



DIESEL DEFENCE

DDF-EKO1-10-2-50

DIESEL DEFENCE EKO SYSTEM

SMALL ENOUGH TO FIT, BIG ENOUGH TO PERFORM

The EKO System with Kapture technology is a high-performance fuel polishing system that represents a major step forward in protecting diesel fuel from harmful contaminants in storage tanks up to 2,000 litres capacity.

The system builds on IPU Group's extensive expertise in fuel management and brings together a compact high-performance fuel polishing unit with an intelligent microprocessor control module. This specialised combination is custom designed to monitor and control fuel cleaning systems with a lower purchase and lifetime maintenance cost in mind. But this is achieved without compromising on performance. The EKO System delivers an exceptional cleaning capability that is 87% higher than the industry standard, achieving a 13/11/18 level of Cleanliness.

It's the perfect polisher to ensure your stored fuel remains in its best condition

At the heart of the EKO System with Kapture Technology polishing system is a microprocessor controlled input/output control module, which is installed and connected using simple plug-n-play connections and enables remote configuration and continuous monitoring anytime. System flexibility is essential when operating in a diverse range of applications and so monitoring is highly adaptable, whether using the programmable time control function, manual control (fascia

control) or expanded further to manage communication remotely via BMS input or Modbus RTU over RS485 Communications.



If the system senses a fault, the alarm becomes activated, and in standard operation, alerts to the cause of the shutdown. In addition, the control panel incorporates overload protection for pumps, and monitors feedback alerting the user to a pump fault which would prevent the fuel from being properly maintained.

DDF-EKO

FEATURES



Single stage filtering solution for particulate or water removal

- Stage 1 – 1µm Absolute removing particulate only
(Factory standard supplied media)

High Capacity 14" filters

- Integrated pressure (clogging) sensors
- Rugged, space-optimized and reliable design

Visual Alert to System Alarms

Programmable Run Timer

Integration into Building Management Systems

- Signal Inputs for control
- Volt-Free Outputs for feedback
- Modbus RTU over RS485



DIESEL DEFENCE

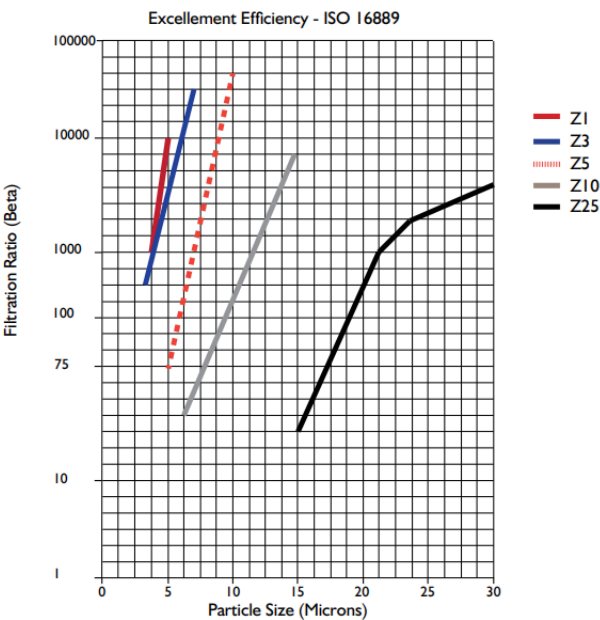
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SYSTEM

Dimensions (H) x (W) x (D)	934mm x 624mm x240.5mm
Weight	40Kg
Operating Conditions	-20°C - +60°C <90% RH
Environment	IP55
Connections	1" BSP Male Coned Inlet and Outlet

FILTRATION

Fluid Compatibility	Diesel & mineral oils
Media	STAGE 1 FILTER – 1µm Absolute (Z1)



Filter Blocked

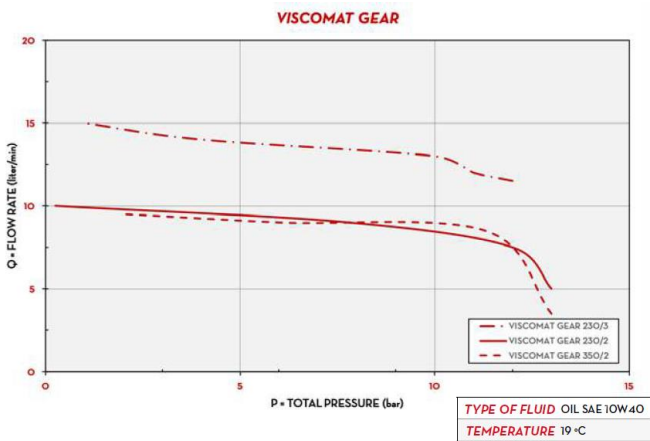
Electronic via Control Panel

ELECTRICAL

Voltage/Frequency	230V (±10%) / 50Hz, supplied with 3-Pin Blue Industrial Plug (3M Cable)
Motor Current	6A
Motor Protection	Monitored Overload Protection Automatic Thermal Protection Switch

PUMP

Flow	Max 14L/pm (Viscomat 230)
Type	Self-priming Vane
Duty Cycle	System managed automatically
Noise Level	<85dB @ 1M



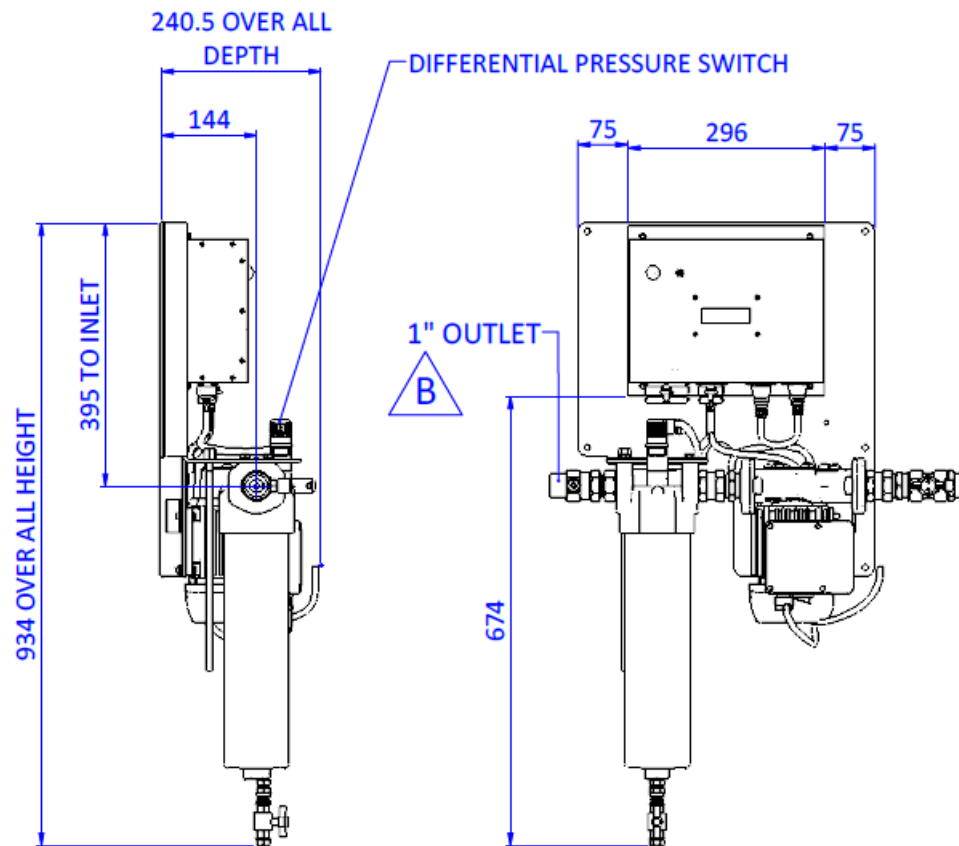
ALARMS

Filter Clogged	1 off N/O switches
Flow Detection	1 off N/O switch
Motor Overload	1 off N/O switch, front panel resettable

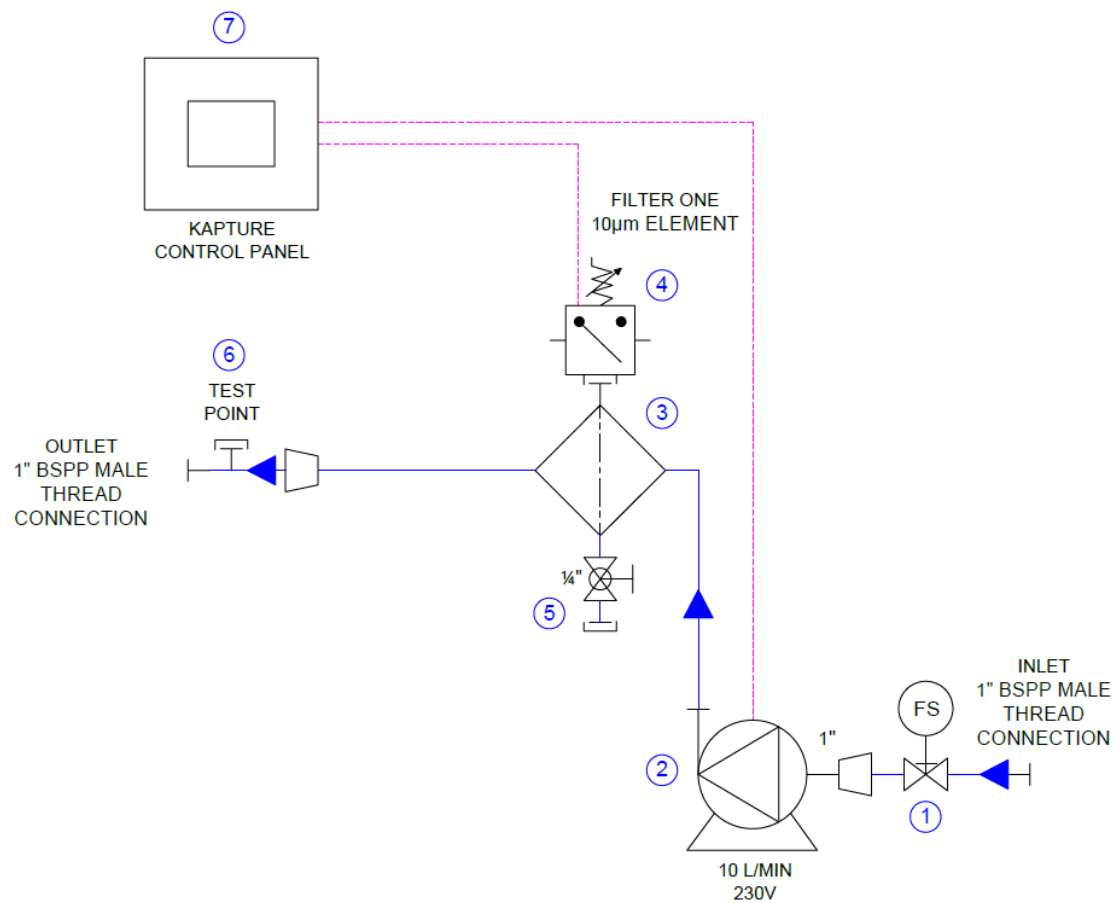
BMS CONNECTIVITY (Front Panel Screw Terminals)


Volt-Free Outputs	System Common Alarm System Running Alarm
Inputs	Remote Reset/Inhibit Remote Run
Serial Communication*	Modbus RTU over RS485 *Not available as standard if ICM is fitted, please contact IPU if this is required.

LAYOUT DRAWINGS



P & ID



INLINE CONTAMINATION MONITOR (OPTIONAL)		
Technology	Precision LED Based Light Extinction Automatic Optical Particle Analyser	
Particle Sizing	>4,6,14,21,25,38,50,70 µm(c) to ISO 4406:1999 Standard	
Reporting Formats	ISO 4406:1999 (ICM Default) NAS1638 AS4059E Table 2 AS4059E Table 1 ISO 11218	
Accuracy	±½ ISO code for 4,6,14µm(c) ±1 code for 21,25,38,50,70 µm(c)	
Calibration	Each unit individually calibrated with ISO Medium Test Dust (MTD) based on ISO 11171 (1999), on equipment certified by IFTS.	
Moisture & Temperature Measurement	% saturation (RH) and fluid temperature(°C)	
Viscosity Range	<1000 cSt	
Data Storage	Up to 4000 timestamped tests in the integral ICM memory. Up to 250,000 timestamped tests in EKO Kapture Memory	

TRUSTED KNOWLEDGE. TAILORED SOLUTIONS.

How well you understand a problem defines how well you solve it. Speak to an IPU technical specialist about fuel polishing and, after asking some astute questions, they'll provide a tailored solution you can trust - backed by years of industry experience and engine know-how.



More details at www.ipu.co.uk

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