

FAST, TWO-STAGE FILTRATION FOR FUEL STORED IN MULTIPLE LOCATIONS



Combine high throughput, great mobility & superb cleaning in a single unit.

Organisations around the world depend on diesel-powered equipment to perform vital day-to-day duties and provide emergency backup for public utilities. Dire consequences would follow the failure of such business-critical equipment.

The Diesel Defence DDM5 protects diesel for organisations that need a compact, mobile unit to clean large volumes of fuel that is stored in multiple locations.

This mobile unit has an exceptionally powerful pump with a maximum flow rate of 250lpm and two-stage filtration to remove the stubborn contamination that challenges single-stage polishers.

The DDM5 is well-suited to large sites with multiple tanks such as data-centres, hospitals and corporate campuses.

Exceptional flow rates

The DDM5 delivers a maximum flow rate of 250lpm, removing most contaminants in a single pass to ensure fuel is clean and on spec.

Two-stage filtration

With two-stage filtration, the DDM5 removes 100% free water and 99% entrained water from diesel fuel.

ISO 4406 & EN 590 standards

High performance filter elements ensure your fuel meets or exceeds the internationally-mandated 18/16/13 and 200ppm standards.

Let's talk

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CRITICAL POWER NEEDS CLEAN FUEL

A site's power generation infrastructure includes redundant hardware to reduce the chance of a critical failure. Most designs risk disaster by failing to treat their shared fuel stock as a single point of failure.



The backup behind emergency power

Hospitals, banks, datacentres, telecoms sites, retail outlets and government offices have to run 24/7. The country relies on their availability.

Emergency generators ensure they have electrical power even if grid power fails but emergency generators need clean fuel.

IPU safeguards that clean fuel.

One less problem to fix

IPU helps you meet your business objectives. You do not want to be worried about contaminated fuel or unreliable power. Let IPU remove one weakness in your power infrastructure so you can concentrate on what makes your business a success.

Professional service

IPU's services range from supplying an economical and standard fuel polishing system to manufacturing a bespoke unit to suit your site, staff and environment. These services can include:

- Site survey.
- Consultancy with site stake-holders.
- Physical, electrical and mechanical assessment.
- Detailed general assembly (GA) drawings.

Fuel management professionals

IPU are a single-source provider for all aspects for fuel management and maintenance:

- On-site or lab-based fuel testing.
- Fuel cleaning or replenishment.
- Mobile and fixed fuel polishing units.
- Out-sourced fuel management service.

Engine and fuel suppliers

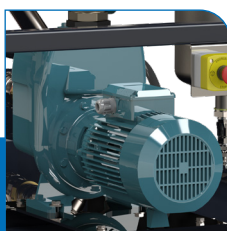
Engine manufacturers and fuel suppliers have tightened their approach to fuel contamination.

Standard warranties on all major engine brands exclude damage caused by contaminated fuel. This damage can be deep within the engine on components such as fuel injectors. It is inevitably expensive to repair and the cost falls on the operator - you.

Fuel suppliers advise any organisation storing fuel to employ appropriate measures to maintain the condition of their fuel. These measures include a fuel polishing system.

PRODUCT HIGHLIGHTS

High flow rate pump



The DDM5 uses an ultra-reliable self-priming centrifugal pump that achieves remarkably high flow rates of up to 250lpm (litres per minute).

A self-priming pump draws fuel from your storage tank even when the connecting pipes start empty. It eliminates the inconvenient and awkward process of 'wetting' the pump.

The maximum suction lift of the pump is 6 meters, making the DDM5 well-suited to underground tanks with access ports below ground level.

Two-stage filtration



The DDM5 uses two-stage filtration which ensures that most contaminants can be removed effectively in a single pass.

The DDM5 is equipped with four filter housings. When fitted with Filtasorb media, these remove all free water and 99.9% of entrained water to 100ppm (parts per million) or less.

The unit has differential pressure gauges for each filter housing that give an indication of the filter condition via a green, yellow and red visual.

Simple control



The DDM5 has a user-friendly control panel with a simple push-button interface.

The control options include buttons to start and stop the pump, to reset the unit in the event of a fault and for triggering an emergency stop.

It is very clear for any engineer or technician to understand. No specialist expertise is required.

Additional options

A full range of additional options are available on the DDM5, including:

- DieselCheck portable diesel analyser.
- Fluid sampling points.
- Water sensor.
- Telemetry for remote access and reporting.
- Flow meters.

RELATED PRODUCTS

FiltaSolid



FiltaSolid filter elements remove particulates from your fuel. The 800, 900 and 999 series offer 80.0%, 90.0% and 99.9% efficiency on particles between 1 and 800µm (microns).

FiltaSorb



FiltaSorb filter elements deliver unbeatable performance in water absorption. FiltaSorb cells also remove solid particulates down to 1µm (micron).

DDM1



The DDM1 is the ideal entry-level solution for fuel contamination. Combining a powerful flow rate with portability and exceptional cleanliness capabilities, it keeps your fuel clean & dry.

DDM6



The DDM6 is a powerful filtration module that uses multi-stage filtration to protect your stored fuel. An enhanced version of the DDM5, it offers flow rates of 500lpm.

DDF1



With a flow rate of 50lpm, the Diesel Defence DDF1 is a fixed, on-tank unit that provides unattended fuel maintenance for tanks up to 10,000 litres.

DieselCheck



The DieselCheck portable diesel analyser quickly, accurately and economically checks a sample's water and particulate content and fuel density.

CASE STUDIES



Canary Wharf, London

Replaced high-maintenance, ineffective polishing unit; brought fuel into compliance with EN590.

www.ipu.co.uk/case1001



Good Hope Hospital

Fuel cleaning brought fuel into compliance with ISO 4406 and EN590; no man-entry was required.

www.ipu.co.uk/case1002



IMPECCABLE DESIGN GENERATES SUPERIOR PERFORMANCE

IPU's high-performance fuel polishing units have evolved through years of real world use. Our impeccable design and manufacturing processes deliver superior results for our customers.

Integrated components

IPU's Diesel Defence range are integrated systems. Each component is designed or selected to work harmoniously with the rest of the unit.

Our pumps, for example, are selected to deliver a flow rate that produces optimum performance from our FiltaSorb and FiltaSolid filter elements.

Adhering to standards

Diesel Defence fuel polishers bring your stored fuel into specification with international standards.

Particulates are removed so fuel exceeds the 18/16/13 cleanliness standard specified by ISO4406:2017.

Water is extracted from fuel to below the 200ppm (parts per million) level mandated by EN590.

Search our website (www.ipu.co.uk) for "ISO 4406" and "EN 590" for more details on fuel cleanliness standards.

SPECIFICATIONS

	DDM5
PERFORMANCE	
Flow rate ¹ (lpm)	250
Indicative tank size (l)	50,000
Filtration Efficiency (max.)	99.9%
Particulate Removal (min) (µm)	1

BASIC SPECIFICATIONS	
Filter housing(s)	4
Filter size and type	Size 2
Control System	Push-Button
Pump Type	Self Priming Centrifugal or as specified
Maximum system pressure (bar)	10
Remote Emergency Stop	Optional
Differential Pressure Indicator	Mechanical x4
Float Switch	Yes

Notes

- Flow rates are maximum rates. Fuel cleanliness, fuel viscosity, distance and other conditions may affect actual performance in the field. Please contact IPU to ensure we offer the correct unit for your application.
- Based on system specification.

SPECIFICATIONS

	DDM5
ELECTRICAL	
Voltage (V)	230 / 415
Frequency (Hz)	50
ENVIRONMENTAL	
Noise Level (dBA @ 1m)	< 85
Operating Temperature (°C)	0 to 50°C
Environmental Protection	IP66
PHYSICAL	
Size ² (hwd) (mm)	1,745 x 1,660 x 1,345
Dry weight ² (kg)	501



THE COMPANY YOU WANT TO DO BUSINESS WITH

IPU helps businesses reach the profitability and efficiency they seek.

For nearly sixty years, we have delivered the expert assistance and customer service that lets our domestic and international customers excel in their industries.

We support businesses in sectors including power-generation, oil & gas, marine, IT & telecoms, manufacturing and government.

Our industry experience, competitive pricing and superb support let us evolve from a regular supplier to become the company our customers *want* to do business with.



For further details, please visit:
IPU.CO.UK/FUEL

For more information, please contact:
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