DEPURECO
INDUSTRIAL VACUUMS

INSTRUCTION AND MAINTENANCE MANUAL FOX SERIES

TRANSLATION OF THE ORIGINAL INSTRUCTIONS

Depureco Industrial Vacuums Srl
Società soggetta a direzione e coordinamento COFISE spa

PERFORMANCE ON VACUUM SINCE 1972

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1 INFORMATION SECTION

This manual is an integral part of the vacuum cleaner. Carefully read this manual and its attachments. Knowing the instructions contained in it is crucial for using the vacuum and carrying out maintenance operations under full safety conditions

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This document is the sole property of DEPURECO S.r.l. Therefore its reproduction with any means (graphic, digital, etc.), whether partially or wholly, is prohibited without authorisation from Management.

The manuals for the ATEX components fitted on the appliance are enclosed: the user must observe all the safety instructions relating to the use of these components. The plug is ATEX-compliant.

1.1 Introduction

Dear Customer,
thank you for choosing DEPURECO and purchasing a DEPURECO FOX series vacuum cleaner
We have prepared this manual so that you can appreciate the quality of this machine.
Please read it through before using the vacuum cleaner for the first time.
It contains information, tips and important warnings on using the vacuum cleaner so that you can take full advantage of the technical qualities of your machine.

Please read the messages, warnings and indications, preceded by symbols, very carefully

For the safety of people

For the integrity of the vacuum cleaner

For the protection of the environment

This manual describes the following models:

FOX 3	FOX 3 Z22	FOX 3 Z21
FOX 5,5	FOX 5,5 Z22	FOX 5,5 Z21
FOX 7,5	FOX 7,5 Z22	FOX 7,5 Z21
FOX 10	FOX 10 Z22	FOX 10 Z21

The vacuum cleaner is fitted with the following filters:

- ❑ **CLASS M FILTER**
- ❑ **CLASS M ANTISTATIC FILTER**
- ❑ **ANTISTATIC PTFE FILTER**
- ❑ **FILTER CARTRIDGE**
- ❑ **ABSOLUTE FILTER**

These vacuum cleaners are classified according to the following dust classes:

L	**Slightly hazardous - suitable for separating dust with an OEL based on the volume occupied > 1 mg/m3**
M	**Medium hazardous - suitable for separating dust with an OEL based on the volume occupied > 0.1 mg/m3**
H	**Highly hazardous - suitable for separating all dusts with any OEL based on the volume occupied, including carcinogenic and pathogenic dusts.**

This manual provides all of the information needed to use your vacuum cleaner and carry out maintenance on it.

This specific model has undergone strict testing to ensure maximum reliability; its smooth operation and long-lasting service life will depend on good maintenance and careful use.

This manual is an integral part of the vacuum cleaner and must accompany it throughout its service life, until it is scrapped.

If it is lost or damaged, ask DEPURECO INDUSTRIAL VACUUMS S.r.l. (hereinafter simply known as DEPURECO) for a replacement copy.

The technical information in this manual is owned by DEPURECO and must be considered confidential.

Reproduction, even partial, of the graphic design, text and illustrations is prohibited by law.

Some details shown in the illustrations in this manual may differ to those of your vacuum as some components may have been removed to ensure the utmost clarity of said illustrations.

For ease of reference, this manual has been divided into sections identifiable by a specific graphic symbol.

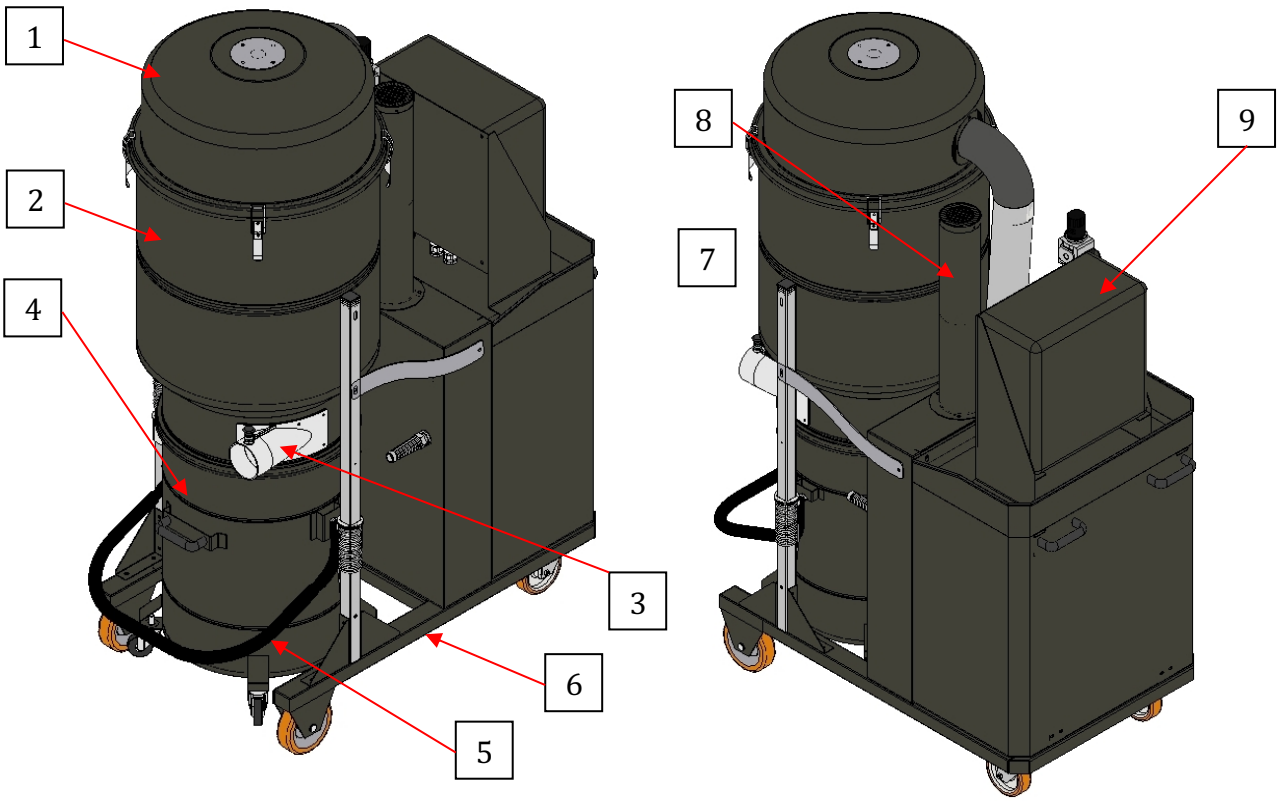
The topics covered in this manual are those expressly required by Machinery Directive 2006/42/EC and the technical data given are from the technical file archived at DEPURECO.

In relation to Regulation 1907/2006/EC (REACH), DEPURECO declares that its products do not contain any of the Substances of Very High Concern (SVHC) included in the Candidate List.

This manual must be kept in a place that is accessible to all vacuum cleaner operators and maintenance staff. The Court of Turin (Italy) has jurisdiction for all disputes

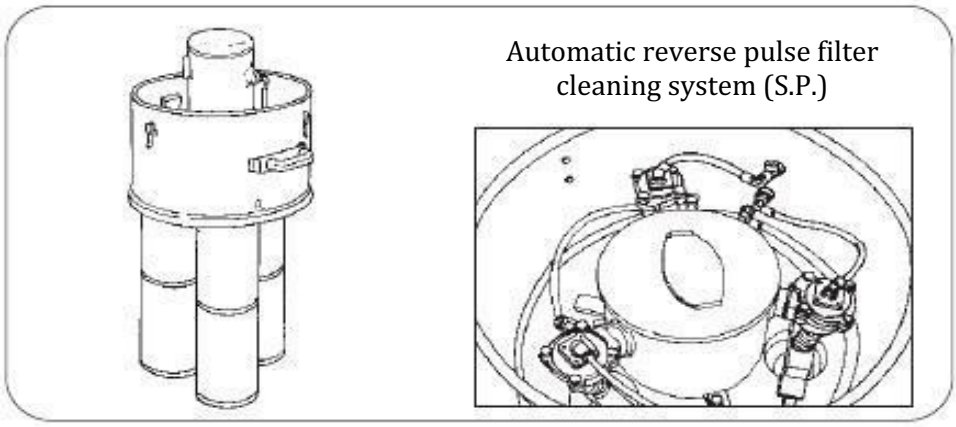
This manual is an integral part of the vacuum cleaner. Carefully read this manual and its attachments. Knowing the instructions contained in it is crucial for using the vacuum and carrying out maintenance operations under full safety conditions

1.2 Identification of the main parts

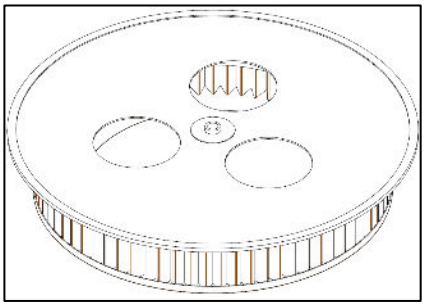


1) Cover
2) Filter chamber
3) Suction inlet
4) Bin
5) Lifting handle
6) Frame
7) Pump protection casing
8) Pump silencer
9) Electrical panel (if applicable)

1.3 Optional parts



Based on the application of the vacuum cleaner, a wide range of other optional accessories is available from DEPURECO.



1.4 Manufacturer's identification data

DEPURECO INDUSTRIAL VACUUMS S.r.l.
Corso Europa 609 - 10088 Volpiano (TO) - ITALY
tel. +39 011 98 59 117 - **fax** +39 011 98 59 326 | VAT no. 02258610357
e-mail: **depureco@depureco.com** - website: **www.depureco.com**

1.5 Identification plate

For any communication with the manufacturer or the dealer, always specify the data given on the vacuum cleaner's identification plate.

1.6 Atex marking

Marking for appliance suitable to contain an area classified as ZONE 20 indoors and suitable for use in an outdoor area classified as ZONE 22:

Manufacturer .....
Address .....
Appliance …
Serial no. .....

CE
2261

II 1/3 D Ex htc IIIC T140°C Da/Dc
-15°C ≤ ambT ≤ +40°C

TÜV CY 19 ATEX xxxx

Year: 2020

Other data (flow rate, etc.)

Marking for appliance suitable to contain an area classified as ZONE 20 indoors and suitable for use in an outdoor area classified as ZONE 21:

Manufacturer .....
Address .....
Appliance …
Serial no. .....

CE
2261

II 1/2 D Ex htc IIIC T140°C Da/Db
-15°C ≤ ambT ≤ +40°C

TÜV CY 19 ATEX xxxx

Year: 2020

ATEX marking data:

CE: CE marking referring to ATEX Directive 2014/34/EU (Dir. 94/9/EC until 04/19/2016)

2261: identification of the body that carried out the check on the product (2261 = TÜV CYPRUS);

:EX hexagon: compliance with ATEX Directive 2014/34/EU (Dir. 94/9/EC until 04/19/2016)

II: Appliance group (I: electrical appliances for mines, II: electrical appliances for surfaces)

1/3D: Category 1/3D, i.e. suitable for use in ZONE 22 and with ZONE 20 indoors
1/2D: Category 1/2D, i.e. suitable for use in ZONE 21 and with ZONE 20 indoors

IIIC: Dust group (any kind of dust, including conductive dust)
T140: Maximum surface temperature

Da/Dc: EPL Da/Dc, i.e. appliance suitable for use in ZONE 22 and with a ZONE 20 indoors
Da/Db: EPL Da/Db, i.e. appliance suitable for use in ZONE 21 and with a ZONE 20 indoors

AmbT: -15°C ≤ ambT ≤ +40°C

TÜV CY 19 ATEX xxxx: ATEX Certificate number (TÜV CY identifies TÜV CYPRUS).

1.7 Intended uses

These vacuum cleaners are built and designed in compliance with Directive 2014/34/EU (ATEX) for industrial use only; nevertheless, for purposes other than normal household ones.

This vacuum cleaner is suitable for cleaning and collecting solid materials and only in covered environments.

This vacuum cleaner is designed to collect combustible dust and/or dry particles in atmospheres classified as Zone 21 and Zone 22 (valid for Atex vacuum cleaners), with the following limitations:
Minimum ignition energy (MIE) of dust > 3mJ

The vacuum cleaner is designed to be used by a single operator.

In compliance with Directive 1999/92/EC, if there are combustible dusts or flammable gases in the workplace, the Employer must classify the Zone and choose a machine of a suitable category (according to the definition given in Directive 2014/34/EU).

Do not use the vacuum cleaner to remove chemically unstable dust.
Any other use is considered **IMPROPER**

1.8 Permitted environmental conditions

To ensure that the vacuum cleaner works properly, it must be placed where it is protected from adverse weather (rain, hail, snow, fog, suspended dusts, etc.), where the ambient temperature is between 5° and 45°C and the humidity is no higher than 70%.
The work environment must be clean and appropriately lit.

1.9 Noise level

The phonometric tests carried out on this specific model of vacuum cleaner show a sound pressure level of

FOX 3 **FOX 3 SP**	**73 dB(A)**
FOX 5,5 **FOX 5,5 SP**	**76 dB(A)**
FOX 7,5 **FOX 10** **FOX 10 SP**	**74 dB(A)**

ATTENTION!
For sound pressure levels higher than 85 dB(A), workers must be protected by appropriate personal protective equipment (PPE), such as approved ear defenders.

For these conditions, workers must be trained and informed on the risks resulting from exposure to noise.

1.10 Technical data

FOX STD

	UM	FOX 3	FOX 5,5	FOX 7,5	FOX 10
Weight*	[Kg]	142	157	177	242
Overall dimensions**	[mm]	660x1200x1510		850x1500x1980	
Voltage / Frequency	[V]- [Hz]	400 I 50/60			
Power	[kW-HP]	2.2 – 3	4 – 5.5	5.5 – 7.5	7.5 – 10
Maximum depression	[mBar]	230	250-430	310-510	380
Continuous depression	[mBar]	190	160-360	240-440	320
Air flow rate	[m³/h]	320	520	320-600	530
Surface M filter	[m²]	2.4			
Surface H filter (if applicable)	[m²]	2.8			
Noise level	[dB-A]	73	73	76	76
Bin capacity	[L]	100			

FOX ATEX

	UM	FOX 3	FOX 5,5	*** FOX 10
Weight*	[Kg]	142	157	242
Overall dimensions**	[mm]	660x1200x1510		660x1202x1830
Voltage / Frequency	[V]-[Hz]	400 I 50/60		
Power	[kW-HP]	2.2 – 3	4	7.5
Maximum depression	[mBar]	200	225-270	250-360
Continuous depression	[mBar]	200	270	230
Air flow rate	[m³/h]	280-304	414-420	663-720
Surface M filter	[m²]	2.4		
Surface H filter (if applicable)	[m²]	2.8		
Noise level	[dB-A]	73		76
Bin capacity	[L]	100		

(*) weight of the machine without packaging – weight of the packaging = 25 Kg
(**) machine dimensions without packaging
(***) ***AVAILABLE ONLY IN STANDARD AND Z22 VERSION***

1.11 Warranty

DEPURECO guarantees this vacuum cleaner model for 24 months from the date of purchase, which is indicated on the tax document provided when the product is delivered.

The warranty becomes null and void if the vacuum cleaner has been repaired by unauthorised third parties or if equipment, accessories or components not supplied or not authorised by DEPURECO are used or if the serial number is removed (during the warranty period).

DEPURECO will repair or replace free of charge those parts or components that are proved, within the warranty period, to have manufacturing defects.
The repair is carried out solely at our premises or at an Assistance centre indicated by us and must be received carriage paid (transport costs to be borne by the user, unless otherwise agreed).

The warranty does not cover cleaning of working parts.
The purchase tax document must be presented to authorised technical staff who will do the repair or it must be sent with the vacuum cleaner.

Defects not clearly attributed to material or manufacturing will be examined solely at our premises or at a Technical Assistance Centre indicated by us.
If the complaint proves to be unjustified, all costs for repair and/or replacement of parts will be charged to the buyer.

The following are excluded from the warranty: accidental damage due to transportation, neglect or inadequate handling, improper use, failure to comply with the warnings in this manual or resulting from phenomena not dependent on normal use/operation of the vacuum cleaner.

DEPURECO is not liable for any damages to people or property caused by poor or imperfect use of the vacuum cleaner.

The Court of Turin (Italy) has jurisdiction for all disputes

To take advantage of the warranty: go to **www.depureco.com** or photocopy the form on the last page of this manual, fill in all parts (preferably in block letters), and send it to Depureco by fax to this number **+ 39 011 98 59 117**

In case of doubt, do not guess! Immediately call your dealer!

2 SAFETY SECTION

2.1 Information regarding safety

Pursuant to Italian Legislative Decree 81/08 as amended, the Safety Manager must inform and train workers on the risks associated with using the vacuum cleaner, so that they are able to protect their own safety and that of others.

The appliance is not intended to be used by people (including children) with reduced physical, sensory or mental abilities, or with a lack of experience or knowledge, unless they have been able to benefit, through the intermediation of a person responsible for their safety, from supervision or instructions on use of the appliance. Children must be supervised to ensure that they do not play with the appliance.

Failure to observe the basic safety rules or precautions can cause accidents during use, maintenance or repair of the vacuum cleaner. An accident can often be avoided by recognising potentially dangerous situations before they actually occur. Adequate training is a fundamental requirement.

DEPURECO will not be held liable for any accidents or damages resulting from the vacuum cleaner being used by untrained staff or being used improperly, or from failure to observe, even partially, the accident prevention regulations and intervention procedures in this manual.

Safety precautions and warnings are indicated in this manual and on the product itself.
If these danger messages are ignored, the operator can have an accident with serious consequences for himself and for other people.

DEPURECO carefully designs and manufactures the appliances and their accessories, identifying and compensating for all possible risks associated with use. If tools, procedures, work methods or working techniques not explicitly envisaged by DEPURECO are used, you must ensure beforehand that there are no dangers for yourself or for others, even so, DEPURECO will not be held liable.

Only use original Depureco spare parts.
Depureco is not liable for the use of non-original spare parts.

2.2 Safety requirements

ATTENTION!
The instructions below are important in order to completely protect against all dangers that may be encountered when operating the vacuum cleaner. However, they cannot be separated from the expertise and common sense of the operator, as an overall framework for the careful prevention of accidents. Structural damage, modifications, alterations or improper repair can change the protection features of the vacuum cleaner and thus invalidate this certification and exclude any liability by DEPURECO. Each section contains a list of additional safety requirements specific for the different operations.

The manual must accompany the vacuum cleaner if it is resold

ATTENTION!
Commissioning - connection to the mains

- Before commissioning, make sure that the vacuum cleaner does not show any evident signs of damage.

Before plugging in the power socket, make sure that the ILME socket is connected properly (for vacuum cleaners fitted with an air counterflow cleaning system). Plug in the socket in a safe area, where there are no explosive atmospheres.

Plug the power cable into a correctly installed socket with earthing connection/contact. Make sure that the vacuum cleaner is turned off.

- The plugs and connections on the mains power cable must be protected from water splashes.

Make sure that the earthing clamp is properly connected to a point for which continuity with the earthing system is guaranteed.

- Anti-static wheels are only fitted on FOX ZONA 15 and FOX ZONA 22 machine models, so ensure that the earthing system is connected properly
- Check that the mains is connected properly.
- Only use vacuum cleaners with the mains power cable in perfect condition (if the cable is damaged, there is a danger of electric shock!).
- Regularly check the mains power cable to ensure that there are no damages or signs of wear, cracking or aging.

ATTENTION!
During operation, do not:

- Step on, crush, pull or damage the mains power cable.
- Unplug the cable from the mains by just pulling the cable (pull the plug).
- If you replace the power cable, replace it with one of the same type as the original one installed, this same requirement applies if you are using an extension lead.
- The power cable must be replaced by the manufacturer's Assistance Service or by qualified staff

ATTENTION!
Do not:

- Remove the vacuum breaker valve
- Remove the filter fitted on the vacuum breaker valve

CAUTION!

It is strictly forbidden:

- For underage or inadequately trained people to use this vacuum cleaner.
- To connect the electricity to a network without efficient earthing.
- To use outdoors in adverse weather conditions.
- To use the vacuum cleaner if the castor wheel is not locked when vacuuming
- To use the vacuum cleaner on surfaces that are not level and horizontal.
- To use it in corrosive environments
- To use hoses with earth wire that is not anti-static (an anti-static surface alone is not permitted). Always use original DEPURECO accessories. Use an ohmmeter to check electrical continuity:

  1. between the suction inlet and the terminal of suction accessories: the resistance measured must be less than 100MΩ

  2. between the container and the plug (earth pin) on an electrical machine, or between the container and the earth wire (supplied) on compressed air models. The resistance measured must be: - less than 10 Ω

- To use the machine in work environments that are not classified according to the instructions given on the machine's identification plate
- To vacuum the following materials:

  1. Burning materials (embers, hot ash, lit cigarettes, etc.).
  2. Naked flames.
  3. Combustible gases.
  4. Flammable, combustible or aggressive liquids (petrol, solvents, acids, alkaline solutions, etc.).
  5. Dusts/substances and/or their explosive and spontaneous ignition mixtures (magnesium or aluminium powders, etc.).

- To tamper with or modify the pressure relief valve set by the manufacturer
- To carry out maintenance on the industrial vacuum cleaner in ATEX classified areas
- To carry out maintenance on the vacuum cleaner without first turning the machine off and unplugging the power cable
- To keep foreign materials such as debris, oil, tools and other objects inside the container that could damage operation and harm people.
- To use flammable or toxic solvents like petrol, benzene, ether and alcohol for cleaning.
- To use the vacuum cleaner without the filter unit provided by the manufacturer.
- To use the industrial vacuum cleaner without the safety devices.
- To wear loose or dangling items such as ties, scarves, torn clothing that can get caught or be vacuumed by the vacuum cleaner.
- To open the container with the vacuum cleaner running.
- To open the container in a potentially explosive classified area
- To add extension leads, plug-in connection devices and adapters.
- To climb on the vacuum cleaner.
- To touch electrical wires, switches, buttons, etc. with wet hands.

- To touch some of the components (motor terminal block, especially the motor body) that can reach high temperatures while using the industrial vacuum cleaner.

ATTENTION!
This vacuum cleaner may contain dust that is harmful to health.
The emptying and maintenance procedures, including the elimination of dust collection containers, must only be carried out by specialised staff wearing the appropriate personal protective equipment.

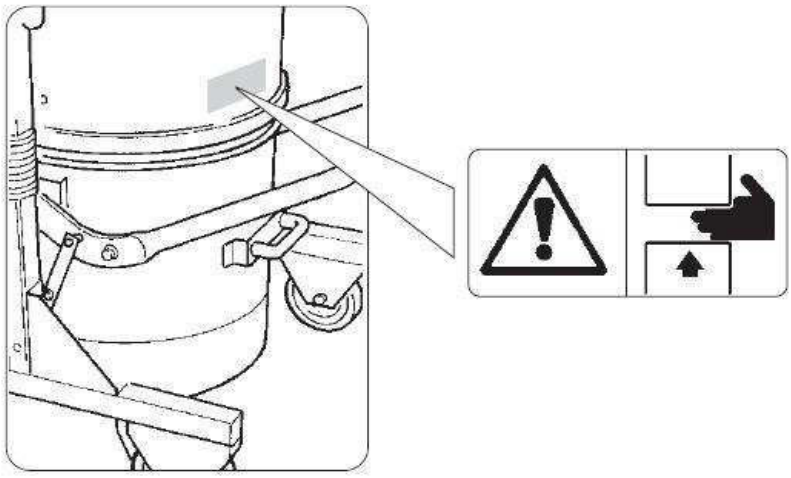
This manual must always be available for consultation on the expected operating cycle and whenever any doubts arise.

If it is lost or damaged, you must ask DEPURECO for a replacement copy.

2.3 Plates and safety symbols

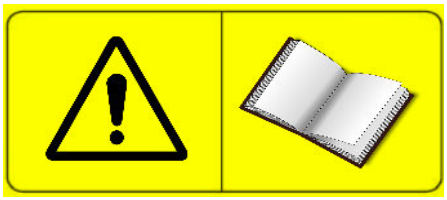
Plates bearing safety symbols and/or messages are applied to the vacuum cleaner and the packaging. Their exact location and the nature of the danger are given on these pages.

Attention!
Make sure that all safety messages are clearly legible.
Clean them with a cloth, soap and water. Do not use solvents, naphtha or petrol.
Replace damaged plates by asking DEPURECO for new ones.
If a plate is on a part being replaced, make sure that a new plate is affixed to the new part.



Attention!
Danger of crushing upper limbs when fitting and locking the debris container under the vacuum cleaner.
Never insert hands between the vacuum cleaner and the debris container when fitting and locking the container under the vacuum cleaner.
Use <u>BOTH HANDS</u> to lock the container with the latches

Attention! Carefully read the instruction and maintenance manual before using the vacuum cleaner or carrying out maintenance



Carefully read the instructions on the packaging before handling the vacuum cleaner

2.4 Residual risks

DEPURECO recommends strictly following the instructions, procedures, recommendations in this manual and the current safety standards. Furthermore, DEPURECO recommends using the protective devices provided, both those built into the vacuum cleaner and personal ones.

With this in mind, the residual risks analysed on the vacuum cleaner and/or on its components can be:

Electrical risks when carrying out maintenance due to the need to operate with live voltage
Pursuant to Italian Legislative Decree 81/08 - articles from 80 to 87 - it is forbidden to operate with live voltage, except under the exceptions provided for by said decree.

Risk of improper use in the presence of liquid, explosive and flammable substances
The vacuum cleaner must not be used in an environment containing liquid substances or substances in the form of liquids that can vaporise at room temperature, flammable dusts, gases.

Risk of operation in a humid environment
Observe the limits given in this manual in chapter 1.5 “Permitted environmental conditions”.

Risk of misunderstanding the safety pictograms
With reference to the risk analysis and identification, DEPURECO has affixed danger labels to the vacuum cleaner taken from the legislation relating to graphic symbols.
The user is required to immediately replace any safety plates that become illegible due to wear or damage.

Caution!
It is strictly forbidden to take the safety plates off the vacuum cleaner and/or its components and off the packaging.
DEPURECO disclaims any liability for the safety of the vacuum cleaner in the event of failure to comply with this prohibition.

2.5 ATEX safety instructions

Ex Hexagon – ATEX Directive 2014/34/EU

In this manual the Ex hexagon is next to the main safety instructions concerning the risk of explosion.

All staff involved in the installation, use and maintenance of the appliance and its components should receive technical training for the tasks to be carried out, particularly for working in areas with a potentially explosive atmosphere. Any changes made to this appliance may invalidate its safety features. Always follow the manufacturer's instructions.

The appliance with **II 1/3 D Ex htc IIIC T140°C Da/Dc** marking may contain a ZONE 20 inside and can be used in ZONE 22
The appliance with **II 1/2 D Ex h tb IIIC T140°C Da/Db** marking may contain a ZONE 20 inside and can be used in ZONE 21 and ZONE 22
The zones are defined as follows.

ZONE 20: area in which an explosive atmosphere in the form of a cloud of combustible dust in air is present continuously or for long periods or frequently for short periods.
ZONE 21: area in which an explosive atmosphere in the form of a cloud of combustible dust in air is likely to occur occasionally in normal operation.
ZONE 22: area in which an explosive atmosphere in the form of a cloud of combustible dust in air is not likely to occur in normal operation but, if it does occur, will persist for a short period only.
It is forbidden to use the appliance in areas classified as ZONE 0, 1 or 2 due to the presence of gas.

The appliance is only suitable for working with dusts that have no source of ignition.

Combustible dusts with the following characteristics can be handled:

Self-ignition temperature in cloud (MIT)	°C	> 215
Self-ignition temperature in layer (LIT)	°C	> 215
Minimum ignition energy (MIE) at all operating temperatures	mJ	≥ 3

Do not use the vacuum cleaner to remove chemically unstable dust

The user must ensure that the appliances are used according to their intended use, namely that they are employed in ZONES classified as compatible with the zones for which said appliances are declared suitable by the manufacturer.
The appliance is designed to work in standard environmental conditions:

- Temperature -15°C ≤ Tamb ≤ +40°C.
- Atmospheric pressure +0.8/1.1 bar

The temperature of the product handled must not exceed 40°C.

Any electrical or mechanical components to be installed on the appliance must be certified as being of a suitable category for use:
- category 3D (ZONE 22)
- category 2D (ZONE 21)
- category 1D (ZONE 20)

For maintenance or cleaning operations, the user must ensure that the equipment used (vacuum cleaners, portable lamps, etc.) is of a suitable category for the environment:
- category 3D (ZONE 22)
- category 2D (ZONE 21)
- category 1D (ZONE 20)

INSTALLATION – START-UP
Before installation and start-up, visually inspect the appliance for any transport damages.
The tools used for installation must comply with **EN 1127-1** in relation to the area of use.
As a preliminary operation, provide earthing and check that it works properly. Earthing is visually indicated by a symbol in accordance with European standards.
Carry out the following checks during Start-up:
- check that the appliance is correctly earthed and there is equipotential bonding between the various parts of the appliance, particularly the moving parts;
- carry out a blank test with sound check (abnormal noise): if there are any problems, stop the appliance and check that the moving parts are assembled correctly;
- the electrical wiring must be done by qualified staff and in accordance with the wiring diagram.

While testing and delivering the appliance, appropriate training must be provided to the operator installing, starting and using the appliance under normal conditions.

The user must ensure that the plant in which the appliance is to be installed has been adequately safeguarded against explosion before being started and that the “Explosion protection document” has been prepared as required by ATEX Directive 1999/92/EC (Italian Ministerial Decree 81-2008).

IT IS FORBIDDEN TO INTRODUCE (VACUUM) IGNITION SOURCES FROM OUTSIDE, including those resulting from self-ignition of dust or embers.

If dusts that can give rise to self-ignition are vacuumed, the collection bin must be emptied immediately after each activity.

This precaution must also be taken when vacuuming different types of dust, the mixture of which can give rise to exothermic reactions.

A periodic check must be carried out, especially after maintenance operations, on the equipotential bonding conditions between the different metal parts of the appliance, particularly moving parts and the baskets holding the filter bags.

Only use antistatic/dissipative components that ensure electrical continuity.

The installation, assembly and disassembly operations must be carried out on machines switched off and in the absence of a potentially explosive atmosphere.

The installer must check that the process specifications match the appliance characteristics given on the plate (e.g. with reference to the maximum surface temperature).
The appliance must not be used to vacuum material with incompatible product characteristics.

The manuals for the ATEX components fitted on the appliance are enclosed: the user must observe all the safety instructions relating to the use of these components.

The appliance must be cleaned by the user to prevent the formation of combustible dust.
Do not use compressed air to clean the layers of dust, but use appropriate vacuuming systems for handling potentially explosive dust (ATEX certified vacuum cleaners).

A specially trained operator must always be present when the appliance is being used and must intervene immediately, by stopping the equipment with the emergency button (where applicable) or the emergency disconnector switch, in the event of malfunctions, such as abnormal noise (breakage of components), clogging of the inlet and outlet pipes, breakage of the filter bags, suction of material containing foreign bodies or sources of ignition.

For the installation and maintenance of electrical parts (e.g. cables, cable glands and terminals), always follow the guidelines given in EN 60079-14.
When opening junction boxes (for inspections), make sure that the gaskets are in place when closing them again.

The plug is ATEX-compliant: the user must connect the plug to a socket located in a SAFE PLACE.

The hoses, suction inlets and filter bags are antistatic as declared by their respective manufacturers.

It is forbidden to use other types of components.

The building where the appliance is used must have a lightning protection system.

There must not be any sources of ignition close to the appliance, for example:
- flames;
- embers;
- hot surfaces;
- sparks (e.g. from metal cutting);
- stray currents and cathodic protection systems;
- electrical or mechanical equipment that is not ATEX certified;
- electrostatic charges carried by operators or portable equipment;
- radio frequencies (RF) and electromagnetic waves (from 10^4Hz to $3*10^{11}$Hz);
- electromagnetic waves (from $3x10^{11}$Hz to $3x10^{15}$Hz);
- ionising radiation;
- ultrasounds.

2.6 Directives applied

The following directives are applied to the vacuum cleaner described in this manual:

- **2006/42/EC - Machinery directive**
- **2014/30/EU - Electromagnetic compatibility directive**
- **2011/65/EU - RoHS - Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment**
- **2014/35/EU – Low voltage directive**
- **2014/34/EU - ATEX directive**

The regulatory references, including mandatory requirements, are managed in the Quality Management System and archived at DEPURECO

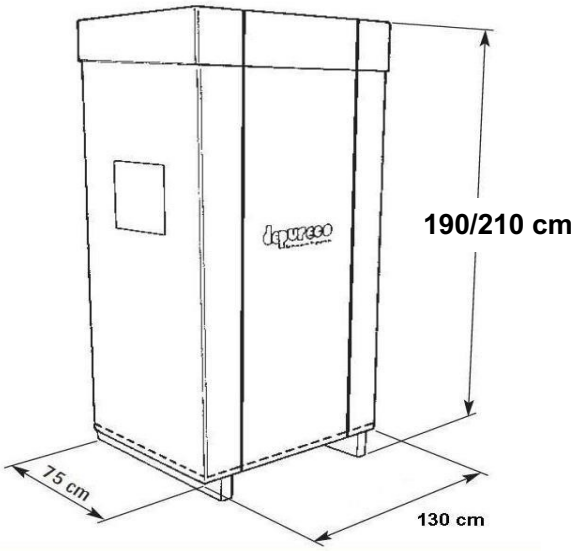
3 HANDLING, UNPACKING AND INSTALLATION SECTION

3.1 Handling

Attention!
The instructions on how to transport and unpack the vacuum cleaner correctly are indicated on the packaging as well.

The following instructions also indicate the operations to be carried out if the vacuum cleaner needs to be repacked or unpacked for subsequent transport.

Packaging dimensions:



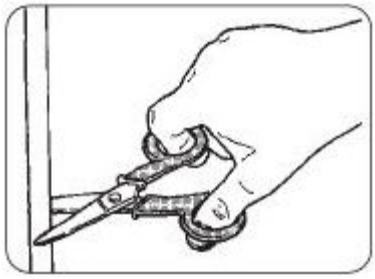
The vacuum cleaner must be lifted and then handled by a forklift truck of adequate capacity to withstand the weight.

When moving it with a forklift truck, lift the load 200 mm off the ground and tilt it backwards.

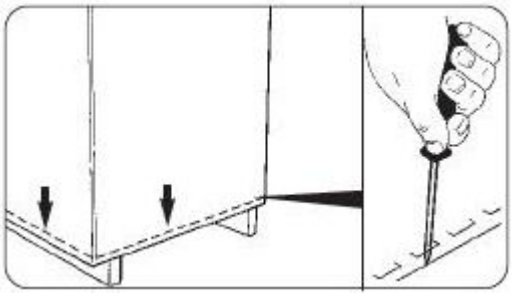
When lifting the load, take into consideration the height of the work environment.
Before starting to move, make sure that the passageway is clear and there are no moving objects on the packaging. For lifting and handling, apply the accident prevention laws in force and the normal handling instructions for forklift trucks.

3.2 Unpacking

- Cut and remove the two bands fastening the packaging

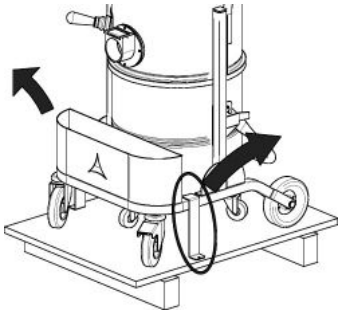


- use a screwdriver to remove the points that secure the cardboard packaging to the pallet



- completely remove the cardboard

- unscrew and remove the screws and fixing brackets from both sides



The cardboard packaging can be recycled. In order not to create any environmental impact, it should be separated from other waste.

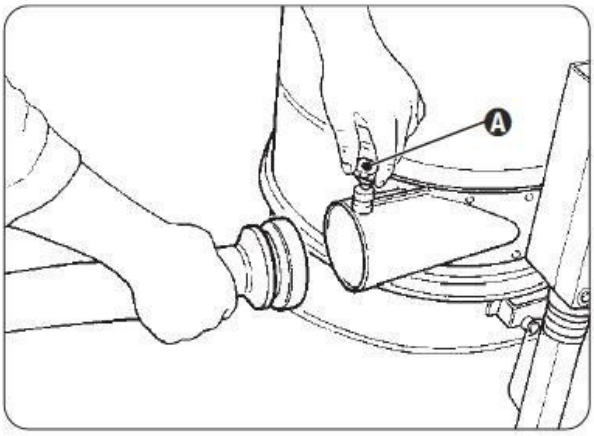
Attention!
Keep the pallet.
The vacuum cleaner must be anchored to the pallet using a similar locking system in the event of subsequent transport.

3.1 Installation

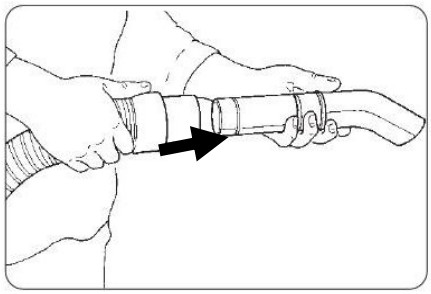
Warning!
Before installing the vacuum cleaner, visually inspect it to see if any damages were incurred during the transport phases.

If any of the components are damaged, it is essential not to continue with installation but to report the anomaly found to DEPURECO and reach an agreement on the actions to be carried out.
A suction filter, for the sole vacuuming of dry dusts or debris, is already fitted on the vacuum cleaner

- Pull the knob up (**A**) and insert the hose with its terminal into the suction inlet (detail 3, chapter 1.2)



- Insert the appropriate accessory for the type of vacuuming from the opposite side of the hose



Note: the hose with its terminals and suction accessories are not included in the STANDARD equipment. Contact your authorised DEPURECO dealer for information on the different types of OPTIONAL accessories that can be used for this specific vacuum cleaner model.

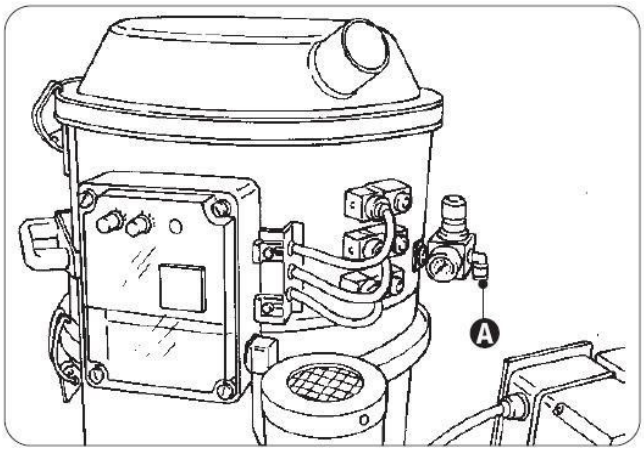
The following operation must be carried out by an electrician.
Check that the power supply line corresponds to the voltage and frequency indicated on the vacuum cleaner's plate and that it is efficiently earthed.

The vacuum cleaner's power socket must be protected by a mains disconnector switch in accordance with EC standards. Lastly, insert the plug (supplied as standard) into the socket.

Attention!
Do not push the plug into the socket with wet hands.
Extension leads are prohibited.

Connection to the pneumatic supply -
(only for vacuum cleaners with reverse pulse cleaning system)

Connect to the fitting (**A**) shown in the figure. The pneumatic supply required is 6 bar max.
To ensure smooth operation, the air introduced into the vacuum cleaner must be oil-free.



If necessary, contact DEPURECO technical assistance for more information

4 OPERATION SECTION

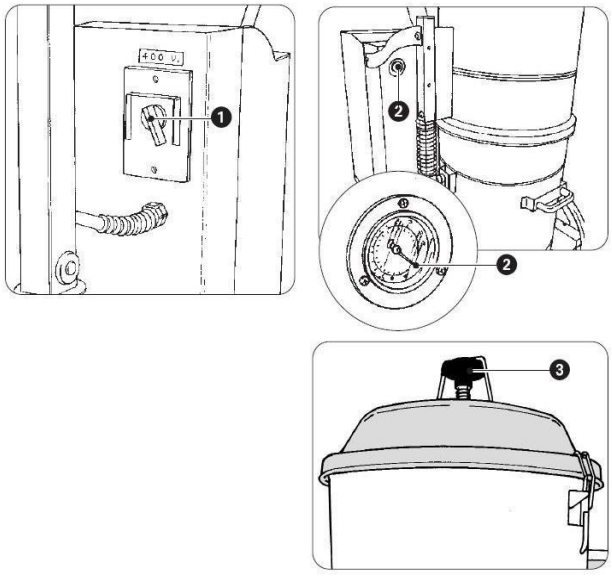
4.1 Description of the controls

Attention!
Only authorised staff who have read these use and maintenance instructions are allowed to use the vacuum cleaner.
The appliance user and the maintenance technician who carry out the permitted operations on the vacuum cleaner must receive appropriate information and training, as required by current laws on safety in the workplace, and wear the personal protective equipment (PPE) provided for the different operations, such as safety footwear, gloves, safety goggles, mask, etc. The user must adhere to the current provisions for vacuumed materials and their disposal.

ON-OFF switch

Vacuum gauge:
indicates filter clogging

Manual filter shaking knob



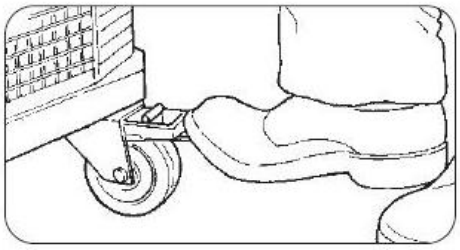
Note: the electrical panels of the FOX 3 Z22, FOX 5,5 Z22, FOX 3 Z22, FOX 5,5 Z22 vacuum cleaners have a red light that comes on in the event of an inverted phase

4.2 Work cycle

Make sure the power supply cable is undamaged and in perfect condition

Attention!
Before plugging into the power socket, make sure that the voltage of the power supply line matches the one indicated on the data plate of the appliance.

- Make sure the power plug is plugged into the socket correctly.
- Make sure that the hose is properly inserted and locked in the suction inlet.
- Make sure that the debris container is in place and locked under the vacuum cleaner chamber
- Lock the vacuum cleaner with the lever on the castor wheels as shown in the figure.

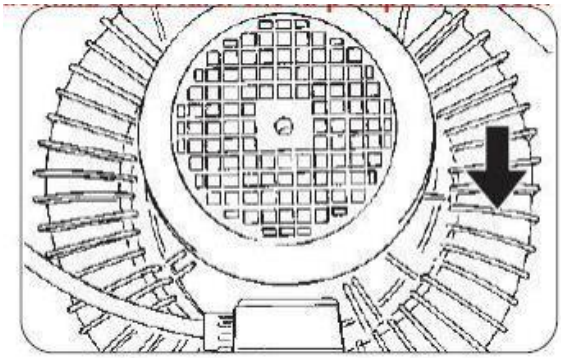


Attention!

Do not move the vacuum cleaner while it is in operation.

Grip the end of the hose with the suction attachment of your choice.

To start vacuuming turn the switch (1) to **"I"**, to stop vacuuming turn the switch (1) to **"O"**



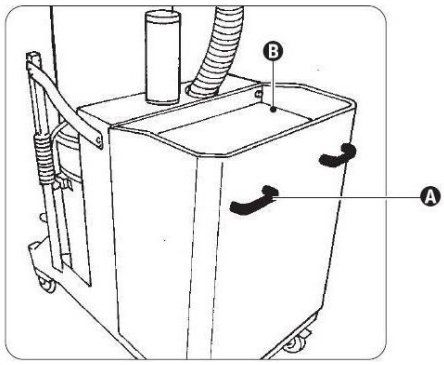
Check that the direction of rotation of the pump matches the one indicated by the arrow in the figure.

Warning!
Before turning on the vacuum cleaner again, make sure that the pump has stopped completely.

At the end of the work, turn the main switch (1) to "0".

Attention!
If dust comes out of the silencer, the filter may have broken. Stop the vacuum cleaner immediately and find out.

For any emergency, turn the main switch (**1**) to "**0**"
Move the vacuum cleaner by its handles (**A**) – see figure
For added convenience, frequently used accessories can be put in the accessory compartment (**B**).



Warning!
Avoid rolling or bending the hose while vacuuming.

On the side of the vacuum cleaner there is a vacuum gauge that indicates the degree of depression inside the vacuum cleaner. The vacuum gauge informs the operator about the conditions of the filter: an increase in depression indicates an increase in filter clogging, which results in a lower vacuuming power.

When the filter is clogged, the vacuum gauge shows the value in the following table.

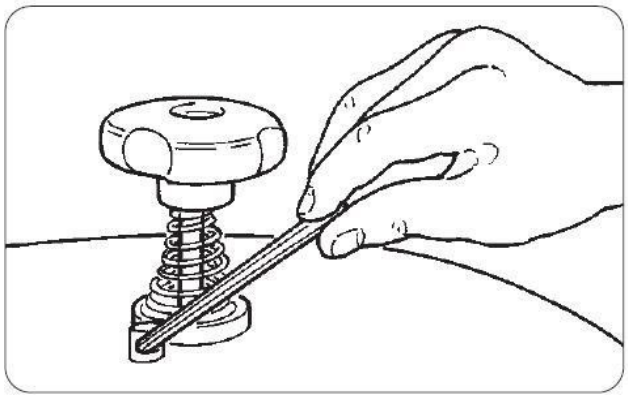
Model	Clogged filter value	
FOX 3 Z22	-0.23 bar	-23 kPa
FOX 5,5 P Z22	-0,13 bar	-13 kPa
FOX 5,5 S Z22	-0.36 bar	-36 kPa
FOX 7,5 P Z22	-0,20 bar	-20 kPa
FOX 7,5 S Z22	-0,40 bar	-40 kPa
FOX 10 Z22	-0,23 bar	-23 kPa

Warning!
Do not use the vacuum cleaner with a clogged filter

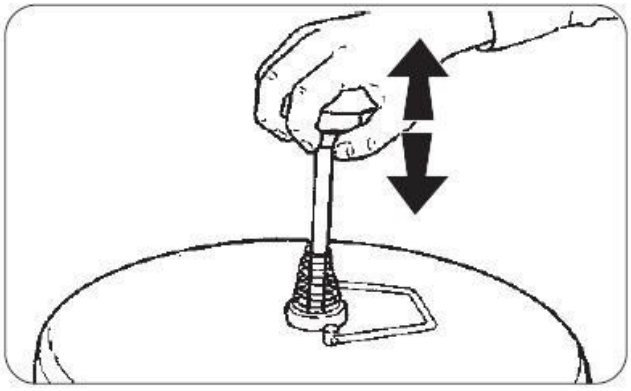
Clean the filter as follows:

Turn the main switch (**1**) to "**0**" to turn the vacuum cleaner off

- Push the lever down that locks the knob on the top cover.



- Pull and push the knob vigorously to shake the internal filter.



- Lock the knob again to shake the internal filter.

Attention!
If the vacuum gauge still indicates an irregular depression, the hose or the suction accessory may be clogged. In this case, remove the clog to clean it.

Vacuum cleaner with Reverse Pulse cleaning system (S.P.)

The vacuum cleaner must be connected to the compressed air with a maximum pressure of 6 bar to the filter regulator (see § 3.3 in this manual).

The filter cartridges are automatically cleaned during vacuuming.

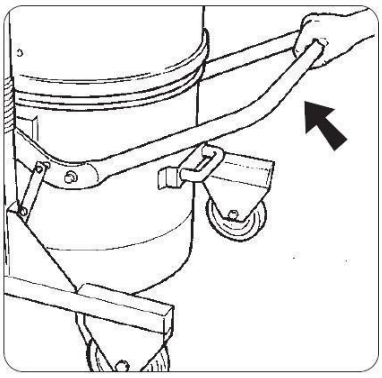
Attention!
If the vacuum cleaner does not work properly after the filter has been cleaned, the filter may be clogged and need replacing.

4.3 Emptying the container

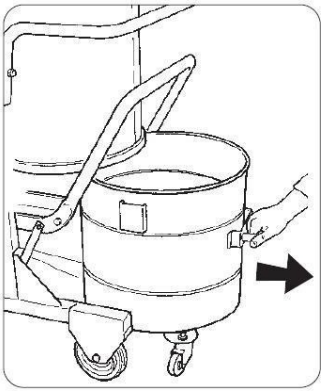
Depending on the type and amount of material vacuumed, the debris container should be checked periodically to stop it from being overfilled.

Empty the container as follows:

- Turn the main switch (1) to “0” to turn the machine off
- As already stated, the vacuum cleaner is locked by the brake on the castor wheel
- Unlock the container by lifting the lever



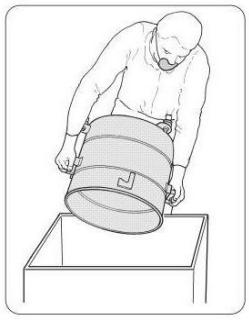
- Pull the container out from under the filter chamber by its handles



- Empty the debris into the waste disposal container

If a plastic bag is used to collect the debris, replace as follows:

- After removing the container, tie the bag, take it out and insert a new bag

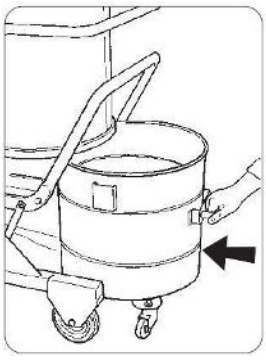


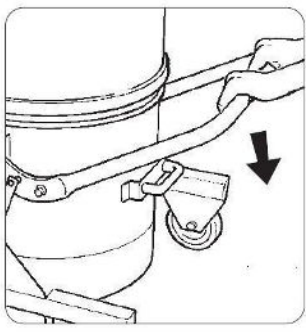
Attention!
If the container or bag weighs more than 15 kg, you will need the help of At least one more person.
Waste must be disposed of in compliance with the laws in force in the country where the vacuum cleaner is used - for Italy, Legislative Decree 152/2006 as amended.

4.4 Inserting and locking the debris container

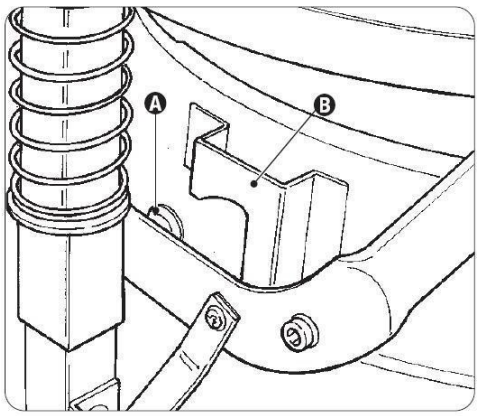
Insert and lock the container as follows:

- Fit the container under the vacuum cleaner.
- Push the container locking lever all the way down with both hands.





- The pins (**A**) on both sides must be aligned with the slots (**B**)



Attention!
Danger of crushing upper limbs!
Never insert hands between the container and the vacuum cleaning when locking it

4.5 Storage - decommissioning

Remove the filter and clean it, empty the debris collection container or remove the part of the bag with the debris and store the vacuum cleaner in a place sheltered from adverse weather with a temperature between 0° and 40°C, then cover it with a nylon sheet to prevent dust from settling on it

5 MAINTENANCE SECTION

Attention!
Emergency maintenance must be carried out on the vacuum cleaner only by specialised technicians authorised by DEPURECO.

5.1 Information notes

This section contains a description of the routine inspection and maintenance operations essential to ensure smooth operation of the vacuum cleaner.

The utmost reliability of the vacuum cleaner and the minimum maintenance cost are due to a planned maintenance and inspection program that is meticulously followed throughout the entire service life of the vacuum cleaner.
Strictly follow the set maintenance times and intervention frequencies according to the specific needs of the production cycle. Under normal conditions of use, however harsh, the vacuum cleaner does not require any special cleaning.

Always use tools in perfect condition and specific for the operation to be carried out; using unsuitable and inefficient tools can cause serious damage.

Any other intervention deemed necessary to eliminate faults or malfunctions must be expressly authorised by the manufacturer.
In these cases, always give the vacuum cleaner's identification data - see par. 1.4 in this manual.

For major repairs, it is advisable to contact authorised specialist staff.

CAUTION!
Periodically open and clean the pump housing, preferably using a vacuuming system or with a wet cloth.
When possible, carry out this operation by placing the vacuum cleaner in a safe area.

If maintenance is to be carried out by the user, it is necessary to disassemble, clean and carry out maintenance on the vacuum cleaner, provided that this is possible, without causing dangers for maintenance staff and third parties. Appropriate precautionary measures include decontamination before disassembly, measures for forced filtered ventilation in the room where the appliance is to be disassembled, cleaning of the maintenance area and suitable personal protective equipment.
At least once every three months (or more frequently depending on the work cycle and the conditions of use), the manufacturer or qualified person must inspect the filters to make sure that they are not damaged and also ensure that the control devices work properly.

If maintenance work or repairs are carried out, all contaminated objects that cannot be satisfactorily cleaned must be put in waterproof bags and disposed of in compliance with the laws in force.

5.2 General safety standards

Attention!
All of the operations described must be carried out with the mains plug unplugged.

Before starting any maintenance or cleaning operation, wear suitable PPE (protective clothing, safety goggles and/or gloves, etc.) for the work to be carried out.

Put a sign on the vacuum cleaner stating:

"MACHINE UNDER MAINTENANCE
DO NOT START"

Before resuming service, check the entire system again according to the start-up procedures.
After each maintenance operation, run a few test cycles to ensure that the machine works properly.
Failure to observe these precautions can cause serious harm to staff.

Maintenance work must be carried out by specialist technicians who are trained in the specific sectors which for this machine are:

• Mechanical maintenance
• Electrical maintenance

It is the precise duty of the Safety Manager to ensure the professionalism and competence of the aforementioned people.

Before starting a maintenance intervention, the Safety Manager must:

- Have any unauthorised people moved out of the work area.

- Make sure that the necessary tools are within reach of the maintenance technician and are in good condition.
- Make sure that the maintenance technician has the personal protective equipment necessary for the specific operation (gloves, goggles, shoes, mask, etc.)
- Make sure that the maintenance technician has carefully read the instructions in this manual and is completely familiar with operation of the vacuum cleaner and its components.

Before starting a maintenance intervention, the Maintenance Technician must:

disconnect all power supplies and put the safety lock on the vacuum cleaner

Attention!
If it is absolutely necessary to work with the power supply connected, when required by Italian Legislative Decree 81/08, the maintenance technician must stay at a safe distance, have stop buttons close at hand, and never put his hands into the volume of discharged material.

When the intervention has been completed and before resuming the service, the maintenance technician must check operation of the safety devices again and ensure that the protections are intact. Work on the motors or on other electrical components must only be carried out by an appropriately trained electrical maintenance technician who is authorised by the Safety manager.

Attention!
After each maintenance operation, it is mandatory for the Safety Manager to ensure that the vacuum cleaner and its protection devices are safe.

Before each work shift

- Check that the power cable and plug are undamaged: replace immediately if there are signs of wear and tear, using a cable of the same type (information c/o DEPURECO); this is the exclusive responsibility of an electrician.
- Ensure that the safety symbols (pictograms) affixed to the vacuum cleaner are intact.
- Ensure that the filter(s) is(are) efficient
- Ensure that the vacuum hose and the accessories to be used are all intact.

Attention!
If the hose is perforated, the vacuum power will be reduced and the dust will be dispersed into the air.

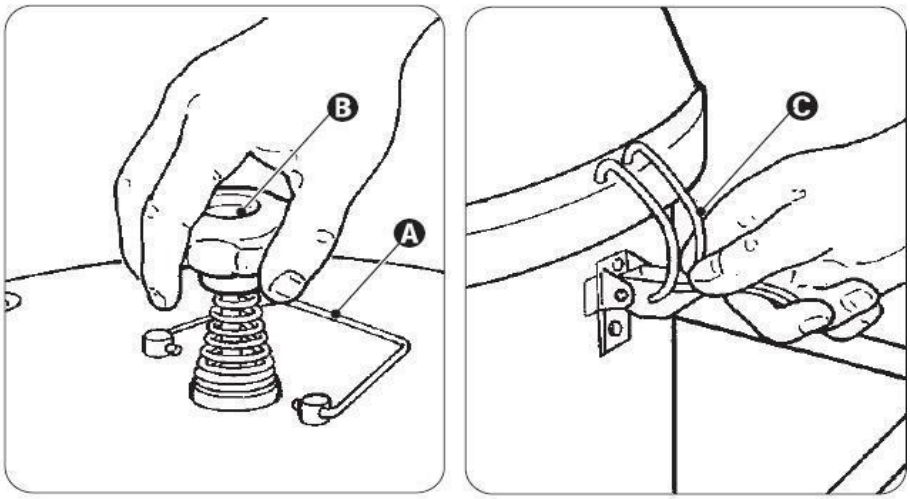
5.3 Replacing the filter

Attention!
Wear appropriate PPE (dust mask, latex gloves, goggles, etc.).

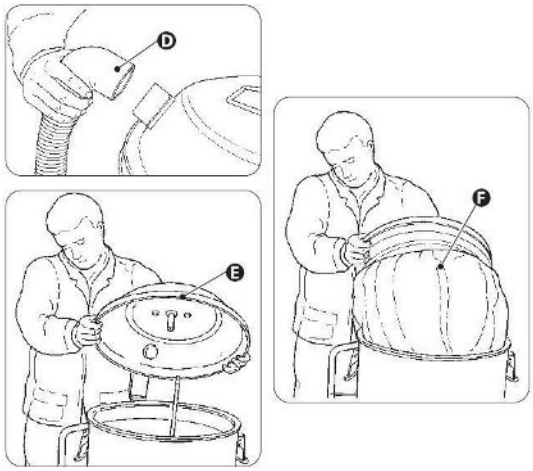
Replace the filter as follows:

- Turn the main switch (**1**) to "**0**" to turn the vacuum cleaner off
- Disconnect the vacuum cleaner from the power supply
- Unplug the vacuum cleaner from the power socket (and air for the S.P. system)
- Push the lever down (**A**), unscrew it completely and remove the knob (**B**)

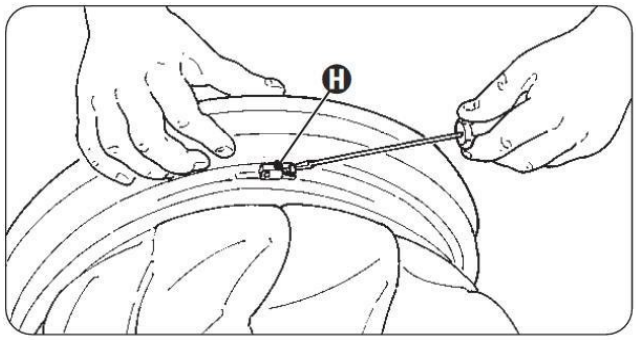
- Release the latches (**C**) closing the cover on both sides



- Disconnect the suction hose (**D**) by unscrewing the clamp with an Allen key
- Remove the cover (**E**)
- Remove the HEPA filter (where provided)
- Take the filter out (F) and place it all on a workbench.



- Loosen the clamp (H), take the filter out of its holder and cut the inner strips holding it in place with a pair of scissors.

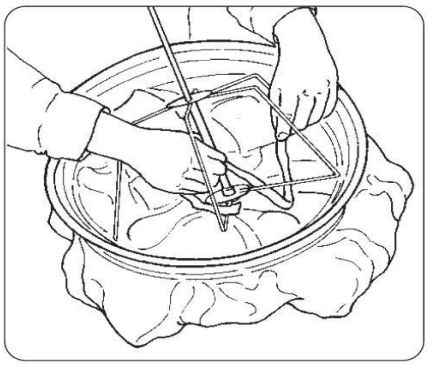


When replacing the filter, make sure that the equipotential bonding braid is connected correctly

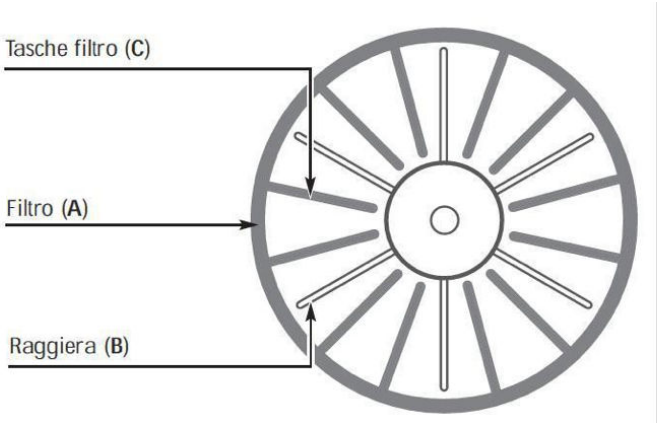
Remove the filter, put it in a plastic bag, close it and dispose of it according to the laws in force for the type of material vacuumed

Refit the filter as follows:

- Fit the filter in its holder ring and lock it with the clamp (**H**)



- Lock the filter to the holder cage by tying the strips
- Assemble the filter (**A**) by inserting two of the filter pockets (**C**) into each of the spaces between the holder spokes (**B**).



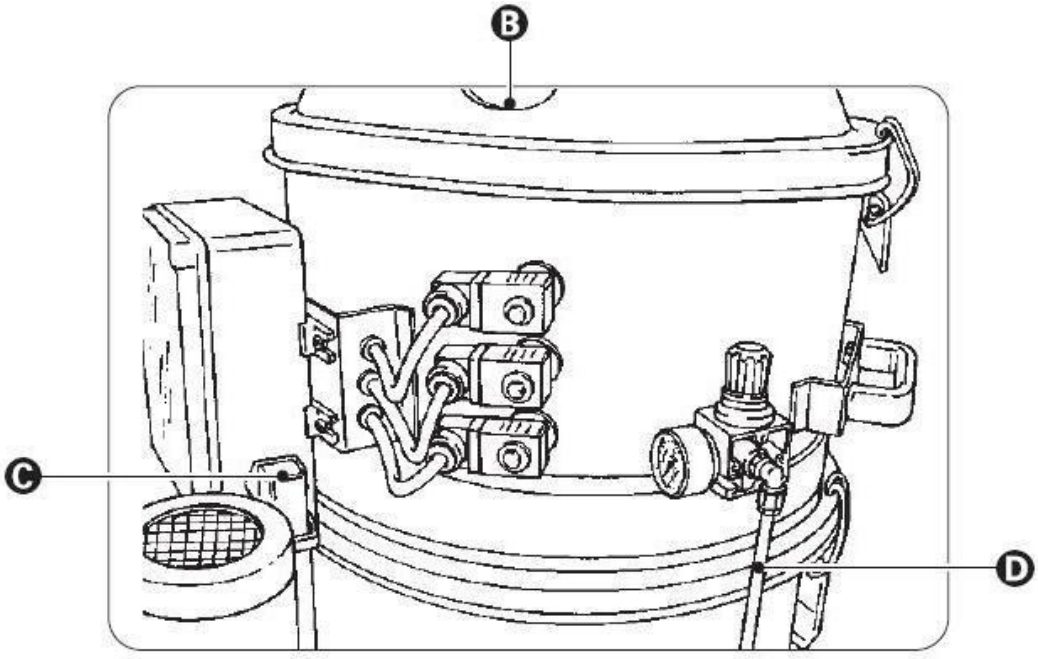
- Insert the filter with holder (**F**) into the vacuum cleaner
- Fit the top cover (**E**) onto the vacuum cleaner
- When fitting the top cover, pay attention to the position of the suction inlet, which must be facing the hose (**D**)
- Lock the two latches (**C**)
- Connect the hose

- Connect the compressed air to the valve fitting (**A**)
- Plug the vacuum cleaner in
- Turn the vacuum cleaner on and immediately check that it is working properly.

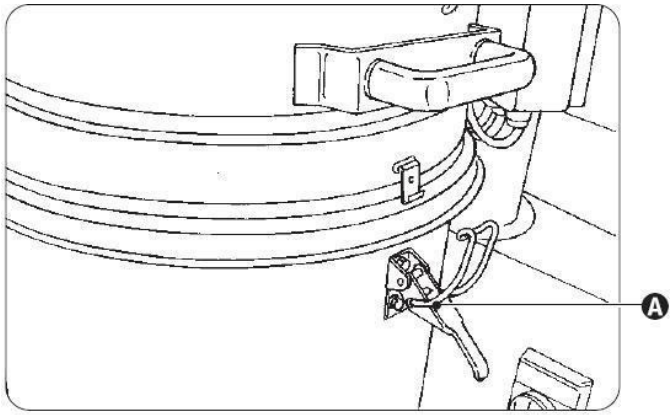
5.4 Replacing cartridges on reverse pulse cleaning systems (S.P.)

Replace the filter cartridges for the S.P. cleaning system as follows:

- Turn the main switch to "**O**" to turn the vacuum cleaner off
- Unplug the vacuum cleaner from the power socket
- Unplug the S.P. cleaning system from the power supply
  (by unplugging the connector) (**C**) and from the compressed air supply (**D**)

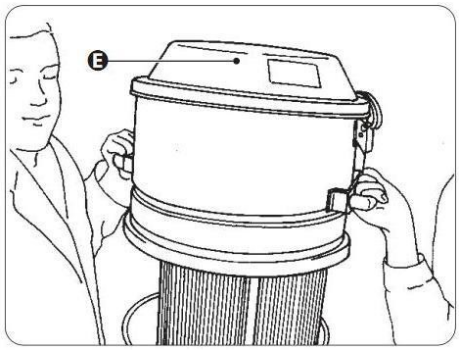


- Disconnect the suction hose from the suction cover by loosening the clamp
- Unlock the latches (**A**) and lift off the vacuum cleaner cover

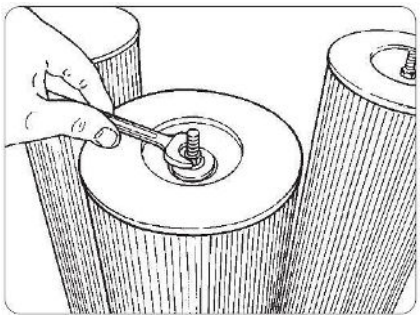


- Remove the cover

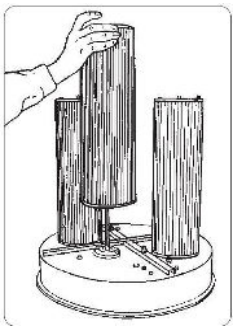
- Release and lift the HEPA filter (where provided)
- Release the S.P. cleaning system from the latches and, with the help of a second person, lift it off the filter chamber, turn it upside down and place it on a workbench



- Remove and unscrew the nuts from the base of the cartridges



- Pull out and replace the filter cartridges



remove the cartridges, put them in a plastic bag, close it and **dispose of it according to the laws in force** for the type of material vacuumed.

To refit the filter cartridges, follow the above in reverse order:

- Insert the new cartridges and screw on the nuts, ensuring that they are fixed correctly
- With the help of a second person, place the S.P. system on the filter chamber and lock it with the latches
- position the H filter (where provided) and lock it in place with the latches

Make sure the ILME plug (E) is plugged in correctly before continuing with any more operations

- position the vacuum cleaner cover, fit the suction hose on the cover and tighten the clamp. Then lock the cover in place with the latches
- Connect the S.P. cleaning system to the compressed air supply and to the power supply (plug in the connector)
- Connect the vacuum cleaner to the power socket
- Turn the main switch to **"I"** to turn the vacuum cleaner on and check that it is working properly.

5.5 Replacing the HEPA cartridge (where provided)

Replace the HEPA cartridge as follows:

- Turn the vacuum cleaner off
- Disconnect the vacuum cleaner from the power supply
- Release the latches closing the H filter band on the vacuum cleaner head on both sides
- Remove the head
- Release the latches closing the filter chamber on the H filter band on both sides
- Remove the H filter band, turn it upside down on a workbench, unscrew the HEPA cartridge fixing screw and slide it out of its seat

remove the filter, put them in a plastic bag, close it and **dispose of it according to the laws in force** for the type of material vacuumed.

To refit the HEPA cartridges, follow the above in reverse order:

- Position the new HEPA cartridge in its seat and screw in the fixing screw. Make sure it is properly fastened
- Put the H filter band back on the filter chamber and lock it with the clamps
- Position the vacuum cleaner head on top of the H filter band and lock it with latches
- Connect the vacuum cleaner to the power supply
- turn the vacuum cleaner on and immediately check that it is working properly

ONLY USE ORIGINAL DEPURECO FILTERS

5.6 If something doesn't work

ANOMALY FOUND	POSSIBLE CAUSE	RECOMMENDED SOLUTION
The vacuum cleaner does not start	- No power	- Check the power socket for voltage - Check the socket and power supply cable to make sure they are intact - Contact the DEPURECO technical assistance service
The vacuum gauge indicates an irregular depression	- Clogged filter	- Shake the filter. - If this is not enough, replace it.
	- Clogged suction pipe	- Check the suction pipe and clean it.
Dust coming out of the vacuum cleaner	- Perforated filter	- Replace the filter
	- Filter not suitable for the type of material to be vacuumed	- Fit a filter suitable for the type of material to be vacuumed
Excessively noisy engine	- Faulty pump	- Contact the DEPURECO technical assistance service

5.7 Scrapping

This product falls under the scope of application of Directive 2012/19/EU on waste electrical and electronic equipment (WEEE). The appliance must not be eliminated with household waste as it is made up of different materials that can be recycled at the appropriate structures. Ask the municipal authority for the location of suitable ecological platforms that can receive the product for disposal and then correctly recycle it. Also remember that if equivalent equipment is purchased, the distributor is required to collect the product to be disposed of free of charge. The product is not potentially dangerous for human health and the environment, it does not contain harmful substances as set forth in Directive 2011/65/EU (RoHS), but if it is abandoned in the environment, it will negatively impact the ecosystem. Read the instructions carefully before using the appliance for the first time. Do not use the product for any use other than that for which it is intended, as there is a danger of electric shock if used improperly.

The crossed-out wheelie bin symbol on the appliance's label indicates the compliance of this product with the legislation on waste electrical and electronic equipment. Abandoning the equipment in the environment or its illegal disposal is punishable by law.

REGISTERED ON THE WEEE REGISTER WITH NO. IT18090000010711

In case of doubt, do not guess! Immediately call your dealer!

DEPURECO
INDUSTRIAL VACUUMS

MAINTENANCE REGISTER:

INTERVENTION 1: **DATE:**

TECHNICAL ASSISTANCE:

TYPE OF INTERVENTION:

INTERVENTION 2: **DATE:**

TECHNICAL ASSISTANCE:

TYPE OF INTERVENTION:

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Registro Imprese di Torino · **R.E.A.** TO-1149668
Capitale Sociale: € 25.000 i.v.

INTERVENTION 3: **DATE:**

TECHNICAL ASSISTANCE:

TYPE OF INTERVENTION:

INTERVENTION 4: **DATE:**

TECHNICAL ASSISTANCE:

TYPE OF INTERVENTION:

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Depureco Industrial Vacuums Srl
Società soggetta a direzione e coordinamento COFISE spa

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