

# DIESEL DEFENCE

### DDF-EK02-10-2-50

#### **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 microprocessorcontrolled 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** 



#### Dual stage filtering solution for particulate and water removal

- Stage 1 1µm Absolute removing particulate only
- Stage 2 0.5µm Water Removal (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 <u>B</u>uilding Management Systems

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



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### DDF-EK02-10-2-50

SYSTEM	
Dimensions (H) x (W) x (D)	934mm x 826mm x 240.5mm
Weight	47Kg
Operating	-20°C - +60°C
Conditions	<90% RH
Environment	IP55
Connections	1" BSP Male Coned
	Inlet and Outlet
FILTRATION	

Fluid Compatibility

Media

STAGE 1 FILTER – 1µm Absolute (Z1)

Diesel & mineral oils



#### 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) Туре Self-priming Vane Duty Cycle System managed automatically <85dB @ 1M Noise Level VISCOMAT GEAR 20 Q = FLOW RATE (liter/min P . TOTAL PRESSURE (bar) TYPE OF FLUID OIL SAE 10W40 TEMPERATURE 19 °C ALARMS

Filter Clogged

Flow Detection Motor Overload

1 off N/O switch 1 off N/O switch, front panel resettable

2 off N/O switches

#### 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.	

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INLINE CONTAMINATION MONITOR (OPTIONAL)			
Technology	Precision LED Based Light Extinction Automatic Optical Particle Analyser	â 🛋	
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	12/16/13	
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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