

DIESEL FUEL FILTRATION & POLISHING SYSTEM

Fuel polishing is the technical cleaning process used to remove dirt, dust particles, water, sediment and microbial contamination from such fuels as diesel, red diesel and biodiesel in bulk storage tanks. Over any given period of time fuels in storage can develop pools of sludge, sediment and water. These contaminants can quite easily find their way into fuel at one of the many exchange points in its journey from source to end user. Left untreated, the levels of contamination worsen to the point where damage to injector pumps and engines is likely. When fuel is pumped into a tank condensation, atmospheric absorption, rust deposits and even a faulty tank are usually the main causes of fuel contamination. Microbes find their way into fuel and cause problems as they multiply and grow. This fuel contamination, also known as '**fuel bugs**' or '**diesel bugs**' build up over time in stored fuels if they aren't tested and treated on a regular basis.

Manual Operated Fuel Polishing Unit



In essence "polishing" is an advanced level of filtration of the fuel, monitored and controlled via a central processing unit. During the fuel polishing process to effectively remove the solid particulates, wet foreign matter and water from the fuel the removal of dense matter is most important and this is where the **Kleenoil Filter Elements** are so successful due to their design of depth filtration. Firstly trapping the larger particles then as the fuel passes down through the media trapping smaller and smaller particles and at the same time the filter fibres absorb and trap the water (up to 1 litre per element).

KLEENOIL Filter USED



KLEENOIL Filter NEW



The amount of time required to complete the fuel polishing process depends on several factors. Fuel cleaning machines can polish at rates from 8 litres per minute to upwards of 400 litres per minute, however the factors which govern the process are about more than just flow rate. In fact a high flow rate can be detrimental to the overall effect due to increased pressures in the filter stages and adverse disturbance in the fuel tank. The FA-ST Fuel Polishing System is set at 20 litres per minute giving the filter media the optimum time to effectively clean the fuel.

Another factor can be the quality of the fuel. If the fuel is highly contaminated it will typically take longer to clean than a batch of cleaner fuel of the same volume. The third factor to take into account is the volume of fuel to be processed. It may seem obvious but the larger the volume of fuel that requires polishing, the longer it will take to complete the cleaning process.

Diesel Fuel Before & After Filtration



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FPS-CAB240 Fuel Polishing System

Designed for use on diesel fuel tanks up to 20,000 litre capacity (alternative units are available for larger capacity tanks) All components are housed in a robust steel cabinet which can be either wall mounted or supplied on a purpose built steel stand. For external use the cabinet is fitted with a rain hood.

The unit is available in 2 configurations:

1. Automatic Control. Fitted with a programmable 24/7 timer for a fully automated operation.
2. Manual Control. Fitted with an isolator switch and manual Stop/Start buttons and indicator running lights.

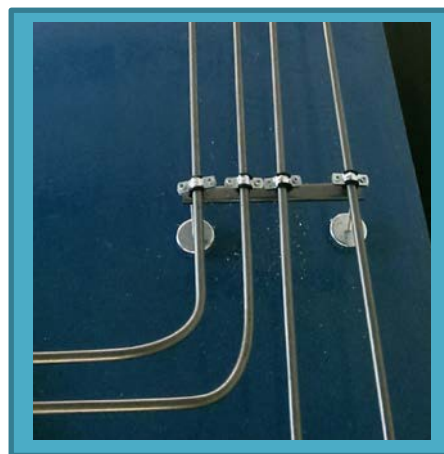
Durable Haight Gear pump and 230v motor with an integrated heat overload cut out switch, designed for long running and twin super duty **KLEENOIL** filter units fitted with 3 micron absolute elements with water removing capability. Operating pressure gauge. Isolating ball valves on both inlet and outlet lines complete with lock outs and with the added safety of an automatic filter clog/block shut off pressure switch, integrated bund with safety leak detection float switch. External warning beacon to alert to faults e.g. Filter block or leak detection.

All external steel and flexible pipework is fixed using our unique **magnetic fixing system**, no drilling or welding required.

Cabinet with rain hood and lock outs



Magclamp Pipe Bracket



FA-ST Ltd offer a complete **'One Stop Service'** from the initial site visit, fuel sampling and laboratory analysis, any remedial work that may be required to bring diesel fuel in to specification, to the supply and installation of our standard Fuel Polishing System. Systems can be purchased for self-install and we can also design and build bespoke units. We can also supply hire units on a minimum term of 6 months. Added to this to give peace of mind to our customers our **'in house'** service on yearly contract a full maintenance and/or routine service visits.

If you have any questions, need further information, just want to discuss anything related to your fuel storage, or require a guide price or quotation then please contact our office on 01246268900 or e-mail info@fa-st.co.uk