

VHB436

Instructions for use

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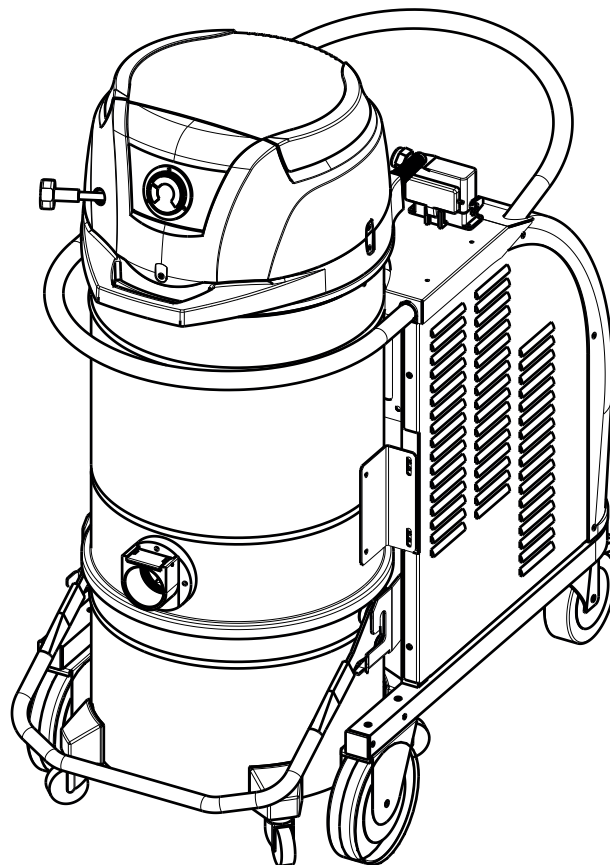


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Instructions for use

Read the operating instructions and comply with the important safety recommendations identified by the word **CAUTION!**

Operator's safety



Before starting the machine, it is absolutely essential to read these operating instructions and to keep them on hand for consultation.

The machine can only be used by people who are familiar with the way it works and who have been explicitly authorised and trained for the purpose.

Before using the machine, the operators must be informed, instructed and trained on how to work it and for which substances its usage is permitted including the safe method for removing and disposing of the vacuumed material.



The use of the machine by people (including children) with limited physical and mental capacities or lacking in experience and knowledge is strictly forbidden, unless they are supervised by a person who is experienced in the use and safe handling of the machine.

Children must be supervised to make sure they will not play with the machine.



Before using the machine, always check that any hazardous condition has been eliminated and inform the people in charge about any operational fault.

Check that all guards and protections are correctly mounted and that all safety devices are installed and efficient.

Repairs must only be carried out when the machine is at a standstill and disconnected from the electricity and air supply mains. Never ever carry out repairs without having first received the necessary authorization.



Any changes made by the user without the Manufacturer's explicit authorization shall invalidate the warranty and hold the Manufacturer harmless from any and all liabilities for damages caused by faulty products.

General information for using the machine

Use the machine in accordance with the laws in force in the country where it is used.

Besides the operating instructions and the laws in force in the country where the device is used, the technical regulations for ensuring safe and correct operation must also be observed (Legislation concerning environmental and labour safety, i.e. European Union Directive 89/391/EC and successive Directives).

Do not perform any operation that could jeopardize the safety of people, property and the environment.

Comply with the safety indications and prescriptions in this instruction manual.

Proper uses

This machine is suitable for commercial use, in hotels, schools, hospitals, factories, shops, offices and apartment hotels for example, for hire and in any case for purposes other than normal domestic use.

This machine is suitable for cleaning and vacuuming solid materials in indoor and outdoor environments.

The machine has been designed to be used by one operator at a time.

This machine consists of a vacuum unit, with an upstream filter unit and a container for collecting the vacuumed material.

Improper Use



The following use of the device is strictly forbidden:

- **Outdoors in case of atmospheric precipitation.**
- **When not placed on horizontal level ground.**
- **When the filter unit is not installed.**
- **When the vacuum inlet and/or hose are turned to face parts of the human body.**
- **Use without the cover on the vacuum unit.**
- **When the dust container is not installed.**
- **Use without the guards, protective covers and safety systems installed by the manufacturer.**
- **When the cooling vents are partially or totally clogged.**
- **When the machine is covered with plastic or fabric sheets.**
- **Use with the air outlet partially or totally closed.**
- **When used in narrow areas where there is no fresh air.**



The following use of the device is strictly forbidden:

- **When the cable or plug is damaged. If appliance is not working as it should, has been dropped, damaged, left outdoors or dropped into water, return it to an authorized service center.**
- **Vacuuming liquids with machine not equipped with specific original stopping systems.**
- **Do not pull or carry by the cord, use the power cord as a handle, do not close a door on cord, or pull cord around sharp edges or corners. Do not run the appliance over the cord. Keep cord away from heated surfaces.**
- **Vacuuming the following materials:**
 1. **Burning materials (embers, hot ashes, lit cigarettes, etc.).**
 2. **Naked flames.**
 3. **Combustible gas.**
 4. **Flammable liquids, aggressive fuels (gasoline, solvents, acids, alkaline solutions, etc.).**
 5. **Explosive dust/substances and/or ones liable to ignite in a spontaneous way (such as magnesium or aluminium dusts, etc.).**

Note: Fraudulent use is not admitted.

Versions and variations

HEPA variants

This machine can be equipped with an upstream filter (HEPA). The procedures for servicing and emptying the machine including removing the dust container, must only be performed by authorized personnel wearing protective clothing. Do not use without the complete filter system in place.

General recommendations



If an emergency situation occurs:

- **accident, failure; filter breakage; fire; etc. Disconnect the machine from the power supply and ask for assistance from qualified personnel.**

In case the user comes into contact with the vacuumed product, check the cautions shown on the safety technical sheet of the product, which must be made available from the employer.



The machines must not be used or stored outdoors, or in damp places.

Only versions with the level sensor can be used for liquids, if not, they can only be used to vacuum dry materials.



Both the machine and the batteries are classified as hazardous materials:

- **Batteries: UN 3480**
- **Machine with batteries on board: UN 3481**

Please refer to local regulations for their transportation and storage.

[NOTE]

These devices should not be used in corrosive environments.

Residual Risks

After carefully considering the risks that are present in all machine operating phases, necessary measures were adopted in order to eliminate the risks for the operators, as far as possible, and/or limit or reduce the risks deriving from hazards that cannot be completely eliminated at the source.

During operations and/or maintenance, operators are exposed to certain residual risks which, due to the nature of the operations themselves, cannot be completely eliminated. Therefore the installer is responsible for providing additional information and/or hazard signals based on the location of machine installation and the material that is handled.

- **Risks due to electrical hazards during maintenance**



Risk of electrocution if accessing the electrical equipment during maintenance without having deactivated the electrical power supply.



It is forbidden to work on the electric equipment before disconnecting the machine or its parts from the electrical line.



Have the electrical maintenance operations performed by qualified personnel. Perform the checks on the electric equipment as specified in the manual.

- **Risks to the presence of residual high temperature after stopping the vacuum unit.**

During maintenance and cleaning operations, the operator may come into contact while the machine is stopped, with parts of the vacuum unit with surfaces at high temperatures. Specific warning signs placed in strategic points indicate the hazard due to the presence of hot surfaces and the obligation for the user to wear personal protective equipment, in particular protective gloves.

The potentially hot parts (high temperatures) are identified as follows:

	IT IS MANDATORY TO WEAR GLOVES
	CAUTION DANGEROUS TEMPERATURES

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EC Declaration of conformity

Every machine comes with a EC Declaration of conformity.
See fac-simile in fig. 19.

[NOTE]

The Declaration of conformity is an important document and should be kept in a safe place to be presented to the Authorities on request.

Description of the machine

Machine Parts and Labels

Figure 1

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. Identification plate: 2. Dust container 3. Dust container release lever 4. Vacuum inlet 5. Vacuum gauge 6. Filter shaker lever 7. Warning plate 8. Plug to connect the vacuum cleaner to an electrical outlet for charging. 9. Control keyboard 10. Closing band 11. Electrical connector | <p>Model code, serial number, EC marking, year of manufacture, weight (kg)</p> <p>Draws the operator's attention to the fact that the filter must be shaken only when the machine is off (see par. "Shaking the primary filter" as well).</p> |
|--|---|

This machine creates a strong air flow which is drawn in through the vacuum inlet and blows out through the outlet.

Before turning on the machine, fit the vacuum hose into the inlet and then fit the required tool on to the end part (refer to the manufacturer's accessory catalogue or Service Centre).

The diameters of the authorized hoses are indicated in the Technical data table.

The machine is equipped with a primary filter which enables it to be used for the majority of applications.

In addition to the primary filter that retains the most common dust, a secondary filter (absolute filter) can be installed.

This machine is equipped with an internal baffle plate which subjects the vacuumed substances to a circular centrifugal movement that makes them drop into the container.

Optional kits

Various optional kits are available for converting the machine.

On request, the machine can be supplied with optional kits already installed. However, they can also be installed at a later date.

Please contact the sales network for further details.

Instructions describing how to fit the optional kits and the relative operation and maintenance manuals are supplied together with the optional kits.



Use only supplied and authorised genuine spare parts.

Accessories

Various accessories are available; refer to the manufacturer's accessory catalogue.



Use only genuine accessories supplied and authorised by the manufacturer.

Packing and unpacking

All the dispatched equipment has been thoroughly checked before being delivered to the haulage contractor.

On arrival, check the machine to see that it has not been damaged during transport. In case of damage, immediately lodge a complaint with the haulage contractor.

Dispose of the packing materials in compliance with the laws in force.

Figure 3

Model	A (mm)	B (mm)	C (mm)	kg (*)
VHB436	1200	700	1700	150

(*) Weight with packing

Unpacking, moving, use and storage

To unpack the vacuum unit, remove the retainers with a hammer and a screwdriver.

Also remove the fastening devices placed by the manufacturer when packing, by using suitable tools.

Release the wheel brakes and remove the machine from the supporting platform, by using a ramp that can provide adequate capacity, and by driving the vacuum cleaner by the handle.

Operate on flat, horizontal surfaces.

The load-bearing capacity of the surface the machine is placed on must be suitable for bearing its weight.

If the device is to work in a fixed position, allow wide space around the device in order to ensure freedom of the movement and allow the maintenance staff to operate with ease.



The manufacturer shall not be liable for any damages caused to the machine during lifting, when the lifting equipment supplied by the manufacturer is not used.



When several supporting platforms are provided, the supporting platform to which the machine is anchored must be handled with a forklift truck that can provide adequate capacity. Then unpack the machine by laying it down on a flat and horizontal surface that can provide adequate capacity for the vacuum cleaner weight.

Commissioning



- **Make sure there is no evident sign of damage to the machine before starting work.**
- **Before starting any operation, perform a complete charging cycle of the battery pack.**

The system safety officers must:

- Prevent any improper use or manoeuvre.
- Make sure that the safety devices are not removed or tampered with.
- Check that all maintenance operations are regularly performed;
- Make sure that no machine part (couplings, holes, etc.) is modified to attach additional devices;
- Make sure that only original Nilfisk spare parts are used.

NOTE

The user shall be responsible for ensuring that installation complies with the all relevant local provisions. The equipment must be installed by qualified technicians who have read and understood the instructions herein.

Charging method



- **Before plugging the machine into the electrical mains, make sure that the nominal voltage rating indicated on the data plate corresponds to that of the electrical mains.**
- **Plug into an outlet with a properly installed ground contact/connection. Make sure that the machine is turned off.**
- **The plugs and connectors of the connection cables must be protected against water sprays.**
- **Check that the connection to the electrical mains is correct.**
- **Charge the machine only when the cables that connect to the electricity mains are in perfect conditions (damaged cables could cause electric shocks!).**
- **Regularly check that there are no signs of damage, excessive wear, cracks or ageing on the charging cable.**



When the device is charging, do not:

- **Crush, pull, damage or tread on the cable that connects to the electrical mains.**
- **Only disconnect the cable from the electrical mains by removing the plug (do not pull the cable).**
- **The charging cable must be replaced by the manufacturer's service centre personnel or by equivalent qualified personnel.**



When the machine is in charge, the vacuum motors are disabled.



The device should only be charged indoors and protected from the elements.



Do not charge the machine when the ambient temperature is below 0°C.



Water or other liquids entering the battery compartment can cause possible death or property damage. Do not use water to clean the battery module. Never place containers with liquids (beverage containers and the like) on electrical equipment. The relative humidity inside the room should not exceed 85%. Do not clean the system with agents containing acid, caustic soda, or solvents.

Charging the machine

Figure 1

To charge the machine battery, connect the supplied power cable to the plug (8). The charging LED starts flashing and charging is in progress.

Dry applications

[NOTE]

The supplied filters and the bag (if applicable) must be installed correctly.



Comply with the safety regulations governing the vacuumed materials.

Technical data

Parameter	Units of measurement	VHB436	
		2 Battery (Standard)	3 Battery (Optionals)
Voltage	V	36	
Power rating	kW	2,4	
Current	Amp	60	
Max vacuum	mm H20	1300	
Maximum air flow rate without hose and reductions	L/m'	7050	
Maximum air flow rate (3 m Ø 50 mm hose)	L/m'	4833	
Sound pressure level (L _{pf}) (EN60335-2-69) (*)	dB(A)	71	
Vibration, ah (**)	m/s ²	≤2,5	
Insulation	Class	III	
Container capacity	L	50	
Longopac® dust bag capacity	L	-	
Vacuum inlet (diameter)	mm	70	
Allowed hoses	mm	50	
Primary filter surface	m ²	1,95	
Upstream H absolute filter surface	m ²	3,50	
Absolute filter efficiency according to MPPS method (EN 1822)	%	99,995 (H14)	
Operating time	min	98	146
Charging time	min	200	270
Weight	kg	125	135

(*) Measurement uncertainty KpA < 1.5 dB (A). Noise emission values obtained according to EN-60335-2-69

(**) Total value of vibration output to the operator arm and hand

Dimensions

Figure 3

Model	VHB436
A (mm)	1050
B (mm)	600
C (mm)	1250

[NOTE]

- *Storage conditions:*
Temperature: -10°C ÷ +40°C
Humidity: ≤ 85%
- *Operating conditions:*
Maximum altitude: 800 m
(Up to 2,000 m with reduced performances)
Temperature: -10°C ÷ +40°C
Humidity: ≤ 85%

[NOTE]

When used at temperatures below 0°C, battery life may not be as stated.

Controls and indicators

Figure 4

1. **Start/stop switch**
If the indicator is ON, the motor is ON.
You can start/stop each motor with this button.
2. **Stop button**
When this button is pressed, all motors stop at the same time.
3. **Battery charge indicator**
When all LEDs are ON, the battery is fully charged.
4. **Manual filter shaker knob**

Inspections prior to starting

Figure 5

1. Vacuum inlet

Before starting, check that:

- The filters are installed.
- The closing band is properly tightened.
- The vacuum hose and tools have been correctly fitted into the vacuum inlet (1).
- The bag or safety container is installed, if applicable.

Starting and stopping



Before starting the machine, lock the castor brakes

Figure 4

- Press the button (2) to start each vacuum motor
- Press the button (1) to start each additional vacuum motor
- Press the button (1) again to stop each motor or press the button (2) to stop all motors at the same time.

Emergency stopping

Press the Stop button. The vacuum cleaner stops.

Operation

Figure 6

Vacuum gauge (2): green zone (3), red zone (1)

When using the machine, check the flow control:

- when the machine is operating, the pointer of the vacuum gauge must remain in the green zone (3) to ensure that the speed of the intake air does not drop below the safety value of 20 m/sec;
- If the pointer is in the red zone (1) it means that the speed of the air in the vacuum hose is less than 20 m/s, and that the machine is not operating in optimal conditions. Shake or replace the filter.
- during normal operation conditions, close the vacuum hose, the pointer of the vacuum gauge must switch from the green zone (3) to the red zone (1).



When the machine is operating, always check that the vacuum gauge pointer remains in the green zone (3). Consult the "Troubleshooting" chapter if faults occur.



The air speed in the vacuum hose must not be less than 20 m/s. Condition indicated by the vacuum gauge pointer in the green zone (3).



All machines can be used only with hoses whose diameters comply with the specifications in the "Technical Data" table.

At the end of a cleaning session

- Turn off the machine.
- Empty the container and clean the machine as described in the "Maintenance, cleaning and decontamination" paragraph.
- Wash the container with clean water if aggressive substances have been vacuumed.
- Store the machine in a dry place, out of reach of unauthorised people.
- Lock the castor brakes.
- During transport and when not using the machine, close the vacuum inlet with the relevant plug (if equipped).

Maintenance, cleaning and decontamination



Disconnect the machine from its power source and disconnect at least one of the two poles of the battery located within the protection guard, before cleaning, servicing, replacing parts or converting it to obtain another version/variant.

- Carry out only the maintenance operations described in this manual.
- Use only original spare parts.
- Do not modify the machine in any way.

Failure to comply with these instructions could jeopardize your safety. Moreover, such action would immediately void the EC declaration of conformity/incorporation issued with the machine.



For maintenance procedures not described in this manual, please contact the manufacturer's technical support or sales network.



Battery replacement is a maintenance operation that can only be carried out by the manufacturer's technical assistance or sales network.



To guarantee the safety level of the machine, only original spare parts supplied by the manufacturer should be used.



The precautions described below must be taken during all maintenance operations, including cleaning and replacing the primary and absolute filters.

- To allow the user to carry out the maintenance operations, the machine must be disassembled, cleaned and overhauled as far as is reasonably possible, without causing hazards for the maintenance staff or other people. The suitable precautions include decontamination before disassembling the machine, adequate filtered ventilation of the exhaust air from the room in which it is disassembled, cleaning of the maintenance area, and suitable personal protection.
- The external parts of the machine must be decontaminated by cleaning and vacuuming methods, dedusted or treated with sealant before being taken out of a hazardous zone.
- All parts of the machine must be considered as contaminated when they are removed from the hazardous zone and appropriate actions must be taken to prevent dust from dispersing.
- When maintenance or repair procedure are carried out, all the contaminated elements that cannot be properly cleaned, must be eliminated.

- These elements must be disposed of in sealed bags in accordance with applicable regulations and local laws on the disposal of such material.
- This procedure must also be followed for filter disposal (primary and absolute filters).
- Compartments that are not dust-tight must be opened with suitable tools (screwdrivers, wrenches, etc.) and thoroughly cleaned.
- A check must be carried out by the manufacturer or the personnel of the same at least once a year. For example: Check the air filters to find out whether the air-tightness of the machine has been impaired in any way and make sure that the electric control panel operates correctly.

Primary filter cleaning with manual system

Figure 7

In relation to the quantity of material vacuumed and if indicator (2 - Fig. 6) is red, turn the vacuum cleaner off and use knob (1) of the manual filter shaker.



Stop the machine before using the filter shaker. Do not shake the filter with the machine functioning, as this could damage the filter.

Wait before restarting the machine, to allow the dust to settle. Replace the filter element if the indicator is red, even after the filter has been shaken (see "Primary and absolute filters disassembly and replacement").

[NOTE]

If the indicator is still in the red area. The vacuum hose or one of the accessories may be clogged, and not the filter. Clean these parts if this is the case.

Emptying the container



Before proceeding with these operations, turn off the machine and remove the plug from the power socket. Check the machine filtration class.

Before emptying the container it is advisable to clean the filter (see "Cleaning the primary filter" paragraph).

Figure 8

- Release the dust container with lever, then remove and empty it.
- Clean the machine as described in the "Maintenance, cleaning and decontamination" paragraph.
- Wash the container with clean water if aggressive substances have been vacuumed.
- Make sure the gasket is in perfect condition and correctly positioned.
- Place the container back in position and secure it again.

[NOTE]

After the cleaning session, leave the machine running for at least 60 seconds before turning it off. Avoid switching on/off too frequently.

Dust Bag

Figure 8

The machine can be equipped with dust collection bag. In this case, the machine must be equipped with optional accessories (depressor and grid). If the bag is not installed or is installed improperly, it could create health risks for people exposed.

Paper Bag and Safe Bag for dust collection

Figure 9

The machine can be equipped with dust collection bag. In this case, the machine must be equipped with a specific container and a cap on the side. If the bag is not properly installed, it could create health risks for people exposed.

[NOTE]

The safe bag system is suitable to collect toxic dust to ensure that the user does not come into contact with the product.

Longopac® bag for dust collection

Figure 10

The machine can be equipped with dust collection bag. In this case, the material is discharged by gravity when the vacuuming stops. The Longopac® bag can be cut, sealed or closed to the size required. If the bag is not properly installed, it could create health risks for people exposed.

Replacement of dust bags

! CAUTION! !

- *These operations can only be carried out by trained and qualified personnel who must wear adequate clothing, in compliance with the laws in force.*
- *Take care not to raise dust during this operation. Wear a P3 protective mask.*
- *In case of hazardous and/or harmful dust, use only the bags recommended by the manufacturer (see "Recommended spare parts").*
- *The bag must only be disposed of by qualified personnel and in compliance with the laws in force.*

! CAUTION! !

Use only original Nilfisk bags.

! CAUTION! !

Only use bags suitable for the machine class you are using.

! CAUTION! !

Take care not to raise dust during this operation. Wear a P3 mask and other protective clothing plus protective gloves (DPI) suited to the hazardous nature of the dust collected, refer to the laws in force.

How to replace the Dust Bag

Figure 8

- Close the inlet by using the relevant cap (if equipped).
- Release the dust container.
- Remove the dust bag and close it with a clamp, if necessary.
- Place a new bag, taking care to wrap it around the outer wall of the dust container.
- Set the dust container into the machine again.

How to replace the Paper Bag

Figure 9

- Close the inlet by using the relevant cap (if equipped).
- Release the dust container.
- Remove the bag and close it with the relevant cap (1) as shown in the figure.
- Insert a new bag, making sure the bag inlet is sealed.
- Set the dust container into the machine again.

How to replace the Safe Bag

Figure 9

- Remove and put the vacuum hose in a safe and dust-free place.
- Close the inlet by using the relevant cap (if equipped).
- Release the dust container.
- Close the Safe Bag by pulling the "guillotine" seal (2).
- Close the plastic bag hermetically using the relevant band (3).
- Use the sticky tape (4) to close the bottom of the plastic bag.
- Remove the relevant connection (5) of the bag from the inlet.
- Insert a new safe bag, making sure the vacuum inlet is well connected to the bag attachment, to grant the sealing.
- Wrap the plastic bag around the dust container external wall.
- Place the dust container in the vacuum cleaner

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How to replace the Longopac®

Figure 10

- Turn the bag full of dust (1) on itself to obtain a section of coiled bags to be tightened with two clamps (2).
- Place the two clamps at a distance of 50 mm between them, then with a pair of scissors cut between the two clamps.
- Remove the bag full of dust (1) and place the new section of Longopac® (3).

Main and absolute filter disassembly and replacement



When the machine is used to vacuum hazardous substances, the filters become contaminated, therefore:

- *Work with care and avoid spilling the vacuumed dust and/or material;*
- *place the disassembled and/or replaced filter in a sealed plastic bag;*
- *close the bag hermetically;*
- *dispose of the filter in accordance with the laws in force.*



Filter replacement is a serious matter. The filter must be replaced with one of identical characteristics, filtering surface and category.

Otherwise the machine will not operate correctly. Before proceeding with these operations, turn off the machine and remove the plug from the power socket.



Before performing these operations, clean the filter as described in the "Maintenance, cleaning and decontamination" paragraph.



Take care not to raise dust during this operation. Wear a P3 mask and other protective clothing plus protective gloves (DPI) suited to the hazardous nature of the dust collected, refer to the laws in force.



Reassemble with care to avoid trapping your hands between the vacuum unit and the container. Use gloves that provide protection against mechanical risks (EN 388) with a level of protection CAT. II.



Do not use the Class H filter again after having removed it from the machine.

Primary filter replacement, for machines equipped with manual cleaning system

Figure 11

- Disengage the electrical connector.
- Remove the vacuum hose (1).
- Use the lever (2) to remove the cover (3) together with the primary filter.
- Remove the old filter from the cage.
- Dispose of the old filter according to the laws in force.
- Fit the new filter and insert the cage.
- Install the cover and the primary filter in the reverse order of removal.

Upstream absolute filter replacement

Figure 12

- Loosen the clamp with a screwdriver and remove the vacuum hose (1).
- Unscrew the knob (2).
- Unlock the safety bolt (5).
- Use the lever (4) to release the cap (3) then pull it up and out of the vacuum cleaner.
- Unscrew ring nut (6)
- Pull out fastening disc (7) and absolute filter (8)
- Place absolute filter (8) in a plastic bag, close the bag hermetically and dispose of the filter in accordance with the laws in force.
- Insert a new filter (8) with the same filtering characteristics as the removed one
- Lock the absolute filter with disc (7) and tighten the ring nut (6)
- Insert the cap (3) again.
- Fix the cap in place with the lever (4) and lock the safety bolt (5) again.
- Screw the knob (2).
- Fit the vacuum hose (1) back in place and tighten the clamp
- Lock it retightening the four nuts (1).

Downstream absolute filter replacement

- Unscrew the knob and remove the cover.
- Remove the absolute filter and place it in a plastic bag, close the bag hermetically and dispose of the filter in accordance to the laws in force.
- Insert a new absolute filter with the same filtering characteristics as the removed one.
- Reinstall the cover by fastening it with the knob.

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Installation, cleaning and replacement of the separator (optional)

Figure 13

[NOTE]

Instructions describing how to fit the optional kits and the relative operation and maintenance manuals are supplied together with the optional kits.

[NOTE]

If there is only a dust deposit on the separator (4) allow the dust to drop through the central hole.

The separator (4) should first be disassembled in order to be perfectly cleaned:

- Release the closing hooks (1) of the cover (2) and remove the cover.
- Remove the filter.
- Unscrew the two screws (3) and remove it from the container.
- Replace the part if it is excessively worn.
- Reinstall the separator (4).
- Lock it and fix it by means of the two screws (3).
- Fit the filter back in place, close the cover (2) and lock it by means of the two the closing hooks (1).

Tightness inspection

Hoses check

Figure 14

Make sure that connecting hoses (1) are in a good condition and correctly fixed.

If the hoses are damaged, broken or badly connected to the unions, they must be replaced.

When sticky materials are treated, check for possible clogging along the hose, in the inlet and on the baffle plate inside the filtering chamber.

To clean, scrape the inlet (2) from the outside to remove deposits.

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Filtering chamber gasket check for machines equipped with dust container

Figure 15

If the gasket (1) between the container and the filtering chamber (3) fails to guarantee sealing:

- Loosen the four screws (2) that lock the filtering chamber (3) against the machine structure.
- Allow the filtering chamber (3) to lower down and tighten the screws (2) once it has reached the sealing position.

If an optimal seal is not yet obtained or if there are tears, cracks, etc., the gasket must be replaced.

Filtering chamber gasket check for machines equipped with Longopac® system

Figure 16

Ensure that the Longopac® bag is tight with the gasket (2). Also check the seal of the gasket positioned on the discharge clapet (1).

The gasket must be replaced if it is torn, cut, etc...

Disposal

Figure 17

The crossed-out wheeled bin symbol on the equipment indicates that used electrical and electronic equipment must be collected and disposed of separately from household waste. The correct disposal of the equipment will help prevent potential negative consequences for the environment and human health.

Electrical and electronic household equipment must be disposed of at the separate collection points in the residence area. Please note that commercial electrical and electronic equipment should be disposed of separately from the municipal waste stream. We will be pleased to inform you about suitable disposal options.




Wiring diagrams

Figure 18

Recommended spare parts

The following is a list of spare parts that should be kept ready at hand in order to speed up maintenance operations.

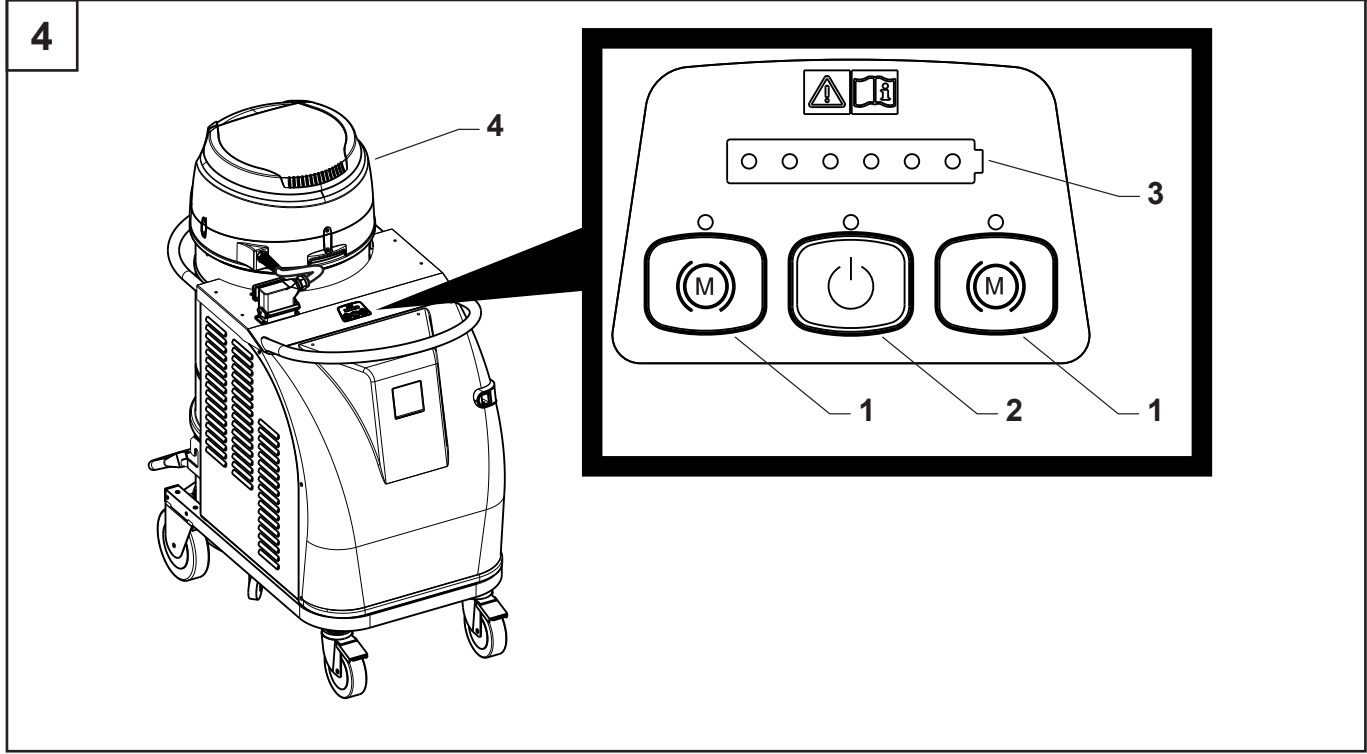
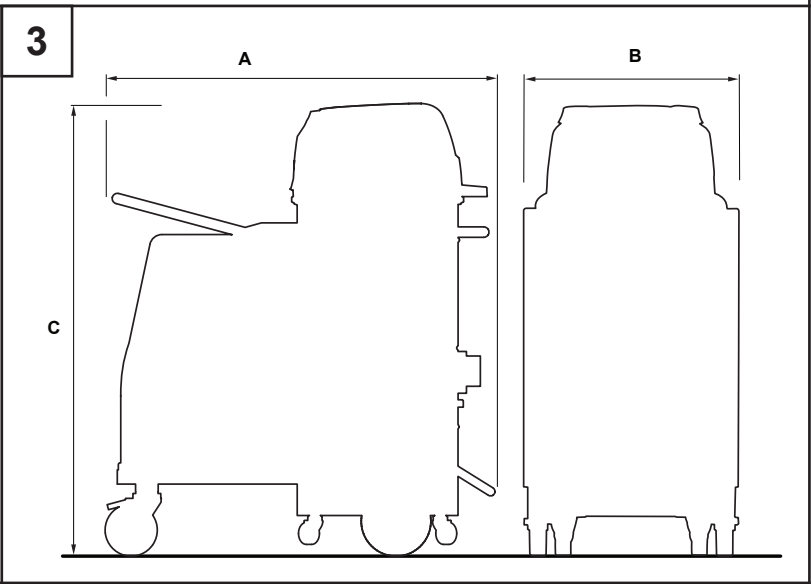
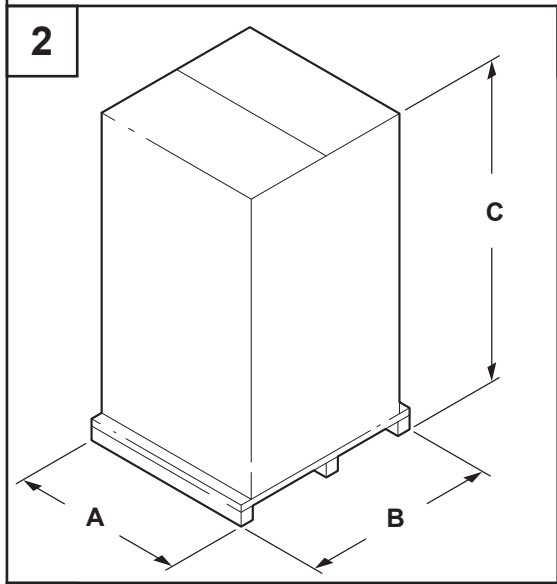
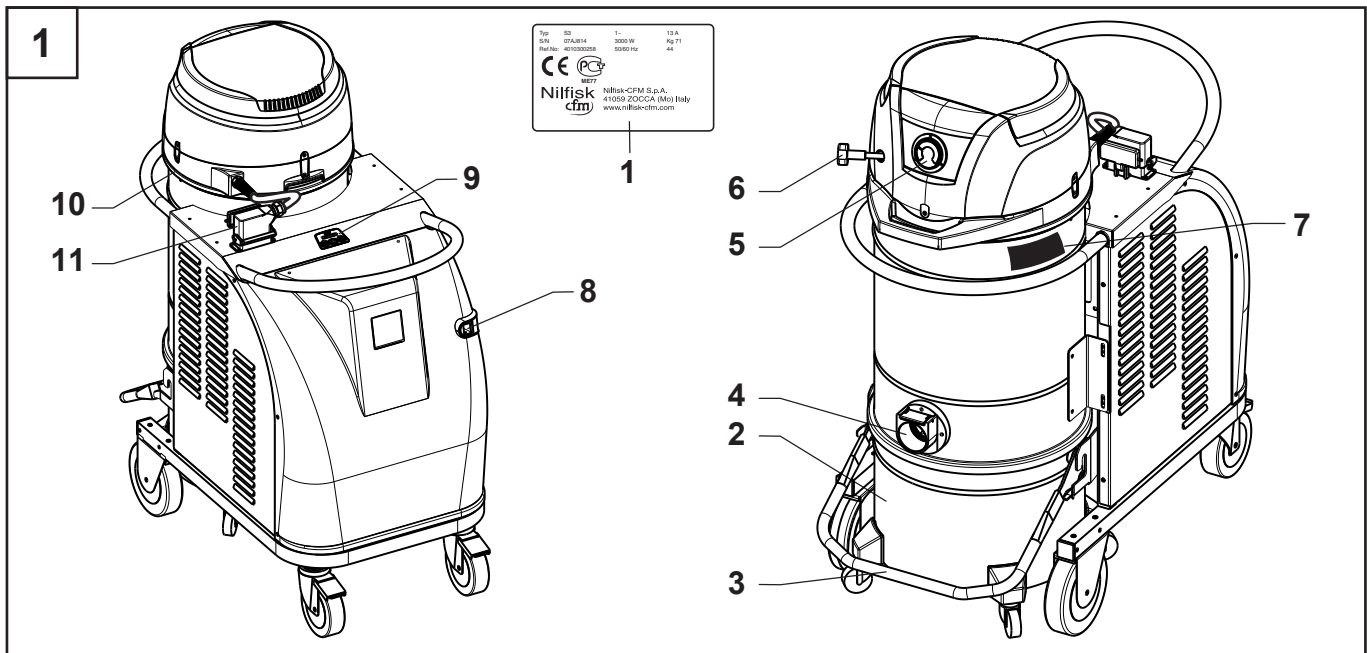
Refer to the manufacturer's spare parts catalogue when ordering spare parts.

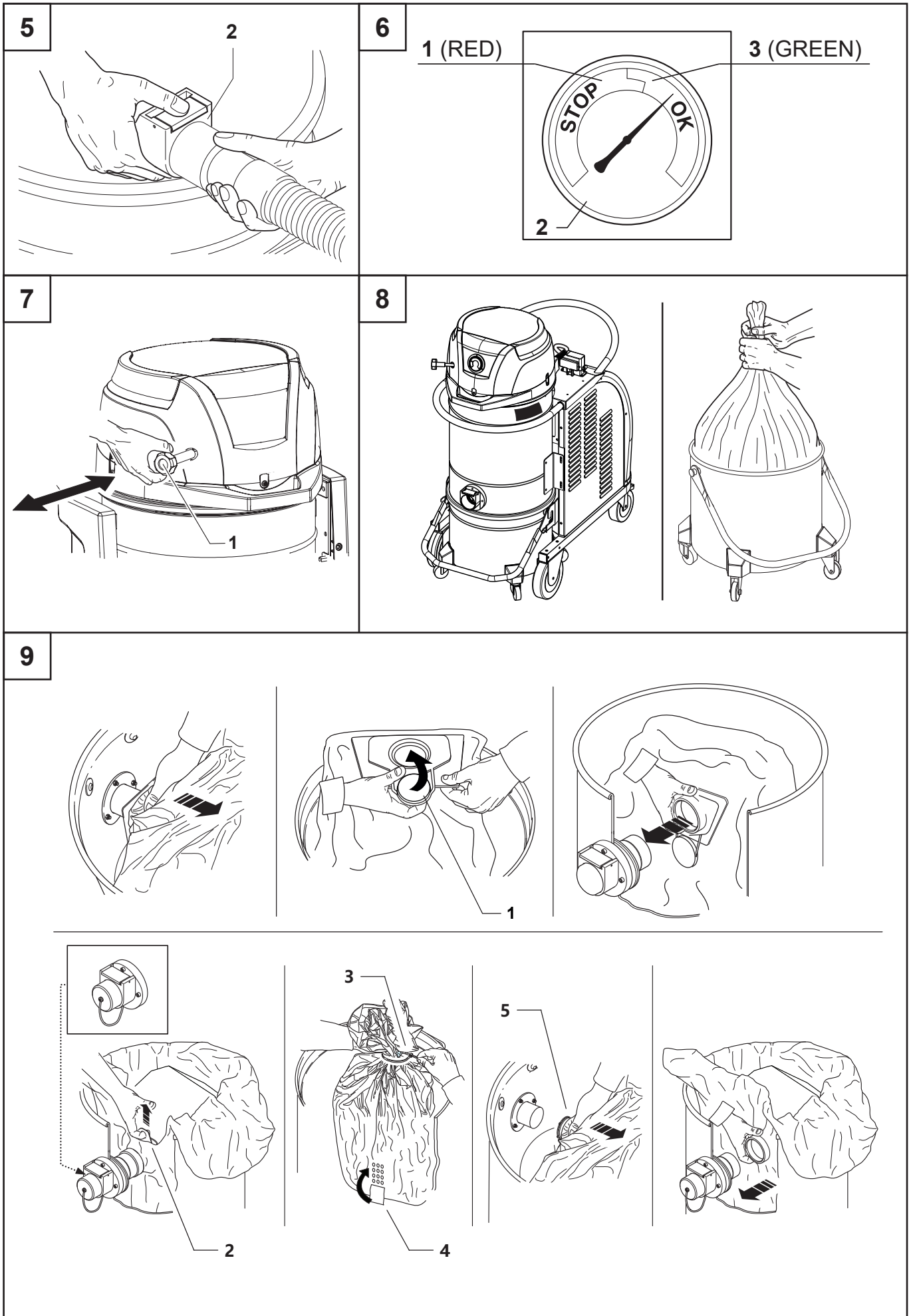
	Name	Model
	Star filter kit	40000492
	Filter ring gasket	Z8 17026
	Filter chamber gasket	4081701540
	Filter clamp	Z8 18079
	Absolute filter	4081700935
	Longopac	4084000956
	Paper Bag - Dust bag (5 bags)	81584000
	Safe Bag (1 bag)	4084001468
	LDPE polyethylene bag	Z8 40099
	36V motor	4089101116
	Motor brush	4083902036
	Motor gasket	Z8 17325
	Battery kit	106479011

GB

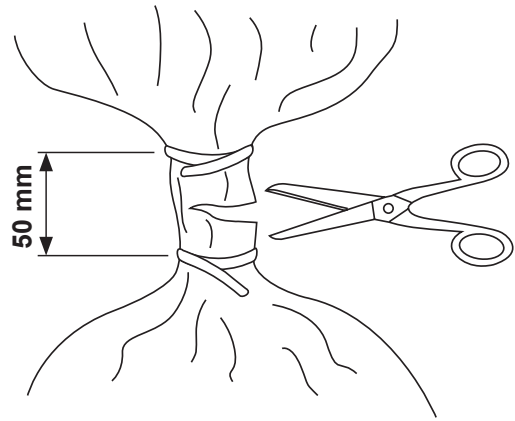
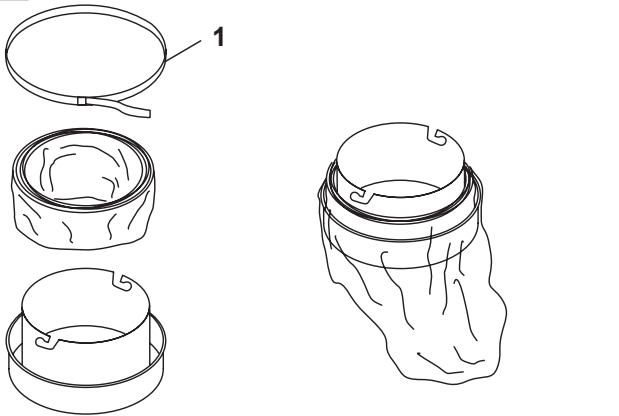
Troubleshooting

Problem	Cause	Remedy
The machine does not start	Battery issues	Check if the battery is sufficiently charged. Check whether the LED on the battery is green. Check the status of the socket and the charging cable. Ask for assistance to be performed by a qualified manufacturer's technician.
The machine revolutions increase	Clogged primary filter	Use the filter shaker (models with manual filter shaker). Replace it if this is not sufficient.
	Clogged vacuum hose	Check the vacuum hose and clean it.
Dust leaks from the machine	The filter is torn	Replace it with another of identical type.
	Inadequate filter	Replace it with another of a suitable category and check.
Electrostatic current on the machine	Missing or inefficient grounding	Check all ground connections. In particular on the vacuum inlet fitting; replace the hose with an antistatic hose.

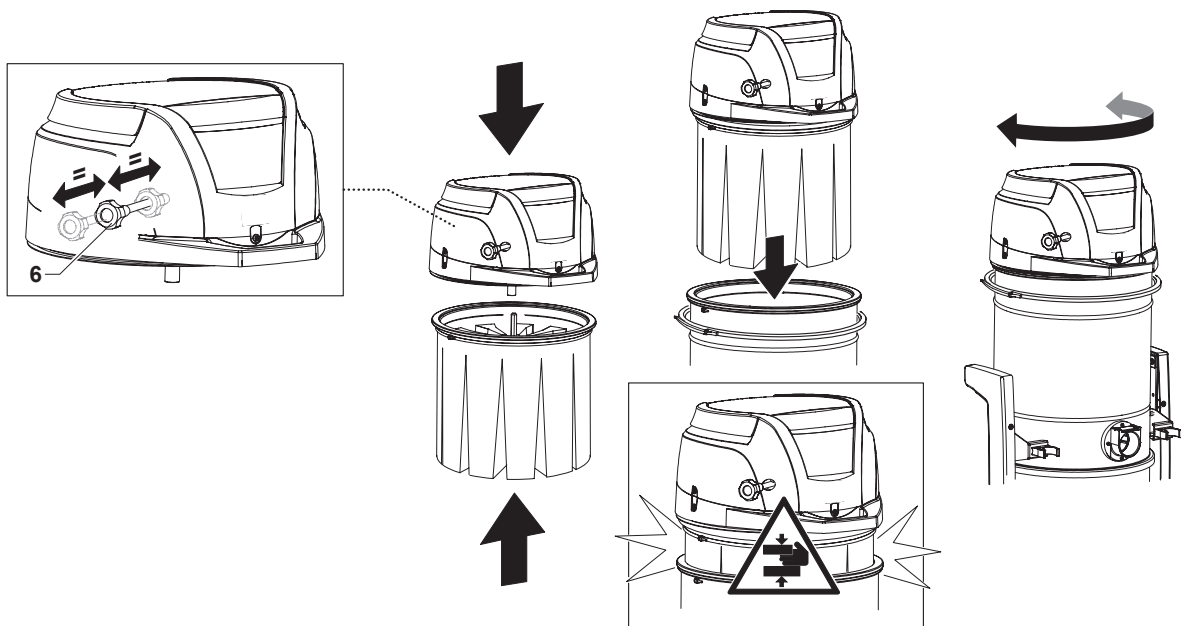
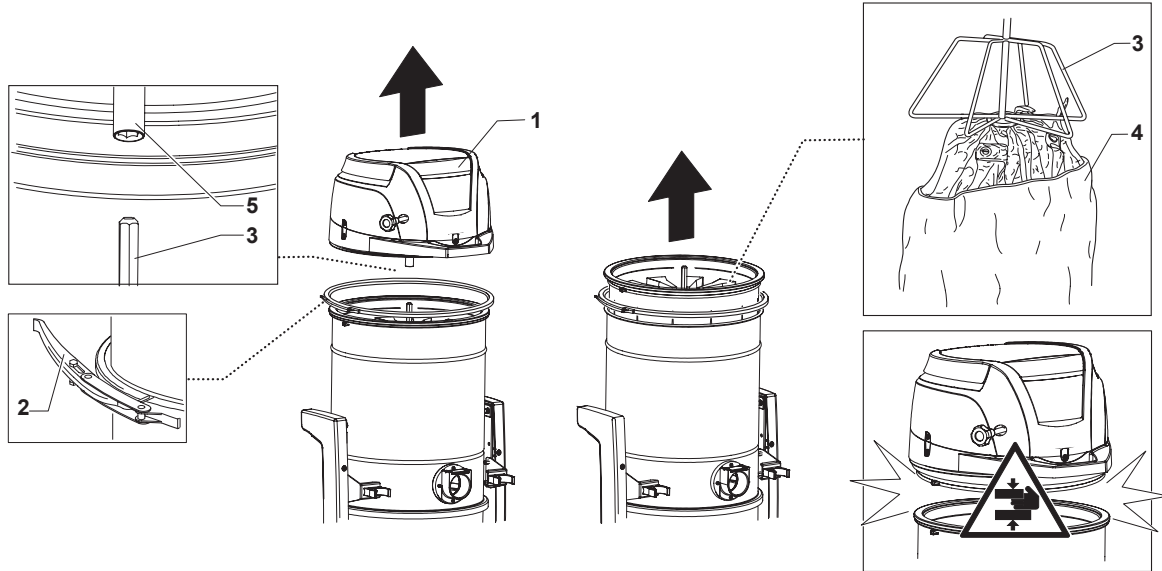


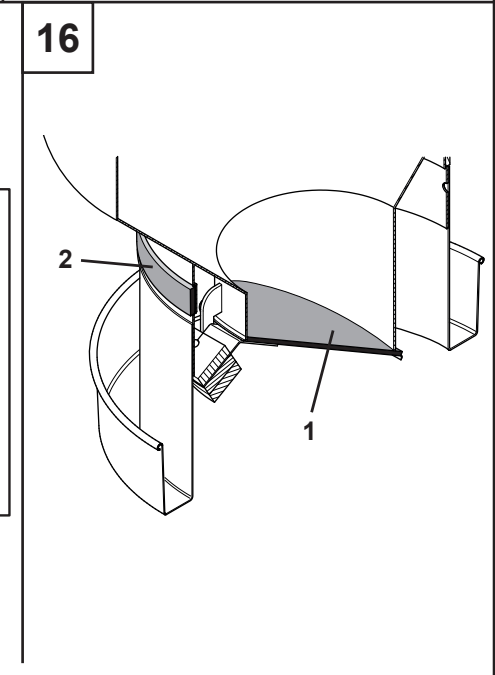
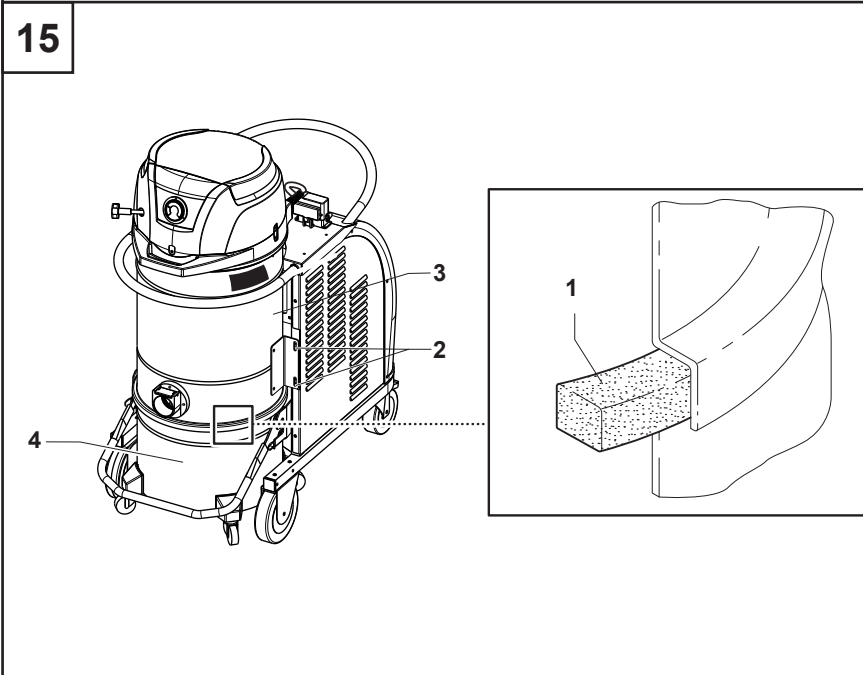
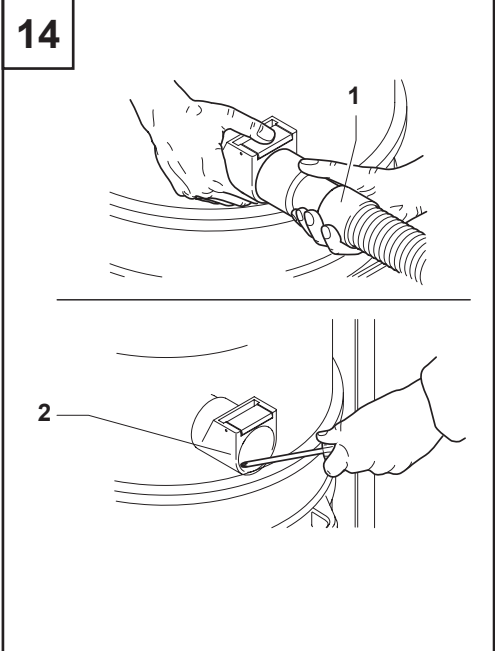
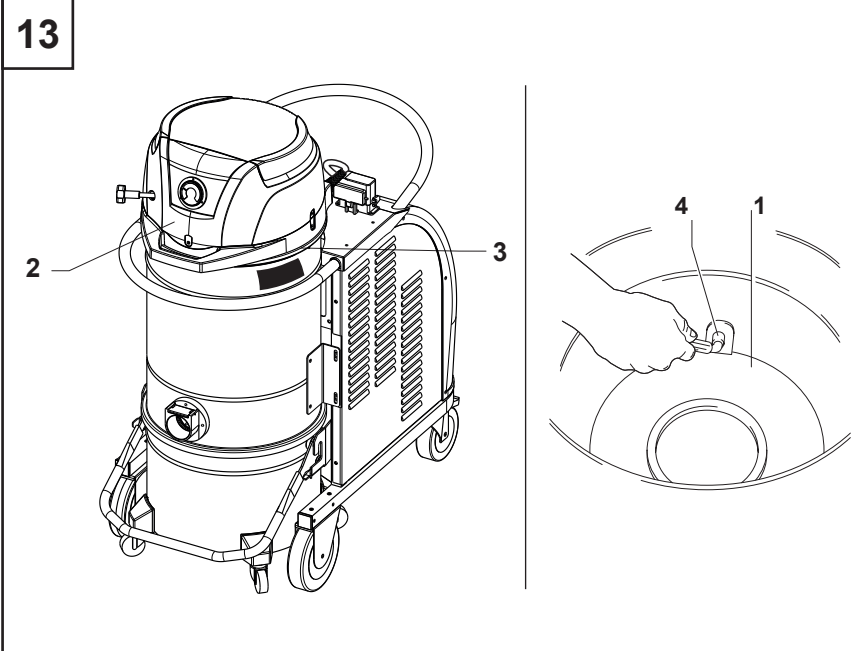
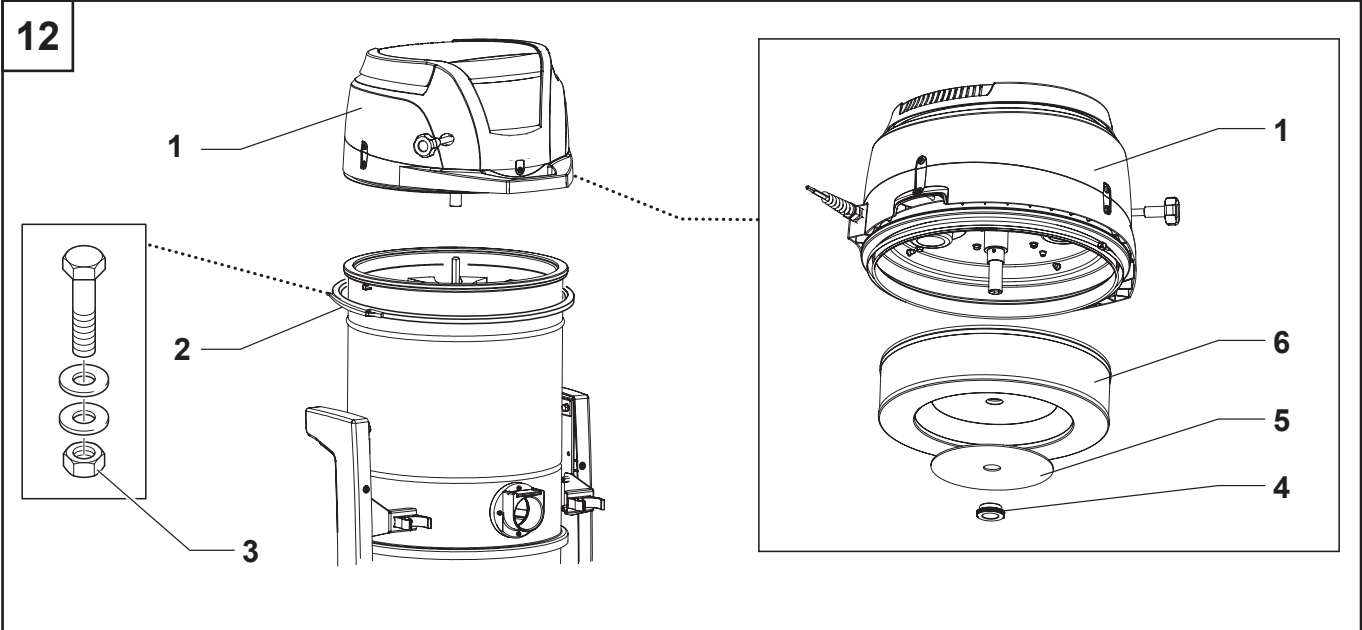


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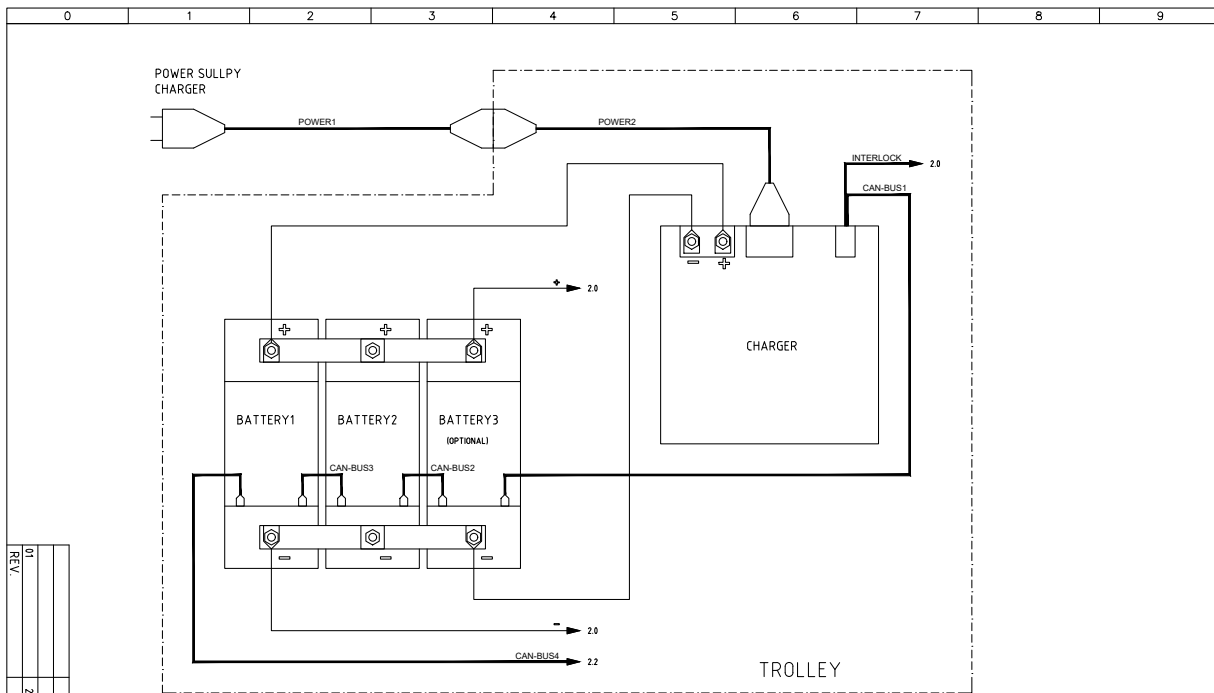




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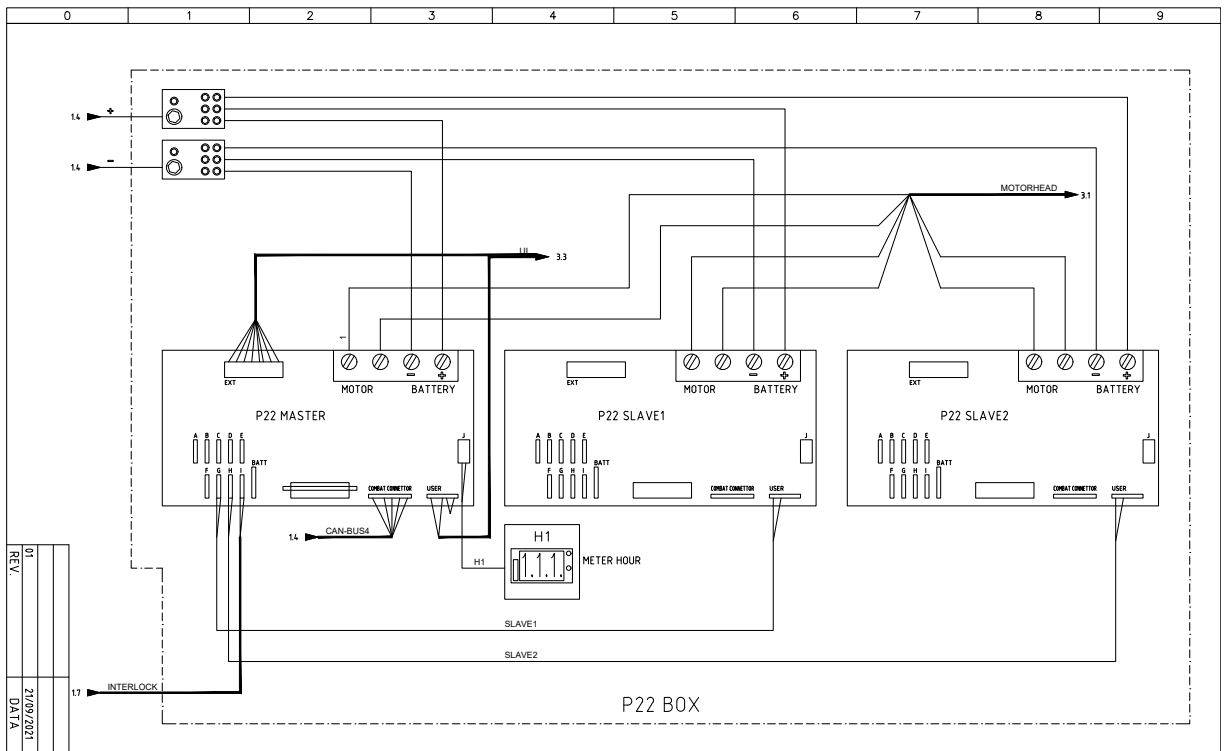


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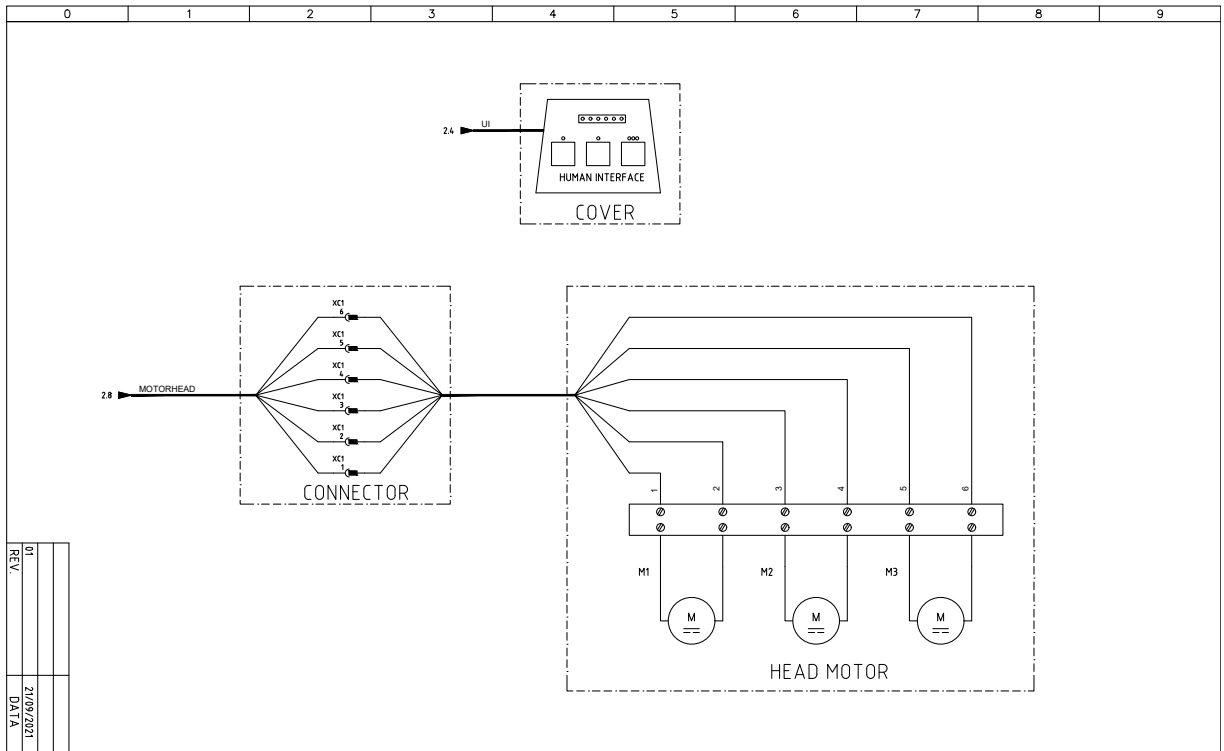


REV.	01
DATA	27/09/2021

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	CONTR.		Edizione	14/05/2021 rev.n° 01	Esecutore		BONONCINI	SEGUE
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	CONTR.	Denominazione	Esecutore		SEGUE
	Edizione 14/05/2021 rev.n° 01	CIRCUITO MOTORI E TASTIERNO	BONONCINI		/

Declaration of Conformity
 Prohlášení o shodě
 Konformitátskvrklärung
 Överensstämmelseerklaring
 Declaración de conformidad
 Vastavusdeklaratsioon
 Declaration de conformité
 Vastavustõdemärgistusavaldus

Декларация о соответствии
 Δήλωση συμμόρφωσης
 Megfelelőségi nyilatkozat
 Izjava o sukladnosti
 Dichiarazione di conformità
 Atitikties deklaracija
 Atbilstības deklarācija
 Sarrivierverklaring
 Conformiteitsverklaring

Declaração de conformidade
 Dichiarazione di conformità
 Declaratie de conformitate
 Декларация о соответствии
 Erklæring om overensstemmelse
 Vyhlašení o shodě
 Izjava o skladnosti
 Uygunluk beyanı

Manufacturer / Virobca / Hersteller / Fabrikant / Fabricante / Käsitajaja / Gyártó / Proizvodac / Fabricante / Gamintojas / Работил / Produzent / Fabrikant / Fabricante / Produttore / Proizvođač / Производител / Tilveerker / Virobca / Proizvajalec / Uređitelj firma:

**Nilfisk A/S, Kornmarksvej 1
 DK-2605 Brøndby, DENMARK**

Place label from production test equipment here.

Model:
 Type:
 Serial nr.:

Mod. CE, CED1

Description / Pops / Beschreibung / Beskrivelse / Descripción / Kiriçkıs / La description / Kuvvas / Omschrijving / Beschrijving / Letis / Opis / Descrizione / Aprašymas / Apraksts / Beskrivning / Descrição / Beskrivelse / Beskrivning / Pops / Apkãma

VAC - Industrial - Complete electrical machine

- EN** We, Nilfisk hereby declare under our sole responsibility, that the above-mentioned product(s) is/are in conformity with the following directives and standards.
- CS** My, Nilfisk prohlašujeme na svou výlučnou odpovědnost, že výše uvedený výrobek je ve shodě s následujícími směrnicemi a normami.
- DE** Wir, Nilfisk erklären in alleiniger Verantwortung, dass das oben genannte Produkt den folgenden Richtlinien und Normen entspricht.
- DA** Vi, Nilfisk erklærer herved under eget ansvar at ovennævnte produkt(er) er i overensstemmelse med følgende direktiver og standarder.
- ES** Nosotros, Nilfisk declaramos bajo nuestra única responsabilidad que el producto antes mencionado está en conformidad con las siguientes directivas y normas.
- ET** Meie, Nilfisk kaitseme oma üheainelise vastutuse all, et eespool nimetatud toode on kooskõlas järgmistele direktiivide ja normidega.
- FR** Nilfisk déclare sous notre seule responsabilité que le produit mentionné ci-dessus agit conforme aux directives et normes suivantes.
- FI** Me, Nilfisk täten vakuutamme omalla vastuulla, että esillä mainittu tuote on yhdenmukainen seuraavien direktiivien ja standardien mukaisesti.
- NL** We verklaren Nilfisk hierbij op eigen verantwoordelijkheid, dat het bevestigende product voldoet aan de volgende richtlijnen en normen.
- BG** Ние, Nilfisk с настоящото декларираме на свое лично отговорност, че горното посочено изделие е в съответствие със следните директиви и стандарти.
- EL** Εγώ, Nilfisk δηλώνω με αποκλειστική μου ευθύνη, ότι το παραπάνω προϊόν συμμορφώνεται με τις ακόλουθες οδηγίες, κανονισμούς και πρότυπα.
- HU** Mi, Nilfisk kijelentem, egyedül felelősséggel, hogy a fent említett termék megfelel az alábbi irányelvek és szabványoknak.
- HR** Mi, Nilfisk izjavljemo pod punom odgovornošću, da gore navedeni proizvod u skladu sa sledećim direktivama i standardima.
- IT** Noi, Nilfisk dichiara sotto la propria responsabilità, che il prodotto di cui sopra è conforme alle seguenti direttive e norme.
- LT** Mes, Nilfisk, patvirtiname mūsų atstovėms pareikšdami, kad pirmiau minėtas produktas (ai) atitinka šias direktyvas ir standartus.
- LV** Mēs, Nilfisk, apņemuš atbildību par šādu apliecinājumu, ka minētais produkts atbilst šīm direktīvām un standartiem.
- NO** Vi, Nilfisk erklærer herved under eget ansvar, at det ovennævnte produkt er i samsvar med følgende direktiver og standarder.
- NL** We verklaren Nilfisk hierbij op eigen verantwoordelijkheid, dat het bevestigende product voldoet aan de volgende richtlijnen en normen.
- PT** Nós, a Nilfisk declaramos, sob nossa exclusiva responsabilidade, que o produto acima mencionado está em conformidade com as diretivas e normas a seguir.
- PL** My, Nilfisk ninajęcyj odpowiedzialnośc z pełną odpowiedzialnością, że wyżej wymieniony produkt jest zgodny z następującymi dyrektywami i normami.
- RO** Noi, Nilfisk Prin prezenta declarăm pe propria răspundere, că produsul mai sus menționat este în conformitate cu următoarele standarde și directive.
- RU** Мы, Nilfisk настоящим заявляем под нашу личную ответственность, что вышеупомянутое изделие соответствует следующим директивам и стандартам.
- SV** Vi Nilfisk förklarar härmed under eget ansvar att ovan nämnda produkt överensstämmer med följande direktiv och normer.
- SK** My, Nilfisk prehlasujeme na svoju výlučnú zodpovednosť, že výššie uvedený výrobok je v zhode s nasledujúcimi smernicami a normami.
- SL** Mi, Nilfisk izjavljamo s polno odgovornostjo, da je zgoraj omenjeni izdelek v skladu z naslednjimi smernicami in standardi.
- TR** Nilfisk, burada yer alan tüm sorumluluklarımıza göre, yukarıda belirtilen ürünün aşağıdaki direktifler ve standartlara uygun olduğunu beyan ederiz.

2006/42/EC	EN 60335-1:2013+A11:2014+A13:2017 EN 60335-2-69:2012 EN 12100:2011
2014/30/EU	EN 61000-3-2:2014 EN 61000-3-3:2013 EN 61000-6-2:2019 EN 61000-6-4:2019
2011/65/EU	EN 63000:2018

Authorized signatory: Pierre Mikaelsson, Executive Vice President, Global Products & Services, Nilfisk NLT

July 29, 2021



FAC-SIMILE

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