

PETRO INDUSTRIAL



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Diesel / Biodiesel

FUEL RE-CIRCULATION KIT

Item code: FM.RKS

The range of Petro Tank Hygiene Re-circulation Kits are designed to circulate and prevent premature degradation of the fuel inside a bulk storage tank. As it is circulated the fuel is passed through a conditioner that prevents harmful microbial growth within the fuel itself.

There is also the option to fit a bowl filter that removes any water and particular contamination from the fuel as it passes through.

WHY DO I NEED TO RE-CIRCULATE MY FUEL?

Microbial contamination (diesel bugs) in fuel storage tanks is becoming a major issue. Often the first signs are when pump or vehicle filters block, in some cases resulting in hefty machinery repair bills.

The latest fuels contain a % of bio fuel (up to 7%) and provide an ideal breeding ground for these bugs.

Biofuel acts as a detergent cleaning the inside of the storage tanks allowing dirt to be sucked up by pumps, blocking filters.

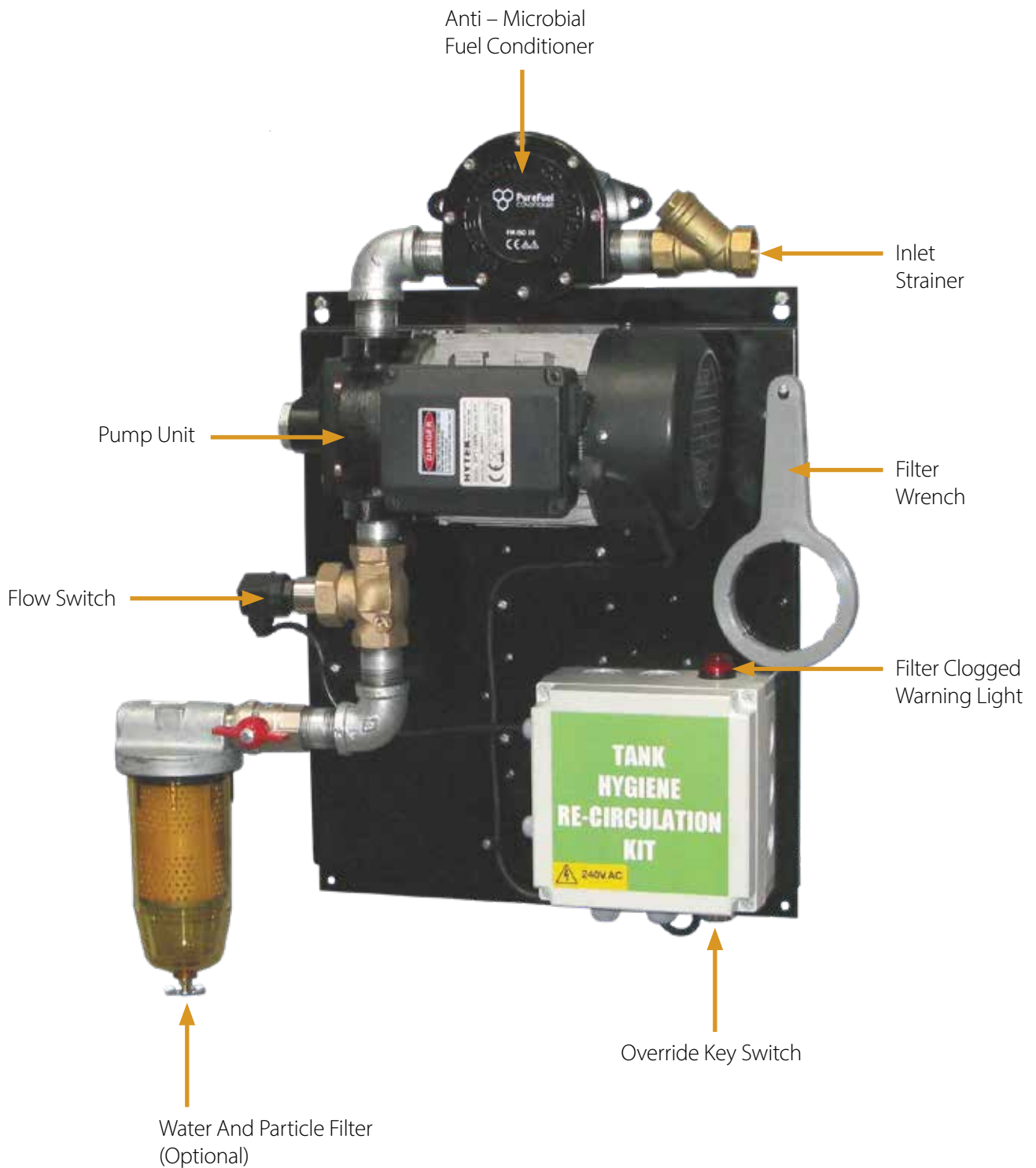
Over time these microbes/bugs grow into large colony forming units (CFUs) which get sucked into fuel lines blocking filters.

Storage tanks particularly those with low usage require a permanent system to keep the microbes/bugs dormant by re-circulating fuel to ensure effective microbial treatment.

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KIT SPECIFICATION:

- Circulates and prevents degradation of fuel inside storage tanks.
- Fuel passes through a fuel conditioner to prevent microbial growth.
- Fuel is automatically circulated for a preset number of timed periods to ensure the tank contents is re-circulated 1 1/2 times every 28 days.
- When the pump flow rate drops below a preset limit (indicating a clogged filter) the flow switch closes and a warning light flashes.
- In addition to the flashing light, connections are included to allow the kit to be linked to an alarm or fuel management system to provide a remote warning.
- For use with diesel/biodiesel up to B30 (B100 version available).
- Features a 230V pump unit, inlet strainer, fuel conditioner, flow switch, filter clogged warning light, timer and mains junction box. Complete unit is weatherproof.
- Mounted on a wall/tank mounting plate dimensions 530mm H x 420mm W x 230mm D.
- Suitable for re-circulating diesel or gas oil with a bio fuel content of up to 30%
- The kits are weatherproof and fitted to a compact back plate for wall mounting.
- **STANDARD SPEED KIT (FM.RKS):**
Suitable for circulating up to 3000 litres of fuel per day (40,000L capacity storage tank).
- **HIGH SPEED KIT (FM.RKH):**
Suitable for circulating up to 5000 litres of fuel per day (60,000L capacity storage tank).

INSTALLATION INSTRUCTIONS:

1. Before installation, clean any threaded joints to ensure that no dirt or debris is present.
2. Mount the unit via the four mounting holes on the back plate.
3. Connect the female Y-strainer inlet to a suitable tank outlet. Ensure that the thread is sealed with a suitable thread sealant. It is recommended that an isolation valve is installed in the pipework connected to the inlet of the unit.
4. Connect the 1" BSP female outlet of the unit to a suitable tank inlet. Ensure that the thread is sealed with a suitable thread sealant.
5. Connect a suitable 230V AC power supply, fused at 13 amps, into the junction box provided as follows:
230v AC:
Brown – Live
Blue – Neutral
Yellow/Green – Earth
6. The pump may now be primed using the override key switch.

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INSTRUCTIONS FOR USE:

The pump unit is designed to run automatically and unattended. The timer unit is pre-programmed by PETRO so that it runs at preset intervals throughout the day for 15 minutes at a time. The unit is preset to run between the hours of 09.00 and 17.00 on weekdays only (Mon – Fri). The electronic timer instructions are supplied if any adjustments need to be made. The preset times are listed below:

FM.RKS & FM.RKH

10.00 – 10.15

12.00 – 12.15

14.00 – 14.15

16.00 – 16.15

The unit is fitted with a flow switch and warning light to indicate when the flow rate has dropped due to the inlet/outlet filter becoming blocked.

MAINTENANCE AND FILTER CHANGING

The unit is fitted with a flow switch and warning light to indicate when the flow rate has dropped due to the inlet/outlet filter becoming blocked. This indicates that either the optional filter on the outlet needs changing or the brass Y-strainer, fitted to the inlet, has become blocked. If the PETRO filter outlet kit is fitted to the pump unit then use the supplied filter wrench to remove the filter bowl and replace the filter.

CONNECTION TO CONTROL SYSTEM:

The unit can be connected to an alarm or management system to provide a remote warning when the filter becomes blocked. There are normally open, passive switched outputs located inside the junction box, which are clearly labelled. The contacts are rated at 240V / 10A max.

IMPORTANT: Ensure that the power to the pump unit is isolated whilst the filter is being changed to ensure that the pump does not activate via the timer. Also ensure that any valves are closed on the inlet pipe work to prevent fuel loss.

WARNING: DO NOT ADJUST THE SCREW ON THE FLOW SWITCH AS THIS IS FACTORY PRESET AND ANY ADJUSTMENT WILL AFFECT PERFORMANCE.