



Clemas & Co Ltd

**Industrial Cleaning Equipment
Sales – Hire - Service**

127 & 137

Vacuum Cleaner Operator Manual



Unit 5 Ashchurch Business Centre, Alexandra Way,
Tewkesbury, Gloucestershire, GL20 8NB

Tel: 01684 850777

Fax: 01684 850707

Email: info@clemasco.uk

Web: www.clemas.co.uk

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- Fit the filter into filtering chamber.
- Mount the head "D" and lock it in place with the closing clips "C".
- Mount the lever "B" in position with the nut and relative washer.
- Fit on the plug "A" by exercising a slight pressure.

- Replacing the Hepa filter

- Version for dust that is hazardous for the health: Class H.

ATTENTION DANGER !

- Seal inspection

- Checking the condition of the hoses

Make sure that connecting hose hoses "A" is in condition and correctly fixed.

If the hose is damaged, broken or badly conn the unions, this must be replaced.

When sticky materials are treated, check for clogging along the hose, in outlet and on the the filtering chamber.

Scrape outside the outlet and remove the deposit* as indicated in fig. 14.

Take care not to raise the dust when this operation is carried out. Wear a P3 mask and other protective clothing plus protective gloves (DPI) suited to the hazardous nature of the dust collected. Refer to laws in force.

- Replacing the upstream Hepa filter (fig. 13)

- Remove the plug "A", unscrew the nut underneath and remove the lever "B".
- Release the hooks "C" and lift the head "D".
- Unsrew the knob "G" and take the nut "F" under the filter "E";
- Cover the filter "E" with a plastic bag and remove every thing;
- seal the bag, fit the new filter and hermetically close the cover.

Mount the following parts in the given order:

- the absolute filter;
- nut and central knob for locking;
- the head, locking it to the filtering chamber "C";
- the lever with the relative washer, nut and plug.



-
Checking the lid seal

If seal "A" under head

"D" has become slack, i
screws "B" that lock fastening latches "C" in place a
them to slide downwards until lid "D" closes per
Now tighten locking screws "B".

Replace seal "A" - fig. 15 - if an optimum seal Cc
obtained.

- **Checking the tightness of filter chamber**

If seal "A" - fig. 16 - between the container a
chamber "C" fails to guarantee tightness:

- loosen the four screws "B" that lock filter chan
against vacuum structure.
 - Allow filter chamber "C" to lower down and relocl
"B" once it has reached the retention position
- The seal must be replaced if it is torn, cut, etc.
Replace seal "A" if the degree of tightness is
optimum.

Cleaning and replacing the separator (1

- **Checking and cleaning the motor cooling fan**

Periodically clean the motor(s) cooling fan to prevent the
electric motor(s) from overheating, particularly - if the
appliance is used in a dusty place.

*// there is only a dust deposit on separator "D", a
dust to drop through the central hole.*

Separator "D" should first be disassembled in i
be perfectly cleaned:

- release lock fastening latches "A" and remove tl
"B";
- remove the filter;

- unscrew the two screws "C" and remove separator from the container.
- Replace the part if excessively worn.
- Assemble separator "D" again.
- Lock it in position by screwing the two screws "C".
- Refit the filter and close head "B", locking it in place with the two fastening latches "A".

it responsibly to promote the sustainable reuse of material resources. Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling. Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.

- Disposal of the machine

Dispose of the machine in compliance with the current laws in force.

- Correct Disposal of This Product (Waste Electrical & Electronic Equipment) (Applicable in the European Union and other European countries with separate collection systems)

This marking (pos. N - fig. 1) shown on the product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle

• Wiring diagrams

See fig. 18.

Wiring diagram key

Abbrev.	Component	Code
J1	Antidisturb filter	8 39533
P1	Pressure switch	8 40403
S1 - S2 - S3	Motors switches	8 39525
H1	Filter blocked warning light	8 39530
H2	Presence tension warning light	8 39526
XC1	Plug 16 A	8 39527

- Recommended spares

The following is a list of spare parts that should be kept ready to hand in order to speed up maintenance work. (fig. 19).

Recommended spare parts list (fig. 19)

Pos.	Description	Model	Dim.	Code number
1	Star-shaped filter T	127- 127 L 137- 137 L	0460	17080
2	Star-shaped filter "M"	127 M 137 M	0460	17245
3	Filter ring	127- 127 L, M, H 137- 137 L, M, H	0460	15003
4	1000 W single-phase motor			54002
5	Filter ring seal	127- 127 L, M, H 137- 137 L, M, H	0460	17026
6	Filter clamp	127- 127 L, M, H 137- 137 L, M, H	0460	18079
7	Absolute filter "H"	127 H 137 H	0410	17455
8	Box / Cover	127L-M-H 137L-M-H	0460	830202 + 831365

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- Troubleshooting

Fault	Causes	Remedies
The exhauster fails to start	No power	Check whether power is reac socket Check whether the plug and cat a good condition Ask for assistance from an au manufacturer's technician
The rpm rate of the exhauster increases	Clogged primary filter Clogged suction pipe	Shake the filter. Replace it if th sufficient Check the suction pipe and clef
Dust leaks from the exhauster	The filter is torn Inadequate filter	Change it for another of identic gory Change it for another of suitable < and check
Noisy suction motors	Worn or broken carbons	Demount and replace the motor carbons
Electrostatic current on the exhauster	Inexistent or inefficient grounding	Check all ground con-nections. larly check the suction inlet fittin the pipe must be strictly antistat

- Manufacturer's assistance center

See appendix.

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Operating instructions

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

ATTENTION DANGER !

- Operator safety

ATTENTION DANGER !

Before starting the machine, 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 are familiar with the way it works and who have been explicitly 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 about use of the vacuum cleaner

Use of the vacuum cleaner is governed by 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 vacuum cleaner is used, the technical regulations for ensuring safe and correct work must also be observed (Legislation concerning environmental and labour safety, i.e. European Union Directive 89/391/EC and successive Directives). Do not carry out any work 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 appliance is suitable for collective use, e.g. in hotels, schools, hospitals, factories, shops, offices and residences.

The vacuum cleaners described in this instruction manual are appliances designed for industrial use. They are produced in different versions and for different applications.

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

- Versions and variations

A) Versions

ATTENTION DANGER !

Classes of dustiness.

*This vacuum cleaner is produced in two versions:
1 - normal version: not suitable for vacuuming hazardous, combustible/explosive dust;
2 - version for dust harmful for the health: class M - H. In this case, the vacuum cleaner is suitable for use with hazardous, non-combustible explosive dust in accordance with standard EN 60335-2-61 AA. 2. 202 b), c).*

Check on the data plate and on the label applied to the vacuum cleaner to ascertain the tolerated hazardousness class: L (low risk), M (medium risk), H (high risk).

B) Variants

1- Liquids (mod. 137 only)

In the Class L, M and H versions, this vacuum cleaner can also be produced in the variant for cleaning liquids, with level monitoring function.

- Classification in compliance with standard 60335-2-69 - Annex AA

Appliances for dust that is hazardous for the health are classified according to the following dust categories:

1 - L (low risk) suitable for separating dust with a permissible limit value of over 1 mg/m³, depending on the volume occupied;

2 - M (medium risk) for separating dust with an exposure limit value of over 0,1 mg/m³, depending on the volume occupied;

3 - H (high risk) for separating all dusts with an exposure limit value of less than 0,1 mg/m³, depending on the volume occupied, including carcinogenic and pathogenic dusts.

- Dust emissions into the environment

Indicative values of performance:

- **normal version** (not suitable for vacuuming hazardous dusts): retains at least 99,1 % of the particles measuring $> = 3$ micrometers;
- **version for dusts hazardous for the health** (Classes L-M-H):
 - L, retains at least 99,1 % of the particles measuring $> = 3$ micrometers;
 - M, retains at least 99,9 % of the particles measuring $> = 3$ micrometers;
 - H, class H14 Hepa filter in accordance with EN 1822.

- 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 dusts or ones liable to ignite in a spontaneous way (such as magnesium or aluminium 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 dusts and liquids.

ATTENTION DANGER !

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 specialized personnel.

Check the place of work and substances tolerated for the vacuum cleaner in version for liquids.

ATTENTION DANGER !

The vacuum cleaners 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.

ATTENTION DANGER !

Version for liquids. If foam or liquid spills from the machine, switch off immediately and check for the cause.

- Description of the vacuum cleaner - Labels

See fig. 1.

- Labels key of fig. 1

- A - Identification plate
Code of the Model which includes the Category of use (L-M-H), Technical Specifications, Serial Number, CE marking, Year of manufacture
- B - Dust container
- C - Fastening latches
- D - Handle
- E - Inlet
- F - Inlet plug (only for Class M - H vacuum cleaners)
- G - Warning label (only for Class L - M - H vacuum cleaners)
- H - Exhaust
- I - Attention plate
Draws the operator's attention to the fact that the filter must only be shaken when the machine is off (see par. "Shaking the main filter").
- L - Panel power plate
Indicates that the panel is powered by the voltage given on the data plate.
- M - Socket
Socket on the machine, electrical equipment connection via the dedicated socket located on the control panel.
 - Switch off the vacuum cleaner before connecting an electrical equipment/tool via the socket.
 - If tools are connected via the machine socket, make sure that they are switched off when plugging in.

ATTENTION DANGER !

In case of electrical equipment/tools connected to the socket, always refer to the relevant use and safety instructions.

ATTENTION DANGER !

The maximum power absorbed by the equipment to connect to the socket is 600 Watt.

This vacuum cleaner creates a strong air flow which is drawn in through inlet "E" and blows out through exhaust "H".

Before turning on the vacuum cleaner, fit the hose into the inlet and then fit the required tool on to the end part. Refer to Manufacturer's accessory catalogue or to assistance service.

The diameters of the authorized hoses are given in the technical specifications table.

This vacuum cleaner is equipped with an internal deflector 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. Different types of main filter are available: standard and class L and M for dusts that are hazardous for the health.

Besides the main filter which retains the more common types of dust, the vacuum cleaner can be fitted with a secondary filter (Hepa H) with a higher filtering capacity for fine dusts and substances that are hazardous for the health.



- Optional kits

Various optional kits are available for converting the vacuum cleaner.

Component	127	137
Level gauge for liquids - stopping liquids		.
Removable separator		.
Clamp and bracket		.
Mechanical float		.
Grill and depressor	.	.
Grate		.
Fixed flow nozzle	.	.

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

Please contact Manufacturer's sales network for further details.

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

ATTENTION DANGER !

Only use genuine spare parts supplied and authorized by the Manufacturer.

- Accessories

Various accessories are available; refer to Manufacturer's Accessories Catalogue.

!! ATTENTION DANGER !

Only use genuine accessories supplied and authorized by the Manufacturer.

- Packing and unpacking

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

- Cardboard packing (fig. 2)

Model	127 127 L, M, H	137	13L, M
A (mm)	700	800	80
B (mm)	600	700	70
C (mm)	1250	1550	171
Weight with packing (kg)	50	76	8(

Setting to work - connection to the power supply

ATTENTION DANGER !

Make sure that the vacuum cleaner is in proper condition before commencing work.

- Before plugging the vacuum cleaner into the electricity mains, make sure that the voltage rating indicated on the data plate corresponds to that of the electricity mains.
- Plug the vacuum into a socket with a correctly installed ground contact/connection.
- Make sure that the vacuum cleaner is off.
- The plugs and connectors of the connection cables must be protected against splashed water.
- Make sure that connections to the electricity main and plug are correct.
- Only use vacuum cleaners when the cables that connect to the electricity main are in perfect condition (damaged cables could lead to electric shocks!).
- 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 flex that connects to the electricity main;
- only disconnect the flex from the electricity main by removing the plug (do not pull the flex);
- only replace the electric power cable with one of the same type as the original: HO7RN-F. The same rule applies if an extension is used;
- the flex must be replaced by the manufacturer's Assistance Service staff or by an equivalent qualified personnel.

- Extensions

If an extension is used, make sure it is fit for the power draw and protection degree of the vacuum cleaner.

Minimum section of extension cables L = 20 m max - Cable = HO7 RN - F.

Maximum power (kW)	3	5	15	22
Minimum section (mm ²)	2,5	4	10	16

ATTENTION DANGER !

Sockets, plugs, connectors and installation of the extension cable must maintain the IP 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 msec, 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. Consult the latest edition of the European Union Directives, the Laws in the country of use and the current standards in force (UNI- CEI-EN), particularly European standard EN 60335-2-69.

Wet and dry applications

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

If the machine is used to clean up liquids, make sure that the liquid level sensor activates and operates in the correct way.

ATTENTION DANGER !

Comply with the safety regulations governing the materials for which the vacuum cleaner is used.

ATTENTION DANGER !

If the wet cleaner variant is used:

- make sure that the liquid level sensor operates correctly before using the vacuum cleaner to clean up liquids;
- if foam forms, immediately stop work and empty the container.
- Warning: switch off the vacuum cleaner immediately if foam or liquid leaks out.
- Regularly clean the liquid level limiting device and check to make sure that there are no signs of damage.
- Warning: the dirty liquid collected by the vacuum must be considered conductive.

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- Maintenance and repairs

ATTENTION DANGER !

Disconnect the vacuum cleaner from its power source before cleaning, servicing, replacing parts or converting it to obtain another version / variant. The plug must be removed from the socket.

- Only carry out the maintenance work described in this manual.
- Only use original spare parts.

- Do not modify the vacuum cleaner in an Failure to comply with these instructions jeopardize your safety. Moreover, such action immediately void the CE declaration ofcont issued with the machine.

ATTENTION DANGER !

Contact Manufacturer's technical assistance s or sales network for maintenance operatioi described in this manual.

- Technical data - Dimensions

- Technical data

Parameter	Unit of measurement	127 127 L, M, H	137 137 L, M, H (60!)	137 137 L, M, (100 l)
Voltage / Frequency	Volts / Hz	230/50-60	230/50-60	230/50-6l
Power	kW	2	3	3
Power (EN 60335-2-69)	kW	2	3	3
Weight	kg	42	62	65
Noise	dB(A)	72	73	73
Protection	IP	43	43	43
Insulation	classe	F	F	F
Capacity	l	38	60	100
Inlet	mm Ø	70	70	70
Maximum vacuum	mm H ₂ O	2150	2150	2150
Maximum air flow rate without hose and reductions	l/m'	5400	8200	8200
Maximum air flow rate (m 3 0 50 mm hose)	l/m'	4150	5500	5500
Hoses allowed for classes "IT and "standard"	mm Ø	50	70	70
Hoses allowed for classes "M" and "H"	mm Ø	50	50	50
Main filter surface (L-M)	m ²	1,9	1,9	1,9
Upstream Hepa filter surface	m ²	2,3	2,3	2,3
Hepa filter efficiency according to D.O.P. method (EN 1822)	%	99,995 (H 14)	99,995 (H1 4)	99,995 (H1

- Storage conditions:

T:- 10...+ 40°C

Humidity: < 85%

- Operating conditions:

Maximum altitude 800 m (up to 2000 m with reduced performances)

T:- 10...+ 40°C Humidity: < 85%

- Dimensions (fig. 3)

Model	127 127 L, M, H	137 137 L, M, H (60!)	137 137L, M, H (1001)
A (mm)	600	650	650
B (mm)	650	800	800

- Controls and indicators (fig. 4)

- A - Vacuum gauge
- B - Switch button
- C - Lighted mains voltage indicator
- D - Lighted filter clogging indicator
- E - Service socket

- Inspections prior to starting

Prior to starting, check that:

- the filters are installed;
- all latches are tightly locked;
- the hose and tools have been correctly fitted into inlet "A" (fig. 5);
- the bag or safety container are installed, if applicable.
- Do not use the vacuum cleaner if the filter is faulty.

- Starting-up

- Lock the castor brakes "E" (if present) before starting the vacuum cleaner (fig. 6);
- press the buttons "B" - fig. 4.

- Operation

Check the flow rate:

- when the vacuum cleaner is operating, the pointer of the vacuum gauge ("A" - fig. 7) must remain in the green zone (OK) to ensure that the speed of the intaken air does not drop below the safety value of 20 m/sec;
- if the pointer is in the red zone (STOP), it means that the speed of the air in the hose is below 20 m/s and that the vacuum cleaner is not working in safety conditions - clean or replace the filters;
- when the hose is blocked, the pointer of the vacuum gauge must switch from the green zone (OK) to the red zone (STOP).

ATTENTION DANGER !

If the vacuum cleaner is Class M or H, only use hoses with diameters that comply with the indications in the "Technical Specifications" Table in order to prevent the air speed from dropping below 20 m/sec.

ATTENTION DANGER !

When the vacuum cleaner is operating, always check to make sure that the vacuum gauge pointer remains in the green zone (OK).

Consult the "Troubleshooting" chapter if faults occur.

- Shaking the main filter

Depending on the quantity of dust cleaned up, shake the main filter by means of the lever T (fig. 8) when the vacuum gauge pointer ("A" fig. 8) switches from the green zone (OK) to the red zone (STOP).

ATTENTION DANGER

Stop the machine before shaking the filter.

Do not shake the filter whilst the machine 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 pointer still remains in the red zone (STOP) even after the filter has been shaken (consult the "Main filter replacement" section).



- Stopping - emergency stopping

Press the push-buttons "B" (fig. 4).

- Emptying the container

ATTENTION DANGER !

Turn off the machine and remove the plug from the power socket before proceeding with this operation. Check the Class of the vacuum cleaner.

- Before emptying the container it is advisable to clean the filter (see "Shaking the main filter" sect.).

a) Normal version, not suitable for treating hazardous dust

- Release the container "I" (fig. 9), then remove and empty it.
- Make sure that the seal is in perfect condition and correctly positioned.
- Place the container back in position and use the lever to secure it again.

Plastic liner

A plastic liner (our code 40100) can be used to collect dust (see fig. 9).

In this case, the machine must be equipped with optional accessories (grill and depressor - fig. 9).

- b) Versions for dusts that are hazardous for the health. Classes M - H, suitable for vacuuming hazardous and/or carcinogenic dust.

ATTENTION DANGER !

In compliance with current laws, these operations can only be carried out by trained and specialized personnel who must wear adequate clothing. Take care not to raise the dust during this operation. Wear a P3 protective mask. A plastic liner can be used (our code 40100) or ABS safety container (our code 8 30202 - 8 31685) if dust that is dangerous and/or hazardous for the health must be removed.

The container and/or liner must only be disposed of by trained personnel and in compliance with the current laws in force.



How to replace the safety container

- Place the hose in a safe, dust-free place;
- release the dusts container "I" (fig. 10);
- close the safety container with the supplied cover and remove it from the dusts container "I" (fig. 10). Fit an empty container in its place.
- Start the motor again to prevent dust from being blown about.

- Make sure that the seal is in perfect condition and correctly positioned.
- Switch off the motor, fit an empty drum in place and fasten it in position.

Use as a wet cleaner

Make sure that the vacuum cleaner is equipped with a float (liquid level sensor) and is suitable for use as a wet cleaner.

Do not clean up flammable liquids.

If foam forms, stop work immediately and empty the container.

The filter element will be wet after liquids have been cleaned up.

A wet filter element can quickly become clogged if the vacuum cleaner is then used to clean up dry substances. For this reason, make sure that the filter element is replaced or replaced with another one before using the vacuum cleaner to clean up dry materials.

At the end of a cleaning session

- 1 - Turn off the vacuum cleaner and remove it from the socket.
- 2 - Coil the connection flex (fig. 11).
- 3 - Empty the container as described in the "Emptying the container" section. Clean the vacuum cleaner as described in the "Maintenance, cleaning and decontamination" section.
- 4 - Wash the container with clean water if aggressive substances have been cleaned up.
- 5 - Store the vacuum in a dry place, out of the reach of unauthorized people.
- 6 - Shut the inlet with the appropriate plug "A" when the vacuum cleaner is transported or stored (particularly in the case of versions I and II).

- Maintenance, cleaning and decontamination

ATTENTION DANGER !

Note: the precautions described below must be observed during all the maintenance operations, cleaning and replacing the main and Hepa filters.

a) *To allow the user to carry out the maintenance operations, the vacuum must be completely 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 vacuum, adequate filtered ventilation for the air exhausted from the room in which it is disassembled, cleaning of the maintenance area and suitable personal protection.

- b) The external parts of class H and class M appliances 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 appliance 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 servicing work or repairs are carried out, all the contaminated elements that cannot be cleaned well must be eliminated.

These elements must be disposed of in sealed bags conforming to the applicable regulations and in accordance with the local laws governing the disposal of such material.

This procedure must also be followed when the filters are eliminated (main, Hepa and downstream filters).

Note: Compartments that are not dust-tight must be opened with suitable tools (screwdrivers, wrenches, etc.) and thoroughly cleaned.

- c) In addition, the filtering effectiveness of class H appliances should be checked at least once a year or even more often if so specified by national law. The filtering effectiveness of the appliance can be tested following the testing procedure explained in the norm DIN EN 60335-2-69 AA.22.201.2. If the outcome is negative the test has to be repeated with a new primary filter.
- d) ATTENTION: this appliance contains powders that are harmful for one's health. All maintenance work and emptying, including removing the powder from the container, must be done by specialized personnel only and they must wear protective clothing. Do not start without the complete filtering system in place.
- e) This appliance is not to be used by people (including children) with physical or sensorial problems or mental difficulties or with little education and/or knowledge who must always be supervised by skilled people or be instructed by them on how to use the appliance.

!! ATTENTION DANGER !

Only use genuine spare parts supplied and authorized by the Manufacturer.

- How to disassemble and replace the main and Hepa filters

ATTENTION DANGER !

When the vacuum cleaner is used to clean up hazardous substances, the filters become contaminated, thus:

- 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 current laws.

!!! ATTENTION DANGER !

Filter replacement is a serious matter. The filter must be replaced with one of identical characteristics, filter surface and category. Failing this, the vacuum cleaner will not operate correctly.

- Primary filter replacement

ATTENTION DANGER !

Check the Class of the vacuum cleaner (L-M- H). Take care not to raise dust when this operation is carried out.

Wear a P3 mask and other protective clothing plus protective gloves (DPI) suited to the hazardous nature of the dust collected. Refer to the relative laws in force.

Before proceeding with this operation, turn off the machine and remove the plug from the power socket.

- Replace the primary filter

Disassembly (fig. 12)

- Remove plug "A", unscrew the nut underneath and remove lever "B".
- Release the closing clips "C" and remove the head "D".
- Lift filter "E", unscrew clamp "F" and remove ring "G".
- Unscrew cage "H" and turn the filter upside down.
- Cut the plastic clamps "I" and detach the cage from the filter.

Assembly (fig. 12)

- Mount the filter catch and retention ring of the old filter on to the new one.
- Insert cage "H" and fix it to the filter by means of clamps "I" at the bottom of the filter itself.

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