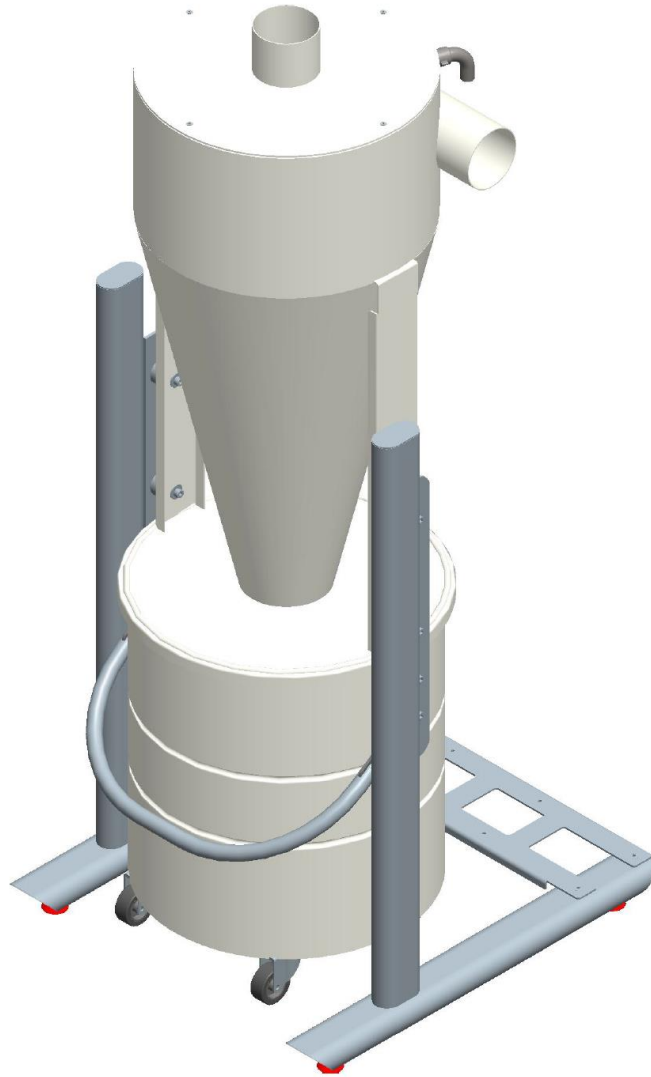


Installation, Operation and Maintenance Manual **VORTEX Ø100mm**



GENERAL[®]
D'ASPIRAZIONE
IMPIANTI ASPIRAPOLVERE CENTRALIZZATI

MADE IN ITALY

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1. General safety information



Please read this manual carefully before starting to handle, unpack, install, operate, maintain and decommission the Vortex.

A copy of this Manual is available on the website:

www.generaldaspirazione.com

1.1. Purpose of the manual

The Installation, Operation and Maintenance Manual is an integral and essential part of Vortex. Its purpose is to provide all the information necessary for the installer to carry out the installation in compliance with the criteria established by the manufacturer, for the user to be able to manage the system as autonomously and safely as possible, and for the maintenance technicians to carry out the scheduled operations for the proper functioning of the machinery and the system as a whole.

The manufacturer is not liable for damage resulting from failure to observe the instructions in this manual. In case of doubts about the correct interpretation of the instructions, please contact the manufacturer for clarification.

1.2. Manual composition and consultation methods

This Installation, Use and Maintenance Manual, written in the original Italian language, is composed of chapters divided into paragraphs, both of which are identified by progressive numbering at the beginning of each topic.

The general table of contents covers the arrangement of chapters and paragraphs, for easier searching. The following symbols are used in this manual to distinguish and highlight particularly important parts of text that should not be overlooked:



HAZARD - ATTENTION

It indicates serious hazard situations which, if neglected, can seriously put people's health and safety at risk.



CAUTION

It indicates that it is necessary to adopt appropriate behaviour in order not to incur in accidents and/or cause economic damage.



INFORMATION

It indicates technical information that should not be overlooked and is of particular importance.

The descriptions and illustrations in this manual are not binding. General d'Aspirazione reserves the right to make any changes it deems appropriate at any time, without prior notice.

Reproduction, including partial, of this document without the Manufacturer's consent is prohibited.

1.3. General safety rules

The purpose of this information is to raise awareness among people interacting with the equipment to prevent any dangerous conditions in order to avoid endangering their own and others' safety.

Safety in design

The manufacturer, during the design and construction phase, has paid particular attention to aspects that may cause risks to the safety and health of persons using the equipment.

In addition to complying with the relevant laws, all 'rules of construction technology' have been adopted. However, some areas of the equipment may cause unnoticed risks. We therefore recommend paying special attention during use and routine maintenance.

Safety in use

Before starting to use the machine, carefully and fully read the instructions in this manual and those provided directly on the equipment by means of safety symbols.

Do not tamper with, circumvent or remove the safety devices installed on the equipment.

Failure to comply with this requirement can lead to serious risks to people's health and safety.

Safety during maintenance

Personnel carrying out any kind of routine maintenance work throughout the lifespan of the equipment must possess precise technical competences, special skills and experience acquired and recognised in the specific sector. Lack of these requirements may put at risk people's safety and health.

During normal use or for any work on the equipment, maintain the perimeter spaces under appropriate conditions so as not to cause risks to people's health and safety.

Some steps may require the help of one or more assistants.

1.4. Safety and hazard signs

The following signs are used in the manual and affixed to the equipment, to highlight those procedures which employees interacting with the plant must scrupulously observe in order to safeguard their own safety and that of the plant.



CRUSHING HAZARD



**IT IS FORBIDDEN TO REMOVE PROTECTIVE AND SAFETY DEVICES.
DO NOT USE THE CONTROL UNIT WITH PROTECTIONS REMOVED.**



NO MANOEUVRING BY PERSONS NOT ADEQUATELY TRAINED AND INSTRUCTED



PROTECTIVE MASK MUST BE WORN AGAINST INHALATION OF DUST AND HARMFUL ELEMENTS



MANDATORY USE OF PROTECTIVE GLOVES AGAINST CONTACT WITH DUST AND HARMFUL ELEMENTS



COMPULSORY TO WEAR SAFETY FOOTWEAR



COMPULSORY TO WEAR PROTECTIVE GLOVES FOR GOODS HANDLING

1.5. Identification of Manufacturer

General D'Aspirazione has been in business since 1974 and is the leading company in Italy in the production of central vacuum cleaner systems. The Vortex unit is the result of its design and manufacturing know-how.

For any needs relating to installation, use, maintenance and/or spare parts requests, the customer should contact only the manufacturer whose identification data can be found on the equipment, on the identification plates (Fig. 1).

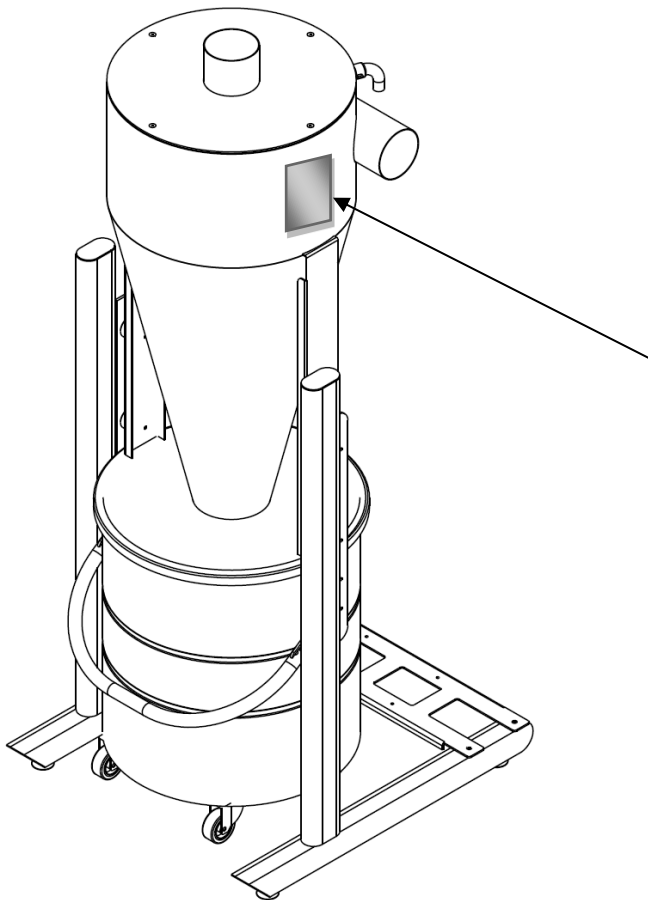


Figure 1

The identification plate is on the right side of the Vortex

At the time of any request for technical assistance, the customer is requested to note down and inform the manufacturer, not only of the type of problem encountered, but also all the machine data indicated on the identification plate, namely:

- equipment model
- serial number

MANUFACTURER'S DATA



Via del Lavoro, 9/11
47030 - San Mauro Pascoli (FC)



info@generaldaspirazione.com
www.generaldaspirazione.com



For any needs relating to installation, operation, maintenance and/or spare parts requests, the customer should contact the manufacturer whose identification data can be found on the equipment, on the identification plates.

1.6. Attached technical documentation

1. Vortex Operation and Maintenance Manual
2. EC Declaration of Conformity (contained in the user and maintenance manual)

1.7. Standard equipment included in delivery

Supplied as standard are

- No. 2 rubber sleeves with clamps for connecting the control unit to the system
- No. 1 dust bag
- No. 2 reductions 100/80 - 80/63

1.8. Proper and improper uses



WARNING: uses other than those indicated are not permitted.

Modifications and retrofitting of the Vortex are not permitted.

Any use other than that for which the product was designed represents an abnormal condition which may cause damage to the plant and constitute a serious danger to the user.

The General D'Aspirazione Vortex has been designed and manufactured exclusively for the pre-filtering of non-hazardous dry dust. For specific requirements please contact General D'Aspirazione's technical department. The manufacturer disclaims all liability for any damage caused to the system itself, to property and/or injury to persons, resulting from improper use of the system.

1.9. Recommendations for use



In case of fire, do not use water for extinguishing. Failure to observe this prohibition exposes the operator to the risk of electrocution.



This equipment is intended to be installed by suitably qualified and properly trained personnel.

Vortex vacuum units are intended for tertiary use such as industries, hotels, offices, etc.

For uses other than the above, please contact the technical department.

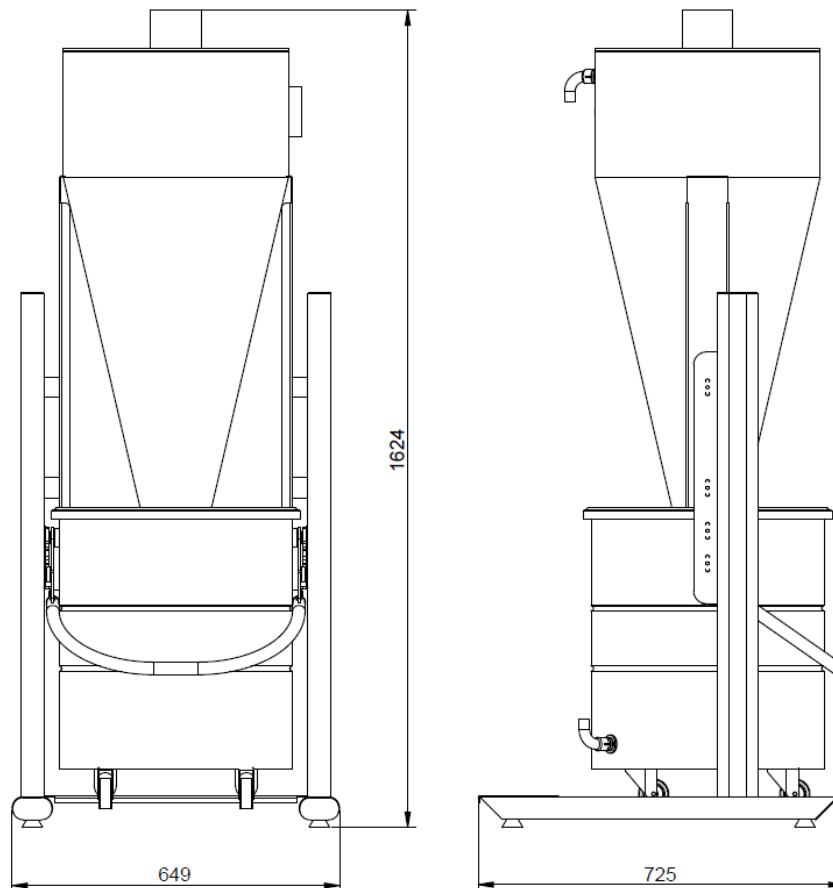
- Do not use the machine for improper purposes. Do not suction up embers, cigarette butts that are still lit, flammable products or materials that can cause flames in the dust collection container. Materials with a high risk of explosion or materials that are individually inert, but mixed together can cause hazardous chemical reactions.
- Do not intervene under any circumstances when the control unit is in operation.
- Wear protective gloves and a mask when carrying out maintenance work (emptying dust container, cleaning or replacing filter).
- Use only original spare parts.
- Do not obstruct the air inlet and exhaust ducts.
- Always provide a suitably sized cartridge filter system downstream of the Vortex to protect the suction turbine.

2. Technical Specifications

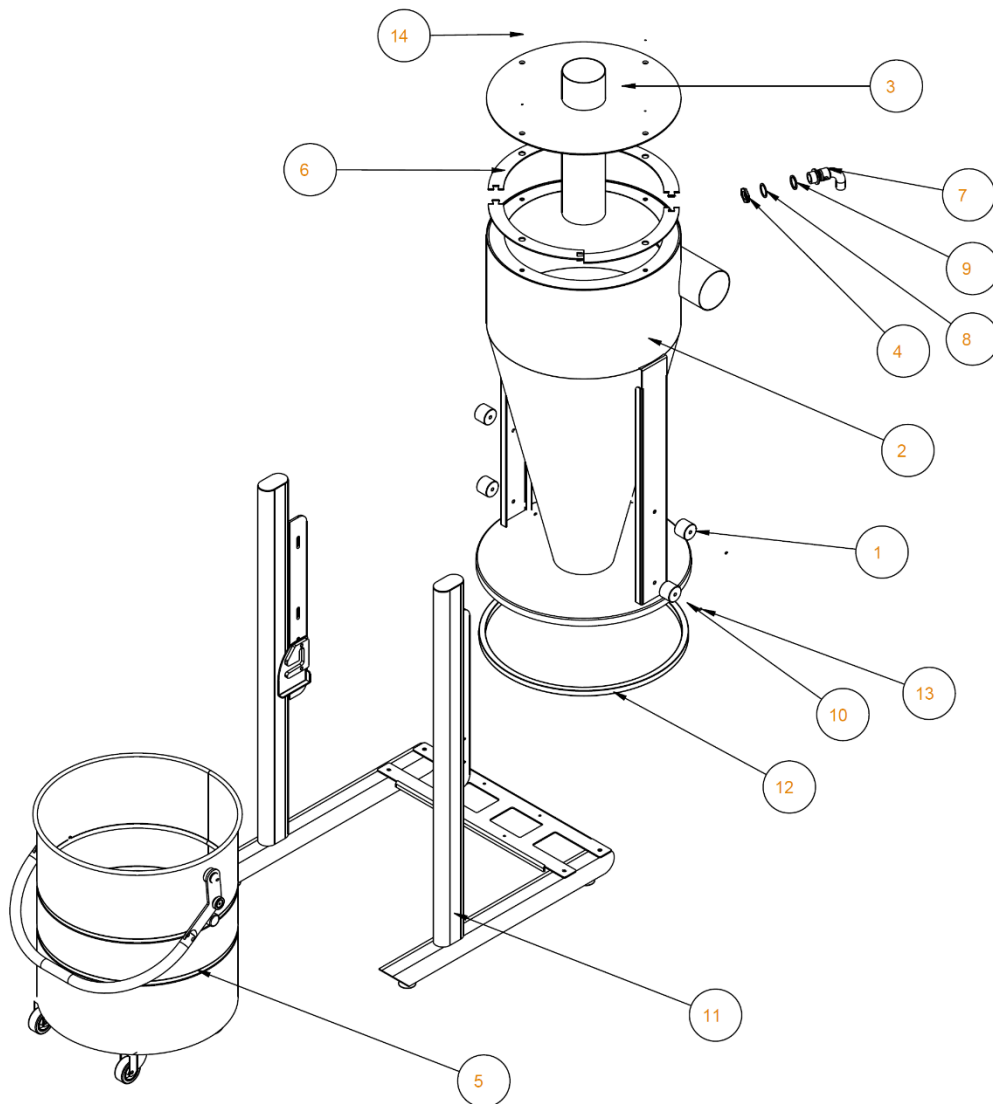
2.1. Technical data

The Vortex Ø100mm consists of a self-supporting painted sheet metal frame, a dust container with quick release handle and wheels, a 90-litre container and an inspectable cyclonic filter stage.

<i>Technical Data - Dimensions</i>		Vortex Ø100mm
Container capacity	<i>litres</i>	90
Diameter	<i>cm</i>	Ø46
Input/output size	<i>mm</i>	Ø100
Height	<i>cm</i>	162
Width	<i>cm</i>	64,5
Depth	<i>cm</i>	72,5
Weight	<i>kg</i>	50



2.2. Exploded-view drawing



14	SCREW Hexagon socket countersunk flat head cap M5 x 16 - 8.8 UNI 5933 ZB	4	1600118
13	SCREW Hexagon socket head M8 x 16 - 8,8 UNI 5931 ZB	8	1600270
12	DUST CONTAINER SEAL	1	1600806
11	FRAME NO SELF-CLEAN. - 90 LITRES	1	0231031
10	WASHER 8 x 24 UNI6593 ZB	8	1600640
9	WASHER 3/4 PA66 BLACK	1	1600655
8	WASHER 3/4 ALUMINIUM	1	1101062
7	CURVED HOSE NOZZLE	1	1101060
6	PRE-SEPARATOR COVER SEAL	4	0230047/2
5	GRP DUST CONTAINER	1	0231014
4	RING NUT 3/4	1	1101061
3	PRE-SEPARATOR CYCLONE COVER	1	0217006
2	PRE-SEPARATOR CYCLONE	1	0217005
1	CENTRAL BODY BUSHING	4	0230021
POS	DESCRIPTION	q.ty	code

2.3. Vortex Complex

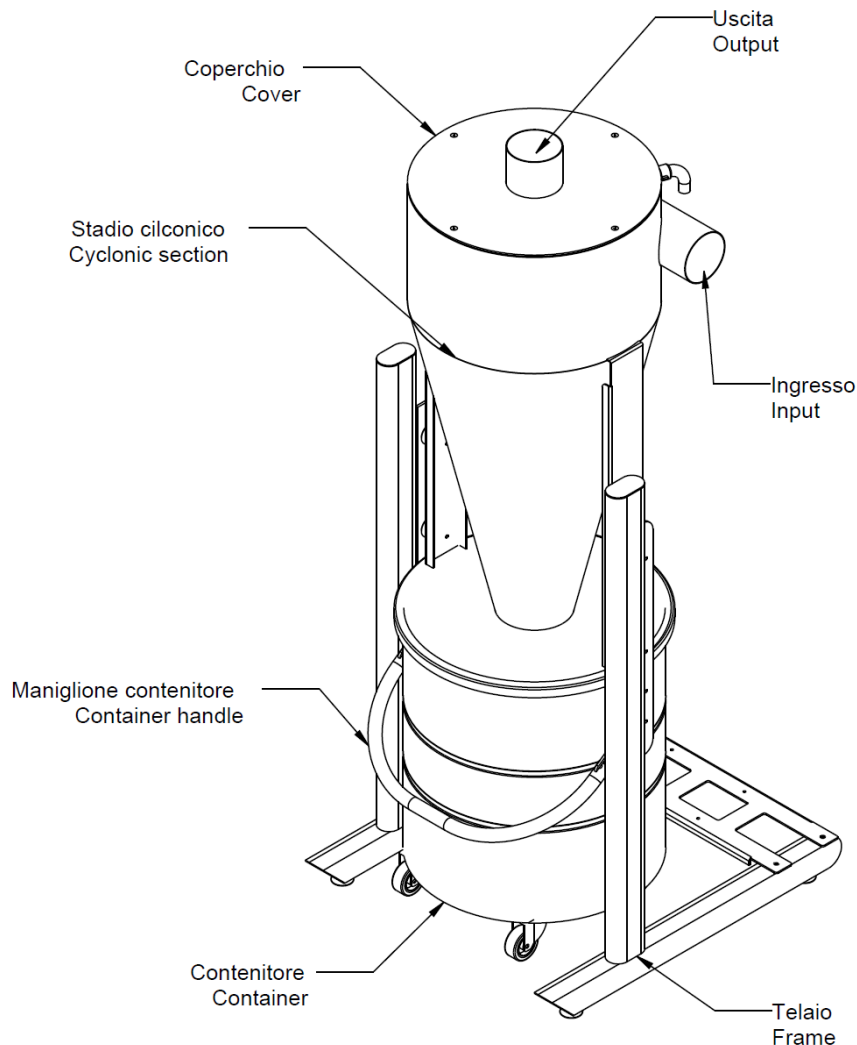


Figure 2

2.4. Frame

The Frame is the supporting structure of the Vortex. Using the support feet, it is possible to level the Vortex even on an uneven surface.

2.5. Dust Container

The dust container is equipped with 4 wheels and has a collection capacity of 90 litres.

It can be equipped with a dust bag for dust disposal.

Using the handle, unhooking and hooking the container is very easy.

The dust container is also equipped with a vacuum tube that ensures that the dust bag is retained.

2.6. Cyclonic Stadium

The central stage is the heart of the separator and enables, through its geometry, the separation of dust from the air without additional filters. It can achieve a filtering efficiency of 99% of the extracted dust. By means of 4 screws, it is possible to remove the cover for special cleaning maintenance.

2.7. Safety and danger stickers

Figure 4 shows the points of application of the Prescription, Danger and Prohibition stickers that contribute to the safe use of Vortex

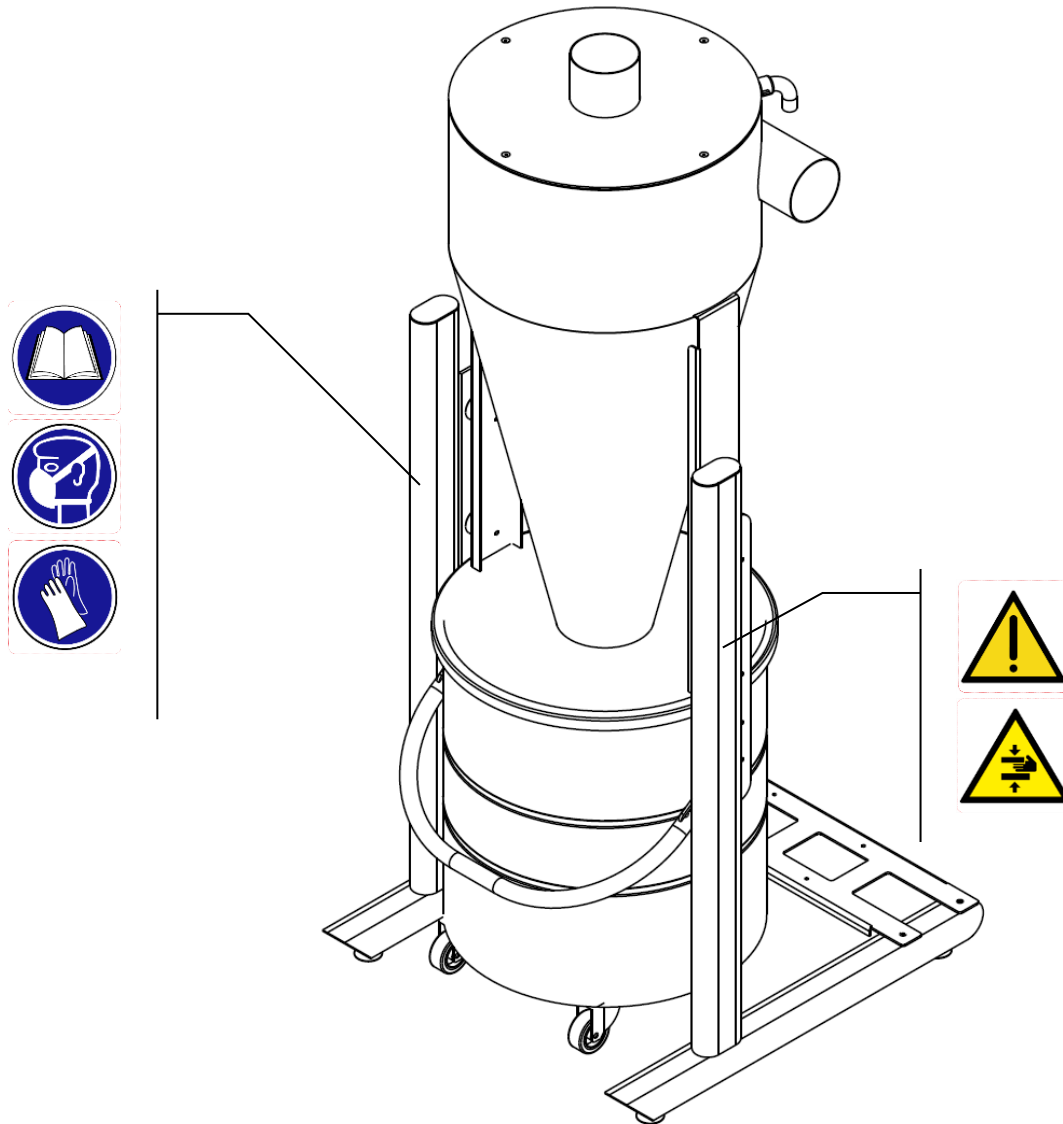


Figure 3

3. Handling and Unpacking

The Vortex Ø100mm is shipped fixed to a euro pallet inside a cardboard box to protect it during transport and delivery.

The packaging should not be removed before actual installation in order to avoid damage.



ATTENTION

For handling, suitable lifting equipment must be used and care and special attention must be given to weight balance.



CAUTION

Do not invert the product while still packaged.

Do not use box cutters to remove packaging.

The manufacturer disclaims all liability for any damage caused by incorrect opening of packaging.



ATTENTION

Use the appropriate personal protective equipment during handling operations.

Failure to use the appropriate PPE during handling and unpacking exposes the operator to the risk of his or her foot being crushed through loss of stability.



Not wearing gloves does not guarantee a secure grip when handling, with the risk of an accidental fall.



Upon delivery, it will be necessary to immediately check the conformity and integrity of the material with the carrier in order not to give rise to claims for damage attributable to transport.

If there is damage to the equipment, the goods must be rejected.

If the goods are withdrawn, they will be deemed to have been accepted and no compensation may be claimed.



ATTENTION

The support base must not have an inclination of more than 8% to avoid the risk of overturning due to loss of stability.



IMPORTANT

Keep the packaging for the entire warranty period.

4. Installation



This equipment is intended to be installed by suitably qualified and trained personnel.



All assembly of the equipment must be carried out by qualified personnel in a workmanlike manner and in compliance with the various standards and regulations.



Use the appropriate personal protective equipment during installation.

Failure to use the appropriate PPE during handling and unpacking exposes the operator to the risk of his or her foot being crushed through loss of stability.



Not wearing gloves does not guarantee a secure grip when handling with the risk of an accidental fall.

4.1. Choose the location

The choice must be made on the basis of the following criteria:

- Vortex must be installed in a protected and well-ventilated area; it can be positioned near the central vacuum system or near the dust collection point. The maximum distance between Vortex and central vacuum system may vary depending on the model of central vacuum system installed.
- The chosen room must have an open, well-lit space around the central vacuum system so that maintenance and repair work can be carried out easily.
- Vortex **must not** be installed in environments where:
 - there is a heat source in the immediate vicinity
 - the ambient temperature can drop below 5°C and rise above 35°C
 - humidity is very high or there is a possibility of flooding
 - flammable or explosive products are present
 - in environments with the presence of ionising radiation
- It is the responsibility of the user to carry out a noise risk assessment of his or her activity at the place of installation of the Vortex.

4.2. Installation

The Vortex is a pre-separator and is designed to filter through cyclonic motion more than 98% of the dust sucked in. This principle makes it possible to minimise maintenance of the central vacuum system cartridge filter, which, in particular applications, could easily become clogged depending on the material sucked in. The Vortex must be positioned in accordance with the measurements in Chapter 2.1 and taking into account the necessary space requirements on the right side for the system connection and at the top for the air outlet. Refer to Chapter 3.1 for the choice of location.

At this point, the Vortex must be connected to the incoming pipework of the central vacuum system.

5. Use and Operation

Having ascertained the safety and functionality of the system, it is essential to ensure that all persons entrusted with the management of the system are properly trained and made aware of of all the information contained in this manual, in particular that they are informed of the dangers arising from operation and the precautions to be observed to minimise risks during use.

The Vortex does not require any start-up or shut-down, the only operations to be performed will be those relating to the emptying of the dust container and, if used, the replacement of the dust bag.

6. Maintenance

6.1. Routine maintenance

Careful maintenance extends the life of the system and ensures consistent performance over time, avoiding problems caused by unexpected downtimes.

The user interface on the control unit will indicate the periodic maintenance operations, which must in any case be carried out according to the schedules shown in the table:

<i>Periodic operations</i>	<i>Ordinary interval</i>
Dust container filling level control	Variable
Checking bag retention filter clogging status	Monthly
Cyclone stage clogging status check	Annual



The intervals of periodic operations may vary depending on the type of application.

6.2. Replacement of dust bag

The dust bag contained in the separator must be periodically replaced, as indicated in the periodic operations table.



A mask and protective gloves must be worn before proceeding with the replacement operation. Only use original General D'Aspirazione replacement bags.



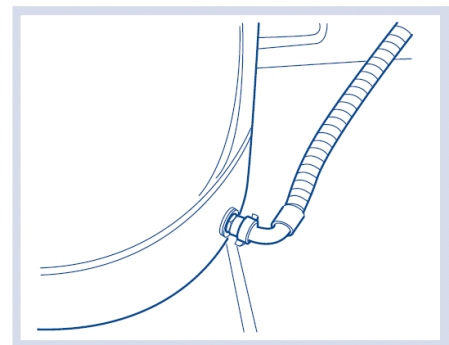
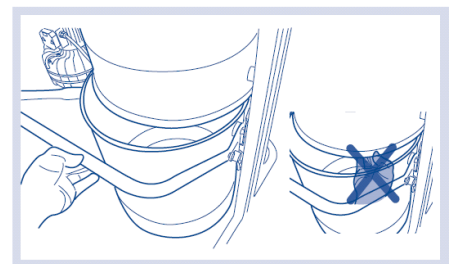
Failure to use the appropriate personal protective equipment exposes the operator to the risk of inhaling health-damaging dust, or skin contact with allergenic substances.



There is a risk of shearing fingers when hooking the dust container.

The procedure for replacing the dust bag is as follows:

1. Release the lower module of the separator by lifting the container handle.
2. Pull out the lower module of the separator by sliding it on its wheels and using the handle.
3. Remove the dust bag and replace it with a new one.
4. Fold the edges of the bag outwards.
5. Hook the dust container back onto the separator by lowering the handle. If it is necessary to remove the dust container from the separator, the vacuum tube must be unscrewed to empty the bag, which enables the bag to be held in the correct position.



6.3. Special maintenance


Special maintenance must only be carried out by authorised personnel.

- Component repair/replacement

a service request must be made to the manufacturer's **Technical Service Department**

Subject to the manufacturer's authorisation, certain operations may be carried out by qualified personnel.

7. Spare parts

Code	Description	
0216033	Waste bag (20 pcs. pack)	

8. Troubleshooting

Problem	Cause	Remedy
The dust bag is suctioned up.	Damaged/ incorrectly positioned dust bag or clogged retention filter.	Check that the dust bag is intact and that it is properly edged around the entire circumference of the dust container. Make sure the filter retains the bag and its duct is free of blockages.
Filtering does not take place properly.	Non-hermetic container closure, dust extraction not suitable for this filter system.	Check that there are no leaks in the product. Contact the technical department to assess the type of product sucked in.

If the problems encountered are not listed in this Manual, you should contact the Service Centre.



IMPORTANT

If the Vortex still does not work properly: contact your dealer or distributor who will provide you with an authorised service centre - quoting the serial number and model - See Chapter 10 'Product Warranty'.



IMPORTANT

It is absolutely forbidden to carry out repairs and/or maintenance on the Vortex which are not authorised in this manual.

All repairs for failure or malfunctioning must be carried out by qualified service personnel. In the event of unauthorised personnel carrying out repairs or tampering with the machine, the product warranty will lapse and the Manufacturer will be released from any liability for any injury to persons and/or damage to property resulting from such intervention.

9. Decommissioning and disposal

Once the appliance has reached the end of its life cycle and is to be scrapped, the following environmental instructions must be followed:



The presence of this symbol on the product or packaging indicates that the product is not considered as normal household waste, but must be taken to the appropriate collection point for the recycling of electrical and electronic equipment.

By disposing of this product appropriately, you help to avoid potential negative consequences for the environment and health, which could result from improper disposal.

For more detailed information on the recycling of this product, please contact your local municipal office, your local waste disposal service or the shop where you purchased the product.



Use the appropriate personal protective equipment during disposal operations. Failure to use the appropriate PPE during decommissioning and disposal exposes the operator to the risk of his or her foot being crushed due to loss of stability.



Not wearing gloves does not guarantee a secure grip when handling with the risk of an accidental fall.



During disposal and unpacking operations there may be a risk of crushing due to loss of stability or falling equipment.

Disassembly should only be carried out by qualified personnel.

Industrial waste must normally be disposed of through licensed scrap dealers.

If the machine is out of service due to breakdown, repair or otherwise not operating safely, this should be indicated by a sign.

10. Product Warranty

○ Legal Warranty

The Vortex Ø100mm is covered by the "Legal Warranty" referring to the European legislation transposed by Leg. Decree 206/2005 on condition that it has been used in accordance with the instructions given in this Use and Maintenance Manual with regard to the purposes of use.



Important

The Warranty date refers to the purchase document, invoice or receipt. **This must therefore be retained to certify its validity.**

PRODUCT DATA

Model

.....

Serial

No.

.....

Date of Purchase

.....

INSTALLER DATA

Company name
(RUBBER STAMP)

INSTALLATION
TEST DATE

.....

Last name

.....

First name

.....

Address

.....

POSTCODE

.....

City/town

.....

Province

.....

Tel/Mobile

.....

FAX

.....

CUSTOMER DATA

Last name

.....

First name

.....

Address

.....

POSTCODE

.....

City/town

.....

Prov.

.....

Tel /Mobile

.....

FAX

.....



- We recommend keeping the packaging for the entire warranty period
- In the event of any inconvenience, malfunction or breakdown, please contact your dealer, who will provide you with details of an AUTHORISED SERVICE CENTRE.

11. EC Declaration of Conformity

“EC” DECLARATION OF CONFORMITY

VORTEX Ø100mm

Vortex units have been designed and manufactured in accordance with the following directives and standards:

Directive 2006/42/EC Machinery Directive

The instruction manual indicates in particular the rules for installation and use of the equipment.

When the equipment is included in a system, the conformity of the whole system must be certified by means of a declaration by the operator performing the final installation.

The person responsible for compiling the Technical File is the R&D Manager at the address of the manufacturer.

GENERAL D'ASPIRAZIONE di Bianchi Claudia & C. s.a.s.

San Mauro Pascoli, 07/2022

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Legal Representative

Claudia BIANCHI



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