EN

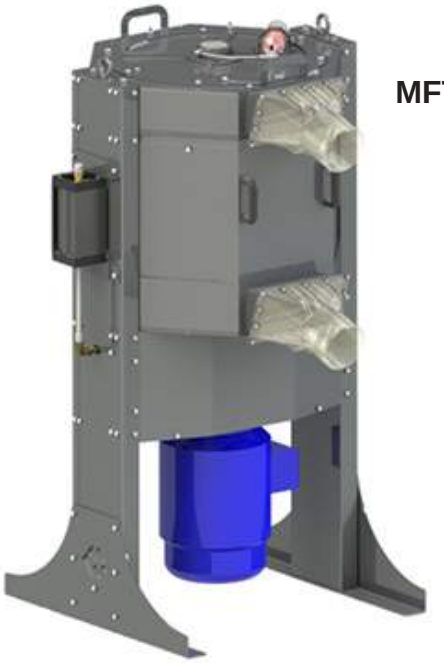
SEPCOM®
Micro-filter

MFT - SOLID-LIQUID SEPARATOR

2

ASSEMBLY AND MAIN INSTRUCTIONS FOR USE AND MAINTENANCE

MFT-260



MFT-500

Manual No. SEP.SEPCOM_Micro-filter.--.M.A2.0722.EN **Issue: A2**
Latest update: July 2022

ORIGINAL INSTRUCTIONS IN ENGLISH

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WAMGROUP

SEPCOM

All the products described in this catalogue are manufactured according to **WAMGROUP S.p.A. Quality System procedures**. The Company's Quality System, certified in July 1994 according to International Standards **UNI EN ISO 9002** and extended to the latest release of **UNI EN ISO 9001**, ensures that the entire production process, starting from the processing of the order to the technical service after delivery, is carried out in a controlled manner that guarantees the quality standard of the product.

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1.1 Scope of the Manual

This Manual has been prepared by the Manufacturer to provide the operating technical information for installation, operation and maintenance of the equipment concerned.

The Manual, which is an integral part of the equipment concerned, must be preserved throughout the life of the equipment in a known easily accessible place, available for consultation whenever required.

If the Manual is lost, damaged or becomes illegible, contact the Manufacturer for a copy specifying the serial number of the equipment.

If the equipment concerned changes ownership, the Manual has to be handed over to the new owner as part of the equipment supply.

The Manual is meant for specialist technical personnel appointed and authorized by the Manufacturer, owner and installer to act on the equipment concerned for which specific technical skills in the sector concerned are necessary (electrical, mechanical, etc.).

The illustrations may differ from the actual structure of the equipment concerned but do not interfere with the explanation of the operations.
In case of doubt, contact the Manufacturer for explanations.

The Manufacturer reserves the right to make changes to the Manual without the obligation to provide prior notification, except in case of modifications concerning the safety level.

The technical information included in this Instruction Manual is the property of the Manufacturer and therefore has to be considered as confidential.

It is forbidden to use the Manual for purposes other than those strictly linked to the operation and maintenance of the equipment concerned.

This information is provided by the Manufacturer in the original language (English) and can be translated into other languages to satisfy legislative and/or commercial requirements.

1.2 Symbols

To highlight certain parts of the text, for purposes of safety, or to indicate important information, certain symbols are used, the meaning of which is described below.

It is important to comply with and scrupulously follow the information highlighted by the symbols.

Danger - Warning

Indicates situations of serious danger which, if ignored, can be risky for the health and safety of persons.

Caution

Indicates that appropriate behaviour must be adopted to avoid posing risk for the health and safety of persons and avoid causing economic damage.

Important

Indicates particularly important technical information which must not be ignored.

List of safety and information symbols

Symbol representation	Symbol description
	**Danger sign:** indicates danger of electric shock caused by the presence of powered components inside the junction box or control panel.
	**Obligation:** read this Manual before carrying out any action on the equipment concerned.
	**Forbidden:** indicates that it is forbidden to lubricate or adjust moving parts.
	**Danger:** indicates danger of serious injury to limbs if the internal moving parts of the equipment are exposed. Before opening inspection or maintenance hatches or doors isolate the equipment concerned from the electrical energy sources.
	**Information:** indicates the direction of rotation of the electric motor.
	**Obligation:** indicates the hooking points for lifting each section of the equipment concerned.
	**Forbidden:** indicates it is forbidden to introduce hands into the equipment.

1.3 Glossary and terminology

Operator: person appropriately trained and authorized by the Production Manager for setting up the equipment concerned and carrying out routine maintenance.

Installer: organization with specialized technicians and appropriate equipment for carrying out risk-free installation and extraordinary maintenance.

Specialist technician: person responsible for and authorized by the Manufacturer, owner or installer to act on the equipment; must have specific technical skills depending on the sector concerned (electrical, mechanical etc.). The specialist technician, in addition to being familiar with the working of the equipment concerned, must be familiar with the working of the plant or equipment on which the equipment concerned is installed.

Routine maintenance: includes all the actions necessary to keep the equipment in good working conditions, to ensure greater operating durability and to keep the safety requisites constant.

Extraordinary maintenance: all the actions meant to keep the equipment in perfect working order.

Setting in safety conditions: all the precautions the authorized personnel must adopt before acting on the equipment concerned.

The precautions are listed below.

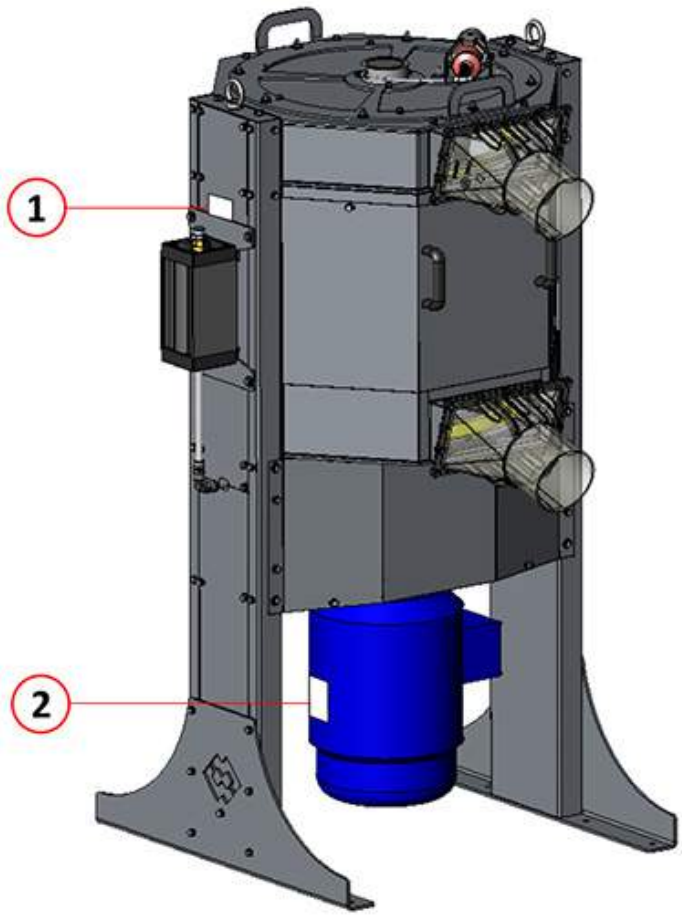
- **Ensure that the equipment concerned is disconnected from all the mains and appropriate devices are used to prevent these from being reconnected accidentally.**
- **Ensure that all the moving parts of the equipment have come to a complete stop.**
- **Ensure the temperature of the equipment concerned is such that it does not burn.**
- **Provide appropriate lighting in the area around the operations.**
- **Wait for the material to be handled inside the equipment or machine concerned to settle down completely.**

1.4 Manufacturer's data and identification of equipment

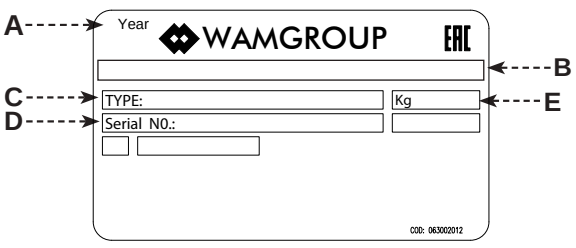
Important

Do not change the data on the identification plate.
Keep ID plates clean, intact and legible.
If an ID plate is damaged or no longer legible (even if only one piece of information on it) contact the Manufacturer and ask for a new ID plate and replace it.

The ID plates shown identify the equipment concerned and its main components.
Plates show the necessary references for a safe operation.



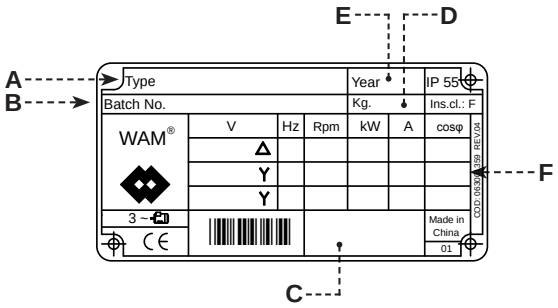
SEPCOM® Micro-filter



1 - Micro-filter identification plate

The plate is fixed to the lower side of the longitudinal member.

A) Year of manufacture
B) Manufacturer's name and address
C) Micro-filter type
D) Serial No.
E) Weight of the microfilter



2 - Motor identification plate

A) Motor type
B) Production batch
C) Manufacturer's name and address
D) Weight of the electric motor
E) Year of manufacture
F) Technical data

1.5 Request for assistance

For all technical assistance, contact the Manufacturer's service network.
For all requests, provide the equipment identification data, the type of problem encountered and all other information which could be useful for identifying the problem.

1.6 Warranty

The conditions for validity and applicability of the warranty are specified in the sales contract.

1.7 Exclusion of responsibility

The equipment is delivered according to the specifications indicated by the Buyer in the order and the conditions valid at the time of purchase.

The Manufacturer shall not accept responsibility for safety of persons or objects and operation failure of the equipment if the loading/unloading operations from trucks, transport, positioning at the site, use, repairs, maintenance etc. have not been carried out in compliance with the warnings described in this Manual, and in accordance with the national legislation in force.

Likewise, the Manufacturer shall not accept any responsibility if the equipment concerned is used:
- improperly;
- by unauthorized persons and/or persons not sufficiently trained for installation, operation and maintenance;
- with modifications made to the original configuration without the Manufacturer's permission;
- with spare parts that are not original or are not specific for the model;
- without maintenance;
- non-pursuant to the regulatory standards and national or local legislation on the matter of occupational safety;
- non-pursuant to the recommendations in this Manual or on the warning and danger plates applied on the equipment.

2.1 General safety prescriptions

Read the Instruction Manual carefully and strictly follow the instructions it includes, especially those regarding safety.

Most accidents at the workplace are caused by negligence, failure to follow the most elementary safety regulations and incorrect or improper use of tools and equipment.

Accidents can be prevented and avoided by taking due care, using suitable equipment and adopting adequate preventive measures.

Apply and comply with the standards in force regarding workplace hygiene and safety.

The personnel trained for and authorized for the operations has to have the psychological/physical requisites, experience in the sector concerned and the necessary technical skills for carrying out the operations assigned to them.

All workers involved in any kind of operation must be prepared, trained and informed as regards the risks and the behaviour to be adopted.

Pay attention to the meaning of the notices applied on the equipment, keep these legible and respect the information indicated.

Use instruments, equipment and tools that have been approved and are intrinsically safe, and cannot alter the safety level of the operations or damage the equipment during installation, use and maintenance.

Modifications to the equipment components should not be made for any reason whatsoever, without the Manufacturer's permission.

2.2 Safety prescriptions for transport and handling

Carry out all the handling and transport operations in accordance with the procedures and instructions shown on the packaging and in the Manual supplied.

All the operations must be performed by qualified authorized personnel.

Those authorized to carry out the handling operations must have the capabilities and experience required to adopt all the necessary measures to guarantee one's safety and the safety of persons directly involved in the operations.

The chosen features of the lifting and handling means (crane, bridge crane, forklift truck etc.) must take into account the weight to be handled, the dimensions and the gripping points.

During lifting use only accessories such as eyebolts, hooks, shackles, spring hooks, belts, slings, chains, ropes etc., that have been certified and are suitable for the weight to be lifted.

During handling respect the prescriptions applicable for handling loads.

Keep the position of the equipment concerned or the sections and the loose components horizontal, keep the load low and make all the necessary movements gently.

Avoid sudden manoeuvres, dangerous oscillations and rotations, accompanying the movements manually and place the load gently on the ground.

2.3 Safety prescriptions for installation

Before starting with installation, a "Safety Plan" must be implemented to safeguard the personnel directly involved and those who carry out operations in the surrounding area.

All the laws must be strictly applied, especially those concerning workplace safety.

Before proceeding with installation operations, mark off the work area to prevent access by unauthorized persons.

The electrical connections must be made in compliance with the standards and laws in force.

The person in charge of making the electrical connections has to ensure that the required standards and laws are respected before testing.

2.4 Safety prescriptions for use and operation

Do not tamper with the equipment concerned by using any kind of device to obtain performances different from those designed.
All unauthorized changes can affect the health of people and the integrity of the equipment.

The operators have to exclusively wear protective clothing and have to be equipped with appropriate individual protection devices for carrying out the operations and as required by the safety and work accident prevention standards.

Before use, ensure that all the safety devices are installed and that they are working properly.

During operations, prevent access to the work area by unauthorized persons.

Remove all obstacles or sources of danger from the work area.

Climbing, walking or seating on the machine placing and/or improper machine loads on it are strictly forbidden.

2.5 Safety prescriptions for maintenance and replacement of components

Danger - Warning

Before any intervention on the machine, make sure it is switched off and disconnected from all energy sources; using suitable devices to lock them, and make sure it cannot be an accidentally reconnected to prevent it from starting (LockOut - TagOut procedures).

Maintain the equipment concerned in the conditions of utmost efficiency compliant with the maintenance plan provided by the Manufacturer.

Good maintenance apart from preserving the functional features and essential safety features over time, will also allow extending the working life of the equipment concerned and achieving the best possible performance.

Strictly follow the procedures indicated in the Manual, especially those concerning safety.

Ensure that all the safety devices are active and working properly.
Mark off the work area in such a manner as to prevent the access of unauthorized persons.

Replace the worn and damaged components exclusively with original spare parts, whose safety, reliability and interchangeability have been undoubtedly established.

Apart from invalidation of the warranty, the Manufacturer declines all responsibility for damage to objects and harm to persons deriving from the use of non-original spare parts or due to modifications made during repairs without express written authorization.

Use the oil and lubricants recommended by the Manufacturer.

Do not dump polluting material (oil, grease, paint, plastic etc.) in the environment, but carry out waste separation disposal depending on the chemical composition of the various products in compliance with the legislation in force.

On completion of maintenance or replacement operations, before resuming production, check that no foreign bodies (rags, tools etc.) have been left inside the equipment concerned.

2.6 Safety recommendations on biological risks

Danger - Warning

Depending on the type of product processed by the equipment, it is recommended to wear appropriate personal protection equipment against the biological risk which could not be eliminated (residual risk) in case of contact with the equipment or its components.

3.1 General description

SEPCOM® Micro-filter consists of a drive unit which enables impeller that allows obtaining the centrifugal forces necessary for the filtration and by a screen which retains the solid materials, which then gets pulled out at the top side of the machine. The feeding occurs in the lower part, while the pumping force is used to the purpose separation, avoiding to clog the impeller.

The **SEPCOM® Micro-filter** has been designed to be integrated to other systems, as part of an plant, in order to achieve a well determined application.

SEPCOM® Micro-filter MFT-500: flow rate up to 20 m^3/h (*)

SEPCOM® Micro-filter MFT-260: flow rate up to 10 m^3/h (*)

*The flow rates refer to fluids containing from 0.5% to 5% dry material.

IMPORTANT NOTE:

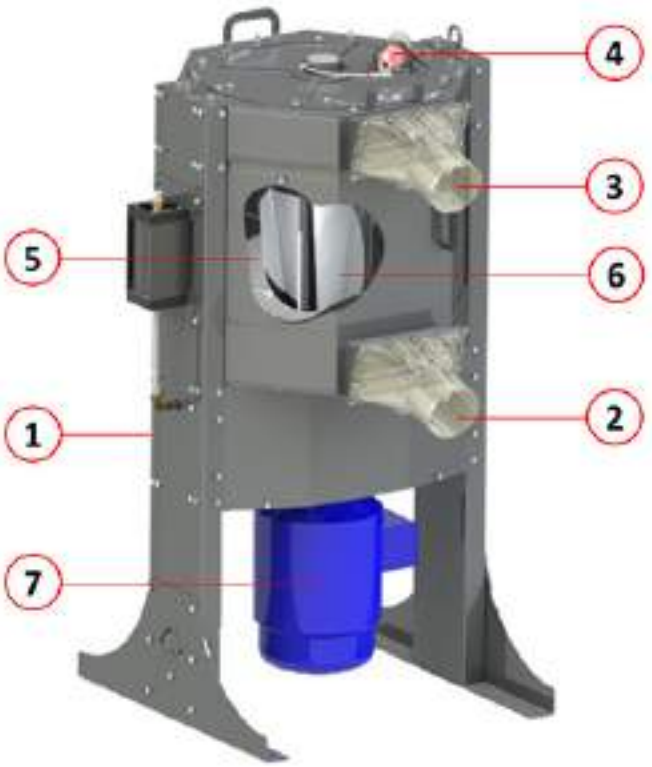
It is recommended the installation of an hours counter in the control panel that allows the counting of the operation hours of each micro-filter component.

This aspect is very important especially as regards possible wear problems.

Important

The terms “equipment”, “micro-filter” used in this manual refer to the same machine.
As components meant for installation in a plant, the Micro-filter - not fully provided with safety means - have to be considered “partly completed machinery”. Therefore, they do not bear an EC marking.
It is forbidden to start the equipment unless the machine/plant in which it is to be installed has been declared compliant with the Directive 2006/42/EC and further modifications.

3.2 Main components



SEPCOM® Micro-filter

Item	Description
1	Material inlet
2	Micro-filtered liquid outlet
3	Thickened sludge outlet
4	Greaser
5	Screen basket
6	Impeller
7	Motor

CONFIGURATION OPTIONS	
Impeller	SS 304L
Screen basket	0.025 mm - 0.040 mm - 0.050 mm

3.3 Operating principle

The **SEPCOM® Micro-filter** consists of a drive unit which enables a "tool" that allows obtaining the internal forces required for the micro-filtration and by a screen which retains the solid materials, which gets expelled from the top of the machine. The feeding occurs in the lower part of the micro-filter while the pumping "energy" is used to increase the separation efficiency.

3.4 Permitted use

The **SEPCOM® Micro-filter** is used in the micro-filtration of the liquid phase following the separation process of sewage, digestate (biogas) or waste water from industrial processes.

Every other use must be considered improper, therefore not permitted.

Given that fact that **SEPCOM® Micro-filter** is to be installed in a plant, the working of the equipment and its performances are also strictly linked to the entire plant condition and layout, it is therefore very important to follow all the recommendations listed at page 21-22-23-24 (Installation diagram), at page 32 (Scheduled maintenance table) and page 29. (Start up and normal operation).

These are the base conditions to be followed before the Manufacturer is claimed for supposed failures of the equipment.

3.5 Improper use not permitted

Do not operate the equipment unless the plant or the equipment in which it was incorporated is declared compliant with the requirements of relevant national and local provisions in force.

It is forbidden to use the equipment in potentially inflammable or the explosive atmosphere (ATEX).

IT IS COMPULSORY:
- providing the proper earth grounding of the machine.
- reading carefully the indications and the danger signs applied on the machine.

IT IS FORBIDDEN:
- removing the danger and warnings signs applied on it.
- removing the protections and the safety devices it has been provided with.
- using the equipment with no guards and safety devices.
- using the equipment if faulty (excessive noise level, vibrations, etc.).
- using the equipment after repairs and/or maintenance without having setting it in safety start up conditions.
- using the equipment other than according to the indications given.

Important

It is forbidden to use the equipment for materials reaching a temperatures value higher than 60°C; in case of outdoor temperatures below 0°C, the equipment has to be provided with the necessary protections. In case of thermal conditions beyond the recommendations, contact the Manufacturer.

3.6 Noise level

The noise level of the **SEPCOM® Micro-filte**r does not exceed 80 dB(A).

Danger - Warning

Depending on the installation site, the installer must adopt suitable systems (barriers, etc.), if necessary, to maintain the noise levels within the legally permitted limits.

3.7 Environmental operating limits

Unless otherwise specified, the equipment concerned may be used only within the limits indicated.

- Altitude: less than 1,000 m at sea level
- Environmental temperature: between 0 °C and + 40 °C
- Cold climates: with temperature less than 5 °C use oil and lubricants suitable to the operating temperature.

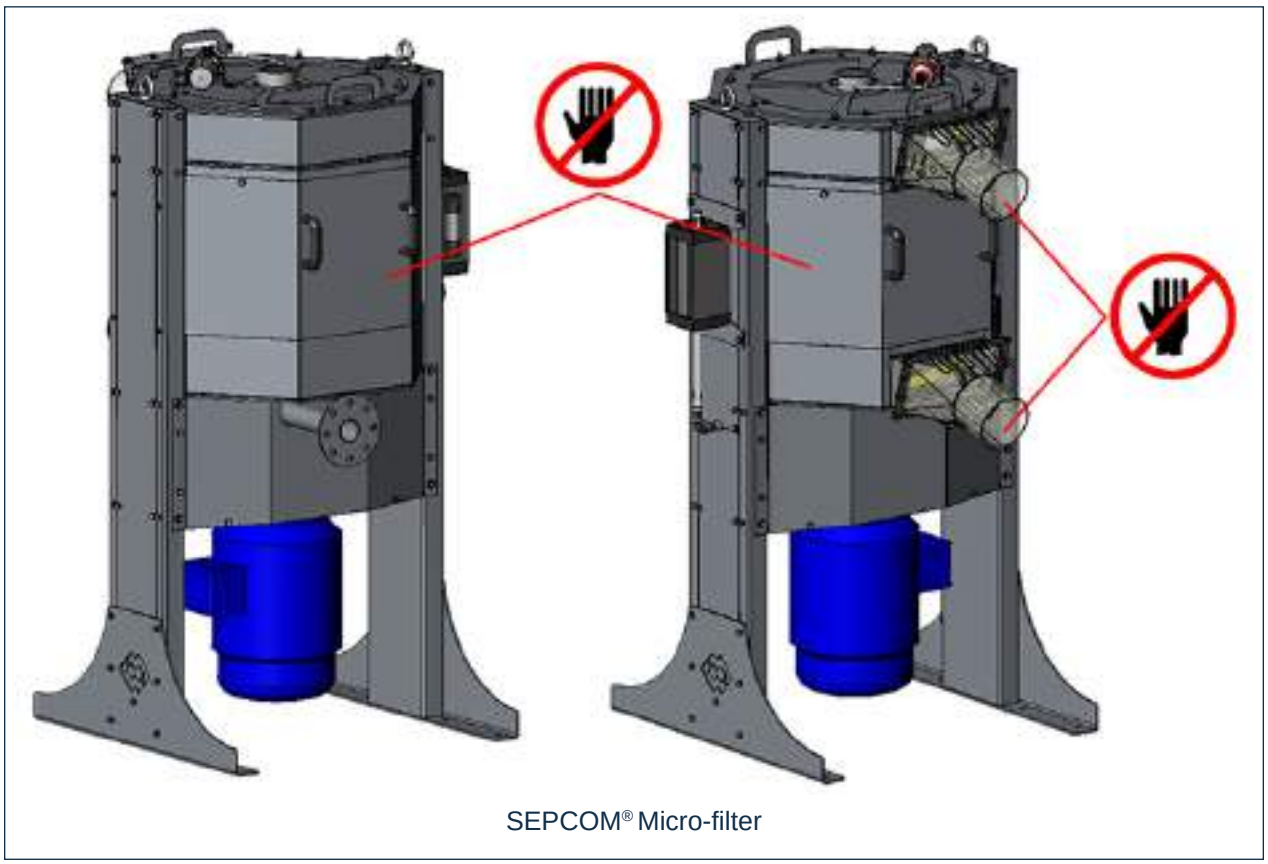
3.8 Overall dimensions and technical features

For an exact identification of the equipment concerned, see the identification plate. TECHNICAL CATALOGUE Manual no.1).

3.9 Safety and information signs

Danger - Warning

Follow the signs on plates.
Ensure the plates are legible; otherwise clean them and replace the damaged ones, applying them in their original position.



SEPCOM® Micro-filter

N.B.: NB: See the page 2, **1.2 Symbols**

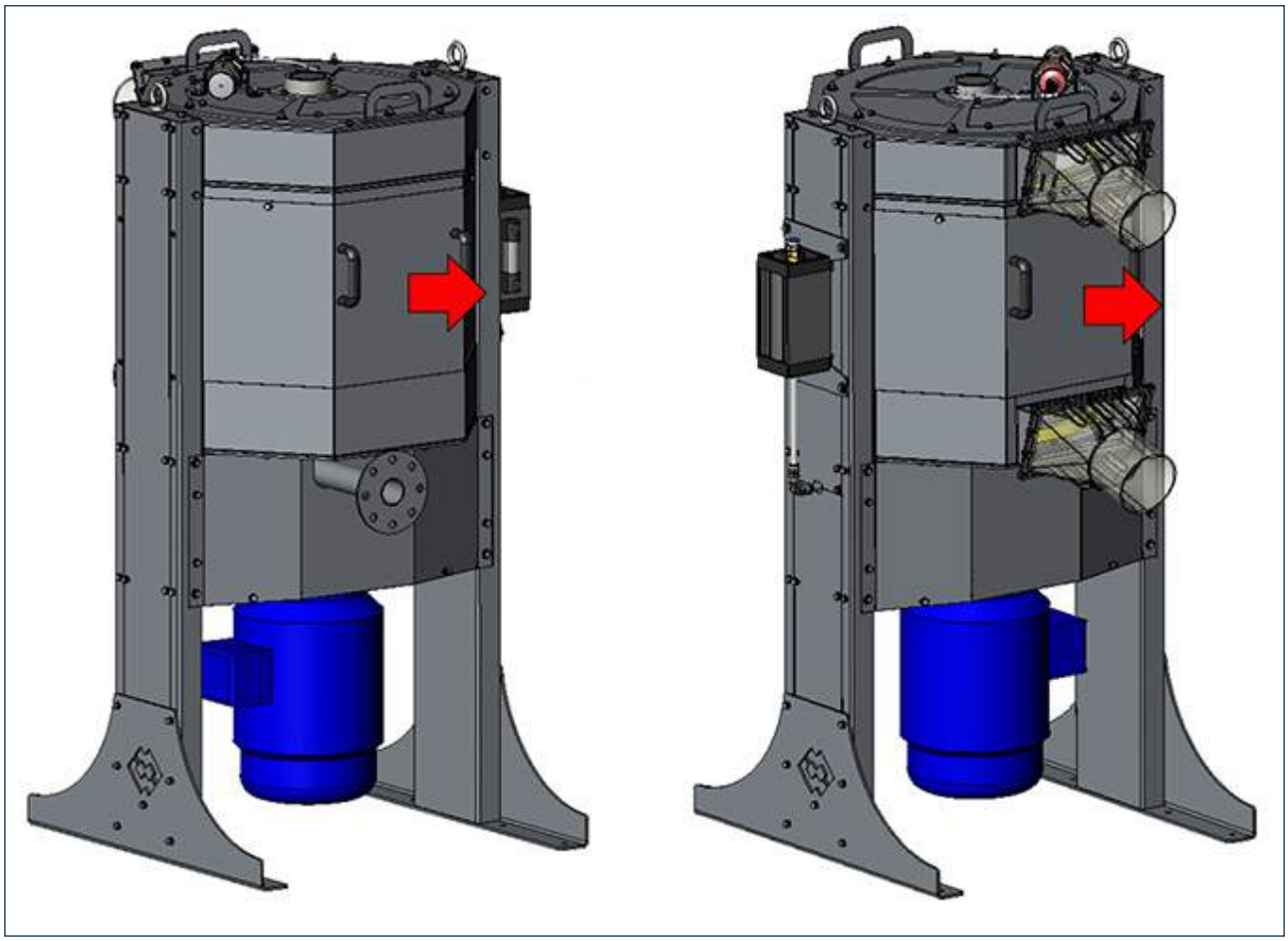
Danger - Warning

Danger of shearing and dragging: do not insert the limbs inside the micro-filter.

3.10 Safety devices

Inspection hatches:

The access to inspections hatches is not necessary during operation of the equipment; their use is meant for routine or extraordinary maintenance operations.



Danger - Warning

Before starting up the machine, it is compulsory closing the inspection hatches by fitting the screws provided in their original position to avoid they accidentally open.

Important

Use the special device when opening the inspection hatches. The equipment is provided with the due warning signs.

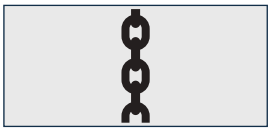
4.1 Type of packaging

The list shows the description and symbols envisaged on the packing.

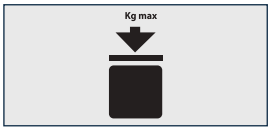
A) Fragile: indicates that the package has to be handled and lifted carefully to avoid damage.

B) Centre of gravity: indicates the position of the gravity centre of the package.

C) Harness: indicates the correct harness position for lifting the package.



D) Stacking limit: indicates the maximum stacking load of the packages.



E) Weight: indicates the maximum weight of the package.

The packaging material has to be disposed off or recycled in compliance with the standards in force.

PACKAGING INCLUDING THE CRATE+ BARRIER BAG

Refer to the technical manual for further information on weights and sizes.

4.2 Reception of goods

On receiving the goods, ensure that the type and quantity correspond to the data present on the acknowledgement of order.

Possible damage has to be immediately communicated in writing in the space provided to this purpose in the waybill.

The carrier is obliged to accept the complaint and leave the Customer a copy of the waybill.

If the supply is “free destination” a copy of the waybill and of the complaint shall be sent to the Manufacturer or to the forwarder.

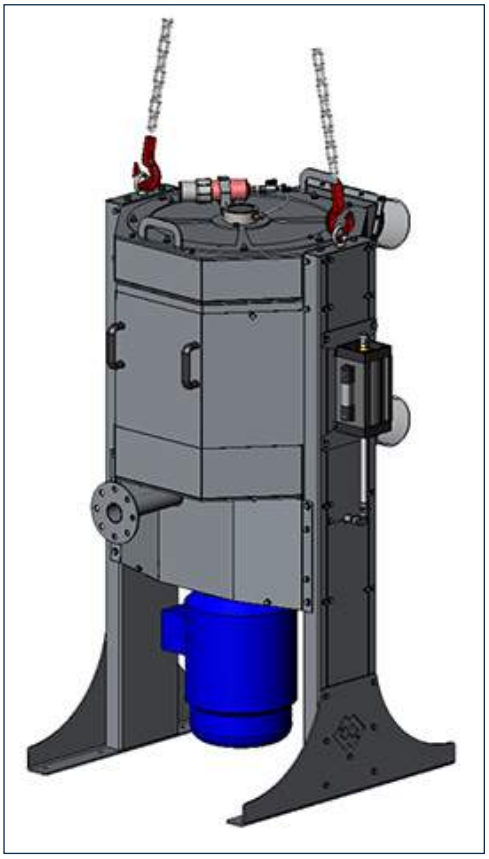
If the damages are not claimed immediately on receipt of the goods, your request for compensation may not be accepted.

4.3 Lifting and unloading methods

Danger - Warning

Carry out the lifting and handling operations according to the information indicated on the equipment and in the Manufacturer’s Operation Manual.
The person authorized for unloading operations has to make sure all the necessary measures are adopted to ensure his or her safety and the safety of other persons directly involved.
Use means and accessories (ropes, hooks, shackles etc.) suitable for the load to be lifted.
Pay attention in the lifting phase to balance the load to avoid uncontrolled movements which could cause work injuries to persons.
Do not stack the packages as they are not sized for that purpose.
Do not drag or push the entire or sections of the equipment as it will damage them.
Before lifting and handling the load, read the relevant information indicated in the “Information regarding safety” Chapter.

Lift the microfilter and handle it by means of the belts according to the picture.



Danger - Warning

Harness the equipment by means of the safety hooks. DO NOT use clamps, rings, open hooks or systems that do not ensure the necessary safety level.

Important

The lifting means have to match the weight and dimensions of the microfilter as well as the movements to be carried out.

Unload the packages from the means of transport and place them on a flat surface which can ensure the stability.

5.1 Safety prescriptions for installation

Danger - Warning

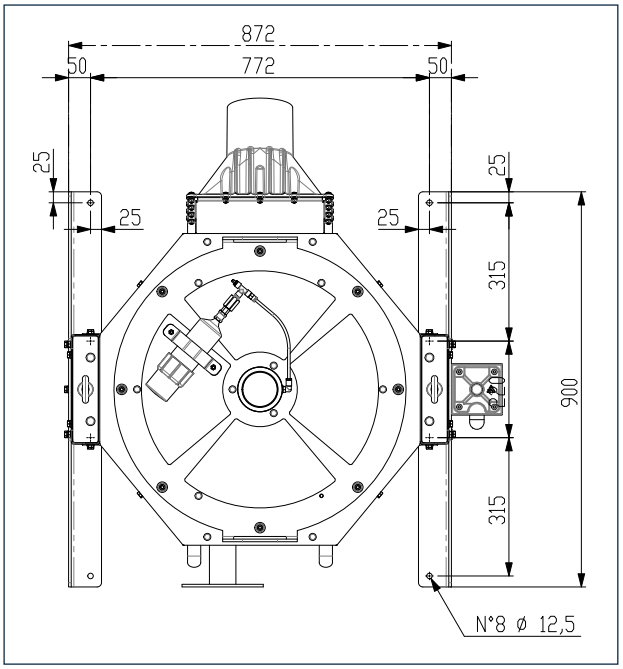
The replacement operations must be carried out by a specialist authorized technician with specific skills.
Provide appropriate safety measures and use suitable equipment to prevent risk of work accident to persons involved in the operations and to those nearby.
Harness and handle the sections of the equipment concerned as described and shown in the "Unloading and lifting method" paragraph.

Before starting installation, define a safety plan which complies with the laws in force regarding workplace safety.

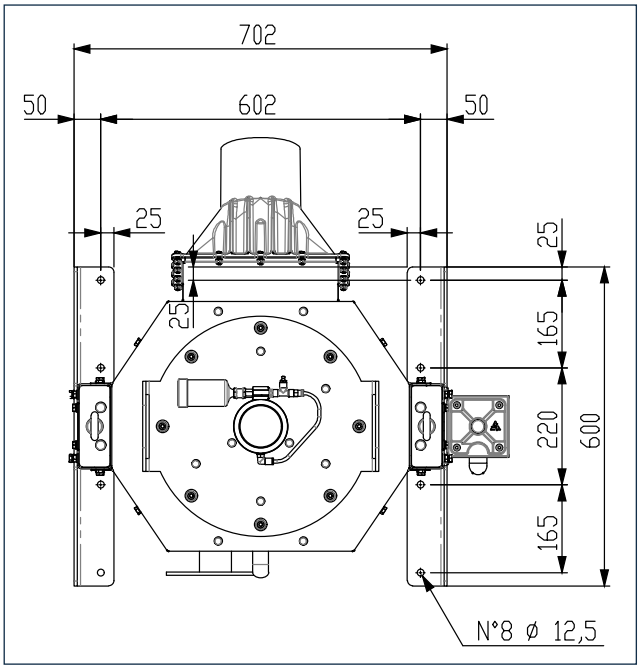
The specialist technician, authorized by the installer or owner, must asses whether the area has been prepared correctly and whether the necessary installation equipment is available (crane, etc.).

During installation and maintenance use exclusively certified lifting devices. During installation handle the microfilter by means of the lifting means properly fixed.

5.2 Fixing of the support frame



Representative image for models MFT-500



Representative image for models MFT-260

Model	Weight [kg]	
	empty	running
MFT-500	484	544
MFT-260	275	305

The microfilter has to be fixed to a support frame by means of M type screws class 8.8 in the indicated positioned (see drawing). In case of metal support structures which may have problems of instability due to vibration, it is recommended to install vibration dampers between the support foot of microfilter and the support structures on which it is fastened.

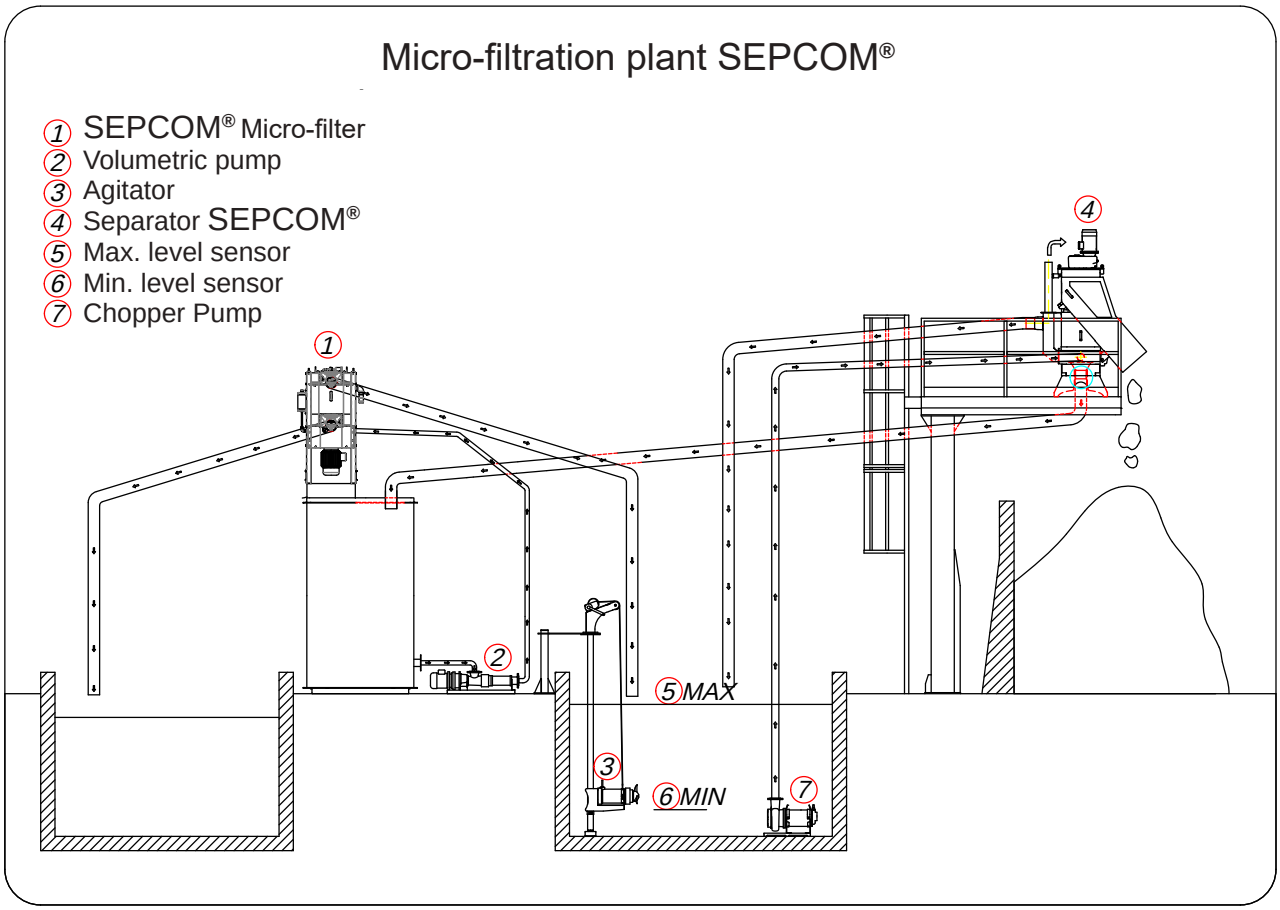
a) Prepare the installation area of the microfilter and provide the support structure having the dimensions and features suitable to the weight of the microfilter, and to the type of ground the microfilter is to be position on.

b) Anchor the microfilter sturdily and safely by means of bolts having the features suitable to the purpose. The installation of the suitable support, the fixing means and the connections have to be carried out exclusively by the user in accordance to the safety standards in force.

5.3 Assembly

As previously highlighted, it is important a correct installation of the system as well as the operation according to the permitted use indications in order to ensure the proper functioning of the microfilter. The drawing below represents the plant layout to be followed for the installation of the **SEPCOM® Micro-filter**.

Installation with mono pump:



	MICROFILTER FEEDING PUMP
	The feeding Progressing cavity pump of the microfilter (**P1**) is located outside the tank (**V2**) for the collection of the product resulted from micro-filtration (separated the liquid derived from separation)
	Connect the pump supply pipe (**T4**) to the separated liquid collecting tank (**V2**) and to the flange of the supply pump (**P1**) to avoid pressing, enlargements or bottlenecks. Consider, for the pump (**T4**) supply pipe a nominal Ø of 80 mm.
	Consider the section of the microfilter feeding pipe (**T1**) a nominal ø of 65 mm, a hydraulic flow at input of 20 m^3/h(*).The pump must be sized by considering all head losses on the path, from the collection tank to the inlet (**A1**).
	MICROFILTER SUPPLY TUBE
	Connect the feeding pipe (**T1**) to the material inlet pipe (**A1**); avoid pressing, widening and choking it. For the correct operation of the equipment and an easier installation, it is recommended to use a rubber hose as connection between the feeding pump delivery hose and the micro-filter inlet flange.
	MICROFILTER SLUDGE DISCHARGE PIPE
	Connect sludge pipe (**T2**) to the material outlet pipe provided on hopper (**S2**); avoid pressing, widening and choking it or narrowing of the section.
	Position it with a slope of at least 17°.
	The free end of the pipe has to be at least 200 mm (**H1**) from the tank level (**V1**) for the material to be handled.
	MICRO-FILTERED LIQUID DRAIN PIPE
	Connect drain pipe (**T3**) to the outlet hopper (**S1**); avoid sinking, crushing, bends or narrowing of the section.
	The drain pipe has to be placed outside the connecting stub; position it with a minimum slope of 5 °.
	The free end of the pipe has to be at least 200 mm (**H2**) from the level of the micro-filtered liquid tank (**V3**).
	ELECTRICAL CONNECTIONS
	Connect the terminal of the motor (**M1**) to the control panel of the plant.

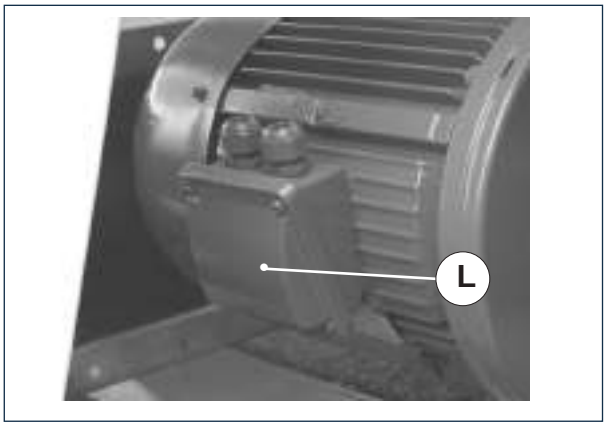
* The hydraulic flow rate is intended with clean water; the real value depends on the material type, on the configuration of the equipment and on the use and maintenance conditions.

5.4 Electrical connections and motor wiring diagram

The access to the junction box has to be permitted to specialized personnel only.
Before carrying out the connections make sure the voltage matches the values given on the rating plate.
Make sure the safety standards are followed.

ELECTRIC MOTORS FEATURES

The connections needs to be made on the junction box of the motor Pos. L.

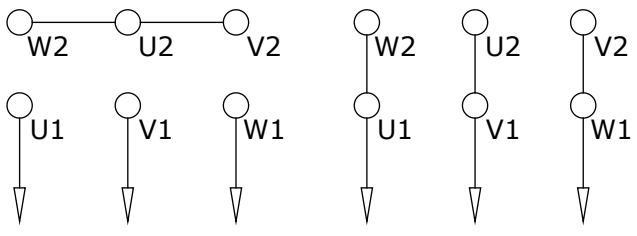


Important

Disconnect the power supply before carrying out maintenance operations on the equipment!

Model	Motor	Power [kW]	Voltage and Frequency	Absorption [A]	Protection
MFT-500	8 Poles	7.5 LOW SPEED	380÷420 V 50Hz 440÷480 V 60Hz	19	IP55
MFT-260	4 Poles	7.5	220÷240 V 50Hz 380÷420 V 50Hz 440÷480 V 60Hz	14 - 25	IP55

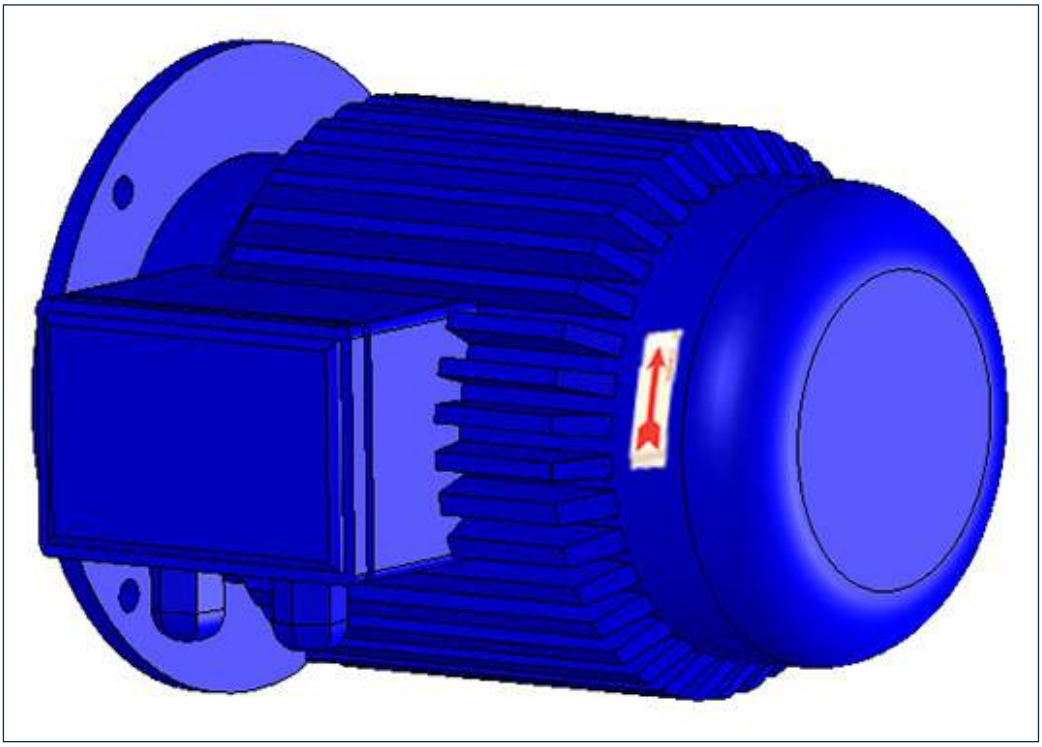
Motor terminal diagram



Higher voltage Lower voltage

Always refer to the diagram on the junction box cover.
During the first start-up phases of the microfilter make sure the direction of rotation is correct.

In case of reverse rotation, after having disconnected from the mains, reverse the position of the power cables inside the terminal box. (see image below)



5.5 Electrical connection

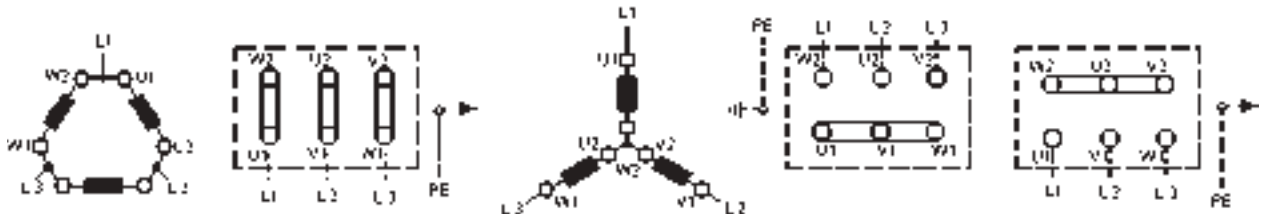
Danger - Warning

The equipment is not provided with an electrical system. Connection to the mains has to be carried out by an electrician.
Provide mains supply to the equipment concerned according to the compliant current legislation and take into consideration the safety measures required by the installation environment and the envisaged operating conditions.
Before carrying out the connection ensure that the mains voltage and frequency correspond to those indicated on the electric motor rating plate. Disconnect from the mains before carrying out any work and use suitable devices so that there cannot be an accidental reconnection.

Use electric cables having cross section appropriate to the power absorption of the motor of the equipment concerned.

The type of motor connection depends on the voltage value available to be applied; please, refer to the wiring diagram provided for each motor.

The illustration shows the wiring diagrams of the motors envisaged.



Connections diagram

The installer will have to provide to interfacing the equipment with the necessary controls: start/stop, emergency stop, reset after an emergency stop, in compliance with the regulatory standards in force.

In the testing phase, ensure that the motor rotation corresponds to the direction of rotation indicated by the arrow applied on the motor.

If the rotation is inverse, invert the cable connections in the junction box.

Disconnect from the mains before carrying out any work and use suitable devices so that there cannot be an accidental reconnection.

Ensure that the protection devices are present and working each time the equipment is started up.

During these checks make sure the rotation of the microfilter cannot damage the personnel or the equipment.

The installer must connect the equipment to the earthing system of the plant.

5.6 Factory tests

Important

When installation is complete, authorized personnel must carry out a general test to ensure that the safety conditions have been completely satisfied.

The authorized personnel must also check:
- that no tools or other material have been forgotten inside the equipment;
- that the fixing screws have been tightened.

Before starting to operate the equipment:
- Ensure that the plant in which the microfilter is installed is compliant to the Directive 2006/42/ EC and to the relevant directives, the safety standards in force and those specifically applicable;
- Make sure the operation conditions have been met.