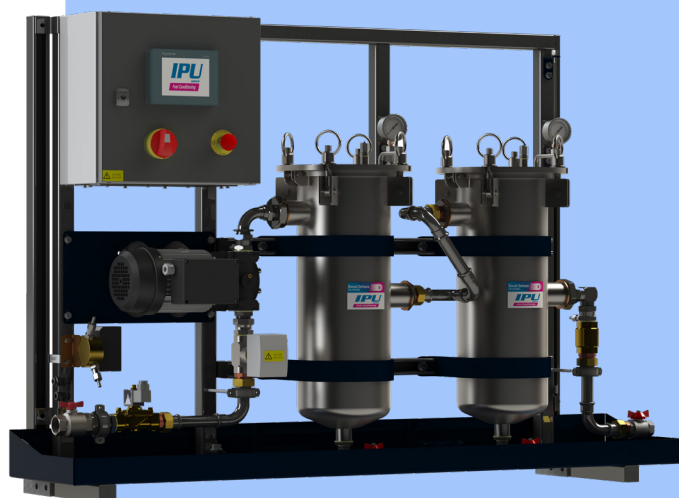


TWO-STAGE FILTRATION THAT PROTECTS YOUR FUEL, EQUIPMENT & BUSINESS



DIESEL DEFENCE
Fuel Polishing



The DDF3 brings superior protection for larger, more critical fuel tanks.

Larger fuel tanks need a special kind of fuel polisher. They need a high flow rate that can both process a large volume of fuel and disturb settled contaminants, driving them into the filters. They also need a filtration system that devours large quantities of water, particulates and diesel bug.

The Diesel Defence DDF3 is that polisher.

Its flow rate of 150lpm (litres per minute) suits tanks up to 80,000l. Its two-stage filtration can be split between water and particulate removal or dedicated to one or the other.

Monitoring and maintenance can be simplified by integrating the DDF3 with a site's existing Building Management Systems (BMS).

Its adaptable scheduling and reporting functions can be controlled through a simple touch-screen control panel or by connecting a laptop computer.

Stored fuel is under attack

Modern diesel degrades over time. Within 6 to 12 months, water, particulates and microbial growth can render it unusable.

Versatile and compact

A range of filter cells allow the DDF3 to adapt to varying scenarios. One unit can cope with heavy contamination or final polishing.

Choose the form you want

The DDF3 is available with a lockable GRP enclosure for outside use or as a frame-mounted unit for protected, indoor locations.

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

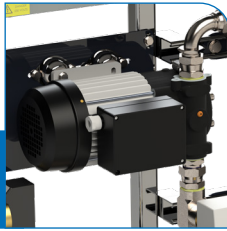
Engine manufacturers and fuel suppliers have tightened their approach to fuel contamination.

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 DDF3 uses an ultra-reliable 150lpm (litres per minute) self-priming centrifugal pump. Such a high flow rate offers numerous advantages, including:

- Outstanding cleanliness levels: a high flow rate and two high-capacity filter housings gives the DDF3 the capacity to deliver ISO cleanliness codes of 18/16/13 or better.
- Better cleaning: the higher flow rate induces enough turbulence to drive contamination into the filter.

Simple control



The DDF3's push-button control panel uses clear labels that any service engineer or technician can understand. No specialist expertise is required.

The control panel includes alarm and status indicators to alert operators to conditions such as 'no flow', 'filter change' or 'bund alarm'.

The unit can be rapidly reset, turned off and on or switched into manual mode.

* A touch-screen option is also available.

Two-stage filtration

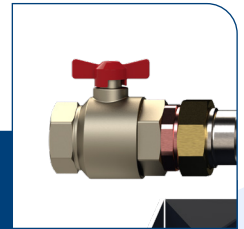


The DDF3 offers two-stage filtration. The two filter housings can be fitted with an extensive selection of FiltaSorb, FiltaSolid or FiltaMesh media to suit every clean-up application.

FiltaSolid media can remove particulates down to 1µm at 99.9% efficiency. FiltaSorb media is equally efficient at water removal, achieving 100ppm or less.

The DDF3 comes with a water drain valve on the sump of the filter housing.

Connectors



1.5" BSP Female connectors are used for both the inlet and outlet connectors on the DDF3.

The connectors are attached to anti-rotation fittings so over-tightening will not damage the unit or piping.

Mapress pipe connections are used to ensure the unit is leak-free.

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).

DieselCheck



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

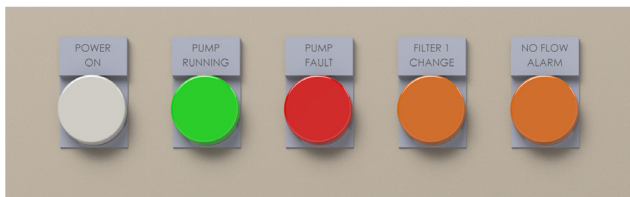
DDF6



The DDF6 is a powerful fuel filtration and polishing module with flow rates of up to 500lpm. Two-stage filtration ensures your fuel stays clean and dry.

OPTIONS

Enhanced Alarms



A standard push-button DDF3 has two status indicators: 'system running' and 'alert'.

Optional alert indicators such as 'no flow', 'filter change' and 'bund alarm' can help operators quickly identify the specific nature of a fault.

Touch-screen



The DDF3's optional touch-screen control panel makes easy work of advanced functions such as scheduling and reporting.

Mount options



The DDF3 can be supplied as a frame-mounted unit for indoor installations that do not require the protection of a GRP enclosure.

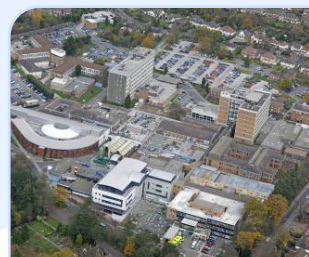
CASE STUDIES



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

	DDF3
PERFORMANCE	
Flow rate ¹ (lpm)	Up to 150lpm
Indicative tank size (l)	80,000
Filtration Efficiency (max.)	99.9%
Particulate Removal (min) (µm)	1

BASIC SPECIFICATIONS	
Filter housing(s)	2
Filter size and type	Size 1
Enclosure	None / GRP
Control System	Push-Button / Touch-Screen
Pump Type	Self Priming Centrifugal or as specified
Maximum system pressure (bar)	3
Remote Emergency Stop	Yes with Enclosure Version
Differential Pressure Indicator	Dual Electrical
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.

SPECIFICATIONS

DDF3

ELECTRICAL

Voltage (V)	230
Frequency (Hz)	50

ENVIRONMENTAL

Noise Level (dBA @ 1m)	< 85
Operating Temperature (°C)	0 to 50°C
Environmental Protection	IP66

PHYSICAL

Size (hwd) (mm)	1591 x 1214 x 540
Dry weight (kg)	192

PIPEWORK & CONNECTIVITY

Inlet Connections	1.5" BSP
Outlet Connections	1.5" BSP
BMS Output	Yes



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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