engines with a fuel pump flow rate of up to 340 litres per minute. Maximum engine size of N/A. See manufacturers pump specification for confirmation.

DIMENSIONS

MFP10 - 183mm Dia. x 960mm long



What customers say

Grayline Coaches have found that fitting the MLS purifier has not only given us peace of mind on the quality of diesel our engines use, we have recorded lower exhaust emissions improving our green statistic for the environment.

Alan Gray - Director, Grayline Coaches, Bicester.



“Customer savings in relation to fuel are very significant. When a fuel related breakdown occurs, the fuel tank has to be drained and the fuel disposed of. On bigger machines this can be fuel up to the value of £250 wasted. By fitting the MLS MFP we have reduced fuel wastage and have seen several other benefits” (see below)

Ray Luxton - Business Development Manager, Holt JCB



80% reduction in field contamination related call outs to machines fitted with the FP.

Warranty claims in relation to fuel pumps and injectors have been eliminated.

Significant environmental and disposal cost benefit that the 2-300 litres of waste fuel does not have to be disposed of.



Lynch Plant fully understands the enforced changes occurring with diesel quality plus the increasing threat of diesel bug contamination. Fitting the MLS purifier helps to protect our plant which keeps our customers working.

Merrill Lynch



Rocket Rentals have fitted the mls fuel purifier for nearly three years with excellent results, in the past month alone the purifier has saved us two engines from serious failure and consequent cost, Nov 2011.

Simon Tomblin Managing Director Rocket Rentals Gloucester.



TRIED & TESTED

We put the latest kit through its paces

MLS Marine Fuel Purifier

Thankfully we have never had any fuel issues on our Bénéteau Swift Trawler 34 (touch wood) but, with our solitary engine, it would only take one blocked fuel filter to render us immobile.

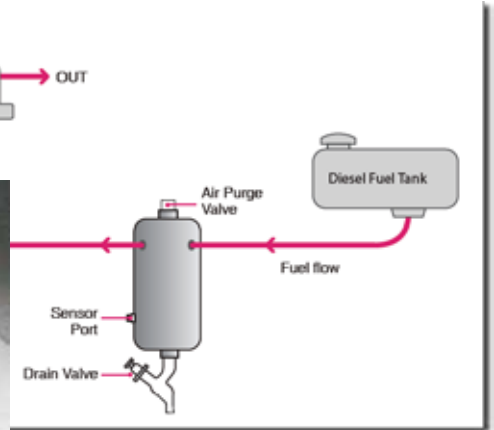
With that in mind the Marine Fuel Purifier from Mechanical Line Systems seemed like a sensible insurance policy. It slots into the fuel line between the main tank and the primary filter. The baffles inside swirl the fuel around, separating any water or contaminants from the diesel. These sink to the bottom where they can be drained off through a valve. There is an optional alarm to alert you when the barrel is full of gunk; ours is under the helm seat.

So far the system has worked a treat. It seems our fuel is in pretty good order anyway but our maiden draining still revealed a small amount of debris. The next two times we drained it, the fuel was clear.



The only slight issue with our system is that, due to its location low down in the engine room, it is quite hard to drain and we have had to attach a hose to the valve as there isn't enough room to slide a bowl underneath.

There are four different sizes of purifier dependent on engine power. The one we opted for was the MFP10, which works for engines up to 650hp and costs € 485, plus €198 for the sensor and around €250 for installation.



It is a very simple fit though, and anyone with half a practical brain will be able to do it themselves.

The other sizes are the MFP2 (€395) for engines up to 120hp, the MFP6 (€445) for engines up to 350hp, and the MFP150 (€985) for engines up to 4,000hp. Really, €933 isn't bad considering you shouldn't have to change a filter again and, if like us, you have just the one engine the peace of mind is invaluable.

Jack Haines



Contact <http://www.fuelpurifiers-spain.com>
or <http://www.northshore-marine.com>

Fitted to mobile plant, generators, marine agricultural also suitable for any diesel equipment.

Call for a free demonstration, Protect your engine from avoidable damage and extend its life with the MLS Fuel Purifier

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