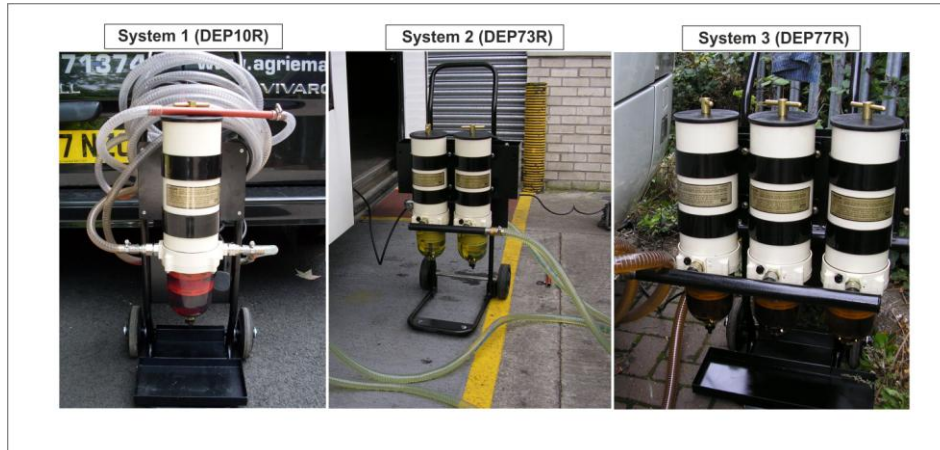


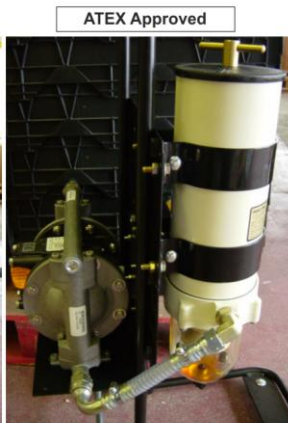
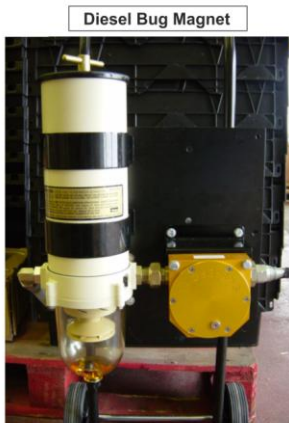
AGRIEMACH LTD

HEAD OFFICE: Wayfarers, Old Domewood, Copthorne, West Sussex, RH10 3HD
WAREHOUSE: Unit 16 Horsted Square, Bellbrook Industrial Estate, Uckfield, East Sussex, TN22 1QG
Tel: (01342) 713743 Fax: (01342) 719181 email: info@agriemach.com

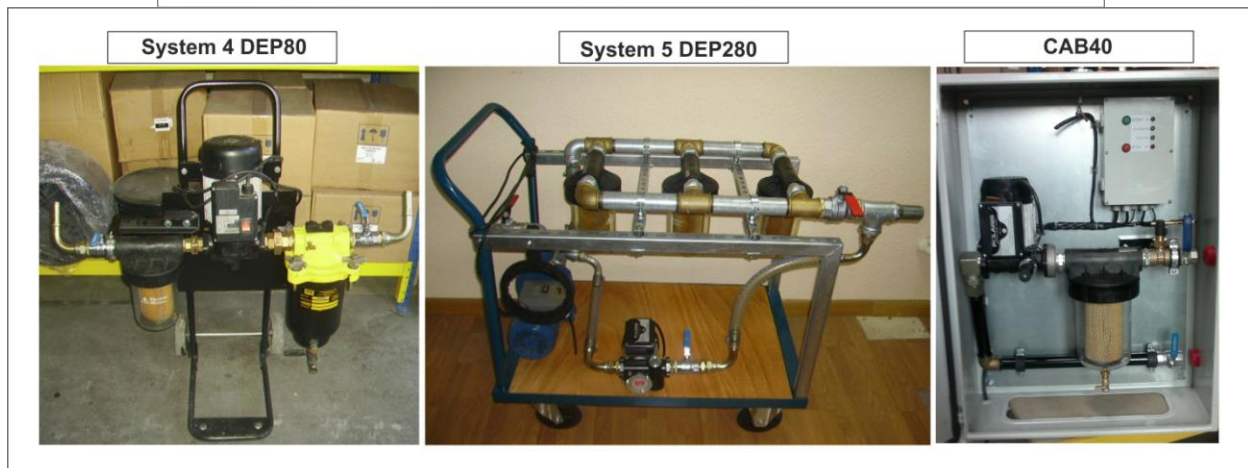
Agriepure Filtration Equipment



BESPOKE SYSTEMS AVAILABLE



Reusable Mesh Filter Elements for Large Particulate Removal



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Model DEP280 Cleaning a 1000 Litre Tank (280 LPM Flow)

Agriemach offer a range of mobile and stationary diesel filtration systems to assist in preventing and curing problems associated with diesel fuel.

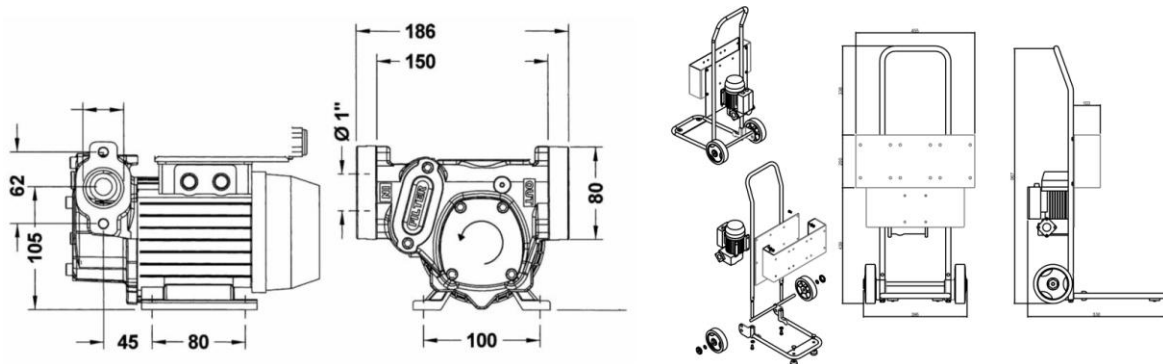
Through our experience we are able to advise on each individual case and offer a solution no matter how small or how large the problem is.

We have the knowledge and expertise to develop bespoke systems based on individual requirement, and are able to meet the strictest regulations for health & safety.

Our design team have over 15 years of experience in this field and have come across some of the worst diesel bug and fuel contamination issues in the harshest environments.

This enables us to offer the most effective products on the market today.

(All products come with a 2 year warranty, CE approval and additional certification where applicable)



DIESEL FILTRATION EQUIPMENT

System 1 DEP10R

- **Flow Rate: 25LPM**
- Element: Aquablock 2 Micron with large filtration surface
(The filter housing is fitted with a see-thru bowl and self-venting drain valve)
- Pump with a flow rate from 40-50LPM and bypass
- Self-venting electrical motor of 1/3hp 220 vca and 50hz
(110v Pump also available)
- Consumption from 1.2 to 2 A.
- Protection IP-55 with 3000rpm
- Weight of the system dry: 14kg
- Height: 980mm
- Width: 400mm
- Depth: 480mm
- Note: Every unit of model C110/1000FH has a seal kit with reference C1111404



System 2 DEP73R

- **Flow Rate: 35LPM**
- Element: Aquablock 2 Micron with large filtration surface
(The filter housing is fitted with a see-thru bowl and self-venting drain valve)
- Pump with a flow rate from 40-50LPM and bypass
- Self-venting electrical motor of 1/3hp 220 vca and 50hz
(110v Pump also available)
- Consumption from 1.2 to 2 A.
- Protection IP-55 with 3000rpm
- Weight of the system dry: 17kg
- Height: 980mm
- Width: 460mm
- Depth: 580mm
- Note: Every unit of model C110/1000FH has a seal kit with reference C1111404



System 3 DEP77R

- **Flow Rate: 52LPM**
- Element: Aquablock 2 Micron with large filtration surface
(The filter housing is fitted with a see-thru bowl and self-venting drain valve)
- Pump of 0.5hp and by-pass
- Self-venting electrical motor of 220 vca and 50hz
(110v Pump also available)
- Consumption from 3-6 A.
- Protection IP-55 with 3800rpm
- Weight of the system dry: 42kg
- Height: 980mm
- Width: 650mm
- Depth: 700mm
- Note: Every unit of model C110/1000FH has a seal kit with reference C1111404



System 4 DEP80

- **Flow Rate: 80LPM**
- Filtration: 5 Micron on the suction and 25 Micron on the outlet/pressure, (the outlet/pressure filter can be replaced for 1, 5 or 10 Micron elements). Primary filter with see-thru bowl to enable visual inspection while filtering. Secondary filter is fitted with a pressure gauge to indicate filter blocking. Both filter chambers are fitted with drain valves. Long filtration surface/high flow/high efficiency.
- Pump of 0.5hp and by-pass
- Self-venting electrical motor of 220 vca and 50hz
- Consumption from 3-6 A.
- Protection IP-55 with 3800rpm



System 5 DEP280

- **Flow Rate: 280LPM**
- Filtration: 5 Micron Filtration. Filter chambers with see-thru bowls enabling instant inspection of fuel. Drain valves at the bottom of each chamber. Common rail system feeding all three filters simultaneously. Long filtration surface.
- Centrifugal pump with a flow from 100 to 500 LPM
- Motor: 1.1 KW 230-240 VCA Self ventilated 50hz (speed: 2800rpm)
- Consumption from 5-9 A.
- Thermal protection: Yes
- **NEW DESIGN:** our new design uses a primer pump and filter for applications including underground tanks.



CAB40

- **Flow Rate: 50LPM**
- Filtration: High flow with see-thru bowl and drain valve. Inlet/outlet of 1" BSP with metal bushing. Water separator plated and resin impregnated filter element with 5 Micron particulate separation. The element has an internal metal protection system to protect the media from high pressure. The filter is supplied with a quick change key for easy element replacement.
- Self priming scentric pump with self adjusting blades. By-pass security system and easy to maintain protection filter.
- Suction from 4 metres and delivery 25 metres.
- Consumption 2.8 A. IP55 protected motor with fuse. 230v/50hz, 350W-1/2hp. 2900rpm
- Self-ventilated, single phase with thermal protection.
- Control centre: Self monitoring microprocessor control centre. Monitors and controls sensors and pump. 7 day auto adjusting time switch. Manual shutdown control, sensor shutdown indicator, Xenon alert beacon. (SMS/email integration available)
- *Automatic fuel heating system available*



System 6 DEP10R/RP

- **Flow Rate: 25LPM**
 - Element: Aquablock 2 Micron with large filtration surface
(The filter housing is fitted with a see-thru bowl and self-venting drain valve)
 - ATEX Air driven pump: Double diaphragm pump designed to clean all types of hydrocarbon fluids.
 - Diesel Bug Killer Magnet (Optional)
 - Weight of the system dry: 15kg
- Height: 980mm
 - Width: 400mm
 - Depth: 480mm
- Note: Every unit of model C110/1000FH has a seal kit with reference C1111404



- 1: Suction from tank.
- 2: Inlet of fuel to the filter.
- 3: Outlet of Fuel from the exit of the filter to the entrance of the pump.
- 4: Outlet of fuel from the pump.
- 5: Fuel returned to the tank.

HYDRAULIC FILTRATION EQUIPMENT

HIDRADEP 10-2

- **Flow Rate: 40LPM**
- Suction from 2.5m. Outlet/pressure 40m
- Self venting blade pump. 1hp, 220VCA 50hz
- Inlet to primary filter 1 ½" npt
- Protection Ip55
- Outlet from secondary filter 1 ½" npt
- Primary filter with absorbing media of 10 Micron
- Primary filter head with by-pass & vacuum gauge
- Secondary filter cellulose - 1 Micron
- Trolley mounted
- Weight of system dry 35kg



HIDRADEP F1M

- **Flow Rate: 40LPM**
- Suction from 5m
- Self venting gear pump. 4hp, 220VCA 50hz, by-pass set from 10-15bar
- Inlet to primary filter 1 ½" npt
- Protection Ip55
- Outlet from secondary filter 1 ½" npt
- Primary filter with absorbing media of 10 Micron
- Primary filter head with by-pass & vacuum gauge
- Secondary filter cellulose - 1 Micron
- Trolley mounted
- Weight of system dry 70kg



DIESEL ADDITIVES

Racor Diesel Biocide

- **Diesel Bug Killer**
- 16froz - ½ litre Bottle
- Treats 4500 litres of Diesel fuel
- Eliminates and/or prevents the growth of bacteria, fungi, organic reactions, sludge formation, and also acts as a corrosion inhibitor.
- Excellent for use with all forms of biodiesel
- Formulated to treat more forms of algae and bacteria than other brands.
- Concentrated formula treats more litres per floz
- Prevents Internal corrosion from microbial fouling
- Does not cause foaming
- Promotes Fuel stability during storage
- Does not discharge toxic matter (boron) into the atmosphere
- Alcohol free



Racor Diesel Conditioner Plus+

- 16froz - ½ litre Bottle
- Diesel Conditioner Plus+ is a multi-functional fuel additive for all seasons. Its formulation contains a superior detergent rating and a cetane improver which enhances power delivery, starting, and helps engines run smoother and quieter.
- Passes BOCLE test for lubricity
- Reduces rust and corrosion in fuel systems
- Contains lubricity additive to reduce friction; prevents wear and tear, extending engine life
- Stabilises fuel quality during prolonged storage
- Promotes oxidative stability
- Improved fuel economy and lower emissions
- Reduces injector coking
- Dissolves gum and varnishes to keep fuel system clean
- Cetane improver for added engine performance
- Alcohol free

DATA SHEETS AVAILABLE

RACOR																							
Parker Hannifin Corporation Racor Division P. O. Box 2008 3402 Finch Rd. Newark, CA 94561-2008 Telephone: (925) 342-3258, 208(21)-7380 FAX: 208(20)-3278 http://www.parker.com/racor																							
MATERIAL SAFETY DATA SHEET PRODUCT: Diesel Biocide Revision Date: 12/02/2003 PART NUMBERS: ADT 2118 (16 gal.) ADT 2201 (5 gal.) ADT 2405 (5 gal.) ADT 2555 (55 gal.)		24 Hour Emergency Telephone: (800) 535-5053 International: (352) 323-3500																					
SECTION 1: PRODUCT IDENTIFICATION TRADE NAME: RACOR DIESEL BIOCIDES UNUSUAL INGREDIENTS: 1-Hexyl-2-Hydroxy-3-Naphthyl-4-Ethylamine																							
SECTION 2: COMPOSITION / INGREDIENT INFORMATION Our hazard evaluation has identified the following chemical ingredient(s) as hazardous. One or more is being claimed as a trade secret under OSHA's Hazard Communication Rule, 29 CFR 1910.1200. Consult Section 15 for the nature of the hazard(s).																							
<table border="1"> <thead> <tr> <th>Chemical Name</th> <th>CAS #</th> <th>% by volume</th> <th>TLV</th> </tr> </thead> <tbody> <tr> <td>2-(1-Hydroxyethylthio) benzothiazole</td> <td>21554-17-0</td> <td>2.5%</td> <td>N/A</td> </tr> <tr> <td>Methylene bis(hydrocyanate)</td> <td>6317-8-6</td> <td>2.5%</td> <td>N/A</td> </tr> <tr> <td>Diethylene glycol monomethyl ether</td> <td>111-77-5</td> <td>65%</td> <td>N/A</td> </tr> <tr> <td>Heavy aromatic naphtha</td> <td>64742-94-5</td> <td>>1%</td> <td>100 ppm</td> </tr> </tbody> </table> The remainder of the components comprise proprietary information.	Chemical Name	CAS #	% by volume	TLV	2-(1-Hydroxyethylthio) benzothiazole	21554-17-0	2.5%	N/A	Methylene bis(hydrocyanate)	6317-8-6	2.5%	N/A	Diethylene glycol monomethyl ether	111-77-5	65%	N/A	Heavy aromatic naphtha	64742-94-5	>1%	100 ppm			
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SECTION 3: HAZARD IDENTIFICATION EMERGENCY OVERVIEW: DANGER: Corrosive. Harmful if swallowed, inhaled, or absorbed through the skin. Causes severe eye and skin damage. Do not get in eyes, on skin, or on clothing. Wear goggles or face shield and rubber gloves when handling. Keep away from heat and open flame. Keep container closed when not in use. Avoid breathing of vapor. Use with adequate ventilation. Do not take internally. Empty containers may contain residual product. Do not reuse container. PRIMARY ROUTE(S) OF EXPOSURE: Eye, Skin, Inhalation EYE CONTACT: Corrosive to the eyes with possible permanent damage depending on the length of exposure and on the first aid action given. SKIN CONTACT: Corrosive to the skin with possible permanent damage depending on the length of exposure and on the first aid action given. INGESTION: Can be harmful. INHALATION: Inhalation of vapor may be harmful. SYMPTOMS OF EXPOSURE: A review of available data does not identify any symptoms from exposure not previously mentioned.																							
Page 1 of 9																							

DE-BUG MAGNETIC BUG KILLERS

DE-BUG L140

- **NATO Part No: 2910-98-202-6290**
- Magnetic Diesel Bug Killer
- Fuel Types: Diesel, marine diesel, light oils and gas oil
- Recommended flow rate: Up to 140 litres per hour
- Flow direction: Left to right
- Material: Marine grade LM6 anti-corrosive aluminium alloy
- Weight: 0.31kg
- Diameter: 60mm
- Height: 105mm
- Width: 84mm
- Port size: 1/4 inch NPT
- Operating Pressure: 40psi
- Installation: Two 8mm bolts
- Placement: Between fuel tank and first fuel filter



DE-BUG L500

- **NATO Part No: 2910-98-202-6290**
- Magnetic Diesel Bug Killer
- Fuel Types: Diesel, marine diesel, light oils and gas oil
- Recommended flow rate: Up to 500 litres per hour
- Flow direction: Left to right
- Material: Marine grade LM6 anti-corrosive aluminium alloy
- Weight: 1.5kg
- Diameter: 115mm
- Height: 150mm
- Width: 124mm
- Port size: 1/2 inch NPT
- Operating Pressure: 50psi
- Installation: Two 10mm bolts
- Placement: Between fuel tank and first fuel filter



DE-BUG L1000

- **NATO Part No: 2910-98-202-6290**
- Magnetic Diesel Bug Killer
- Fuel Types: Diesel, marine diesel, light oils and gas oil
- Recommended flow rate: Up to 1000 litres per hour
- Flow direction: Left to right & right to left
- Material: Marine grade LM6 anti-corrosive aluminium alloy
- Weight: 1.98kg
- Diameter: 110mm
- Height: 194mm
- Width: 114mm
- Port size: -10 SAE
- Operating Pressure: 50psi
- Installation: Two 10mm bolts
- Placement: Between fuel tank and first fuel filter



COMMON PROBLEMS WITH DIESEL FUEL

Fuel filters are an important part of fuel systems because they remove normal fuel contaminants before they get to the engine. Fuel filters have a limited life which depends on how much contaminant they must remove, normally they are changed at specified service intervals. If fuel filters block before the regular changeover then it indicates that there may be more than normal contamination in the fuel. A visual inspection of the fuel will confirm if that is the case.

Common types and sources of contamination are described below.

DIRT

Dirt, dust, sand and similar contaminants commonly enter through fill pipes, access hatches and breather pipes. The amount of contamination will be noticeably worse in dusty areas. Normally they settle on the bottom of the storage tank and do not cause a problem unless they are stirred up or held in suspension by some other contamination. After filling a storage tank it should be left for a period of time to allow dust and dirt to settle.

RUST

Metallic contaminants, notably rust, occur mostly as corrosion debris from storage tanks and distribution system parts. These contaminants can plug filters, and can also support fungal growth and encourage fuel degradation. Fungal contamination if left untreated will increase corrosion producing more rust.

WATER

Water can enter the fuel system as part of the refining process, as rain, or as condensation. Water dissolved in the fuel will not change its appearance, whereas undissolved water will form droplets which make the fuel appear hazy or milky. Water can enter fuel tanks in air, and will condense when the ambient temperature drops low enough. Water in the fuel system will cause corrosion, and promote fungal growth.

All storage tanks should have a drain valve at the lowest point through which water can be drained off at regular intervals.

Various species of fungus, bacteria, and yeasts are able to grow in fuel, provided water is present. Most of these organisms produce acids, which can corrode engine parts. Microbiological contamination is prevalent in parts of the fuel system where fuel is allowed to remain still, where water (eg. spots of condensation) may be present. Colonies of organisms can plug filters and screens in the fuel system. Normally bugs appear as slimes and scums.

WAX & GUMS

Wax: This is a normal component of fuel but in unusually low temperatures it can separate from the fuel and plug filters. Cloud point is the specification test used to measure this property of the fuel, and is adjusted on a monthly basis. It should be remembered that a fuel purchased in summer will form excessive wax if used in winter. Wax appears as a light yellow suspension in the fuel.

Gums: These can be formed from chemical changes to the fuel, notably by exposure to oxygen, high temperature, acids, and metals during storage. Gums drop out of the fuel in the form of sediment which can block injectors and fuel filters.

MONITORING AND CLEANING

A program of regular fuel inspection and system cleaning will alert fuel users to excessive contaminant levels. Important points to consider are:

- 1.** Fuel used for filling or refilling the supply tank should comply with appropriate standards. The cloud point should be less than the minimum temperature at which fuel will be stored.
- 2.** There should be a regular inspection of fuel from the bowser after running off the first 20 litres. Fuel should be clear and bright with no trace of haze.
- 3.** Accumulated water should be removed from the lowest point of the tanks and fuel lines on a monthly basis, even weekly if possible. Where appropriate, check that vents and fill points are not letting rain water and dust in.
- 4.** Whilst fuel is being added to the supply tank, equipment should not be drawing off fuel out of the tank, in case residual sediment at the bottom has been stirred up.

SENDING SAMPLES TO THE LABORATORY

When samples are taken to resolve a filter blocking problem, then a sample of a blocked filter should be sent along with a sample of the fuel from the storage tank. Always check that regular water draining is carried out. When sampling from the storage tank always run off sufficient fuel to clear the lines before taking the sample. Sample into a clean glass container and do a visual inspection first, this will save a lot of time because a visual inspection may reveal the cause of the filter blockage straight away.

The fuel should always be clear and bright with no suspended free water or matter. It should not be unusually dark, hazy or milky and water and dirt should drop to the bottom straight away.