



# Operating Manual FUF050

TRANSFER AND FILTRATION PORTABLE UNIT FOR DIESEL



Read the safety and operating instructions before use!

**EMPTY UNIT:** fit the spin-on filter before use

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### Enclosures:

- Declaration of Conformity CE

## 1 DECLARATION OF CE COMPLIANCE



Dichiarazione CE di Conformità  
(secondo Allegato II.A della direttiva 2006/42/CE)

EC Declaration of conformity  
(according to Attachment II.A of EC Directive 2006/42/CE)

Il Fabbricante:

The Manufacturer:

*FILTREC S.p.A.*

*Via dei Morengi, 1*

*24060 – Telgate (BG) – ITALIA*

*Tel. +39 0358369001*

*www.filtrec.com*

dichiara sotto al propria responsabilità che le unità portatili di travaso e filtrazione  
declare under its own responsibility that the transfert and filtration units:

<i>Denominazione / Denomination</i>	<i>Unità portatile di filtrazione e trasferimento Transfert and filtration portable unit</i>
<i>Modello / Model</i>	<i>FUF050MG2VSO</i>

Sono conformi a tutte le disposizioni pertinenti della:  
Conforms with all the relevant specifications of:  
Direttiva Macchine 2006/42/CE - Machinery Directive 2006/42/CE

Normative Armonizzate Applicate:

Applied harmonized standards:

**UNI EN ISO 12100:2010**

**UNI EN ISO 13857:2020**

**UNI EN ISO 13732-1:2009**

**UNI EN ISO 13849-1:2023**

**UNI EN ISO 13850:2015**

**UNI EN ISO 4413:2012**

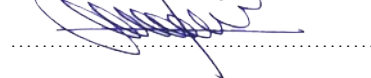
**IEC EN 60204-1:2018**

Persona autorizzata a costituire il fascicolo tecnico / Authorized Person to issue the technical dossier: **FILTREC S.p.A.**  
Indirizzo / Address: *Via dei Morengi, 1 – 24060 TELGATE (BG) Italy*

Telgate (BG),  
Lì.....

Legale Rappresentante di **FILTREC S.p.A.**  
Legal Representative of **FILTREC S.p.A.**

Modina Sergio



## 2. GENERAL WARNINGS

1. The unit can only be used by authorized and trained personnel after having read and understood this manual.
2. This manual must be given to the operator and kept. The unit holder is responsible for it.
3. The operator must be informed and trained on the content of this manual, and their understanding must be verified.
4. The operator is responsible for the correct use of the portable unit, based on the information provided in this manual and the training received.
5. Before connecting the portable unit to the power supply, check that the outlet is properly protected against overloads and short circuits.
6. Verify that the voltage and frequency of the power supply correspond to the data indicated on the portable unit label.
7. Always ensure to work under safe conditions and never in precarious situations.
8. The product images published in this manual are for illustrative purposes only and may be subject to change.
9. All rights to reproduce this manual are reserved by Filtrec. Any reproduction, even partial, is prohibited.
10. FILTREC SPA assumes no liability for damages resulting from improper use. The risks associated with improper use are solely the responsibility of the user.
11. Before any intervention on the portable unit, unplug the power supply.
12. Any maintenance and repair operations must be carried out by qualified personnel.

## 3. SYMBOLS

In this manual, the following symbols will be used to highlight particularly important instructions and warnings.



### Warning

Indicates a dangerous situation that can result in serious injury if not avoided or if the required precaution is not taken.



### Caution

Indicates a dangerous situation that can result in light injury or the possibility of causing damage to the equipment or its components if not avoided or if the required precaution is not taken.



### Note

Indicates useful information

#### 4. PROHIBITIONS AND OBLIGATIONS



1. Use only Diesel (UNI EN 590).
2. Not use for/with petrol (gasoline) or solvent with flash point < 55 °C (131°F)
3. The use of unauthorized liquids is strictly forbidden.
4. Avoid contact between the electrical supply and the liquid to be filtered.
5. Perform work and maintenance operations only when the lighting is adequate.
6. Carry out maintenance and cleaning operations with the unit stopped and powered off.
7. It is strictly forbidden for unauthorized personnel to stay in the work area.
8. It is strictly forbidden to smoke or use open flames during work phases.
9. Removing safety devices and protections is strictly prohibited.
10. The use of unsuitable or non-supplied accessories with the machine is strictly forbidden.
11. The use of the unit in environments with a potentially explosive atmosphere is strictly forbidden.
12. Transporting or moving the machine while it is operating and dispensing is prohibited.
13. Towing the unit with any type of vehicle is strictly forbidden.
14. Climbing on the equipment is prohibited.
15. Supporting or transporting the equipment by the electrical power cable is prohibited.
16. Supporting or transporting the equipment by the suction or delivery hose is prohibited.
17. Improper use of the equipment is strictly forbidden.
18. Always wear protective equipment that is suitable for the operations to be performed and resistant to the products used for cleaning the unit.
19. Do not touch electrical parts and cables with wet hands.
20. Do not turn on the unit if the power cord or other critical parts of the device are damaged. Replace the damaged component immediately.

#### 5. FIRST AID RULES – CONTACT WITH TREATED FLUID

For issues arising from contact between the treated fluid and the eyes or skin, refer to the safety data sheet of the treated fluid. For issues arising from inhalation or accidental ingestion of the treated fluid, refer to the safety data sheet of the treated fluid.

For specific information, refer to the safety data sheet of the treated fluid.

#### 6. PROTECTIVE EQUIPMENT TO WEAR

Always wear protective equipment that is suitable for the operations to be performed. For moving, installing, and disposing of the unit, wear the following protective equipment:



**Safety shoes**



**Protective gloves**



**Close-fitting clothing**



**Safety glasses**

## 7. PACKAGING CONTENTS



The manual handling of the packaging must be performed by at least two operators.



Open the packaging and verify that the following components are inside:

1. Filtration unit
2. Quick start guide
3. Suction/Delivery Lance
4. Suction Hose (Spiraled hose in PVC) / Delivery Hose



If one or more components are missing from the packaging, contact the FILTREC dealer

## 8. INDICATIONS ON THE PRODUCT

 	
Filtrac S.p.A   - 24060 Telgate <a href="http://www.filtrac.com">www.filtrac.com</a>	
DESCRIPTION	<b>DIESEL FILTRATION UNIT</b>
ITEM / CODE	<b>FUF050MG2VS0</b>
DESIGN PRESSURE	<b>5</b> bar(g) YEAR <b>XXXX</b>
DESIGN TEMPERATURE	<b>-10/50</b> °C BATCH / SERIAL NR. <b>YYYYYYYY</b>
WEIGHT	<b>62</b> Kg <b>MADE IN ITALY</b>

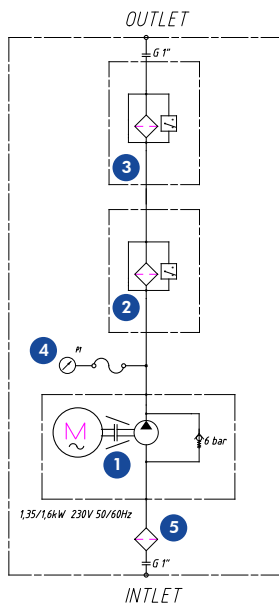


1. The filtration unit is equipped with an identification plate. Verify that the plate data matches the desired ones. In case of any anomaly, immediately contact the dealer. If there are doubts about the equipment's safety, do not use it.
2. It is strictly forbidden to tamper with or remove the present plates. It is the user's responsibility to periodically check the integrity of the plates and, when necessary, replace them with equivalent ones

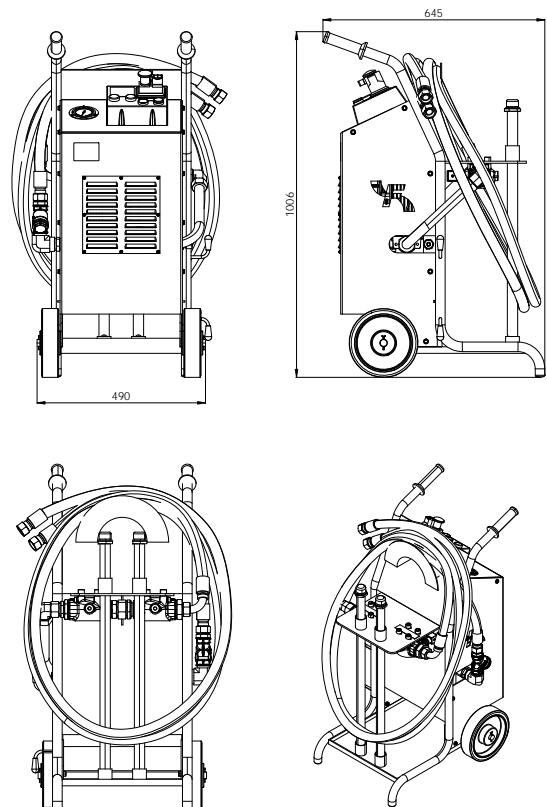
## 9. TECHNICAL AND DIMENSIONAL DATA

Models	Diesel Filtration Unit FUF050MG2VS0
Dimensions L, W, H [mm]	490 X 645 X 1006
Weight [Kg]	62
Voltage [V]	230 – single phase
Frequency [Hz]	50-60
Power consumption [kW]	1,6
Nominal Flow Rate [l/min]	50
Operating temperature [°C]	-10 / +50 (temperature range of the product to be dispensed)
Max working pressure [bar]	5
Particle removal filter efficiency	see spare elements
Water absorbent filter efficiency	see spare elements
Suction Filter "Y"	metal mesh 500 $\mu\text{m}$

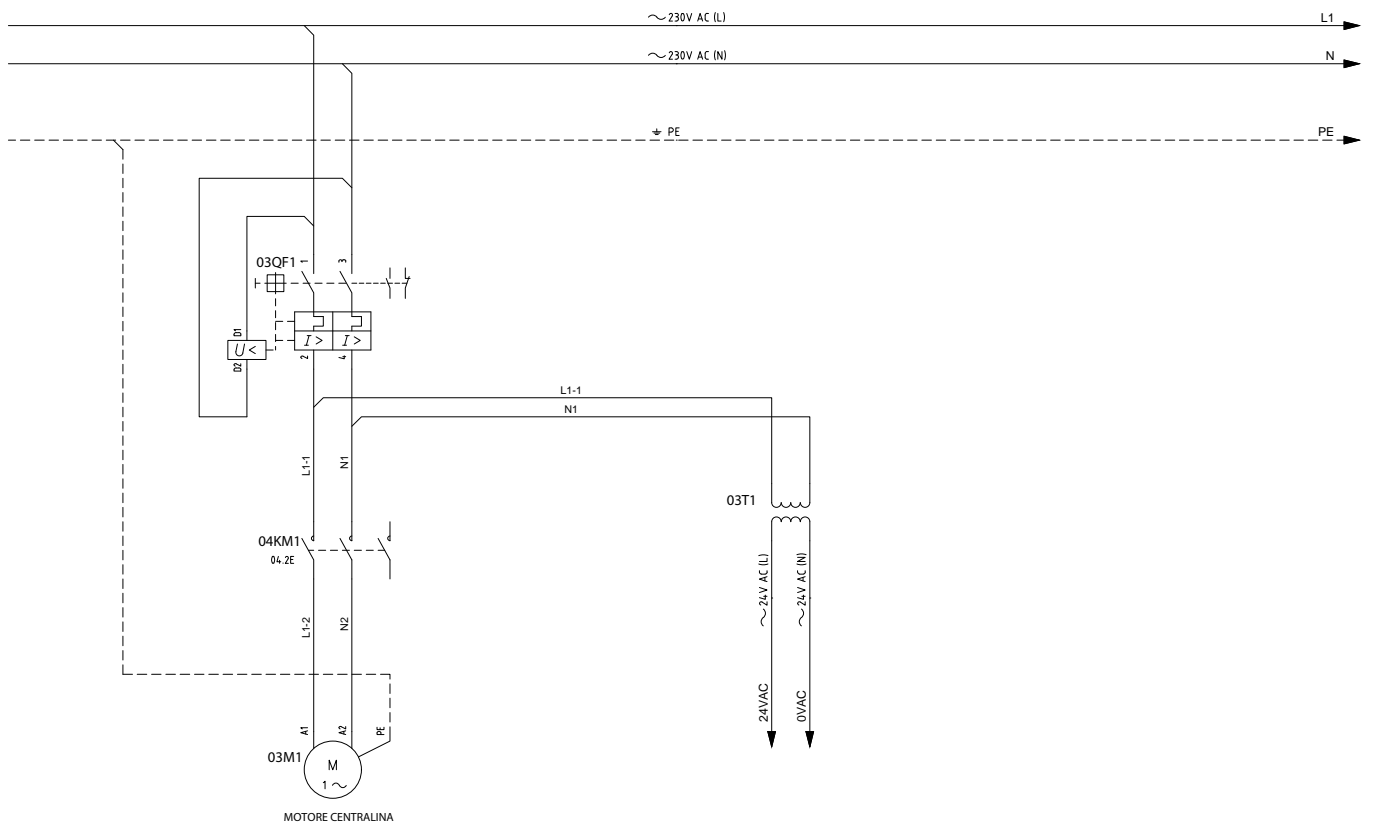
## 10. HYDRAULIC SCHEME AND OVERALL DIMENSIONS



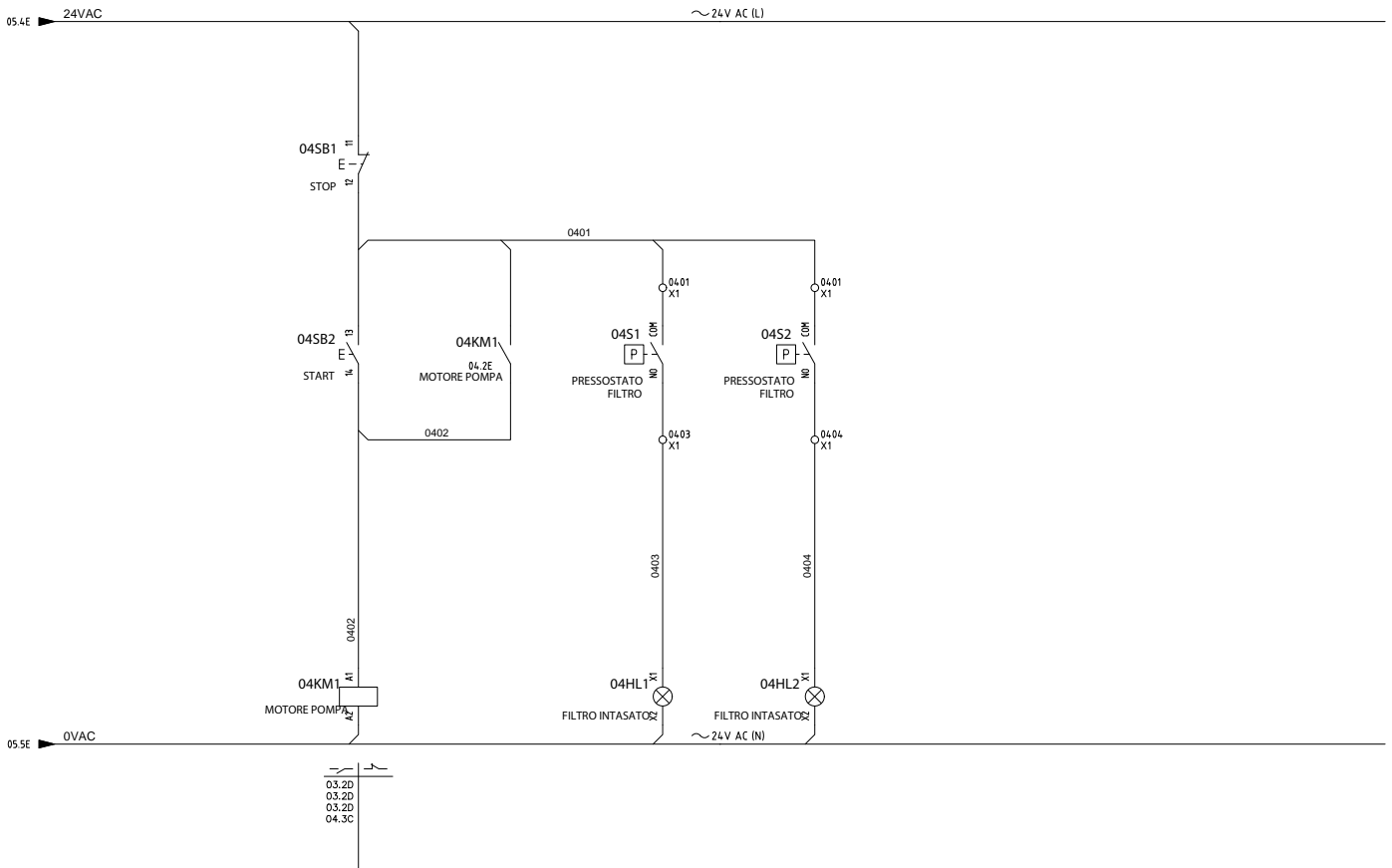
- 1 Vane Pump 1,6 kW + pressure relief valve 6 bar
- 2 Particle removal filter
- 3 Water absorbent filter
- 4 Pressure Gauge
- 5 Suction Filter "Y" 500  $\mu\text{m}$



## 11. ELECTRICAL SCHEME





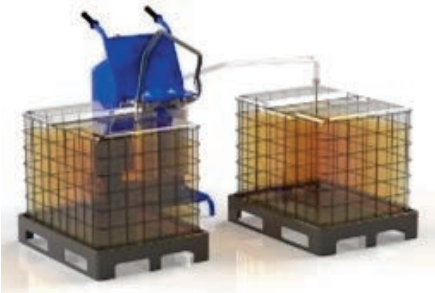


## 12. INTENDED USE AND APPROVED FLUIDS

The intended use of the filtration unit is to treat Diesel (UNI EN 590). Approved fluids include petroleum-based or synthetic fluids with a flash point above 55 °C (131 °F).

Always ensure that the temperature of the dispensed fluid is at least 10 °C (18 °F) lower than the fluid's flash point.

It is recommended to consistently treat the same fluid. The use of the unit for different fluids is not advised.



The unit can be used as a transfer unit. In this case, thanks to the high performance of FILTREC filters, the unit ensures that the destination tank is supplied with clean fluid.



The unit can also be used as a tank cleaning system. In this scenario, the unit, leveraging the high performance of FILTREC filters, can be used to clean the fluid inside a tank by recirculating it through the filters.

## 13. PROHIBITED FLUIDS



1. Gasoline, alcohol, flammable liquids with a flash point < 55 °C (131 °F), and solvents
2. Water
3. Food-grade liquids
4. Corrosive chemicals
5. Liquids with a viscosity greater than 300 cSt

Using prohibited fluids may result in fire, explosion, seal damage, pump oxidation, pump corrosion, personal injury, motor overload, and other issues.

Any use that deviates from the intended purpose as described in the manual is considered improper use. Therefore, Filtrec disclaims all liability for any resulting damages.

## 14. ENVIRONMENTAL CONDITIONS



Environmental temperature from -20 °C to +50 °C  
 Relative humidity: max 90%  
 The specified limits must be observed to avoid possible damage or malfunction.



After use, store the unit in a covered location protected from the elements

## 15. DIESEL FILTRATION UNIT INSTALLATION

The end user is authorized to assemble the unit only after consulting this manual.

1. Suction Hose Assembly: screw the suction hose (spiral, PVC) onto the suction port.
2. Discharge Hose Assembly: screw the discharge hose onto the discharge port of the filters, which is connected to the second filter.
3. Terminal Assembly: independently mount the suction/discharge rigid end onto the suction/discharge hoses.
4. Filter Installation: mount the spin-on filters (use only original FILTREC spin-on filters).
5. Electrical Connection: connect the power supply to the 220V outlet using the appropriate plug.

## 16. FILTER INSTALLATION AND FILTER REPLACEMENT

The filter mounting bracket is labelled to identify the position of the filters (Filter #1 for particle removal; Filter #2 water absorbent).



Before replacing the cartridges, the unit must be disconnected from all power sources by unplugging it from the power supply panel. During cartridge replacement, it is mandatory to use personal protective equipment. Be aware that the cartridges may be hot during replacement.



During the cartridge replacement process, ensure to have additional containers placed underneath the filter assembly. This is to catch any excess liquid that might not be fully contained within the liquid collection tray, preventing contamination of the surrounding area.

The following procedures describe how to install or replace a filter cartridge.

1. Make sure that the system is switched off and there is no residual pressure in the filter.
2. Unscrew the cartridge by turning it anti-clockwise and remove it. Check the condition of the gasket located at the end of the threaded spigot; replace it if necessary.
3. Fit a new FILTREC cartridge, verifying the part number, particularly concerning the micron rating.
4. Ensure that the head mounting face is clean.
5. Lubricate the gasket of the replacement cartridge and the thread prior to assembly.
6. Spin on the new cartridge until it reaches the mounting face and tighten for 1/2 turn.

## 17. COMMANDS



- |   |  |
|---|--|
| 1 | Activation button                          |
| 2 | Start button                               |
| 3 | Stop button                                |
| 4 | Emergency button                           |
| 5 | Pressure Gauge                             |
| 6 | Particle Removal Filter Clogging Indicator |
| 7 | Water Absorbent Filter Clogging Indicator  |

## 18. USAGE PROCEDURE



1. Secure the ends of the hoses to the tanks or firmly hold the end of the discharge hose before starting an operation.
2. Once the plug is inserted, press the "activation button" (1) and then the "start button" (2) to start the device. The transfer and filtration of the fluid will then begin. To stop the operation, press the "stop button" (3).



1. During operation, the lances, filters, and motor can become hot. Wear the appropriate personal protective equipment and exercise caution.
2. In case of EMERGENCY, press the "emergency button" (4). Once the emergency is resolved, restart the device by pressing the "activation button" (1).



Do not use the pump dry. Do not start or stop the pump by connecting or disconnecting the power supply. When the system is not in use, it is recommended to keep the pump turned off.

## 19. SHUTDOWN

1. To stop the operation, press the "stop button" (3).
2. Unplug the main power supply from the generator.
3. Once the operation is completed, rewind the power cable, input and output hoses/fittings. Exercise caution when draining the fluid and insert the metal ends into the designated casings. Wear the appropriate personal protective equipment and exercise caution.

## 20. CLOGGING OF FILTERS

1. If the particle removal filter clogging indicator light (6) comes on during operation, proceed with replacing the particle removal filter. For the spare elements see paragraph 21.
2. If the water absorbent filter clogging indicator light (7) comes on during operation, proceed with replacing the water absorbent filter. For the spare elements see paragraph 21.
3. If both indicator lights come on during operation or if the pressure gauge reaches 5 bar with both indicator lights off, proceed with replacing both filters. For the spare elements see paragraph 21.




Do not use the pump dry. Do not start or stop the pump by connecting or disconnecting the power supply.  
When the system is not in use, it is recommended to keep the pump turned off.

## 21. ORDERING INFORMATION SPARE ELEMENTS

### ORDERING INFORMATION SPARE ELEMENTS

1.	2.	3.	4.	5.	6.
<b>A5</b>	<b>22</b>	<b>G01</b>	<b>V</b>	<b>0</b>	<b>/AB2</b>
1. FILTER ELEMENT SERIES	A5				
2. FILTER SIZE	22				
3. FILTER MEDIA	G01	glassfiber $\beta_{4\mu\text{m(c)}} \geq 10.000$ Anti ESD -AbsoluteBeta Sparkbuster technology included			
	G03	glassfiber $\beta_{5\mu\text{m(c)}} \geq 5.000$ Anti ESD -AbsoluteBeta Sparkbuster technology included			
	G06	glassfiber $\beta_{7\mu\text{m(c)}} \geq 2.000$			
	G10	glassfiber $\beta_{10\mu\text{m(c)}} \geq 2.000$			
	G25	glassfiber $\beta_{25\mu\text{m(c)}} \geq 2.000$			
	G40	glassfiber $\beta_{35\mu\text{m(c)}} \geq 1.000$			
	GW40	glassfiber $\beta_{35\mu\text{m(c)}} \geq 1.000$ + water absorbent			
	AW40	water absorbent only (higher water retention capacity)			
4. SEAL	V	FKM			
5. BYPASS VALVE	0	no bypass			
6. ELEMENT SUFFIX	/AB2	AbsoluteBeta 2 - very high capacity / efficiency filter element			

 FILTER ELEMENT - Preferred filter media - For the complete range of elements available, refer to the A522x series catalog.

## 22. POSSIBLE CONFIGURATIONS

The transfer and filtration portable unit for diesel has two possible usage configurations.

- a) The standard configuration where Filter #1 is a particle removal filter (preferred filter media G01 or G03) and Filter #2 is a water absorbent filter (preferred filter media GW40).
- b) The alternative configuration where it is possible to mount a particle removal filter (preferred filter media G01 or G03) in both the Filter #1 and Filter #2 positions. This configuration is not capable of absorbing water present in the diesel. It only ensures extreme cleanliness from solid contaminants in the outgoing fluid.

## 23. MAINTENANCE



To perform any type of maintenance, the unit must be disconnected from any electrical power source by unplugging it from the electrical panel. During maintenance, it is mandatory to use personal protective equipment.

The unit is designed to require minimal maintenance. However, it is advisable to inspect the suction and discharge hoses/fittings to ensure they are in perfect condition before each use.

CHECK	FREQUENCY
check that the labels on the system do not come off.	weekly
check that the pipe joints are not loose	weekly
check the condition and cleanliness of the "Y" suction filter.	weekly
check that the electrical power cables are in good condition	monthly

As needed: replace the filters (see paragraph 16 "FILTER INSTALLATION AND FILTER REPLACEMENT").

## 24. DISPOSAL

In case of demolition or disposal of the system, the parts that make up the unit must be entrusted to companies specialized in industrial waste disposal. This product must not be disposed of with regular household waste. For disposal, please take an environmentally friendly way in accordance with the national regulations. It is the owner's responsibility to dispose of the unit and/or its components through the specific facilities indicated by local authorities.



Wear personal protective equipment during product disposal operations.

## 25. CLEANING THE UNIT

As needed, clean the machine using damp cloths and non-aggressive detergents. It is forbidden to use water jets at either high or low pressure.

## 26. WARRANTY

The portable units undergo rigorous testing before being shipped.

Under normal conditions of use and maintenance, the portable unit is guaranteed for 12 months from the date of delivery.

The only actions covered by the warranty are limited to replacement or repair. At its sole discretion, FILTREC will repair or replace the defective product under warranty. FILTREC will not be liable for any incidental or consequential damages or any other expenses related to product defects, transportation costs, or any other costs or expenses.

This warranty does not apply to any products that have been repaired or altered. This warranty will otherwise be voided by misuse, accidents, improper maintenance practices, or acts of negligence.

The use of non-FILTREC parts and components renders the warranty invalid

### **Disclaimer**

Any technical modification must be performed only by personnel authorized by FILTREC SPA. All interventions not authorized by FILTREC SPA are considered as "tampering with the equipment" and will therefore void the entire warranty. The manufacturer disclaims all responsibility for damages to persons, animals, property, and the equipment itself resulting from improper use of the equipment or the use of tampered equipment.

WARRANTY IS NOT VALID if an intervention is performed on the DIESEL FILTRATION UNIT without manufacturer authorization.

WARRANTY IS NOT VALID if the manufacturer detects alteration or modification of the unit's devices.

WARRANTY EXPIRES in case of failure due to operator carelessness, negligence, or inexperience.

**For any questions please contact:**

**FILTREC S.p.A.**

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