

Fuel Conditioning Unit

Designed to maintain diesel fuel quality in storage tanks up to **40,000 litres**, particularly for standby and backup generator installations subject to long storage periods.

Fuel Quality & Filtration Performance

- Multi-pass filtration to ISO 14/13/11
- Laboratory-verified water removal to < 60 ppm
- Integrated magnetic conditioning to break down microbial sludge ("diesel bug")
- Prevents injector, pump, and engine damage caused by water and particulate contamination



System Components

- Piusi Panther 56 fuel transfer pump
- Dual Cim-Tek Ultimate Defense® particulate and water filters
- Magnetic fuel conditioning module

Control & Intelligence

- Microcontroller-based control system with **touchscreen HMI**
- Real-time monitoring of:
 - Filter condition and blockage
 - Flow rate and filter life trends
 - Run status and scheduled cycles
- Event and alarm logging for maintenance diagnostics
- Predictive filter replacement to reduce unplanned downtime

Safety & Integration

- Inputs for fuel level alarm/gauge and leak detection probe Automatic pump shutdown on low level or leak detection
- Dual passive **BMS outputs** for remote alarm signalling:
 - Filter blockage
 - Low fuel level / leak condition

Operating Logic

- Automatic run-time scheduling based on tank volume
- Operates **Mon-Fri, 09:00-17:00**
- Conditions approximately **1.5 × tank capacity per month**

System Variants

- Standard configuration
- Gauge version (integrated fuel level display in litres and bar graph)
- Modbus version (system status and alarms via Modbus protocol)
- Combined gauge + Modbus version

Part Number	Description
LK1082	DN25 Fuel Conditioning Unit with Gauge 230v/50Hz
LK1083	DN25 Fuel Conditioning Unit with Modbus & Gauge 230v/50Hz