



Instruction manual

Cleanserv VL2-70 / VL3-70 I (7144.00 / 7145.00)

Introduction

Preface

Dear Customer,

It is our desire to meet the highest quality standards that you expect with the purchase. To ensure the safety of the machine please read the chapter of the safety instructions. Your safety and those of others requires the proper use of the appliance. Before operating your appliance read the instructions, act accordingly and save them for future reference. The manual contains all the important information on operation maintenance and care.

In this manual the aspects that concern your safety have been marked warning of danger.

We have marked all places which are in reference to your safety with a sign for danger.

For further questions on the appliance or on the manual feel free to contact your Hako-partners.

We would like to emphasize that we are

not responsible for any legal claims made in regards to this manual.

For any necessary repair work that needs to be done use only original spare parts. Only by using original parts are you guaranteed the continued proper operation of your machine. We reserve the right for any technical changes or advancements that may be made.

Valid from: April 2014

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Intended Use

The Hako-Model Oâ] à[• ÙL 2-70 and ÙQB-70 I and its included accessories works as a wet and dry vacuum for picking up liquids and dust and it meets the requirements for commercial and industrial use. It can be used in hotels, schools, hospitals, factories, stores, offices and rentals. This unit is not intended for any other use. Therefore, improper use of the machine could result in damage which we are not liable for. Intended use also includes following the manufacturer's operating, maintenance and repair instructions. A person performing maintenance on this unit should be aware of the risks. Any applicable health and safety regulations must be observed. The machine adheres to the basic design and construction in order to meet the health and safety requirements of EC Directives (see EC Declaration of Conformity). Any modifications to this machine will result in these statements losing their validity.

Introduction

Any damage that results from unauthorized modifications is not the responsibility of the manufacturer.

Warranty Notes

The guarantee is valid when following this instructions provided by the manufacture. Damage claims will not be honored if the care and maintenance instructions of the manual are not followed.

Maintenance shall be performed by an authorized service center of Hako to keep your machine in warranty.







Damage not covered by the manufactures warranty include: neglect, normal wear, damage from overuse, fuses, improper use or modifications.

Warranty is also void if damage is caused by using replacement parts or accessories not expressly approved, or by failure to comply with the maintenance regulations.

Delivery of the Machine

Confirmation of damage must be made immediately by the transporting company with regard to the damage and send the damage report to us together with a copy of the invoice and the delivery receipt.

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Safety information

1 Safety Information

1.1 Safety- and Warning Symbols

In the instruction manual all sections pertaining to your safety, safety of the device and of the environment are marked with the following symbols:

Symbol	Damage to...	Definition
Safety Tips 	People or Things	Safety tips to avoid dangerous situations caused by failing to follow the instructions.
Reference 	The Machine	Important instructions for the proper use and handling of the machine.
Environmental Hazard 	The Environment	Environmental risk through the use of substances that pose health and environmental hazards.

Safety information

1.2 General Notes



- Apart from the references in the instructions, the laws and rules for the prevention of accidents must be taken into consideration.
- Before operating the machine it is important that all operating instructions in every aspect have been thoroughly read and understood.
- The machine is only to be used, maintained and repaired by those who are qualified and trained by Hako experts.
- Particular attention should be given to the safety instructions. Only with accurate Knowledge and expertise of the machine can errors be avoided and a trouble free operation guaranteed.
- The operating instructions should be stored on the unit.
- In case of a sale or a lease to a new owner these documents are to be

handed over to the new owner/operator. The delivery must be confirmed!

- Symbols on the machine provide important information for safe use.
Illegible or no longer existing signs must be replaced.
- For safety replacement pieces should be original parts only.
- Children should keep away from the machine.

1.3 Operating Instructions



- Check the machine before each use to see if it is operational! Damage, especially to the electrical system, must be repaired immediately!
- Attention: This machine is intended for indoor use only.
- Before using the machine the operator must be familiar with all the controls

and accessories and their function! During operation is too late!

- Any use that is different than what the manual directs can cause a hazard and must be avoided.
- Only use the brush that came with the machine or the brush described in the manual.
The use of other brushes can compromise your safety. This applies also to the optional accessories as described in the manual.
- If you use an electrical extension cord make sure it is compatible with the power cord and in perfect condition. If you are unsure ask an authorized Hako-service center or an electrical technician with recognized qualifications.
- Never leave the machine unattended during operation. Instead switch it off and pull the plug from the outlet. Keep out of reach from children.
- The machine should be used to clean only assigned areas.
- When working with the machine pay

Safety information

- attention to the people around you, especially children.
- The machine should not be used in the disposal of hazardous, flammable or explosive liquids. Also substances, for example lighted cigarettes or fireplace ashes.
 - Do not use the machine to suck up objects or substances that can damage to the filter (such as glass splinters, metal shavings, etc.)
 - The use of the machine in combustible areas is prohibited.
 - The machine should not be operated in electrostatically protected areas.
 - Do not pull the weight of the machine by the power cord.
 - If smoke, foam or liquid start to come out of the machine immediately switch it off and unplug it.
 - Do not use the machine to suck up substances or liquids whose origins and properties are unknown.
 - Drain and clean the container as soon as possible after each use, especially after sucking up liquids.
 - Be careful, the tank may be especially heavy after sucking up a lot of liquid and can be hazardous when rolling on uneven ground.
 - Remaining liquids in the tank, damp dirt and germs can cause hazardous odors, affecting your health as well as a shortend life of the machine.
 - After cleaning, leave the machine slightly open to dry, for example over the weekend.
 - If you will not use the machine for a longer amount of time, keep it clean and store in a dry place. Do not store outdoors.
 - Do not make any changes to the machine. Any modifications made can damage the machine and therefore void the warranty.
 - Transport the unit cleaned and emptied of liquid with the attached suction fan and without accessories in the original box if possible. Secure the unit during transport to keep it from rolling away. Pack and secure the accessories separately.
 - Start using the machine only when you have read the instructions in this manual and can operate the machine safely.

Safety information

1.4 Service Notes



- Daily and weekly maintenance must be performed by the operators. For all other maintenance you should contact the nearest Hako-service center.
- Clean the float and inspect it regularly for signs of damage. Replace it when needed.
- The maintenance and service intervals should be completed as outlined in the manual.
- For cleaning and maintenance use the appropriate tools.
- In order to avoid accidents the machine should be inspected by a professional (we recommend at least once per year)
- Spare parts must meet the manufacturers technical requirements.
Original spare parts are guaranteed.
- For cleaning and maintaining the

machine as when changing parts make sure it is unplugged.

- Cleaning the machine with a pressure washer or a steam cleaner is not allowed.
- The use of corrosive and caustic cleaning agents is not allowed.
- After cleaning, allow the machine to dry, for example over the weekend.

1.5 Specific Electrical Hazards



- Only use fuses that are correct for the specified current.
- If there is an electrical interference, immediately turn off the machine, unplug it and remove the interference.
- Work on the electrical equipment must be performed by a trained technician according to electrical ordinances.
- The electrical equipment of the

machine should be inspected and checked regularly. Defects such as a loose connection or damaged cable must be discarded immediately.

- Periodically check the power cord for damage, cracks and wear. Replace a damaged power cord before using the machine.
- The replacement of the damaged power cord must be authorized by Hako-sales service or by a qualified electrician.

Safety information

1.6 Environmental Information



- For the safe use of substances of which there could be a health or environmental hazard, sufficient knowledge is required of these.
- The cleaning agents should be disposed according to local regulations, see Water Resources.
- Clean the filter in the open, wearing appropriate protective clothing! Do not inhale the dust. Dispose the dust in an environmentally friendly way!

Disposal of the Equipment:

Make the machine inoperable by cutting the power cord. It shouldn't be a danger for children. The unit should be disposed according to the local regulations. For further information on treatment and recycling, please contact your Hako-dealer from where you purchased the machine.

1.7 Response to Malfunctions or Accidents



- If during use an accident happens, the machine can no longer be operated safely or a possibly dangerous situation arises, immediately turn off the power and unplug the cord.
- Depending on the situation, inform colleagues, superiors or emergency personell.
- If there is accidental contact with the detergent, immediately rinse with water and follow the manufacturer's instruction.
- If possible, take precautions against the inadvertent switching on of the machine by a third party.
- Avoid dangerous situations and take precaution by learning about the characteristics of the liquids and substances.

Safety information

1.8 Signs on the Machine

Subsequent Safety and information signs are visibly mounted on the machine. Missing or unreadable signs should be immediately replaced.

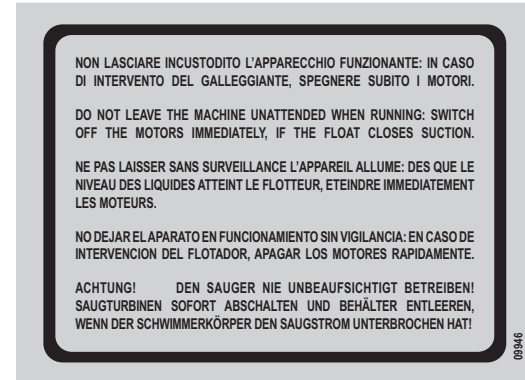
Logo (illustration 1/1)



Model/ Make (illustration 1/2a)



Read the Manual
(illustration 1/3)



Safety Advice (illustration 1/4)

Operation

2 Operation

2.1 4 JVR_dVog GL2-70



- 1 Vacuum assembly
- 2 Switch
- 3 Buckles
- 4 Suction inlet
- 5 Tank
- 6 Exhaust pipe
- 7 Tipping trolley



- 1 Wet tool
- 2 Dust tool
- 3 Carpet tool (optional)
- 4 Round brush
- 5 Tube (2 pcs)
- 6 Wand
- 7 Flat lance
- 8 Adaptor
- 9 Flexible hose

Operation

2.2 4 JVR_dVog GL3-70 I



- 1 Vacuum assembly
- 2 Switch
- 3 Buckles
- 4 Suction inlet
- 5 Tank
- 6 Tipping trolley



- 1 Wet tool
- 2 Dust tool
- 3 Carpet tool (optional)
- 4 Round brush
- 5 Tube (2 pcs)
- 6 Wand
- 7 Flat lance
- 8 Adaptor
- 9 Flexible hose

Operation



2.3 Dry Suction

- Loosen the locking device on the container and remove the suction fan from the top.
- Clean and dry the container, hose and accessories as necessary.
- Replace the filter cartridge as shown on the container edge.
- Put the suction fan back onto the container with the filter and lock the locking device.



- Plug the vacuum hose and the handle with the required accessories to the hose connector on the container until the hose end snaps in.
- Connect the power cord to a circuit breaker with Type L or with a 16A- safe protected socket.
- The machine is now operational.
- For dry vacuuming, turn the units power switch on.

2.4 Wet Suction

- Loosen the locking device on the container and remove the suction fan from the top.
- Remove the filter cartridge from the container.
- Clean the container, hose and accessories as necessary.
- Put the suction fan back onto the container and lock with the locking device.
- Connect the power cord to a circuit breaker with Type L or with a 16A- safe protected socket.
- The machine is now operational.
- For Wet vacuuming, turn the unit's power switch on.

- Note:** The float in the vacuum housing interrupts the airflow when the container is full.
- Empty the container.

Operation




2.5 Discharge system:

Before draining the tank, use the liquid discharge system for lightening it.

ATTENTION: make sure that plug is perfectly fasten and that hose is secluded in its seat when using dry and wet & dry vacuum cleaners.

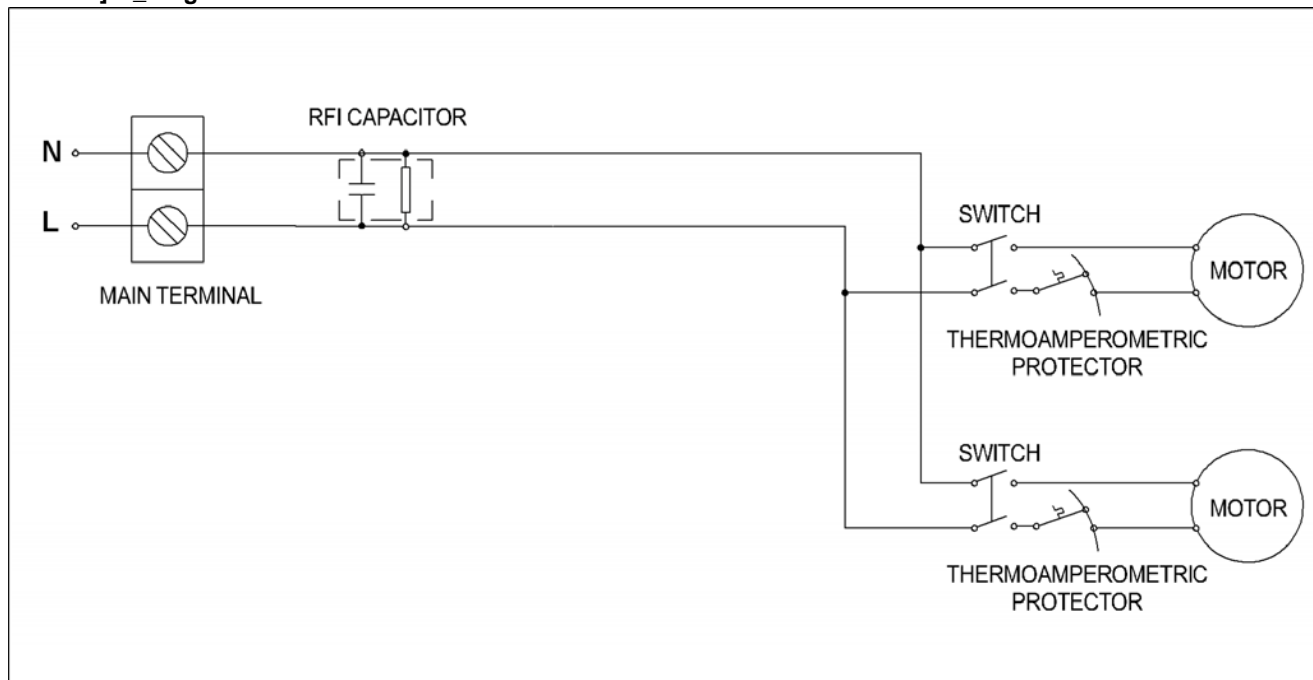
Technical data

3 Technical data

		4 JVR_dVog	
		G=2-70	G=3-70 I
Use		wet/dry	wet/dry
Tank capacity	l	64	76
Rated Voltage	V/Hz	220-240/50-60	220-240/50-60
Power rating	W	2x1100	3x1100
Suction	mbar	238-380	238
Airflow, motor	l/s	2x56	3x56
Bypass motor		yes	yes
Overall height	mm	1010	975
Width	mm	580	590
Weight, standard	kg	26,8	34
Power cord, length	m	12	12
Standard accessories	NV/mm	Ø 38	Ø 38
Sound emissions:			
The noise level (LWA _æ) according to EN 60335-2-69 with normal use is <71.2 dB(A)		IPX4 Splashproof design	 Protection class II

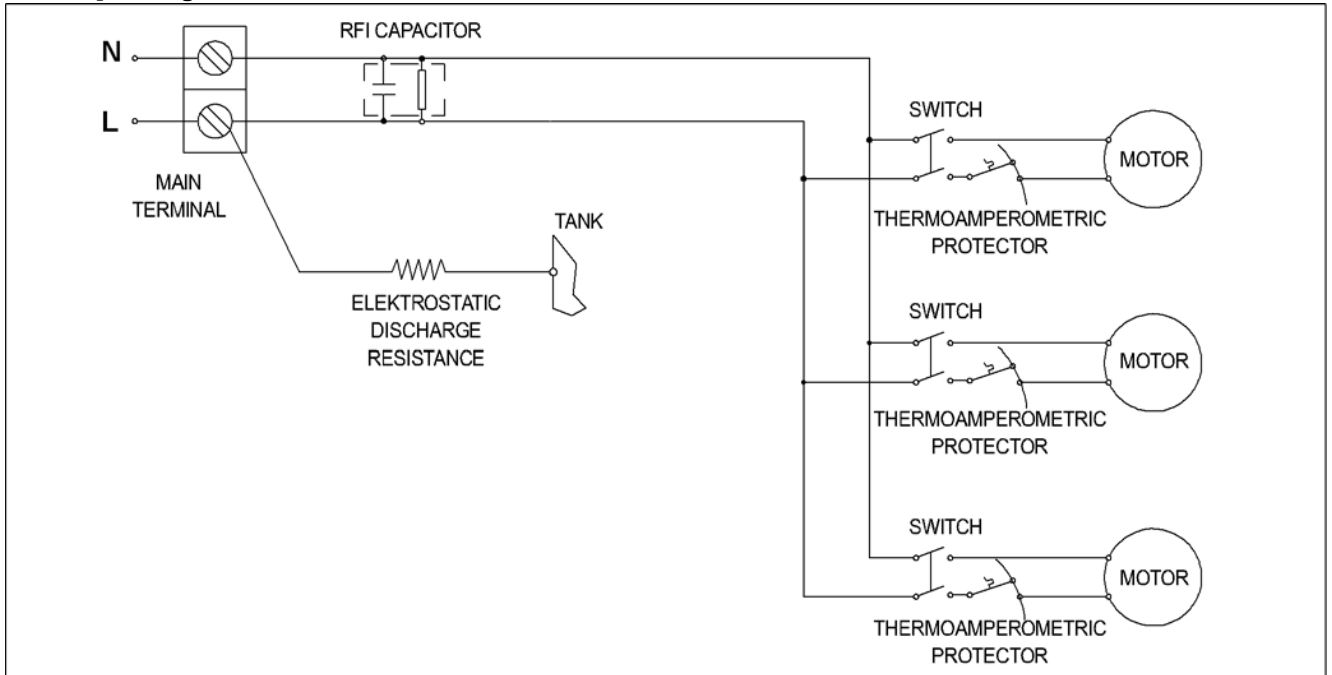
Technical Data

3.1 Circuit diagram 4 JVR_dVog GL2-70



Technical Data

3.2 Circuit diagram 4 JVR_dVcg GL3-70 I



4 Maintenance



General

Before doing any maintenance work it is very important that you read the safety information first!

Adhering to the instructions and recommendations will ensure an always ready to use, operational machine.

Daily and weekly maintenance repair work can be performed by a specially trained operator, all other Hako system maintenance is only performed by trained qualified personnel. Please contact your nearest Hako dealer or Hako service center.

By not following these directions any failure or damage caused voids the warranty.

For further inquiries or replacement

pieces, please always give the serial number, see Section 1.8 - Model/Make

4.1 Daily Maintenance

- Check the power cord, controls and accessories for tightness and damage.
- Remove and clean the filter cartridge from the container after dry vacuuming.

4.2 Weekly Maintenance

- Clean the outside of the vacuum housing and the container with a damp cloth.
If necessary, use a mild detergent.
Do not use any harsh detergents or

cleaning agents.

- Check the float and its guide and clean under the suction fan. Check for free movement and damage.
- Clean and rinse the hose and accessories, remove debris and dirt.
- Check the wheels for damage and easy movement.
- Check and clean the exhaust pipe

4.3 Annual check

- Electrical safety review in accordance with safety regulations.

Maintenance and Care

4.4 Troubleshooting

Malfunction	Reason	How to solve
Suction assembly does not start	Not current	Check mains fuse*, power cord plug and outlet
Suction assembly stops	Thermal amperometric protection dropped for electric motor problem	Please check the vacuum cleaner for correct operation by asking for authorized technical service.
Suction power reduced	Filter, nozzle, hose or tube clogged	Check and clean
Suction power suddenly drops (wet-pick-up)	Tank full	Disconnect and drain tank

* If mains fuse is blown repeatedly, have appliance checked by a specialized facility.

Optional Accessories

5 Optional Accessories

Dry Suction With 4 JVR_dVog GL 2-70 and GL 3-70 I

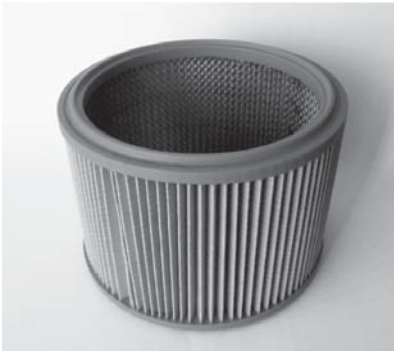
Recommended Combinations:

	Filter Insert (Included)	Filter Cartridge (Optional)	Paper Filter Bag (Optional)
Filter Insert	x		x
Filter Cartridge		x	x
Paper Filter Bag	x	x	

The following options are available for the machine. Please contact your Hako dealer or Hako sales and service establishment.

Optional Accessories

5.1 Filterpatrone for Dry Cleaning 4 JVR_dVog GL 2-70/GL 3-70 I

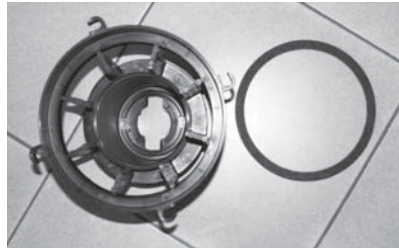


The filter cartridge is assembled with the seal and the cover (included) as shown.

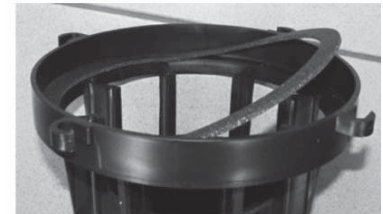
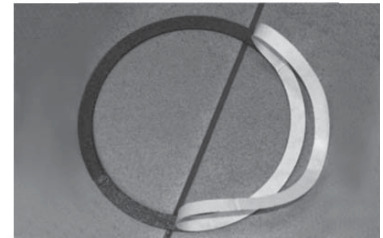
Note: The filter cartridge can not be used together with the standard filter insert.

Assembly:

- Remove the vacuum housing from the container
- Take the existing filter from the container
- Remove the float housing by a slight right turn (clockwise) from the vacuum housing, if necessary loosen the screws a bit.
- Pay attention to the installation position of the float

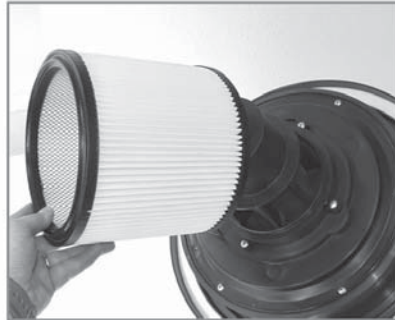


- Bearing the surface on the float housing and clean if necessary.
- Pull off the protective seal and glue the seal as shown.



Optional Accessories

- The install the float with the float housing do so by a slight left turn (counter clockwise.) In addition, if necessary, loosen the three screws slightly.
- Put the filter cartridge as show on the float housing and fasten with the supplied cover by turning clockwise.
- Put the vacuum housing back on the container and lock

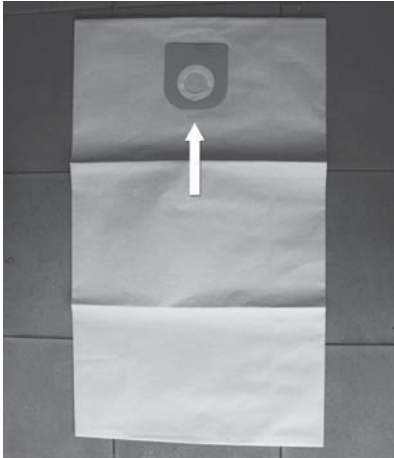


Optional Accessories

5.2 Paper Filter Bag for Dry Cleaning

.....4 JVR_dVog'GL 2-70

Inserting the Paper Filter Bag



Arrow pointing= up



- Remove the vacuum housing from the container
- Pull the paper filter bag over the suction intake, as shown
- Put the vacuum housing back on the container and lock



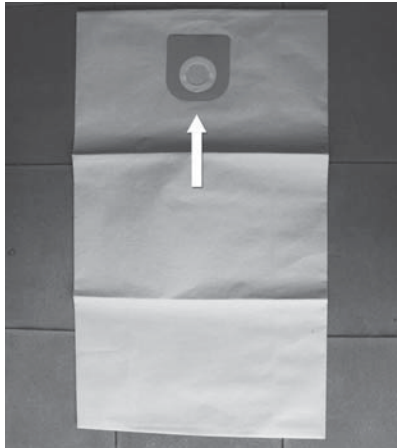
Note: The paper filter bags can be used in conjunction with the filter cartridges or the standard filter insert.

Optional Accessories

5.3 Paper Filter Bag for Dry Cleaning

.....7`YUbgYfj `JL 3-70 I

Inserting the Paper Filter Bag



Arrow pointing = up

- Remove the vacuum housing from the container



- Pull the paper filter bag over the suction intake, as shown
- Put the vacuum housing back on the container and lock



Note: The paper filter bags can be used in conjunction with the filter cartridges or the standard filter insert.

5.4 Carpet Nozzle

For dry use on carpets or rugs with the paper filter bag



EC-Declaration of Conformity (according to Directive 2006/42/EC)

Hako GmbH
Hamburger Straße 209-239
D-23843 Bad Oldesloe

declare under our sole responsibility,
that the product

Cleanserv VL 2-70
Typ: 7144.00
Cleanserv VL 3-70 I
Typ: 7145.00

to which this declaration relates, corresponds to the relevant basic safety and health requirement of the Directive 2006/42/EC, and to the requirements of the other relevant Directives: 2004/108/EC.

For the relevant implementation of the safety and health requirements mentioned in the Directives, the following standard (s) and / or technical specification (s) has (have) been respected:

EN 60335-2-69
EN 55014-1
EN 55014-2
EN 61000-3-2
EN 61000-3-3
EN 62233

Bad Oldesloe, 22.04.2014



Dr. Rainer Bavendiek
Director R&D

Name of the person authorised for Hako to compile the technical file:

Ludger Lüttel

Hako

Clean ahead

Spitzentechnik für eine saubere und schönere Umwelt

Advanced Technology for a Cleaner, Better Environment



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