



INDUSTRIAL VACUUM CLEANERS  
*Industrial vacuum cleaners*

**USE AND MAINTENANCE MANUAL**  
*User and maintenance manual*

INDUSTRIAL VACUUM CLEANERS  
**USE AND MAINTENANCE MANUAL**

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## 01. INTRODUCTION

This use and maintenance manual will set out the guidelines and procedures that must be followed by those operating this equipment in order to guarantee:

- Operators' safety
- Correct use of the machine
- Optimum performance



IT IS NECESSARY THAT THE AUTHORIZED PERSONNEL AND MACHINE OPERATOR  
HAVE READ AND UNDERSTOOD THE MANUAL  
BEFORE USING THE MACHINE.

Due to the importance of this information, we recommend that the operator:

- Always keeps this manual close at hand for easy consultation
- Keeps the manual in a safe place in order to prevent loss or damage
- Asks the manufacturer/supplier for a replacement copy in case of loss or damage
- Supplies this manual and the manufacturer's details together with the machine if it is sold to a third party.



N.B. IF THE PURCHASED VACUUM CLEANER IS ATEX AUTHORIZED, THE  
TECHNICAL PLATE ATTACHED TO THE ENGINE HAS A SERIAL NUMBER  
THAT IS USED FOR REQUESTING A COPY OF THE CERTIFICATE IF  
THIS IS DETERIORATED OR LOST.

The manufacturer reserves the right to update its products and manuals and is not required to provide updated versions of the them.

## 02. WARRANTY

The vacuum cleaners manufactured by **Morclean** have been fully inspected to guarantee correct electrical, pneumatic and mechanical function. The vacuum cleaners are covered by a 12-month warranty. All defective parts of the machine are covered by warranty but this does not include parts damaged during shipping, handling or use nor does it cover parts damaged by normal wear and tear.

Repairs can be carried out by an authorised service centre or directly by **Morclean**.

To request your warranty service you MUST send a written request to the dealer or directly to the manufacturer including the manufacturing details that can be found on a plate fitted inside your machine together with a copy of the invoice.

The warranty is void under the following conditions:

- Improper use of the machine or total or partial failure to comply with the contents of this manual
- Any part of the vacuum cleaner is altered or modified in any way
- Incorrect electrical installation
- If the laws in the country of use are not respected
- Inadequate maintenance
- The machine has not undergone routine maintenance as specified in this manual
- Use of spare parts that are not produced by **Morclean** or not specifically indicated for the model in use
- Partial or total failure to comply with the instructions given in this manual

### 03. PRODUCT DESCRIPTION

The machine you have purchased is an industrial vacuum cleaner (ATEX approved on request) designed to remove dust, shavings, scraps, swarf, various waste materials and all types of liquid;

It has been designed for prolonged, continuous or occasional use in industrial environments. The machine is mounted onto a sturdy trolley equipped with 4 robust rubber swivel castors for ease of movement within the working area. The castors are also fitted with brakes to safely fix the machine in position while it is in use.

The drum and the filter chamber can be manufactured in stainless steel AISI 304 on request for use in a wider range of industries (chemical, pharmaceutical, food, etc.). The waste material is vacuumed through a flexible hose and then subjected to a centrifugal action inside the barrel that separates heavier solid particles, which fall to the bottom of the barrel, from lighter particles that are retained by the principal cartridge filter. The following sections of this manual will explain the various functions of your vacuum cleaner:

- FILTER SHAKER
- Replacing and checking the filter
- Emptying the main barrel
- Using models fitted with LONGOPAC®
- Models for collecting dust and liquids
- Optional functions

### 04. UNINTENDED USE

- Never suck up cigarette butts that have not been properly put out and/or any other flammable materials
- Never suck up substances that may explode in contact with the air
- Never operate in environments where explosive gases and/or gases from toxic chemical products are present in the air
- Check the suitability of the cartridge filter before sucking up toxic substances
- Disconnect from the power outlet before accessing any electrical components of the machine
- Do not modify the machine in any way
- Do not use the machine in a way that does not comply with the requirements of this manual

#### 4.1 INTENDED USE ATEX

The machines manufactured in compliance with the ATEX (Atmosphere Explosive) directive can be installed in environments where there is a risk of explosion. They can be used in area I-2 (gas, vapours and fumes) and area 21-22 (dust) fitted with antistatic conductive M class filters and stainless steel components (excluding the machine's bearing structure) and conductive plastic.

PNEUMATIC VACUUM CLEANERS AREA I-2I II 2 GD T6 / T85°C

PNEUMATIC VACUUM CLEANERS AREA 2-22 II 3 GD T6 / T85°C

ELECTRICAL VACUUM CLEANERS AREA 2I II 2 D EEx nA T100°C IP 65

ELECTRICAL VACUUM CLEANERS AREA 2-22 II 3 GD EEx n A II T4 / T135°C IP 65

Suction of potentially explosive dust is possible in a variety of industries: aluminium, chemical, cosmetics, pharmaceuticals, wood, food, milling, bakeries, paint, etc..

## 05. MACHINE DATA

### 5.1 TECHNICAL DATA PLATE

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Every **Morclean** machine carries a registration plate showing essential details that are necessary when contacting the supplier/manufacturer for advice, suggestions or information on spare parts. The following details are included on the plate:

- Manufacturer
- Model
- Supply voltage
- Installed rated power
- CE symbol (built in compliance with Machinery Directive 2006/42/EEC)

### 5.2 TESTING

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All are tested before packaging and delivery in order to ensure the correct function of each component. An accurate electrical safety test is carried out in compliance with specific electric safety standards related to:

- Ground continuity test
- Insulation resistance test between every phase and the ground
- Dielectric test
- Measurement of dispersed current
- Measurement of power and absorbed current (acceptable difference of +/-10% of rated value)
- Measurement of maximum depression and air exhaust values (tolerance of +/-15% based on temperature values and humidity of environment)
- Measurement of maximum air absorption

### 5.3 SAFETY DEVICES

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The vacuum cleaner has been manufactured in compliance with all legal standards for the operator's safety.

- All metal components are grounded to eliminate shock or electrostatic discharge, including the flexible suction hose that is properly grounded. also in this regard the choice of a suitable flexible suction hose allows to eliminate this risk on the hose length that goes from the use area to the vacuum cleaner.
- The brakes fitted onto the anterior pivoting castors safely fix the machine in its place of use where there may be a risk of movement due to uneven floor surfaces or other particular working conditions.



**BEFORE USING THE MACHINE CHECK  
THAT THE MACHINE HAS NOT SUFFERED ANY SHOCKS OR DAMAGES  
DURING THE TRANSPORT THAT AN AFFECT THE OPERATION  
OF THE ABOVE DEVICES.**

## 06. PERFORMANCE TOLERANCES

The performance of the turbine may vary by 15% based on the temperature and air humidity.  
The safety valves are calibrated based on the amperage of the turbine.

**07. SAFETY PROVISIONS**

- Carefully read the instructions in this manual before starting, using, servicing or operating the vacuum cleaner
- Check that the vacuum cleaner hasn't been damaged in any way
- Never turn on the machine if it is faulty or if you suspect it is faulty
- Check that the switch isn't worn or damaged
- Do not approach the suction intake of the machine with unfastened or broken garments that could easily be sucked into the machine
- Check that the filters are present and efficient
- Make sure that the filters are installed correctly and in full working order, always observing the regulations in force in the workplace
- Do not carry out repairs without the manufacturer's authorization
- Never use gasoline, solvents or other flammable liquids for cleaning; only proper detergents should be used for cleaning
- Never move the machine by pulling the power cable or flexible tube
- Never direct the opening of the machine or the flexible tube towards people or animals
- Protect the machine from the rain
- Check that the machine is connected to a power source with the correct voltage indicated on the registration plate
- Make sure that the power cable has no wear or damage. if replacing the cable, always replace it with another of the same specifications as the original one: cables that are not approved or of inferior quality may overheat and cause serious injury to the user
- Make sure that the machine is connected to an appropriate power source in full working order (check the presence of a fully functional grounding socket)
- Repairs must only be carried out by authorised personnel and only when the machine is turned off and disconnected from the power source
- Never allow unauthorized personnel to use the machine
- Make sure that all safety devices are in full working order before turning on the machine
- Never cover the vacuum cleaner during use

## 08. INSTALLATION

### 8.1 DELIVERY AND HANDLING

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All machines are carefully tested and checked by **Morclean** before delivery. The machine is transported inside a protective box or wrapped in a protective film that allows the courier to see the item during transport and is securely fixed to a pallet. If any part of the machine is not intact or has been damaged during transport, file an immediate complaint with the courier. Parts that have been damaged or broken due to incorrect transport or handling of the machine will not be recognised by the manufacturer's warranty. The machine must be lifted and moved using a forklift truck in accordance with the relevant safety regulations in force in the workplace.

### 8.2 CHECK THE PROPER ELECTRICAL CONNECTION

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Connect the industrial plug to the power cable and connect the plug to a socket that has the same amp rating and is protected by a line-isolating switch; in the case of the three-phase vacuum cleaner, it is necessary to check before use that the motor rotates in the correct direction (clockwise) as shown by the die-cast indicator on the turbine; if rotation occurs in an anti-clockwise direction, it is necessary to disconnect the machine from the power source, invert one of the three phase cables inside the plug and check again for correct rotation. The three-phase I-Clean and SMARTT353D models require to use the plug-pole with neutral (BLUE) connected. If the filter cleaning system is not connected it shall not operate. **Morclean's** warranty does not cover improper electrical connections. Single phase models with motor/ motors with brushes directly connect the plug (already present) to a suitable outlet. It is necessary to use ATEX certified plugs with ATEX machines and not the standard plug supplied by Coynco.

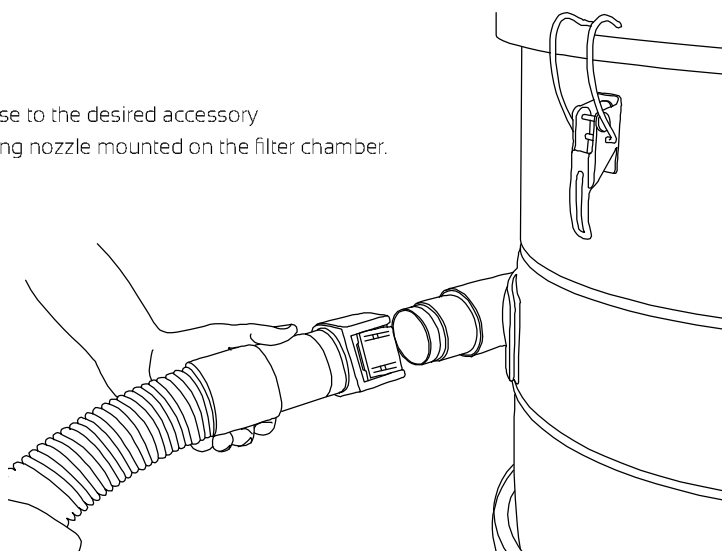
### 8.3 MOUNTING OF PARTS

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Depending on the specific needs of the client, the vacuum cleaner may include accessories that are not normally supplied in the standard version. It is necessary to select the suction hose and accessories that are appropriate for the type of material that must be sucked into the cleaner.

The machine is now ready for use.

Connect one end of the flexible hose to the desired accessory and the other with the quick coupling nozzle mounted on the filter chamber.  
(See the accessories sheet)





## 09. USING THE VACUUM CLEANER

### 9.1 TURNING ON AND TURNING OFF THE VACUUM CLEANER FOR COLLECTING DUST

#### MODELS WITH BRUSH MOTORS



For TURNING ON  
Push the switch into position I



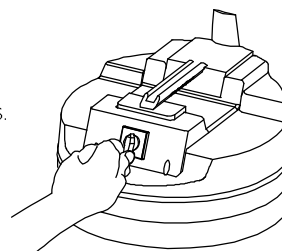
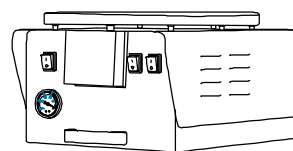
For TURNING OFF  
Push the switch into position O



For TURNING ON  
Rotate clock-wise towards the fan symbol,  
where present rotate on more positions to actuate other motors.



For TURNING OFF  
Rotate counter clockwise to O



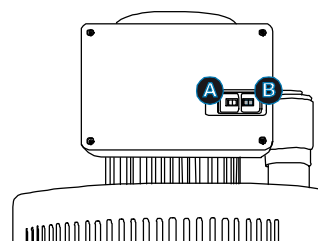
#### ELECTRIC ATEX AND TURBINE MODELS



For TURNING ON  
Push BLACK (I)

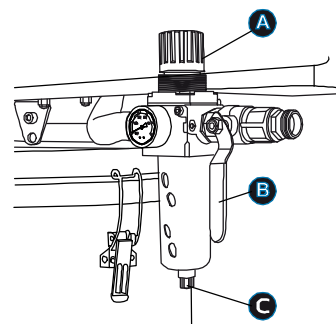


For TURNING OFF  
Push RED (O)



#### COMPRESSED AIR MODELS

1. Connect the feed tube to the air supply (it is recommended to use a conductive type supply tube in order to guarantee the earthing of the vacuum cleaner).
2. Regulate the pressure regulator to 4/6 bar pressure **A**.
3. Regulate the appropriate ball valve **B** to interrupt the flow of compressed air.



Remember to drain the water by turning the sleeve **C** clockwise and pushing it upwards.

## 9.2 MODELS WITH REMOTE CONTROL FOR CENTRALISED PLANTS

Many models are supplied with an electronic panel to allow remote use of the vacuum cleaner. This function is necessary when the vacuum cleaner must operate in a centralised plant.

1 The discharge air outlet from the turbine of the purchased centralised vacuum cleaner can be funnelled into a discharge tube on request, allowing the operator to choose where to direct the air.

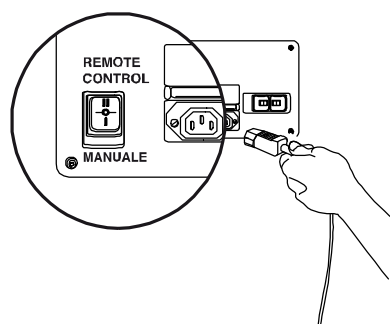
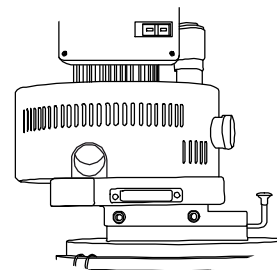
2 The controls of the vacuum cleaner are situated on the side of the motor and include:

2.1 The breaker switch (as described in 9.1).

2.2 The two low voltage cables necessary for the electrical connection to the centralised plant, which must be installed.

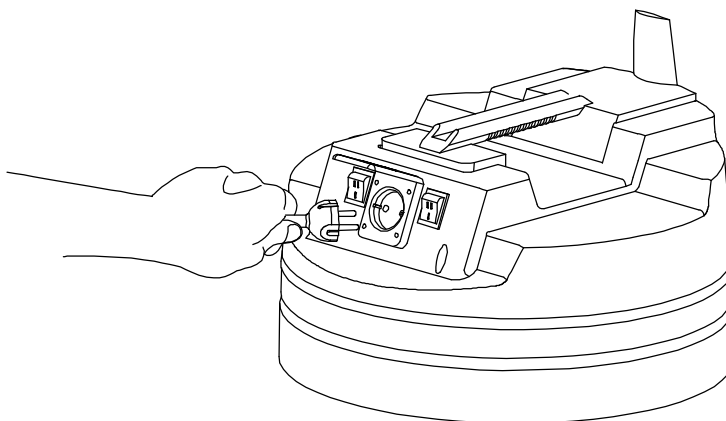
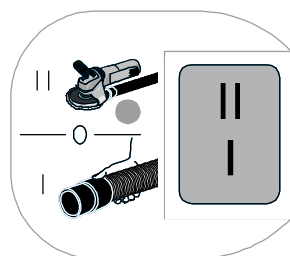
2.3 The cables for remote actuation in the centralized plants in the ATEX area must be connected according to the ATEX directive in force, installing them in compliant junction boxes.

2.4 The diverter switch in position II for REMOTE CONTROL (centralised plant) or position I for MANUAL operation (to deactivate REMOTE CONTROL so the vacuum cleaner can be operated manually).



## 9.3 MODELS WITH TELECONTROL FOR TURNING ON WITH POWER TOOLS

Models with this function have an outlet for connection to power tools and a diverter switch where position II selects TELECONTROL functions (to turn on the machine via a power tool) and position I selects MANUAL function (which deactivates the TELECONTROL function so the vacuum cleaner can be operated manually)

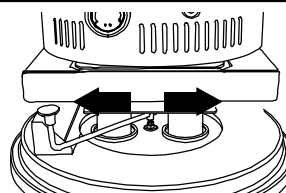


## 10. FILTER SHAKER OPERATION

### 10.1 PATENTED PNEUMATIC FILTER SHAKER

#### PRO LINE

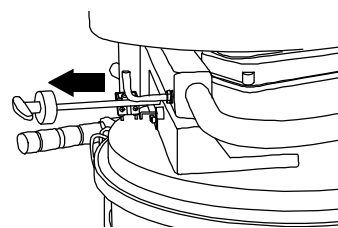
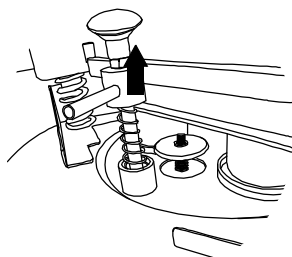
By reversing the position of the lever under the reverse flow valve, the cleaning function is activated automatically. It is recommended to perform it for about ten seconds for effective cleaning.



PERFORM THE OPERATIONS IN A SAFE AREA AND WITH THE CONTAINER EMPTY  
IF THE VACUUM CLEANER IS AN ATEX MODEL

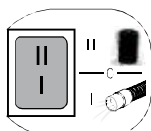
#### PRO LINE - OIL SERIES

1. Release the control into an upwards position for FILTER SHAKER/emptying liquids.
2. Pull the side lever for reverse flow

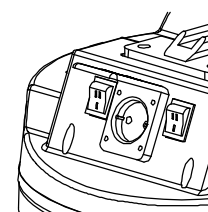


### 10.2 SEMI-AUTOMATED FILTER SHAKER

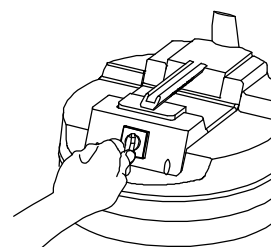
#### SMART LINE



For ACTUATION Push the switches into position II



For ACTUATION Rotate clock-wise towards the filter symbol

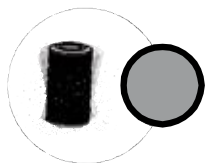


It is recommended to maintain the switch active every time the vacuum cleaner is emptied in order to thoroughly clean the filters.

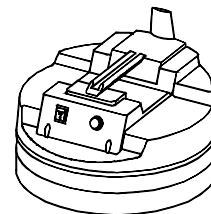
### 10.3 PATENTED FILTER SHAKER WITH I-CLEAN SYSTEM

#### I-CLEAN LINE, SINGLE PHASE WITH ENGINES FITTED WITH COLLECTORS

The filters are cleaned automatically, if required push the RED switch.



ACTIVATE the manual cleaning function: Push the RED push button (It is recommended to maintain the switch active every time the vacuum cleaner is emptied in order to thoroughly clean the filters)



#### I-CLEAN LINE WITH TURBINE

Turn on the turbine as described in 8.1 then activate the cyclic filter cleaning system using the appropriate switch.

ACTIVATE the regular cleaning:

Push the switch into position I

If you want to clean the filter several times manually switch off the system and turn it back on.



ON MODELS WITH TURBINE CONNECTED TO AN AIR SUPPLY: DO NOT TAMPER WITH THE PRESSURE REGULATOR, DO NOT EXCEED 3 BAR TO AVOID DAMAGE TO THE FILTERS

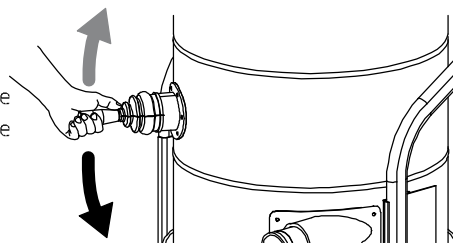
### 10.4 MANUAL FILTER SHAKER FOR STAR FILTER

#### BASIC LINE



CARRY OUT THE OPERATION WITH THE MACHINE TURNED OFF

Move the lever in vertical plane to clean the filter.  
For an effective cleaning, we recommend you carry out the operation for a few seconds (do not remove the cover or the suction head).



#### III FILTER REPLACEMENT



PERFORM THE OPERATIONS WITH THE MACHINE TURNED OFF AND DISCONNECTED FROM THE SUPPLY GRID

Wear a mask, protective clothing and gloves that offer sufficient protection against the collected dust, according to the legislation in force. Conduct operations in a safe area and with an empty container if you have purchased the ATEX vacuum cleaner.



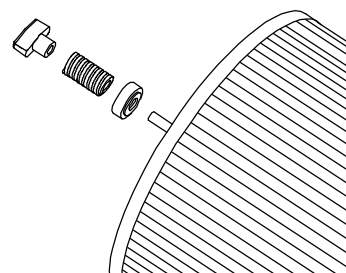
ATEX 21 CERTIFIED MACHINES USE A FILTER WITH BASE AND RING IN STAINLESS AISI 304 STEEL



ON SMART MODELS, THE HEPA FILTERS ARE MADE OF SUPERIOR WHITE PLASTIC, WHILE THE M CLASS IS PROVIDED WITH BLACK PLASTIC.

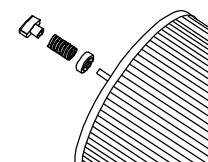
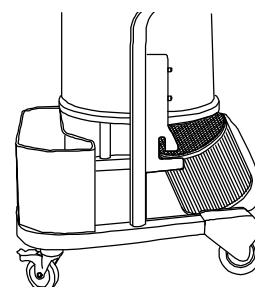
## 11.1 REPLACEMENT OF SMART SERIES FILTER

1. Disconnect and lift the head.
2. Remove the filter's cylindrical steel protection (unscrewing the screws on the edge)
3. Unscrew the wing nut and remove the spring and washer
4. Replace the filter with a proper filter for the vacuum cleaner in use (see the exploded view of the vacuum)
5. Install the new filter according to the label on the bottom of the filter
  - Washer with rubber part facing the base of the filter
  - Spring
  - Plastic wing nut
6. Mount the cylindrical protection, then reconnect the head on the filtering chamber



## 11.2 REPLACEMENT OF PRO SERIES FILTER

1. Access the filter chamber from underneath
2. Unscrew the first wing nut and remove the cylindrical steel protection of the filter
3. Unscrew the second wing nut and remove the spring and washer and for ATEX models remove the conductive spring and the ground wire attached to the filter cover
4. Replace the filter with a proper filter for the vacuum cleaner in use (see the exploded view of the vacuum)
5. Install the new filter according to the label on the bottom of the filter
  - Conductive spring (only with ATEX models)
  - Washer with rubber part facing the base of the filter
  - Spring
  - Plastic wing nut
6. Make sure the filter is properly connected to the gasket under the lid of the vacuum cleaner.
7. Mount the cylindrical protection of the filter and screw the wing nut

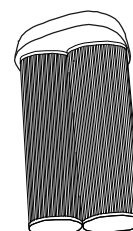
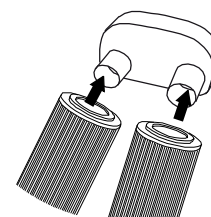


### 11.2.1 REPLACEMENT OF PRO SERIES HEPA/ABSOLUTE FILTERS

All models have two certified Bgia HEPA H14 filters fitted inside the primary filters.

Regularly check the filters if very fine dust (less than 3 microns) is being sucked into the machine by removing the primary filters as described in 11.2 and removing the HEPA filters that are located in the manifold on the suction tube.

- Order the correct filter by making reference to the tables of the exploded views of the vacuum in use
- When fitting the HEPA filters, ensure that the manifold is installed correctly on the suction side of the vacuum
- It is possible to install the HEPA filters even after purchasing the vacuum cleaner with only one primary filter; order the correct filters and the correct collector

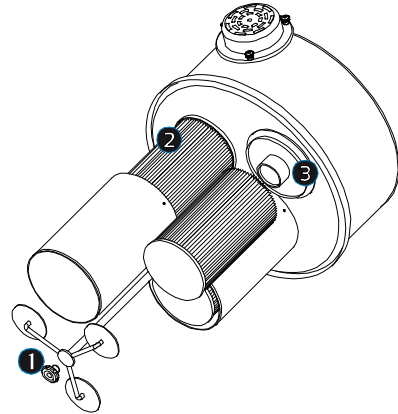


### 11.3 REPLACEMENT OF I-CLEAN FILTERS WITH ENGINES FITTED WITH COLLECTORS

1. Disconnect and lift the head.
2. Remove the cylindrical steel protections of the filters (unscrewing the screws on the edge)
3. Unscrew the second wing nut and remove the spring for every filter (for ATEX models disconnect the ground cable attached to the filter cover)
4. Replace the filters with proper filters for the vacuum cleaner in use (see the exploded view of the vacuum)
5. Install the new filters according to the label on the bottom of the filter
  - Washer with rubber part facing the base of the filter
  - Spring
  - The ground wire attached to the filter cover for ATEX models
  - Plastic wing nut
6. Mount the cylindrical protection, then reconnect the head on the filtering chamber. The models with 2 motors with collectors have 2 filters (HEPA), while 3 motors have 3 filter collectors (HEPA).

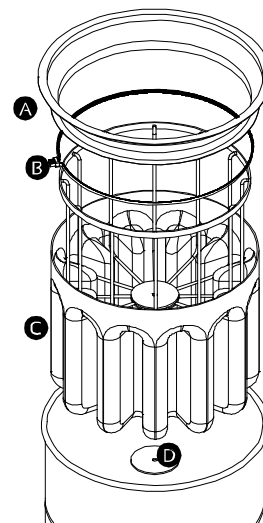
### 11.4 REPLACE FILTER MODELS WITH I-CLEAN TURBINE

1. Access the filter chamber from underneath or on CAR models lift the upper cover and take the chamber of the I-Clean system
2. Unscrew the wing nut and remove the filter block support **1** (on ATEX models remove the ground cable attached to the filter cover)
3. Remove the filters and the steel protections of the filters **2**
4. Replace the filter (HEPA) with a proper filter for the vacuum cleaner in use (see the exploded view of the vacuum)
5. Correctly slide the filters onto the 3 suction tubes **3**
6. Replace the filter block corresponding to the supports and tighten the wing nut (on ATEX models connect the ground cable)



### 11.5 HOW TO REPLACE THE STAR FILTER

1. Unhook and lift the head or the cover.
2. Remove the star filter, grabbing it from the ring (A).
3. Remove the screw and the nut fastened to the bottom of the filter.
4. Remove the fabric filter (C) from its ring (A) removing the plastic clamp (B).
5. Replace the filter with that suitable for the vacuum cleaner used (see the exploded views of the vacuum cleaner)
6. Insert the new filter (C) in the ring (A) and secure it with a new clamp (B).
  - Reposition the basket into the filter and screw it to the bottom being careful to put the disc (D) between the screw and the fabric filter (C).
  - Insert the assembly in the filtering chamber and then hook the head or the cover.



CARRY OUT THE OPERATIONS WITH THE MACHINE TURNED OFF AND DISCONNECTED FROM THE MAINS.

## 12. MAINTENANCE OF I-CLEAN SYSTEM

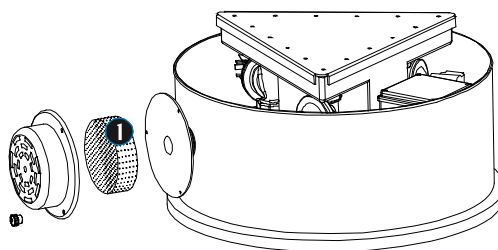


PERFORM THE OPERATIONS WITH THE MACHINE TURNED OFF AND DISCONNECTED FROM THE POWER GRID.

### 12.1 CLEANING ENGINE FILTER ON I-CLEAN MODELS WITH TURBINE

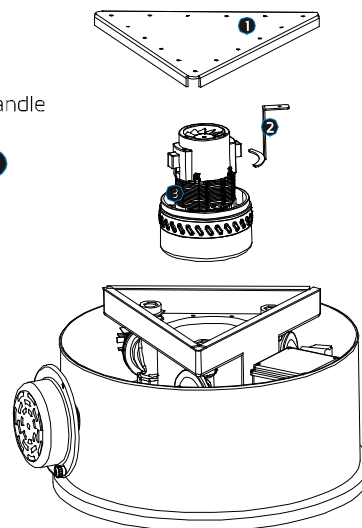
Maintain the I-CLEAN cyclic cleaning system filter clean

1. Unscrew the screws and remove the filter cover
2. Clean the filter **1** with compressed air or running water without using detergents.
3. Reinsert the clean and complete filter (THE FILTER MUST BE COMPLETELY DRY)
4. Fix the filter cover to its base by tightening the screws.



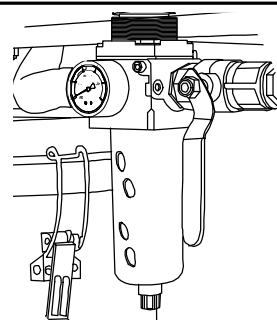
### 12.2 REPLACE MOTOR WITH BRUSHES FOR THE I-CLEAN SYSTEM OF MODELS WITH TURBINE

1. Remove the upper closing by unscrewing the screws placed on the handle
2. Unscrew the screws and remove the triangular cover of the system **1**
3. Remove the engine stops **2** and disconnect the 2 sockets
4. Replace the motor **3** with a suitable one (see exploded tables)
5. Attach the sockets and engine stops
6. Close the cover and tighten the clamping band with the screw
7. Check that the seals of the cover are in good condition



### 12.3 COMPRESSED AIR SYSTEM I-CLEAN AIR

Drain the water by turning the sleeve clockwise and push it up until it is out.



DO NOT TAMPER WITH THE PRESSURE REGULATOR, DO NOT EXCEED 3 BAR TO AVOID DAMAGE TO THE DEVICE

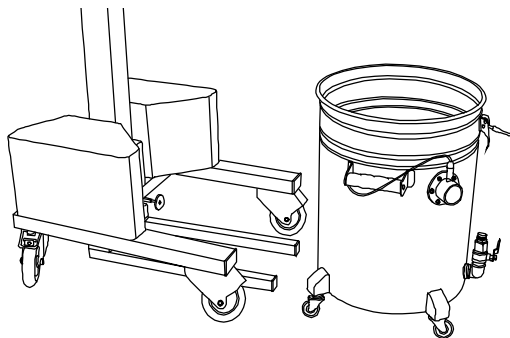
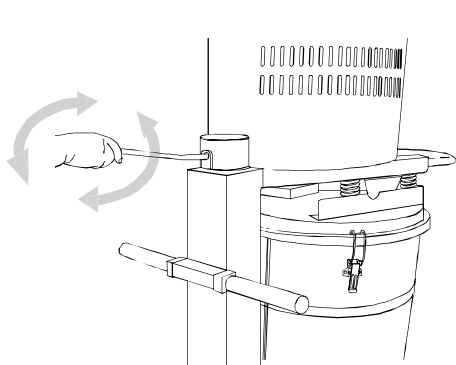
## **13. EMPTYING THE MAIN COLLECTING BARREL**



PERFORM THE OPERATIONS WITH THE MACHINE TURNED OFF. IF THE VACUUM CLEANER IS AN ATEX MODEL PERFORM THE OPERATIONS IN A SAFE AREA. IF REQUIRED WEAR PERSONAL PROTECTION EQUIPMENT.

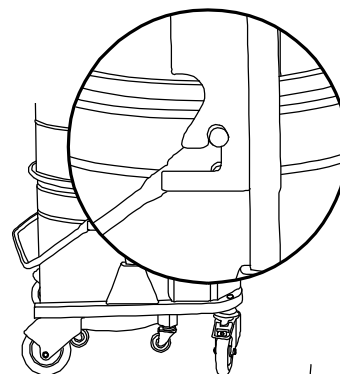
### **MODELS WITH HANDLE FOR LIFTING THE BARREL**

1. Actuate the rear handle by turning it counter-clockwise to lower the pitchfork.
2. On OIL models unplug the power cord of the electric ball cock
3. Empty the barrel
4. Guide the barrel on the blades until they are fixed
5. Rotate the handle clockwise, making sure there is an alignment between the filter chamber and the barrel.
6. Make sure the filter chamber is in good contact with the collecting barrel



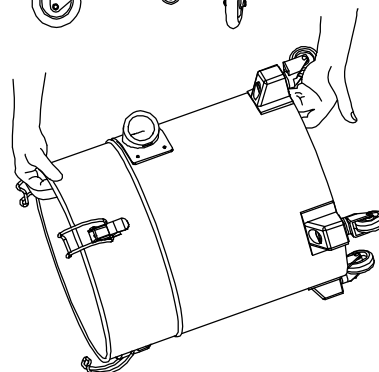
### **MODELS WITH QUICK RELEASE HANDLES**

1. Push the handle upwards and remove the barrel
2. Empty the barrel
3. Insert the attachment in "V" in its corresponding seat and slide the bearing on the rail by pushing down on the handle



### **MODELS WITH MOBILE BARREL**

1. Disconnect and lift the suction head
2. Empty the barrel

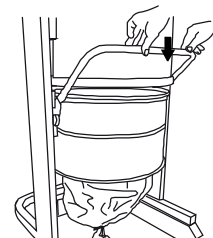
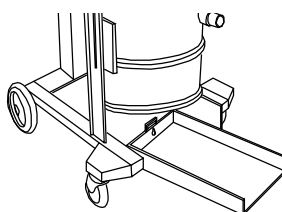
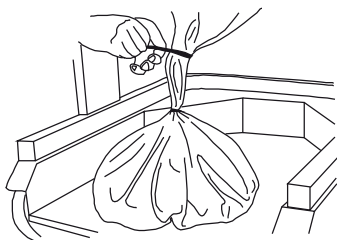




## 14. USE OF MODELS FITTED WITH BAGS

### 14.1 LONGOPAC® BAGS

1. Insert the tray for using the LONGOPAC® system and connect the hopper



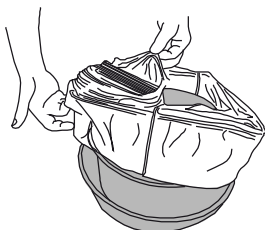
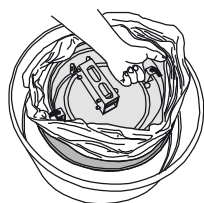
2. When the LONGOPAC® bag is full, close the upper edge by using two ties positioned about 50mm from each other.

3. Cut the bag with scissors between the two ties



4. Pull down the head of the bag from the base of the container to form a new collection bag, then close it with a tie.

### 14.1.1 REPLACEMENT OF LONGOPAC® BAGS



1. Remove the hopper, turn upside down and lift the tabs of the container

2. Position the cartridge inside the container and slide in a downwards motion. The external part forms the collection bag and the internal part is held in position by the o-ring of the hopper.

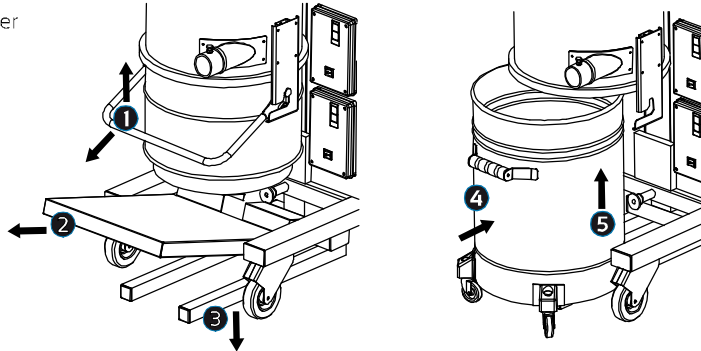
### 14.2 REPLACEMENT OF SINGLE BAG

When the bag is full, seal it and unhook the clamping band, then replace it by fixing the new bag between the hopper and the clamping band.

### 14.3 REPLACEMENT OF LONGOPAC® BAG HOPPER WITH BARREL

It is possible to interchange the hopper of the LONGOPAC® bag with the barrel on the I100 I-Clean and CAR I-Clean models.

1. Disconnect and remove the hopper
2. Remove the tray
3. Lower the fork from the handle
4. Position the barrel
5. Lift the barrel with the fork



## 15. SAFETY KIT FOR TOXIC DUST



**WEAR PROTECTIVE MASK, CLOTHING AND GLOVES  
ACCORDING TO THE LAW IN FORCE**

This vacuum cleaner is suitable for the completely safe suction of toxic or hazardous dust like asbestos. Once the bag is full, it can be disposed of in complete safety without coming into contact with its contents. This vacuum cleaner includes:

- 1- Kit featured in the accessories catalogue (code 0030080000):
  - BAGGING RING • LOWERED BARREL TO ACCOMMODATE BAGGING RING
  - CAP FOR CLOSING SUCTION
- 2- Filtering bag for collection of hazardous dust (code 03230000) to be disposed of in accordance with the current laws.
- 3- An outer polythene bag to allow for safe closing and disposal of the bag containing hazardous dust to avoid any type of contamination
- 4- HEPA H14 Filters

### 15.1 WARNINGS FOR THE SUCTION AND DISPOSAL OF HAZARDOUS DUST

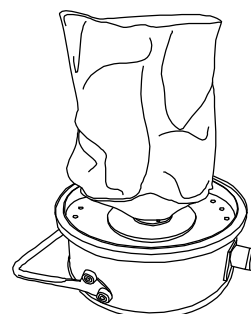
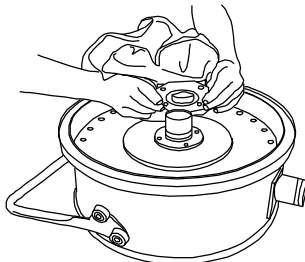
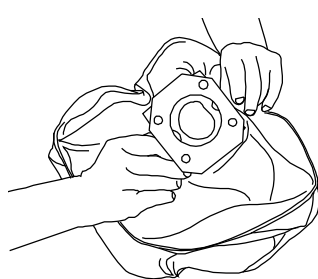
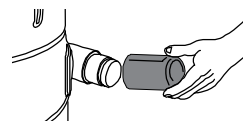


**THESE OPERATIONS MUST ONLY BE CARRIED OUT BY TRAINED AND SPECIALISED  
OPERATORS WEARING SUITABLE PROTECTIVE CLOTHING AND IN ACCORDANCE  
WITH THE CURRENT LAWS**

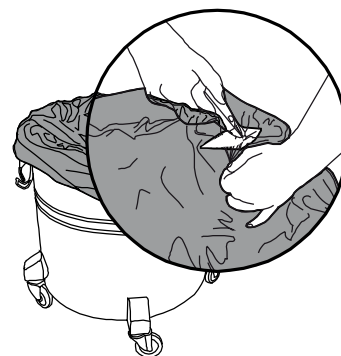
- Leave the dust to settle for about 5 minutes before opening the vacuum cleaner and disposing of the collection bag.
- During this operation, be careful not to unsettle the dust. Wear a P3 protection mask and protection gloves.
- Remove the collection bag and dispose of it separately closed inside the polythene bag.
- Fit a new collection bag and repeat the operations described in 15.2.

## 15.2 WHAT TO DO NEXT

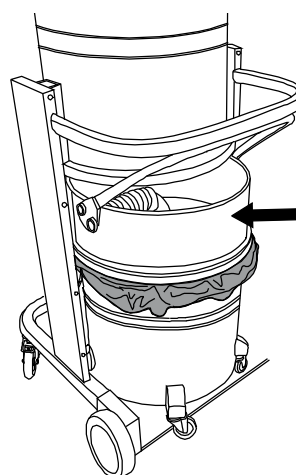
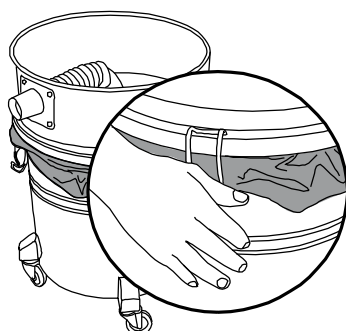
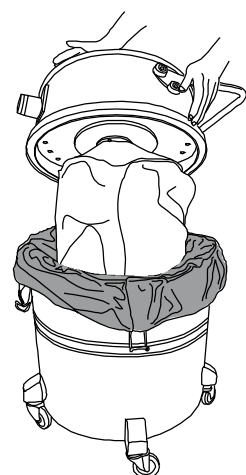
- 1- Check that the HEPA filters are positioned inside the primary filter.
- 2- Prevent suction into the filter chamber by positioning the relevant cap.
- 3- Securely fix the collecting bag for harmful dust to the outlet underneath the bagging ring, making sure that the ring's washer is firmly touching the mouth of the central sleeve.



- 4- Position the polythene bag and fold the opening of the bag over the upper edge of the barrel.  
To allow the bag to remain open correctly, it is necessary to create a hole of about 1cm diameter (this can be obtained also by using your finger) about 2 or 3 cm from the internal edge of the barrel.



- 5- Position the bagging ring over the barrel, making sure that the ring's washer is firmly touching the barrel.  
Guide the barrel onto the horizontal rods and fix in position using the relevant bar or insert in the "V" hook as described at paragraph 13.



- 6 - Fix the required accessory then connect one end of the flexible hose to the bagging ring.

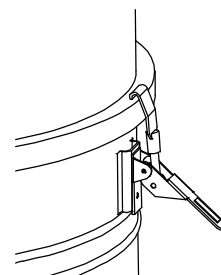
## 16. MODELS FOR THE SUCTION OF LIQUIDS



ON ATEX MODELS IT IS FORBIDDEN TO VACUUM LIQUIDS THAT REACT WITH THE VACUUMED DUSTS.

### OIL MODELS

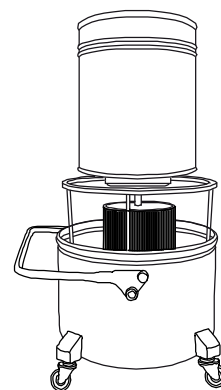
Before turning on the vacuum cleaner make sure that you have securely latched the main barrel to the filter chamber.



#### 16.1 MECHANICAL BALL COCK

##### MODELS: S - ST

It is necessary to fit a conical filter protection for liquid vacuuming models with a mechanical ball cock. For the mechanical ball cock to work properly for suction of liquids from tanks (suction of liquids only, without air), it is recommended to keep both ball valves open in the M 1003 OIL model. In all other models that are fitted with a mechanical ball cock, it is recommended that a certain quantity of air is sucked together with the liquid.

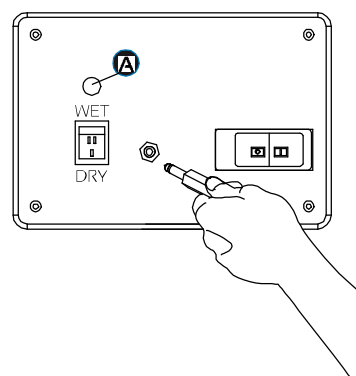


#### 16.2 ELECTRICAL FLOAT

##### MODELS: SMART WD - PRO OIL

It is not necessary to fit the conical filter protection

- For suction of liquids, select WET on the Diverter switch (BLUE LED TURNED ON, **A**)
- If the plug of the electrical ball cock is not connected when WET is selected, the vacuum cleaner will not start
- To deactivate the electrical ball cock for suction of dust, select DRY (BLUE LED TURNED OFF, **A**)

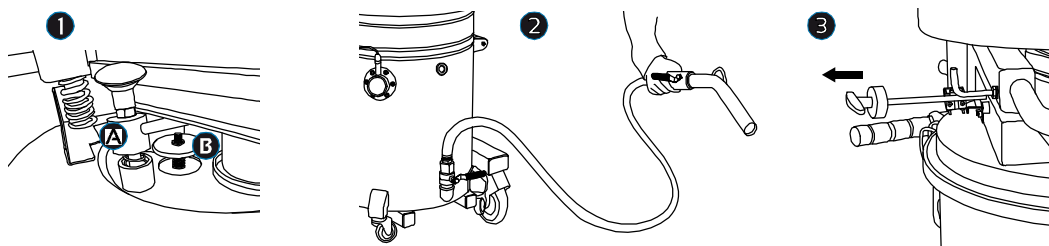


MAINTAIN THE BALL COCK SENSOR CLEAN IN THE COLLECTING BARREL

### 16.3 DISPOSAL OF LIQUIDS FOR OIL MODELS WITH INVERSED FLOW

To empty liquids, ensure that:

1. The FILTER SHAKER control **(A)** is correctly locked
2. Firmly hold the nozzle and open the ball valve
3. Pull the side lever for reverse flow



**B**

It is possible to increase or decrease the internal pressure of the main barrel rotate the wheel on the cover as follows:

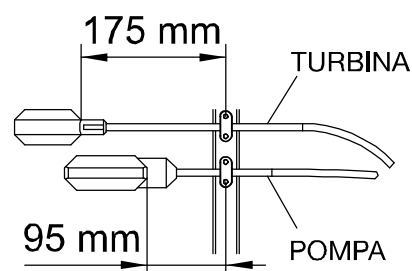


**IMPORTANT: THIS SETTING IS ONLY FOR USE WITH LIQUIDS**

### 16.4 USE OF OIL MODELS WITH SUBMERGED PUMPS

The OIL series machines fitted with a submerged pump have two ball cocks. The first operates on the turbine, using the pump for the expulsion of liquids, while the second turns off the turbine when the maximum level of liquids has been reached so the barrel can be emptied.

The turbine will turn back on automatically when the command ball cock lowers its position. When replacing the pump, ensure that both ball cocks are accurately fixed to the bracket in the correct positions (refer to the diagram)



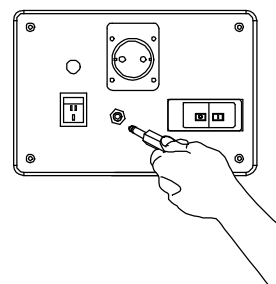
**IF THE PUMP BLOCKS DUE TO SUCTION OF SLUDGE, TRY TO UNBLOCK USING REVERSE FLOW AS DESCRIBED IN 16.3**

#### IN POSITION 1 (I)

the turbine ball cock is deactivated, the emptying of liquids must be performed manually using reverse flow.

#### IN POSITION 2 (II)

normal function of the machine, stopping suction when the maximum level has been reached.



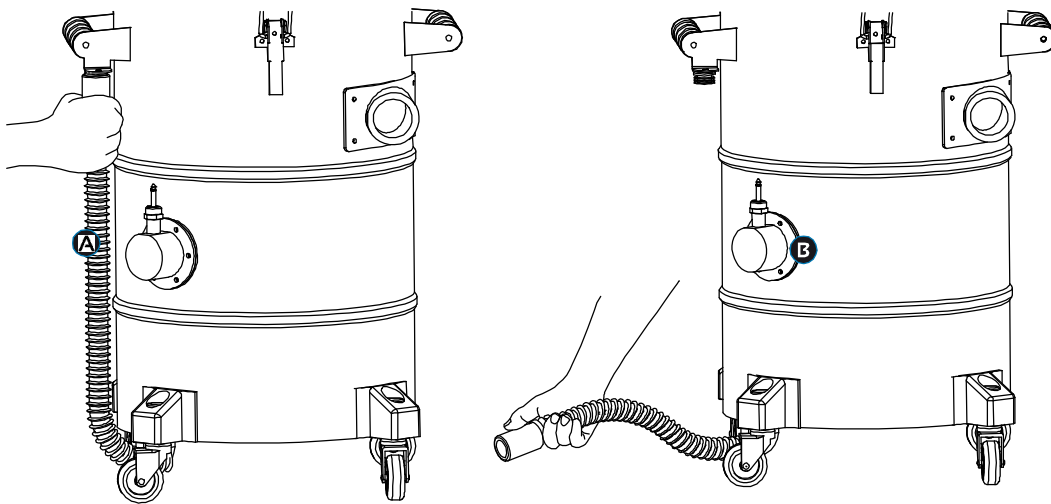
**FOR SUCTION OF LIQUIDS, THE MACHINE WILL NOT TURN OFF WHEN MAXIMUM LEVEL OF LIQUIDS HAS BEEN REACHED IF THE SWITCH IS IN POSITION 1 (BLUE LED TURNED OFF)**

## 16.5 DISPOSAL OF LIQUIDS FOR THE SMART 240 WD MODEL

Facilitate the discharge of liquids:

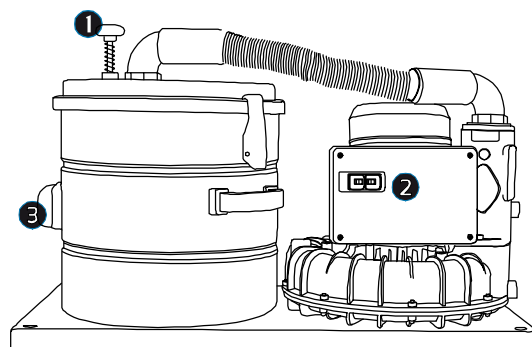
1. Turn off and unplug the machine from the power outlet
2. Remove the side exhaust tube **A**
3. Hold down the tube to drain the liquids
4. Securely reconnect the side exhaust tube

Maintain the sensor of the electric float clean **B**



## 17. BE SERIES

1. Manual FILTER SHAKER
2. Turning on the turbine (9.1)
3. Connecting the suction hose

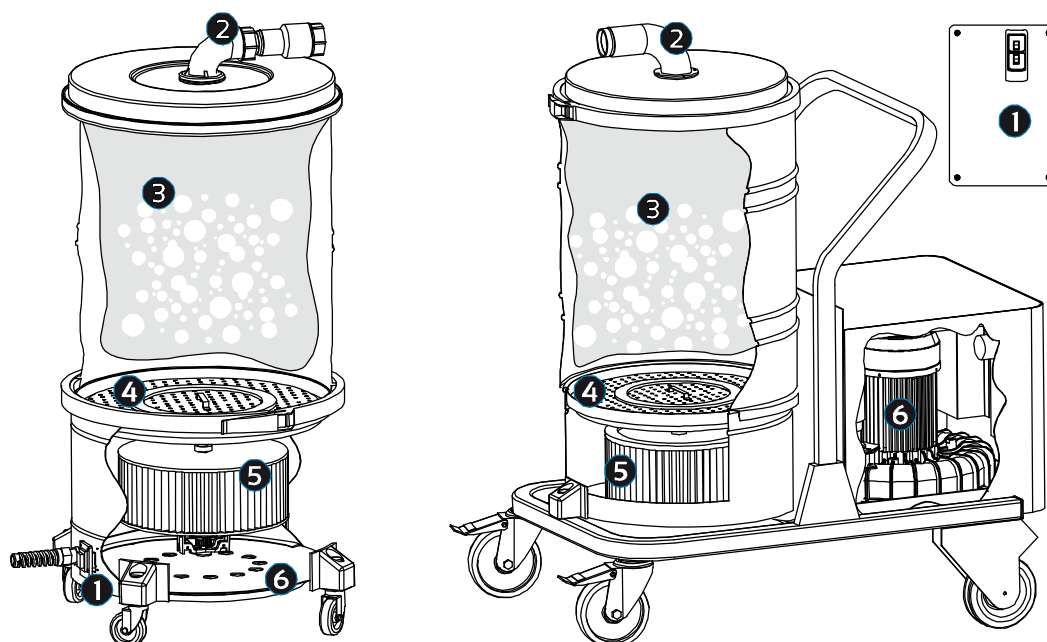


## 18 REVERSE

### MODELS: RVS 180 - RVS22-3-55

These models have been designed for the suction of scraps of material, paper or plastic. The particular configuration of this machine uses a filtering nylon bag fitted as standard specifically for this purpose, that is useful for sucking the material. Besides the main collecting filter (3), there is a filter (5) for dust that may be present during the collection of scraps. Suction occurs from top to bottom. When the collection bag (3) is full, it can be emptied and placed back in position, ready for use.

The filter (3) made of standard nylon, can also be made from polyester.



1. Turning on (9.1)
2. Connecting the suction hose
3. Filter for collecting scraps of materials

4. Safety grille
5. Filter with cartridge
6. Motor - Turbine

#### 18.1 MAINTENANCE OF REVERSE FILTER

The secondary filter (5) must be cleaned manually, raising the chamber containing the collecting filter (3) and the safety guard (4). Perform this operation with the machine turned off and disconnected from the power grid, and where required by law wear appropriate personal protection equipment in a safe area. Check that the filter (5) and the collecting bag (3) do not have damages.

## 19. MAINTENANCE

Maintenance and cleaning operations must ALWAYS be carried out when the vacuum is turned off and disconnected from the power source. No particular measures must be taken for the maintenance, cleaning or lubrication of the suction unit. However, it is important to remember that correct use and servicing are essential if the safety and efficiency of the vacuum are to be guaranteed.

To ensure regular and constant operation and to prevent the warranty from becoming void, always use genuine **Morclean** spare parts when repairs are needed.

### 19.1 PERIODICAL MAINTENANCE

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#### 19.1.1 BEFORE TURNING ON AND TURNING OFF EVERY DAY

- Visually check that the suction hose has not been damaged in any way (it must not be damaged, torn, crushed)
- Check that the electrical switches are in full working order and are not damaged in any way
- Check the level of waste inside the main barrel N.B. Empty the main barrel if you are using an ATEX model empty the main barrel
- Check that the suction hose has not been damaged in any way
- Check that the motor head is correctly positioned on the filter chamber and that the latter is correctly placed on the main barrel
- If the vacuum cleaner is moved, ensure that the power voltage of the electrical mains in this new location corresponds to the one on the technical data plate

#### 19.1.2 AT EVERY 200 HOURS OF OPERATION

- Check the condition of the primary filter: it must not have tears, holes or other damage: in this case replace it (see II.)
- Check that the technical data plate is legible and not damaged in any way: contact the manufacturer for a replacement if necessary



**N.B. PERFORM THE FOLLOWING OPERATIONS AT AVERY 10 HOURS OF OPERATION IF THE VACUUM CLEANER IS AN ATEX MODEL**

## 20. PRODUCT DISPOSAL

Dispose of the machine and any accessories according to the legislation of the country.

To avoid affecting the environment or your health or of others it is recommended to separate the machine from other waste, and if necessary properly recycle it.



## 21. DECLARATION OF CONFORMITY



DECLARE under our sole responsibility that the models:

SMART: 180D - 280D - 240WD - 235D - 235WD - 235IC - T35D - 235BAG - 235IC BAG - T35 BAG - 235 SINGLE BAG - 235 SINGLE BAG IC - T35 SINGLE BAG - 350D - 350 WD - 350 IC - 350 IC BAG PRO: S 102 - S 103 - ST 22 - ST 3 - ST 4 - SMD 1020 - SMD 1030 - STD 220 - STD 300 - STD 400 - D 1122 - D 1130 - D 1140 - D 1155 - CAR 1155S - M 1003 OIL - 1122 OIL - 1130 OIL - 1140 OIL - 1155 OIL - CAR 1155 OIL - S2 BAG - S3 BAG - ST 22 BAG - ST 3 BAG - ST 4 BAG  
I-CLEAN: ST 22 IC - ST 3 IC - ST 22 IC AIR - ST 3 IC AIR - 1122/100 IC - 1130/100 IC - 1155/100 IC - 1122/100 IC AIR - 1130/100 IC AIR - 1155/100 IC AIR - 1122/BAG IC - 1130/BAG IC - 1155/BAG IC - 1122/BAG IC AIR - 1130/BAG IC AIR - 1155/BAG IC AIR - CAR 1122 IC - CAR 1130 IC - CAR 1155 IC - CAR 1122 BAG IC - CAR 1130 BAG IC - CAR 1155 BAG IC - CAR 2655P IC - CAR 2655S IC - CAR 2655P IC AIR - CAR 2655S IC AIR - CAR 2655P BAG IC - CAR 2655S BAG IC - CAR 2655P BAG IC AIR - CAR 2655S BAG IC AIR  
RVS 22 - RVS 3 - RVS 55P - RVS 55S - RVS 180 S PN - SD PN - SD PN BAG - D11 PN

ARE COMPLIANT with the provisions of the following EU directives:

EU Directives:

Machinery directive: 2006/42/EC

Electromagnetic compatibility (EMC) directive: 2004/108/EC

Low voltage directive (LVD): 2006/95/EC

AND MEETS THE REQUIREMENTS of the following harmonised standards:

- IEC 60335-1/2004
- IEC 6033-2-69/2005
- IEC 62233/2005
- EN 55014-1/2000+A1/2001+A2/2002
- EN 55014-2/1997+A1/2001
- EN 61000-3-2/2000
- EN 61000-3-3/1995+A1/2001
- EN 61000-3-11/2000+A1/2001

This declaration will no longer be valid if:

- The machine is modified in any way
- The contents of the operating and maintenance manual are not fully respected

