VAC·IT·UP®
Vacuum Technology

USER'S MANUAL
CENTRAL VACUUM CLEANER

Optimuum

3, 4 and 5,5 kW

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Symbols

Warning!

Be cautious when you see this sign and pay attention to the warning relevant to the situation.
Safety precautions accompanied by this symbol indicate a danger of injury.

Important!

When you see this symbol, pay attention as some important and relevant information is mentioned.
Safety precautions accompanied by this symbol indicate a danger of damage to the machine.

Read carefully

Take the time to read this manual before using the machine for the first time. It contains useful information about its installation, its functions and its maintenance.

Maintenance

When this symbol is displayed, instructions relevant to the maintenance of the machine will be given.

Unplug the machine

When this symbol is displayed, the machine must be turned off and its power supply removed from the electricity outlet.

Visual check

When this symbol appears, make sure to look attentively at the part of the machine mentioned in the instructions.

Safety Instructions

The following documents should be read attentively and in their whole. They need to be understood by all involved staff before proceeding with the installation and the start up as well as under use, maintenance and service:

- The user's manual *(this document)*
- Enclosed operating instructions for the vacuum pump
- Enclosed operating instructions for the frequency inverter

These instructions must be followed closely and kept where the machine is used.

Installation and use are to be performed only by trained and authorised staff.

All instructions in this manual are to be followed for the warranty to be valid. Performing an action against recommended instructions will invalidate the warranty and can, in some case, cause damage to the machine and/or injuries to the user.

Intended Use

The central vacuum cleaners from the Optimuum Series are intended for general cleaning in both commercial and industrial environments.

The number of simultaneous users varies depending on the model and the use of the machine. Please refer to the technical data to find out more about your model.

The vacuum cleaner in its standard version is **NOT** intended for the suction of water or wet, explosive or inflammable material.

Design of the Central Vacuum Cleaner

Product Description

Product designation	Central vacuum cleaner
Model	Optimuum 3/4/5,5 kW
Description	Central vacuum cleaner consisting of a vacuum pump, an electrical cabinet, a cyclonic separator with filter and a steel stand. Models denoted with the letter F are also equipped with a frequency inverter. The central vacuum cleaner is mainly made of iron and is painted with powder coating. The vacuum pump is made of aluminium and cast iron.
Environment	A great importance has been put on the choice of material and the production methods during the design of the central vacuum cleaner. It is worth noting that 98% of the machine is recyclable. The remaining portion is made of electrical components. No solvents are used during the coating, neither for cleaning nor coat mixture.

Material

Stand	Iron, quality SIS 1312
Cyclone	Iron, quality SIS 1312
Vacuum pump	Pump, impeller and stator of aluminium and/or cast iron.
	Engine shaft of iron.
	Electrical windings of copper.
Filter	End plates of metal or plastic.
	Filter material of cellulose or polyester.
Electrical cabinet	Cabinet of iron.
	Components of plastic and copper.
Plastic details	Polyethylene and Bakelite.
Paint	Polyester powder, TGIC-free.
Sealing	Natural rubber.

Manufacturer

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Technical data

		3 kW	3 kW F	4 kW	4 kW F	5,5 kW F
Article number		223100	223200	224100	224200	225200
Size (LxWxH)	[cm]	52x78x162	52x78x162	52x78x162	52x78x162	52x78x162
Weight (approx.)	[kg]	72	74	78	80	140
Power supply	[V/kW]	400/3,0	400/3,0	400/4,0	400/4,0	400/5,5
Power consumption	[A]	7	7	9	9	13
Fuse, delayed	[A]	10	10	10	10	16
Starter/type	[D/FI]	Direct	Freq.Inverter	Direct	Freq.Inverter	Freq.Inverter
Motor protection		Clixon	Clixon	Clixon	Clixon	Clixon
Airflow*	[m^3/h]	330	420	330	420	650
Vacuum	[mbar]	280	280	300	300	280
Inlet	[Ø mm]	63	63	63	63	76
Outlet	[Ø mm]	80	80	80	80	80
Filter size	[m^2]	4,0	4,0	4,0	4,0	4,0
Filtration	[BIA Class M]	99,9	99,9	99,9	99,9	99,9
Dust container	[l]	40	40	40	40	40
Dust bag	[l]	50	50	50	50	50
No of simultaneous users	-	1-2	1-2	2-3	2-3	3-4

** Max. airflow is dependent on the parameters of the frequency inverter.*

Options:

Washable polyester filter, 4,0 m^2	160422
Micro filter HEPA	Special
Filter monitoring	
Level indicator for dust container	
Automatic filter cleaning	

Consumables

Dust bags (10 pcs)	400040
Filter, polyester, 4,0 m^2	160422

Warnings

1. Before any kind of maintenance or service is carried out, turn off the machine and remove the power supply from its socket.
   This does not apply for the manual cleaning of the filter.

2. During installation, service, maintenance or use, precautions must be taken to ensure that no foreign objects will enter the vacuum pump. Should this happen, the pump must be turned off and under no circumstances be started against before the object has been removed. Doing otherwise can cause the destruction of the pump.

3. The vacuum cleaner is not to be used for vacuuming wet or damp material/dust. If water or any wet/damp material enters the vacuum cleaner, the machine must be stopped immediately, taken apart and dried up before it can be used again.

4. The vacuum cleaner should, under no circumstances, be used for the suction of burning, glowing, explosive or inflammable fluids or materials.

5. If the filter shows any sign of damage, it must be replaced before the vacuum cleaner is used in order to avoid damages to the vacuum pump.

6. The cooling air intake to the vacuum pump must at all times be kept open and free from dust and foreign objects.

7. Always treat used filters and used dust bags with care since they might contain hazardous dust. Put the used filter in a large plastic bag and seal it tightly. You should always seal used dust bags too.

8. The vacuum cleaner must never be used without filter, dust bag or vacuum filter.

9. All service, repair and trouble-shooting of the central vacuum cleaner and the vacuum pump are to only be performed by authorised staff.

10. Some dust may be harmful to the health and/or the environment. Check with the regulation at your workplace and in your country. Disposal of used filters and dust bags must be made in accordance with governmental regulations.

Installation

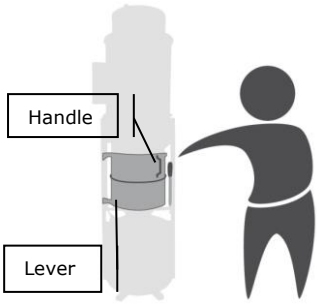
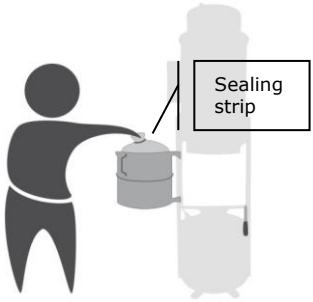
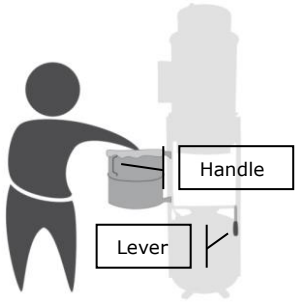
1. The vacuum cleaner must be installed in a well-ventilated and dry area. The temperature around the machine must not exceed normal room temperature.
2. The vacuum cleaner must not be installed in potentially explosive environments. Make sure to know in which ATEX zone the machine is installed.
3. The area must comply with the electrical insulation class of the vacuum cleaner.
4. Make sure there is enough space around the vacuum cleaner to allow for maintenance and service. Keep in mind that cleaning and changing the filter will require additional room above the machine.
5. The floor must be even and stable enough to carry the weight of the vacuum cleaner.
6. The central vacuum cleaner must be anchored to the floor to keep it from tilting.
7. The central vacuum cleaner should be connected to the main electrical system with the power supply. Check the tension before connecting the vacuum cleaner.
8. The connection to the piping system is optimally performed with a flexible hose in order to avoid the transfer of vibrations.
9. Make sure that the electrical system between the vacuum cleaner and the piping system is properly grounded, if the piping system is made of metal.

10. All electrical installation and maintenance on electrical parts are only to be performed by an authorised electrician.

Maintenance and service

	1. Before any kind of maintenance or service is carried out, turn off the machine and remove the power supply from its socket. This does not apply for the manual cleaning of the filter.
	2. Check the filter regularly, at least once a week or other suitable interval depending on use. If necessary, clean the filter.
	3. Change the filter at least once a year or more frequently depending on use.
	4. Change the filter if it shows any sign of damage or has a hole.
	5. Change the dust bag before it becomes too full.
	6. Check that the cooling air intake to the vacuum pipe is free.
	7. Check the vacuum filter. It is found inside the hose going from the dust container to the pipe connecting the cyclone top to the vacuum pump. Clean if necessary.
	8. For service of the vacuum pump, please read the manufacturer's operating instructions, which are enclosed with this user manual.
	9. Please note that service and repair of the electrical system and the vacuum pump are only to be performed by authorised staff.

Replacement of the dust bag

	1. Turn the central vacuum off and unplug the power supply.
	2. Pull the lever located to the side of the dust container all the way to the right. 3. Swing out the dust container by pulling the handle.
	4. Close the dust bag with the sealing strip, which is found at the upper edge of the plastic bag. 5. Lift out the dust bag carefully to keep it from being damaged.
	6. Fit a new dust bag in the dust container and fold the upper edge of the bag around the edge of the dust container. 7. Using the handle, push the dust container back until it stops. 8. Hold the dust container in this position and move the lever at the same time to the left until it stops.

The dust bag might contain hazardous and poisonous dust and should therefore be disposed of according to governmental regulations. Used dust bags should always be closed completely and be treated carefully. Use only original dust bags.

Replacement of the filter

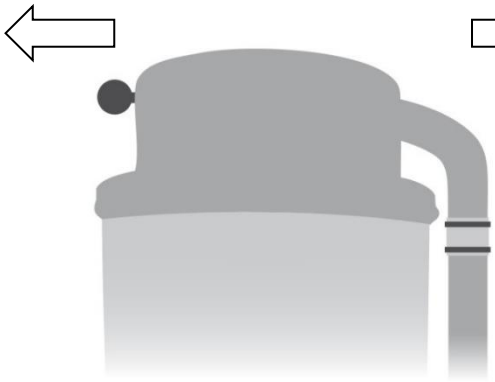
When replacing the filter, it is recommendable to use a breathing mask. Always treat both new and used filters with utmost care. Even a very small damage or a hole on a filter will severely reduce its filtration abilities. A used filter may still contain dust, which can be potentially harmful to the health and/or the environment and should therefore be disposed of according to governmental regulations. Put the used filter in a plastic bag and seal it tightly. Only use original filters.

1. Turn the central vacuum off and unplug the power supply.
2. Loosen the upper hose clamp on the hose connecting the top of the filter housing and the suction pipe to the pump.
3. Loosen the locking ring that hold the top of the filter housing.
4. Lift off the top.
5. Carefully lift the filter out of the housing so that the dust does not spread out.
6. Place the filter upside down on the floor.
7. Remove the nut and shim (M8, 13 mm wrench) at the bottom of the filter.
8. Put a plastic bag over the filter and remove the filter from the filter top.
9. Fit a new filter. Fit the shim and nut. Tighten the nut so that the distance between the filter and the filter top is approximately 8 mm.
10. Lift the filter back into the filter housing. Make sure that the filter is correctly centred in the filter housing and that the gasket is in the right position.
11. Mount the lid on the filter housing. Make sure that the pipe is correctly fitted in the hose.
12. Fit the locking ring.
13. Tighten the hose clamp on the hose between the top of the filter housing and the suction pipe to the clamp.

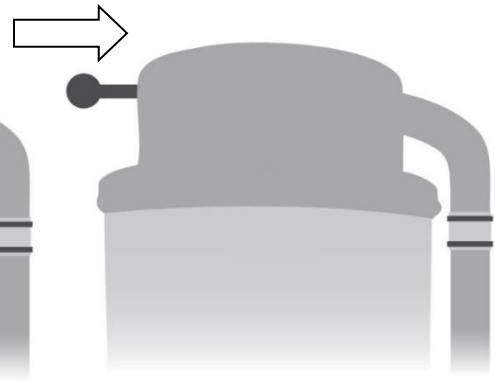
Manual cleaning of the filter (Back flush)

1. Start the vacuum cleaner by turning the main switch to the “MAN” position. Let the pump work for approximately 15 seconds until it reaches the maximum number of revolutions.
2. Pull the filter cleaning handle (black knob) on the top of the vacuum cleaner until you hear a loud bang.
3. Turn off the vacuum cleaner by turning the main switch to the “OFF” position.
4. Wait until the pump has stopped completely, which takes approximately 20 seconds.
5. Pull the filter cleaning handle again and then push it all the way in until it stops.
6. If the filter has not been properly cleaned, repeat the previous steps (1-5).

If the suction capacity is still low, this process may be repeated. If the suction capacity is still low after several back flushes, the filter needs to be replaced.



Step 2
Pull on the filter cleaning handle



Step 5
Pull on the filter cleaning handle then push it in.

Trouble-shooting

The trouble-shooting must be carried out by an authorised professional.

1. The vacuum cleaner does not start, either with the main switch in "MAN" or "AUTO" position.
    a. Check that there is power to the vacuum cleaner.
    b. Check that the control fuse in the electrical cabinet is not tripped. If so, reset it.
    c. Check that the motor protection is not tripped. If so, reset it.
    d. If any of the above protection or fuse are tripped again when trying to start the unit, the probable cause can be a short circuit or the loss of one or two phases. Before a new attempt is made, an authorised electrician must check the electrical installation, the power supply and the vacuum pump for a possible short circuit.

2. The vacuum cleaner only starts with the main switch in "MAN" position.
    a. Check the low voltage wiring from the machine to the vacuum outlets.

3. The yellow lamp "FILTER" is lit (on applicable models)
    a. Take out and clean the filter. Check for damage or holes in the filter. If it is damaged, the filter must be replaced.

4. The red lamp "LEVEL" is lit (on application models)
    a. Change the plastic bag located in the dust container. Check also the filter and clean or replace it accordingly. If the lamp is still lit after the bag change, the lenses at the bottom of the cyclone need to be cleaned.

5. Poor suction.
    a. Clean or replace the filter. If this does not help, the density of the piping system must be checked.

6. Unusual noise from the vacuum pump.
    a. Turn off the vacuum pump immediately and contact the supplier.

7. The dust bag is sucked into the cyclone/filter housing.
    a. Check that the vacuum hose going from the dust container to the vacuum pump has not come loose or been damaged. If so, tighten it or replace it with a new one.
    b. Check that the vacuum filter located in the above-mentioned hose is clean. If necessary, clean it. Also clean the dust container.
    c. Check that the dust container fits tightly with the cyclone.

Service protocol

Vacitup Central Vacuum Cleaning System

Date: _____

Model: _____

Serial number: _____

Customer: _____

Central unit	Rem.	Missing	Done
1. Replacement of the filter	☐	☐	☐
2. Cleaning of filter housing and dust container.	☐	☐	☐
3. Check vacuum pump, screws, cables and connections.	☐	☐	☐
4. Check density and hoses.	☐	☐	☐
5. Check back flush function.	☐	☐	☐
6. Test and check any discordant sounds from the pump.	☐	☐	☐

System	Rem.	Missing	Done
1. Check vacuum inlets. Density and function.	☐	☐	☐
2. Check automatic hose hanger. Density and function of the valve.	☐	☐	☐
3. Check hose reels. Function, winding, density, hose and valves.	☐	☐	☐
4. Check pre-separator. Function, density and wear.	☐	☐	☐
5. Check piping system. Density and wear.	☐	☐	☐
6. Check low voltage system. Cables, connections and micro switch.	☐	☐	☐
7. Cleaning system, other. Hoses, nozzles. Wear, damages and function.	☐	☐	☐

Remarks

Service done by: _____ Date: _____

EC declaration of conformity

Manufacturer	Vacitup AB Smedvägen 24 SE-433 61 Stenkullen Sweden
Product designation	Central Vacuum Cleaner 3, 4 and 5,5 kW

We declare that the above-mentioned products comply with the following European Directives:

- Low Voltage Directive IEC/EN 60335-2-69, IEC/EN 60335-1
- Machinery Directive EN ISO 12100
- EMC Directive 2004/108/EC with regards to the Harmonised Standard EN 60 439-1

Stenkullen, 07 April 2020

Almir Karahodzic
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