



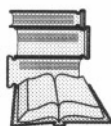
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MISTRAL industrial vacuum cleaners

352 DS

**Operator's and maintenance
manual**



Read this manual carefully before using the vacuum cleaner

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.

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 EEC 98/37" 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.

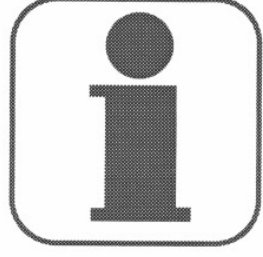
In case of any doubts, always immediately phone the After-Sales Service.

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



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

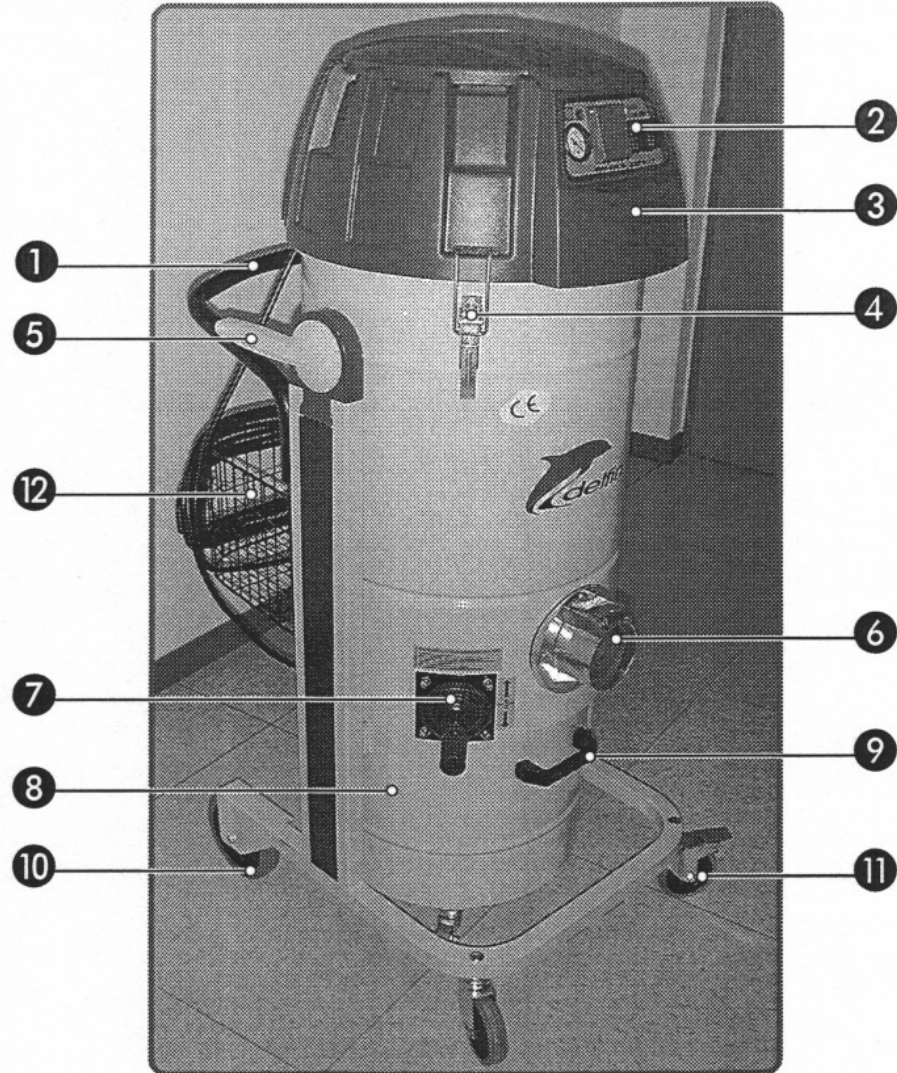
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INFORMATION SECTION

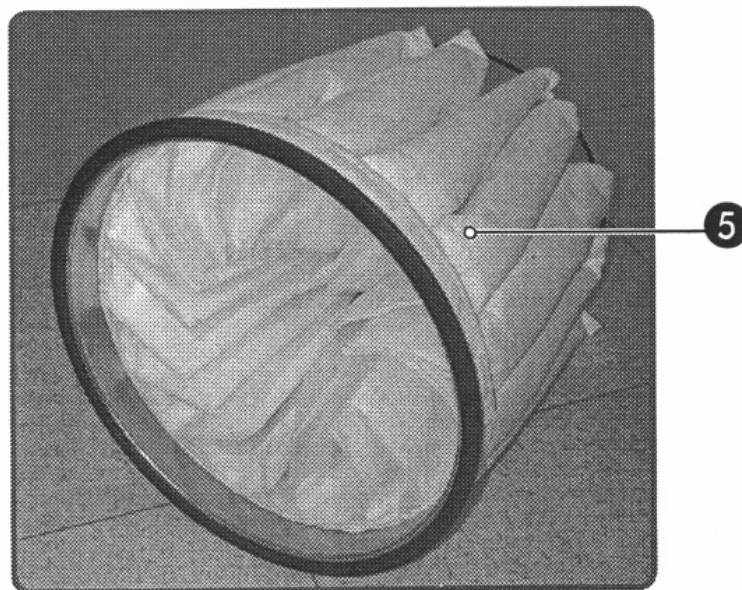
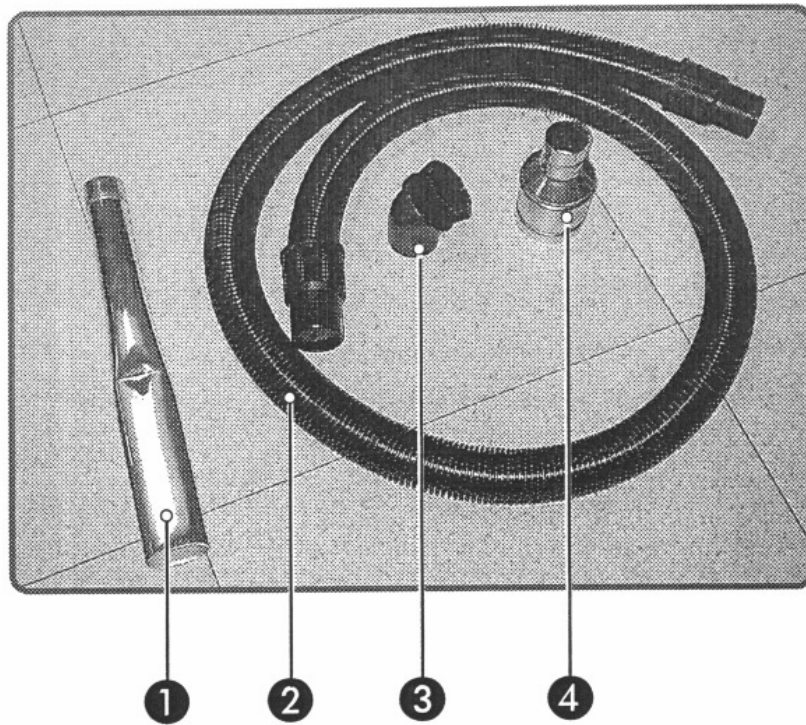
1.1 Identification of main parts

Models 352 DS



- 1) Push handle
- 2) Controls
- 3) Motor protection cover
- 4) Power cable with plug
- 5) Vacuumed material container side release levers
- 6) Suction pipe coupling point
- 7) Filter shaking lever
- 8) Removable vacuumed material container
- 9) Removable container handle
- 10) Fixed castors
- 11) Castors

1.2 Accessories provided



- 1) Flat aluminium mouthpiece Ø 50 (code **AA1045**)
- 2) Flex. PVC hose, 2.5 m with couplings Ø 50 (code **AA2591**)
- 3) Hand Brush 517 Ø 50 (code **AA2592**)
- 4) New iron reduction unit Ø 80/50 (code **AA2638**)
- 5) 16-pocket polyester filter kit cat. G (code **AR 3708**)

1.2.1 Optional accessories

Absolute filter (Code art. AA 2627)

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.

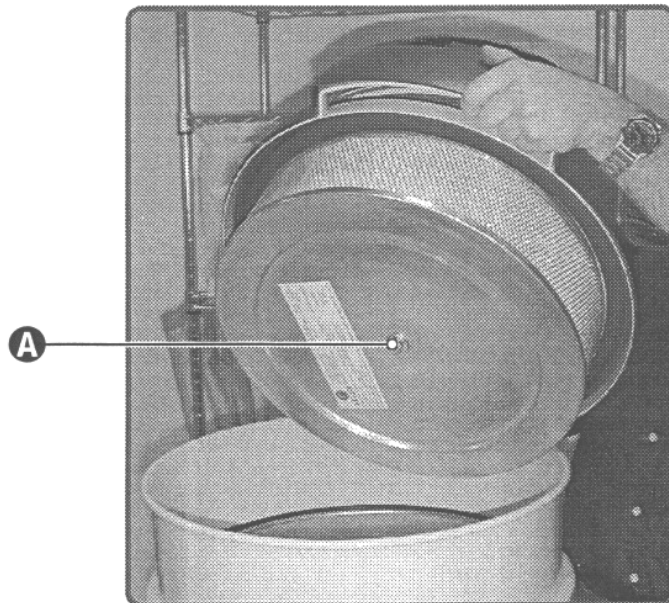


Important!

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.

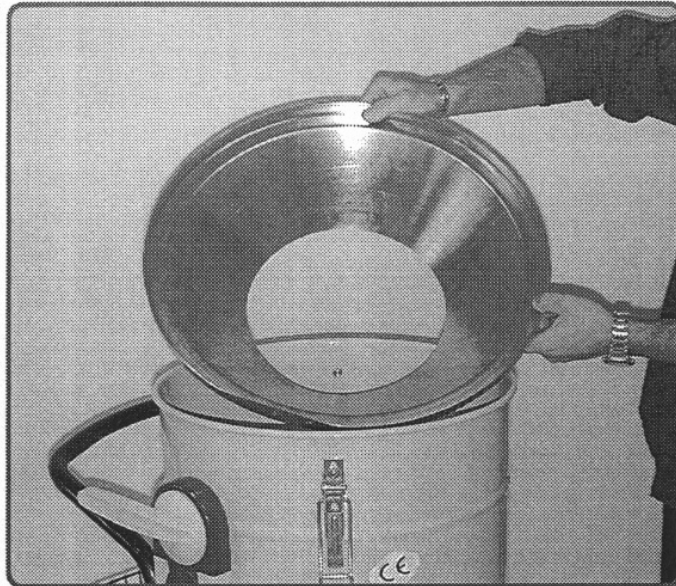


Besides the absolute filter, depending on the dust to be vacuumed, the following filters are available:

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

Removable cyclone (Code AA 2658)

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.

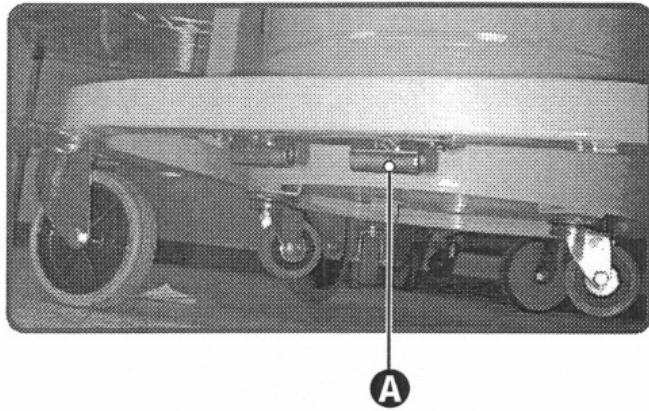
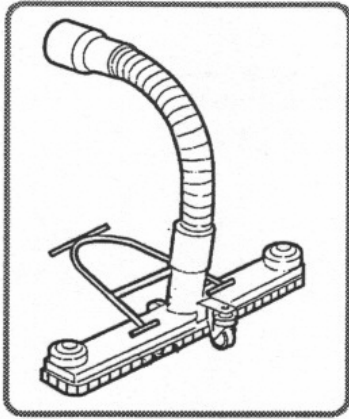


Bag retention ring (Code AA 2655)

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.



WET-DRY fixed accessory (Code AA 1134)



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

1.3 Identification details of manufacturer

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



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 UNI 7712 standards. Sound tests performed on this specific vacuum cleaner model show an acoustic pressure of

70 dB (A)



Important!

Pursuant to articles L.D. 277/91, workers exposed to sound pressure levels above 85 dBA 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

	352 DS
Use	Dust
Voltage	230/50/60 V
By-pass motors	2
Power	2,300 W
Max. air flow	360 m ³ /h
Depression	2.500 mm. H ₂ O
Filtering surface	20,000 cm ²
Filter load	180 M ³ /M ² /H
Noise level	70 db
Capacity	35 litres
Vacuum diameter Ø	80 mm
Overall dimensions	50 x 60 cm
Height	127 cm
Weight	40 kg

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:



Important! _____

Unless these messages are heeded, operator injuries could occur.



Warning! _____

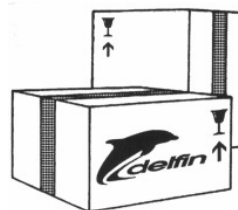
Unless these messages are heeded, vacuum cleaner damage could occur.

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.

All DELFIN products are covered by an Insurance Warranty for "Civil liability towards third products" amounting to € 516,500.00 with the RAS Spa insurance company.

In the event of Customers fitting a tool to the machine not supplied by DELFIN, make sure the safety conditions required by Machine Directive 98/37 EEC 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.



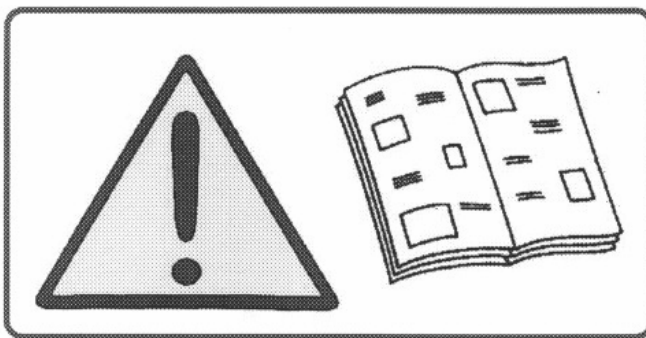
Important!

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! ATENCION! ATTENTIE!

- SCUOTERE IL FILTRO SOLO A MACCHINA SPENTA
- SHAKE THE FILTER ONLY WHEN THE EXHAUSTER IS OFF
- SECOUER SEULEMENT APRES AVOIR DEBRANCHE L'ASPIRATEUR
- NUR BEI STEHENDER MASCHINE BETÄTIGEN
- SACUDIR SOLO CON MAQUINA PARADA
- FILTER SCHUDDEN BIJUIITEESCHAKELDE MACHINE



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 547/55, 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. 1.5 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!

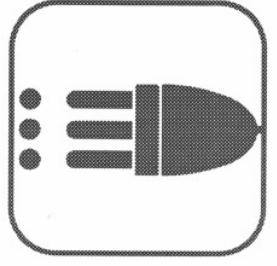
Removing the safety plates on the vacuum cleaner is strictly forbidden.

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

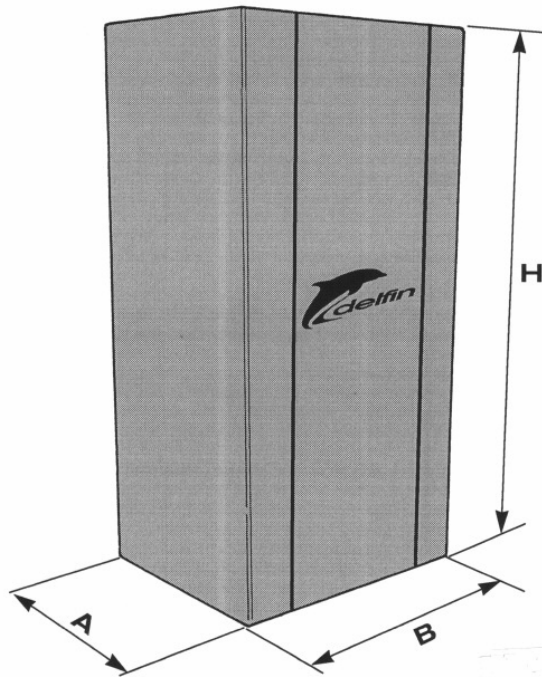
The following directives apply to the vacuum cleaner described in this manual:

- **98/37 EEC Machine directive**
- **89/336 EEC Electromagnetic compatibility directive**
- **73/23 EEC Low-voltage directive**



INSTALLATION SECTION

3.1 Handling



	A (cm)	B (cm)	H (cm)	Weight (with packaging)
352 DS	60	70	130	44 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



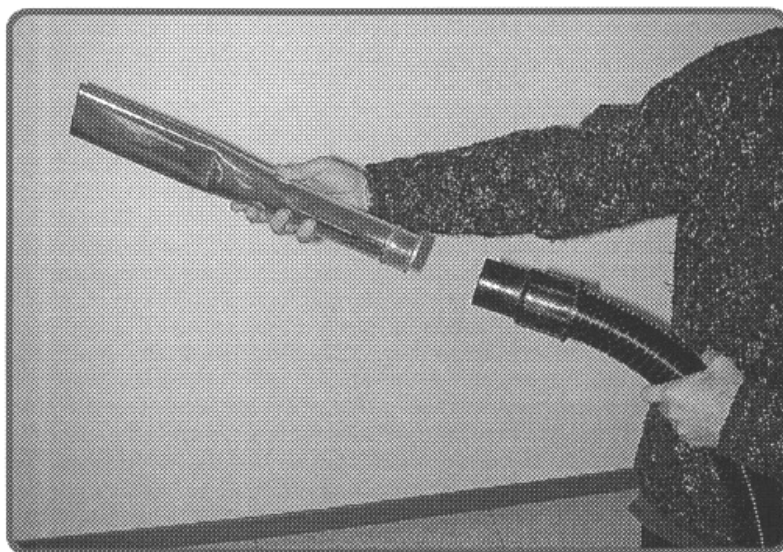
Caution!

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.

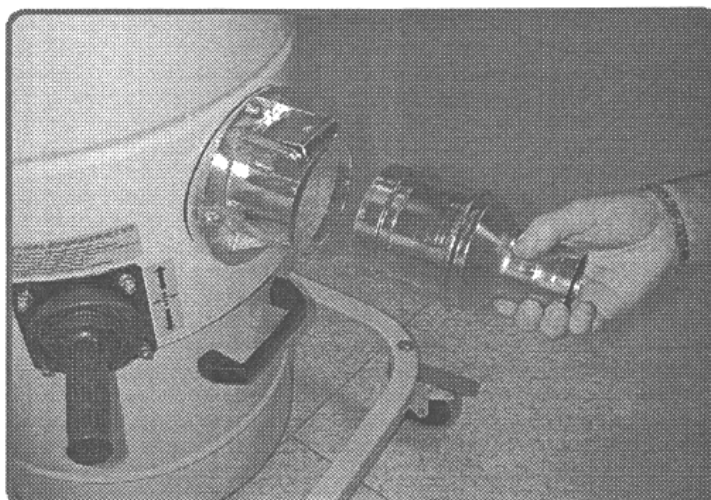
Fit the accessory required for the type of vacuuming operation on the opposite end of the hose.



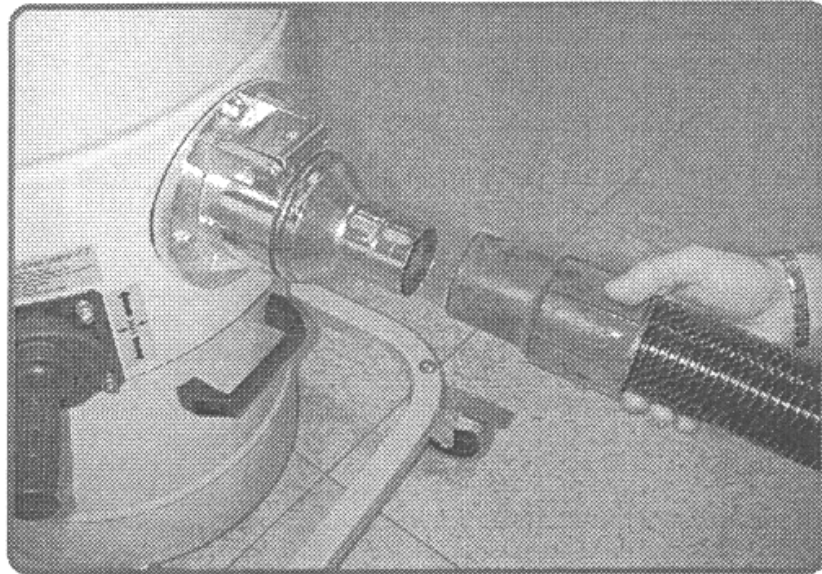
Note: the hose with relevant couplings and vacuum accessories are supplied as STANDARD.

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

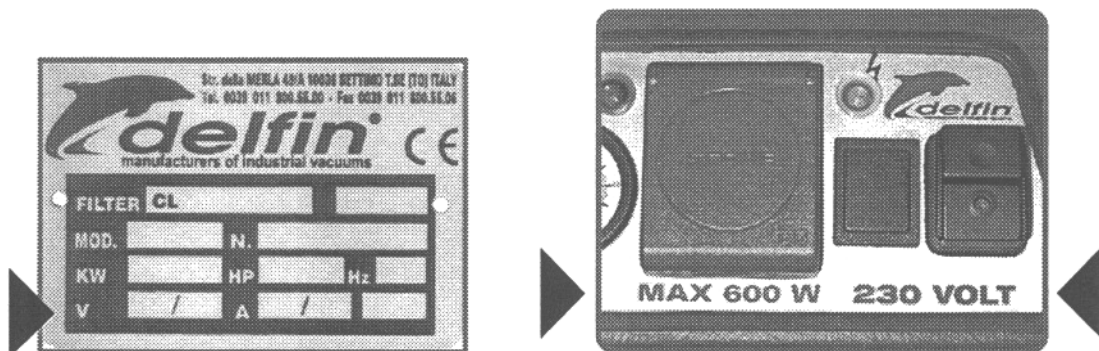
Fit the supplied connector on the pipe union.



Fit the supplied pipe in the connector.



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



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



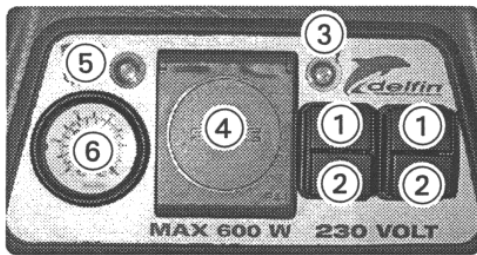
Important! _____

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

Models 352 DS



- 1) **STOP** button
- 2) **START** button
- 3) Green **POWER ON** indicator light
- 4) Service socket
- 5) Blocked filter indicator
- 6) Vacuum meter

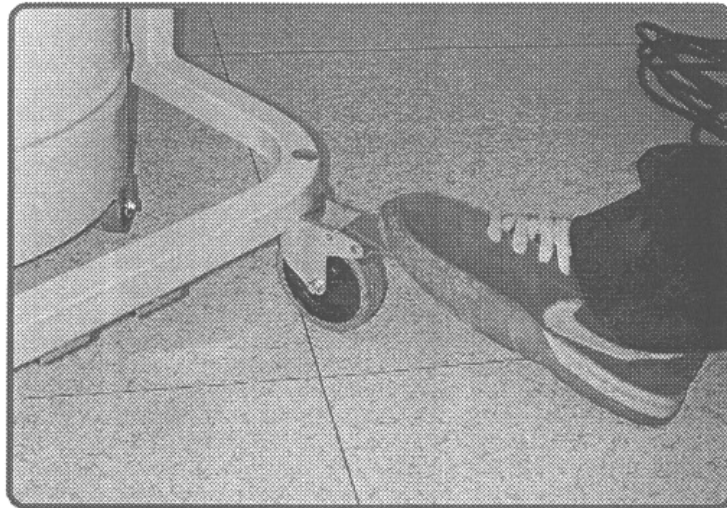
4.2 Work cycle



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.

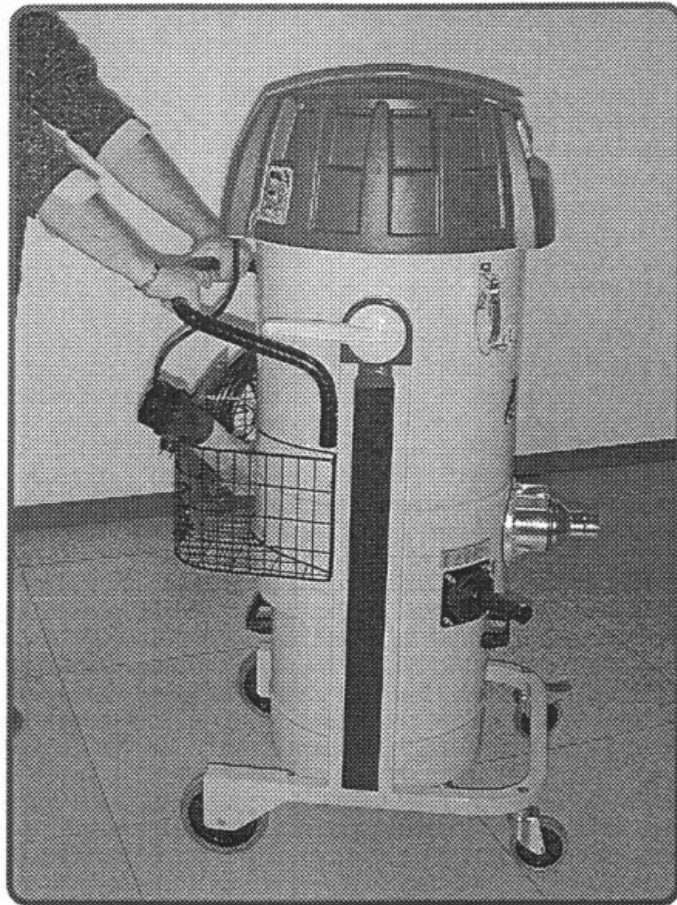


Caution!

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.



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.

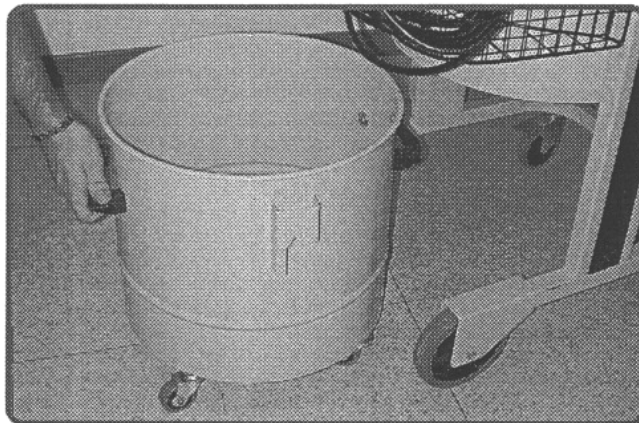


Important! _____

Disconnect the plug from the power socket. _____



Turn the two levers on the side of the vacuum cleaner fully forward.



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! _____

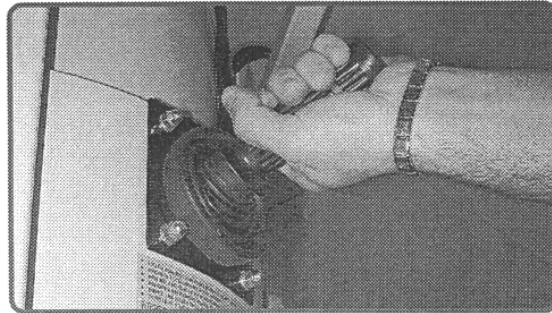
Never place the hands between the material container and the vacuum cleaner while locking.

Risk of trapping upper limbs. _____

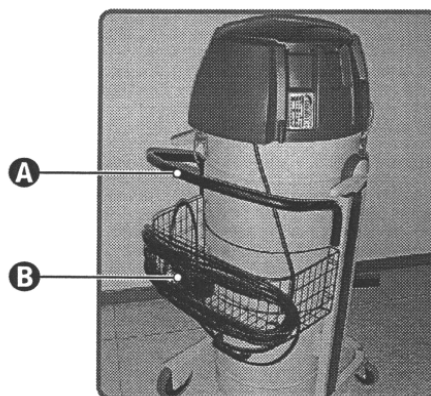
4.4. Using the filter shaking system

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.



Move the vacuum cleaner using the handle provided (A). For greater convenience, the most frequently used accessories can be placed in the special accessory basket (B).



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 **"BLOCKED FILTER"** light indicator comes on, 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 indicator light comes on and the vacuum cleaner still indicates irregular pressure, the flexible hose or vacuum accessory may be blocked. If necessary, this will have to be cleaned and the cause of the blockage eliminated.



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

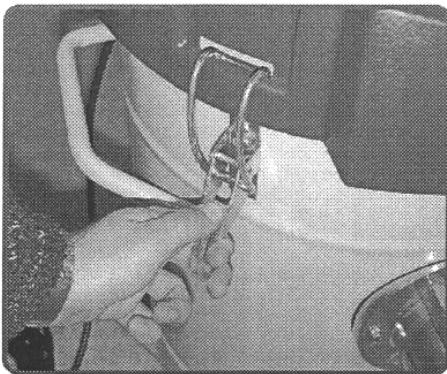
To replace the filters, proceed as follows:

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

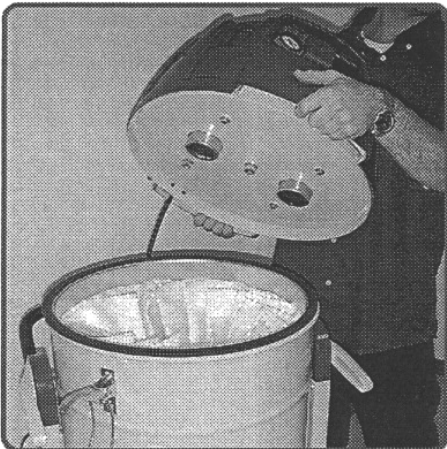


Important!

Wear individual protection devices.



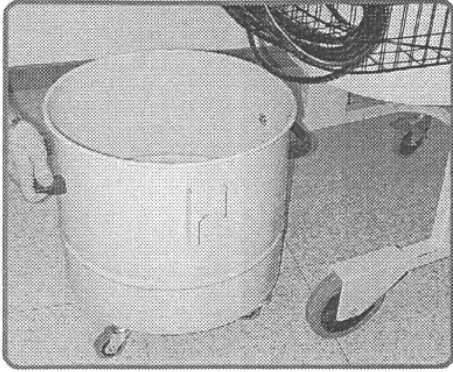
Release the two retainers that hold the motor head in place.



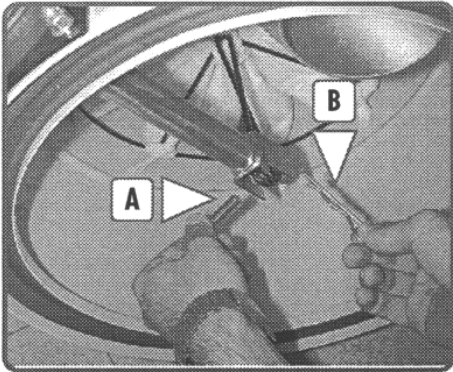
Lift the motor head and rest this on a flat surface being careful not to damage the power cable.



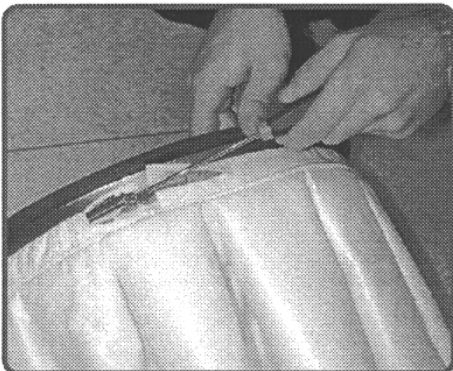
Turn the two side levers that lock the removable container fully forward



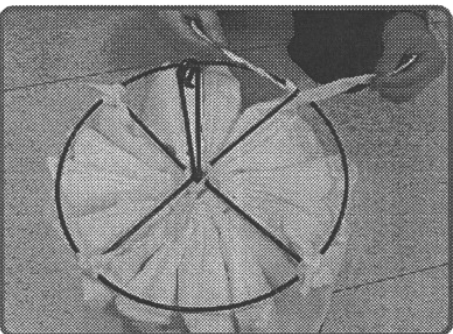
Remove the container.



Remove pin (A) and split-pin (B) that lock the filter on the shaking lever from under the vacuum cleaner. Lift the complete support filter.



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.

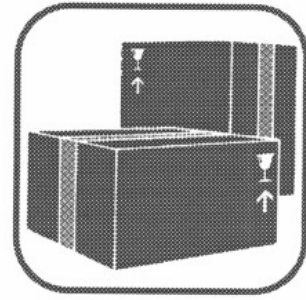
5.5 Troubleshooting

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.
	Indicator off and plug fitted: fuses burnt out.	Replace the fuses.
	Indicator on, plug fitted, switches working: worn motor brushes.	Replace the brushes.
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.	Check seals and if necessary replace.
	Air leak.	Check for any air leaks out of closing fasteners, tightening screws, container or filter chamber.
Motor very noisy.	Carbons worn or broken.	Contact DELFIN after-sales.



Caution!

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



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

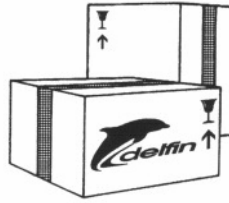
SPARE PARTS SECTION

Recommended spare parts

Description	Code
Cont. seal/metallic chamber Ø 420	AR 3439
16-pocket polyester filter cat "G" Ø 420x400	AR 3444
Metallic filter seal Ø 420	AR 3485
Metallic filter retention clamp 420	AR 3471
Metallic adhesive kit	AR 3707
Bypass motor 1150 W 230 V	AA 2475
Set (6 pcs) metallic head cover sound-dampeners	AR 3519
Set (5 pcs) metallic motor retainer sound-dampeners	AR 3535
Set (4 pcs) metallic base sound-dampeners	AR 3542



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



FAX

DATE

Page of

IMPORTANT: Type or complete in block capitals

Spare parts order form

SENT BY

TEL

DESTINATION OF SPARES	ADDRESS	
	LOCALITY	PROV.
	NATIONALITY	TEL.

MODEL **PART NO.** **TAB.** **PART CODE**

DESCRIPTION Qty

MODEL **PART NO.** **TAB.** **PART CODE**

DESCRIPTION Qty

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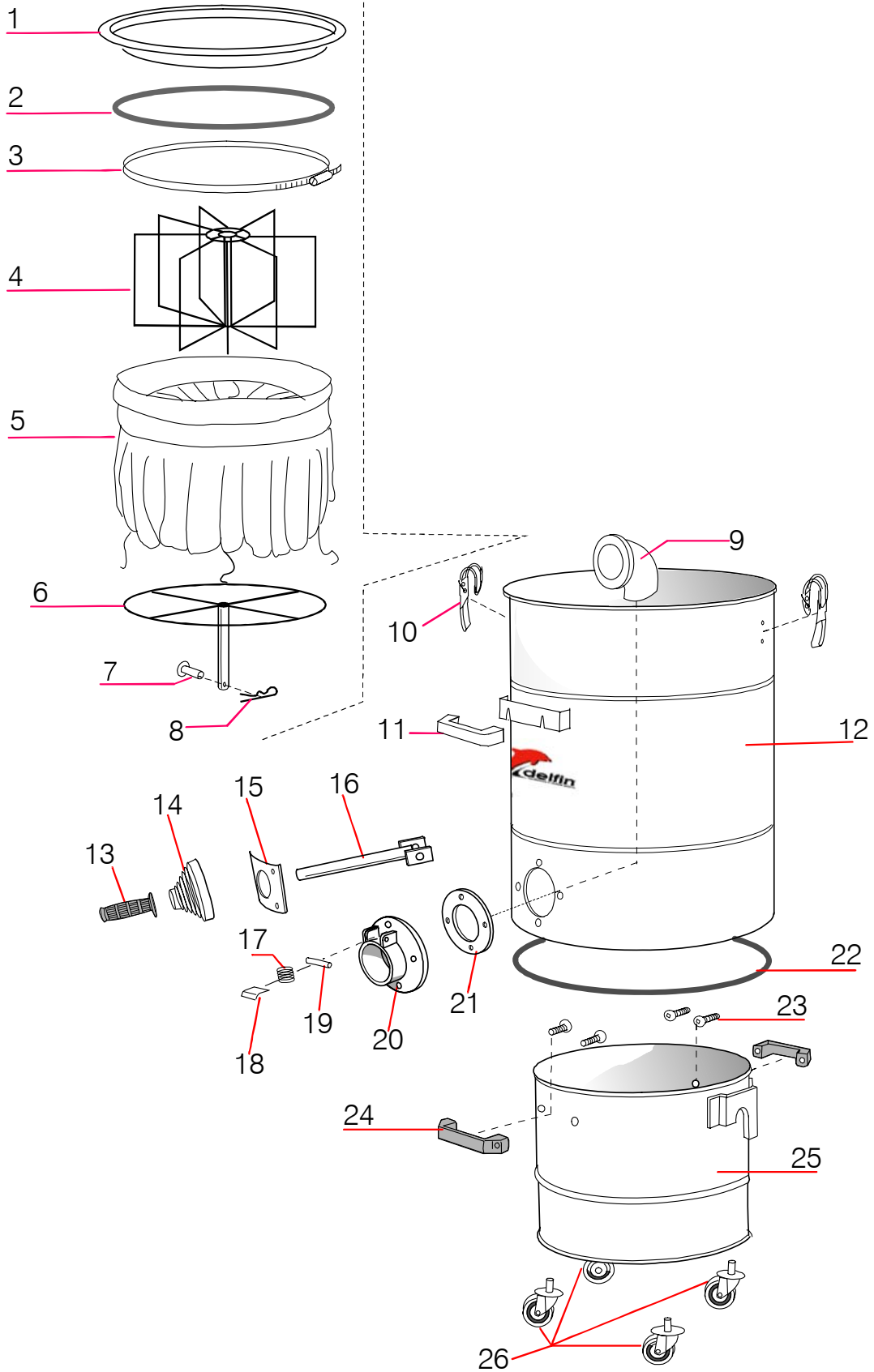
MODEL **PART NO.** **TAB.** **PART CODE**

DESCRIPTION Qty

01 - Machine body mod. MISTRAL 352 DS

Ref.	Code	Qty	Description
1(a)	AR 3484	1	Metallic filter holder ring Ø 420
1(b)	AR 3484/b	1	Metallic filter holder ring Ø 420 stainless steel
2	AR 3485	1	Metallic filter holder seal Ø 420
3	AR 3471	1	Metallic filter retainer clamp Ø 420
4	AR3487	1	Metallic filter tightening cage for 16 pocket filter
5	AR 3444	1	16-pocket "G" pol. filter Ø 420 x 400
6	AR 3586	1	Metallic filter-shaker cage
7	AR 2481	1	Filter-shaker cage lock pin
8	AR 2480	1	Zig-zag spring
9	AR 2415	1	Die-cast deflector
10	AR 2002	2	Hook fastener
11	AR 2001	1	Handle L=140
12(a)	AR 3490	1	Metallic filter chamber Ø 420 H=610
12(b)	AR 3490/b	1	Metallic filter chamber Ø 420 H=610 stainless steel
13	AR 2008	1	Filter-shaker lever knob
14	AR 2066	1	Bellows
15	AR 2065	1	Filter-shaker flange
16	AR 3489	1	Metallic filter-shaker lever
17	AR 2417	1	Die-cast union spring
18	AR 2418	1	Die-cast union pawl
19	AR 2416	1	Die-cast union pin
20	AR 2413	1	Die-cast union
21	AR 3491	1	Metallic die-cast union seal
22	AR 3439	1	Metallic cont. seal/chamber Ø 420
23	AR 3492	4	Metallic oval-headed screw 8 x16 cont. handle
24	AR 2061	2	Bridge handle 117
25(a)	AR 3493	1	Metallic container Ø370 H=320
25(b)	AR 3493/b	1	Metallic container Ø370 H=320 stainless steel
26	AR 2399	4	Castor EPA Ø 50

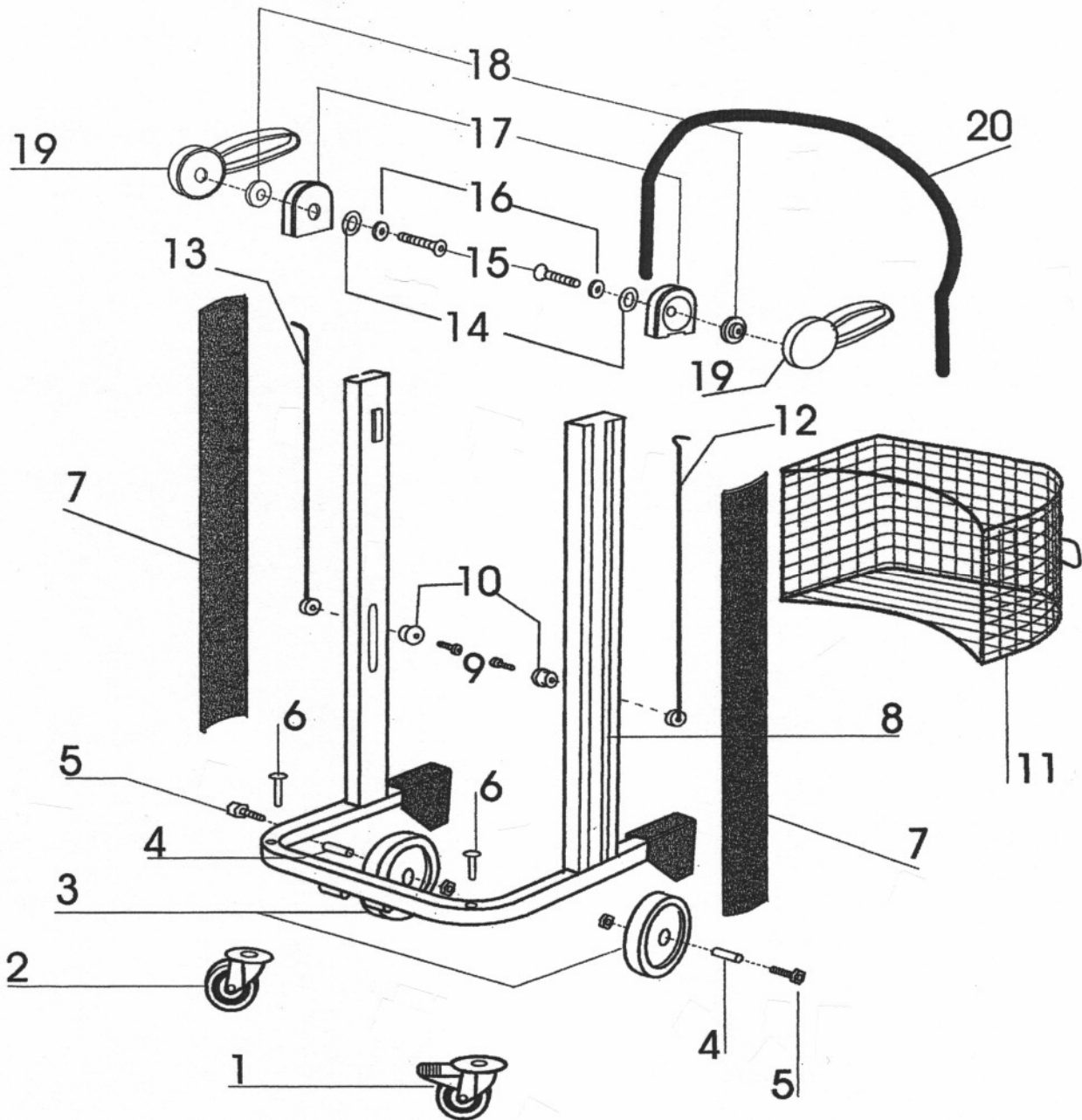
01 - Machine body mod. MISTRAL 352 DS



02 - Trolley mod. MISTRAL 352 DS

Ref.	Code	Qty	Description
1	AR 4217	1	Castor Ø 100 with/brake
2	AR 4218	1	Castor Ø 100 4
3	AR 4299	2	Fixed wheels Ø150 MTL
4 + 5	AR4299 KIT	2	AR4299 wheel axle kit
6	AR 3498	2	Square under-head screw for metallic trolley castors
7	AR 3499	2	PLT profile metallic columns
8	AR 3500	1	Metallic trolley frame
9	AR 3513	2	8x25 socket cap screw for slider pawl
10	AR 2363	2	Ø25 x 18.5 slider pawl
11	AR 3502	1	Mistral accessory basket
12	AR 3503	1	RH metallic lifting/release rod
13	AR 3504	1	LH metallic lifting/release rod
14	AR 3505	2	Ø20 x 30 nylon spacer thick. 1
15	AR 3506	2	8 x 35 socket countersunk screw for rotation fulcrum
16	AR 3507	2	Metallic rotation closing washer
17	AR 3508	2	Metallic aluminium body
18	AR 3509	2	Metallic lever mechanism rotation fulcrum
19	AR 3510	2	Metallic container fastening lever
20	AR 3511	1	Metallic push handle

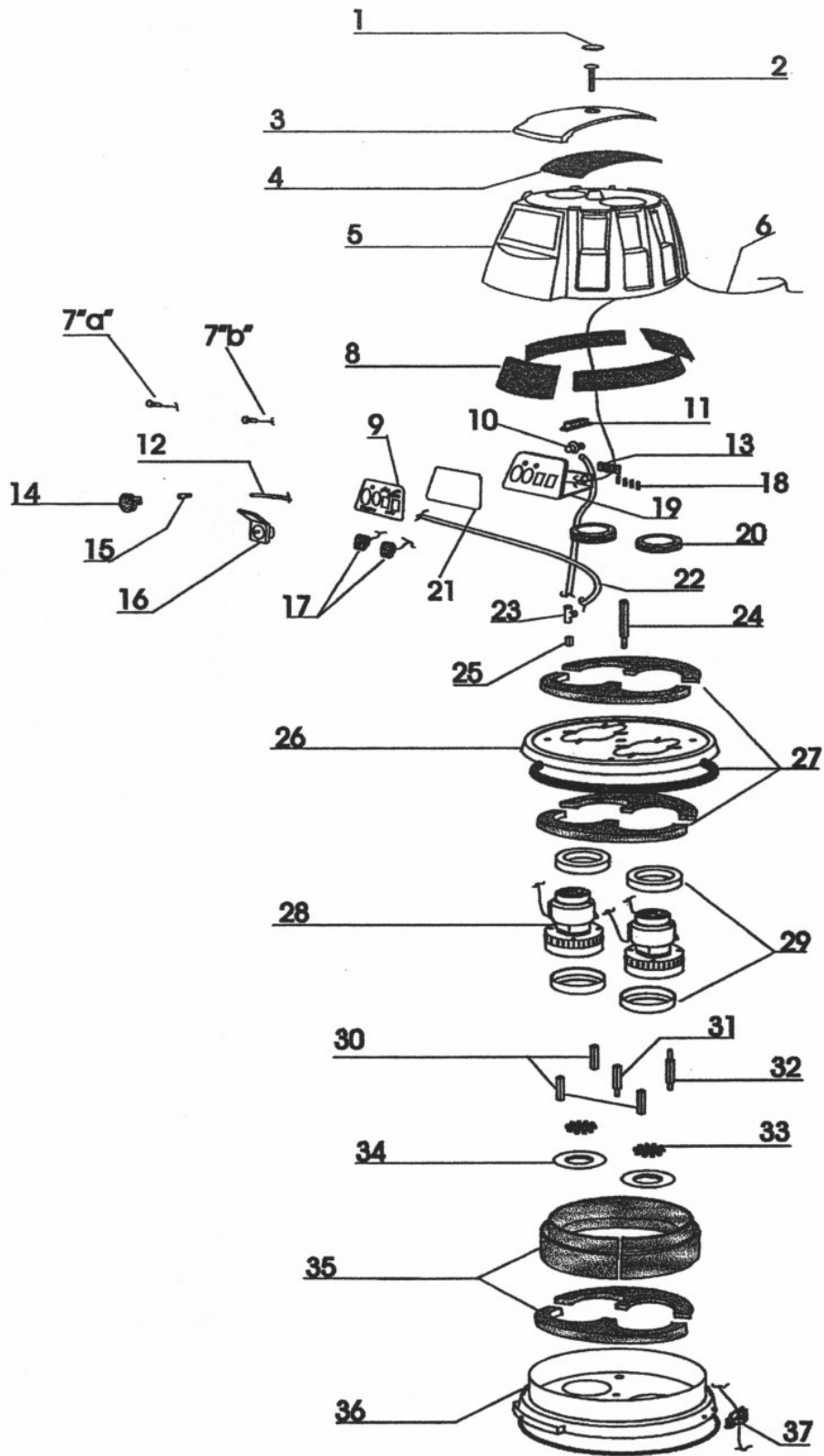
02 - Trolley mod. MISTRAL 352 DS



04 - MOTOR head 2 mod. Mistral 352 DS

Ref.	Code	Qty	Description
1	AR 3512	1	Adhesive resin-covered Delfin logo
2	AR 3513	1	8x25 socket cap screw
3	AR 3514	1	Metallic head cap
4	AR 3515	1	Metallic head cap sound-proofing
5	AR 3516	1	Metallic head cover 352 DS
6	AR 2029	1	Power cable 3x2.5 10 m
7(a)	AR 3517	1	Metallic green power indicator light
7(b)	AR 3518	1	Metallic blocked filter red indicator light
8	AR 3519	1	Set (6 pcs) metallic head cover soundproofing
9	AR 3520	1	Instrument panel PLCB label 351/352 DS
10	AR 3521	1	Metallic omega pressure switch
11	AR 3522	1	Terminal board
12	AR 3523	1	Rilsan air pipe Ø6 L=330
13	AR 2497	4	Fuse carrier
14	AR 3524	1	Vacuum meter Ø40 AIR - Metal
15	AR 3314	1	Air pipe connection piece
16	AR 3525	1	Schuko socket IP 44 - 10/16 A
17	AR 3527	2	"body black" switch
18	AR 2496	4	Fuses - 10 A
19	AR 3529	1	Instrument panel
20	AR 2038	2	Cooling rings
21	AR 3528	1	Seal for metallic instrument panel
22	AR 3530	1	Rilsan pipe Ø6 L=200
23	AR 3531	1	Female "T" union Ø6x1/8"
24	AR 3532	1	M/F M8 spacer ch. 17 L=119 metallic head
25	AR 3533	1	Spacer F/F M6 ch. 10 L = 18 metallic air pipe connection
26(a)	AR 3534	1	Metallic motor stopper
26(b)	AR 3534/b	1	Stainless-steel motor stopper
27	AR 3535	1	Set (5 pcs) metallic motor stopper sound-proofing
28	AA 2475	2	By-pass motor 1200W 240V
29	AR 2252	4	"L" seal Ø145X5 H15
30	AR 3536	3	Spacers F/F L=79 M6 ch. 13 for metallic base
31	AR 3537	1	Spacers M/F L=79 ch. 17 central x metallic axle filter
32	AR 3538	1	Spacer M/M L=79 M10-1/8" ch. 17
33	AR 3539	2	Metallic base valve
34(a)	AR 3540	2	Open base for metallic motors
34(b)	AR 3540/b	2	Open base for stainless-steel motors
35	AR 3542	1	Set (4 pcs) metallic base sound-proofing
36(a)	AR 3543	1	Metallic base
36(b)	AR 3543/b	1	Stainless-steel base
37	AR 3544	1	Mistral base cable gland

04 - MOTOR head 2 mod. Mistral 352 DS





Distributor:

A large, empty rectangular box with rounded corners, intended for the distributor's name and contact information.