

NORTON



CV 324

OPERATING INTRUCTIONS

clipper[®]

 **Declaration of conformity**

The undersigned manufacturer:

SAINT-GOBAIN ABRASIVES S.A.
190, Bd J.F. KENNEDY
L- 4930 BASCHARAGE

Declares that this product:

Clipper Vacuum: **CV 324**

Codes: **310325226**
310354991

is in conformity with the following Directives:

- ***European Machinery Directive 2006/42/EC***
- ***Electromagnetic Compatibility Directive 2004/108/EC***
- ***Low Voltage Directive 2006/95/EEC***



Pierre Mersch
Business Manager Machines Europe

- Technical specifications – Dimensions

- Technical data

| Parameter | Unit of measurement | CV 324 |
|---|---------------------|--------|
| Voltage | Volts / Hz | 230/50 |
| Power rating | kW | 1.6 |
| Noise level | dB(A) | 76 |
| Capacity | L | 40 |
| Inlet (diameter) | mm | 50.8 |
| Max vacuum | kpa | 21.1 |
| Maximum air flow rate (without hose and reductions) | L /s | 90 |
| Main filter surface | dm ² | 148.6 |
| Hepa filter surface* (if equipped) | dm ² | 300.1 |

Note - Storage conditions : T : -45 ... +40°C / H umidity : ≤ 85%
- Operating conditions : Maximum altitude 800m (up to 2131m with reduced performances)
T : -45 ... +40°C / Humidity ≤ 85%

* HEPA filtering according to the HEPA class of the filter installed.

- Dimensions (fig. 3)

| Model | CV 324 |
|-----------------|--------|
| A (mm) | 640 |
| B (mm) | 570 |
| C (mm) | 1000 |
| Net weight (kg) | 40 |

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Instructions for use

Read the operating instructions and comply with the important safety recommendations identified by:



ATTENTION DANGER!

- Operator safety



ATTENTION DANGER!

Before starting the vacuum cleaner, it is absolutely essential to read these operating instructions and to keep them ready at hand for consultation.

The vacuum cleaner can only be used by people who have experience with the way it works and who have been authorized and trained for the purpose.

Before using the vacuum cleaner, 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.

- General information for using the vacuum cleaner

Use of the vacuum cleaner is governed by the laws in force in the country where it is used. Besides the laws in force in the country where the vacuum cleaner is used, the technical regulations for ensuring safe and correct operation must also be observed. Do not carry out 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

The vacuum cleaners described in this instruction manual are designed for industrial use.

- Dust emissions into the environment

Indicative values of performance:

- normal version (not suitable for vacuuming hazardous dust): retains at least 99.1 % of particles with size $\geq 3 \mu\text{m}$.

- General recommendations



ATTENTION DANGER!

- Risk of fire outbreaks and explosions. The vacuum cleaner can only be used when it is certain that active sources of ignition are not going to be vacuumed. It is forbidden to vacuum the following materials: burning materials (embers, hot ashes, lighted cigarettes, etc.), flammable liquids, aggressive fuels (e.g. gasoline, solvents, acids, alkaline solutions, etc.). It is forbidden to vacuum the following materials: explosive dust or the ones liable to ignite in a spontaneous way (such as magnesium or aluminum dusts, etc.). The vacuum cleaner is not suitable for vacuuming explosive or similar substances, as established by the laws governing explosive substances, particularly: liquid fuels and mixtures of flammable dust and liquids.



ATTENTION DANGER!

Do not use equipment to filter or collect hazardous or combustible materials.

Emergency

If an emergency situation occurs:

- filter breakage
- fire outbreak
- short-circuit
- motor block
- electric shock
- etc.

turn off the vacuum cleaner, unplug it and ask for assistance from qualified personnel.

Note

Check the substances tolerated.



ATTENTION DANGER!

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

- Vacuum cleaner description - labels

See fig. 1.

- A - Identification plate: Code of the model, technical specifications, serial number, year of manufacture
- B - Dust container
- C - Fastening latches
- D - Handle
- E - Inlet
- F - Exhaust
- G - Attention plate for filter shaking
- H - Panel power plate
- I - Attention plate for the vacuum cleaner's use
- L - Prohibition plate for no vacuuming of combustible or dangerous materials
- M - Model plate

This vacuum cleaner creates a strong air flow which is drawn in through the inlet (E) and blows out through the outlet (F). Before turning on the vacuum cleaner, 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 Center). This vacuum cleaner is equipped with an internal baffle plate which subjects the vacuumed substances to a circular centrifugal movement that makes them drop into the container. The vacuum cleaner is equipped with a main filter which enables it to be used for the majority of applications.

- Accessories

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



ATTENTION DANGER!

Use only genuine accessories supplied and authorized by the manufacturer.

- Packing and unpacking

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

- Cardboard box packing (fig. 2)

| Model | CV 324 |
|-----------------|--------|
| A (mm) | 680 |
| B (mm) | 610 |
| C (mm) | 1055 |
| Net weight (kg) | 47 |

- Setting to work - connection to the power supply



ATTENTION DANGER!

- **Make sure that the vacuum cleaner is off.**
- **Make sure that the vacuum cleaner is in perfect condition before starting work.**
- **Before plugging the vacuum cleaner into the electrical mains, make sure that the voltage rating indicated on the data plate corresponds to that of the electrical mains.**
- **Plug the vacuum cleaner into a socket with a correctly installed ground contact/connection.**
- **The plugs and connectors of the connection cables must be protected against splashed water.**
- **Make sure that connections to the electrical mains and plug are correct.**
- **Use the vacuum cleaners only when the connection cables to the electrical mains are in perfect condition (damaged cables could lead to electric shock!).**
- **Regularly check that the electric cable does not show signs of damage excessive wear, cracks or ageing.**



ATTENTION DANGER!

When the vacuum cleaner is operating, 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).**
- **Only replace the electric power cable with one of the same type as the original.**
- **The cable must be replaced by the manufacturer's Service Center staff or by equivalent qualified personnel.**

**ATTENTION DANGER!**

Sockets, plugs, connectors and installation of the extension cable must maintain the protection degree of the vacuum cleaner, as indicated on the data plate.

**ATTENTION DANGER!**

The vacuum cleaner's power socket must be protected by a differential circuit-breaker with surge current limitation, that shuts off the power supply when the current dispersed towards ground exceeds 30 mA for 30 ms or an equivalent protection circuit.

**ATTENTION DANGER!**

Never spray water on the vacuum cleaner: such action constitutes a danger hazard for persons and could short circuit the power supply.

- Dry applications

Note

The supplied filter must be correctly installed.

- Maintenance and repairs

**ATTENTION DANGER!**

Disconnect the vacuum cleaner from its power source before cleaning, servicing or replacing parts; the plug must be removed from the socket.

- Carry out only the maintenance operations described in this manual.
- Use only original spare parts.
- Do not modify the vacuum cleaner in any way.
- Failure to comply with these instructions could jeopardize your safety.

**ATTENTION DANGER!**

To carry out maintenance operations which are not described in this manual contact the manufacturer's Service Center or his sales network.

- Controls and indicators (fig. 4)

- A - Suction motor start/stop switches
Each switch controls a motor.
- B - Power supply voltage indicator light
 - turned on: electric power supplied;
 - turned off: electric power not supplied.

- Inspection prior to starting

Prior to starting, check that:

- The filter is installed.
- All latches are tightly locked.
- The vacuum hose "A" and tools have been correctly fitted onto the inlet "B" (fig. 5).
- The dust paper bag is installed.

**ATTENTION DANGER!**

Do not use the vacuum cleaner if the filter is faulty.

- Starting up

- Lock the castor brakes before starting the vacuum cleaner "E" (fig. 6).
- Operate the switches "A" (fig. 4).

- Vacuum cleaner operation

**ATTENTION DANGER!**

Stop the vacuum cleaner before shaking the filter. Do not shake the filter while the vacuum cleaner is on, as this could damage the filter itself.

If the main filter is clogged, the vacuuming performance is reduced. If this is the case, proceed as follows:

- Shake the main filter by means of the knob "A" (fig. 7).
- If the problem persists, replace the filter (see the "Main filter replacement" paragraph).

- Shaking the main filter

Depending on the quantity of dust cleaned up, shake the main filter by means of the knob "A" (fig. 7) when the vacuuming performance is considerably reduced.



ATTENTION DANGER!

Stop the vacuum cleaner before shaking the filter. Do not shake the filter while the vacuum cleaner is on, as this could damage the filter itself.

Wait before restarting the vacuum cleaner, to allow the dust to settle. Replace the filter element, if the vacuuming performance is still reduced, even after the filter has been shaken (see the "Main filter replacement" paragraph).

- Stopping - Emergency stopping

Operate the switches "A" (fig. 4).

- Emptying the container



ATTENTION DANGER!

Before proceeding with these operations, turn off the vacuum cleaner and remove the plug from the power socket.

- Before emptying the container it is advisable to clean the filter (see "Shaking the main filter" paragraph).
- Release the container "A" (fig. 8), then remove and empty it.
- Make sure that the gasket is in perfect condition and correctly positioned.
- Place the container back in position and secure it again.

Paper bag

Use the paper bag "A" (fig. 14) supplied to collect dust.

- At the end of a cleaning session

1. Turn off the vacuum cleaner and remove the plug from the socket.
2. Wind the connection cable (fig. 9).
3. Store the vacuum cleaner in a dry place, out of reach of unauthorized people.

- Maintenance and cleaning



ATTENTION DANGER!

IMPORTANT: the precautions described below must be taken during all the maintenance operations, including cleaning and replacing of the filter.

- a) **To allow the user to carry out the maintenance operations, the vacuum cleaner must be disassembled, cleaned and overhauled as far as is reasonably possible, without causing hazards for the maintenance staff or other people. IMPORTANT: compartments that are not dust-tight must be opened with suitable tools (screwdrivers, wrenches, etc.) and thoroughly cleaned.**
- b) **Carry out a technical inspection at least once a year, e.g.: check the air filter to find out whether the air-tightness of the vacuum cleaner has been impaired in any way and make sure that the electric control panel operates correctly. This inspection must be carried out by the manufacturer or by a competent person.**



ATTENTION DANGER!

Use only genuine spare parts supplied and authorized by the manufacturer.

- Filter disassembly and replacement



ATTENTION DANGER!

Filter replacement is a serious matter. The filter must be replaced with one of identical filtering surface characteristics. Otherwise the vacuum cleaner will not operate correctly.

- Filter replacement (fig. 10)

Before proceeding with these operations, turn off the vacuum cleaner and remove the plug from the power socket.

- Release the stop "A" and unscrew the filter shaker knob "B".
- Release the fastening latches "C" and remove the complete head "D"; then, lift the filter "E" and remove the clamp "F", which holds the filter onto the support ring "G".
- Remove the cage "H" and turn the filter upside down.
- Untie the clamps "I" and detach the cage from the filter.
- Dispose of the filter according to the laws in force.
- Fit the new filter and secure it in the cage with special clamps.
- Assemble the components in the reverse order of disassembly.

- Motor cooling fan inspection and cleaning

Periodically clean the motor cooling fan to prevent the motor from overheating, especially if the vacuum cleaner is used in a dusty place.

- Tightness inspection

- Hoses check

Check that the hose "A" is in good condition and correctly fixed (fig. 11).

If the hose is damaged, broken or badly connected to the unions, it must be replaced.

When sticky materials are treated, check for possible clogging along the hose, in the inlet and in the dust container.

Scrape the inlet from the outside and remove the deposited waste as indicated in figure 11.

- Cover tightness check

If the gasket "A" (fig. 12) under the complete head "D" has become slack, unscrew the screws "B", which lock the fastening latches "C" in place, and allow the latter to slide downwards until the complete head "D" closes perfectly.

Now tighten the locking screws "B".

Replace the gasket "A" (fig. 12) if the degree of tightness is still not optimum.

- Filtering chamber tightness check

If the gasket "A" (fig. 13) between the container and the filtering chamber "C" fails to guarantee tightness, proceed as follows:

- Loosen the four screws "B", which lock the filtering chamber "C" against the vacuum cleaner structure.
- Allow the filtering chamber "C" to lower down, and tighten the screws "B" once it has reached the tightness position.

The gasket must be replaced if it is torn, cut, etc., or if the degree of tightness is still not optimum.

- Vacuum cleaner disposal

Dispose of the vacuum cleaner in compliance with the laws in force.

- Wiring diagrams

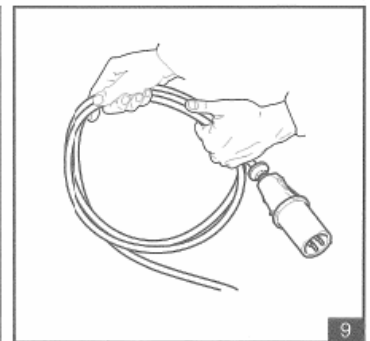
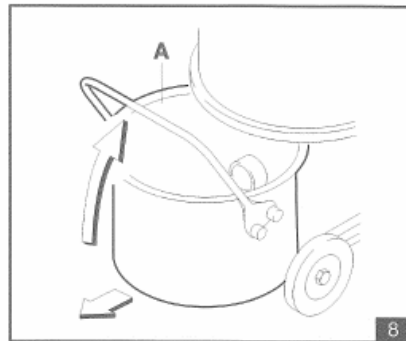
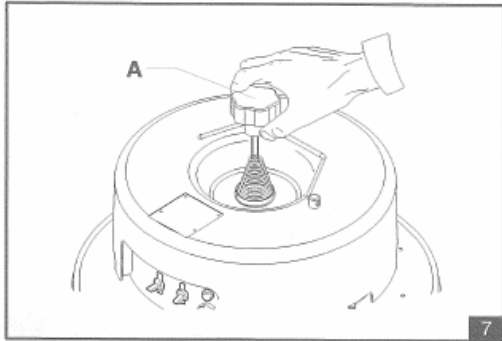
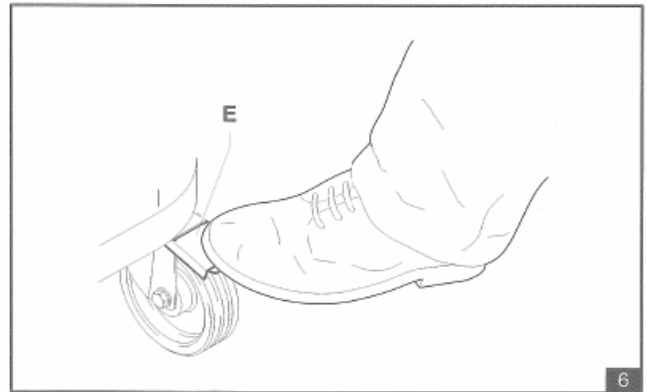
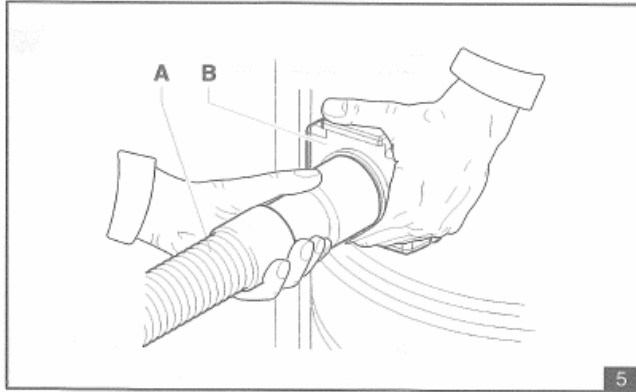
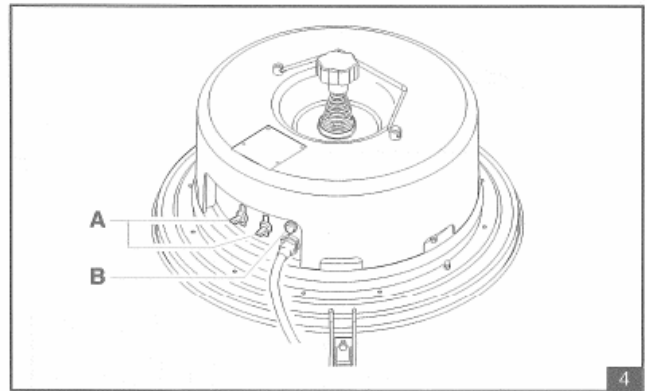
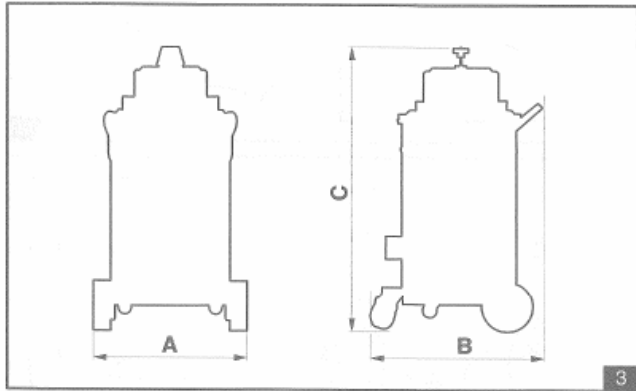
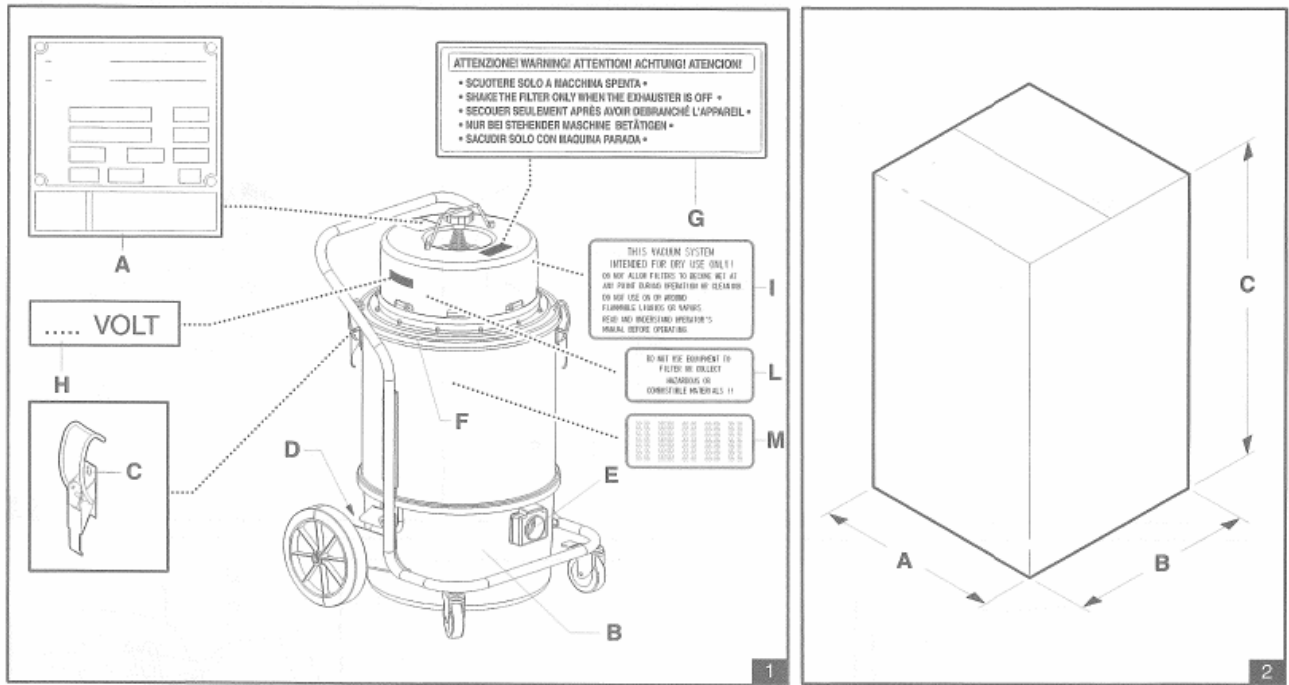
See fig. 15.

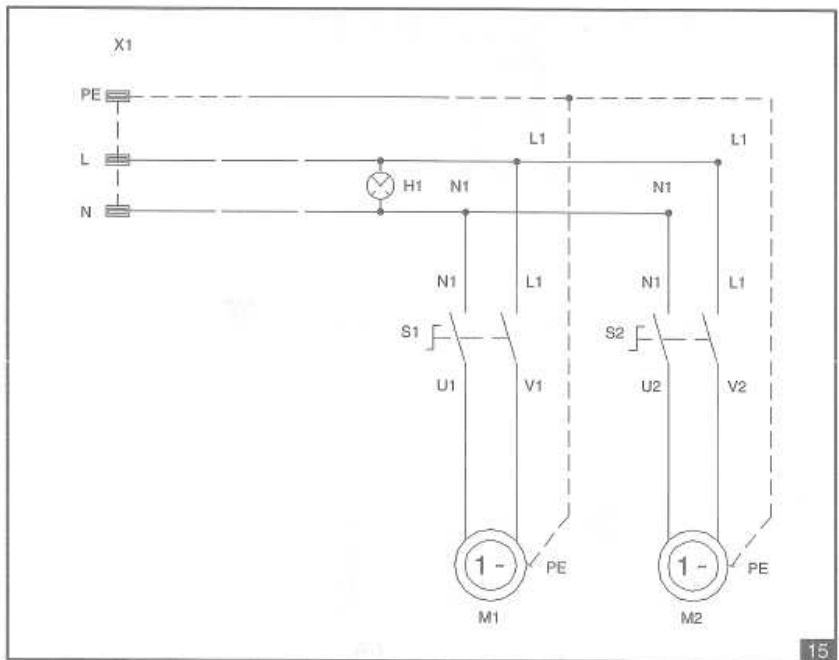
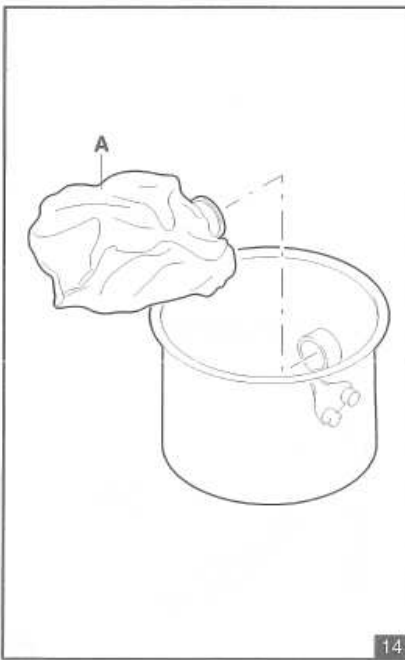
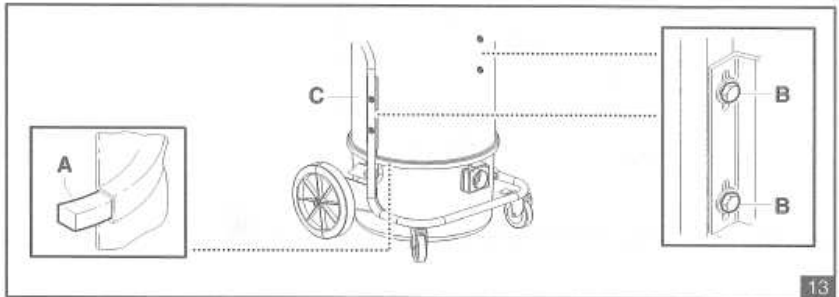
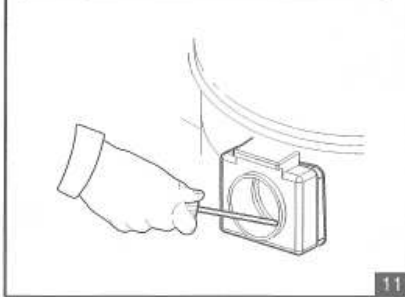
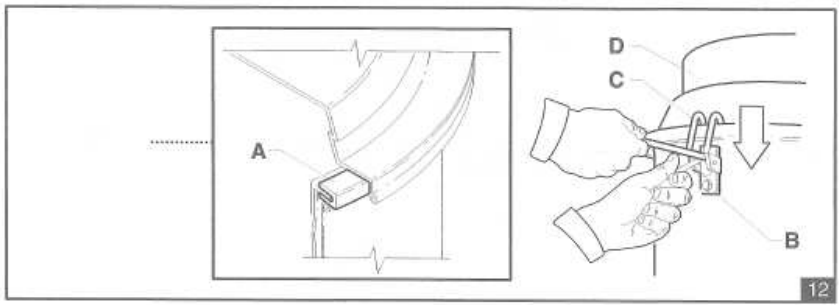
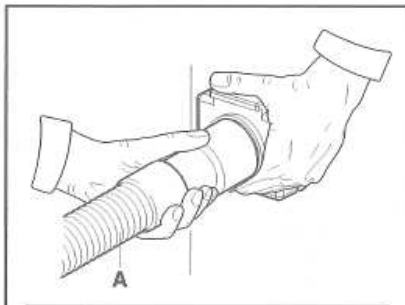
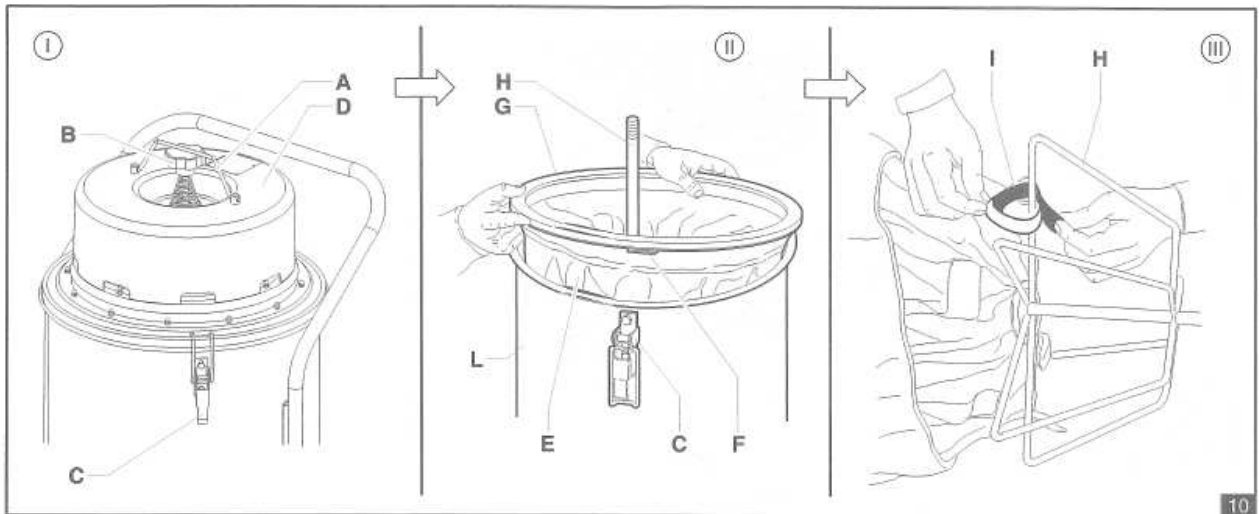
Wiring diagram list

| Name | Part | Code |
|-------------|----------------|-------------|
| H1 | Voltage lamp | |
| S1-S2 | Motor switches | |
| M1-M2 | Motors | |

- Troubleshooting

| Problem | Cause | Remedy |
|------------------------------------|---|--|
| The vacuum cleaner does not start | No current | Check if there is current in the socket Check if the plug and the cable are damaged Contact an authorized Service Centre |
| The vacuum cleaner speed increases | Clogged main filter Clogged vacuum hose | Shake the filter. Replace it if this is not sufficient Check the vacuum hose and clean it |
| Dust leaks from the vacuum cleaner | Torn filter Inadequate filter | Replace it with another of identical category Replace it with another of a suitable category and check |
| The suction motor is noisy | Worn or broken motor carbon brushes Worn or failing motor bearings | Remove and replace the motor carbon brushes Remove and replace the vacuum motor |





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Guarantee can be claimed and technical support obtained from your local distributor where machines, spare parts and consumables can be ordered as well:

Benelux and France:

From Saint-Gobain Abrasives
in the Grand-Duché de Luxembourg
Free telephone numbers:
Belgium : 0 800 18951
France: 0 800 90 69 03
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