



## **English – Introduction**

### **General**

Your new glasswasher, the Maxima VNG-400 is produced with advanced production techniques. Every glasswasher is inspected and tested at the factory to ensure it is a safe and reliable machine. All national standards are met.

Read this manual carefully before installing and using the glasswasher. Use in accordance with these instructions to ensure safety and durability of the device. This way you can fully enjoy the use of the glasswasher.

In this user guide, installation use and maintenance are addressed. Keep the manual close until you are familiar with the machine, also keep it in a dry place, within reach. All users have to know where the manual is stored, so it can be easily found when needed. If your manual is illegible or damaged, you can always request a new copy from your supplier.

### **Technical Support**

Contact your local authorized service if you need technical assistance.

### **Statement**

Our company reserves the right to make changes in the user manual and other relevant materials, to enhance the performance of our products. In case of damage or injury caused by maintenance or use in any other way than as described in this manual or by unauthorized personnel, our company is not liable.

You are required to read this user manual thoroughly and store it in a safe, dry place. Please contact your dealer when having any doubts.



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## TECHNICAL INFORMATION

MODEL	VNG400 Ultra	VNG400
ELECTRICAL POWER (KW)	3.3	3.3
VOLTAGE (VAC)	230v	230v
FREQUENCY (Hz)	50	50
WASHING CAPACITY (BASKETS/HOUR)	30	30
WASHING TANK CAPACITY (LITER)	9.2	9.2
BOILER CAPACITY (LITER)	2.8	2.8
WASHING WATER TEMPERATURE (°C)	50-55	50-55
RINSING WATER TEMPERATURE (°C)	80-85	80-85
WATER INLET PRESSURE (Bar)	2-4	2-4
WATER INLET TEMPERATURE (°C)	35-45	35-45
WASHING PUMP POWER (KW)	0.26	0.26
RINSING PUMP POWER (KW)	----	----
HEATING POWER TANK (KW)	2	2
HEATING POWER BOILER (KW)	2.950	2.950
MAXIMUM NOISE (dBA)	~85	~85
GROSS WEIGHT (KG)	35±5	35±5
DIMENSIONS (WIDTH-LENGTH-HIGHT) (mm)	475X565X760	475X565X760
BASKET DIMENSIONS (mm)	400x400x150	400x400x150
WASHING TIME (SEC)	120	120
PROTECTION CLASS	IP X5	IP X5

## WARNING SIGNS



**POWER NETWORK GROUNDING**



**PE**

**GROUNDING**



**POWER**



**OVERHEAT**

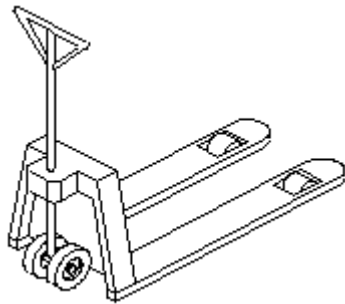
**POWER SUPPLY CONNECTIONS**  
**230V / 50 Hz**  
**VOLTAGE : 230V**  
**NETWORK CONNECTION: MONOPHASE**  
**GROUNDED**  
**FREQUENCY : 50 Hz**

## SAFETY

To ensure perfect use, users have to pay extra attention to the following:

- Don't place the dishwasher in direct sunlight.
- Don't clean the glasswasher with a waterhose or high pressure water. Make sure the glasswasher is installed in a dry place and not in an environment with water or moist.
- Only staff that is trained in using the machine, according to this user manual as a guideline, is allowed to use the glasswasher.
- The machine should be installed according to effective regulations. The machine should also be placed and used in a well ventilated area or under a ventilation hood. Otherwise, hot water steam and excess moisture produced by the machine, or other machines in the area, can damage mechanical or electrical parts of the machine.
- Ambient temperature of the area where the machine is placed should be between +5 degrees and +40 degrees Celsius.
- The machine should not be filled with water hotter than +45 degrees Celsius.
- Do not transport or unplug the machine when it is working.
- When the machine has to operate for longer times without pause, make sure you at least give the machine at least a 1 hour break for every 4 hours of operating.
- Plastic parts in the machine can be damaged by low quality detergent. We advise you to contact a professional detergent/cleaning company or contact your dealer for advise or more information.
- **There should be a decalcifier placed between the water supply and the machine. This is to prevent damage or a decrease in performance of the machine due to an excess of calcium.**

## TRANSPORTING AND MOVING



### Transporting:

- The machine should be placed vertically on a pallet by manpower.
- Transportation should be carried out by placing the machine on the forklift. Preferably first place the machine on a pallet.
- If the transported distance is far, the machine should be slowly moved and fixed to the pallet or supported by other staff to prevent jolts and damage.
- Make sure the machine does not hit something, jolt or fall.
- The dealer and factory is not responsible for damage occurring during transportation and/or moving of the machine.

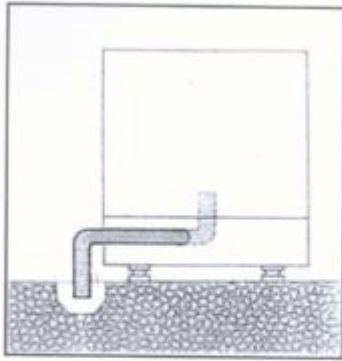


### Changing the Location:

After installation, the machine should not be moved from its location. Its connection hoses and cables, should not be extended or replaced. When doing this anyway, all consequences following are at your own risk.

## INSTALLATION OF THE DEVICE

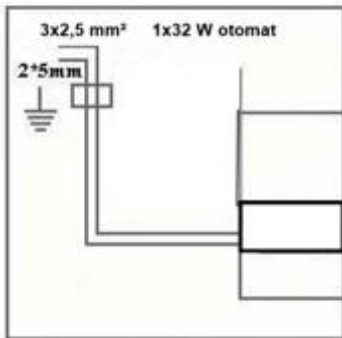
The following has to be accomplished by the user:



Power supply connection of the machine should be checked by an eligible electrician, and it should be connected to a socket/outlet which is no higher than 170cm.

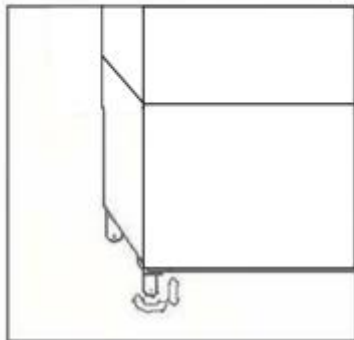
The power supply connection should be made using a 30 mA current leakage fuse as a protection against current leakage danger.

To ground the device, the grounding cable should be attached to the correct spot in the plug.



At about 25-50cm high in the wall there should be 1/2" water supply pipe for the machine with 3/4" tap connection to supply the machine with water.

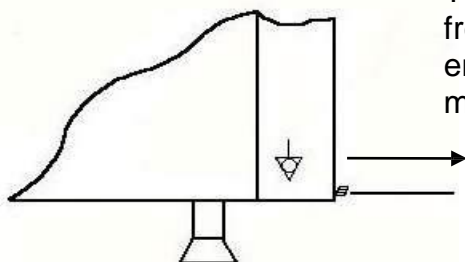
The drain should be attached to a 40-50mm wide drain pipe which is at a maximum of 2cm above the ground when using the normal VNG400. When you are using the VNG400 Ultra you can place it at a maximum of 60cm above the ground. This should be behind the machine.



Do not forget to place the detergent and rinse hoses in the corresponding cans and place the weights and the end of the hoses, so they stay inside the can. The normal VNG400 only has a rinse hose.

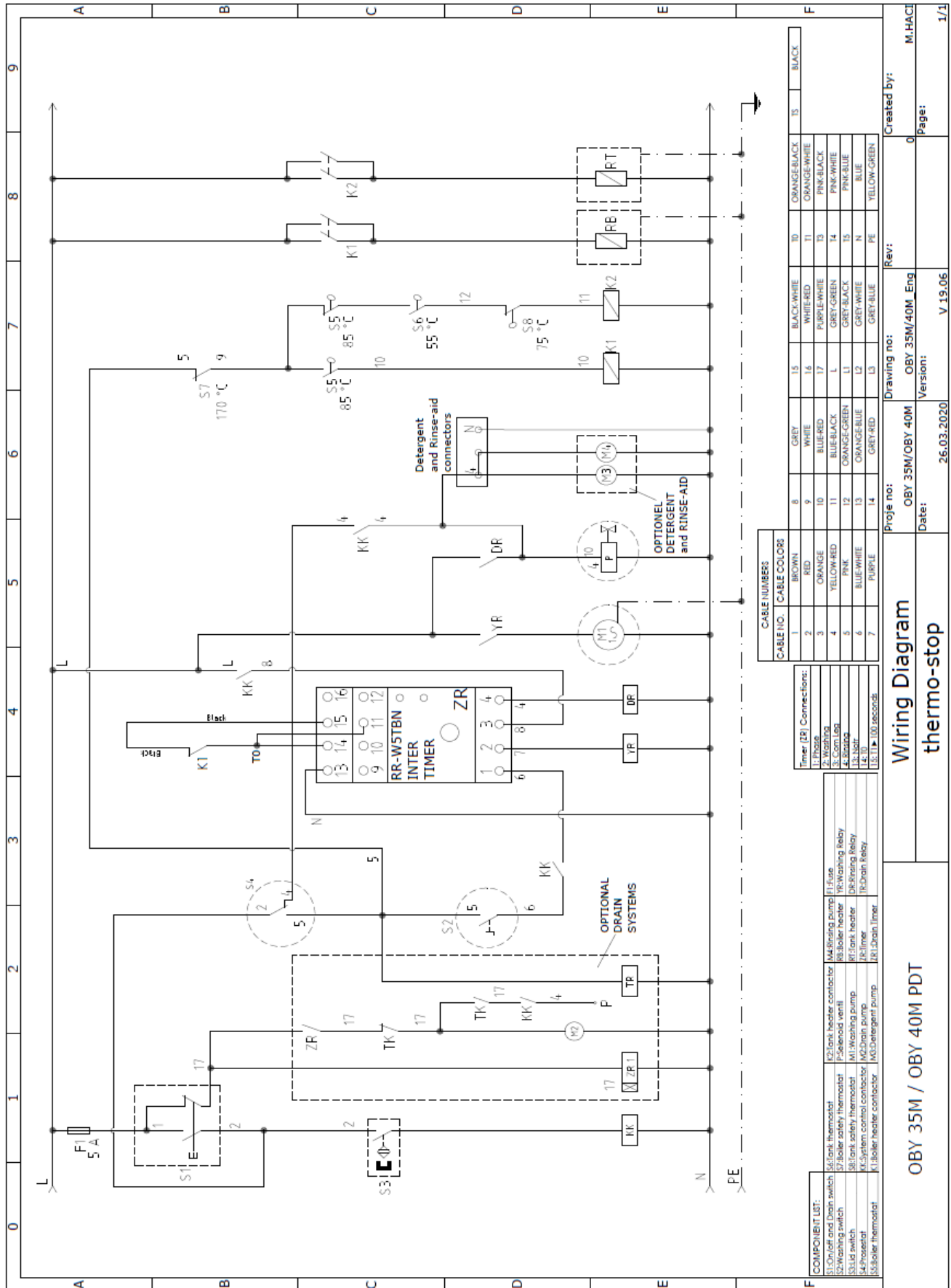
The feet of the machine are adjustable and should be adjusted in such a position that the machine can operate in a leveled position.

The working environment of the machine should be free of steam and moisture. So be sure there is enough ventilation or a ventilation hood for the machine.



The screw for grounding when connected externally.

# Electrical Circuit Diagram VNG400 & VNG400 Ultra





## USING THE MACHINE



- Connect all the cables and hoses (power-, water supply and water drain) according to the installation instructions.
- Use the on/off switch to turn on the machine. The machine will automatically start filling with water. This will also stop automatically as soon as the correct water level has been reached. Then the machine will start heating the water, which will take another 25-30 minutes. Make sure the filter and drain pipe are in place when the machine is filling with water.
- After 30-45 minutes the machine will have filled with water and heated it. Then it is ready to start washing the glasses. If you start to wash earlier, the dishes will not be cleaned properly due to low water temperatures. During the rinsing (last 10-20 seconds of the program) the program warning lamp will light up (left lamp/light).
- The dispensing units (in the VNG400 Ultra) will automatically add detergent and rinsing liquid. If you want to use more or less, this can be changed with the white screw on the dispensing units as shown below.



**Rinsing dispenser**



**Detergent dispenser**

You have to make sure the rinse hose and detergent hose are properly placed in the correct cans.

- When manually adding detergent, make sure you add it after the water has been heated. You can add this in the washing tank. Use the dose advised on the package of the detergent you are using.



- Before placing the glasses and saucers in the machine, make sure you first remove large food scraps with a brush or sponge. When that is done, shortly rinse them and place them in the basket. Then place the basket in the machine. Do not use any detergents for this, but just warm water. When the scraps are not removed, it may block the washing and rinsing arms or the drain filter.
  - After closing the door, press the washing starter key to start the automatic washing cycle. This will take 102 seconds, 85 seconds to wash, 2 seconds to dispose of detergent and 15 seconds to rinse. All of the phases in the washing programs will be executed automatically after pressing the washing button (next to the on/off button, left on the panel).
  - At the end of a washing program you have to let the dishes cooldown for 30 seconds before touching them. This is to prevent any burns.
  - After placing a new basket of dishes and closing the door, the machine will restart the program as long as the washing button (next to the on/off button) is still pushed in.
  - Removing the water in the tank of the VNG400 can be done by removing the plug from the drain pipe/filter. The machine will empty automatically. When using the VNG400 Ultra you should remove the drain pipe while the machine is still on. After doing so shut the machine down. This will activate the drain pump which will work for 1 minutes and then stop automatically.
- 
- **Caution:** The machine must be installed and used as described in this user manual. If you are experiencing problems or damage occurs, contact the transporter or dealer.
  - **When the machine has a failure, only authorized service dealers are allowed to handle the device. If any person other than only authorized service dealers handle the device, it will not be covered by the warranty.**
  - **The manufacturer/importer will not take responsibility for any problems/consequences caused by unauthorized personnel, and third parties handling the machine. During maintenance, only original spare parts should be used. When not using original spare parts, the machine is also no longer covered by the warranty.**

## CLEAN-UP AND MAINTENANCE

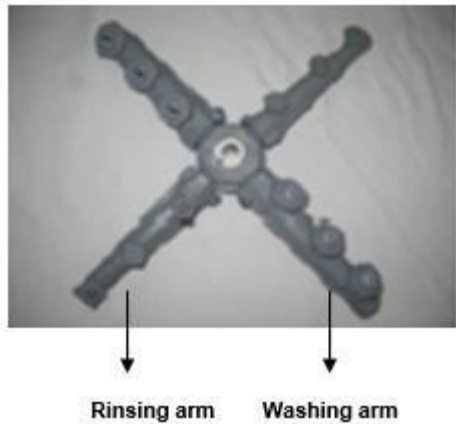


Daily maintenance should be carried out by people informed about the safety instructions as written below. Before doing this, first disconnect the power supply and water connections.

**Daily maintenance:** Daily maintenance should be carried out by the user. In order to clean up the machine, this maintenance should be carried out at the end of the day.

1. Wash and rinse arms should be disconnected and the remaining scraps in these arms should be removed by using water, air pressure, a brush or fine wire. After cleaning them, put them back in their places.
2. As long as there is water in the tank/machine, the filter may not be removed!
3. Scraps remaining in the washing tank should be removed and the tank should be cleaned (do not start a new washing program before putting back the scrapfilter).
4. If the time between two washing operations exceed 5 hours, remove the drain pipe and wait for all the water to be drained.
5. The scrapfilter should be removed and cleaned properly with enough water, after draining the dirty water in the tank. Do not forget to put the filter back in place before starting a new washing program or refilling the machine with water.
6. Clean the watertank with a sponge or soft cloth and plenty clean water.
7. After cleaning the machine, first put all the parts back in to their respective places. If you forget to do so, this can have severe consequences for the machine, which is not covered by the guarantee.
8. Make sure the machine stays calcium and dirt free. When the machine is not cleaned regularly, this can influence the quality and performance of the machine.

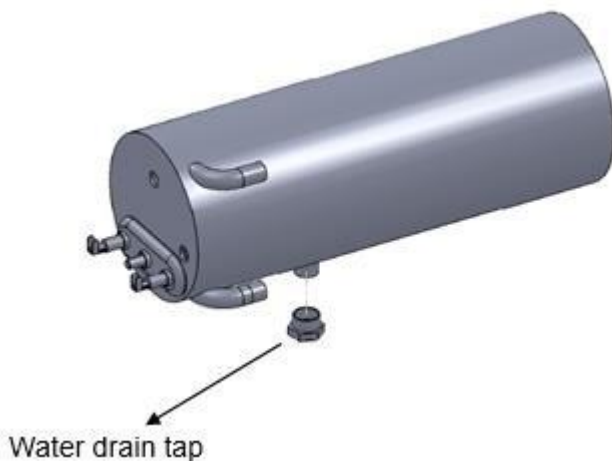
**Periodic maintenance should be carried out by the user.**



Periodic maintenance should be carried out by the user, at least once a month. This should be done after the clean-up and daily maintenance has been completed.

After adding 500 gram of a decalcifying substance, let the machine wash for 30 minutes. This way the machine will clean the tank itself. When the machine is finished, drain the filthy water and let the machine fill up with clean water again. After it has been heated, repeat the process without adding any additive substances. When the machine finishes again, let the filthy water drain again, and after this the machine is ready for use once again.

Make sure you check that the rinsing and washing arms are not blocked by any dirt, scraps or calcium. When the nozzles in the arms are blocked, you can remove the washing and rinsing arm and disassemble them. Properly clean them with pressure air, pressure water, or any other means that will not harm the parts.



If the device is not being used for a longer period of time, you must drain the water left inside the boiler. For this purpose, let the water drain out after opening the tap (boiler tank tap) at the lower part of the boiler's body (see the picture above for reference). Otherwise water staying inside too long, may harm the machine and cause other trouble. Be aware that water in the boiler is very hot when the machine has been used, make sure you give it several hours to cool down, before draining it.

## **User Responsibilities**



The power network of the facility where the machine will be connected should be installed by the user complying with "indoor electrical installation" regulations. We advise you to let a certified electrician do this. The manufacturer/importer will not take responsibility for any consequences of current leakage from the machine, electrical shocks, failure, or faults inside and outside the machine, possibly caused by the main power supply of the facility.

- The machine must be connected by a certified electrician. A 1x16A fuse and 30mA current leakage fuse should be used at a maximum height of 170cm for the 230V machine. For the 400V machine you should use a 3x16A fuse.
- The protective film on the machine must be removed first after installing the machine.
- The power supply cable (3x2.5 mm<sup>2</sup> H07 RNF), water supply connection (3/4) and water drain hose come with the machine
- Where the machine is installed, at a height of 25/75cm there should be a 1/2 water supply with 3/4 valve for the fresh water inlet of the machine. At a height of about 2cm there should be a drain pipe in the wall or ground where the machine is placed. When using the VNG400 Ultra this may be put higher (Max 70CM).
- A ventilation system with ventilation hood should be present where the machine is installed. The user must ensure that the control and electricity in the machine remains free from moisture, condensation and vapour.
- The leveling feet are height-adjustable. They should be adjusted according to the ground floor and entry and exit stands, allowing the machine to operate in a leveled position.
- The manufacturer will not take responsibility for any damage or problems to the machine or other machines, caused by other machines that are connected to the same power board, supplying power to the machine. For this reason we advise you to use a separate group/board for the machine.



The earth installation for the power supply work, must be constructed complying with the effective grounding regulations and must be evidenced by certificates issued by relevant authorities. The service personnel who will install the machine need to ground the machine with a cable connected to the power supply, and connected to the grounding end of the machine cable. Only after this is done the water connections should be done and then the machine can be operated. Make sure that all safety regulations are taken into account while installing the machine. The manufacturer/importer and dealer will not be responsible for any injuries, damage or other consequences caused by not following the safety regulations.

**Caution: Do not start or use the machine without connecting it to the earth cable first.**

## **Troubleshooting**

1. Is the power supply connected properly and are the cables still good and not worn?
2. Does the machine have power? Is the fuse undamaged?
3. Is the cover closed properly?
4. Is the waterhose still connected to the valve and the machine? Is the water valve opened? Is the hose still good and not worn?
5. Are the detergent and/or rinsing pumps still working and is there still enough in the supply cans?
6. Are the detergent and rinsing hoses placed in the cans properly? And is there still enough in both supply cans?



When all questions can be answered with yes, read the information below for troubleshooting tips. When these steps do not solve your problems, please contact your dealer for a certified and authorized service technician.

- The glasswasher is still not cleaning properly.
  - Check page 27, 28 & 29 of the manual for the maintenance section and carry out the maintenance. Thoroughly clean the machine and make sure the pipes and houses are not blocked and the filters are completely clean.
  - If this does not help, you can remove the panel below the door. Behind the panel are two black knobs. The left knob should be turned to 55 degrees. The right one should be turned to 80 degrees. If these are lower you might have been washing with water that is too cold, and you can adjust them. Caution: if the settings are too hot this can also cause problems.
  - In the VNG400 Ultra machine there are also the rinse and detergent pumps behind this panel. With the white screw on the detergent pump, and the copper screw on the rinsing pump you can adjust the dosage of added substances. Do not add too much or there will be too much foam and it might spill out of the machine. It is also possible that the used detergent isn't strong enough, we advise to use our own trademark, Maxima. For information on detergent types in your specific situation you can contact an expert in cleaning products.
  - If this still does not solve the problem and the machine is making a noise, please contact a certified and authorized service technician and inform him of the problem.
- The water is not draining but I did remove the drain pipe inside the filter.
  - If you are using the regular VNG400 you have to make sure the drain hose is flat, or running in a downward angle, and is not kinked. This will block the water from draining because the regular VNG400 has no drain pump. When using the VNG400 Ultra and the water will not drain, check whether the drain hose isn't bent/kinked in a weird angle. This can also result in the water being blocked.
  - In both cases if nothing helps remove the hose from the drain pipe and put it flat on the floor (in a bucket or flat tile is fine as well as long as the hose is not going up).





As soon as the water starts to drain you can place the hose back in the drain pipe and try to drain the machine again.

**Terms of warranty:**

1. Warranty documents without sales date, factory name, and sales company approval on them are not valid. In order to benefit from the warranty, a warranty document should be presented.
2. After the machine has been installed and operated according to the instructions and maintenance of the user manual, it is warranted for technical failures which is caused by the machine itself. The wearing down of the parts of the machine however, is not covered.
3. The failures within the scope of warranty, and how and where these will be resolved, will be determined by Spangenberg International B.V.
4. The warranty is only valid if all the warranty terms, installation instruction and maintenance instructions in the user manual are fully met and complied with. The guarantee is only valid for the warranted machine and no other right or compensation for anything else may be claimed
5. If the information about the machine, like model number and serial numbers, are scraped, rubbed or changed on the machine or warranty documents, the warranty is no longer valid.
6. The warranty covers only the parts needed for the repairs of the machine within the valid warranty period. Within The Netherlands the failures can be solved by the technician(s) of Spangenberg International. Outside The Netherlands only the parts needed for the repairs can be shipped to you after sending pictures of the broken parts and warranty documents.
7. Failures in the machine may only be solved by technicians that are authorized to do so by Spangenberg International B.V. to solve these failures. When the machine is handled by anyone not authorized to do so, this will not be covered by the warranty.
8. Installation of the machine must also be done by authorized personnel.
9. When any problems or failure occur when using the machine you should immediately contact an authorized service dealer.
10. The warranty does not cover failures and damages resulting from loading, unloading and shipping which are outside the responsibility of Spangenberg International B.V. Similarly, when the technician determines that failures and damages have been caused by any external factors, these are not covered by the warranty.



DECLARATION OF CONFORMITY  
according to ISO/IEC/EN 17050-1

File No : DOF.DW.GW.01.V0

Company Name : Spangenberg International B.V.

Address : Nijverheidsweg 19F-3641 RP Mijdrecht -The Netherlands

Product Name : GLASSWASHER-ELECTRICAL

Brand Name : MAXIMA

NO:	CODE	MODEL
1	09200990	VNG350
2	09200805	VN400
3	09200995	VNG350 ULTRA
4	09200800	VN400 ULTRA

conforms to the following Directives:

2014/35/EU Low Voltage Directive

2014/30/EU Electromagnetic Compatibility Directive

2006/42/EC Machinery Directive

2011/65/EU RoHS Directive

and conforms to the following Standards:

EN 60335-1, EN 60335-2-58, EN 292

EN 55014-1, EN 55014-2

We declare that, the appliances are produced in accordance with the above standards and directives.

Signature :

Name and Surname  
Of The Authorized

Details of Signatory :

Date :

Company stamp :

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