



Delfin S.r.l.
Strada della Merla, 49/a
10036 Settimo Torinese (TO) Italy
Tel. 0039.011.8005500
Fax 0039.011.8005506
www.delfinvacuums.it
delfin@delfinvacuums.it

Industrial vacuums cleaners



DM35 SGA

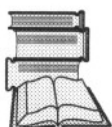
DM40 SGA

DM3



This manual provides all the information needed to use and service your vacuum cleaner.
Good operation and durability depend on proper maintenance and careful use.

Operator's and maintenance manual



Read this manual carefully before using the vacuum cleaner.

Before leaving the factory, this particular model has undergone stringent tests to ensure utmost reliability. Always check however to make sure the vacuum cleaner has not been damaged during transport in such a way as to affect operation and safety.

This manual should be considered an integral part of the vacuum cleaner and must be kept together with the unit until this is scrapped. In case of loss of or damage to the manual, ask DELFIN for a new copy.

The technical details contained in this manual are the property of DELFIN and should be deemed of a confidential nature.

Even partial reproduction of the graphic project, the text and the illustrations is legally forbidden.

Some details shown in the illustrations in this manual may be different from those of your vacuum cleaner. Some component parts may have been removed for greater clarity.

For easier reference, this manual is split into sections, identifiable by specific graphic symbols.

The subjects dealt with in this manual are those expressly required by "**Machine Directive 2006/42/CE**" and the technical details shown are those provided by the manufacturer at the time of compilation.

This manual must be kept in a place accessible to all the personnel charged with operating and servicing the vacuum cleaner.

In case of any doubts, always immediately phone the **After-Sales Service**.

The competent Law Court for all disputes is that of TURIN (Italy).



The manual must be kept with the vacuum cleaner in case of resale!

Information section	1
1.1 Identification of main parts	2
1.2 Accessories provided	4
1.2.1 Optional accessories	5
1.3 Identification details of manufacturer	8
1.4 Marking plate	8
1.5 Intended uses	9
1.6 Allowed environmental conditions	9
1.7 Noise level	9
1.8 Storage	9
1.9 Scrapping	9
1.10 Technical details	10
1.11 Warranty	11
Safety section	12
2.1 Safety details	13
2.2 Safety precautions	14
2.3 Safety plates and symbols	17
2.4 Outstanding risks	18
2.5 Applied directives	18
Installation section	19
3.1 Handling	20
3.2 Installation	21
Operation section	23
4.1 Description of controls	24
4.2 Work cycle	25
4.3 Releasing and removing the removable container	27
4.4 Use of the manual filter shaking system	28
Maintenance section	29
5.1 Informative notes	30
5.2 General safety precautions	30
5.3 maintenance operations	31
5.4 Replacing the filters	32
5.5 Troubleshooting	35
Spare parts section	36
6.1 Recommended spare parts	37



INFORMATION SECTION

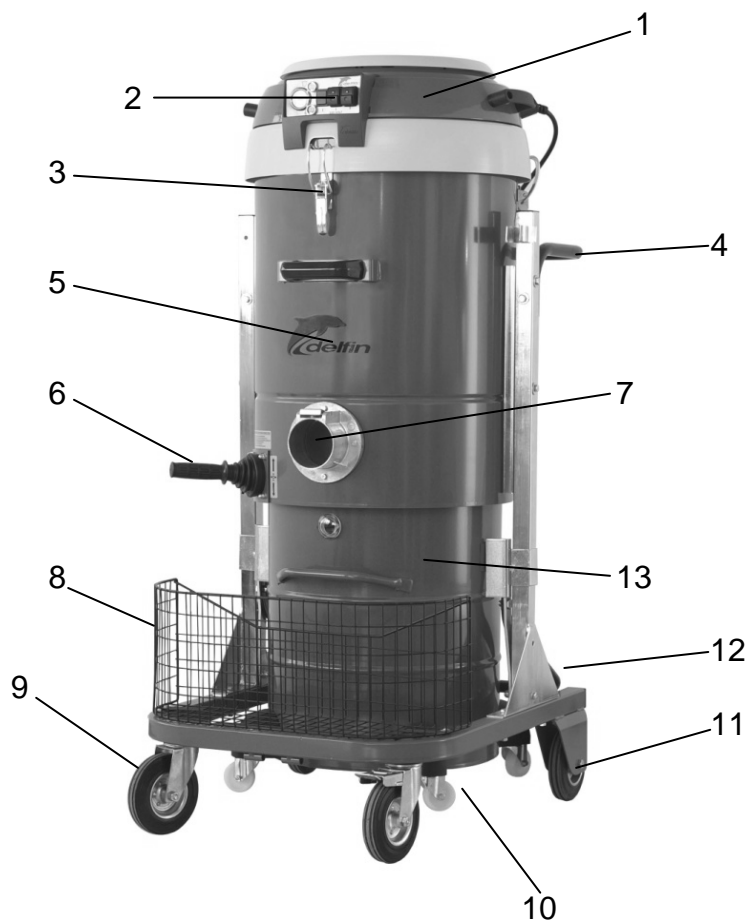
1.1 Identification of main parts

- **MODD. DM35 SGA – DM40 SGA**



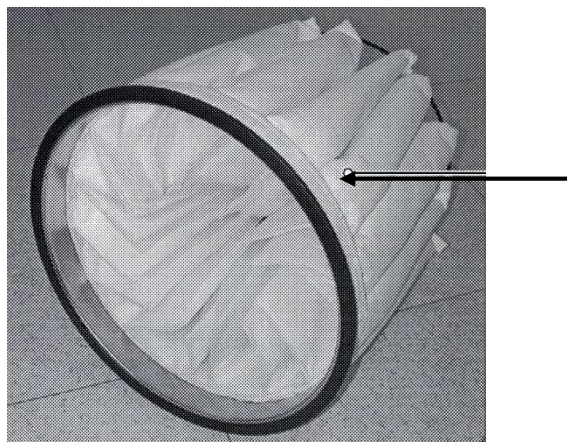
- 1) Suction unit
- 2) ON / OFF switches
- 3) Release fastening
- 4) Push handle
- 5) Container dropping lever
- 6) Filter chamber
- 7) Filter shaker level
- 8) Accessory basket
- 9) Castors
- 10) Trolley
- 11) Fixed castors
- 12) Removable vacuumed material container
- 13) Suction pipe coupling point

- **MOD. DM3**



- 1) Suction unit
- 2) START/STOPP switches
- 3) Release fastening
- 4) Push handle
- 5) Filter chamber
- 6) Filter shaker level
- 7) Suction pipe coupling point
- 8) Accessory basket
- 9) Castors
- 10) Trolley
- 11) Fixed castors
- 12) Container dropping lever
- 13) Vacuumed material container

1.2 Accessories provided



AR3024 – POLYESTER FILTER 14 POCKETS Ø500 (ONLY REPLACEMENT FILTER)

AR3050 – COMPLETE FILTER KIT

1.2.1 *Optional accessories*

COD. AA1252 – ABSOLUTE FILTER

The absolute filter permits trapping the finest dust particles which have not been trapped by the primary polyester filter. If the vacuum cleaner features this specific filter, its filtering capacity will have to be periodically checked.

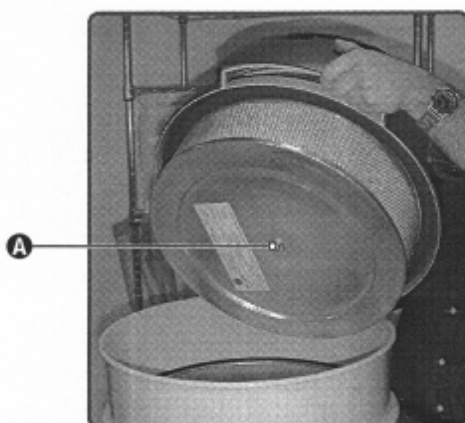


Important!

During these operations, wear individual protection devices such as gloves, protective eyewear and dust mask.

To change the filter, switch off the vacuum cleaner and remove the plug from the power socket, release and remove the upper cap and then loosen nut (A).

Remove the absolute filter, place it in a plastic bag, close this and dispose of it according to applicable laws for the type of vacuumed dust.



Besides the absolute filter, depending on the dust to be vacuumed, the following filters are available:

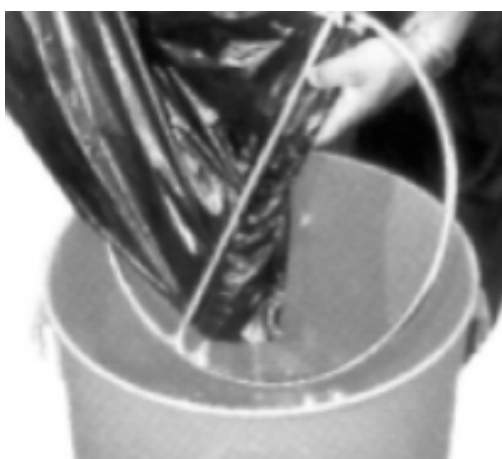
- **ANTISTATIC FILTER**
For electrostatic dusts.
- **NOMEX FILTER**
For hot dust up to 240 °C.
- **POLYESTER CAT. M FILTER**
For very fine dusts.
The polyester filters are BIA institute certified.

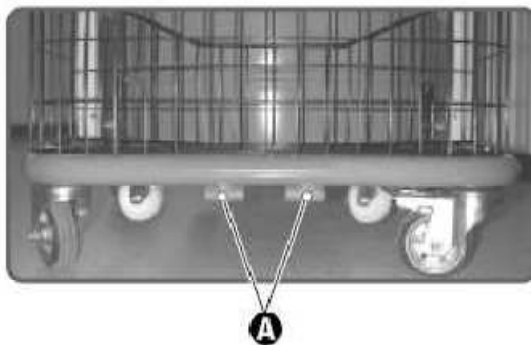
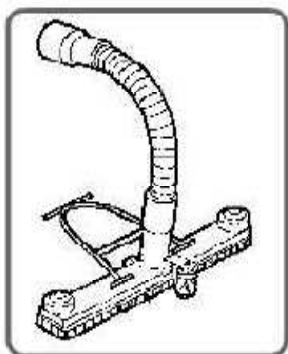
COD. AA1061 - REMOVABLE CYCLONE

The cyclone is a treated steel cone that separates the filtering chamber from the container. This is positioned above the vacuum inlet and below the filter. Its job is to protect the filter from hot or sharp solid bodies and nebulised liquids.

**COD. AA1098 - BAG RETENTION RING**

This optional can be requested when the vacuumed material is to be collected in a disposable nylon bag fitted in the container. It allows keeping open the nylon bag, which is subject to vacuum, for correct use.



COD. AA1134 - WET-DRY FIXED ACCESSORY

The bracket of the WET-DRY accessory must be secured to the vacuum cleaner frame by means of the special front setting (A).

COD. AA1003 - SIEVE GRID ACCESSORY

This accessory separates the liquids from the solids. The solids remain in the top gridded basket, while the liquids deposit on the bottom of the container.



A container featuring a special liquid draining valve can be ordered separately or else the valve only can be ordered before contacting our technical department to have the valve fitted on the container.

1.3 Identification details of manufacturer

Delfin srl
Strada della Merla, 49/a
10036 Settimo Torinese (TO) - Italy
Tel. 0039.011.800.55.00
Fax. 0039.011.800.55.06
www.delfinvacuums.it
delfin@delfinvacuums.it

1.4 Marking plate

In compliance with the **Machine Directive** on vacuum cleaners, the machine is fitted with CE plates.

When contacting the manufacturer or dealer, always quote the details shown on the vacuum cleaner plate.

Str. della MERLA 49/A 10036 SETTIMO T,SE (TO) ITALY Tel. 0039 011 800.55.00 • Fax 0039 011 800.55.06	
 delfin [®] manufacturers of industrial vacuums	
CE	
MOD.	<input type="text"/>
S/N	<input type="text"/>
YEAR	<input type="text"/>
50 Hz	<input type="text"/>
60 Hz	<input type="text"/>
FILTER	<input type="text"/>
www.delfinvacuums.it	

1.5 Intended uses

These specific vacuum cleaner models have been designed, built and protected for vacuuming dusts and solid materials only, using special filters.



Important!

Always use specific filters for the type of dust or materials to be vacuumed.

Any other use is considered **IMPROPER**.

The vacuum cleaner is in any case intended for professional industrial use.

1.6 Allowed environmental conditions

To ensure the correct operation of the vacuum cleaner, this must be positioned protected against atmospheric agents (rain, hail, snow, fog, dusts in suspension, etc.) with an environmental running temperature between 5°C and 45°C and relative humidity not above 70%.

The work environment must be clean, well-enough lit and devoid of explosive atmosphere.

1.7 Noise level

Noise level readings were taken in accordance with the provisions of **Machine Directive 2006/42/CE** standards.

Sound tests performed on this specific vacuum cleaner model have been taken from a distance of 1 meter and from a height of 1,60 meters, showing an acoustic pressure no higher than:

76 dB (A)

The vibrations transmitted by the machine are lower than 2,5 m²/s.



Important!

Pursuant to articles L.D. 81/08, workers exposed to sound pressure levels above 85 dB(A) must be protected by special individual protection devices.



It is therefore necessary, if such working conditions exist, to provide workers with such approved individual protection devices and to inform them of the risks relating to noise exposure.

1.8 Storage

Remove the filter and clean it, empty the container and store the vacuum cleaner in a place protected against atmospheric agents with a temperature between 0°C and 40°C. Cover with a nylon sheet to prevent accumulation of dust.

1.9 Scrapping

In case of scrapping, all the component parts of the vacuum cleaner will have to be disposed of through adequate disposal channels in accordance with applicable legislation.

Before scrapping, all plastic and rubber parts will have to be separated from the electrical material. Parts made of plastic, aluminium and steel only may be recycled if collected by special centres.

1.10 Technical details
DM35 SGA
DM40 SGA
DM3

Voltage	Volt - Hz	230/50-60	230/50-60	230/50-60
By-pass motors	N	2	3	3
Power	W	2.300	3.450	3.450
Max. vacuums rate	mm H₂O	2.500	2.500	2.500
Max. air flow rate	M³/h	200	300	350
Filter surface	cm²	20.000	20.000	20.000
Filter type		Polyester cat. L	Polyester cat. L	Polyester cat. L
Capacity	L	50	50	75/100
Suction inlet	Ø	80	80	80
Noise level	dB(A)	76	76	76
Isolation	Class	II	II	II
Dimensions	cm	58 X 60	58 X 60	62 X 62
Height	cm	125	125	160
Weight	kg	50	50	70

1.11 Warranty

Delfin guarantees this vacuum cleaner model for a period of 24 months from the date of purchase indicated on the tax document at the time of delivery of the vacuum cleaner by the seller.

The warranty shall be invalidated in the event of the vacuum cleaner having been repaired by unauthorised third parties or of equipment or accessories being used that have not been supplied by Delfin or which have not been recommended or approved by Delfin or whose serial number has been removed or altered during the warranty period.

Delfin undertakes to repair or replace, free of charge, those parts which, during the warranty period show manufacturing faults. Repairs shall be made in the Delfin facilities only or in a Technical Assistance Centre indicated by us and machines shall be sent to us carriage free (transport costs to be paid by the user, unless otherwise agreed).

The warranty does not cover any cleaning of working parts.

Faults not directly attributable to materials or manufacture shall be examined only in our facility or in a Technical Assistance Centre indicated by us. If claims appear unjustified, all the costs relating to repair and/or replacement of parts shall be charged to the buyer.

The purchase tax document shall be shown to the technical personnel making the repairs and must accompany the vacuum cleaner dispatched for repair.

The warranty does not cover: accidental damage, caused by transport or carelessness or inadequate treatment, or improper use not in compliance with the instructions in the instruction manual, or in any case by occurrences not dependent on normal operation or use of the vacuum cleaner. Delfin declines all responsibility for any damage to persons or things caused by bad or improper use of the vacuum cleaner.

All disputes shall be referred to the Law Court of Turin (Italy).

The manufacturer declines all liability in the following cases:

- Failure to send the warranty Certificate
- Failure to follow the instructions
- Use of non-original spare parts
- Failure to service the machine properly



SAFETY SECTION

2.1 Safety details

The person in charge of safety shall be responsible for informing workers about the risks associated with vacuum cleaner operation.

The obligation also exists of training workers so they are able to protect themselves and others.

Failure to observe basic safety regulations and precautions could cause accidents during vacuum cleaner operation, maintenance and repair. Accidents can often be avoided by recognising potentially dangerous situations before these occur. Operators should be aware of potential hazards and be trained and skilled enough. They should also have the tools necessary to perform these duties properly.

Delfin shall under no circumstances be deemed liable for accidents or damage caused by use of the vacuum cleaner by personnel not properly trained or who use it in an improper manner, as well as by even partial failure to comply with the safety regulations and intervention procedures indicated in this manual.

The safety precautions and warning notices are indicated in this manual and on the product.

Unless these hazard messages are heeded, the operator could become involved in accidents with serious consequences for him/herself and for other people.

The safety messages are highlighted by the following symbols:

**Attention!**

Unless these messages are heeded, operator injuries could occur.

**Warning!**

Unless these messages are heeded, vacuum cleaner damage could occur.

Delfin cannot foresee all possible circumstances capable of representing a potential hazard. The warnings in this manual and on the products should not therefore be deemed exhaustive. In the event of tools, procedures, work or machining methods being used that are not explicitly recommended by Delfin, make sure no hazards exist for operators and others.

Only ever use original DELFIN spare parts.

Delfin declines all liability in the event of non-original spare parts being used.

2.2 Safety precautions



Important!

The following indications are, by themselves, not enough to fully protect against all the hazards that could arise during vacuum cleaner operation. These will have to be integrated with common sense and the experience of the operator, both of which are crucial factors for preventing accidents. Each section of this manual lists further specific safety precautions for the various operations.

Maintenance jobs must always be performed with the power plug detached from the power point.

The employer must inform and train the user according to the provisions of applicable laws.

Before using the machine, prepare and train yourself by reading this manual carefully. Use of the machine by untrained and unauthorised persons is forbidden. Using the machine to vacuum toxic substances is forbidden unless this has been equipped with special filters required for the specific type of dusts. Such filters must be explicitly requested by you.

Do not vacuum flammable materials or substances or which could cause explosions (fuels, solvents, etc.). To vacuum such materials, the machine must be built with Anti-explosion Motor and Electric System and this must be requested by you explicitly.

Do not vacuum corrosive substances unless the machine is equipped with containers suitable for this purpose (Stainless-steel AISI 304).

Use of the machine without the supplied filters is not recommended.

If the filters are correctly fitted, the machine will not eject any objects.

If the machine is used to vacuum toxic-harmful substances, the container must be emptied and the filters cleaned using adequate individual protection devices, selected according to the type of substances to be vacuumed.

Never rest miscellaneous materials on the horizontal protection guard. The machine casing containing moving parts must not be removed by the user. When using the machine, mind other people, especially children. Use the machine cautiously on slopes and ramps. Do not change direction on gradients.

Make sure the parked machine remains stable by operating the braked wheel.

During cleaning operations, maintenance jobs or when changing parts, the starter switch must be off and the machine must be disconnected from the power mains by removing the cable from the socket. Only skilled persons should carry out repairs.

During use, mind the power supply cables and avoid crushing or pulling these. Periodically check the mains power cable to ensure this is not damaged.

In the event of the cable being damaged, the machine must not be used. In the event of the cable, plugs or couplings being replaced, make sure these are protected against water spray and check mechanical strength.

Never pull the machine by means of the power cable and the vacuum pipe.

Motor brushes and burnt-out fuses must be replaced by DELFIN or authorised dealers. Always use original spare parts.

The user is responsible for disposing of vacuumed substances in accordance with applicable laws. After 10 years of use, we recommend sending the machine for a complete overhaul to DELFIN srl.

The machine is supplied with: instruction manual, Exploded Spare Parts drawing, Test Sheet, Warranty Slip, Approval Certificate.

In the event of Customers fitting a tool to the machine not supplied by DELFIN, make sure the safety conditions required by **Machine Directive 2006/42/CE** are complied with and in any event, DELFIN is unable to accept liability for any problems arising from use of such tool.

The vacuum cleaner must not be operated in a corrosive or explosive environment.

Always make sure the vacuum cleaner is free of all foreign materials such as debris, oil, equipment and other objects that could affect operation and cause injury to persons.

Avoid using flammable or toxic solvents such as petrol, benzene, ether and alcohol for cleaning.

Avoid prolonged contact with solvents and inhaling their vapours. Avoid use close to open flames or sources of heat.

Never use the vacuum cleaner without the filter.

Do not vacuum lit cigarette ends. The filter could be damaged. Do not vacuum petrol or flammable liquids in general.

Make sure all the guards and protection devices are in place and that all the safety devices are in place and working properly.

Do not wear loose or hanging clothing such as ties, scarves or torn garments that could become trapped and be sucked up by the cleaner.

Do not open the vacuum container with the machine running.

The manual should always be kept handy for reference so the operating cycle can be checked every time there are doubts.

In the event of this manual being lost or damaged, ask DELFIN for a new copy.

Structural damage and improper alterations or repairs could change the protection capacity of the vacuum cleaner and therefore cancel this certification.

Any alterations to the appliance must only be made by Delfin engineers.

During maintenance jobs, affix a notice to the appliance indicating **"MACHINE BEING SERVICED, DO NOT START"**.

Climbing on the cleaner is forbidden. Never touch electric wires, switches, buttons, etc. with wet hands.

Before connecting to the power mains, make sure the power voltage and frequency are those shown on the machine plate.

Make power connections to a mains supply with efficient earth system.

In the event of an extension being used, make sure this is in perfect condition, marked CE and that the cross section of the cable is suitable for the vacuum cleaner power input.

When restoring original working conditions, the appointed personnel should make sure that at the end of the operating procedure, proper vacuum cleaner operation safety conditions are restored, especially the safety devices and the protective guards.

Only adult persons should use the vacuum cleaner.

During vacuuming operations, always brake the vacuum cleaner using the special revolving wheel lock.

2.3 Safety plates and symbols

Plates are affixed to the vacuum cleaner showing safety symbols and/or messages.



Important!

Make sure all the safety messages are legible.

Clean these with a cloth, soap and water. Do not use solvents, diesel fuel or petrol.

Replace the damaged plates with new ones supplied by Delfin.

If a plate is affixed to a replaced part, make sure a new plate is affixed to the new part.



Important!

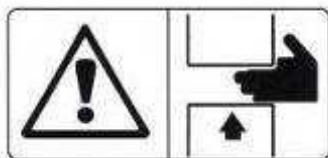
Read the operator's and maintenance manual carefully before using the cleaner or doing any maintenance jobs.

ATTENZIONE! WARNING! ATTENTION ! ACHTUNG! ¡ATENCIÓN! ATTENTIE!

- SCUOTERE IL FILTRO SOLO A MACCHINA SPENTA
- ONLY SHAKE THE FILTER WHEN THE MACHINE IS TURNED OFF
- NE SECOUER LE FILTRE QU'APRES AVOIR ETEINT LA MACHINE
- RÜTTELN SIE DEN FILTER NUR BEI AUSGESCHALTETER MASCHINE
- SACUDIR EL FILTRO SÓLO CON LA MÁQUINA APAGADA
- FILTER SCHUDDEN BIJUITESCHAKELDE MACHINE

IMPORTANT

**DO NOT BREATHE IN INFLAMMABLE
AND/OR EXPLOSIVE LIQUIDS OR
POWDERS**



Important!

Risk of crushing upper limbs while fitting and locking the material container on the vacuum cleaner.

Never place hands between the material container and vacuum cleaner while locking.

Do not place hands on sides of container near the guide pins while locking.

Perform the container locking operation by means of the levers located on the side, USING BOTH HANDS!!

2.4 Outstanding risks

Careful analysis of risks performed by the manufacturer and stored in the technical file has made it possible to eliminate most of the risks associated with vacuum cleaner operation.

The manufacturer advises carefully following the instructions, procedures and advice contained in this manual as well as applicable safety regulations, including the use of the envisaged protection devices, both those integrated in the cleaner and individual.

Outstanding risks associated with the vacuum cleaner could be:

Electrical maintenance risks caused by the need to work under power.

Pursuant to **Presidential Decree 81/08**, only trained personnel should work on the machine with the power supply connected and this must have double earth insulation.

Risk of improper use in the presence of explosive and flammable substances.

The vacuum cleaner must not be used in environments containing substances in the form of liquids that could vaporise at room temperature and flammable dusts and gas

Risks of operation in humid environments.

Keep to the limits shown in this manual at chap. 1.6 Allowed environmental conditions.

Risk of erroneous interpretation of the safety pictograms.

Having identified the various outstanding risks, the manufacturer has affixed to the cleaner a number of hazard labels in compliance with regulations relating to the graphic symbols to be used. The user must immediately replace any safety plates that become illegible due to wear or damage.



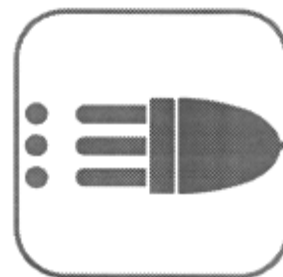
Important!

Removing the safety plates on the vacuum cleaner is strictly forbidden. The manufacturer declines all liability in relation to vacuum cleaner safety in the event of failure to comply with the above indications.

2.5 Applied directives

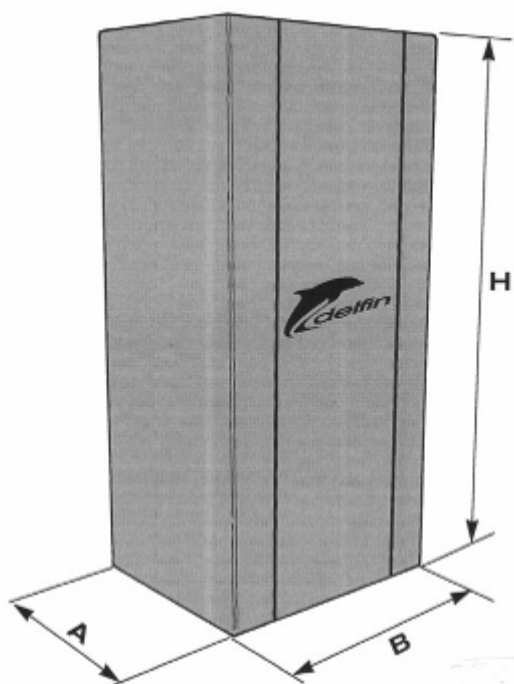
The following directives apply to the vacuum cleaner described in this manual:

- **2006/42/CE Machine Directive**
- **2004/108/CE Electromagnetic Compatibility Directive**
- **2006/95/CE Low-Voltage Directive**



INSTALLATION SECTION

3.1 Handling



	A (cm)	B (cm)	H (cm)	Weight (package included) Kg
DM35 SGA	73	85	130	60 Kg
DM40 SGA	73	85	130	60 Kg
DM3	73	85	175	80 Kg

The machine is supplied in a strong cardboard box secured with straps.

Transport the package using a fork-lift truck of adequate lifting capacity and make sure it is stable and that weight is properly distributed on the forks.

Before starting to move, make sure the transit area is free and that there are no moving objects on the packaging.

During movement, keep the load low for greater stability and safety.

When starting up the vacuum cleaner, move this by means of the wheels supplied.

The appliance must never be moved using fork-lift trucks or other equipment that lifts it off the floor.

If for any reason the need arises to lift and transport the vacuum cleaner, this operation must be performed under the responsibility of the user. The user is therefore invited to secure the load as he best thinks fit to ensure the operation is performed in total safety.

3.2 Installation

**Caution!**

Before installing the vacuum cleaner, carefully make a sight check to pinpoint any damage suffered during transport.

In the event of any component parts being damaged, do not proceed with installation. Notify the manufacturer and reach an agreement on how to proceed.

The vacuum cleaner already features a suction filter.

Fit the accessory required for the type of vacuuming operation on the opposite end of the hose.



Note: No standard accessories (reducers, hoses, nozzles) are included with the vacuum; accessories must be specified and ordered separately.

Contact your dealer for information relating to the different types of OPTIONAL accessories available for this specific vacuum cleaner model.

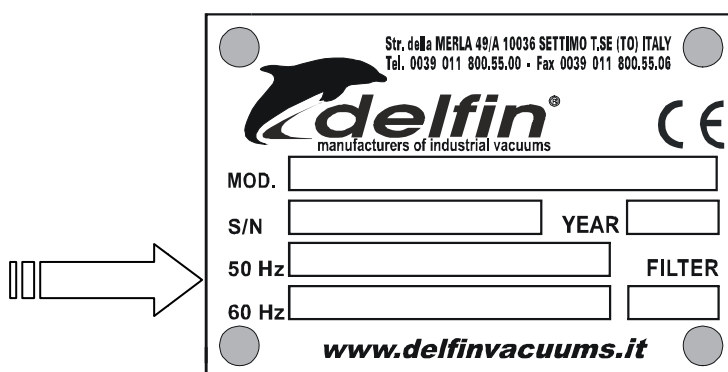
Fit the supplied connector on the pipe union.



Fit the supplied pipe in the connector.



Make sure the power supply corresponds to the voltage and frequency indicated on the vacuum cleaner plate.



Str. della MERLA 49/A 10036 SETTIMO T.S.E (TO) ITALY
Tel. 0039 011 800.55.00 • Fax 0039 011 800.55.06

delfin
manufacturers of industrial vacuums

MOD.

S/N YEAR

50 Hz FILTER

60 Hz

www.delfinvacuums.it

**Important!**

Do not fit the plug in the power socket with wet hands.

In the event of an extension being used, make sure this is in perfect condition, in compliance with EC standards and with cable cross section suitable for the power input of the vacuum cleaner.



OPERATION SECTION

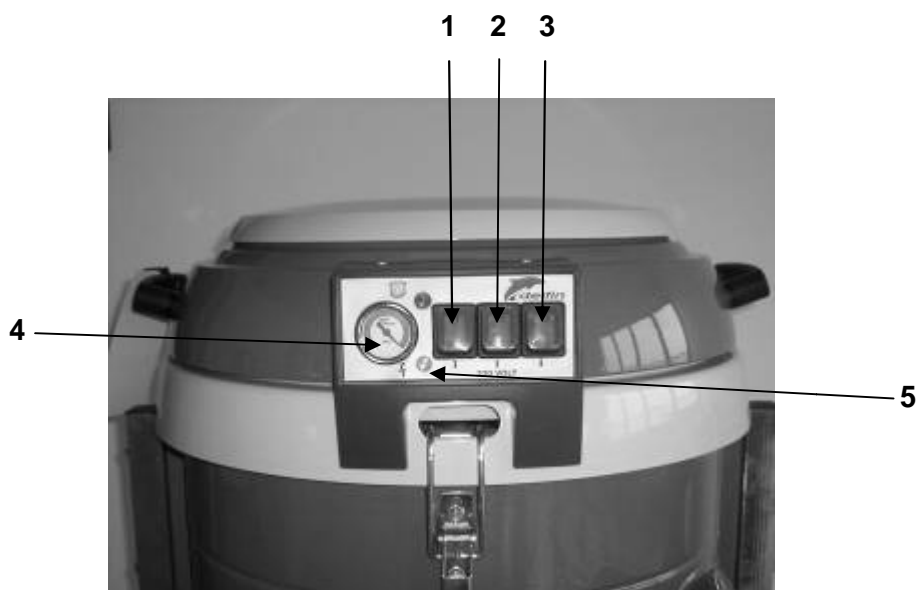


Important!

The vacuum cleaner must not be used by unauthorised personnel and by anyone who has not read the operator's and maintenance manual.

The operators and maintenance technicians who perform authorised jobs on the cleaner must be adequately informed about the use of individual protection devices such as shoes, gloves and mask, which make it possible to eliminate all risks associated with the performance of the various jobs.

4.1 Description of controls



- 1) START/STOP SWITCH MOTOR 1
- 2) START/STOP SWITCH MOTOR 2
- 3) START/STOP SWITCH MOTOR 3 (DM40 SGA – DM3)
- 4) VACUUM METER
- 5) POWER ON GREEN LIGHT INDICATOR

4.2 Work cycle

**Important!**

Before fitting the plug, make sure the power voltage corresponds to that on the CE marking plate.

- Make sure the power plug is correctly fitted in the power socket.
- Make sure the flexible hose is properly fitted and locked in the vacuum pipe union.
- Make sure the power cable and any extension used are integral and in perfect condition.
- Block the vacuum cleaner by means of the retainer provided.



- Grip one end of the flexible hose complete with selected accessory.
- Press the START button and start vacuuming.
- To stop the vacuum cleaner, press the STOP button.

Caution!

Before switching the vacuum cleaner back on, make sure the motors have come to a complete halt.

- After finishing work, disconnect the vacuum cleaner from the power socket.

To move the vacuum cleaner, use the large handle.



Important!

The vacuum can be moved only on flat ground !

If the vacuum is moved on inclined grounds, you can risk to lose the control, because of the weight and to damage persons or things.



Caution!

During vacuuming, avoid rolling up or bending the flexible hose.

4.3 Releasing and removing the removable container

Stop the vacuum motors by pressing the relevant STOP buttons.



Important!
Disconnect the plug from the power socket.

- **MODD. DM35 SGA – DM40 SGA**

Lift the two levers located in the bottom part of the cleaner to release and remove the container.



Empty the contents of the container into a special waste disposal container in accordance with laws applicable in the country where the vacuum cleaner is used.



Important!
While performing these operations, it is best to wear a dust protection mask

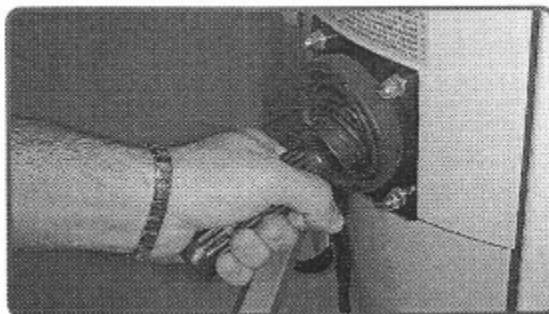
To prevent having to use a dust protection mask and for greater convenience, before starting vacuuming operations, it is best to fit a nylon bag inside the container and to fasten this in place with the special accessory available on request.



Important!
Perform the container release operation by means of the levers located on the sides or on the handle with BOTH HANDS!
Danger of crushing upper limbs when fitting and locking the container on the vacuum cleaner.

4.4 Using the filter shaking system

This operation must only be performed with the machine switched off once the motor has come to a complete halt. The filter shaking system is best operated every time before use and after prolonged operation.



For greater convenience, the most frequently used accessories can be placed in the special accessory basket (A).

**Caution!**

During vacuuming, avoid rolling up or twisting the flexible hose

On the front of the vacuum cleaner is a vacuum meter indicating the degree of vacuum inside the vacuum cleaner. If, with the vacuum cleaner working and the vacuum inlet free, the vacuum meter lever indicates an irregular depression level, the filter will have to be shaken by means of the special lever. If the indicator light remains on, clean and replace the filter.

**Caution!**

Never use the machine with the filter blocked.

**Caution!**

If the arrow of the vacuum meter stays in the red area even after cleaning the filter, the hose or suction accessory could be blocked. In this case, clean and remove the blockage.



MAINTENANCE SECTION



Caution!
Special maintenance jobs on the vacuum cleaner must only be done by the manufacturer's skilled technicians.

5.1 Informative notes

This section describes the control and special maintenance operations crucial for keeping the vacuum cleaner in perfect working condition.

Any other jobs which might be necessary to eliminate operating faults must be expressly authorised by the manufacturer. In such cases, always notify the identification details of the cleaner.

In the case of major repairs, it is best to contact an authorised dealer, whose skilled personnel, backed by all the technological experience relating to the original factory construction methods, are always available and ready to promptly intervene.

5.2 General safety precautions

Maintenance jobs must always be performed by skilled technicians, trained to carry out their specific jobs. In the case of this machine, these are:

- *Mechanical maintenance*
- *Electrical maintenance*

The Safety Manager has the precise duty of determining the professional capacities and skills of such persons.

Before doing any maintenance job, the safety manager must:

- Make sure there are no unauthorised persons in the work area.
- Make sure the necessary tools are on hand and that these are in good condition.
- Make sure that lighting is adequate and, if necessary, provide 24-V portable lamps.
- Make sure the maintenance engineer is equipped with all approved individual protection devices needed for the specific operation (gloves, eyewear, shoes, etc.).
- Make sure the maintenance engineer has carefully read the instructions contained in this manual and knows how the vacuum cleaner works.

Before carrying out a maintenance job, the maintenance engineer must:

- Disconnect the plug from the power socket.

Work done on motors or other electrical component parts must only be performed by a specifically trained electrician, authorised by the Safety Manager.

Always use tools that are in perfect condition and specifically made for the operation to be done. The use of unsuitable tools or tools not in good condition could cause serious damage.

5.3 Maintenance operations

**Important!**

All the described operations must be done with the plug disconnected from the power socket.

Before starting any maintenance or cleaning job, always wear adequate protective clothing, eyewear and/or gloves according to the type of job to be done.

For smooth vacuum cleaner operation, a number of controls are best made periodically:

- Check to see whether the filter is worn or has become too permeable.
- Make sure the sealing gaskets of the motor head base, of the filter-holder ring and of the container are working efficiently.
- The electrical parts (plugs, switches, cables, etc.) must not be faulty.
- The screws and nuts must always be tight.
- Make sure the container is not overfull. This should be emptied when the vacuumed material has reached 3/4 of maximum capacity.
- Check the integrity of the flexible vacuum hose and accessories to be used.
- If the flexible hose is perforated, the power of the cleaner will be reduced and dust and liquids will leak into the environment.

**Caution!**

All maintenance and repair jobs must be performed directly by DELFIN or its authorised dealers.

5.4 Replacing the filters

To replace the filters, proceed as follows:

- Turn off the vacuum cleaner by pressing the motor **STOP** buttons.
- Disconnect the vacuum cleaner plug from the power socket.

Important!

Wear individual protection devices.



Block the vacuum cleaner by means of the stop.



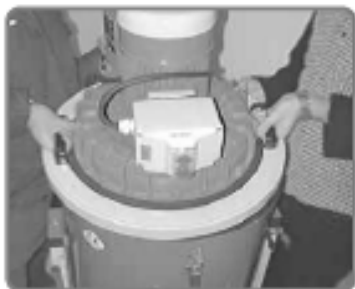
Simultaneously, lift the two levers that lock the container.



Remove the container.



Release the stops that hold the head.



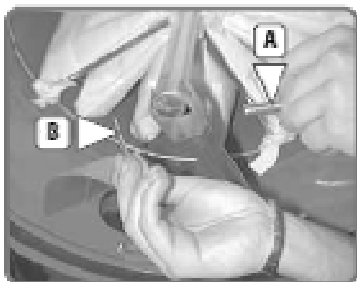
Lift the head by means of the handles provided and rest this on a support bench.



When resting the head on the support, be careful not to damage the power cable.



Important!
To lift the head, two people are required.



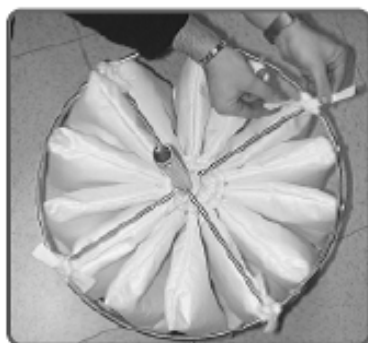
Remove from underneath the vacuum cleaner the pin (A) and spring pin (B) that fasten the filter to the shaking lever.



Remove the filter with its complete support.



Loosen the clamp and remove the support ring with seal.



Remove the knots and take out the pocket filter. Fit the new filter and put everything back in place, locking the cap.



Important!

All the material trapped by the filter and the filter itself must be disposed of through authorised channels in the country where the vacuum cleaner is used.



The container locking operation must be performed by one person only, who must grip the two handles at the same time with both hands and press these fully down.



Important!

Hand crushing hazard!

5.5 Troubleshooting

Fault found	Possible fault	Recommended remedy
The cleaner fails to start.	No power.	Check the power mains supply. Check the integrity of the plug and power cable.
	Thermal magnetic switch tripped	Reset the thermal magnetic switch.
Dust is leaking out	Perforated vacuum pipe.	Replace the pipe.
	Perforated filter.	Replace the filter.
	Filter unsuitable for type of job.	Fit a suitable filter for the type of material to be vacuumed.
The vacuum cleaner does not work as it should.	Pipe perforated or blocked.	Check the pipe and, if necessary, replace.
	Container full	Empty container.
	Filter blocked.	Replace filter.
	Seals worn.	Clean the filter and if necessary change it.
	Air leak.	Check for any air leaks out of closing fasteners, tightening screws, container or filter chamber.
Motor very noisy.	Contact DELFIN after-sales.	


Caution!
For any other problems, contact the DELFIN after-sales service.



SPARE PARTS SECTION

Spare parts orders can be sent by fax, by photocopying the attached form, via e-mail or ordinary mail.



Fax 0039.011.8005506



E-Mail delfin@delfinvacuums.it



Mail Strada della Merla, 49/a
10036 Settimo Torinese (TO) Italy

6.1 Recommended spare parts

DESCRIPTION	CODE
Container/chamber seal Ø 500	AR2059
Polyester filter 14T. Ø 500 H=400 cat "G"	AR3024
Filter holder seal Ø 500	AR2013
Filter clamp Ø 500	AR2018
MOTORE BP 240V 50/60Hz 1150W (LAMB ELECTRIC)	AR2783
INSON.ADES. D380mm COPERCHIETTO TEST.SERIE ABS	AR4060
INSON.ADES.1655X58mm COPERCHIO TEST.SERIE ABS	AR4073
INSON.ADES. D464mm FERMAMOTORI SUP.SERIE ABS	AR4066
INSON.ADES.1433X66mm FERMAMOTORI SERIE ABS	AR4094
INSON.ADES. D464mm FERMAMOTORI INF.SERIE ABS	AR4069
INSON.ADES. D420mm BUGNATO BASAMENTO SERIE ABS	AR4071



FAX

Page _____ of _____

Delfin srl

Strada della Merla, 49/a
10036 Settimo Torinese (TO) – Italy
Tel. 0039.011.8005500
Fax 0039.011.8005506

IMPORTANT: type or complete in block capitals

Date _____

SPARE PARTS ORDER FORM

SENT BY _____ TEL _____

DESTINAZIONE DEI RICAMBI	ADDRESS _____
	LOCALITY _____ PROV _____
	NACIONALITY _____ TEL _____

MODEL	PART NO.	TAB.	PART CODE
DESCRIPTION			Qty

MODEL	PART NO.	TAB.	PART CODE
DESCRIPTION			Qty

MODEL	PART NO.	TAB.	PART CODE
DESCRIPTION			Qty

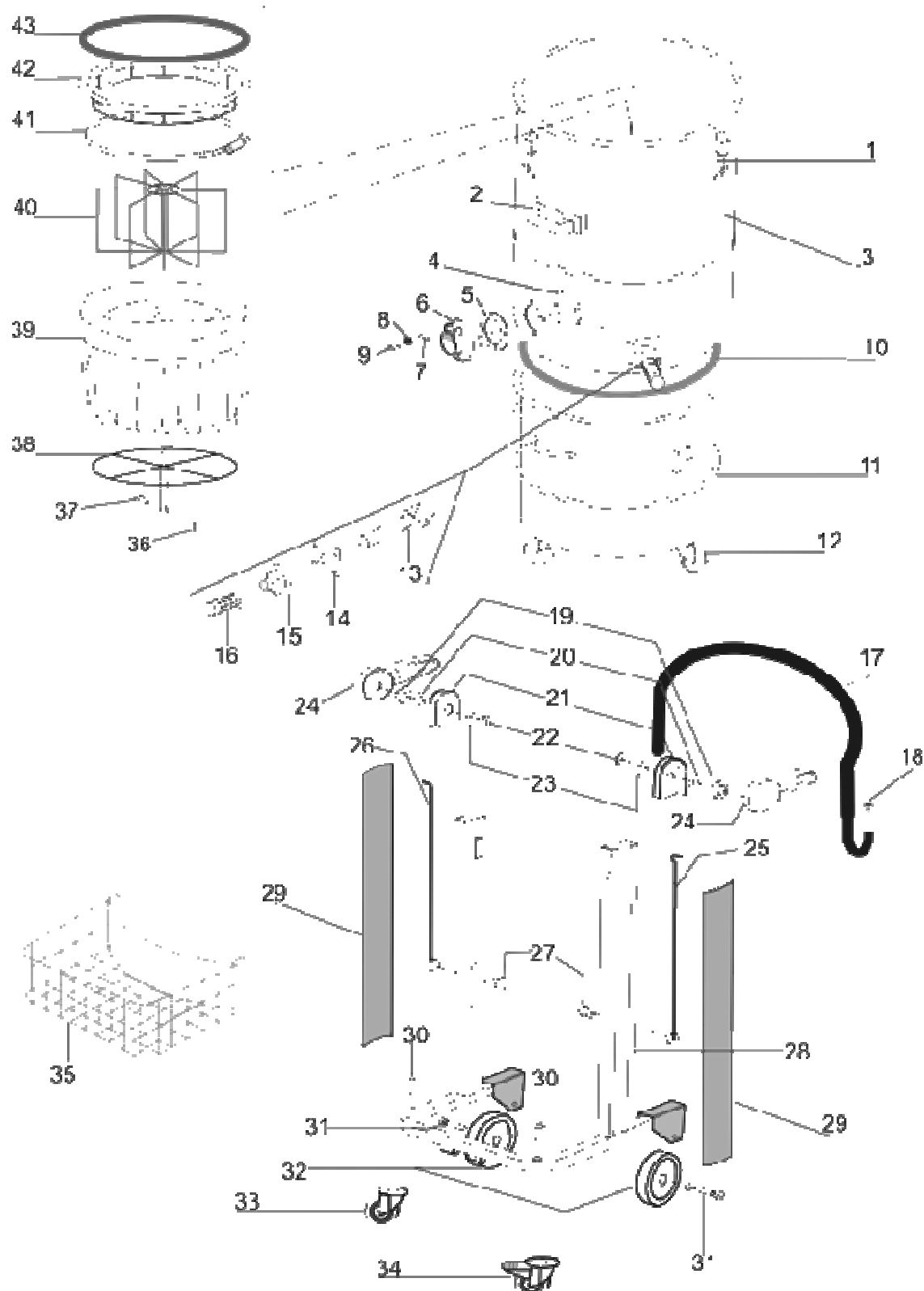
MODEL	PART NO.	TAB.	PART CODE
DESCRIPTION			Qty

MODEL	PART NO.	TAB.	PART CODE
DESCRIPTION			Qty

MODEL	PART NO.	TAB.	PART CODE
DESCRIPTION			Qty

MODEL	PART NO.	TAB.	PART CODE
DESCRIPTION			Qty

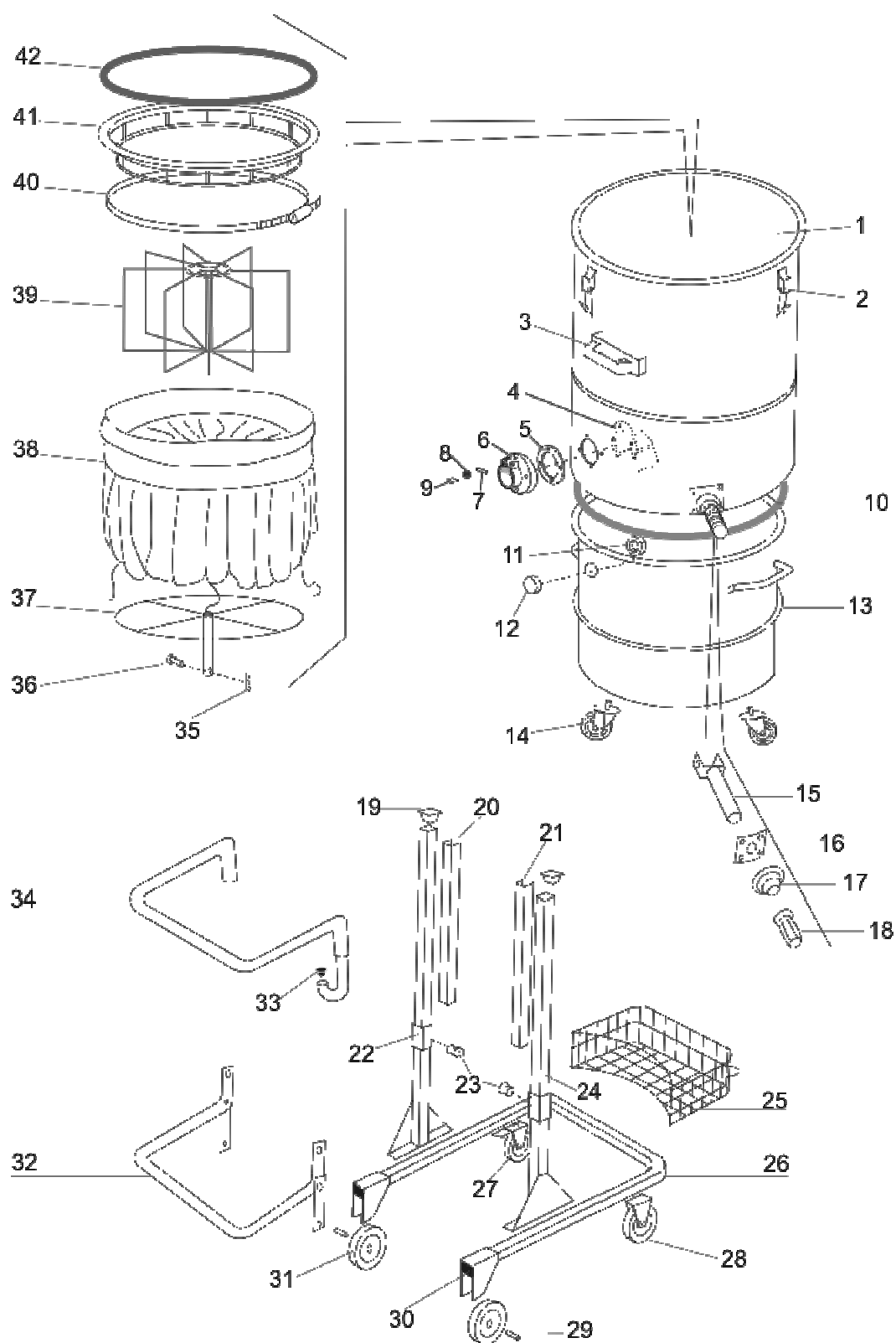
1.1 MODD. DM35 SGA – DM40 SGA



1.1 MODD. DM35 SGA – DM40 SGA

Ref.	Code	Un.	Q.ty	Description
1	AR2002	N	3	Chiusura a gancio
2	AR2001	N	1	Maniglia L=140
3	AR2058	N	1	Camera filtrante Ø500 h=650
4	AR2415	N	1	Deflettore pressofuso
5	AR2414	N	1	Guarnizione bocchettone presso fuso Ø80
6	AR2413	N	1	Bocchettone Ø80 pressofuso
7	AR2416	N	1	Spina bocchettone pressofuso
8	AR2417	N	1	Molla saltarello
9	AR2418	N	1	Saltarello bocchettone pressofuso
10	AR2059	N	1	Guarnizione contenitore camera Ø500
11	AR2060	N	1	Contenitore Ø450 H300
12	AR2062	N	4	Ruota nylon pivottante Ø60
13	AR2129	N	1	Leva scuotifiltro
14	AR2065	N	1	Flangia scuotifiltro
15	AR2066	N	1	Soffietto leva scuotifiltro
16	AR2008	N	1	Manopola leva scuotifiltro
17	AR3923	N	1	Manico di spinta D/M35-40 ZFR50
18	AR3115	N	1	Copritesta Ø20
19	AR 3509	N	2	Fulcro rotazione leveraggio MTL
20	AR2289	N	2	Anello limkas 28A
21	AR 3508	N	2	Scocca alluminio MTL
22	AR 3507	N	2	Rondella di chiusura rotazione MTL
23	AR 3505	N	2	Distanziale nylon Ø20 x 30 sp.1
24	AR 3510	N	2	Leva aggancio contenitore MTL
25	AR 3503	N	1	Asta sollevamento/sgancio MTL dx
26	AR 3504	N	1	Asta sollevamento/sgancio MTL sx
27	AR2363	N	2	Fulcro leva aggancio
28	AR3921	N	1	Carrello D/M35-40 ZFR50
29	AR3499	N	2	Profilo PLT piantoni MTL
30	AR3922	N	2	Vite per ruote piv. carrello D/M35
31	AR4299/KIT	N	2	Kit assale ruota AR4299
32	AR4299	N	2	Ruota D150 MTL polipropilene antiurto
33	AR2005	N	1	Ruota pivottante Ø80
34	AR2006	N	1	Ruota pivottante Ø80 con freno
35	AR3878	N	1	Cestello porta-accessori D/M35-40 SGA ZFR50
36	AR2480	N	1	Molla zig-zag mm.3
37	AR2481	N	1	Perno aggancio gabbia scuotifiltro
38	AR2457	N	1	Gabbia scuotifiltro H=195 14R
39	AR3024	N	1	Filtro Pol.G Ø500 H400 14T
40	AR2456	N	1	Gabbia tendifiltro 14 raggi
41	AR2018	N	1	Fascetta fermafiltro Ø500 (14MM/1510)
42	AR2580	N	1	Anello reggifiltro Ø500 H70
43	AR2013	N	1	Guarnizione reggifiltro Ø500

1.2 MOD. DM3



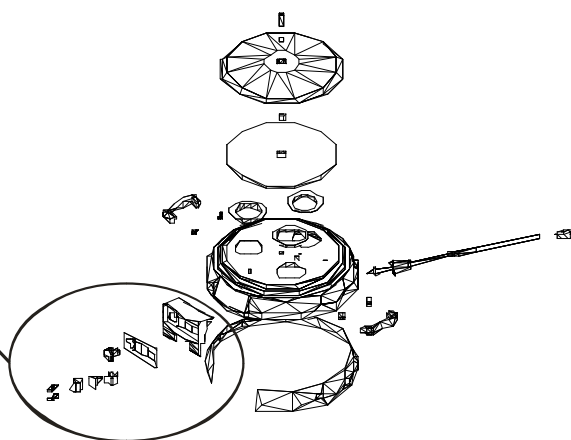
1.2 MOD. DM3

Ref.	Code	Un.	Q.ty	Description
1	AR2058	N	1	Camera filtrante D500 H=650
2	AR2002	N	3	Chiusura a gancio
3	AR2001	N	1	Maniglia L=140
4	AR2415	N	1	Deflettore pressofuso
5	AR2414	N	1	Guarnizione bocchettone pressofuso Ø 80
6	AR2413	N	1	Bocchettone Pressofuso Ø 80
7	AR2416	N	1	Spina bocchettone pressofuso
8	AR2417	N	1	Molla saltarello
9	AR2418	N	1	Saltarello bocchettone pressofuso
10	AR2059	N	1	Guarnizione contenitore camera Ø 500
11	AR3114	N	1	Ghiera bloccaggio Ø40x1,5 ZB
12	AR2079	N	1	Indicatore di livello
13	AR2131	N	1	Contenitore D450 H510
14	AR2062	N	4	Ruota nylon pivottante Ø 60
15	AR2063	N	1	Leva scuotifiltro
16	AR2065	N	1	Flangia scuotifiltro
17	AR2066	N	1	Soffietto leva scuotifiltro
18	AR2008	N	1	Manopola leva scuotifiltro
19	AR2051	N	2	Copritesta quadro 35x35
20	AR2087	N	1	Profilo U camera D500 dx
21	AR2086	N	1	Profilo U camera D500 sx
22	AR2178	N	2	Corsoio DM3
23	AR2363	N	2	Fulcro leva di aggancio
24	AR2088	N	2	Montante DM3/ZFR75 EXP/DG150
25	AR2458	N	1	Cestello porta-accessori DM3-AIR-TRF
26	AR2133	N	1	Carrello DM3-ZFR75-DM3AIR
27	AR3448	N	1	Ruota pivottante Ø 150 con freno
28	AR3447	N	1	Ruota pivottante Ø 150
29	AR3451	N	2	Assale porta ruota L=42
30	AR2134	N	2	Puntale quadro 40x40
31	AR2118	N	2	Ruota gomma Ø 150
32	AR2084	N	1	Leva aggancio grande
33	AR3115	N	1	Copritesta Ø 20
34	AR2132	N	1	Manico di spinta DM3
35	AR2480	N	1	Molla zig-zag mm.3
36	AR2481	N	1	Perno aggancio per gabbia scuotifiltro
37	AR2457	N	1	Gabbia scuotifiltro H=195 14R
38	AR3024	N	1	Filtro Pol.G Ø 500 H=400 14T
39	AR2456	N	1	Gabbia tendifiltro 14R
40	AR2018	N	1	Fascetta fermafiltro D500 (14MM/1510)
41	AR2580	N	1	Anello reggifiltro D500 H70
42	AR2013	N	1	Guarnizione reggifiltro D500

MOTOR HEAD WITH 2/3 MOTORS MODD. DM35 SGA – DM40 SGA – DM3

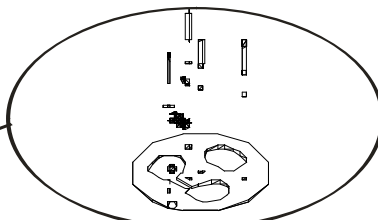
Parte "A"

Dettaglio "1"

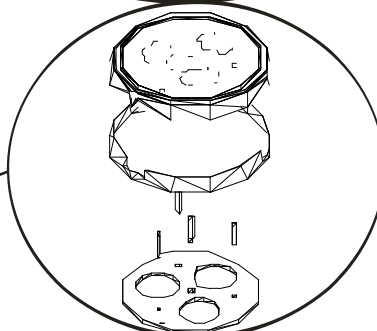


Parte "B"

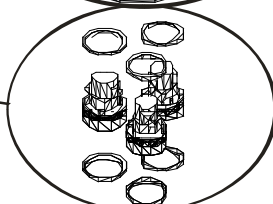
Dettaglio "2"



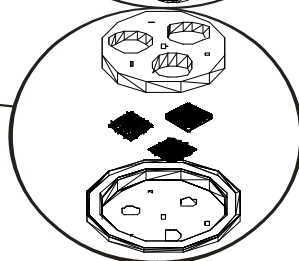
Dettaglio "3"



Dettaglio "4"

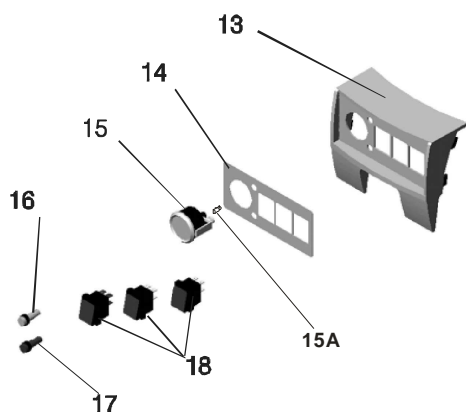
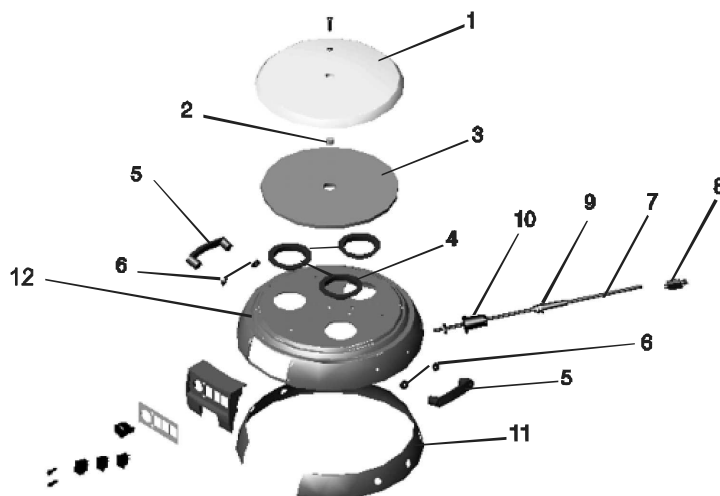


Dettaglio "5"

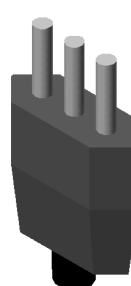


MOTOR HEAD WITH 2/3 MOTORS MODD. DM35 SGA – DM40 SGA – DM3

Part "A"



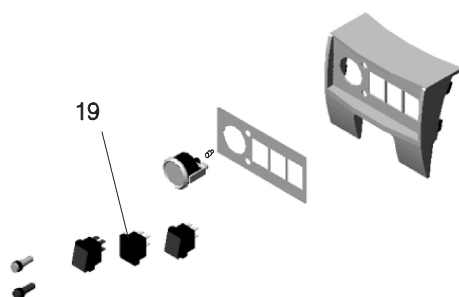
Detail "1" (Vers. 3 motors)



N°8 "A"



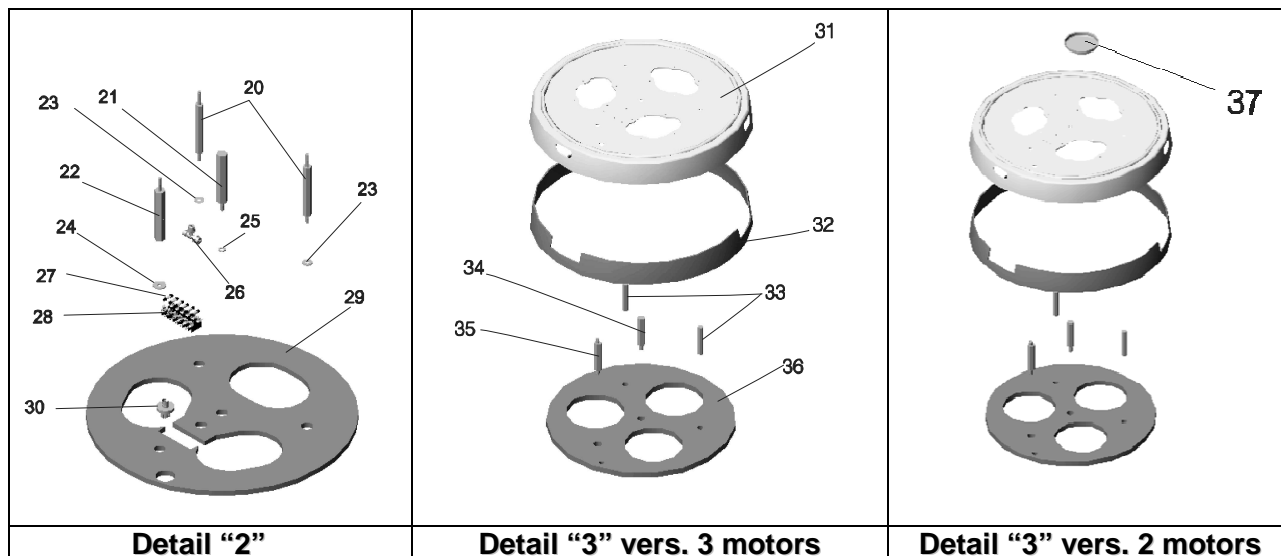
N°8 "B"



Detail "1" (Vers. 2 motors)

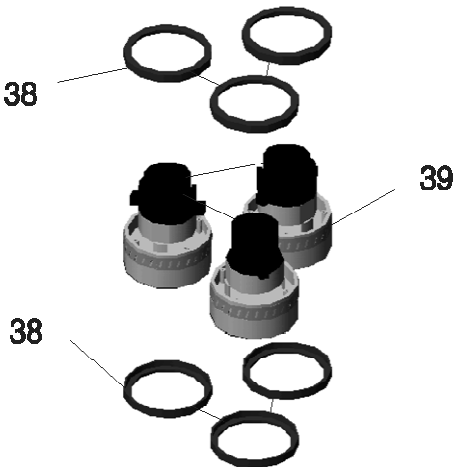
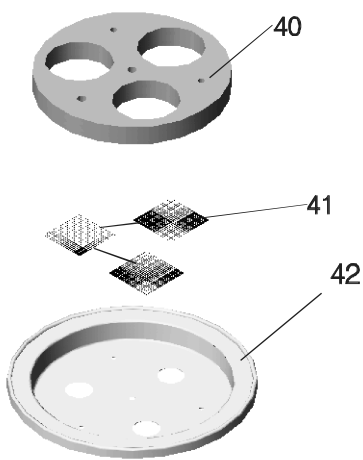
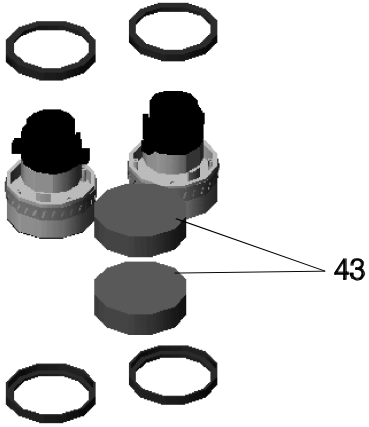
MOTOR HEAD WITH 2/3 MOTORS MODD. DM35 SGA – DM40 SGA – DM3
PARTE “A”

Ref.	Code	Un.	Q.ty	Description
1	AR4082	N	1	Coperchietto testata monof. (serie ABS)
2	AR4059	N	1	Distanziale H=18mm ch.=17mm
3	AR4060	N	1	Insonorizzante adesivo Ø380mm coperchietto testata (serie ABS)
4	AR4085	N	2/3	Anello di raffreddamento gomma stampata
5	AR4083	N	2	Maniglia testata a ponte (serie ABS)
6	AR4084	N	4	Adattatore maniglia testata a ponte in plastica
7	AR2029I	N	1	Cavo di alimentazione 3 x 2.5 Italia
8	AR2029	N	1	Cavo di alimentazione 3 x 2.5 Estero
9	AR2028	N	1	Pressacavo spiralato
10	AR3372	N	1	Boccola passacavo per monofase
11	AR4073	N	1	Insonorizzante adesivo coperchio testata sv.= 1655mm x h= 58mm
12	AR4058	N	1	Coperchio testata monof. Sp.15/10 verniciata (serie ABS)
13	AR4086	N	1	Mascherina per pannello comandi ABS
14	AR4087	N	1	Frontalino adesivo per pannello comandi
15	AR3524	N	1	Vuotometro Ø40 AIR-MTL
15A	AR4473	N	1	Raccordo AIR EX 4x6 1/8" F (TESTATA ABS)
16	AR3517	N	1	Spia verde – alimentazione MTL
17	AR3518	N	1	Spia rossa – filtro intasato MTL
18	AR4088	N	2/3	Interruttore bipolare luminoso rosso
19	AR4089	N	1	Tappo sostitutivo interruttore bipolare

MOTOR HEAD WITH 2/3 MOTORS MODD. DM35 SGA – DM40 SGA – DM3
PART “B”


Ref.	Code	Un.	Q.ty	Description
20	AR4063	N	2	Distanziale sup. M/M L=100mm ch.13mm
21	AR4064	N	1	Distanziale sup. F/FM L=99mm ch. 17mm
22	AR4065	N	1	Distanziale sup. passaggio aria F/M L=100mm ch. 17mm
23	AR4090	N	2	Rondella sp. 15/10 Ø6.5mm int. x Ø18mm est.
24	AR4091	N	1	Rondella sp. 20/10 Ø10mm int. x Ø20mm est.
25	AR4092	N	1	Rondella sp. 15/10 Ø8mm int. x Ø16mm est.
26	AR4093	N	1	Spina aria 2 vie AIREX 1/8 – 6/4
27	AR2496	N	4	Fusibili 10 A
28	AR2497	N	4	Portafusibile con copertura
29	AR4066	N	1	Insonorizzante adesivo fermamotori super. Ø464mm
30	AR4095	N	1	Pressostato
31	AR4067	N	1	Fermamotori testata monof. 15/10 (serie ABS)
32	AR4094	N	1	Insonorizzante adesivo fermamotori sv.=1433mm x h = 66 mm
33	AR3536	N	2	Distanziale F/F L=79mm M6 ch.13mm per basamento MTL
34	AR3537	N	1	Distanziale M/F L=79mm ch. 17mm centrale per filtro assoluto
35	AR3538	N	1	Distanziale FM/FM L=79mm ch.17mm M10- 1/8
36	AR4069	N	1	Insonorizzante adesivo fermamotori Ø464mm
37	AR4096	N	1	Tappo chiusura sede coperchio

MOTOR HEAD WITH 2/3 MOTORS MODD. DM35 SGA – DM40 SGA – DM3

	
Detail "4" (Vers. 3 motors)	Detail "5"
	
Detail "4" (Vers. 2 motors)	

Ref.	Code	Un.	Q.ty	Description
38	AR2252	N	4/6	Guarnizione "L" D145X5 H15
39	AA2783	N	2/3	Motore BP 240V 50/60Hz 1150W (LAMB ELECTRIC)
40	AR4071	N	1	Insonorizzante adesivo bugnato basamento Ø420mm
41	AR2098	N	2/3	Rete flangia
42	AR4070	N	1	Basamento testata monof. 3 fori Sp.15/10 (Serie ABS)
43	AR4097	N	2	Tappo chiusura sede motore 1150W



Distributor: