# Prevent fuel from getting stagnant & avoid costly damage with the Recirc Unit

### **Fuel Recirculation Unit**

The system is designed to prevent fuel inside a storage tank from getting stagnant - particularly those with low usage such as generator back up tanks, that whilst not used often are of high importance. By keeping it free of contaminants, damage and downtime to equipment and vehicles the fuel passes through is avoided.

The system draws the fuel up from the front of the tank through the magnetic conditioner, keeping any bacteria microbes dormant, and then through a two stage water and particle filtration process. The fuel is then circulated back into the rear of the tank.

Benefits					
1	Italian manufactured Piusi Panther pump for long, trouble free service life.				
2	Purafiner magnetic fuel conditioner to break up any bacteria growth and prevent filter blockages.				
3	Two stage Piusi filtration with bowls to observe and drain any contamination – 30 micron water & particle and 5 micron final finishing particle filter.				
4	Internal timer to control the period that the fuel is circulated. This is set as standard to turn over 1.5x the tank capacity every 28 days (the period that it takes for bacteria colonies to form).				
5	IP55 rated control panel with large, visible coloured lights for diagnosing any issues that need to be dealt with i.e. Filter blocked and low level/leak/fault.				
6	If the flow switch detects a filter blockage, the filter light on the control panel will illuminate and the pump will turn off until the filter is replaced.				
7	Input for an alarm/gauge to detect a low level, and a leak probe for a drip tray (if installed). Light illuminates if activated and the pump turns off until action is taken.				
8	Two passive BMS outputs for the remote warning of filter block and low level/leak/fault to alert the user that they need to take action.				
9	Mushroom style emergency stop button to allow the immediate stop of pump functions by anyone.				
10	Plated for sturdy fixing to a metal fuel tank or cabinet.				







## Bespoke timer settings



If you wish to specify the time intervals and days of the week that the unit circulates the fuel within the tank, we can set the timer as per the user requirements before we dispatch the unit.

If you wish to specify this, let us know and we will send to you a questionnaire for you to fill in and send back to us

#### Accessories...







Code	Description	Max Tank Capacity (I)	Max Turnover Per Day (I)	٧	Pump	Micron	Fluids
AC.FRU.40	Fuel Recirculation Unit 40,000l Tanks	40,000	3000	230	Panther 56	Water - 30 / Particle - 5	D
AC.FRU.70	Fuel Recirculation Unit 70,000l Tanks	70,000	4000	230	Panther 72	Water - 30 / Particle - 5	D



# Don't let "bugs" in your fuel tank cause you costly downtime!

Why do I need to be aware of stagnant fuel?
What are the problems associated with stagnant fuel?
Am I at risk of being affected?
How do I prevent this going forward?

## The problem of stagnant fuel

Imagine you come to use your fuel tank and there's a problem – the fuel has gone stagnant and contamination is stopping the system from working. Think of the inconvenience and cost downtime alone would cause you, never mind any repairs needed to the equipment the fuel has passed through. Say you're a hospital, a data centre, a bank or a university, the electricity goes down and you're relying on the emergency generator to power the building but the backup diesel tank feeding it has an issue and it fails to work. Disaster!

But why would this happen? Let's go back a stage and explain...

The increasing bio-content in today's diesel means that the fuel in our storage tanks often contains small, but problematic water levels which sink to the bottom of the tank. The area between the water and fuel is the perfect environment for bacteria or "bugs in fuel" to grow and feed. Over time, they combine to create colonies that become very difficult to break up. The nasty sludge they produce ends up blocking filters, damaging your pump and gets sucked into the machinery/vehicle that the tank is fuelling causing inconvenient downtime and costly repairs.

For tanks that are used daily, a water filter can usually do the job, but if your tank has less frequent usage then the water is allowed to settle and the "bugs" are left to grow as described above. Unfortunately, generator tanks fall into this category, where you simply cannot risk downtime.



A filter clogged up with diesel sludge

### Prevention is better than cure!

The cure can come in the form of the Fuel Recirculation Unit – a system designed to prevent diesel fuel inside a storage tank from getting stagnant. By regularly recirculating the fuel, these bugs are not allowed to settle and grow. The system draws the fuel up from the front of the tank through a magnetic conditioner, which breaks down the bacteria to a size that allows them to pass through two conventional water and particle filters. This final filtration process removes any impurities before circulating the fuel back into the tank.

The recirculation system turns over 1.5 times the tank capacity every 28 days - by not allowing the "bugs" in your fuel to fester, the system tackles the issue at the root cause, giving you assurance that you equipment is free from the damage and downtime fuel contamination can cause. If reliance on your fuel tank is great, the issues the above situation would cause you are not even worth thinking about, so eliminate the risk as soon as possible with a recirculation unit.

