

NANO



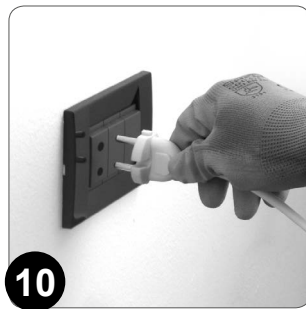
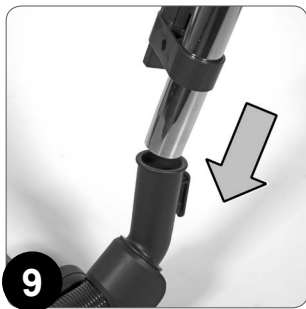
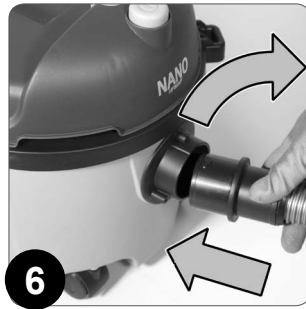
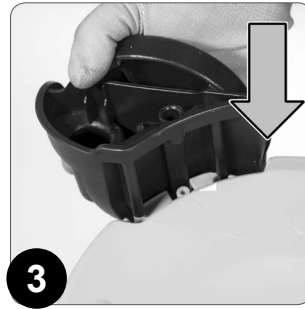
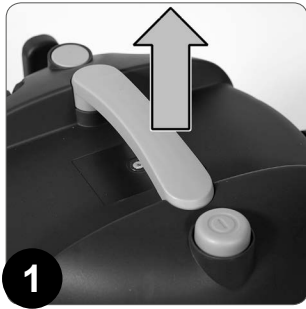
COMMERCIAL VACUUM CLEANERS

USE AND MAINTENANCE MANUAL

 **FIMAP**[®]



ORIGINAL INSTRUCTION DOC. 10060114 - Ver. AD - 05-2017



GENERAL SAFETY REGULATIONS



Before using the appliance for the first time, read and comply with these safety warnings. Keep these safety warnings for consultation in the future or to hand them over to successive owners.

- Before commissioning, read the appliance's user manual.
- The warning plates on the appliance provide important instructions for its safe use.
- Always comply with both the directions on the instructions, as well as current safety standards.
- Keep the packing film out of the reach of children. Risk of asphyxiation!

DANGER LEVELS



DANGER: Indicates an imminent danger that could cause serious injury or death.



WARNING: Indicates a probable dangerous situation that could cause serious injury or death.



CAUTION: Indicates a probable dangerous situation that could cause minor injuries.



ATTENTION: Indicates a probable dangerous situation that could damage objects.

CONNECTION TO THE ELECTRICITY GRID



DANGER:

- To reduce the risk of fire, electric shocks or injury, please carefully read and comply with all the safety instructions and warnings. This vacuum cleaner has been designed to be safe when it is used for cleaning in the manner specified. If damage to electrical or mechanical components is found, the vacuum cleaner and/or the accessory must be repaired at the relative authorised service centre or else at the manufacturer before use, in order to prevent further damage to the appliance or physical injury to the user.
- Before connecting the appliance to the electricity socket, make sure the electrical information on the plate corresponds to that of the mains supply. **The appliance must only be powered with alternating current and with the voltage shown on the rating plate.**
- The power supply cable outlet must have an earth connection in compliance with the regulatory standards.
- Before using, check for any damage on the connection cable and on the power plug. If the power cable is damaged, it should be changed by customer services or by a technician with similar qualifications.
- Connect the appliance only to an electrical connection installed by an electrical installer in conformity with IEC 60364-1.
- Never touch the power plug with wet hands.
- Make sure that the cable to the mains or the extension cable have not been damaged by having been walked on, crushed, pulled or the like. Protect the cable from heat and from contact with oils or sharp edges.
- Regularly check that the cable connecting to the mains is not damaged, for example with signs of ageing or cracks. If damage is found, the cable should be replaced before using the appliance again.
- Protection against splashes of water and the mechanical strength need to be ensured also after any replacement of the joints of the power cable or the extension cable.

- Do not clean the appliance with a hose or a jet of high pressure water (risk of short-circuit or other electrical faults).

 **ATTENTION:**

- The procedure causes short-term reduction in voltage.
- In unfavourable grid conditions the other appliances could be damaged.
- This damage could occur if the grid impedance is less than 0.15Ω.

USE - EMPLOYMENT

 **DANGER:**

- Never use with a damaged cable or plug. When removing from an electrical socket, pull the plug and not the cable. Do not handle the plug or the vacuum cleaner with wet hands. Deactivate all the controls before connecting or disconnecting from the electrical socket.
- Do not pull or transport the appliance by the cable, do not use the cable as a handle, do not close a door on the cable, and do not pull the cable around sharp edges or corners. Do not pass the vacuum cleaner over the cable. Keep the cable away from hot surfaces.
- Be careful when cleaning on stairs.
- The appliance must not be used or kept outdoors, in damp conditions or directly exposed to rain.
- The storage temperature must be between -25°C and +55°C.
- Conditions of use: ambient temperature between 0°C and 40°C with a relative humidity between 30 and 95%. The vacuum cleaner has been developed only for dry cleaning and it should not be used or kept outdoors in moist conditions.
- Before using, make sure the appliance and the work equipment and in particular the extension cable are in a good condition. If there is any damage, immediately pull out the power plug from the mains socket, the appliance should not be used.
- When the appliance is used in dangerous situations (for example filling stations) the relative safety regulations must be followed. It is forbidden to use the appliance in areas with a high risk of explosion.
- Certain substances can form explosive vapours and mixtures together with intake air.
- Never vacuum the following substances:
 - ◆ Explosive or inflammable gases, liquids and powders (reactive powders).
 - ◆ Reactive metal powders (for example aluminium, magnesium, zinc) together with strongly alkaline detergents and acids.
 - ◆ Acids and alkalines in their purest state.
 - ◆ Organic solutions (for example gasoline, paint thinners, acetone or gasoline).

 **WARNING:**

- Keep hair, loose clothing, fingers and all body parts away from openings and from moving parts. Do not put objects into the openings or use the appliance with the opening blocked. Keep the openings free of dust, fur, cloths, hair, and everything else that can reduce the air flow.
- This appliance is not suitable for vacuuming dangerous powders.
- Do not use to vacuum flammable or combustible liquids like gasoline, or use in areas where they may be present.
- Do not vacuum anything that is burning or smouldering, like cigarettes, matches or glowing embers.

- **The appliance can be used by children over 8 years of age and by people with limited physical, sensorial or mental, or by people who have no experience or the required knowledge, as long as they are supervised or after they have been given instruction regarding using the appliance safely and they understand the dangers involved in using it. Children should not play with the appliance. Unsupervised children should not clean or carry out maintenance that is the responsibility of the user.**
- Children must be supervised to make sure they do not play with the appliance.
- Children should not do any cleaning or maintenance that is the responsibility of the user without supervision.
- This appliance should only be used in closed areas.
- Never leave the appliance unattended when it is connected to the mains socket. Take the plug out of the socket when not used and before any maintenance.
- Burning or smouldering objects.
- It is forbidden to vacuum persons or animals with this appliance.
- In low temperatures, the appliances should not be used outdoors.

**CAUTION:**

- When the appliance is operating do not bring it close to delicate organs like ears, mouth, eyes, etc.
- Do not use the appliance without filters. The dry vacuum cleaner must always have a bag filter fitted.
- The device must only be kept in closed areas.
- If the vacuum cleaner is not working properly or it has fallen, been damaged, left outside or has fallen in water, take it to a service centre or back to the retailer.
- Always use the appliance in compliance with its intended use, taking into consideration local conditions and looking out for the presence of others, especially children, when working.
- Never leave the appliance unattended until it has been switched off and the plug has been taken out of the mains socket.
- Always wear suitable protective gloves when working with the appliance.
- The appliance should only be used by people trained in its use and who have shown that they know how to use the appliance and have been expressly authorised to do so.
- Do not place any liquid containers on the appliance.
- In the event of a fire, use a powder extinguisher. Do not use water.
- Immediately switch off the appliance if foam or liquid comes out.

TRANSPORT**WARNING:**

- Before transporting, close all the locking hooks of the top cover.
- When transporting the appliance, the engine should be switched off, and make sure that the appliance is in a stable and secure position.

MAINTENANCE**DANGER:**

- Before cleaning and carrying out maintenance on the appliance and before replacing any components, switch off the appliance and pull out the power plug from the mains socket.
- Repairs should only be carried out by authorised service centres or by personnel who are experts in this field and who are familiar with all the current safety norms.
- Observe the safety check as per local provisions for commercial appliances.

ACCESSORIES AND SPARE PARTS

 **CAUTION:**

- Only use accessories and spare parts that have been authorised by the manufacturer. Original accessories and spare parts ensure the appliance can be used safely and without any fault.

EXTENSION CABLES

 **CAUTION:**

CABLE LENGTH	CABLE SECTION	
	<16A	<25A
Up to 20m	1.5mm ²	2.5mm ²
From 20m to 50m	2.5mm ²	4.0mm ²

Only use the materials expressly recommended by the manufacturer as cable extensions (contact an authorised retailer) or else high quality models. When using an extension, respect its minimum cross-section.

DRY VACUUM CLEANER

 **DANGER:**

- The appliance has been designed only for vacuuming dry solid material and it should not be used for other purposes.

 **WARNING:**

- The appliance is not suitable for vacuuming powders that are damaging to health.

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SYMBOLS USED IN THE MANUAL



Symbol of the open book with i:
Indicates the need to consult the instruction manual.



Symbol of the open book:
Tells the operator to read the user manual before using the device.



Covered place symbol:
The operations preceded by this symbol must always be carried out in a dry, covered area.



Warning symbol:
Carefully read the sections preceded by this symbol meticulously following the instructions indicated for the safety of the operator and the device.



Disposal symbol:
Carefully read the sections marked with this symbol for disposing of the appliance.

PURPOSE AND CONTENT OF THE MANUAL

The aim of this manual is to provide customers with all the information needed to use the appliance in the safest, most appropriate and most autonomous way. It includes information concerning technical aspects, safety, operation, appliance downtime, maintenance, spare parts and scrapping.

Operators and qualified technicians must read the instructions in this manual carefully before carrying out any operation on the appliance. If you have any doubts about the correct interpretation of the instructions, contact your nearest assistance centre to obtain the necessary clarification.

TECHNICAL DESCRIPTION

NANO is a vacuum cleaner which uses the vacuum created in the collection tank by the fan (enabled by the electrical motor) to pick up dust and dry solid elements measuring up to 2cm at ambient temperature, as the accessories brush against the floor and furnishings. The vacuum hose channels the air into the collection tank, where the dust and solid residues are trapped by filters. **The appliance must only be used for this purpose.**

INTENDED USE

This appliance is designed and built to be used by a qualified operator to clean (by vacuuming solid, dry elements) smooth, compact flooring in the commercial, residential and industrial sectors, in proven safety conditions.

The appliance is only suitable for use in indoor - or at least covered - areas. The appliance is not suitable for use in the rain, or under jets of water.

IT IS FORBIDDEN to use the appliance for picking up dangerous dusts or inflammable liquids in places with an explosive atmosphere. In addition, it is not suitable as a means of transport for people or objects.

TECHNICAL DATA	U/M	NANO 230V	NANO 115V
Power supply voltage	V	230	115
Frequency	Hz	50	60
Rated power	W	700	1200
Type of vacuum cleaner		Dry	Dry
Vacuum	kPa	18	21
Air flow rate	m ³ /h	96	108
Collection tank capacity	l	10	10
Barrel material		PP+CaCo3	PP+CaCo3
Length of power supply cable	m	10	10
Dry weight	kg	6.3	5.3
Dimensions (L x H x W)	mm	335 x 390 x 305	333 x 320 x 327
Accessories diameter	mm	32	32
Sound pressure level (ISO 11201)	dB (A)	76	82
Uncertainty KpA	dB (A)	1.5	1.5

PREPARING TO WORK

Before beginning to work for the first time, it is necessary to:

- Place the lower part of the outer packaging in contact with the floor.
 - WARNING:** Use the pictograms printed on the box as reference.
- Open the outer box.
- Remove the accessories from the box and carefully lay them on the ground.
- Remove the appliance from the packaging using the handle designed for this purpose (Fig.1).
- Remove the appliance from the protective bag using the handle designed for this purpose.
 - WARNING:** it is recommended that all the packaging components be kept for any future transportation of the appliance.
 - WARNING:** these operations must be carried out using protective gloves to avoid any possible contact with the edges or tips of metal objects.
- Fix the rear wheel on the rear wheel support, insert the rear wheel pin into the slot of the support (Fig.2).
 - WARNING:** The wheel is correctly positioned when the stops of the wheel are completely inside the slot of the support.
- Insert the rear wheel supports onto the tank of the vacuum cleaner, insert the support pins into the slots of the tank (Fig.3).
 - WARNING:** To facilitate this operation on both the tank and on the supports, the letters "R" and "L" are printed to indicate right and left.
- Fix the rear wheel supports on the vacuum cleaner tank using the supplied screws (Fig.4).
 - WARNING:** the screwdriver is not supplied.
- Secure the pivoting wheel on the vacuum cleaner tank, insert the pivoting wheel pin in the support hole (Fig.5).
 - WARNING:** The pivoting wheel is correctly positioned when the stops of the wheel are completely inside the slot of the tank.
 - WARNING:** before using the appliance, make sure it is in order and safe to use with the work equipment, especially the power cable and the extension cable. If everything is not in order, the appliance must not be used.
- Insert the vacuum hose from the vacuum nozzle present in the collection tank, to lock the vacuum hose inside the nozzle rotate it according to the direction of the arrow (Fig.6).
 - WARNING:** Refer also to the symbols printed on the device itself.
- Assemble the steel extension tube (Fig.7).
- Insert the extension tube into the vacuum hose (Fig.8).
- Insert the selected accessory into the extension tube (Fig.9).
- Release the vacuum cover retaining hinges on the side of the tank (Fig.13).
 - WARNING:** Refer also to the symbols printed on the device itself.
- Using the handle on the vacuum tank cover, (Fig.1), remove the vacuum tank cover from the collection tank. Put the vacuum tank lid gently on the floor.
- Take out the air intake filter from inside the collection tank (Fig.14).
- Insert the paper filter bag inside the collection tank, taking care to insert the filter correctly into the vacuum nozzle inside the collection tank and making sure not to damage the cardboard support in the bag itself (Fig.15).
 - WARNING:** operation valid only if the optional paper filter bag is used.
- Using the handle on the vacuum tank lid, position the vacuum tank lid on the collection tank.
- Secure the suction cover stop hinges, located at the side of the tank.
 - WARNING:** Never use the unit without the supplied vacuum motor inlet air filter.
- Insert the plug of the power supply cable in the mains socket (Fig.10).
- Turn on the appliance by pressing the main switch (Fig.11).
- If the "combined nozzle" is used, set the switch in the brush to "HARD SURFACES" or else "CARPET FLOORS". Start vacuuming (Fig.12).

⚠ WARNING: If you are using the brush attachment for the first time, remove the stops as described on the label attached to the accessory itself.

⚠ WARNING: If while working you note that the vacuum accessory is sticking to much to the surface on which it is being used, adjust the air flow inside the vacuum hose using the lever on the grip and free the accessory.

AT THE END OF THE WORK

At the end of the work, and before carrying out any type of maintenance, perform the following operations:

1. Take the appliance to the designated place for emptying the collection tank.
2. Perform all procedures indicated in Chapter "MAINTENANCE".
3. Take the appliance to the designated storage area.
4. Insert the vacuum hose fastening clip in the support at the front of the handle in the collection tank lid.

⚠ WARNING: Park the appliance in an enclosed place, on a flat surface; near the appliance there must be no objects that could either damage it, or be damaged through contact with it.

MAINTENANCE

Proper maintenance of the collection tank guarantees better floor cleaning. Proceed as follows to empty the collection tank:

1. Take the device to the dedicated maintenance area.

♻ WARNING: The place this operation is carried out should comply with current environmental protection regulations.

1. Make sure that the main switch is in the rest position, if not, disable it (Fig.11).
2. Check that the plug on the power cable has been taken out of the socket of the mains supply (Fig.10), and if not, disconnect it.

⚠ WARNING: To prevent damaging the power cable, disconnect the plug from the mains socket by directly pulling the plug and not the cable.

3. Release the vacuum cover retaining hinges on the side of the tank (Fig.13).

i WARNING: Refer also to the symbols printed on the device itself.

4. Using the handle on the vacuum tank cover, remove the vacuum tank cover from the collection tank. Put the vacuum tank lid gently on the floor.
5. Take out the air intake filter from inside the collection tank (Fig.14).
6. Take the paper filter bag out of the tank, taking care not to damage the cardboard support inside the bag itself (Fig.15).

i WARNING: operation valid only if the optional paper filter bag is used.

i WARNING: If the optional paper filter bag is not used, empty the contents of the tank into the container used for collecting dirt.

7. Clean the inside of the collection tank with a damp cloth.
8. Remove the vacuum motor filter latch from the vacuum head, rotate it according to the direction indicated by the arrow (Fig.17).

i WARNING: Refer also to the symbols printed on the device itself.

9. Remove the vacuum motor filter (Fig.18).
10. Clean the filters with a jet of air from a distance of at least 20 cm. Replace them if damaged.

i WARNING: If persistent dirt remains on the filters, they can be cleaned under running warm water. Wait until they are completely dry before putting them back in the device.

11. Using the handle on the vacuum tank lid, position the vacuum tank lid on the collection tank.
12. Secure the suction cover stop hinges, located at the side of the tank.
13. Disconnect the vacuum hose from the vacuum nozzle present in the collection tank (Fig. 16), to release the vacuum hose from the nozzle rotate it according to the direction of the arrow.

i WARNING: Refer also to the symbols printed on the device itself.

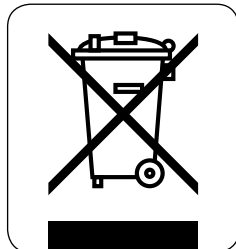
14. Disconnect the vacuum hose from the extension tube.
15. Clean the inside of the vacuum hose with a jet of air.
16. Disconnect the extension tube from the vacuum accessory.
17. Clean the inside of the extension tube with a jet of air.
18. Clean the vacuum accessory first with a jet of air, and then with a damp cloth.
19. Repeat the operations in reverse order to reassemble all the parts.

DISPOSAL

To dispose of the appliance, take it to a demolition centre or an authorised collection centre. Before scrapping the appliance, it is necessary to remove and separate out the following materials, then send them to the appropriate collection centres in accordance with applicable environmental hygiene regulations:

- Felt
- Electric and electronic parts*
- Plastic parts
- Metallic parts

(* In particular, contact your distributor when scrapping electric and electronic parts.



TROUBLESHOOTING

This chapter lists the most common problems linked with the use of the appliance. If you are unable to resolve the problems with the information given here, please contact your nearest assistance centre.

PROBLEM	POSSIBLE CAUSE	SOLUTION
THE APPLIANCE DOES NOT SWITCH ON	The main switch is not enabled.	Press the main switch.
	The plug of the appliance's power supply cable is not correctly inserted in the mains socket.	Connect the plug of the appliance's power supply cable into the mains socket.
	The electronic specifications of the appliance do not correspond with the electronic specifications of the mains power supply.	Check whether the technical data on the serial number plate of the appliance corresponds with the data of the mains power supply.
	The power cable is damaged.	Contact a qualified technician as soon as possible.
INSUFFICIENT VACUUM - EXCESSIVE PRODUCTION OF DUST	The vacuum hose is incorrectly connected to the nozzle on the collection tank.	Connect the vacuum hose correctly to the nozzle on the collection tank.
	The vacuum hose is incorrectly connected to the extension tube.	Connect the vacuum hose correctly to the extension tube.
	The extension tube is incorrectly connected to the accessory that is being used.	Connected the extension tube correctly to the accessory that is being used.
	There is something obstructing the suction circuit (vacuum hose; extension tube; vacuum accessory).	Remove the blockage in the suction circuit.
	The vacuum filter is blocked.	Remove the blockage in the vacuum filters.

EC DECLARATION OF CONFORMITY



The undersigned company:

FIMAP S.p.A.
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declares under its sole responsibility that the products

VACUUM CLEANERS mod. NANO 230V – NANO 115V

comply with the provisions of Directives:

- 2004/108/EC EMC
- 2006/42/EC MD
- 2011/65/UE RoHS
- 2009/125/EC Ecodesign
- 2013/666/EU Ecodesign for vacuum

The person authorised to compile the technical file:

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Santa Maria di Zevio, 06/10/2014

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